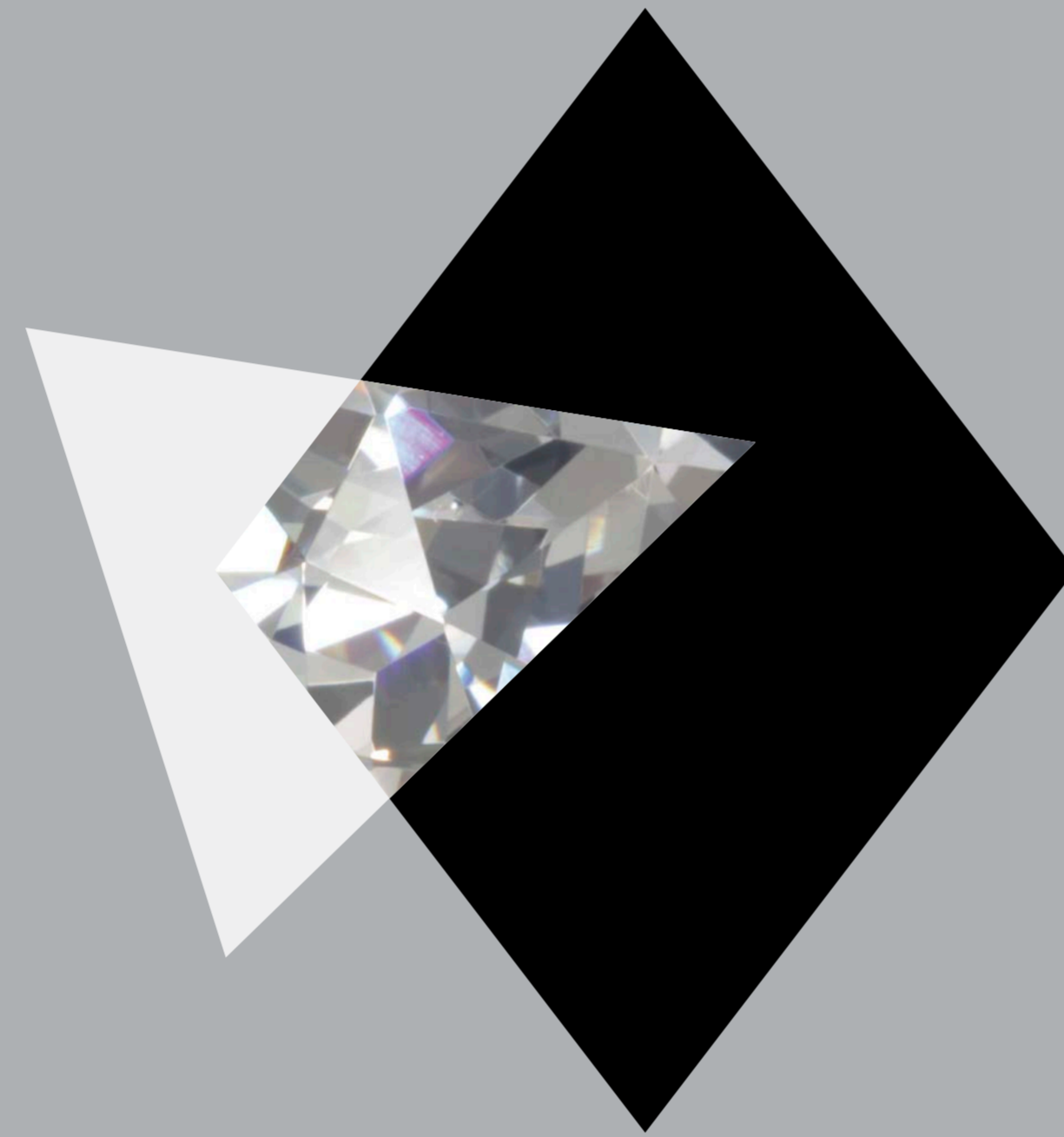


# City Plan 2040 Tall Buildings Policy | Volumetric testing

## 1: Methodology

November 2023

ED-HTB2



**millerhare**

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**Client**  
City of London

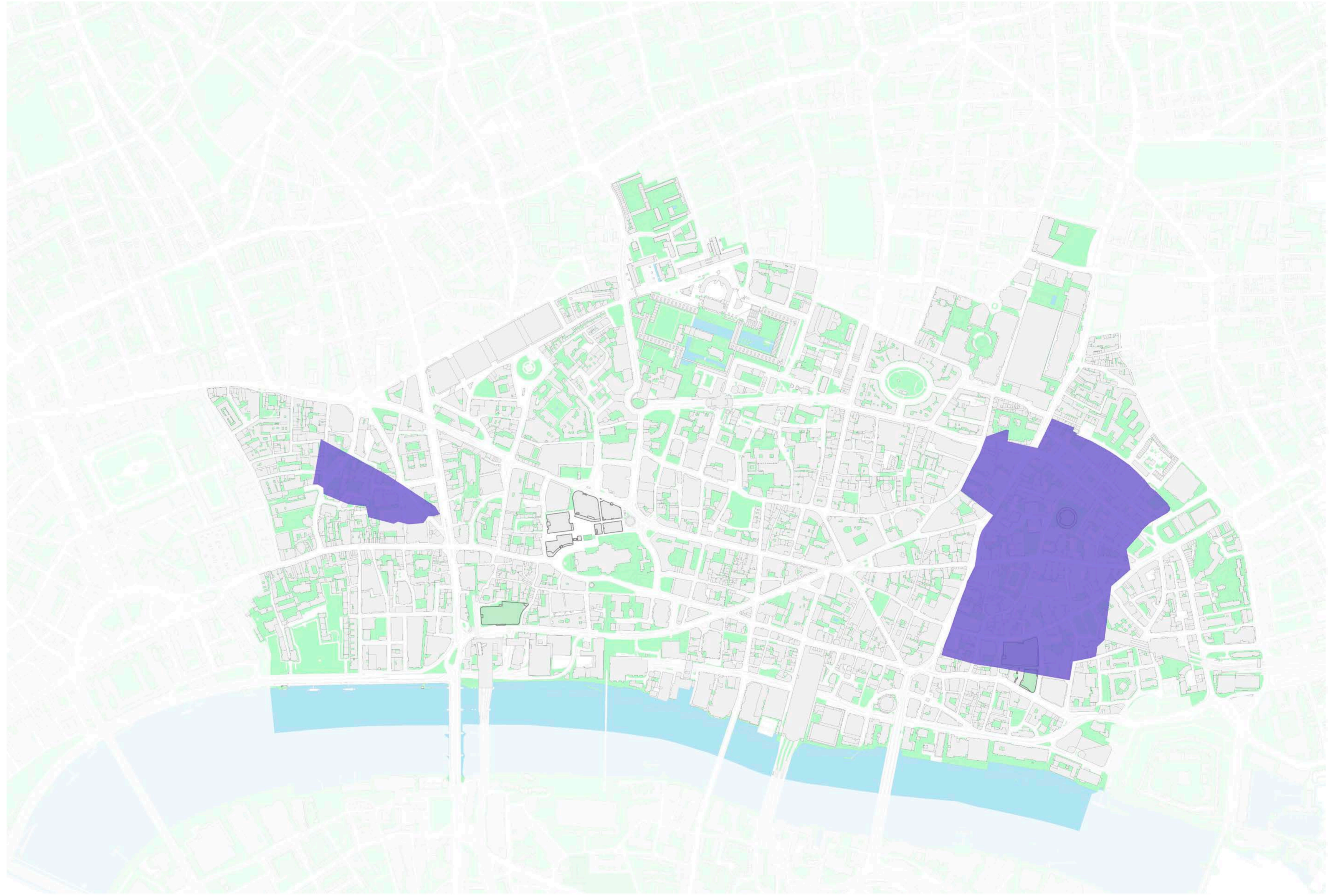
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**Visualisation**  
Millerhare

