

CITY OF
BALLARAT



Sustaining growth. Strengthening communities.

URBAN DESIGN MANUAL

PART A: STREET AND PARK FURNITURE GUIDELINES

Version 4.1 2013





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Version 4.1

Prepared by Urban Design, City Strategy - City of Ballarat

Prologue

The 'Street and Park Furniture Guidelines' form Part A of the City of Ballarat Urban Design Manual.

Section 1 provides a summary of the aims, the current issues and the recommended guidelines.

Sections 2 provides street and park furniture area mapping, as well as grouping the various furniture items into 'Furniture Suites' which relate to the applicable locations section of the datasheets.

Section 3 provides datasheets of the recommend furniture items for various applications with further information on the furniture items design, fabrication, installation and maintenance.

Section 4 provides information about the preferred installation method for the furniture, as well as detailing furniture maintenance techniques and frequencies.

The Guidelines have been written and co-ordinated by the City of Ballarat's Landscape Architect, and been prepared and formatted by Urban Initiatives Pty Ltd (Landscape Architects and Urban Design Consultants).

During the development of the guidelines consultation has occurred with various Council officers from the Growth and Development Division including; Infrastructure Design and Engineering, Heritage, Operations, Waste Management and Building and Facilities Maintenance.

Additional consultation has occurred with the Ballarat Heritage Advisory Committee. Fabrication and installation advice has been provided by suppliers and installers of the furniture.

The Guidelines are essentially a 'live' technical working document for the everyday use of Council staff that can be added to and updated as new standard furniture items are developed, existing ones modified, or other details on the datasheets altered.

Enquiries about the use, interpretation or updates of the Guidelines and Datasheets should be directed to the Public Realm Design Unit of Council

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SF 100	BINS
SF 102	RUBBISH AND RECYCLE BIN RECEPTACLE - HERITAGE THEME
SF 103	RUBBISH AND RECYCLE BIN RECEPTACLE - GREEN
SF 200	LIGHTING
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SF 400	BICYCLE PARKING
SF 401	BICYCLE HOOP
SF 402	BICYCLE RAIL - POLE MOUNTED
SF 403	BICYCLE RAIL - MULTIPLE BIKES
SF 403	BICYCLE RACK - MULTIPLE A.S
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SF 501	DOME TOPPED STAINLESS STEEL BOLLARD
SF 502	CAST IRON BOLLARD - HERITAGE AREAS
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SF 504	IMPACT ABSORBING BOLLARD - HERITAGE AREAS
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SF 903	SCHOOL CROSSING SHELTER

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PF 000	SEATS, BENCHES & PICNIC SETTINGS
PF 001	'SHERIFF' SEAT - GREEN
PF 002	'FIESTA' SEAT
PF 003	RUSTIC TIMBER SEAT
PF 004	SEAT - HERITAGE STEEL
PF 005	WPC BENCH SEAT
PF 006	PICNIC SETTING - TIMBER
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PF 300	DRINKING FOUNTAIN
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SECTION 1- AIMS, ISSUES AND GUIDELINES

1.0 INTRODUCTION

In 1990 the City of Ballarat adopted a Streetscape Policy that included recommendations for the development of a suite of street furniture elements (e.g. seats, bins, bollards), however for a variety of reasons this did not eventuate. In the absence of any guidelines or documents relating to the provision or design of street or park furniture, the development of standards has progressed only on an 'as needed basis' and typically only for a particular urban area or park at a time. From a design and aesthetics perspective, this has resulted in a lack of consistency between the individual streetscapes and across Ballarat's parklands; resulting in a negative impact upon the overall presentation and image of the City.

In recent times Ballarat has adopted the Ballarat CBD Strategy (2010), the Health and Wellbeing Public Health Plan (2009), the Ballarat Bicycle Strategy (2008), numerous masterplans for parks and urban spaces and supports the implementation of the Pedestrian and Wayfinding Strategy (2007). All of these documents support and recommend that Council plan for and provide street and park furniture that encourages walking, cycling and the use of public transport and open spaces across the municipality.

The Ballarat Street and Park Furniture Guidelines are intended as a primary reference document to establish a strategic direction for the provision and upgrading of street and park furniture throughout the municipality of Ballarat. The Guidelines focus on the most common furniture in streets and parks and combine the preferred furniture elements to be retained with the proposed new furniture styles to suit specific streetscape and parkland character areas.

The street furniture treatments will typically apply across a range of streetscapes within Ballarat, including the Central Ballarat Heritage Overlay Area (HO), the Heritage Overlay Areas of the townships of Buninyong and Learmonth, and retail activity centres and public transport routes outside of Ballarat Central. Some street furniture elements have been selected to apply specifically in streetscape areas with high heritage significance and others only to new growth areas. Some urban public spaces (e.g. Bridge Mall, Alfred Deakin Place and the Sturt Street Gardens) may have different furniture elements and styles that relate to existing site-specific treatments and design themes.

Whilst consideration is given to the existing character and types of parks, the park furniture treatments will typically apply across all parks, gardens and sporting reserves across Ballarat. Consideration is also given to the provision of site specific furniture and the preservation of original heritage furniture in parks of high heritage significance such as the Sturt Street Gardens and Ballarat Botanical Gardens.

Whilst the Guidelines aim to direct the generic standards of design, selection and installation details of street and park furniture across Ballarat, it is not possible to prescribe the exact treatment and detail at every location so the local site context must always be considered in new works.

It is intended that the Manual be added to over time with further guidelines and details developed to suit particular needs or prototypes, issues or advancements in technology or materials.

Each significant update of the Guidelines will be acknowledged and identified by a higher Version Number. The major changes in versions can be summarised as:

- Version 1 (2009) - the original version for CBD Street Furniture only, with recommendations for several furniture items that had not been developed or tested.
- Version 2 (2010) - updated data sheets and provided greater clarity around the use of street furniture in streetscapes with high heritage significance.
- Version 3 (early 2011) - updates the Guidelines to cover all streets and parks across Ballarat.
- Version 4 (late 2011) - modifies the 'applicable locations' for heritage themed street furniture to generally apply and be consistent with the Heritage Overlay (HO) Areas within the Ballarat Planning Scheme.

1.1 MAJOR AIMS & OBJECTIVES

The major aim of developing Street and Park Furniture Guidelines for Ballarat is to:

"Provide an easy to use reference to assist Council in achieving a consistent planning, design, and maintenance approach to streetscape and parkland furniture across Ballarat".

- Other objectives of the Guidelines are to:
- Establish consistent furniture treatments and provide a reference for all Council staff involved in the design, specification, purchase and maintenance of the street and park furniture.
- Establish a set of standards for the selection, placement and installation of street and park furniture.
- Establish a suite of street and park furniture that relates to the heritage and landscape characters of a diversity of streets and parks across Ballarat.
- Assess all existing street and park furniture to determine what styles and designs should be retained, what should be replaced and what should be developed for future use.
- Establish some clear design principles to address a range of considerations including function, cost, use, safety, consistency, durability and sustainability.
- Create a body of reference material that is accessible to the public, developers, consultants and the various Council departments to assist with the design, provision and planning of new furniture in streetscapes and open spaces; particularly in new subdivisions and growth areas.
- Identify the maintenance standards and regimes applicable to all furniture items.

1.2 MAJOR ISSUES & GUIDELINES

The following issues have been identified and discussed in detail to assist in the development of recommendations that help to achieve the major aims' of these Guidelines. Similar issues have been grouped together to avoid duplication of recommendations however it is acknowledged that there are also common synergies between most issues.

1.21 Heritage, Urban Design and Landscape Character

Central Ballarat already has a unique streetscape and built character, informed predominantly by Victorian era buildings, structures and landscapes. Other parts of the Ballarat region such as inner Buninyong, and Learmonth also have similar heritage characteristics, although on a smaller scale. As such the guidelines must consider the impact of the furniture upon the existing streetscape character in both a broader streetscape and urban context and then separately within a site specific context (eg. in front of significant heritage buildings).

Ballarat's extensive network of parks and open spaces also have a variety of landscape characteristics ranging from more significant heritage landscapes such as the Ballarat and Buninyong Botanical Gardens, Victoria Park, Lake Wendouree, Eureka Stockade, Sturt Street Gardens, and the City and Eastern Ovals, to more recently developed and contemporary open spaces such as the Prince of Wales Park, the Eureka Stadium, Bridge Mall, Alfred Deakin Place, Weeramar Park and Len T Fraser Reserve, through to more native and rustic landscape settings such as the Yarrowee River, Canadian Creek, Mt Buninyong and various wetland areas. In all of these open spaces the furniture style needs to consider of the local setting within the open space itself, but also the landscape character of the broader area, ensuring that a reasonable range of consistency is achieved across the various landscape character types; without the furniture dominating the landscape.

Heritage polices developed in Australia do not specifically refer to street or park furniture however the common urban design and heritage planning response for places of historical significance is to follow the Guidelines of the Australian ICOMOS Charter for the Conservation of Places of Cultural Significance (The Burra Charter). The most relevant sections of the Burra Charter in relation to street furniture states that:

"22.1 New work such as additions to the place may be acceptable where it does not distort or obscure the cultural significance of the place, or detract from its interpretation and appreciation".

"22.2 New Work should be readily identifiable as such".

However, the Burra Charter clearly states in its Preamble that the Burra Charter should be read as a whole.

Alongside Article 22 the Explanatory Note offers further clarification of this article. This Explanatory Note states that:

"New work may be sympathetic if its siting, bulk, form, scale, character, colour, texture and material are similar to the existing fabric, but imitation should be avoided".

Heritage Victoria's Guidelines for "New Buildings in an Area Heritage Overlay(HO)" provide the best fit for street furniture in both broader and local settings if the word 'building' is extrapolated to read as inclusive of structures, such as street furniture. Article 5.2, 5.3 and 5.4 of the guidelines states that:

“Design that closely imitates, replicates or mimics historic styles is discouraged because it can distort an understanding of the development of an area, and hence the significance of a Heritage Place”.

“New buildings designed in a conservative manner should not misrepresent the historical form of a Heritage Place. They should be clearly distinguishable as new buildings’ (read structures).

*“The design should relate to the significance of the heritage place and the character of the adjoining buildings and surrounding heritage place. A preferred approach is to design new buildings in a contemporary manner that is **sympathetic** to the surrounding area.”*

The intent and interpretation of the principles of both the Burra Charter and Heritage Victoria Guidelines, in relation to street and park furniture, remain somewhat unclear. The interpretation of both is subjective and has been, and continues to be, debated amongst urban designers and heritage advisors across Australia.

City of Ballarat officers from the landscape, urban design and heritage areas have therefore had extensive and detailed discussions with professional peers and with local members of the Ballarat Heritage Advisory Committee (BHAC) to help to ensure that new or replacement furniture is compatible with, and does not overwhelm, the significant heritage areas. It was also agreed that street furniture within significant heritage areas (eg the Heritage Overlay areas) should progressively develop a local heritage theme where practical, and be distinguishable from street furniture in other parts of the City.

To assist with this objective, streetscapes and areas of high heritage significance can be directly linked to the Heritage Overlay (HO) areas according to the Ballarat Planning Scheme. The major HO areas of Ballarat relevant to these Guidelines are therefore shown in the attached figures and include: Central Ballarat (Figure 1), Learmonth Township (Figure 2) and Buninyong Township (Figure 3).

Ballarat also has new growth corridors, and special streetscapes, parks and public areas that are not necessarily characterised by heritage. The development and redevelopment of these areas must be considered in relation to the above Guidelines but also in recognition that there is opportunity and capacity for some unique furniture styles in these areas, much as there is already in the Bridge Mall, Phoenix Mall, Howitt Street Shopping Centre, Sturt Street Gardens and the Ballarat Botanical Gardens.

Guidelines

- 1. Utilise the City of Ballarat Planning Scheme’s Heritage Overlay (HO) areas for Central Ballarat, Buninyong and Learmonth to generally define the boundaries of the three major heritage precincts to guide street furniture styles that are sympathetic to the heritage settings and context.*
- 2. Ensure all new and replacement street furniture in the HO areas and parks with significant heritage characteristics is given special consideration to ensure it does not dominate and is sympathetic to the heritage settings.*
- 3. Retain and preserve original and genuine heritage elements such as the original gas lamps in Lydiard Street, the reinstated lamps in their original locations in Sturt Street, the early gutter barriers details throughout Ballarat and the strap iron seats in the Lydiard to Grenville Street sections of the Sturt Street Gardens, and at View Point on the Lake Wendouree foreshore.*

4. *Within the HO areas and where practical, retain existing furniture that is not original or authentic but where it is 'perceived' to be of historical significance or is sympathetic to the historical character of the area (eg Sturt Street Sheriff seats and Bali Twist cast iron bollards).*
5. *Within the broader context of streetscape areas and parks:*
 - Keep the quantity of furniture to the minimum standard required to provide the appropriate level of service and amenity.
 - Reduce clutter by rationalising furniture with new works and consolidating furniture together in clusters.
6. *Within the local & site specific context of streets and parks:*
 - Avoid placing furniture in front of significant heritage buildings or structures where possible and practical.
 - Where it is not possible to avoid placing furniture in front of significant heritage buildings, minimise the impact by placing items to the sides or edges of the building, using benches instead of seats, using bike brackets fixed to existing posts instead of stainless steel bike hoops, clear glass panel bus shelters instead of solid panels etc.
 - Where possible ensure street and park furniture is bolt down for efficient removal, relocation, replacement and for maintenance and events such as filming, festivals and other events.
7. *Within the HO areas progressively develop a suite of standard furniture items that add to a unique local heritage character. Where possible, in the first instance, develop new designs upon the detail of existing original streetscape furniture, and secondly upon existing streetscape that is sympathetic to the historical or landscape character of the area.*
8. *Outside of the HO areas utilise new furniture that is contemporary and simple in design to reflect the design qualities, materials and architectural era that the furniture is being manufactured in, and to ensure that the furniture is readily distinguishable from the furniture in the HO areas.*
9. *Ensure new furniture in both HO and non heritage areas, including streetscapes and parklands, does not visually dominate or compete with the existing streetscape or parkland character and should be designed, manufactured and located so that they blend in with the broader streetscape or parkland setting.*
10. *In newly developing growth areas, and the creation or redevelopment of special public places, consider the opportunity and capacity for some 'unique' furniture styles on the understanding that the furniture is sympathetic and does not dominate the urban or landscape character of that area.*

1.22 Furniture Consistency, Colours & Materials

The consistent use and repetition of colour, materials and design of furniture elements within any street, park or area helps to unify that space and define and support the preferred character of that area. On the contrary a mix of colours and design styles indicates disorganised management and distorts any attempts to preserve or create a particular character or image.

Streets

The colour of most of the existing furniture elements within the streets across Ballarat, and particularly the CBD is dominated by the use of 'heritage deep green' and 'Indian Red' colours. These tend to be the original colours of authentic heritage furniture (eg some street lights and gutter guards. Recent additions of new bin enclosures and bollards, also painted in these heritage colours both within and outside HO areas, distorts what is authentic heritage furniture and significant heritage streetscapes from what is new.

While this creates a level of consistency, the extent of the use of these two colours is particularly heavy and dominant within urban streetscape areas and particularly in contrast to the surrounding colours of asphalt, bluestone, concrete and the lighter colours of most heritage buildings which tend to have either natural rendered finishes or be painted in creams through to grey, yellow and brown colour ranges.

Version 1 of the 'CBD Street Furniture Guidelines' recommended the use of the 'Woodland Grey' colour for painted finishes for furniture in Ballarat's CBD. It has since been trialled on a range of street furniture including: bus shelters, seat ends and bin enclosures. 'Woodland Grey was carefully selected as it is simple warm grey tone' that blends with the colour palette of existing streetscape elements such as bluestone, asphalt and concrete and does not dominate the streetscape. The trials have confirmed that it is also a mid-range colour that does not show up dirt or graffiti as readily as lighter and darker colours so it is an easier colour to maintain.

Purely from a maintenance perspective it would be preferable to leave new furniture items un-painted with weather resistant aluminium, galvanised steel, or stainless steel finishes, or to use alternative materials (eg coloured recycled plastics) that do not require painting. The extensive use of highly reflective materials or large unpainted surface areas can be stark, industrial looking and dominating in certain locations and therefore they should only be used where necessary to minimise maintenance, such as bicycle hoops and bin tops where painted surfaces are difficult to maintain.

Some recent street furniture installations outside of the CBD, such as bus shelters and associated, seats and bins and barrier fencing, have been finished in Mid-Brunswick Green. This colour tends to work in areas where parklands and green spaces form a backdrop to the street (eg Victoria Park frontage, Victoria Street Gardens, Lake Wendouree foreshore and around the Botanical Gardens) as it helps the furniture to blend in with the street. Most of the seats are also the 'sheriff style' seats that have been removed and relocated from the Sturt Street Gardens. Whilst this is sympathetic in heritage overlay areas, the colour is quite dominant in urban areas without a green backdrop and the heritage style of the seat is out of context with the surrounding character of more recently developed streetscapes (eg Albert Street in Sebastopol or Howitt Street in Wendouree).

Mixing and matching of colours and styles of street furniture on long streets and entrances, in an attempt to make it less dominant, would unfortunately also create visual inconsistency and would be a significant cost to retrofit. Consideration therefore needs to be given to balancing colour and style, with minimising local site dominance, and with the overall need to have visual unity on a long streetscape that cuts through different urban character areas.

Parks

The majority of existing park furniture across Ballarat (seats, picnic tables and bollards), where painted, is generally 'Mid-Brunswick Green' in colour. The tops of the picnic tables and slats on seats are usually timber that is clear coated to protect the timber.

Parks identification signage on frontages to parks and the main entrances to sports grounds are typically in the City of Ballarat corporate blue to assist with the sign being clearly legible as open space under Council's management. Signage in the Ballarat Botanical Gardens, Victoria Park and around the Lake Wendouree foreshore tends to be in deep greens so that it blends into the landscape and ties in with the City of Ballarat 'Lake and Gardens' tourism precinct colours.

Furniture items such as treated pine post and rail barriers, and cypress pine and galvanised wire fencing, galvanised rails and chain mesh fencing around sports grounds and recycled plastic bollards are unpainted for durability reasons. Recent chain mesh fencing around the external boundaries of sporting reserves is often black to reduce its visual impact from surrounding areas, although it is noted that the painted black post and rails on these fences are often in poor condition.

Guidelines

Consider local site context, and the broader urban, landscape and heritage character in the design style and colour selection in all new street and park furniture installations.

1. *Retain the original colours of all authentic heritage furniture in parks and streets (eg. most tend to be either Brunswick Green or Indian Red).*
2. *In streets- retain and continue to use 'Woodland Grey' for painted finishes so that it blends in with the existing colour palette of streetscape materials (eg bluestone, asphalt and concrete), does not dominate the streetscape and is easier to maintain than lighter or darker colours. Continue to use Woodland Grey on seats, benches, rubbish bin surrounds, bus shelters, bollards and all other new furniture as required.*
3. *In streetscapes in the HO areas of Buninyong and Learmonth townships- retain and continue to use 'Mid- Brunswick Green' on painted finishes to existing and new street furniture to allow those townships to retain their own character, as distinguishable from the HO area of Central Ballarat.*
4. *In streetscapes within or outside HO areas continue to use 'Mid- Brunswick Green' on painted finishes to existing and new street furniture where that portion of the streetscape has a significantly green or parkland backdrop from the carriageway, or where it provides consistency of colour on a long street or entrance, (eg bus shelters and associated furniture).*

5. *In parks retain and continue to use 'Mid- Brunswick Green' on painted finishes to existing and new park furniture where it is desirable for the furniture to blend and not dominate the landscape colour palette of trees, shrubs and lawns.*
6. *In parks consider the use of natural timbers and recycled plastic finishes where it softens the visual impact of the furniture and has ongoing maintenance benefits.*
7. *Retain unpainted metallic (eg galvanised, stainless steel, and aluminium) finishes where it is practically required for durability and cleansing (eg sign poles, oval fencing railing, and rubbish bin enclosures tops) but minimise the exposure of large surface areas of unpainted metal finishes to reduce glare and dominance within the streetscape or park environment.*
8. *Retain and continue clear coatings and natural or unpainted finishes on timber park furniture items (eg picnic table tops, seats, cypress pine fencing) where it is the desired aesthetic, blends in with the landscape character and does not significantly increase maintenance requirements over other finishes.*

1.23 Furniture Placement and Distribution

The placement and distribution of furniture in streets and parks is critical to the effective use of the respective elements. If too much furniture is located in the one area then it becomes cluttered and the furniture will be under-utilised, relative to its cost to provide and maintain. If insufficient numbers are provided, or they are provided in the wrong areas then the furniture will fail to provide the level of provision and service expected by the users. The careful placement and rationalisation of street and park furniture elements will help to create greater unity and less clutter in the public realm.

Furniture must be carefully placed or located so that:

- It complies with DDA requirements (ie in the CBD the preferred offset from the building line to comply with local laws is 2 metres, depending upon the width of the footpath).
- It does not obstruct clear access to shop fronts, buildings or structures.
- It considers loading zones requirements and unloading points.
- It is setback sufficiently from the back of kerb to minimise the potential for vehicle damage due to reversing, unloading and overhang.
- It does not clutter or hinder access to other streetscape or park features (eg Way Finding signage, interpretive signage etc).
- It avoids conflicts or issues with other uses or functions of the street or park.
- It is easily accessible so that it effectively performs the function that it is intended for.
- the number of items such as seats, bins or bike racks is consistent with the demand (eg the amount of pedestrian traffic, the proximity to other facilities or the frequency of use).
- It considers social and interactive behaviour patterns.
- It groups furniture together that have related functions

Guidelines

1. *Where possible furniture with related functions should be grouped together (eg seats and bins in streets and bins and picnic tables in parks).*
2. *Installation of new and additional furniture elements should generally be avoided unless there is an identified need.*
3. *Furniture must be located so that complies with all relevant standards or legislation to ensure that it does not represent a hazard to either pedestrians, motorists or cyclists (e.g. road carriageway clearance zones, the Disability Discrimination Act etc.).*
4. *Street furniture in the CBD should preferably be consolidated at the end of blocks or mid-block as required at bus stop locations. An indicative level of provision is for two seats, bike racks and rubbish bin receptacles per block length of 100m, with no cluster further than 100 metres apart. Special activity nodes, such as areas where high numbers of pedestrians congregate (e.g. adjacent to picture theatres or public spaces) may warrant additional furniture provisions.*
5. *Within streetscape areas, street furniture should generally be set parallel to the alignment of the adjacent kerb and in accordance with DDA requirements, a clear path of travel shall be maintained along building lines and frontages. In the main street areas within the Ballarat CBD (eg Sturt Street) with a footpath of 5.8m an offset of 2.0m clear zone from the shop frontage is preferred. An offset of 1.8m is acceptable when the footpath is less than 4.5m in width (eg Armstrong Street). In very narrow laneways (eg Bath Lane, Town Hall Lane and Chancery Lane) furniture installations should be avoided.*
6. *In streetscapes the minimum offset from the back of kerb for new furniture elements should typically be 800mm (600mm minimum), and aligned with adjacent elements where possible.*
7. *Due to the existence of a storm water main, (decked with a 100mm thick and 1200mm wide precast concrete lid), along the outside kerb on both the northern and southern sides of Sturt Street, no slab fixings shall be used for street furniture items in this zone.*
8. *The placement of seats close to automatic teller machines (ATMs) should be avoided.*
9. *Wherever possible and practical furniture should be removable and use bolt down fixing methods. Tamper proof fixings should be used where fixtures are visible or where theft is an issue.*
10. *Seats in parks should typically be located near paths or where they are easily accessible and where users are orientated to look over the desired feature (eg playground, water feature etc). Bins should be located near the major areas of rubbish creation and where they are readily accessed by trucks for emptying.*
11. *Where possible conceal exposed concrete footings by continuing surrounding surface treatment under the furniture (eg asphalt in streets, or granitic sand or concrete slabs in parks).*

12. *When installing furniture elements onto existing concrete or asphalt, ensure the fixture and method of installation achieves a solid fix that minimises capacity for the theft removal or damage to the furniture.*
13. *Install all elements in accordance with the manufacturer's or supplier's instructions and only use materials that are fit for their intended purpose, (for example rapid set cement should not be used for the installation of footings in pavement areas due to the ongoing expansion over time).*
14. *Wherever possible, fixtures should be of a standard size or of a type that is carried as a standard by Council's maintenance staff (or can be ordered without lengthy lead times).*

1.24 Furniture Replacement and Cost

There is a wide variety of existing street and park furniture in use that is not documented either for design guidelines or for asset management purposes. Its cost to replace has therefore not been documented however it is reasonable to assume that significant investment has been made into the provision of existing street and park furniture (bus shelters, seats, bike rails, picnic tables, bollards, park signage and bin enclosures). Across all of Ballarat's streets and parks this is in excess of one million dollars.

