

An aerial photograph of the town of Broken Hill, Australia. The image shows a dense residential area with many houses, interspersed with trees. In the center, a prominent red-roofed church with a tall spire stands out. To the right, a wide, empty street runs through the town. In the background, rolling hills and a tall communication tower are visible under a clear sky. A large red triangle is overlaid on the bottom left of the image, containing the title text. A blue-tinted area is visible on the right side of the image.

BROKEN HILL DEVELOPMENT CONTROL PLAN 2016

BROKEN HILL

CITY COUNCIL

**AUSTRALIA'S FIRST
HERITAGE LISTED CITY**

QUALITY CONTROL			
KEY DIRECTION	Our Community		
OBJECTIVE	1.4 Our built environment supports our quality of life		
FUNCTION	Built Environment		
STRATEGY	1.4.1 Maintain the character of our historic City through good design		
FILE REFERENCE No	11/126	TRIM No	D16/42827
RESPONSIBLE OFFICER	Manager Planning, Development and Compliance		
REVIEW DATE	July 2021		
DOUMENT HISTORY	ACTION	DATE	
Council resolved to prepare draft DCP	Resolution	26 August 2015	
Notice of intent to exhibit issued	Notice issued	29 June 2016	
Draft DCP exhibited	Exhibited	6 July 2016 – 2 August 2016	
DATE	ACTION	MINUTE No	
2016	Public Exhibition		
26 October 2016	Adopted by Council	45292	
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This Plan was compiled by Broken Hill City Council and Zenith Town Planning Consultants.

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1. INTRODUCTION

1.1 Preface

This plan is called the *Broken Hill Development Control Plan (DCP) 2016* and is referred to as the Plan in this document.

1.1.1 Application

This plan applies to all land subject to *Broken Hill Local Environmental Plan (LEP) 2013* and zoned:

- RU2 Rural Landscape
- R1 General Residential
- B1 Neighbourhood Centre
- B2 Local Centre
- B4 Mixed Use
- IN1 General Industrial
- IN2 Light Industrial
- SP1 Special Activities
- SP2 Infrastructure
- SP3 Tourist
- RE1 Public Recreation
- RE2 Private Recreation
- E2 Environmental Conservation
- E4 Environmental Living

1.1.2 Purpose

The purpose of this plan is to guide development within Broken Hill local government area (LGA) consistent with the aims and objectives of *Broken Hill LEP 2013*. It contains objectives and development controls that expand upon the requirements of *Broken Hill LEP 2013* and that are to be considered in addition to the LEP when preparing a proposal to develop land in Broken Hill LGA.

Broken Hill DCP 2016 has been prepared by Broken Hill City Council in accordance with the *Environmental Planning and Assessment Act 1979* and was adopted by Council on Wednesday 26 October 2016.

Upon taking effect this plan repeals the following DCPs:

- DCP No. 1 Residential Development
- DCP No.2 Commercial Development
- DCP No. 3 Heritage Development
- DCP No. 4 Industrial Development
- DCP No. 5 Notification
- DCP No. 6 Outdoor Advertising
- DCP No. 7 Keeping of Horses
- DCP No. 8 Rural Small Holdings
- DCP No. 10 Contaminated Lands (other than lead contamination)
- DCP No. 11 Management of Lead Contamination
- DCP No 12 Stormwater Collection, Usage and Disposal

1.1.3 Savings provisions

This Plan does not apply to any development application or application for a modification to a development application submitted under section 96 of the *Environmental Planning and Assessment Act (EP&A Act) 1979* that was lodged prior to the date of commencement of this Plan. Any application lodged before the commencement of this plan will be assessed in accordance with the development control plan(s) or policy(s) which applied to the site at the time the application was lodged.

1.1.4 How to use this Plan

The Plan consists of this written document and includes all sketches, diagrams, illustrations and maps. It comprises an introduction with separate chapters covering subdivision, building, car parking and access, and outdoor advertising. The code is structured so that each design consideration is addressed by objectives and controls.

The **objectives** are goals for what should eventuate on the ground as the final product of the land development process. It is an essential consideration when designing a subdivision or building to ensure that new development is appropriate to a site and neighbourhood.

Design guidance is given for some types of development. This is intended to assist site planning, building design and other considerations when planning new development.

Controls are the specific requirements of Council that are to be fulfilled in development plans. They may be varied on merit where it can be clearly demonstrated that the statement of intent for the design element is still being achieved, where site constraints are such that compliance with controls is not possible or where extenuating circumstances exist. See *1.3.3 Requests to vary acceptable solutions* for procedures to follow when seeking to vary the controls of this Plan. Council may accept other solutions where the objectives are satisfied.

1.1.5 Format

The plan comprises the following chapters:

Chapter 1 – Introduction. This chapter provides information about the application of the Plan, how to use the plan, and matters of governance relating to assessment procedures and the notification of development applications.

Chapter 2 – Subdivision. This chapter contains guidance for the subdivision of land for rural living.

Chapter 3 – Building. This chapter contains zone-based guidance for new buildings in rural, residential, business and industrial areas, and alterations and additions to existing buildings.

Chapter 4 – Parking and access. This chapter contains guidance for access arrangements and the provision of car parking. This chapter applies to all development in Broken Hill LGA.

Chapter 5 – Outdoor advertising. This chapter contains guidance for the design and placement of signage.

Chapter 6 – Land contamination.

Chapter 7 – Tree preservation.

Chapter 8 – Heritage conservation.

1.1.6 Definitions

This plan adopts all definitions contained in the Dictionary to *Broken Hill LEP 2013*. In addition, definitions relating to specific aspects of development are included where necessary throughout this plan.

1.2 The Planning Context

1.2.1 The hierarchy of plans and policies

Planning in NSW is governed by the *Environmental Planning and Assessment Act 1979*. Provisions of the Act establish a hierarchy of environmental planning instruments and policies. These are State Environmental Planning Policies (SEPP), Local Environmental Plans (LEP) and Development Control Plans (DCP). SEPPs and LEPs are known as environmental planning instruments.

A SEPP is a legal document that generally deals with a specific type of development, such as infrastructure, or exempt and complying development, or applies to a specified area of land, such as the coastal zone.

An LEP is a legal document that sets the planning framework at a local level by specifying land use zones, the uses that are permitted or prohibited in those zones, certain development standards and provisions relating to heritage conservation, environmental protection and the like. *Broken Hill LEP 2013* is the plan that is in force in Broken Hill LGA.

A DCP is Council policy that provides further guidance to the provisions of the LEP. It contains objectives and controls for subdivision, building design, engineering matters and the like. It is not a statutory plan but is a legal consideration in the assessment of a development application.

The Department of Planning & Environment has also issued regional strategies for some areas of NSW to give high level guidance to planning and development. At the time of adoption of the Plan a regional strategy had not been prepared for Broken Hill LGA.

1.2.2 The assessment process

A development application is required to be lodged for development that is permitted with consent under *Broken Hill LEP 2013*. This is known as local development. Other types of development are exempt (where an approval is not required), complying (where the proposal complies with set standards and approval by Council or a private certifier is provided within 10 days), designated development (which must be accompanied by an environmental impact statement) and integrated development (where the approval of another statutory authority is required in addition to approval by Council or a Joint Regional Planning Panel). Any consent issued under integrated development also includes the general terms of approval from those other agencies.

Council is required to assess a development application in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979*. Section 79C of the Act requires Council to consider the provisions of any environmental planning instruments that apply to the land, including State Environmental Planning Policies (SEPP) and the *Broken Hill LEP 2013*, as well as any potential economic, social and ecological impacts, the suitability of the site for the proposed development, submissions made by interested persons and the public interest.

The provisions of all SEPPs and *Broken Hill LEP 2013* prevail over this plan. In the event that a SEPP (e.g. *SEPP (Infrastructure) 2008* or *SEPP (Exempt and Complying Development Codes) 2008*) or the LEP applies to a certain land use and enables that use as either exempt or complying development subject to specified development standards, then that environmental planning instrument enables that land use to proceed without the need for the consent of Council.

The controls contained in this Plan only apply where a development application is lodged with Broken Hill City Council for a particular land use and where those controls do not conflict with the provisions of an environmental planning instrument. Council reserves the right to refuse a development application or to require modification of the development being proposed, even where it complies with acceptable solutions, if Council considers that the proposed development will conflict with or lead to an inconsistency with the desired outcomes as expressed in the relevant statement of intent.

Broken Hill City Council encourages a flexible approach to land development so that new development is innovative and adaptive without causing any adverse effect on the amenity of residents or the local environment.

Council recommends that independent legal or town planning advice should always be sought prior to making a property purchase or an investment decision. The information in this plan should not be solely relied upon in reaching a decision to purchase a property or to embark on a development project.

1.2.3 Ecologically sustainable development

Ecologically Sustainable Development is defined as:-

"using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased."

Broken Hill City Council, as part of its charter, has responsibilities to ensure that all of its functions and decision-making processes take account of the principles of ESD. This means that Council must consider the following principles prior to carrying out any of the functions for which it has responsibility:

- **Precautionary Principle** - *"This principle requires that lack of scientific certainty is not used as a reason for postponing measures to prevent environmental degradation."*
- **Inter-generational Equity** - *"Requires that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations."*
- **Conservation of Biological Diversity and Ecological Integrity** - *"is the fundamental consideration of ESD to promote human well-being through the maintenance of ecological services and the protection of intrinsic environmental values."*
- **Improved Valuation, Pricing and Incentive Mechanisms** - *"Requires that environmental factors be included in the valuation of assets and services such that the principles of - user pays, payment for full lifecycle of goods – including disposal of wastes, and the cost effective achievement of environmental goals."*

1.3 Making A Development Application

It is important that a meeting be held with Council staff in the first instance and before preparing development plans to identify the level of information that is to be submitted with a development application. Missing or incomplete documentation may cause delays in the assessment of a development application.

Depending on the type and scale of the development being proposed and the nature of the property, specific assessments may be required to be submitted with the development application that address potential impacts of the proposed development. These may be required to address:

- Traffic management and car parking,
- Noise and other emissions,
- Flora and fauna,
- Bushfire protection,
- Indigenous or non-indigenous heritage,
- Geotechnical features,
- Overshadowing,
- Visual and scenic values,
- Soil Contamination, and
- Waste Management.

1.3.1 Documentation

Information to be submitted with a development application is specified in Schedule 1 of the *Environmental Planning and Assessment Regulation 2000*. As a minimum a development application is to be accompanied by a site plan and building plans drawn to a scale of 1:100 or 1:200, and a statement of environmental effects.

The site plan is to show:

- (a) the location, boundary dimensions, site area and north point of the land,
- (b) existing vegetation and trees on the land,
- (c) the location and uses of existing buildings on the land,
- (d) existing levels of the land in relation to buildings and roads, and
- (e) the location and uses of buildings on sites adjoining the land.

Building plans are to show:

- (a) the location of any proposed buildings or works (including extensions or additions to existing buildings or works) in relation to the land's boundaries and adjoining development,
- (b) floor plans of any proposed buildings showing layout, partitioning, room sizes and intended uses of each part of the building,
- (c) elevations and sections showing proposed external finishes and heights of any proposed buildings. For temporary structures elevations and sections showing heights and building materials,
- (d) proposed finished levels of the land in relation to existing and proposed buildings and roads,

- (e) proposed parking arrangements, entry and exit points for vehicles, and provision for movement of vehicles within the site (including dimensions where appropriate),
- (f) proposed landscaping and treatment of the land (indicating plant types and their height and maturity),
- (g) the proposed location, dimensions and contents of advertising and signage,
- (h) proposed methods of draining the land, and
- (i) a BASIX certificate if required (see 1.3.2 BASIX).

The statement of environmental effects is to address:

- (a) the environmental impacts of the development,
- (b) how the environmental impacts of the development have been identified,
- (c) the steps to be taken to protect the environment or to lessen the expected harm to the environment,
- (d) any matters required to be indicated by any guidelines issued by the Director-General of the Department of Planning and Infrastructure.

In the case of subdivision, a proposed plan of subdivision and preliminary engineering drawings of the work to be carried out are to be submitted with the development application.

If an application for a construction certificate is made at the same time as a development application then detailed construction plans and building specifications are also required to be submitted with a report indicating compliance with the Building Code of Australia and relevant Australian Standards. Alternatively, compliance may be shown on plans and specifications.

1.3.2 BASIX

BASIX is an on-line program that assesses dwelling design against energy and water reduction targets. If these targets are satisfied a BASIX Certificate is issued. The BASIX Certificate is required to be submitted with a development application for all developments which contain new residential dwellings or alterations and additions to a dwelling.

BASIX uses information such as site location, house size, type of building materials and fittings for hot water, cooling and heating. 'Commitments' that are made to achieving energy and water reduction targets are shown on the BASIX certificate and must be marked on building plans that accompany the DA. These commitments are to be adhered to during the building process. Any changes made to the dwelling design means another BASIX assessment must be completed and a new BASIX Certificate submitted to Council.

The BASIX Certificate should also be attached to an application for a construction certificate and ensure all BASIX commitments are shown on the plans. It should also be attached to an application for an occupation certificate. Council will only issue an occupation certificate when satisfied that the project has been built as described on the BASIX Certificate.

To obtain a BASIX assessment go to www.basix.nsw.gov.au and enter details of your building plans.

1.3.3 Requests to vary acceptable solutions

Development proposals that comply with controls are generally processed without delay, minimising costs to the applicant. However, Council may consider varying acceptable solutions where the proposed development still satisfies the relevant statement of intent and performance criteria, or site conditions make compliance difficult.

A request to vary an acceptable solution must be in writing and specify the control to be varied and details in support of the variation that demonstrate how the relevant statement of intent and performance criteria will still be achieved.

In some circumstances, such as where the acceptable solution makes reference to a requirement of legislation, State policy or an environmental planning instrument (SEPP or LEP), it is not possible for Council to vary the acceptable solution.

1.4 Advertising And Notification

1.4.1 Notification policy

For certain development proposals Broken Hill City Council notifies the owners of land that is adjoining and adjacent to the site where an application for development has been received. Council gives notice of development applications where the proposed development has the potential to adversely affect surrounding properties, the amenity of the neighbourhood, or the natural environment. Council determines the circumstances where notification takes place having regard to the relevant land use zone, the proposed development and consistency with the zone objectives. Examples of such development are:

- keeping of animals other than companion animals,
- professional consulting rooms in a residential area,
- development of an industrial or commercial nature within an area which, in the opinion of Council, has the potential for detrimental impacts upon the surrounding neighbourhood,
- a building that is two or more storeys in height above natural ground level in a residential zone,
- non-residential use within a residential zone that is likely to interfere with the amenity of the neighbourhood,
- residential dwellings and class 10 structures within 500 mm of a side or rear boundary,
- integrated development that requires the approval and/or licencing from other agencies, and
- a public monument or memorial located in a public space.

1.4.2 Notification procedures

Certain development types are classified as 'advertised development' or 'designated development' in the *Environmental Planning and Assessment Regulation 2000*. The procedures for the notification of a development application for these types of development are specified in the Regulation.

Applications for all other types of developments will be available for viewing at Council's offices for a minimum period of between 14 and 28 days as advised by letter or notice published in newspaper or a notice placed on-site (depending on the relevant form of notification undertaken by Council).

Submissions will be received during the exhibition period, and up until the submission closing date as advised by letter or notice published in newspaper or a notice placed on-site (depending on the relevant form of notification undertaken by Council). Council maintains discretion to extend the notification period if considered necessary. Council will also place an advertisement in local newspapers if the development is of a scale that may warrant broader community input due to the potential effects of that development.

The extent and form of notification is carried out in accordance with the table below.

