

**CITY OF YARRA**

**ROAD INFRASTRUCTURE CONSTRUCTION  
MATERIALS**

**DRAFT POLICY**

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## Draft Policy

### Road Infrastructure Construction Materials

#### Introduction

Road Infrastructure materials are an important part of providing a safe environment for all users of roads. It is also one of several elements that would form an important part of any future streetscape strategy.

The policy seeks to:

- Conserve and repair the traditional street fabric of Yarra using historic and aesthetically pleasing materials, sympathetic to the character of the municipality while also meeting technical, access safety and health requirements.
- Serve as a guide for developers, consultants, Council and residents who may wish to alter the existing infrastructure.
- Meet the Disability Discrimination Act 1992, Yarra Planning Scheme, Australian Standards AS1428 (Design for Access and Mobility) and other relevant standards with respect to providing safe access to all pedestrians including the disabled, the elderly, cyclists and other road users

#### Preamble

In order to have an efficient and cost effective policy for the maintenance of existing road infrastructure, works need to be carried out with minimum time delay and in accordance with specified budgets. To allow this to occur throughout this document a distinction is made between reconstruction and repair/maintenance work. This is particularly relevant in heritage overlay areas where no planning permit is required for repairs or routine maintenance which do not change the appearance of a heritage place. Where the appearance is changed a planning permit will be required.

### (A) In Heritage Overlay Areas

#### 1. Local Streets in Residential Zones

##### (a) Kerb and Channel Reconstruction

All existing bluestone kerb and channel is to be reset to the same pattern as existing and as smoothly as possible. Maintenance works, including any reinstatement works, must ensure that existing materials are reused.

Where a street has had all bluestone kerb and channel removed in the past and it is to be reconstructed that street is to be constructed to the original bluestone kerb and channel pattern where this is evident. Where the original pattern is not evident then a bluestone kerb and a two-pitcher channel is to be used. Where limited remedial work is required then the existing material is to be used.

Where there are exceptional circumstances, which may generate safety issues for pedestrians or other road users, the channel may be reduced in width.

Where existing street trees are close to the channel and tree roots have lifted the channel, the majority of the channel may be removed and replaced with granitic sand or equivalent in the proximity. A single bluestone invert will be retained for water flow along the channel.

**(b) Footpaths**

Where the existing footpath is constructed of heritage materials (such as slate) the existing material is to be retained. Asphalt footpaths are to be used in all other situations unless Council has specifically endorsed the use of another material.

**(c) Medians, Traffic Islands and Neckings**

Existing medians, traffic islands and neckings are to be reconstructed or repaired in the same materials.

Where the existing street kerb and channel is bluestone pitchers or dressed kerb, neckings should be constructed with bluestone pitcher kerb and channel. However median islands and traffic islands should be constructed of non- traditional materials. Where landscaping is not practical, asphalt, bluestone and non-traditional materials can be used as an infill.

Non-traditional materials can be used as an alternative if there are site-specific reasons why bluestone should not be used.

Asphalt infill is to be used for pedestrian paths. Care must be taken to ensure all paths are suitable for disabled access. Small areas where the use of grass or landscaping/tree planting is not practical can be filled with asphalt, bluestone or non-traditional materials.

**(d) Dressed Kerb and Channel**

For reconstruction works existing dressed kerbstone is to be re-used. Alternatively, pitcher kerbstones can be used where there is insufficient dressed kerbstone.

If the existing channel is intact, unique or exceptional to the City of Yarra, this is to be retained. However where the bluestone channel has been substantially changed in the past then it is to be reconstructed in the original material and pattern where this is evident. Where the original pattern is not evident, a two-pitcher channel is to be constructed.

Where existing street trees are close to the channel and tree roots have lifted the channel, the majority of the channel may be removed and replaced with granitic sand or equivalent in the proximity of the tree. A single bluestone invert will be retained for water flow along the channel.

**(e) Vehicle Crossings**

Construct a single bluestone layback and bluestone channel to match the existing with an asphalt ramp and walkway.

**(f) Wet Crossings**

Reconstruct in the same materials to the same pattern. However the depth of the invert is to be reduced so that vehicles can travel through the invert comfortably and without scraping. Where the wet crossing extends into the pedestrian paths the bluestones are to be overlaid with an asphalt strip 1.2 to 1.8m wide or the wet crossing is to be modified in line with the pedestrian paths to facilitate disabled access. The extent of the modifications will be determined on a case-by-case basis.