Through the development of these Guidelines some existing furniture may become redundant or may no longer be appropriate within a particular area and may need to be replaced or relocated, or modified. It is however not cost effective or viable to consider removal or relocations of all non-compliant items throughout Ballarat at any one time. The most cost effective method is to progressively replace, modify or relocate noncompliant items as new items are installed in specific areas or locations.

Given the pressures on Council for the phased replacement of existing infrastructure and the provision of new infrastructure, the cost effectiveness of furniture elements and treatments is an important consideration. The expenditure on particular elements will vary according to the locality. High profile areas often warrant a special treatment or higher quality and more durable elements hence the costs may be higher. Cost should be considered in relation to the efficiency of manufacturing and production runs (i.e. the costs of some elements may be lower if ordered in quantity).

The development of new prototype furniture and effective design solutions can be a costly exercise and considerable risk is associated with bulk ordering of new items without them being thoroughly tested and put through the rigors of exposure to the weather and use in the public domain.

Guidelines

1. *Existing elements that are appropriate to their function and location, aesthetically sound and do not have significant maintenance or durability issues should be retained.*
2. *Orders for new furniture should be made in bulk to reduce the cost per item and of freight.*
3. *Programs for the installation, replacement or relocations of street and park furniture should be coordinated so that they can be rolled out within a designated timeframe and in a cost effective manner.*

4. *Street and park furniture asset management data should be collected to inform and allow maintenance and replacement programs to be budgeted for and coordinated across Council.*
5. *Where possible all new furniture items should be prototyped in low volume and tested and proven in streets or parks, prior to the adoption of that item within the Guidelines.*

1.25 Furniture Sustainability and Durability

The supply of high quality street and park furniture is a very competitive industry and there are regular design changes and design advancements in the choice of materials to maintain a competitive edge. In recent times there has been an emerging trend towards the use of recycled metals in castings and recycled plastic and wood composites as substitutes for timber or steel.

Several of the new materials reduce the ecological impact of furniture elements and should be primary to the design and selection process. The design and choice of materials should consider the total impacts and benefits to the environment. This includes the use of recycled materials, the environmental ethics and practices of suppliers, the use of low embodied energy materials in the production process, the use of local and sustainable or plantation timbers, capacity to recycle materials at end of life, and the use of local suppliers or manufacturers for reduced transport costs etc.

Whilst there are clearly environmental benefits in using new and more sustainable materials, this needs to be balanced with the need to maintain consistency in design so that the furniture does not need to be replaced to keep up with trends, as this would undermine the environmental benefits.

As recommended in Version 1 of the 'CBD Street Furniture Guidelines' new seats and benches installed in the CBD have used recycled products because of their environmental benefits. Partially recycled aluminium has been used in the cast ends of seats and a composite of recycled plastic and reclaimed wood shavings has been used in the slats of various seats and bench slats.

Similar recycled composites have also been trialled in park furniture in recent times including bin support poles, bollards, sports ground bench seats, and boardwalk decking. Preliminary investigations indicate that not only are these materials environmentally beneficial but blend in well with the surrounds, are extremely durable, have minimal ongoing maintenance requirements, are cost effective and recyclable, and are thermally and ergonomically more comfortable than some alternatives.

Plantation grown timber and recycled timbers have also been sourced for park furniture and structures such as customised playgrounds for several years.

Whether recycled or not, all material used in the fabrication of street and park furniture need to be subjected to a life cycle analysis to ensure that they are durable, fit for their intended purpose and can be readily maintained. Whilst highly durable materials may have a higher cost at establishment; the additional cost may be justified given a longer life expectancy and subsequent environmental benefit.

The design and material selection should consider maintenance factors including the ease of replacement of the entire unit, the replacements of parts, the ease of removing graffiti and whether maintenance can be carried out in-situ or off site. Costs and frequency of recurring maintenance should be assessed at the selection phase. The costs of ongoing maintenance may warrant higher initial expenditure to reduce costs over the long term.

Guidelines

1. *Retain and continue to use existing recycled material products being trialled in street and park furniture*
2. *Continue to explore additional opportunities for recycled products in new street and park furniture items where it is in context with the urban and landscape characters and recommendations of these Guidelines.*
3. *Continue to investigate advancements in technology and materials for street and park furniture that minimises the total impacts and benefits to the environment (eg life cycle analysis of materials, production and transport)*
4. *Utilise local suppliers of materials, fabricators and installers where possible and cost effective.*
5. *Ensure that the durability of the product and ease of maintenance for cleaning, graffiti removal, repainting or replacement of parts, or of the complete furniture item is considered in the development of any new furniture items.*
6. *Where possible all new furniture installations should be bolt down to reduce the costs of repairs, repainting and replacement.*

1.26 Furniture Advertising

The current trend across Australia to use street, and occasionally park furniture, as a platform for commercial advertising and revenue generation (or savings in the case of bus shelters) has the potential to add significant visual clutter to established streetscapes and has a detrimental impact upon the presentation of not just significant heritage streetscapes, but any street or parkland. Blatant advertising also has the potential to undermine the primary function and justification for the provision of the furniture element itself.

Ballarat currently has a point of difference in that it has managed to avoid commercial advertising on street and park furniture, unlike many other major cities in Australia. The options to seek 'free' provision and maintenance of bus shelters in exchange for free advertising rights has been investigated however the firms that offered this service concluded that it was not financially viable in Ballarat and the service is no longer on offer for new clients.

Within Ballarat, the extended use of street or park furniture advertising would detract from the overall presentation of the streetscape parkland character and potentially compromise the heritage qualities of the City.

Some international cities have carefully used street furniture to promote Council services and major events. This could be considered for selected items of furniture however any proposed signage must be assessed against its visual impact and the precedent it may set to encourage uncontrolled signage or graffiti, even if only for a short timeframe.

Guidelines

1. *The use of street furniture elements for commercial advertising purposes should be prohibited and avoided with the exception of café screens or signage specifically designed for that purpose and in accordance with the Heritage Signage Guidelines and Outdoor Dining Policy.*
2. *Any advertising of the manufacturer's details should only be included on furniture elements with agreement from Council and then only in an inconspicuous location agreed with an authorised Council officer*
3. *The promotion of Council services or events on street or park furniture should generally be discouraged as it may set an unsustainable precedent for uncontrolled advertising and graffiti.*
4. *Discourage commercial advertising on any Council infrastructure within the public realm.*

***SECTION 2 - STREET AND PARK
FURNITURE AREA
MAPPING AND SUITES***

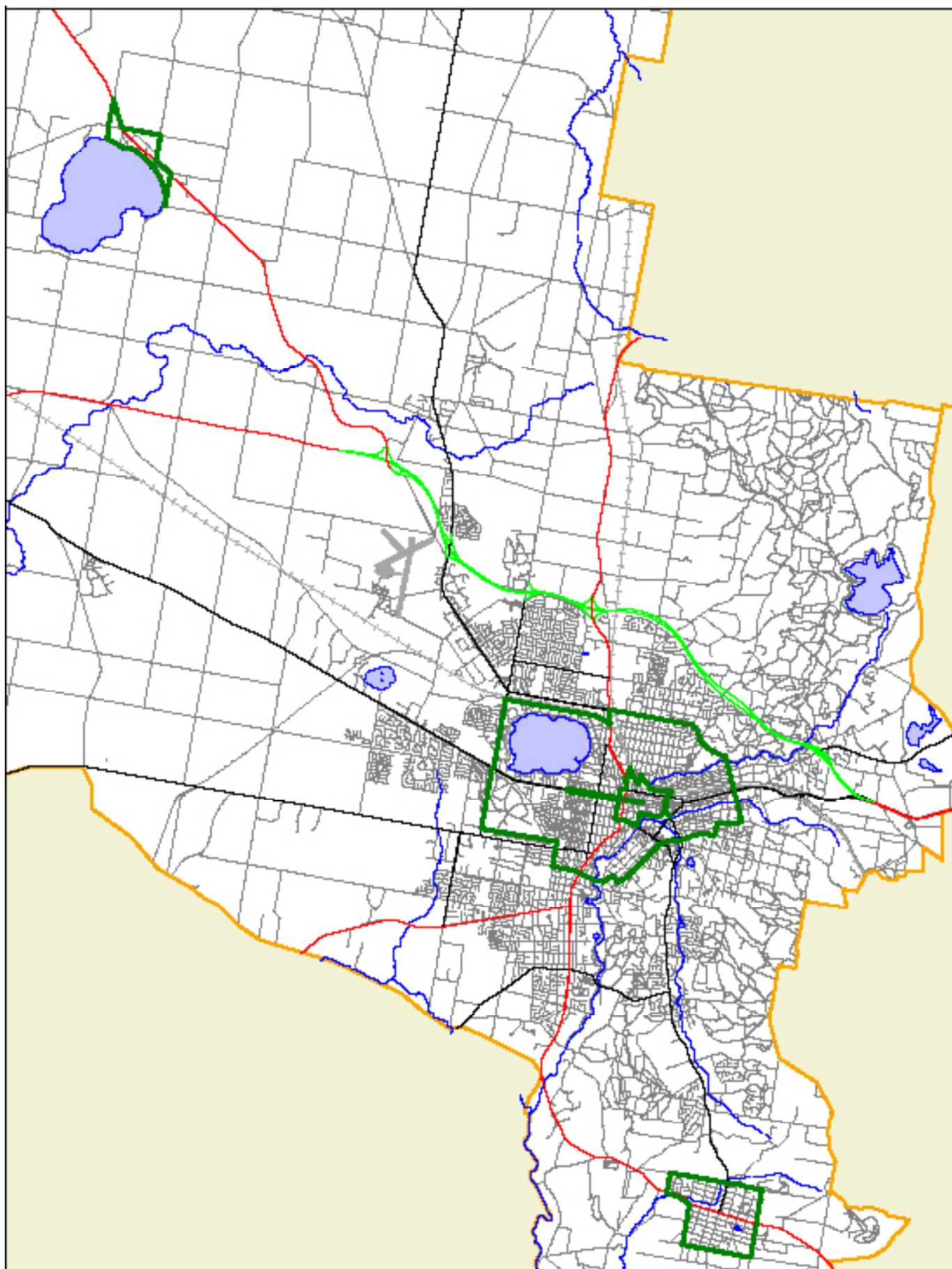


Figure 1: City of Ballarat - Street Furniture Types

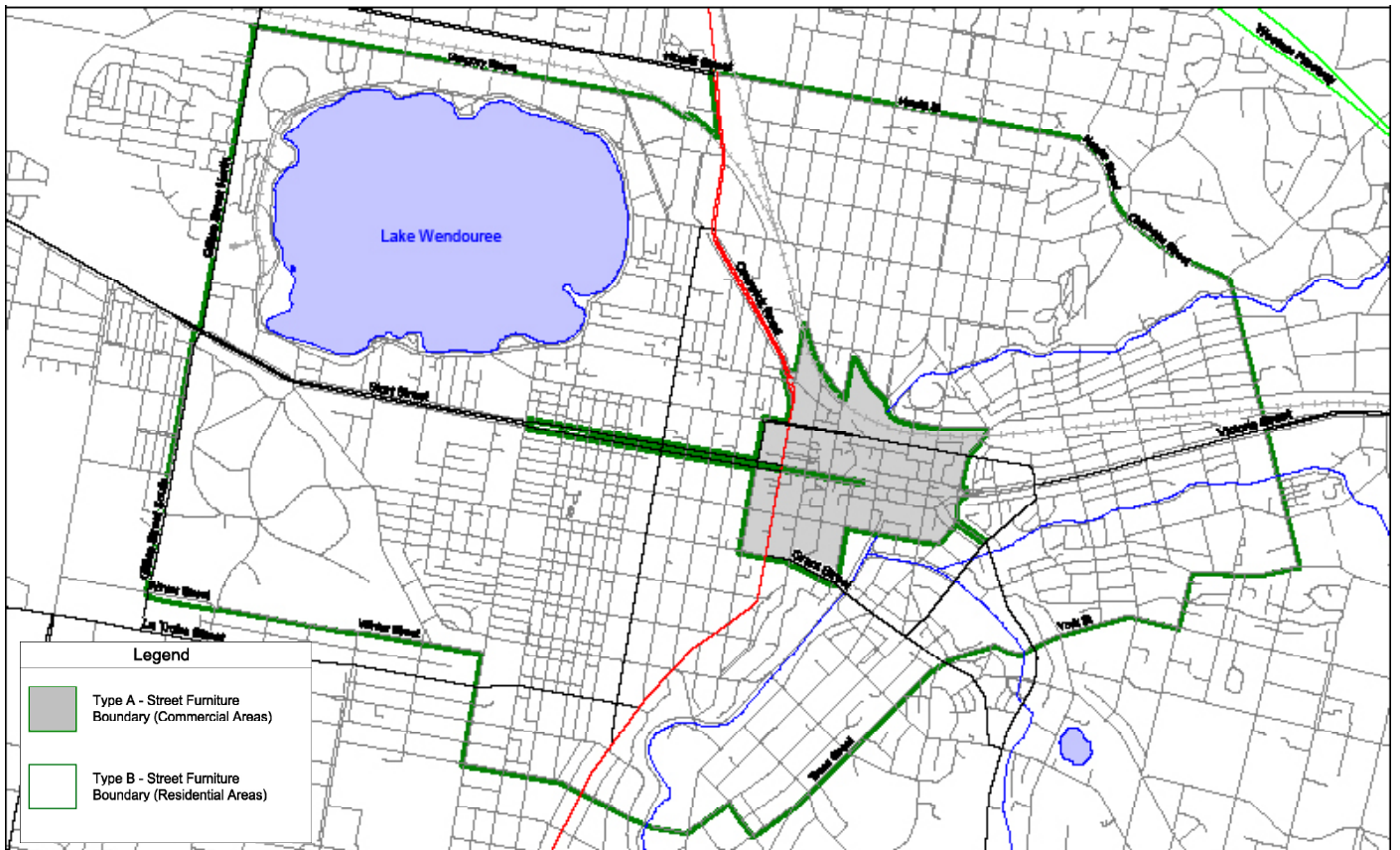


Figure 2: Central Heritage Overlay Area - Street Furniture Types

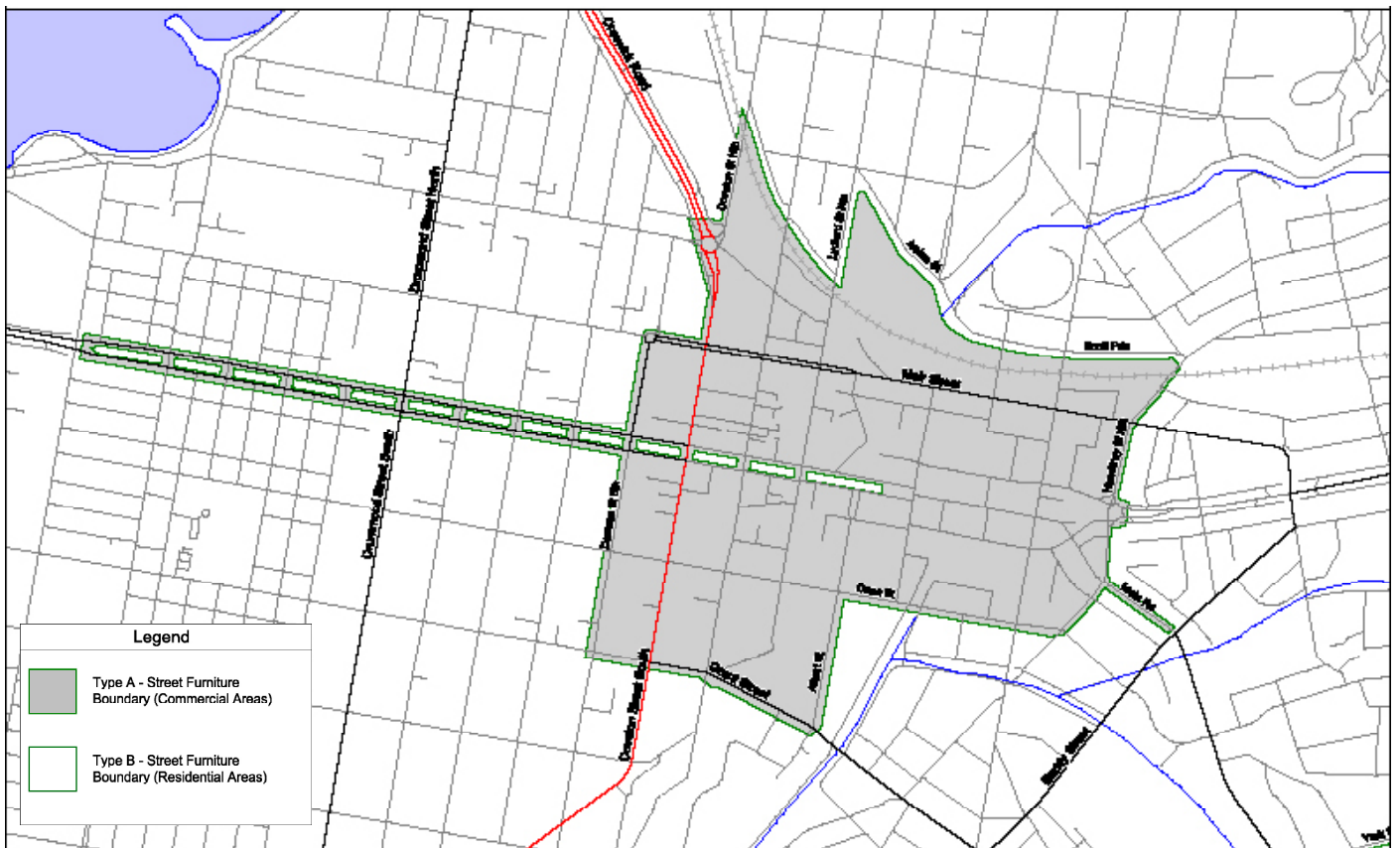


Figure 2: Inset - Central Heritage Overlay Area - Street Furniture Types

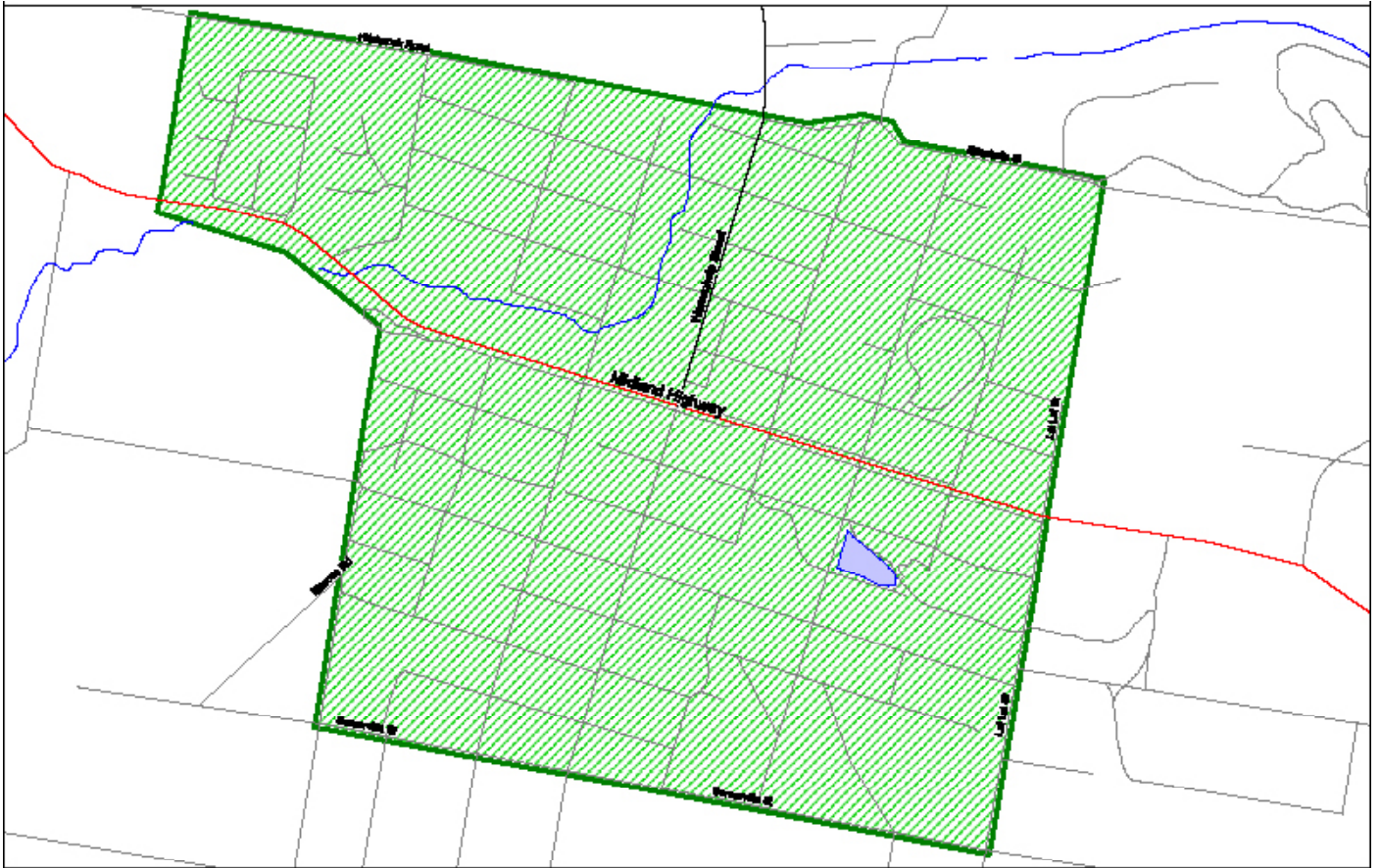


Figure 3: Buninyong Heritage Overlay Area - Type B: Street Furniture

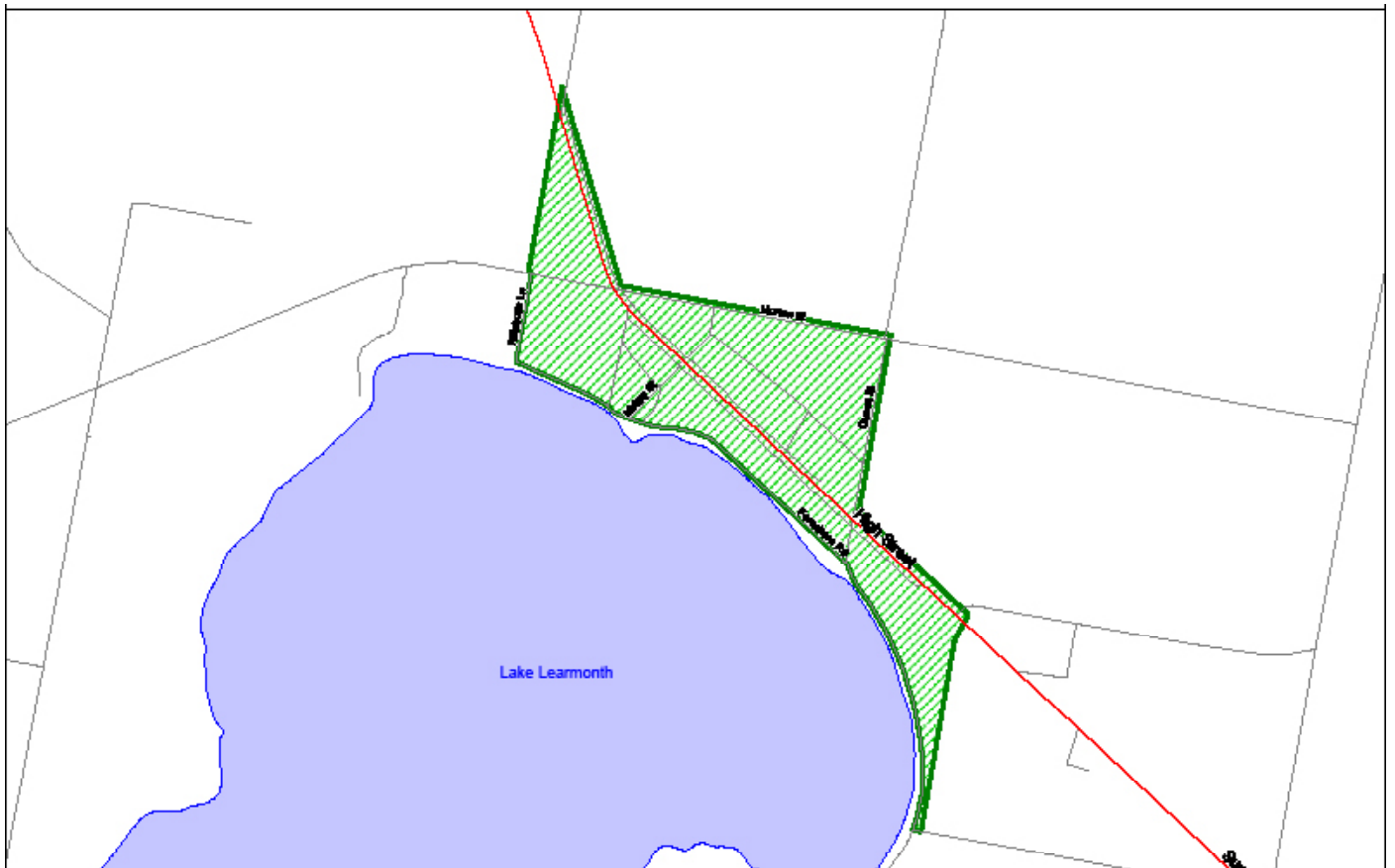


Figure 4: Learmonth Heritage Overlay Area - Type B: Street Furniture

STREETS

TYPE A: CENTRAL HERITAGE AREA - COMMERCIAL

Refer to Fig.2



'Sheriff' seat - Heritage Areas
SF 002



Bench
SF 004



Rubbish Bin Receptacle -
Heritage Theme
SF 102



Recycle Bin Receptacle -
Central Heritage Theme
SF 102



Planter box - Heritage Theme
SF 301



Bicycle Hoop
SF 401



Bicycle Rail - Pole Mounted
SF 402



Bicycle Rack - Multiple A.S.
SF 404



Impact Absorbing Bollard -
SF 504



'Oxley Ring' barrier
SF 507



Gutter Rail - Heritage Areas
SF 508



Bus Shelter - Heritage Areas
SF 901

TYPE B: CENTRAL HERITAGE AREA - RESIDENTIAL AND BUNINYONG AND LEARMONTH HERITAGE AREAS

Refer to Figures 3 & 4



'Sheriff' Seat - green
SF 003



Rubbish Bin Receptacle - green
SF 103



Single Bike Hoop - Green
SF 401



Painted Timber Bollard
SF 503



Impact Absorbing Bollard
SF 504



'Oxley Ring' barrier
SF 507



Gutter Rail - Heritage Areas
SF 508



Bus Shelter - Green
SF 901

STREETS

FURNITURE
SUITES

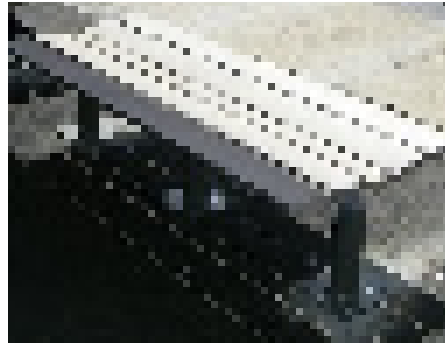
TYPE C: ACTIVITY CENTRES AND STREETS OUTSIDE