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# 1 Introduction

- 1.1 As part of the development of City Plan 2040, the City of London identified two areas of the City as being suitable for additional buildings taller than 75m above Ordnance Datum. These Tall Building zones are described as
- The Central Cluster
  - Fleet Valley and Holborn
- 1.2 Within these areas, work was carried out in 2022 to establish suitable heights for additional development, taking into consideration the setting of important heritage assets including Listed Buildings and Conservation Areas. Particular consideration was made to the setting of significant landmarks that define London's historic skyline, including St Paul's Cathedral and the Tower of London World Heritage Site.
- 1.3 In November 2022 the City of London commissioned Millerhare to prepare visualisations illustrating the potential visual impact of the volumetric studies that emerged from this initial work. The output from this commission is presented as Volume 2 of this report entitled "Option Studies" and shows a comparison between the more favoured option from the 2022 work (option A) and a further option that evolved as the present study progressed (Option B).
- 1.4 Volume 1 of this report sets out the methodology used to define the overall scope of the assessment and the specific way in which Option B evolved and subsequently informed the text for Strategic Policy S12: Tall Buildings.



City Plan 2040 - Proposed Tall Buildings Zones

## Scoping the assessment

1.5 To ensure that the implications of the emerging policies were tested from the significant public vantage points, City Officers requested that visualisations be generated from all relevant assessment points referred to by the following policy documents:

- Mayor of London: London View Management Framework [March 2012]
- City of London: St Paul's Heights Study [April 2015]
- City of London: Monument Views Study [December 2020]
- Historic Royal Palaces: Tower of London - Local Setting Study [August 2010]
- City of Westminster: Metropolitan Views Draft SPD [October 2007]
- London Borough of Lambeth: Draft Local Views SPD [September 2020]
- London Borough of Southwark: Southwark Plan 2022 | Annex 1: Borough Views.pdf [2022]
- London Borough of Islington: Islington Council | Development Management Policies [2023]

1.6 A small number of additional viewpoints were included to test local townscape locations that had proved significant in the assessment of recent major applications within the proposed Tall Building zones.

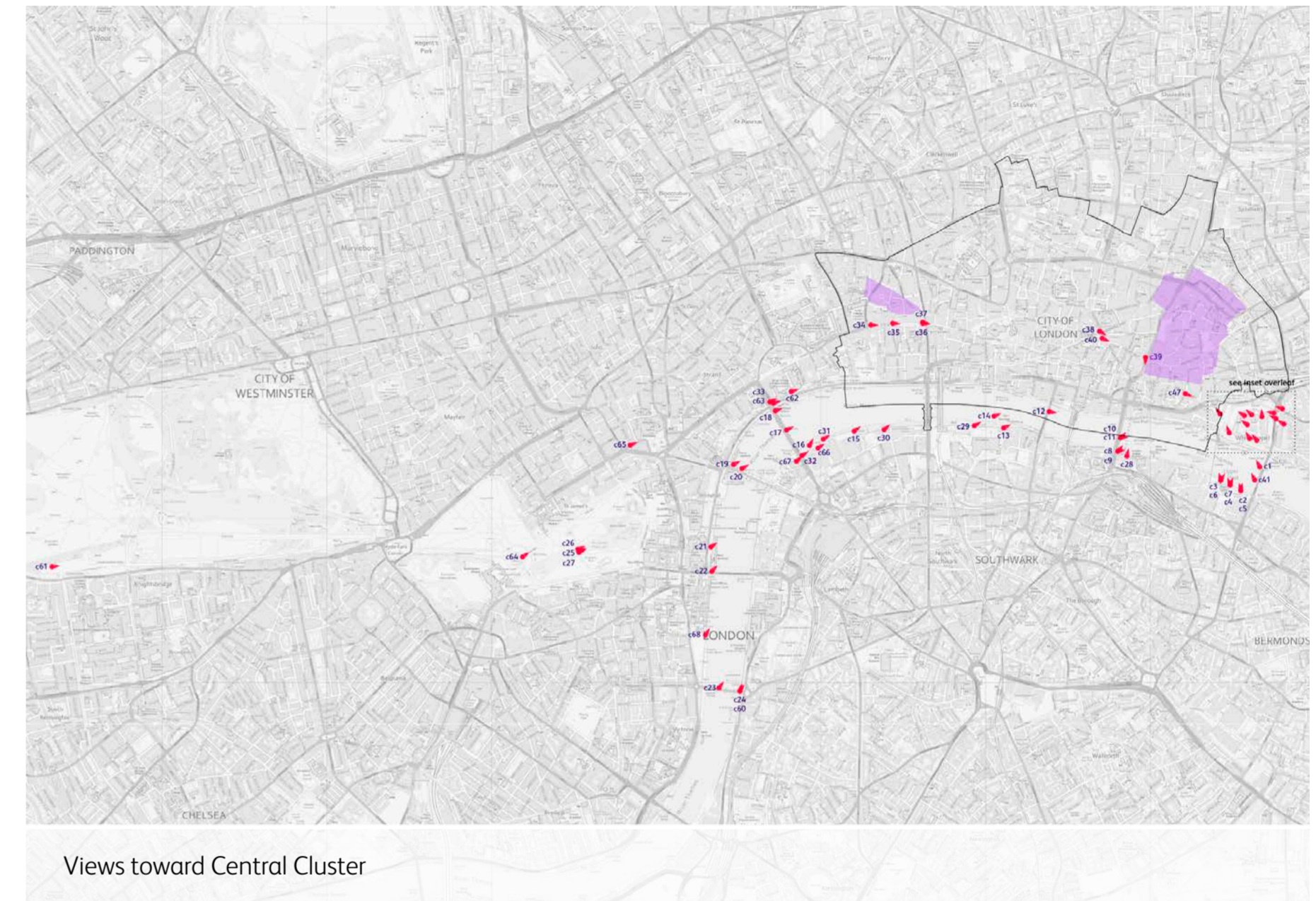
1.7 Wherever possible, visualisations in Volume 2 are based on photography from the selected assessment points looking toward the two defined zones. In all cases, both Tall Building zones are shown in all visualisation but where an assessment point is located in a position which cannot easily see both zones, two separate images have been created and numbered within the sequence for the zone on which they are centred.

