About this report

Estates & Facilities, in conjunction with the University’s in-house designers, Design & Print, are responsible for the installation, modification and removal of the campus’ external wayfinding signage.

This report presents an overview of the external wayfinding and signage standards at the University of Reading. It includes an outline of the current sign system and design approach, examples of University standard signs, and notes about future work, as well as an example of the Asset register database template and the Project methodology.
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1.1 Main wayfinding principles

The main tenets underlying wayfinding solutions at the University of Reading’s campuses are:

- an holistic approach where pre-visit and on-campus wayfinding information work together;
- consistency;
- clarity and simplicity; and
- inclusive design and installation.

1.1.1 Holistic and systematic approach

All on-campus signs are part of a wayfinding system that also includes pre-visit information (e.g. letters and emails to potential visitors, and information on University web pages), and other sources of on-campus information (e.g. receptionists, guides, porters, etc.).

New signage has to be considered in a wider wayfinding context as well as in relation to existing signs on the campus. For example, answering ‘Is this sign needed?’, ‘What should it say?’ and ‘Where should it go?’ will depend on the content and position of other campus signs with similar information.

This holistic wayfinding approach means that when a building’s name changes, this change will affect pre-visit information as well as any on-campus maps, direction signs and location signs that indicate that building. Consistency across the whole system helps ensure that visitors looking for a specific building can find their way efficiently.

The approach is also systematic:

- maps give general information for context and orientation and are useful in areas with several buildings and multiple direction choices for users;
- specific indicators on direction signs, and information at building entrances, support are supported by maps.

Campus signs form a cohesive system and either point directly to a target destination or indicate the general direction a user must follow (on the understanding that along that route other signs will continue to show the way).
1.1.2 Consistency
There must be consistency of content and visual design across all sign types. For example:

- buildings and campus areas have the same name on all signs,
- new signs are in the same colours and system as existing signs of the same type, and
- modular signs (see section 2.1) are updated so that new slats correctly match the spacing and indentation of existing slats.

The consistency principle should only be broken if doing so avoids confusing users (and is therefore the best solution for a given situation).

1.1.3 Clarity and simplicity
Clarity and simplicity influence the amount, as well as the type, of information on signs: distil content to the simplest form that will enable users to digest information quickly and with little confusion. For example:

- Location signs at building entrances list key departments, centres, schools etc. but the hierarchical relationship of occupants is not reflected (e.g. by use of indents, a change in text size, or stating ‘School of’ or ‘Department’) because this information is not relevant for wayfinding.
- For clarity, listed text on direction signs and location signs is alphabetised (this is followed for all new signs and for updates) to make it easier for users to scan signs for the name of their target destination.
- The University’s clear language guidelines apply to text on all signs, e.g. occupant acronyms on maps are only used if their corresponding full title is also stated.

1.1.4 Inclusive design and installation
The core functional wayfinding principle is that signs should not be difficult to use or access.

The content, design and positioning of wayfinding signs should be as inclusive as practical. For example, signs should:

- indicate building entrances and their ramp access,
- be positioned for clear visibility,
- have readable content, and
- comply with contrast and legibility principles for people with visual impairments.

Aside from the large-scale lectern maps at several car park exits at Whiteknights and London Road (which are deliberately at a low height for wheelchair users), campus signs attempt to satisfy the accessibility needs of users by balancing design and content against sign size and available space.

Campus signs also have strong contrast and clear text, and maps for close examination are positioned so that pedestrians, cyclists and wheelchair users can view them as comfortably as possible.
1.2 External wayfinding information: what, how much and where

There is a dual approach to providing visitors with on-campus wayfinding information:

- **general information** allows visitors to find the correct part of campus for their target destination, and
- **specific information** allows them to find the correct building and their intended destination (see figure 1).

1.2.1 Campus entrances

Large location signs and maps at campus entrances support pre-visit information and help tell visitors:

- that they are at the right entrance for their target destination,
- where their destination is in relation to their current position, and
- the general direction to take to get to their destination.