## **2. Main Roads/Arterials**

**(a) Kerb and Channel**

Main roads and arterial roads generally have clearways, which require cyclists to ride close to the channel. All kerb and channels are to be reconstructed as a bluestone kerb and two-pitcher channel, except where the kerb side lane is equal to or less than the minimum Australian standard for a combined bicycle and through-traffic lane. Where the kerb side lane is equal to or less than the minimum Australian Standards for a combined bicycle and through traffic lane the channel is to be constructed in charcoal coloured concrete.

**(b) Medians, Traffic Islands and Neckings**

Medians and traffic islands are to be constructed using charcoal coloured concrete kerb and channel or precast concrete blocks. Pedestrian paths can be asphalt, charcoal coloured concrete or other smooth paving suitable for disabled access. Where landscaping is not practical, asphalt, bluestone and non-traditional materials can be used as an infill. Neckings are to be constructed to match the adjoining kerb and channel

**(c) Vehicle Crossings**

Vehicle crossings are to be constructed with an asphalt ramp and single bluestone layback and bluestone channel. However where there are exceptional circumstances charcoal coloured concrete can also be used.

**(d) Footpaths**

Where undertaking limited maintenance work the footpath should be repaired in the existing material. Where significant maintenance work or reconstruction is being undertaken the footpath should be reconstructed in asphalt or concrete, whichever is the heritage material for the street, unless Council has specifically endorsed the use of another material.

**3. Commercial/Light Industrial Streets**

**(a) Kerb and Channel**

All existing bluestone kerb and channel is to be reset to the same pattern as existing and as smoothly as possible. Maintenance works, including any reinstatement works, must ensure that existing materials are reused.

Where a street has had all bluestone kerb and channel removed in the past and it is to be reconstructed that street is to be constructed to the original bluestone kerb and channel pattern where this is evident. Where the original pattern is not evident then a bluestone kerb and a two-pitcher channel is to be used. Where limited remedial work is required then the existing material is to be used.

Where there are exceptional circumstances, which may generate safety issues for pedestrians, or other road users the channel may be reduced in width.

**(b) Vehicle Crossings**

Where significant kerb and channel reconstruction or a new crossing is required, a single bluestone layback and bluestone channel will be constructed to match the existing with an asphalt ramp and walkway. The crossings ramps can also be constructed with a concrete base and asphalt surface layer to provide additional strength if required.

Any existing asphalt or concrete vehicle crossing affected by limited kerb and channel works will be reinstated in the same material.

**(c) Footpaths**

Where undertaking limited maintenance work the footpath should be repaired in the existing material. Where significant maintenance work or reconstruction is being undertaken the footpath should be reconstructed in asphalt or concrete whichever is the heritage material for that street, unless Council has specifically endorsed the use of another material.

**4. Laneway Repair/Reconstruction**

Where a laneway requires immediate temporary minor patching to ensure public safety, proper drainage or vehicle access then the patching will be undertaken in asphalt.

Existing surface material whether bluestone or asphalt is to be used for minor permanent patching. Where the laneway requires significant rehabilitation or reconstruction then the laneway will be fully restored with the existing surface materials, whether bluestone or asphalt.

Where it is determined that disabled access along a bluestone lane is required, an asphalt strip 1.2m to 1.8m wide is to be placed on one side of the lane to provide access.

Where a bluestone laneway intersects with an abutting street, the section between the building line and the street channel shall be constructed as a vehicle crossing i.e. asphalt ramp, single bluestone layback and bluestone channel. If an invert is required through the vehicle crossing between the building line and the street channel then this is to be constructed to match the invert in the lane.

**5. New Developments in Laneways**

In existing bluestone laneways the developer is to relay a 1.2 to 1.8m wide strip of bluestone from the development to the nearest abutting street as smoothly as possible to provide improved pedestrian access and to satisfy DDA requirements.

**6. Pram Crossings**

Pram crossings are to be constructed with an asphalt ramp, a single bluestone layback and bluestone channel to match existing. The bluestones used for the layback and the channel in front of the ramp are to be selectively chosen to be as smooth as possible and where necessary grinding of the bluestone surface may be undertaken. Where the kerb is constructed of dressed kerb this is to be lowered to form the layback.