HERITAGE AREAS

Refer to Figures 1 & 2



Seat
SF 001



Bench
SF 004



Rubbish Bin Receptacle
SF 101



Bicycle Hoop
SF 401



Bicycle Rack - Multiple A.S.
SF 404



Impact Absorbing Bollard
SF 504



WPC Bollard
SF 506



Bus Shelter
SF 903

TYPE D: RECREATION PARKLAND



'Fiesta' seat
PF 002



'Fiesta' picnic setting
PF 007



Painted Timber Bollard - Heritage
Parkland Only
PF 101



WPC Bollard
PF 102



Removable Bollard
PF 103



WPC & Galvanised Pipe Fence
(Note: photo to be updated)
PF 105



Treated Pine Post and Rail Fence
PF 108



'Oxley Ring' Pedestrian
Barrier
PF 109



Rubbish and Recycle Bin Receptacle
- Parks
PF 201



Bicycle Rack - Multiple A.S.
PF 702



Drinking Fountain (note: photo does
not show tap or dog bowl option)
PF 301

TYPE E: SPORTSGROUNDS



WPC Bench Seat
PF 005



WPC Bollard
PF 102



Removable Bollard
PF 103



WPC & Galvanised Pipe Fence
(Note: photo to be updated)
PF 105



Treated Pine Post and Rail Fence
PF 108



Plastipole Bin Stand
PF 203



Bicycle Hoop
PF 701



Bicycle Rack - Multiple A.S.
PF 702

TYPE F: NATIVE BUSHLAND, PARKS & WATERWAYS



Rustic Timber Seat
PF 003



Timber Picnic Setting
PF 006



WPC Bollard
PF 102



Removable Bollard
PF 103



Rustic Timber Fence
PF 107



Treated Pine Post and Rail Fence
PF 108

***SECTION 3 - STREET AND PARK
FURNITURE DATASHEETS***

3.0 DATASHEET GLOSSARY, DESCRIPTIONS & DETAILS

3.1 DATASHEET SUMMARY

The datasheets in this section provide a summary of the more common street and park furniture to be used in Ballarat. They have been carefully designed, developed and selected to ensure that they comply with the Guidelines of Section 1.

The datasheets for each item identify the design intent, where they should be used, the materials and finishes, how they should be placed and installed, the recommended maintenance regime, the suppliers or fabricators, and any other relevant current issues or future considerations.

As the datasheets only provide a summary of each furniture item, they should not be used as a detailed specification for fabrication or installation. More detailed information and advice should be sought from the relevant Council officer (ie Council's Landscape Architect) as required.

3.2 DATASHEET GLOSSARY

Code:

SF = Street Furniture

PF= Park Furniture

Applicable Locations:

The locations and sites where the furniture item is commonly found or where it should be utilised in the future.

- Central Heritage (Commercial) Area – the combined areas of the Ballarat Planning Schemes central HO areas as defined indicatively by Figure 2 where the dominant urban form is commercial.
- Central Heritage Area (Residential) and Buninyong and Learmonth Heritage Area – the Ballarat Planning Schemes HO areas for Buninyong and Learmonth as defined indicatively by Figures 3 & 4 where the dominant urban form is residential.
- Activity Centres - Areas Outside Heritage areas – all public streetscapes and commercial areas outside the indicative HO areas as defined by Figures 1 & 2.
- Sportsgrounds – reserves where the primary function is for the provision of sporting facilities for organised or sport.
- Recreation Parkland – reserves where the primary function is for passive recreation and leisure including local, neighbourhood, district and regional parks with formal parkland character.
- Native Bushland Parks and Waterways – open spaces where the primary function is less formal or for special uses such as conservation or drainage corridors.
- Other – other areas as specified.

Design Statement

Provides a brief description of the furniture item, its design, its purpose, its use and application.

Style/Product Name

Provides the common name of the furniture item and its commercial product name and code if applicable.

Materials, Colours & Finish

Provides a summary of the main materials, colours and finishes used in the fabrication of the furniture item but is not a specification for fabrication.

Placement and Installation

Identifies specific information relating to the placement of new furniture items and site specific information relating to its installation. Generic installation methods and options are detailed in Section 4.1.

Maintenance

Identifies the recommended maintenance frequencies as described in Section 4.2.

Recommended Use

Provides additional information to the Applicable Locations options relating to where the furniture item should be used.

Current Suppliers

Lists the current suppliers of the item, noting that some are 'preferred suppliers' of that item in accordance with current tenders.

Comments and Issues

Lists current issues and any considerations for future orders or installations.

Construction Details

Where available provides additional information, specifications and details relating to the furniture item including: dimensions, design, layout and installation. This information is not available for many items.

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

The Urban Seat Post Mounted with Armrests and DuraSlat™ provides a contemporary seat that is an ideal combination of durable materials for civic furniture.

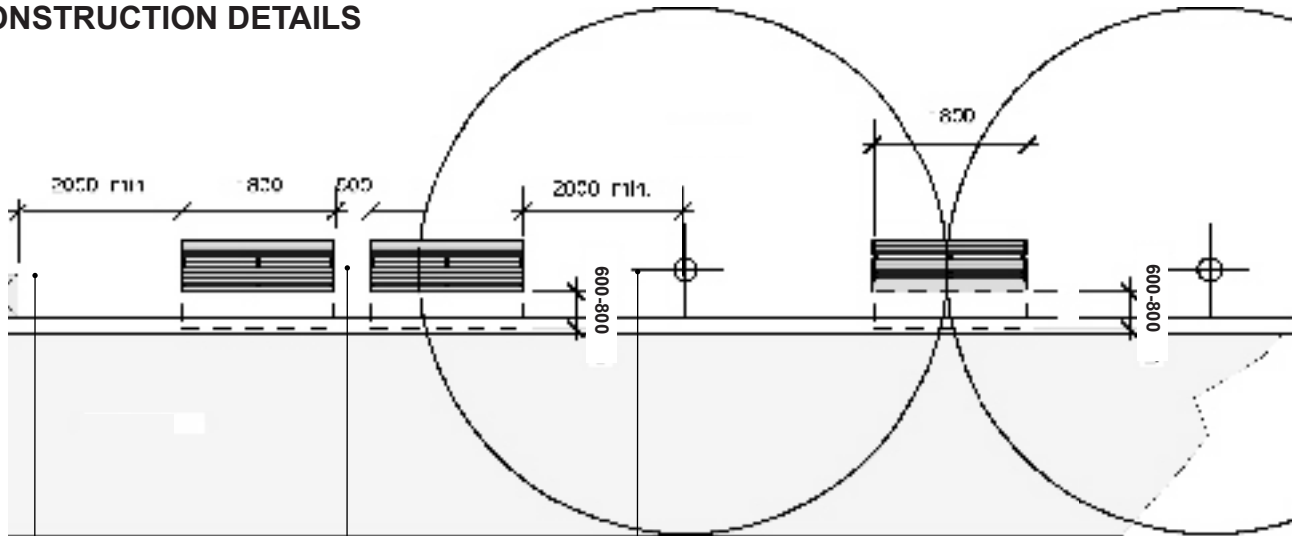
DuraSlat™ (wood/plastic composite slats) offers similar properties to timber in terms of resilience and thermal comfort without the need for any coating or maintenance.

The seat includes a cast aluminium frame making it very robust.



Style/Product Name	Botton + Gardiner - Urban Seat Post Mounted Duraslat: US55P.16.D5.PL
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast aluminium frame polished • DuraSlat™ or 1600 x 140 x 25mm Grey Colour. • Posts - galvanised mild steel powder coated 'Woodland Grey' colour
Placement and Installation	<ul style="list-style-type: none"> • Generally face inward towards buildings. • Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 4 - Infrequent: 5 year+ intervals • Graffiti removal by light sanding in combination with a non-toxic product such as Graffiti Easywipes as required.
Recommended Use	Recommended for use in all general streetscape areas other than Heritage Overlay areas.
Current Suppliers	Botton + Gardiner urban furniture Ph: (02) 9667 8100 email: info@bottonandgardiner.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. The Aluminium castings use 50% or more recycled content. 2. The Duraslat consists of 50% recycled plastic and 100% reclaimed wood fibres but is imported from the USA. 3. Fix the slats with tamper proof stainless steel Tri -Wings screws. 4. Investigate use of local Duraslat alternative eg. Modwood in future orders

CONSTRUCTION DETAILS

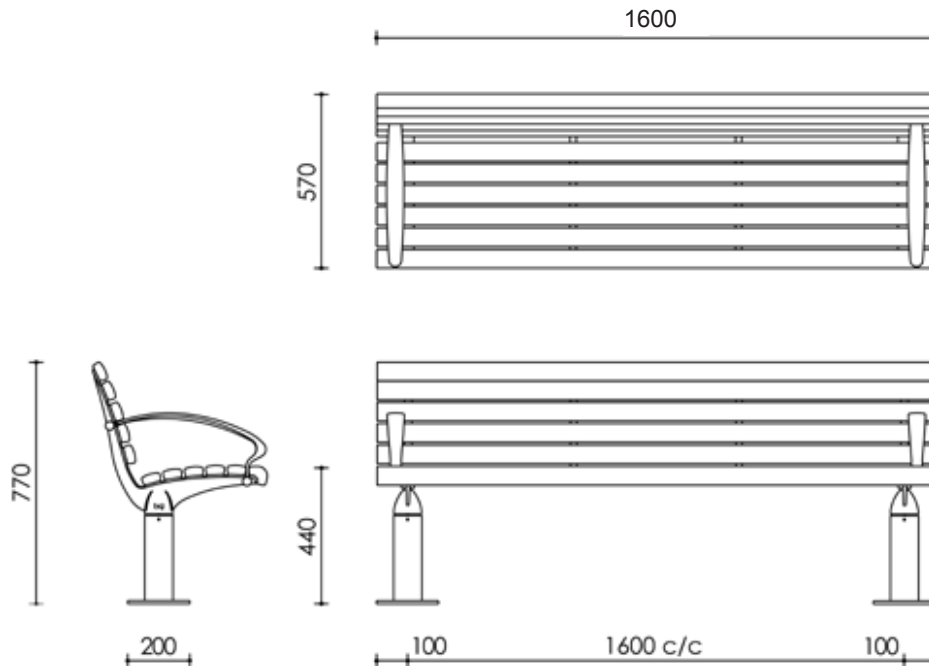


Provide a minimum of 2000mm clearance between seat and bins as shown.

Where two seats are required provide a minimum of 500mm clearance, unless otherwise nominated in landscape documentation. Ensure a clear walkway.

Provide a minimum of 2000mm clearance between seat and trees unless otherwise nominated in landscape documentation drawings.

Typical Plan Layout



APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

The customisation of the Sheriff seat has been designed by the City of Ballarat and fabricated locally specifically for the Central Heritage Area.

It utilises the traditional cast ends of the Sheriff seat but with contemporary and durable recycled composite plastic Modwood slats.



Style/Product Name	COB customised Sheriff seat
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast ends powdercoated 'Woodland Grey' • 5mm steel twin support brackets powdercoated 'Woodland Grey' • Silvergum Modwood decking slats (1640 x 137 x 23)
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • Generally face inward to buildings.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 4 - Infrequent: 5 year+ intervals • Graffiti removal by light sanding or wire brush in combination with a non-toxic product such as Graffiti Easywipes or similar as required.
Recommended Use	Within the Central Heritage Area and Heritage Areas as required
Current Suppliers	<ul style="list-style-type: none"> • Cast ends from Billman's Foundry Ph. (03) 5472 4302 www.billmansfoundry.com.au or Furphy Foundry Ph.(03) 5831 2777 www.furphyfoundry.com.au • Modwood slats from G.Gay Ph. (03) 5334 2700 or Dahlsen's Ph. (03) 5335 8111 • Fabrication by Asema International Pty Ltd Ph. (03) 5337 5700, www.asema.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Provide support under cast end feet as required at installation as some castings are prone to cracking. 2. Ensure future orders include two support brackets.

CONSTRUCTION DETAILS

1) Sherriff Seat

Current Suppliers / Fabricators

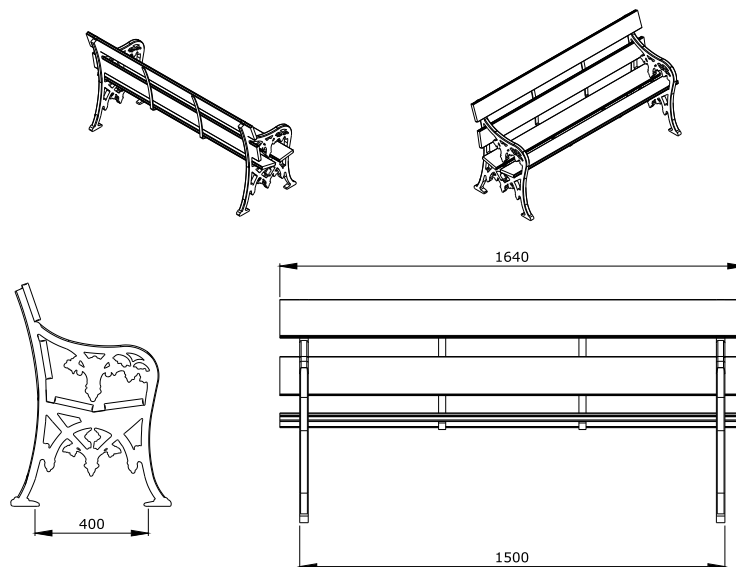
Asema International Pty Ltd, (03) 5337-5700, www.asema.com.au

Product Name

Ballarat Sherriff Seat – Heritage Theme

Product information

End Casting	Ballarat Heritage Style in cast Aluminum or Cast Iron and powder coated "Woodland Grey". Aluminum Casting is available from Furphy Foundry www.furphyfoundry.com.au and Billman's Foundry www.billmansfoundry.com.au
Seating/Slats	"Modwood" Silver Gum decking 137mm x 23mm cut to suit
Fixing	The seating is to be fixed to the end frames using fixings from the back so that there is no protrusion on the front face
Intermediate Stiffening	2 Off intermediate stiffener bars 5mmx 30mm profiled to seat shape are to be fixed from the back with no protrusion on the front faces. Bars to be powdercoated.



APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

This Victorian Railways casting has been used by the City of Ballarat and referred to as the Sheriff Seat since the 1950/60s.

The design whilst not 'authentic' heritage suits parks, gardens and streetscapes within significant heritage settings, but is out of context in all other areas and has high maintenance requirements.



Style/Product Name	COB customised Sheriff seat
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast ends powdercoated 'Brunswick Green' • Hardwood timber slats painted 'Brunswick Green'
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • Generally face inwards towards buildings
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 2 - Regular: 1-2 year intervals for timber • Painting Frequency 4 - Infrequent: 5 year+ intervals for cast ends • Graffiti Removal - As Required
Recommended Use	Within the Buninyong and Learmonth Heritage Overlay Areas as required
Current Suppliers	<ul style="list-style-type: none"> • Cast ends from Billman's Foundry Ph. (03) 5472 4302 www.billmansfoundry.com.au or Furphy Foundry Ph.(03) 5831 2777 www.furphyfoundry.com.au • Fabrication by Asema International Pty Ltd Ph. (03) 5337 5700, www.asema.com.au or City of Ballarat - Operations
Comments and Issues	<ol style="list-style-type: none"> 1. Provide support under cast end feet as required at installation as some castings are prone to cracking. 2. Painted timber requires regular maintenance 3. Consider options to replace timber with green or dark composite recycled plastics.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Bus Stops

DESIGN STATEMENT

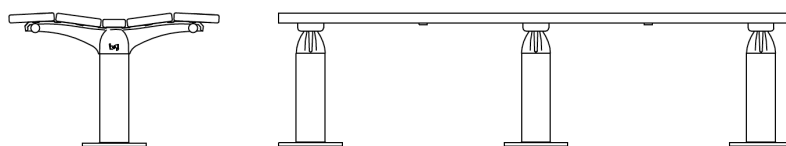
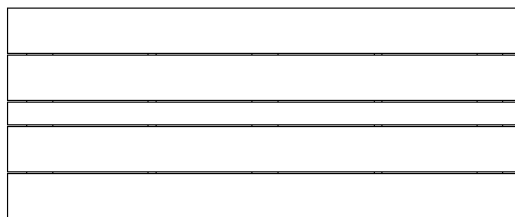
The Urban Bench Post Mounted with DuraSlat™ provides a contemporary seat to be used at bus stops and appropriate locations where sitting versatility is required. This seat is an ideal combination of durable materials for civic furniture.

DuraSlat™ (wood/plastic composite slats) offers similar properties to timber in terms of resilience and thermal comfort without the need for any coating or maintenance.

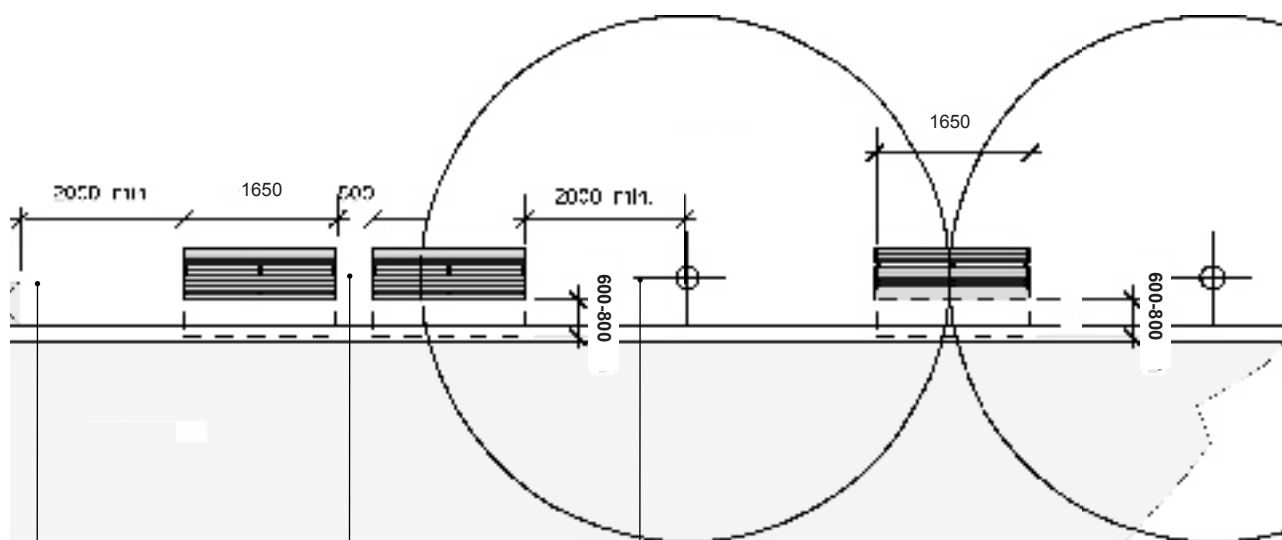


Style/Product Name	Botton + Gardiner Urban Bench Post Mounted with DuraSlat™: BS45P.16.DS.PL
Materials, Colours and Finish	<ul style="list-style-type: none"> • DuraSlat™ or 1600 x 140 x 25mm grey colour (or COB similar approved). • Cast Aluminium Frame (Polished) • Posts - Mild steel (Powder coat colour ‘Woodland Grey’)
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • Footing design and fixing to be in accordance with engineer’s recommendations.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 4 - Infrequent: 5 year+ intervals • Graffiti removal by light sanding in combination with a non-toxic product such as Graffiti Easywipes as required.
Recommended Use	Recommended for use in all general streetscape areas where the option to face both directions is desirable and at Bus Stops.
Current Suppliers	Botton + Gardiner urban furniture Ph: 02 9667 8100 www.bottonandgardiner.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. The bench seat can be used across heritage and non-heritage areas as it is not visually dominant. 2. Investigate use of local Duraslat alternative (eg. Modwood) for future orders.

CONSTRUCTION DETAIL



End Elevation / Section



Provide a minimum of 2000mm clearance between seat and bins as shown.

Where two seats are required provide a minimum of 500mm clearance, unless otherwise nominated in landscape documentation. Ensure a clear walkway.

Provide a minimum of 2000mm clearance between seat and trees unless otherwise nominated in landscape documentation drawings.

Typical Plan Layout

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

This 120 litre rubbish and recycle bin receptacle is the standard bin enclosure for use in streets outside heritage overlay areas. It is recommended for use in all areas other than parks.