1.2.2 On campus: information at key points in journey

One of the main concerns addressed in the 2005 audit was how far away to start directing visitors to specific buildings.

The solution adopted involves:

- **Large maps** at campus entrances (and key points of convergence where visitors for several areas are likely to pass) supported by **direction signs** with content that becomes increasingly specific and localised closer to buildings.
- **A location sign** at each building entrance – a large sign at main entrances and a small sign at other/restricted access entrances – that is part of the wayfinding system and positioned as close to the actual entrance as possible.

1.2.3 Indicating places and buildings on direction signs

The 'University reception' at Whiteknights and 'Institute of Education reception' at London Road are on all major direction signs as central information points and destinations relevant to most visitors.

All other campus buildings and areas are only signed from their nearest campus entrance or access – for example, at Whiteknights, Foxhill House is on direction signs along Queen's Drive but not on direction signs from the much further away Pepper Lane entrance – this approach relies on pre-visit information stating the best campus entrance to access buildings.

1.2.4 Buildings vs occupants

The University’s external wayfinding policy is to direct visitors to buildings (by name and number) and key areas rather than to specific schools, departments or centres within buildings. This reduces the number of signs needed but is heavily dependent on building occupants providing accurate pre-visit information for visitors (e.g. on the University website) with their campus name, and their building name and number.
External wayfinding and signage

Drivers

**Campus Entrance**
- A location sign indicates campus name and entrance name.
- Direction signs at decision points and/or along the road from the campus entrance direct drivers to car parks, campus areas, the main campus reception and key buildings.

**Car Park**
- A location sign indicates the car park’s name/number and may indicate restrictions on access e.g. for key buildings or services listed.
- Direction signs or maps (visible) at main exits towards buildings.

Pedestrians/Cyclists

**Campus Entrance**
- User-oriented ‘you are here’ maps at all main campus entrances indicate buildings near that entrance and show users their location in relation to the rest of the campus.
- Direction signs where necessary (signs for vehicles should suffice for all visitor types until pedestrians arrive at a junction on their path and need footpath direction signs).

**On Campus**
- Direction signs along main paths and at all major junctions.
- User-oriented ‘you are here’ maps at clusters of buildings and at routes connecting different parts of the campus.

**Building/Area**
- Location sign with access information. Building entrance sign indicates the building’s name, number and entrance name, and lists key occupants (departments, schools, centres, services etc.).
- Direction signs and maps nearby help visitors get to other campus buildings and areas.

Updated version of diagram from 2005 audit summary report.
1.3 Types of external signs

Each sign type is defined by the kind of information it gives and the way this is done. The current family of external campus signs (see figure 2) includes:

- **location signs** (to help answer ‘Where am I?’ and often ‘What is in this building/area?’);
- **map signs** (to help answer ‘Where am I?’, ‘Where is …?’ and ‘How do I get to …?’);
- **map-direction signs**;
- **direction signs** (to help answer ‘Which way to …?’ / ‘Where is …?’);
- **notification, warning and other signs**.

For more on these sign types see section 4.

1.4 External signage principles

The University's signage system is flexible and extensible within the constraints of the wayfinding approach (see section 1.1) and design principles (see section 3).

Sign types are mixed and adapted to suit differing navigation needs of users and the context of particular campuses, and if a wayfinding solution requires new sign types, these can be added to the family of sign types.

1.4.1 Flexible signage system: campus differences

The wayfinding policy is applied at both Whiteknights and London Road, but the two campuses have different layouts that affect how they are navigated and therefore the combination and types of external wayfinding signs needed.

At **Whiteknights**, the original ‘whole campus’ directory maps at campus entrances remain (they are updated annually by the University independent of the main wayfinding projects). These directories provide valuable information for visitors who are unsure of the building they need to find. However, the scale of these maps is too small and they are overly complex for navigating the campus, so they are supplemented by wayfinding maps (large user-oriented ‘you are here’ detail and context maps) at each campus entrance (see section 4.2).

