



DAYLIGHT & SUNLIGHT

OVERSHADOWING ASSESSMENT

The Oracle, Reading

17 August 2023

GIA No: **19007**

PROJECT DATA:

Client **Packaged Living**
Architect **CRTKL**
Project Title **The Oracle, Reading**
Project Number **19007**

REPORT DATA:

Report Title **Overshadowing Assessments**
GIA Department **Daylight & Sunlight**
Dated **17 August 2023**

Prepared by **CN**
Checked by **ES**
Type **Planning**

Revisions	No:	Date:	Notes:	Signed:

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SOURCES OF INFORMATION:

Information Received **IR-07,08,10,11-19007**
Release Number **Rel_03_19007_DSD**
Issue Number **02**
Site Photos **GIA**
3D models **VERTEX**
OS Data **FIND Maps**



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1 SCENARIOS

EXISTING

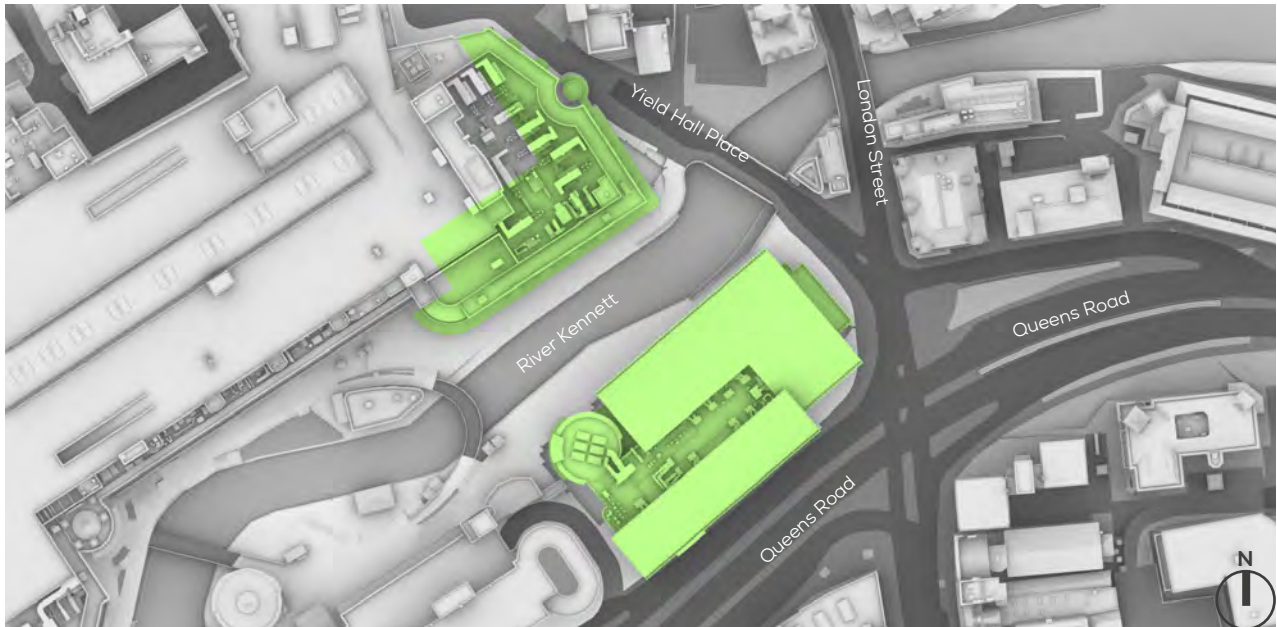


Fig. 01: Top View - Existing Scenario

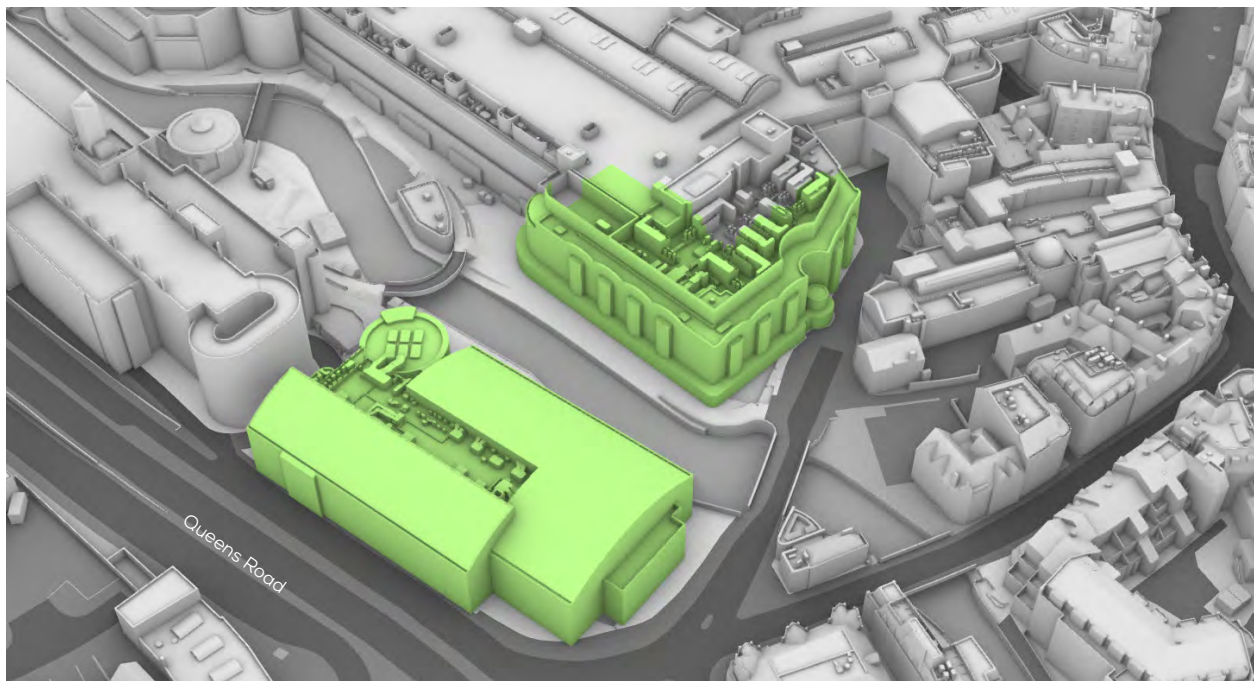


Fig. 02: Perspective View - Existing Scenario

PROPOSED



Fig. 03: Top View - Proposed Scenario

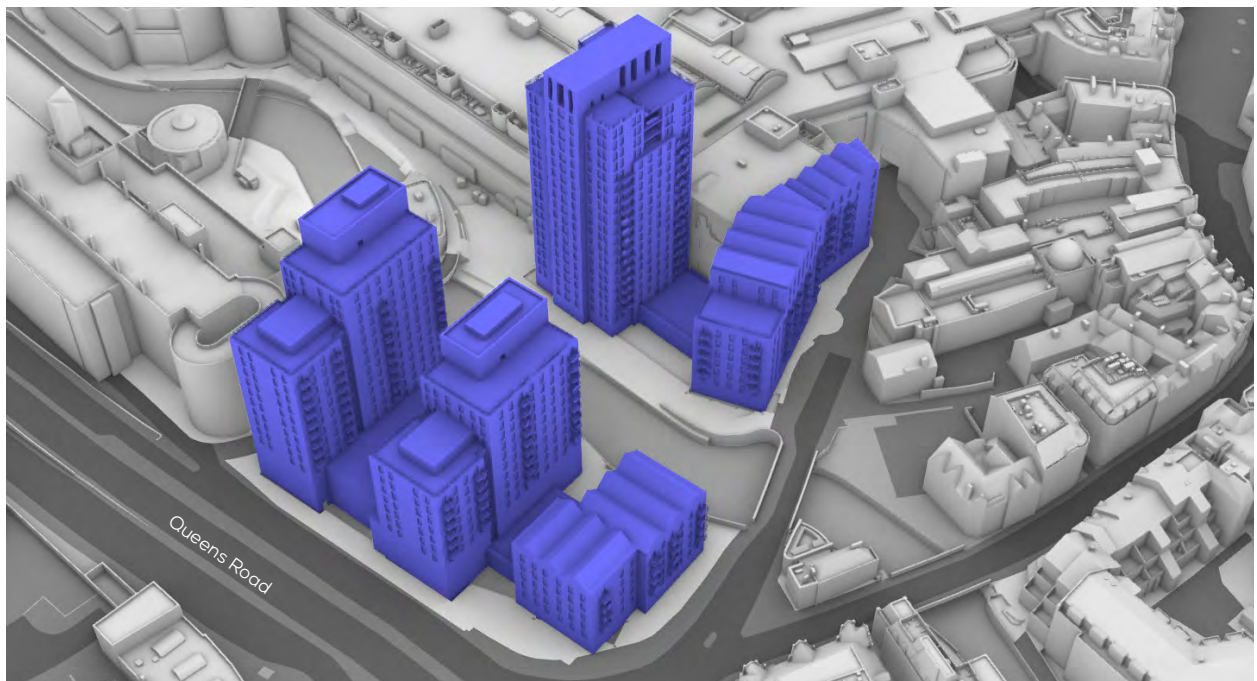


Fig. 04: Perspective View - Proposed Scenario

2 TRANSIENT OVERSHADOWING

21st March (Equinox)

21st June (Summer Solstice)

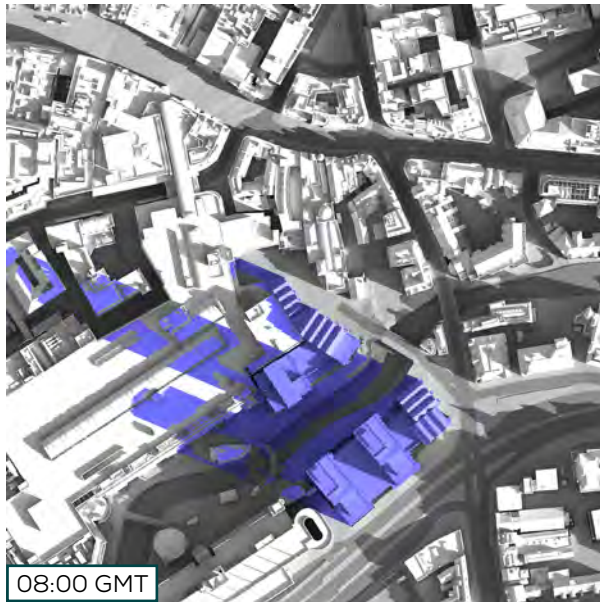
21st December (Winter Solstice)

TRANSIENT OVERSHADOWING ASSESSMENT
21ST MARCH (08:00 - 11:00 GMT)

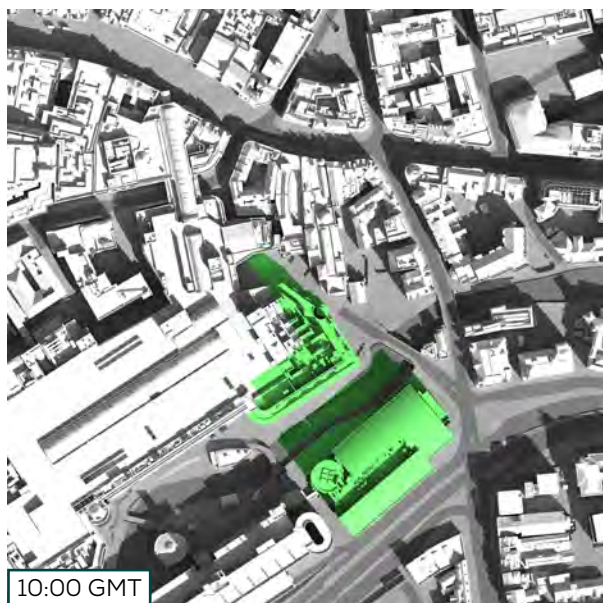
EXISTING



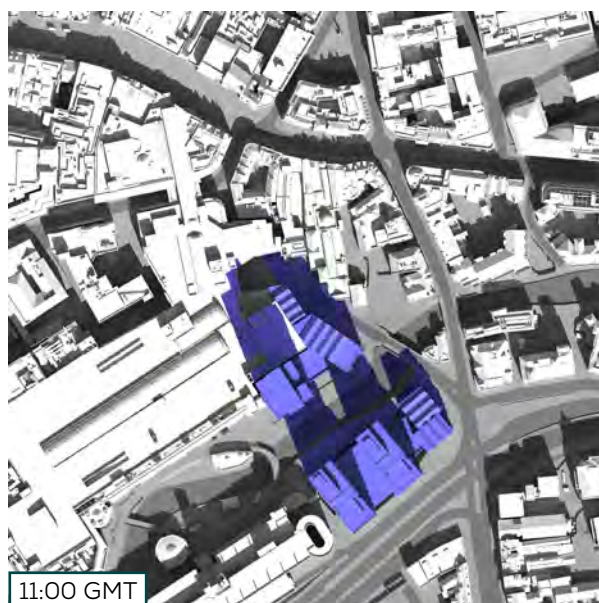
PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
21ST MARCH (12:00 - 15:00 GMT)

