

**ROYAL BROMPTON HOSPITAL**  
**DAYLIGHT & SUNLIGHT STUDIES**

**JULY 2016**

---

# SUNLIGHT & DAYLIGHT STUDIES

This document contains more information on the sunlight and daylight studies prepared to assist in the development of the plans for the Royal Brompton Hospital Sydney Wing extension. The videos and images in this document show the sunlight and daylight studies for the Spring Equinox (21st March), Winter Solstice (21st December) and Summer Solstice (21st June) and was shared at the third Community Liaison Group meeting on 25th May 2016.

## 1. THE BUILDING RESEARCH ESTABLISHMENT (BRE) GUIDANCE

In preparing the sunlight and daylight studies the design team followed BRE guidance as set out in “Site Layout Planning for Daylight & Sunlight 2011”, which is the standard identified in the Royal Borough of Kensington & Chelsea Planning Policy by which daylight and sunlight should be assessed.

The BRE guidance advises that amenity spaces such as gardens, parks and children’s playgrounds should be considered for overshadowing assessments. For it to appear adequately sunlit throughout the year at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21 March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

In line with BRE guidance the design team prepared daylight and sunlight studies for the Spring Equinox (March 21st). Members of the Community Liaison Group requested that additional sunlight and daylight studies be completed for the Winter and Summer Solstice, in order to better understand the impact the proposed extension would have on St Luke’s Church and Gardens at different times of the year.

## 2. DAYLIGHT & SUNLIGHT STUDIES

### March 21st - Spring Equinox

These timelapse videos show the existing and proposed impact of the development during March 21st (Spring Equinox) in hourly increments between 07:00-17:00 hours.

To see the timelapse of the existing impact click [here](#).

To see the timelapse of the proposed impact click [here](#).

The biggest impact on 21st March is on light from 3pm-4pm when the sun would be behind the proposed building.

### December 21st - Winter Solstice

These timelapse videos show the existing and proposed impact of the development during December 21st (Winter Solstice) in quarterly hour increments between 14:00-15:30 hours.

To see the timelapse of the existing impact click [here](#).

To see the timelapse of the proposed impact click [here](#).

On 21st December there is minimal sun and the main encroachment is to the South-West of St Luke’s Gardens.

### June 21st - Summer Solstice

These timelapse videos show the existing and proposed impact of the development during June 21st (Summer Solstice) in hourly increments between 07:00-17:00 hours.

To see the timelapse of the existing impact click [here](#).

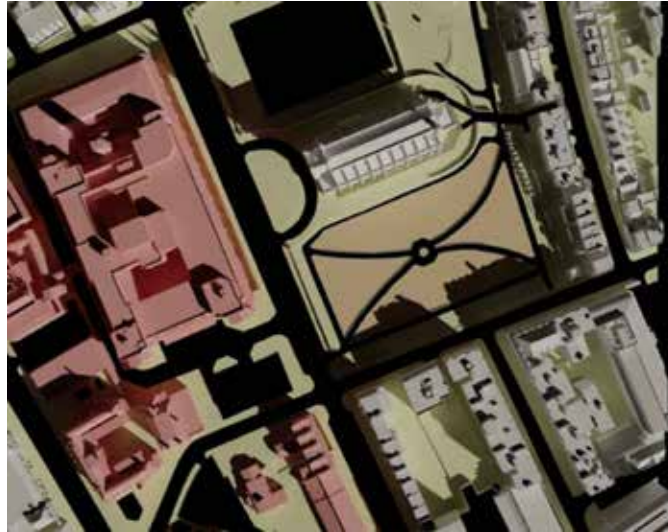
To see the timelapse of the proposed impact click [here](#).

The time-lapse for 21st June shows currently there is no shadow a 5pm but the proposed extension would bring a shadow to South-West of St Luke’s Gardens from 4pm/5pm.

