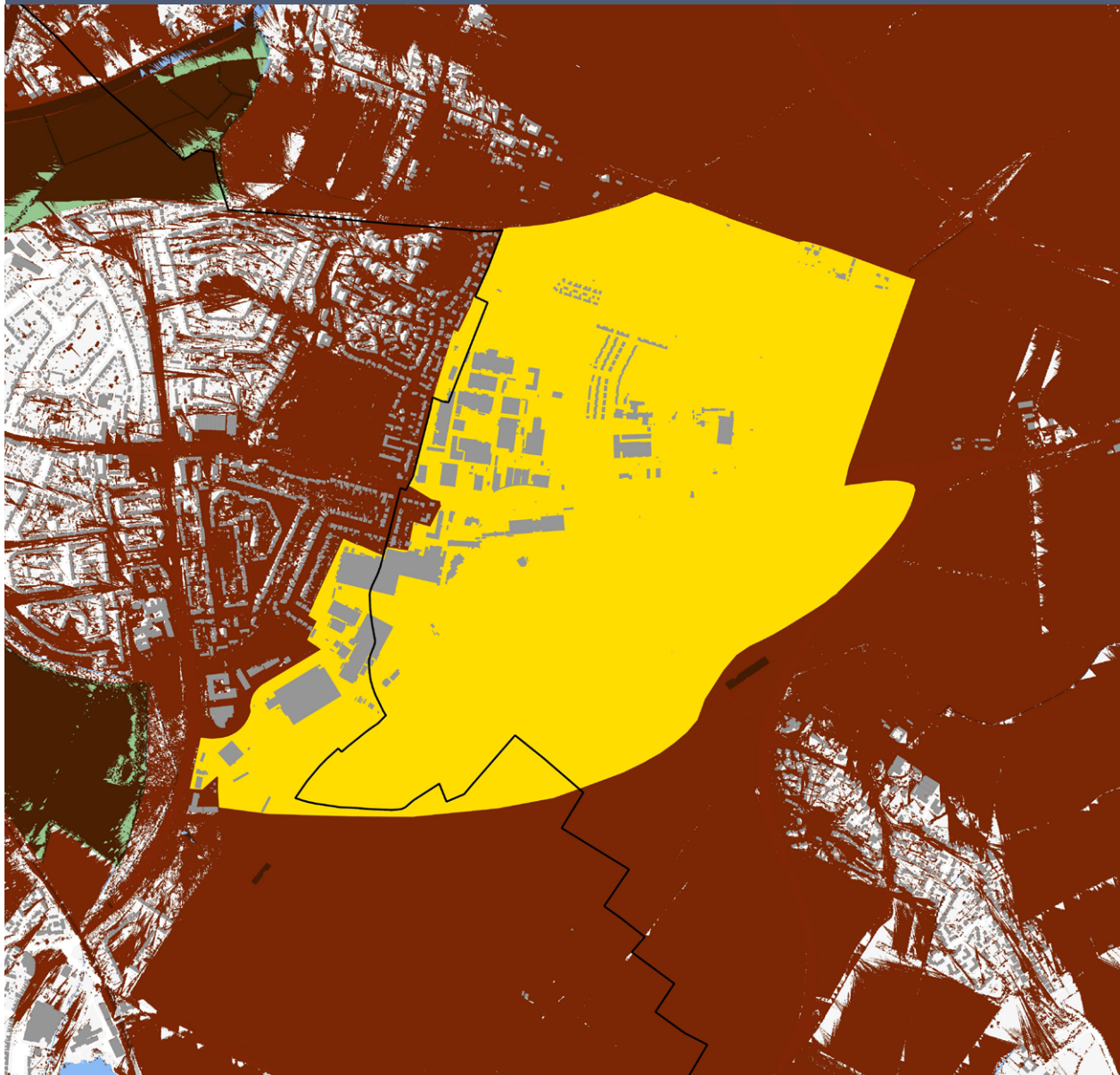


Zone of Theoretical Visibility - Tall Building Threshold



Viewshed Analysis for Area of Search with development height of 25.5m (Tall building threshold + 6.5m (2 Storeys))

VIEWSHED ANALYSIS

The View shed analysis shows potential visibility of buildings of 25.5m (8 Storeys) in Area of Search from surrounding local context.

This can be used to establish local view points to test the visual impact of potential tall buildings in the area.

- Area of Search
- Zone of Theoretical Visibility
- Open Spaces

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STRATEGIC VIEW TESTING - EAST CAMBRIDGE

STRATEGIC VIEW B - COTON FOOTPATH OVER THE M11

Mid-range glimpsed view - Highly Sensitive

Relation to the historic core:

Southern half of the Area of Search situated in the backdrop of the view to the historic core and its landmarks.

Description of visual sensitivity:

Kings College Chapel, The Church of Our Lady and the English Martyrs, and University Library are the prominent silhouettes in the view.

There are limited views of the Cambridge University Library Tower, and, to a lesser extent, Kings College Chapel. The view showcases a largely obscured rural expanse, characterised by an agricultural landscape and undulating terrain. It only allows for a view of the spire of the Church of Our Lady and the English Martyrs.

Impact assessment:

- **Scenario A (19m):**

no discernible impact

- **Scenario B (25.5m):**

no discernible impact due to long distance and tree cover.

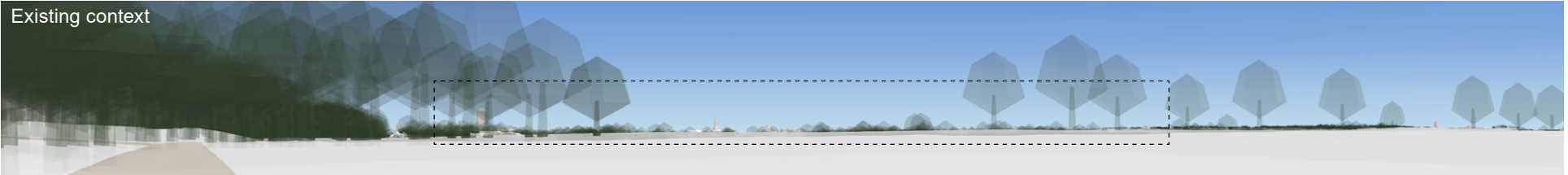
- **Scenario C (32m):**

no discernible impact due to long distance and tree cover.

Strategic View B - Coton Footpath over the M11

Mid-range glimpsed view - Highly Sensitive

Existing context



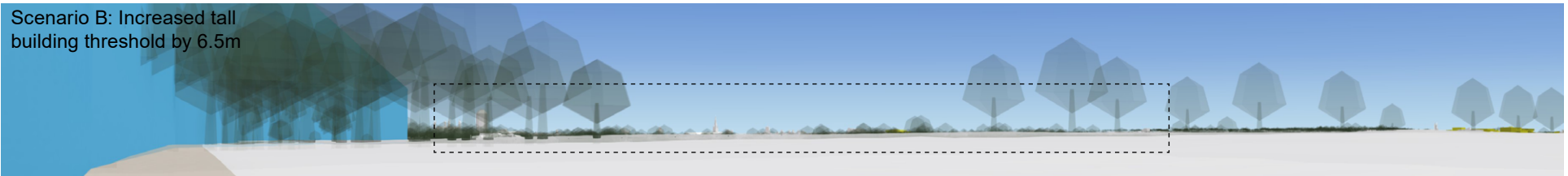
Existing context plus permitted buildings



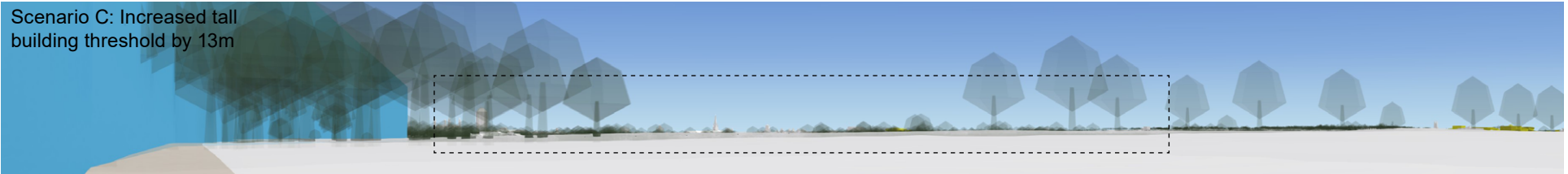
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m

