CASTLECRAG PROGRESS ASSOCIATION

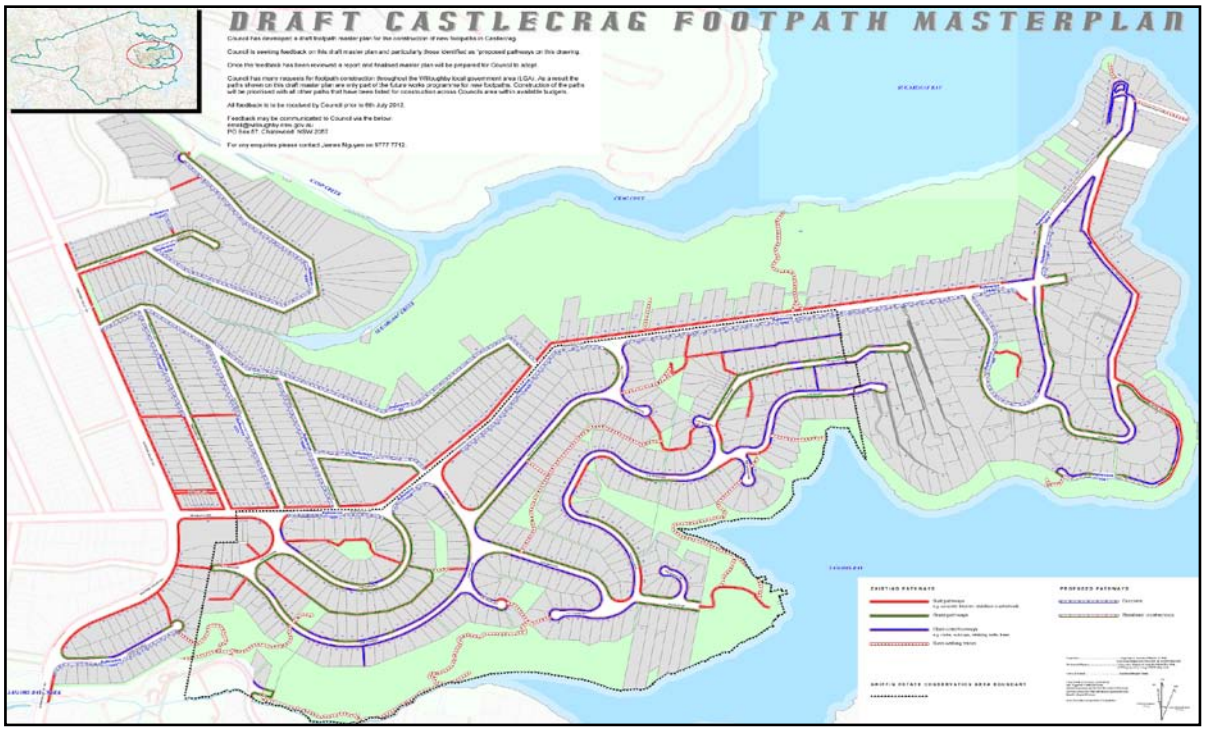
# CASTLECRAG WALKWAYS – A STRATEGY FOR THE FUTURE

**Concrete footpaths started to appear in the early 1900's with the advent of local bus and rail services to the Sydney suburbs. Traditionally the concrete pathways were stamped with the street and builders names. Some of these original concrete pathways can still be seen in areas of Haberfield, Stanmore and Willoughby.**

**Over the subsequent 100 years, different materials have been used for footpaths, such as concrete pavers, precast slabs, and compacted gravels, but concrete is the preferred construction methodology, both from speed of construction and perceived need for minimal maintenance.**

**With the development of an environmental awareness within society, this 100 plus year precedent is starting to be questioned. Is there more appropriate ways to provide footpaths that have a lower embodied energy, permit water penetration through to replenish the ground water, have a more appropriate aesthetic but maintain the flexibility for replacement and have a low maintenance cost?**

**The Willoughby City Council recently sent a document to all residents within Castlecrag showing a proposed masterplan for footpaths within Castlecrag. Immediate resident concern was triggered, related to the areas that footpaths were proposed, the effect on our natural environment, including rocky outcrops, significant trees etc and the visual impact of these footpaths on Castlecrag.**




*Draft Castlecrag footpath masterplan - prepared by Willoughby City Council - 2012*