1.8 In Volume 2 the full list of agreed Assessment Points are tested using images generated from the Millerhare London Model. In a few cases where suitable photography was not available during the study, the existing condition shown in Volume 2 is also illustrated by a computer generated image from the London Model.

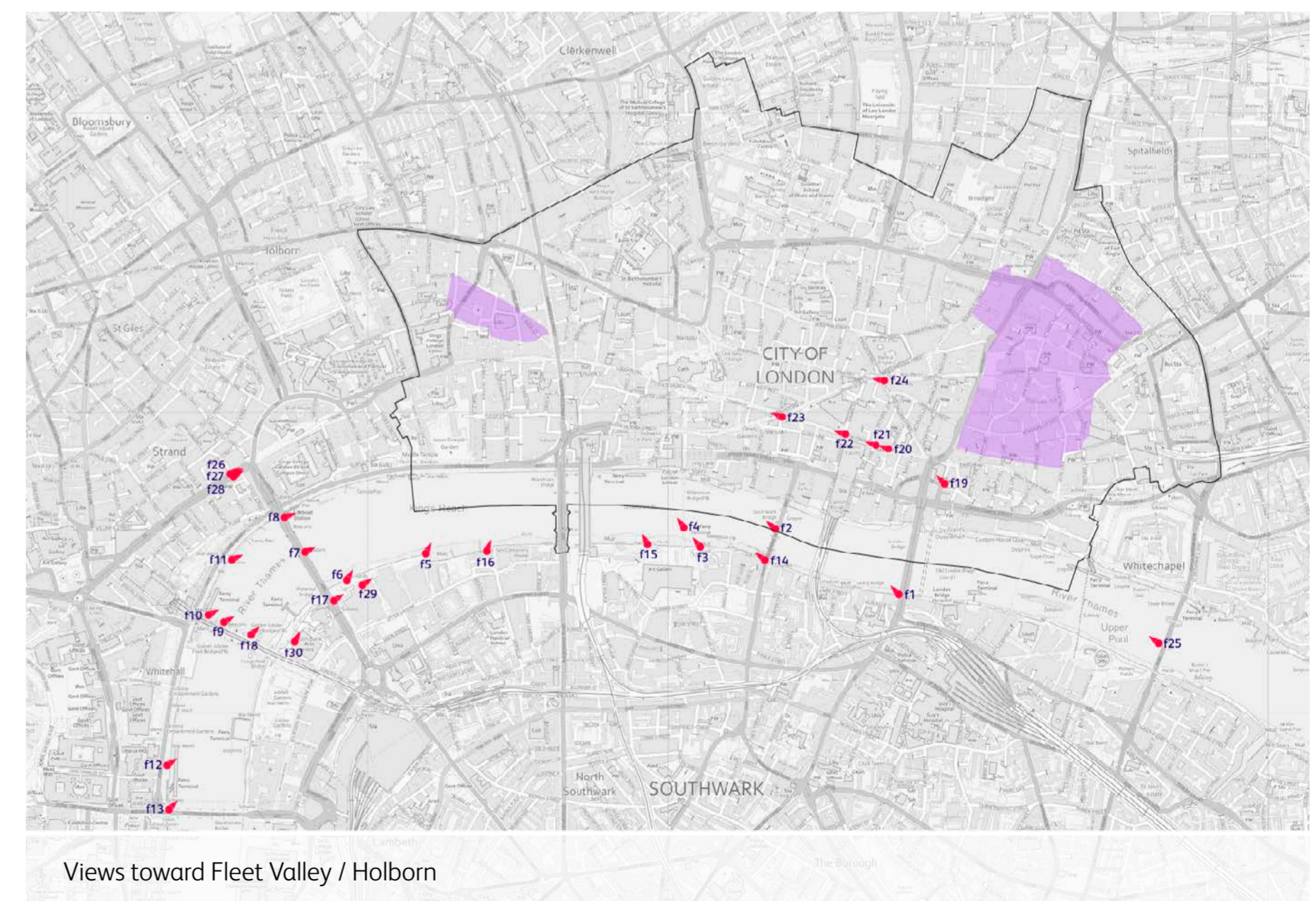
1.9 In this volume, potential future outcomes arising from Policy S12 for a number of the most significant assessment points are illustrated with greater clarity as photomontage Accurate Visual Representations (AVR).



Distant views



Views toward Central Cluster



Views toward Fleet Valley / Holborn

## The future baseline

- 1.10 Images showing the future baselines include significant development projects that have received full planning consent or are subject to a resolution to grant such consent.
- 1.11 The list of future projects within the City of London that have been included are scheduled in Report 2.
- 1.12 The potential outcomes from Policy S12 are illustrated as transparent volumes overlaid on the Future Baseline.



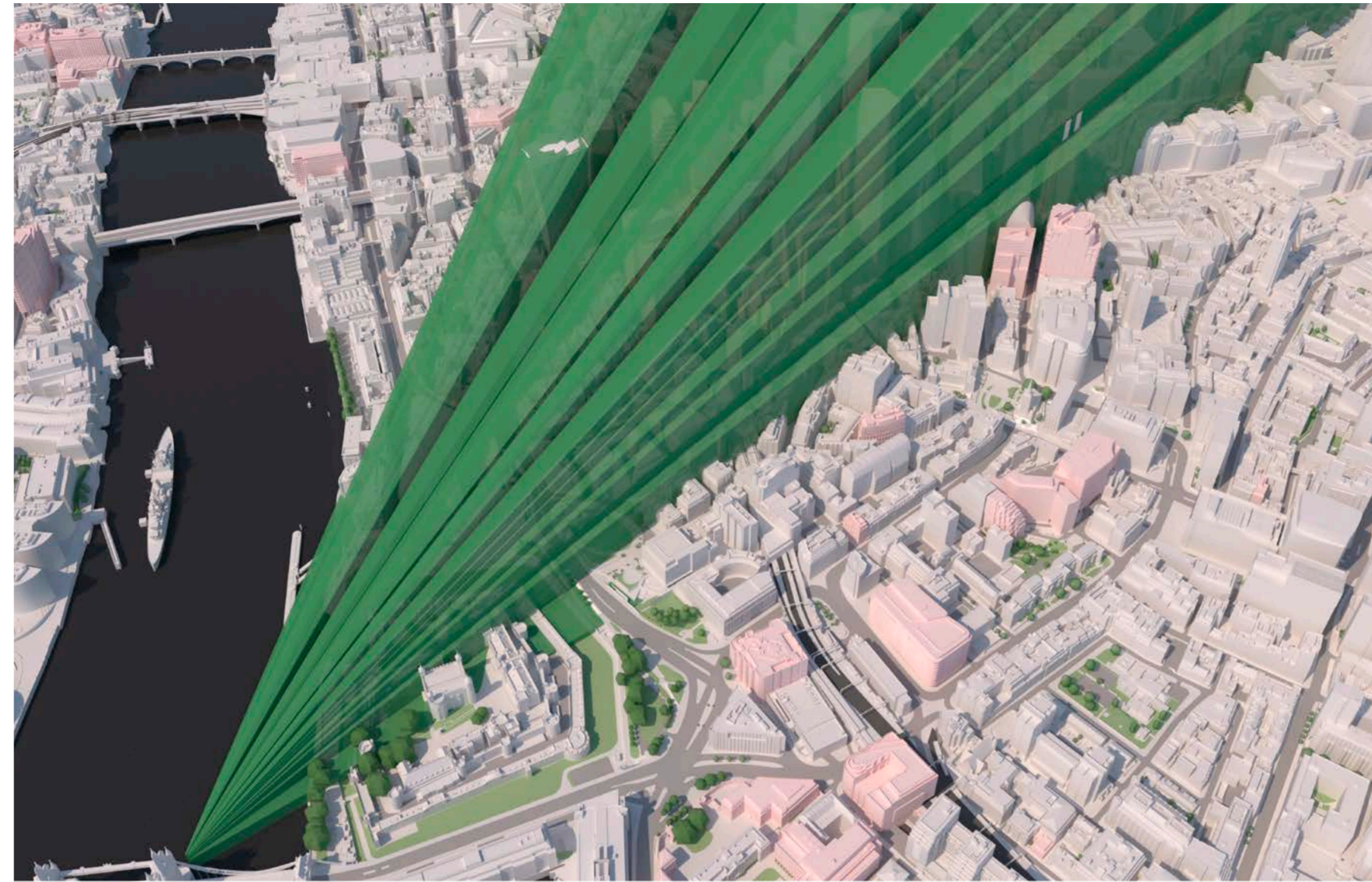
Future Baseline - including currently consented schemes

