

REGISTER OF HERITAGE PLACES -ASSESSMENT DOCUMENTATION

11. ASSESSMENT OF CULTURAL HERITAGE SIGNIFICANCE

The criteria adopted by the Heritage Council in November 1996 have been used to determine the cultural heritage significance of the place.

PRINCIPAL AUSTRALIAN HISTORIC THEME(S)

•	3.5.3	Developing agricultural industries
•	3.12	Feeding people
•	3.13	Developing an Australian Manufacturing capacity
•	3.15	Developing economic links outside Australia
	- 4-	

Marketing and retailing • 3.19

• 5 Working

HERITAGE COUNCIL OF WESTERN AUSTRALIA THEME(S)

•	106	Workers
•	309	Technology and technological change
•	310	Manufacturing and processing
•	504	Depression and boom

11. 1 AESTHETIC VALUE*

The brick sections of Great Southern Roller Flour Mills Limited. namely the screenroom and Number 1 Mill (F06) buildings, are fine representative examples of interwar industrial architecture, employing the language of the Federation Warehouse style. The tall metal clad Timber Silos structure is a simple and elegant industrial structure, with its Dingo Flour emblem adding visual interest to the composition, which has become the emblem of the mill. The office building designed by the well-known firm of Powell, Cameron & Chisholm Architects is a simple representative example of Inter-War Art Deco style, applied to a domestic scale building. (Criterion 1.1)

With its strong vertical proportions, height and massing of the mill and silo structures, the Dingo Flour brand image on the metal clad Timber Silos structure, together with the Norfolk Island Pine, Great Southern Roller Flour Mills Limited has a landmark quality which is prominent from Stirling Highway, the beach frontage, and the sea. (Criterion 1.3)

11. 2 HISTORIC VALUE

For consistency, all references to architectural style are taken from Apperly, Richard; Irving, Robert and Reynolds, Peter A Pictorial Guide to Identifying Australian Architecture: Styles and Terms from 1788 to the Present, Angus & Robertson, North Ryde, 1989.

Great Southern Roller Flour Mills Limited, as one of the largest purpose built flour mills in the State, and the only large and early mill continuing in operation in the metropolitan area in 2008, demonstrates the diversity of cultural features in the occupation and evolution of the metropolitan area and the State. The success with which the company has increased the product range produced at the place and responded to changing markets in Australia and internationally is also significant, as is its adaptation and accommodation to changing circumstances in the late 20th century as the surrounding area has evolved. These factors have sustained its ongoing use. (Criterion 2.1)

Great Southern Roller Flour Mills Limited, completed 1921-22, is significant as one of the last purpose built flour mills constructed in the Perth and Fremantle metropolitan area, at a period in which there was increasing demand for flour, and for its expansion in similar circumstances after World War II. It is significant also as one of the most substantial buildings completed in North Fremantle and Fremantle in the interwar period. (Criteria 2.2)

The original mill was designed by prominent architect J. F. Allen, and the office building was designed by the well-known firm of Powell, Cameron & Chisholm Architects. The first and second managers of the place were S. Connor (1908 at Narrogin to 1948) and N. Dymock (1948-76), both of whom strongly influenced the development of the place over nearly 50 years. (Criterion 2.3)

11.3 SCIENTIFIC VALUE

Great Southern Roller Flour Mills Limited has scientific value as a demonstration of the roller flour milling and related processes. The roller mill method was in general use in Western Australian from the end of the 19th century and has undergone subtle changes since. The mill demonstrates how the processes have been modified through time to meet with changing standards, improvements in technology, and a diversification of product range. The establishment of a laboratory and bakery and the adaptations made to convert to road rather than rail transport are part of this evolution. Further, the mill contains equipment dating from the interwar period that is still in use, and which has been modified to meet current requirements associated with health and safety. (Criterion 3.1)

11.4 SOCIAL VALUE

Great Southern Roller Flour Mills Limited is valued by the local community and the wider community of Western Australia as a distinctive landmark on Stirling Highway, from Leighton Beach, and from the Indian Ocean. (Criteria 4.1 & 4.2)

The name 'Dingo Flour Mill' has been in common, although inaccurate, usage for many years. Its continued use is indicative of the impact of the well-known dingo symbol painted on the face of the silo, and the way in which the sign on the silo contributes to the community's sense of place. In addition, the 'dingo' has developed its own set of myths, including that Alan Bond painted it. (Criteria 4.1 & 4.2)

12. DEGREE OF SIGNIFICANCE

12.1 RARITY

The vestiges or complete structures of roller flour mills may be found in a number of locations in Western Australia. A small number retain some or almost complete milling machinery in place. With only one other large mill in operation in

the State, at Northam, *Great Southern Roller Flour Mills Limited* is rare as an operational mill. It is the only large mill continuing in operation in the metropolitan area. (Criterion 5.1)

Great Southern Roller Flour Mills Limited is a purpose built roller flour mill, constructed in the interwar period, which demonstrates a distinctive building design for such mills, and is a building style and type that is no longer undertaken. (Criterion 5.2)

At a State and national level, the 1936-37 Timber Silos is a rare surviving example of a large vertical timber-framed metal-clad silo, a type of bulk grain storage that was largely superseded by vertical concrete silos and horizontal metal silos in the 1930s. (Criteria 5.1 and 5.2)

12. 2 REPRESENTATIVENESS

Great Southern Roller Flour Mills Limited is, in part, representative of the types of mill structures erected from the 1890s through to the Inter-War period in Western Australia. The later buildings and adaptations are representative of the Inter-War period and beyond, reflecting various upgrades to meet with changing product output, and compliance with health and environmental requirements. The basic plant of the mill retains the same technology as that employed at the time of the mill's construction and represents a process of modest change, adaptation, and upgrading. The machinery also represents the consolidation of machinery from other sites and the acquisition of machinery through time and brought into use at the North Fremantle site. (Criterion 6.1)

Great Southern Roller Flour Mills Limited is representative of flour milling operations and represents a basic method of milling that became common in Western Australia from the 1890s and has altered little in a fundamental sense since that time. (Criterion 6.2)

12. 3 CONDITION

Great Southern Roller Flour Mills Limited has been continuously upgraded to meet with changing requirements, to adapt to changing technology, to provide further product range, and to stabilise the structures. Some of the work has involved the removal, upgrading, and repair of the historic structures, together with other existing structures. The work has been done on the basis of attending to essential maintenance and to keep the mill functioning to meet with commercial practices. The whole of the place is kept in a reasonable state of repair and is regularly maintained. A number of repair and conservation programs have been completed on the original and early structures. Further works are required as part of a continuing program. The place is generally in good condition.

The 1980s steel silos are unserviceable. The west face of the 1936-37 silo is deteriorating.

12. 4 INTEGRITY

Almost all the buildings at the *Great Southern Roller Flour Mills Limited*, are used for their original purpose. The uses of the various parts of the historic buildings are highly compatible with the place so that all heritage values have been continuously sustained by this continuous use. The integrity of the place is therefore very high.

12. 5 AUTHENTICITY

Great Southern Roller Flour Mills Limited has retained most of its original fabric, together with the fabric of cumulative change. The totality may be seen as an accumulation of fabric and equipment to meet with the evolution of the operation, changing product output, meeting standards, and endeavouring to make the production an efficient operation. Some changes of use have occurred with the relocation of facilities, but the fabric remains little changed. The place as whole retains a high degree of authenticity.

13. SUPPORTING EVIDENCE

The documentary evidence has been compiled by Robin Chinnery, Historian, the physical evidence has been compiled by Philip Griffiths, Architect, with amendments and/or additions by HCWA staff and the Register Committee.

13. 1 DOCUMENTARY EVIDENCE

For a detailed history of the place, see 'Great Southern Roller Flour Mills Conservation Plan' (Draft), prepared for Allied Mills Australia Pty Ltd by Palassis Architects, with Robin Chinnery, Historian, in March 2008.

Great Southern Roller Flour Mills Limited is a complex of buildings, including the Flour Mill, Timber Silos, Office, Laboratory and other buildings associated with the operation of the mill. The present site comprises North Fremantle Lots 172, 173 and 175, portion of North Fremantle Lot P61, and portions of North Fremantle Lot P60 being Lots 11-16 in the ownership of Great Southern Roller Flour Mills Limited. In addition, an area at the north, leased from Westrail, includes the site of the metal construction silos (1982).