**The Castlecrag Progress Association saw this as an opportunity to research and develop a strategy for walkways within Castlecrag. As such, they requested an extension of time to November 2012 to develop a response. This document outlines a proposed response from the Castlecrag Progress Association to Willoughby City Council -**

## "Castlecrag Walkways - A Strategy for the Future"

CASTLECRAG PROGRESS ASSOCIATION

# CASTLECRAG WALKWAYS – a strategy for the future

ISSUE A
DATED OCTOBER 2012

**The following document has been prepared by the Castlecrag Progress Association to assist in defining the appropriate criteria to determine whether and how new walkways within Castlecrag should be constructed in an manner that addresses the function need, as well as the contextual, historical and aesthetic issues.**

All pedestrian trafficable zones referred to as footways, footpaths, tracks, or walkways are hereinafter called "walkways". This is intended to immediately identify walkways as being different than the traditional footpath, both in style, location and types of construction.

It is accepted that there exists many opinions expressing the positive and negative attributes for walkways within Castlecrag. The opinions are generally structured around the following concerns:

- Historical precedent
- Need
- Existing natural or manmade impediments
- Need for linkages to other walkways and uses
- Safety
- Aesthetic

**This strategy document suggests that walkways constructed as traditional concrete footpaths within nature strip zones are not appropriate for the suburb of Castlecrag, both due to its unique relationship to the surrounding and encompassing bushland, and the negative environmental elements associated with traditional concrete footpaths.**

We propose alternative solutions which provide appropriate solutions to address all of the positive and negative points of view expressed within the community. This proposal does not remove the need for community involvement and assessment of proposed footpaths, but in assessing these comments, it is important that the whole communities usage of any walkway is also considered, particularly its links to other walkways, public transport nodes, recreational spaces and the village centre.

As such, this strategy document does not outline where walkways should go, but a process to test their need, and if such is defined, to propose a methodology for their construction

**The CPA suggests that any assessment is best done through demonstration projects so that the effect and efficacy of such projects are able to be fully assessed.**

The Castlecrag Progress Association supports the following approach:

1. *Walkways should only be constructed where a need for such can clearly be demonstrated.*

2. *Walkways should be considered where they relate to large pedestrian catchments, with the possibility of linking to existing walkways, public transport nodes, the village centre, parks and reserves.*

3. *All walkways should be constructed from appropriate materials for their intended use.*

4. *Walkways need to be located and constructed in such a way to minimise their visual impact and to protect all existing vegetation and natural features.*

5. *Walkways should not only be straight, but can meander through the existing walkway zones and nature strips, providing a natural and organic solution, which also provides a more visually interesting journey.*

6. *Walkways which share or cross vehicle carriageways should be appropriately signed and have appropriate surface treatments.*

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# CASTLECRAG WALKWAY CHECKLIST

*The following checklist is to be used for any new or replacement walkway within Castlecrag*

1. **Is the walkway to replace an existing concrete walkway or to replace an existing compacted gravel walkway?**
   - ☐ Y = refer to design note A, then continue to point 2
   - ☐ N = continue

2. **Is the walkway proposed in a location without an existing defined nature strip zone? (ie griffin reserve, existing griffin or other walkways)**
   - ☐ Y = refer to design note A + B, then continue to point 3
   - ☐ N = continue

3. **Is the walkway proposed to a location within an existing defined nature strip zone? (ie sunnyside, Raeburn, sugarloaf, edinburgh or sim)**
   - ☐ Y= refer to design note A + B + C, then continue to point 4
   - ☐ N =continue

4. **If a walkway is proposed, its location and construction methodology is critical to protect the existing environment and to provide a positive addition to the urban fabric – the CASTLECRAG WALKWAY GUIDELINES should be referred to.**

# DESIGN NOTES

## A.

All new or replacement walkways in Castlecrag are to be constructed from a composite of a gravel or rock base, with a stabilised crushed sandstone topping. Edgings are determined by the location but will be either:

- Continuous stone border
- Continuous galvanised steel edging
- Continuous treated timber edging

## B.

Walkways within Castlecrag are generally not supported in locations where there is no defined nature strip zone as demonstrated extensively throughout the Griffin Heritage Precinct and other locations within the suburb.