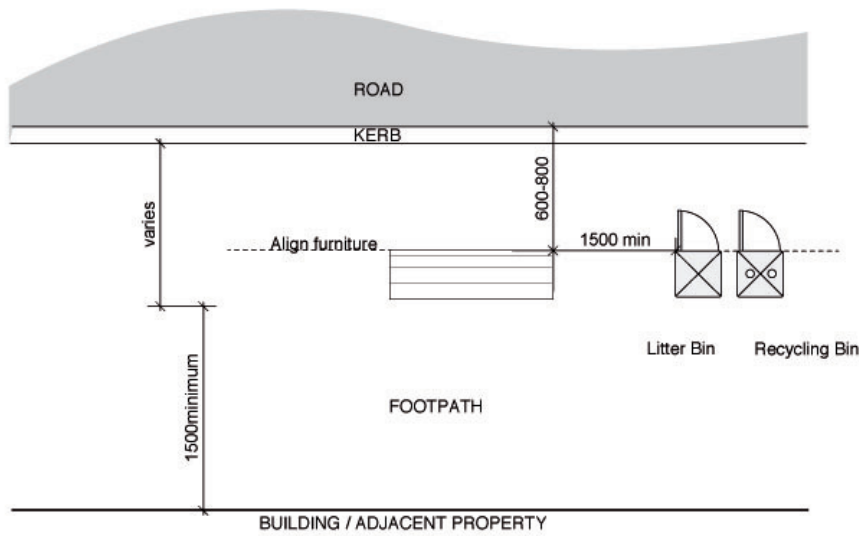
The bin is constructed from powder coated mild steel with punch perforated sheet panels including CoB logo on all faces.

The stainless steel lid and steel construction makes it easy to maintain and prevents water entering and birds perching on it.



Style/Product Name	<ul style="list-style-type: none"> Ballarat Rubbish and Recycle Bin Receptacle
Materials, Colours and Finish	<ul style="list-style-type: none"> Galvanised 2mm thick mild steel components with 40mm punch perforated sheet panels. 1.5mm thick 304 grade stainless steel pyramid lids. Lockable door entry with 'Allen' style universal key lock operation Powder coated finish to body ('Woodland Grey') Stainless steel lids are to be 304 grade stainless steel electropolished finish. Laser cut Logo to all sides and punched "Diamond" in steel panels..
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1 Adjust feet to level enclosure. Lid and door opening to generally face towards buildings.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 2 - Regular: 1-3 month intervals Painting Frequency 4 - Infrequent: 5 year+ intervals Graffiti Removal - As Required
Recommended Use	Streetscapes outside heritage overlay areas
Current Suppliers	<ul style="list-style-type: none"> Asema International Pty Ltd, (03) 5337 5700 www.asema.com.au Furphy Foundry (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> City of Ballarat logo to be changed for future production.

RUBBISH AND RECYCLE BIN RECEPTACLE CONSTRUCTION DETAILS



Indicative Layout Plan

Not to scale



locking key

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2) Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4) Type C: Activity Centres - outside Heritage Areas Other

DESIGN STATEMENT

This 120 litre litter receptacle is the standard bin enclosure for use in the central heritage overlay area.

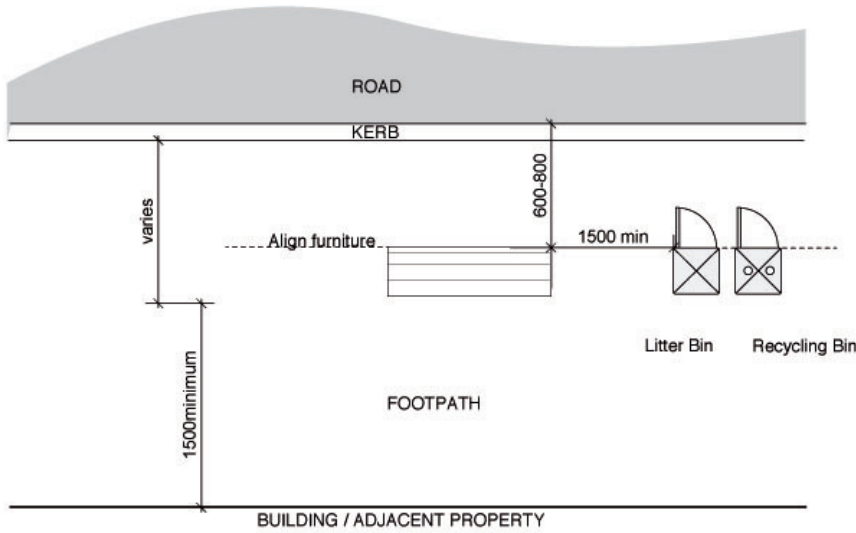
The bin is constructed from powder coated mild steel with punch perforated sheet panels with a locally customised heritage pattern cutout on all sides.

The stainless steel lid and steel construction makes it easy to maintain and prevents water entering and birds perching on it.



Style/Product Name	Ballarat Heritage Theme Rubbish and Recycle Bin Receptacle
Materials, Colours and Finish	<ul style="list-style-type: none"> Lid - Stainless Steel Satin No 4 finish 1.6mm thick Body - Mild Steel 2mm thick Powdercoated "Woodland Grey" Hinges - Door Hinge 2 Off Stainless Door lock - Quarter Turn to suit standard 7mm triangular female key Side pattern - Heritage pattern shown but may vary to suit installation Mounting feet - 2 off Mounting feet to be adjustable and allowance for anchorage to a range of ground conditions. Deflector Plate - A deflector plate is to be fitted to deflect rubbish to inside of wheelie bin. Opening - One opening on door side or opposite door depending on site conditions.
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1 Adjust feet to level enclosure Lid and bin door opening to generally face towards buildings
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 2 - Regular: 1-3 month intervals Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	Recommended as the standard rubbish and recycle bin receptacle for use within the Central Heritage Overlay area.
Current Suppliers	<ul style="list-style-type: none"> Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au Furphy Foundry, Ph. (03) 5831 2777, www.furphyfoundry.com.au
Comments and Issues	

CONSTRUCTION DETAILS

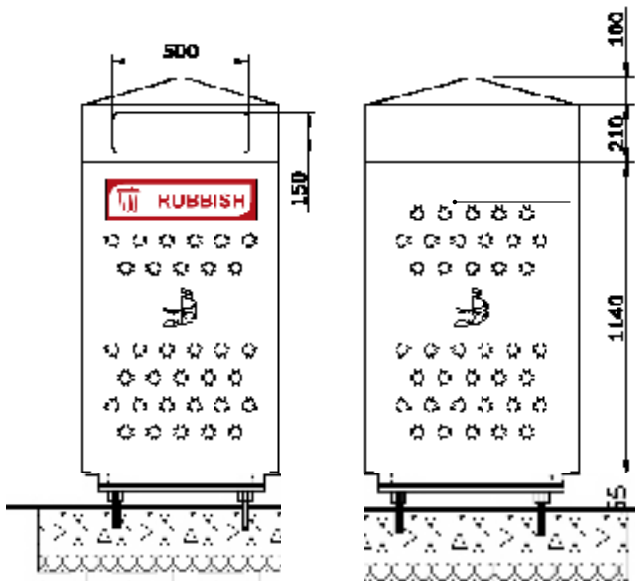


Indicative Layout Plan

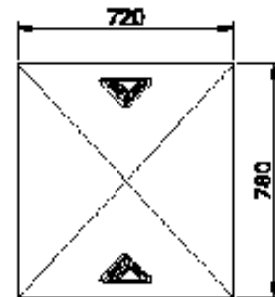
Not to scale



locking key



Standard Bin Elevation



Standard Bin Plan

APPLICABLE LOCATIONS

Type A: Central Heritage Area - commercial (see Figure 2)

Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)

Type C: Activity Centres - outside Heritage Areas

Other

DESIGN STATEMENT

This 120 litre litter receptacle is the standard bin recommended for use within the Buninyong and Learmonth Heritage Overlay Areas and for parks and streets with parkland backdrops.

The bin is constructed from powder coated mild steel with punch perforated sheet panels including CoB logo on all faces.

The lid and steel construction makes it easy to maintain and prevents water entering and birds perching on it.



Style/Product Name	<ul style="list-style-type: none"> Ballarat Litter Receptacle, Bin enclosure holds 120 litre plastic 'wheelie' bins.
Materials	<ul style="list-style-type: none"> Galvanised 2mm thick mild steel components with 40mm punch perforated sheet panels. 1.5mm thick 304 grade stainless steel pyramid lids. Front opening lockable door entry with 'Allen' style universal key lock operation.
Finish	<ul style="list-style-type: none"> Powder coated finish to body ('Brunswick' Green) Stainless steel lids are to be 304 grade stainless steel electropolished finish. Laser cut Logo to all sides and punched "Diamond" in steel panels.
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1 Adjust feet to level enclosure Lid and door opening to generally face towards building.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 2 - Regular: 1-3 month intervals Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> Streets in Buninyong and Learmonth and streetscapes with parkland backdrops. Only install recycle bin receptacles alongside rubbish bin receptacles.
Current Suppliers	<ul style="list-style-type: none"> Asema International Pty Ltd, (03) 5337 5700, www.asema.com.au Furphy Foundry (03) 5831 2777, www.furphyfoundry.com.au
Comments and Issues	

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

The Reflex series has a contemporary appearance with high quality die cast aluminium lamp housing and roof support.

The optical system comprises of a shallow toughened tempered glass, polished and anodised aluminium reflector system. The reflection lens is fibreglass reinforced polyester resin.



Style/Product Name	<ul style="list-style-type: none"> Reflex Roadway Calibre -Pedestrian Light
Materials	<ul style="list-style-type: none"> Luminaire: Die-cast aluminium body and fibreglass polyester resin canopy. IP66 optical chamber with glass visor. Front opening lockable door entry with ‘Allen’ style universal key lock operation.
Finish	<ul style="list-style-type: none"> Polyester powder coated finish to luminaire (‘Woodland Grey’) Powder coated finish to post. (‘Woodland Grey’).
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per manufacturers instructions.
Maintenance	<ul style="list-style-type: none"> Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> High pedestrian use areas
Current Suppliers	<ul style="list-style-type: none"> Sylvania Lighting Australasia(03) 9689 7833, www.sla.net.au
Comments and Issues	



APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

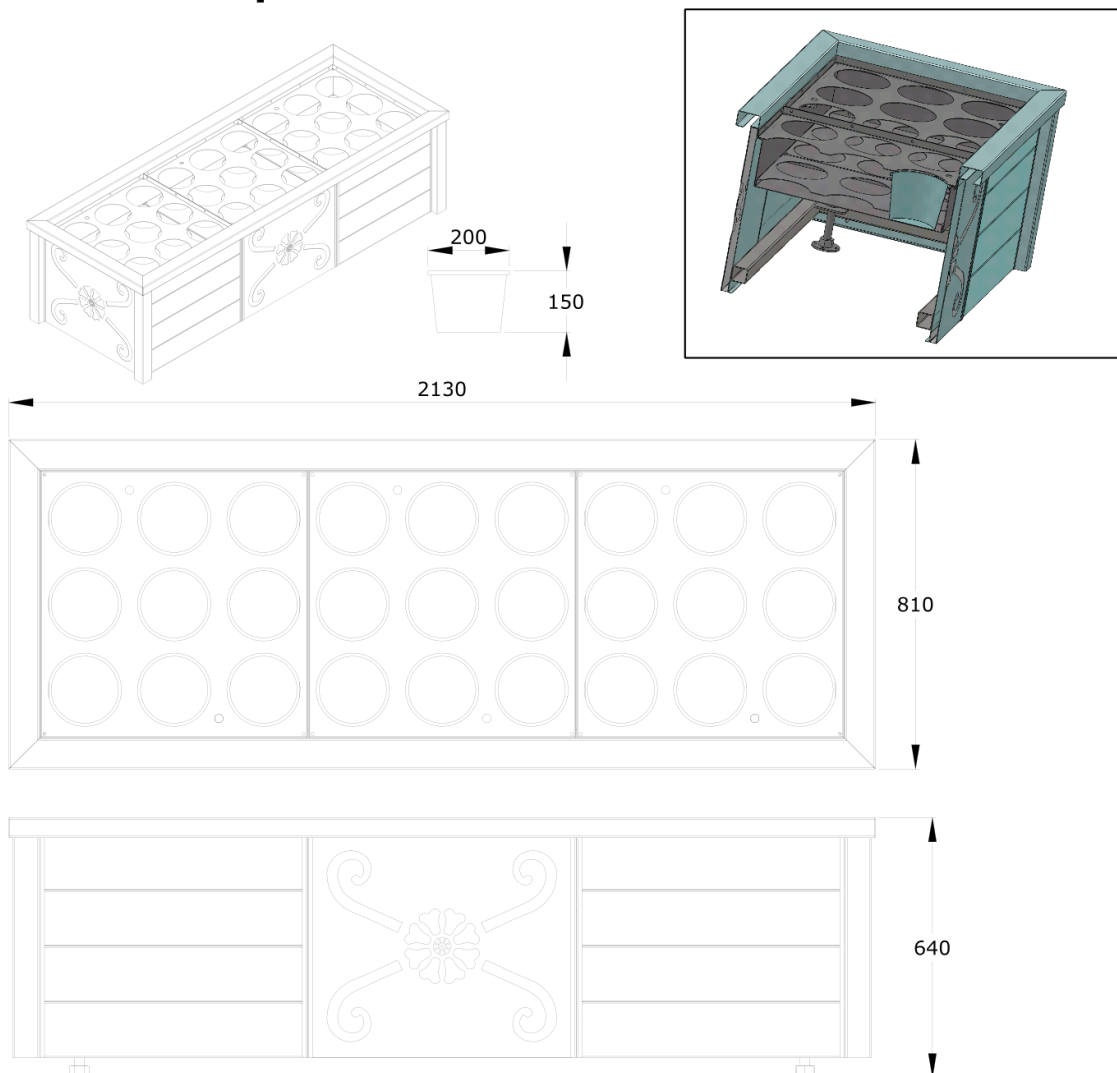
This planter box has been designed and fabricated locally to accommodate displays of bloomers in the Central Heritage Overlay Area.

The design includes interchangeable side panels, self-watering trays and secure tops to prevent theft of pots. It is currently on trial and side panel pattern and colours can be modified to suit other areas.



Style/Product Name	City of Ballarat customised design. Design to be modified for Activity Centres and Areas outside the Heritage Overlay
Materials, Colours and Finish	<ul style="list-style-type: none"> • Galvanised and powdercoated ‘Woodland Grey’ support frame and tray • Modwood infill panels ‘Silver Gum’
Placement and Installation	<ul style="list-style-type: none"> • Relocatable so do not bolt down unless location is permanent.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 2 - Regular: 1-3 month intervals • Painting Frequency 4 - Infrequent: 5 year+ intervals • Floral displays require minimum weekly attendance / tidying
Recommended Use	With heritage pattern only in Central Heritage Overlay Area. Adjust pattern for use in other areas as required
Current Suppliers	<ul style="list-style-type: none"> • Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Currently on trial. 2. Can adapt and interchange laser cut panel and colours for other areas as required.

Planter Box Specification



Features:

Frame	Mild Steel Powder Coated "Woodland Grey" Frame is nominally 2mm thick
Infill Panel #1	Heritage pattern shown with a stainless steel backing and pattern is powdercoated "Woodland Grey" Pattern may be altered for different sites eg "Bridge Mall"
Infill Panel #2	"Modwood" Silver Gum fake decking 137mm x 23mm cut to suit
Leveling Feet	Feet to allow for uneven ground
Pots	200mm Squat Pots x 27 Off
Pan	The pan is to be fitted with an overflow nominally 25mm high to prevent overfilling Pan is manufactured from gal sheeting 1.6mm thick
Locating Trays	Locating trays in bottom of pan to help locate pots in an orderly manner
Top Cover	The top cover to have holes slightly smaller than pot and are to be lockable in place using quarter turn latches to suit standard 7mm triangular female key. These covers are to be Powder Coated "Woodland Grey"
Mulch	It is intended that a layer of red gum chips be added to the top when installed.

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

The use of the simple stainless steel bicycle hoop in streets and parks is designed to create a bicycle friendly environment within the City of Ballarat. It is widely used in urban areas, is easily recognised, and has proved successful with cyclists.

The stainless steel bicycle rail is a safe and convenient place to lock up bicycles. The rail is designed to hold one bicycle each side (although more may be attached if required).

The bicycle rail can be installed singularly or in groups as required.

The semi-polished stainless steel finish is durable and smart. The simplicity of the design ensures the bicycle rail is not an obstruction for pedestrians when not in use.



Style/Product Name	Standard Stainless Steel Tube Bicycle Hoop
Materials, Colours and Finish	<ul style="list-style-type: none"> • Grade 304 stainless steel tube (polished) 50.8mm OD x 1.6mm wall thickness • Nom. '2B' finish • Powdercoat Brunswick Green in Type B streets
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • In streets install parallel to kerb edge unless instructed otherwise.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	<ul style="list-style-type: none"> • In streets generally where poles do not exist for pole mounted bicycle rails • In parks as required
Current Suppliers	<ul style="list-style-type: none"> • Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au • Furphy Foundry, Ph. (03) 5831 2777, www.furphyfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. In-ground hoops are difficult to repair and remove when damaged. 2. Future installation should be bolt-down with a cover plate over the bolts.

Current Suppliers/ Fabricators

Asema International Pty Ltd, (03) 5337-5700, www.asemainternational.com.au

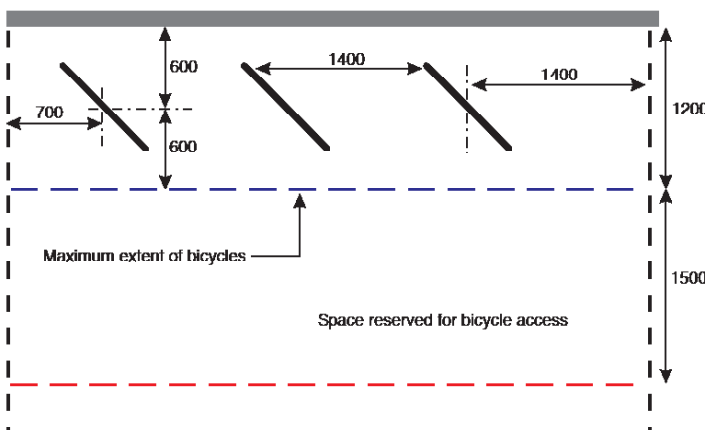
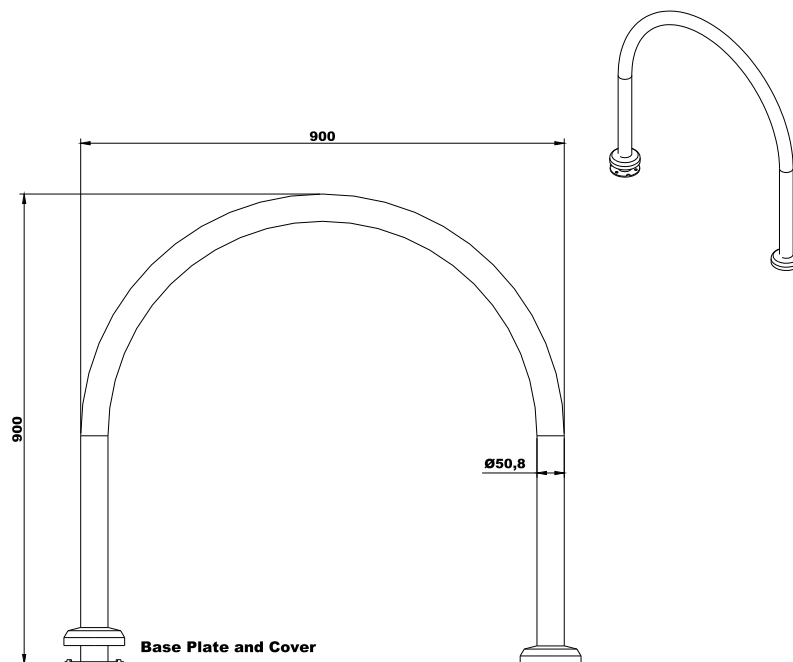
Furphy Foundry 03 5831 2777 www.furphyfoundry.com.au

Product Name

Bicycle Hoop

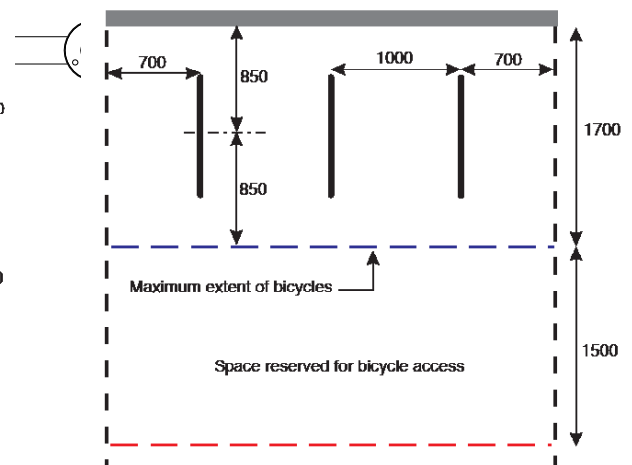
Product information

Frame	Stainless Steel 2B Finish 50.8mm OD x 1.6mm wall thickness
Base Plate	Commercially available base plates with cover for hidden anchorage fasteners is preferred as shown
Finish	The surface is to be finished to remove scratches and marks etc and restored back to a nominal "2B" finish



OPTION A

Plan



OPTION B

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

The use of this bicycle hitching frame in urban and open space areas is designed to create a bicycle friendly environment in the City of Ballarat. It is to be attached to the existing posts, reducing streetscape clutter. The polycarbonate is softer for leaning bike frames against and bikes cannot fall over.

Intended (to attach to existing infrastructure) where there is limited space for a standard bicycle rail. The simplicity of the design ensures the bicycle rail is not an obstruction for pedestrians when not in use.



Style	Safe-T Bike™ Hitching Rail
Materials, Colours and Finish	<ul style="list-style-type: none"> • External frame in galvanised mild steel. • 'Woodland Grey' powdercoated aluminium frame • Polycarbonate insert panel with laminated interchangeable print medium - blue text on grey background
Placement and Installation	Fix to existing Council owned poles (eg. parking sign poles).
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> • Preferred treatment where buildings of historic significance are in the background • In areas where the reduction of infrastructure clutter is a priority.
Current Suppliers	Acute Commercial Pty Ltd, Ph. (03) 5358 4480, www.acutecommercial.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Use complementary colours for the interchangeable print medium to be less dominant in areas of historic significance. 2. Adjust frame colour to Brunswick Green as required to suit Parks and Buninyong and Learmonth Heritage Overlay Areas. 3. Do not install new poles to support

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

This is a simple design for a multiple use bike rack that can be modified as required to fit different numbers of bikes.

Whilst not fully complying with AS 2890-1993 it provides sufficient security and functionality to be used where multiple hoops (PF 701) are inadequate.



Style/Product Name	Multiple Bicycle Rail
Materials, Colours and Finish	Galvanised steel powdercoated / painted 'Brunswick Green', or Woodland Grey as required
Placement and Installation	Bolt down (as per 2.1) onto a concrete pad/footing as required
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 3 - Periodic: 3-5 year intervals
Recommended Use	Cycling destinations where multiple bike racks are required
Current Suppliers	Various
Comments and Issues	1. If painting do not paint vertical steel that bike is secured to.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2) Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4) Type C: Activity Centres - outside Heritage Areas Other

DESIGN STATEMENT

This is a sculptural design for a multiple use bike rack that can be modified as required to fit different numbers of bikes.

This design is fully compliant with AS 2890-1993 and provides sufficient security and functionality to be used where multiple hoops (SF 401) are inadequate.



Style/Product Name	<ul style="list-style-type: none"> Bicycle Rack - Multiple A.S.
Materials, Colours and Finish	<ul style="list-style-type: none"> 50.8mm stainless steel tubing. Nominal spiral diameter of 800mm
Placement and Installation	<ul style="list-style-type: none"> Inground footings of 500mm deep or Bolt down (as per 2.1) onto a concrete pad/footing as required Set spiral low point 20mm of ground level
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required
Recommended Use	<ul style="list-style-type: none"> Cycling destinations where multiple bike racks are required
Current Suppliers	<ul style="list-style-type: none"> Various
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

The stainless steel domed top bollard is suitable for use in the general streetscape outside of Heritage Overlay Areas.

The sizes and dimensions can vary depending upon site context, but usually the shorter the bollard the larger the diameter.

