

Buildings Work Package

By Pager Power for Building Developers - to assist with the development of new buildings throughout the UK

January, 2020

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BUILDINGS WORK PACKAGE – PAGER POWER’S EXPERTISE AND SERVICES

Overview

Developing a new building project requires consideration of many different aspects of the planning system. To make things easier, Pager Power has put together this document with the target audience of building developers in mind. The aim of this document is to highlight the importance of considering the potential issues surrounding aviation, communications and glint and glare for building developments. It is important to ensure that these areas are considered early in the project timeline so that unexpected costs and delays are prevented as much as possible.

Note that this guide has been developed with tall buildings in mind (typically measuring five storeys or more). However, depending on its locations, a smaller building may sometimes face similar issues during planning.

How can Pager Power assist building developers during the planning process?

The three key areas that Pager Power typically assist building developers in are:

- Aviation
- Communications and Television
- Glint and Glare

Assistance may be required in the form of technical impact assessments, reviews of technical objections or consultation and meeting attendance to provide expert support where needed.

Each of these areas can be assessed through a variety of consultation, modelling and desk-based research. The key issues that a developer may come across are discussed briefly in turn on the following page.



Aviation

- Tall buildings offer two key risks to aviation. The building may be deemed a physical obstruction to aircraft as well as interfere with aviation radio waves from infrastructure such as radar and other aviation navigation aids. Impact may depend on proximity or visibility to infrastructure. Aviation lighting may be required and the use of cranes will likely need to be considered. If the proposed building is within a Public Safety Zone (PSZ), then restriction on the development type may apply.

Communications and Television

- Tall buildings act as an obstruction to wireless communications systems. This can cause interference to or a complete loss of signal at the receiving aerial. It is best practice to investigate the potential impact on wireless signals, though it may not be requested by a planning authority. The infrastructure that could be affected includes wireless point-to-point links, terrestrial or satellite television, radio and mobile phone signals.

Glint and Glare

- Glint and glare is the effect of solar reflections upon surrounding receptors caused by façades which can produce specular reflections. The most common material assessed is glass and key receptors include roads, dwellings and aviation (ATC Tower and approaching aircraft). Effects range from impacts upon amenity as well as safety. The requirement for an assessment may vary between planning authorities but a number of high-profile cases have made assessment requests more common.



What are the technical issues?

A deeper dive into the specific issues and receptors for each of the three areas of Pager Power's expertise is presented below:

Aviation	Communications	Glint and Glare
<ul style="list-style-type: none"> • Protected Surfaces or Obstacles Limitation Surfaces (OLS) • Radar - Primary Surveillance Radar (PSR) and Secondary Surveillance Radar (SSR) • Precision Approach Radar (PAR) • Instrument Flight Procedures (IFPs) • Aviation lighting • Crane usage • Navigation aids • Public Safety Zones (PSZ) 	<ul style="list-style-type: none"> • Point-to-point microwave links • Ultra High Frequency (UHF) links • Terrestrial television transmitters - main and relay • Satellite television • Radio signals (am/fm/DAB) • Mobile phone signals (sometimes considered separately) • Broadband connectivity 	<ul style="list-style-type: none"> • Aviation - ATC Tower, approaching aircraft, and circling aircraft • Solar intensity calculations • Railway - signals, crossings and train drivers • Safety of road users - typically main roads (motorways, A and B roads) • Amenity of residents (Dwellings)

Many more articles are presented on the Pager Power website. For more information, simply copy the terms into the search bar in the top right of our homepage.



What may be required?

Pager Power has over 20 years' experience helping developers overcome planning issues such as these. The most typical services offered are presented below:

- Impact Assessments
- Environmental Statements
- Surveys
- Meetings attendance
- Consultation with key stakeholders
- Ongoing technical support
- Expert Evidence/ Public Enquiry

Consultation and engagement with key stakeholders is highly recommended from an early stage.



Summary

A building developer has the responsibility to understand these issues and mitigate them, where required. Follow this guide and the checklist in the following section to ensure project hiccups are kept to a minimum.

BUILDING DEVELOPER CHECKLIST

Overview

Use the following checklist to ensure all aviation, communications and glint and glare issues have been considered.

