



## Urban Design Bulletin 4 Surface and Building Materials

Produced by the Quality Places Practitioners Group (QPPG) on behalf of the Partnership for South Hampshire (PFSH). The QPPG is composed of built environment professionals representing Local Authorities in South Hampshire: Eastleigh, East Hampshire, Fareham, Gosport, Havant, Isle of Wight, New Forest, Portsmouth, Southampton, South Downs National Park, Test Valley, Winchester and Hampshire County Council.

The aim of the QPPG is to promote good quality place making in South Hampshire. To find out more, follow this link:

<https://www.push.gov.uk/work/cultural-creative-industries-and-the-built-environment/>

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### Introduction to Best Practice:

Material palettes for new development should respect the site's context and enhance local distinctiveness in terms of character, scale, texture and colour.

- » Take a multi-disciplinary approach to material selection from the outset that considers whole life cost in terms of durability, sustainability (including embodied energy), general maintenance and future procurement
- » Consider using different materials to create distinctive character within a development, to aid legibility and create a more varied and visually enriched streetscene
- » Arrange and combine materials to support the architectural approach and create a high quality appearance
- » Careful consideration of maintenance implications at the design stage can avoid costly, problematic, or high frequency maintenance requirements
- » Ensure hard landscape materials proposed complement each other, regardless of their range <sup>1</sup>
- » Consider using a locally common high-quality material as the foundation for a palette. If a variety of building materials are in use locally, any new materials must be complementary to these.
- » Where context fails to warrant use of local materials, use of a more varied materials palette can be appropriate. Prefabricated elements that reduce waste will be supported if they are robust and of high visual quality.

In addition, all materials should meet the following criteria and be <sup>2</sup>:

- » Fit for purpose
- » Safe for purpose
- » Durable (suitable for local climate)
- » Sustainable (manufacture and energy use)
- » Appropriate
- » Aesthetically pleasing
- » Preferably locally distinctive

Locally made and/or used materials include:

- » Traditional Hampshire red/orange stock bricks
- » Granite (as used along dock edges)
- » Pennant Sandstone
- » Purbeck Stone



*Durability issues*



*Poor detailing and materials choice will lead to high maintenance costs. These examples illustrate spalling and cracking due to the omission of movement joints.*

### Common Issues: Streets and Spaces

- » Inflexible application of standard construction details and materials resulting in vehicle-dominated environments
- » Material life shortened by inappropriate specification, for example using paviers in areas with high vehicle turning movements or where channelised flow and lack of suitable substructure will result in rutting and the break up of the surface
- » Poor detailing and no regard to local distinctiveness or, overly complicated details requiring awkward cutting that is difficult to maintain
- » Over dominance of a single material
- » Poor quality materials that lead to increased maintenance costs
- » Light / buff coloured tarmac or resin-bonded gravel in areas with vehicular access are prone to discolouration from tyre marks or fluid leaks. NOTE: non-modular surfacing should be laid in panels to assist reinstatement.
- » Colour fade in pigmented concrete paving
- » Clashing colours, for example between the warmer red tones of building brick and the colder tones of some concrete paviers
- » Insufficient consideration given to the practical implications for paving at layout design stage



*Fluid leak and tyre marks*



*Material changes and clutter from road markings*





Dead frontage creates a bland environment



Unequal weathering of facing timber



Contemporary detailing unrelated to local context



Over use of single building material creates a monotonous and illegible environment



