

M1 – Footway Materials & Surfacing

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Footway Materials and Surfacing

Footways generally require a surface material and a kerb or channel edge. Surfacing of footways in Edinburgh varies from a basic asphalt surface to paving flags including precast concrete units and natural stone.

Special materials

It should be ensured that these materials can be readily sourced. These materials should also be recorded in the Street Gazetteer to inform that a special material shall have to be reinstated following any maintenance works.

Historic environment

Original historic materials and paving are protected by planning legislation. See principles and details set out in Paving the way, CEC (2008) and Setts and the City, Edinburgh World Heritage (2004). **Please note that these are not public documents but may be available upon request at the discretion of The City of Edinburgh Council.**



India street has different areas of setts.

[Edinburgh World Heritage, 2016](#)

There are many historic streets that retain their original stone paving as paving flags, setts or honoured surfacing. Some streets also retain granolithic concrete which also has historic importance.



Smooth Conservation flags

[Marshalls, 2016](#)

There are other types of surface that may be used outwith conservation areas which include mono blocks and precast units.

Relevant Factsheets:

Tactile Paving (M4)

Setted Street (M6)

Footway Paving (M3)



Original dolerite setts and channel with sandstone kerbing (probably Hailes).

[Edinburgh World Heritage, 2016](#)

Original historic kerbs and channels and those replaced in high quality schemes in Edinburgh are either whinstone or granite.



Standard PCC Road Kerb

[Transport for London, 2015](#)

In many contexts concrete kerbs and channels are acceptable.



Coal hole Cover

[The Manhole Covers of Spitalfields, 2011](#)

A number of traditional historic features remain in the streets (natural stone lighting blocks, mounting blocks and cast iron coal covers) and should be retained and restored.



Tactile Paving in Correct Locations

The City of Edinburgh Council

Footpaths may also require tactile paving of concrete or natural stone.

Key Principles

Footways should be laid with consistent fabric treatment for the length of the street. The street will be defined either as the section identified as having a specific street type, or that relates to a particular urban form and context.

In areas outside or adjoining public streets such as squares and public spaces, there are opportunities to introduce a wider variety of materials and paving styles that respond to modern design proposals.

There will be a presumption for the use of natural paving materials in key public spaces (see page 4 for details).



The City of Edinburgh Council

Construction

Footways should be constructed without awkward or abrupt changes in level, with suitable engineer designed sub-base/construction designed for the anticipated loadings. Well constructed footways reduce the risk of failure which leads to trip hazards.

All surfaces for pedestrians should be well drained, even, firm, non-slip and free from glare in both wet and dry conditions. The slip resistance of the footway surface must meet the requirements of HD 39/01.

New footways should have residual weed killer spread prior to the sub base being laid.



The City of Edinburgh Council

Water channels

Water channel covers, gratings, etc. should be flush with the surface.

Flat water channels should be a contrasting color and of a size and shape that does not trap small wheels (typically, channels 200mm wide are problematic).

Gratings should be at right angles to the line of pedestrian flow so as not to trap small wheels, etc. with openings no more than 13mm.

Tactile surfaces

Suitable tactile paving should be used where appropriate, including blister paving to identify pedestrian crossing places and hazard paving at steps and ramps. See M4.

Stainless steel studs should be avoided as they are a potential slip hazard.

Protection from parking and vehicle over run

To protect pedestrians and pavements from vehicular overrun, some footways require additional street furniture. Alternative solutions to the use of Bollards, such as cycle racks or planters, should be considered in these situations.

Where bollards are to be installed they should add to and respond to the wider design and layout of the street.

Reinstated paving should match surrounding paving materials.

Boundary protection

Care must be taken to ensure protection is provided for boundary walls and entrance features, especially within streets in conservation areas.

