

City of Whitehorse

# Heritage Kerbs Channels and Laneways



## Table of Contents

	Page No.
Executive Summary	2
Scope	2
Historical overview	3
Discussion of significance	6
Heritage bluestone kerb and channeling	9
Heritage brick and bluestone laneways	16
The use of bluestone in new road features	20
Conclusion	21
Acknowledgements	22
Bibliography	23
<b>Policy</b>	
Policy for significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways	24
<b>Appendices</b>	
Appendix 1	27
Schedule of streets within the City of Whitehorse with bluestone kerb & channeling	
Appendix 2	30
Schedule of streets within the City of Whitehorse with bluestone laneways or brick laneways	
Appendix 3	32
Maps showing the location of existing heritage laneways in the City of Whitehorse	
Appendix 4	36
Maps showing the location of existing heritage kerb and channel in the City of Whitehorse	

The information included in this document is primarily based on a report by  
**Helen Lardner Conservation & Design Pty Ltd**

December 2001

## Executive Summary

This report has been instigated by the City of Whitehorse Heritage Steering Committee following community concerns that significant early methods of construction are being lost through road and lane reconstruction in the Whitehorse area. The concern is particularly with the loss of historic bluestone kerb and channeling, and bluestone and brick paved laneways.

The City of Whitehorse has an ageing road network, which requires roads and laneways to be reconstructed. There has been ongoing reconstruction of roads and laneways over recent years. In the reconstruction of roads, bluestone kerbs and channels have either been replaced or reconstructed due to deterioration and/or the inability of the shape of roads to meet current needs. The integrity of historic lanes is being lost through development pressures and the removal and replacement of sections for drainage purposes.

The removal of bluestone kerb and channel and the loss of the integrity of bluestone and brick laneways, decreases physical evidence which assists in the interpretation of the area's history.

### Scope

The report covers the whole of the City of Whitehorse and includes the following:

- **Bluestone kerbs and channeling to roads;**
- **Bluestone laneways;**
- **Brick laneways; and**
- **Use of materials in new road features.**

Because there are so few remaining bluestone kerb and channels, bluestone laneways and brick laneways (*refer to Appendix 2 for list and maps*) in the area, the report has been written for the whole area, with no differentiation between areas protected in the Heritage Overlay and those areas not protected in the Heritage Overlay. A conservation approach should be applied to all significant examples in the area.

An investigation of concrete kerb and channeling and the use of asphalt or concrete for laneways has not been undertaken and does not form part of this document.

### The major objectives in the accompanying policy are:

1. To preserve significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways in the City of Whitehorse.
2. To ensure that reconstruction and repair of significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways is carried out in a way that reflects as closely as possible the original appearance.
3. To ensure that new road features do not significantly distort or obscure the significance of heritage bluestone kerb and channeling, bluestone laneways and brick laneways.
4. To ensure that bluestone pitchers for reconstruction continue to be sourced and used where most urgently required.

## Historical Overview

This brief historical overview reveals why early methods of road and lane construction are important in the area.

The first European settlement in the area was in Box Hill in the 1830s and 1840s.<sup>1</sup> The first surveys were undertaken in the 1840s.<sup>2</sup> The first sale of freehold land in the Parish of Nunawading took place in 1850 in Box Hill. The pattern of early land ownership was small blocks in Box Hill and Burwood, larger blocks in Blackburn and the largest lots in Vermont, Burwood East and Mitcham.<sup>3</sup>

The municipality's first roads consisted of rough tracks used by timber cutters and farmers. By the 1850s, rough tracks across the municipality had begun to be shown on maps: these included an approximation of Mont Albert Road, which existed as a track from Barkers Road, in the west, east to Elgar Road.<sup>4</sup>

By about 1864, the Nunawading District Road Board had overseen the establishment of the roads now known as Whitehorse Road, Canterbury Road and Burwood Highway. By 1879, north-south roads including the present Elgar Road, Station Street, Middleborough, Springvale, Mitcham and Heatherdale Roads had been formed, formalizing the municipality's present network of primary roads.

In 1882, the Camberwell railway line was extended to Lilydale, and the area of what is now Whitehorse suddenly became a prime target for large-scale land development. Subdivisions immediately sprung up around stations including Elgar Park Estate in Surrey Hills (1882) and the Railway Station Estate in Box Hill (1883).<sup>5</sup>

The opening of the railway, and the subsequent beginnings of suburban subdivision, saw the first residential streets laid out, starting near Mont Albert and Box Hill railway stations, and stretching eastward along the railway line, although these were sparse east of Middleborough Road.<sup>6</sup>

Another developer, the Freehold Investment and Banking Company, purchased a thousand acres in Blackburn for a proposed estate. Streets were laid out, community facilities were established and as a centrepiece, a watercourse was dammed to create Blackburn Lake.<sup>7</sup>

Developers were less keen to subdivide land further east, in the Tunstall (now Nunawading) and Mitcham areas, although a few did appear along the north side of Whitehorse Road. A wedge shaped area of land, bordered by Mitcham and East Doncaster Road, was subdivided in 1889 as the 163 lot Mitcham Township Estate. A railway station opened at Tunstall (now Nunawading) in 1888, and the following year saw the subdivision of land on the corner of Whitehorse and Springvale roads. All of these modest estates, like their huge counterpart in Blackburn, did not develop quickly.<sup>8</sup>

<sup>1</sup> Allom Lovell & Associates, *City of Whitehorse Heritage Review, Volume 1: Thematic History*, City of Whitehorse, April 1999, p. 3.

<sup>2</sup> *Ibid*, p. 3.

<sup>3</sup> *Ibid*, p. 5.

<sup>4</sup> *Ibid*, p. 24.

<sup>5</sup> *Ibid*, p. 7.

<sup>6</sup> *Ibid*, p. 24.

<sup>7</sup> *Ibid*, p. 7.

<sup>8</sup> *Ibid*, p. 8.

<sup>9</sup> *Ibid*, p. 9.



City of Whitehorse, Bluestone Kerb and Channel, Vernal Avenue, between Mitcham Road and Glenburnie Road, Mitcham.

In 1910, the Blackburn Township Estate was laid out around the railway station, to the immediate west of the Blackburn Model Town estate. The extension of tram lines promoted land development in the early twentieth century. The existing tram line was extended to Wattle Park in 1917, and then to Elgar Road in 1928. This gave rise to an influx of land subdivisions in the Burwood, Box Hill South and Surrey Hills areas.<sup>9</sup>

Around the turn of the century the Box Hill Council's pre-occupation with road and bridge works and drainage schemes dominated its budget as it inherited the legacy of unmade tracks left by the land speculators a decade previously. The Shire Engineer, W.A. Gay, supervised the reforming and metalling of roads throughout the settled areas. A central 12 foot wide carriageway was generally finished with six inches of metal. On either side, earth shoulders fell to 4 pitcher drains laid on 2 inches of sand. (Refer to figure 1 page 12). Laneways were either fully pitched on a two inch sand bed or metalled with a 5 pitcher central drain.<sup>10</sup> (Refer to figures 3,4,5 on pages 16 & 17).

Throughout the 1920s, the Box Hill Engineer's road making policy provided for the re-sheeting of as many road surfaces as possible each winter and for treatment during the following summer with tar or bitumen. In 1922 there were less than four miles of tar surfaced roads in the Shire, but by 1927 this figure had risen to more than eighteen miles. At the same time and in common with other municipalities, residential streets and street channels were being concrete paved whilst a number of brick lanes were brick paved and remain in this condition today.<sup>11</sup>

In 1920 the Shire of Nunawading constructed Churchill Street with a four pitcher bluestone kerb and channel and twelve foot wide metal carriageway with earth shoulders.

