# CITY OF SOUTH PERTH LOCAL HERITAGE INVENTORY

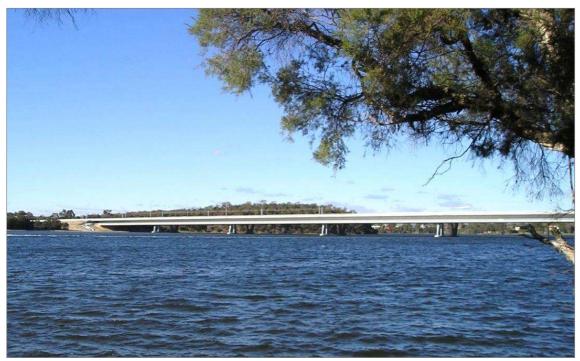
Management Category

B

# PLACE RECORD FORM

Prepared by Heritage Today, March 2000 Most recent update by City of South Perth, November 2015

Place No: SPt 2 Mount Henry Bridge



(Gina Fraser, City of South Perth, June 2007)

## **LOCATION**

Name of Place	Mount Henry Bridge		
Other / former names			
Address			
Suburb	Salter Point		
Local Government Authority	City of South Perth		
Scope of listing This heritage listing applies to the 1982 traffic bridg			
	2006 traffic bridge and the 2007 railway bridge, which all		
	comprise the Mount Henry Bridge		

## **LISTINGS BY OTHER BODIES**

Name of Body	Reference No.	Grade of Listing	Date
Heritage Council of Western Australia	4794	Data base only – not listed	-



#### LAND DESCRIPTION

Reserve No.	Lot	<b>Location No.</b>	Plan/Diagram	Vol/Folio

Late Twentieth Century
Opened 1982
Florey, Cecil C. Peninsular City: A Social History of the City of South Perth, City of South Perth, WA, 1995.

### **USE(S) OF PLACE**

Original	Road bridge
Present	Road and railway bridges
Other / Former	

#### **HISTORICAL NOTES**

The north-south freeway system was planned by Professor Gordon Stephenson and Mr John Alastair Hepburn in 1955 as part of a plan to guide the long-term development of post-war Perth. Following the completion in 1959 of the Narrows Bridge, which had been planned independently of the Stephenson-Hepburn Plan, the remainder of the Freeway plan was adopted by the WA State Parliament in 1963. While the 1955 report had identified the location of the crossing of the Kwinana Freeway adjacent to Mount Henry, the 1963 Metropolitan Region Scheme showed the location as being adjacent to Deep Water Point. In 1967, following an objection from the City of Melville and consideration by the State Government of alternative crossing points, the location reverted to the Mount Henry side of the river, despite local concern about the environmental effect that this would have on the unspoilt shoreline of Mount Henry.

In 1974, the (then) Metropolitan Region Planning Authority (MRPA) held public hearings in which eighteen alternative routes were examined. Two of these involved tunnels. George H Playford (Councillor 1976-88) and E H Booth, supported by E N (Ted) Maslen (Councillor 1975-85, 1989-92), put forward a proposal to sink the southern extension from Canning Bridge in a freeway tunnel, to avoid visual pollution of the Canning foreshore landscape and to protect the bushland on Mount Henry. The Snowy Mountains Engineering Corporation was asked to examine and report on the suggested tunnels and further ecological studies were undertaken by expert consultants.

Ultimately, in 1975, Parliament approved the MRPA's recommendation and the Metropolitan Region Scheme was amended to show the crossing on the eastern side at Mount Henry. Stage 1 of the freeway extension resulted in the completion of the Canning Interchange in 1979. The second stage of the project involved the construction of the *Mount Henry Bridge* and the extension of the freeway to South Street.

The *Mount Henry Bridge* was sensitively designed, and was constructed in such a way as to retain the foreshore of Mount Henry. The bridge was nearly twice the length of the Narrows Bridge, with separate pedestrian and cycle paths cantilevered below the main traffic lanes of the bridge. The construction contractor was Clough, and the project manager for Main Roads Western Australia was Geoff Smith. The official opening took place on 9 May 1982 with Premier Ray O'Connor and City of South Perth Mayor, George Burnett, in attendance.



## **HISTORICAL NOTES (cont'd)**

In 2005, further construction work commenced on a second *Mount Henry Bridge* as part of the widening of the Kwinana Freeway and to accommodate a two-way railway line. This was part of a new railway line located between the opposing traffic lanes of the Kwinana Freeway; and extending from the Perth central business district to Mandurah. The new 15 metre wide bridge was built to the west of the original *Mount Henry Bridge*. It was designed to carry an additional three lanes of traffic, a break-down lane and a cycle and walking path. The two bridges overlap but do not touch, appearing as one continuous structure. The railway is accommodated on the western side of the original bridge. <sup>1</sup>

Contractors were Leighton Constructions. The design team comprised Wyche Consultants, GHD and Coffey Geosciences. The new traffic bridge was opened to traffic in January 2006 and the southern suburbs railway commenced operation in 2007.