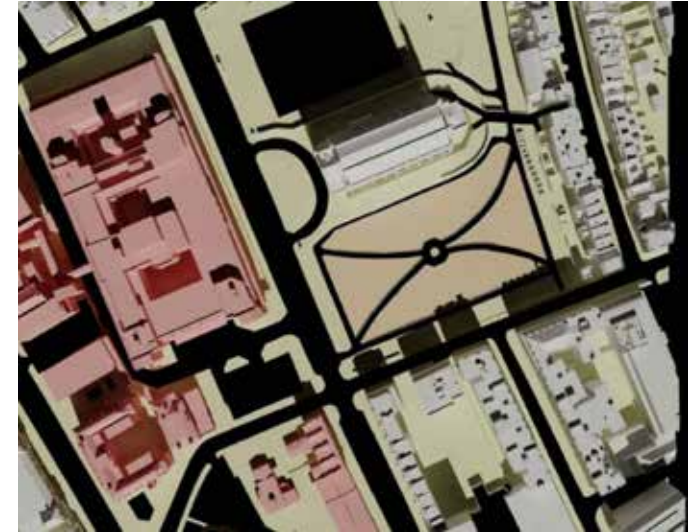
# MARCH 21ST - SPRING EQUINOX



7:00 EXISTING



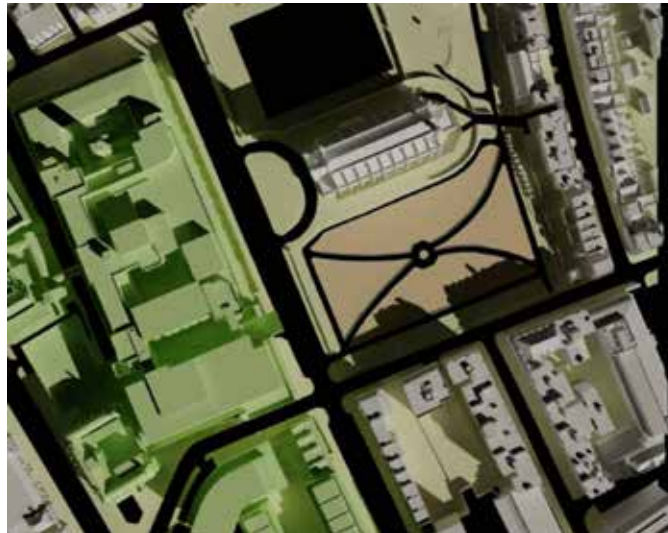
9:00 EXISTING



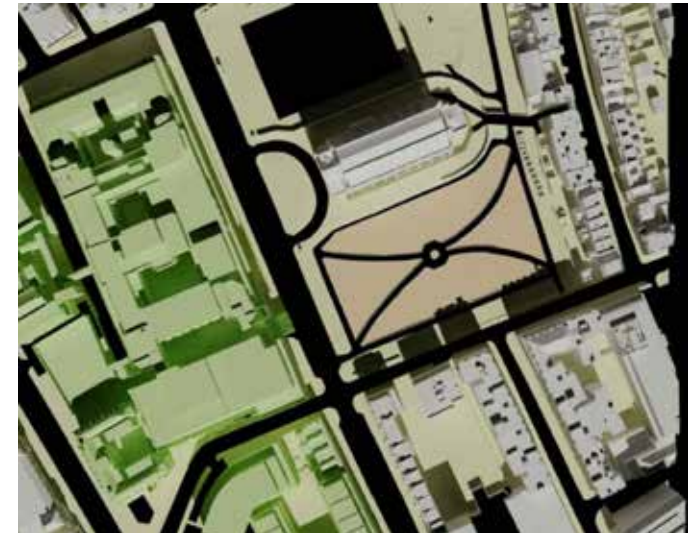
11:00 EXISTING



7:00 PROPOSED



9:00 PROPOSED

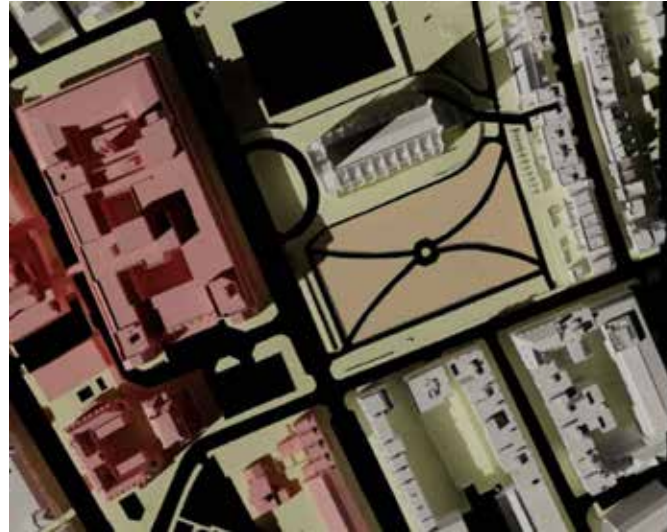