During the 1920s and 1930s, many of the failed Boom subdivisions were finally developed. To this day, there are entire streets of inter-War houses in Blackburn, Nunawading and Mitcham which reveal their 19th Century origins with their grid layout and rear lanes.<sup>12</sup>

From the 1950s, the City of Nunawading underwent its most rapid period of residential development. In the context of the overall development of the municipality, the grand subdivisions of the 1880s cover a very small area set against the vast acreages which were transformed by building activity in the post – War period.

Into the first decades of the twentieth century, the railway, not the road network, remained the primary catalyst for suburban development of the area. By the mid-1920s few residents had cars, and asphaltting of main roads did not begin until later that decade. It was not until the 1950s and 1960s that true suburban development was reflected in the street patterns of the municipality as a whole. The inter-war period had seen the road patterns of Surrey Hills and most of central Box Hill virtually finalised, but by 1945 the predominance of agricultural land use meant that most of the south-east of the municipality generally retained the road patterns of the 1910s.

By the 1980s, the present road network was almost completely established. In 1997, the character of the municipality's northern boundary was substantially changed by the extension of the Eastern Freeway from Doncaster Road to Springvale Road.<sup>13</sup>

<sup>10</sup> Ward, Andrew. C. & Associates, City of Box Hill Heritage and Conservation Study, Volume 1, July 1990, p. 72.

<sup>11</sup> Ibid, p. 72.

<sup>12</sup> Allom Lovell & Associates, Op. Cit, p. 9.

<sup>13</sup> Ibid, p. 25.

# Discussion of Significance

## Discussion of Significance

The roads or laneways of heritage significance in the Whitehorse area are those that reflect early settlement patterns, a certain period of construction or subdivision, or that demonstrate an early method of construction no longer in use.

In the City of Whitehorse there is mainly concrete kerb and channeling to roadways, however there is still some remaining bluestone kerb and channeling that demonstrates the earliest areas of development. (Photo 1) Bluestone kerb and channeling was mainly used for roads prior to 1900 and continued for approximately 20 years after this. It is however unclear as to when the majority of the remaining sections of kerb and channeling in the Whitehorse area were originally constructed. It is possible that bluestone kerb and channeling undertaken in the 1920s and 1930s was reconstruction work of earlier kerbs and channels. This is indicated by a 1937 City of Box Hill engineering drawing which specifies bluestone kerb and channeling when by this time (*refer to figure 2*), the common finish for roads was concrete kerb and channeling.

The amount of remaining bluestone kerbs and channeling compared with the original amount constructed is unknown. It is likely that there would have been more bluestone kerb and channeling around the railway stations at Mont Albert and Box Hill as these were the early areas to develop. The area around Box Hill, in particular, has undergone substantial change since settlement with a resultant loss of historic fabric.



Photo 1. City of Whitehorse, Bluestone Kerb and Channeling, Carrington Road, between Elgar Road and Thurston Street, Box Hill.



Photo 2. City of Whitehorse, Bluestone Laneway, Rear of Laing Street, between Victoria Crescent and Whitehorse Road, Mont Albert.

A recent road survey revealed that there is bluestone kerb and channeling mainly in the Surrey Hills and Mont Albert area, concentrated areas of Box Hill, concentrated areas in Mitcham and individual roads in Blackburn. These would reflect the early settlement patterns, with Surrey Hills developing early and the other suburbs having areas of early settlement, but booming later in the 20th Century. This also demonstrates, that although Nunawading, Blackburn and Mitcham had early settlers, these areas stayed rural for a lot longer, with less of a requirement for constructed roads.

Land was subdivided with laneways to allow access to properties by night carts and milk carts. The constructed laneways are likely to occur in the areas that were more built up at the time and had greater traffic needs. In Whitehorse it is probable that most of the original bluestone laneways (Photo 2) or brick laneways (Photo 3) constructed in the area remain today either in part or whole. There may however have been complete removal of constructed lanes around the main commercial centres of the suburbs which have altered considerably since settlement.

## Heritage Bluestone Kerb and Channeling



Photo 3. City of Whitehorse, Brick laneway. ROW at the rear of Fellows Street, between Victoria Street and Ormond Avenue, Mitcham.

Bluestone laneways appear to occur in similar areas to the bluestone kerb and channeling, around the Surrey Hills and Box Hill area. As a result these indicate early settlement in the area. It is unknown when these bluestone lanes were constructed, but construction was still occurring at the turn of the century and up until the 1920s.

The construction of brick laneways appears to have occurred in the 1920s and provides evidence of settlement in the area during this period. It is unknown for how long brick construction of lanes was undertaken, but by the mid to late 1920s asphalt and concrete construction was more common. The areas with brick laneways were not the only areas settled during the 1920s, but they do demonstrate one method of construction for the time. They are important in the Whitehorse area for their rare type of construction and are characteristic of a certain period in the City's history.

Original bluestone kerb and channeling, bluestone laneways and brick laneways provide valuable evidence of road construction in the early development of the area and continue to contribute to the physical fabric that reflects the rich history of the City of Whitehorse.

Refer to Appendix 1 for a schedule of streets within the City of Whitehorse with bluestone kerb and channeling and Appendix 2 for a schedule of streets within the City of Whitehorse with bluestone laneways or brick laneways. Refer to Appendix 3 and Appendix 4 for maps which indicate the location of heritage laneways and heritage bluestone kerb and channels.



Photo 4. City of Whitehorse, 1 bluestone pitcher channel and kerb, Windsor Crescent, between Elgar Road and Balmoral Crescent, Surrey Hills.

### Extent surviving

There are currently three types of bluestone kerb and channeling in roads in the City of Whitehorse:

- 1 bluestone pitcher with bluestone kerb;
- 2 bluestone pitcher with bluestone kerb; and
- 3 bluestone pitcher with bluestone kerb.

The 1 bluestone pitcher with bluestone kerb occurs where recent reconstruction of roads has been undertaken (Photo 4). This type of construction has no historical significance, other than indicating where there has previously been earlier bluestone kerb and channeling. Evidence of the earlier road construction has been lost. The 1 pitcher with kerb does not reflect the earlier type of construction, as this type was not used. This example is not a sympathetic use of the material because it can be wrongly interpreted as an earlier form of construction.



Photo 5. City of Whitehorse, 2 bluestone pitcher channel and kerb, Drewett Street, between Shepherd Street and Erasmus Street, Surrey Hills.

The 2 bluestone pitcher channels with bluestone kerb (Photo 5) are in some cases recent reconstruction of roads, however there are also some earlier examples of an unknown date. It is assumed that unless obviously a recent reconstruction, 2 pitcher channel and kerb examples are of heritage significance as intact examples of early road construction.

The 3 bluestone pitcher channel and bluestone kerb roads appear to remain as originally constructed (Photo 6). They are rare surviving examples in the City of Whitehorse. Original Shire of Nunawading and City of Box Hill engineering drawings, dating from about 1915 until the 1930s (Figures 1 & 2), demonstrate the methods of road construction, including the kerbs and channels. The drawings indicate the use of four pitchers, three for the channel and one for the kerb, the same as those that survive today. The 3 bluestone pitcher and bluestone kerb examples are therefore of heritage significance as intact examples of early road construction.



Photo 6. City of Whitehorse, 3 bluestone pitcher channel and kerb, Fellows Street, between Victoria Street and Ormond Avenue, Mitcham.