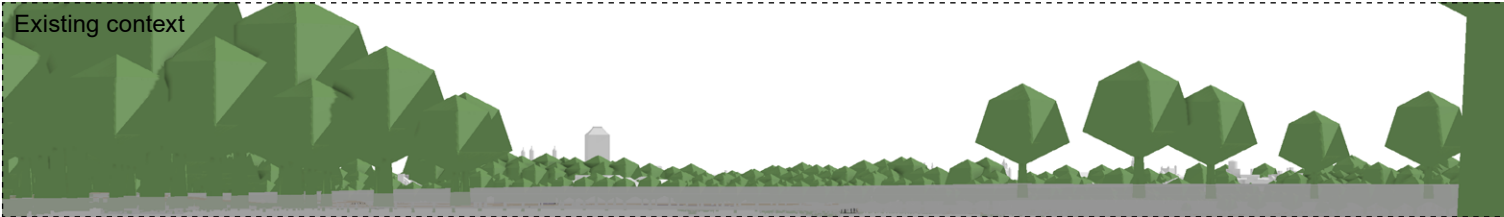


Scenario C: Increased tall building threshold by 13m



Magnified view onto the historic core

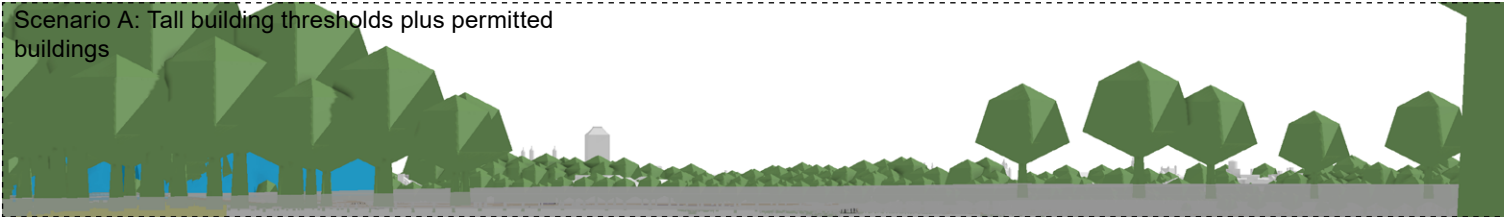
Existing context



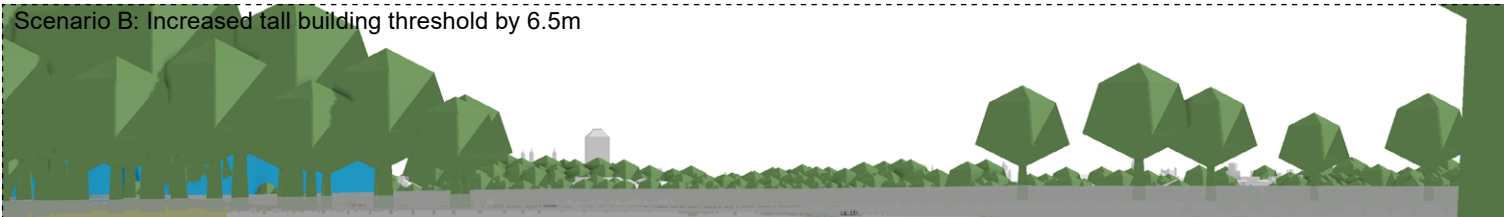
Existing context plus permitted buildings



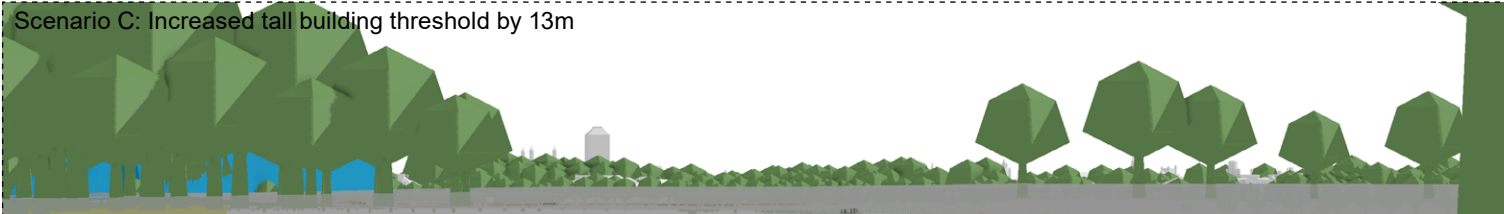
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



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STRATEGIC VIEW H - REDMEADOW HILL**Long range panoramic view - Highly Sensitive****Relation to the historic core:**

The Area of Search is situated in the background of the ensemble of landmarks in the historic core.

Description of visual sensitivity:

A valuable panoramic view of Cambridge in its rural environment, with meadows in the foreground. The spires of All Saints Church, St. John's Chapel, The Church of St. Mary the Great, Our Lady and the English Martyrs, and Kings College Chapel stand out against the horizon. The University Library and Museum of Technology's chimney are notable landmarks that stand out. The foliage frames the view of the Historic Core, especially between King's and St John's Colleges. Due to its relative remoteness and capacity to offer stunning highland views of the historic core, the perspective is highly vulnerable to alteration.

Impact assessment:

- **Scenario A (19m):**

no discernible impact due to long distance and tree cover.

- **Scenario B (25.5m):**

significant impact in parts of the area - development in the northern part of the area of search may have a significant impact on the backdrop to the historic centre and its landmarks. A large-scale conspicuous building may appear in the setting and detract from historic city landmarks. Specifically, it may interfere with the silhouette of King's College Chapel and Church of St. Mary the Great. In the southern part of the area of search, the impact of development is less problematic due to the distance and where it successfully breaks down the scale and blends into the background.

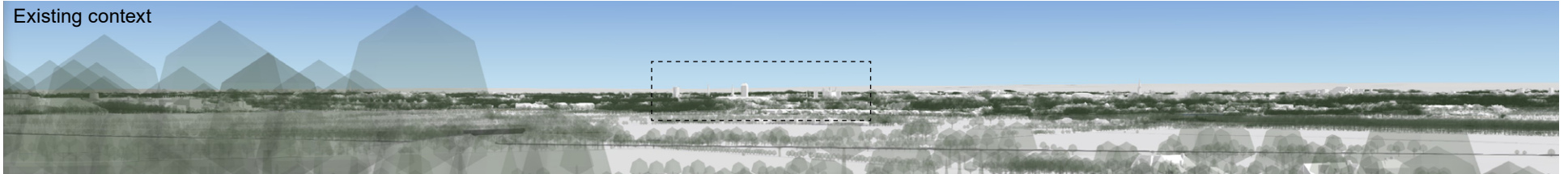
- **Scenario C (32m):**

significant impact in parts of the area - development in the northern part of the area of search may have a significant impact on the backdrop to the historic centre and its landmarks. Development may appear of greater height than the Church of St. Mary the Great and interfere with/break the horizon line. Development will be conspicuous and may interfere with the silhouettes, detract from, and undermine the setting of historic city landmarks. In the southern part of the area of search, development may create a new height accent, interfere with the horizon line, and affect the composition of the skyline. Its impact will need to be carefully tested and managed to avoid crowding the background or fragmenting the skyline.

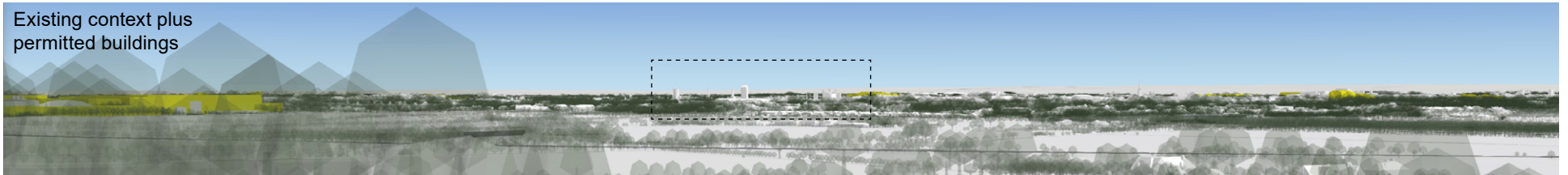
Strategic View H - Redmeadow Hill

Long range panoramic view - Highly Sensitive

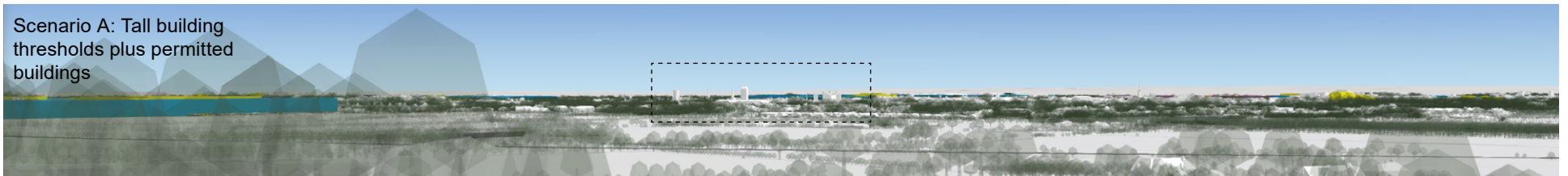
Existing context



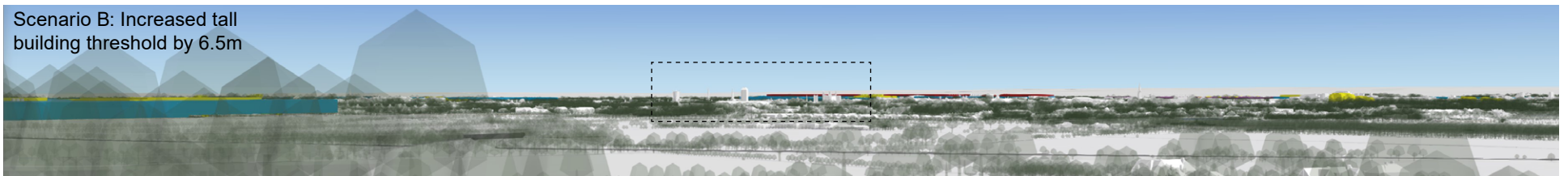
Existing context plus permitted buildings