Type of Development	Notification
Where, in Council's opinion, it is believed the likelihood of nuisance from the proposed development to the surrounding neighbourhood is low	Council will notify by letter, the owners of properties within a 25-50 metre radius
Where there is a greater risk of nuisance from the proposed development to the surrounding neighbours	Council will notify by letter, the owners of properties within a 100 metre radius
Residential 1(a) & Class 10(a) buildings. Buildings within 500mm of side or rear boundaries	Council will notify by letter, the owners of the adjoining property. Neighbours separated by laneways and streets will not be notified
Keeping of animals other than companion animals	Council will notify by letter, the owners of properties within a 200 metre radius
Public Monuments and Memorials located on a public space Any development where, in the opinion of Council, a development because of its size, scale or location, is believed that it is in the public interest to do so	<ul style="list-style-type: none"> • A notice will be placed on-site (In the event that the notice is accidentally removed or displaced prior to the expiry of the exhibition period, the notice is taken to have been erected in accordance with this Plan), • Notice published in a local newspaper (The notification period commences from the day after which the notice is first published in the newspaper), and • Letters will be sent to the owners of adjoining properties and other owners of land the enjoyment of which (in Council's opinion) may be detrimentally affected if the development is carried out.
Complying development	Not required

1.4.3 Making a submission

Submissions are letters, petitions or similar written representations from individuals or groups of people regarding a particular development application. Submissions should be in writing and may support or object to a development application, or suggest changes or alternatives to the proposal. All submissions received by the Council shall be in writing, and include the following information as a minimum:

- The location of the proposed development (and the Development Application number where known)
- The address of the person making the submission (so notice of the determination of the application can be sent by Council)
- The grounds of the submission, including how the development would detrimentally affect the enjoyment of land

Council's assessment of an application involves considering the merits of all relevant matters raised in submissions. However, Council is not bound to adopt a suggestion or support an objection when making its determination on the application.

Submissions may be made up until the close of Council offices on the last day of the notification period as specified in the letter or advertisement. Submissions can be sent to the following addresses:

- By mail to: The General Manager
Broken Hill City Council
P.O. Box 448
Broken Hill NSW 2880
- By facsimile to (08) 8080 3424

- By email to council@brokenhill.nsw.gov.au

2. SUBDIVISION

2.1 Subdivision For Rural Living

Objectives

- to enable development for the purposes of rural living to be carried out on the land,
- to maintain a high degree of environmental quality and minimum conflict between rural living land use and the rural activities and amenity within the area,
- to prevent land degradation and ensure that development is carried out in a manner which protects, enhances and does not adversely affect the environmental qualities of the land or adjoining land,
- to ensure that rural living development is well designed and located,
- to ensure that development is adequately serviced and not placing a strain on public services or those of other service providers,
- to ensure rural living development meets the relevant objectives of *Broken Hill LEP 2013*,
- to provide land suitable for the cohabitation of rural living land use with the use of land for stables and the keeping of horses generally,
- to provide a wide range of rural living choices,
- to ensure that allotments created in a rural living subdivision provide potential building sites with minimal risk of damage by bush fires or flooding, and
- to ensure that developments comply with the provisions of the Threatened Species Conservation Act, 1995.

Controls

- An application for rural living subdivision should include a site analysis that considers:
 - drainage - areas which are flat and/or low lying may sometimes have poor drainage which, in times of high rainfall, could affect access to properties and/or onsite disposal of sewage,
 - slope - excessive slopes should be avoided as they are potentially unstable and increase the cost of housing,
 - landscape/habitat significance – rural living development should not be located in areas of habitat or landscape significance. The applicant must take into account the impact of the proposal and in particular the provisions of the Threatened Species Conservation Act 1995,
 - provision of services - the adequacy of existing services and the feasibility of extending services to the proposed development if necessary, and
 - compatibility with adjoining land uses - buffer zones may be required due to the practice of spraying of agricultural chemicals as part of rural land uses.
- The subdivision layout should provide for:

- proper spacing of access points to an existing road to allow for appropriate visibility setbacks. Spacing between access points would generally be in the order of 90 metres. Subdivision design should encourage joint use of access points to eliminate an excessive number of intersections
- design geometry of access ways both vertical and horizontal alignment that will ensure the safety of pedestrian cyclists and vehicular traffic
- the provisions of *Broken Hill LEP 2013* including the minimum lot size of allotments.
- A soil assessment is to be carried out and submitted to Council that demonstrates that the land is capable of safe on-site effluent treatment and disposal
- A landscape plan is required to be prepared and submitted to Council that shows:
 - the outline of proposed buildings,
 - existing trees (species, height and spread) with an indication of those trees likely to be adversely affected by the development, and
 - proposed tree planting, including buffer areas where Council considers necessary, using quality species of mature height and spread.

When preparing the landscape plan consideration should be given to topography, the purpose of the trees (windbreaks, shade, aesthetics, etc), the choice of an appropriate type of tree (shade, wood type, evergreen or deciduous) and the choice of species which is suited to the locality (having regard to soils, rainfall and the purpose of planting).

- no earth or gravel may be removed or excavated from the subject land without the approval of Council, except where such removal and excavation is necessary for the erection of a pre approved building structure or for the safety of the occupants or prospective occupants of the land;
- no temporary dwelling, other than those approved pursuant to the Environmental Planning & Assessment Act, 1979 as amended and the Building Code of Australia 1996 shall be erected on the subject land.

3. BUILDING

3.1 General Provisions – All Zones

This section applies to all new development that involves building or structures, including alterations and additions, in residential, business, industrial and rural zones in Broken Hill that are subject to Broken Hill LEP 2013.

Controls

- A surveyors report is to be submitted with a development application for any permanent structure that requires the consent of Council that is located within 500mm of an adjoining property boundary (other than to a Council lane or footpath reserve), or in any case where in the opinion of Council that the boundary of the site is uncertain.
- Stormwater management
 - New development and associated works must not adversely affect the level of floodwaters on adjoining properties.
 - A building floor level must be determined for the site to minimise the risk and hazard of inundation.
 - Where the proposed development site is not located in close proximity to a major overland flow path or creek, floor levels must be a minimum of 300mm above the adjacent top of kerb level.
 - Where the proposed development site is adjacent to a major overland flow path or creek as defined by this report, floor levels must be a minimum of 300 mm above the 100 year ARI flood level.
 - New development must include Water Sensitive Urban Design (WSUD) features allowing for the retention and re-use of stormwater, and in particular the collection, storage and reuse of runoff from rooves, and treatment of runoff from paved and carpark areas using swales or other appropriate devices.
 - Where new development will result in an increase in impervious site coverage, on-site stormwater detention structures/techniques must be provided to limit the post-development peak discharge rate of stormwater from the site (including roof and ground surface runoff) to the predevelopment peak flow rate during both the 5 year and 100 year ARI events.
 - New development should ensure that all roof areas are directly connected to the street water table, and where practicable should not contribute ground surface runoff to adjoining properties.
 - New development should, where possible, minimise impervious ground surfaces and direct runoff to landscaped areas, soakage trenches, or possible aquifer recharge.

3.2 Development In Residential Zones

Application

This section applies to residential and non-residential development that is permitted with or without consent in zone R1 General Residential.

3.2.1 All dwellings

Controls

- A concrete driveway is to be provided as access to all new dwellings, dual occupancies, multi dwelling housing and residential flat buildings.
- All stormwater drainage is to be disposed of in such a manner so as not to cause nuisance.

3.2.2 Single detached dwellings

Objectives

- To permit flexibility in the siting of buildings;
- To minimise adverse impact on adjacent and adjoining properties.

Design guidance

- Setbacks - the location of the dwelling on the allotment should include a setback from the road reserve which considers the streetscape and adjacent structures.
- Consent is required for alterations, additions or renovations to dwelling houses listed in *Schedule 5 Environmental Heritage of Broken Hill LEP 2013*. Any building work undertaken on residential properties in Broken Hill must be carefully undertaken so that the identified character is retained:
 - Alterations and additions to existing houses should respect the character of the building in question and not detract from the character of the residential area as a whole.
 - Any new buildings should be carefully designed to fit in with the character of the area but not pretend to be historic buildings themselves.

Refer to Chapter 8 Heritage Conservation for design guidance and controls that apply to heritage listed properties and land within heritage conservation areas.

- Site Drainage - the primary source of run-off in residential areas is the individual building lot where numerous opportunities exist to 'hold and use the rain where it falls'. Two basic ways to limit run-off are the provision of rainwater tanks and the construction of paving to drain to grassed areas.
- Buildings should be designed to achieve a reasonable degree of internal privacy in the main habitable rooms.
- Materials - external materials of development should be sympathetic in colour, texture and range to achieve a harmonious composition. The number of materials used within a group of dwellings or an individual building should be kept to a minimum. In the event of extending an existing building, the new materials should be selected to match in texture and colour the materials used in the existing development.
- Windows - New buildings should be designed to accommodate windows which are in proportion with each other and with adjacent buildings. Toilet and bathroom windows should not be placed facing the street of the main entry to the building.
- Roof form should be sympathetic to the natural ground slope and/or to neighbouring buildings. Individual buildings forming a group or cluster should be designed to provide a sense of visual diversity between the individual dwelling units whilst not detracting from the unity of the whole. These forms should be coordinated to ensure overall visual harmony.

3.2.3 Dual Occupancy

Objectives

- to provide guidelines for applicants seeking approval to construct a building for use as a dual occupancy on an allotment
- to ensure that dual occupancies are sited and constructed in such a manner that they are compatible with surrounding development
- to ensure that dual occupancies do not adversely affect the amenity of adjacent buildings and the general area where they are located

Design guidance

- Maintain the quality of the streetscape.
 - Maintain streetscape character so that buildings visible from the street have similarities with those that exist.
 - Building setbacks from the street alignment should not vary dramatically from those in the rest of the street.
 - Preserve established trees and gardens where possible.
 - Match existing roof forms and materials and keep to the scale of surrounding buildings.
 - Limit the number of garages on the street boundary, and keep driveway crossings to a minimum.
- Maximise views, respect privacy.
 - Use screens, planting and walls, to maintain visual privacy of dwellings and neighbours and to reduce noise.
 - To maintain privacy avoid placing new windows opposite the windows of existing buildings. The effective location of windows and balconies to avoid overlooking is preferred to the use of screening devices, high sills or obscured glass.
 - Balconies and first floor windows of living rooms should not overlook neighbouring living areas, courtyard areas and swimming pools
- Create clear address and access.
 - Minimise area of site devoted to driveways. Make sure parking is workable.
 - Provide identifiable elements such as gates, letterboxes and house numbers for each dwelling so that they are clearly visible to visitors.
- Protect the heritage.
 - Seek the advice of Council's Heritage Adviser or Council's planning and building professionals.
 - Use related building forms, matching materials and window and door proportions to complement existing heritage buildings.
 - New work should not dominate the streetscape.
- Use your site's attributes to advantage.

- Try to combine neighbouring gardens to maintain the landscape character of the area.
- Open up living areas directly onto courtyards and gardens, and set them out to benefit from good sunlight.
- Keep the floor area of the new building to a minimum through efficient planning. Retain as much of the existing backyard and gardens as possible.
- Minimise site coverage and setbacks from the boundaries.
 - Pergolas, verandahs, fences and open carports may be permitted within the setback zone.
 - Preserve as much of an existing mature garden area as possible.
 - Where possible co-ordinate development with neighbours to ensure parking and driveways are shared.
- Preserve landscape qualities.
 - Amalgamate neighbouring open spaces to create large, consolidated landscaped areas even where still divided by a fence.
 - Where it is unavoidable to remove big trees, replace them with new trees.
 - Use hedges, vines, pergolas or other landscape elements to give privacy between dwellings.

3.2.4 Multi dwelling housing and residential flat buildings

Design guidance

- New buildings should be designed to create a well-proportioned building form. Buildings, particularly when viewed from the street, should be compatible with the character of neighbouring buildings.
- The number of external building materials used within a group of dwellings or an individual building should be kept to a minimum.

- Council regards the provision of quality landscape work to be of very high importance. The objective in specifying requirements is to ensure that an environment is created in which nature is not unduly dominated by man-made forms. The landscape setting of residential buildings is a critical factor in softening the relatively hard aspect of most medium density residential developments. The following landscaping principles apply:
 - the landscape design/plan should be simple and functional.
 - trees should be the major element throughout the development.
 - planting is to be in scale with the proposed buildings in the development.
 - aim for low maintenance landscape areas.
 - retain existing trees where possible.
 - consider the impact of the development on neighbours – examples views, shade, noise.
 - lessen the visual impact of driveways and car parking areas by use of different paving, screen planting, curving driveways.
- careful thought to the design of the combination of the planting in private courtyards can add to the quality of medium density developments. Courtyards should be suitable for outdoor living and contain a flat area of sufficient size to take tables and chairs.
- Vehicles need to be physically restricted from landscape areas and this can be achieved by use of raised kerbs along driveways which will protect lawns and shrubs from damage. Long straight driveways should be avoided. Curving driveways provide relief.
- adequate provision should be made for control, collection and disposal of excess stormwater by way of easements, on-site storage or directed to the street.
- Use screens, planting and walls, to maintain visual privacy of dwellings and neighbours and to reduce noise. To maintain privacy avoid placing new windows opposite the windows of existing buildings. The effective location of windows and balconies to avoid overlooking is preferred to the use of screening devices, high sills or obscured glass. Balconies and first floor windows of living rooms should not overlook neighbouring living areas, courtyard areas and swimming pools. (see sketches under privacy in dual occupancies section of this DCP)

3.2.5 Non-residential development

Objectives

The objectives concerning non-residential development in residential areas are to ensure that the activity does not:

- interfere with the amenity of the locality by reason of the hours of operation, emission of noise, vibration, smell, fumes, smoke, vapour, steam, ash, dust, waste products, oil or otherwise;
- involve exposure to view from any public place of any unsightly matter;
- give rise to traffic levels out of keeping with those of the surrounding area.

3.3 Development in business zones

Application

This section applies to commercial development in zones B1 Neighbourhood Centre, B2 Local Centre and B4 Mixed Use.

Objectives

- to encourage comprehensive development and expansion of business activities which will contribute to economic growth and employment opportunities within the City
- to ensure the conservation and enhancement of the historic, architectural and aesthetic character of the City, particularly the City Centre Commercial Precinct
- to identify a number of commercial precincts in the City and encourage commercial development in these areas
- to ensure commercial development meets the relevant objectives of the Broken Hill LEP 2013.

Controls

- The texture and colour of materials proposed to be used are to be shown on plans submitted with the development application with a statement of their expected performance under likely environmental conditions.
- Buildings fronting Oxide Street, Patton Street, Brookfield Avenue/Thomas Street, Gypsum Street, McCulloch Street, and between Duff Street and Knox Lane shall not exceed one (1) storey in height.

3.4 Development in industrial zones

Application

This section applies to development in zones IN1 General Industrial and IN2 Light Industrial.

Objectives

- to promote and encourage industrial development in appropriate locations within the City of Broken Hill;
- to encourage industrial development without creating environmental problems or adversely affecting existing services and infrastructure;
- to ensure industrial development:
 - is generally related to the scale, bulk and height of existing development and landscape in its locality,
 - is attractive and functional,
 - retains existing worthwhile vegetation wherever possible, and
 - has adequate on-site parking.
- to ensure industrial development meets the relevant objectives of the Broken Hill LEP 2013.
- in the Kanandah Road/Pinnacles Place Precinct to encourage appropriate heavy industrial development within the precinct.
- in the Rakow Street and Eyre Street Precincts, to encourage appropriate light industrial

development within the precincts and to ensure industrial developments do not have an adverse environmental impact on nearby residential land use.