EXISTING



PROPOSED



EXISTING



PROPOSED

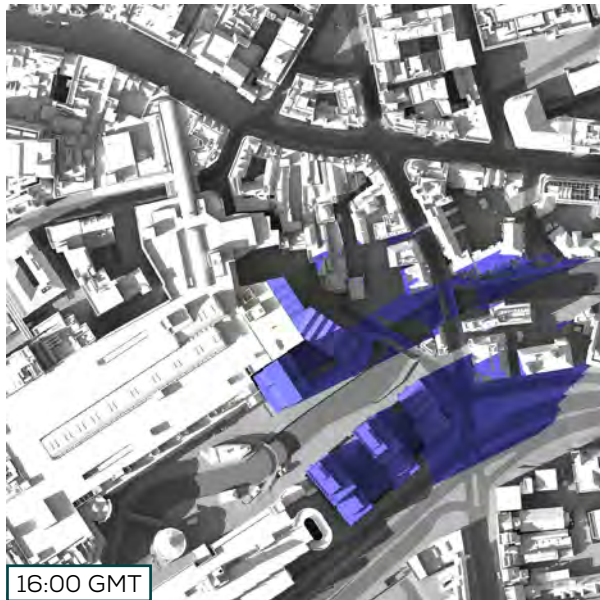


TRANSIENT OVERSHADOWING ASSESSMENT
21ST MARCH (16:00 - 17:00 GMT)

EXISTING



PROPOSED

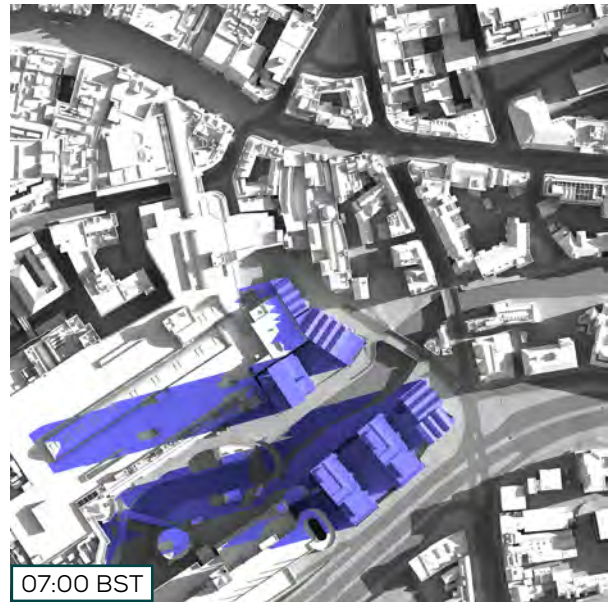
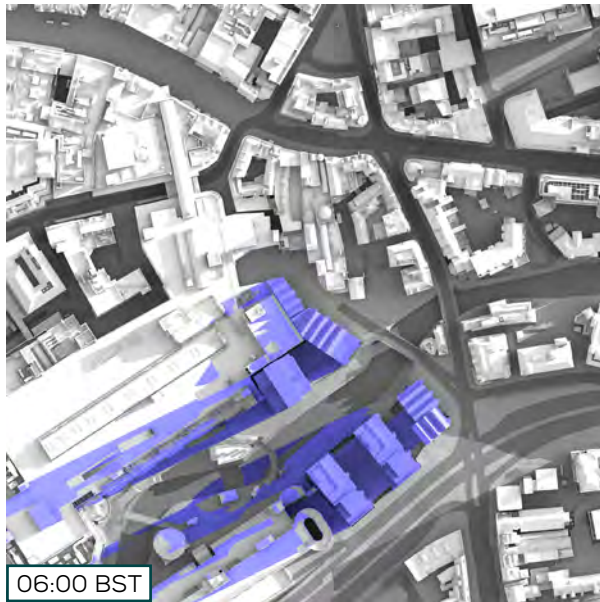


TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (06:00 - 09:00 BST)

EXISTING



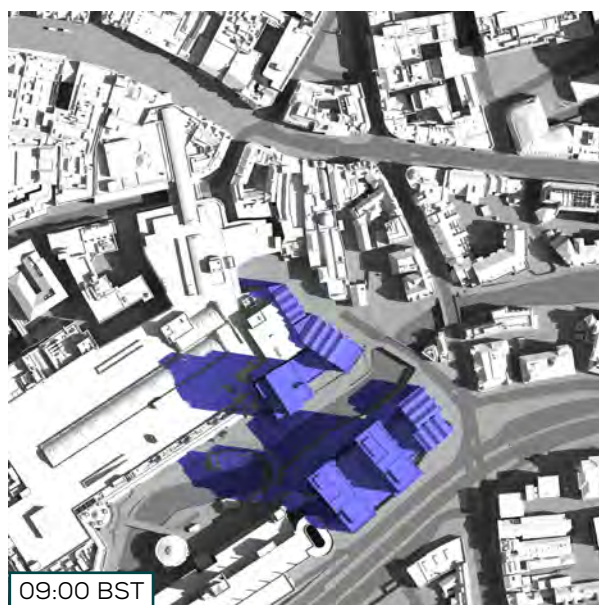
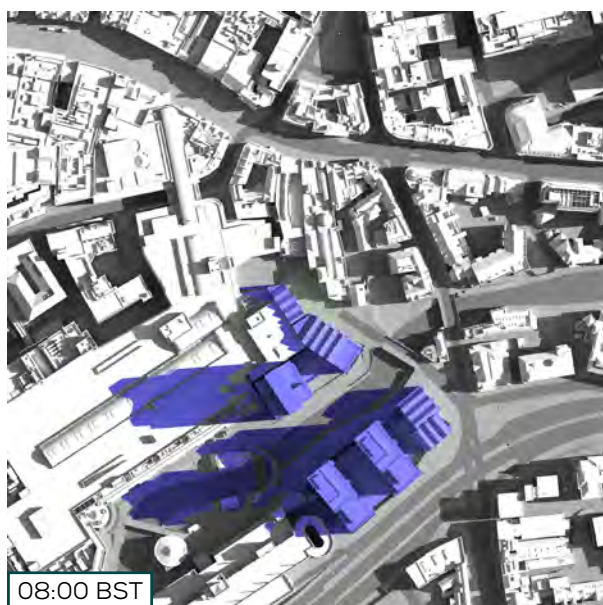
PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (10:00 - 13:00 BST)