By 1832, the townsite of Fremantle had been laid out, and some building had commenced. By 1833, a dirt road had been made from Perth to Fremantle, named the Perth-Freemantle (sic) Road.¹ Over the next decade, the towns of Fremantle and Perth developed, and four tracks were established leading from Fremantle: to Perth, to Canning Bridge, which was opened in 1843, to the Canning district and Kelmscott, and south to Mandurah.

Development in the Swan River Colony was slow through the period to 1850, when the commencement of transportation of convicts to the small colony heralded a period of rapid development. A wide programme of public works was carried out by convict labour, including the construction by convicts of a new Perth-Fremantle Road and the bridge over the Swan River at North Fremantle in the 1860s, which led to increased traffic on the road. In 1872, the Perth-Fremantle Road became a public highway.²

On 26 November 1883, a number of grants were made to Military Pensioners of land at North Fremantle, including North Fremantle Lots P60 and P61, part of the future site of *Great Southern Roller Flour Mill.*³ On 10 December, Certificates of Title were issued for the above Lots land under the Transfer of Land Act, 1874, confirming the owners as sole proprietors.⁴ On the Certificates, Perth Road was crossed out and Victoria Avenue inserted, the name by which this section of the Perth-Fremantle Road was known in the late 19th and early 20th centuries.⁵ Various changes in ownership occurred, including sub-division of Lot P60, until most of the land was bought by the Great Southern Roller Flour Mills Limited in the interwar period.

On 12 September 1885, North Fremantle Lot P61 was transferred by endorsement to Fremantle merchants, John Joseph Higham and Robert Newton Waldeck as tenants in common. Following Waldeck's death in 1893, his wife,

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Arrowsmith's Plan of the town site of Perth, 1833 in Seddon, George, and Ravine, David A City and Its Setting: Images of Perth, Western Australia (Fremantle Arts Centre Press, 1986) p. 100.

ibid, p. 11.

^{13/}T6 and 42/T6 Grants under Land Regulations of 11 October 1882, 26 Nov 1883. Note: the grants were in return for a peppercorn rent, due on 25 March each year, for 21 years.

Certificates of Title Vol. XII Fols. 1 of 5 and 174.

ibid.

Jane Marion Waldeck, was appointed executrix.⁶ On 6 July 1896, North Fremantle Lot P61 was totally transferred by endorsement to John Joseph Higham.⁷ He retained ownership of the Lot, and also acquired other land in the vicinity in the early 20th century, before selling the various lots to Great Southern Roller Flour Mills Limited in 1920.

On 1 July 1903, a meeting was held at Hordern Hotel, Narrogin, to discuss a proposal to establish a flour mill in the town. It was resolved to form Narrogin Cooperative Flour Milling Co. Ltd., with a capital of 7,000 shares at £1 each. The Co-operative company operated the subsequent flour mill at Narrogin from 1903 to late October 1912, when the offer of ten 'well known Narrogin District Identities' to purchase the mill based on 35s per share for the full issue of 3,263 shares was accepted by the Co-operative body. On 28 December 1912, the purchasers met to discuss future plans, and on the basis of legal advice it was resolved to form a new company to take over from the Co-operative company. The new company was to be named Great Southern Flour Mills Ltd., with a capital of £5,710, divided into 5,710 shares at £1 each. Two of the purchasers, Mr M. Brown and Mr S. Connor, were appointed Chairman of Directors and Manager respectively.⁸

On 18 May 1906, a portion of North Fremantle Lot 61 was resumed and transferred to the Crown, for road works to Victoria Avenue, and a new Certificate of Title issued. On 21 May, a portion of North Fremantle Lot P61 was transferred to John Joseph Higham. He was granted North Fremantle Lot 172 on 21 November; and on 23 November, a Certificate of Title was issued.⁹ On 6 May 1907, North Fremantle Lots 173 and 175 were granted to Joseph Augier, Hotel-keeper of Claremont, in return for the surrender of portion of North Fremantle Town Lot P61.¹⁰

In March 1916, a meeting of Great Southern Flour Mills Ltd. carried a motion 'that the Manager make inquiries about a suitable block of land at Fremantle for the purpose of erecting a mill at a later date'. ¹¹ In September, it was reported that an offer of £500 had been made for Lots 5 and 6 at Rocky Bay location. It was resolved that the land would be purchased, subject to the provision that a rail spur line and private siding be made available. ¹² In October, it was resolved that an offer of £700 be declined; and also that a site outside Narrogin should not be considered until after the War. ¹³

In October 1919, the Board of Directors deferred for twelve months a proposal by the Manager to increase the capacity of the mill, which was confirmed by resolution at a meeting of the shareholders on the same day. At the next meeting

Register of Heritage Places - Assessment Documentation Great Southern Roller Flour Mills Limited 26 September 2008

⁶ Certificate of Title Vol XII Fol. 1 of 5 op cit.

Certificate of Title Vol. XII Fol. 1 of 5 op cit.

Dymock, N. L. 'Great Southern Roller Flour Mills, Limited North Fremantle and Narrogin (including takeover of East Perth and York Mills). Brief background Narrogin Co-operative Flour Milling Coy. 1903-12. History of Great Southern Roller Flour Mills Limited 1912-1968' Typescript held at Fremantle Library Local History Collection, pp. 1-2.

Certificate of Title Vol. XII Fol. 1of 1 op. cit.; Certificate of Title Vol. 367 Fol. 178; 383/56 Grant under the Land Act, 1898; and Certificate of Title Vol. 383 Fol. 56.

^{395/22} Grant under the Land Act, 1898; and Certificate of Title Vol. 395 Fol. 22.

Minutes, Great Southern Roller Flour Mills Ltd, 12 Dec 1912 and 15 Jan 1913, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 20.

Draft Submission in respect of Metropolitan Region Scheme proposed Amendment 410/33 in MRPA file, Great Southern Roller Flour Mills Limited, North Fremantle, Feb 1982.

Minutes, Great Southern Roller Flour Mills Ltd, 18 Oct 1916, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 20.

of the Board, Mr Connor informed the Directors that he wished to resign and sell his shares in the company, as he had the opportunity of starting a new company to establish an export flour mill at Fremantle. He acceded to their request to defer doing so until after a Special meeting of shareholders called to consider matters, which was held on 6 December. The Manager was directed to make inquiries regarding the raising of capital by the addition of new members for enlarging the company. On 20 December, it was resolved that a new Company be formed to take over the old Company with a view to starting another Mill in the Metropolitan Area.¹⁴

On 9 February 1920, the meeting carried a motion moved by Mr Connor and seconded by Mr Rintoul 'that the Great Southern Roller Flour Mills Limited be formed with a Capital of £30,000 to purchase the Assets and Liabilities of the Great Southern Flour Mills Limited as a going concern for £20,000, and for the purpose of starting another Mill at North Fremantle.' The Manager was authorised to purchase Lots 11 to 18 and 19 and 20 of Lot P62, and Lots P61 and 172 at a cost of £1,350.¹⁵ The position of the land was ideal for the purpose, as it was located close to the Perth-Fremantle railway line and the Perth-Fremantle Road (now Stirling Highway), minimising the costs of construction for the necessary rail and road access to the place. Most of the lots were acquired progressively through the 1920s.

Following inspection of the land and reports by the Chairman and a Consulting Engineer, Mr W. H. Shields, it was resolved that the authorised capital of the company be increased to £50,000.¹⁶

On 11 March 1920, North Fremantle Lot 172, portion of North Fremantle Lot P61, and portion of North Fremantle Lot P60 being Lots 12 and 13 were transferred to Great Southern Roller Flour Mills Limited.¹⁷

On 17 April 1920, Mr Connor was authorised to obtain full details of costs for the erection of a new mill, machinery, and a railway siding. On 7 July he submitted his report, based on discussions with Messrs. Thomas Robinson and Sons.¹⁸ Subsequently, motions were carried that the undertaking at North Fremantle be proceeded with, that a 20 sack Plant be installed, and that the tender of Robinson and Sons be accepted, 'and a date set to meet on the site to decide the position for the Mill'.¹⁹

Connor proceeded with the North Fremantle project, including procuring costs for machinery; appointing two architects and calling tenders for the erection of the mill building, flour store bins, and office; calling tenders for all electric motors; procuring agreement with the North Fremantle Council for power supplies, and

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Minutes, Great Southern Roller Flour Mills Ltd, Oct-Dec 1919, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 20.

Minutes, Great Southern Roller Flour Mills Ltd, 9 Feb 1920, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 20-21.

Minutes, Great Southern Roller Flour Mills Ltd, 16 Feb 1920, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 21.