### Early Construction methods

Documentary evidence suggests that the original method of construction for early kerbs and channels was bluestone pitchers laid on 2 inches (50mm) of sand. Refer to Figure 1, which demonstrates the method specified in 1915. There is no indication on this drawing of the method of jointing used. It is assumed that butt jointing was the preferred method, but achieving this probably depended on the skill or method of the particular contractor doing the work. The practice of butt jointing was an early method of construction more common prior to 1900 and may have already been lost by the 1920s. It is clear from looking at the existing kerbs and channels that butt jointing was often not achieved and there are in fact 20–25 mm gaps between the pitchers in most cases. A 1937 City of Box Hill engineering drawing (Figure 2) specifies a gap of 1 inch between the bluestones with no indication of mortar. It appears from investigation that generally 12-inch pitchers were used for both the channel and the kerb.

The shape of the road is an important factor in the appearance of early road construction. The curvature of the road was much steeper than is required these days. This assisted with drainage of water from the roads and into channels, and can be seen in Figure 1. The shape of the roads influenced the angle of the bluestone channel and the layback angle of the kerb. Roads however, have consistently undergone resurfacing since original construction and generally do not retain their original profile.



Figure 1. Engineering Drawing, construction of Thurston Street from Carrington Road to Hopetoun Parade, Box Hill, 1915, Shire of Nunawading, "City of Whitehorse".

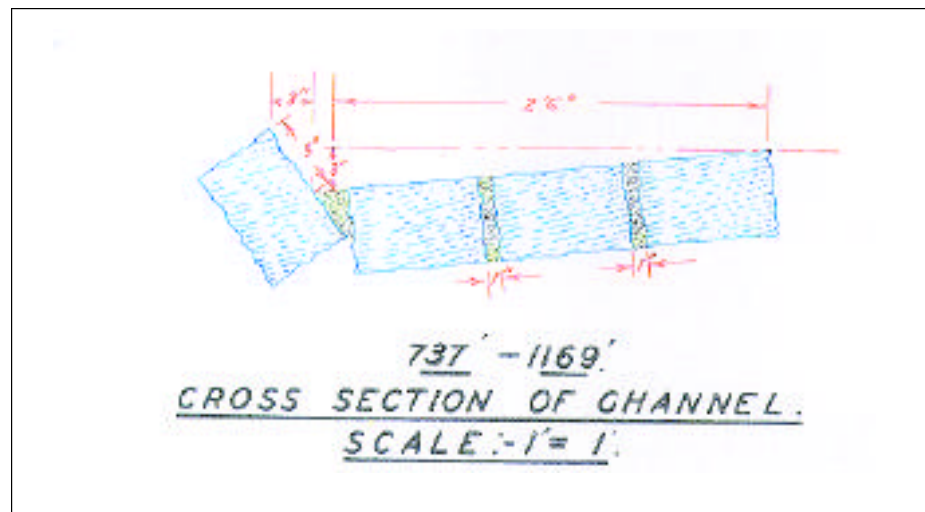


Figure 2. Engineering Drawing, reconstruction of Beresford Street from Trafalgar Street to Mont Albert Road, Mont Albert, 1937, City of Box Hill, "City of Whitehorse".

### Reasons for replacement or reconstruction

In the City of Whitehorse the most common reasons for replacement or reconstruction are as follows.

- Bluestone kerb and channeling is deteriorating through displacement, weed intrusion and/or root intrusion.
- Complaints are received from residents regarding inadequate access into properties as a result of the poor shape of bluestone kerb and channel and road. This is more related to the road shape, however if this is to be improved, the bluestone kerbs and channels require reconstruction at the same time.
- The drainage of roads to the bluestone channels is less effective.
- Realignment of roads is required for traffic engineering reasons.

### Current Practices

The existing practices for bluestone kerbs and channels in the Whitehorse area are outlined below. There is no formal written policy but the below points have been consistently followed over recent years.

- Reconstruction of streets due to poor shape involves lifting the kerb and channel and relaying it to reduce the crown.
- If a street has 50% or more bluestone kerbing then that street will be reconstructed with bluestone for the whole street.
- If a street has less than 50% bluestone kerbing then the bluestone section will be reconstructed using bluestone with the other sections of different materials being reconstructed to match the existing materials.
- In the designated heritage areas, streets will be reconstructed as close as possible to the original to keep the heritage character intact.
- The width of the bluestone channel is generally 2 or 3 pitchers with the majority of recent reconstructions being 2 pitcher channel.
- The width of the channel is determined by considering:
  - the current width of the channel
  - the current width of the street.
  - aesthetics of the street.
- Where bluestone kerb and channel exists, driveways are reconstructed using asphalt with a bluestone edging.
- Where the above criteria indicates that it is possible to use a 2 pitcher channel instead of the 3 pitcher channel, the bluestones saved are used as driveway edges and assist in reconstructing parts of the kerb that are not currently bluestone.
- The construction method used for laying the bluestone consists of the bluestone being set in concrete on a crushed rock base with a 25 mm black mortar gap.
- Concrete and bluestone are not used together because of the difficulty of providing a neat and effective junction between the two.



### Policy Constraints

The constraints that impact on the approach the City of Whitehorse has towards the policy are as follows.

- Bluestone pitchers are difficult to source and are becoming scarce.
- The original method of jointing kerb and channel pitchers is unclear.
- To re-lay kerbs and channels in their original form takes a greater amount of time and therefore cost.
- The early method of construction in relation to the base of the pitchers is no longer practicable as displacement of pitchers occurs.
- Butt jointing of bluestones requires skilled labour that is not readily available today.
- Bluestone kerb and channeling is not suitable on flat graded roads as effective drainage cannot be achieved.
- Debris is easily trapped in bluestone kerb and channeling causing drainage and maintenance problems.
- The bluestone channels limit the width available for carriageways.
- The uneven surface of bluestone channels is not the preference of the elderly, disabled or cyclists.
- The maintenance costs of bluestone are higher as it is more prone to weeds and collection of debris.
- The uneven surface of bluestone pitchers exposes the Council to potential liability issues.

### Financial Considerations

Bluestones are approximately \$4 each and are getting increasingly difficult to obtain.

#### Construction costs for bluestone kerb and channel:

	Current methods		Butt jointed	
	Bluestone reused from site	No Bluestone available	Bluestone reused from site	No Bluestone available
Kerb & 3 pitcher channel	\$63.20/m	\$111.20	\$135.00	\$183.00
Kerb & 2 pitcher channel	\$47.00/m	\$ 83.00	\$110.00	\$146.00
Kerb & 1 pitcher channel	\$35.00/m	\$ 59.00	\$ 85.00	\$109.00

The above prices are based on an average of the five lowest tenders for recently tendered jobs.

The costs do not include the removal of existing kerb and channel, however the current costs to remove bluestone or concrete are comparable.

#### Construction costs for concrete kerb and channel:

600mm wide	\$40.00/m
450mm wide	\$35.00/m
200mm wide	\$30.00/m

All above prices as of December 2001

### Extent surviving

There are numerous types of lanes that exist in the City of Whitehorse. These are:

- Un-constructed dirt or gravel;
- Bluestone paving with bluestone edging;
- Asphalt paving with bluestone edging;
- Concrete paving with bluestone edging;
- Bluestone centre channel with asphalt or dirt either side;
- Red brick paving with or without bluestone edging.

Of the above list, those lanes that have been constructed of brick or bluestone are significant as they demonstrate early methods of construction and aesthetically add to the historic character of the area. They are important in the Whitehorse area for their rare type of construction and are characteristic of a certain period in the City's history.

Brick laneways have a particular significance in the area because of the number of brickworks that have operated in the district throughout its history. It is highly likely that the bricks used in the laneway construction would have been provided by a local brickworks.

The bluestone laneways are important as they often demonstrate skilled stone masonry techniques, particularly at intersections.

### Early Construction methods

From investigation of laneways in the area and surviving early engineering drawings, the methods of construction for heritage laneways are as follows:

- Full width bluestone, bedded on 2 inch (50) mm sand (Figure 3);
- Full width bluestone, with a stand up kerb on each side (Figure 4);
- Five bluestone pitcher central channel bedded on 3 inch sand with asphalt or dirt either side (Figure 5, see over); and
- Red bricks laid on edge on a broken brick base, with a bluestone kerb (Figure 6, see over).