EXISTING



PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (14:00 - 17:00 BST)

EXISTING



PROPOSED



EXISTING



PROPOSED

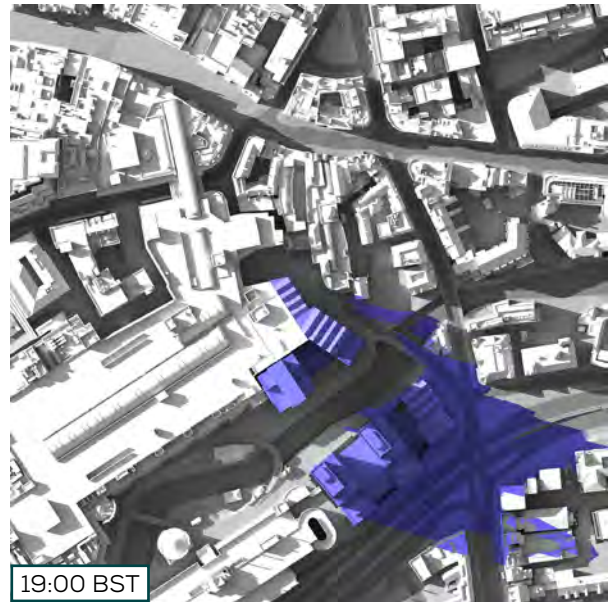
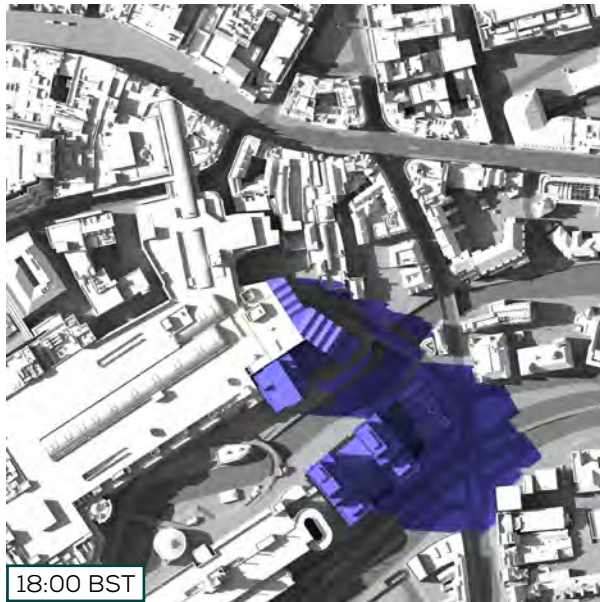


TRANSIENT OVERSHADOWING ASSESSMENT
21ST JUNE (18:00 - 20:00 BST)

EXISTING



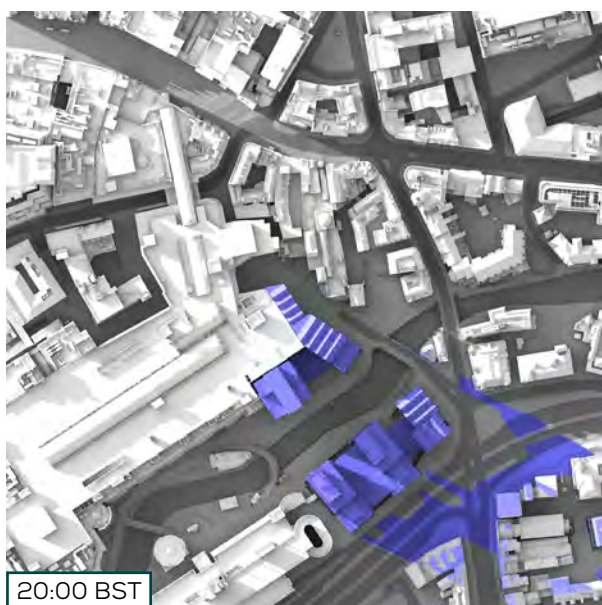
PROPOSED



EXISTING



PROPOSED



TRANSIENT OVERSHADOWING ASSESSMENT
21ST DECEMBER (09:00 - 12:00 GMT)

EXISTING



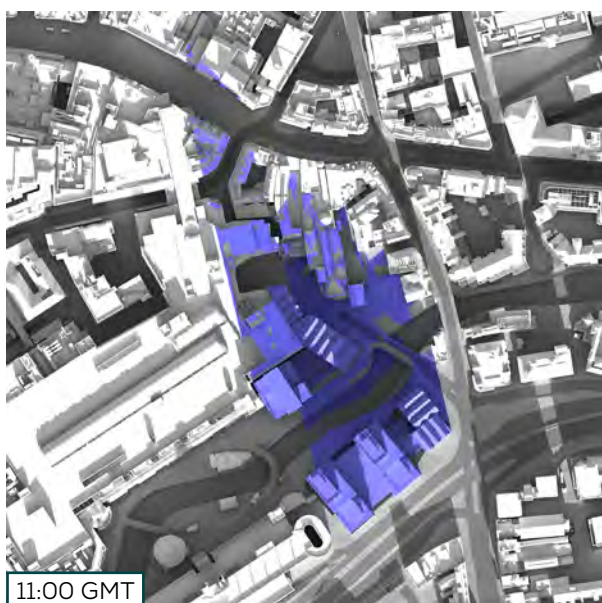
PROPOSED



EXISTING



PROPOSED

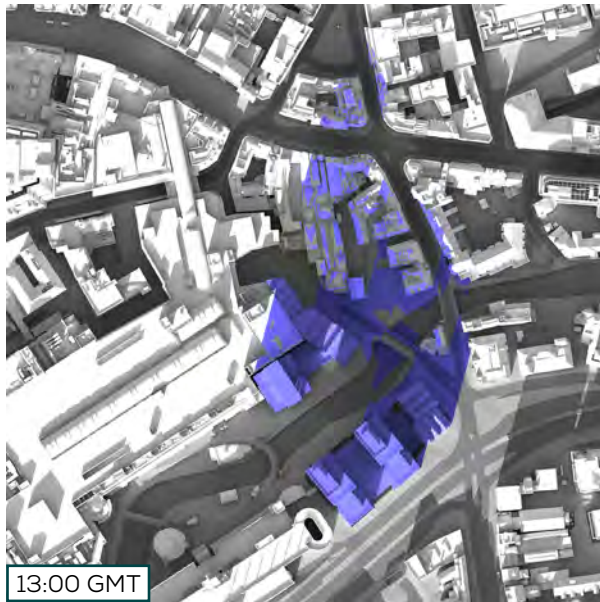


TRANSIENT OVERSHADOWING ASSESSMENT
21ST DECEMBER (13:00 - 15:00 GMT)