This also includes zones along existing nature strip defined streets where natural elements such as existing trees, existing flora, rocks or grade changes would mean any walkway would require modification or removal of these elements. Walkways should be only provided under the following conditions:

- Replaces a length of an existing walkway
- Replaces a length of a clearly defined pedestrian track
- Is required to address a safety issue (place of refuge on a corner near oncoming traffic)
- Is required to provide roadside parking spaces in conjunction with any of the above

## C.

Walkways within existing nature strip zones should only be provided where one or more of the following conditions can be demonstrated:

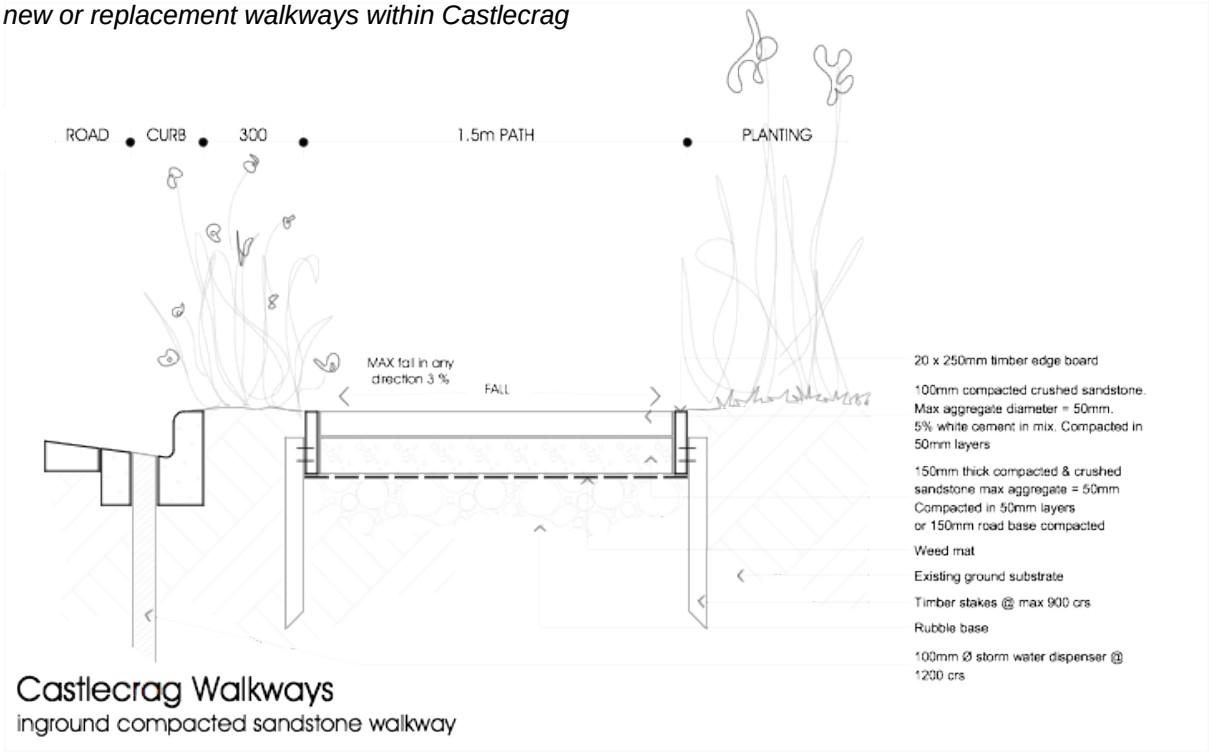
- The proposed walkway is related to an existing or proposed linkage (ie linking a significant catchment zone to existing walkways, village centre, public transport nodes, reserves or parkways)
- The proposed walkway addresses a safety issue (ie pedestrian movement is dominantly along the roadway instead of the turfed or formed nature strips, providing unsafe pedestrian conflicts with motor vehicles)
- The existing nature strip provides a surface inappropriate for pedestrian movement due to existing landscape treatment, drainage conditions, transverse slope, excessive wear and tear

ISSUE A DRAFT
OCTOBER 2012

CASTLECRAG PROGRESS ASSOCIATION

# CASTLECRAG WALKWAY GUIDELINES

*The following guide is to be used for any new or replacement walkways within Castlecrag*