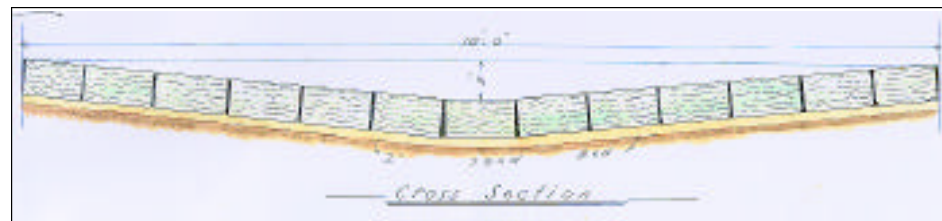


Figure 3. Engineering Drawing, construction of Right of Way at the rear of Watt Street, between Severn Street and Thames Street, Box Hill, 1915, Shire of Nunawading, "City of Whitehorse".

As with the kerb and channeling, the method of jointing is not clear. It is likely that the bluestone pitchers were butt jointed, but once again this was dependent on the skills of the contractor. The existing brick laneways more clearly demonstrate that the bricks were originally butt jointed. However there are some brick laneways where a mortar joint has been used.

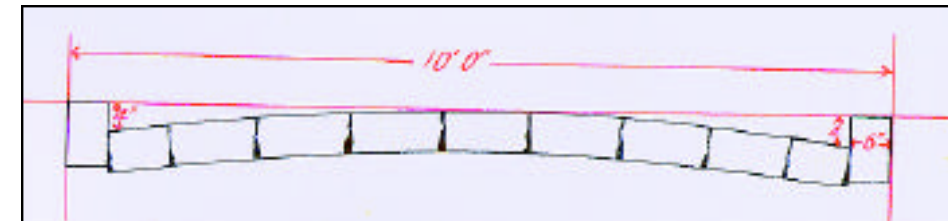


Figure 4. Engineering Drawing, construction of Right of Way at rear of Kangerong Road, Box Hill, 1923, Shire of Nunawading, "City of Whitehorse".

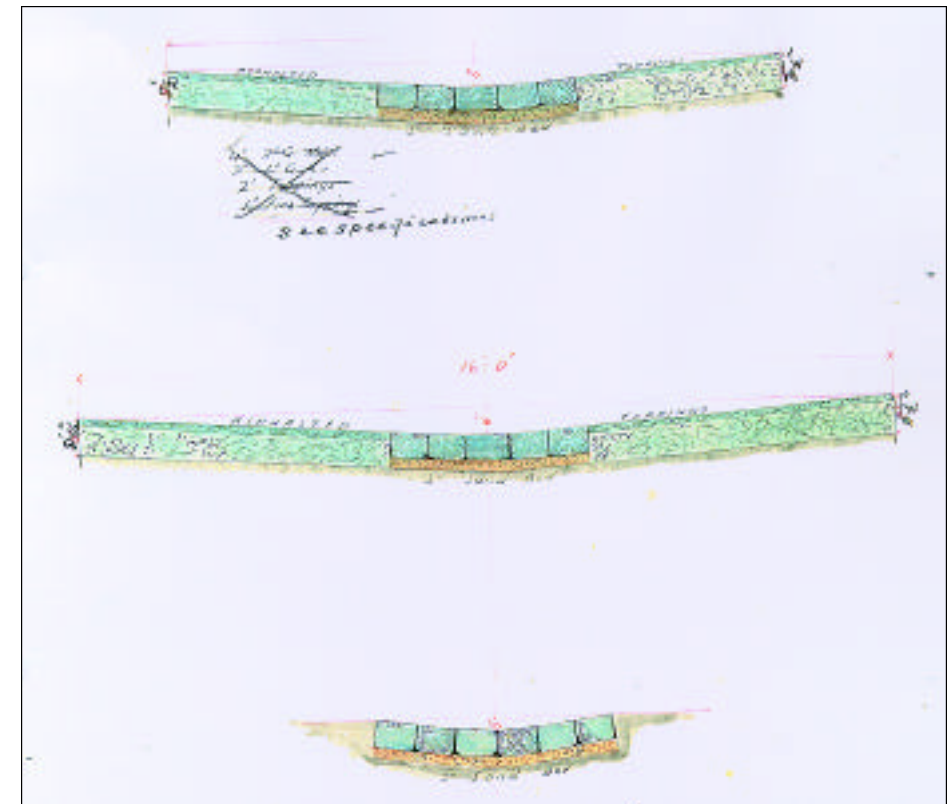


Figure 5. Engineering Drawing, construction of Right of Way, Thurston Street to Hopetoun Parade, Box Hill, 1910, Shire of Nunawading, "City of Whitehorse".

### Reasons for replacement or reconstruction

In the City of Whitehorse the most common reasons for replacement or reconstruction are as follows.

- The loss of integrity in some historic laneways is due to the laneways needing to be reconstructed or repaired in part or in full as a result of:
  - Drainage installation for new subdivisions;
  - Sewer connections or repairs;
  - Upgrade of existing drainage;
  - Building construction;
  - Storm water connections or repairs;
  - Upgrade of boundary fences; and
  - Installation of boundary fences.
- Although lanes deteriorate, their reconstruction or maintenance is not usually critical as the traffic demands are not so high and they have limited use. Hence they often continue in poor condition rather than being upgraded.
- Bluestone crossovers into laneways have been removed throughout the municipality as the uneven surface that occurred as a result between paths was considered to be obstructive.

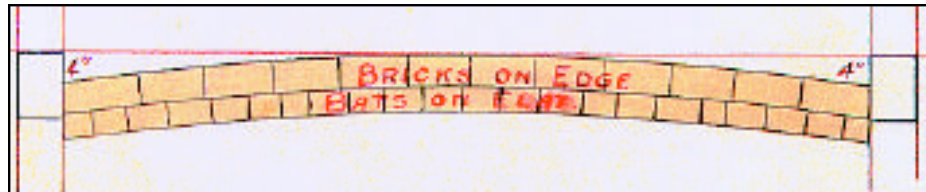


Figure 6. Engineering Drawing, construction of Right of Way between Medway Street and Severn Street, Box Hill, 1926, Shire of Nunawading "City of Whitehorse".

### Current Practices

The existing practices for bluestone and red brick laneways in the Whitehorse area are outlined below. There is no formal written policy but the below points have been consistently followed over recent years.

- Currently sections of the laneways are removed for drainage/sewer works are replaced with concrete, asphalt, brick or bluestone depending on the size of the reinstatement and the available materials.
- Permits are required from Council for installation of drainage to laneways with the reinstatement based on the above point.
- The most recent practice is to replace brick laneways with bricks to match as close as possible the original.

### Policy Constraints

The following ownership and responsibility constraints exist in the City of Whitehorse.

- Once constructed, laneways become the responsibility of the Council who maintains and manages them.
- The Council has control of changes to laneways through permit processes for subdivision and unit development.
- Repair and reconstruction of laneways is usually undertaken by Council if complaints about condition have been received.
- Some laneways have been closed.
- Service authorities in some cases do not require a permit and can undertake work without Council's knowledge. Council should be asked by the authority to reinstate the damage, however this does not always occur.
- Private developers sometimes undertake work without Council's knowledge or consent and Council is therefore unaware of the work and not involved in the process.

### Other constraints impacting on policy are as follows.

- Bluestone pavers are difficult to source and are becoming scarce.
- Re-laying of bluestone and bricks to their original details takes a greater amount of time and therefore cost.
- Butt jointing of bluestones and bricks requires skilled labour that is not readily available today.
- The uneven surface of brick and bluestone paving raises liability issues.
- The lifespan of brick laneways is not as long as asphalt, concrete or bluestone due to the porous nature of clay bricks which deteriorate through dampness.