11:00 PROPOSED

# MARCH 21ST - SPRING EQUINOX



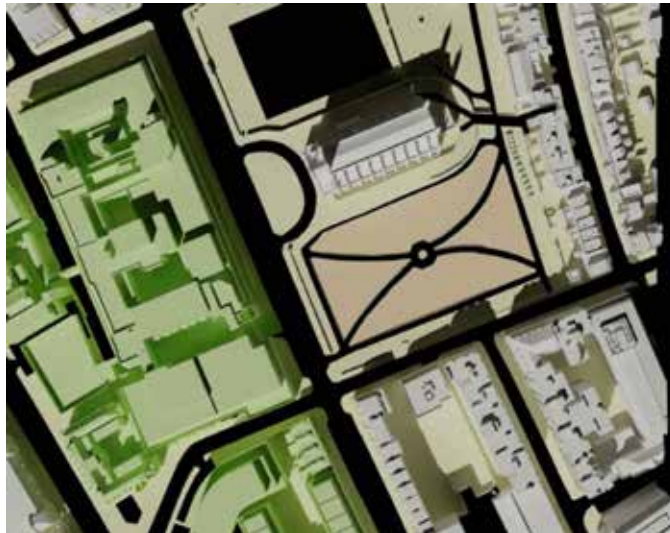
13:00 EXISTING



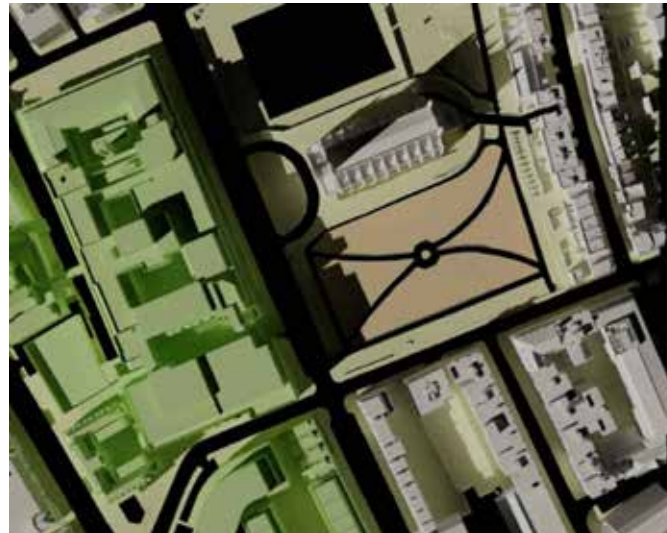
15:00 EXISTING



17:00 EXISTING



13:00 PROPOSED



15:00 PROPOSED



17:00 PROPOSED