## **7. Tactile Ground Surface Indicators**

Tactile ground surface indicators for the orientation of people with vision impairment should be a colour that is sympathetic to the surrounding area i.e. steel grey or an alternative colour agreed by Council's Heritage Advisor, but must still meet the luminar difference specified in Australian Standards AS1428.4. Tactile pavers are to be installed in high use pedestrian areas and in the vicinity of public facilities as part of construction works.

### **(B) Non-Heritage Overlay Areas**

#### **1. Local Streets in Residential Zones:**

##### **(a) Kerb and Channel Reconstruction**

Existing bluestone kerbing is to be retained in all cases where reconstruction is required. The channel is to be constructed with a two pitcher channel.

Existing concrete kerb and channel will be replaced with the same material unless there is some planned redevelopment of the street or exceptional circumstances where the use of bluestone or charcoal coloured concrete is deemed to be more appropriate.

Where existing street trees are close to existing bluestone channel and tree roots have lifted the channel, the majority of the channel may be removed and replaced with granitic sand or equivalent in the proximity of the tree. A single bluestone invert will be retained for water flow along the channel.

##### **(b) Footpaths**

All footpaths are to be reconstructed using asphalt, except where special areas have been developed using concrete or pavers eg: parts of Alphington, Fairfield and some major projects such as Victoria Gardens development.

##### **(c) Medians, Traffic Islands and Neckings**

All medians and traffic islands are to be constructed using charcoal coloured concrete kerb and channel. Neckings are to be constructed to match the street kerb and channel. Asphalt, bluestone, charcoal coloured concrete and other paving materials can be used as an infill material where landscaping is not practical. Pedestrian paths are to be constructed in asphalt charcoal coloured concrete or smooth non-traditional materials suitable for disabled access.

**(d) Dressed Kerb and Channel**

For reconstruction works existing dressed kerbstone is to be re-used. Alternatively, pitcher kerbstones can be used where there is insufficient dressed kerbstone. A two-pitcher channel is to be constructed.

Where existing street trees are close to the channel and tree roots have lifted the channel, the majority of the channel may be removed and replaced with granitic sand or equivalent in the proximity of the tree. A single bluestone invert will be retained for water flow along the channel.

**(e) Vehicle Crossings**

Where limited kerb and channel works are to occur in a street, any existing bluestone vehicle crossings affected by the works are to be reconstructed with a charcoal coloured concrete or asphalt ramp. Where the kerb and channel is bluestone the crossing is to have a single bluestone layback and bluestone channel to match the existing materials.

Any existing asphalt or concrete vehicle crossing affected by the works will be reinstated in the same material.

When full street reconstruction occurs the vehicle crossing standard will be charcoal coloured concrete or asphalt.

**(f) Wet Crossings**

Wet crossings are to be removed and a modern road profile constructed where possible. Where it is not possible to completely remove the crossing, the crossing should be modified to ensure that cars do not scrape going through them and that disabled access and cyclist access is facilitated.

## **2. Main Roads/Arterials**

**(a) Kerb and Channel**

Main roads and arterial roads generally have clearways, which require cyclists to ride close to the channel. Bluestone kerb and channels are to be reconstructed as a bluestone kerb and two pitcher channel, except where the kerb side lane is equal to or less than the minimum Australian standards for a combined bicycle and through traffic lane. Where the kerb side lane is equal to or less than the minimum Australian Standards for a shared bicycle through-traffic lane the channel is to be constructed in charcoal coloured concrete. Existing concrete kerb and channel is to be reconstructed in concrete.

**(b) Medians, Traffic Islands and Neckings**

Medians and traffic islands are to be constructed using charcoal coloured concrete kerb and channel or precast concrete blocks. Pedestrian paths can be asphalt, charcoal coloured concrete or other smooth paving material suitable for disabled access. Where landscaping is not practical, asphalt, bluestone and non-traditional materials can be used as an infill. Neckings are to be constructed to match the adjoining kerb and channel

**(c) Vehicle Crossings**

Where the kerb and channel is bluestone, vehicle crossings are to be constructed with a charcoal coloured concrete or asphalt ramp and single bluestone layback and bluestone channel. However where the existing and proposed kerb and channel is concrete the vehicle crossing is to be constructed in concrete.

**(d) Footpaths**

Where undertaking limited maintenance work the footpath should be repaired in the existing material. Where significant maintenance work or reconstruction is being undertaken the footpath can be constructed in asphalt or concrete.