## The Use Of Bluestone In New Road Features

As a result of the scarcity of bluestone pitchers, the use of the available bluestone pitchers for new construction work requires monitoring and control. This is to ensure that the reconstruction of roads with significant bluestone kerb and channeling is not prevented through lack of available bluestone.

Recycled bluestone pitchers are currently being used in some new road features around the Whitehorse area.

New road features are those features which were not used on earlier roads when bluestone kerb and channeling was originally being undertaken but are required for traffic control in current conditions. They include the following:

- Constructed crossovers for driveways;
- Traffic islands; and
- Roundabouts.

### Current Practices

The existing practices for the use of bluestone in new work in the City of Whitehorse are outlined below. There is no formal written policy but the below points have been consistently followed over recent years.

- Where bluestone kerb and channel exists, driveways are reconstructed using asphalt with a bluestone edging.
- Recycled bluestone is used in the construction of traffic islands and roundabouts in streets with bluestone kerb and channel or for aesthetic reasons.
- Bluestones are sometimes used as a landscaping material.

### Policy constraints

Constraints impacting on City of Whitehorse policy are as follows:

- Urban designers prefer the use of bluestone for aesthetic reasons as they suit the character of the area; and
- Generally the community likes the appearance of bluestone in their own areas.

## Conclusion

The City of Whitehorse retains significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways that are valued by the community and are part of the historic character of the area. Some of these have already been lost, however there is still the opportunity to retain the historic character existing road features give to the area through a consistent and careful approach to reconstruction and maintenance.

This report has evaluated the significance of the various types of roads and laneways within the City of Whitehorse and has highlighted issues to be addressed during reconstruction that will also meet current requirements for roads and laneways.

The report has determined that it is primarily the outward appearance of the bluestone kerb and channeling, bluestone laneways and brick laneways that is of more importance than the construction methods that cannot necessarily be seen. As a result reconstruction should only occur where required. If reconstruction is required the existing method of construction should be documented and recorded prior to change.

The following policy takes into consideration the above report to provide a practical approach to maintaining Whitehorse's significant heritage kerbs, channels and laneways.

## Acknowledgements

We are grateful for the assistance received from the following organisations in completing this report:

- City of Greater Geelong;
- City of Hobsons Bay;
- City of Ballarat; and
- City of Whitehorse Heritage Steering Committee.

Although many Council areas contain significant bluestone kerb and channeling and laneways, there is a lack of developed policies for their maintenance and retention. An investigation of other municipalities has been undertaken to source any existing policies on bluestone kerbs, channels and laneways. The City of Greater Geelong is the only identified Council which has adopted a policy for bluestone kerbs and channels. The City of Hobsons Bay has an issues paper for bluestone kerb and channeling but a policy has not yet followed on from this. Both of these documents have assisted in writing this report and policy.

## Bibliography

Allom Lovell & Associates, City of Whitehorse Heritage Review, Volume 1: Thematic History, City of Whitehorse, April 1999.

Australia ICOMOS, The Burra Charter, The Australia ICOMOS Charter for Places of Cultural Significance, 1999.

Ward, Andrew. C. & Associates, City of Box Hill Heritage and Conservation Study, Volume 1, July 1990.

## Policy for significant heritage bluestone kerb and channeling

### Policy for significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways in the City of Whitehorse

This policy is in accordance with the ICOMOS Burra Charter, which guides best practice in heritage conservation in Australia.

This policy should be read in conjunction with the report. It is based on recognition of the history of the City of Whitehorse and has involved consultation with Whitehorse Council, other municipalities, the City of Whitehorse Heritage Steering Committee and the general Whitehorse community.

Refer to the report for definition of terms used in the following policy.

#### Objectives

- To preserve significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways in the City of Whitehorse.
- To ensure that reconstruction and repair of significant heritage bluestone kerb and channeling, bluestone laneways and brick laneways is carried out in a way that reflects as closely as possible the original appearance.
- To ensure that new road features do not significantly distort or obscure the significance of heritage bluestone kerb and channeling, bluestone laneways and brick laneways.
- To ensure that bluestone pitchers for reconstruction continue to be sourced and used where most urgently required.

#### Policy

##### Bluestone kerb and channeling

- Council shall maintain and preserve existing bluestone kerb and channeling of cultural heritage significance paying close attention to original detail and construction wherever possible.
- Reconstruction should only occur when the existing kerb and channel is at the end of its useful life or when the amenity for residents is negatively affected. Closely inspect original construction method and reinstate as close as possible to existing with particular attention to the jointing method and kerb layback angle.
- Where existing bluestone driveways or bluestone crossovers with heritage significance exist, they should be retained. If reconstruction is required, closely inspect original construction method and reinstate as close as possible to existing.
- Where driveways are not of heritage significance and in an area where bluestone kerb and channeling is being reconstructed, they should be reconstructed in asphalt.
- If reconstruction of the road is required, including the kerbing and channeling, and where the street (intersection to intersection) is 50% or more bluestone kerbing/channeling, then that street will be reconstructed with bluestone for the whole street.
- If a street (intersection to intersection) has less than 50% bluestone kerbing, then the bluestone section will be retained and reconstructed using bluestone to the original details and the other sections shall be reconstructed to match their current materials.
- Ensure that contractors demonstrate that they have the capability to achieve reconstruction or maintenance to the City of Whitehorse standards.

##### Bluestone laneways and brick laneways

- Minimal intervention is recommended in the course of maintaining bluestone and brick road surfaces in laneways. If bluestone or bricks are required to be removed to surface or resurface a laneway, the laneway should be reconstructed to match as closely as possible the original appearance, with particular attention to the jointing method.
- If bricks do not survive removal, source an appropriate match and replace bricks with bricks that match the original as closely as possible.
- Where bluestone constructed laneways are closed and become privately owned, bluestones should be removed and retained by Council for use in maintenance and reconstruction of heritage kerbs, channels or laneways.
- Ensure that contractors and/or developers demonstrate that they have the capability to achieve reconstruction or maintenance to the City of Whitehorse standards.

Appendix 1

**Contemporary use of bluestone**

- To ensure that the maximum amount of historic bluestone pitchers is available for reconstruction of significant bluestone kerbs, channels and laneways, the use of recycled bluestone should be kept to a minimum in new features.
- Where possible, new road or urban design features should use contemporary materials rather than recycled bluestone pitchers which can be used to restore existing significant roads and laneways.
- Where new bluestone (cut bluestone/pavers) is used in new road features, it should be detailed in such a way that it is distinguishable as new construction.

**General policy**

- Bluestone kerb and channeling, bluestone laneways and brick laneways should be inspected and repaired, and maintained as necessary, to prevent deterioration and the need for reconstruction.
- The dates, description and photographs of any reconstruction works should be documented and retained by the Council.
- A photographic record should be kept of the existing conditions of significant kerbs and channels, bluestone laneways and brick laneways prior to any works being undertaken.
- The heritage laneways and kerb and channeling in the City of Whitehorse should be interpreted to explain their significance to the wider community.
- Significant kerb and channeling and laneways should continue to be identified. Any kerb and channeling discovered in the area and not already identified should be reported to Council's engineering department and the Heritage advisor.
- Any permits issued for works to significant heritage kerbs, channels and laneways should include a condition that works must abide by this policy.