## Analysing key constraints

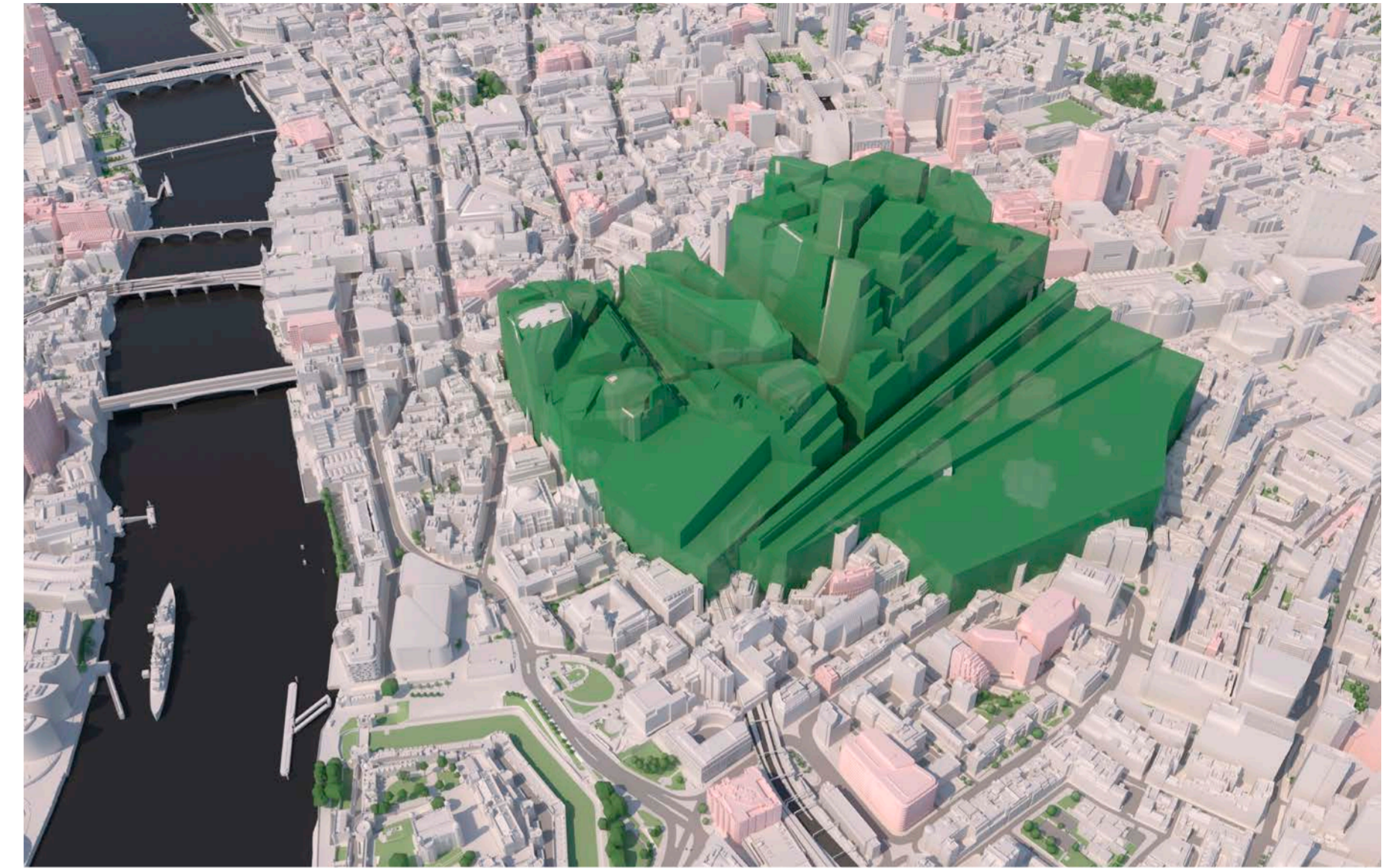
1.13 During initial testing of the supplied volumes, it became clear that a small number of views highlighted relationships to key landmarks which seemed likely to have the greatest influence on the resulting policy guidance. This led to a round of analytical modelling to understand relationships between key landmarks and current and consented development in the key views. In the case of recent consents detailed Townscape and Visual Impact Analyses were available to show how proposed developments had interpreted these key constraints and responded to consultation response, prior to approval by the City planning committee.

1.14 To carry out this analysis, projective geometry from a variety of mid-distance viewpoints was used to define volumes within the designated policy areas where development would produce minimal changes to the skyline of the Future Baseline. As this process developed, certain views emerged as having much stronger effects than others on critical heritage relationships and as a result the subset of determining views was progressively refined, to identify the most influential determinants of the resulting form. Some of these views were from static positions while others were based on a kinetic experience, such as crossing Waterloo Bridge or following the Processional Route along Fleet Street toward St Paul's Cathedral.

