

24/02/2022

Smithfield Public Realm Approach to materials

City of London

Historic motifs

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to be developed further in Stage 3.1
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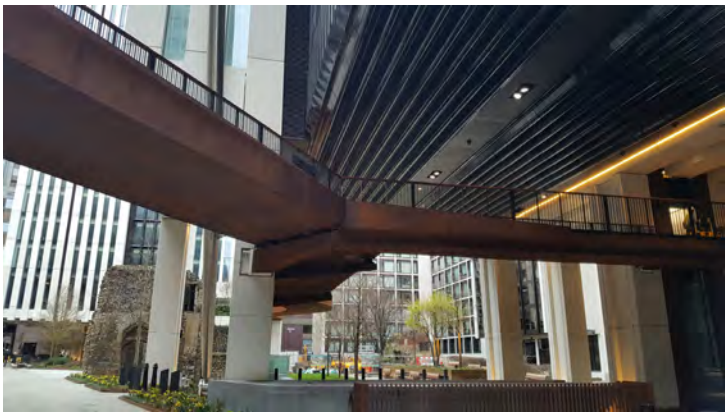


Postman's Square

The use of historic motifs is consistent with the approach across many of City of London's distinct public spaces. In cases like the London Wall, these landmarks are retained in their original locations and juxtaposed with new interventions. However, these landmarks are often not tied to their found locations, and can be moved around to better reflect the use and character of the public space - to better allow these landmarks to stand out and be part of the narrative of the space (e.g. The memorial text at Postman's Square, or the tombs in the Barbican). In some case new motifs are created to reflect a narrative attached to the space, but where no physical landmark remains - e.g. St Pancras Church Garden.



St Pancras Church Garden



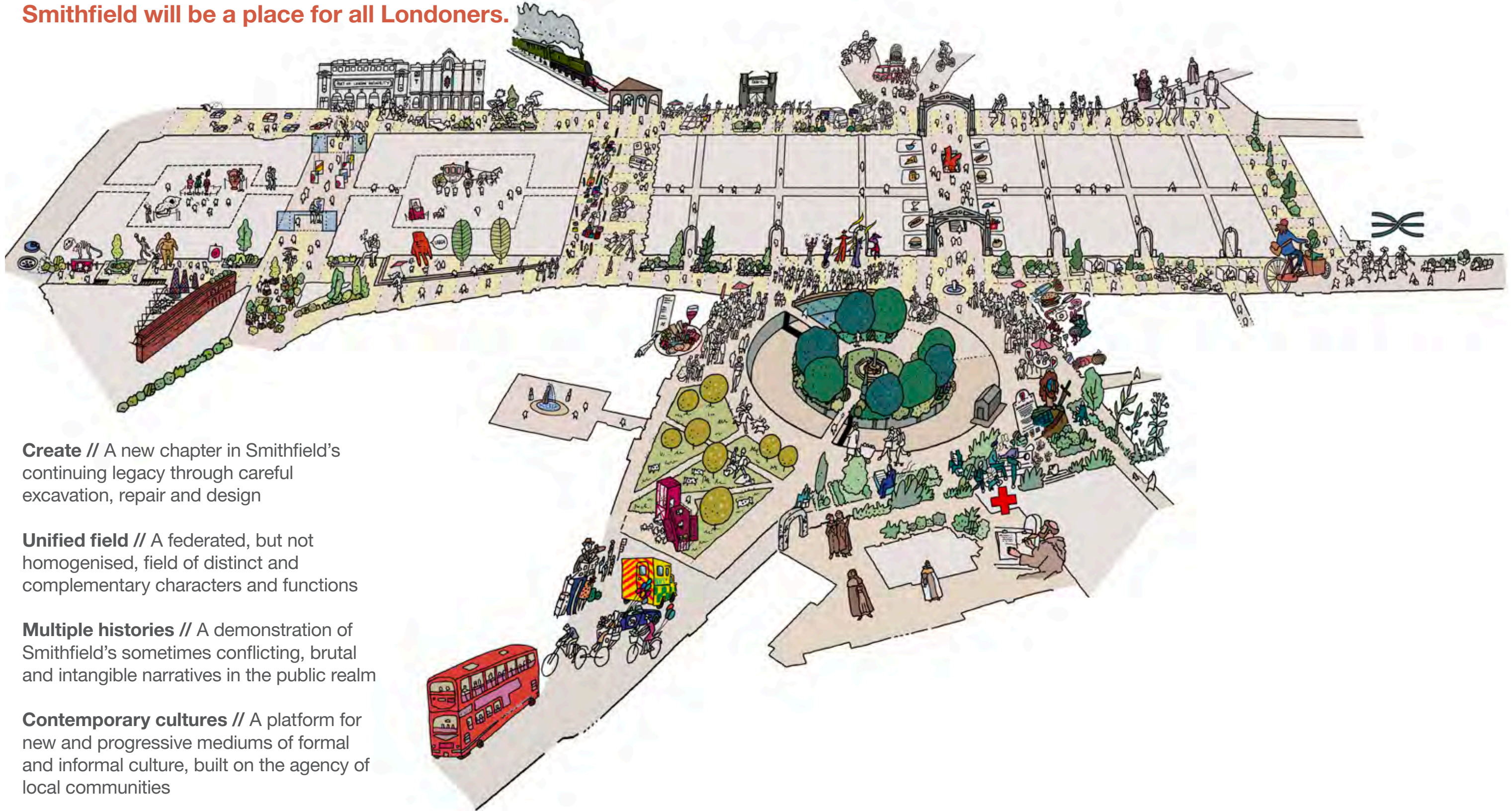
London Wall



Barbican

Create a unified field where Smithfield's multiple histories and contemporary cultures intermingle.

Smithfield will be a place for all Londoners.



Create // A new chapter in Smithfield's continuing legacy through careful excavation, repair and design

Unified field // A federated, but not homogenised, field of distinct and complementary characters and functions

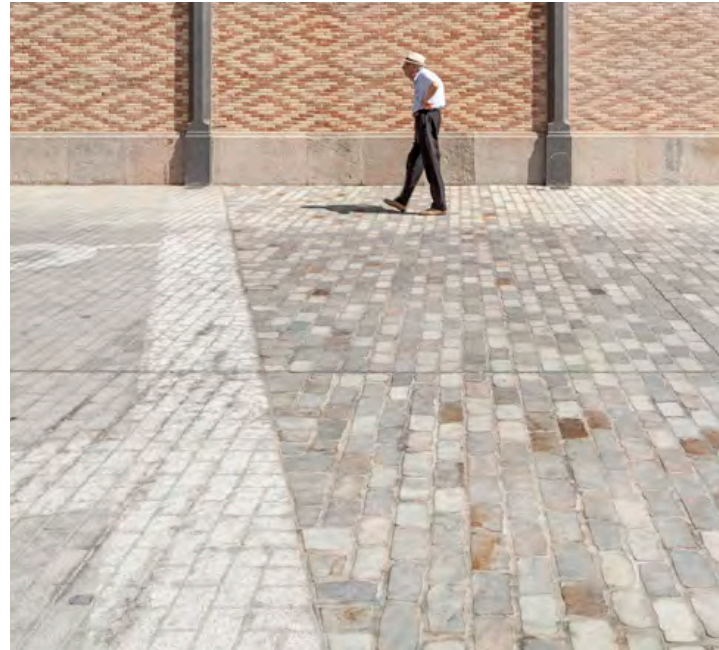
Multiple histories // A demonstration of Smithfield's sometimes conflicting, brutal and intangible narratives in the public realm

Contemporary cultures // A platform for new and progressive mediums of formal and informal culture, built on the agency of local communities

Design Objectives

(Stage 2 - Concept Design)

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A celebration of Smithfield's historic layering in its urban fabric

- Surface treatments should reflect the historic narrative through:
 1. reflect the rhythm of building façades
 2. emphasise the meeting of Victorian and Medieval urban fabrics
 3. highlight substructure conditions in the surface treatment
 4. unearth hidden materials to be exhibited as part of the public realm



A circular economy approach that amplifies Smithfield's distinct characters

- As a top priority, retain surface treatment, trees, greening and other features already successful in contributing to a functional, sustainable and pleasant public realm
- Reuse existing slabs and pavers (particularly where they may have heritage value), as well as identifying opportunities to embed waste materials from building redevelopment at nearby sites.
- Recycle existing slabs, pavers and waste materials from building redevelopment as aggregates within new materials where possible. This will require identifying and working with new suppliers that may not currently sit within the City's existing networks.
- Where new materials need to be sourced, ensure responsible procurement of materials, products and components, sourced locally as a default, which eliminate waste and support reuse and end of life recovery.



Clear, legible and comfortable public realm

- Prioritise pedestrian movement and comfort, ensuring equity of access for all users across the public realm
- Clearly define the hierarchy of movement and dwell spaces
- Provide a coherent palette that ties together the district, while enhancing changes in character across sub-spaces
- Maintain simplicity through a limited palette that celebrates the buildings and structures in the area



An integrated public realm as part of City of London's wider network

- Implement a palette of surface materials that ensures continuity with the surroundings and better enables the reuse of existing materials
- Emphasise the exceptional character of Smithfield as a cultural district within the City through innovative use of traditional materials in line with the City Public Realm SPD

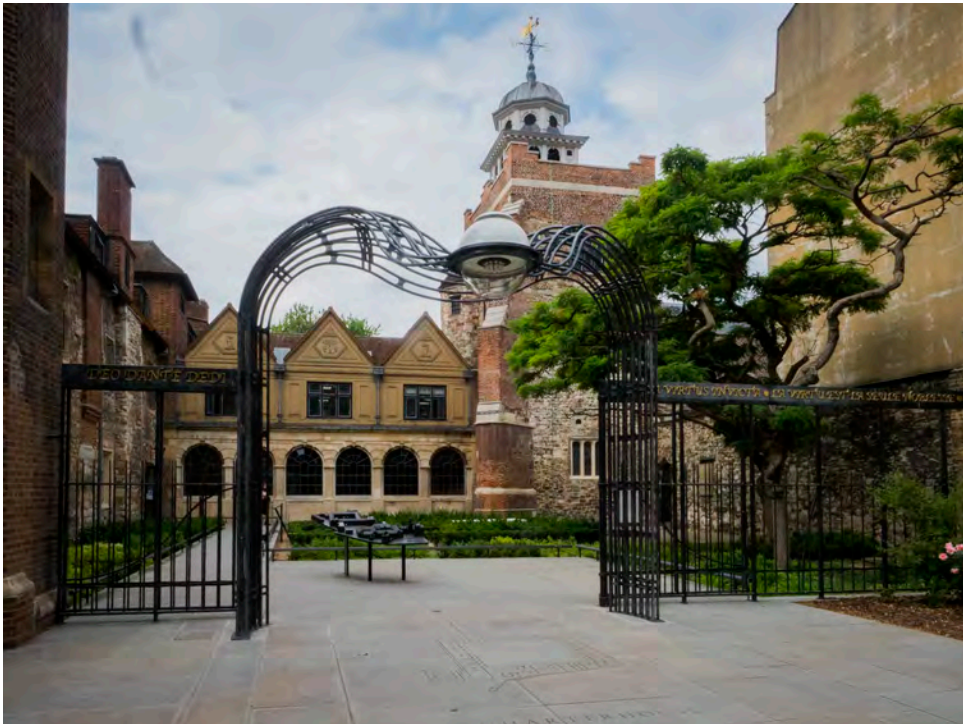
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Approach to 'special' spaces

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subtle / integrated

carpet / overlay



Charterhouse Square



Paternoster Square



Guildhall

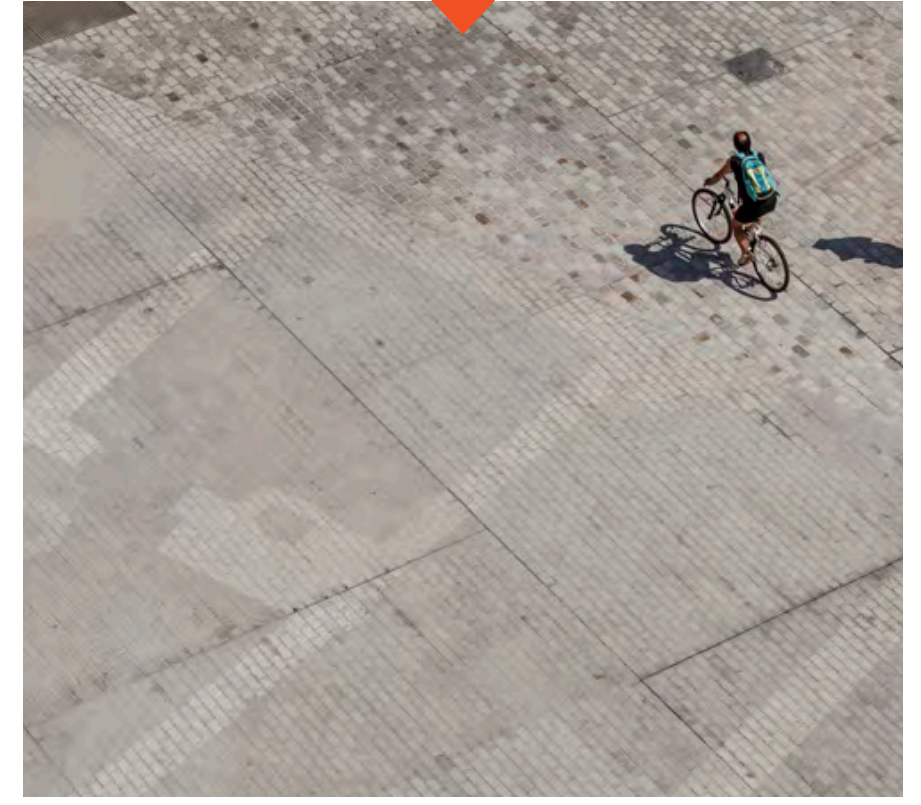
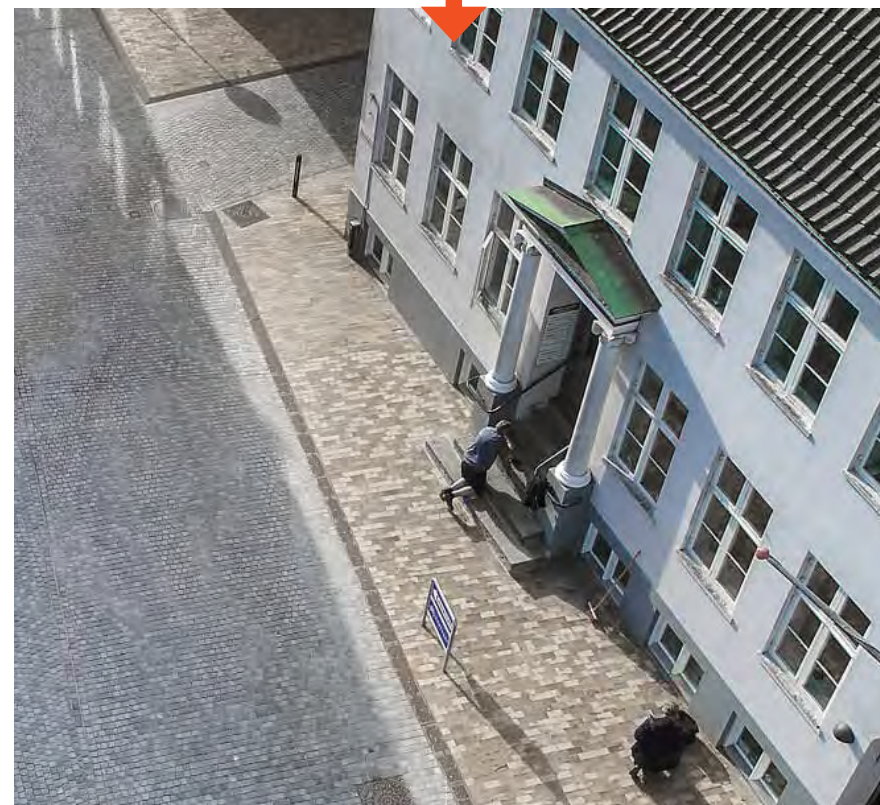
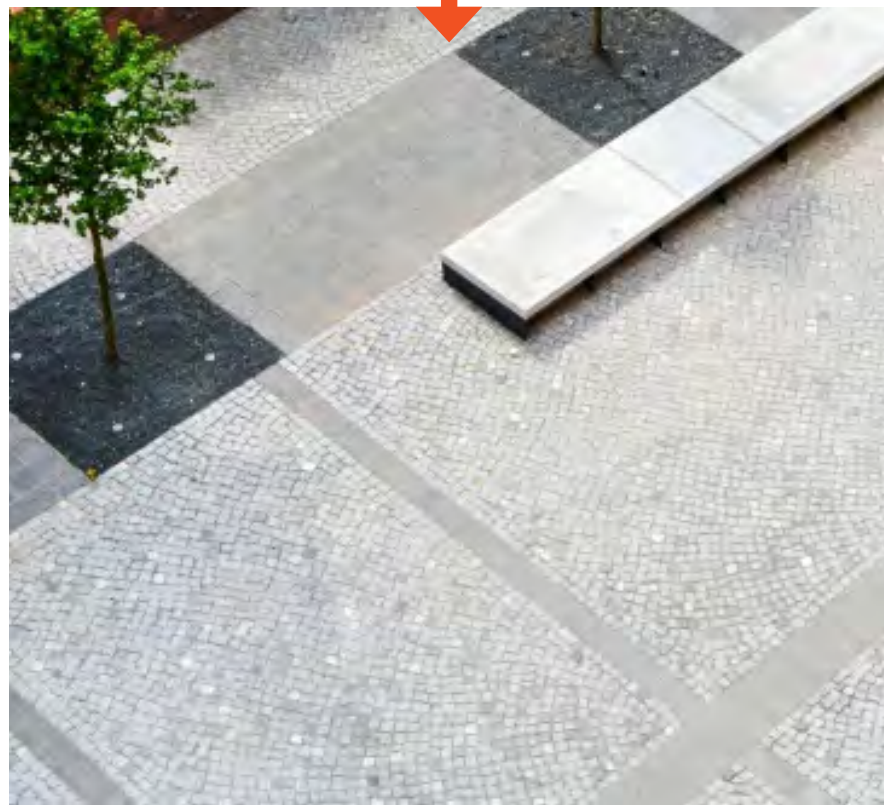
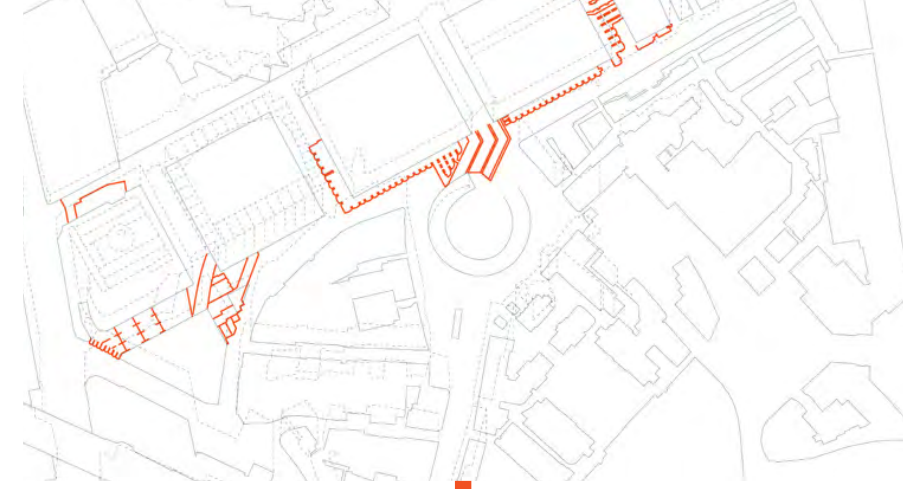
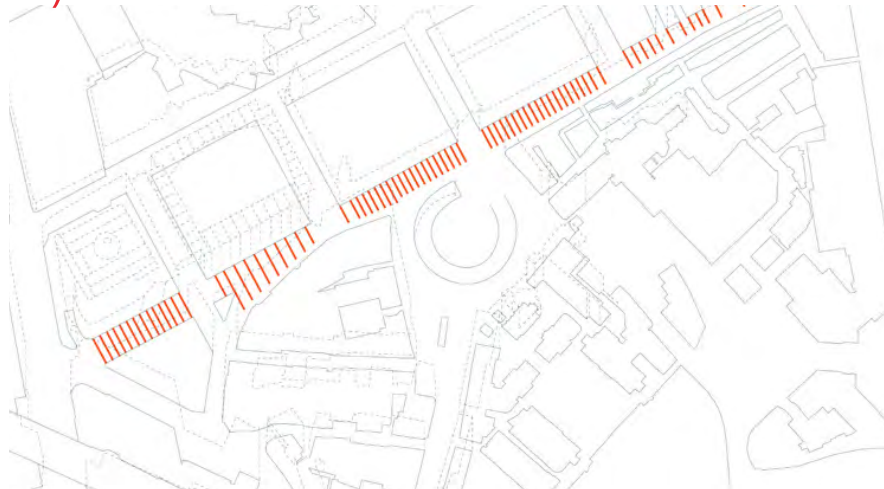
SMITHFIELD

The character of landmark public spaces within the City of London varies in its subtlety - often reflective of it's time and style in the way that public spaces are approached. Spaces like Paternoster Square and Guildhall, overlay a 'carpet' or pattern across the whole space - creating a focal point and rhythm of it's own. On the other end of the spectrum, spaces like

Charterhouse Square implement a more a nuanced approach to creating interest and interventions within the public realm - this encourages that public realm to be experienced as a whole with the buildings first, with the details becoming more evident over time. This is closer to the approach appropriate for Smithfield, but with a level of consistency that unifies the large district akin to Paternoster Square or Guildhall.