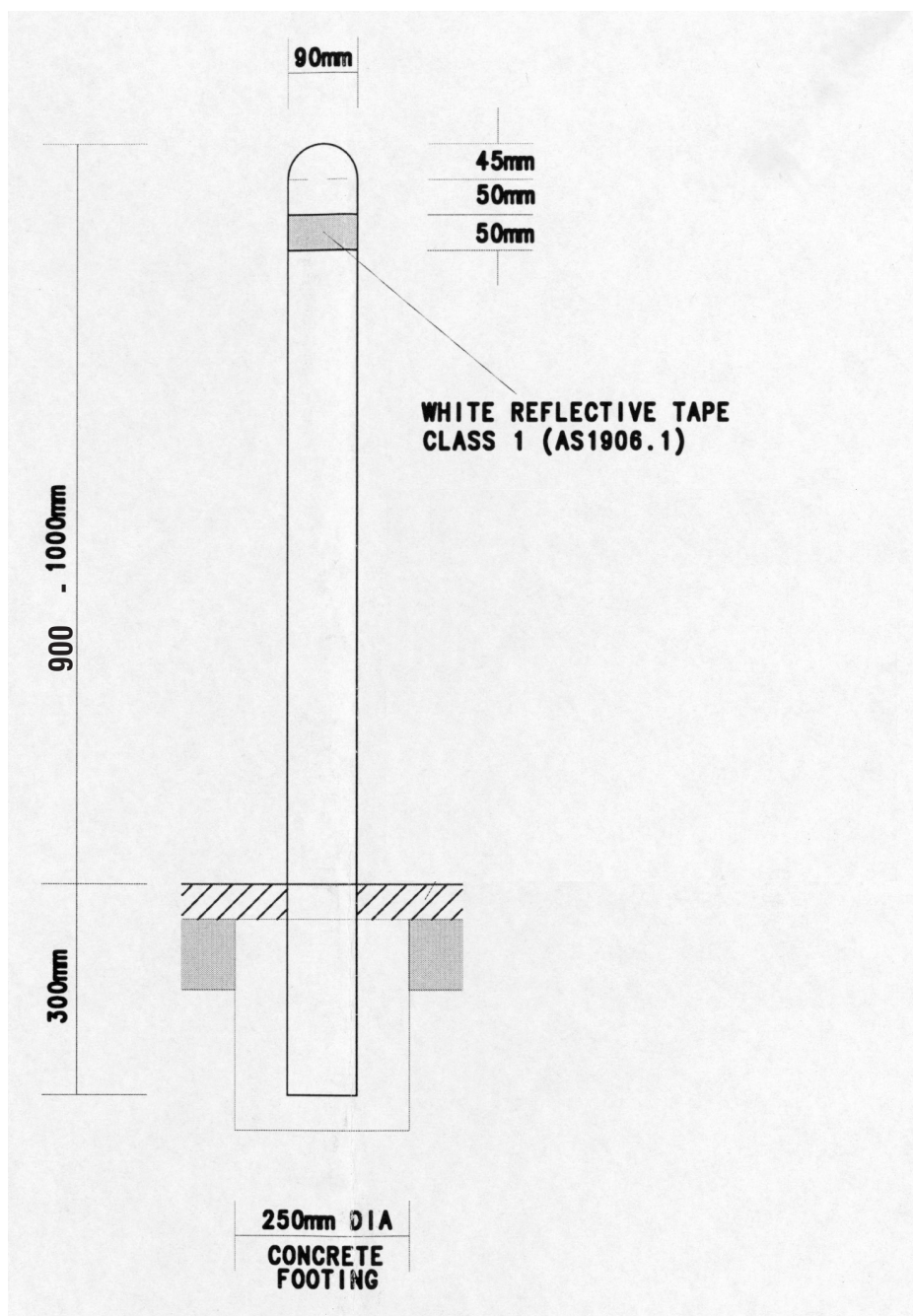
This bollard is low maintenance and durable but visually dominant so its use in heritage areas should be discouraged.

It is best suited to high profile activity centres.



Style/Product Name	Stainless Steel 'Dome Top' bollard, with variable diameters and heights.
Materials, Colours and Finish	<ul style="list-style-type: none"> Stainless steel posts with stainless steel fittings, domed bollard cap and base 3mm 316 grade stainless steel, inset gal steel base. Reflective tape band for visibility as required. Stainless steel components to be electropolished, brushed finish.
Placement and Installation	<ul style="list-style-type: none"> Custom concrete inset bollard base or removable sleeve construction. Footing design to engineer's detail - 25mm dia x 300mm deep. 900-1000mm above ground.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	As required to control access or protect assets in high profile activity centres.
Current Suppliers	Various Suppliers
Comments and Issues	1. Use less dominant bollard in heritage areas where possible.

CONSTRUCTION DETAILS



APPLICABLE LOCATIONS

Type A: Central Heritage Area - commercial (see Figure 2)

Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)

Type C: Activity Centres - outside Heritage Areas

Phoenix Mall

DESIGN STATEMENT

The design of this cast metal fixed bollard dates from Edwardian times and is distinctly of heritage appearance.

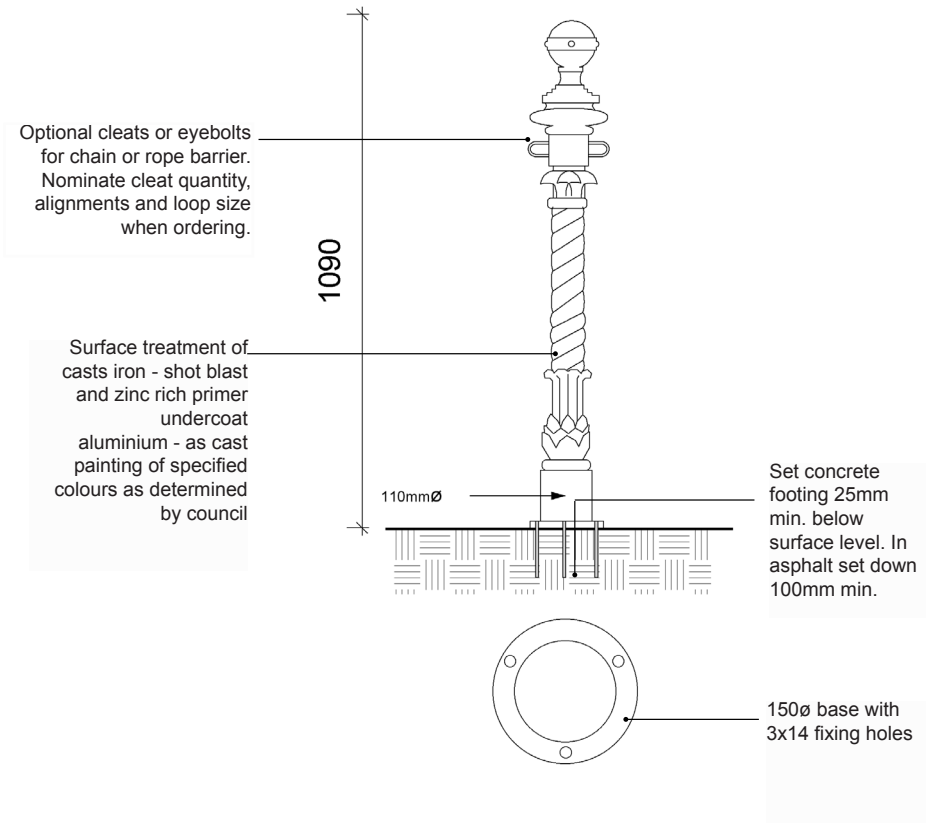
Being constructed of cast iron the bollard is robust for pedestrian areas but unsafe to protect pedestrians in areas of high vehicular traffic as they snap at the base when hit.

An option exists to use heavy duty galvanised chain to direct pedestrians.



Style/Product Name	'Heritage' Bollard.
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast iron. • Powdercoat 'Woodland Grey' in urban streetscapes and Brunswick Green in parkland settings or Buninyong and Learmonth Heritage Overlay Areas.
Placement and Installation	Inground footings with optional removable bollard.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	In pedestrian areas within Heritage Overlay Areas only where pedestrian safety is not an issue.
Current Suppliers	Billman's Foundry Ph. (03) 5472 4302, www.billmansfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Retained in selected locations only but not used for vehicle management. 2. Where they are retained they should be one colour only, not two tone. 3. Use reflective tape for improved visibility as required.

CONSTRUCTION DETAILS



Elevation

Not to scale

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

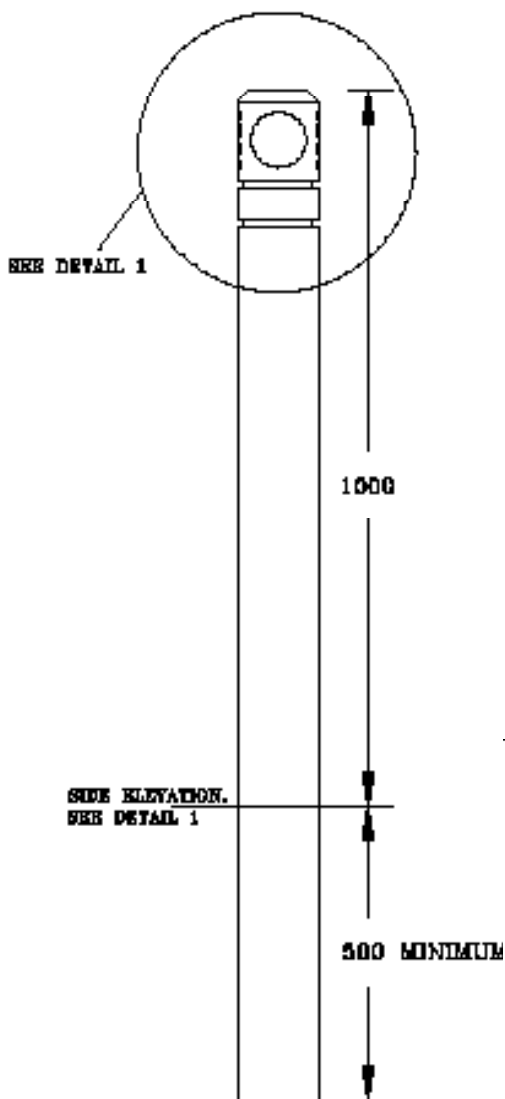
This square painted timber bollard has been designed by the City of Ballarat as a standard for streetscapes with heritage significance.

It has been in use for over 20 years and is used to prevent vehicle access, direct pedestrians and as a generic design for sign posts, and other items to be fixed to.

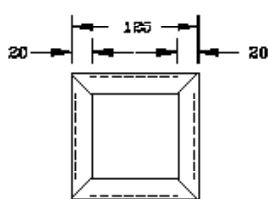


Style/Product Name	Painted Timber Bollards
Materials, Colours and Finish	<ul style="list-style-type: none"> • 100 x 100mm dressed Cypress Pine or similar approved sustainable plantation hardwood. • Chamfered top • Double rebate - 5mm rebate for delineators to all four sides. • ‘Woodland Grey’ colour in urban streetscapes • ‘Brunswick Green’ colour in parks and streets with parkland backdrops or Buninyong and Learmonth
Placement and Installation	<ul style="list-style-type: none"> • Concealed in concrete footing to finish below final surface level. • Max height out of ground to be 900mm
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 3 - Periodic: 3-5 year intervals
Recommended Use	In high profile streetscape settings where alternatives are not suitable
Current Suppliers	Barlings Woodworks Pty Ltd, Ph.9724 9600, www.barlings.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Paint and repaint with single colour (‘Woodland Grey’ or ‘Brunswick Green’) ie. do not paint rebates separately. 2. Install delineators to rebates as required after installation for visibility and safety.

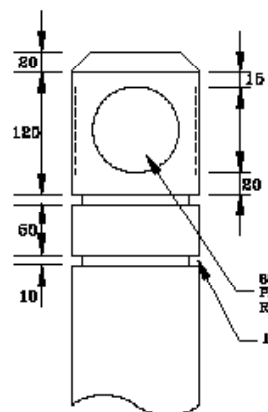
CONSTRUCTION DETAILS



Elevation
Not to scale

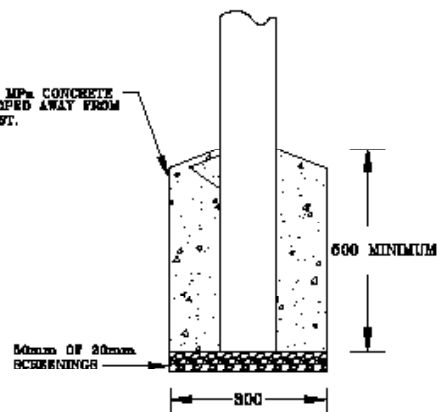


PLAN.



DETAIL 1

20 MPa CONCRETE
SLOPED AWAY FROM
POST.



FOOTING TO BE 300 X 300 X 500 DEEP

FOOTING DETAIL

NOTE:
COLOR SCHEME AS NOMINATED.
TIMBER TO BE SELECTED FROM CYPRESS
PINE, RED GUM.



APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

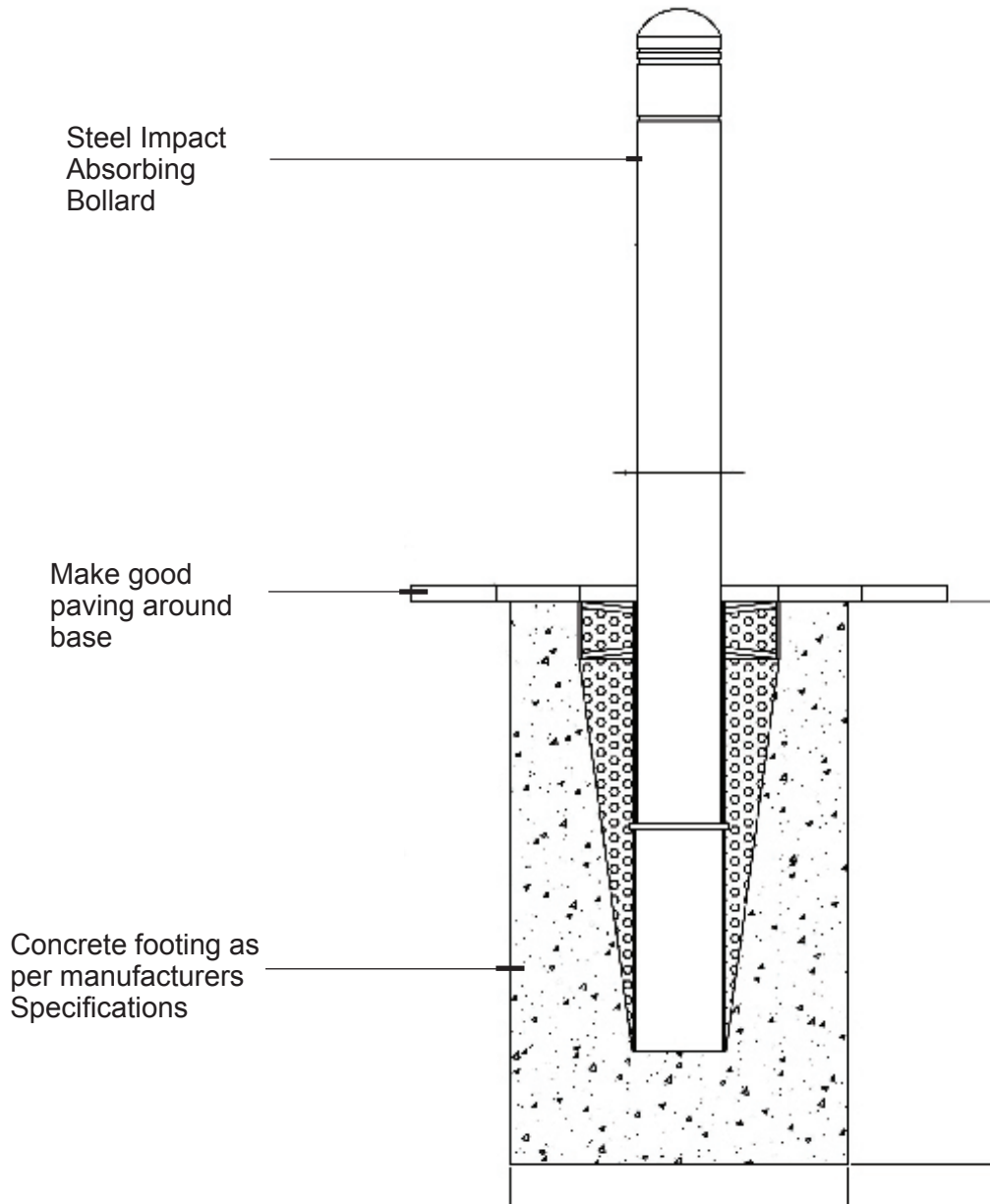
The use of Impact Absorbing Bollards is to be considered within a framework of an overall safety strategy. Impact absorbing bollards primarily function as a safety barrier for pedestrians or vehicular traffic that runs off the road.

Vehicular bollards help prevent pedestrian injury or death caused by vehicular accidents.



Style/Product Name	<ul style="list-style-type: none"> Impact Absorbing Bollard.
Materials, Colours and Finish	<ul style="list-style-type: none"> Strengthened steel posts. Powdercoated 'Woodland Grey' in Central Heritage Areas. 'Brunswick Green' in parks or Buninyong and Learmonth Heritage Areas.
Placement and Installation	<ul style="list-style-type: none"> Concealed mounting cast in concrete footing. Footing design to manufacturers detail.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> Limited use to protect pedestrians and public in high accident risk areas such as roadside dining areas adjacent to intersections or as identified by the Council.
Current Suppliers	<ul style="list-style-type: none"> Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au Saferoads Pty. Ltd. Ph: 1800 060 672 or comparable approved supplier.
Comments and Issues	<ol style="list-style-type: none"> Add reflective tape for visibility as required. Option to add chain link fencing as required.

CONSTRUCTION DETAILS



APPLICABLE LOCATIONS

Type A: Central Heritage Area - commercial (see Figure 2)

Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)

Type C: Activity Centres - outside Heritage Areas

Other

DESIGN STATEMENT

This wood plastic composite (WPC) extruded bollard is suitable for use across streetscapes outside Heritage Overlay areas. It is more durable and cheaper than some timber alternatives, and comes in various sizes with options for rebates and different tops.

The natural dark finish ensures it blends in with other street furniture that is painted green or grey.



Style/Product Name	Cossets Evertuff™ Square bollard.
Materials, Colours and Finish	<ul style="list-style-type: none"> • Wood Plastic Composite extruded square post with pyramid top. • Rebates as required and optional sizes of 100x100, 125x125, 150x150mm.
Placement and Installation	<ul style="list-style-type: none"> • Concealed in concrete footing to finish below final surface level. • Clean immediately after installation.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	To protect trees, direct pedestrians and restrict vehicle access where low maintenance is a priority.
Current Suppliers	Cosset Industries Australia Pty Ltd Ph:1800 267738, www.cossett.com.au
Comments and Issues	1. Sizes to be determined to suit the location. For longer boundaries and lengths there are options to use galvanised rails or chains between posts (see PF105).

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

The purpose of this simple steel fence is to direct, deter and / or protect pedestrians. The height of the fence will depend upon the intended purpose and risk to the public.

It should generally be used where it replaces or is an alternative to the less attractive weldmesh type fencing.

It is non-scaleable so it is also suitable to prevent access for young children (eg. near roads or waterways).



Style/Product Name	'Oxley Ring' Fence.
Materials, Colours and Finish	<ul style="list-style-type: none"> 8mm, 10mm & 12mm Mild steel, 100UB structural steel. Height to be between 900mm -1200mm as determined by Council. 'Woodland Grey' colour in urban streetscapes 'Brunswick' Green in streetscapes with parkland backdrops or parks
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 4 - Infrequent: 5 year+ intervals Barrier to be replaced if bent or damaged.
Recommended Use	In streetscapes and parks to deter, direct and protect pedestrians or park users as required.
Current Suppliers	A.R.C ph. 1800 336 237, www.arcfences.com.au or comparable approved supplier.
Comments and Issues	

GUTTER RAIL - HERITAGE AREAS

APPLICABLE LOCATIONS

Type A: Central Heritage Area - commercial (see Figure 2)

Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)

Type C: Activity Centres - outside Heritage Areas

Other

DESIGN STATEMENT

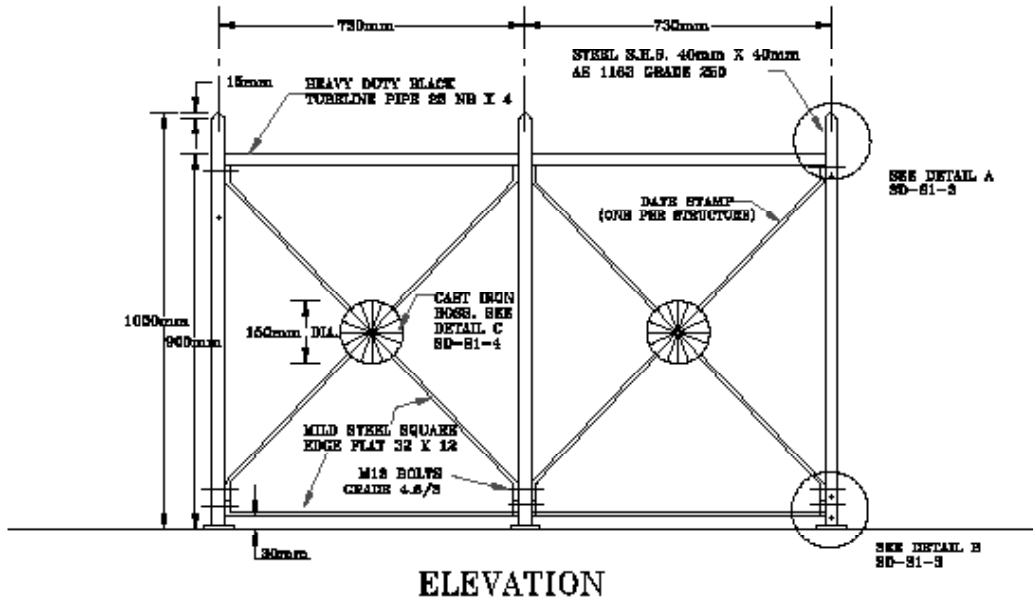
The current Heritage Kerb Rail is an iconic piece of Ballarat's streetscape infrastructure. Its a functional and aesthetic item and is to be continued for use to protect pedestrians from deep drains and tall kerbs only.

The central casting and support brackets provide the design influence for the Central Heritage Theme pattern.

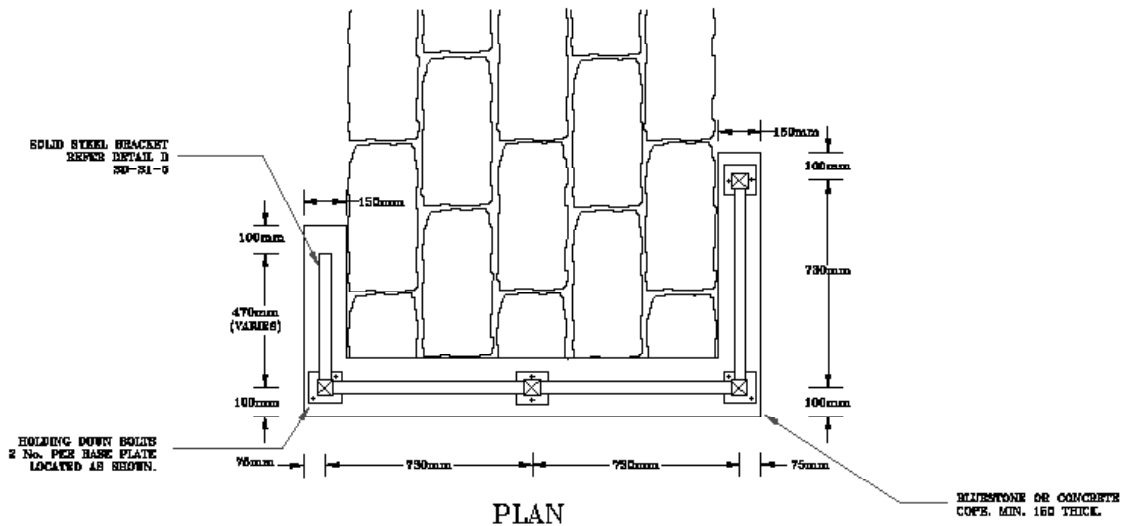


Style/Product Name	<ul style="list-style-type: none"> Ballarat Historical Gutter Rail
Materials, Colours and Finish	<ul style="list-style-type: none"> Solid steel brackets, heavy duty tubular pipe top rail, mild steel square edge flats with cast iron medallion. Height to be 1000mm. 'Rich Red' colour. (Haymes) All components to be hot dip galvanised prior to assembly and paint.
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> Where the height to invert of gutter exceeds 300mm. To define deep drain and protect pedestrians
Current Suppliers	<ul style="list-style-type: none"> Billman's Foundry Ph. (03) 5472 4302, www.billmansfoundry.com.au Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au
Comments and Issues	<ol style="list-style-type: none"> Standard configuration can be adapted to suit site conditions.