Certificates of Title Vol. 383 Fol. 56, Vol. 367 Fol. 178, Vol. 369 Fol. 82.

This company was the leader in milling machinery at this period. Some of the machinery supplied to the Mill by the company in the Inter-War and post-war period continues in use at the place in 2001.

Minutes, Great Southern Roller Flour Mills Ltd, 9 and 17 April, 7 July 1920, quoted in Great Southern Roller Flour Mills Conservation Plan (Draft), March 2008, p.21.

permission to cross all roads by rail; and was to proceed with the construction of the necessary rail siding.²⁰

In 1919-20, as conditions gradually recovered following the war, the recorded wheat harvest in Western Australia was 11,220,000 bushels from 1,042,000 acres, in comparison with 2,300,000 from 182,000 acres in 1904-05.²¹ The increased yield boosted the milling industry, as more and larger mills were needed to grind the grain into flour. Thus the decision by Great Southern Roller Flour Mills Limited to expand with the building of a new mill at North Fremantle was timely.

On 25 February 1921, it was resolved that buildings for Mill, Wheat Cleaning, Bins and Sub-Station be erected at North Fremantle at a maximum cost of £13,500. Plans were drawn by architect J. F. Allen, of Allen and Nicholas, Fremantle, 22 who had designed many commercial, public, and domestic buildings in Fremantle and Perth since 1896, including East Fremantle Town Hall, Fremantle Trades Hall, IOOF Orphans' Home at Cottesloe.²³

Minor amendments to the mill plans for the new reduced the cost to £12,978, and the contract was duly signed with the builder, Mr E. Coombe, of Guildford. On 10 June 1921, by Special Resolution, the authorised capital of the company was increased to 70,000 shares at £1 each. In September, Coombe's tender of £5,216 for the construction of the second stage of the mill at North Fremantle was accepted. These works comprised the Packer-room, half of the Flour Store, and an awning over the railway siding. At the same time, transfer of the Head Office from Narrogin to North Fremantle was approved.24 The 1920 proposal to build a new office was deferred, and the Office was accommodated in an existing semidetached cottage in Thompson Road.²⁵

On 28 March 1922, the flour mill was officially opened in the presence of the Governor, Sir Francis Newdegate, and 200 quests. A party was held within the main building to celebrate the opening.²⁶ Photographs show the four-storey brick mill building.²⁷ On a face of the mill building, is painted the details of the company: GREAT SOUTHERN ROLLER FLOUR MILLS LIMITED AND AT NARROGIN.²⁸ The photograph shows an open lean-to awning of timber and iron construction at the rear of the main building over the railway siding, with a single line; and to the rear again, a large building of timber and iron construction.²⁹ The lean-to was later incorporated into a more substantial and taller building. This was extended in various stages, beginning with expansion of the flour store over the siding in c.1924.30

²⁰ Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 21-23.

²¹ Crowley, F. K. Australia's Western Third: A History of Western Australia from the first settlements to modern times (Macmillan & Co. Ltd., London, 1960) p. 172.

²² National Trust of Australia (W. A.) Assessment, 1 June 1995.

²³ Battye, J. S. The Cyclopedia of Western Australia (Cyclopedia Co., Perth, 1912-13) pp. 566-67.

²⁴ Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 25-26.

²⁵ Refer to the conservation plan for further information about the cottage in Thompson Road.

²⁶ Photograph, held by Allied Mills Pty Ltd; copies in Fremantle Library Local History Collection, Photographs nos. 2222 and 2223 respectively.

²⁷ ibid, Photograph no. 2221.

²⁸ ibid, and photograph no. 2220.

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Photograph no. 318 in ibid; Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 31.

The opening of the large 22 sack capacity mill at North Fremantle provided the company with 'the capacity to become a major force' in the milling industry.³¹ The mill was fitted throughout with a Robinson plant 'to ensure that only the best grade of flour is produced'; all the machinery had 'the latest improvements', and was electrically driven.³²

From as early as 1922, discussions took place regarding proposals for extensions and provision of wheat storage sheds at North Fremantle. Permanent roofs were built over the two wheat stacking sites in 1922-23, which were floored in 1924-25 (rather than storing the bags on sleepers), and the wheat sheds were finally enclosed with iron walls in 1928.³³

On 10 May 1923, further land was added to the mill's holdings,³⁴ Allen and Nicholas estimated cost for construction of a second rail line and siding was £1,050, which was completed at the lower cost of £363 9s 10d in 1924.³⁵

The brand name 'Dingo Flour' was in use in this period for flour from the North Fremantle Mill and Henco was the brand for flour from the Narrogin Mill. The Narrogin Co-operative Flour Milling Co. Ltd. had registered the distinctive name and red dingo trademark in 1908, and each bag of flour from the North Fremantle Mill was stamped with it. The water tank on top of the Flour Mill was painted with the trademark dingo in August 1925. 36

By early 1925, the accommodation for Head Office in the semi-detached cottage had become cramped. As the Head Miller, R. C. Jefferies, had recently left the company cottage and moved into his own home, the dividing wall between the office and the cottage was removed, and the two former residences were converted into one large office.³⁷

On 29 November 1928, Lot 11 of North Fremantle Lot P60 was transferred to Great Southern Roller Flour Mills Limited.³⁸

In late 1926, a conveyor was installed at a cost of £675. The following year, in response to shortages of storage space at peak periods, the Flour Store was extended to Thompson Road. A mezzanine floor was added over the siding and this floor was extended to Thompson Road. The work was undertaken by Fremantle builder R. Rennie.³⁹

The milling industry, in common with other industries, was severely affected by the Great Depression. Whilst the Narrogin Mill was closed for a month in early 1933, the North Fremantle Mill remained in operation throughout the Depression years.⁴⁰

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Lang, Ernie *Grist to the Mill: A History of Flour Milling In Western Australia* (Goodman Fielder Mills Ltd and Weston Milling, Perth, 1994) pp. 144-45.

^{&#}x27;City and Port of Perth' p. 414, photocopy no source details, in GSRFM History File.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 12.

Certificates of Title Vol. 282 Fol. 13 and Vol. 395 Fol. 22.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 30.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 33.

Minutes, Great Southern Roller Flour Mills Ltd, 28 January 1925, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 32-33.

Certificate of Title Vol. CVIII Fol. 116.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 34-35.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 37-40.

In 1933, the top floor of the Flour Store required significant structural strengthening, as wheat was being stacked about twice as high as the building had been designed to carry.⁴¹

In the mid-1930s, as the economy recovered from the Depression, the company considered the situation at its North Fremantle Mill, where long storage of premium and excessive retrievals of F.A.Q. wheat (i.e. fair average quality, the standard by which wheat was sold in this period) was causing problems. An urgent call was made for the erection of a large silo. Tenders were called for the erection of a 75,000 bushel Jarrah silo, faced with corrugated iron, and divided into 28 separate bins, with the base to be set below ground level, standing on heavy steel legs and with steel hopper bottoms for blending purposes. Plans were prepared by Allen and Nicholas, and the work was completed by F. Rennie at a cost of £6,598 in 1937.

In the late 1930s, declining world wheat prices saw the price drop by more than half between November 1937 and November 1938. It was the company's worst financial year, and recovery took several years.⁴³

Some producers had introduced value adding in the interwar period; and in 1939, the Manager obtained approval to test the market with Self-Raising Flour and Breakfast Foods. However, it was only a moderate success, and whilst some production continued into the late 1960s, in the latter period, by agreement, the small tonnage produced was sold only outside the metropolitan area, in country areas and in the North-West. Instead, the company produced large tonnages of specially milled flour to supply Self Raising Flour manufacturers, obviating mixing and delivery costs.⁴⁴

In May 1939, the survey for a Sewerage Plan of North Fremantle shows the brick Flour Mill with the rail line in from the west and exiting at Thompson Road on the east, with the galvanised iron building on brick foundations at the north side of the line. The 1936 silo is shown as part of the latter building, and there are two cylindrical galvanised silos adjacent to it on the west. There is a brick toilet block towards Leslie Road, and at the corner of Leslie and Thompson roads a brick residence with an asbestos addition at the western side, and a verandah at the front, and three associated outbuildings of galvanised iron construction at the rear. The latter buildings are no longer extant. On the eastern side of Thompson Road, at nos. 75 and 77, are the semi-detached brick cottages shown as in use as an office; and to the north of the rail line, at no. 101, offices and laboratory of brick construction.

