Heritage Strategy
for the Midland Central Redevelopment Area

Proud history. Exciting future.
The Midland Redevelopment Authority acknowledges the exemplary work of Heritage and Conservation Professionals in the preparation of this document and the complete Heritage Strategy.

The MRA also wishes to thank industrial archaeologists C. and M.J. Doring for their inventory of machines at the Railway Workshops, and the Heritage Council of Western Australia and the Midland History Project for their assistance and support throughout the development of the strategy.

‘The Railway Workshops is one of many cultural heritage sites in the Midland redevelopment area. It holds a special place in the State’s industrial, economic and social history.

‘The Midland Redevelopment Authority’s strategy to conserve the heritage values of the Railway Workshops is one of the most significant undertakings by the Western Australian Government in this field.’
The Railway Workshops is one of many cultural heritage sites in the Midland redevelopment area. It holds a special place in the State’s industrial, economic and social history.

The Midland Redevelopment Authority’s strategy to conserve the heritage values of the Railway Workshops, which is on the Heritage Council of WA’s Register of Heritage Places, is one of the most significant undertakings by the Western Australian Government in this field.

The Midland Redevelopment Act 1999 specifically commits the Midland Redevelopment Authority to conserve the Workshops, particularly its heritage and labour history. This includes a highly intact collection of machines and associated tools used for the manufacture, repair and maintenance of locomotives and rolling stock.

Accordingly, one of the MRA’s first tasks was to commission a heritage strategy to provide a coherent approach to heritage issues. Such a strategy would identify, agree and protect fundamental values while enabling the MRA to proceed with planning and development with confidence and certainty. It would also recommend how to rationalise the collection of machines, tools, furniture and fittings, and interpret and protect what is to be retained.

The task is now completed and Heritage Strategy – Midland Central has been adopted by the MRA Board. It confirms the parameters for decisions related to heritage, and establishes a clearly defined and agreed process for planning and development proposals. The strategy covers both the registered area of the Railway Workshops (Helena precinct) and the rest of the redevelopment area where heritage issues arise (Clayton, City Centre and Eastern Enterprise precincts).

The strategy incorporates and expands material included in the Conservation Policy for the Midland Railway Workshops, prepared in 1994 by Heritage and Conservation Professionals. It also draws on the extensive inventory of machines prepared by C. and M.J. Doring and included in the three-volume Industrial Archaeology Study that formed part of the 1994 report.

It is appropriate that Heritage Strategy – Midland Central is officially launched in 2004, the centenary of the Workshops and a year of rapid progress for the redevelopment project.

This brochure is an overview of the complete strategy, a much larger document. While it is a concise summary, those who require more detail should refer to the main document available at the MRA.

I congratulate the authors of the strategy, Heritage and Conservation Professionals, who have pursued their mammoth task with dedication and presented an outstanding work that sets new benchmarks in a highly specialised field.

I also commend the MRA for its demonstrated commitment to the area’s heritage exemplified by the award-winning restoration of the Railway Institute and Technical School building, the magnificent Workers’ Wall and the proposed interpretation centre in the Centenary Precinct.
The Midland Railway Workshops, including buildings, plant and equipment, roads, railway tracks, open spaces and landscape elements as defined in the Conservation Plan (1994), has cultural heritage significance for the following reasons:

It represents the most intact example of an early 20th century railway workshop in Australia.

It was the most substantial industrial complex established by the West Australian Government at the period around the turn of the century and both the structures and the organisation of the industrial processes on the site involved extensive planning.

It was the main workshops serving the West Australian Government Railways from 1904 until 1994 and played a major role in the economy, development and daily life of Western Australia for almost a century.

It contains a number of significant buildings including the original brick industrial buildings built in 1904 and extended circa 1912, which comprise the most important group of early twentieth century industrial buildings in Western Australia.

It contains a wide range of significant machinery much of which remains operable as well as collections of associated tools, equipment, furniture, fittings and documents.