CONSTRUCTION DETAILS



- NOTE: 1. ALL COMPONENTS OF STRUCTURE TO BE HOT DIP GALVANISED PRIOR TO ASSEMBLY.
 2. STRUCTURE TO BE PAINTED IN INDIAN RED COLOUR AFTER INSTALLATION.



INSPECT EACH SITE PRIOR TO BARRIER FABRICATION AS CONDITIONS MAY VARY WITH REGARD TO DIMENSIONS &/OR ATTACHMENT DETAILS.
 ANY ALTERATIONS TO APPROVAL OF DESIGN/SURVY DEPARTMENT, BALLARAT CITY COUNCIL

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
- Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
- Type C: Activity Centres - outside Heritage Areas
- Other

DESIGN STATEMENT

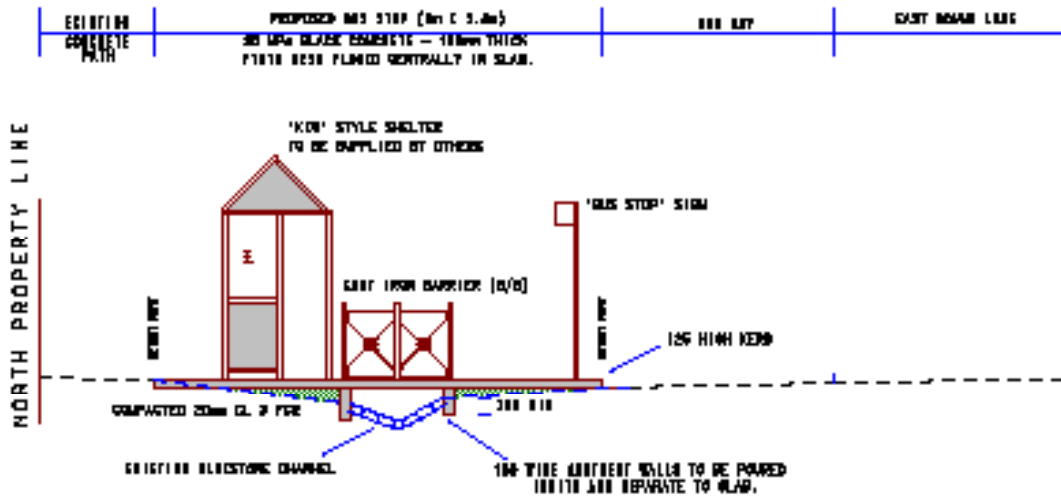
The current 'Kew Style' Bus Shelter is a prefabricated structure that has been selected by Council to be simple contemporary design that is sympathetic to Ballarat's heritage streetscape.

It provides maximum weather protection and conforms to Access for All requirements

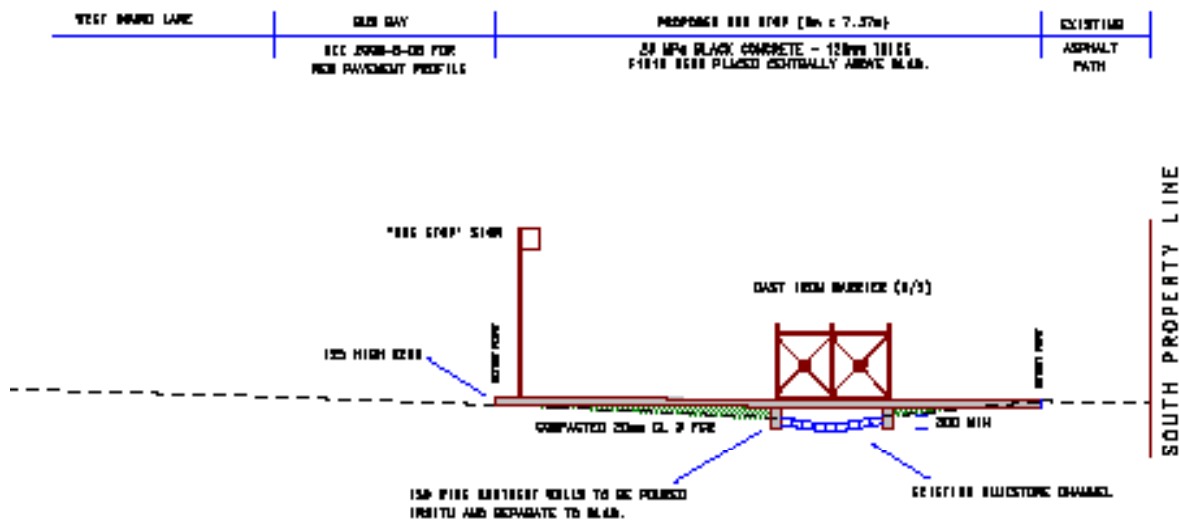


Style/Product Name	Standard Bus Shelter
Materials, Colours and Finish	<ul style="list-style-type: none"> • Mild steel components and structure. • Mild steel screen or toughened safety glass panels (glazing is to comply with AS 1428.1.). • Powdercoat ('Woodland Grey' and/or ColourBond colour WindSpray) in urban area and Brunswick Green where there is a significant green or parkland backdrop
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • Bus shelter must wherever possible be located off the accessible path of travel. • Tactile ground surface indicators are to be installed to pavement around bus shelter in accordance with AS 1428.1. Refer F300 for further information on tactile indicators.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 4 - Infrequent: 5 year+ intervals • Pressure clean annually • Graffiti Removal - As Required
Recommended Use	As required at designated bus stops where overhead shelter is not provided.
Current Suppliers	City of Ballarat approved supplier.
Comments and Issues	1. Refer to Council's Landscape Architect if in doubt of colour

CONSTRUCTION DETAILS



BUS STOP - NORTH WEST CORNER SECTION BB



BUS STOP - SOUTH EAST CORNER SECTION CC

APPLICABLE LOCATIONS

Type A: Central Heritage Area - commercial (see Figure 2)

Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)

Type C: Activity Centres - outside Heritage Areas

Other

DESIGN STATEMENT

The 'Clear Bus Stop' wind protection is a prefabricated structure that has been selected by Council to be unobtrusive and sympathetic to Ballarat's heritage streetscape.

It should be used at bus stops where there is sufficient overhead weather protection from existing verandahs.



Style/Product Name	Clear Bus Stop wind protection
Materials, Colours and Finish	<ul style="list-style-type: none"> • 316SS components and structure. • Toughened safety glass panels (glazing is to comply with AS 1428.1.) to manufacturers specifications.
Placement and Installation	<ul style="list-style-type: none"> • Set level and stagger heights as required on sloping ground. • Bolt down installation preferred for future relocation and repairs. • Bus stop screen must wherever possible be located off the accessible path of travel. • Tactile ground surface indicators are to be installed to pavement around bus shelter in accordance with AS 1428.1. Refer F300 for further information on tactile indicators.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 2 - Regular: 1-3 month intervals • Screen should be wiped down monthly • Painting Frequency 5 - Not Applicable
Recommended Use	As required in Ballarat CBD under awnings and verandahs at designated bus stops where traditional shelters are not appropriate.
Current Suppliers	Refer City of Ballarat approved supplier.
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type A: Central Heritage Area - commercial (see Figure 2)
 Type B: Central Heritage Area - Residential and Buninyong and Learmonth Heritage Area (see Figures 3 & 4)
 Type C: Activity Centres - outside Heritage Areas
 Other

DESIGN STATEMENT

The school crossing shelter is a prefabricated fibreglass structure designed to provide weather protection for school crossing supervisors at formalised and manned school crossings.

It is a simple lightweight bolt down structure with clear perspex screens for increased visibility. There are options of single or double units based on site needs.



Style/Product Name	Standard School Crossing Shelter
Materials, Colours and Finish	<ul style="list-style-type: none"> • 3•Mild steel powdercoated support frame • Fibreglass surrounds and shell • ‘Woodland Grey’ in Type A and C streetscape locations • ‘Brunswick Green’ in Type B streetscape locations
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 – Infrequent: Annually • Painting Frequency 5 – Not Applicable • Graffiti Removal – As Required
Recommended Use	At regularly supervised school crossings only
Current Suppliers	A&J Fibreglass, Ph 5335 6253, www.ajfibreglass.net.au
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Sturt Street Gardens
 Victoria Street Gardens

DESIGN STATEMENT

This Victorian Railways casting has been used by the City of Ballarat and referred to as the Sheriff Seat since the 1950/60s.

The design whilst not 'authentic' heritage suits parks, gardens and streetscapes within significant heritage settings, but is out of context in all other areas and has high maintenance requirements.



Style/Product Name	Sheriff Seat
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast Iron/Aluminium end powdercoated deep Brunswick Green • Hardwood timber slats painted Brunswick Green
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 2 - Regular: 1-2 year intervals for timber • Painting Frequency 4 - Infrequent: 5 year+ intervals for cast ends
Recommended Use	In parks generally and only within significant Heritage Gardens such as Sturt Street Gardens and Botanical Gardens
Current Suppliers	<ul style="list-style-type: none"> • Cast ends from Billman's Foundry Ph. (03) 5472 4302, www.billmansfoundry.com.au • Fabricated by Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au or City of Ballarat Operations
Comments and Issues	<ol style="list-style-type: none"> 1. Painted timber requires regular maintenance 2. Consider options to replace timber with green or dark composite recycled plastics.

CONSTRUCTION DETAILS

1) Sherriff Seat

Current Suppliers/ Fabricators

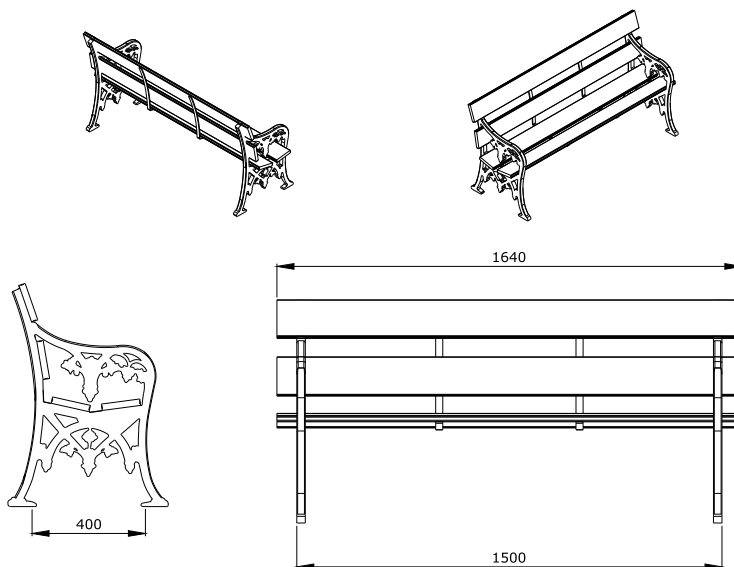
Asema International Pty Ltd, (03) 5337-5700, www.asema.com.au

Product Name

Ballarat Sherriff Seat – Heritage Theme

Product information

End Casting	Ballarat Heritage Style in cast Aluminum or Cast Iron and powder coated "Woodland Grey". Aluminum Casting is available from Furphy Foundry www.furphyfoundry.com.au and Billman's Foundry www.billmansfoundry.com.au
Seating/Slats	"Modwood" Silver Gum decking 137mm x 23mm cut to suit
Fixing	The seating is to be fixed to the end frames using fixings from the back so that there is no protrusion on the front face
Intermediate Stiffening	2 Off intermediate stiffener bars 5mmx 30mm profiled to seat shape are to be fixed from the back with no protrusion on the front faces. Bars to be powdercoated.



APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

The Fiesta park furniture range has been in use in Ballarat for nearly 20 years and is now provided extensively throughout Ballarat's recreation parklands.

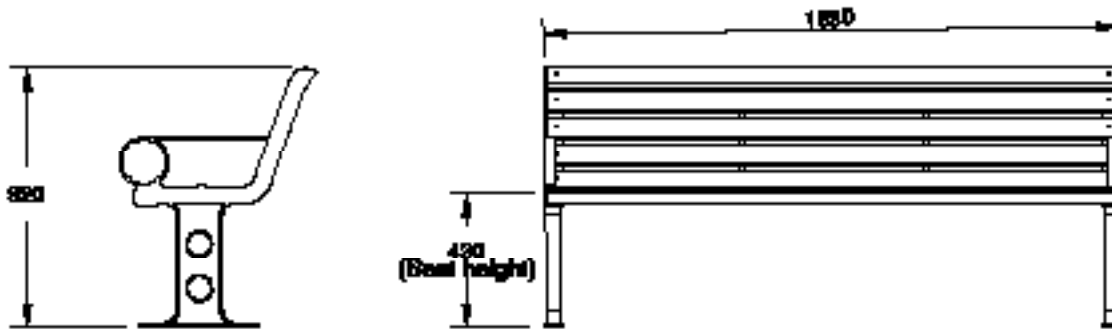
It is a contemporary design that sits comfortably in both new and older or more established formal parks and sportsgrounds.

The seat includes armrests to assist people to get in and out.



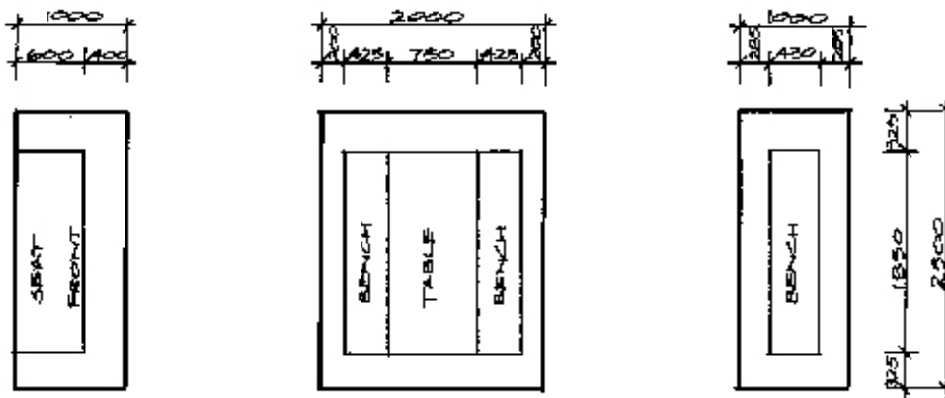
Style/Product Name	Fiesta Seat (Furphy code FFSA 002016)
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast aluminium ends powdercoated Brunswick Green • 5mm steel twin support brackets powdercoated Brunswick Green • Hardwood timber battens with Kwila Oil finish
Placement and Installation	<ul style="list-style-type: none"> • Place close to facing paths, playgrounds, features and views • Bolt down onto concrete slab with dimensions of 2200 x 2000mm (as per 2.1)
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 2 - Regular: 1-2 year intervals for timber • Painting Frequency 4 - Infrequent: 5 year+ intervals for cast ends
Recommended Use	In all recreational parklands as required
Current Suppliers	Furphy Foundry (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. All new orders should include armrests to assist the elderly to get in and out of the seat. 2. All current timber finishes and trails are performing poorly. Consider leaving future timbers raw.

CONSTRUCTION DETAILS



SIDE ELEVATION

FRONT ELEVATION

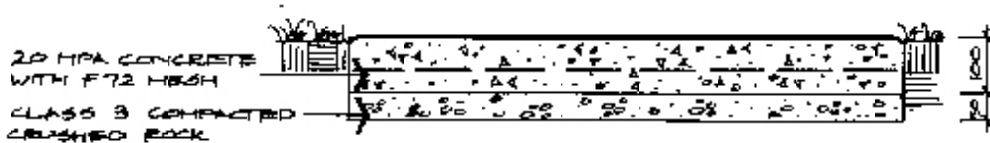


SEAT
 POSITION BACK OF SEAT TO BACK OF SLAB

PICNIC TABLE SET
 CENTRE TABLE OVER SLAB & BENCHES TO NEET EDGE OF TABLE

BENCH
 CENTRE BENCH ON SLAB

CONCRETE SLAB DETAILS



SLAB NOTES:

- SLAB TO BE EXCAVATED TO FINISH LEVEL WITH SURROUNDING AREAS.
- F72 MESH TO BE PLACED CENTRALLY IN SLAB TO ALLOW FOR 50mm COVER.
- CONCRETE SLAB TO BE FINISHED WITH 'BROOCHED' SURFACE & EDGES TO BE PENNIL ROUNDED.
- SLAB SIZES ARE DESIGNED TO SUIT THE CITY OF BALLARAT'S CUSTOMISED 'FIESTA' RANGE OF PARK FURNITURE BY FURPHY'S FOUNDRY.
- FIX FURNITURE TO SLAB USING 10x140mm MASONRY DYNAMOLITS & BURR ENDS TO PREVENT THEFT.
- TOPSOIL & LAWN SEEDS TO BE REINSTATED TO FINISH FLUSH WITH SLABS.

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Fairyland - Lake Wendouree

DESIGN STATEMENT

This timber seat is used across parks where the park character is rustic and less formal.

The design is simple, chunky and robust with only two footings required for new installations.



Style/Product Name	Rustic Timber Seat (Norwood MPS Park Seat code NOR 0001)
Materials, Colours and Finish	<ul style="list-style-type: none"> Cypress Pine or specified Australian hardwood timbers supplied with no finish to timber
Placement and Installation	<ul style="list-style-type: none"> Place close to facing paths, features and views. Install into concealed concrete footings.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 3 - Periodic: 3-5 year intervals - only if stained
Recommended Use	In native bushland, parks, waterways and along linear reserves.
Current Suppliers	Norwood Products, 1300 551 248, www.norwoodproducts.com.au
Comments and Issues	<ol style="list-style-type: none"> Various finishes have been applied after installation and are performing poorly. Consider leaving all future seats raw. Option for area beneath seat to be paved with granitic sand.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 View point at Lake Wendouree and Sturt St Gardens

DESIGN STATEMENT

This seat is an authentic heritage design. It is made entirely from steel with angle iron support frame and strap iron welded to the frame. The strap iron profile is no longer available.

The seat is not particularly comfortable but has significant historical interest, so the remaining seats in Ballarat have been repaired and consolidated at View Point at Lake Wendouree and in sections of the Sturt Street Gardens.



Style/Product Name	Heritage Steel Seat
Materials, Colours and Finish	<ul style="list-style-type: none"> • Angle Iron frame • Strap Iron slats • Option to paint Brunswick Green or Clear Coat
Placement and Installation	<ul style="list-style-type: none"> • Locate new seats only as directed • Bolt down (as per 2.1) to concrete slab or asphalt as directed
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 4 - Infrequent: 5 year+ intervals - if painted
Recommended Use	Only at View Point at Lake Wendouree and in selected locations within the Sturt Street Gardens
Current Suppliers	None - fabricate and restore as required.
Comments and Issues	<ol style="list-style-type: none"> 1. Various seats and parts are currently stored at Councils Depot. These should be restored into complete seats and installed in the above locations.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

This wood plastic composite (WPC) bench seat is suitable for seating around sportsgrounds and within sporting reserves as it is relatively inexpensive, extremely durable, robust, easy to maintain and has good thermal qualities (ie. does not get too wet or too cold).

The extruded profile of the slats can be cut to length to allow increased seating options and lengths, such as under grandstands.



Style/Product Name	Cossets - Evergreen WPC Standard Bench Seat
Materials, Colours and Finish	<ul style="list-style-type: none"> • 1400mm WPC slats • Heavy duty bolt down frame powdercoated Brunswick Green
Placement and Installation	<ul style="list-style-type: none"> • As required in sporting reserves but setback min. 600mm from fences. • Bolt down (as per 2.1) onto concrete slab or footings
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 5 - Not Applicable
Recommended Use	As required around sportsgrounds
Current Suppliers	<ul style="list-style-type: none"> • Cosset Industries Australia Pty Ltd Ph:1800 267738, www.cossett.com.au • Asema International Pty Ltd, Ph. (03) 5337-5700, www.asema.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. WPC extrusion from Cossets can be locally cut to length and fabricated so that is can readily be used to replace existing timber seating.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

Timber picnic settings come in all styles and use a range of timber types and sizes.

The timber picnic setting should be used where the park character is rustic and less formal.

The design is simple, chunky and robust with the seating fixed directly to the table for easier installation.



Style/Product Name	Timber Picnic Setting
Materials, Colours and Finish	<ul style="list-style-type: none"> • Various timber types and sizes but use timbers that are plantation grown or from sustainable sources only. • Do not apply any surface finishes
Placement and Installation	<ul style="list-style-type: none"> • Install into concealed concrete footings or bolt down onto concrete pads.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	In native bushland, parks, waterways and along linear reserves where picnicking is encouraged.
Current Suppliers	<ul style="list-style-type: none"> • Norwood Products, 1300 551 248, www.norwoodproducts.com.au • Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Various finishes have been applied after installation and are performing poorly. 2. Consider leaving all future settings raw. 3. Option for area beneath seat to be paved with granitic sand.

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

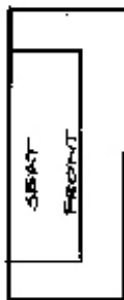
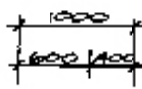
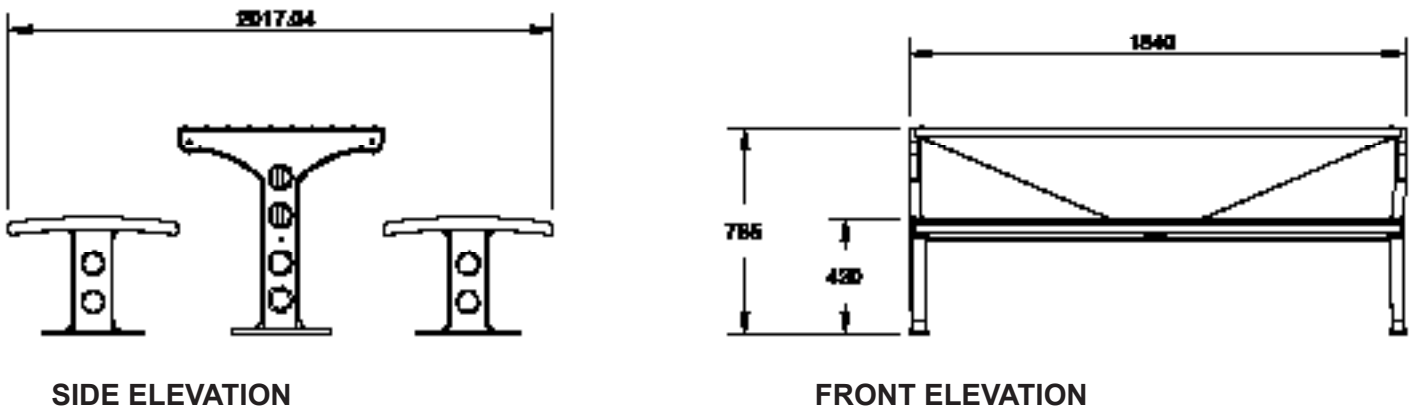
The Fiesta picnic table setting is part of the Fiesta range that has been in use in Ballarat for nearly 20 years.

The picnic table casting design was modified by the City of Ballarat and the table now also includes options for wheelchair accessibility at one end.

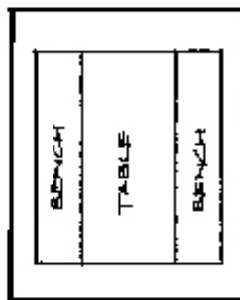
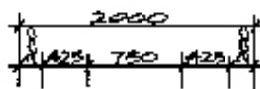
The setting includes two 400mm wide benches.



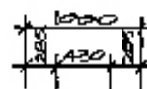
Style/Product Name	Furphy Fiesta Picnic Setting. (Furphy code Fiesta table FFSA003012, Fiesta wheelchair access FFSA003013)
Materials, Colours and Finish	<ul style="list-style-type: none"> • Cast aluminium ends powdercoated Brunswick Green • Hardwood timber battens with Kwila Oil finish
Placement and Installation	<ul style="list-style-type: none"> • Place close to facing paths, playgrounds, features and views • Bolt down onto concrete slab with dimensions of 2200 x 2000mm (as per 2.1)
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 4 - Infrequent: Annually • Painting Frequency 2 - Regular: 1-2 year intervals for timber • Painting Frequency 4 - Infrequent: 5 year+ intervals for cast ends
Recommended Use	In all recreational parklands as required but limit use and numbers to only where picnicking is encouraged.
Current Suppliers	Furphy Foundary (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. All orders should include the 400mm wide benches, not the 600mm wide bench option. 2. All current timber finishes and trails are performing poorly. Consider leaving future timbers raw.