There has been debate as to the date at which the well-known trademark sign at the North Fremantle Mill was first painted on the tall Timber Silos and the person responsible. Some reports credit artist Ted Pulham as having painted it in the late 1920s, but others credit engraver, enameller, and sign writer, Horace Watts

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Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 40.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 42-43.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 43-44.

Dymock, op. cit.

Surveyor's Fieldbook 4214 p.25, SROWA WAS 84 Cons. 3464, quoted in Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 44-45. Note: the Sewerage Plan drawn from these survey books, signed March 1940, has had later additions made but not dated. This led to an incorrect date for the construction of the Office and Laboratory being given in the original (2001) assessment documentation for this place.

SROWA Cons. 4156 Item 2026 on microfiche.

'well before World War I'.⁴⁷ However, claims that either painted the sign on the silo cannot be substantiated, as the silo was not built until later.

In late 1940, the Dingo sign was painted on the side of the 1936-37 Timber Silos, facing towards Stirling Highway and the ocean, by Les Nash of Davies Sign Services at a cost of £40.⁴⁸ The sign soon became a landmark, on land and water, as those aboard marine craft sailing into Fremantle looked for the large sign as an indicator of their close approach to the port. During World War II, in 1943, the sign had to be painted out as part of the war precautions.⁴⁹

After the war, in 1946, using the still visible outline of the original, the dingo was repainted by Fred Parnell of Parnell Signs, who gave it an eye. ⁵⁰ Among those reputed to have painted it in the post World War II period is Alan Bond, who worked for Parnell Signs in his youth, and later became a notorious businessman. ⁵¹ The Dingo sign has been maintained throughout the remainder of the 20th century and into the 21st century, being repainted as required, most recently on 20-22 March 2001, by John Haydock, an employee of Programmed Maintenance Services Pty. Ltd., the company contracted to carry out maintenance at the Mill. ⁵² Although the Mill is often referred to as the 'Dingo Flour Mill', this has never been the official name of the place. ⁵³

During World War II, the Commonwealth Government introduced rigid controls over export flour, which remained in force into the late 1940s. Through the war years, there was a steadily increasing demand for flour, and consideration was given to increasing the capacity of the North Fremantle Mill. In September 1945, the company obtained approval from the National Security Office in Canberra to increase its authorised capital to £100,000. However, the proposed expansion was not undertaken until after the War.⁵⁴

In June 1945, a proposal to increase the capacity of the North Fremantle Mill was considered, and it was proposed to increase its production capacity from two to three tons per hour, at an estimated cost of £13,845. A loan for £15,000 was secured in February 1946, and work began. In early 1948, as the installations were nearing completion, Robinson and Sons advised that due to rising costs and other factors, the estimated cost had increased. The eventual total cost of the expansion was £23,344. On 8 June 1948, the new and increased plant at the North Fremantle Mill commenced operations. 55

In January 1948, it was agreed Mr Connor would retire from the company at the end of February 1948, aged 75, ending his 40-year association with the business,

Memo to Paul Anderson from Domenic Mattarocchia, GSRFM History File, 1 May 2001.

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⁴⁷ 'Inside the Dingo's Lair' in 'Big Weekend' *The West Australian* 20 July 1996, p. 3.; and *The Fremantle Gazette* 20 August 1980.

H. Wood Wilson 'Steer for the Dingo' in *Panorama* September 1985; memo. on reverse of letter from Raymond N. Conder to Manager, Goodman Fielder Milling Ltd., and letter to Mr Conder from Matt Padbury in GSRFM History File, 29 and 30 May 1989 respectively; Mona Rankin in *The West Australian* 1 April 1989. Note: Mona Rankin reported also that prior to 1936, there was a water tank on a stand at the mill on the side of which a smaller version of the dingo had been painted.

Memo and letter ibid.

ibid; Western Mail Magazine 27 Dec 1986; and Paul Anderson, conversation with Robin Chinnery, site visit, 2 May 2001.

⁵¹ ibid.

⁵³ 'Inside the Dingo's Lair' op. cit.; and telephone conversation with Paul Anderson, Great Southern Roller Flour Mills, North Fremantle, April 2001.

Dymock op. cit.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 48-52.

from 1908. On 24 February, two motions were carried appointing Mr Norman Leslie Dymock Secretary and Public Officer of the Company, and also Manager of the Company from the date of Mr Connor's retirement on 29 February. ⁵⁶

From 1922, the Thompson Road cottages had served as accommodation for the company's Head Office. Mr Dymock considered this building, 'situated in a back street ... did not create a favourable impression of the Company'. Approval was given to his application to have modern new offices built in front of the North Fremantle Mill, fronting Stirling Highway. On 18 March 1948, he was authorised to obtain plans, specifications, and estimated costs for a New Office Building. Plans were prepared by Powell, Cameron and Chisholm Architects. The practice, which became Cameron, Chisholm & Nicol in 1952, was one of the oldest architectural practices in Perth, dating from 1884, when James William Wright, architect and engineer, established his practice. The practice had designed many buildings in Perth, Fremantle and regional areas, and did most of the architectural work required by Great Southern Roller Flour Mills Limited in the 1950s during which time it consolidated and expanded its reputation, achieving much success in subsequent decades.

In July 1948, the meeting accepted the estimated cost of £2,800 for erection of the new office building, and the Manager was authorised to call tenders for the work. In October, the lowest tender was accepted, from Ralph and Son, at a cost of £3,600, and work commenced. Wartime regulations on building materials continued in force at this period, and approval was granted only because the semi-detached cottages could be returned to residential use once the new building was completed. The office and laboratory building was completed in 1949.61

In 1949, Commonwealth control over export of flour began to relax, and Mr Dymock sought and obtained permission to return to pre-war markets and to reestablish in private enterprise, in contrast with many producers who preferred to continue as they were at this period. The untapped opportunity to access the requirements of the Persian Gulf was recognised by the company. The area used mainly Atta Flour (a mixture of export grade flour and clean pollard), and following research the Narrogin Mill was converted to use as an Atta Mill, as a poorer class of wheat could be used in Atta flour. The initiative proved successful, and the

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 51-52. Note: the National Trust of Australia (WA) Assessment incorrectly attributes the plans to William Bennett, and this error was replicated in the 2001 HCWA assessment for the place.

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Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 51. Mr Dymock had joined the company on 16 August 1923, and rose from junior clerk to Managing Director in his 45-year career with the company. At his instigation, in the late 1940s, the packing of 'the despised "Henco" brand at Narrogin Mill ceased, and wheat was sent to that mill from the North Fremantle zone, as well as necessarily re-educating bakers to gain acceptance for the Narrogin flour.

⁵⁷ Dymock on cit

Erickson, Rica (Ed.) *Bicentennial Dictionary of Western Australia* University of Western Australia Press, Nedlands, 1989, p. 3398; and Battye, J. S. (Ed.) *Cyclopedia of Western Australia* The Cyclopedia Company, Perth, 1912, Fasc. Ed. Hesperian Press, Carlisle, Western Australia, 1985, Vol. 1, pp. 629-630; and Donaldson, Ross '100 Years of History', and 'Modernism is Not a Style' in *Architecture Australia*, Vol. 73, No. 5, September 1984, pp. 39-45 & 49-52.

Donaldson, Ross ibid.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 52-53. The same company was responsible for works at Charles Street Methodist Churches in this post-war period.

company's production of Atta Flour has continued at the North Fremantle Mill into the 21st century. 62

In 1952, in response to acute storage shortages, the Board considered estimates for erecting a new brick Flour Store for £25,000, but it did not proceed. Construction of the large 'Roadway Structure', including provision for bag printing and an extension of the Packer Room to the southern end of the Mill building, was completed in July 1952. The floors of the Flour Room were also strengthened.⁶³ It was not until 1955 that additional bins were installed, at a total cost of approximately £22,000. Tenders were called locally, as the four bins were to be of concrete construction, each with a capacity of 70 tons of flour.⁶⁴

In 1956, the Manager took options on two mills which were for sale, the Boronia Mill at East Perth, a one and one quarter ton plant which had been remodelled recently, and the Westralian Farmers' Mill one and three quarters ton plant at Welshpool. In March, the Directors accepted Dymock's recommendation to purchase Boronia Mill at a cost of £65,000 cash for immediate possession. This purchase proved an immediate success in assisting the company to meet the demand for increased production. With this acquisition, Great Southern Roller Flour Mills Ltd. became the second largest milling company in the State, which was to prove a decisive factor in the survival of the company in the latter half of the 20th century. Subsequently, the company has maintained its position as one of the two largest milling companies in the State, the other being George Weston Foods Limited, with milling operations at Northam.⁶⁵

By the time the reorganisation was completed, all other Western Australian millers had signed a Millers' Agreement, as had numerous millers in the other States. Great Southern Roller Flour Mills Ltd. did not sign for two reasons. It would have prevented the company from supplying its main exporter, and the company would have been bound to mill only 80 hours maximum per week, with all orders above that to be directed to mills in Sydney or Melbourne.⁶⁶

In the mid-1950s, demand for Atta Flour from the North Fremantle Mill continued to grow, greatly increasing wheat requirements at the Mill, and an underground grid hopper was urgently required, straddling both sets of lines at the Stirling Highway end of the railway siding, siting the whole intake system adjacent to the Mill, the silos, and the Conditioning Bins. This was installed in 1957.⁶⁷

In 1957, plans were prepared for a modern self-contained laboratory, which would treble its size, and for a welding and carpentry workshop. Builder A. J. Grose was awarded the contract to build the laboratory at a cost of £1,660, which he completed in September. That month the Board considered a quote of £1,460 for the workshop, which was to be a prefabricated steel shed with brick footings and concrete floor, but decided to have the company's own men undertake the work, except for the footings and concrete floor. Due to more urgent tasks, this new building was not completed until late 1958.68

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Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 53-54.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 57.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 59.