EXISTING



PROPOSED



EXISTING



PROPOSED



3 SUN HOURS ON GROUND

RIVER KENNETT

EXISTING

BRE TEST

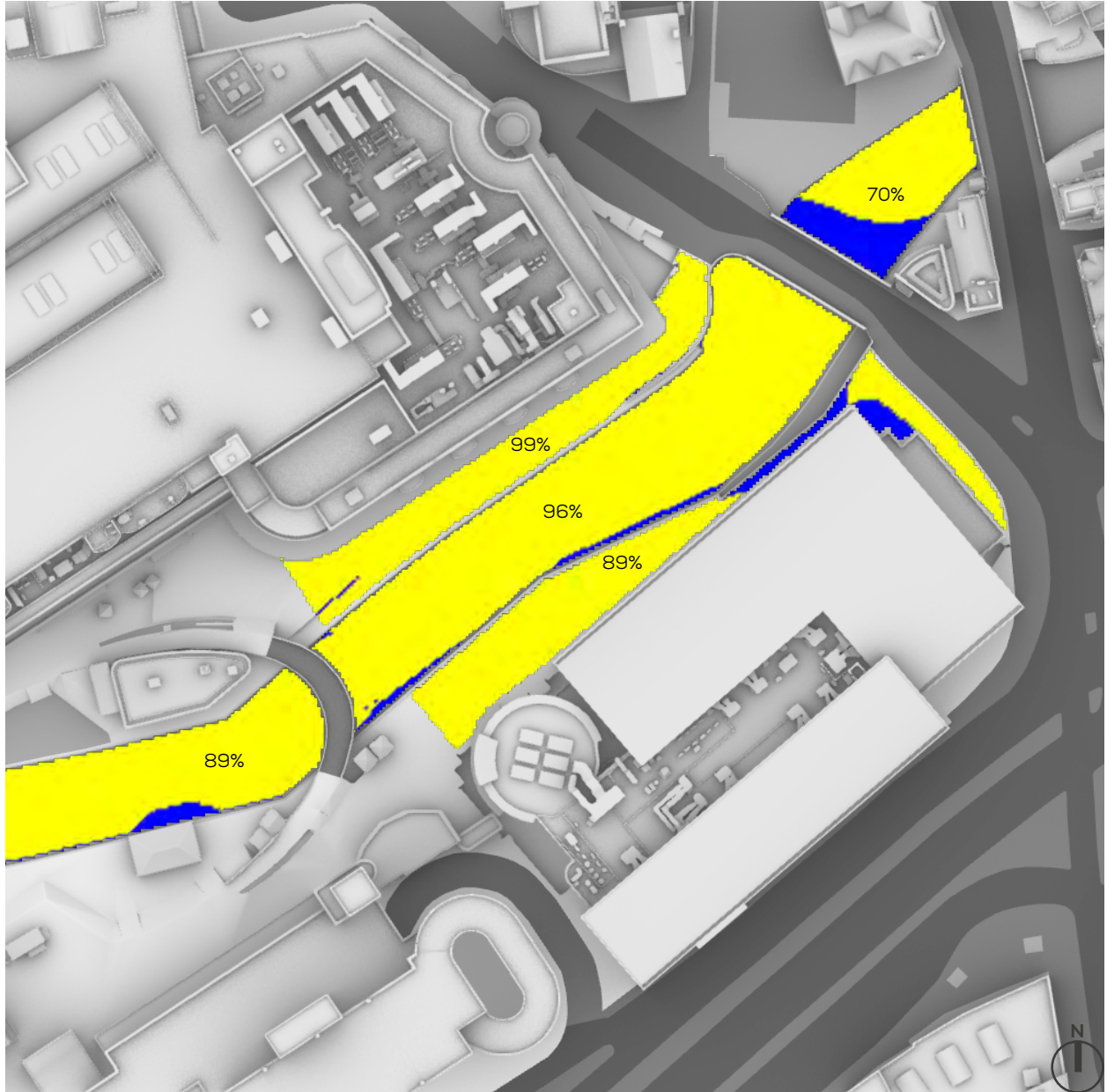


Fig. 05: BRE Test - Existing Scenario

(BRE RECOMMENDS 2+ HOURS OF SUNLIGHT ON 21ST MARCH FOR AT LEAST 50% OF THE OPEN SPACE)