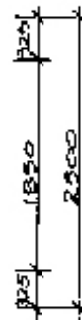
SEAT
POSITION BACK OF SEAT TO BACK OF SLAB



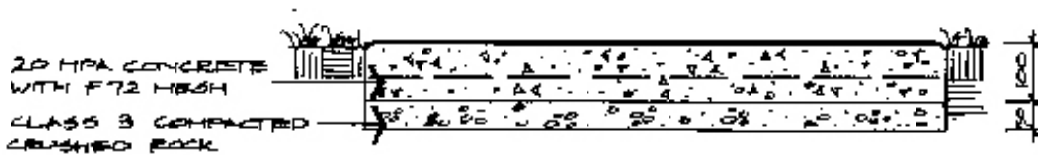
PICNIC TABLE SET
CENTRE TABLE OVER SLAB & BENCHES TO MEET EDGE OF TABLE



BENCH
CENTRE BENCH ON SLAB



CONCRETE SLAB DETAILS



SLAB NOTES:

- SLAB TO BE EXCAVATED TO FINISH LEVEL WITH SURROUNDING AREAS.
- F72 MESH TO BE PLACED CENTRALLY IN SLAB TO ALLOW FOR 50mm COVER.
- CONCRETE SLAB TO BE FINISHED WITH 'BROOMED' SURFACE & EDGES TO BE PENNIL ROUNDED.
- SLAB SIZES ARE DESIGNED TO SUIT THE CITY OF BALLARAT'S CUSTOMISED 'FIESTA' RANGE OF PARK FURNITURE BY FURPHY'S FOUNDRY.
- FIX FURNITURE TO SLAB USING 10 @ 40mm MASONRY DOWELS & BURR ENDS TO PREVENT THEFT.
- TOPSOIL & LAWN SEEDS TO BE REINSTATED TO FINISH FLUSH WITH SLABS.

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Lake Wendouree

DESIGN STATEMENT

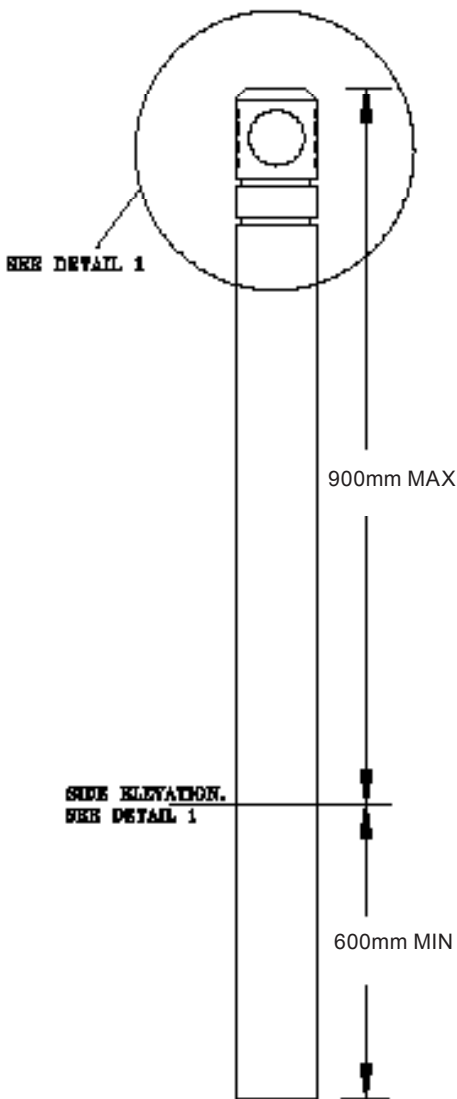
This square painted timber bollard has been designed by the City of Ballarat on a standard for all recreation parklands, streetscapes and sportsgrounds with heritage significance.

It has been in use for over 20 years and is used to prevent vehicle access, direct pedestrians and as a generic design for sign posts, and other items to be fixed to.

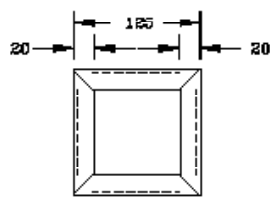


Style/Product Name	Painted Timber Bollards
Materials, Colours and Finish	<ul style="list-style-type: none"> • 100 x 100mm dressed Cypress Pine or similar approved sustainable plantation hardwood. • Chamfered top • Double rebate - 5mm rebate for delineators to all four sides. • 'Woodland Grey' colour in urban streetscapes • 'Brunswick Green' colour in parks and streets with parkland backdrops
Placement and Installation	<ul style="list-style-type: none"> • Concealed in concrete footing or consolidated earth as directed. • Max height out of ground to be 900mm
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 3 - Periodic: 3-5 year intervals
Recommended Use	In high profile heritage parkland settings where alternatives are not suitable
Current Suppliers	Barlings Woodworks Pty Ltd, Ph.9724 9600, www.barlings.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Paint and repaint with single colour ('Woodland Grey' / 'Brunswick Green') ie. do not paint rebates separately. 2. Install delineators to rebates as required after installation for visibility and safety.

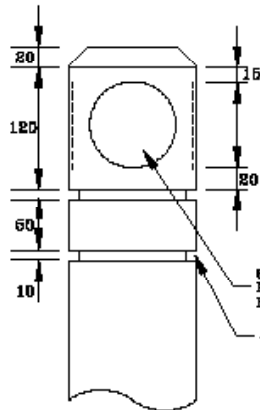
CONSTRUCTION DETAILS



Elevation
Not to scale



PLAN.



DETAIL 1

20 MPa CONCRETE
SLOPED AWAY FROM
POST.

50mm OF 20mm
SCREENINGS



FOOTING TO BE 300 X 300 X 500 DEEP

FOOTING DETAIL

NOTE:
COLOR SCHEME AS NOMINATED.
TIMBER TO BE SELECTED FROM CYPRESS
PINE, RED GUM.

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
- Type E: Sportsgrounds
- Type F: Native Bushland, Parks & Waterways
- Other

DESIGN STATEMENT

This wood plastic composite (WPC) extruded bollard is suitable for use across all types of parks. It is more durable and cheaper than some timber alternatives, and comes in various sizes with options for rebates and different tops.

The natural dark finish ensures it blends in with other park furniture that is painted green.



Style/Product Name	Cossets Evertuff™ Square bollard.
Materials, Colours and Finish	<ul style="list-style-type: none"> • Wood Plastic Composite extruded square post with pyramid top. • Rebates as required and optional sizes of 100x100, 125x125, 150x150mm.
Placement and Installation	<ul style="list-style-type: none"> • Concealed in concrete footing to finish below final surface level. • Clean immediately after installation.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	To protect trees, direct pedestrians and restrict vehicle access where low maintenance is a priority.
Current Suppliers	Cosset Industries Australia Pty Ltd Ph:1800 267738, www.cossett.com.au
Comments and Issues	1. Sizes to be determined to suit the location. For longer boundaries and lengths there are options to use galvanised rails or chains between posts (see PF104)

CONSTRUCTION DETAILS



Technical Specifications

EVERTUFF[®] EXTRUDED SQUARE BOLLARD

Primary Application

Protect your assets, the look of your project and the environment with Evertuff[®] Square Bollards from Cosset. They are easy to install and available in a range of options to suit any project. Not fire, rust free and vermin proof, Evertuff[®] Square Bollards are a long term investment particularly in harsh conditions.

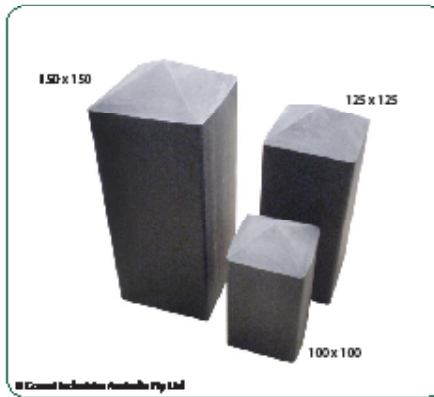
Suitable for deterring vehicle access, the recycled plastic bollard is extremely robust but, most importantly, unlike metal or wood alternatives, will remain robust for the life of the product. Evertuff[®] Square Bollards will also retain their highly aesthetic appearance for their lifetime.

Features

- Recycled co-mingled material means timber-like strength with no warping.
- Order pre-cut to length and therefore no wastage.
- Drilled, planed and cut with the same tools as timbers.
- Won't crack like concrete, rot like timber or rust like steel.
- Termite and white ant resistant to ensure longevity for your project.
- Superior life span with the advantage of retaining physical properties throughout entire product life.
- Non toxic – no chemicals like CCA treated timber.
- UV stabilised material guarantees longevity of product.
- Curved edges and protrusion free giving a safety first design.
- 98% recycled plastic and timber material means each metre of Evertuff[®] prevents kilograms of rubbish entering landfill and thus organisations can reduce their environmental footprints.
- Non permeable – can be fully submerged in water.
- Will not harbour vermin.
- Smooth finish and consistent colouring – unlike moulded methods, extrusion allows for a smooth wood-like finish and is far more colour consistent.
- It is stronger than pure plastic recycled products.
- Has a thermal barrier and hence will not freeze over or get too hot to touch.

All about Extruded Profiles

Cosset's Evertuff[®] 98% Recycled Wood Plastic Composite Extruded Profiles are a breakthrough for recycling and a win for reducing landfill. Using new technology, recycled plastic is compounded with waste wood and then continuously extruded through a die-cut profile – meaning it can be produced in any length up to 3000mm. The result is a far more cost effective and considerably stronger section than 100% recycled plastic alone.



SQUARE BOLLARDS

Options

- Available in standard charcoal only
- Square cut top (ST) or pyramidal top (PT)
- Hole for post & rail application
- Can be routed for an indentation
- In-ground sleeves available in all sizes, allowing the bollard to be removed

Models

Model Code
 Height/D Chart below
 Bollard D Inversions
 Height/D Chart below
 Bollard Top
 Square top – ST
 Pyramidal top – PT
 Bollard Length (BL)
 Shoulder Length (SL) or
 Bollard Hole (H)
 Maximum rail (CR) 60mm
 Add 'R' to model code.

Example :
 Cosset-ES-PH-1500-ST
 Cosset 100x100 square bollard,
 length 1500mm, square top

Example :
 Cosset-ES-PH4-1500-PT
 Cosset 125x125 square bollard,
 length 1500mm, pyramidal top
 and hole for rail

D Chart

Model Code	Bollard Size (mm)	Weight (kg/m)
ES-FB	100x100	10.15
ES-PB	125x125	15.85
ES-GB	150x150	22.63

For a custom Bollard made specifically for your organisation please contact Cosset on 1800-COSSET

How To Specify :

COSSET - ES - PH - BL - PT

Manufacturer Model Code Bollard Length Bollard Top

Please contact Cosset Industries Australia Pty Ltd on 1800 COSSET if further information is required. Document No. BC D12v2 Page 12

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
- Type E: Sportsgrounds
- Type F: Native Bushland, Parks & Waterways
- Other

DESIGN STATEMENT

The removable bollard is used to prevent vehicle access into parks other than for maintenance or emergency access.

It is of steel construction for durability and easy removal and replacement. It is locked into position into an inground sleeve to prevent indiscriminate removal and highly visible for emergency services.



Style/Product Name	Removable Bollard
Materials, Colours and Finish	<ul style="list-style-type: none"> • 90 x 90mm steel post with cap • 100 x 100mm bok steel sleeve • Welded fixing for padlock • Painted as shown or specified, or provide as galvanised finish
Placement and Installation	<ul style="list-style-type: none"> • Locate so that opening is no wider than 1500mm with bollard in but no less than 2400m with bollard removed. • Install sleeve into concrete footing in vertical position
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 3 - Periodic: 3-5 year intervals
Recommended Use	To provide access for maintenance and emergency services access in fences at reserve boundaries.
Current Suppliers	Lloyd's Metal Fabrication Pty Ltd, Ph. (03) 5339 9561, Lloydsmf@cbl.com.au
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

This wood plastic composite (WPC) extruded bollard is suitable for use across all types of parks. It is more durable and cheaper than some timber alternatives, and comes in various sizes with options for rebates and different tops.

The natural dark finish ensures it blends in with other park furniture that is painted green.

The optional rail provides an alternative method of creating a barrier for longer boundaries.



Style/Product Name	Cossets Evertuff™ Square bollard.
Materials, Colours and Finish	<ul style="list-style-type: none"> • WPC extruded square post with pyramid top • Rebates to post as required and optional sizes of 100x100, 125x125, 150x150mm • Galvanised pipe.
Placement and Installation	<ul style="list-style-type: none"> • Concealed cast concrete footing or consolidated earth as directed. • Clean immediately after installation.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	To protect trees, direct pedestrians & restrict vehicle access where low maintenance is a priority.
Current Suppliers	Cosset Industries Australia Pty Ltd Ph:1800 267738 www.cossett.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Options for rail to be painted 'Brunswick Green' in higher profile locations but maintenance will be increased. 2. Future post top detail to match City of Ballarat standard

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 North and South Gardens and High Profile Parklands

DESIGN STATEMENT

This simple timber post and wire rope fence provides a cost effective and formal method of securing parkland in high profile areas.

It can be customised to suit the space but usually includes unpainted timbers and 2-4 cables.



Style/Product Name	Timber Post and Wire Rope Fence
Materials, Colours and Finish	<ul style="list-style-type: none"> Timbers generally Cypress Pine or Australian Hardwood of various dimensions with a 10-25mm chamfered top 12-18mm galvanised fibre core wire rope Size of timbers, spacing and number of wire ropes to be specified to suit site.
Placement and Installation	<ul style="list-style-type: none"> Concealed concrete footings or consolidated earth as directed.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 1 - As Required Painting Frequency 5 - Not Applicable - if unstained
Recommended Use	Along reserve boundaries in 'high profile' parkland only
Current Suppliers	<ul style="list-style-type: none"> Barlings Woodworks Pty Ltd, Ph.9724 9600, www.barlings.com.au for timbers Keble's Trading Pty Ltd Ph. 1800 067 687, www.keblestrading.com.au for wire rope
Comments and Issues	<ol style="list-style-type: none"> Galvanised pipe stays may be required at fence ends and openings Swages, stoppers, tooling and other fixtures as recommended by suppliers to suit custom design. Future post top detailing to match City of Ballarat standard.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

The ‘Ranch Style’ timber post and rail fence is a traditional style rail fence suited to native bushland, parks and waterways where it prevents vehicle access and ties in with the character of those areas.

The style blends in well with the rustic timber suite that includes PF003 and PF006.



Style/Product Name	Traditional Post and Rail Fencing
Materials, Colours and Finish, Colours and Finish	<ul style="list-style-type: none"> • Timbers generally Cypress Pine or Australian Hardwood. Post and rails in various sizes but two rails preferred for Ballarat Parks. • Rough sawn untreated finish
Placement and Installation	Along reserve boundaries into concealed concrete footing or consolidated earth as directed.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 5 - Not Applicable • Painting Frequency 5 - Not Applicable
Recommended Use	Along reserve boundaries of high profile native bushland, parks and waterways
Current Suppliers	Norwood Products, 1300 551 248, www.norwoodproducts.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. Due to cost, cheaper alternative fencing options should be used for lower profile or longer boundaries (use PF 108 for boundaries longer than 50 metres).

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

Treated pine post and rails provide a low cost, efficient, effective and durable method of controlling vehicle access around parks and reserves.

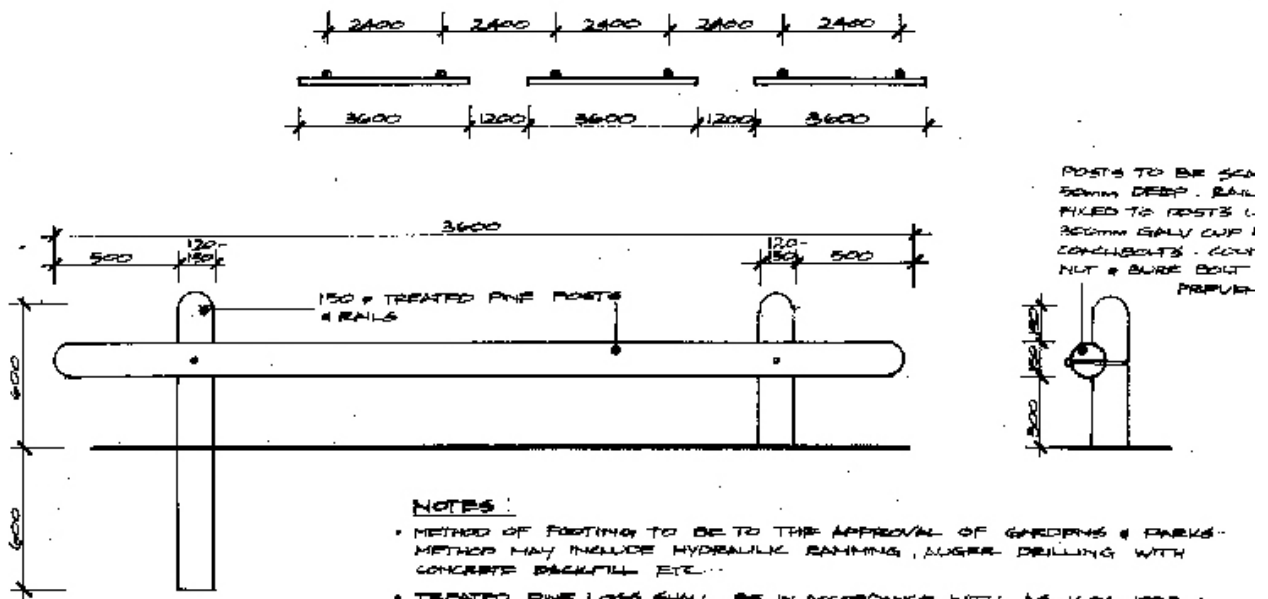
Technology advances ensure that they now have consistent sizes and appearances.

Openings between rails encourage pedestrian access and rails often provide seating options as a secondary function.



Style/Product Name	Pine Post and Rail Fencing
Materials, Colours and Finish	<ul style="list-style-type: none"> Lathed and domed 150mm treated pine post and rails. Rails (standard 3600mm lengths) scalloped into 1200mm posts with galvanised fixtures.
Placement and Installation	<ul style="list-style-type: none"> Locate to prevent vehicle access. Install with 1200-1500mm openings between rails into consolidated earth footings (no concrete) unless directed. Head of bolt to rail side.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 5 - Not Applicable Painting Frequency 5 - Not Applicable
Recommended Use	To prevent or deter vehicles along long boundaries or reserves.
Current Suppliers	Barlings Woodworks Pty Ltd, Ph.9724 9600, www.barlings.com.au
Comments and Issues	<ol style="list-style-type: none"> Progressively replace older style post and rails as they deteriorate Minimise concrete footings as they reduce capacity for relocation or re-use.

CONSTRUCTION DETAILS



NOTES:

- METHOD OF FOOTING TO BE TO THE APPROVAL OF GARDENS & PARKS - METHOD MAY INCLUDE HYDRAULIC RAMMING, AUGER DRILLING WITH CONCRETE BACKFILL ETC.
- TREATED PINE LOGS SHALL BE IN ACCORDANCE WITH AS 1604, 1993 & SHALL BE OF H4 CLASS. LOGS TO BE LATHED FOR CONSISTENT DIAMETER.
- ENDS OF RAILS & TOPS OF POSTS TO BE DOMED.

CITY OF BALLARAT GARDENS AND PARKS DEPARTMENT				
DWG. NO.	DETAIL	PINE LOG VEHICLE BARRIER		DRAWN BY: ADAM PARSONS
FC	LOCATION:	VARIOUS AS REQUIRED		SCALE: 1:20
				DATE: MAY 95

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

The purpose of this simple steel fence is to direct, deter and / or protect pedestrians. The height of the fence will depend upon the intended purpose and risk to the public.

It should generally be used where it replaces or is an alternative to the less attractive weldmesh type fencing.

It is non-scaleable so it is also suitable to prevent access for young children (eg. at playgrounds, near roads or waterways).



Style/Product Name	'Oxley Ring' Fence.
Materials, Colours and Finish	<ul style="list-style-type: none"> • 8mm, 10mm & 12mm Mild steel, 100UB structural steel. • Height to be between 900mm -1200mm as determined by Council. • 'Woodland Grey' colour in urban streetscapes • 'Brunswick' Green in streetscapes with parkland backdrops or parks
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 4 - Infrequent: 5 year+ intervals • If re-powdercoating take off-site
Recommended Use	In streetscapes and parks to deter, direct and protect pedestrians or park users as required.
Current Suppliers	A.R.C ph. 1800 336 237, www.arcfences.com.au or comparable approved supplier.
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

These 120 litre rubbish and recycle receptacles are the standard bin for use in high profile parks and reserves.

The bin is constructed from powder coated mild steel with punch perforated sheet panels including CoB logo on all faces.

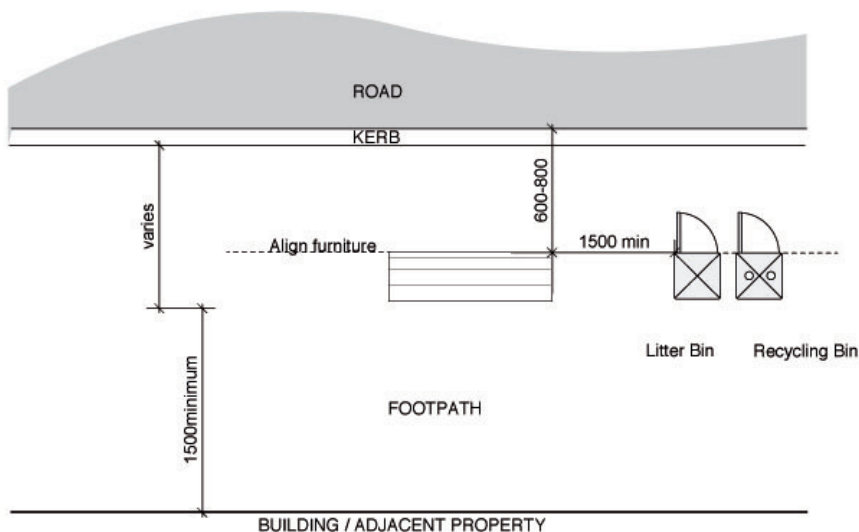
The pyramid lid and steel construction makes it easy to maintain and prevents water entering and birds perching on it.

The 120 litre size ensures that the visual impact of the receptacle is reduced.



Style/Product Name	<ul style="list-style-type: none"> Parks Rubbish and Recycle Receptacle (120 litres) Bin enclosure holds 120 litre plastic 'wheelie' bins.
Materials, Colours and Finish	<ul style="list-style-type: none"> Powder coated finish to body ('Brunswick' Green) Laser cut Logo to all sides and punched "Diamond" in steel panels.
Placement and Installation	<ul style="list-style-type: none"> Bolt down as per 4.1 Do not install recycle bins as stand alone units.
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 2 - Regular: 1-3 month intervals Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	In high profile parks and sportsgrounds as required. Generally do not install in local or neighbourhood parks without picnic facilities.
Current Suppliers	<ul style="list-style-type: none"> Asema International Pty Ltd, Ph. (03) 5337 5700, www.asema.com.au Furphy Foundary (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	<ol style="list-style-type: none"> Update City of Ballarat logo with future orders

CONSTRUCTION DETAILS

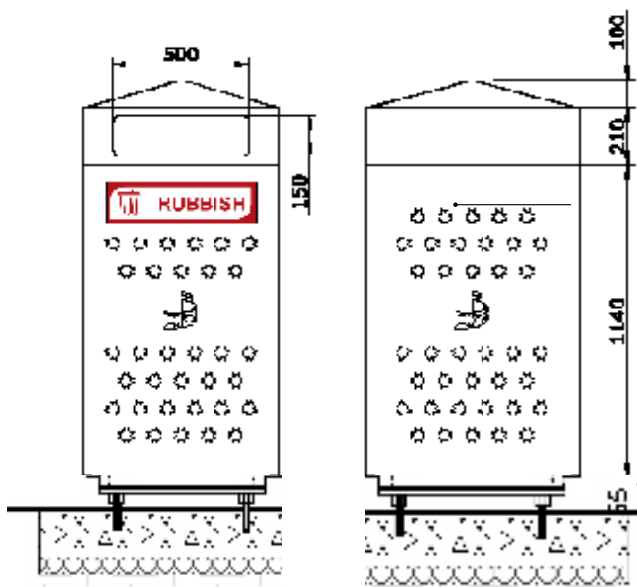


Indicative Layout Plan

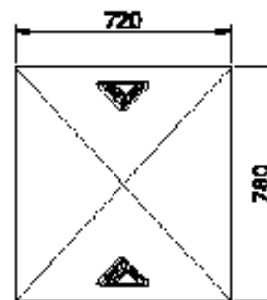
Not to scale



locking key



Standard Bin Elevation



Standard Bin Plan

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

These rubbish and recycle receptacles are the standard for use in parks where a larger bin (240 litre) is required.