# DECEMBER 21ST - WINTER SOLSTICE



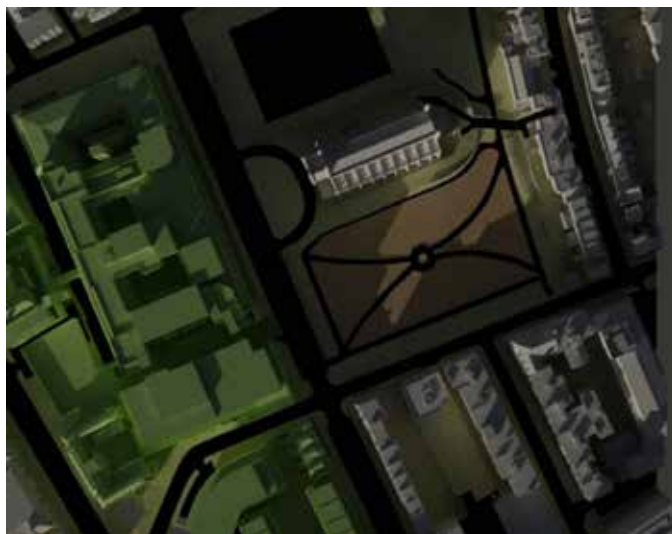
14:00 EXISTING



14:15 EXISTING



14:30 EXISTING



14:00 PROPOSED



14:15 PROPOSED



14:30 PROPOSED

# DECEMBER 21ST - WINTER SOLSTICE



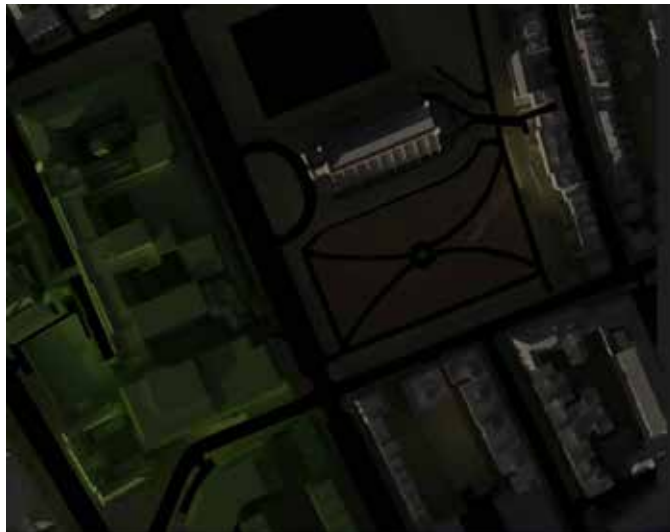
14:45 EXISTING



15:00 EXISTING