SUN HOURS ON GROUND
BRE TEST - 21ST MARCH



RIVER KENNETT

PROPOSED

BRE TEST

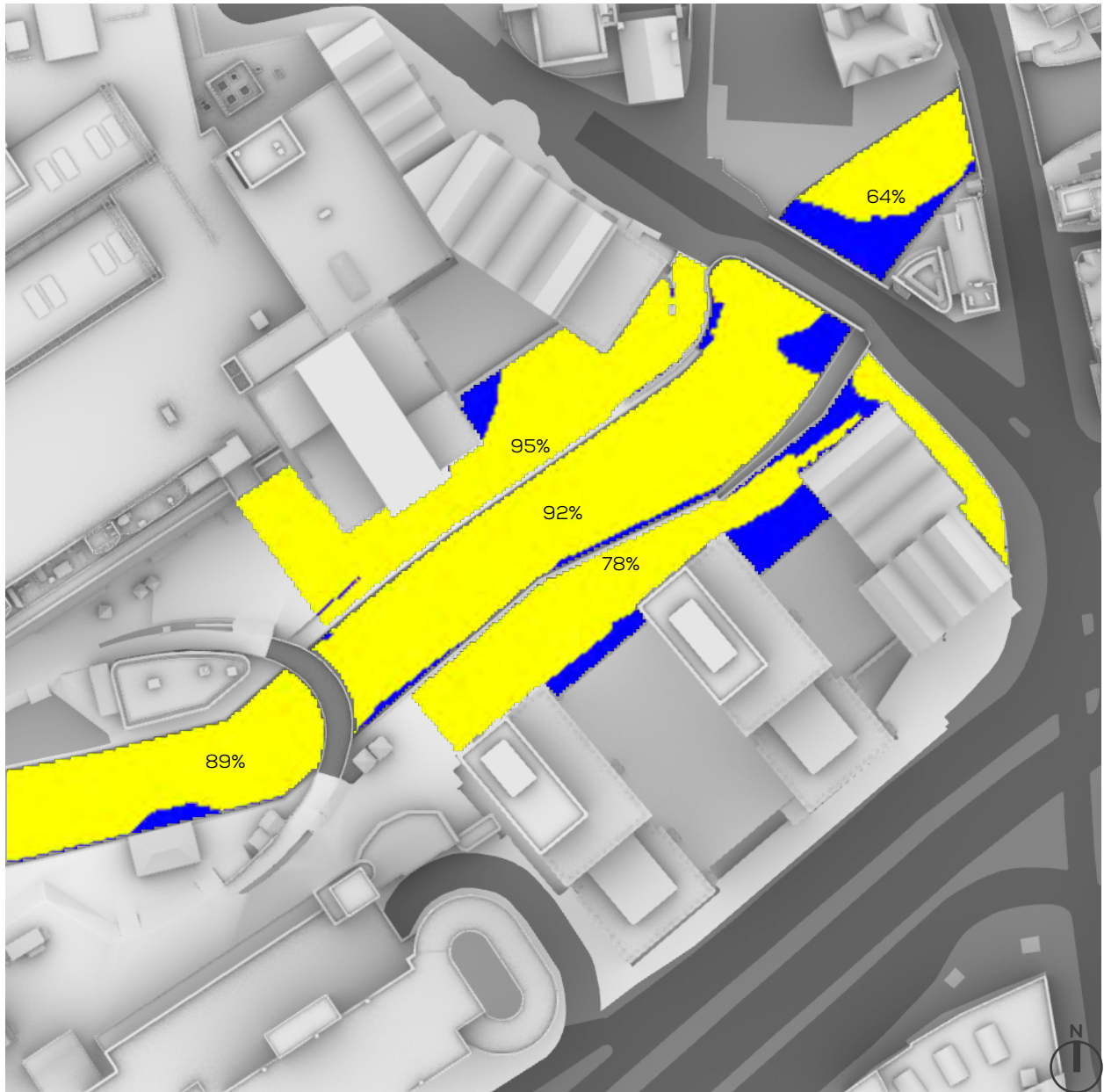


Fig. 06: BRE Test - Proposed Scenario

(BRE RECOMMENDS 2+ HOURS OF SUNLIGHT ON 21ST MARCH FOR AT LEAST 50% OF THE OPEN SPACE)

SUN HOURS ON GROUND
BRE TEST - 21ST MARCH



RIVER KENNETT

EXISTING

SUN EXPOSURE - 21ST MARCH (21ST SEPTEMBER)

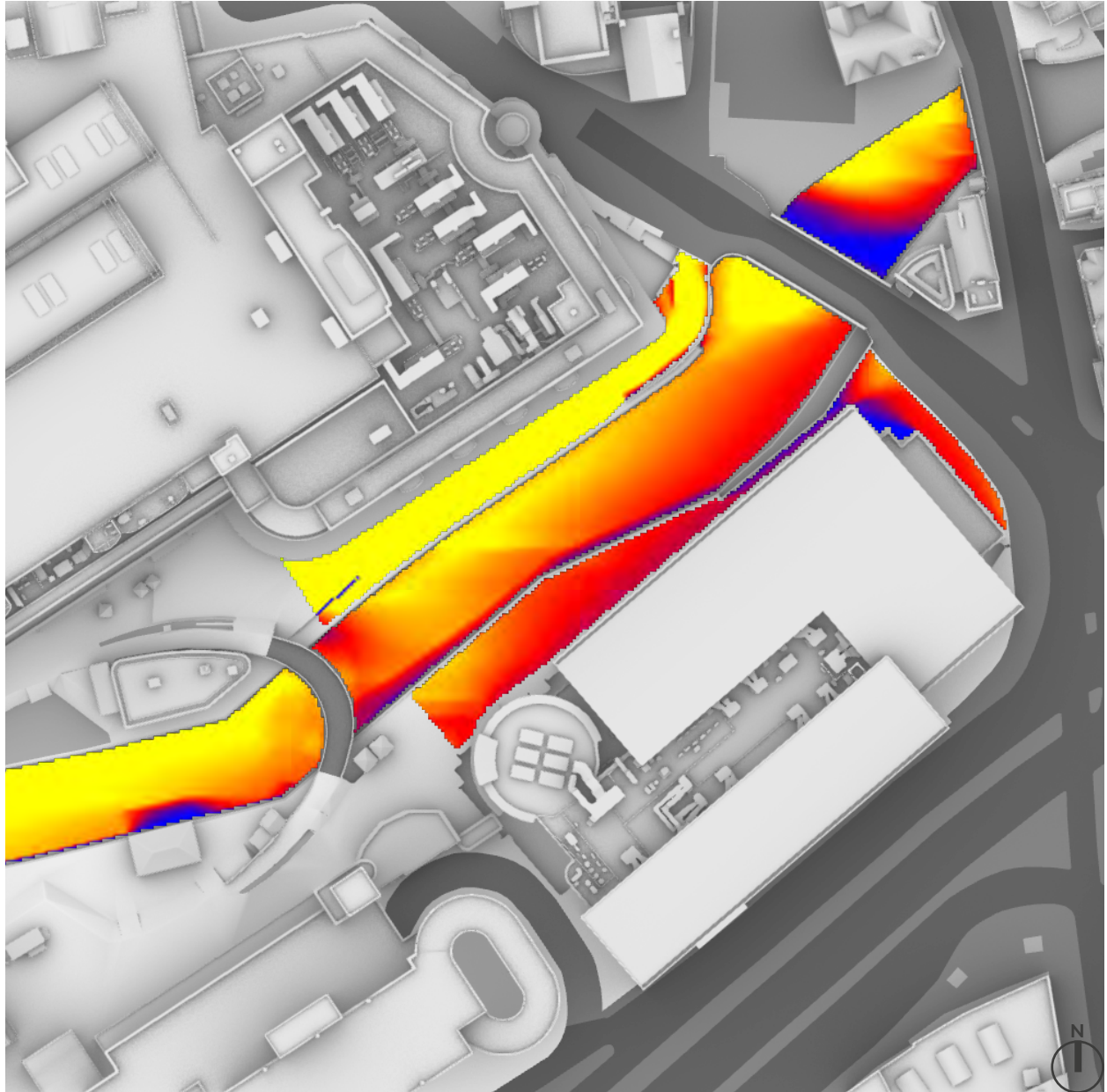


Fig. 07: Sun Exposure - Existing Scenario

SUN EXPOSURE TOTAL HOURS



21ST MARCH (SPRING EQUINOX)