Controls

- Generally a site coverage not exceeding 50% can be used as a guide, however, where it can be demonstrated to Council's satisfaction that the requirements for setbacks, parking, access, loading/unloading, and landscaping can be met, a variation to this may be permitted.
- Landscaping should be designed to complement and enhance the development, and where applicable, screen such features as open storage areas, carparks, loading docks, garbage storage areas etc.
- security fencing is considered desirable for most industrial sites. Security fencing should be preferably shall be located on or behind the building line and behind the front landscaped area.
- The siting and design of an industrial development shall be of suitable scale, colour, height and position to that of its surrounding environment.
- Access, parking and setbacks should be considered in relation to the building size and function.
- Building materials should be non-reflective. Large unrelieved expanses of wall are not favoured.
- Council encourages the provision of employee facilities such as canteens, child minding centres etc., particularly in larger developments employing more than twenty (20) persons. Amenities and toilet facilities are to be provided to Council's satisfaction in accordance with the requirements of the Workcover Authority of NSW under the Factories, Shops and Industries Act, 1962.
- Goods may only be displayed outdoors if they are manufactured, processed or sold on site. Display areas shall form an integral part of the landscaped area.
- The design of buildings as well as being functional is to be visually acceptable and compatible with development on adjoining land when viewed from the public road.
- All open areas for the storage of plant, goods materials, and/or wastes shall be screened from public view by means of a suitable screen wall of face brick, masonry or like construction.
- Suitable provisions shall be made for the storage and disposal of all trade wastes, refuse etc. in such a manner as to insure that it does not interfere with the amenity of the area and that it is not exposed to public view. For this purpose Council administers a Waste Volume, Storage and Removal Requisites Code which is available at Council's Administrative Centre.
- Consideration should also be given to the use of suitable screening either in conjunction with or in certain cases, in place of landscaping.

- All buildings shall be designed to effectively prevent the emission of noise and evidence will be required that any machinery to be housed or installed on the premises shall not emit noise in excess of a noise level of 5dB (A) above background noise when measured adjacent to surrounding residential areas. All industrial activity is to be conducted to avoid unnecessary or unreasonable noise, particularly at night.
- All machinery shall be so bedded to ensure that no vibration is transmitted outside the limits of the subject land.
- The use of the premises shall be conducted and where necessary control equipment shall be installed so as to ensure that there are no adverse discharges of gas, dust or other material to the atmosphere and that any emissions are within the limits set by regulation under the Clean Air Act. On-site incineration shall not be permitted.
- in the Kanandah Road/Pinnacles Place Precinct the setback from the street frontage to the building line should generally be no less than 6 metres, however setbacks shall also be determined on the following criteria:
 - (i) building height, bulk and layout
 - (ii) the nature and needs of the industrial activity
 - (iii) the general streetscape.

3.5 Rural development

Application

This section applies to development within zone RU2 Rural Landscape.

3.5.1 Dwellings

Design guidance

- **Energy conservation:** to achieve the maximum benefit from the sun's energy the house should be sited with its longest sides facing north/south. The use of pergolas on the northern side shade summer sun but permit winter sun to penetrate inside the house. Appropriate tree planting can also protect the house from the elements.
- **Vegetation:** plants can be used to protect the house from undesirable winds, screen the house and surrounds from the road and neighboring properties, to stabilize fragile soils and to assist in the absorption of effluent. Deciduous plants can be used to shade windows and areas in summer whilst permitting winter sunlight.
- **Materials:** the relationship of the house to the colours and textures of the landscape in which it is sited, should be a major influence on the selection of materials and colours. Materials should also be chosen which contribute to the energy efficiency of the house. The use of fiber cement sheets or planks should generally be avoided as the material has low insulation and heat storage properties. However where used, fiber cement cladding should be painted in browns, gray-greens or other natural earth colours suited to the region and used with stained timber frames to blend with the landscape.

- **Finishes:** roof and wall finishes of all rural buildings should comprise low reflective surface materials and colours in natural earth shades (fawns, mid-browns, silver-gray, gray blues and greens) to blend with the rural setting. Galvanized iron or steel deck, preferably colour-bonded or painted in colours mentioned above, is a good match for simple timber or brick structures.
- **Roofs:** roof pitch (slope) should relate to the surrounding landform in flat areas; the most suitable roofs are low-pitched. For more undulating land hip roofs and split gable roofs are more appropriate. Verandahs and pergolas should relate to the main rooflines. Galvanized iron or steel sheeting makes suitable roofing material in rural areas (being relatively inexpensive and flexible to use).
- **Access:** the point of entry to the property should be clearly visible for a considerable distance, either side of the entrance along the road, to maximize road safety.
- **Siting:** of houses may require the provision of buffer zones to ensure that suitable separation distances are maintained from existing rural lands where spraying of chemicals occurs as part of the normal activities associated with rural production.

Controls

- New dwellings shall:
 - be constructed wholly of new materials or pre-used bricks,
 - be of an area of not less than 90 square metres assessed from plans and specifications not including verandahs, carports or ancillary buildings,
 - contain an approved waste water treatment system and no exterior toilets or water closet out buildings shall be erected

3.5.2 Keeping of horses

Objectives

- To provide clear and specific guidelines for people wishing to construct horse stables within the City of Broken Hill.
- To allow for the high level of demand existing within Broken Hill for developments of this nature.
- To provide a mechanism whereby people may apply to Council for variations in the methods and materials used in construction of stables and associated structures.
- To allow for the construction of stables in areas where the potential for conflict exists, i.e. in residential areas.
- To encourage the location of stables, especially those of a large and or intense nature, into areas specifically designed to cater for such activities. Council may need to provide areas specifically for that purpose within its planning instruments.
- To provide a suitable environment for the keeping of horses in such a manner whereby the suffering of horses will be prevented from occurring. Note: all matters pertaining to animal welfare are the responsibility of the RSPCA.

- To encourage development to be sympathetic to the topography of the land, character, and scale of the surrounding development, and minimise impact on the environment
- To encourage a high standard of design, both functionally and aesthetically, which will have due regard to the needs of occupants, neighbors and local amenity
- To allow for the keeping of horses within a residential precinct without limiting consideration of normal residential uses
- To ensure stables development meets the relevant objectives of the Broken Hill LEP 2013.

Controls

- Number of Horses - The number of horses to be kept depends on a number of factors including the area of land available, distances to shops, schools and residences etc. and the potential for nuisance. The following areas are suggested as minimums for specific uses:
 - Holding Yards – (standing area only) = 40m² (not including area of stables).
 - Working Yards = 100m² (not including the area for stables and a holding yard). It is not recommended that working areas be incorporated into stable complexes within residential areas due to potential problems with dust and noise. Stables in these areas should be passive with the exercising of the horses being carried out off site, however a minimum passive exercise area of 40m² should be provided in addition to holding yards;
 - Stables – (not including tack sheds or feed sheds) = 16m² per horse
- Note: It is the owner's responsibility to ensure that the animals are supplied with suitable accommodation. Failure to supply the basic requirements could result in actions by the RSPCA under the Cruelty to Animals Act.
- Owner Occupied Sites - Stables for non-commercial uses will only be considered when in conjunction with an existing residence or an application for a new residence lodged at the same time as the application for stables. This is to ensure that the applicant is in a position to act with speed and efficiency in the event that a nuisance does occur. Applications for commercial horse keeping establishments will need to satisfy Council of their ability to respond to nuisances as part of an ongoing management and maintenance plan.
- Minimum site area - The minimum allowable lot size with regard to a residence and stables within a residential area is 2100 m².
- Distances from other buildings - Under the provisions of this Development Control Plan and schedule 5 of the Local Government Act, 1993, there are minimum distances from certain buildings and public places which must be complied with. Such distances apply to any part of the stables or yards. Distances stated by this Development Control Plan are in excess of the minimum distances provided under the Local Government Act and are 25 metres to a Dwelling, School, Shop, Office, Workshop, Church or other place of public worship, public hall or premises used for the preparation and or sale of food

In addition, a local requirement is that no structure, yard or the like is to be within three metres of a side or rear boundary. This provision is to ensure that horses are not able to damage existing fences or shrubbery. This distance is included within the 25 metre distance referred to above.

Note: Council may need to take account of the likely impact upon known or likely future development, e.g. If an area is planned for a school or residential uses etc.

- Construction & Materials

- The floor shall be constructed of concrete, 100mm thick and suitably reinforced. All junctions between floors and walls are to be coved. Floors shall be graded at a minimum fall of 2 degrees to a discharge point, presumably the door. A concrete apron one-(1) metre in width is to be placed in front of the door. Use of materials such as straw and rice hulls is permitted provided they are changed on a regular basis. As a minimum, such material should be changed once a week, however in warm weather or where a nuisance exists, the frequency of changing may need to be increased to remove any nuisance. The applicant should monitor this situation closely and take appropriate action.

Council may also approve other suitable flooring such as hard masonry or pavers, provided such floors are properly constructed with sufficient falls to drain all wastes to a given point external to the stable. Council may in some circumstances require such drainage to be connected to the Country Energy sewer.

- Are to be of a solid construction, being masonry or concrete or a similar material to a height of 1200 mm. Alternative construction shall be allowed for construction above 1200 mm in height subject to compliance with normal building standards. Use of timber kick boards is allowed as a lining to solid construction but not as an alternative.
 - A ceiling clearance of 2.75 metres should be maintained throughout. Construction shall be as for walls above 1200 mm. All roof waters are to be disposed of in a suitable manner so as not to create nuisance.
 - All openings shall be of sufficient size to allow horses to enter and exit the structure in safety, however as a guide, openings for doors shall be 1200 mm in width and 2400 mm in height.
 - Suitable ventilation should be provided in the form of openings between the roof and walls. Should the amount of openings be less than 3 m², or alternative methods be proposed, then the approval of the Environmental Services Department should be sought prior to construction. Use of screens for cold weather is permitted subject to suitable design and the permission of Council.
 - Are open sided structures to give shelter from the elements. They should not be enclosed without Council permission. They should comply with relevant building standards for the construction of structures and should be provided with paving for the floor area.
 - Shall be constructed in order to ensure the control of vermin. Containers with tight fitting lids shall be used for the storage of all feed material. Water supplies shall be designed to ensure that no nuisance occurs and that no provision is made whereby the breeding of mosquitoes is allowed to occur.
- Fences - Additional fences shall be erected a minimum of 3 metres inside of boundary fences in order to stop horses from damaging boundary fences and damaging trees and shrubs in neighboring properties.

- Manure disposal - All manure, feed waste and damp bedding is to be collected daily and stored in suitable airtight storage bins.
- Drainage - All yards, enclosures and stables are to be suitably drained to ensure that no ponding occurs. All waste waters, including water from hose down procedures shall be maintained on site. No waste is to be disposed of to the storm water system. In exceptional circumstances, Council may require wastes to be disposed of to Country Energy's sewer system. Approval of the Water Board may be required.
- Nuisance Control - Even the most conscientious horse owner will have problems from time to time. The nuisance that arises will ultimately impact upon the neighborhood, but the degree of that impact can be minimised. As a guide, the following checklist can be used to determine possible reasons for the nuisance and is therefore a good starting point for resolving the problem.
 - Are there too many horses for the block?
 - Are the stables too close to the neighbors?
 - Are the stables being cleaned out daily?
 - Is there adequate fly and vermin control?
 - Are the stables built to the current standards? If not, can they be brought up to standard?
- Fly Control
 - Keep all containers for manure and feed covered
 - Collect all manure and other wastes daily
 - Remove wastes at least once a week
 - Seal all cracks and potential breeding areas
 - Use knock down sprays, surface residual sprays, fly baits etc.
 - Keep premises clean at all times

Note: be careful with pesticides as they can poison animals and people.

Should approval be granted subject to conditions, Council will conduct ongoing surveillance and monitoring of the operation and the reactions of adjoining properties. This shall be conducted on a three monthly schedule for the first twelve months of operation. Failure to comply with conditions of approval may result in Council rescinding the approval.

Please be aware that keeping of horses is an emotive issue within residential areas and improper control of stables will lead to complaints. Council will be able to serve notices to require certain works to be carried out or in some cases, may even rescind approvals for keeping horses. It is in your interest to ensure that your stables are maintained in a clean and tidy condition and kept free from vermin and other nuisances.

4. CAR PARKING

4.1 Car parking requirements

This chapter establishes and outlines the car parking requirements for various land uses and other requirements relating to the operation and embellishment of parking areas. Development proposals that significantly impact existing road systems or are traffic or service vehicle intensive (e.g. supermarkets or shopping developments, or major buildings on main roads) will require a traffic impact statement to be prepared by a qualified person and submitted to Council with the development application.

Objectives

- To ensure that the provision of parking is appropriate for the proposed use or development of the land,
- To protect amenity, enhance streetscapes and provide shade,
- To maintain traffic flow efficiency, improve safety and protect the environment,
- To ensure convenient and safe provision of off street car parking for disadvantaged persons,
- To allocate adequate bicycle and motorcycle standing areas,
- To ensure convenient and safe space is provided for loading and unloading of goods, and
- To provide convenient and safe access to car parking areas, minimising disruption to traffic and maximising pedestrian safety.

Design guidance

All development proposals will, according to their size, have to consider some or all of the following matters:

- The amount of traffic generated by the use
- The impact of traffic generation on surrounding road network
- Driveway location and service vehicle access
- Traffic circulation patterns and parking layout
- The safety of pedestrians and pedestrian circulation patterns

Controls

Design and safety

- Car parking areas shall be constructed to an all-weather hard stand surface and be graded and drained to Council's stormwater system.
- Motorists shall easily be able to locate the car parking area. Parking spaces shall be clearly marked and signposted where appropriate. Vehicles shall be able to enter and leave the site in a forward direction.
- All car parking and manoeuvring areas are to be located on the development site and clear of the footpath and verge.

- Access arrangements and parking area design, including parking space dimensions and car park layouts including for commercial and industrial development, shall be in accordance with the *RTA Guide to Traffic Generating Developments* Version 2.2 released in October 2002.

Parking Spaces

- The number of parking spaces required for different land uses shall be provided on-site in accordance with Table 5.1 below.
- Parking spaces shall be designed in accordance with *Australian Standard 2890.1 Parking Facilities. Part 1: Off-street Car Parking* and *AS 2890.2 Off-street Parking. Part 2: Commercial Vehicle Facilities*. Alternative layouts are shown in AS 2890.1.
- Car parking for disabled persons shall be provided for developments where disabled access to the building is required. Parking spaces for disabled persons shall have a minimum dimension as per AS 2890.6-2009 *Off-street Parking for People with Disabilities* and located as close as practicable to the main entrance of the building.

Landscaping

- Development applications for parking areas shall be accompanied by a landscape plan demonstrating the means to provide shade and soften the visual impact of any parking structure or parking area.

Exemptions from meeting requirements in Schedule

- Inability to provide parking as per the schedule will not exclude a development and in such cases the Development Application will be considered on its merits.
- Council may exempt a development involving restoration and/or adaptive re-use of a building which is either listed as a heritage item in *Schedule 5 Environmental heritage of Broken Hill LEP 2013* or is within a Heritage Conservation Area, from part or all of the subject developments on-site parking requirement. In this instance, the applicant must provide details of expected parking demand and justification as to why an exemption should be given.