It contains a number of significant site features associated with either the industrial process or the workforce associated with the site including the War Memorial erected after World War I, and

It was a major employer and played a significant role in the training of apprentices for the various trades and professions represented on the site.
1. Heritage value
Heritage significance will be a fundamental consideration in all future decisions on the planning and development of Helena Precinct, the area included in the Heritage Council of Western Australia’s Registered Area.

2. Heritage Council of Western Australia (HCWA) approval
Approval will be sought from the Development Committee of HCWA before the start of all development in the registered area. This includes development associated with new and existing buildings, areas around buildings, roads, landscaping and servicing of the area generally.

3. Existing significant buildings
The redevelopment of the Railway Workshops will have regard to the heritage value of the existing building stock and ensure that all buildings of exceptional and considerable significance are retained and conserved. Where possible buildings of some significance will be retained and conserved. All conservation works to buildings of exceptional and considerable significance will be carried out in accordance with the principles of the Burra Charter.

Guiding Principles

The Midland Redevelopment Authority has adopted the following guiding principles for the conservation of the Midland Railway Workshops.
4. Archival recording before demolition or change
An archival record will be prepared to HCWA requirements before removing buildings identified as being of little heritage value, and before works commence to adapt retained buildings.

5. Existing significant site features
The site will be redeveloped with regard to the heritage value of the existing site features, and all site features of exceptional and considerable significance will be retained and conserved.

6. Significant areas
The redevelopment will have regard to the heritage value of the existing site features and ensure that all areas of exceptional or considerable significance are retained as open space. Areas of some or little significance will be developed in accordance with recommended guidelines in a way that does not impact negatively on adjacent significant buildings or spaces.

7. Machinery
Detailed recommendations will be followed for machinery associated with Workshops use. Where possible and appropriate, machines will be kept for interpretation purposes.

8. Tools and furniture
Detailed recommendations will be followed for tool collections, furniture, signs and other items of movable heritage associated with Workshops use. Where possible and appropriate, items will be kept for interpretation purposes.

9. Labour and social history
The redevelopment of the Workshops will take account of the labour and social history of the place. History will be interpreted on the site so that it is accessible to the community, and where possible will involve former Workshops employees.

10. Heritage Agreements
Formal Heritage Agreements with HCWA will ensure that all future owners or users of existing or new buildings, site features and areas understand the heritage significance of the place and that all development is in accordance with that significance.

11. Heritage opportunities
The heritage significance of the Railway Workshops is an opportunity to encourage appropriate redevelopment, not a constraint. Heritage conservation will enhance the value of the place and encourage new uses and appropriate redevelopment.
Chief Mechanical Engineer’s Office (1904, 1963)  
Main administration and drawing office

Laboratory (1924, 1942)  
Metal and chemical testing including testing of Collie coal

Railway Institute (1912, 2001)  
Combined Technical School and Railway Institute  
MRA office from 2001

Pattern Shop (1904)  
Manufacture and storage of timber patterns for casting metal objects in the Foundry  
Contains an important collection of patterns and pattern-making machinery

Tank Building/Pattern Store (1904)  
Originally housed large water tank  
Used as Electrical Store from 1923, Pattern Store from 1942

Power House (1904, 1912)  
Transformer Room added 1912  
Provided the main power supply to the Workshops  
Originally hydraulic, subsequently electrical and compressed air power  
Contains an important collection of compressors and air pumps  
Provides access to the Main Conduit (1904)

Boiler House/ Copper Shop (1904)  
Originally the Boiler House for generating hydraulic power  
Later used as the Copper Shop for copper plating for carriage fittings, plumbing components etc

Tarpaulin Shop/ Electrical Shop (1904)  
Originally used for the manufacture of tarpaulins for covering open wagons  
Later used for manufacture and maintenance of electrical items