Poor detailing, water damage



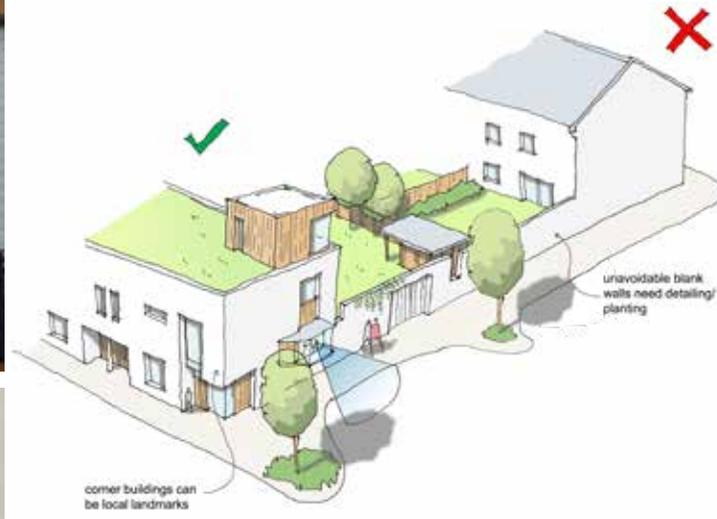
Simple material palette adds variety



Poor weathering



Complementary variety



### Common Issues: Buildings

- » Overly complicated materials palettes that create visually confusing façades
- » Mixing of non-complementary materials that result in jarring streetscenes
- » Poor ornamentation, proportion or detailing and/or over-use of one or two materials that result in monotonous streetscenes and contribute to poor legibility
- » Material choices that:
  - Don't relate to the proportions of the building and create small areas of timber or render
  - Don't reflect the status of different building/elements such as: ending a vista; aiding legibility or; visually breaking up the mass of the building
  - Pay little regard to the local vernacular resulting in lack of local distinctiveness
- » Materials that weather badly and discolour over time, such as render. NOTE: North facing façades are prone to algae growth, south facing façades are prone to mould.
- » Untreated timber cladding systems, or naturally weathering materials that weather unevenly if not detailed carefully and lose their harmonious appearance
- » Poor quality prefabricated materials with no regard for visual impact
- » Poor construction detailing and/or installation leading to water damage on façades

### Addressing issues - Surface materials

- » Develop a wide but not excessive palette of materials
- » Delineate spaces by change in material
- » Use high quality materials with proven durability
- » Consider innovative use of materials, processes or techniques<sup>2</sup>
- » Use materials to aid in strengthening the development of a distinctive character, but do not rely solely on colour changes in concrete paving, to articulate character areas<sup>3, 6</sup>
- » Allow space for soft landscape and green infrastructure
- » Respond to local character and history, and reflect the identity of local surroundings and materials, while not preventing or discouraging appropriate innovation<sup>4, 7</sup>
- » Take a multi-disciplinary approach to surface material treatments where Design Codes / Pattern Books are to be used/produced, to ensure a high quality and sustainable development will be delivered



*Demarcation of use or ownership by change in material*



*Materials used for benefit of access such as this low-splay kerb*



*Consider the lifetime costs of materials to ensure durability, especially in areas with high movement and place functions such as local shopping areas or around civic buildings*



*Vertical and surface material change*



*Paving courses should be aligned to reinforce overall specific objectives and quality*



*Complementary materials add visual interest and contrast without cluttering the streetscene*

Key building: focal point and material treatment.

Surface material change, indicate changing character, lower speed, increase of pedestrian activity.

Building material: change to indicate character, provide interest and legibility, diversity and interest.

Boundary treatment: Variation in materials depending on prominence in the streetscene. Publicly visible boundaries shall be marked by walls, railings or hedges.

Roof materials support character areas, and add definition and variation to standard house types.



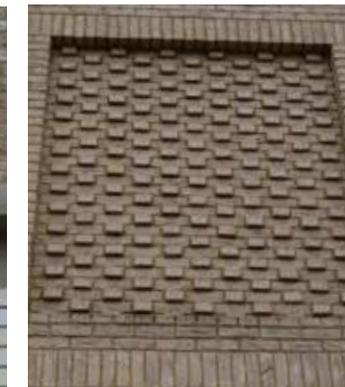
*\* For illustrative purposes only*

### Addressing issues - Building materials

- » Develop a palette of materials that reflects local distinctiveness but avoids using too many materials on a single building<sup>4</sup>. Respond to local character and history and reflect the identity of local surroundings and materials while not preventing or discouraging innovation<sup>4,7</sup>.
- » Promote some degree of uniformity across a development, in particular within a designated character area
- » Use materials, processes or techniques to enhance legibility or provide variety when needed<sup>1</sup>
- » Promote the use of locally sourced construction and building treatment materials
- » High quality materials with proven durability
- » Identify key buildings in new development and highlight through material choices, including the specification of 'stand out' materials
- » Avoid blank walls facing the public realm and introduce active frontages through appropriate use of windows and doors that enhance passive surveillance<sup>3,4</sup>
- » Use material changes to reduce the impact of taller buildings, for example, to recessed upper floors
- » Use design codes to help guide material choices within a new development<sup>5</sup>