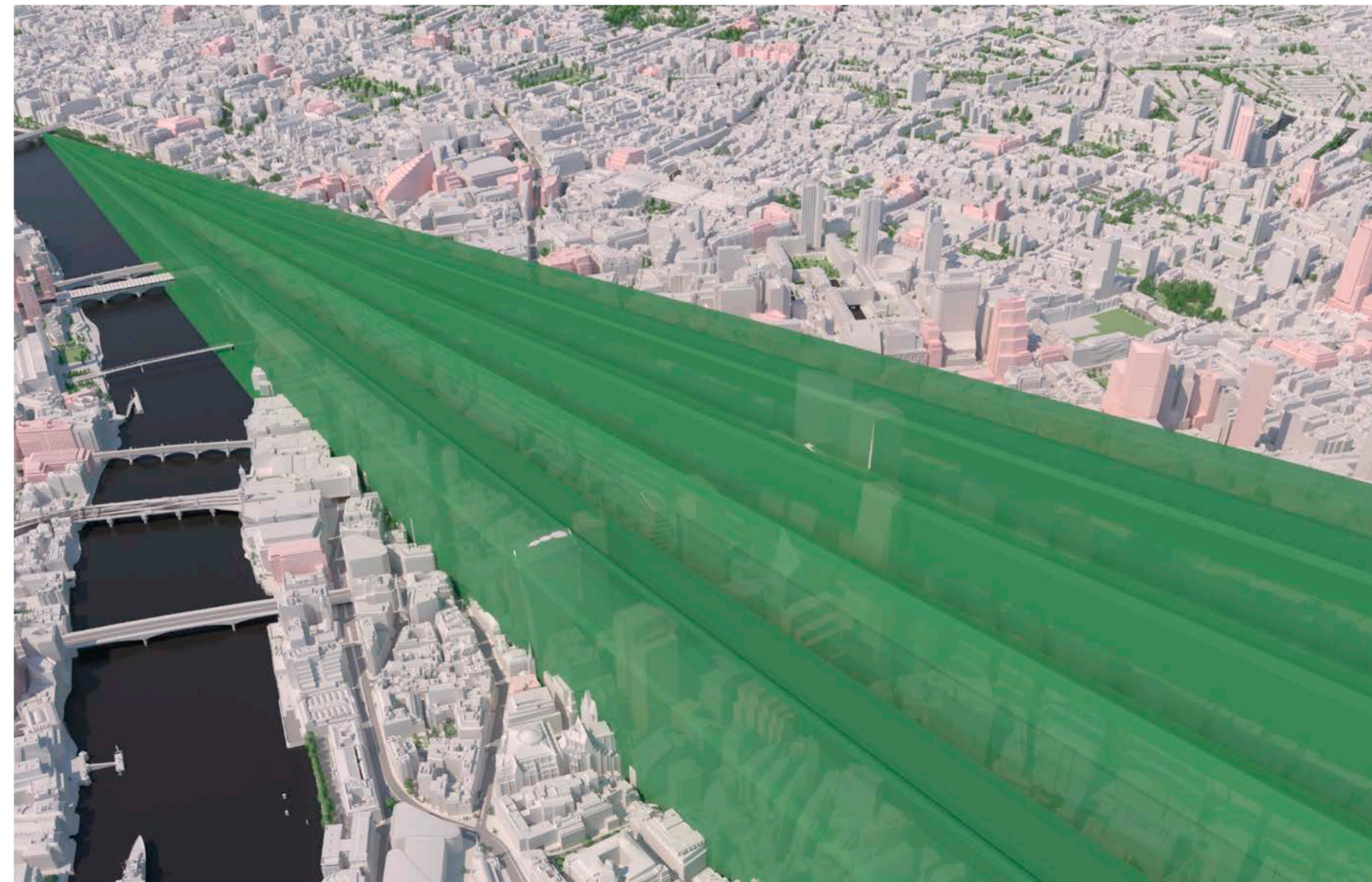
1.15 By intersecting analytical envelopes from a selection of viewpoints, a single volume can be generated which highlighted locations within which future development would have a minimal impact on the baseline condition when viewed from the contributing viewpoints. The resultant volumes were used to generate initial massing studies for review by City of London officers and discussions with other key stakeholders.



Projection of Future Baseline viewed from North Bastion of Tower Bridge ( LVMF 10A.1)



Intersection of Future Baseline projections from key viewing locations



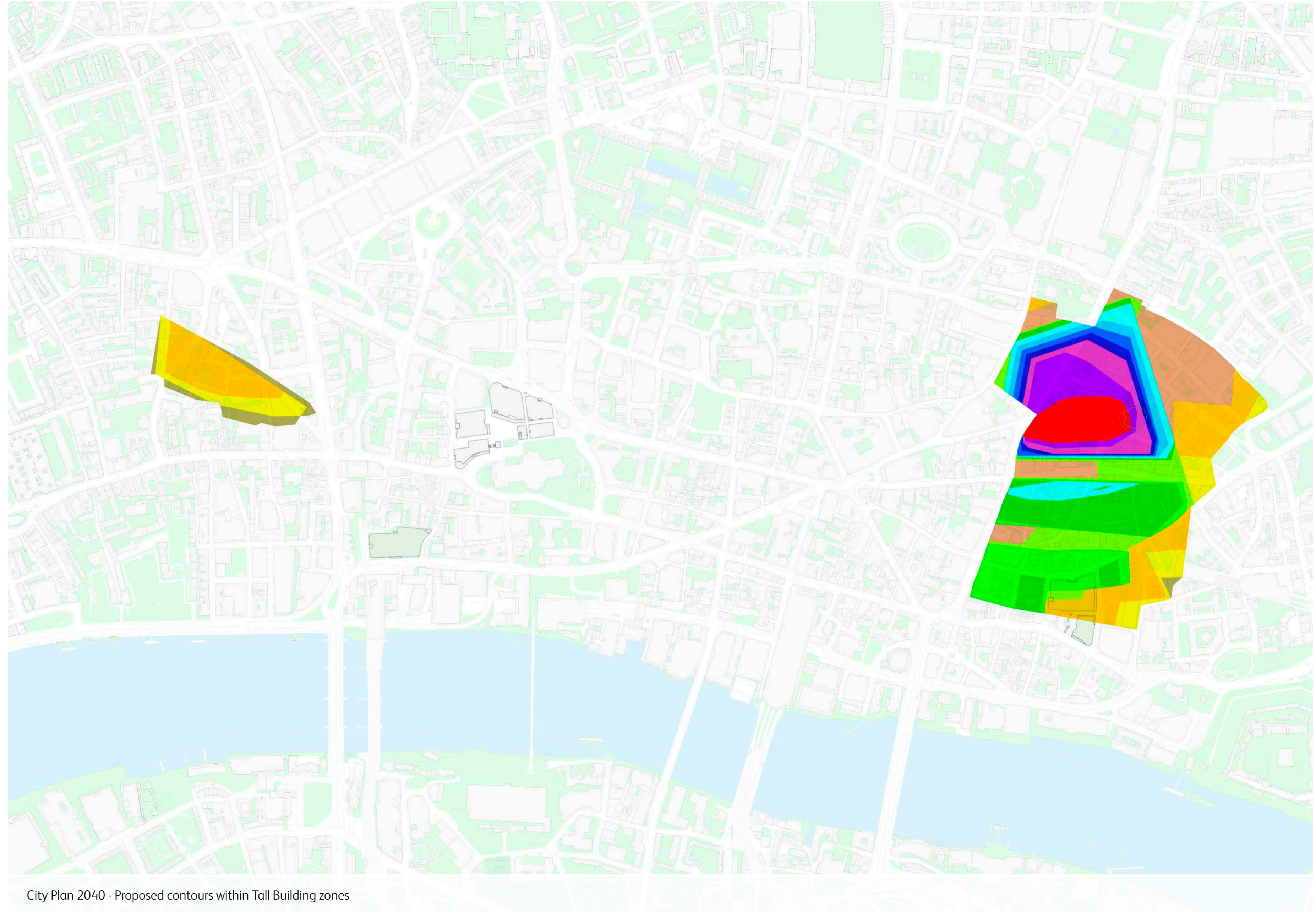
Projection of Future Baseline viewed from centre of Waterloo Bridge ( LVMF 15B.2)