Creating a rhythm and hierarchy (Stage 1)

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1. Facade composition into the Stave
The Stave echoes the composition of the Victorian facades
The Stave as a common language, providing structure and rhythm to the public realm

2. Medieval edge highlighted
The medieval fabric is reflected in the paving details through a featured linear channel, shaping the footway to the South of the Stave

4. Resurgence of the underground world
The rich underground structures of vaults, columns, walls and tunnels resonate into the public realm through paving pattern and details

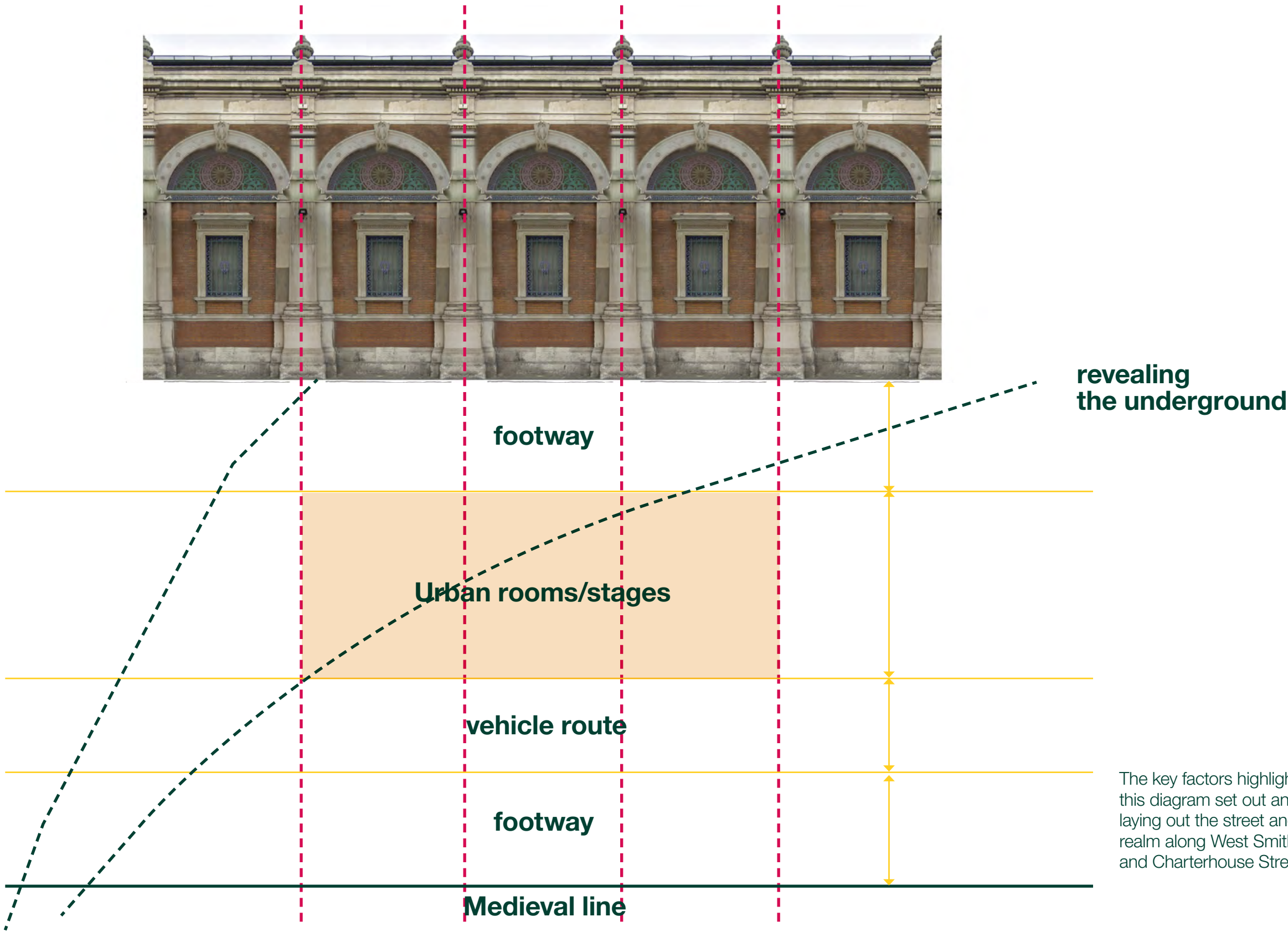
These overarching principles set out a hierarchy for creating a rhythm and structure for the length of West Smithfield and Charterhouse Street. While conceptually this applies along the length of the Stave and across the district, these principles will need to be balance against conflicting priorities for highlighting historical narrative and features, accessibility (both physical and visual), environmental comfort, sustainability, maintenance, legibility and continuity with the wider CoL Palette.

Creating a rhythm and hierarchy

Responding to architecture

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stave/grid - rhythm of market buildings



The key factors highlighted in this diagram set out an order for laying out the street and public realm along West Smithfield and Charterhouse Street.

Creating a rhythm and hierarchy

Visible vs. invisible use of the Stave

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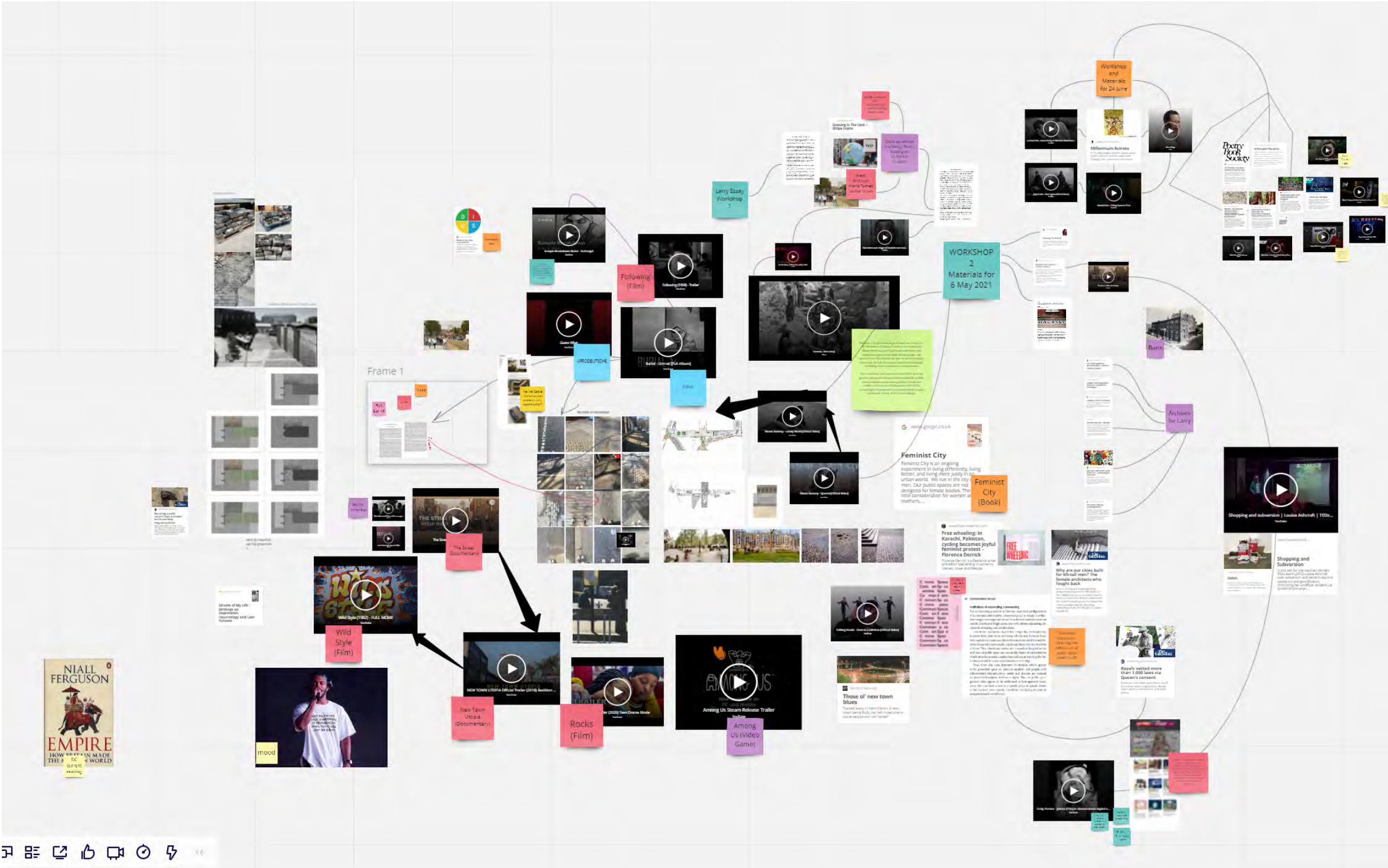


The Stave will act as an invisible framework, guiding the layout of W Smithfield and Charterhouse Street in response to the rhythm of the buildings and the key movement functions of the Street. The framework may become more visible to demarcate entrances, urban rooms etc.

Crackology

Creating texture

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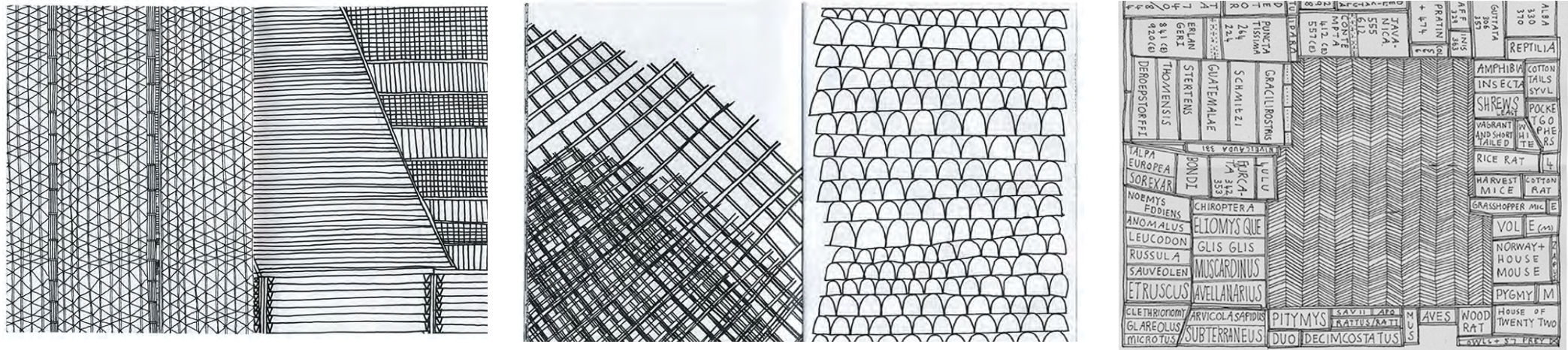
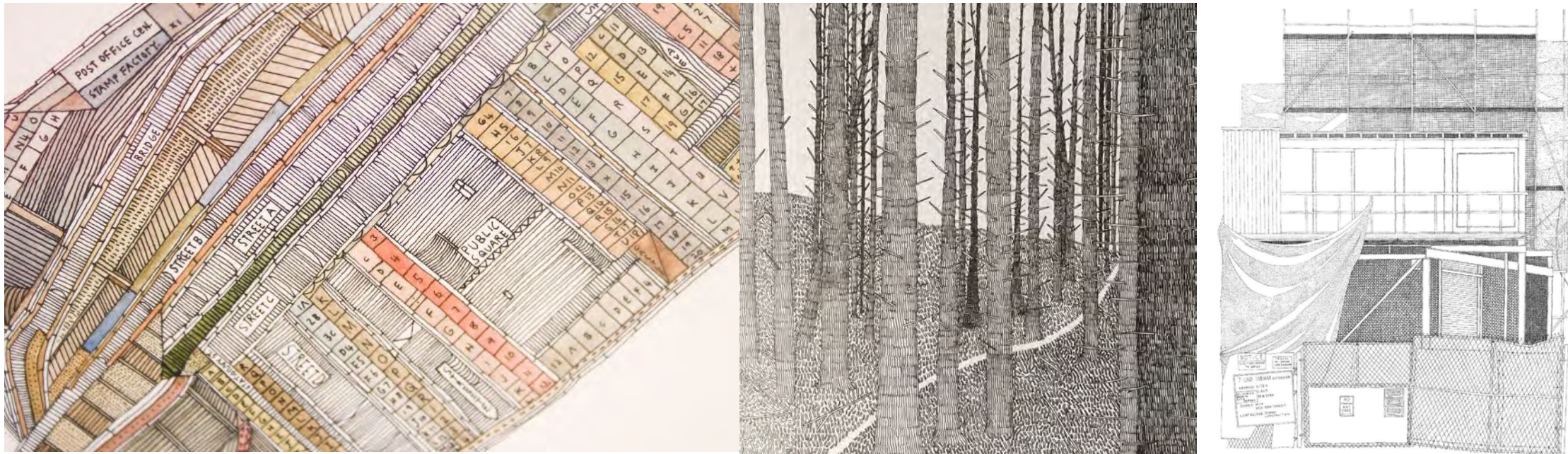


The creation of texture and celebrating the cracks in the fabric and experience of Smithfield - inspired by workshops with the Artist-in-Residence Larry Achiampong

Texture Inspiration

Nigel Peake

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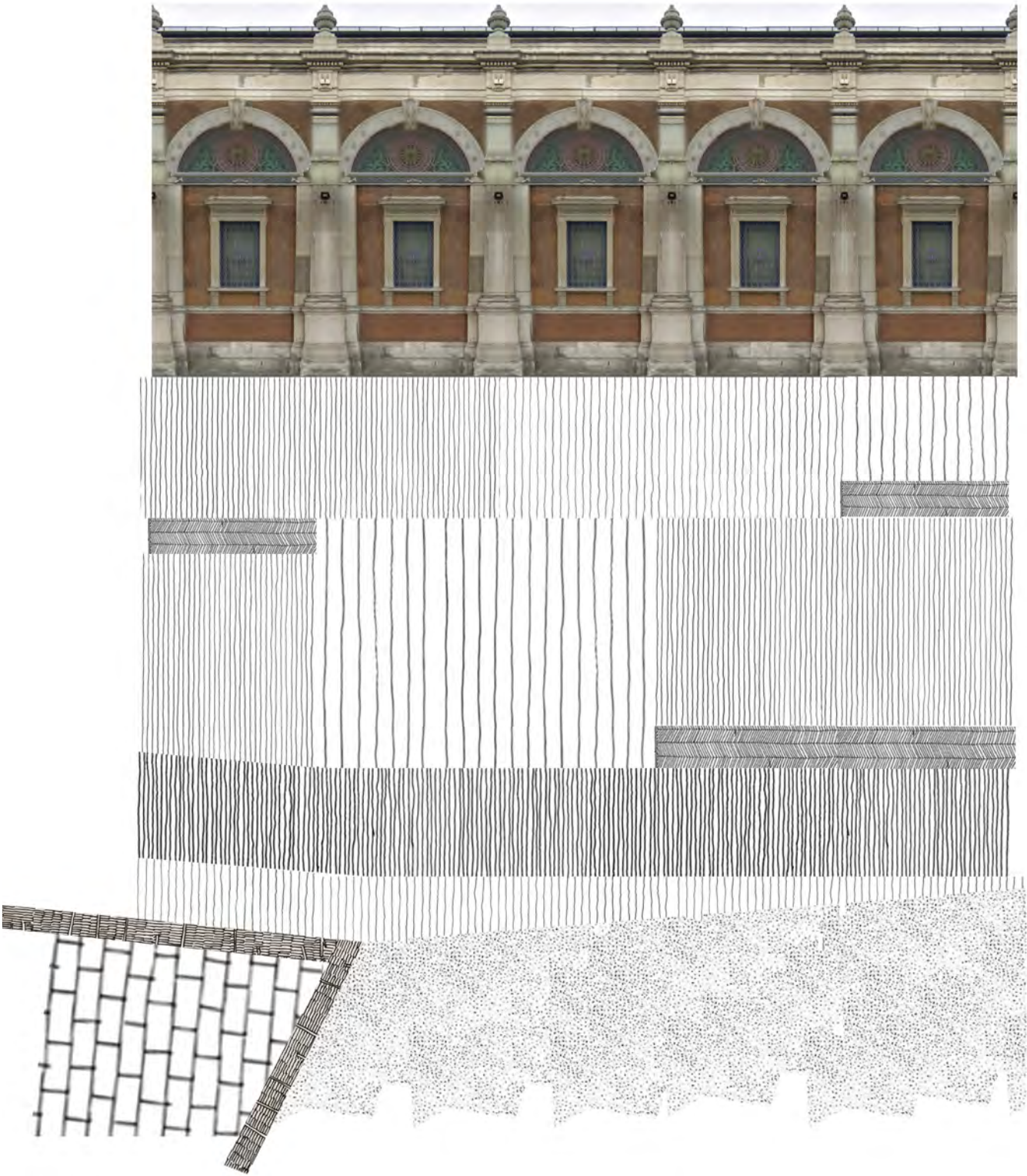
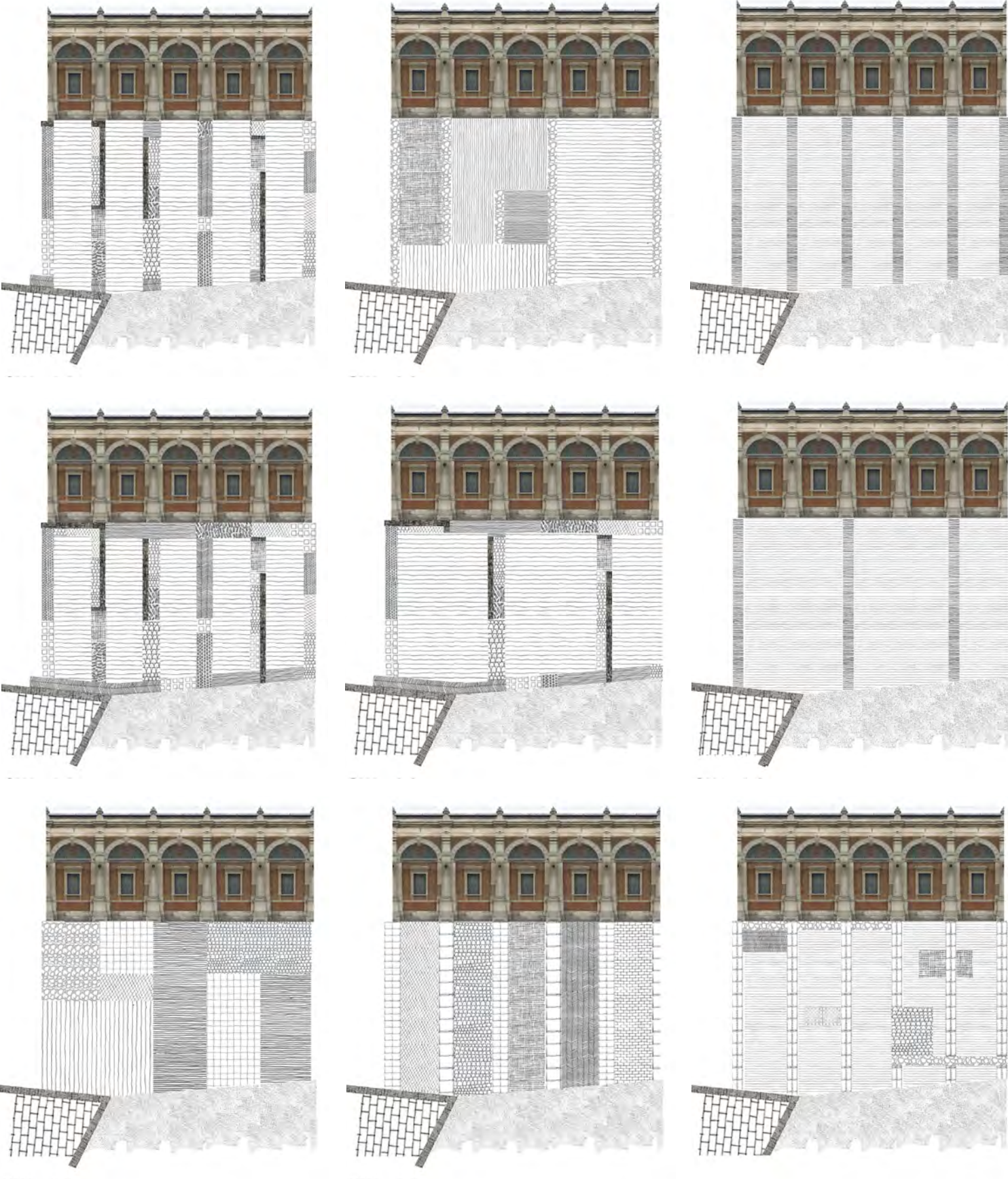


Following the Artist-in-Residence workshops, the design team explored means of representing textures and qualities of materials (rather than the material selection itself, which was still undergoing research and testing). It would be important to capture the textural qualities in a concept plan - which accommodates a change in materials as the design progresses.