No.	Area	Consideration	Completed?
1	Aviation	Have the relevant aerodromes in the vicinity of the buildings which may require consideration been identified (typically out to 20km)?	✓ / ✗
2		Have the relevant radar been identified? Safeguarding distance may extend to their maximum operational range.	✓ / ✗
3		Have the aerodrome or radar operators been consulted?	✓ / ✗
4		Is the development within a Public Safety Zone (PSZ)? If yes, further consideration is needed.	✓ / ✗
5		Have the relevant aviation and radar impact assessments been conducted?	✓ / ✗
6		Is aviation lighting required? Has a lighting scheme been devised?	✓ / ✗
7		Has the impact of crane usage been considered and the relevant consultation conducted?	✓ / ✗
8		Have planning conditions been reviewed or suggested?	✓ / ✗
9		Have all outcomes of the aviation analysis been discussed and an action plan for resolving any issues devised?	✓ / ✗
10	Television and Radio	Is a Television and/or Radio Baseline Survey or Television Impact Assessment required as part of the planning application?	✓ / ✗
11		Have the relevant television and/or radio impact assessments or surveys been conducted?	✓ / ✗
12		Is a Television and/or Radio Written Scheme required to satisfy a planning condition?	✓ / ✗

No.	Area	Consideration	Completed?
13	Television and Radio	Have all outcomes of the television and/or radio analysis been discussed and an action plan for resolving any issues devised?	✓ / ✕
14	Communications	Is a Communications Impact Assessment required as part of the planning application?	✓ / ✕
15		Have the relevant communications stakeholders been consulted as part of the planning application?	✓ / ✕
16		Has a Communications Impact Assessment been undertaken?	✓ / ✕
17		Has an impact upon communications infrastructure been identified and the requirement for mitigation been discussed?	✓ / ✕
18		Have all outcomes of the communications analysis been discussed and an action plan for resolving any issues devised?	✓ / ✕
19	Mobile Phone Signals	Is a Mobile Phone Signal Impact Assessment required as part of the planning application?	✓ / ✕
20		Have the relevant mobile phone impact assessments or surveys been conducted?	✓ / ✕
21		Is a Mobile Phone Signal Written Scheme required to satisfy a planning condition?	✓ / ✕
22		Have all outcomes of the mobile phone signal analysis been discussed and an action plan for resolving any issues devised?	✓ / ✕
23	Glint and Glare	Is a Glint and Glare Assessment required?	✓ / ✕
24		Have the key receptors been determined?	✓ / ✕
		• Aviation - ATC Tower, approaching aircraft, and/or circling aircraft	✓ / ✕
		• Railway - signals, crossings and train drivers	✓ / ✕
		• Road users	✓ / ✕
		• Dwellings	✓ / ✕

No.	Area	Consideration	Completed?
25	Glint and Glare	Have all outcomes of the glint and glare analysis been discussed and an action plan for resolving any issues devised?	✓ / ✗
26	Broadband	Is a Broadband Connectivity Study required as part of the planning application?	✓ / ✗
27		Have the relevant broadband providers been consulted?	✓ / ✗
28		Is the level of broadband coverage acceptable?	✓ / ✗
29		If not to the above, has further consultation or technical analysis been identified?	✓ / ✗
30	Environmental Statements	Are Environmental Statements required for the impact assessments? Can the statements be combined?	✓ / ✗
31		Have the Environmental Statements been reviewed?	✓ / ✗
32		Have the Environmental Statements been finalised?	✓ / ✗
33	General	Are suggestions for the wording of planning conditions required or recommended?	✓ / ✗
34		Is further consultation or technical analysis required beyond the original scope of work?	✓ / ✗
35		Are meeting required with any of the stakeholders and have they been arranged at an appropriate time with respect to the planning submission date?	✓ / ✗

Contact Us

If we can be of further assistance, please get in touch.

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Image References

The Walkie Talkie, Enrico Strocchi (cropped).

Cranes, Sean MacEntee (cropped).

Building solar glare, Charles Smith (cropped).

Manchester Airport (EGCC), Riik@mctr (cropped).



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