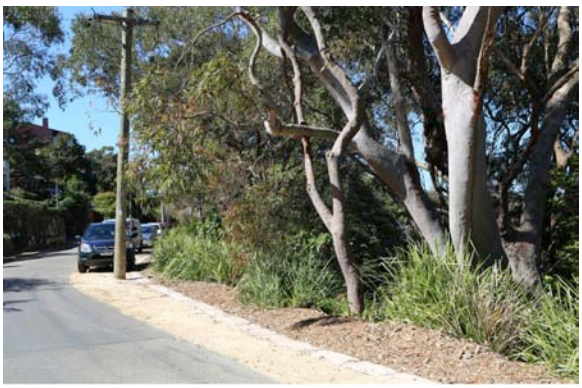

TYPICAL CROSS SECTION THROUGH A TYPICAL CASTLECRAG WALKWAY

*NOTE: compacted sandstone walkways should be laid in maximum gradients of 3%. For steeper walkways other materials as referenced will need to be considered...*

## 1. LOCATION – what side of the road

To determine which side of the road the walkway should be located, the following elements should be considered:

- Catchment – will one side have a significantly larger catchment? (ie more houses/more connecting streets)
- Linkages – will one side have significantly more links to existing or other proposed walkways, minimising crossovers over the vehicle carriageway?
- Impediment – does one side have a significantly higher number of impediments such as existing plantings, rock outcrops etc?
- Power Poles and cables– walkways are best located under existing street power poles and aerial cabling, leaving the alternative side clear for trees to grow vertically unencumbered.



Cheyne Walk Castlecrag

Taronga Zoo Mosman

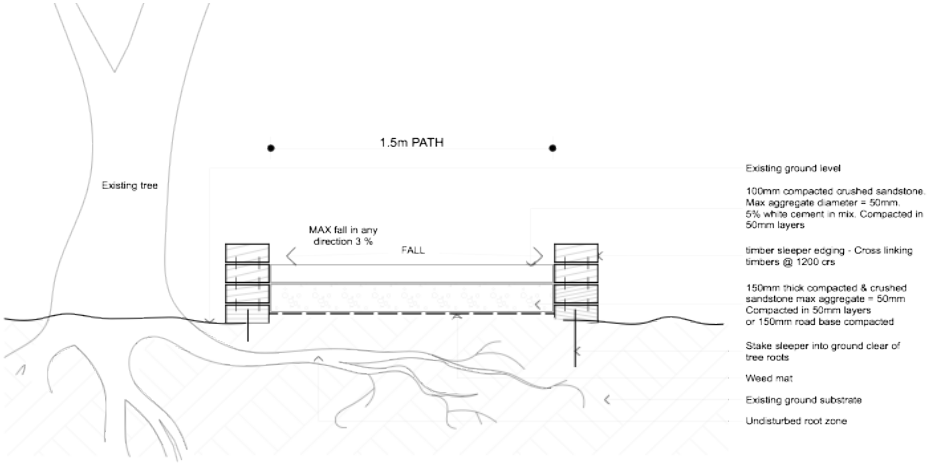
# 2. EXISTING TREES – protection

Existing landscape plantings of any scale or type should be protected. As such walkways should be constructed such that they do not:

- damage the roots of existing trees, whatever size they are
- impede the potential root zone of existing trees

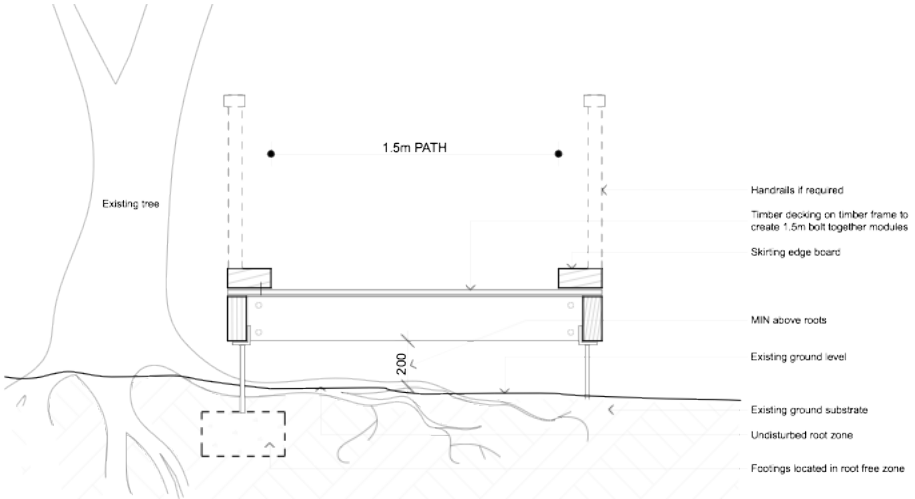
This can be achieved by one of the following methods:

- Elevate the proposed walkway so it requires little or no excavation (ie above ground, with the surrounding ground surface modified such that it sits flush, or by using a wider edge such as timber sleepers or a continuous stone edge, be maintained as an elevated surface)
- Bridge over the root zones (using a timber bridging modular catwalk structure – with or without handrails – and with supporting structure appropriately placed clear of any existing roots, or root pathways)
- Stop on either side or an existing root zone, providing an alternative and safe walkway zone in another location




**Castlecrag Walkways**
**above ground compacted sandstone walkway**
***(to protect tree root zone)***

TYPICAL CROSS SECTION THROUGH AN ABOVE GROUND CASTLECRAG WALKWAY
*NOTE: constructed so not to damage existing tree roots close to the surface*




**Castlecrag Walkways**
**elevated timber walkway**
***(to protect tree root zone)***

TYPICAL CROSS SECTION THROUGH AN ELEVATED CASTLECRAG WALKWAY
*NOTE: constructed so not to damage existing tree roots close to the surface*

# 3. EXISTING IMPASSABLE ZONES – protection

Zones of any proposed walkway may be made impassable due to some or all of the following:

- Existing vegetation
- Rocky outcrops
- Steep grades
- Wet zones

Should a need be demonstrated for a walkway, and an alternative location/linkage cannot be provided, the proposed walkway should be constructed using elevated or bridging structures so not to alter the existing land form or features.

# 4. ROAD CROSSINGS – pedestrian zones

Pedestrians should have equal rights to move throughout the suburb safely. This includes the crossing of existing vehicle carriageways or walking along the edge of these carriageways where no suitable alternative is appropriate.

Vehicle carriageway crossovers should be provided so to provide appropriate linkages and safety crossing zones. These should generally be constructed in accordance with the relevant Australian Standards, but also consider the following:

- If a crossover is required, it should be placed at a location which provides clear vision to both pedestrians and drivers of oncoming vehicles
- If a crossover is required, it should be generally located at an existing intersection.

If a crossover is required at any other point along an existing vehicle carriageway it should be appropriately signed, and the road surface treated accordingly with one of the following options:

- Rumble strip and crossing constructed from materials such as granite sets, clearly defining the crossover and approaches to such
- Elevated rumble strip zone
- Pedestrian zebra crossing
- Other aesthetically appropriate methods

Pedestrian zones along the edges of existing walkways will be necessary or appropriate throughout the suburb., particularly within the Griffin Heritage Precinct. In these locations, the shared carriageway should be defined and constructed in accordance with the relevant Australian Standards, using some or all of the following principles:

- The shared zone should be paved in a suitable material to define it – such as granite sets, paving, clear edge marking through the use of elevated cats eyes etc.
- Signage should be installed to clearly define the use of a shared carriageway zone.

# 5. FORM – relationship to existing grades, landscape and use

Walkways when constructed to replace existing paths, to run through new reserves or bushland or through nature strips should be constructed such that the walkway relates to the following elements:

- Landform
- Existing or proposed vegetation
- Usage

This will result in walkways that meander through the suburb, providing a visually stimulating and ever-changing journey.

## 6. NATURESTRIPS – as nature zones

Opportunities should be explored to change the traditional nature strip zone from turf to that of a natural zone, being an extension of Castlecrag's surrounding bushland. This could provide a mixture or endemic plantings providing appropriate flora and fauna linkages to Castlecrag's surrounding bushland. Such an approach would over time visually unite the suburb into a singular bushland suburb aesthetic.

As part of this exercise, existing curbing could be replaced with roll curbs or sandstone edging, including soakage points to allow water to penetrate back into the ground. (such as aquakerb units www.aquakerb.com)