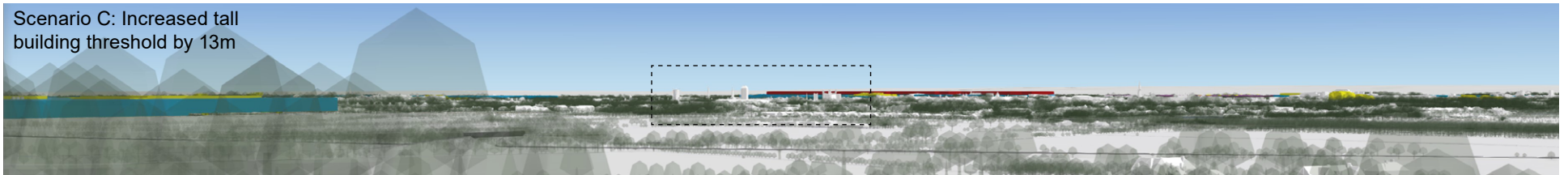
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m

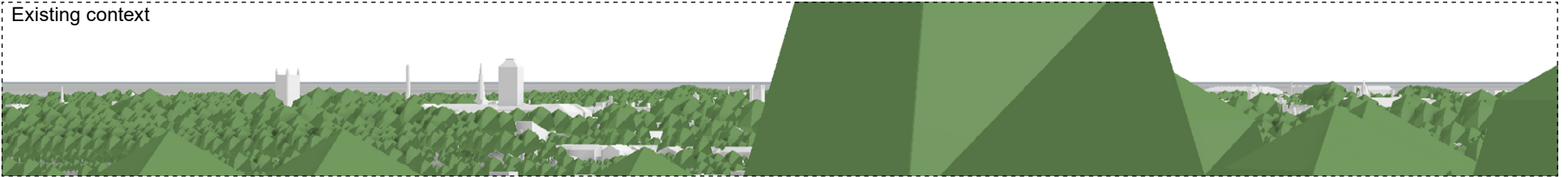


Scenario C: Increased tall building threshold by 13m

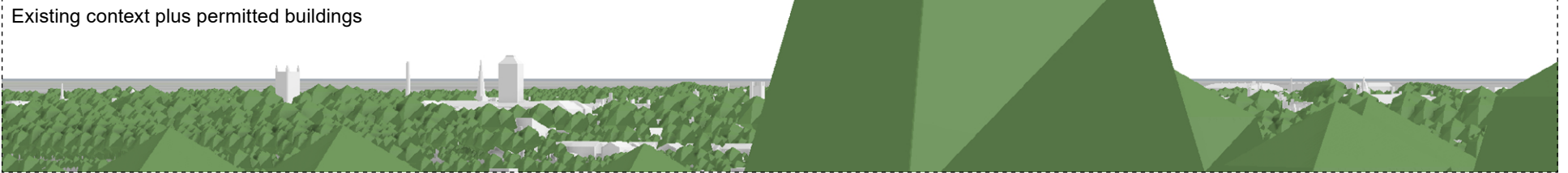


Magnified view onto the historic core

Existing context



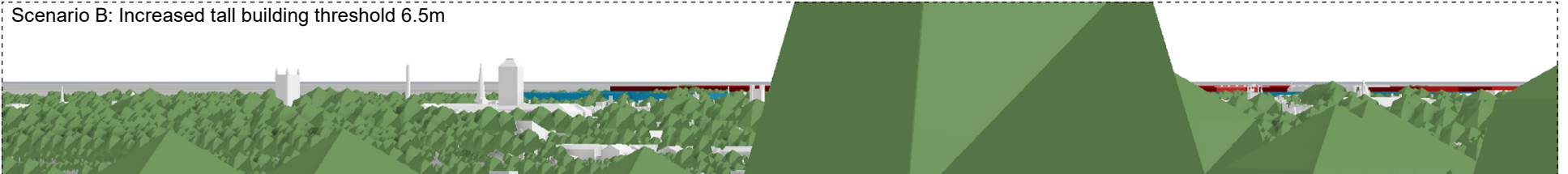
Existing context plus permitted buildings



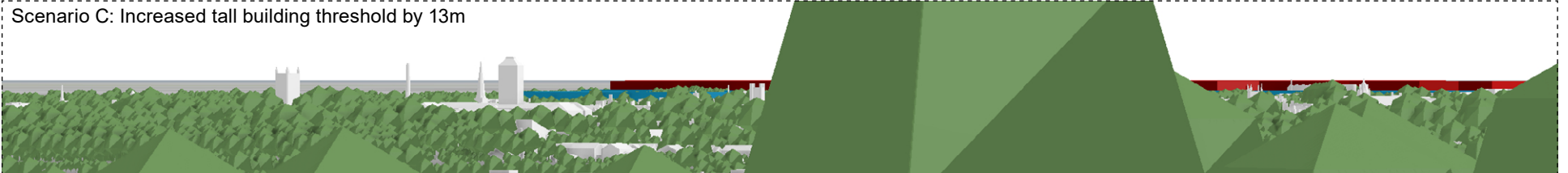
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold 6.5m



Scenario C: Increased tall building threshold by 13m



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STRATEGIC VIEW C - COTON ROAD

Very long range panoramic view - Sensitive

Relation to the historic core:

The northern part of the Area of Search is situated in the backdrop of historic core landmarks in this view.

Description of visual sensitivity:

The Museum of Technology Chimney and King's College Chapel are visible on the horizon, along with other modern developments in South Cambridge over Grantchester Meadows. The viewpoint emphasises the importance of the King's College Chapel, which commands a strong visual presence to the east. The landscape is largely rural, with a somewhat higher distant backdrop. Although the region is less prone to emerging development, the flat topography may allow tall structures to dominate.

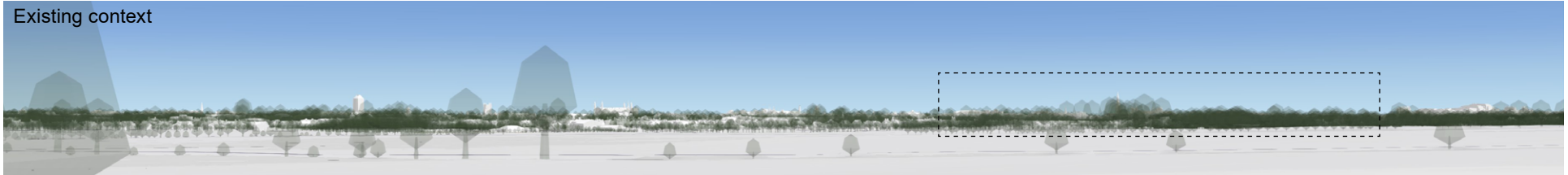
Impact assessment:

- **Scenario A (19m):**
no discernible impact due to long distance and tree cover.
- **Scenario B (25.5m):**
no discernible impact due to long distance and tree cover.
- **Scenario C (32m):**
no discernible impact due to long distance and tree cover.

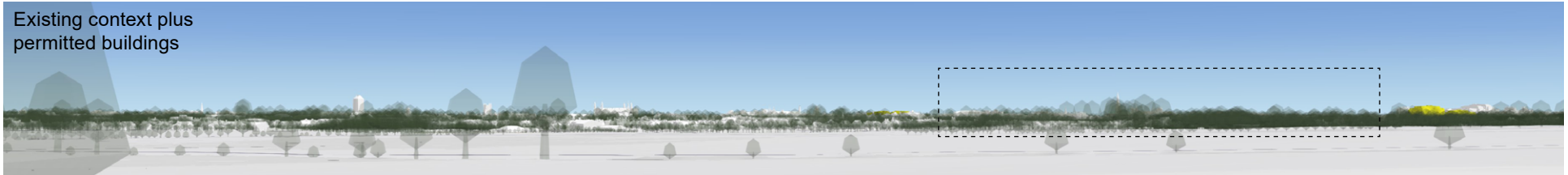
Strategic View C - Coton Road

Very long range panoramic view - Sensitive

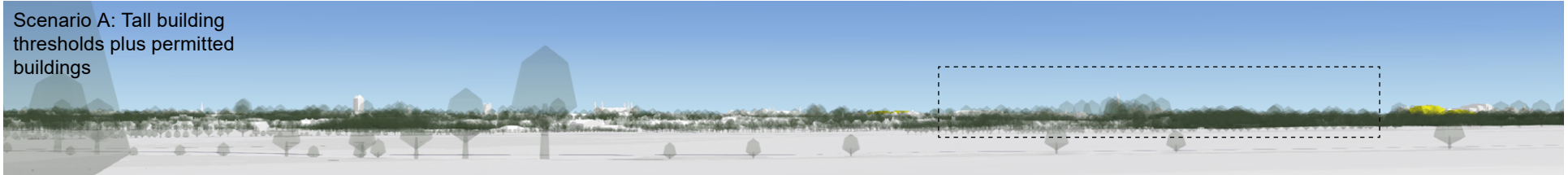
Existing context



Existing context plus permitted buildings



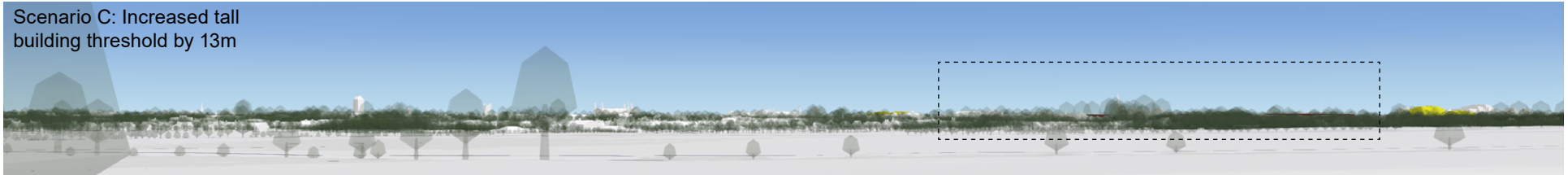
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m