READING

Latitude: 51.5
Longitude: 0.0
Sunrise: 06:05 GMT
Sunset: 18:18 GMT

Total Available Sunlight:
12hrs 13mins

RIVER KENNETT

PROPOSED

SUN EXPOSURE - 21ST MARCH (21ST SEPTEMBER)

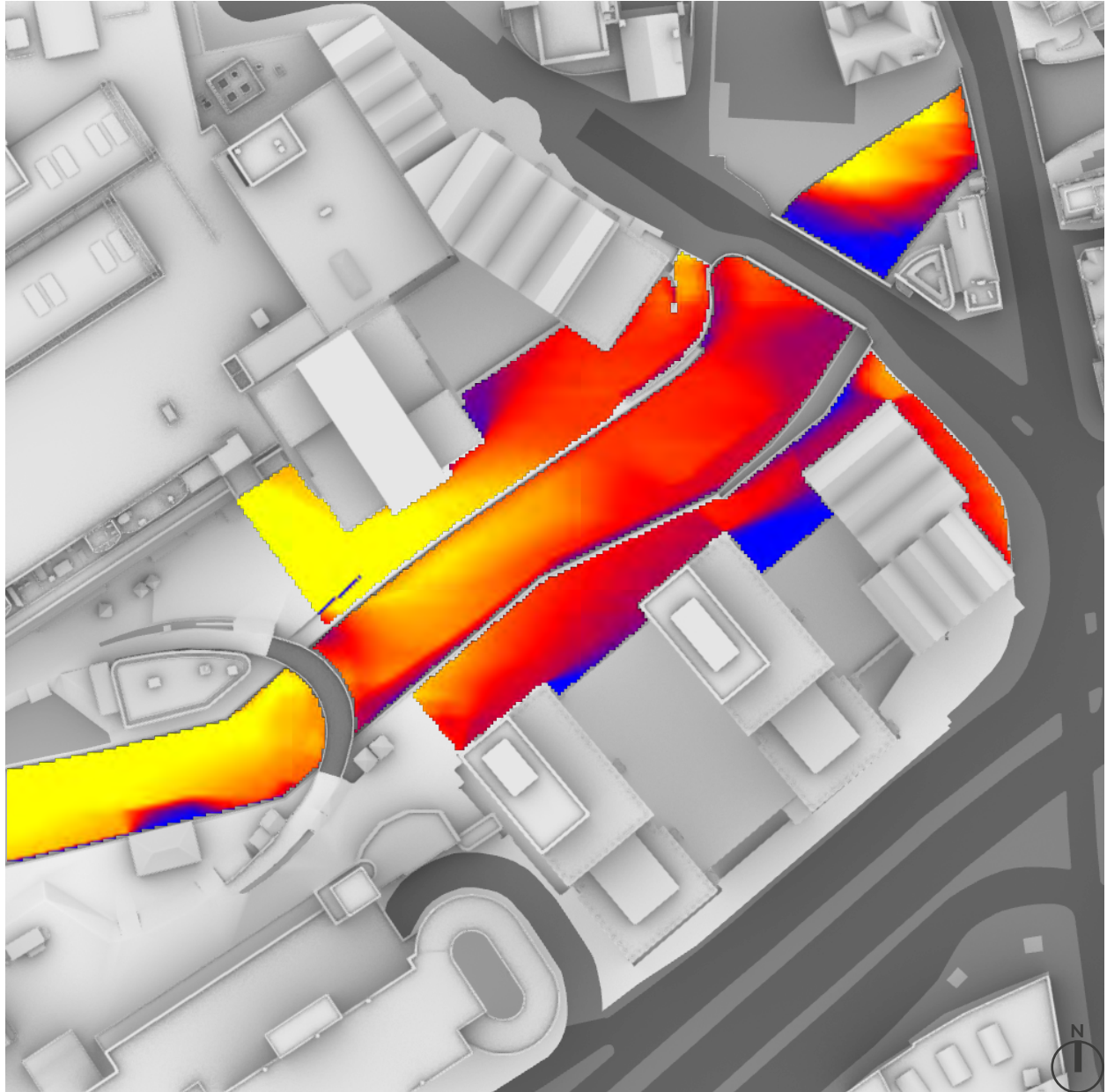


Fig. 08: Sun Exposure - Proposed Scenario

SUN EXPOSURE TOTAL HOURS



21ST MARCH (SPRING EQUINOX)