Nigel Peake's illustrations became a key source of inspiration for our approach, using a framework to set different textures against each other to create an overall legibility, while celebrating the variation in detail.

Early tests (superseded of the Stave
- Market building

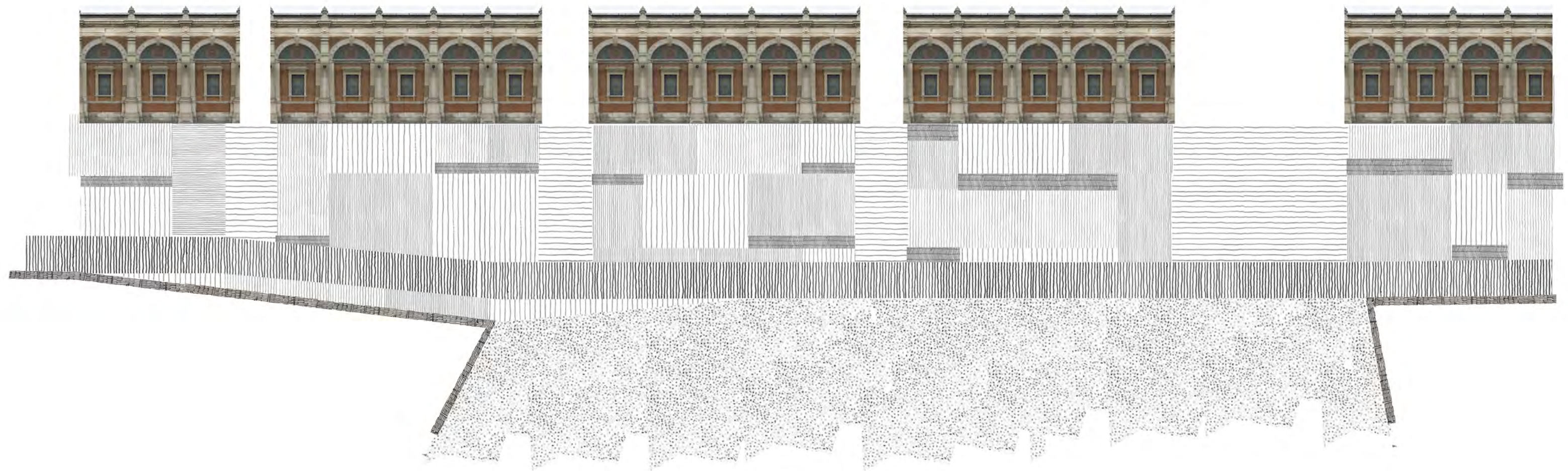
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We began by testing these textures to lay out the hierarchy of the Stave, movement corridors and entrances - using the regular rhythm of the Market buildings.

Early tests (superseded) of the Stave - Museum of London

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We tested each approach extended across the frontage of the Market buildings to review whether the balance of texture and regularity works at a street scale, as well as within a contained space.

Testing with material textures
- Market buildings (work in progress)

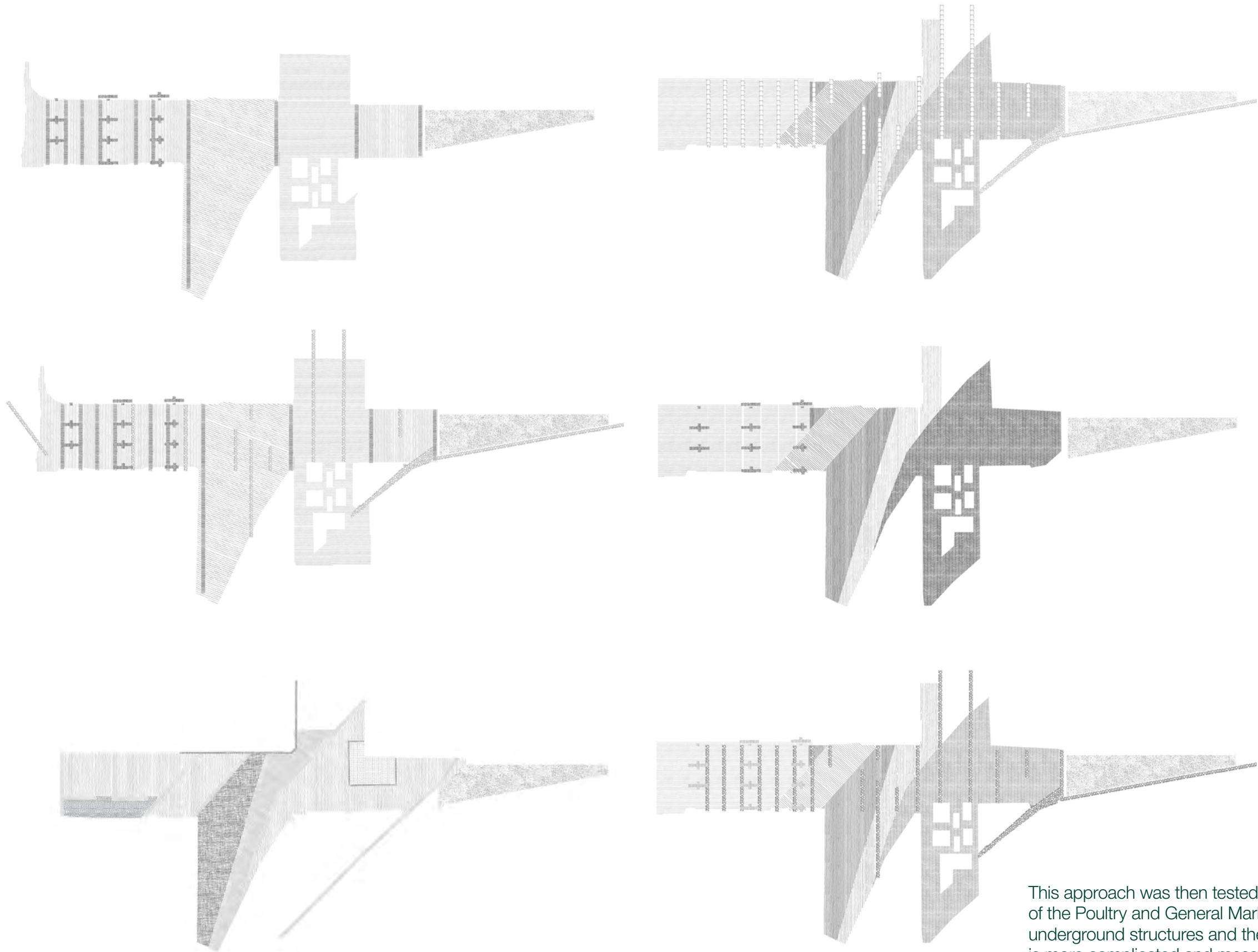
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We also then tested these approaches using actual material textures to understand how evident some of these variations are. This will be developed in further detail in Stage 3.1.

Early tests (superseded) of the Stave - Museum of London

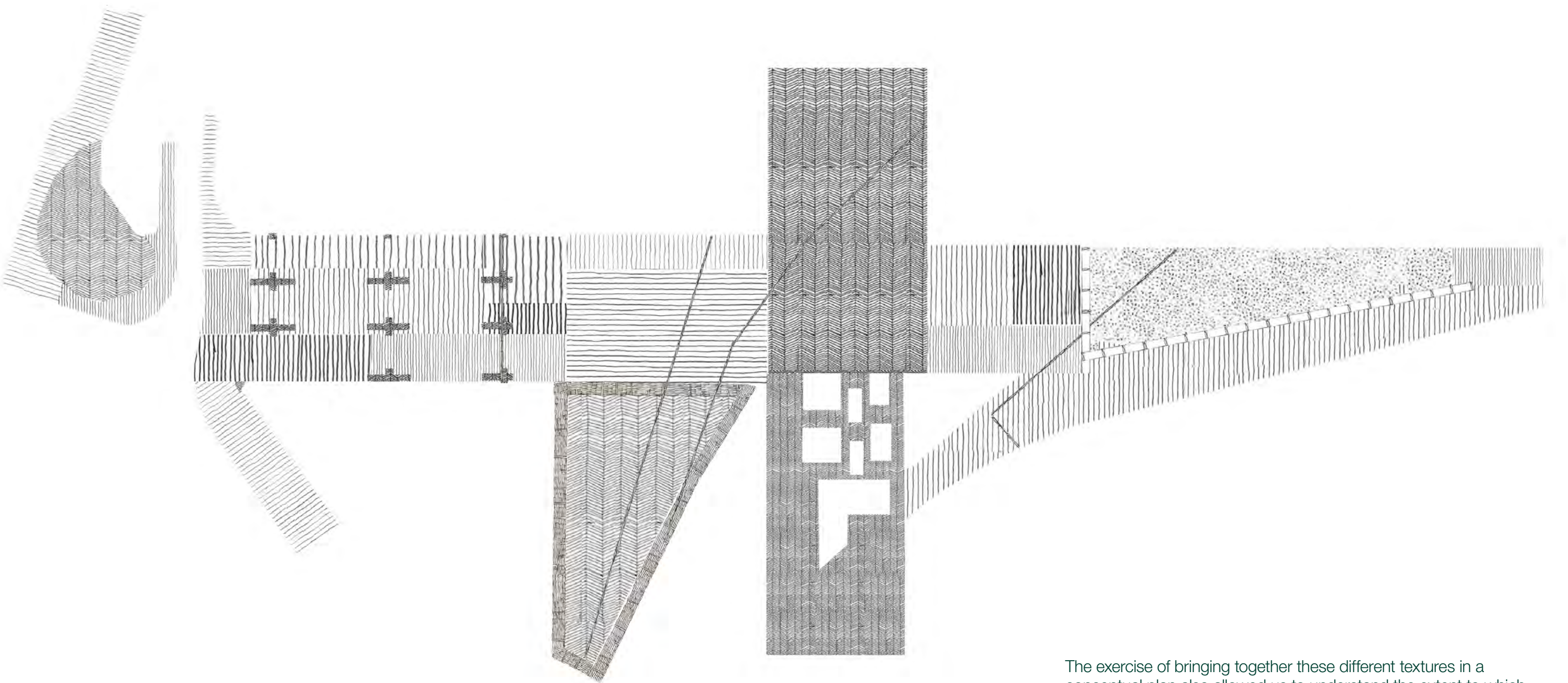
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This approach was then tested against the more complex rhythm of the Poultry and General Market buildings. The relationship with underground structures and the interface with the medieval layout is more complicated and messy in this section West Smithfield, in relation to the Market buildings.

Preferred conceptual approach
(Museum of London):

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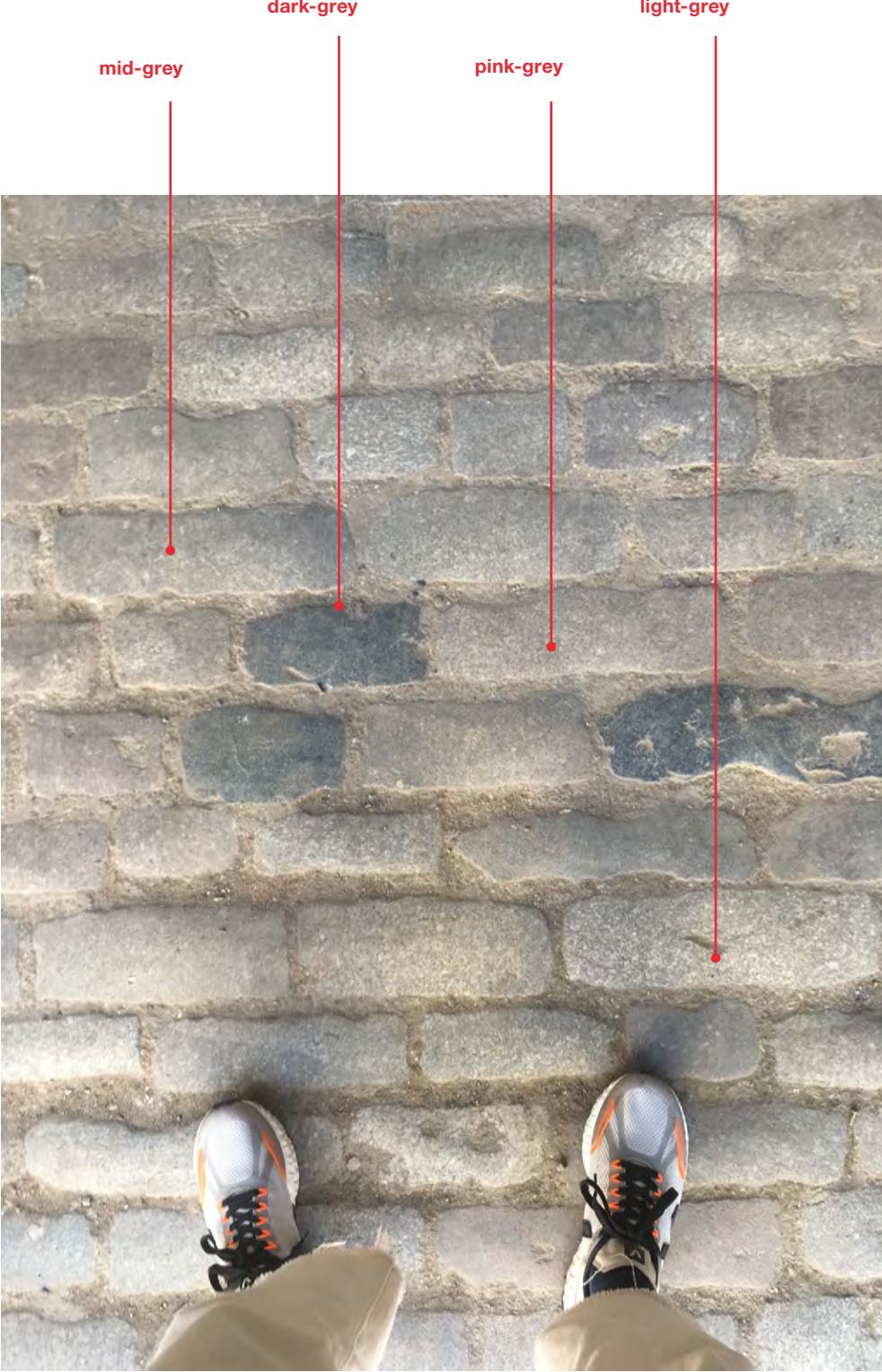


The exercise of bringing together these different textures in a conceptual plan also allowed us to understand the extent to which we can introduce variables in the materials (i.e. material choice, palette, finishes, size, layout) to create and balance textures.

Re-using existing materials and palette

Review of existing materials

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to be developed further in Stage 3.1
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There is a clear contrast between new and old - with the more contemporary industrial materials and textures (asphalt, hammered texture, concrete and aggregate) juxtaposing with the older granite setts and kerbs.

The ambition of the project is to retain this juxtaposition, rather than prioritising one era of materials or industry. This allows us to be quite playful with the palette, using the greyscale of the existing materials as a base. There are pops of bolder colours in the pint granite, or dark grey/black granite cobbles and asphalt.

3.3. Interesting Results & Data Examples

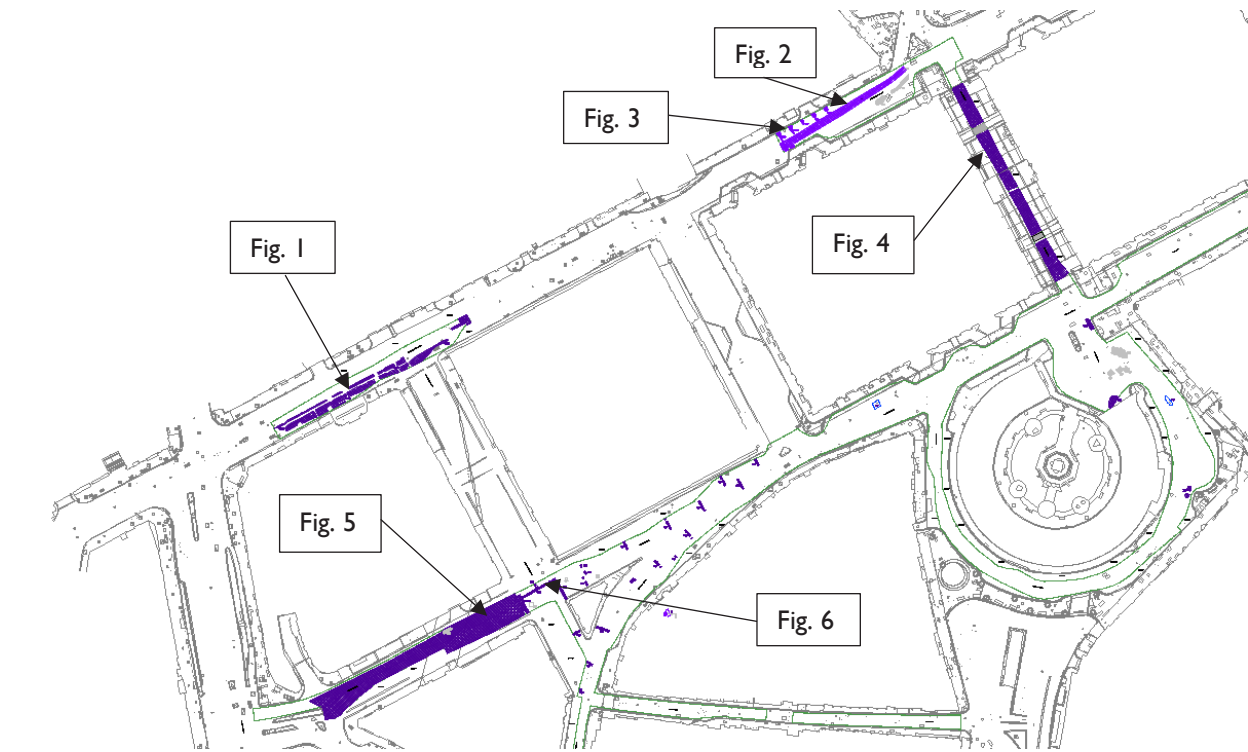


Figure 1:
Possible cobble sett layer detected between 0.07-0.14m deep.