**3. Commercial/Light Industrial Streets**

**(a) Kerb and Channel**

For commercial and industrial zones, existing bluestone kerb and channel will be reconstructed with a bluestone kerb and two pitcher channel. Where existing kerb and channel is concrete it will be reconstructed in charcoal coloured concrete.

**(b) Vehicle Crossings**

Where limited kerb and channel works are to occur in a street any existing bluestone vehicle crossings affected by the works are to be reconstructed in charcoal coloured concrete or asphalt ramp with the layback and channel to match the adjoining kerb and channel.

Any existing asphalt or concrete vehicle crossing affected by the works will be reinstated in the same material.

**(c) Footpaths**

Where undertaking limited maintenance work the footpath should be repaired in the existing material. Where significant maintenance work or reconstruction is being undertaken the footpath can be constructed in asphalt or concrete.

#### **4. Laneway Repair/Reconstruction**

Where a laneway requires immediate temporary minor patching to ensure public safety, proper drainage or vehicle access then the patching will be undertaken in asphalt.

Existing surface material whether bluestone or asphalt will be used for minor permanent patching.

Where the laneway requires significant patching the laneway will be overlaid in part or in full with asphalt.

If the laneway requires rehabilitation the invert will be constructed in bluestone or charcoal coloured concrete and the flanks overlaid with asphalt.

If full reconstruction is required then the invert will be constructed in bluestone or charcoal coloured concrete and the flanks will be constructed as an asphalt pavement.

Where the laneway crosses the footpath, asphalt will be used. Where an invert extends across the footpath the invert will be constructed in bluestone or charcoal coloured concrete.

Where a new development is constructed with its primary pedestrian access on to a bluestone laneway the developer must construct an asphalt strip 1.2m to 1.8m wide extending from the abutting road to the front of the development to provide a smooth surface suitable for disabled access.

#### **5. New Developments in Laneways**

In existing bluestone laneways, the developer is to construct a 1.2 to 1.8m wide asphalt pavement or lay a 1.2m-1.8m strip of asphalt on top of the bluestones on one side of the laneway from the development to the nearest abutting street to provide improved pedestrian access and to satisfy DDA requirements.

#### **6. Pram Crossings**

Pram crossing ramps are to be constructed to match the abutting footpath. Where there is a bluestone channel the ramp is to have a one pitcher layback and the channel is to match the abutting channel.

## **7. Tactile Ground Surface Indicators**

Tactile ground surface indicators for the orientation of people with vision impairment should be a colour that is sympathetic to the surrounding area i.e. steel grey for asphalt footpaths or an alternative, which meets the luminar difference specified in Australian Standards AS1428.4. Tactile pavers are to be installed in high use pedestrian areas and in the vicinity of public facilities as part of construction works.

### **(C) Streets on Boundaries of Heritage and Non-Heritage Overlay Areas**

Where a residential street or a lane forms a boundary between a heritage and non-heritage overlay area, the street or lane is to be reconstructed to the equivalent standard for a residential street in a heritage overlay area.

### **(D) General**

Where infrastructure works will affect some significant urban design, heritage or landscape feature in a manner contrary to this policy, advice will be sought from the relevant Unit or Division (ie Open Space Planning, Urban Planning, Council's Heritage Advisors, Community Development Division) to determine the best way to proceed. The Director Asset Management and The Director City Development will decide the final design treatment or refer the project to Council for consideration.

### **(E) Bike Paths**

Bike paths are to be constructed and maintained in either asphalt or charcoal coloured concrete (reinforced) depending on the zoning or maintenance needs, except where they cross existing heritage infrastructure. Where they cross heritage infrastructure the heritage material is to be retained.

### **(F) Waste Minimisation**

Any excess bluestone material is to be stockpiled at Council's nominated depot for reuse.

All other salvageable materials excavated on site must be reused or recycled wherever possible.