⁶⁵ Dymock op.cit.

⁶⁶ Dymock op.cit.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 62.

⁸ Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 62-63.

In the late 1950s, the company's three mills were on occasion working round the clock six days per week to meet orders. In August 1958, when even this was insufficient, hundreds of tons of flour were directed to Adelaide. Paradoxically, the Federal Government was endeavouring at this period to enforce the maximum 80 hours as per the Millers' Agreement.⁶⁹

In June 1959, W. Thomas & Company, flour millers, took over the four largest bakeries in the Perth metropolitan area. Whilst similar change had occurred in Sydney and Melbourne, this was the first instance in Western Australia of millers also becoming bakers, and caused much anxiety in the milling industry, as the loss of sales of considerable tonnages was serious. Great Southern Roller Flour Mills Ltd. was less affected than other millers, as the business had concentrated on small to medium size bakeries with an awareness of what had previously occurred in the Eastern States. The company sought to reassure clients that it would not follow W. Thomas & Company's precedent, and also set about consolidating its position as a supplier by assisting medium sized bakeries to take over smaller bakeries, strengthening the position of the bakeries' and also their own in the process. The expansion by W. Thomas & Company into bakeries eventually led to wide change in the milling industry in Western Australia, and the demise of a number of millers. To

In 1960-61, the Manager obtained the approval of the Board to transfer the East Perth plant to North Fremantle, and to sell the former site, as it would be possible to produce the same tonnage of flour per week with four men, rather than the 23 employed at East Perth. In 1961, the plant was transferred to the North Fremantle Mill, where it was installed by Henry Simon (Australia) Ltd as Western Australia's first fully pneumatic mill, known as No. 2 Mill, at a cost of £42, 548. It remained a separate unit rather than being incorporated into the No. 1 Mill, thus it could be cut in or out as required by the export position.⁷¹

In late 1961, additional flour storage space was built by Mr A. J. Grose at £10,700. The work involved bricking in the north-eastern corner of the wheat shed, installation of heavy steel to carry top floor storage, and raising the existing roof. 72

In 1962 an annexe was added to the existing workshop for use as a woodwork workshop, and the existing workshop was utilised for steel work. A brick addition was also made to the laboratory. In the same time period, two extra lavatories required under health regulations were built, with all work completed by A. J. Grose.⁷³

In mid-1962, plans were drawn for the addition of three rooms at the south side of the office building, to accommodate the Accountant, the Sales Manager, and a Lunch Amenities Room respectively. These additions were also undertaken by Grose.⁷⁴

In 1963, the existing lunch room was converted to a change-room only, and a new lunch room was built by Grose at a cost of £2,400 75 . All the west facing

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Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 65.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 64.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 65.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 66.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 66.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 67.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 68.

windows in the original Mill building were renewed at a cost of £2,225, as they had deteriorated with the passage of time due to proximity to the ocean and weather damage, and an asbestos and resin water proofing named Kenitex, was applied to the walls.⁷⁶

From the 1960s changes have occurred at the place with changing technology and changing market demands. In the late 1960s, more bin storage was required, and so the company acquired six blocks of land on the south side of Leslie Road, which adjoined the Mill site. It was thought that at some future date, with the assistance of Fremantle City Council, Leslie Road would be closed, providing room for future expansion. However, the closure has not eventuated to date, and the area at the south side of Leslie Street has not been redeveloped for bin storage. It was recognised that the proposed widening of Stirling Highway would reduce the Head Office Administration site by 48', but would not pose a problem. However, a similar loss from the railway siding did pose a problem for the wheat intake system, and might require the installation of another hopper at the eastern end. Under the Metropolitan Region Scheme, the company's land adjacent to Stirling Highway at Lots 172, 173, and 175, was reserved for the major highway.⁷⁷

On 4 December 1974, a new Certificate of Title was issued for North Fremantle Lot 172.⁷⁸

In January 1976, the company was taken over by Allied Mills Limited, an Eastern States company, which became Goodman Fielder Wattie Ltd after a subsequent merger. The name Great Southern Roller Flour Mills Ltd. was retained throughout the remainder of the 20th century, and has continued to be the official name of the place to the present. Dymock continued as manager until his retirement in 1976, having worked for the company for 53 years. He was replaced as manager by Matt Padbury (b. Moora, 1933), who had trained with Henry Simon Ltd in Sydney and Manchester, England, in 1952-56, qualifying as a Flour and Stockfeed Miller and Engineer, and then served as Technical Director of Peerless Roller Flour Mills Pty Ltd (1957-75).

In 1976-77, the company undertook a substantial upgrading at of the North Fremantle Mill at a cost of \$700,000.⁸² Changes by the Main Roads Department (MRD) regarding the proposed widening of Stirling Highway which increased the area to be reserved, were of great concern to the company, as it included the land occupied by the office and laboratory on Leslie Road, and ran along the edge of the Dingo Silo on Craig Road, and also in relation to the possible closure of the rail crossing at the mill.⁸³ The company foresaw a need to acquire additional property in the vicinity of the North Fremantle Mill to allow for the

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⁷⁶ Dymock op. cit.

Metropolitan Region Scheme Certificate in MRPA file, 1976 to 1982, at Great Southern Roller Flour Mills Limited, North Fremantle, 20 July 1971.

Certificate of Title Vol. 1396 Fol. 827.

National Trust of Australia (WA) Assessment op. cit. states 1975; however, Allied Flour Mills Division in the State of Western Australia (1981) in GRSFM History File states January 1976.

Mr P. Anderson op. cit.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, pp. 75, 78; and Curriculum Vitae. Mathew David Padbury. courtesy Matt Padbury.

Record of Proceedings of a meeting at Dept. of Industrial Development, in MRPA file op. cit., 29 June 1977. Note: correspondence indicates painting of the Mill was part of the works.

Memo from Matt Padbury to A. Worthington, and memos in MRPA file op. cit., 28 Sept 1976 and Sept-Oct respectively.

reduced area of its existing site and to enable expansion of warehousing and product processing operations.84

In February 1977, the company was advised 'a slight adjustment' had been made to the 1971 plan for the realignment of Stirling Highway; the alignment indicated by MRD in 1976 remained 'correct'; and that both MRD and Metropolitan Regional Planning Authority (MRPA) had indicated that the silos and laboratory were not expected to be effected.85 Discussion and correspondence continued through 1977-81.

In 1979, the Narrogin Mill was closed, and all operations were transferred to the North Fremantle Mill.86 The closure necessitated resiting of the Narrogin silos to the North Fremantle mill, and the company began negotiations with Westrail to lease additional land for this purpose, adjacent to land already leased from Westrail at North Fremantle Lot P82.87 At this period, the area of leased land fronting Thompson Road accommodated the Mill's pallet store.88

In December 1980 and January 1981, Fremantle City Council and MRPA gave approval for the erection of two steel silos and a weighbridge at Lot 10 of North Fremantle Lot P60 (78 Thompson Road).89 However, the plans were not implemented in 1981.