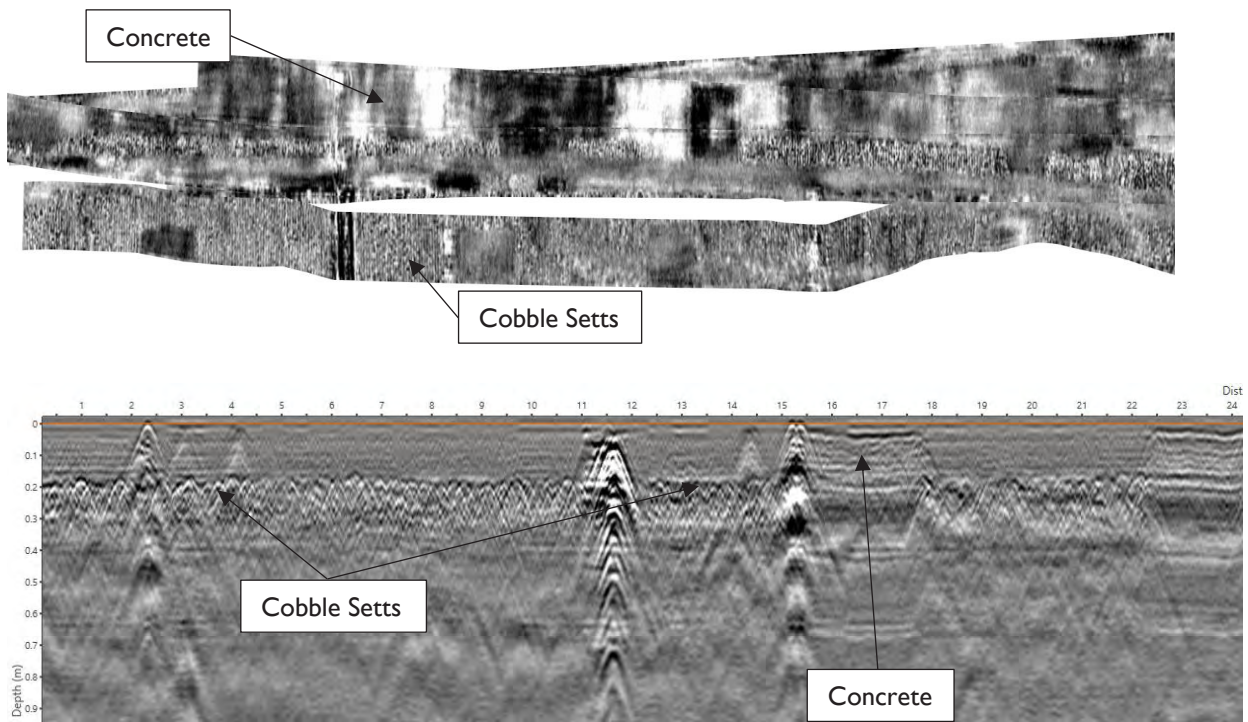


Figure 2:
Structure detected at 0.35m deep.

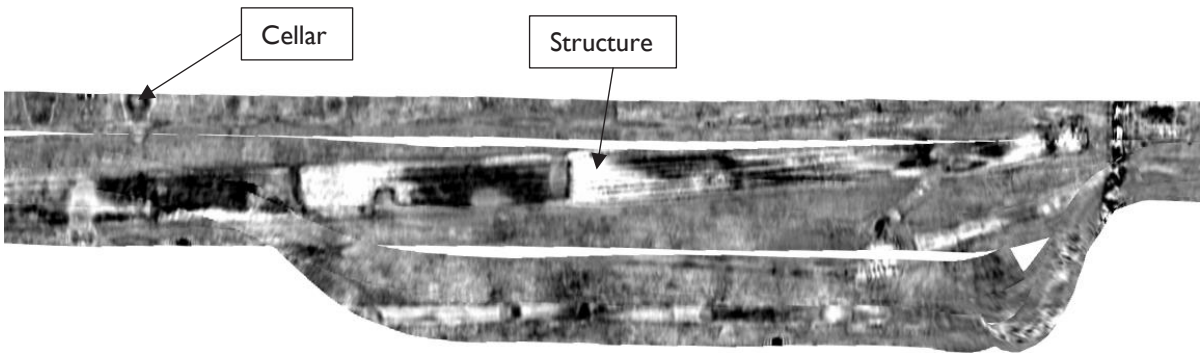


Figure 3:
Possible Cellars.

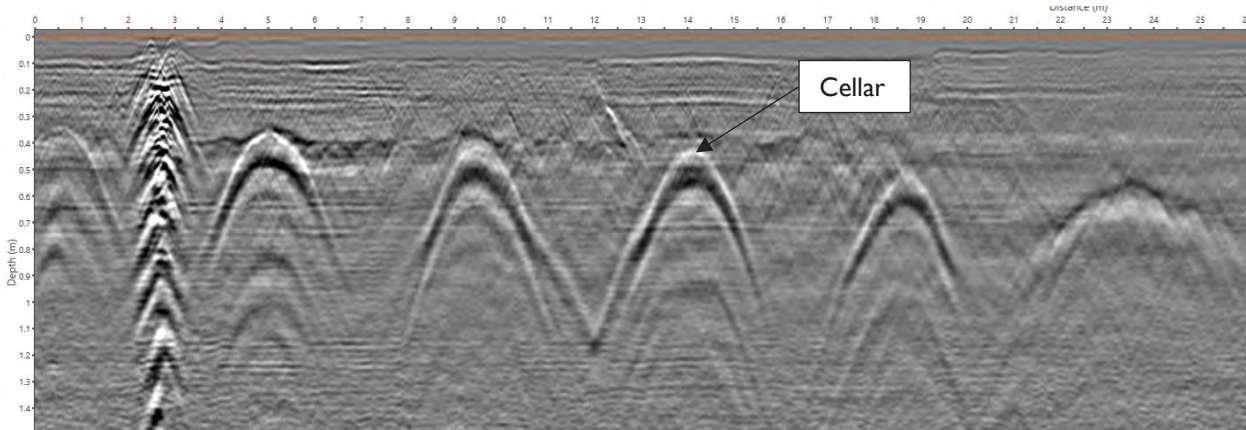
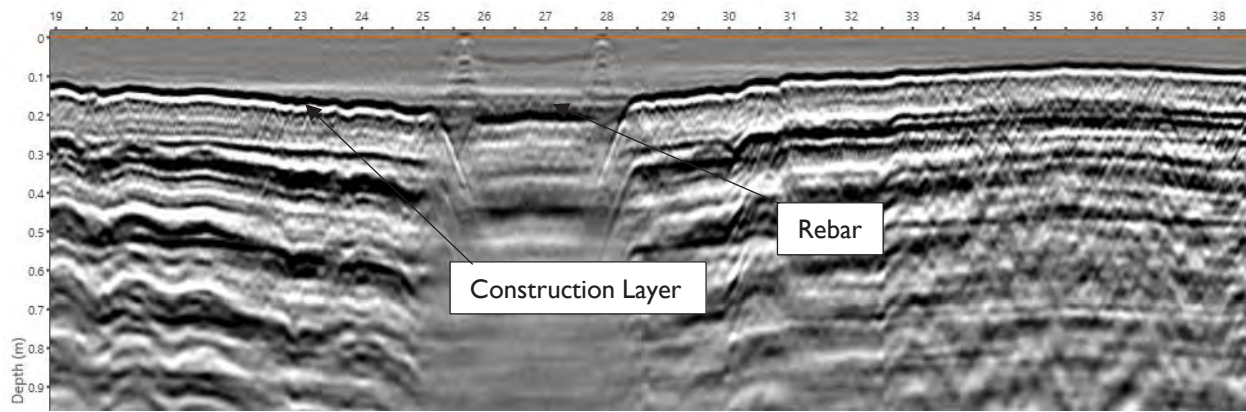


Figure 4:
Construction layer at 0.20m deep.

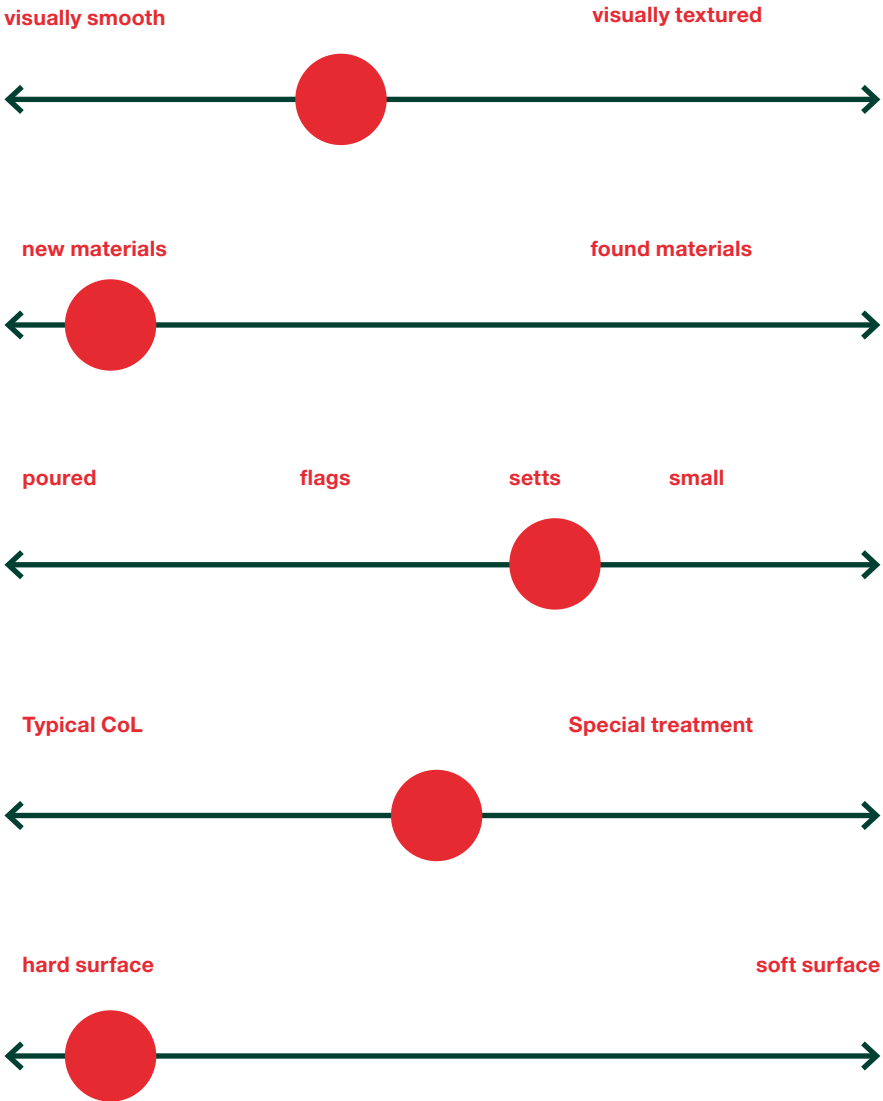
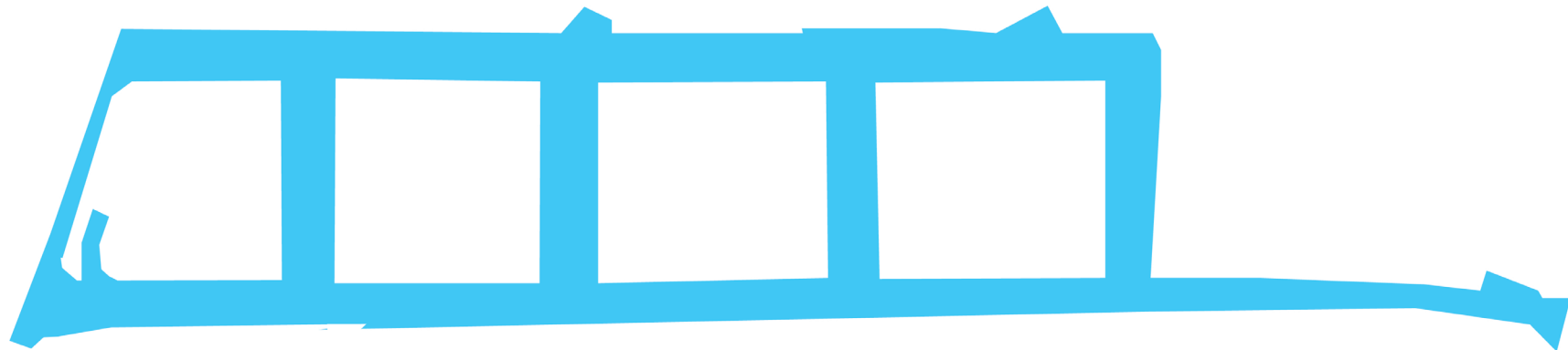


The radar survey (June 2020) illustrates the distribution of setts across the project area - these are largely covered up by asphalt and will need to be excavated for re-use. There is not a very high proportion of these, which suggests that their re-use be focussed around specific sites or feature areas.

Hierarchy of features

01_Base / Default
Greyscale setts

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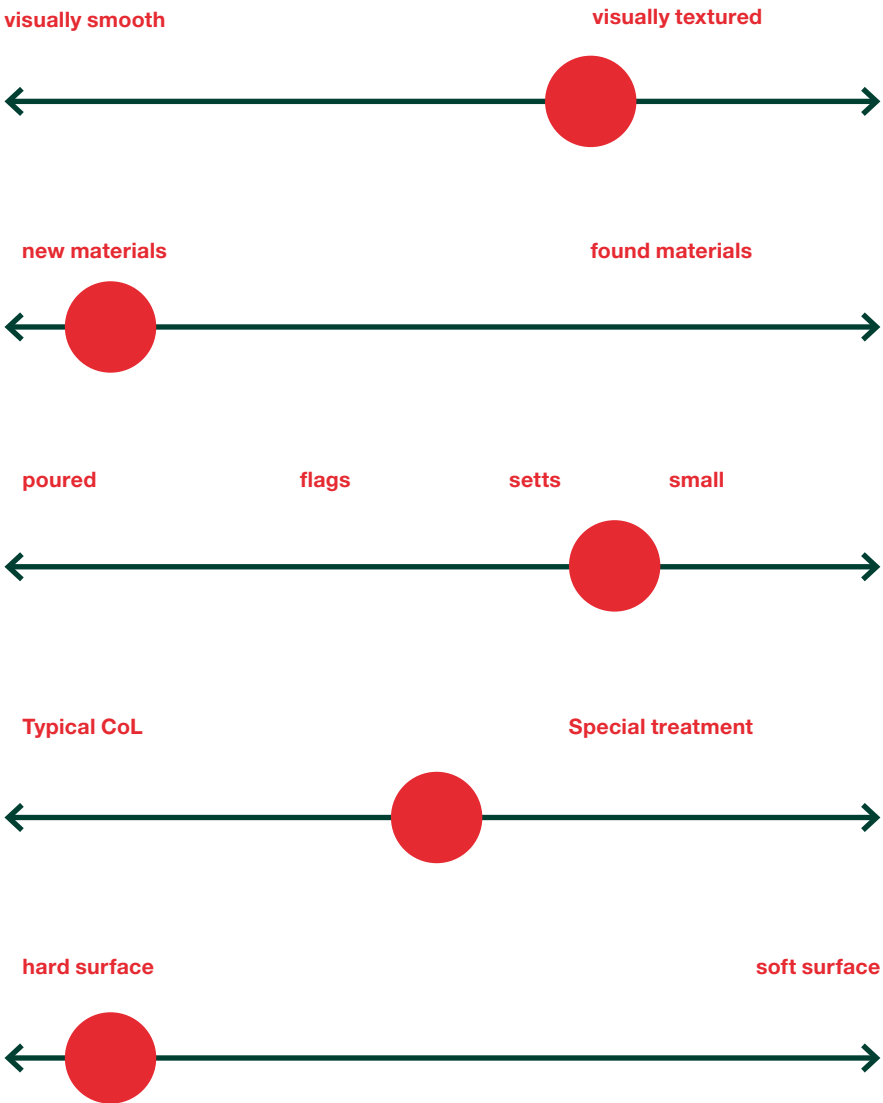
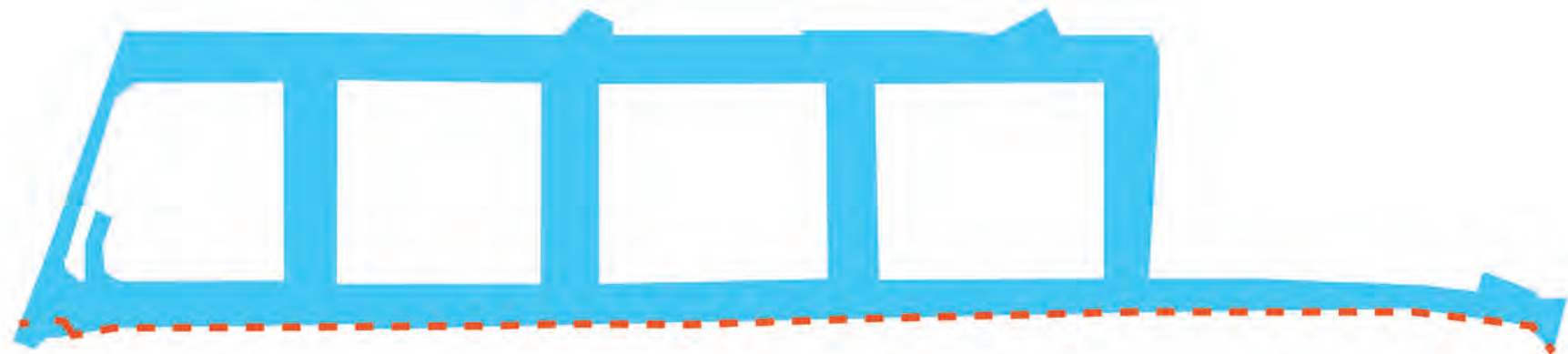
grey / pink / yellow tones
riven finish?
bush hammered?
grit-joined?

granite // greyscale sett mix

The base/default layer encompasses the Victorian grid - West Smithfield, Charterhouse Street and the interconnecting streets. This base layer can reflect the existing palette of greyscale and pink, creating texture through size and layout of materials.