## **(G) Exceptions**

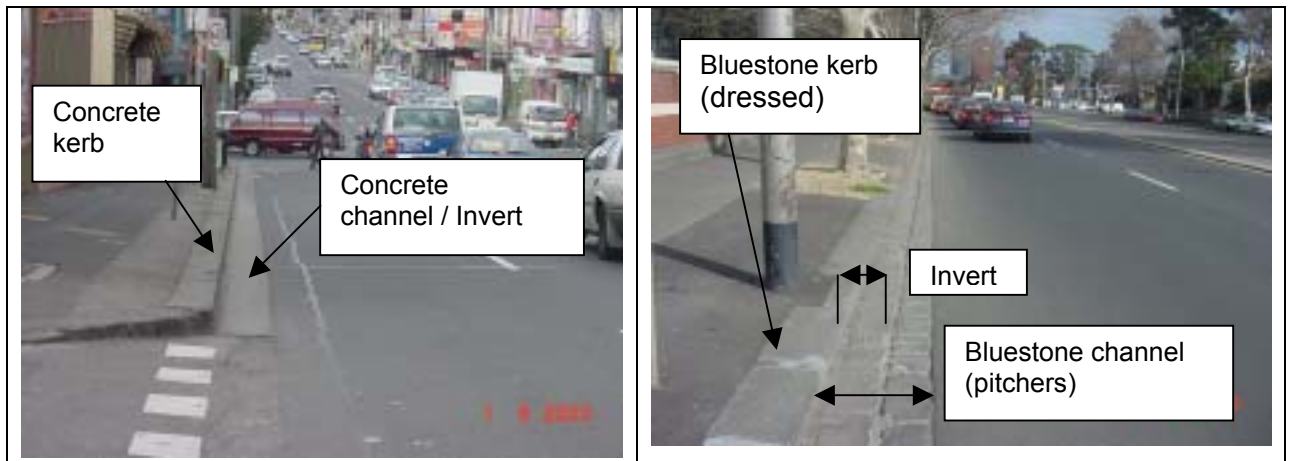
The following items are also exempt from this policy:

- (a) All traffic management trials and temporary treatments; and
- (b) Safety standard requirements including such devices as raised reflective pavement markers for road delineation and regulatory street signs.

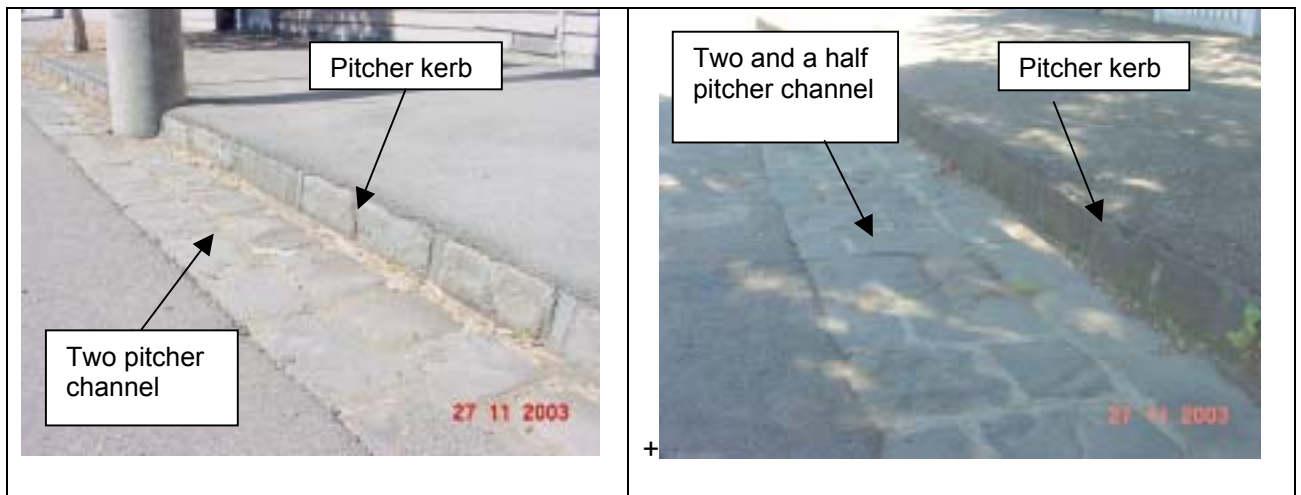
## Road Infrastructure Construction Materials Draft Policy,