READING

Latitude: 51.5
Longitude: 0.0
Sunrise: 06:05 GMT
Sunset: 18:18 GMT

Total Available Sunlight:
12hrs 13mins

RIVER KENNETT

EXISTING

SUN EXPOSURE - 21ST JUNE

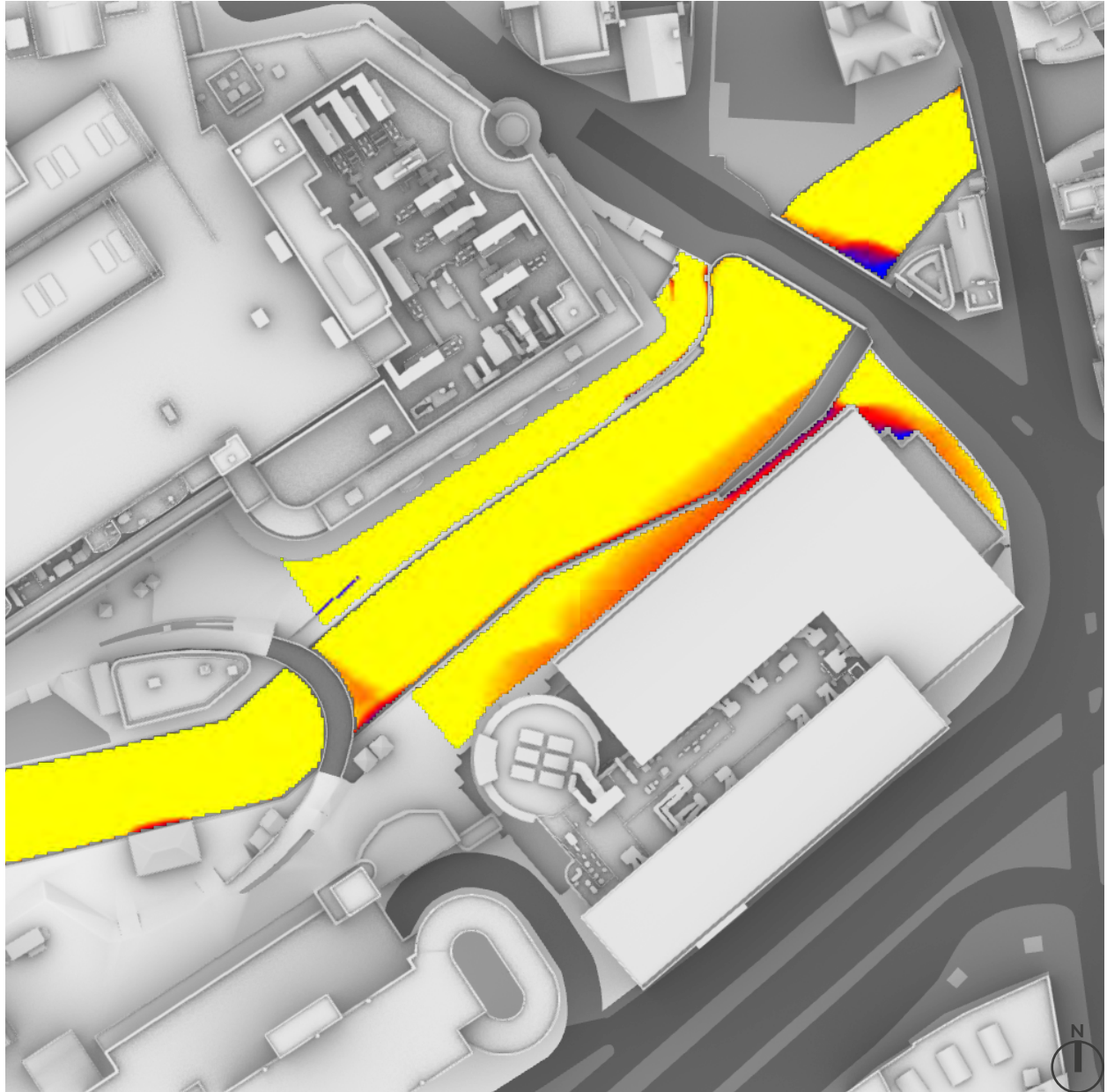


Fig. 09: Sun Exposure - Existing Scenario

SUN EXPOSURE TOTAL HOURS



21ST JUNE (SUMMER SOLSTICE)

READING

Latitude: 51.5
Longitude: 0.0
Sunrise: 04:46 BST
Sunset: 21:24 BST

Total Available Sunlight:
16hrs 38mins

RIVER KENNETT

PROPOSED

SUN EXPOSURE - 21ST JUNE

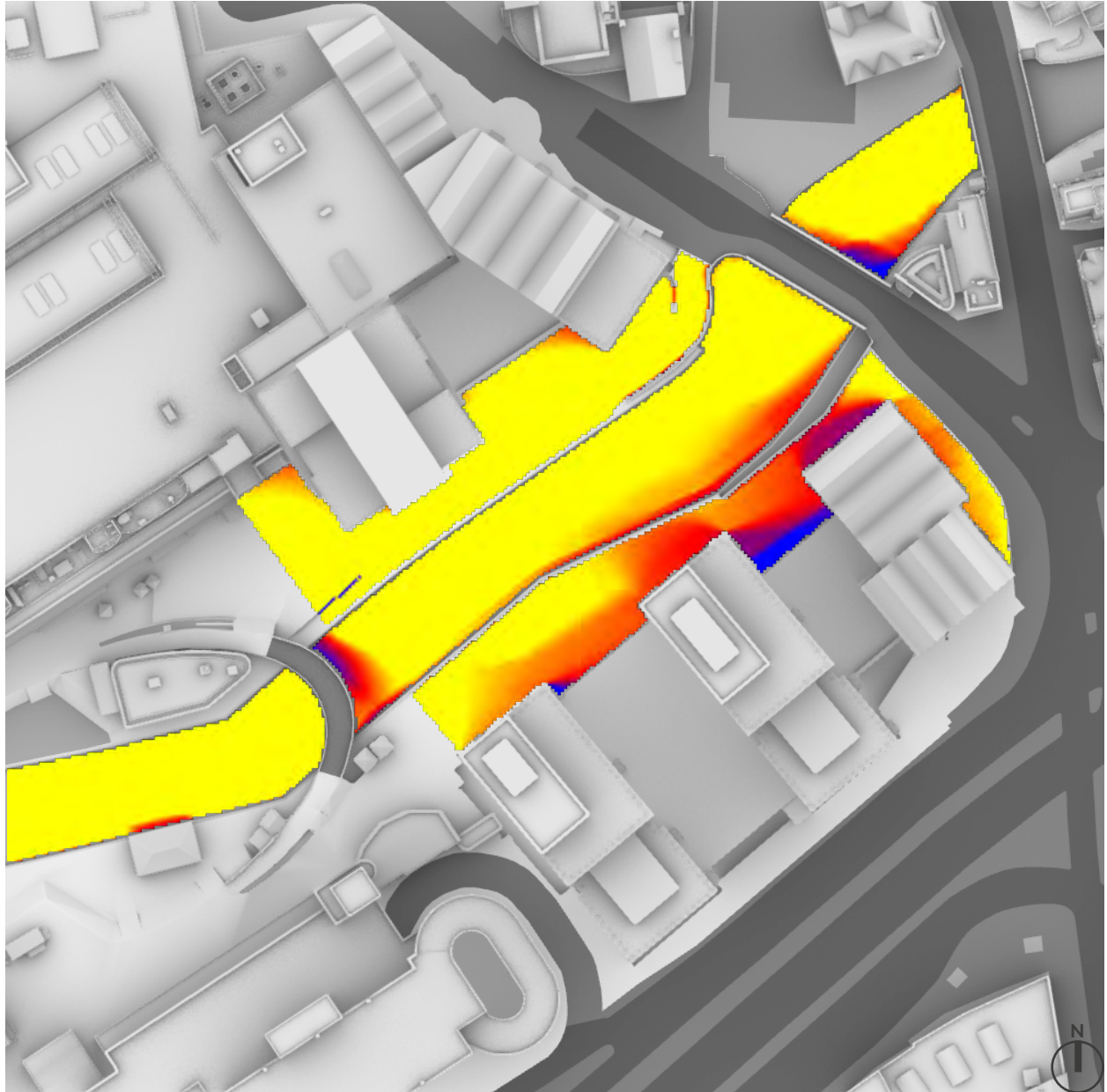


Fig. 10: Sun Exposure - Proposed Scenario

SUN EXPOSURE TOTAL HOURS



21ST JUNE (SUMMER SOLSTICE)

READING

Latitude: 51.5
Longitude: 0.0
Sunrise: 04:46 BST
Sunset: 21:24 BST

Total Available Sunlight:
16hrs 38mins



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