02_Medieval Edge Water Channel

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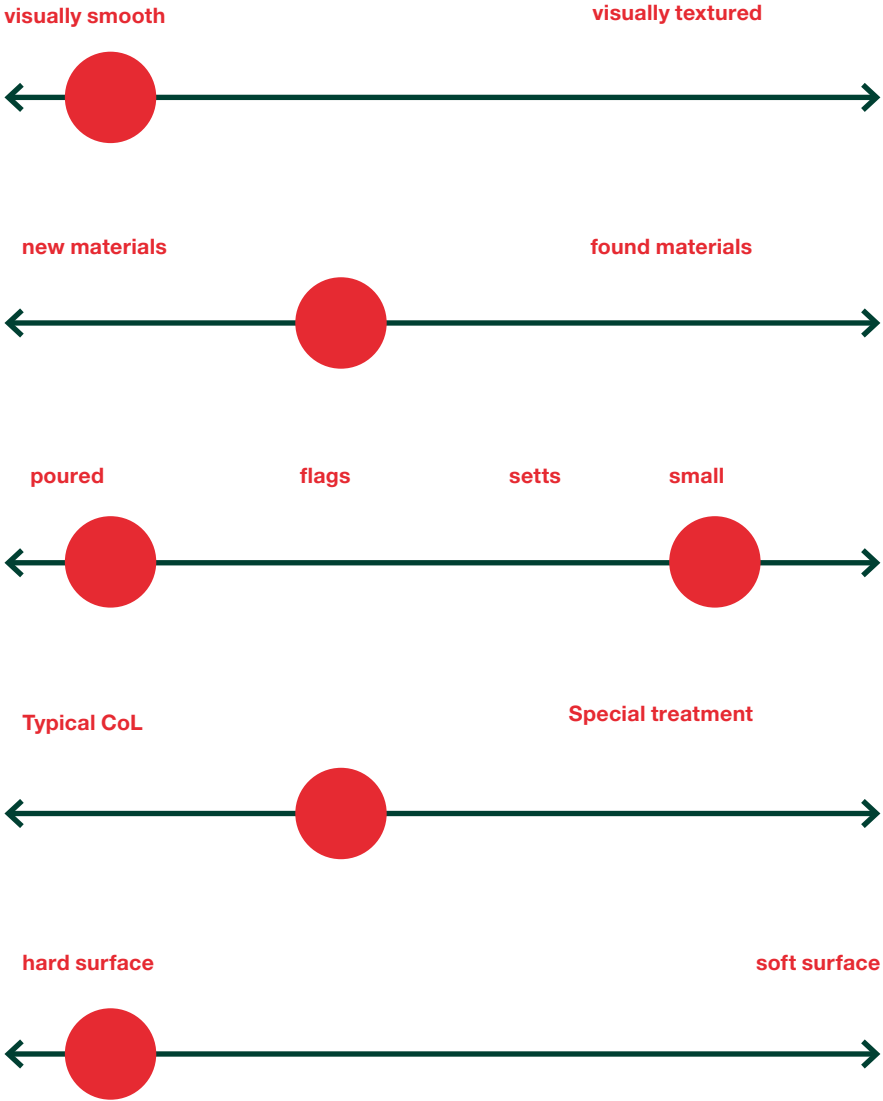
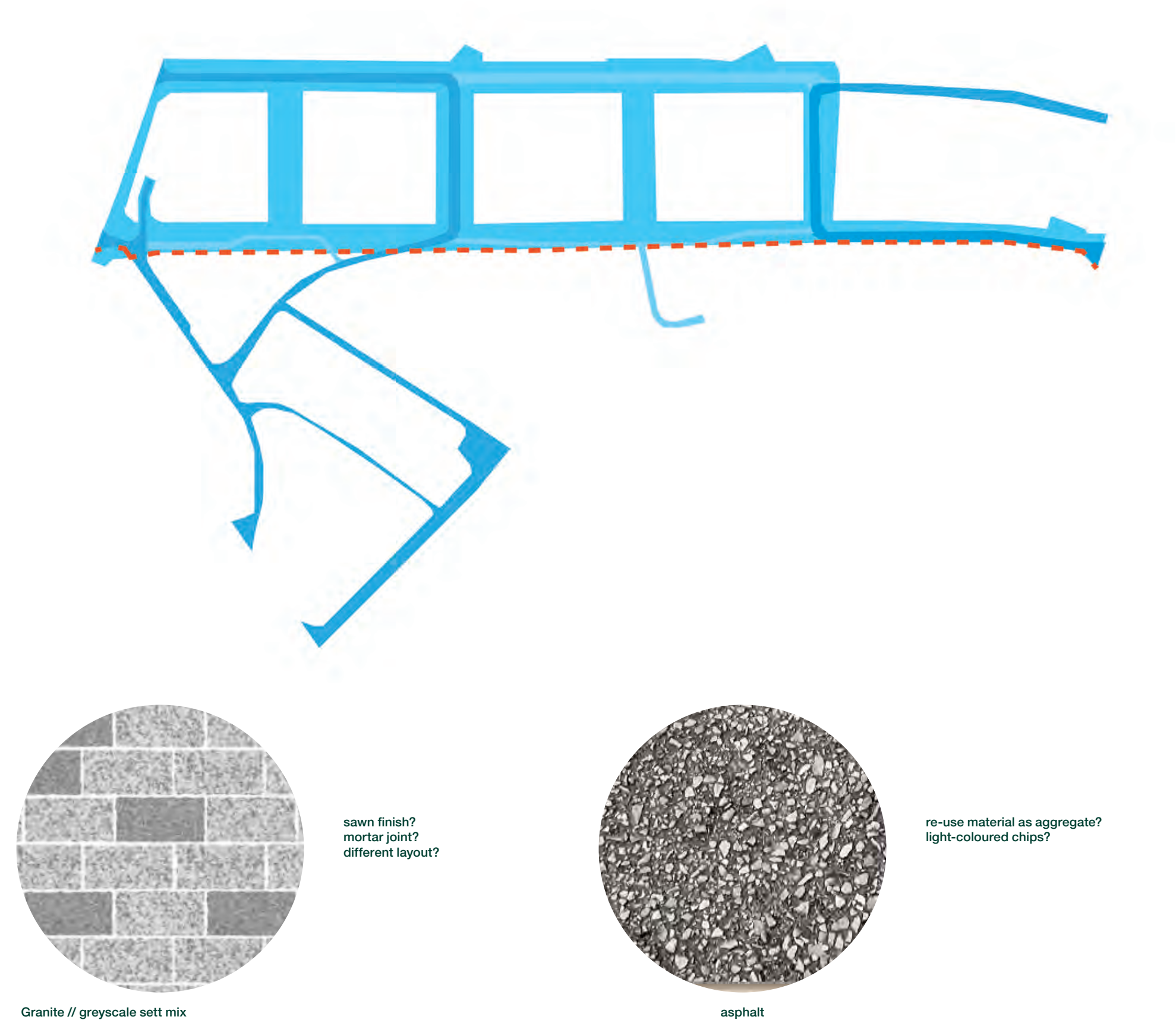


granite // greyscale sett mix

The key collision between the Victorian and Medieval layouts occurs along the south of West Smithfield. This can be highlighted through should a physical separation in the surface/materials. This is proposed to be demonstrated through a feature water channel / drain that highlights the gradual topography of the linear street

03_Carriageway and movement corridors

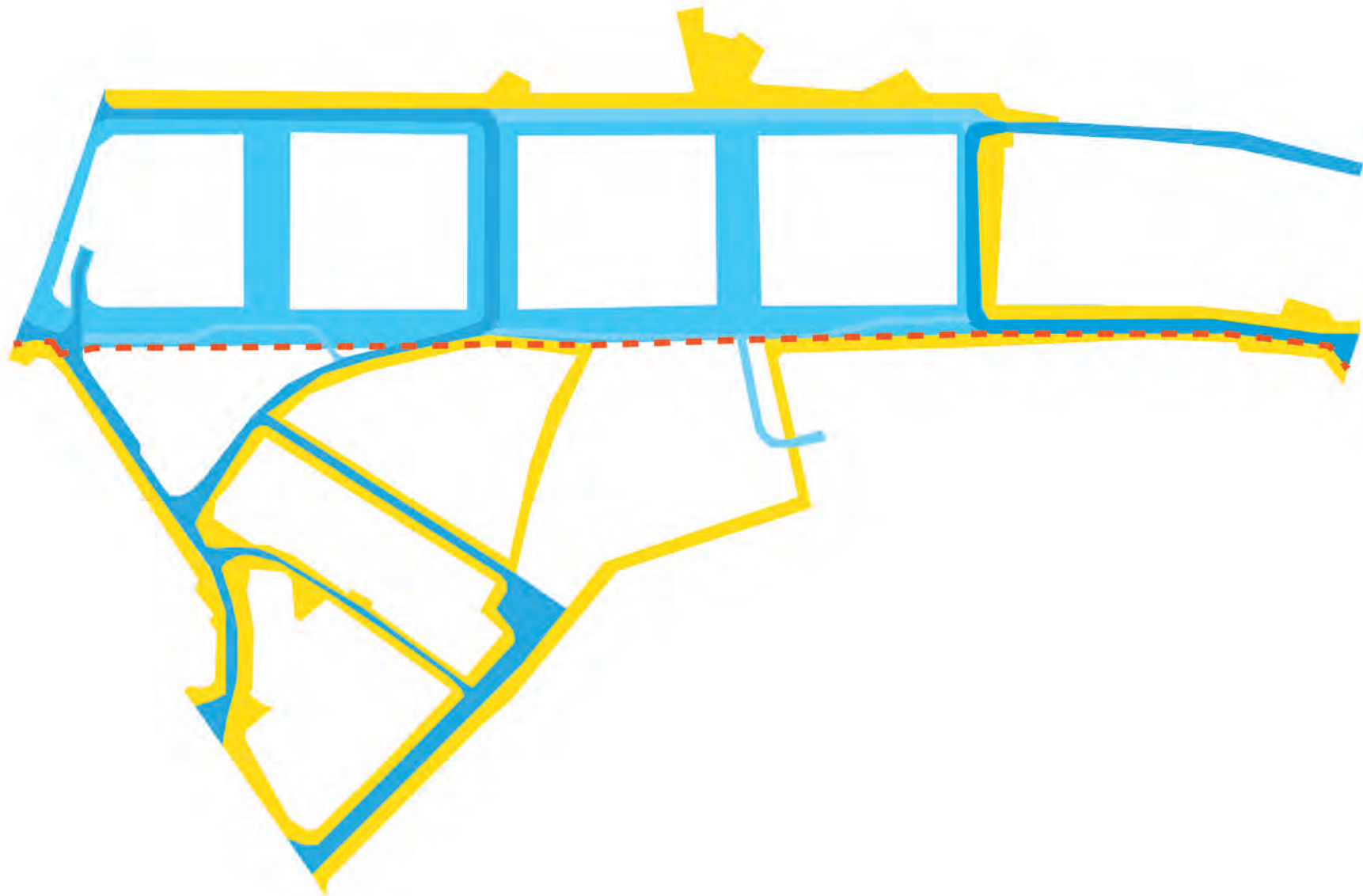
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The next layer sets out the key movement corridors, continuing the road network from Farringdon Rd, Aldersgate St, Cowcross St and Newgate St. There is a hierarchy of movement corridors proposed as part of the transport strategy, with two closed loops to west and east with designated carriageways, and a central shared space with pedestrian priority around the Market buildings and the Rotunda. The hierarchy of these roads can be highlighted through use of materials. While the shared space must demonstrate a continuity in the setts of the default/base layer, these can vary in size or layout to designate the area accessible to vehicles. The carriageways will need a more clear demarcation for safety and accessibility - these could be made up of smaller setts or asphalt with re-used aggregate from the site.

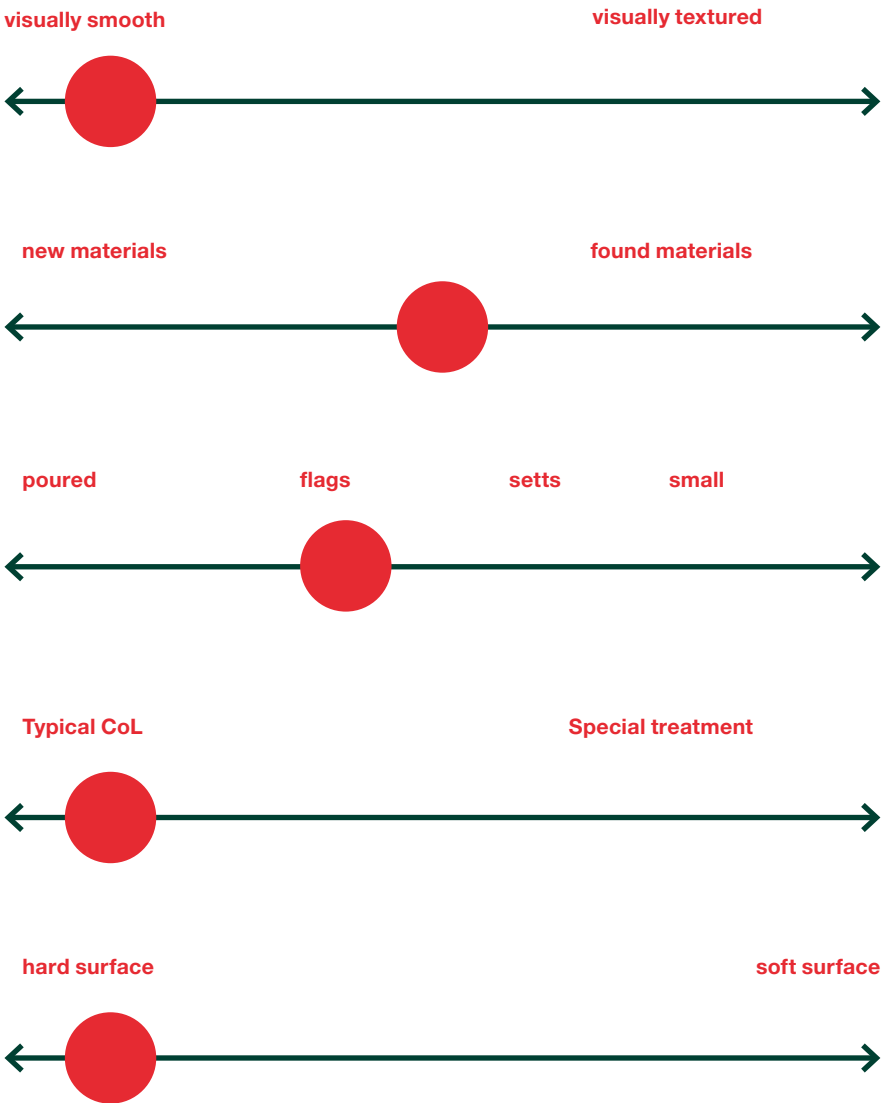
04_Tying into surroundings

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potential to reuse?
flags?

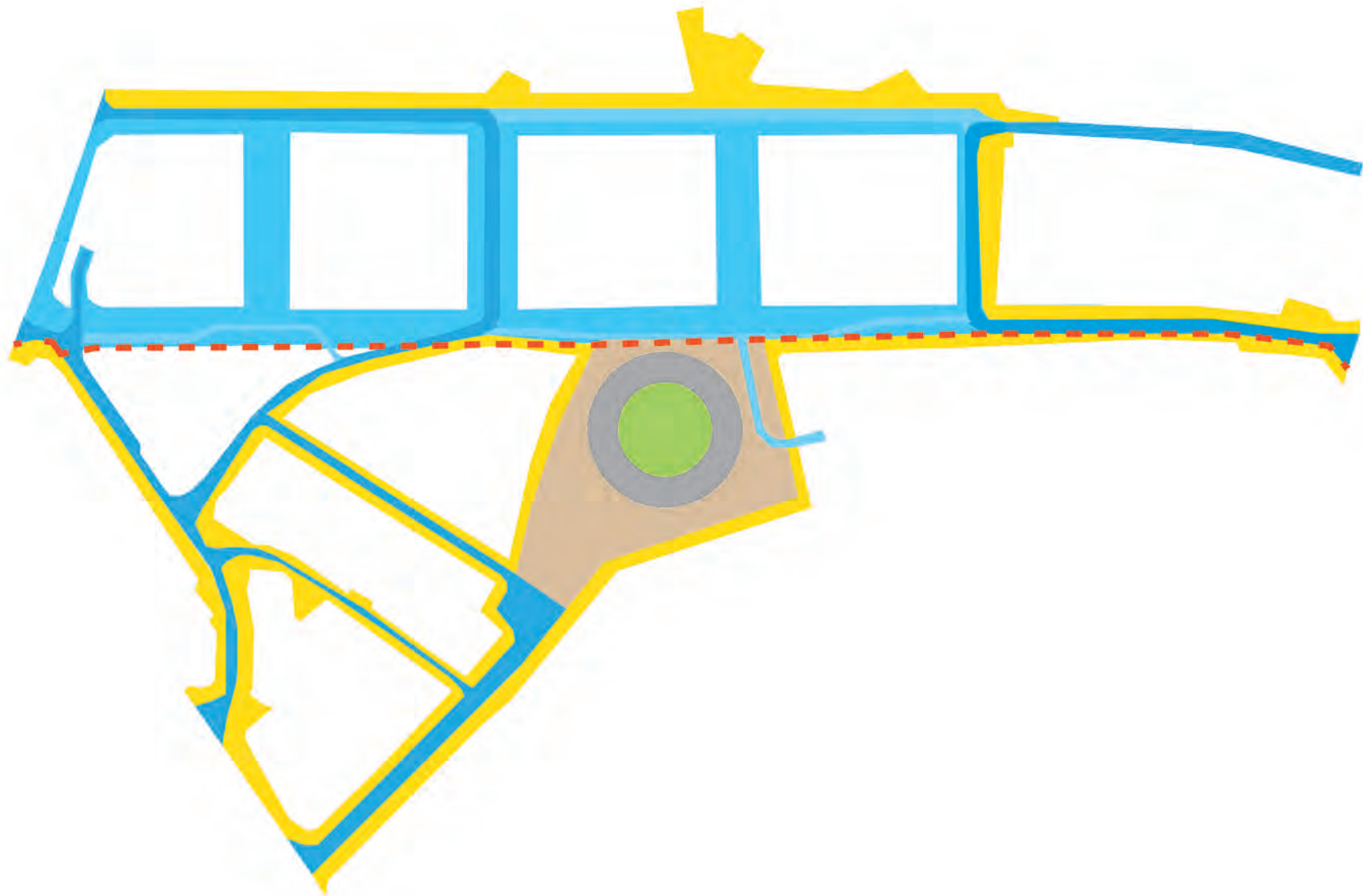
Yorkstone



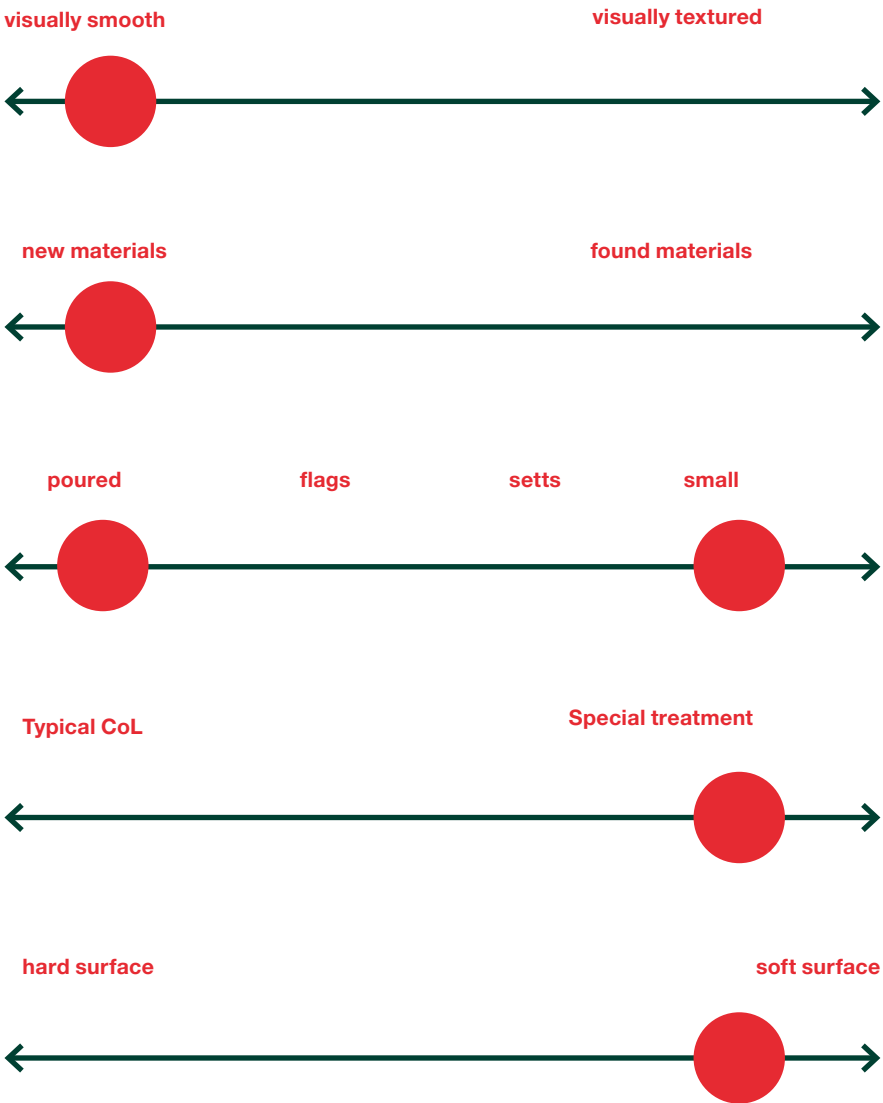
Footways around the Victorian core and throughout the district need to provide consistency and continuity across the district, as well as beyond the district into the surrounding area. The CoL palette suggests Yorkstone, which is consistent along the edges of the district. However, where possible this should be re-used Yorkstone flags with the potential of using alternative, sustainable materials that provide a visual continuity with Yorkstone.