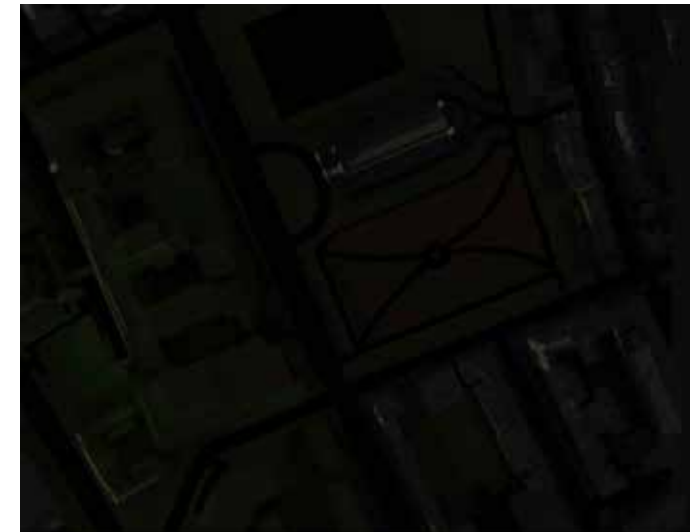
15:15 EXISTING



14:45 PROPOSED

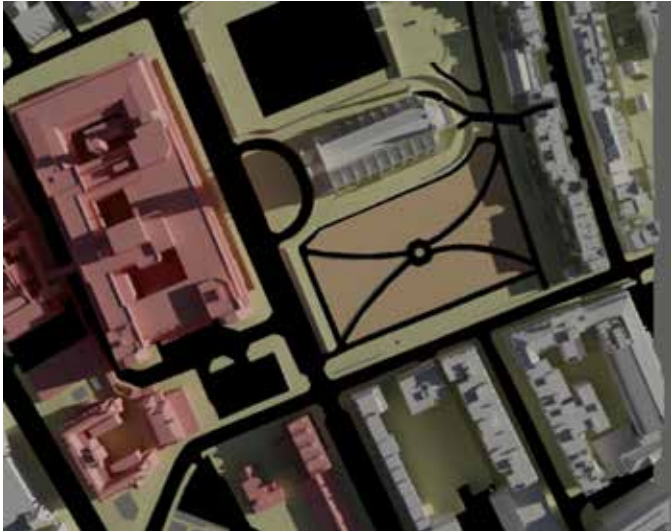


15:00 PROPOSED

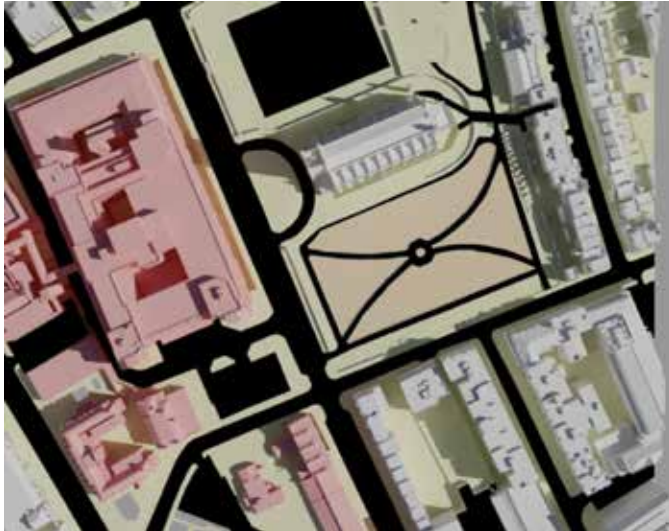


15:15 PROPOSED

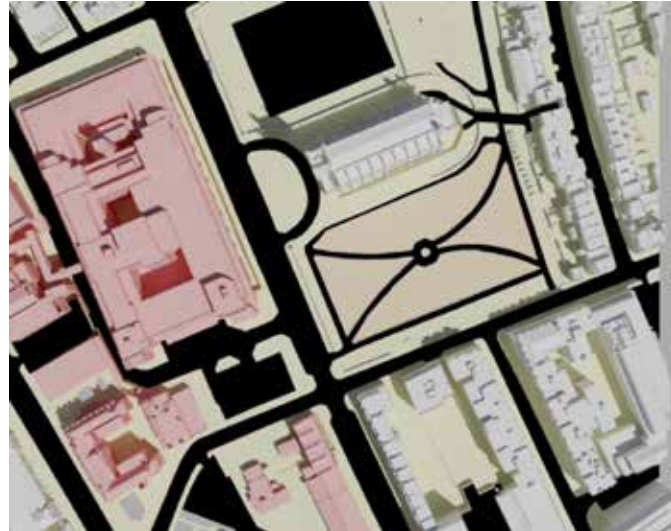
# JUNE 21ST - SUMMER SOLSTICE



7:00 EXISTING