**Schedule of streets within the City of Whitehorse with bluestone kerb & channeling**

SUBURB	STREET NAME
<b>BOX HILL NORTH</b>	
	<b>3 pitcher channel and kerb</b>
	<ul style="list-style-type: none"> <li>• Archibald Street and portion of Bruce Street.</li> <li>• Portion of Watts Street between Medway and Tyne Streets.</li> </ul>
	<b>2 pitcher channel and kerb</b>
	<ul style="list-style-type: none"> <li>• 1 side of Rostrevor Parade between Kenmare St and Grace St.</li> <li>• Wellington Parade.</li> <li>• Half Medway Street between Station Street and Dorking Road.</li> <li>• Half Severn Street between Station Street and Dorking Road.</li> <li>• Half Watts Street between Whitehorse Road and Thames Street.</li> <li>• Half Court Street between Whitehorse Road and Thames Street.</li> </ul>
	<b>1 pitcher channel and kerb</b>
	<ul style="list-style-type: none"> <li>• Medway Street between Nelson Road and Station Street.</li> <li>• Severn Street between Nelson Road and Station Street.</li> <li>• Portion of Watts Street between Tyne Street and Clyde Street.</li> <li>• 1 side of Bolton Street.</li> </ul>
<b>BLACKBURN</b>	
	<b>3 pitcher channel and kerb</b>
	<ul style="list-style-type: none"> <li>• Gordon Crescent.</li> </ul>
	<b>2 pitcher channel and kerb</b>
	<ul style="list-style-type: none"> <li>• Small portion of Railway Road.</li> </ul>
<b>BLACKBURN NORTH</b>	
	<b>3 pitcher channel &amp; kerb</b>
	<ul style="list-style-type: none"> <li>• Pope Street.</li> </ul>
	<b>2 pitcher channel &amp; kerb</b>
	<ul style="list-style-type: none"> <li>• Springfield Road between Springvale Road and Surrey Road.</li> <li>• Surrey Road between Springvale Road and Eastern Freeway.</li> </ul>
<b>BOX HILL</b>	
	<b>3 pitcher channel &amp; kerb</b>
	<ul style="list-style-type: none"> <li>• Rose Street.</li> <li>• Ashted Street.</li> <li>• Glenmore Street.</li> </ul>
	<b>2 pitcher channel &amp; kerb</b>
	<ul style="list-style-type: none"> <li>• William Street.</li> <li>• Victoria Street.</li> <li>• Barcelona Street.</li> </ul>
	<b>1 pitcher channel &amp; kerb</b>
	<ul style="list-style-type: none"> <li>• Small portion, and 1 side only, of Whitehorse Road.</li> </ul>

## Appendix 1

## Schedule of streets within the City of Whitehorse with bluestone kerb &amp; channeling

SUBURB	STREET NAME
<b>MITCHAM</b>	
	<b>3 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Half of Victoria Avenue between Gillies Street and Haines Street.</li> <li>• Fellows Street.</li> <li>• Haines Street.</li> <li>• Half of Whitehorse Road between Alexander St and Edward St.</li> </ul>
	<b>2 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Peel Street.</li> <li>• Edward Street.</li> </ul>
	<b>1 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Albert Street.</li> </ul>
<b>MONT ALBERT</b>	
	<b>3 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Half of York Street in between Trafalgar and Mont Albert.</li> <li>• Wellesley Street.</li> <li>• Marlborough Street.</li> <li>• Zetland Street.</li> <li>• Laing Street.</li> <li>• Hotham Street.</li> <li>• Lightfoot Street.</li> </ul>
	<b>2 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• High Street.</li> <li>• Earle Street.</li> <li>• 1 side of Grace Street.</li> <li>• Plumley Street.</li> <li>• 1 side of Hotham Street.</li> </ul>
	<b>1 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Gordon Street.</li> <li>• Trafalgar Street.</li> <li>• Victoria Street.</li> </ul>
<b>NUNAWADING</b>	
	<b>2 pitcher channel and kerb</b> <ul style="list-style-type: none"> <li>• Station Street.</li> </ul>

## Schedule of streets within the City of Whitehorse with bluestone kerb &amp; channeling

SUBURB	STREET NAME
<b>SURREY HILLS</b>	
	<b>3 pitcher channel &amp; kerb</b> <ul style="list-style-type: none"> <li>• Half Hood Street in between Zetland and Whitehorse Road.</li> <li>• Whitehorse Road.</li> <li>• Churchill Street.</li> <li>• Wilson Street.</li> <li>• Alexandra Crescent.</li> <li>• Beatrice Avenue.</li> <li>• Albany Crescent.</li> <li>• Albert Crescent.</li> <li>• Balmoral Crescent.</li> <li>• St Georges Avenue.</li> <li>• Tower Street.</li> <li>• View Street.</li> <li>• St. James Avenue.</li> <li>• Arthur Street.</li> <li>• Half Bentley Street in between Erasmus and Canterbury.</li> <li>• Half Newton Street between Erasmus and Canterbury.</li> </ul>
	<b>2 pitcher channel &amp; kerb</b> <ul style="list-style-type: none"> <li>• Stanhope Street.</li> <li>• 1 side of St. Georges Avenue.</li> <li>• Small portion of Churchill Street.</li> <li>• 1 side of Beresford Street.</li> <li>• End of Mont Albert Road.</li> <li>• Surrey Drive.</li> <li>• Howard Street.</li> <li>• Bass Street.</li> <li>• Carrington Street.</li> <li>• 1 side of View Street.</li> <li>• Charles Street.</li> <li>• Pembroke Street.</li> <li>• Erasmus Street.</li> <li>• Drewett Street.</li> <li>• Florence Street.</li> </ul>
	<b>1 pitcher channel &amp; kerb</b> <ul style="list-style-type: none"> <li>• All along railway tracks.</li> <li>• St. Johns Avenue.</li> <li>• Portion of Mont Albert Road, Windsor Crescent</li> <li>• Portion of Benwerrin Road.</li> <li>• Half of Russell Street just south of Canterbury Road.</li> <li>• Broughton Road.</li> <li>• Brougham Street.</li> <li>• Oxford Street.</li> </ul>



## Appendix 2

Schedule of streets within the City of Whitehorse with bluestone laneways or brick laneways

LANE No.	LOCATION
<b>BLACKBURN</b>	
	<b>Bluestone</b>
239	<ul style="list-style-type: none"> <li>• Corner of Chapel Street and Maroondah Highway.</li> </ul>
<b>BOX HILL</b>	
	<b>Bluestone</b>
100	<ul style="list-style-type: none"> <li>• Large part between Bishop and Maroondah Highway</li> </ul>
104	<ul style="list-style-type: none"> <li>• Between William Street and Rose Street</li> </ul>
54	<ul style="list-style-type: none"> <li>• Portion between Kangerong Road and Graham Street</li> </ul>
53	<ul style="list-style-type: none"> <li>• Between Kangerong Road and Court Street</li> </ul>
51	<ul style="list-style-type: none"> <li>• Large part between Station Street and Watts Street</li> </ul>
35	<ul style="list-style-type: none"> <li>• Part between Station Street and Bruce Street</li> </ul>
33 & 32	<ul style="list-style-type: none"> <li>• Part between Bruce Street and Shipley Street</li> </ul>
97	<ul style="list-style-type: none"> <li>• Small part corner of Main Street and Station Street</li> </ul>
90	<ul style="list-style-type: none"> <li>• Part between Oxford Street and Howard Street</li> </ul>
87	<ul style="list-style-type: none"> <li>• Most between Hopetoun Street and Carrington Road</li> </ul>
73	<ul style="list-style-type: none"> <li>• Between Windsor Street and Charles Street</li> </ul>
74	<ul style="list-style-type: none"> <li>• Most of 74 between Charles Road and Gladstone Street</li> </ul>
	<b>Brick</b>
98	<ul style="list-style-type: none"> <li>• Corner of Bank Street and Station Street</li> </ul>
95	<ul style="list-style-type: none"> <li>• Small portion corner of Carrington Road and Station Street</li> </ul>
<b>BOX HILL NORTH</b>	
	<b>Bluestone</b>
48	<ul style="list-style-type: none"> <li>• Between Watts Street and Station Street</li> </ul>
49	<ul style="list-style-type: none"> <li>• Most between Thames Street and Severn Street</li> </ul>
50	<ul style="list-style-type: none"> <li>• Most between Watts Street and Station Street</li> </ul>
29	<ul style="list-style-type: none"> <li>• Small part corner of Severn Street and Station Street</li> </ul>
27	<ul style="list-style-type: none"> <li>• Small part corner of Medway Street and Nelson Road</li> </ul>
	<b>Brick</b>
28	<ul style="list-style-type: none"> <li>• Most between Severn Street and Medway Street</li> </ul>