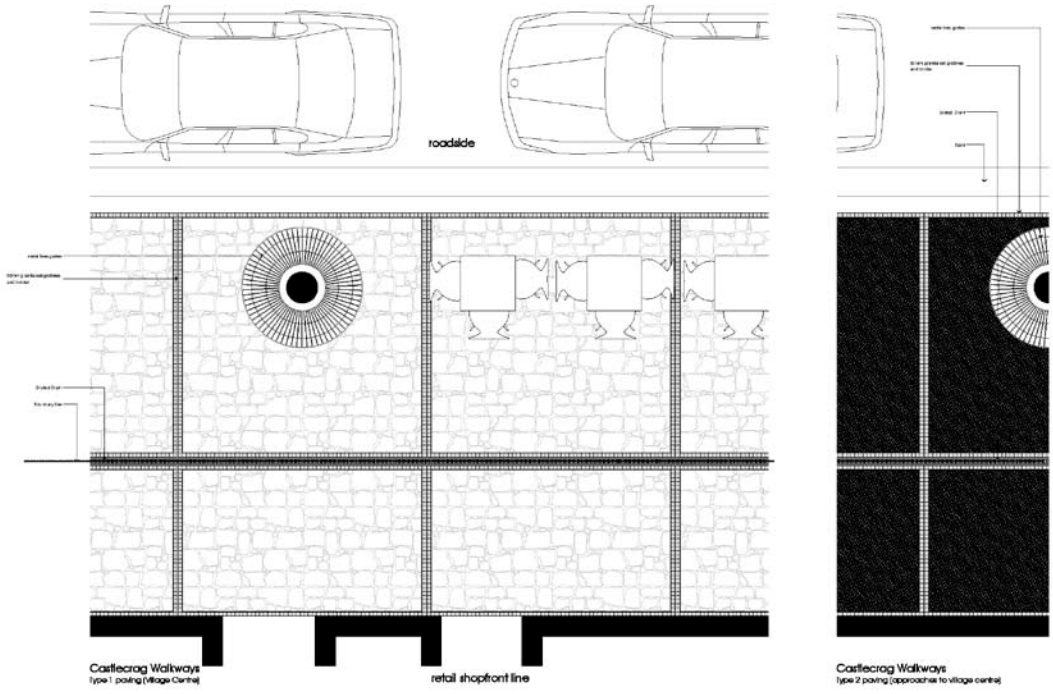
## 7. HUBS, SLOPES AND VILLAGE WALKWAYS – a solution for intensive uses

Hubs are defined as zones which are subject to significant numbers of people grouping. Such locations could be bus stops, outside playgrounds, childcare centre drop offs, school pickup points, information points. As with walkways which exceed a 3% gradient, alternative materials need to be considered to address the issues or durability and potential for water damage. It will be appropriate that these areas are finished in a more durable material. Alternatives such as asphalt, sandstone paving, granite sets or water blasted concrete (to expose the selected aggregate), or combinations of such may be appropriate.

Similar solutions could be adopted for the pavement replacement around the Village retail strip.

Adopting a hierarchy of finishes related to usage and definition would be appropriate – ie:

1. Village centre = sandstone paving with granite set edging
2. Approaches to village centre = granite set edging and gridlines – asphalt infill
3. Primary bus stops = waterblasted concrete
4. Secondary bus stops and Steep Walkways = waterblasted concrete edging and gridlines with asphalt infill




EXAMPLE OF PAVING LAYOUTS FOR THE VILLAGE CENTRE AND APPROACHES

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# CASTLECRAG WALKWAYS – PRIORITISED WALKWAYS

**Whilst each proposed walkway requires considerable study to define its need, route, and construction style, several projects throughout Castlecrag have been identified as requiring priority attention.**

**The logic behind these choices is that they:**

- **provide linkages to other walkways and parts of Castlecrag**
- **are subject to frequent pedestrian traffic, resulting in eroded surfaces**
- **are subject to frequent pedestrian traffic, over a difficult surface**
- **are hazardous to use**

1. The Village Centre (Edinburgh Road north and south sides - outside the retail outlets)
2. Edinburgh Road - from The Postern to the Edinburgh Bustop (A well travelled path which has obstacles which make it hard to walk along - connects to lawn walkway which links to the hospital)
3. Between 95-97 The Bulwark linking to between 19-21 The Bastion passing though the Embrasure Reserve (connecting The Bastion to the The Bulwark)
4. Junction of Eastern Valley Way and Sunnyside, connecting to the existing concrete walkway half way up Raeburn at the cross block link back to Edinburgh Road (provides linkages to existing walkways and is a heavily used alternative route between Sugarloaf and the Village Centre
5. 190 Edinburgh Road (junction with The Citadel) and the St James Anglican Church( heavily used route)
6. Between 34 The Bulwark and 18 The Scarp (linking The Bulwark to The Scarp)