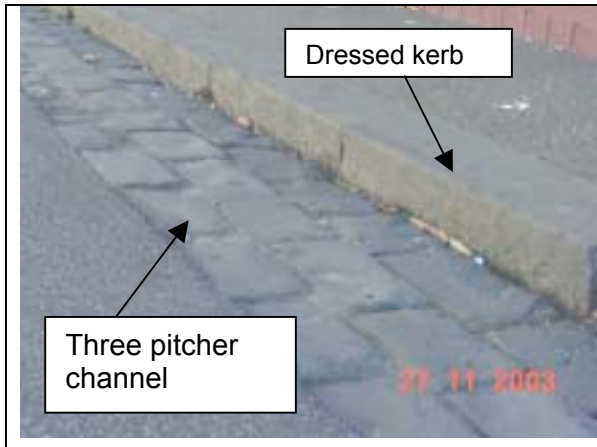
### Explanation of Terminology

#### Kerb and Channel Components



#### Bluestone Kerb and Channel Types

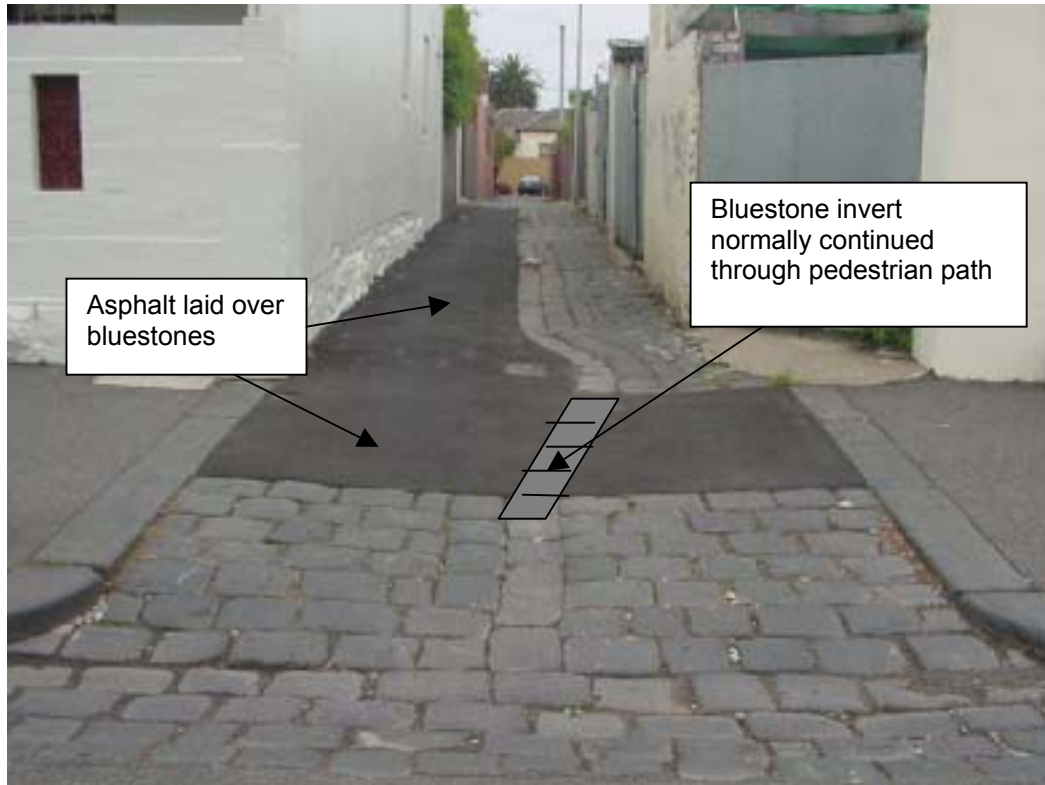




### Necking / Kerb Extension



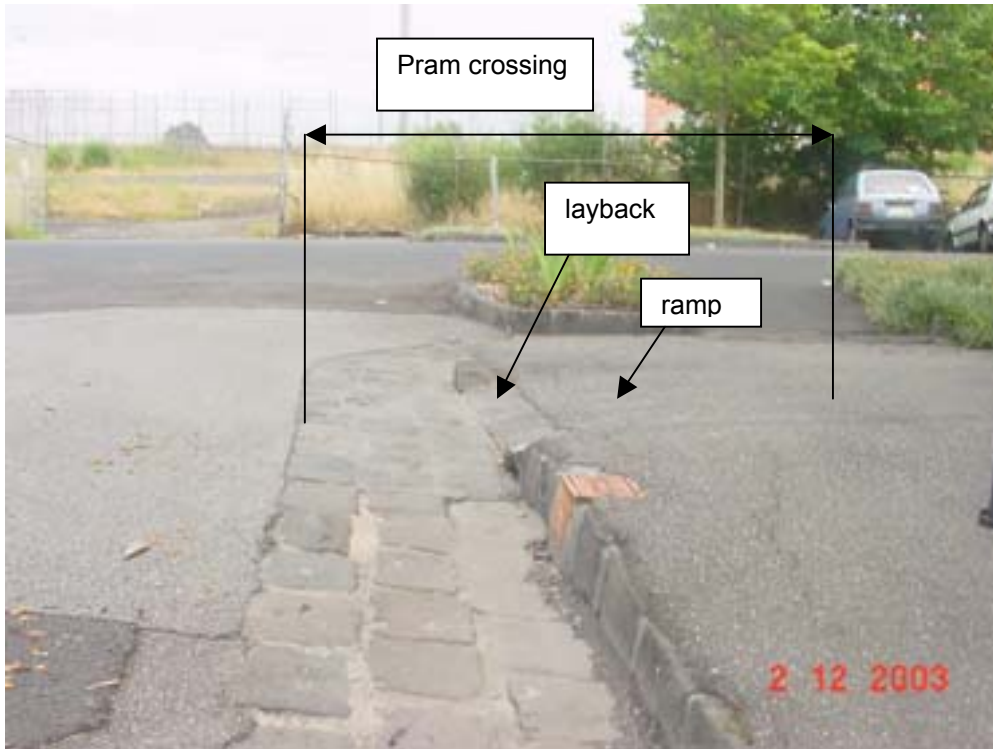
**Bluestone lane with asphalt surfacing for disabled access**



**Wet