07_Rotunda-in-the-Field

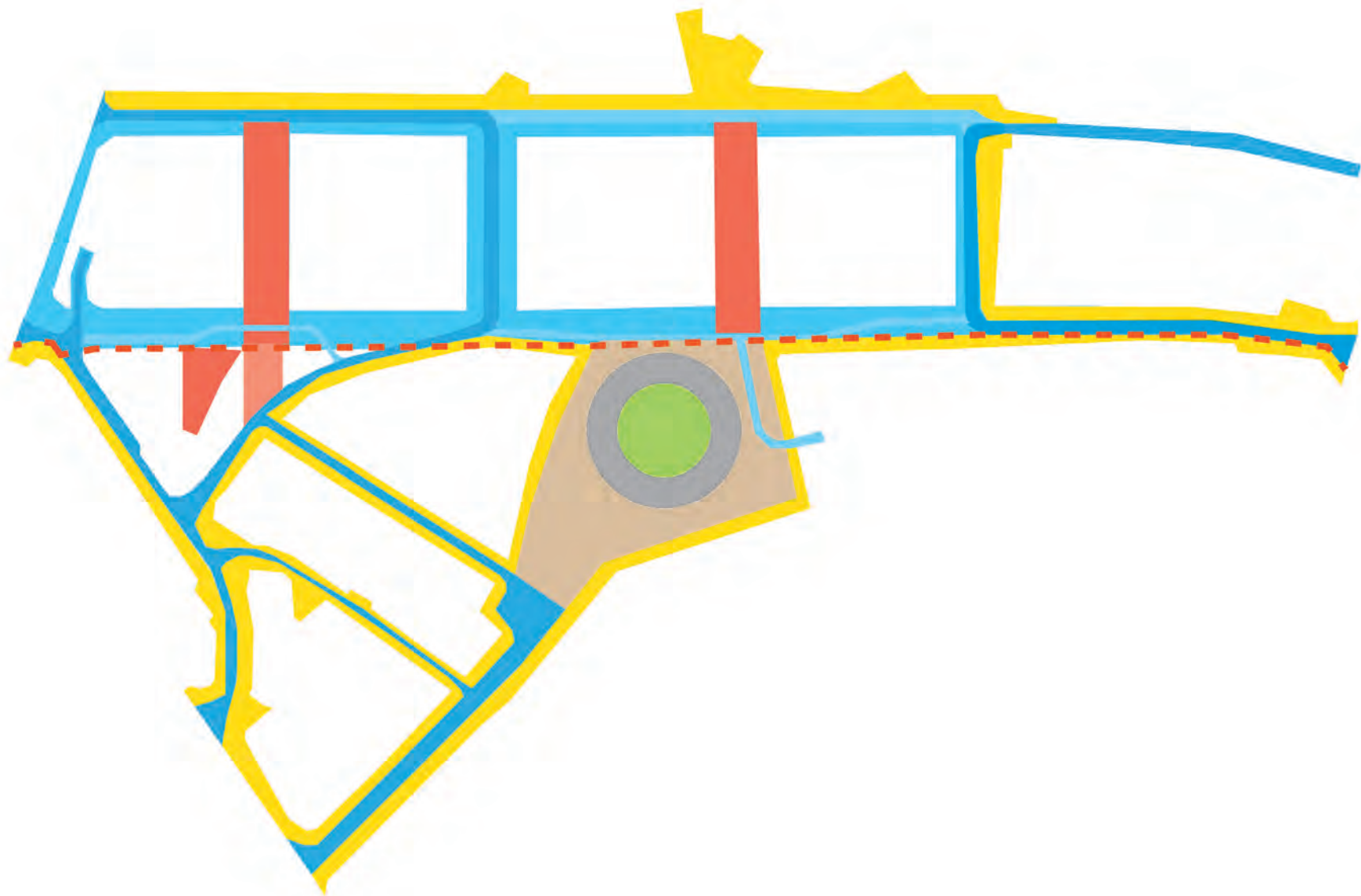
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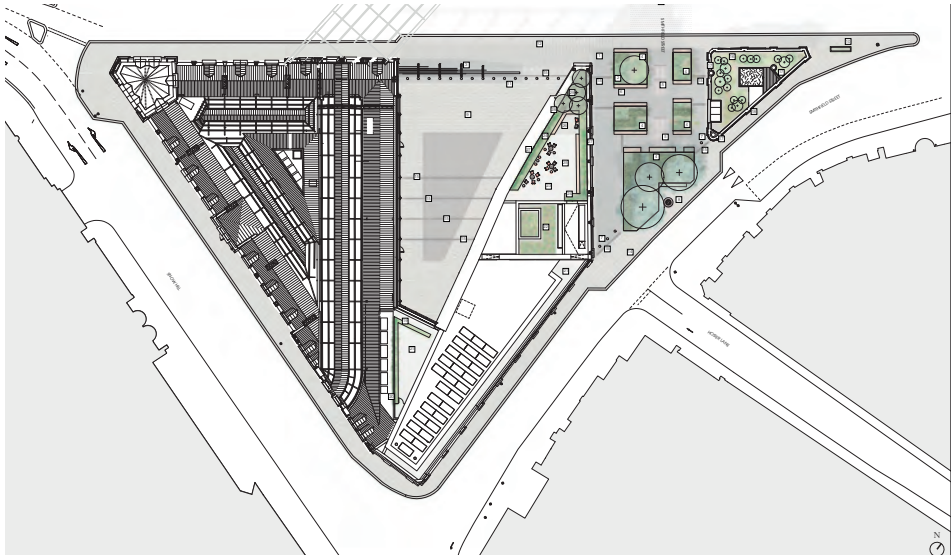
hoggins / self binding gravel



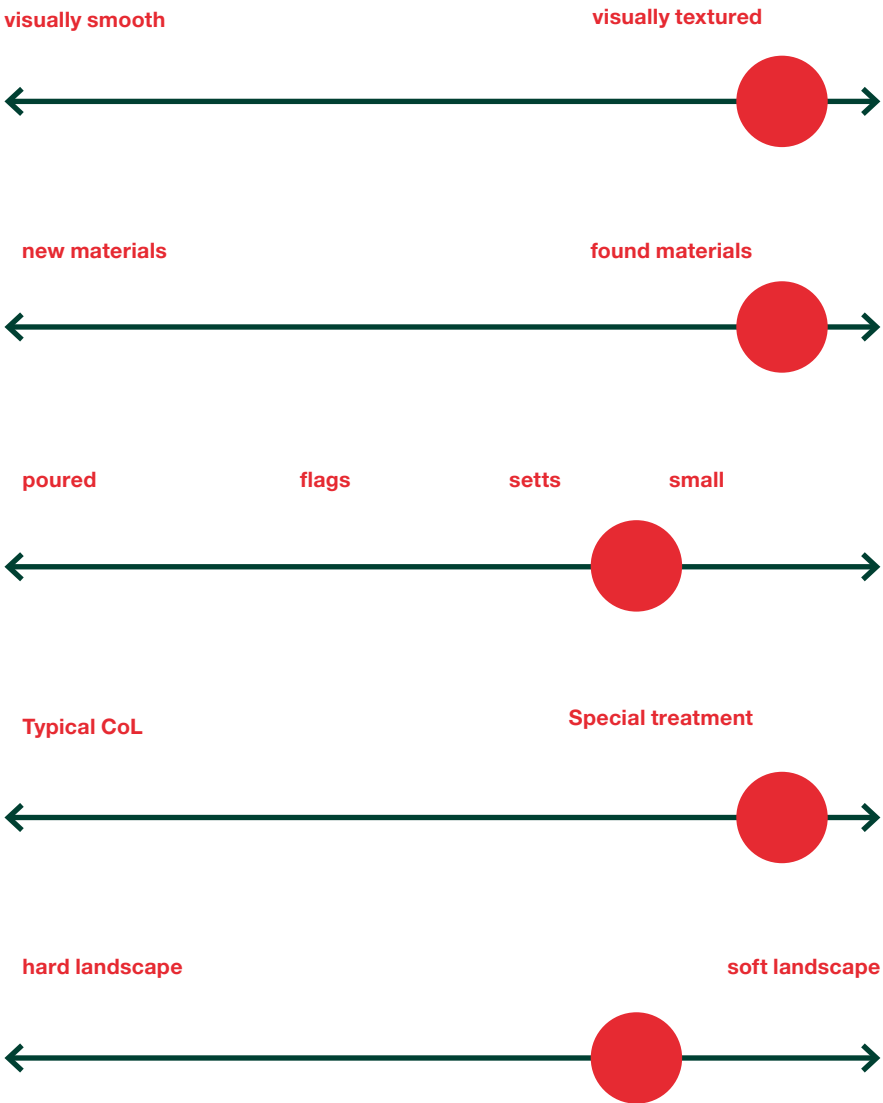
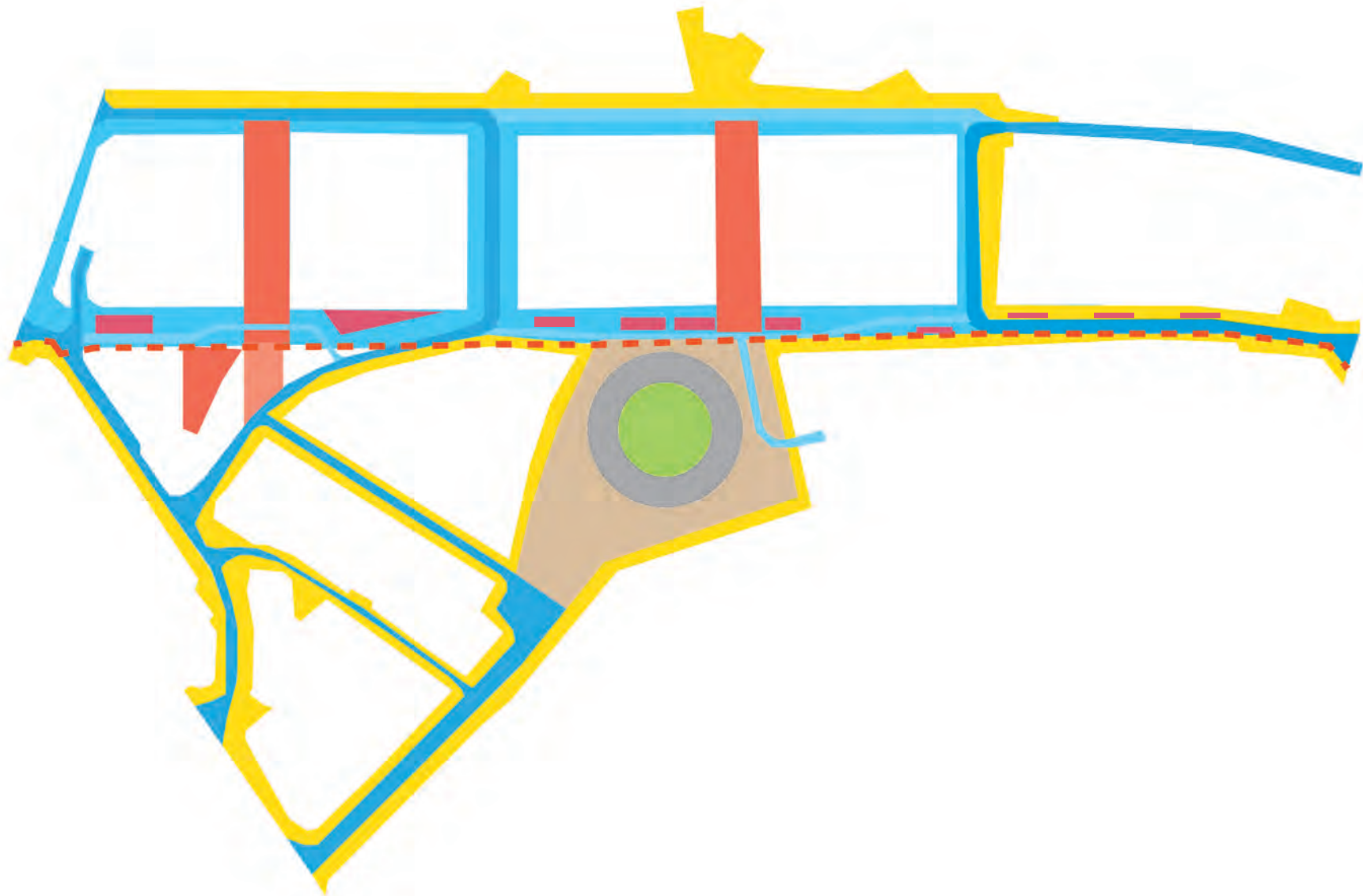
The Rotunda consist of concentric layers of materials. The core of the Rotunda - the Gardens- are a predominantly soft, grassed landscape that should be retained and enhanced. The ramp around the Gardens consist of protected Granite cobbles, that will be maintained and enhanced. The outermost later of the Rotunda-in-the-Field is currently hard, asphalt landscape prioritising vehicles. It will transform into a softer and more malleable landscape, consisting of gravel and planting.



Beyond scope of Smithfield Public realm - align with MoL and Market proposals



The key forecourts to the Museum and Market buildings sit as an overlay on the composition so far. These spaces are largely out of the scope of the public realm scheme, however they need to be integrated as part of the public realm network and reflect the character and principles of the public realm strategy. Where possible these should implement a similar palette as the base layer - however, there is potential to play with finishes and layout.



The Urban Rooms create distinct space of gathering, activity and performance along the stretch of W Smithfield (the Culture Spine). These spaces offer the biggest opportunity for the playful repurpose of found materials, reusing them in innovative ways and integrated with soft landscape features.



found materials / granite



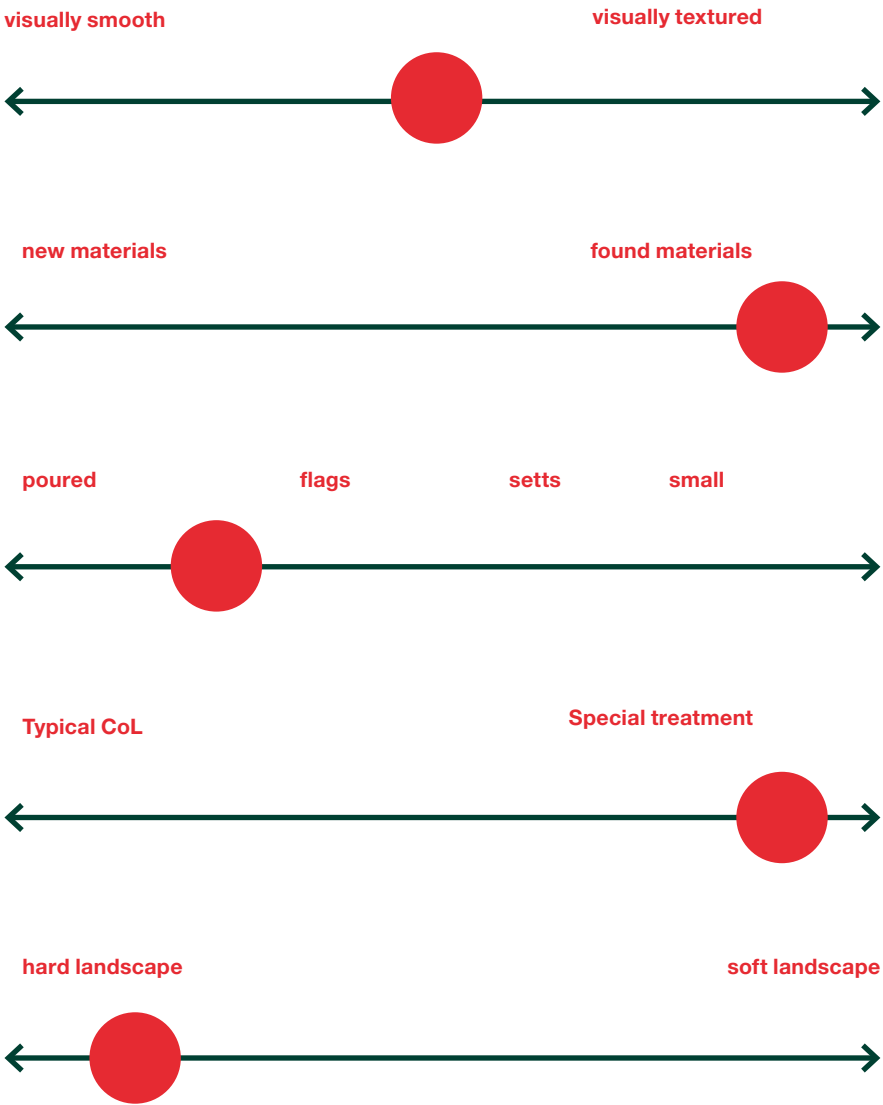
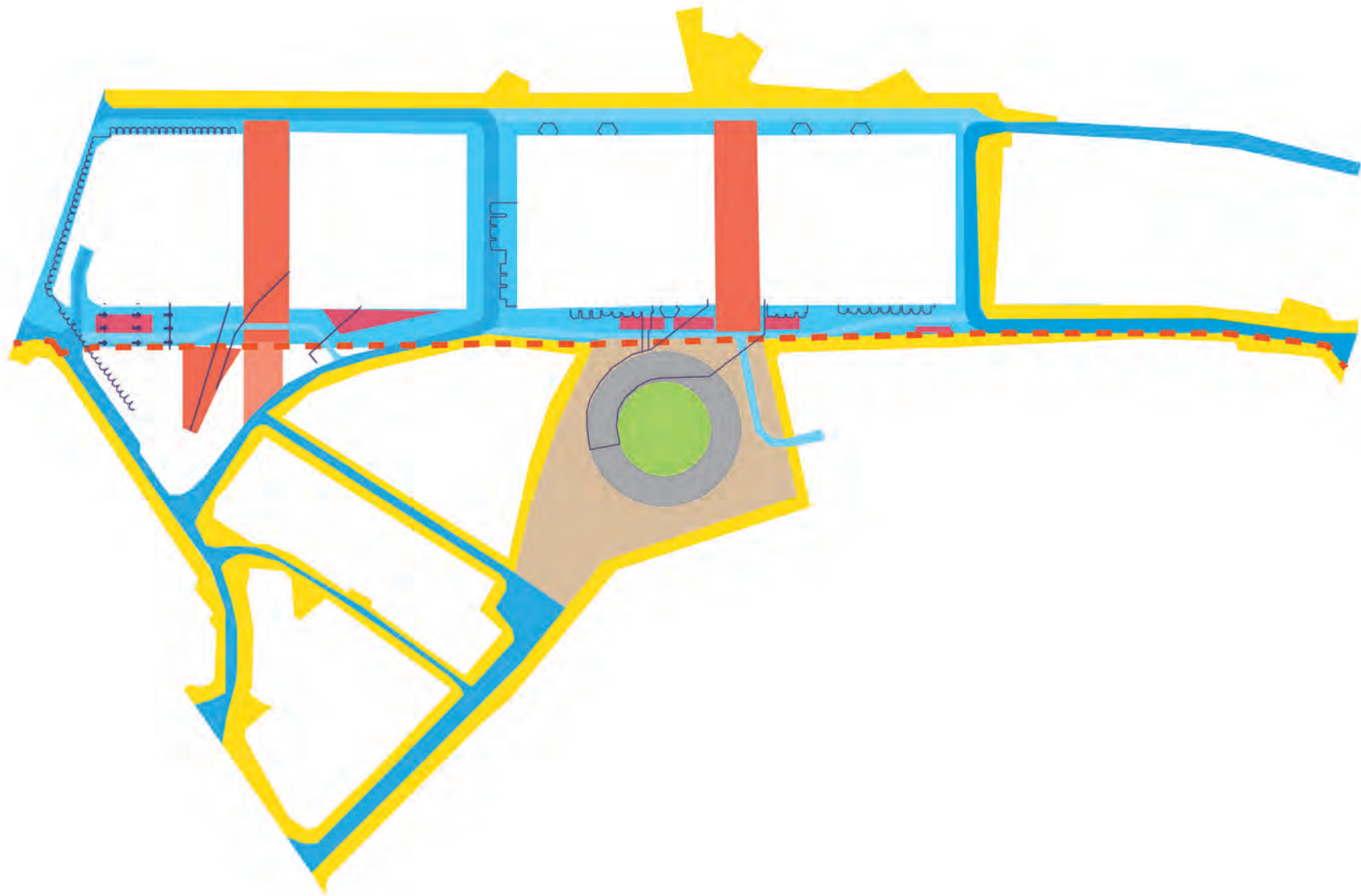
found materials / grass pavers