At **London Road**, buildings are nestled close together and entrances off cloisters are not easily distinguishable from building to building. The campus is also small and buildings do not have a complex mix of occupants, so rather than separate directory maps and large detail maps, London Road campus maps are a combination of the two map types (see section 4.2).
1.4.2 Avoiding ‘visual noise’

Avoiding ‘visual noise’ underlies the overall signage approach: install as few signs as necessary to deliver accurate and consistent wayfinding information. The aim is to have fewer signs competing for users’ attention so that crucial wayfinding signs are more likely to be noticed and followed.

For example, existing signs at busy entrances will affect whether new signs are noticed or can be understood: simply installing additional signs in an area without removing old signs, or considering how to reduce the overall number of signs, will increase the potential for ‘visual noise’ where the new sign is lost amidst a sea of existing signs and not noticed by users.

1.4.3 Alternative wayfinding devices

Signage is only one of several wayfinding devices that help people navigate campuses: both visitors and staff use reference points or landmarks for orientation (e.g. the Lake, and distinctive buildings like the URS building at Whiteknights). Another device that can support wayfinding is landscaping: clearer paths and open areas near building main entrances help visitors identify primary routes and entrances from a distance.

1.4.4 Wayfinding signs vs special branded signs

Residential and commercial-use buildings (e.g. buildings and halls of residence at Park Place, and cafés on campus) have branded location signs independent of the wayfinding system. However, these buildings still require University standard location signs at their entrances to confirm the building/area name and support campus direction signs and maps as well as pre-visit information.

Campus wayfinding signs must comply with the University’s wayfinding policy (e.g. satisfy contrast and legibility requirements), but special branded location signs should comply with their own guidelines.

1.4.5 Lighting

Signs have to be as visible as possible: installation has to take account of available light sources and any options for additional lighting where necessary. This is essential along narrow paths between buildings where daylight is restricted, and where entrances are ordinarily in shadow (e.g. London Road cloisters).

Few campus signs have direct illumination (spotlights or LED lighting); although some traffic-style signs have a reflective background to help increase their visibility for drivers in poor light, almost all campus wayfinding signs rely on existing lighting in their surroundings for visibility.
### External signage system (sign types)

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>MODULAR (SLATS SYSTEM)</th>
<th>NON-MODULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOCATION SIGNS</strong></td>
<td>Campus road entrance</td>
<td>Building road entrance (off-campus) – panel</td>
</tr>
<tr>
<td></td>
<td>Building road entrance</td>
<td>Off-campus Estates-managed buildings only.</td>
</tr>
<tr>
<td></td>
<td>Building entrance – academic or administrative</td>
<td>Building/other name – lettering</td>
</tr>
<tr>
<td></td>
<td>Building entrance – residential</td>
<td>Building entrance – projecting</td>
</tr>
<tr>
<td></td>
<td>» Variant of entrance sign for academic/admin buildings.</td>
<td>» London Road cloisters’ building entrances.</td>
</tr>
<tr>
<td></td>
<td>Non-building entrance</td>
<td>Building entrance (temp/off-campus) – panel</td>
</tr>
<tr>
<td></td>
<td>» For example, the astroturf pitch and the atmospheric observatory.</td>
<td>» Off-campus Estates-managed buildings</td>
</tr>
<tr>
<td></td>
<td>Car park entrance</td>
<td>» Campus substations</td>
</tr>
<tr>
<td></td>
<td>Road name (on-campus)</td>
<td>» London Road (most building entrances).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Building occupant/access</td>
</tr>
<tr>
<td></td>
<td></td>
<td>» Limited access (i.e. for specific occupant or rooms) and/or restricted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>access building entrances.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Car park entrance – number</td>
</tr>
</tbody>
</table>