Intersection of Future Baseline projections viewed from Tower BRidge (LVMF 10A.1)

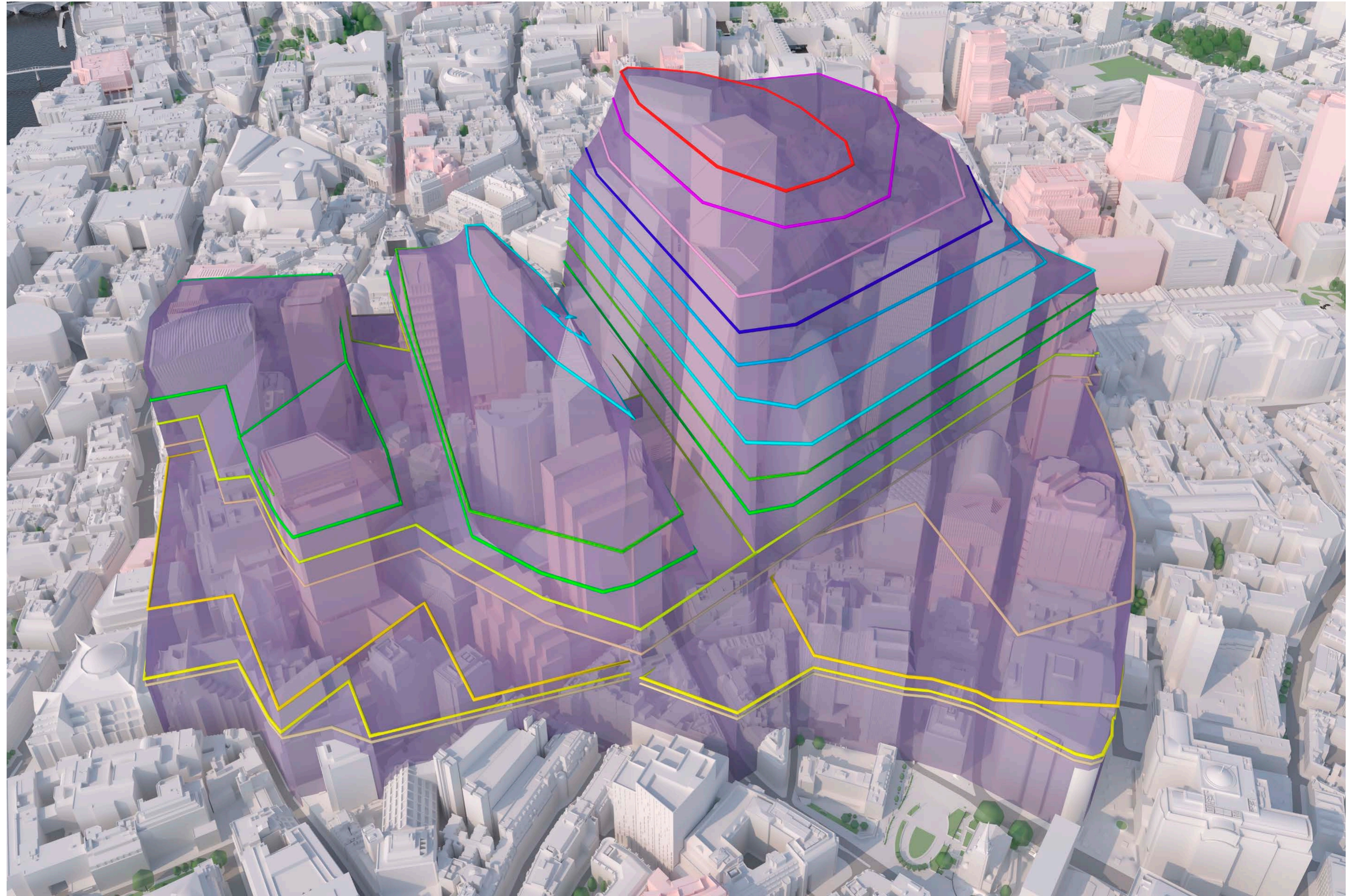
## Allowing for further growth

- 1.16 The initial modelling based on projective geometry suggested that additional sites exist within the selected tall buildings zones where significant development could occur without further impact on the settings of key landmarks beyond that identified in the baseline images. Such development has the potential to contribute to a more considered overall skyline in the resulting high building clusters., when viewed in the round.
- 1.17 In order to identify additional sites for further growth which respect the constraints from key landmarks additional modelling took place based on the definition of plan contours. These were derived from horizontal sections cut through the minimal impact volumes defined above. Where sections of the contours reflected lines of sight derived from key relationships in the generating views, these elements were left unchanged. In intervening sections, simplified profiles were used that allow for more logical plan forms that can better respond to the adjacent urban context.
- 1.18 The effects of specific set of contours were evaluated by modelling potential outcomes that might result for development informed by these constraints. These forms could then be assessed subjectively from the defined viewpoints in the wider study.
- 1.19 By an iterative process, contours were progressively refined to suggest outcomes that were most likely to avoid conflict with local townscape considerations and lead to balanced skyline effects. At key stages the full set of views defined above were generated for internal review by City officers and other stakeholders.
- 1.20 It is anticipated that the City of London will progressively refine the exact locations of the contours during the public consultation phase.



## Optimising outcomes for each site

- 1.21 The modelling of development options made clear that a proposed set of contours can be linked in multiple ways to generate a variety of resulting volumetric outcomes. At the stage it would clearly be inappropriate to privilege any one of these outcomes since this would suggest that there was only one preferred skyline form for each site.
- 1.22 For this reason, an approach was agreed with City Officers that policy guidance should be focussed on an formally defined set of contours rather than the final forms that might result from them. The agreed contours can be shown on simple 2D policy maps and diagrams and also issued as 3D volumetric models. The contours would define height thresholds which avoid risk of harm to the key generating relationships and encourage acceptable townscape results in both local and distant views. Development up to the agreed contours would be deemed acceptable in terms of overall height but would still be subject to all normal planning requirements including detailed assessment of form and appearance in local and distant views
- 1.23 To avoid an outcome whereby each area of the zones designated as appropriate for tall buildings adopted a uniform height defined by the published contours, Millerhare recommended that policy wording should allow applicants to make proposals to complete buildings as logical forms that contribute to a well considered overall skyline. This suggests that new developments might slightly exceed the published contours provided that any encroachments responded to the overall forms suggested by the neighbouring contours. This latter step would still require highly detailed review of impacts from relevant local and distant viewpoints against local heritage and townscape constraints.