found materials / grass pavers

06_Substructure

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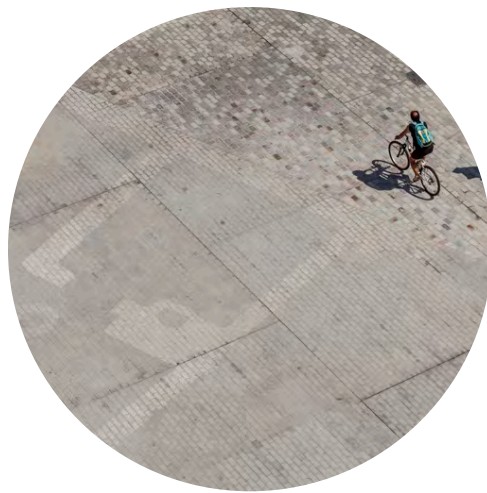
As a final overlay, there is opportunity to bring an added layer to highlight the complex underground substructure. The approach for this will need to respond to the visual texture that the previous layers have created. If sufficient texture is already created across W Smithfield, we can implement a more subtly approach using alternative finishes on the same setts/materials as the base layer. Alternatively, we can use metal, stone or concrete inlays to create an overlay with greater definition - however, this requires further testing to ensure that it does not overwhelm the overarching character of Smithfield



stone inlay

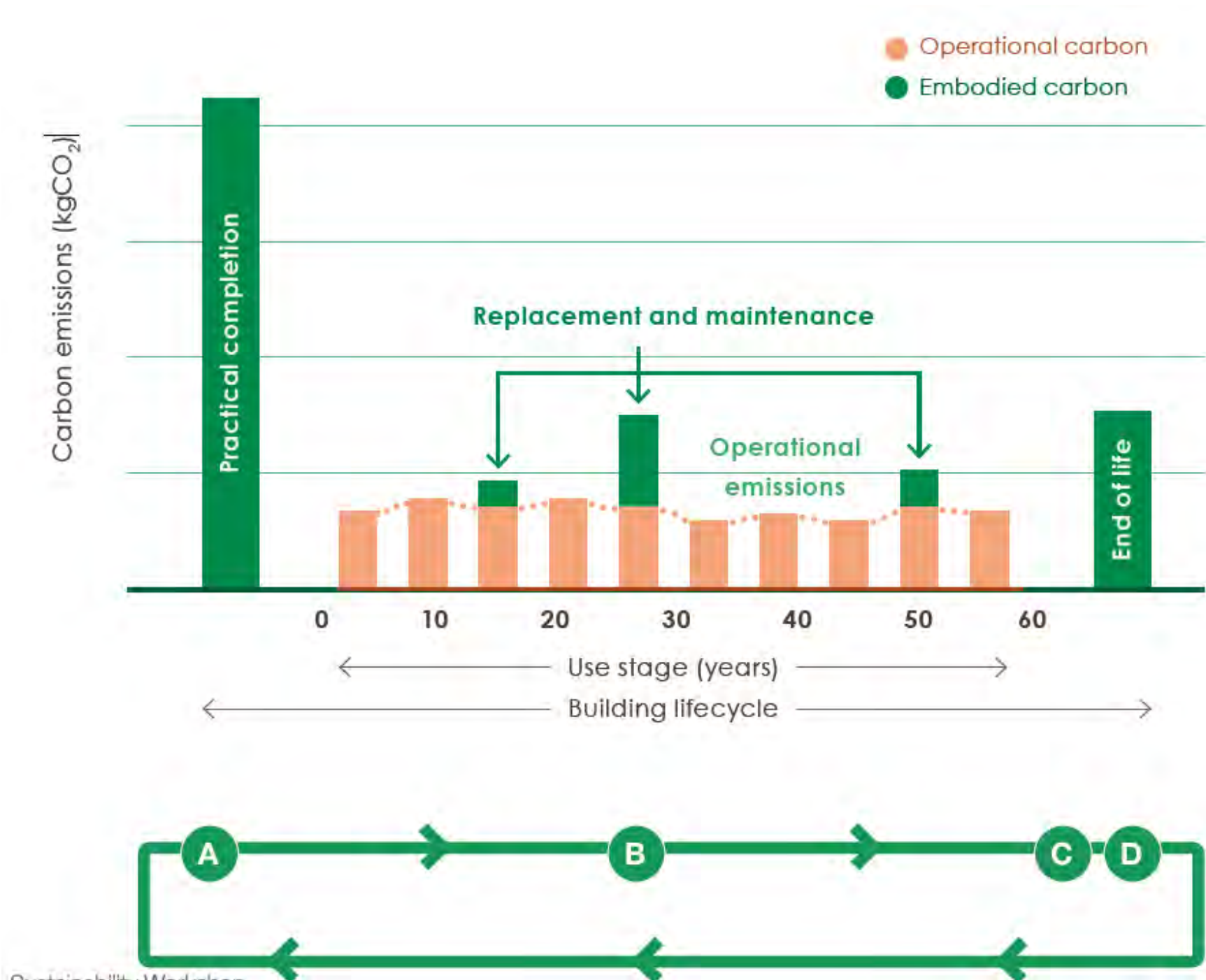


concrete / aggregate



different finishes to the same material

Sourcing and sustainability



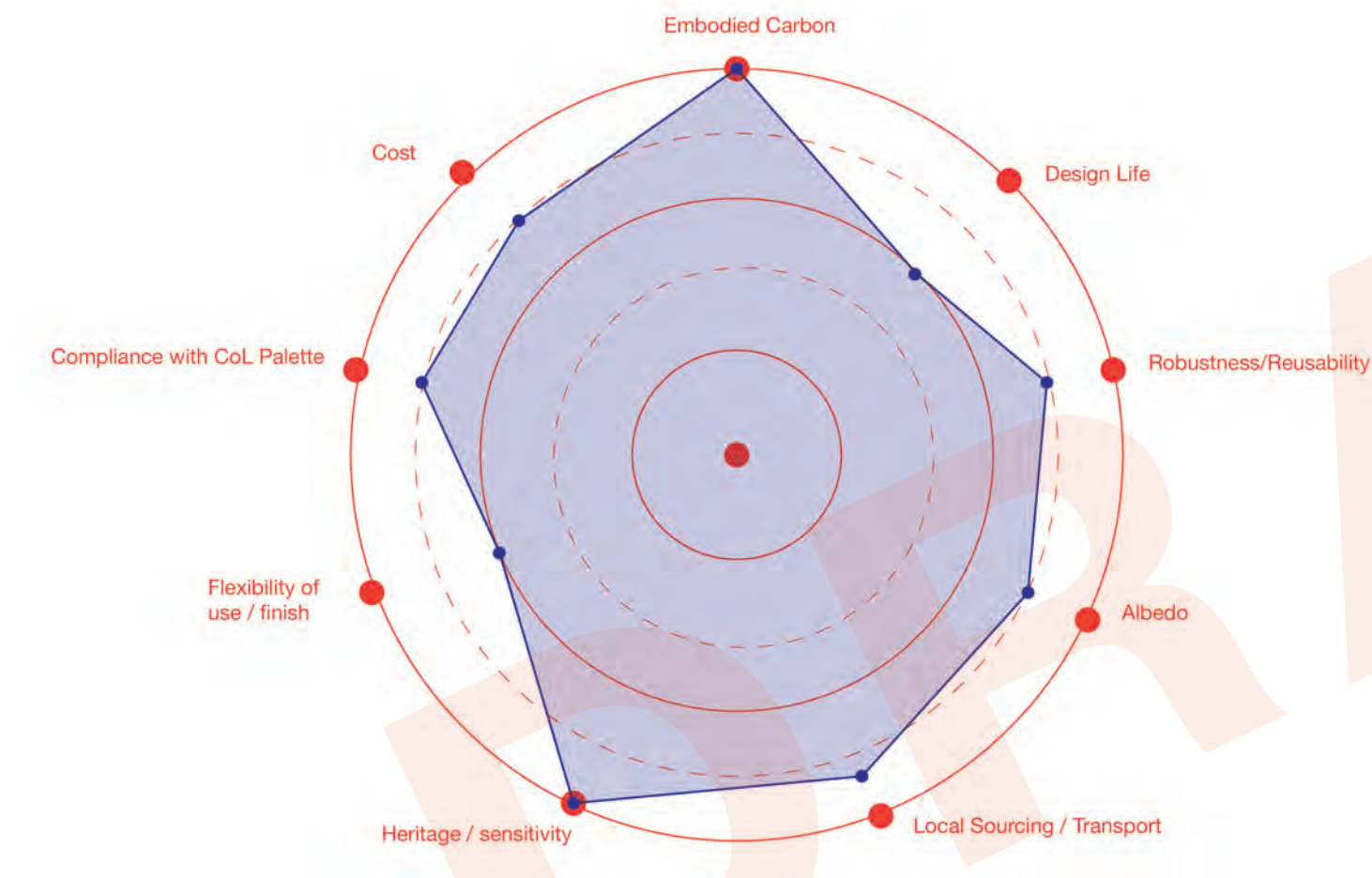
A key driver for the selection, use and sourcing of materials for Smithfield will be a careful consideration of the whole-life carbon emissions of any selected material in the public realm. This will prioritise materials that have the lowest full-life carbon emissions, with consideration for sourcing location, durability, energy for excavation, potential for re-use etc.

These considerations are balanced against key design principles to help select potential materials in the following pages. This aims to provide a more holistic view of materials and their contribution/impact in the public realm. The following pages present early thinking on areas for further research on public realm materials and sustainability in partnership between City of London and Hawkins\Brown.

Balancing priorities

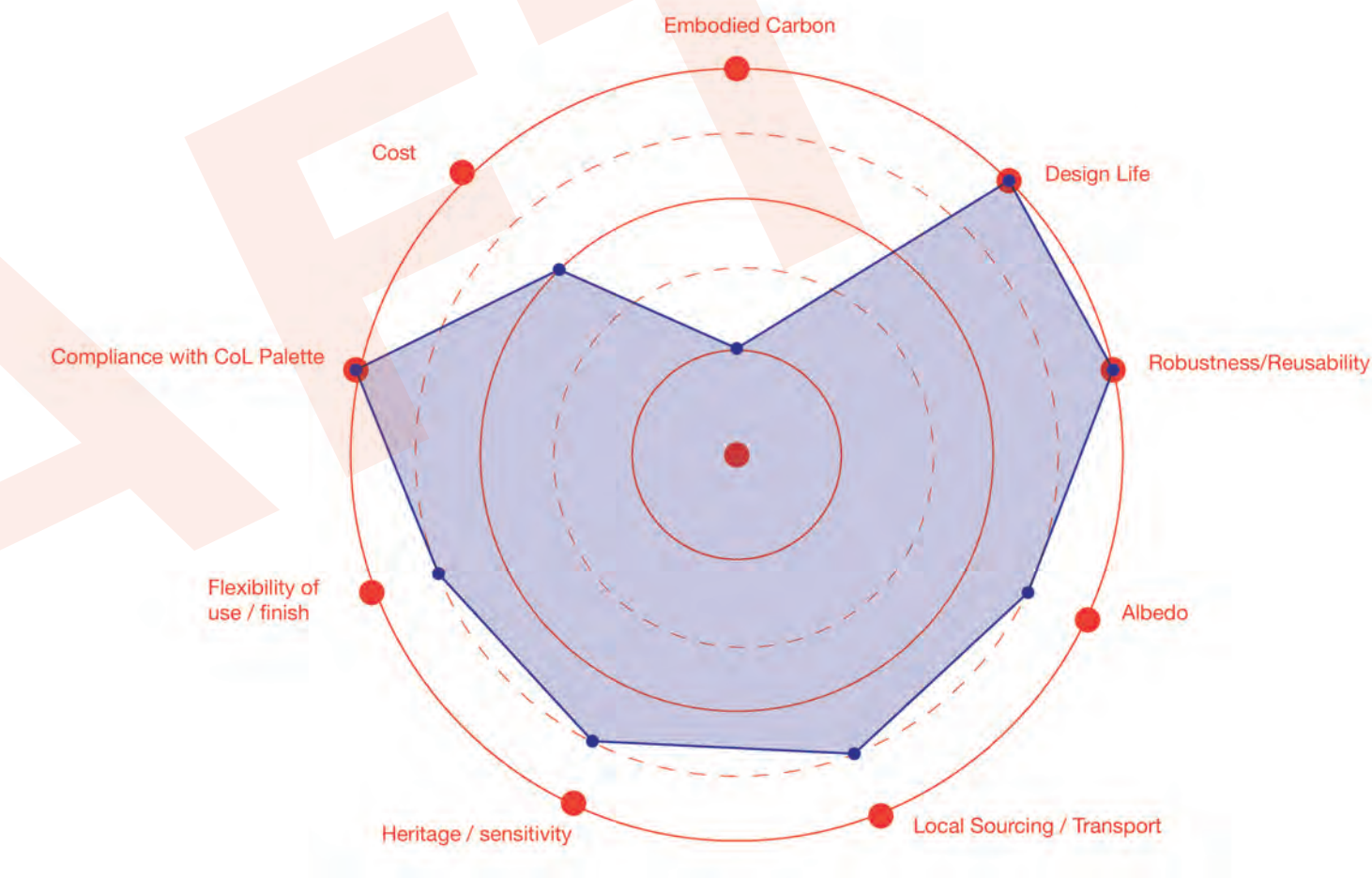
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Granite setts (re-used)



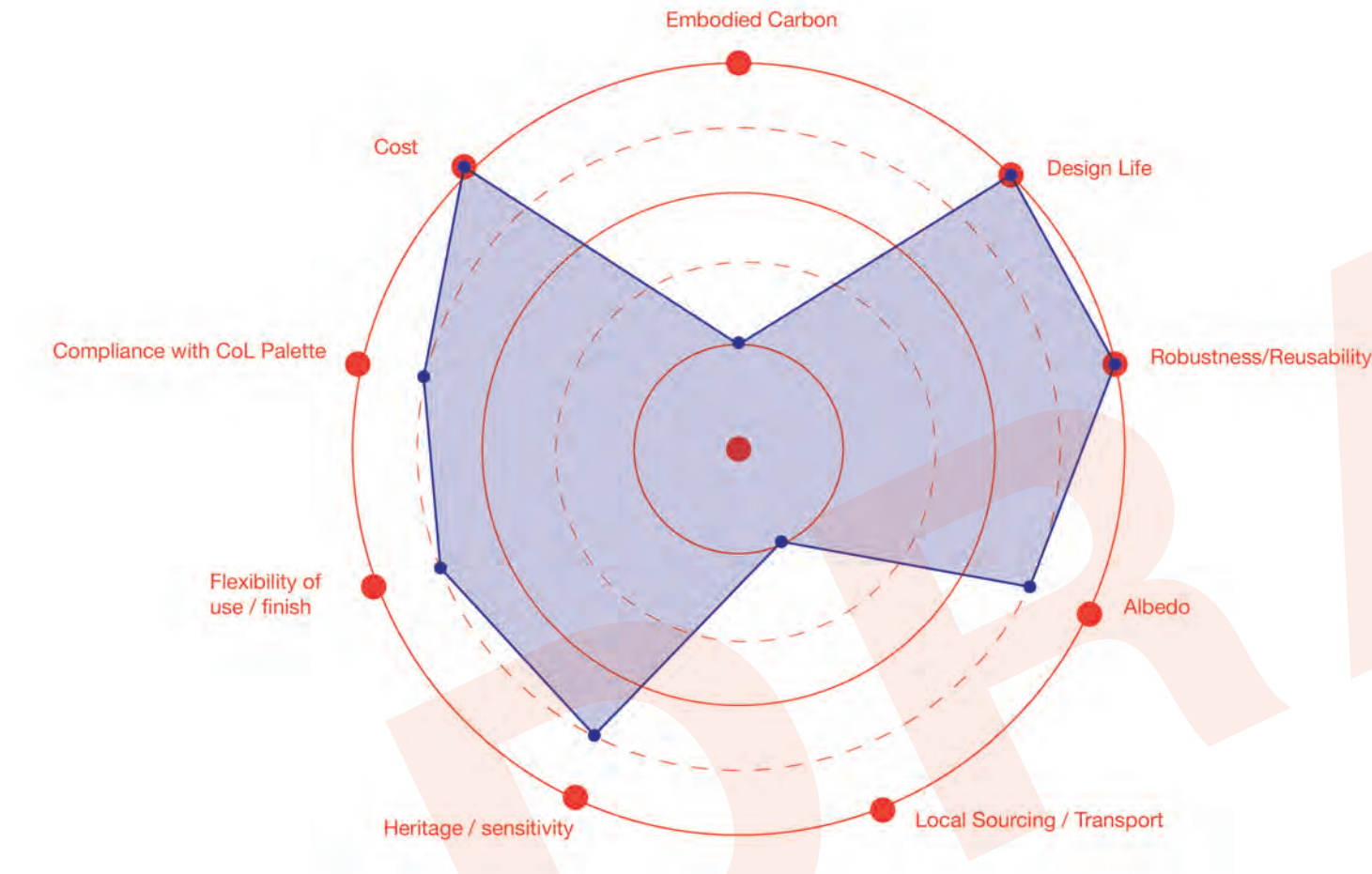
Embodied carbon: tbc
Design Life: 80+ years (reduced from second use?)
Albedo: (for grey/pink/dark grey sett mix): tbc
Local sourcing: On-site storage leading up to works needs to be considered
Heritage sensitivity: Pink + greyscale of found materials
Flexibility of use / finish: n/a
CoL Palette: n/a
Cost: Storage and treatments cost, local transport and treatment

Granite setts (UK/EU Sourced)