Block 1 (1904, 1912)  
Carriage Shop for carriage and wagon assembly and repair  
Also contains the Wood Mill and Saw Doctor where timber components for carriages and wagons were manufactured in an area with a timber floor and underfloor extraction system  
1950s annexe used for the manufacture of diesel locomotives

Block 2 (1904, 1913)  
Boiler and Blacksmith’s Shops and Forge where heavy or coarse metal components for steam locomotives, carriages and wagons were manufactured  
Manufacture of dog spikes for fixing the rails to the sleepers  
Contains very large items including drop hammers and furnaces

Block 3 (1904, 1913, 1940, 1956)  
Machine Shop where the more precise metal parts of engines and carriages were manufactured  
Wheel Shop where wheel and axle sets were assembled or reconditioned  
Extended to the east (not extant) in 1946 for munitions work  
Extension on the southern side 1956 for maintenance and repair of diesel engines

Gatekeeper’s Office (1924)  
Formerly the Receiving Shop, relocated 1924 from eastern side of main entrance  
Constructed over northern access to the Main Conduit (1904)

Time Keeper’s Office (1924)  
Built to replace the Receiving Shop  
Contained the staff time clocks  
Extended circa 1950

Foundry (1904, 1912, 1942 and 1960s)  
Ferrous and non-ferrous castings including iron castings for rolling stock and permanent way, brass handles and fittings for carriages, and brass or white metal bearings for carriage and wagon axles

Main Store (1904)  
Storage of items manufactured on the site etc
Ambulance Building (1924)
Formerly the Time Keeper’s Office, relocated 1924
First aid medical room and health centre adjacent to the ambulance garage
Tool Room/Works Management Centre (1942)
Originally used for maintenance and repair of tools
Adapted for administrative purposes relatively recently
Canteen (1950)
Staff meals
Recreation Hall (1941)
Staff dining room, formerly linked to original canteen (1937) not extant
Plating Shop (circa 1946)
Electro-plating from the 1940s to the 1970s
Copper Shop/Element Shop (circa 1910)
Copper Shop to the 1920s
1920s to 1950s used by West Midland Workshops for track equipment
From the 1950s used for the manufacture and maintenance of electrical elements and devices
Weightbridge (1904)
Weighing, checking and adjusting axle load distribution of locomotives, to ensure proper traction
Sewerage System (1904)
Third sewerage system constructed in WA (after Government House and North Fremantle)
Elevated Tank (1904)
Provided water for steam locomotives, storage of diesel fuel from the 1960s
Hydraulic Accumulator (1949)
Operated the hydraulic system in the Flanging Shop
Oil Store (1904)
Storage of oil to 1950s then general storage
Paint Shop/Flanging Shop (1910)
Used for munitions in World War II
From 1940s used for rolling and flanging of wheels, rails and other steel sections
War Memorial and Garden (1925)
Memorial to the men from the Workshops who died in World Wars I and II
Main Conduit (1904)
Underground tunnel running north/south from the entrance to the river with an access point in the Power House
Contains hydraulic, electrical and pneumatic mains servicing the Workshops
Shunting Yard (1904)
Main area for manoeuvring locomotives
Underwater Coal Storage Dam (1895, 1947)
Reservoir built circa 1895 on site of first Government artesian bore (1894)
1947 converted for underwater storage of Collie coal
Flagpole (1916, 1926)
Relocated from site of War Memorial in 1926
Labour activities including gathering place for union members and delegates
Compressed Air Tanks (circa 1920)
Erected in current position in 1920, but may have been relocated from the Boiler House
Storage of compressed air for power
Supply Shed 1 (circa 1873)
Storage of supplies
Supply Shed 2 (circa 1940s)
Storage of supplies
Hot and Cold Wells (1904)
Provided a cooling system for condensers serving the generators in the Power House
Later used for cooling the air compressors
Safety Building (undated)
Staff facilities
Panel Shop
Building relocated from Midland Railway Company Workshops in the 1970s
A brief history of the Railway Workshops

1900-05
Construction
Work began on the first buildings on the site in 1897. However, the 1901 Royal Commission halved the length of the three main blocks as proposed by C.Y. O’Connor, Engineer in Chief. The Public Works Department designed and built the Workshops. The three main blocks were built by 1904, as were the Power House, Pattern Shop, Foundry, the Chief Mechanical Engineer’s office and various store buildings. By January 1905 all machinery and staff had been transferred to Midland from the earlier workshops at Fremantle.