Option B: Smoothed envelope indicating potential outcome from detailed assessment of specific sites



## Assessing potential outcomes

1.24 In order to explain in greater detail the way in which the key constraints were assessed, The remainder of this report includes detailed views from the most sensitive locations that were identified in the study. These are shown using photographic Accurate Visual Representations (AVRs) of the following conditions

- Existing photograph
- Future baseline (including currently consented projects)
- A stepped envelope representing the proposed contour definitions

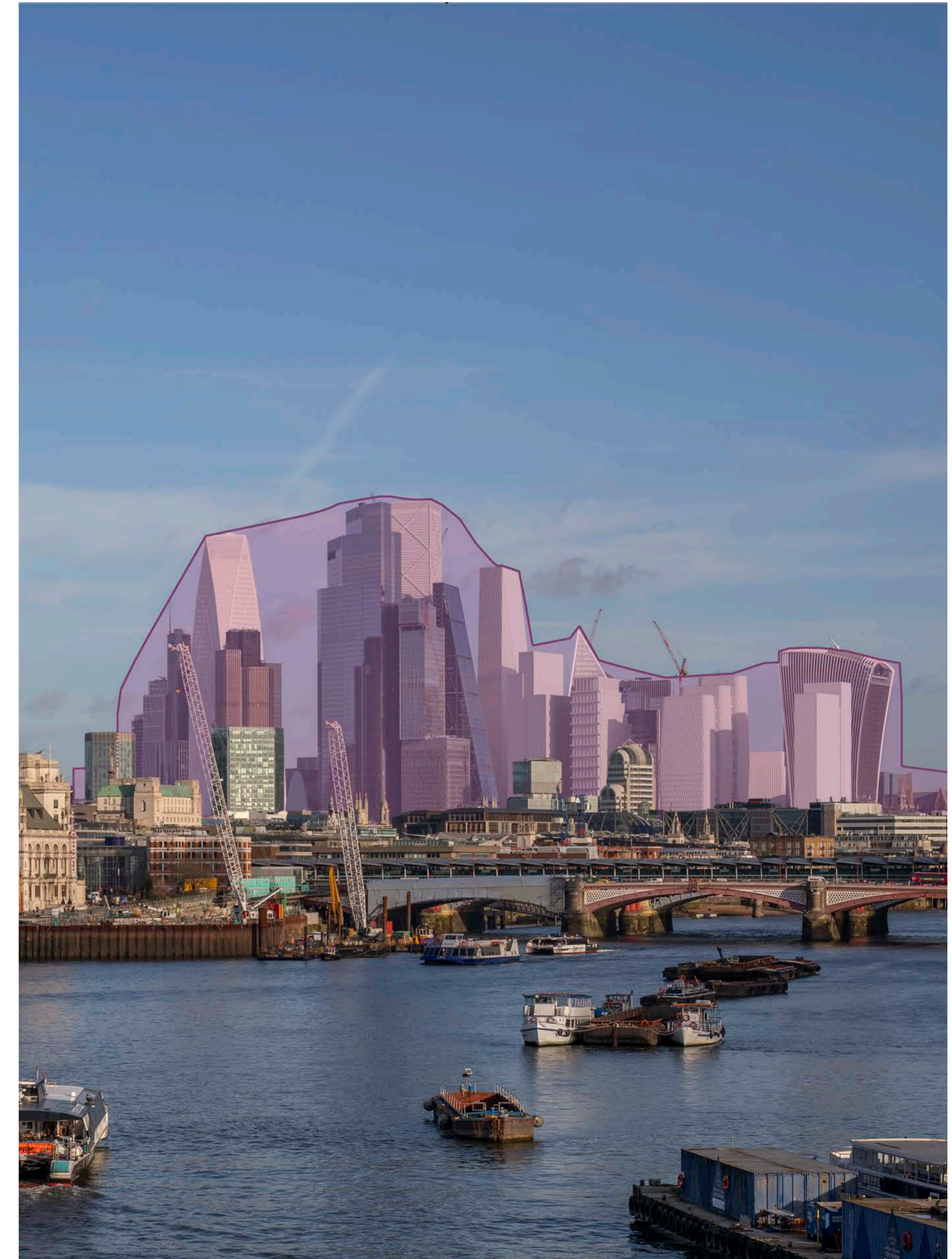
1.25 A smoothed envelope that indicates potential outcomes from detailed assessment of specific sites.

1.26 The comparison between the stepped and smoothed envelope shows several examples of how recent planning decisions in the past 20 years might have been accommodated by the proposed policy.

John Hare  
3 November 2023

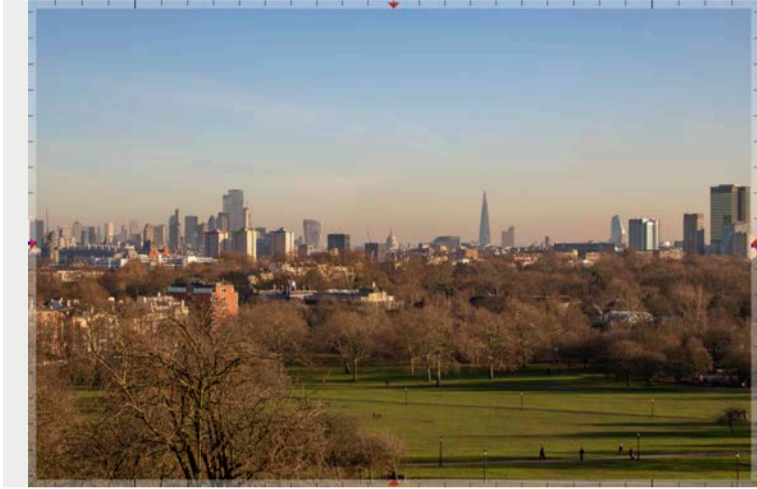


Option B: Stepped envelope including defining contours



Option B: Smoothed envelope indicating potential outcome from detailed assessment of specific sites