Schedule of streets within the City of Whitehorse with bluestone laneways or brick laneways

LANE No.	LOCATION
<b>MITCHAM</b>	
	<b>Bluestone</b>
205	<ul style="list-style-type: none"> <li>• Between Edward Street and Albert Street.</li> </ul>
	<b>Brick</b>
201	<ul style="list-style-type: none"> <li>• Between Mitcham Road and Haines Street</li> </ul>
202	<ul style="list-style-type: none"> <li>• Between Haines Street and Fellows Street</li> </ul>
203	<ul style="list-style-type: none"> <li>• Between Fellows Street and Deakin Street</li> </ul>
212	<ul style="list-style-type: none"> <li>• Small part between Mc Dowall Street and Mitcham Road.</li> </ul>
<b>MONT ALBERT</b>	
	<b>Bluestone</b>
14	<ul style="list-style-type: none"> <li>• Between Laing Street and Hotham Street.</li> </ul>
64	<ul style="list-style-type: none"> <li>• Most between Marlborough Street and Earle Street.</li> </ul>
	<b>Brick</b>
10	<ul style="list-style-type: none"> <li>• Between Plumley Street and Rostrevor Reserve.</li> </ul>
65	<ul style="list-style-type: none"> <li>• Most between High Street and Victoria Street.</li> </ul>
<b>SURREY HILLS</b>	
	<b>Bluestone</b>
77	<ul style="list-style-type: none"> <li>• Between Tower Street and View Street.</li> </ul>
85	<ul style="list-style-type: none"> <li>• Small part between St. Georges Street and Louise Street.</li> </ul>
83	<ul style="list-style-type: none"> <li>• Between Lorne Street and Leopold Street.</li> </ul>

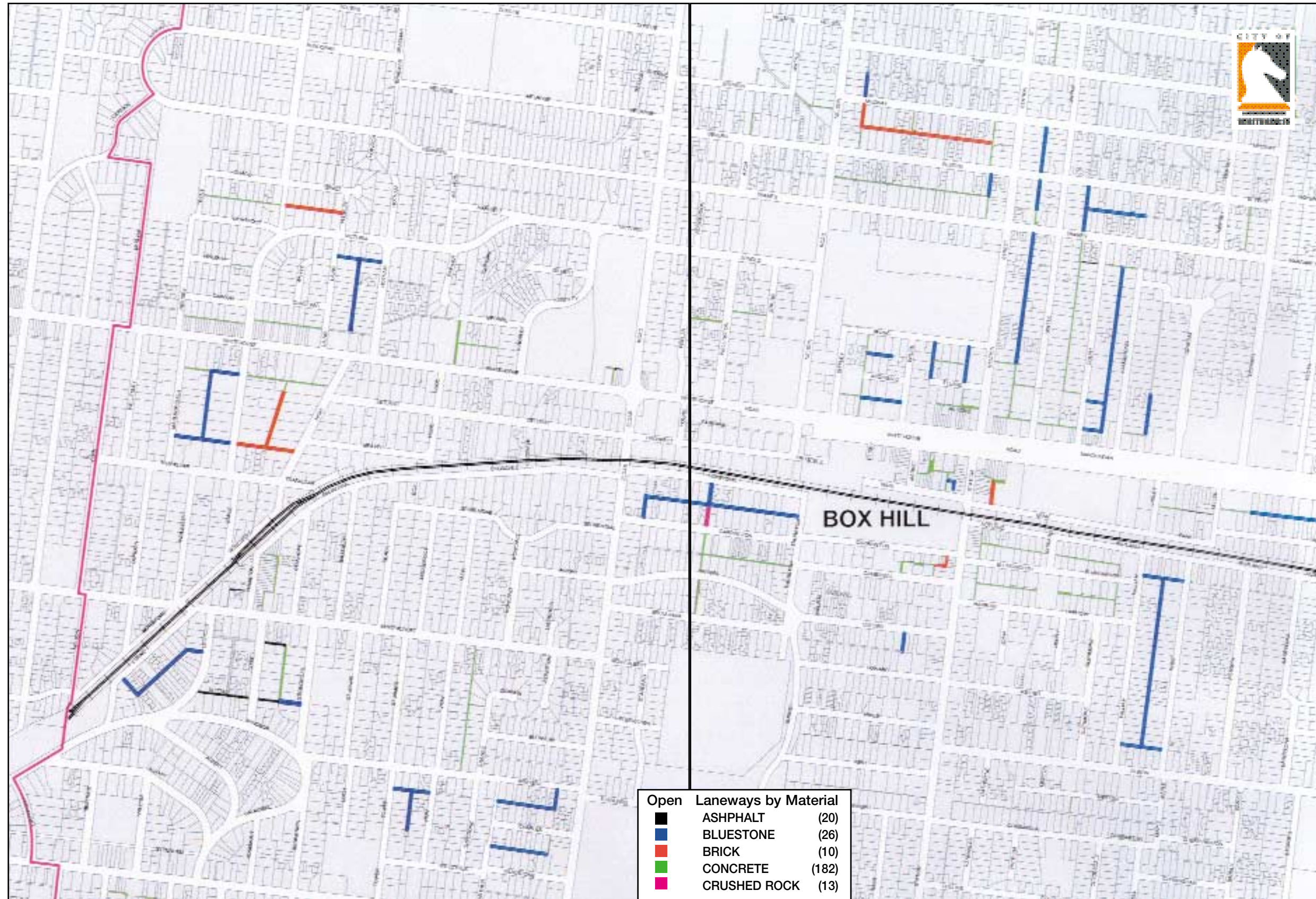
Appendix 3

Maps showing the location of existing heritage laneways in the City of Whitehorse.