Crossing (carries water across road)**



**Pram crossing**



**Bluestone and asphalt vehicle crossing**



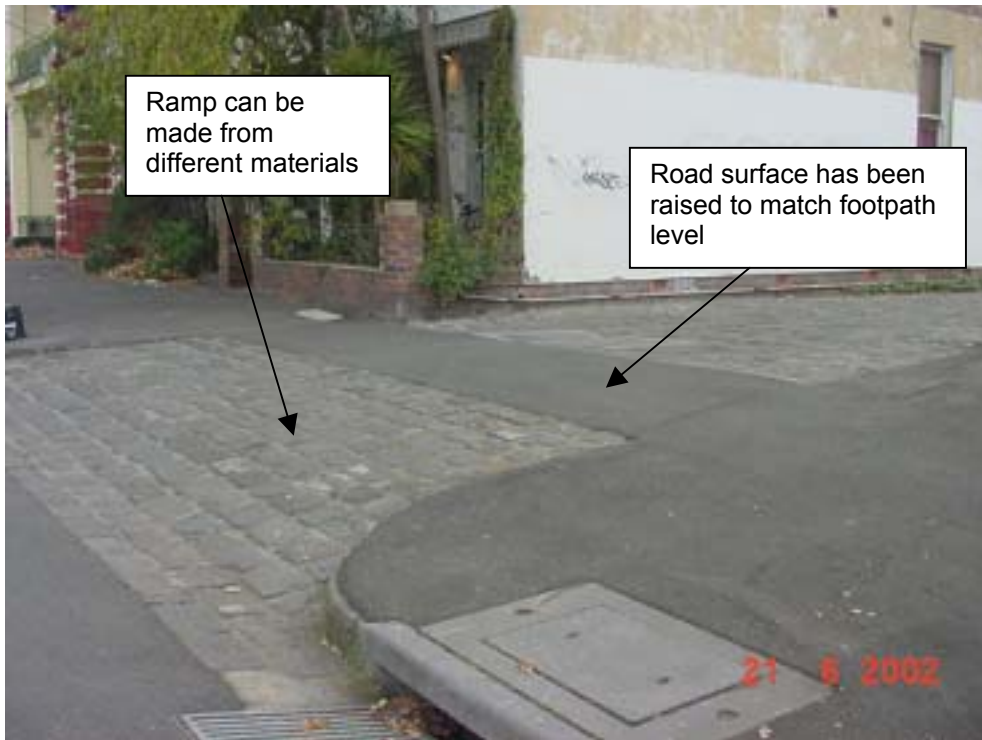
### Single bluestone invert behind street tree



### Tactile ground surface indicators



**Intersection at grade (road surface has been raised to match footpath level)**



**Lane profile**