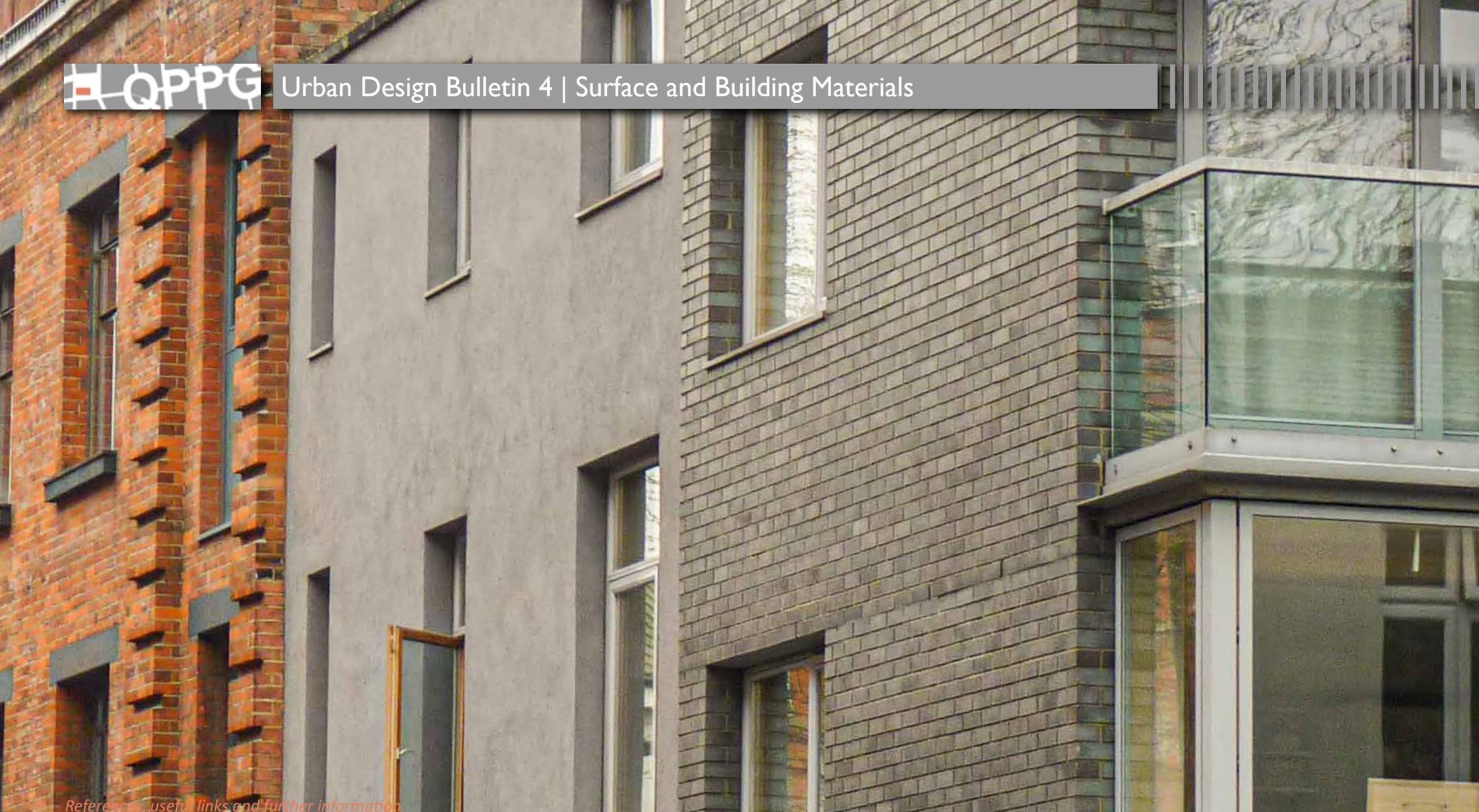
*Contemporary and more traditional palettes of complementary materials and detailing*



*Creating texture from a single material*



*Utilizing few materials to good effect*



*References, useful links and further information:*

- 1 - [Quality Places](#), SPD, Eastleigh, Adopted 2011
- 2 - [Manual for Streets](#), Department for Transport, 2007
- 3 - [National Design Guide](#), Ministry of Housing, Communities & Local Government, 2019
- 4 - [Urban Design Compendium](#), English Partnerships, 2000
- 5 - [Building for a Healthy Life](#), Design For Homes, 2020
- 6 - [National Planning Policy Framework](#), Department for Communities and Local Government, London, Updated 2019

Further Information:

HCC Highways Planning Portal: <https://developerportal.hants.gov.uk/Home/Index>