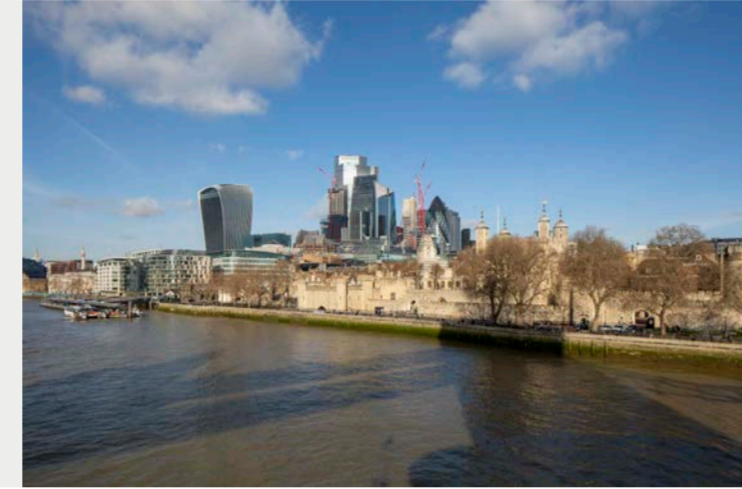
## 2 The Views



d6 | Primrose Hill: the summit



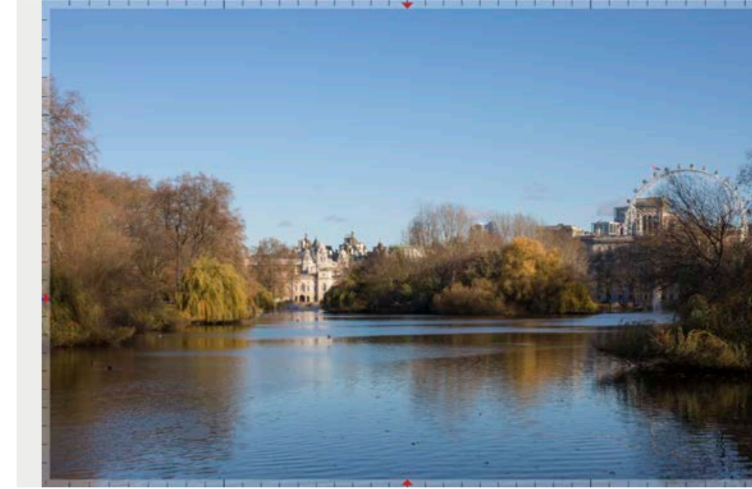
d8 | Greenwich Park: the General Wolfe statue - north-east of the statue



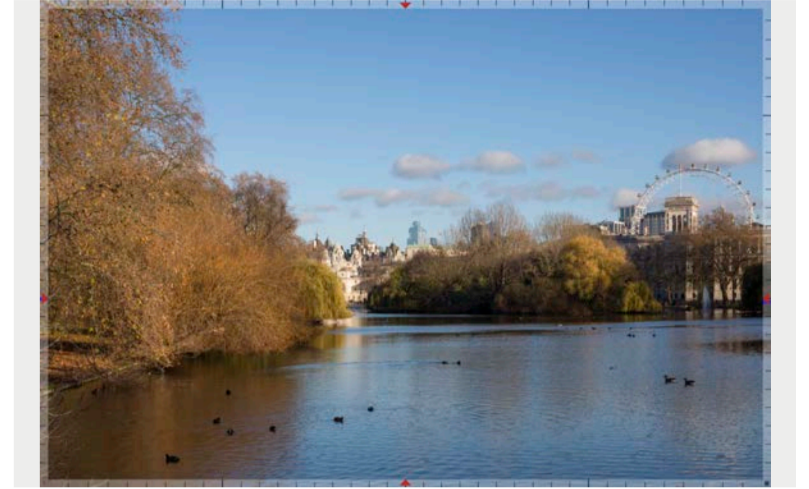
c1 | Tower Bridge: upstream - the north bastion



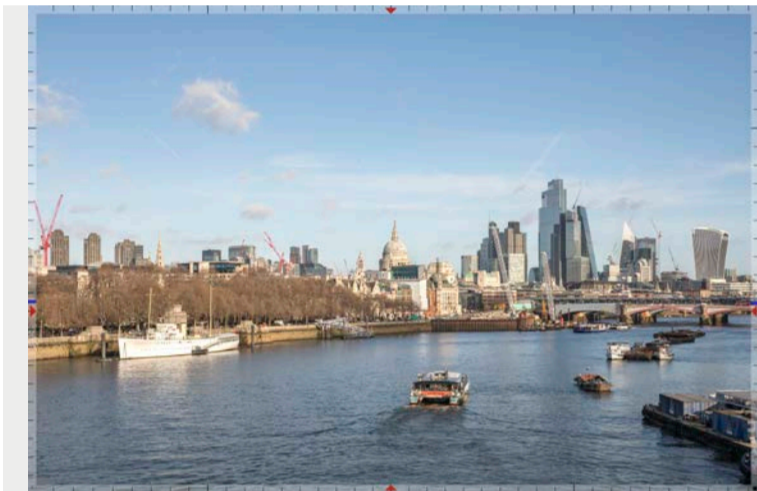
c4 | The Queen's Walk at City Hall - foot of pathway from Potter's Fields



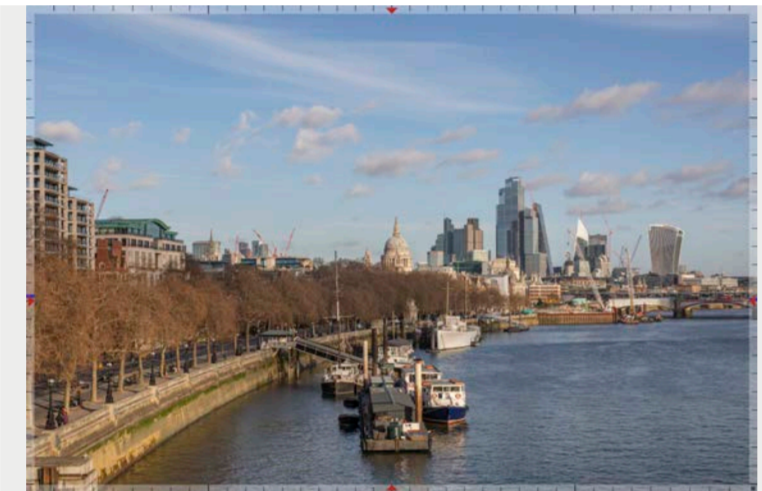
c25 | St James' Park Bridge - at the centre of the bridge | LVMF 26A.1



c26 | St James' Park Bridge - north



c17/n7 | Waterloo Bridge: downstream - at the centre of the bridge



c18/n8 | Waterloo Bridge: downstream - close to the Westminster bank



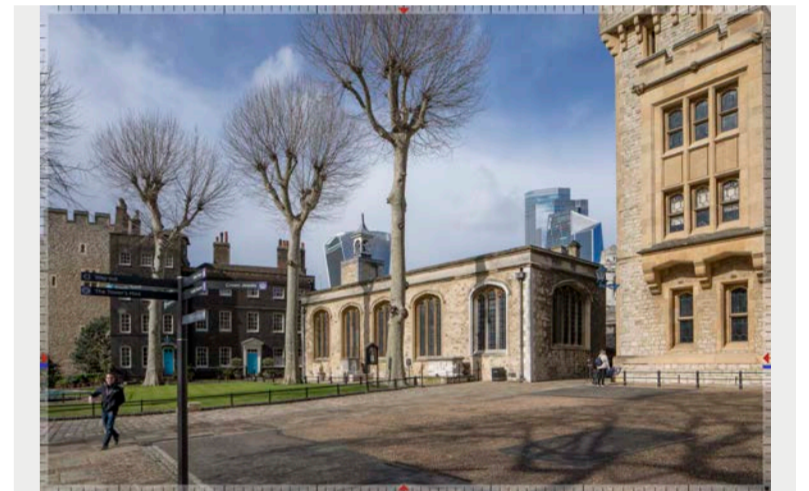
c49 | Tower of London: Inner Ward - Site of the Scaffold



c50 | Tower of London: Inner Ward - west of the White Tower



c51 | Tower of London: Inner Ward - west of the White Tower



c52 | Tower of London: Inner Ward - at north-west corner of the White Tower



c58 | Tower of London: Inner Curtain Wall south



n19 | The Monument looking north-west - to St Paul's Cathedral