Relevant Factsheets:

Tactile Paving (M4)
Equality Impact Rights Assessment (P2)

Footway Paving (M3)
Drainage (W2)

Designing Inclusive Streets (P2)
Corner Radii (G6)

Minimising Street Clutter (P7)

Materials Overview



[The City of Edinburgh Council, 2014](#)



[Marshalls, 2016](#)



[Central Landscaping Service](#)

Type

Asphalt

Advantages

- Fast and simple construction
- Joint free finish
- Durable
- Easy to replace
- Difficult to match surface level/colour when reinstated
- Coloured surfaces available

Disadvantages

- Lower quality aesthetic
- Unsuitable for areas of importance
- Low cost
- High loading values

*Concrete Paving/
Artificial Stone*

- Widely available
- Cost effective
- 20-40 year lifespan
- Can be reinforced
- Easy to replace

- Liable to crack (dependent on thickness and sub-base)
- Unsuitable for areas of civic importance
- Some maintenance required

Natural Stone

- High quality
- Range of finishes, colours and sizes available
- Durable
- Relatively low maintenance
- Suitable for areas of historical importance
- Long life span (60+ years)

- High material cost
- Skilled installation
- Difficult to colour match replacements
- Some stone prone to staining
- Liable to crack (dependent on thickness and sub-base)

Setts

- Extremely durable
- Historic significance and place identity
- Low maintenance
- Long life span

- High cost
- Uneven surface (except for flat topped setts)
- Difficult to remove
- Difficult to lay with other materials
- Prone to deformation

*Resin bound
Gravel*

- Permeable
- Hard wearing
- Relatively low maintenance
- Do not fade

- Require solid base
- Skilled installation required
- Seamless repairs difficult



Atkins 2016



Atkins 2016

Relevant Factsheets:

Asphalt Footway (M2)

Footway Paving (M3)

Setted Streets (M6)

Recommended Material by Street Type



Russell Gardens Edinburgh. Out-with Conservation area. Medium density residential street with asphalt footway.

[Google Maps, 2016](#)

Out-with conservation areas

	Rural roads / No frontage	Industrial Employment	Low Density Residential	Med Density Residential	High Density Residential	Service Sector Employment	Retail / High Streets
Strategic	Asphalt				Concrete paving / Asphalt	Natural stone / Concrete paving	
Secondary	Asphalt				Concrete paving / Asphalt	Natural stone / Concrete paving	
Local	Asphalt				Concrete paving / Asphalt	Natural stone / Concrete paving	



Princes Street Edinburgh. Conservation area retail street paved in natural stone.

The City of Edinburgh Council

In conservation areas

	Rural roads / No frontage	Industrial Employment	Low Density Residential	Med Density Residential	High Density Residential	Service Sector Employment	Retail / High Streets
Strategic	Asphalt		Concrete paving / Asphalt			Natural stone	
Secondary	Asphalt		Concrete paving / Asphalt			Natural stone	
Local	Asphalt		Concrete paving / Asphalt			Natural stone	

Relevant Factsheets:

Asphalt Footway (M2)

Footway Paving (M3)

Image References

Footway Materials and Surfacing

India Street has different areas of setts: Edinburgh World Heritage , (2016), *Setts in the City* [ONLINE]. Available at: <http://www.ewht.org.uk/>[Accessed 1 November 2016].

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Coal-hole Cover: <http://spitalfieldslife.com/2011/01/05/the-manhole-covers-of-spitalfields/>
Smooth conservation flag: Marshalls, (2016), *Conservation Smooth Ground Silver Grey, Edinburgh* [ONLINE]. Available at: <http://www.externalworksindex.co.uk/entry/33486/Marshalls/Conservation-smooth-concrete-paving/>[Accessed 1 November 2016].

Standard PCC road kerb: Transport for London, (2015), *Concrete Kerb* [ONLINE]. Available at: <https://consultations.tfl.gov.uk/policy/streetscape-guidance/> [Accessed 1 November 2016].

Tactile paving in correct locations: The City of Edinburgh Council

Key Principles

Flush Drainage Channel: The City of Edinburgh Council

Stainless Steel Tactile Studs: The City of Edinburgh Council

Materials Overview

Asphalt Surfacing, Edinburgh: City of Edinburgh Council, (2014), *Ashphalt Surfacing, Edinburgh* [ONLINE]. Available at: http://www.edinburgh.gov.uk/downloads/download/715/road_construction_guidance [Accessed 1 November 2016].

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Resin Bound paving, Edinburgh: [ONLINE]. Available at: <http://www.centrallandscapingservices.co.uk/about-us/>

Natural Stone Paving, Edinburgh: Atkins (2016)

Setts, Edinburgh: Atkins (2016)

Recommended Material by Street Type

Asphalt Footway Edinburgh: Google Maps. [ONLINE]. Available at: <https://goo.gl/maps/7v3nn2EbEiP2> [Accessed 5 December 2016]

Princess Street Paving: The City of Edinburgh Council

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