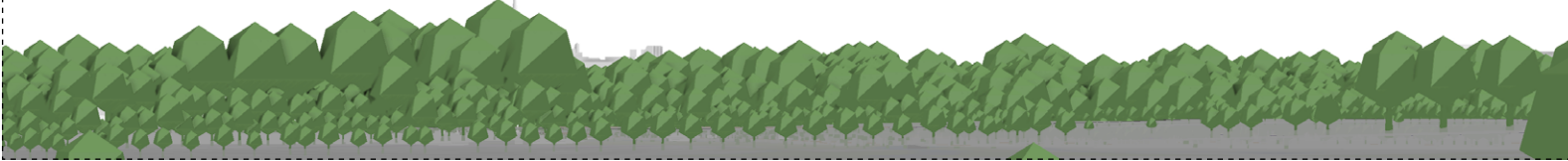


Scenario C: Increased tall building threshold by 13m

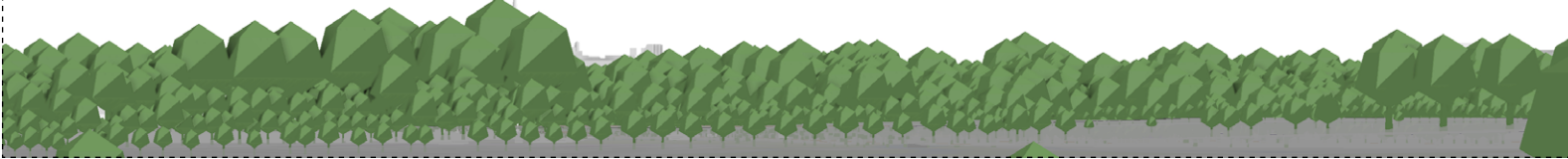


Magnified view onto the historic core

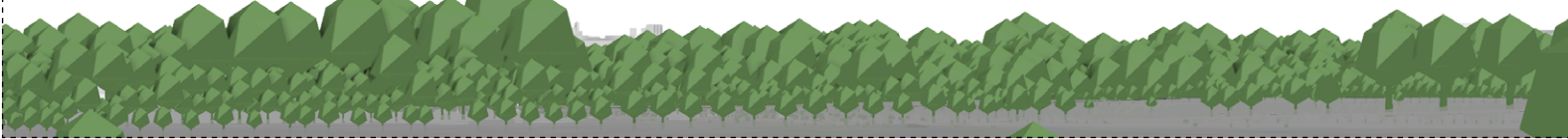
Existing context



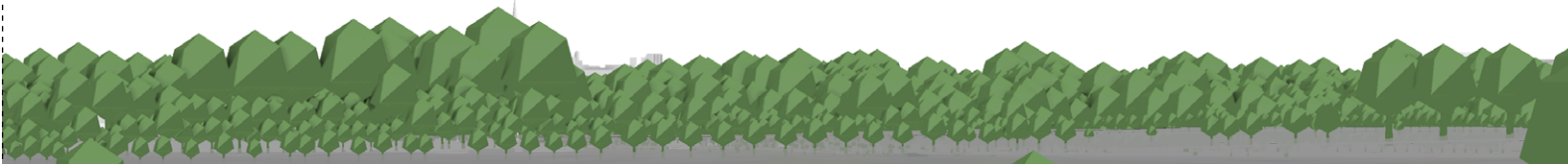
Existing context plus permitted buildings



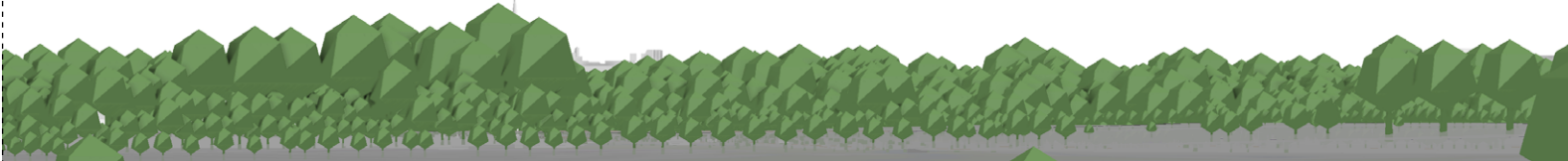
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



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STRATEGIC VIEW D - GRANTCHESTER ROAD

Long range panoramic view - Sensitive

Relation to the historic core:

Northern part of the Area of Search is situated in the backdrop of historic core landmarks in this view.

Description of visual sensitivity:

Elements of the historic core are visible above the treed skyline, though several trees in the near midground block large portions of the view. The background to these views, and the foreground permitting, are highly sensitive to change. The spire of the Church of Our Lady and the English Martyrs is the only church that interrupts the skyline, although it is largely obscured by midground trees. Both the spire and the tower of the University Library are prominently visible from the western outskirts of Cambridge, indicating that they are among the most visually prominent structures from this vantage point. Views of these buildings are moderately sensitive to change.

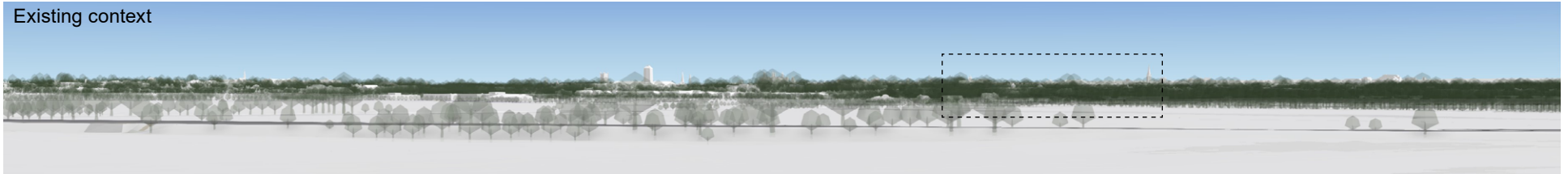
Impact assessment:

- **Scenario A (19m):**
no discernible impact due to long distance and tree cover.
- **Scenario B (25.5m):**
no discernible impact due to long distance and tree cover.
- **Scenario C (32m):**
no discernible impact due to long distance and tree cover.

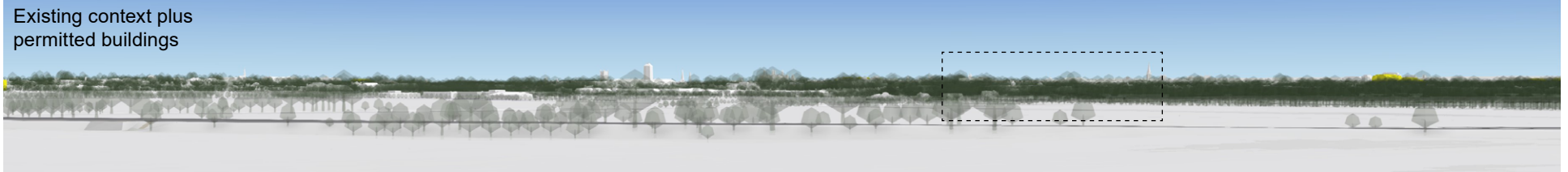
Strategic View D - Grantchester Road

Long range panoramic view - Sensitive

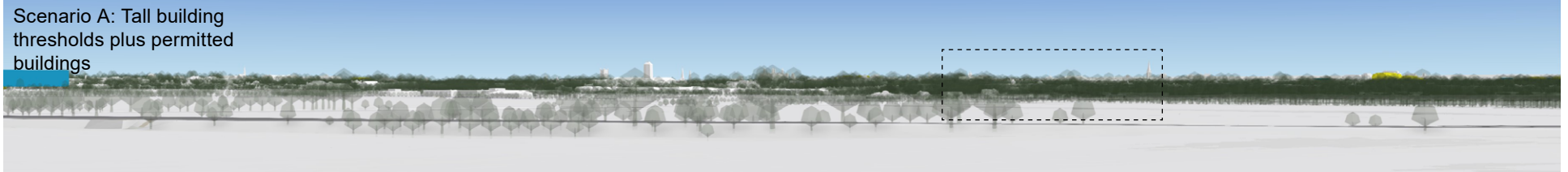
Existing context



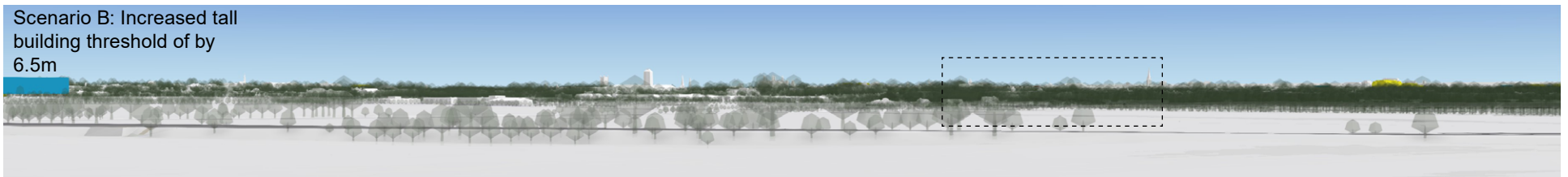
Existing context plus permitted buildings