Table 5.1 Car parking requirements

Land use	Parking requirements
Accommodation	
Dwelling houses	1 - 2 spaces
Secondary dwellings	No additional parking required
Dual occupancy	Minimum 2 spaces
Multi-unit housing/Residential flat buildings	1 space per 1 bedroom unit or less than 75m ² GFA 1.5 spaces per 2 bedroom unit or 75m ² to 110m ² GFA 2 spaces per 3 or more bedrooms or greater than 110m ²
Seniors housing	<i>Resident funded developments</i> Self-contained dwellings: <ul style="list-style-type: none"> • 2 spaces per 3 units • + 1 space per 5 units (visitor parking)

Land use	Parking requirements
	<p>Hostels and residential care facilities:</p> <ul style="list-style-type: none"> • 1 space per 10 beds (visitors) • + 1 space per 2 employees • + 1 space per ambulance <p><i>Subsidised development</i></p> <p>Self-contained dwellings:</p> <ul style="list-style-type: none"> • 1 spaces per 10 units (residents) • + 1 space per 10 units (visitor parking) <p>Hostels and residential care facilities:</p> <ul style="list-style-type: none"> • 1 space per 10 beds (visitors) • + 1 space per 2 employees • + 1 space per ambulance
Hotel or motel accommodation	<p>Motels:</p> <ul style="list-style-type: none"> • 1 space for each unit plus • 1 space per 3 seats if a public restaurant and/or function room is provided <p>Unlicensed hotels:</p> <ul style="list-style-type: none"> • 1 space per bedroom plus • 1 space per 2 employees
Caravan parks	In accordance with the <i>Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2005</i>
Commercial	
Pubs and registered clubs	<p>Licensed pubs:</p> <ul style="list-style-type: none"> • 1 space per 3m² of public bar plus • 1 space per 6m² of public lounge and dining area plus • 1 space per 2 employees <p>Licensed clubs:</p> <ul style="list-style-type: none"> • 1 space per 6m² of public bar, lounge and dining room
Office premises and all other commercial development	<ul style="list-style-type: none"> • 1 space per 40m² GFA

Land use	Parking requirements
Shops (floor areas and requirements are for leasable GFA for shops and video stores)	<ul style="list-style-type: none"> • 0-10,000m² - 6.1 spaces per 100m² • 10,000-20,000m² - 5.6 spaces per 100m² • 20,000-30,000m² - 4.3 spaces per 100m² • Over 30,000m² - 4.1 spaces per 100m² <p>Video stores:</p> <ul style="list-style-type: none"> • **spaces per 100m² <p>Car tyre stores:</p> <ul style="list-style-type: none"> • Whichever is the greater of 3 spaces per 100m² GFA or 3 spaces per work bay <p>Drive-in liquor stores:</p> <ul style="list-style-type: none"> • 1 space per employee plus • a minimum of 2 off-street parking spaces for "browse room" customers
Service stations	<ul style="list-style-type: none"> • 6 spaces
Vehicles sales or hire premises	<ul style="list-style-type: none"> • spaces per 1,000m² site area plus • 1 space per employee
Vehicle repair stations	<ul style="list-style-type: none"> • 0.75 spaces per 100m² site area • + 6 spaces per work bay
Roadside stalls	<ul style="list-style-type: none"> • 4 spaces
Markets	<ul style="list-style-type: none"> • 2 spaces per stall
Bulky goods premises	Surveys should be carried out of similar developments
Take-away food and drink premises	<p>Drive-in:</p> <ul style="list-style-type: none"> • 30 spaces plus • 1 space per employee
Restaurants	<ul style="list-style-type: none"> • 1 spaces per 6m² of service area, or • 1 space per 3 seats, whichever is the greater
Function centres	<ul style="list-style-type: none"> • 30 spaces plus • 1 space for every 3 seats over 60 seats
Funeral chapels/funeral homes	<ul style="list-style-type: none"> • 1 space per 5 seats
Recreation	
Recreation facilities (indoor)	<p>Squash and tennis courts:</p> <ul style="list-style-type: none"> • 3 spaces per court <p>Bowling alleys:</p> <ul style="list-style-type: none"> • 3 spaces per alley <p>Gymnasiums:</p> <ul style="list-style-type: none"> • 4.5 spaces per 100m² GFA
Recreation facilities (outdoor)	<p>Bowling greens:</p> <ul style="list-style-type: none"> • 30 spaces per green

Land use	Parking requirements
Infrastructure	
Freight transport facilities	Surveys should be carried out of similar developments
Transport depots	Surveys should be carried out of similar developments
Industrial	
Industries and rural industries	<ul style="list-style-type: none"> 1 spaces per 3 employees
Warehouses or distribution centres	<ul style="list-style-type: none"> 1 space per 2 employees or 1 space per 90m², whichever is the greater
Waste management facilities (private)	Motor vehicle wreckers - minimum 5 spaces or 1 space per 750m ² of site area, whichever is the greater
Plant nurseries	0.5 spaces per 100m ² site area or a minimum 15 spaces, whichever is the greater
Community	
Health consulting rooms	<ul style="list-style-type: none"> 1 space per practitioner plus 1 space per employee plus 2 spaces for patients of each practitioner
Medical centres	<ul style="list-style-type: none"> 4 spaces per 100m² GFA
Child care centres	<ul style="list-style-type: none"> space for every 4 children in attendance

Note – in this table the following definitions apply:

“Gross floor area” (GFA) means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- (a) the area of a mezzanine, and
- (b) habitable rooms in a basement or an attic, and
- (c) any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
- (d) any area for common vertical circulation, such as lifts and stairs, and
- (e) any basement:
- (f) storage, and
- (g) (ii) vehicular access, loading areas, garbage and services, and
- (h) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
- (i) car parking to meet any requirements of the consent authority (including access to that car parking), and
- (j) any space used for the loading or unloading of goods (including access to it), and
- (k) terraces and balconies with outer walls less than 1.4 metres high, and
- (l) voids above a floor at the level of a storey or storey above.

“Gross leasable floor area” (GLFA) means the sum of the area of each floor of a building where the area of each floor is taken to be the area within the internal faces of the walls, excluding stairs, amenities, lifts, corridors and other public areas but including stock storage area.

4.2 Industrial Development

Controls

- **Location of car parking**

- Parking should preferably be located at the side or rear of the site behind the front building line.
- If it is intended to locate the parking area in front of the building then the area is to be behind the building line and screened from view (dense planting, feature wall etc. may be used). Small parking areas need not be totally screened from view but be behind the landscape set back.
- Loading facilities are considered to be an important part of any development, whether new or existing. Where ever possible, such facilities should be provided wholly within the site.

- **Vehicular Access**

By Main Roads

- all development which have direct vehicular access to a main road are subject to consultation with NSW Roads and Maritime Services, either direct or through the local Council's Traffic Committee.
- Generally, no vehicular access will be permitted to a main road if reasonable access is available from an alternative street.

By Local Streets

- not more than two (2) crossings will be permitted to any premises;
- where two (2) vehicular crossings are provided the crossing on the approach side will be constructed, signposted and used solely as an entrance and the other crossing will be constructed, signposted and used solely as an exit.

- **Access Driveways**

- Access driveways, parking loading/unloading and manoeuvring areas are to be constructed of sealed gravel pavement or equivalent standard which causes stormwater to be drained off the surface so as to be suitable for use in all weather conditions. Unsealed cracker dust or limestone will not be acceptable as an equivalent alternative.
- A vehicular access driveway should be no less than six (6) metres wide at the property boundary. Driveway widths may be varied at Council's discretion to ensure that vehicles may exit the development without crossing the centre line of the public road.
- Driveways shall be located no less than six (6) metres from an intersection of a public road.
- Driveways shall be positioned at right angles to the kerb to ensure safe entry and exit from the site.
- All footpath and gutter crossings are to be located and constructed in accordance with Council's requirements at full cost to the developer.

- **Vehicular Movement**

- Sufficient turning area shall be provided on the site for all vehicles to manoeuvre on and off the site in a forward direction at all times. The RTA Guidelines should be consulted with regard to dimensions, site distances, turning circles and other associated information for the design of vehicular movements on site.

4.3 Commercial Development

Controls

- Loading and delivery bays for properties in the Westside Plaza commercial precinct should be located on site and be designed to ensure that vehicles using these areas can enter and leave the site in a forward direction
- If buildings have access to a rear lane within any commercial precinct, where practical loading and unloading shall be provided from that lane, unless Council is satisfied that the laneway is inadequate for that purpose

5. OUTDOOR ADVERTISING

5.1 General provisions – all zones

Application

This section applies to advertising and signage as defined in *State Environmental Planning Policy No 64 – Advertising and Signage* in all zones in Broken Hill that are subject to *Broken Hill LEP 2013*. SEPP No 64 regulates signage across NSW and *SEPP (Exempt and Complying Development Codes) 2008* provides for advertising and signage that may be carried out as exempt development. The provisions of this section provide design guidance and control the content of signage. Development applications for advertising and signage are assessed by Council in accordance with *Schedule 1 Assessment Criteria* of *SEPP No 64*.

Objectives

- To provide for good quality and well-maintained signage which is adequate and effective in promoting the City's tourist attractions and it's trade, commerce and services without being detrimental to the amenity and character of the area
- To provide for signage which is complementary in scale and form with the built environment and the streetscape as a whole
- To establish common criteria for the assessment of applications for outdoor advertising
- To achieve a gradual replacement of existing unwanted signs with new, good quality, well maintained signs through incentives balanced, by strong enforcement
- To provide for directional signs to meet the needs of visitors and residents in locating facilities, places and services

Design guidance

Size and Number - Signs should be in scale with their surroundings. The size of the sign should be appropriate to the relative size of both the building and the adjoining road or pedestrian way together with the speed of passing traffic. Signage should be attractively designed in style and colours which complement the amenity of the area. Where possible, signs should be integrated into the overall design of a building.

Content - Signs should be simple, clear and concise. In some instances, graphic symbols may be more effective than words.

Orderliness - The different components of an outdoor advertising campaign should be planned and integrated, to avoid the appearance of a clutter of "add-ons" or afterthoughts. Poorly maintained or constructed signs don't create a favourable image and may even work to the detriment of the advertiser. Where there is more than one shop or business within a building, signs should be coordinated in height, shape, size and colour

Fit - The design of signage should be appropriate to its surrounding and complementary to the building

Shape - Sign shapes can be varied to create a distinctive image, however, care is needed to ensure larger signs "fit" rather than dominate their surroundings.

Lettering and Layout - Lettering styles should be appropriate to the sign's purpose and its surroundings. It is always preferable to use qualified designers or signwriters to ensure a professional finish.

Resemblance to Road Signs - Signs should not resemble road signs in colour, shape, layout or wording to avoid confusing motorists.

Maintenance of Signs - Advertisements and advertising structures shall be maintained in good structural condition, kept clean, neatly painted and be of a professional standard of design and finish.

Removal of Signs - When a change of use takes place, the signs of the outgoing occupant are to be removed by the advertiser.

New Signs For Old - Council actively offers incentives to encourage a rationalisation of approved signs on individual premises. In this regard, Council will consider concessions in relation to new signage to achieve a "clean-up" of an existing cluttered site or where removal or reconstruction of a redundant or poorly maintained sign is proposed as an integral component of a beautification or restoration scheme. Council will consider all reasonable proposals on the merits of the individual case. However, it is necessary for the applicant to provide proof that the existing sign(s) was erected with approval from Council.

Illegal Signs - Council will be systematically seeking removal of an illegal, redundant and poorly maintained signs as an essential part of the total effort to achieve an orderly and interesting display of signage in the City. Council may order the advertiser to alter, obliterate, demolish or remove an advertisement and any associated advertising structure where:

- The advertisement is unsightly, objectionable or injurious to the amenity of any natural landscape, public reserve or public place at or near where the advertisement is displayed;
- An unauthorised advertisement is displayed;
- An unauthorised advertising structure is erected; or

Alternatively, where the condition of an advertising structure threatens the safety of the public, Council may order the advertiser to do whatever is considered necessary to remove the threat. Should the advertiser not comply with the order, Council will undertake the work and charge the advertiser for the cost of the work. In such cases Council will also seek to have fines imposed on the advertiser.

Controls

- The following types of signs are **not acceptable** in the City of Broken Hill:
 - Signs which project from the building façade and obscure the view of neighbouring buildings or interrupt the perspective view of the streetscape;

- Signs fixed to trees, or light, telephone or power poles;
- Signs which could reduce road safety by adversely interfering with the operation of traffic lights or authorised road signs;
- Any sign which would, in the opinion of the Council, be unsightly, objectionable or injurious to the amenity of the locality, any natural landscape, public reserve or public place;
- Signs on or attached to parked vehicles directing attention to a nearby business or goods for sale;
- Portable signs on public footways and road reserves;
- Numerous small signs and advertisements carrying duplicate information;
- Overhead banners and bunting, except for:
- Temporary signs related to local festivals, fairs or celebrations (See details on "special event signs"); or
- The opening of a new business, for a duration not exceeding 2 weeks;
- Signs on bus sheds, seats and waste bins unless for community related purposes approved by Council;
- Any sign located over the footpath which is lower than 2.6m above the footpath.
- Flashing signs.
- Advertising signage in heritage conservation areas. Only business identification or building identification signage is acceptable in heritage conservation areas.
- **Special Event Signs** - Special events signs, temporary event signs and special promotional advertisements which require development consent shall:
 - only be displayed for a period of not more than 2 months prior to the event and shall be removed within 48 hours after the event;
 - comprise a maximum of 2 on-site temporary signs per event;
 - shall be securely fastened to an approved signage structure, fence or post supports;
 - shall not exceed 5.0m² in area;
 - shall not overhang a public road or footway;
 - the position of the sign shall not obstruct a driver's line of sight;
 - the consent shall be obtained from the property owner prior to the erection of any signage;
 - shall not be fixed or secured to public property, such as electricity poles, street signs or seating
- **Murals and public art** - Murals and Public Art on private structures/buildings will be assessed on a case by case basis. Codes SEPP exemptions may apply. Murals and Public Art on Council owned or managed properties must comply with the Broken Hill Public Art Policy.

5.2 Directional signage in rural zones

Application

This section applies to directional signage for a Place of Tourist Interest in zone RU2 Rural Landscape.

A Place of Tourist Interest:

- Is a place which would reasonably be expected to be predominantly utilised by tourists and is a place of scientific, historical or scenic interest
- May generally include galleries, museums, architectural/engineering structures, and wildlife or nature parks
- Does not include a place or building where the primary purpose is retail premises, tourist and visitor accommodation, caravan parks and the like

Design guidance

- The principle purpose of the advertisement is to direct the public to that building or place
- The size of the advertisement is not larger than would be reasonably required to direct passing public
- The advertisement will not be detrimental to the amenity and character of the surrounding area

Controls

- Applications should be accompanied by a statement or supporting documentation justifying that the place is of scientific, historical, or scenic interest
- In general, signs in rural areas should have a maximum area of 10 square metre
- directional signage is to be limited to three (3) signs per tourist place
- A particular site should have no more than two (2) signs of this type erected upon it
- The sign can contain the name of the tourist place, attraction and directional information only
- The maximum size for a sign of this type is 5m² (area of advertising panel).

5.3 Signage in industrial zones

This section applies to building identification signs in zones IN1 General Industrial and IN2 Light Industrial.

Design guidance

- Only one business identification sign is permitted on industrial premises and no bunting or other advertising media may be displayed.
- The typical size of building identification signs for industrial premises are:
 - Above awning sign 1.4 metres
 - Business sign 5 metres

Illuminated signs:

- | | |
|-----------------------|-----------|
| - Indirectly lit | 3 metres |
| - Internally lit | 8 metres |
| - Neon | 4 metres |
| - Pole or pylon sign | 4 metres |
| - Sky, roof, fin sign | 8 metres |
| - Wall sign | 15 metres |

Consent may be granted for signs of greater size than that specified above depending on the location, site attributes, surrounding amenity and the like.

- If the site is occupied by a number of tenants, one index board may be constructed near the site entrance, detailing the unit number, tenant, and product of each occupant of the site.

5.4 Signage in heritage conservation areas and on heritage buildings

Application

This section applies to signage in heritage conservation areas and on heritage buildings that are listed in *Schedule 5 Environmental heritage of Broken Hill LEP 2013*.

Design guidance

- Signs on buildings within heritage conservation areas should be simple and clear. There are logical places for signs on buildings. A clutter of signs on buildings does not contribute to the streetscape and makes advertising ineffective.