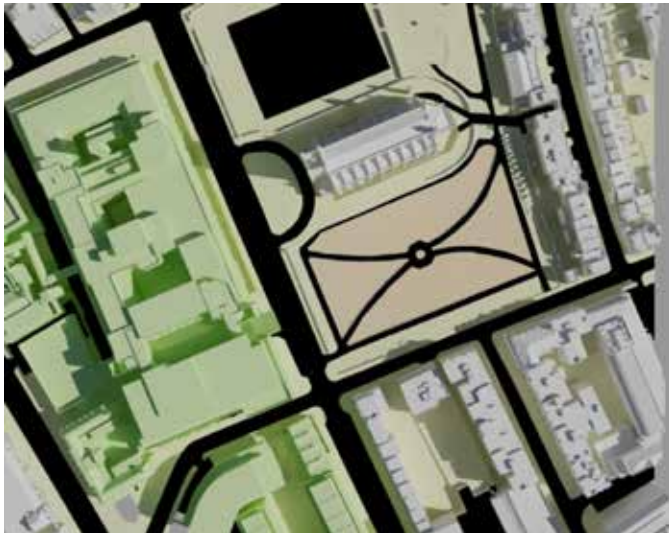
9:00 EXISTING



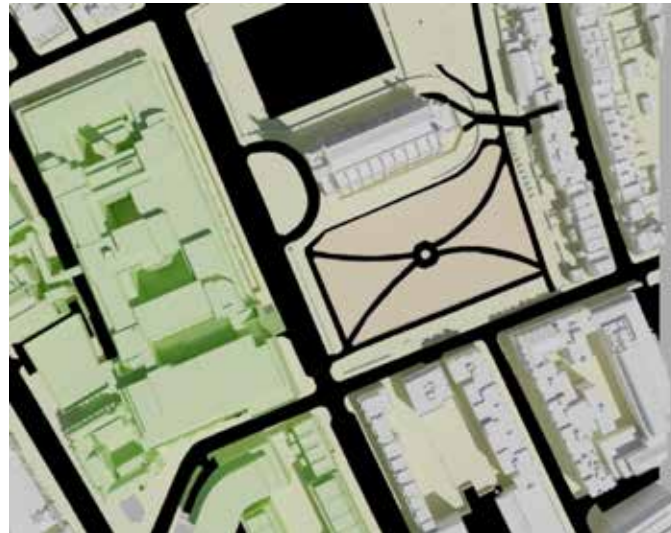
11:00 EXISTING



7:00 PROPOSED

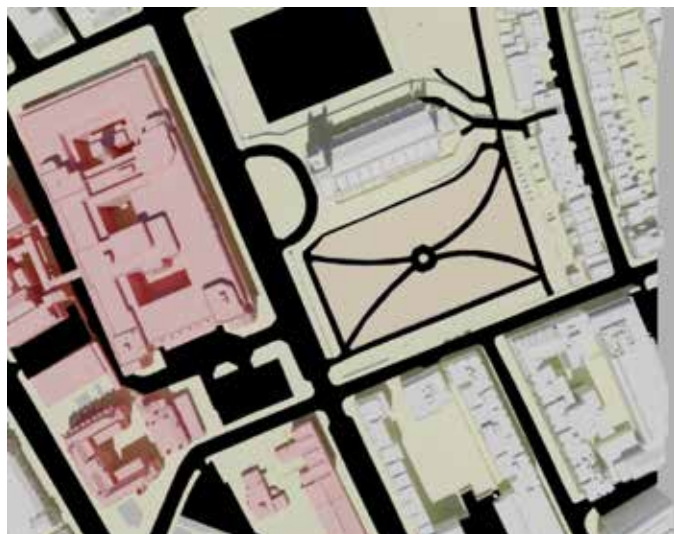


9:00 PROPOSED

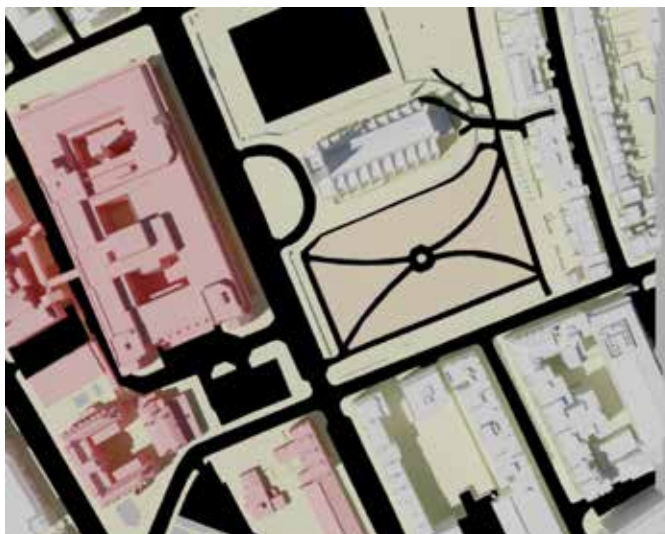


11:00 PROPOSED

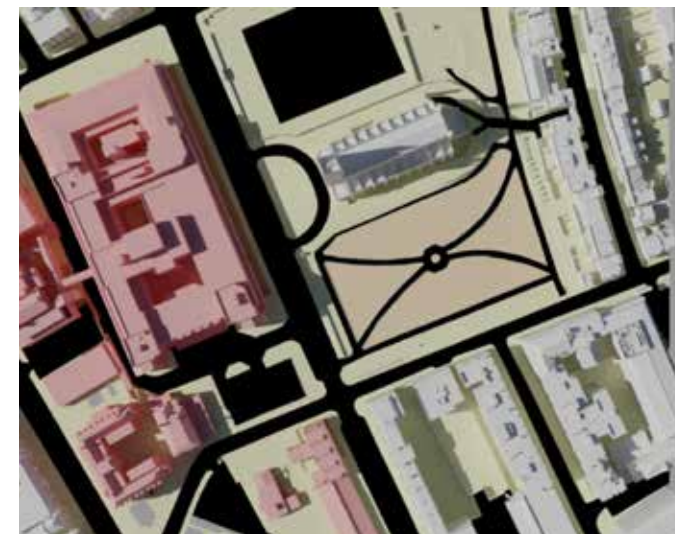