In July 1981, plans were drawn for the addition of sixteen vertical steel silos, to be located to the north of the existing buildings, as part of the company's long term plan to relocate all its operations in the North Fremantle area, following closure of the Mill at Narrogin. 90 In October 1981, Fremantle City Council granted approval to the application from the company to erect these silos on a site at the corner of Craig Street and Stirling Highway, on land leased from Westrail. ⁹¹ The silos were to be relocated from Narrogin (2,000 tonnes) and those recently purchased from WA Flour Mills (1,000 tonnes).92 There was opposition to the new silos from some local residents; however, the Council refused to change its original decision as the area is zoned for mixed residential and industrial uses under the Town Planning Scheme. 93 The argument against the silos was seen as 'a symptom of the changing nature of North Fremantle in the past few years', with the area becoming more and more popular as a residential area, following increasing prices elsewhere in Fremantle.94

In November 1981, the MRPA Report: Western Suburbs Primary Road was released regarding proposed Amendment 410/33; and it was vigorously opposed by Great Southern Roller Flour Mills Ltd. which foresaw the effects of the proposed resumption. 95 In late 1981, amendments were made to the plans for

89 Correspondence in ibid, 17 Dec 1980 and 6 Jan 1981 respectively.

⁸⁴ M. D. Padbury to Mr R. Henwood, Acting Planner, City of Fremantle, in ibid, 27 Oct 1976.

⁸⁵ E. R. Gorham, Department of Industrial Development, to M. Padbury, in ibid, 4 Feb 1977.

⁸⁶ Lang, Ernie op. cit., p. 147. Note: the Narrogin Mill was demolished. 87

Memo and attachment, in MRPA file, 17 May 1979 88

⁹⁰ Proposed Grain Installation and General Arrangement Bulk Floor Installation Great Southern Roller Flour Mills Limited Drawing nos. AU 517 and 521 respectively.

⁹¹ Government Gazette 16 Oct 1981.

⁹² Memo to Messrs. Cadwallader and Padbury from Mr Breden in MRPA file op. cit., 24 Dec 1981.

⁹³ The West Australian, 10 Dec 1981.

⁹⁴

MRPA Metropolitan Region Proposed Amendment 410/33 Report Western Suburbs Primary Road, Nov 1981; and correspondence and Submission in MRPA file op. cit.

the relocation of the silos based on the most recent road-widening plans for Stirling Highway. 96

By 1982, the place was one of only two remaining flour mills in operation in the metropolitan area, and one in the country, in comparison with 1959-60, when 20 mills were in operation in the State.⁹⁷

In February 1982, the MRPA granted approval to the plans for the silos, with a footnote that if the proposed Amendment 410/33 were approved and the new road constructed, 'rail access to the flour mill will no longer be possible'. Subsequently, the company sought approval from the Fremantle City Council and the MRPA for variations to the plans for two silos and a weighbridge being two steel bins with the concrete foundations for a third bin and a plant room on the land at 78 Thompson Road, and re-approval for the additional 16 silos, which was granted. 99

On 12 November 1982, Amendment 410/33 was formally gazetted. ¹⁰⁰ In the MRPA Report on Submissions the MRPA concluded that the branch line across Stirling Highway was to be removed as part of the proposed improvements to the highway and construction of the controlled access highway. ¹⁰¹ It remained for some years. In 2001, the tracks had been removed and the access was only for road vehicles. The lines of the former railway tracks are retained in the bitumen.

In 1984-85, the company successfully appealed against a proposal to rezone land in the vicinity of the place from industrial to urban. Consequently, land at North Fremantle Lot P82 to Craig Street was excluded from the urban zone and included in the industrial zone, while an urban zoning was retained for the surrounding land in Craig Street. 102

In February 1986, approval was given for the construction of an SEC sub-station at the place. 103

In March 1987, preliminary drawings were made by Macdonald Wagner for modifications to the existing mill, which included bricking up of some windows and doors, removal of floors and a stair, building of some new stairs, and removal of one of the existing timber silos.¹⁰⁴ This plan shows two silos at the south of the mill, near the corner of Thompson and Leslie roads.¹⁰⁵

In June 1995, the place was assessed by the National Trust of Australia, and subsequently classified on 4 September.

On Saturday, 20 July 1996, a feature article in *The West Australian*, entitled 'Inside the Dingo's Lair', reviewed the history of the place, mistakenly referring to

ibid.

M. D. Padbury to Ian Wilkins, MRPA, in MRPA file op. cit., 18 Dec 1981; and Proposed Grain Installation... op. cit.

⁹⁷ Lang, op. cit.

⁹⁸ MRPA to Great Southern Roller Flour Mills in MRPA file op. cit., 12 Feb 1982.

Excerpts from Planning Committee and Fremantle Council Minutes, Approval from MRPA, in MRPA file op. cit., n.d., and 17 June 1982 respectively.

Stone James Stephens Jaques to M. D. Padbury in MRPA, op. cit., 23 Nov 1982.

¹⁰¹ ibid

Government Gazette 26 July 1985.

Correspondence in MRPA file 1984-, Feb-Apr 1986.

Macdonald Wagner Engineer Managers Modifications to Existing Mill for Goodman Fielder Ltd North Fremantle, March 1987.

the place as 'the Dingo Flour mill'. The name has been in common usage for many years. Its continued use is indicative of the impact of the well-known dingo symbol painted on the face of the silo, and the way in which the sign on the silo contributes to the community's sense of place. In recent years, three walls of the silo, at the north, east and south sides, have been re-clad, but the western wall has not due to the heavy cost involved in carrying out the replacement in such a way as to conserve the Dingo sign. 107

The company has a regular maintenance programme in place for the whole site. In the period 1998-2001, works have included repairs and replacements to the lintels in main Mill building and the fitting of steel girders to the wall of the top floor of the Mill to curtail problems with the wall being shaken.¹⁰⁸

In May 2001, a new road was made into the place from Craig Street. 109

In late 2002, Goodman Fielder was reorganised into separate divisions, some of which were sold. The milling division became a joint venture named Allied Mills Australia Pty Ltd, which operates eight mills and four speciality sites across Australia and is the largest milling company in the country.¹¹⁰

In September 2005, Allied Mills sold the land south of Leslie Road, which had been used for staff parking. Consequently, additional car-parking was created on the Mill site.¹¹¹

In 2008, *Great Southern Roller Flour Mills Limited* continues in operation as a flour mill, one of the two largest mills in the State, and the only remaining large mill in operation in the metropolitan area. It produces a large range of quality products to cater to the needs of the market in the 21st century. Milling is in progress 16-24 hours per day, depending upon demand.¹¹²

13. 2 PHYSICAL EVIDENCE

Great Southern Roller Flour Mills Limited is a complex of buildings, including the Flour Mill, Timber Silos, Office, Laboratory and other buildings associated with the operation of the mill. The structures are made from a variety of materials with the main buildings being constructed of brick and elements such as silos constructed in steel and clad with steel sheeting. Earlier silos and buildings are timber framed, and many of the early brick construction buildings have internal structures of timber. The buildings comprise the original 1922 buildings and a range of structures and elements constructed through time to the present.

Great Southern Roller Flour Mills Limited is located to the east of Stirling Highway and the former Leighton Marshalling Yards in North Fremantle. Though there was previously a rail connection across the highway to the mill, there is no connection at present and traces of the connection are few, apart from the evidence provided by the layout of Building 29, with its curved structural column grid on the old railway alignment and the remnant tracks left exposed in the bitumen surface of the carpark off Stirling Highway. The land to the west of the mill is essentially

The West Australian 20 July 1996.

Paul Anderson, conversation with Robin Chinnery and Philip Griffiths, site visit, 2 May 2001.

ibid.

ibid.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 89.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 90.

Great Southern Roller Flour Mills Ltd Conservation Plan (Draft), March 2008, p. 90.

open ground and gives the tall mill structure visual prominence from the highway, beachfront, and ocean. The mill site, is surrounded by roads: Stirling Highway to the west, Leslie Road to the south, Thompson Road to the east, and Craig Street to the north.

The mill development is focussed at the southern end of this street block, reflecting the mill company's land ownership, the rail reserve to the south of Craig Street and the north of the mill, and the subsequent leasehold land upon which the grain storage silos and pallet storage facilities are located.

The development is set back from the Stirling Highway frontage, hard to the boundaries of Leslie and Thompson roads, and close to the mill property line for most of the northern boundary. The grain storage bins and pallet storage extend in to the leasehold land, but are well set back from the Craig Street frontages. The Craig Street and Stirling Highway frontages are well maintained with plantings of native shrubs that partly screen from view the base of the storage bins, the timber storage bin, and the brick construction mill. A Norfolk Island Pine (*Araucaria heterophylla*) is a prominent and early landscape element. The tree has endured severe lopping in order to clear above ground power lines and has a disfigured profile when viewed from the north and south as a result. Dwarf Agonis and Grevillea are used as boundary plantings.