Generally speaking the 120 litre bin receptacles (PF 201) is preferred as it is less bulky and has less visual impact, however in high profile parks such as Lake Wendouree and Victoria Park the larger enclosures are sometimes necessary to reduce the emptying frequency.



Style/Product Name	<ul style="list-style-type: none"> • Parks Rubbish and Recycle Receptacles (240 litres) • Bin enclosures hold 240 litre plastic 'wheelie' bins.
Materials, Colours and Finish	<ul style="list-style-type: none"> • Lid - Mild Steel Powdercoated "Brunswick Green" 1.6mm thick • Body - Mild Steel Powdercoated "Brunswick Green" 2mm thick • Hinges - Door Hinge 2 Off Stainless • Door lock - Quarter Turn to suit standard 7mm triangular female key • Pattern - City of Ballarat but may vary to suit installation • Mounting feet - 2 off Mounting feet to be adjustable and allowance for anchorage to a range of ground conditions. • Deflector Plate - A deflector plate is to be fitted to deflect rubbish to inside of wheelie bin. • Opening - One opening on door side or opposite door depending on site conditions. • Apply adhesive recycling logo as required
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per 4.1 • Do not install recycle bins as stand alone units
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 2 - Regular: 1-3 month intervals • Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	In high profile parks such as Lake Wendouree and Victoria Park as required.
Current Suppliers	<ul style="list-style-type: none"> • Asema International Pty Ltd, (03) 5337-5700, www.asema.com.au • Furphy Foundry (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	Update City of Ballarat logo with future orders.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
 Type E: Sportsgrounds
 Type F: Native Bushland, Parks & Waterways
 Other

DESIGN STATEMENT

The recycled plastic pole is for use in sportsgrounds and parks where rubbish and recycle bin receptacles are not warranted or are too costly to provide and service.

The plastipole is designed for 240 litre bins and has a slam locking mechanism to prevent theft and allow for easy servicing. The angle of the pole over the lid prevents the bin being used for larger garbage bags.



Style/Product Name	Cossets Plastipole Slam Lock - C-PP-SC-SL
Materials, Colours and Finish	As supplied
Placement and Installation	Locate in areas where service vehicles can readily access. Install into concrete footing at specified height out of ground.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 5 - Not Applicable
Recommended Use	In sportsgrounds and lower profile reserves for rubbish and recycle bins.
Current Suppliers	Cosset Industries Australia Pty Ltd Ph:1800 267738, www.cossett.com.au
Comments and Issues	<ol style="list-style-type: none"> 1. The plastipole will progressively replace all galvanised pole stands. 2. It will be used for 240 litre rubbish and recycle bins

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

This robust drinking fountain is wheelchair accessible and has options for both a dog bowl and a water tap.

The stainless steel top and bubbler are relatively maintenance free.



Note: Photo does not show tap and dog bowl options

Style/Product Name	Cascade Drinking Fountain - code FF SB 009 002
Materials, Colours and Finish	<ul style="list-style-type: none"> • Column is 165mm O/D Mild Steel Pipe • Stainless Steel bowl and perforated top and bubbler • Powdercoat steel Brunswick Green • Bolt down onto concrete pads as required
Placement and Installation	Locate in areas where service vehicles can readily access. Install into concrete footing at specified height out of ground.
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 3 - Periodic: 6 month intervals • Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	In parks and sportsgrounds as required.
Current Suppliers	Furphy Foundry (03) 5831 2777 www.furphyfoundry.com.au
Comments and Issues	1. Also available as an uprights fountain. Both types have options for a dog bowl and water tap.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
- Type E: Sportsgrounds
- Type F: Native Bushland, Parks & Waterways
- Other

DESIGN STATEMENT

The Reflex series has a contemporary appearance with high quality die cast aluminium lamp housing and roof support.

The optical system comprises of a shallow toughened tempered glass, polished and anodised aluminium reflector system. The reflection lens is fibreglass reinforced polyester resin.



Style/Product Name	<ul style="list-style-type: none"> • Reflex Roadway Calibre -Pedestrian Light
Materials	<ul style="list-style-type: none"> • Luminaire: Die-cast aluminium body and fibreglass polyester resin canopy. IP66 optical chamber with glass visor. • Front opening lockable door entry with 'Allen' style universal key lock operation.
Finish	<ul style="list-style-type: none"> • Polyester powder coated finish to luminaire ('Mid Brunswick Green') • Powder coated finish to post. ('Mid Brunswick Green').
Placement and Installation	<ul style="list-style-type: none"> • Bolt down as per manufacturers instructions.
Maintenance	<ul style="list-style-type: none"> • Painting Frequency 4 - Infrequent: 5 year+ intervals
Recommended Use	<ul style="list-style-type: none"> • High pedestrian use areas
Current Suppliers	<ul style="list-style-type: none"> • Sylvania Lighting Australasia(03) 9689 7833, www.sla.net.au
Comments and Issues	

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

The contemporary design skillion roofed shelter provides weather protection for BBQ and picnic facilities, or spectator viewing.

There are many design options to suit the function and character of the site, including size, colours, materials and screens on walls.

It is supplied prefabricated for easy installation.



Style/Product Name	Skillion Roof Picnic Shelter
Materials, Colours and Finish	<ul style="list-style-type: none"> Options for timber/steel posts and roof purlins (nominate colour) Colourbond roof (nominate colour) Screens as required
Placement and Installation	Usually fixed to stirrups on concrete slab
Maintenance	<ul style="list-style-type: none"> Cleaning Frequency 4 - Infrequent: Annually Painting Frequency 4 - Infrequent: 5 year+ intervals - only if timber is stained.
Recommended Use	As required for weather protection.
Current Suppliers	<ul style="list-style-type: none"> Landmark Ph. (03) 9533 2562, www.landmarkpro.com.au GR Design and Construct, Ph 1300 733 492, www.grdesignandconstruct.com.au
Comments and Issues	<ol style="list-style-type: none"> Do not install gutter unless directed.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland Type E: Sportsgrounds Type F: Native Bushland, Parks & Waterways Other

DESIGN STATEMENT

This is a simple design for a multiple use bike rack that can be modified as required to fit different numbers of bikes.

Whilst not fully complying with AS 2890-1993 it provides sufficient security and functionality to be used where multiple hoops (PF 701) are inadequate.



Style/Product Name	Multiple Bicycle Rail
Materials, Colours and Finish	Galvanised steel powdercoated / painted 'Brunswick Green', or Woodland Grey as required
Placement and Installation	Bolt down (as per 2.1) onto a concrete pad/footing as required
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required • Painting Frequency 3 - Periodic: 3-5 year intervals
Recommended Use	Cycling destinations where multiple bike racks are required
Current Suppliers	Various
Comments and Issues	1. If painting do not paint vertical steel that bike is secured to.

CONSTRUCTION DETAILS

APPLICABLE LOCATIONS

- Type D: Recreation Parkland
- Type E: Sportsgrounds
- Type F: Native Bushland, Parks & Waterways
- Other

DESIGN STATEMENT

This is a sculptural design for a multiple use bike rack that can be modified as required to fit different numbers of bikes.

This design is fully compliant with AS 2890-1993 and provides sufficient security and functionality to be used where multiple hoops (SF 401) are inadequate.



Style/Product Name	<ul style="list-style-type: none"> • Bicycle Rack - Multiple A.S.
Materials, Colours and Finish	<ul style="list-style-type: none"> • 50.8mm stainless steel tubing. Nominal spiral diameter of 800mm
Placement and Installation	<ul style="list-style-type: none"> • Inground footings of 500mm deep or • Bolt down (as per 2.1) onto a concrete pad/footing as required • Set spiral low point 20mm of ground level
Maintenance	<ul style="list-style-type: none"> • Cleaning Frequency 1 - As Required
Recommended Use	<ul style="list-style-type: none"> • Cycling destinations where multiple bike racks are required
Current Suppliers	<ul style="list-style-type: none"> • Various
Comments and Issues	

CONSTRUCTION DETAILS

SECTION 4 - INSTALLATION AND MAINTENANCE

4.1 Furniture Installation

The preferred installation method for street furniture elements will vary depending on the ground condition.

The installation methods and details of furniture also have the potential to affect the overall functionality, maintenance capacity and aesthetic of the furniture item or the respective area. It is therefore important that:

- Furniture is installed in a manner which prevents or deters theft or vandalism.
- Furniture is appropriately anchored, with engineering computations as required, so that it is stable and does not constitute a public safety hazard or risk.
- Where possible the item is bolted down or fixed so that it is readily accessible and removable for maintenance, cleansing or replacement.
- Surface finishes are integrated into the surrounding materials in a neat, clean, and consistent manner so that it doesn't appear that the furniture has been an afterthought.

While typical furniture set-outs and installation details are documented on the respective data sheets, critical site review is required prior to the placement or installation of each element.

Summary of Ground Conditions

Exposed concrete pad or footing

For this application a screw bolt or sleeve anchor is best. The suggested size for both involves drilling a 12mm diameter hole. The length of the fasteners may need to be adjusted depending on the thickness of the concrete pad.

Bluestone paving

Attaching to bluestone pavers should be avoided if possible. If required the application is similar to the exposed concrete pad with the exception that some care is required when drilling the holes. As a general rule drilling into bluestone should be slower and cooled away from the edge of the paver to avoid cracking.

Asphalt overlaying a concrete base

As the condition under the asphalt is generally unknown it is recommended that a hole be drilled at 12mm diameter to determine the condition of the underlayers. For an underlayer of concrete the methods above are appropriate.

Asphalt overlaying a compressed dirt base

If upon drilling the hole it is found that the underlayers consist of compressed dirt or crushed rock then the installer has two options.

- Dig up area and install a concrete pad.
- Grout in an allthread anchor as per instructions below. This method is not as strong as anchorage to concrete but if done correctly should be adequate.

If the underlay material is not compacted or excessively muddy then the location should be treated accordingly with a concrete pad or footing instead.

Soil

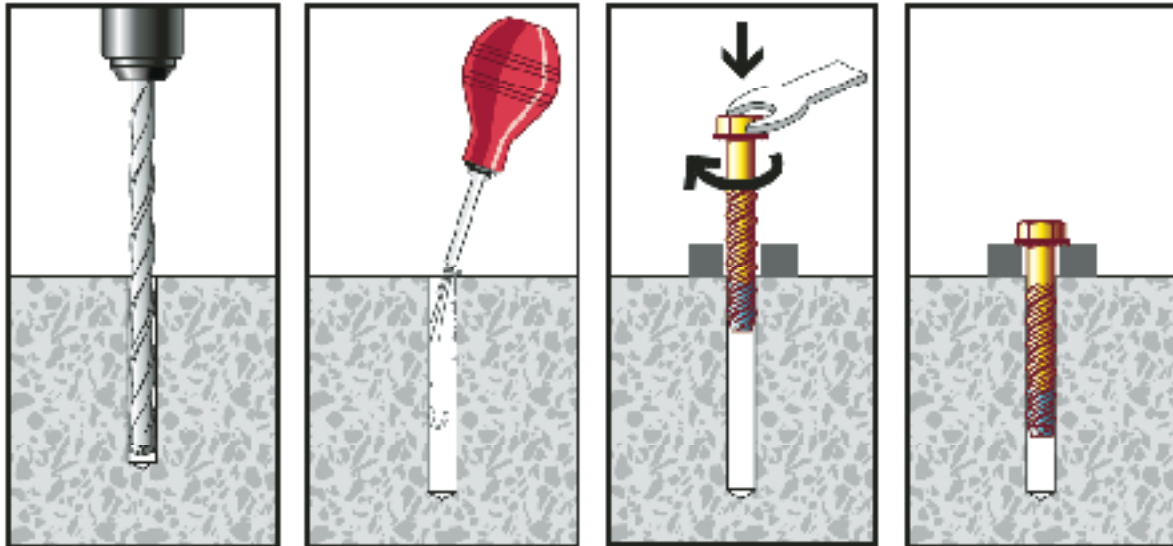
Where soil alone exists it is recommended that a concrete pad or footing be installed.

Fixing Methods:

Screw Bolts

Details for the installation of screw bolts and the recommended size are shown below:

Installation procedures



Using the proper diameter bit, drill a hole into the base material to a depth of at least 10mm or one anchor diameter deeper than the embedment required.

Blow the hole clear of dust and other material.

Carbon steel, mechanically galvanised Blue-Tip SCREW-BOLT™



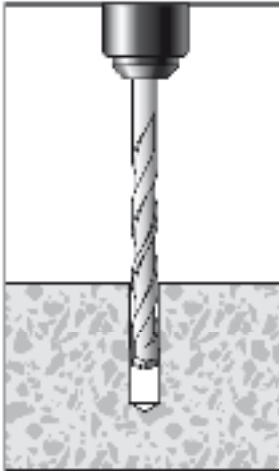
Mechanically plated Blue-Tip SCREW-BOLT™ anchors are manufactured from steel which has a mechanically galvanised coating.

Part No	Drill Ø mm	Length mm	Thread length mm	Minimum embedment mm	Maximum finishing thickness mm	Clearance hole Ø mm	Box Qty	Carton Qty
ETC650	6	60	44.5	25	25	7	100	500
ETG6500		30	23.5		5		100	500
ETG6660	6.5	60	44.5	25	25	6	100	500
ETG6575		75	70		30		50	250
ETG6100		100	95		75		50	250
ETG850		60	44.5		15		50	250
ETG875	8	75	70	35	40	10	50	250
ETG8100		100	95		35		50	250
ETG1050		60	64		20		50	250
ETG1075	10	75	70	40	35	12	50	250
ETG10100		100	95		30	12	50	250
ETG10120		120	95		30		50	250
ETG1275		75	70		25		50	150
ETG12100	12	100	95	60	50	15	50	100
ETG12150		150	95		100		25	75
ETG16100	16	100	95	65	35	19	15	60
ETG16150		150	95		35		15	60

Sleeve Anchor Bolts

There are a number of different brands and styles of this type of anchor. The following shows the installation and recommended size for this application. Equivalent types are equally permissible.

Installation procedure



Using the proper diameter bit, drill a hole into the base material to a depth of at least 3mm or one anchor diameter deeper than the embedment required.



Blow the hole clean of dust and other material. Do not expand the anchor prior to installation.



Drive the anchor through the fixture into the anchor hole until the head is firmly seated against the fixture. Be sure the anchor is driven to the required embedment depth.



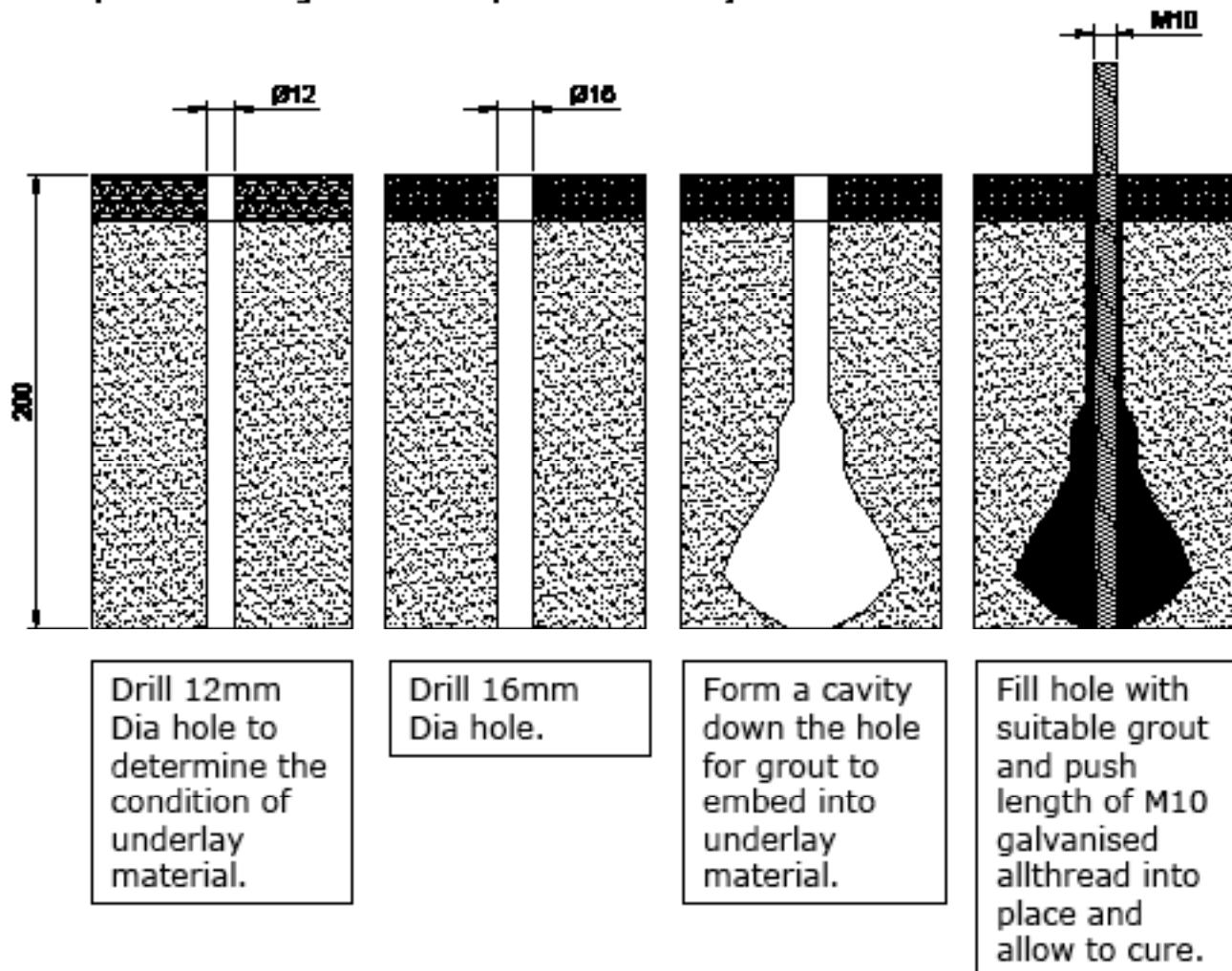
Tighten the anchor by turning the head 3 to 4 turns or by applying the guide installation torque from the finger tight position.

Part No	Description	Drill Ø mm	Fixture clearance Ø mm	Embed. Depth mm	Fixture thickness mm	Box qty	Carton qty
HS8510	6.5 x 20mm			16	3		
HS8525	6.5 x 25mm			20	5		
HS8536	6.5 x 36mm	6.5	8	30	5	100	1000
HS8556	6.5 x 56mm			30	25		
HS8575	6.5 x 75mm			30	45		
HS9540	8 x 40mm			35	5	100	1000
HS9556	8 x 56mm	8	10	35	30	50	500
HS9566	8 x 66mm			35	50	50	500
HS1050	10 x 40mm			34	5		500
HS1050	10 x 60mm			40	10		500
HS1060	10 x 60mm			40	20		500
HS1075	10 x 75mm	10	12	40	35	50	500
HS1095	10 x 95mm			40	55		400
HS10120	10 x 120mm			40	80		300
HS1260	12 x 60mm				10	50	400
HS1275	12 x 75mm	12	14	50	25	25	250
HS12100	12 x 100mm				50	25	250
HS12130	12 x 130mm				80	25	200
HS1695	16 x 65mm				10	25	200
HS16110	16 x 110mm	16	18	55	55	10	100
HS16145	16 x 145mm				90	10	100
HS2075	20 x 75mm				15	10	100
HS20106	20 x 106mm	20	22	60	45	10	60
HS20150	20 x 150mm				90	10	60



Grouted in Allthread Fastener

For asphalt covering with a compacted underlay



There are a number of suitable grout materials that are suitable for this application.

"liquid nails – Landscape Version" has been found to be adequate for this application.

Alternatives

As each site is different and there is a number of proprietary products on the market it is assumed that the installer will use their expertise and judgment in determining the most appropriate method using the above information as a guide.

4.2 Furniture Maintenance

Each of the following furniture data sheets (Section 2.0) includes an indication of the preferred maintenance frequency for each element. The aim has been to determine a maintenance frequency that optimises the life expectancy of the individual element and ensures that it is presenting and functioning to a satisfactory level.

In principle proactive, rather than reactive, maintenance procedures are more efficient and potentially extend the useful life of furniture assets. Proactive maintenance relies on regular inspections and good recording and tracking procedures to determine what works are needed now or are likely into the future.

It is recommended that as part of Council's asset management system, every individual item of street and park furniture be inspected annually to determine the condition and any repair or maintenance works that are required to be carried out in the next twelve months.

It is recognised that in some instances the maintenance frequency nominated may exceed Council's current resourcing capacity and that in the future, higher levels of maintenance may be required to preserve the assets.

As an example, there is currently no program for the cleaning of bin surrounds. Bin surrounds are subject to significant food spillage and road grime which not only presents very poorly but quickly deteriorates the surface finishes of the surrounds. Regular cleaning of bin surrounds would not only significantly improve the presentation of the streetscape, but will also increase the durability of the surrounds, thereby reducing asset renewal costs.

Cleaning Frequencies

Cleaning of street and park furniture will typically include the removal of cobwebs, scuff marks, food and drink spills and stains and dust and dirt.

It will usually be best removed by either pressure cleaning with soapy water, brushing, scrubbing or wiping with non abrasive rags and cleansers.

The best method of cleansing removal will need to be determined by the contractor upon inspection of the furniture.

Typical Cleaning Frequencies (CF) nominated on the data sheets include:

CF1 - As Required

CF2 - Regular: 1-3 month intervals

CF3 - Periodic: 6 month intervals

CF4 - Infrequent: Annually

CF5 - Not Applicable

Painting Frequencies

The most appropriate painting methods and products need to be determined by the contractors by identifying the existing paint types and finishes of the respective furniture item. Some surface finishes may need to be touched up or attended to on site, whilst others may need to be removed and repainted off site (eg sandblasting and powder coating)

Typical Painting Frequencies (PF) nominated on the data sheets include:

PF1 - As Required

PF2 - Regular: 1-2 year intervals

PF3 - Periodic: 3-5 year intervals

PF4 - Infrequent: 5 year+ intervals

PF5 - Not Applicable

Graffiti Removal

Whilst the design of furniture and materials selection has considered its resistance to graffiti, and in particular 'tagging', the occurrence of graffiti on street and park furniture is an increasing problem and concern for Council and the community.

The presence of graffiti on street furniture tends to have the effect of encouraging other tagging and it is therefore important to remove it as quickly as possible.

The use of anti-graffiti coatings add considerable cost to the fabrication of street furniture and, given that they need to be reapplied after each graffiti removal incident, also to the ongoing maintenance costs of the asset. Anti-graffiti coatings are therefore not considered a cost effective option for graffiti deterrence at the present time.

Council's current and preferred methods of graffiti removal include:

- the use of 'Graffiti Wipes'
- the use of citrus based cleansers (eg Guardian International non toxic products) and non abrasive cloths
- the use of abrasive cloths, scrubbing and other solvents only where the above methods are unsuccessful.
- Other methods of graffiti removal may be required for other materials such as the wood plastic composites where light sanding or brushing with a wire brush is often the recommended method of graffiti removal by the suppliers.
- In all circumstances graffiti should be removed 'As Required' using the 'softest' and least invasive method possible.

Vandalism and Damage

All furniture has been designed and located with consideration of its resistance to vandalism and accidental damage. Street and parks however are high use public spaces and so it is unfortunately inevitable that furniture will at times be the target of vandalism and accidental damage (eg vehicles running into them).

Council's asset management standards require that vandalised or damaged furniture be fixed, removed, or replaced as soon as practical after it has been brought to Council's attention.

The majority of the street and park furniture is bolt down to assist with this task, and to allow for it to be readily removed, fixed off site and replaced as required.