# JUNE 21ST - SUMMER SOLSTICE



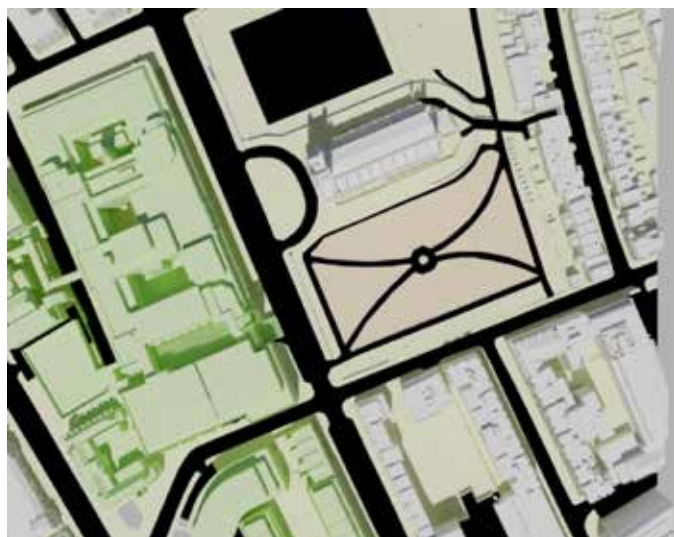
13:00 EXISTING



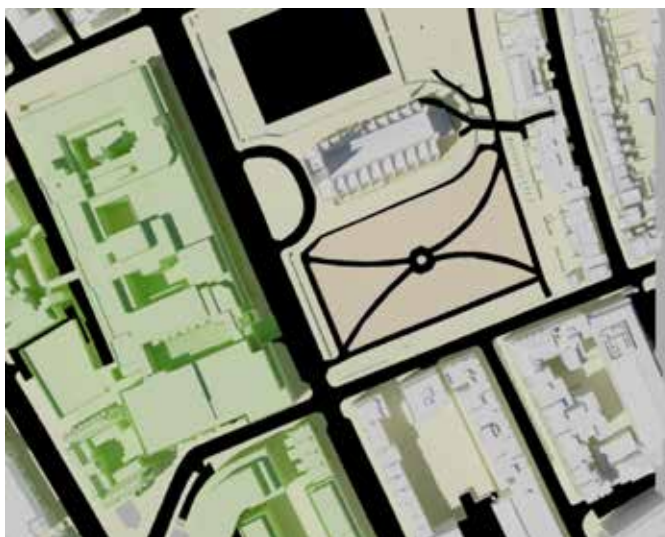
15:00 EXISTING



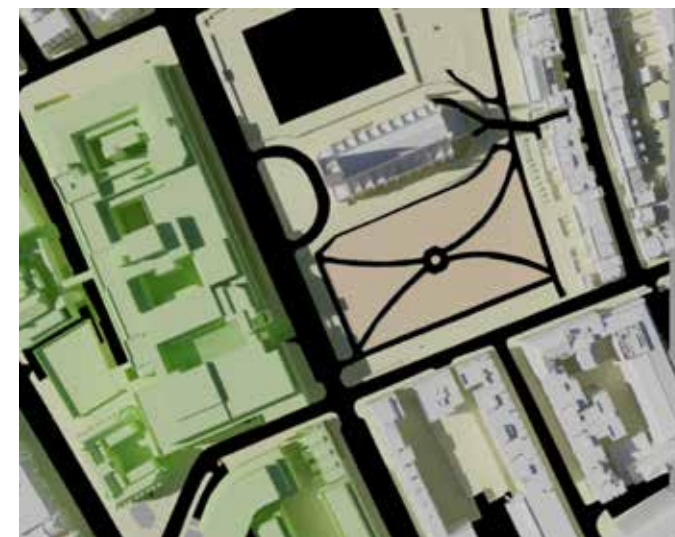
17:00 EXISTING



13:00 PROPOSED



15:00 PROPOSED



17:00 PROPOSED