Great Southern Roller Flour Mills Limited is a complex of buildings and structures that provide accommodation for administration, grain receival, storage, grain conditioning, milling, waste product extractions, product manufacture, packing, laboratory control, staff amenities, together with dispatching of waste and completed product. The output of the mill is a range of over 230 products, in addition to the production of standard flour. The buildings and structures accommodate processes that differ little from those employed in milling since the end of the 19th century, together with upgrades, maintenance, and adaptations to accommodate safety, health, environmental, and quality of production requirements, as well as maintaining the competitive position of the mill as a business.

A description of the major buildings follows, in a sequence that reflects the order of the process as far as possible, rather than the dates of construction.

F01 Grain Receival

This is a small section of the mill with a concrete dado and metal framed and clad upper walls, and a low-pitched metal roof. The floor is concrete and includes metal grid, over a collection pit, into which grain is delivered for cleaning and storage in the silos to the north of the receival point. The grain receival facility is a later adaptation to accommodate the change from rail delivery that involved tipping grain into basement storage under the warehouse F19, to truck delivery where the trucks use a rear tipping action.

F03 Timber Silos

The Timber Silos is a timber framed structure, approximately five storeys in height, clad with corrugated (Custom Orb) profile metal sheeting, with a steeply pitched stair system housed at the southern end, and the bins occupying the whole of the northern or main built element. The exterior walls are finished in white, with a dingo silhouette in a red border, and the words DINGO FLOUR painted on the west face. This distinctive element, a well-known landmark, means that

the community often refers to the place as the Dingo Flour Mill. The roof is a green Colorbond finish custom orb profiled gable roof. There are few openings in the exterior walls.

The interior of the silo comprises a lower level where grain from the bins above is mixed to the required proportions, gristed and tested. The bulk of the space is occupied by jarrah slat construction bins divided into compartments or bins. The upper floor comprises the roof space, a walkway, and feeder tubes to the bin tops. There is a steeply pitched stair at the southern end of the bins which gives access to the floor levels within the enclosure.

The north, south and east walls of the Timber Silos have been reclad and repainted within the last ten years, and there have been internal modifications and upgrades of the working plant. The structure and interior are in fair condition. In 2008, the west wall and rainwater goods at eaves level are in a deteriorated condition with numerous rust patches and water leaks evident, as a result of being exposed to the prevailing weather and the difficulty of upgrading the fabric while maintaining the dingo motif.

F04 Steel Grain Storage Silos (1982)

The silos store incoming grain and comprise 16 cylindrical silos set in three regular east-west direction grids; two rows of six and one row of four silos. They are set on steel-framed stands, and are corrugated metal clad structures with cone roofed tops. A grain elevator is located on the western end and the grain distributed into the bins via delivery tubes. There are steel access ladders and walkways. The bottoms of the bins are cone shaped and discharge into a conveyor system that feeds back into the mill. The bins are deteriorating due to the extreme environmental conditions and are likely to require replacement in the foreseeable future. Only two of these silos remain in use in 2008.

F05 and F06 Screenroom and No 1 Mill.

This part of the mill comprises two sections of four-storey high brick construction mill building with a zincalume gabled profile roof. The brickwork is laid in English garden wall bond, with external piers and recessed panels between them. The brickwork was originally unfinished but the west and south elevations were painted in the 1950s. Windows are generally timber framed double hung sashes, fixed and awning lights. The two sections of the building are separated by a brick wall that extends through the full height of the buildings and terminates in a parapet above the roof level. Exhaust flumes extend through the roof in several locations. A prominent concrete tower structure which formerly supported the water tank is also evident above the ridge level. Although constructed in the interwar period, the buildings employ the Federation Warehouse style that was common to Western Australian flour mills since the introduction of the roller mill system.

The interiors of both mill buildings are essentially brick boxes with the interior walls being painted face brickwork. The ground floors are concrete, and upper floors are constructed with timber framing and boards, with timber stairs between floors. The roof is supported on trusses and purlins and the soffit of the roof system is exposed. There is evidence of wall repairs and stabilisation to the south of F06 and of extensive lintel conservation on the west face of the building. Masonry cracks, corrosion of metal elements, water damage to paint and render finishes, deteriorating mortar pointing and the poor condition of timber framed

sash windows are highly evident throughout the building. The constant vibrations applied to the structure by heavy, oscillating equipment and exposure in the heavily salt laden environment have contributed to the deterioration of the fabric.

The building houses plant, equipment, and control equipment that performs conditioning, screening and milling functions. The processes involve cleaning, grinding, cyclonic transport up to the top of No 1 mill, sifting and sorting and regrinding. The milling process involves a four break process to put the wheat through increasingly fine grinding. Bran is removed for use in stock feed and is transferred to offal storage and packing before dispatching. The mills are early pieces that were brought to the mill from 1938 onwards and additional mills, which were acquired from other mills and brought to Fremantle. The milling is managed to produce a variety of flours. Post milling stages include pre-mixing a range of products such as bread and pizza base mixes, sponge and doughnut mixes, and many other products.

F8 and F9 Flour Bins and Flour Packing

This is part of the masonry construction building fabric, and contains flour bins and packing equipment. The processes involve mechanised delivery, and a combination of mechanised and manual packing.

F10 Mixing and Special Packing, F11 Classification and F12 Bulk Flour Storage

F11 and F12 are metal framed and clad structures housing mixing and packing pre-mixed products, classifying, bagging, and weighing functions. The structure is steel framed with metal cladding, translucent sheet cladding, and rises to the same height as the No 1 Mill's eastern wall plate. It is designed as a lean-to structure. F10 is of a similar form, scale and height but is a brick masonry structure constructed in the same pier and panel system as the Flour Mill with English garden wall bond brickwork.

F13 Bulk Flour Silos

This is a metal framed and clad loading bay structure with three metal clad silos, built close to the Leslie and Thompson Road boundaries. The silos are simple elegant industrial structures.

F14 Bulk Outloading

A metal framed and clad loading bay attached to the adjacent interlinked bulk flour bin area F12.

F15 Offal Packing and F18 Warehouse.

This is all one structure and is a two-storey gable roofed warehouse structure that runs between the Thompson Road boundary and back to the No 1 Mill. It is constructed in a similar manner to the mill in English garden wall bond brickwork in a pier and panel pattern, and has a metal deck roof with a metal silo protruding through it. It has a small number of timber framed windows, with stucco heads and sills. A feature of the eastern wall is the louvred grilles at high level under the corbelled parapet courses. The structure is timber framing with timber floors, though a number of timber columns have been replaced where mechanical damage has occurred. Metal cladding around timber columns and checker plate

fixed to the floors are typical repair strategies in this warehouse, as well as warehouse F19 to the north. The offal silo has a discharge system that feeds into the offal loading system in the adjacent metal framed and clad loading bay F16 immediately to the south.

F16 Offal Loading and F17 Bag Store

The offal loading building is a metal framed and clad lean-to structure that also fronts Thompson Road. It has a large roller shutter access door, concrete floor, and the offal loading system suspended from its roof structure. The bag store is an extension of this structure and extends around to its south and west, finishing against F10 and 12. This whole assembly is utilitarian and improvised in its approach.

F19 Warehouse and F29 Warehouse

These are essentially two parts of the same structure, with F29 comprising a gabled roof brick construction building with a structural alignment that was based on the curvature of the rail connection back to the marshalling yards. The brickwork follows the same English garden wall bond pier and panel pattern as the adjoining F18 to the south. The door to F29 runs almost the full width of the building, and there are overhead tracks attached to the steel lintel that indicate that there was a pair of sliding doors at this opening. The interior is a clear span and, unlike the warehouse buildings previously described, the structure is all fabricated in steel sections. The floor is paved and there is no trace of the railway track that ran down the length of the warehouse.

The second section of the warehouse in this group, F19 employs the same technology as the other sections, such as F18, although it has a much simpler architectural expression, with plain English garden wall bond brick walls and a small number of timber-framed windows. Many of the opening sashes have been replaced with fixed lights. The structure is timber with timber floors and the steel repair and protection strategies employed in F18 are repeated here. There is a deep floor cavity under part of the building adjacent to F29 that was formerly used to receive off loaded wheat for conveying into silos.