1910-18
Major buildings extended and workers serve in World War I
By 1910 the Workshops’ facilities were proving inadequate and the three main blocks were extended to the size originally intended. The Foundry and Power House were also extended. In 1912-14 the Railway Institute and Technical School was built, completing the construction of the main brick buildings. Of the 400 employees who enlisted and served overseas in World War I, 70 died. A Memorial to Fallen Soldiers was erected in 1925.

1920s
Construction of rolling stock begins
In the late 1920s the Workshops were upgraded to become a manufacturing establishment as well as repairing shops, and more machines were acquired. The 1928 WAGR Annual Report recorded that the Workshops ‘were never more busy’ and that ‘commitments in rolling stock construction and repairs have never before been so great.’ The Workshops became one of the State’s main engineering establishments.

1930s
The Depression and the start of diesel
Between the wars 40 per cent of the manufacturing workforce of WA was employed at the Workshops, with up to 2000 employees at the peak of operations. The site had the largest concentration of blue-collar workers in the State and was important for training and its role in the union movement. The Depression was felt at the Workshops as elsewhere in the State, resulting in staff reductions. The construction of diesel engines began in the late 1930s.

1940s
World War II war effort
During World War II the Workshops expanded and changed to play a major role in the war effort, including munitions manufacture. Men left to enlist and women were employed at the Workshops for the first time. More than a
third of production was devoted to the war effort. As a result, Block 3 was extended to the east in 1940 to construct the Shell Machining Annexe, since demolished.

The names of men who died in World War II were added to the memorial.

1950s Restructuring and modernisation
The transition from war to peacetime production resulted in reorganisation and a major modernisation program. Metal wagons were designed and built for the first time, diesel locomotives became common and increasingly replaced steam and staff numbers rose to their highest level (about 3500). A program of railway rehabilitation began as a result of a Royal Commission in 1948.

1960s Standard gauge and the end of the steam era
During the 1960s the construction of the standard gauge railway - a continuous single line to the Eastern States - saw the Workshops adapt to accommodate wider locomotives and rolling stock. In 1968 the standard gauge rail link between Fremantle and the transcontinental line at Kalgoorlie was completed. In 1971, the Steam Depot at Midland closed following the end of steam on the suburban rail system in 1968 and on the rural system in 1971.

1970s Upgrade and modernisation
The 1970s was a period of change reflecting the role of railways in the developing mining and exploration industry. The Workshops designed and constructed specialised wagons for bauxite, alumina, iron ore, mineral sands, cement and wheat, wagons for the State Energy Commission and aluminium tankers for transporting oil.

1980s and 1990s Decline and closure
In 1990 rationalisation of the Workshops resulted in a program of quality assurance and reorganisation. However, on 28 April 1993 the Court Government announced the closure of the Workshops, ending the site’s 90-year role in railways operations. The flag was lowered for the last time on 4 March 1994 and work was relocated to other Westrail centres and outsourced to private industry.

2000s Redevelopment
On 1 January 2000 the Midland Redevelopment Authority (MRA) was established to coordinate the development of land in the Midland redevelopment area, including the Railway Workshops.
Interpretation

The Strategy recommends that interpretation of the Workshops focus on three areas:

• the conservation and reuse of significant buildings, site elements and areas
• developing a Rail Heritage Centre in Block 1 as a working museum, with the Power House and Pattern Shop as working displays
• multi-media interpretation including a web page, events (eg festivals and Open Days), and publications (eg fact sheets).