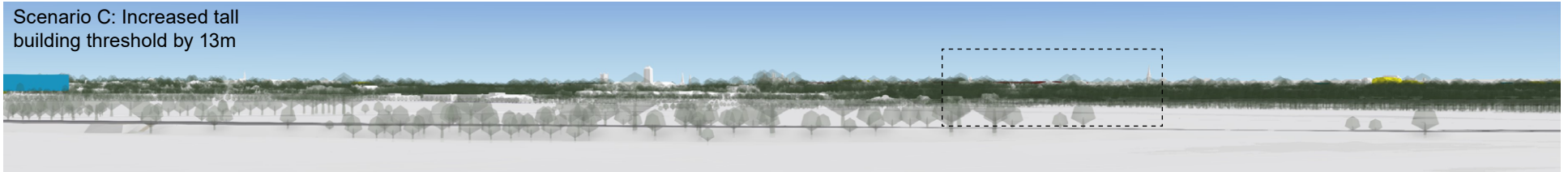
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold of by 6.5m

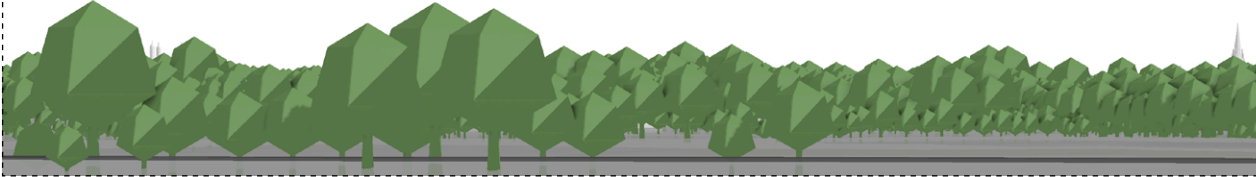


Scenario C: Increased tall building threshold by 13m

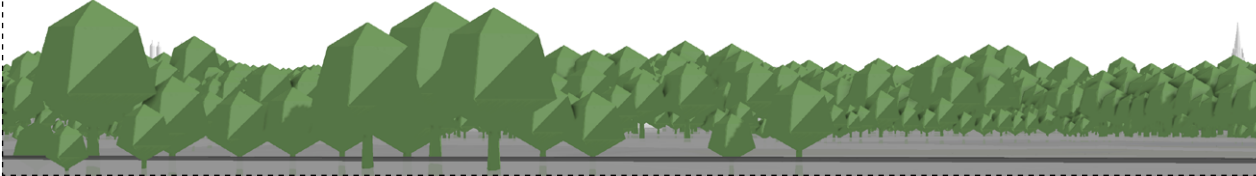


Magnified view onto the historic core

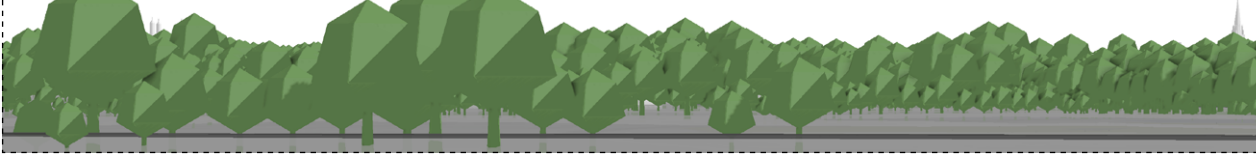
Existing context



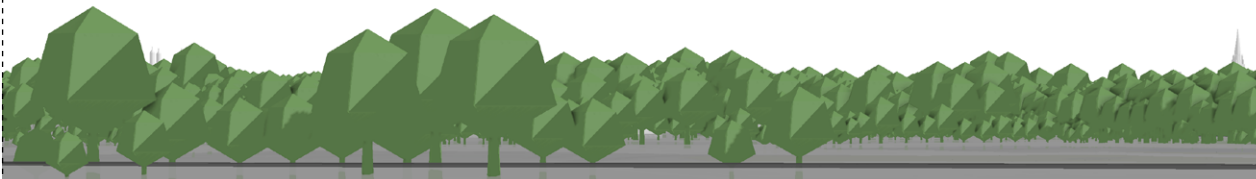
Existing context plus permitted buildings



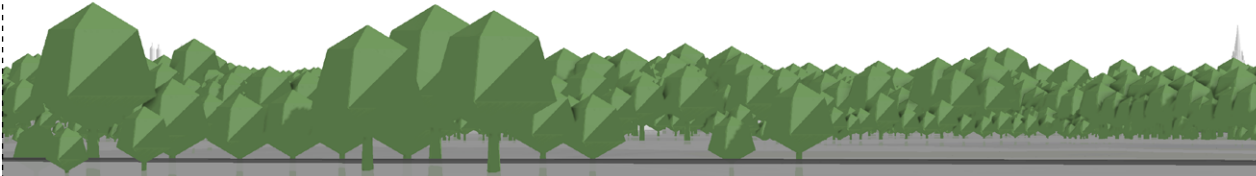
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



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STRATEGIC VIEW G - M11 BETWEEN JUNCTION 12 AND 13

Mid-range panoramic view - Sensitive

Relation to the historic core:

The Area of Search is situated in the backdrop of historic core landmarks in this view.

Description of visual sensitivity:

The view consists of a predominantly unbroken treed skyline, which conceals large portions of the view into Cambridge and its Historic Core, thereby contributing to a strong sense of rurality. As such, the view is moderately sensitive to development, especially tall buildings that may disrupt the skyline. The Cambridge University Library is the only tower within central Cambridge to break the skyline. Both the tower and the spire of the Church of Our Lady and the English Martyrs are among the most visually prominent structures from this view.

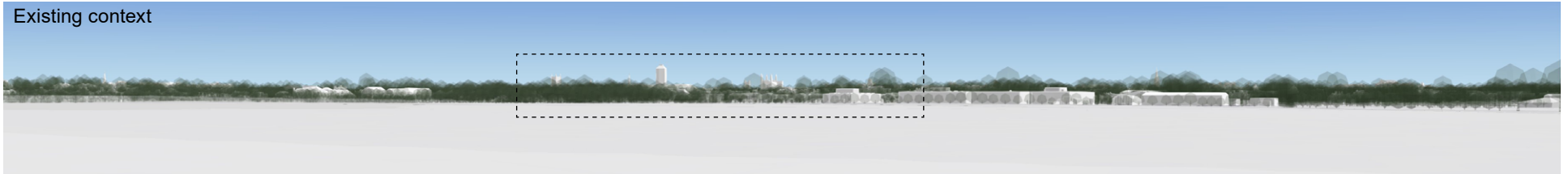
Impact assessment:

- **Scenario A (19m):**
no discernible impact due to long distance and tree cover.
- **Scenario B (25.5m):**
no discernible impact due to long distance and tree cover.
- **Scenario C (32m):**
no discernible impact due to long distance and tree cover.

Strategic View G - M11 between Junction 12 and 13

Mid-range panoramic view - Sensitive

Existing context



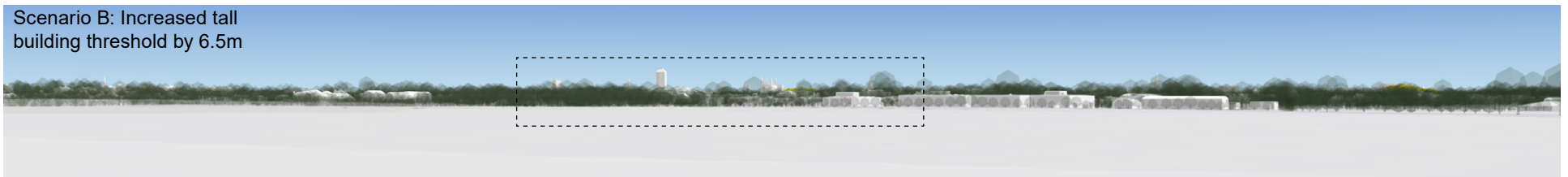
Existing context plus permitted buildings



Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



Magnified view onto the historic core

Existing context



Existing context plus permitted buildings



Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



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STRATEGIC VIEW K - LITTLE WIBRAHAM ROAD OVER A14**Very long range glimpsed view - Sensitive****Relation to the historic core:**

The Area of Search is situated in the foreground of historic core landmarks in this view.