#### DESCRIPTION

The *Mount Henry Bridge* carries the Kwinana Freeway across the Canning River below the heights of Mount Henry. The bridge was sensitively built, allowing for the retention of a wide strip of foreshore with its good spread of *Nuytsia floribunda* (Western Australian Christmas Tree) and the large and very old paperbarks in that area. The graceful design of the *Mount Henry Bridge* allowed for a separate bicycle and pedestrian bridge to be cantilevered immediately below the traffic bridge.

The original bridge is of post-tensioned concrete. It has nine spans with a total length of 660 metres and a deck width of 28.8 metres. In cross-section, it is a double box-section, with the upper deck carrying traffic and cantilevers at the bottom of the box carrying pedestrian / cycle paths. The bridge was constructed segmentally, using a balanced cantilever construction method. It carried three lanes of traffic in each direction, with two pedestrian / cycle paths on cantilevers at the lower level. At 660 metres long, the *Mount Henry Bridge* was the longest road bridge in Western Australia at the time it was built.

The 2005 additions to the *Mount Henry Bridge* was constructed using an incremental launching technique, where 25-metre long segments were hydraulically jacked out onto piers from a casting bay on the southern embankment. The 26 reinforced segments were manufactured on site, and the launch of each segment took about five hours, scheduled two weeks apart throughout most of 2005. During construction, a combination of permanent and temporary piers was used. The appearance of the new bridge was designed to match the original bridge, with nine spans, the main navigation span at river level being 75 metres wide.<sup>3</sup>

#### **ASSOCIATIONS**

## **ASSOCIATION TYPE**

Clough	Construction contractor of 1982 bridge
Leighton Constructions	Contractors for 2005 bridge
Wyche Consultants, GHD and Coffey	The design team for 2005 bridge
Geosciences	



Source: Southern Gazette article 'Bridge Takes Shape', 4 January 2005.

<sup>&</sup>lt;sup>2</sup> Source: Wikipedia article – 'Mount Henry Bridge' (https://en.wikipedia.org/wiki/Mount\_Henry\_Bridge)

Source: Southern Gazette article 'Bridge Takes Shape', 4 January 2005.

#### **HISTORIC THEME / Sub-theme**

#### CATEGORIES OF SIGNIFICANCE

Transport and Communications/Road Transport	Historic	
	Scientific	
	Social	
	Representative	

High	Low
	High

Aesthetic value (streetscape, setting)	1	2 🗸	3	4	5
Architectural merit (design features)	1	2 ✓	3	4	5
Rarity value	1	2	3 ✓	4	5
Value as part of a group/precinct	1	2	3 ✓	4	5
Condition	1	2 🗸	3	4	5
Integrity	1	2 🗸	3	4	5

#### STATEMENT OF SIGNIFICANCE

The *Mount Henry Bridge* has historic, scientific, social and representative cultural heritage significance. It is a vital component of the Kwinana Freeway which is a major transport artery linking the south metropolitan region of Perth with the city. Environmentally sensitive aspects of the design won praise for the government engineers at the time.

#### MANAGEMENT RECOMMENDATIONS

## Management Category B: Considerable significance

Conservation essential. Reflects the highest level of local cultural heritage significance. Very important to the heritage of the locality. High degree of integrity and authenticity. Demolition or significant alteration to a place in Management Category B of the Heritage List is not permitted. Any alterations or additions are to be guided by a Conservation Plan, if any, and reinforce the heritage values of the place.

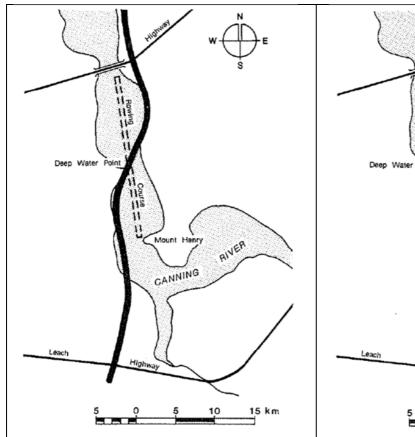
#### SUPPORTING INFORMATION / BIBLIOGRAPHY

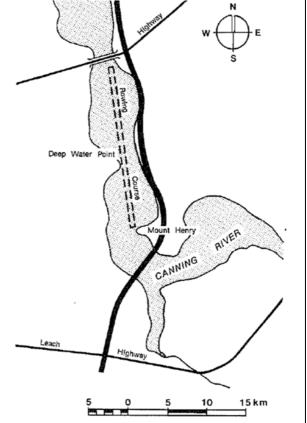
- Florey, Cecil C. *Peninsular City: A Social History of the City of South Perth*, City of South Perth, WA, 1995.
- Reviews of Municipal Heritage Inventory by *Heritage Today* in 2000 and 2006.
- *'Kwinana Freeway An Essay in long term regional planning'*. Published in 'Western Roads', Main Roads Department, September 1983.
- Various web sites, as identified throughout.