- Original advertising signs were generally attractive and early photos of Argent Street show that bold advertising signs were commonly used. Referring to early photographs to determine appropriate locations and lettering on early buildings can be very useful.
- Signs above verandah level - Internally illuminated signs above verandah level are discouraged. Appropriate signs above verandahs include:
 - Sign writing in the advertising panel on the parapet with a simple clear lettering style
 - Where carefully considered, on a hoarding above the verandah (as seen in early photographs).

Signs should not be erected which detract from the architectural elements of a building and dominate the streetscape. No signs should be erected if windows and decorative elements allow no space.

- Signs on a verandah - Appropriate signs on verandahs include:
 - Those erected perpendicular to the post on a bracket (appropriate for certain businesses and restaurants)
 - Sign writing on the verandah fascia board
 - Signs suspended on the end spandrel panel of verandah.
- Signs below the verandah - Painted signs on shopfronts are appropriate but should not dominate or clutter the shopfront window. Signs should only be fixed to the piers (dividing walls) of shops as these do not cover detailing and emphasis on the position of the lettering is appropriate.
- Lighting of signs - Signs should preferably be illuminated using external spotlights. Internally illuminated signs are discouraged.
- Lettering/typeface - Simple lettering appropriate to the period of the building is recommended. Generally upper case lettering should be encouraged – lower case letters were rarely used on commercial buildings and are less clear. Examples of typeface for Victorian buildings were generally simple. Fussy decorative lettering should be avoided - this does not read clearly and often detracts from the building. Later Art Deco buildings used typefaces typical for this period - examples are provided below.

**BCDEFGHIJKLMNO
UVWXYZ**

BCDEFGHIJKLMNOSTU

ABCDEFGHIJKLMNOSTUVW

3CDEFGHIJKLMNOSTU

ABCDEFGHIJKLMNOSTUVXY

BCDEFGHIJKLMNOSTUVW

1ABCDEFGHIJKKLMNOSTUV

6. LAND CONTAMINATION

Development applications that involve contaminated land are assessed in accordance with SEPP No 55 and the *Managing Contaminated Land Planning Guidelines*. All definitions of SEPP No 55 and the Guidelines are adopted for the purposes of this chapter of the Plan.

6.1 Contamination other than lead

Application

This section establishes and outlines development guidelines relating to development on land which is known to be or is potentially contaminated (other than with lead) within the definitions of *State Environmental Planning Policy 55 – Remediation of Land* and associated *Managing Contaminated Land Planning Guidelines* and the *Contaminated Land Management Act 1997*.

Objectives

- establish appropriate guidelines for the remediation of contamination from materials, other than lead, as outlined by the *Managing Contaminated Land Planning Guidelines*
- identify sites known to be or likely to be contaminated as defined by State Environmental Planning Policy 55 and the Guidelines, by means of researching and identifying past uses of specific sites wherever possible
- Determine appropriate procedures for assessing applications for development that allow the continuing development of the City of Broken Hill whilst maintaining appropriate controls on land use within the boundaries of the City. Such procedures shall take into account the proposed use and the risks associated with that use given the presence of contaminants on the site

Design guidance

Use of property

Wherever possible, a risk based analysis approach will be used to determine applications for the development of sites identified as potentially contaminated. This means that if a land use is similar to a previous land use, or would not impose a greater risk to human health and the environment, then that use may be permitted without the need for remediation works to be carried out. It should be noted however, that this would not prevent the owner of the land from being liable for remediation works at a future time should the contamination:-

- Become worse and or subject to migration from the site;
- Become subject to a further change of use which is incompatible with the levels of contamination;
- The EPA issue an order to investigate and or remediate the site.

In the event that one of the above circumstances occurs, it is the responsibility of the owner of the site to carry out any testing and or remedial works required to alleviate the problem.

Rezoning of the site to allow for residential purposes may require remediation of the site to a level suitable for such use. The degree of remediation will be dependent upon the type, location and extent of contamination for that particular site.

Risk

Managing contamination involves considering risk to human health and the environment. The Site Investigation Process may only need to be carried out in situations that are considered to present a risk to health or the environment.

Particular care should be taken in the following situations:

- The development, regardless of site history, will involve a sensitive use
- A vacant site is to be rezoned or redeveloped for residential purposes
- Redevelopment for industrial or commercial purposes
- Industrial site to be rezoned or redeveloped for commercial or residential use
- Commercial site is to be rezoned or redeveloped for residential use

In determining the risk posed by contamination, the following issues should be considered:

- Whether the contamination of the site has already caused harm
- Whether the substances are toxic or present in large quantities or concentrations
- Whether there are routes whereby the substances may proceed from the source of the contamination to human beings or other aspects of the environment
- Whether the uses or approved uses to which the site and adjoining sites are currently being put are likely to increase the risk of harm
- Any guidelines made or approved by the EPA on contamination and remediation.

Controls

- Remediation methods, apart from existing residential allotments, will in most cases, be subject to an evaluation and recommendations from an accredited person under the Contaminated Land Management Act
- Remediation from contaminants, other than lead, will require an approach as outlined in the "Guidelines for Consultants Reporting on Contaminated Sites", produced by the Environmental Protection Authority NSW
- The four steps outlined therein are
 1. Preliminary Site Investigation
 2. Detailed Site Investigation
 3. Remediation (Remedial action plan)
 4. Validation and Ongoing Site Monitoring

Depending upon the type and degree of contamination, the proposed course of action may require one or more of the above steps and in some more severe cases, may require all of the above steps. Remediation techniques and the degree of remediation required will also depend upon the proposed use of the land and the risks associated therein.

Stage 1 – Preliminary Site Investigation

The main objectives of a preliminary site investigation are to identify any past or present potentially contaminating activities, provide a preliminary assessment of any site contamination and, if required, provide a basis for a more detailed investigation.

Where contaminating activities are likely to have occurred, or where the site inspection does not conclude that no contamination has occurred, confirmation through sampling and analysis is required to support any conclusion reached from the history appraisal and inspection. The onus is on the applicant to provide information in sufficient detail for assessment by Council.

Where a preliminary site investigation indicates that the land is potentially contaminated or where Council is not satisfied that the site is suitable for the proposed use (due to contamination, or potential contamination) Council may request that the applicant conduct a Stage 2 – Detailed Site Investigation.

Stage 2 – Detailed site investigation

A detailed investigation is only necessary when a preliminary investigation indicates that the land is contaminated or that it is, or was, formally used for an activity listed in Schedule 1 and a land use change is proposed that has the potential to increase the risk of exposure to contamination.

The objectives of a detailed investigation are to define the nature, extent and degree of contamination; to assess potential risk posed by contaminants to health and the environment.

The investigation should also determine whether remediation is necessary to reduce the levels of contamination in order for the proposed use to proceed.

What happens after a detailed site investigation?

After a detailed site investigation is completed, Council must be satisfied that it has enough information to determine the Development Application. The investigation should demonstrate and conclude that:

- (a) the site is free from contamination and no remediation work is required for the proposed development to proceed; or
- (b) the site has minor contamination, however, the extent and nature of that contamination is insignificant having regard to the proposed use, and the proposal can be determined without the need for remediation of the site; or
- (c) the site is unsuitable for the proposed use (with regard to contamination) and will require remediation to reduce the level of contamination so that the site is suitable for the proposed use; or
- (d) the site is unsuitable for the proposed use, even if remediation processes are undertaken, and the proposal should not proceed.

Stage 3 – Remediation

SEPP55 - Remediation of Land identifies when remediation works require consent from the relevant consent authority.

These works are identified as Category 1 in the SEPP. Other remediation works (known as Category 2 in the SEPP) do not require the consent of Council, but compliance with the provisions of the SEPP, including notification to Council, is mandatory.

If it is identified that remediation works require development consent (i.e. Category 1 remediation works), the applicant is required to submit a Development Application.

Development Applications for, or which include, site remediation works (Category 1) must be accompanied by a site Remedial Action Plan (RAP) in accordance with the provisions of State Environmental Planning Policy No. 55 - Remediation of Land.

The objectives of a site remedial action plan (RAP) are:-

- to set remediation goals that ensure the remediated site will be suitable for the proposed use and will pose no unacceptable risk to human health or to the environment; and
- to determine the most appropriate remedial strategy.

Stage 4 – Validation and Ongoing Site monitoring

Validation should determine whether the pre-determined clean-up objectives have been attained and whether any further remediation work or restrictions on land use are required. Ideally, validation should be conducted by the same consultant that conducted the rest of the site investigation and remediation process.

Validation must confirm statistically that the remediated site complies with the predetermined clean-up criteria for the site. The relevant NSW EPA guidelines should be followed when validating the site. SEPP55 outlines the proponent's responsibilities for reporting notice of completion to the consent authority for Category 1 remediation works.

6.2 Lead contamination

Application

This section establishes and outlines development guidelines relating to development on land which is known to be or is potentially contaminated with lead within the definitions of *State Environmental Planning Policy 55 – Remediation of Land* and associated *Managing Contaminated Land Planning Guidelines* and the *Contaminated Land Management Act 1997*.

Development applications that involve contaminated land are assessed in accordance with SEPP No 55 and the *Managing Contaminated Land Planning Guidelines*. All definitions of SEPP No 55 and the Guidelines are adopted for the purposes of this section of the Plan.

Objectives

- to minimise lead exposure to the public, particularly young children and to minimise the impact of lead within the environment through lead safe work practices, controls and proper disposal procedures
- ensure that all development/activities, including exempt, complying, local and integrated development, complies with acceptable environmental planning practices and standards
- assist in achieving a consistent approach to the management of lead contamination

- minimise the overall environmental impacts of lead contamination
- minimise the effects of lead on the health of residents
- provide advice to people and organisations on how to manage lead in their premises and the environment, matters that need to be considered and the actions to be carried out
- provide advice to applicants when assessing the effects of a variety of applications made under the *Environmental Planning and Assessment Act 1979*
- provide advice to intending applicants on how to reduce and handle waste during the demolition and construction phase
- provide for on-going control of lead in premises
- provide guidance for council in undertaking its infrastructure management and maintenance functions

Design guidance

As a result of mining activities over the last 100 years and erosion from the ore body, much of Broken Hill is potentially contaminated with lead. Lead has been distributed from the ore body through a combination of wind, and water erosion contaminating the soils, ceiling spaces, wall cavities and internal areas of homes within Broken Hill, with the greatest deposition within 0.4 km north of the Line of Lode and 0.8 km south of the Line of Lode. Additionally, wide-spread use of lead-based paint has potentially caused localised contamination of soil and building interiors due to the paint flaking or peeling off, being removed with unsafe techniques (heat gun, dry sanding or water blasting) or from painted wood having been burnt.

Lead levels of "old" soil are known to be generally well above the Health Investigation Lead level of 300 PPM, particularly in areas within 0.4 km north of the Line of Lode and 0.8 km south of the Line of Lode. A small number of properties have been remediated through the Broken Hill Environmental Lead Program and these are likely to have substantially lower soil lead levels than would otherwise be expected. It is necessary for Council to undertake the precautionary principle, ie. to assume that all land is contaminated unless proven otherwise.

Some of the following questions will provide additional insights into the degree of lead contamination present:-

- Is the soil and land around the building or structure likely to be contaminated with lead due to previous lead paint or protective coating use or industrial activities?
- Has fill which may have been sourced from lead contaminated land been used on the site?
- Has the land been used for orchards, market gardens or other agricultural purpose in which lead arsenate could have been used?
- What was the previous use of the land/property? Could any of the activities contaminated the land with lead ie. previous petrol station, previous rifle range?
- Has the land been built on prior to 1970 and was there an unsafe demolition or renovation?
- Has there been fill or slag that may be contaminated used on the property?

It is acknowledged that there may be insufficient information to answer some of these questions. Where lack of knowledge exists, it is suggested that the precautionary principle be

applied. I.e. it should be assumed that contamination may be present and consideration given to remediation works.

Renovation/demolition

As a result of over 100 years of wind erosion, lead dust has accumulated to varying degrees in most Broken Hill homes. During renovation and demolition works dust that has been accumulating in the ceiling space, wall cavities and floor space may be exposed and mobilized. This will result in a high health risk to occupants, workers and neighbours. Lead levels in ceiling dust are known to be very high. Paints used prior to 1970 contained high levels of lead. The lead levels in paint of most pre-1970s dwellings in Broken Hill is known to be well over the acceptable limit.

The following questions may help identify possible contamination issues as to the degree of contamination present on site:-

- Is there evidence that demolition or renovations have been carried out on the site which may have resulted in lead contamination?
- Did part of the building or structure contain lead paint or protective coatings or use lead products?
- Has the building or structure been used in the manufacture or use of lead? (e.g. printing, pigment production or mixing, lead sinker production).

Lead management plan

In most cases, compliance with the controls of this Plan will be sufficient. Where Council has ascertained that an unacceptable risk applies it may require the preparation of a Lead Management Plan. The lead management plan must be prepared on behalf of the developer by an accredited contaminated site auditor or an appropriately qualified person experienced in lead assessment, and must provide the following details:-

- history of any relevant structures, buildings or land
- details regarding any testing which has been carried out to ascertain the extent of lead contamination
- type of lead contamination (*internal / external lead paint, lead dust in ceiling or wall cavities, contaminated soil, slag or fill*)
- how the lead is to be controlled or removed
- how the lead is to be disposed of
- a statement outlining the ways in which the lead related environmental and health effects of the proposal will be minimised
- Workplace Health & Safety procedures to be used.

Remediation

There are many different ways to remediate an allotment of land. The purpose of remediation is to remove the cause of contamination, reduce, disperse or destroy the contamination, or eliminate or reduce the hazard arising from contamination. It is not always necessary or even possible to remove all contamination from a given parcel of land. As such, alternatives must be found to minimise risk.

Council, has prepared a number of policies and guidelines for the safe development of land as well as safe work practices when dealing with lead. This approach also revolves around dust suppression within the residence, which is a somewhat different approach to the land use approach of the planning system. This approach is considered to be the most suitable

method of dealing with health issues arising from lead contamination in Broken Hill.

Remediation methods

Existing residential sites contaminated by lead may be dealt with by remediation techniques determined by Broken Hill City Council. Information regarding acceptable remediation techniques for lead contamination in existing residential allotments are available from Council. Remediation techniques and the degree of remediation required will also depend upon the proposed use of the land and the risks associated therein.

In the event that an investigation order or remediation order has been issued by the Environment Protection Authority and/or by Council subject to direction by the Environment Protection Authority, then appeal rights will be available against that order under the provisions of clause 6 of the Contaminated Land Management Act 1997.

Controls

- All works shall be undertaken in a lead safe manner. Council recommends that the tradesman is an accredited Lead Safe Tradesman
- During works, the site shall be continually damped down with water to suppress dust. Water should not escape into the street as this will result in contaminated dust being washed into the street and mobilised by traffic

Demolition, alterations/ additions to existing buildings and minor structures

- Where necessary, cavities shall be vacuumed using an approved HEPA style Vacuum Cleaner and dust collected and disposed of in an approved method
- Works will be undertaken so as to minimise the escape of dust into the atmosphere. To achieve this, all internal linings shall be removed whilst the external fabric of the building is essentially intact. Dust should be vacuumed in an approved manner
- Works shall not be undertaken during periods of high winds, i.e. winds strong enough to raise dust
- The site is to be thoroughly cleaned prior to finishing by wet wiping all ledges, sills, benches, surfaces and wet mopping of floors using appropriate high-phosphate detergents (e.g. sugar soap) to restore site to a "lead safe" environment that is safe to live in (high phosphate detergents are more effective in binding lead)
- On completion, unless the site can be shown not to have been contaminated by the works the site shall be stabilised with a 50 mm cover of clean material. In the event that further development is to take place unless Council is satisfied that works will commence within a reasonable period of time

Commercial, industrial and residential construction works

- Work areas should be sealed off from living areas and work areas regularly cleaned to minimise the risk of dust
- Wet mopping should be used wherever possible to remove dust
- Care should be taken to ensure that work clothes etc. do not transport dust into clean areas at the end of the day
- Care should also be taken not to contaminate external areas such as ground outside of the proposed work area

Filling of land and subdivisions

- Works will be undertaken so as to minimise the escape of dust into the atmosphere. To achieve this, only necessary removal of vegetation shall be allowed
- Fill brought into the site shall be sourced from a lead free source. Excavated material from other locations within Broken Hill will not be accepted
- Works shall not be undertaken during periods of high winds, i.e. winds strong enough to raise dust

Procedures for disposal of material

- Cover all trailer, truck and utility loads, including fill removed during earthworks to prevent their escape during transport
- Dispose of all fill and excavated material at a Council waste management facility
- Do not disturb materials unnecessarily
- Use a plastic membrane as a base when stacking materials in the trailer, truck or utility for transport and disposal

7. TREE PRESERVATION

7.1 Trees on public land

Application

This section applies to trees and shrubs planted on land that is owned and/or managed by Council including community land, operational land, nature strips, road corridors and public reserves.