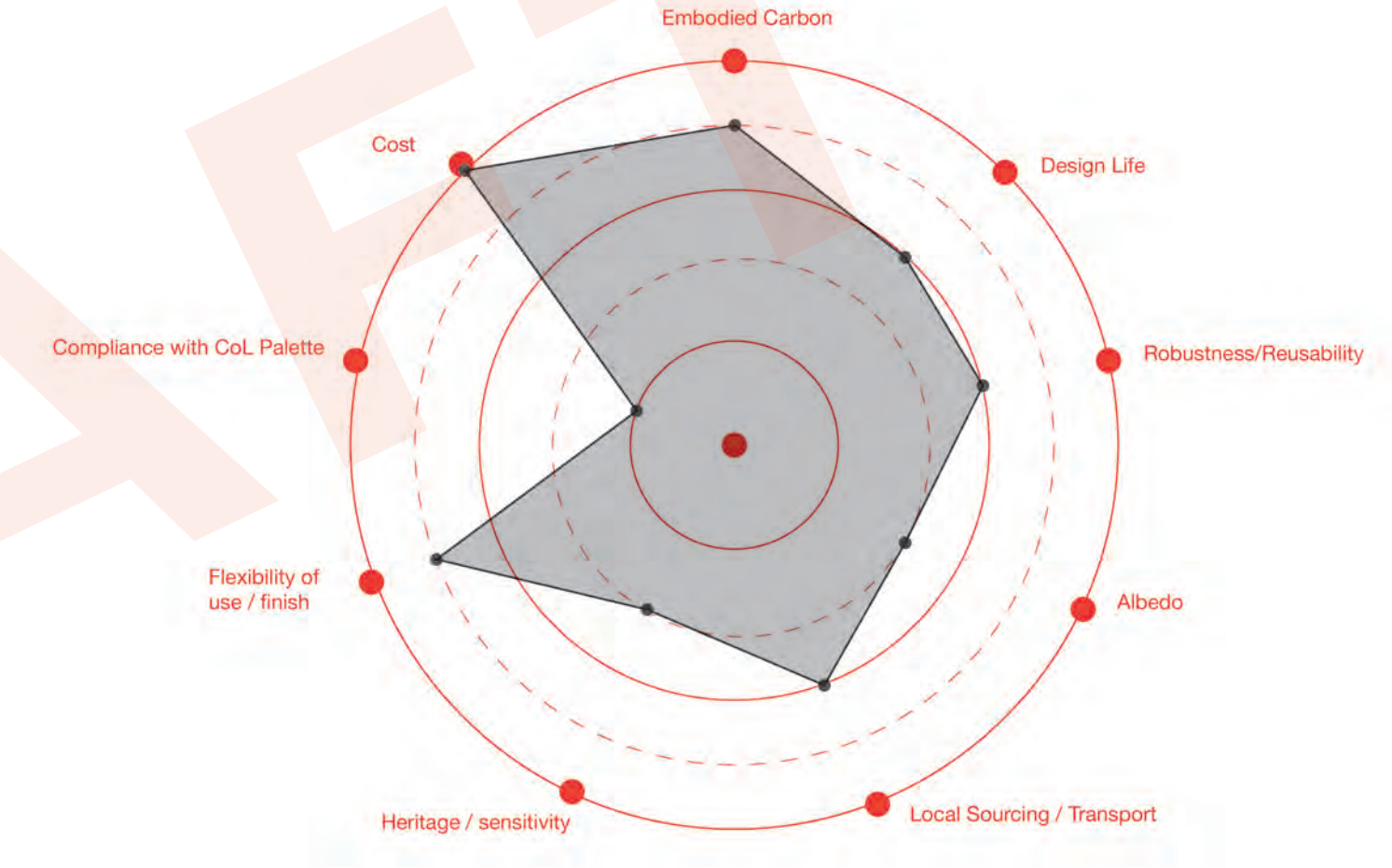
Embodied carbon: 49 kgCO₂e/m² [A-C]
Design Life: 80+ years
Albedo (for grey/pink/dark grey sett mix): tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Pink + greyscale aligned with found materials
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Potential to align with CoL palette and guidance
Cost: High capital costs (ethical + local)

Granite setts (Asia sourced)



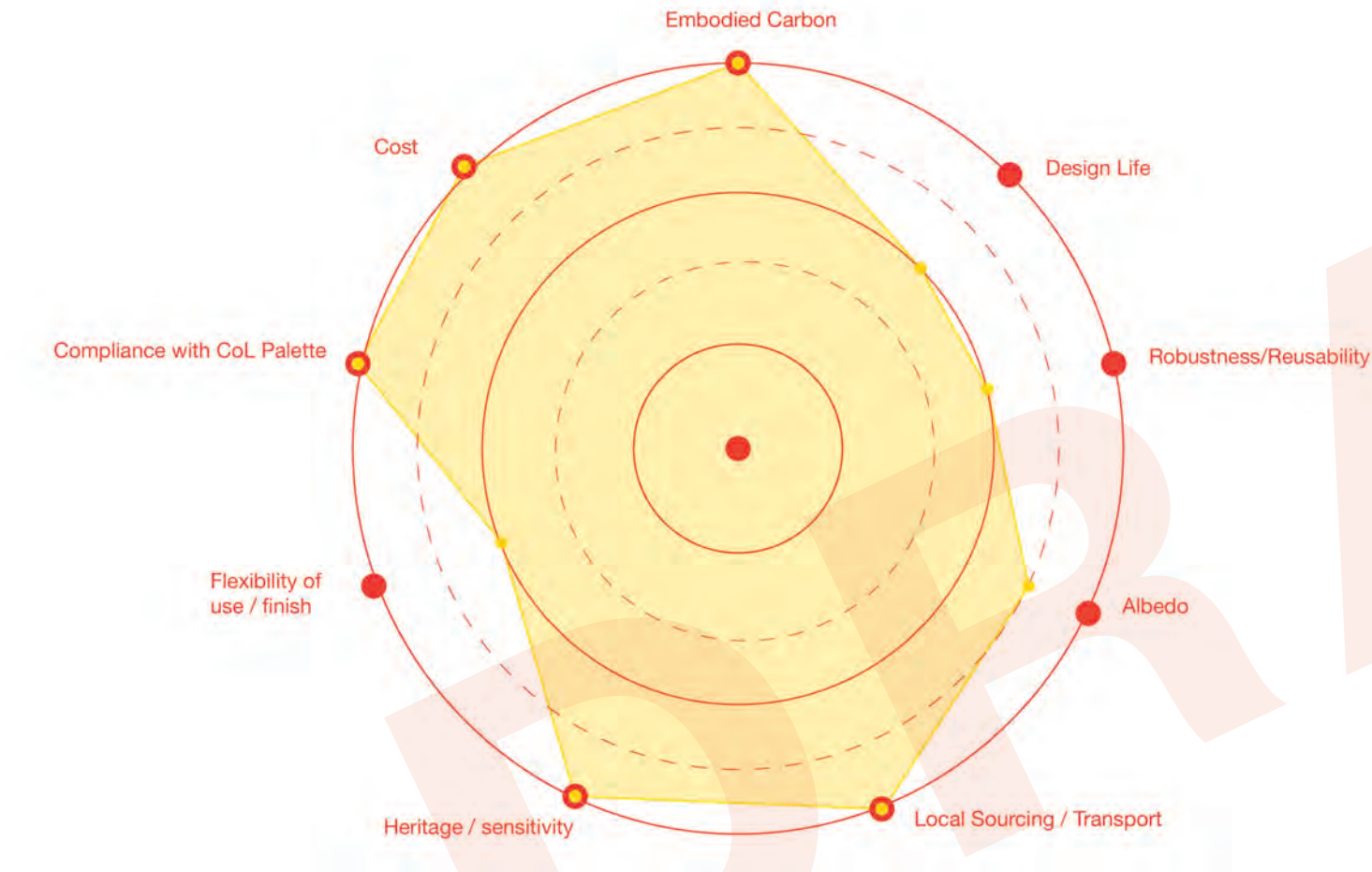
Embodied carbon: 49 kgCO₂e/m² [A-C]
Design Life: 80+ years
Albedo (for grey/pink/dark grey sett mix): tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Pink + greyscale aligned with found materials
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Potential to align with CoL palette and guidance
Cost: Cheaper than EU/UK sourced, but difficulty monitoring ethics and fair practices (raw material costs and shipping costs have soared over the last year or so and the comparative advantage of Asia sourced materials is very uncertain)

Pre-cast concrete



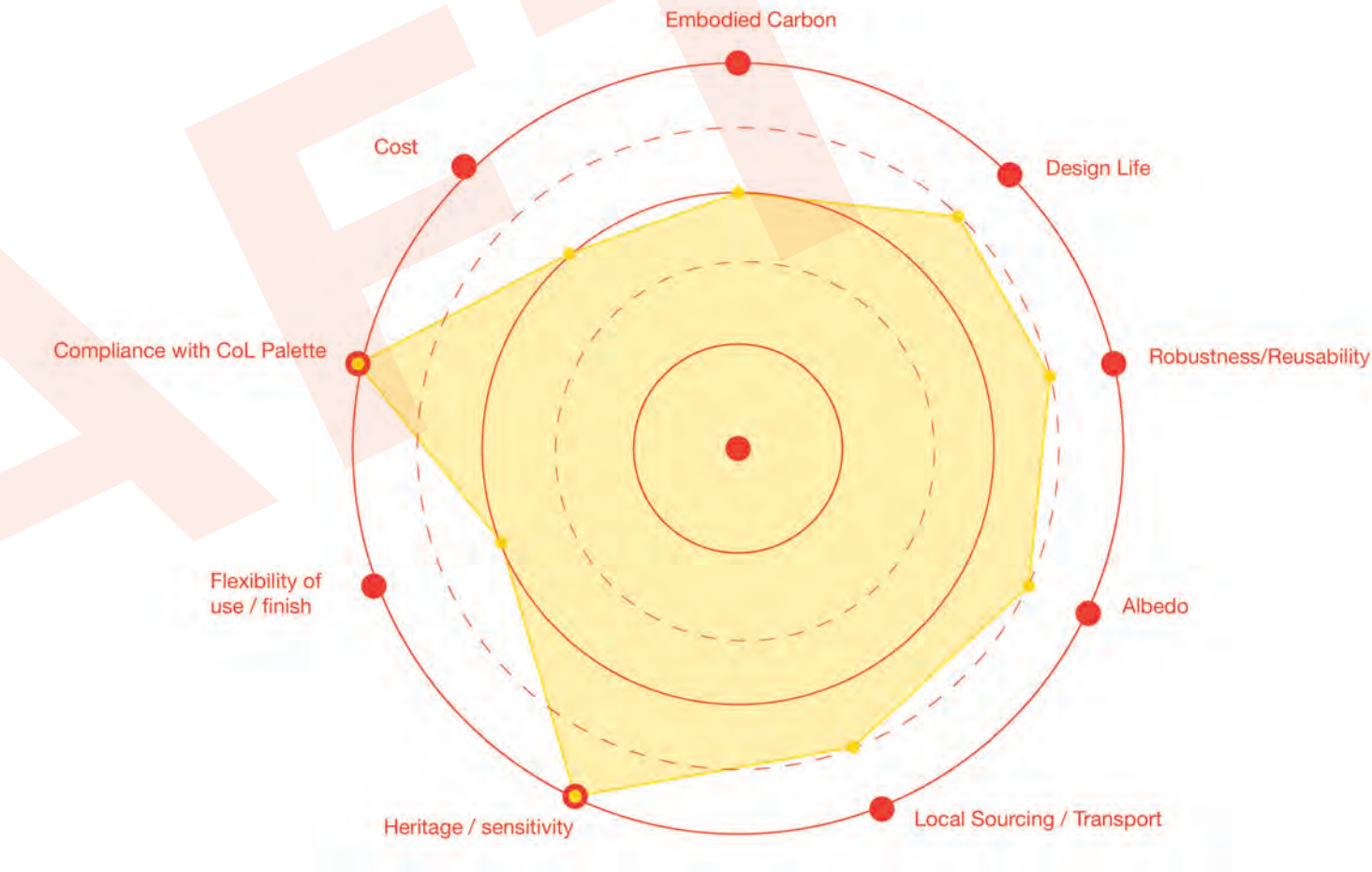
Embodied carbon: 15 kgCO₂e/m² [A-C]
Design Life: 25+ years
Albedo (mid-grey): tbc
Local sourcing: Potential for local sourcing and use of found material as aggregate
Heritage sensitivity: Not aligned
Flexibility of use / finish: Variety of finishes and layouts possible
CoL Palette: Not aligned with palette
Cost: Relatively cheap

York stone flags (re-used)



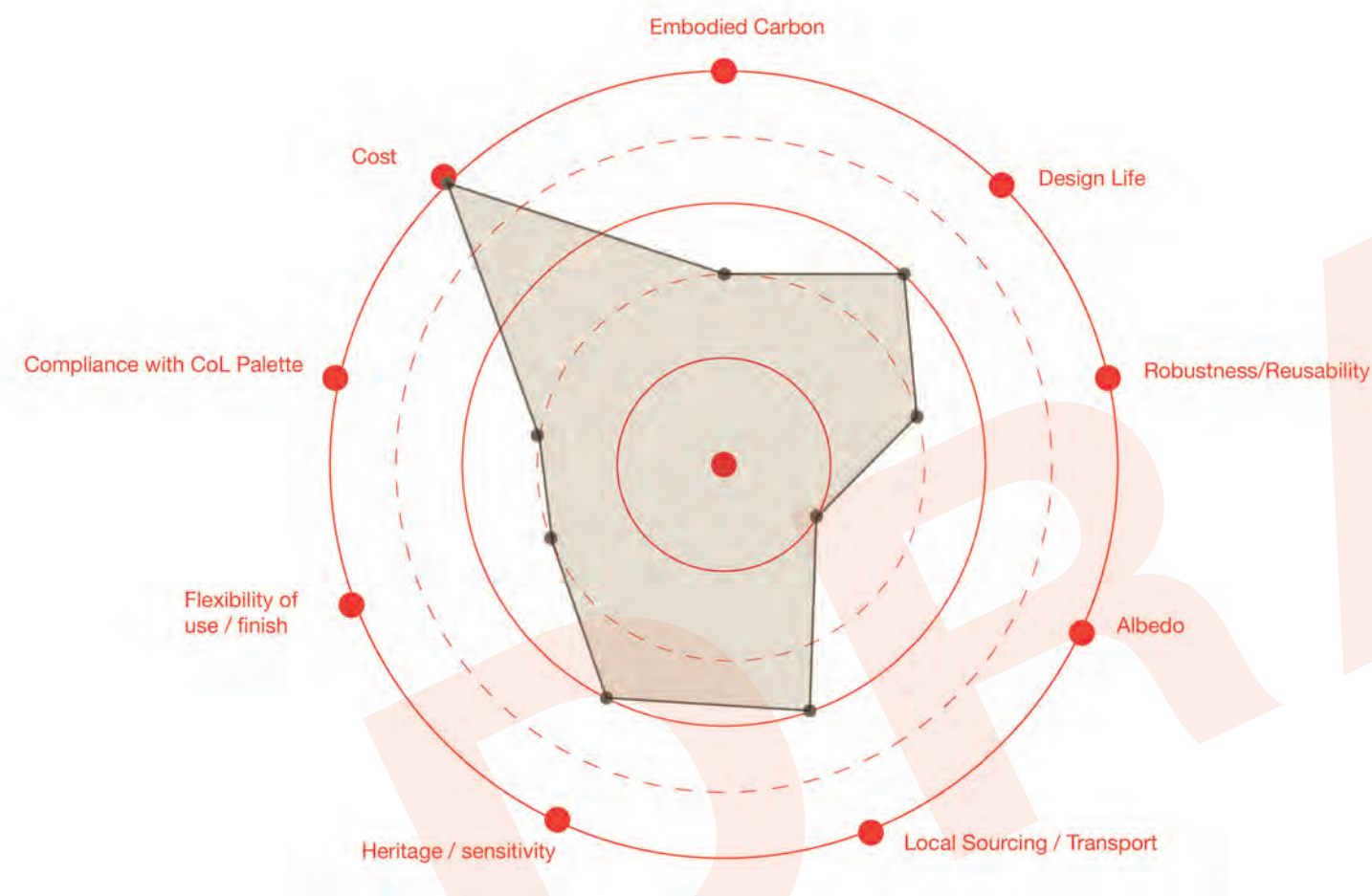
Embodied carbon: 4 kgCO₂e/m² [A-C] (tbc -taken from Schist)
Design Life: 80+ years (reduced from second use?)
Albedo: tbc
Local sourcing: On-site storage leading up to works needs to be considered
Heritage sensitivity: Fully aligned
Flexibility of use / finish: Limited finished but flexible layout
CoL Palette: Fully aligned
Cost: tbc

York stone flags (UK Sourced)



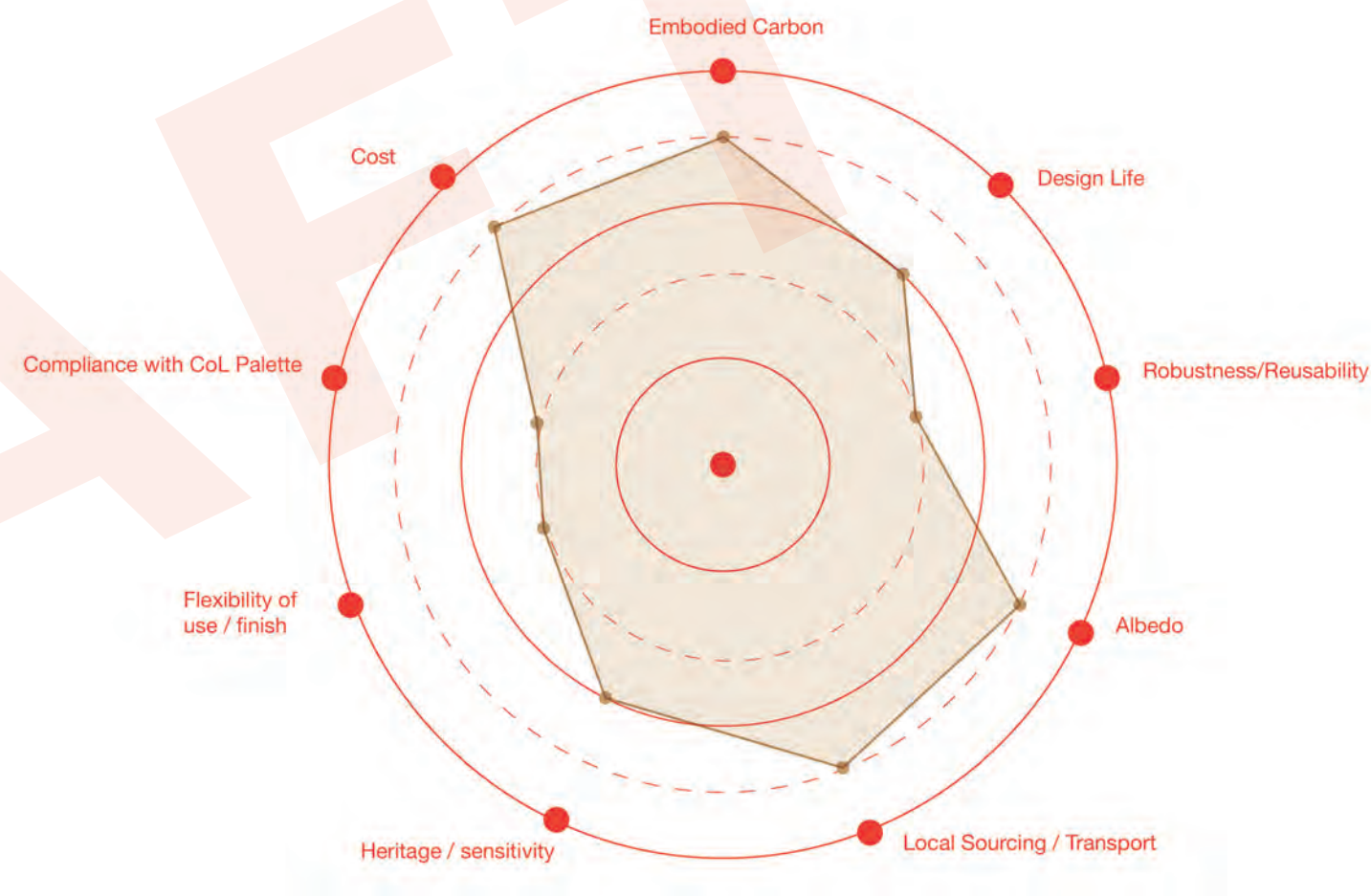
Embodied carbon: 4 kgCO₂e/m² [A-C] (tbc -taken from Schist)
Design Life: 80+ years
Albedo: tbc
Local sourcing: Potential for Cornish / Scottish sourcing
Heritage sensitivity: Fully aligned
Flexibility of use / finish: Limited finished but flexible layout
CoL Palette: Fully aligned
Cost: tbc

Asphalt



Embodied carbon: 25 kgCO₂e/m² [A-C]
Design Life: 25 years
Albedo: tbc
Local sourcing: n/a
Heritage sensitivity: Not aligned
Flexibility of use / finish: Some variety through use of chips/aggregate
CoL Palette: Not aligned
Cost: Relatively cheap

Hoggin / Gravel



Embodied carbon: tbc
Design Life: 10+ years
Albedo: tbc
Local sourcing: Potential for local sourcing and reuse of aggregate
Heritage sensitivity: n/a
Flexibility of use / finish: n/a
CoL Palette: n/a
Cost: Relatively cheap

Contact

London\
Edinburgh\
Manchester\
Los Angeles\

hawkinsbrown.com