Description of visual sensitivity:

A largely obscured view, dominated by trees lining the A14. The skyline is very subtle from this viewpoint, with few buildings contrasting against the horizon. The spire of the Church of Our Lady and the English Martyrs along with the chimney at the Cambridge Museum of technology are highly prominent in the landscape, commanding significant attention due to their size, despite the distance. The hangars for Cambridge Airport with their white hue and large mass appear conspicuously in the foreground of the city centre skyline.

Impact assessment:

- **Scenario A (19m):**

negligible impact in this view, with development partially hidden by tree cover.

- **Scenario B (25.5m):**

significant impact in parts of the area - development may affect or partially obstruct the view to the Chimney of the Museum of Technology (in the northern part) and to the Church of Our Lady and the English Martyrs (in the southern part), which would harm the significance of this view. Development in all parts of the area may become prominently visible in the foreground and against the horizon line, alter the character of this view, and visually contrast with the predominantly rural environment.

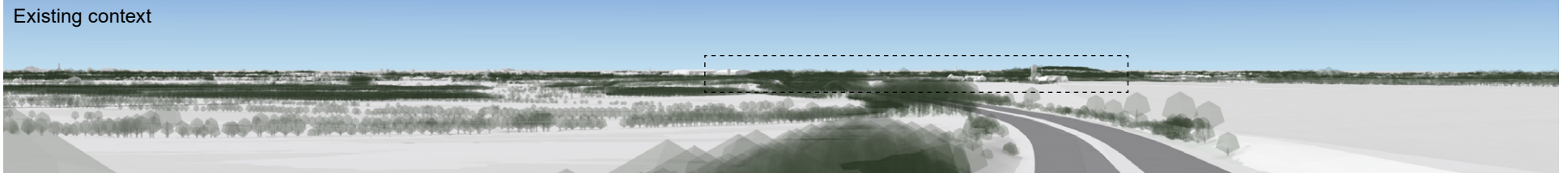
- **Scenario C (32m):**

significant impact - development may significantly detract or fully obstruct the view to the Chimney of the Museum of Technology (in the northern part) and to the Church of Our Lady and the English Martyrs (in the southern part), which would be highly damaging to the significance of this view. Development in all parts of the area may become domineering in the foreground and against the horizon line, transform the character of this view, and strongly contrast with the predominantly rural environment.

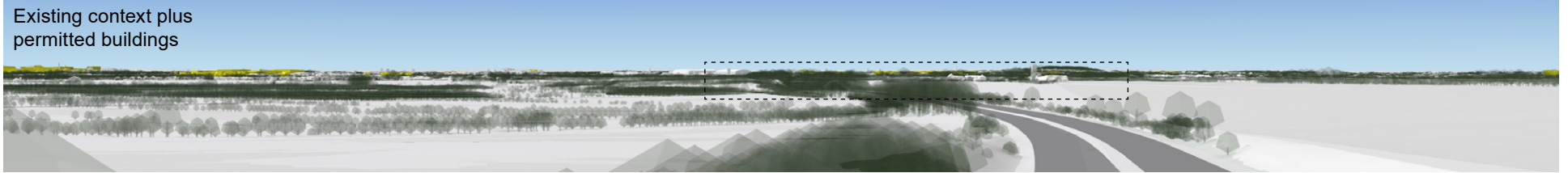
Strategic View K - Little Wibraham Road over A14

Very long range glimpsed view - Sensitive

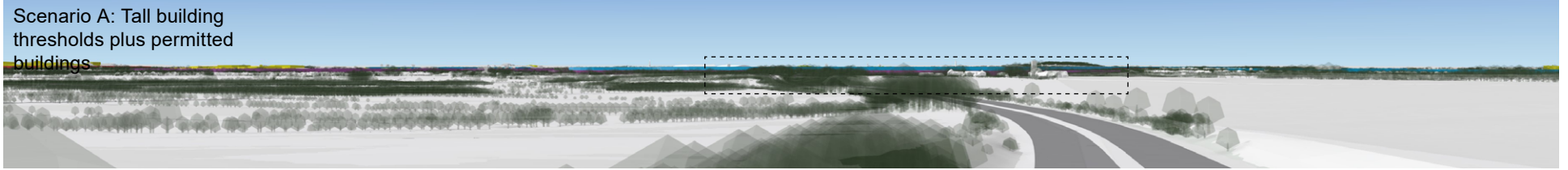
Existing context



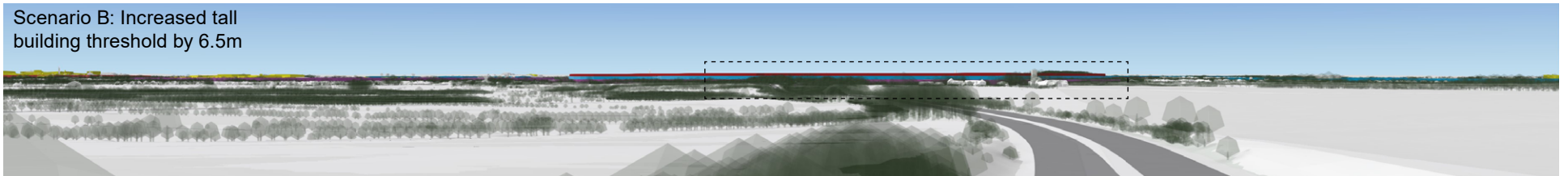
Existing context plus permitted buildings



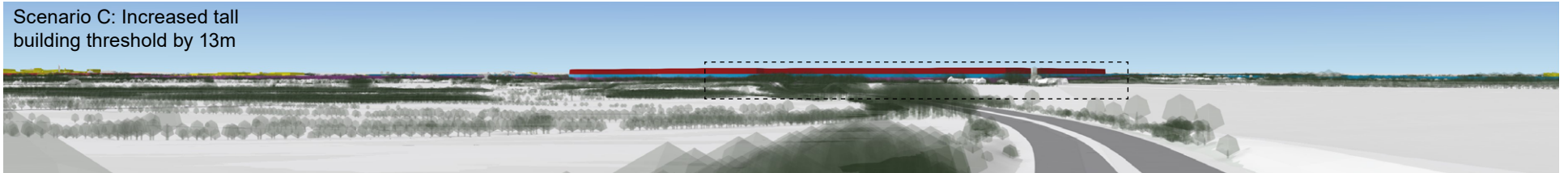
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



Magnified view onto the historic core

Existing context



Existing context plus permitted buildings



Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



DYNAMIC VIEW L - DITTON MEADOWS

Relation to the Area of Search:

View L is situated in Ditton Meadows, which is 1.4km to the northwest of the site. The Area of Search will be visible in the backdrop of an open landscape view and will rise above the existing treeline and roofscape.

Impact assessment:

- **Scenario A (19m):**

negligible impact - development in the northern part of the area may marginally rise above the roofscape and tree belt, potentially intruding into views from the open landscape. However, this impact is likely to be screened by trees in the middle ground.

- **Scenario B (25.5m):**

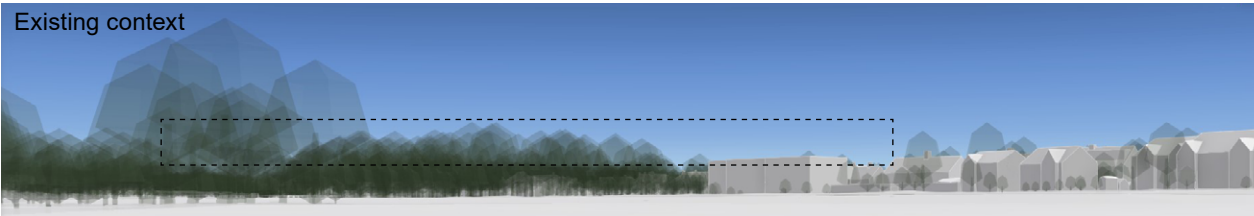
moderate impact in parts of the area - development in the northern part of the area may rise notably above the roofscape and tree belt, potentially intruding into views from the open landscape. Subject to location, this impact in some areas may be screened by trees in the middle ground.

- **Scenario C (32m):**

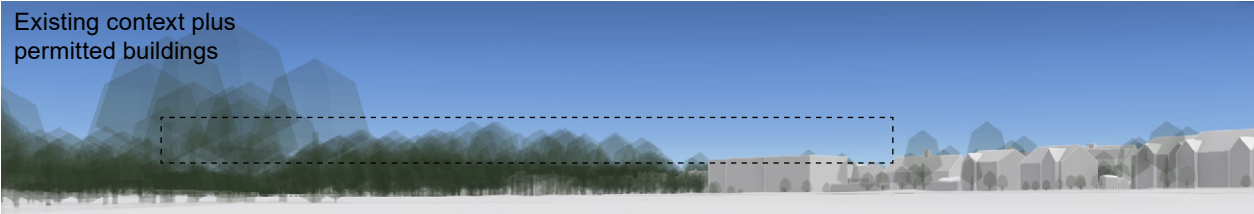
significant impact in parts of the area - development in the northern part of the area rises dominantly above the roofscape and tree belt and is likely to intrude into views from the open landscape. Whilst some of this effect may be screened by trees, there is likely to be an adverse effect on the landscape character.