Objectives

- To promote the safety and beautification of streets, parks and reserves
- To maintain and protect trees and shrubs on public land

Design Guidance

- A combination of native and exotic trees will be maintained within the streetscapes and within developments, however, Council will encourage consistent vegetation themes that reduce the diversity of species selected so as to maintain street integrity and unity
- Residents are encouraged to promote the health of trees in the vicinity of their residences by watering newly planted and small trees when required, however, tree trimming and pruning may not be carried out without the prior written approval of Council
- Council may approve the removal of trees where a ratepayer is able to demonstrate a valid reason for the removal of the tree. In such circumstances, the cost for removal will be met by the ratepayer. Leaf debris or shading of solar panels are not considered valid reasons for the removal of street trees. The removal of trees and shrubs on Council controlled property shall be undertaken, where possible, by Council staff or a contracted arborist
- Should tree roots from a tree planted on public or Council owned land encroach into a private residence, the ratepayer will be required to submit a report of the alleged damage so that a Council Officer can assess the situation and determine an appropriate course of action. Such action may include tree root extraction or, where there is no other option, removal of the tree. Residents and ratepayers are responsible for preventing the

encroachment of trees and other vegetation planted within their properties onto footpaths and nature strips

- Tree vandalism includes the unlawful destruction, damage or injury to trees and vegetation on public land. Examples include poisoning, mowing of young trees, pruning, ringbarking or removal. Council will investigate any instance of tree vandalism and will pursue reimbursement for any costs involved in investigation, removal and reinstatement of any tree that has been shown to have been vandalised.

Controls

- Trees are to be selected for planting based on their suitability for the particular location, expected performance, life expectancy and the risks that the tree might pose to people and infrastructure including underground and aboveground services
- Council will provide suitable trees to plant on nature strips and authorise residents to plant trees provided that:
 - a) a written application is made for such plantings containing an agreement from the applicant that the trees, once planted, will be watered and otherwise maintained by the applicant,
 - b) the trees provided shall be in accordance with Council's Tree Management Plan, and
 - c) the total number of trees on any section of nature strip (including existing trees) does not exceed two (2) for each property frontage, except where Council may determine that additional trees are warranted, where the property frontage is significantly longer than normal, or other unusual circumstances exist.

Residents or land owners may provide and plant additional trees on nature strips at their own cost provided that the trees are listed on Council's "Preferred Species" list given below and provided that such plantings are located so as to minimise future problems in regard to Council's and other Utilities facilities (such as kerb and gutter, water mains, electrical mains, telecommunication etc.) or with the consideration of the safety of pedestrians and traffic.

- Council may direct the removal or relocation of any tree or shrub that may:
 - a) cause damage to water mains, sewer mains, drainage lines, footpaths, kerb and gutter or other Council facilities or utilities, or
 - b) cause fouling of power lines, or
 - c) cause a safety hazard to pedestrians or vehicular traffic.

Council reserves the right to remove such trees at the expense of the person who authorised the planting of those trees.

- Any development proposal that involves a conflict with or a need to remove a tree is subject to Council approval. Street trees impacted by the proposed development should be marked on plans that are submitted for development consent. Every attempt will be made to avoid conflict between the development and the existing tree(s). Where this is not possible Council will consider allowing the removal of the tree(s) to enable the development to occur at full cost to the proponent

7.2 Trees on private land

Application

This section applies to trees and shrubs planted on land that is privately-owned.

Controls

- Development consent must be obtained to remove, prune or lop branches from any living or dead native plant that is equal to or greater than 5 metres in height or has a trunk diameter greater than 50 centimetres measured at 1.4 metres above ground level, unless the removal, pruning or lopping is permitted by legislation or the plant is within 3 metres of an existing dwelling or the footprint of an approved dwelling
- A permit must be obtained from Council to remove, prune or lop branches from any exotic tree or plant that is equal to or greater than 5 metres in height or has a trunk diameter greater than 50 centimetres measured at 1.4 metres above ground level, unless the removal, pruning or lopping is permitted by legislation or the plant is within 3 metres of an existing dwelling or the footprint of an approved dwelling
- All tree work must be carried out in accordance with the Australian Standard – 'Pruning of Amenity Trees' (AS 4373-2007) and Workcover Code of Practice – 'Amenity Tree Industry' (2007)
- Where replanting is a condition of consent, replacement tree(s) are to be maintained and protected in order to retain good health and allow the tree(s) to establish and reach their natural size and maturity
- Where a condition of consent is imposed for the protection of a tree(s) this shall be carried out in compliance with Australian Standard - Protection of Trees on Development Sites (AS 4970-2009)
- It is recommended that plants and shrubs planted on private land be selected from the following 'Preferred Species' list.

Common Name	Botanical Name
Dundas Mahogany	<i>Eucalyptus brockwayi</i>
Silver-topped Gimlet	<i>Eucalyptus campaspe</i>
Dundas Blackbutt	<i>Eucalyptus dundasii</i>
Lindsay Gum	<i>Eucalyptus erythronema (var marginate)</i>
Red Cap Gum	<i>Eucalyptus erythrocorys</i>
Western Australia Red Flowering Gum	<i>Eucalyptus ficifolia</i>
Summer Red	<i>Corymbia ficifolia</i> Grafted Gum
Fuchsia Gum	<i>Eucalyptus forestiana</i>
Gum-Barked Coolibah	<i>Eucalyptus intertexta</i>
Bimble Box or Poplar Gum	<i>Eucalyptus populnea</i>
Large Fruited S.A. Blue Gum	<i>Eucalyptus leucoxylon</i>

Jacaranda	Jacaranda mimosifolia
Crepe Myrtle	Lagerstroemia Indica x L
Claret Ash	Fraxinus oxycarpa "Raywoodii"
Mop Top	Robinia pseudoacacia
Weeping Bottlebrush	Callistemon viminalis
Laurestinus	Viburnum tinus
Golden Rain Tree	Koelreuteria paniculata
Melaleuca	Melaleuca quinquenervia

8. HERITAGE CONSERVATION

The City of Broken Hill was included in the National Heritage List on 20 January 2015. The City of Broken Hill is of outstanding heritage value to the nation for its significant role in the development of Australia as a modern and prosperous country. This listing recognises the City of Broken Hill's mining operations, its contribution to technical developments in the field of mining, its pioneering role in the development of occupational health and safety standards, and its early practice of regenerating the environment in and around mining operations.

The *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act) provides for the protection of the environment, especially matters of national environmental significance (NES) which includes places listed as National Heritage. Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the matters of NES without approval from the Australian Government Environment Minister or the Minister's delegate. An action is a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things.

If a proposed action is likely to have a significant impact on a matter of national environmental significance then the development application is to be referred to the Commonwealth Minister. **The responsibility for referring an action to the Commonwealth Environment Minister lies with the person proposing to take the action.** Council is only responsible for referring actions that the Council proposes to take itself. It is not responsible for referring the actions of other developers.

Statement of Significance

The City of Broken Hill has outstanding significance to the nation for its role in creating enormous wealth, for its long, enduring and continuing mining operations, and the community's deep and shared connection with Broken Hill as the isolated city in the desert, its outback landscape, the planned design and landscaping of the town, the regeneration areas and particularly the physical reminders of its mining origins such as the Line of Lode, the barren mullock heaps, tailings, skimps and slagheap escarpment and relict structures. It exhibits historic qualities in its ongoing mining operations since 1883, the current and relict mining infrastructure and its landscape setting. It is significant for its industrial past and the adoption of vanguard industrial relations and management policies, together with its role as a pioneer in setting occupational health and safety standards.

It demonstrates the principal characteristics of a mining town in a remote location with extensive transport infrastructure and administrative connections to three state capitals and as a rare example of a place subject to Australia's complex Federal system where differing administrative, social and economic influences are expressed in both tangible and intangible forms. It has social significance for its residents as a place of community pride, endurance, and as a remote mining community resilient to major social and economic change. Broken Hill has

strong social significance for all Australians as a place where great wealth was created, as well as strong group associations with the Barrier Industrial Council. It exhibits outstanding aesthetic characteristics as a city in an arid desert setting, as the subject of interest for Australian artists, poets, film makers, TV producers and photographers.

It has significance as a place where outstanding technical achievement has occurred in refining ore for its minerals including the froth flotation process and the computer controlled on-stream analysis of slurries. Broken Hill is also important as a place of research potential to reveal further information on mineral deposits with its range of complex minerals. It is associated with persons of great importance to Australia's history, including Albert Morris (arid land regeneration), Charles Rasp (discoverer), Herbert Hoover (mining engineer), WL Baillieu, WS Robinson and MAE Mawby (industrialists), GD Delprat (metallurgist), Percy Brookfield and Eugene O'Neill (unionists). Broken Hill's association with the Barrier Industrial Council as a group is also important.

The Broken Hill zinc-lead-silver ore deposit is one of the world's largest ore bodies and contains an extraordinary array of minerals. It is geologically complex and has national scientific significance. The Broken Hill operation is significant for its immense size and unrecorded mineral species continue to be found. It contributes to an understanding of the formation of the Australian continent and more than 2,300 million years of the earth's history.

8.1 All development

This section applies to properties that are listed as items of environmental heritage or located within a heritage conservation area listed in Schedule 5 of Broken Hill LEP 2013. It does not apply to the Broken Hill Mining Zone.

Objectives

- To conserve items of environmental heritage and maintain appropriate settings and views.
- To retain evidence of historic themes of development evident in Broken Hill through the proper care and maintenance of individual items of environmental heritage and Heritage Conservation Areas.
- To provide guidelines for alterations and additions which complement and do not detract from the heritage significance of individually listed heritage items and Heritage Conservation Areas.
- To protect those items and areas of value to the local community.
- To encourage new development which complements existing heritage items and Conservation Areas in a current day context.

Design guidance

- Items of environmental heritage should be conserved and new development should not diminish the significance of the item.
- An experienced heritage architect or conservation specialist should be engaged for works to a significant heritage item.
- Significant internal and external features of heritage items must be maintained in their original form.
- Subdivision of a site containing a heritage item must leave an adequate curtilage to the heritage item.

- Before any changes to a heritage item are considered, the item should be fully understood. The applicant should examine its history, stages of development and its form and fabric. A statement of heritage significance encapsulating the findings, and a HIS must accompany any development application submitted to Council for a heritage item.
- New development need not seek to replicate period details of original buildings, but rather, demonstrate respect for the form and scale of the immediate area.

8.1.1 Alterations and Additions

Controls

- Alterations and additions must not adversely impact the significant features of the heritage item.
- Changes must maintain the significant form, proportion, scale, details and materials of the item.
- Extensions must not compete with the integrity, scale or character of the item. Extensions can best meet this requirement if separation from the original building is maximised and they are designed in a simple, unobtrusive style and size.
- Alterations and additions must be located so as to reduce their visibility and prominence from any point in the street or adjoining streets, and the height must not be seen above the main ridgeline of the building.
- New side additions may be permitted where:
 - They are sympathetic to the character and design of the existing building, having regard to the form, bulk, materials and details of the existing building without attempting to reproduce exactly those elements and decorative details in particular;
 - They are not in front of or obscuring the street elevation of the existing building;
 - They are set back a greater distance from the street than the existing building;
 - They are lower or equal to the height of the majority of the existing building; and
 - They are compatible with the existing building in terms of wall height proportions and roof form.
- Ancillary buildings on the same site as an individual heritage item must be located in a place that does not obscure the significant elements.
- Alterations to alleviate aircraft, rail or road noise must not detract from the streetscape values of individual buildings by removing or covering significant building fabric or details.
- Solar water heater storage tanks, solar panels, ventilators, airconditioning units, satellite dishes and antennae and the like must not be located on the principal roof elevations of heritage items including on the roof or awning. *NB The installation of these items behind the ridgeline and out of view may be permissible as minor works.*
- Building Materials and Details
 - Any proposed changes to the external finishes (unless otherwise advised by Council) require development consent, including paint removal, re-skinning, painting unpainted brickwork or render of timber or of an unrendered surface.

- Development should seek to reconstruct missing architectural detailing, such as bargeboards, finial trim, window awnings and front verandahs or balconies.
- Re-painting of timber detailing and facades should be guided by the palette of original period colours. Avoid the use of single colour solutions and attempt a complementary colour combination. Contemporary colours are not discouraged, but must be combined in a complementary way.
- Where mortar repointing and render repairs are proposed, gain a proper understanding of the different types of mortar and render and how it was used. Lime render was predominantly used in Broken Hill and cement render repairs are damaging to heritage buildings. Appropriate material must be consistent with the building form and style.
- Do not paint or render face brick; the original wall treatment must be retained.
- When new windows are to be inserted into the existing building, the proportion of these windows should respect the form and scale of the architectural style period.

8.1.2 Archaeological Sites

Controls

- Where in the course of building works any archaeological resources are found or considered may be found, the proponent must inform the NSW Heritage Branch and obtain necessary approval.
- Where significant archaeological resources are found, alterations and additions in the vicinity must be designed to care for significant fabric and other features of the place.
- The depth and extent of excavations to the ground surface surrounding heritage items or a known archaeological site must be minimised.

8.1.3 Places of Aboriginal Heritage Significance

Controls

- Known and potential Aboriginal places and objects must be preserved and protected when development occurs.
- No excavation of ground surfaces can occur in areas surrounding a known or potential Aboriginal site.
- Building or landscaping works, paths and driveways must be located away from Aboriginal sites to allow for in-situ preservation of artefacts.

8.1.4 Fencing

Design guidance

In Broken Hill, galvanised iron (either standard corrugated or ripple iron) was often used because of economical cost and various different styles of fences were built out of the material. In the 1920's woven crimped wire was introduced. Stone fences were reserved for only the most substantial houses.

Early photographs of houses in Broken Hill can be referred to as a guide for restoration and upgrading of residential buildings. When erecting a new fence to an old house, select a fence appropriate to the period of the house. Early photos of the house may show the original fence or a house of a similar period could be located with an appropriate fence which could serve as a

model. If early photos are not available, front fence details can be copied from a similar existing house which can serve as a guide.

Controls

- Front fences are to be
 - open in character unless a corrugated iron, ripple iron or stone fence, of maximum height 1400mm
 - constructed in crimp mesh, timber pickets, or metal pickets - with or without a masonry base
 - appropriate to the style and period of the house
 - not overly fussy in detail
- The following fencing styles are generally inappropriate
 - Solid metal cladding of non-custom orb or ripple iron profile
 - Height above 1500 and of solid nature– particularly masonry fencing
- When erecting a new fence for a new house in a street with predominantly old houses the front fence should not exceed 1200 - 1400 if of a solid nature. Open mesh fencing associated with landscaping can be effective as shown on the following new residential development.