#### HISTORY OF HERITAGE LISTING BY CITY OF SOUTH PERTH

	Date Adopted by Council
Initial listing in MHI	December 1994
Update of MHI	February 1996
Update of MHI	December 1996
Update of MHI	December 1997
Review of MHI by Heritage Today	June 2000
Update of MHI	June 2002
Update of MHI	March 2003
Review of MHI by Heritage Today	February 2006
Interim Heritage List – Policy P313 'Local Heritage Listing'	April 2013
Updated in renamed LHI	November 2015





The Canning River crossing point proposed in the Metropolitan Region Scheme 1963.

('Western Roads', September 1983. Image reproduced with kind permission of Main Roads Western Australia)

The Canning River crossing point approved by Parliament in 1975.

('Western Roads', September 1983. Image reproduced with kind permission of Main Roads Western Australia)



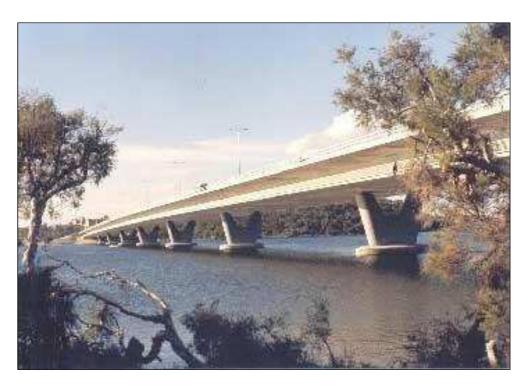


View along the cantilevered cycle / pedestrian lane below the traffic deck of the Mount Henry Bridge, looking towards Mount Henry. (Gina Fraser, City of South Perth, June 2007)



Bicentennial plaque at the Mt Pleasant end of the Mount Henry Bridge. (Gina Fraser, City of South Perth, June 2007)





The original 1982 Mount Henry Bridge. (Photograph reproduced with kind permission of Main Roads Western Australia)

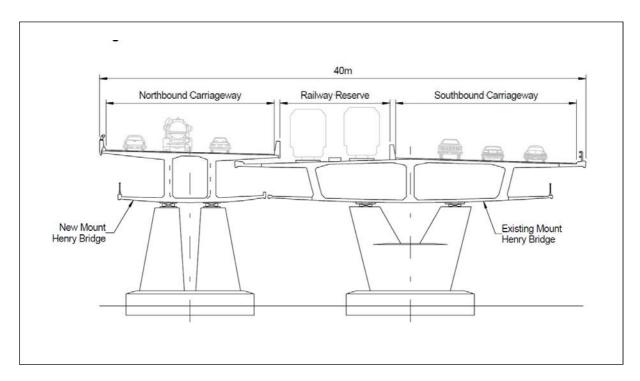


Mayor, George Burnett officiating at the opening of the *Mount Henry Bridge*by Premier Ray O'Connor, 1982.
(City of South Perth – Florey, p305))





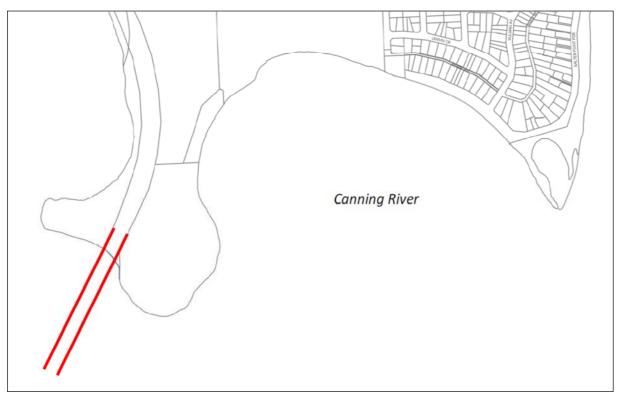
Construction of the original Mount Henry Bridge, 1980. (Photograph reproduced with kind permission of Engineers Australia (Western Australian Division))



Cross-section of the Mount Henry Bridge, showing the juxtaposition of the new and original structures. ('Incremental Launching Challenges on Mount Henry Bridge' by Noel Wenham, Senior Structural Design Engineer, Wyche Consulting, 2006 - http://wyche.com.au/wp-content/uploads/2007/05/Incremental% 20Launching%20Challenges%20on%20Mount%20Henry%20Bridge.pdf)



# **LOCATION MAP**



(Digital Cadastral Data supplied by Landgate, WA. P295)