| MAP SIGNS         | Whole campus and full directory map                                                    | Lectern-style ‘DDA’ map                                                   |
|                   | » London Road only.                                                                     |                                                                            |
|                   | Detail and context map                                                                 |                                                                            |
|                   | » Not used at London Road.                                                             |                                                                            |

| MAP-DIRECTION SIGNS | Detail and context map with direction slats | – |

| DIRECTION SIGNS       | On campus                                    | On campus                                                                 |
|                       | » Main routes and official footpaths.        | » Secondary and some non-official routes, but usually as temporary signs. |
|                       | Off-campus buildings                         | Off-campus buildings/areas                                                 |
|                       | » Permanent signs at off-campus halls of      | » Usually wall-mounted at off-campus Estates-managed buildings or halls of | |
|                       | residence and other University buildings.    | residence; can either be permanent or temporary signs.                    |

| OTHER SIGNS          | –                                           | Notification signs                                                        |
|                      |                                             | » For example, ‘private property’ and ‘dogs on lead’ signs.               |
|                      |                                             | Warning signs                                                             |
|                      |                                             | Traffic-style signs                                                       |
|                      |                                             | » For example, pedestrian routes and public footpaths.                    |
section 2  **External signage physical systems, materials and fixings**

Aside from differences in kinds of information and visual design, campus signs also differ in their physical make-up, materials and fixing method. Signs are either modular or non-modular, and wall-mounted or post-mounted (single-sided or double-sided).

The physical systems discussed in this section and the family of sign types (see figure 2) can be mixed and combined in different ways to provide wayfinding solutions at the University. (Detailed specifications are included in the supplementary documents.)

### 2.1 Modular signs

Modular campus signs consist of multiple single units (i.e. 'slats') and are from a specific signage system. These are the formal and 'permanent' type of campus signs.

Modular signs consist of individual removable slats with text; top, middle and bottom plain 'spacer' slats (with no text) used as blanks to balance the overall readability of the sign; and two posts or (for wall-mounted signs) side profiles that hold all the slats together. They are updated by sign suppliers removing obsolete slats and installing new ones rather than providing a completely new sign.

#### 2.1.1 Wall-mounted vs post-mounted modular signs

Modular direction signs are usually post-mounted (two posts in ground) rather than mounted on building walls. However, location signs at building entrances can be wall-mounted if it is not practical to install a post-mounted sign.

### 2.2 Non-modular signs

Non-modular signs are not composed of multiple separable and updatable units. Aside from some lettering signs, external non-modular signs consist of a single panel, unit or sheet of hardwearing material (usually 'external grade' dibond, but can be aluminium) with text/graphic applied to one side.

Types of non-modular campus signs include:

- **Single (dibond) panels** mounted to a post or on a wall.
- **'Lectern-style' maps** at some car park exits. These have a frame that allows the map on the panel to be updated with a new overlay.
- **Lettering signs** on some Whiteknights buildings and at the London Road pedestrian entrance. The material is usually dibond or Perspex as recommended by the supplier.
- **Projecting signs** or hanging signs (London Road only).
- **'Tray' signs** which are wall-mounted formal alternatives to the dibond signs: the fixings are hidden so there are no visible screw heads or caps on the sign face (as on the dibond signs). These signs are essentially a rectangular box with an open back that is attached to the wall; unlike the dibond signs they are not flush with the wall and therefore have edges that can be in the same colour as the sign's main panel.
2.2.1 When and how to use non-modular signs

Most campus non-modular signs are single panel ‘external grade’ dibond (or aluminium as per supplier recommendation) signs. These signs are smaller than the modular (‘slat’) signs (up to 900mm wide, rather than 1200mm or 1300mm wide). They can be updated using a new overlay but, as these signs are relatively inexpensive, a new replacement sign is usually produced.