8.2 Residential development

Design guidance

- Broken Hill has a rich, varied and unique residential architectural heritage. The City grew rapidly after the commencement of mining in the 1880's and its origin as a mining town with early rapid growth has resulted in a distinctive character. The need for lightweight, easily transportable building materials resulted in the almost universal use of corrugated iron for roofing and walls. Corrugated iron was also widely used for fencing. The City developed a specific appearance with corrugated iron dominating as a building material.
- Broken Hill's residential character largely derives from the generally regular and consistent setback of houses from the street. Any building work undertaken in residential precincts of Broken Hill must be carefully undertaken so that this identified character is retained.
- Alterations and additions to existing houses should respect the character of the building in question and not detract from the character of the precinct as a whole.
- Any new buildings should be carefully designed to fit in with the character of the precinct but not pretend to be historic buildings themselves.
- The early development of Broken Hill was characterised by makeshift buildings of simple materials: timber and iron cottages were brought to the silver fields on jinkers drawn by bullocks, horses, camels or donkeys. By 1888 more substantial houses were erected with newfound mining wealth but the transportation has remained a critical factor in the choice of materials for residential buildings. Descriptions of the design elements of residential development styles are outlined below.

Early Victorian Cottages 1887 - 1900

The earliest cottages incorporated a simple rectangular floor plan. Corrugated galvanised iron was used for roofing, iron cladding used horizontally for walls and often fences were also constructed of this material. Early photos show original cottages were built without verandahs, but these were soon added to provide protection against the heat. Interiors were lined with timber panelling up to dado height, hessian lined walls above dado height and pressed metal or ripple iron ceilings. Usually only the front and backs of the houses were painted, leaving the sides and the roofs in unpainted corrugated galvanised iron finishes.



Stone Victorian Houses - Pre 1900

More substantial houses of this period were built in local stone (generally random coursed) and built in a similar vernacular to the South Australian house style. Stone walls were elaborated with red brick quoins. Villa-sized houses were also constructed in corrugated iron with verandahs across the frontage which sometimes returned down one or both sides. There are some examples of row cottages from this period constructed in stone which provided worker housing. More substantial fencing was used to these larger residences, and the use of stone with rendered posts is common.



Houses 1900-1918

By the early 1900's the simple rectangular floor plan of Victorian cottages was modified with Gothic Revival and Federation influences. Front rooms were added breaking the line of the hip or gable roof. Roof gables were incorporated into much larger and higher hipped roof. Elaborated barge boards, timber finials, turned verandah posts and decorative fascia treatment became more common in this period. The use of iron roofing and cladding continued and the more substantial houses were also built of stone. The introduction of pressed tin sheeting which sometimes incorporated fake stone ashlar detailing was notable in this period. Side walls continued the tradition of using simpler construction materials, generally corrugated iron.



Inter-War Housing

Houses built in Broken Hill between the Wars tended to adopt the styles of housing elsewhere in Australia, such as the Californian Bungalow and Tudor styles. The vast majority were built of corrugated iron with decorative facades of pressed metal. Stone housing was less common during this period.

The Bungalow style is characterised by a more solid building form. The Bungalow features a low pitched roof with extended eaves and large masonry piers as verandahs columns. In Broken Hill the skills of concrete fabricators are evidenced by the wide use of precast concrete front verandah posts on houses of this period.

The configuration of windows and doors altered with the wide use of triple front windows or in some cases casement windows. Leadlight panels were often incorporated into glazing and front doors were often three panelled or fully glazed.

Fencing matched the heavy bulk of the appearance of the Bungalow and was often constructed in masonry. The use of woven crimped wire and cyclone mesh fencing was also common.

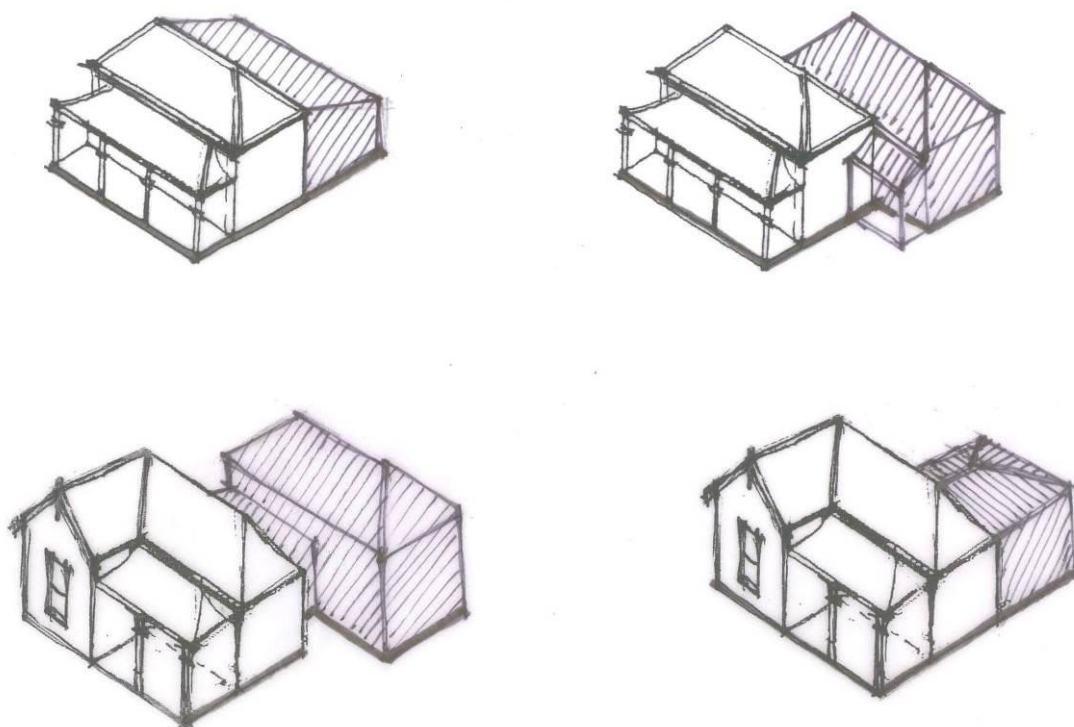


Controls

Alterations and Extensions

- If your house is similar in style to those described above, the house contributes to the heritage character of Broken Hill. The Broken Hill Council is committed to the retention of the existing residential character and demolition of these contributory houses is not encouraged.
- When planning alterations to your house, the design and appearance of the original house must be considered. The front facade should be restored and extensions and modifications reserved for the rear or side. The scale should be appropriate and new works should not dominate the old.
- Roof form and pitch should resemble or match the existing building and repeat eaves details. Similar windows and doors should be used, maintaining existing materials, proportions and rhythm. The existing verandah could be extended as an additional link. Original decorative features could be used in the addition (eg. finials to the roof, internal finishing details such as skirtings and architraves).
- Construction materials should reflect or match those of the original building. In most residences this is corrugated iron and well detailed, this material is a very attractive and functional building material. Use of the material is now becoming fashionable with many architectural awards being given to new houses erected in this material.

The following sketches indicate the preferred way of adding to existing houses in a manner which reinforces the original character of the house.



Different extension concepts for typical Broken Hill houses. Extension profile shown shaded.

Siting of Structures

- Any permanent structure that requires the consent of Council, that is located within 500mm of a boundary, or in any other case where the assessing officer is of the opinion that the boundary of the site is uncertain, shall be subject to a Surveyors Report.

Building Materials

- Galvanised iron: the most common building material, this occurs in many forms; standard corrugated custom orb profile, ripple form (close corrugations); pressed fake ashlar (usually reserved for the front facade only).
- Stonework and square-edged profile brick are less common. Stonework is reserved for the more substantial residences with brick quoins. Square-edged profile brick is generally rendered and occasionally as face brickwork (now often painted).

Maintenance

- Galvanised iron requires regular painting to prevent decay by rust. The temptation to reclad with fake brickwork or imitation weatherboard cladding should be avoided as corner and joint detailing is generally poor and deteriorates rapidly. Rebuilding with masonry is rarely successful as the residence always looks reclad. Repair work should be undertaken with material which matches the original.
- Re pointing of masonry walls is often required. The mortar type should be carefully selected to match the colour and mixture of the original.
- Sandblasting to expose brick or stonework is not recommended as this removes mortar and damages brickwork. Paint removal should be attempted only with care using appropriate chemicals and steam.
- Rising damp/salt damp is often the result of an ineffective damp course. An effective solution can be to improve underfloor ventilation; however it is often necessary to insert a

new damp course (and where necessary under-set the wall with new masonry). This is a specialist maintenance job and requires experienced tradesmen. The installation of a concrete floor slab causes damp to travel up the walls and should be avoided at all costs. A timber floor allows the structure to breathe and if well ventilated will last in good condition. Guttering and downpipes should be regularly checked - if roof waters are not discharged well away from the foundations, rising damp and wall cracking will result.

- Timber framing, rotting or pest infested timber should be regularly treated and where necessary replaced. Timber detailing or weatherboards should be retained where possible. Imitation weatherboards do not blend well with timber as the corner and joint details are lost.

Windows and Doors

- Most common to Victorian cottages and houses are simple double-hung sash windows and four panelled timber entrance doors. Later interwar housing introduced casement windows. Timber-framed windows are an integral part of the character of older houses and with repair and maintenance can perform equally as their modern day counterpart.
- Many people consider that renovating a house involves replacing "old" timber framed windows. This is not the case. Many fine cottages have been spoiled by the replacement of original windows with aluminium framed windows which generally also require a different sized opening to be provided in the wall.

Verandahs and Shade Devices

- The verandah has been used universally to cool houses in the hot desert climate in Australia and these are used on almost all Broken Hill houses. Verandahs break up the facade of the building and provide an outdoor living area protected from the elements. Many verandahs have been enclosed for the use as sleep outs, kitchens and playrooms. It is now generally recognised that an open verandah is necessary as a buffer zone against the heat and when reinstated or restored the original charm of the house is rediscovered and the house made more comfortable. Where possible, handrails, balustrades and verandah posts should be reinstated in the original way and timber and cast iron decoration repaired or re-erected to the original evidence. Verandah timber and cast iron work was always painted, iron verandah roofs were often painted in stripes which can greatly add to the appearance of the house. Window hoods were often effectively used on windows not protected by verandahs.

Garages, Carports and Outbuildings

- Garages and carports should generally not be erected in front of a dwelling obliterating the view of the house. It is recommended that these be set at the side or towards the back of the house.
- Galvanised iron is an appropriate wall and roof material for garages and sheds, and a traditional pitched roof should be used. However, where a carport is proposed next to the house and well planted with creepers to minimise its impact. A flat roof should be avoided and lean-to skillion roof used where possible.

New Houses

- When erecting a new house in a street with predominantly old houses the following design aspects should be considered:
 - Roof form and material - a traditional pitched roof form (minimum 25 degrees) using custom orb profile galvanised steel should be used;
 - A verandah on the front elevation (preferably timber);
 - Windows of vertical proportions (preferably timber);

- Wall materials - galvanised iron, brick (with flush uncoloured joints) of a neutral colour, rendered concrete or brick;
- Simple detailing - mock historic elements (example iron lace) should not be used as these look out of place on a new building.

Use of Early Photographs

- Early photographs of houses in Broken Hill can be referred to as a guide for restoration and upgrading of residential buildings. Photographs are held at the Charles Rasp Library. The reinstatement of architectural elements, such as verandahs is best undertaken with historical accuracy where possible. If early photos are not available, front facade details can be copied from a similar existing intact house which can serve as a guide.

Roofs and Chimneys

- The roof is one of the most important features which determines the overall appearance of houses. Corrugated galvanised iron was used in Broken Hill almost universally due to ease and economy of transportation and the ability of the material to span large widths (thus requiring less timber support). Ogee profile gutter and round downpipes were also used.
- Regular maintenance (spotting of rust spots, painting etc.) will prolong the life of an iron roof. If re-roofing is required, custom orb profile corrugated steel roofing should be used - the finish could be galvanised, zincalume or an appropriate Colorbond (beige, ferric red, slate grey, dark green).
- Roof features such as turned finials at gable ends, decorations at corners of gutters, should be restored as these contribute to the character of the roof.
- Chimneys are an important part of the roof and should not be removed. Regular maintenance of brickwork will prevent deterioration.

Paint Schemes

- Paint schemes for early residential buildings were often bold and imaginative with strong colours (used to pick out details of joinery, verandah posts) contrasting against lighter painted wall colours.
- Paint companies have heritage colour charts which contain paint colours appropriate for use on heritage buildings. The following is a simplified summary of external paint finishes appropriate for early residential buildings in Broken Hill.

Walls	All brickwork and stonework should remain unpainted. Paintwork to timber, galvanised iron wall cladding and painted brickwork to be in shades of creams, buffs, off whites, ochre shades.
Joinery Work	One or a combination of a range of colours (gloss finish) including Indian Red, Brunswick Green, Deep Brown, Light Brown, Light Stone.
Roofs	Unpainted corrugated galvanised iron or painted in Slate Grey, Light Stone, Ferric Red or Green.
Cast Iron Work	Deep iron colours such as Indian Red, Brunswick Green, Rich Brown or Light Stone. A different colour was sometimes used to pick out details on the iron work.
Fences	When erecting a new fence to an old house, select a fence appropriate to the period of the house. Early photos of the house may show the original fence or a house of a similar period could be located with an appropriate fence which could serve as a model. In Broken Hill, galvanised iron (either standard corrugated or ripple iron) was often used because of economical cost and various different styles of fences were built out of the material. In the 1920's woven crimped wire was introduced. Stone fences were reserved for only the most substantial houses.

8.3 Commercial development

Design guidance

Broken Hill has a rich, varied and unique commercial architectural heritage. Many architect designed buildings were erected reflecting the wealth of the early mining activities. These architectural styles originate from South Australian, Victorian and New South Wales influences, as typified in the civic block in Argent Street.



- Broken Hill's commercial character largely derives from the regular placement of the buildings. Shops, banks and hotels are almost all constructed to street alignment. Any building work undertaken in commercial precincts of Broken Hill must be carefully considered so that the identified historic character is retained.
- Alterations and additions to existing heritage buildings should respect the character of the building in question and not detract from the character of the precinct as a whole.

The Argent Street Urban Design Study report should be referred to for buildings within the CBD precinct.

- Any new buildings should be carefully designed to fit in with the character of the precinct but not pretend to be historic buildings themselves. Commercial buildings should generally incorporate a verandah across the street front footpath.

Built Form and Materials

Roofs, Parapets and Chimneys

- Corrugated iron is the universal roofing material in Broken Hill and most shops have street front parapets that serve to hide the roof behind. These parapets were generally erected in masonry and were often carefully designed with urns, balustrades and render detailing. In many cases, this decoration has been removed and the surfaces simplified. Roof configuration is usually steep in pitch and simple in form (either hips or gables or combination of both). Roofs in any additions should be carefully related to the existing roof in material, shape and pitch. Where the roof is visible this should be in a pitched form.

Walls

- Many of the early commercial buildings in Broken Hill were erected in local stone, often using render detailing. Late Victorian and Edwardian buildings predominate and by the turn of the century, brick was more commonly used (often with decorative cement render detailing). Less important buildings were erected using galvanised iron for walls and roof.

Maintenance and Repair of Walls

- Rising damp in Broken Hill is common. Many early buildings did not incorporate damp proof courses or the existing ones may no longer be effective, often due to a raised ground height. The most effective solution is to lower the ground level, improve underfloor ventilation and where necessary, replace or insert a new damp course. Whilst, it is the most satisfactory long term solution and the advice of an experienced tradesman or architect is essential in this special maintenance job.
- Masonry walls often require repairs, even though the bricks and stones are still in place. When re mortaring or repairing brick work, the mortar type should be carefully selected to match the colour and mixture of the original. High cement content mortar should not be used as it is a different colour and too strong compared to the original. Strong cement mortar will break away from the masonry, often fracturing the brick or stone. Mortars with a high lime content are more flexible for re mortaring or re pointing.
- Deteriorated stone work needs careful assessment. Matching stone is the most suitable replacement for repair work. Original rendering on external walls should not be chipped or sandblasted away - the render was often a protective finish for second grade stone or brickwork and when removed can result in bad weathering of walls.