The main way to interpret heritage significance is to conserve the fabric of the place by retaining the significant buildings, site features and areas and displaying significant machinery, furniture and fittings.

This does not preclude change. Original buildings with new occupancies can be a meaningful part of the interpretation of a complex site, just by their physical presence in relation to other buildings and the site as a whole. Signage or plaques can be included inside or outside the buildings to depict their former history and use.

Open spaces are equally important, and components such as ground surfaces, landscaping, lighting, street furniture and public art play a role.

Other ways to interpret the place include interactive displays that present its history, such as a museum, working displays (eg machinery in operation), an active rail display including locomotives and carriages, and a walking trail with signage on display panels in various locations.

Multi-media should be used - collecting information is an equally important part of the interpretation process. Activities could include:

• Recording oral histories and providing access to this material
• A medium for the recording of people’s experiences, such as a Book of Memories
• Brochures, fact sheets, posters, flyers etc
• Web site
• Documentary/ film
• Autobiography/ fiction
• Festivals, reunions, Open Days.

Social and labour history

The interpretation of the Railway Workshops must include material on its social and labour history - the human aspect that brings its story to life. Material collected by the Perth branch of the Australian Society for the Study of Labour History through the recording of oral histories from former Workshops employees should be used.

The main social and labour history themes include work practices, cultural activities, political and labour activism, the role of the Workshops during World Wars I and II, women in the workforce, immigration, apprenticeship training and culture, genealogy, Aboriginal workers, contextual history and the impact of the Workshops’ closure.

Significant buildings can be adapted for a range of uses including commercial, retail, arts, professional or other light industrial activities. The most appropriate uses are those that require no major alteration to significant fabric. The former use and significance should be interpreted to link them with the history of the place.

Some buildings on the site are appropriate for conservation as part of the future interpretation of the place, taking particular care to ensure that their significance is not compromised by adaptation to new uses. This applies in particular to Block 1, the Power House and the Pattern Shop.

Site features of cultural heritage significance contribute to an understanding of the former industrial and labour history of the site, and their conservation will contribute to the interpretation of the Workshops’ history. The War Memorial is particularly significant to the wider community for ceremonial and commemorative purposes.

Where possible mature trees, fruit trees, vines and the river vegetation should be retained and integrated with new plantings to improve the appearance and amenity of the place and establish a human-scale environment around the buildings.
Helena Precinct

Helena Precinct contains almost all the Workshops buildings and site features identified as being of exceptional or considerable significance – the Chief Mechanical Engineer’s (CME’s) Office, the Railway Institute, and Blocks 1, 2 and 3, Pattern Shop, Power House, Boiler House, Foundry, old Tarpaulin Shop (later Electrical Shop), Main Store, the War Memorial and Garden, Weighbridge and Main Conduit (brick-lined underground tunnel). The precinct is included on HCWA’s Register of Heritage Places.

Conservation and adaptation

The Strategy gives detailed guidance for conservation and adaptation of significant buildings. Adaptation works should:

- be carried out without damaging significant fabric
- allow the original structure to remain evident
- be compatible in scale and proportions, and respect the original industrial aesthetic of the Workshops.

Where possible new work in original buildings should have independent structural support, be visually independent and retain the original sense of the space, and be constructed of different materials from the original building. Designs that allow for the transmission of light, provide a sense of transparency and retain the sense of openness of the space are appropriate.

Significant buildings should not be extended. However, additional accommodation can be added as a linked structure, visually separate from the original.

Where possible existing machines should be retained in the buildings to interpret the former use.

New development in significant areas

Development in areas of exceptional or considerable significance should not adversely affect the significance of the area, and should reinforce and interpret that significance. Generally, new buildings should not be built in areas of exceptional significance. New buildings in areas of some significance should be of discreet design and of a scale that does not dominate the significant space.