Dynamic View L - Ditton Meadows

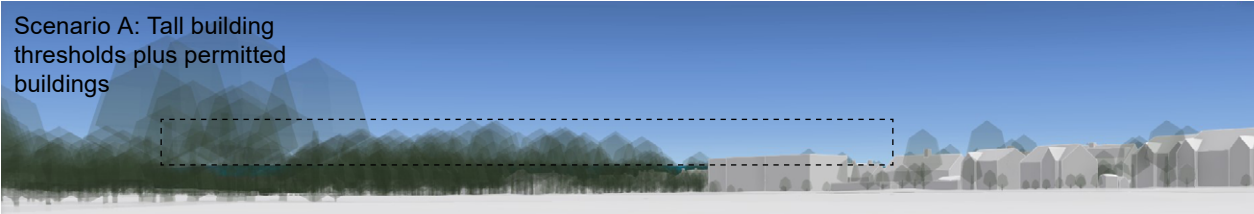
Existing context



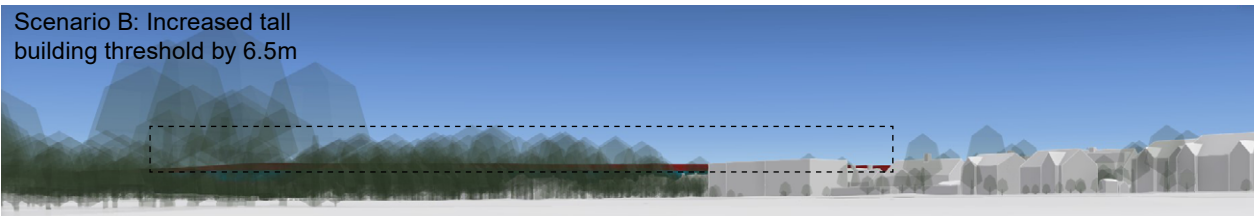
Existing context plus permitted buildings



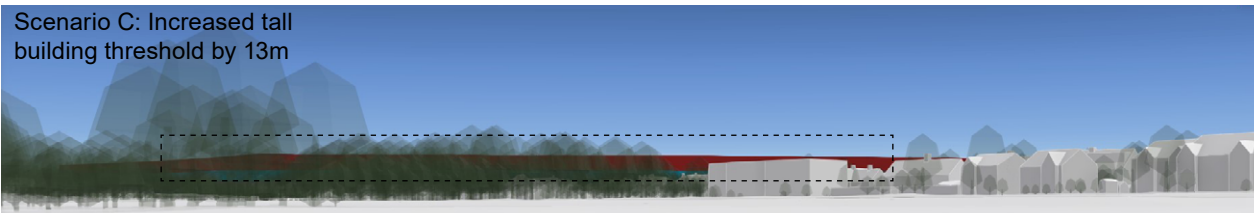
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



DYNAMIC VIEW N - BATES BIKES LOCK

Relation to the Area of Search:

View N is situated near Bates Bike Lock, which is 3km to the north of the site. The Area of Search may be visible in the backdrop of the open landscape view, however may be screened by trees in the foreground and midground.

Impact assessment:

- **Scenario A (19m):**

moderate impact in parts of the area - development in the northern part of the area may rise notably above the roofscape and tree belt, potentially intruding into views from the open landscape. Subject to location, this impact in some areas may be screened by trees in the middle ground.

- **Scenario B (25.5m):**

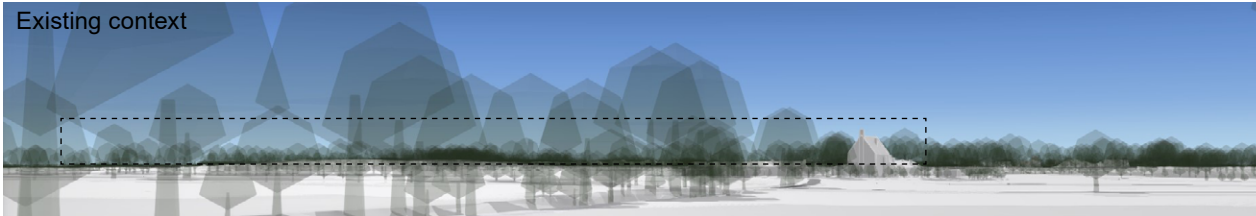
moderate impact in parts of the area - development in the northern part of the area may rise notably above the roofscape and tree belt, potentially intruding into views from the open landscape. Subject to location, this impact in some areas may be screened by trees in the middle ground.

- **Scenario C (32m):**

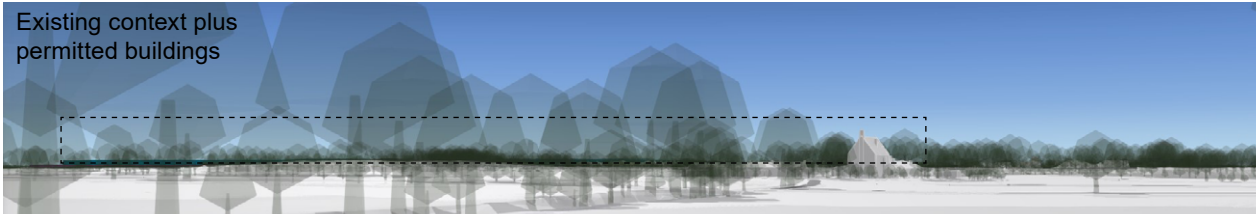
significant impact in parts of the area - development in the northern part of the area rises dominantly above the roofscape and tree belt and is likely to intrude into views from the open landscape. Whilst some of this effect may be screened by trees, there is likely to be an adverse effect on the landscape character.

Dynamic View N - Bates Bike Lock

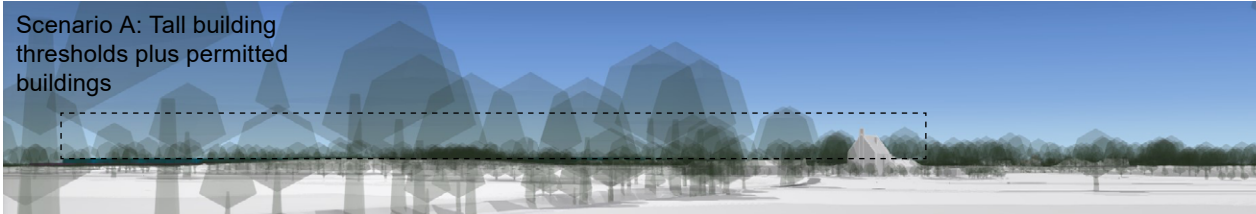
Existing context



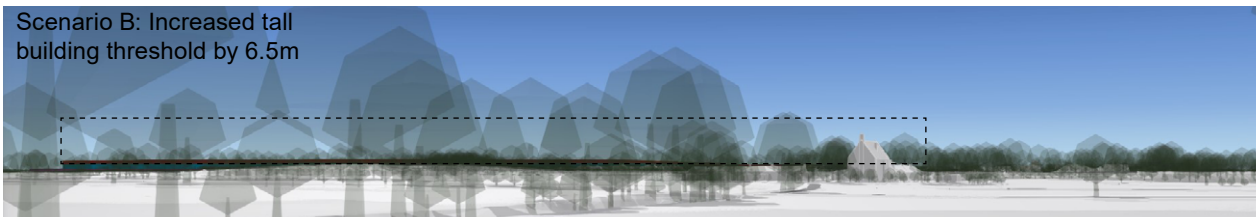
Existing context plus permitted buildings



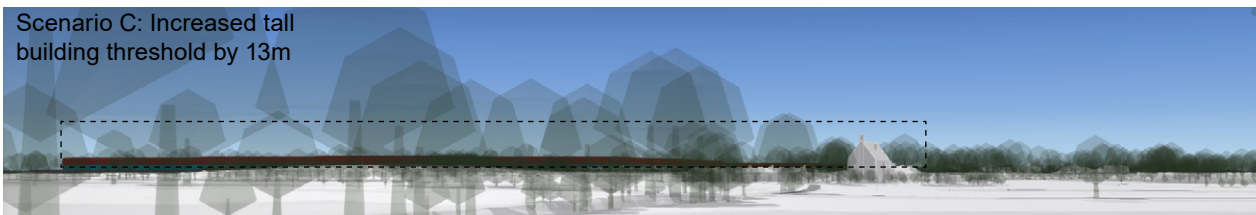
Scenario A: Tall building thresholds plus permitted buildings



Scenario B: Increased tall building threshold by 6.5m



Scenario C: Increased tall building threshold by 13m



SUMMARY AND RECOMMENDATIONS - EAST CAMBRIDGE

This Area of Search is located to the eastern edge of the city. In many strategic views tall development may appear in the distance behind landmarks in the historic core, a considerable distance away. As such the area is less sensitive to greater height.

Testing of relevant strategic views indicate the following impacts:

Scenario A (19m) - Minimal Impact

Strategic Views (Highly Sensitive):

- Views B, H experience no discernible impact, due to the long distance and tree cover.