Single panel (dibond) signs are used for temporary signs (up to 1 year) on Whiteknights. However, they are used as permanent signs at London Road and elsewhere at University off-campus buildings where modular signs cannot be installed because of lack of space, or because modular signs would be too formal, expensive or not appropriate for the setting:

- **Single panel direction signs** are often mounted to existing posts (usually lampposts) along secondary routes to buildings or areas but they can also be wall-mounted – the mounting method is determined by the space available, visibility on approach, and how close the sign is to the destination(s) it indicates.

- **Single panel location signs** are usually wall-mounted next to the building entrance: on Whiteknights these are used sparingly and only for private or restricted access entrances, however at London Road this style of sign is used at most building entrances.

2.3 Deciding an appropriate sign type, system and mounting method

The choice of sign type, physical system and mounting method depends on a combination of factors including:

- the extent and type of information that has to be conveyed,
- the complexity of the area that visitors are being directed to,
- the likelihood of the sign being obstructed by either pedestrians or vehicles, and
- the space available to install the sign.

For example, conveying simple information along a secondary path can be achieved by a non-modular direction sign on a lamppost. However, if the information is complex or rather long, a modular direction sign or perhaps a map sign (which is larger and optimised for this purpose) would be better.
section 2: External signage physical systems, materials and fixings

2.4 Other issues

2.4.1 Single-sided vs double-sided

All signs need to be angled so that they can be read by visitors on approach.

- **Post-mounted direction signs and map-direction signs** are often positioned perpendicular to main footpaths and roads and therefore need to have information on both sides.

- **Direction signs and map-direction signs** are only single-sided when there is only one approach from which they can be read (e.g. their back is close to a wall).

- **Direction signs** can also be single-sided if they are one of a pair at a junction (i.e. two single-sided signs, each facing the opposite direction, such as at the Queen’s Drive junction near Estates & Facilities at Whiteknights).

- **Map signs at campus entrances** are usually single-sided as they are aimed at visitors entering the campus.

- **Map signs** elsewhere on the campuses are often positioned perpendicular to a footpath and therefore need to be double-sided. They are only single-sided if they are positioned so that one side cannot be easily read or referred to.

- Building/area entrances that can be clearly seen on approach usually have a single-sided location sign parallel to the wall and next to the entrance. However, building entrances that are not obvious on direct approach (e.g. because they are obscured by bushes or by other buildings) require a double-sided location sign perpendicular to the entrance – this is the preferred alternative to installing an additional direction sign to indicate an obscured entrance.

2.4.2 Sign height

A sign's height and positioning will affect whether it can be noticed and read on approach (Barker and Fraser, 2000, p.69). The height of each sign (from top of sign to ground) will vary depending on the sign type and mounting method:

- **Post-mounted modular location and direction signs** are usually installed with a minimum clearance of 400mm from the lowest slat to the ground. Overall height of these signs is therefore at least 400mm + total height of all slats.

- **Post-mounted modular map signs and map-direction signs** are installed so that the top of each map is 2000mm maximum from the ground for ease of reading.

- **Projecting signs and post-mounted non-modular signs** are installed in line with guidelines for headroom clearance, and as advised by the sign supplier (usually allow at least 2300mm under sign).

- **Wall-mounted signs** are positioned for best visibility on approach, but most are installed at 1700mm from top of sign to ground.
3. University external signage colours

For legibility, signs need to have excellent contrast between their text and background, and between the sign’s background and the surrounding campus or environment.

The University’s external signage colours (see figure 3) and the methods for applying the colours to signs depend on the physical system being used.

3.3.1 Different methods of colour application

Suppliers are asked to match the Pantone reference (which is often translated to a RAL equivalent) for the relevant University signage colour.

- For modular signs, suppliers usually spray, paint or powder-coat panels, depending on the quantity of signs being made.
- For non-modular signs, suppliers are asked to cover (not print) sign backgrounds in vinyl to ensure they last longer.

3.3.2 Using University blue

University blue (match to Pantone 288) is only used for direction signs and should not be used for other types of signs.