Shopfronts

- Most original shopfronts in Broken Hill have been removed, but there are many early shopfronts which still survive. Original shopfronts should generally be retained and restored.

- Intact shopfronts to existing Victorian buildings are characterised by the following elements:
 - Timber shop fitting
 - Paired or single entry doors
 - Masonry or timber stall board
 - Display shelf common
 - Splayed recessed entry
 - Dividing wall
- Some shopfronts of a later period are also significant and are characterised by the following elements:
 - Metal shop fittings
 - Paired entry doors
 - Tiled stall board and dividing wall
 - Display shelf
 - Recessed entry
 - Transom with glazed area broken up



Verandahs

- Early photos of Broken Hill show that almost every building had a verandah for protection against the harsh sun. In many cases these have been removed and replaced by modern cantilevered awnings which are inappropriate to the original design of the building. Recent examples of verandah reconstruction in the City show what dramatic results can be achieved by verandah reinstatement.
- Reinstatement of continuous post supported verandahs is a long term objective for commercial precincts in Broken Hill. New verandahs should be simple without elaborate decoration and the attached sketch outlines detail of a typical appropriate verandah.
- A new verandah should be:

- Based on original evidence or modelled on an original verandah on an existing similar building.
- Roof fall to be approximately 25-30 degrees and in corrugated galvanised iron (or select colourbond).
- Related in height to the adjoining verandah, consideration should be given whether to continue the height of the adjacent verandah or whether the height should be different.



New Commercial Development

- Consultation with the Heritage Adviser is recommended when contemplating a new commercial building within streetscape with significant historic character. When designing a new building to fit into an existing commercial street (example - Argent Street) the following principles should be considered.

Scale, Mass and Height

- The general scale of adjacent buildings should be considered. The height of new buildings should continue the predominant height of surrounding buildings. Consideration should be given to the lining up of parapets and string courses with new building elements. The height limit for the commercial precinct is three storeys.

Streetscape Form and General Proportions

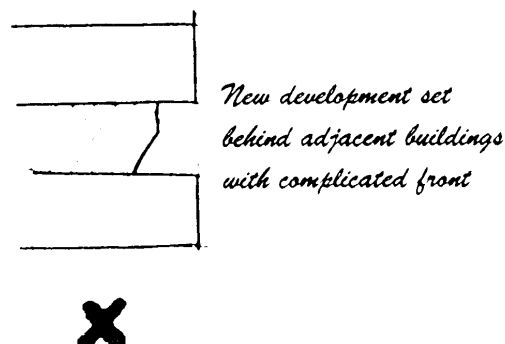
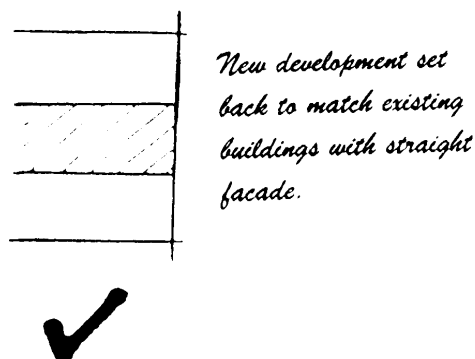
- Existing proportion and rhythm of architectural elements such as verandahs, parapets, windows, door and pilasters should be repeated in new development. Consideration should be given to continuing the alignment and form of the adjoining parapet.

Surface Decoration

- Large wall areas in new development should be broken up with surface decoration. Large areas of glass or unrelieved walls are generally not appropriate.

Siting and Setback

- All new buildings should be sited at right angles to the front and side boundaries. New commercial buildings should generally be erected to the footpath with a verandah over the footpath particularly where these are located within a consistent streetscape.



Siting of Structures

- Any permanent structure that requires the consent of Council, that is located within 500mm of an adjoining property boundary (other than a Council lane or footpath reserve) or in any case where the assessing officer is of the opinion that the boundary of the site is uncertain, shall be subject to a Surveyors Report.

Shopfronts to New Buildings

- These should reflect elements of the traditional shopfronts and be simply detailed as follows:
 - Timber or metal shop fitting (with large glass area broken up by transoms or mullions).
 - Masonry or timber stall board or low plinth.
 - Entry doorway flush or splayed entry with paired or single door or side entry.

Roofs

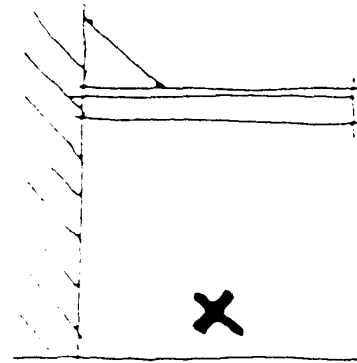
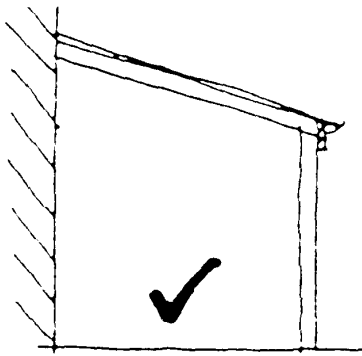
- New buildings should have roofs which reflect the size, shape and pitch of existing roofs. Large roofs of mono pitch or low pitch do not fit in where these are visible. Where the roof is visible, this should be in a pitched form. The most suitable cladding is unpainted corrugated galvanised steel or an unobtrusive colour or colourbond.

Materials of New Development

- These should be selected to blend with nearby heritage buildings. The following are considered appropriate:
 - Rendered masonry with smoothed or bagged finish - generally the most appropriate.
 - Face brickwork - clear red, traditional red or neutral coloured bricks.
- The use of mock historic detailing, such as tumbled bricks, brick quoining, heavy coloured grouting is not appropriate.

Verandahs

- Consideration should be given to the use of the verandah in the design of a new building to provide protection for pedestrians. This should be based on design principles of early verandahs with sloping roofs of galvanised iron and regularly spaced columns.

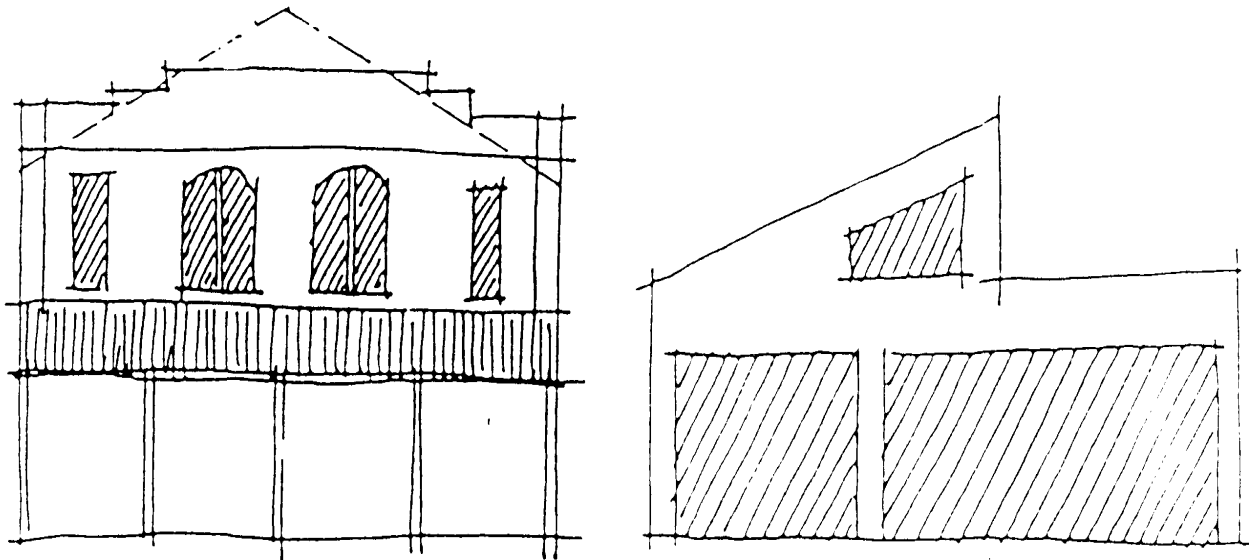


8.3.1 New Development in the Central Business District

Controls

- Buildings facing Argent Street shall not exceed three (3) storeys in height. Buildings facing all other streets in the CBD shall not exceed two (2) storeys in height.
- The following types of street furniture should be installed:
 - Umbrellas - plain white canvas market umbrellas (preferred) or cafe umbrellas (incorporating advertising signs).
 - pots - rectangular or round concrete or terracotta pots. Preference given to sandy/biscuit coloured concrete finish. Pots to be positioned on footpath to create "outdoorroom" for cafe.
 - tables and chairs - fixed or moveable tables; chairs for removal after hours. Preference given to non-plastic variety
- Summary of design principles for new development in the CBD:

Recommended	Not Recommended
Use of vertical elements	Large horizontal elements
Verandah	Bulky geometric skyline
Façade broken by detail	No verandah
Parapet to line up with adjoining parapet	Large unbroken areas of glass
Detailed shopfront built to street alignment	No use of detail Building at angle to street alignment



8.4 Development in the Mining Zone

Application

The Line of Lode in the Mining Zone is an integral part of the heritage value of the City of Broken Hill and represents the reason for the town's existence. Continuing use of the Line of Lode for mining purposes is a heritage value. The Line of Lode demonstrates a number of historical themes, significant at National, state and local levels, including mining, cultural landscapes and environment, technology and labour. The management of the Line of Lode should be undertaken in a way which will ensure that the area continues mining operations, is able to tell the story of Broken Hill and is interpreted for visitors to enhance their understanding of the place. An appropriate approach to ensure this is through the conservation of the identified important structures and settings, safe access for visitors and appropriate interpretation of identified highly significant elements and domains.

Conservation of the heritage qualities of the Line of Lode must be balanced against economic re-use and possible future development. With any new mining activity, a strategy for ongoing management and maintenance of the identified heritage items and sites must also be developed. The Line of Lode within the City of Broken Hill boundaries is divided into three sections: the northern, central and southern leases as shown in the map below. The section of DCP 2016 applies to the Line of Lode Mining Zone.

Objectives

- to retain and conserve the setting, context and views of the Line of Lode including all significant identified building and landscape elements.
- to retain and conserve the identified heritage items of environmental heritage in the domains including significant building types.
- to ensure that alterations and additions do not detract from the heritage significance identified heritage items and domains within the mining zone.
- to encourage continued mining use, adaptive re-use and new development which complements existing heritage items and domains.
- to identify suitable interpretation measures where adaptation and redevelopment for new use or for occupational health and safety reasons requires change.

- to conserve and manage all facets of the heritage value of the mining zone.

Design guidance

- When undertaking any development the above objectives should be incorporated as part of the proposed development.

Identified heritage items, sites, elements and domains should be conserved and maintained

- An experienced heritage architect or conservation specialist should be engaged for works to a significant heritage item.
- Significant original external (and internal where relevant) elements of heritage items should be maintained. Replacement of deteriorated elements when required should be undertaken in matching profiles and materials.
- Alterations, adaptation, additions or redevelopment should not adversely impact the heritage values of the heritage item, unless all other alternatives have been exhausted.
- Changes should maintain the significant form, proportion, scale, details, colours and materials of the item.
- Changes to structures still in mining use (operational) should be undertaken carefully in light of the possible adaptation required in the future.
- Where items are already identified as ruins, stabilisation and passive decay is acceptable.
- A Statement of Heritage Impact should be prepared and submitted with the development application which assess the impact of the proposed development.

Controls

New development

- New mining equipment and infrastructure proposed for sites within the Line of Lode will add a modern layer of processing technology and it is important that new and old buildings coexist appropriately where heritage items are retained.
- New development should not diminish the heritage significance of the item, site or domain.

In considering new development the following should be taken into account:

- The height and scale of the new building and how it relates to existing buildings.
- Material and colours – these should be the same, or similar to existing predominant materials and colours.
- Siting of new development – new development should not visually dominate or intrude into the curtilage of an existing heritage item.

Adaptive reuse

Many buildings which are no longer required for mining operations still have the potential to be used for another purpose. The following should guide adaptive reuse of these buildings:

- Buildings and sections of the site to be adaptively reused should maintain identified original features of heritage value and no major changes should create adverse impact to the heritage values until and unless all prudent and feasible alternatives are exhausted.
- New uses could be similar to original use, enhancing recognised heritage values, or an appropriate new use where the heritage values of the place are retained.
- In general, all internal and external changes should be reversible.

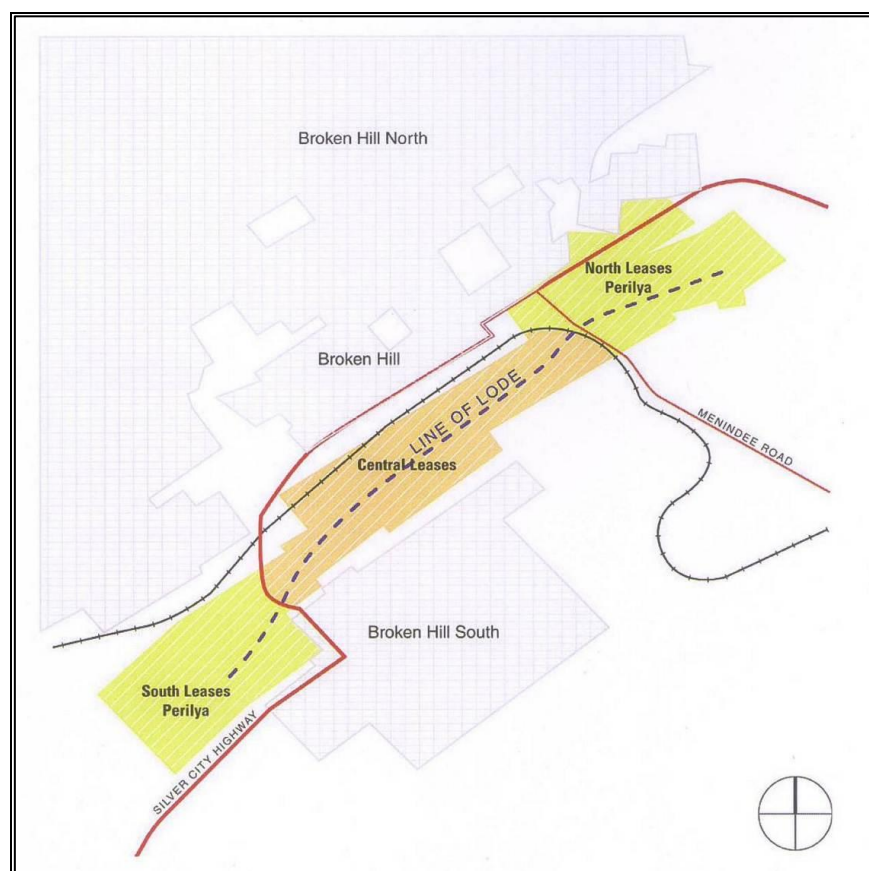
Ongoing maintenance and monitoring

- Identified heritage items should be regularly maintained to ensure that the structures do not deteriorate. Monitoring is required for all items and structures which are recommended for retention and mothballing. An appropriate reassessment of their condition every two years is necessary to determine their structural stability and required maintenance.

Moveable mining heritage

Moveable heritage refers to items or objects of heritage value which are not fixed to a particular site or place, they may have a strong association with that place or site which when broken can diminish the value of both. Within the Line of Lode there are a number of moveable heritage items which include machinery, furniture, maps and signs.

- Where moveable heritage items are identified, care should be taken to manage the retention *in situ*, or careful storage, of these elements so they are available for appropriate interpretation.



The Broken Hill Line of Lode Mining Zone



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