Transient Overshadowing Assessment

Generation Park Norwich
Project No: 9446
June 18, 2015
**Project Details**

<table>
<thead>
<tr>
<th>Client</th>
<th>Grimshaw Architects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect</td>
<td>Grimshaw Architects</td>
</tr>
<tr>
<td>Project Title</td>
<td>Generation Park Norwich</td>
</tr>
<tr>
<td>Project Number</td>
<td>9446</td>
</tr>
<tr>
<td>Report Title</td>
<td>Transient Overshadowing Assessment</td>
</tr>
<tr>
<td>Dated</td>
<td>June 18, 2015</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prepared by</th>
<th>MM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checked by</td>
<td>AB</td>
</tr>
<tr>
<td>Type</td>
<td>Interim</td>
</tr>
</tbody>
</table>

**Revisions**

<table>
<thead>
<tr>
<th>Date</th>
<th>Notes</th>
<th>Signed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source of information:**

- IR3/4-9446| Rel01_9446_DSD
1. Introduction

The BRE Guidelines suggest that where large buildings are proposed, it is useful to plot a shadow plan to show the location of shadows at different times of the day and year. For the purpose of this assessment, transient overshadowing has been mapped on:

- 21st March (Spring Equinox);
- 21st June (Summer Solstice); and
- 21st December (Winter Solstice).

For each of these dates, the overshadowing is calculated at hourly intervals throughout the day from 08:00 to 19:00. Some images are not included within Appendix 14.3 as the sun would not be present during these times (e.g. from approximately 16:00 onwards on 21st December) and thus no shadow is cast.

In addition, September 21st (Autumn Equinox) provides the same overshadowing images as March 21st (Spring Equinox), as the sun follows the same path at these corresponding times of year. Thus only the March illustrations have been included and illustrate the path of the shadow on both key dates.

The indicators are calculated for different latitudes, London being 51.5° north. Clearly, southern orientation is critically important, as are the heights of the Development and buildings within the baseline scenario.

2. Transient Overshadowing Analysis

2.1. March 21st (Spring Exinox)

2.2. The Transient Overshadowing analysis has been undertaken at hourly intervals between 8am and 5pm. The analysis demonstrates that on March 21st, the residential properties on Scott Road, Cremorne Lane and Salisbury Road will not experience any material increase with respect to Overshadowing from the proposed development and the analysis can be seen on pages 4, 5 and 6. The only additional impact has been caused by the tall chimney however, as the shadow created is so slim, there will be no material impact on the neighbouring residential property.

2.3. June 21st (Summer Solstice)

We have carried out an assessment between the hours of 6am and 8pm and the results from the analysis can be seen on pages 7-11.

2.4. December 21st (Winter Solstice)

The analysis has been undertaken between the hours of 9am and 3pm and the results can be seen on pages 12-14.

Due the fact that on the Winter Solstice, the sun is at the lowest point in the sky for the year, it can be seen that there will be some additional Overshadowing to the Car Park areas and road areas of Scott Road and Glendenning Road to the north of the site however, the gardens and public amenity space will be unaffected throughout the course of the day.

3. Summary

It can be demonstrated from the shadow analysis that the shadows cast by the proposed development during March and June (the Equinox and Summer Solstice) do not have any negative effects to the surrounding residential properties as shown on the Transient shadow analysis.

On December 21st (Winter Solstice), when the sun is at the lowest point in the sky, it can be seen that the proposed development does cause some additional shadows adjacent to Scott Road and Glendenning Road however, the additional Overshadowing caused on this date affects the Car Park areas in front of the residential properties and that the external amenity areas will remain unaffected on this date.

In summary, it can be seen that the proposals will be fully compliant with respect to Overshadowing in accordance with the BRE guidance.
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st March

Sources of information:
- IR3/4-9446|Ref01_9446_DSD

Date: June 18, 2015

17:00 GMT

EXISTING

PROPOSED
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st June

Sources of information:
- IR3/4-9446|Ref01_9446_DSD

Date: June 18, 2015
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st June

Sources of information:
- IR3/4-9446|Ref01_9446_DSD

Issue No: IS1-9446
Page No: 10
Date: June 18, 2015
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st June

Sources of information:
- IR3/4-9446|Rel01_9446_DSD

Issue No: IS1-9446
Page No: 11
Date: June 18, 2015
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st June

Sources of information:
- IR3/4-9446|Rel01_9446_DSD

Issue No: IS1-9446
Page No: 12
Date: June 18, 2015

18:00 BST
EXISTING

19:00 BST

20:00 BST
PROPOSED
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st December

Sources of information:
- IR3/4-9446|Rel01_9446_DSD

Date: June 18, 2015
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st December

Sources of information:
- IR3/4-9446|Rel01_9446_DSD

Issue No: IS1-9446
Page No: 14
Date: June 18, 2015
9446 - Generation Park Norwich
Transient Overshadowing Assessment

Transient Overshadowing Assessment - 21st December

Sources of information:
- IR3/4-9446|Ref01_9446_DSD

Issue No: IS1-9446
Page No: 15
Date: June 18, 2015

14:00 GMT
15:00 GMT

EXISTING

PROPOSED