Landscape elements and site features should not be removed without due consideration of their heritage values. New street furniture, paving, planting and all landscape treatments should respect the historic character of the Workshops. Specific recommendations apply to development in the former Shunting Yard, the roads between Blocks 1, 2 and 3 and the road immediately to the west of them.

The Strategy gives guiding principles for new development on the site including planning guidelines (lot subdivision and orientation, road layout), landscaping guidelines (planting, paving and road surfaces, street furniture, public art, signage, fences) and for the style, form, proportion, scale and materials of new buildings.

The Strategy recommends processes for rationalising significant machinery, tool collections, furniture and signs, and guidelines for their retention and conservation or disposal by sale or gift.

Clayton Precinct

Clayton Precinct is the part of the Railway Workshops east of the Helena Precinct and includes the Flanging Shop, which is included in the area registered by HCWA.

Buildings constructed in the Clayton Precinct early in the history of the Workshops included the Timber Store (1902), the Oil Store (1904) and the Test Room (1904, demolished 1999). The Flanging Shop was constructed in 1909/10 as the Paint Shop, following the destruction by fire of the original timber and iron paint shop relocated from Fremantle.

The Septic System for the Workshops was also constructed in 1904 adjacent to the river to the south of the Oil Store.

The eastern end of the Workshops site remained substantially undeveloped until World War II, when the Workshops manufactured munitions on contract for the Commonwealth Department of Munitions and Supply. Redevelopment of Clayton Precinct will alter the street layout and general configuration of the area almost totally.

Planning should retain views to the Darling Ranges from the road between Blocks 1 and 2.

The Flanging Shop, Oil Store and Fielding and Platt Hydraulic Accumulator (located east of the Flanging Shop) have cultural heritage significance and should be retained.
The City Centre Precinct includes a section of the original Midland town centre with a number of historic sites and buildings, some entered on HCWA’s Register of Heritage Places and others listed on the City of Swan’s Municipal Heritage Inventory (MI).

The area includes the site of the former Midland Railway Company Workshops, now redeveloped as the Centrepoint Shopping Centre, the former alignment of the Midland Railway Company line along the south side of The Crescent and the old Midland Junction School, now the Australian Opera Studio.

Commercial development dating from the early 1900s characterises the section of Great Eastern Highway between Helena Street and Cale Street, with the area to the south between Great Eastern Highway and Railway Parade characterised by residential development from the same period.

Future development in the City Centre Precinct should conserve the historic buildings, trees, landscape areas and sites identified in the area. Identified significant commercial and residential buildings should be retained to contribute to the revitalisation of the town centre, and the historic and social significance of the former Midland Railway Company workshops and railway alignment should be interpreted in any future development.

The MRA’s plans for redevelopment of the City Centre Precinct includes modifications to the road layout and extensive revitalisation of the area bounded by The Crescent, Great Eastern Highway and Cale Street. This area includes the HCWA-registered former Midland Junction School site as well as areas of local cultural heritage significance, including the former railway alignment and the Tuohy Gardens.

Land uses proposed in the Concept Plan include retailing, entertainment and residential uses with the aim of reinvigorating the city centre. All these uses are compatible with the conservation of the individual heritage places and the heritage values associated with the area.

Where possible the places included on the City of Swan’s MI should be retained, conserved and adapted for new uses. The heritage buildings provide a link between the historic development of Midland and its current redevelopment and reflect the character of the city centre. Their retention is important to successful revitalisation.

The Eastern Enterprise Precinct is east of the Clayton Precinct and includes the Midland Saleyards, established in 1910, and a section of rail reserve that extends to the east and includes a large grain silo. It does not include the former abattoir site south-west of the saleyards.

The silo is included on the City of Swan’s MI.

The MRA’s plans propose redevelopment of the precinct for business and light industrial development.

Future development should take account of the historic and social significance of the former Midland Abattoirs and Saleyards.