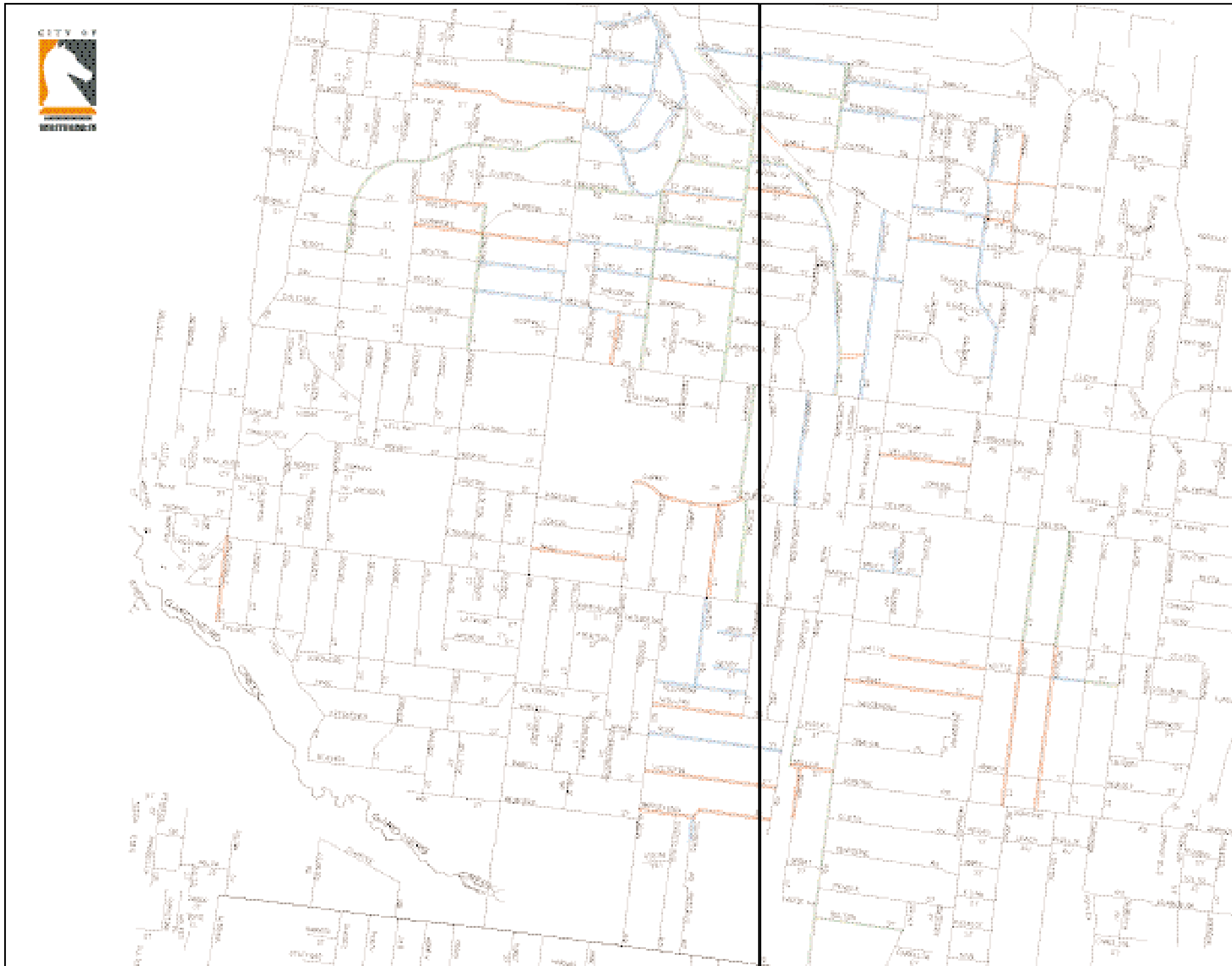
Appendix 3

Maps showing the location of existing heritage laneways in the City of Whitehorse.



Appendix 4

Maps showing the location of existing heritage kerb and channel in the City of Whitehorse

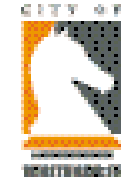


Legend

- Bluestone Kerb and 1 pitcher channel
- Bluestone Kerb and 2 pitcher channel
- Bluestone Kerb and 3 pitcher channel

Appendix 4

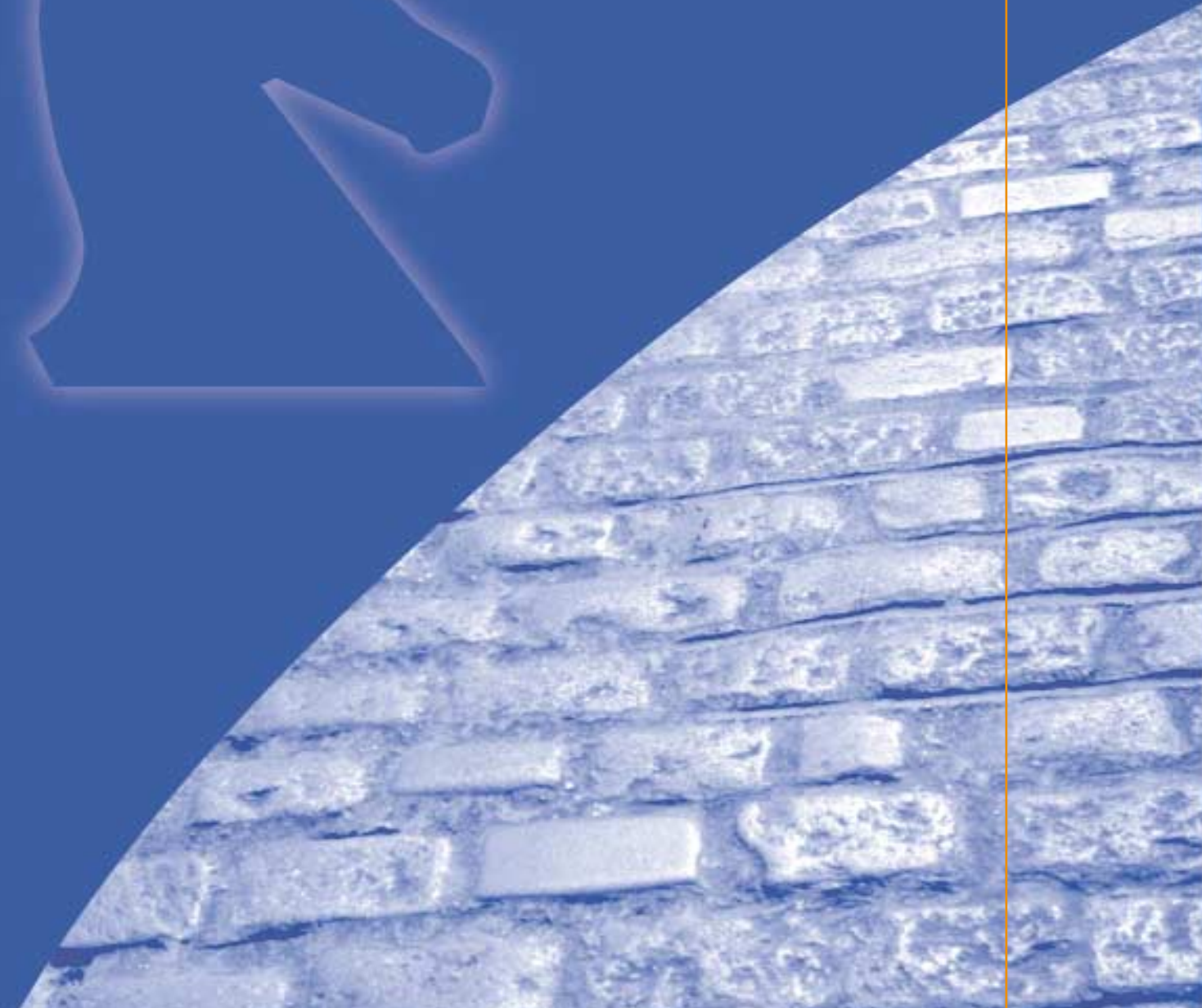
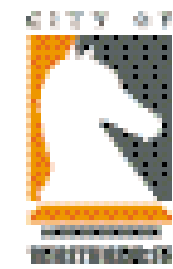
Maps showing the location of existing heritage kerb and channel in the City of Whitehorse



Legend

- Bluestone Kerb and 1 pitcher channel
- Bluestone Kerb and 2 pitcher channel
- Bluestone Kerb and 3 pitcher channel

# Heritage Kerbs Channels and Laneways



**City of Whitehorse**  
Locked Bag 2, Nunawading Delivery Centre, Victoria 3110  
Telephone 9262 6333  
Facsimile 9262 6490  
Email [customer.service@whitehorse.vic.gov.au](mailto:customer.service@whitehorse.vic.gov.au)  
Website [www.whitehorse.vic.gov.au](http://www.whitehorse.vic.gov.au)