Strategic Views (Sensitive):

- Views C, D, G report no discernible impact, as development remains largely hidden behind trees.
- View K notes negligible impact, with development partially screened by tree cover.

Dynamic Views (Sensitive):

- View L experiences negligible impact, as development marginally rises above the roofscape but is screened by trees.
- View N sees a moderate impact in the northern part, where development rises

above the roofscape and tree belt, though some screening mitigates the effect.

Location of Impact:

- Any visibility is minor and backgrounded, with trees and distance reducing urbanisation effects.

Scenario B (25.5m) – Moderate to Significant Impact in Parts of Area

Strategic Views (Highly Sensitive):

- View B remains unaffected, with development fully obscured by distance and tree cover.
- View H faces significant impact in parts of the area, particularly in the northern section, where large-scale buildings may appear in the backdrop of the historic centre.
 - This could interfere with the silhouette of King's College Chapel and the Church of St. Mary the Great.
 - The southern part of the area has a less problematic impact, as development is more distant and blends into the background.

Strategic Views (Sensitive):

- Views C, D, G remain unaffected, with development hidden by distance and tree cover.
- View K sees a significant impact, as development may partially obstruct views of the Chimney of the Museum of Technology (north) and the Church of Our Lady and the English Martyrs (south).
 - Development also becomes more visible in the foreground, affecting the rural character of the view.

Dynamic Views (Sensitive):

- View L experiences moderate impact, as development rises above the roofscape and tree belt, becoming more visible from open landscapes.
- View N also faces a moderate impact, as development intrudes into views from the open landscape, though some screening remains.

Location of Impact:

- Northern parts experience stronger skyline changes, particularly where development aligns with historic landmarks.

Scenario C (32m) – Significant Impact

Strategic Views (Highly Sensitive):

- View B remains unaffected due to distance and tree cover.
- View H experiences a significant impact, particularly in the northern part, where development may:
 - Rise higher than the Church of St. Mary the Great, interfere with the horizon line, and crowd the skyline.
 - Obstruct or alter the silhouette of key historic landmarks, reducing their prominence.
 - The southern part of the area could still create a height accent, further fragmenting the skyline.

Strategic Views (Sensitive):

- Views C, D, G remain unaffected, with development hidden by trees and distance.
- View K sees a significant impact, as development may:
 - Fully obstruct views of the Chimney of the Museum of Technology and the Church of Our Lady and the English Martyrs.
 - Dominate the skyline, strongly contrasting with the rural character and altering the view's significance.

Dynamic Views (Sensitive):

- View L experiences a significant impact, with development rising dominantly above the roofscape and tree belt, intruding into open landscape views.
- View N also faces a significant impact, with development standing out on the horizon, altering the landscape character.

Location of Impact:

- The northern part of the area sees the greatest skyline disruption, affecting historic landmark silhouettes.
- Foreground elements become more dominant, urbanising previously rural and open views.

Overall Summary

Scenario A (19m): Minimal impact, with development largely hidden by tree cover and distance.

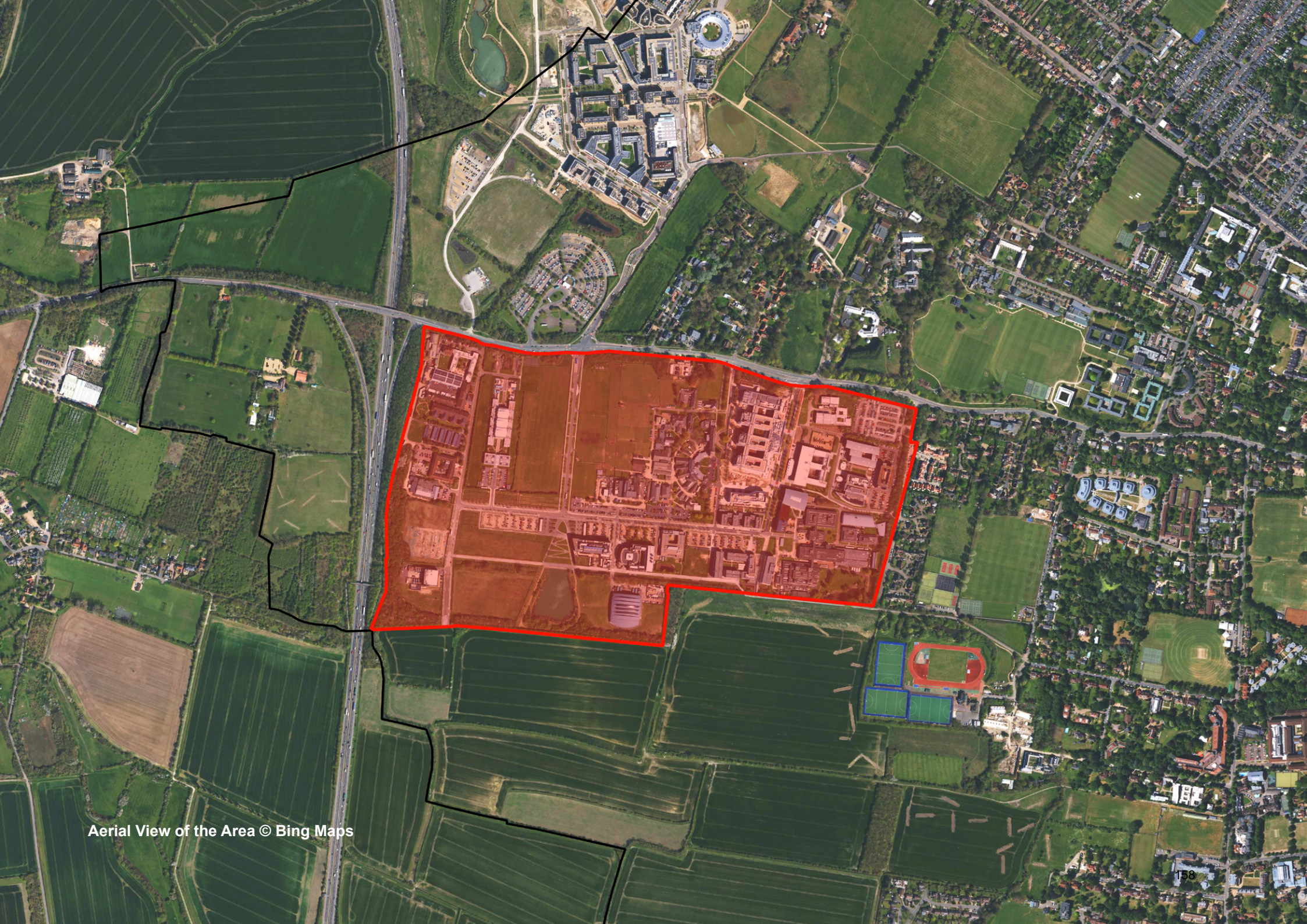
Scenario B (25.5m): Significant impact in the northern part of the area, where development may appear in the backdrop of the historic core landmarks (view H) and potentially intrude into dynamic views from the river corridor (View L and N). In view K, development would urbanise the rural landscape context and in the northern and southern extent has an adverse impact on views to key landmarks.

Scenario C (32m): Significant impact in the northern part of the area, where development may appear in the backdrop of the historic core landmarks (view H) and potentially intrude into dynamic views from the river corridor (View L and N). In view K, development could be domineering in the foreground and urbanise the rural landscape context, and detract or obstruct the view to key landmarks.

Recommendations

- No tall buildings in the northern part of the site, where it would become visible behind or in the immediate setting of the landmarks in the historic city centre.
- No tall buildings to block views to the Chimney of the Museum of Technology and the Church of Our Lady in View K.
- Potential opportunity for carefully managed clusters of taller buildings to create a new distinct skyline feature in the central/southern part of the area of search, marking East Cambridge on the skyline and serving as a locally meaningful centre for the emerging neighbourhood.
- Top heights should not exceed 32m to avoid over-dominating the skyline, and the majority of taller buildings should be well below this height.
- General height should step down towards the open landscape interface of the area (north, east and south), and tall buildings should be situated behind a buffer of a minimum of 100m from the edge of the area.

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Aerial View of the Area © Bing Maps

2.5 Area of Search - West Cambridge | Institute of Manufacturing | Schlumberger Research Institute

THE AREA

The Area of Search encompasses the West Cambridge site, which spans 66 hectares of University land. The site is bounded by Madingley Road to the north, Clerk Maxwell Road to the east, the Coton Footpath to the south, and the M11 to the west.

Currently, the West Cambridge site hosts a number of prominent academic research facilities, including the Cavendish Laboratory, the Whittle Laboratory, and the Department of Veterinary Medicine. Additionally, the western portion of the site is home to a variety of commercial research organisations and research institutes, such as Schlumberger, Aveva, and the British Antarctic Survey.

The area is proposed to be allocated within the emerging Greater Cambridge Local Plan. In July 2021, outline planning permission was granted, for a long-term vision and strategy for the comprehensive development of the site and the establishment of the West Cambridge Innovation District. This initiative presents substantial opportunities for both academic and commercial research, alongside various other supporting facilities.



Birds eye View of the Area © Google Earth