F20 Pallet Store

The Pallet Store is a single storey steel framed gable roofed structure, with a concrete wall to dado height and brickwork over the top on the Thompson Road boundary. The other walls are faced with metal cladding, and it has a metal clad roof. The building has a concrete floor, and has been adapted to allow a drive through vehicle movement from west to east. This building is constructed on land leased from Westrail. The building is utilitarian and has no intrinsic aesthetic value.

F21 Workshop

The Workshop is located on the Leslie Road boundary, and is a single storey red textured brick building with a low pitched green Colorbond roof and timber joinery. The west elevation and the southern parapet wall abutting the footpath have been rendered and painted. The workshop is a simple utilitarian building.

F28 Bakery

A small structure set between the Workshop and Staff Lunchroom where products are tested through the baking process.

F25 Staff Lunch Room

A single-storey brick construction rectangular plan building providing staff amenities.

F27 Shower Room

A single storey timber framed weatherboard clad rectangular plan building.

F26 Laboratory and F30 Administration

These are essentially two stages of the one building and the building reads as a single entity. The two elements are set well back from Stirling Highway and the building is essentially a domestic scale single storey structure that employs domestic brick and tile techniques, but the exterior of the building has been given the Inter-War Art Deco style treatment. The decorative elements have been reserved for the front of the building, with the stucco covered brickwork used to shape a simple three bay loggia, with quadrant plan walls to both sides, and a stepped parapet in the centre to which the Dingo Flour emblem has been applied. The business name is applied to the building in the form of a painted sign on a metal background over the loggia. The interiors of the office and the laboratory are very plain and simple with few distinctive architectural features. The manager's office is the most elaborate with a decorative plaster ceiling cornice and a parquet floor laid in a geometric pattern beneath the carpet floor covering.

The building was extended to the south in 1962. The extension is distinguishable from the original in the west elevation with a horizontal parapet contrasting with the main hipped roof.

13. 3 COMPARATIVE INFORMATION

For detailed comparative information, refer to 'Great Southern Roller Flour Mills Conservation Plan' prepared for Allied Mills Australia Pty Ltd by Palassis Architects in March 2008. The following is largely drawn from this document.

Although Ernie Lang's *Grist to the Mill: A History of Flour Milling In Western Australia* documents the demise of flour mills in the State, its focus is on the history of milling, and it contains limited physical descriptions of existing or demolished mills. However, the book does note that there were a number of mills in the Metropolitan Region in the late 19th and first half of the 20th century, and most of these had ceased operation by the late 1950s. Few are now extant. Two small flour mills of modern construction operate in the suburban area in 2007-08: Millers Foods, at Byford, previously Defiance Flour Mill, and West Coast Milling, at Welshpool, previously Di Campo's, both with three tonnes per hour capacity. 113

In 1898, Peerless Roller Flour Mill, Guildford, was established, and with extensive work in 1915 and 1948-49 it was among the largest mills in the post-war period. The place was destroyed by fire in 1975.

Paul Anderson, conversation with Robin Chinnery, January 2008.

Cottesloe Flour Mill (fmr) (1902-03), originally Eureka Mill, comprising a four-storey, brick structure incorporating the former mill, bagroom, cold storage buildings and bran mill complex, was closed in 1990 because of an inability to expand the site. Subsequently the place was converted to residential accommodation.

Eureka Steam Flour Mill, Fremantle, originally the Phoenix Mill (c.1876), then Diamond Mill (c.1876-80), Eureka Steam Flour Mill (1880-98), and finally Eureka Milling Co. (1898-1903), located between Nairn and Bannister Streets, one of the first roller mills in the State, was effectively superseded by the large new mill built at Cottesloe in 1902-03.

Port Roller Flour Mill, Fremantle, originally the Port Mill (1862-c.1890), then Port Roller Flour Mill (c.1890-1903) and finally the Westralian Union Flour Mill (1903-c.1909) in Essex Street, was probably closed down after Thomas Ockerby went into partnership with William Lehman in c. 1909, and together they purchased the Eureka Mill at Cottesloe.

Western Star Milling Co (est. 1933) established a mill in Croke Lane, Fremantle, for its own needs as a biscuit manufacturer. It was closed in 1974 when it proved more efficient to purchase flour from other mills.

Katanning Roller Flour Mill is a purpose-built three-storey roller flour mill, with a basement under the northern section. Constructed in 1891 for F. & C. Piesse, it occupies the highest point of Katanning's townscape. The site was originally 3 acres and incorporated the mill, offices, store, a large warehouse and a blacksmith shop, various machinery and ducting. Flour milling ceased in 1976, and a proposed demolition of the site prompted Katanning Shire Council to acquire it and operate it as a museum and tourist attraction.

Northam Mill was originally Wilding's Mill (1866-73), then Northam Co-operative Steam Flour Milling Co. (1873-77), Byfield's Mill (c. 1877-1902), Standard Flour Mill (1902-present), owned by W. Thomas & Co., and is now Weston Milling. The present mill was built in 1890; modernised in 1909, the first in Australia to be powered by electricity, and the largest mill in the State in 1914, with a capacity of twenty sacks per hour. The mill has been modernised and ranks with *Great Southern Roller Flour Mills Limited* as the largest in the State.

York Roller Flour Mill, originally either Beehive Mill or Empire Roller Flour Mill (1891-98), W. Dinsdale's Mill (c.1898-1908); and finally York Roller Flour Mill (1908-66), was the second largest milling company in the State from 1928 until 1956, when Great Southern Roller Flour Mills Limited took over the Boronia Mill. The York Company was a victim of Thomas & Co.'s takeover of major metropolitan bakeries. The Perth Mill (Dyer Street, West Perth) was closed in 1965, and in November 1966, York Mill was sold to Great Southern Roller Flour Mills Limited. The Mill was vacated. In 1993, it was sold, and subsequently converted for use for furniture manufacture by 'Jahroc'.

Evidence suggests that concrete silos were the norm for most Eastern States mills in the interwar period. Only the Oregon timber silos at the Gillespie Bros Mill at Albion, Queensland, show any similarity to the 1936-37 Timber Silos at *Great Southern Roller Flour Mills Limited*. Since, the fate of the Albion silos is currently unknown, the 1936-37 Silo at *Great Southern Roller Flour Mills Limited* may be unique in Australia.

Great Southern Roller Flour Mills Limited was one of the largest flour mills built in Western Australia in the 1920s, and ranked high among the largest and most up

to date mills in Australia at that period. In 2008, it is the only large flour mill operating in the Metropolitan Region and one of only two large mills in operation in the State.

At both State and national level, *Great Southern Roller Flour Mills Limited* has considerable significance, with the 1936-37 Timber Silos being very rare.

13.4 REFERENCES

Dymock, N. L. 'Great Southern Roller Flour Mills, Limited North Fremantle and Narrogin (including takeover of East Perth and York Mills). Brief background Narrogin Co-operative Flour Milling Coy. 1903-12. History of Great Southern Roller Flour Mills Limited 1912-1968' Typescript held at Fremantle Library Local History Collection.

National Trust of Australia (WA) Assessment by Art Deco Society of Western Australia (Inc), 1 June 1995

'Great Southern Roller Flour Mills Conservation Plan' prepared for Allied Mills Australia Pty Ltd by Palassis Architects in March 2008 (draft).

13. 5 FURTHER RESEARCH

13.6 APPENDIX

Additional information relating to Narrogin Mill.

In 1913, improvements to the milling plant enabled the capacity of Narrogin Mill to be increased from 600 to 800 pounds of flour per hour; and in the same year, the company entered into an agreement with the Municipal Council to supply the town with electric current for a period of 21 years.

Once the Mill at North Fremantle was fully operational, the Company turned its attention to Narrogin. In 1923-24, a new Power House was built and put into operation. In 1924, it was decided to proceed with building a new brick mill in the town at an estimated cost of £17,000, with retention of the original mill for storage purposes. The new mill was officially opened in late January 1926, following the return of Mr Connor from four months overseas on a visit to all overseas markets.

From 1922-23, it had been noted that the quality of flour produced at North Fremantle was superior to that produced at Narrogin, and this continued to be the case, resulting in numerous complaints through the years about the latter. The reason was the difference in wheat quality sent to each mill, as that from the Eastern districts which went to North Fremantle was of better quality than that from the South-West which went to Narrogin.

In 1936, as the State was recovering from the Depression, the company first turned its attention to Narrogin, where the bakeries were in a parlous state. Land in Egerton Street, on which was located a row of six shops, was purchased at a cost of £1,050. The shops were renovated, and plans drawn for the erection of a bakehouse and dwelling at the rear of one shop, which were duly built at a cost of £1,365.