Also, no other colours should be used for directional information. Exceptions include direction signs at off-campus sites with poor lighting (e.g. Hall Farm) where black on white non-modular direction signs can be more appropriate/legible than University standard modular blue signs.
Suppliers are asked to match the Pantone reference (often translated to a RAL equivalent) for the relevant University signage colour.

**For modular signs**, suppliers usually spray, paint or powder-coat panels, depending on the quantity of signs being made.

For **non-modular signs**, suppliers are asked to cover (not print) sign backgrounds in vinyl.

Text is usually white or black vinyl depending on background colour.

For more on the different sign types [see section 4](#).
section 3: External signage design principles

3.4 University external signage typefaces

‘Arrival’ is a special signage typeface used for all University external wayfinding signs.

Maps, small lettering signs and some notification and warning signs use one of three other typefaces:

- ‘Rdg Vesta’ (bold) – for some lettering signs on buildings as an alternative to Arrival, however large lettering signs are in Arrival.
- ‘Frutiger’ (several weights) – used only for on-campus maps.
- ‘Transport’ (UK traffic signs typeface) – used only for traffic-style signs.
section 4  
**External signage types, design and examples**

The main sign types (see section 1.3) can be subdivided further according to their purpose, location and physical system (see figure 2). This section discusses each sign type and includes sketches and photographs of example external signs.

4.1 **Location signs**

Location signs at entrances (for a campus, its buildings and its car parks) tell visitors where they are and can give further information about a building or area.

4.1.1 **Campus and building road entrance signs**

These signs are usually post-mounted; they tell visitors they are at the University of Reading, and state the name of the campus and the entrance (see figure 4).

Large entrance signs are installed at the main entrances for Whiteknights but smaller entrance signs are installed at minor or smaller entrances such as road entrances for buildings and at campus entrances for London Road.

Road entrance signs for buildings usually give the name of the building (not the campus) and the entrance name and/or access restrictions.

4.1.2 **Building entrance signs**

These help visitors confirm they are at the correct building: they state the building's name and number, as well as the entrance name (e.g. ‘Main entrance’, ‘North entrance’ etc.).

The building name is always on a red slat and includes the word ‘building’ where appropriate (e.g. ‘Carrington building’ not ‘Carrington’) and where space allows.

*Academic and administrative building location signs* also list all key occupants or places accessed via that building entrance. The entrance name and any key public destinations (such as museums and public-use lecture theatres) are on a dark grey background (see figure 4).

*Residential and commercial building location signs* do not list occupants. However, signs for some halls of residence often include names of blocks (see figure 4).

*Limited/authorised access entrance location signs* are usually non-modular and wall-mounted, some state the room number/name and access information (these signs do not usually include the building’s name), others state the building name and rooms/areas accessed from that entrance (see figure 6).

*Off-campus (Estates-managed) building location signs* are usually non-modular and wall-mounted. Depending on the type (see figure 6) they include the University device and indicate the street number and/or building name and street address, along with the building’s official Estates & Facilities reference number.
4.1.3 Car park entrance signs
These give the name and/or number of the car park and can include access information or restrictions (see figure 4 and figure 6). These signs are useful as markers along a route, and as reference points for drivers.

4.1.4 Lettering on buildings
At Whiteknights some buildings have additional name signs as large individual letters attached to the building (see figure 5); these have the advantage of being visible from a much greater distance than the standard building entrance signs and they allow buildings to be identified at a glance.

Most of the original lettering signs have been updated to the approved University signage typeface ‘Arrival’ (see section 3.4), however, due to costs and other constraints installing new lettering on buildings is not actively encouraged.

4.1.5 Projecting signs
These are useful where an entrance cannot be seen on approach. External projecting signs are only used at cloister entrances for London Road buildings: they are double-sided and attached to the building so that they are perpendicular to the entrance.
**SIGN TYPE** | **MODULAR (SLATS SYSTEM)** | **NON-MODULAR**
---|---|---
**LOCATION SIGNS** | | |
1. Campus road entrance | Building road entrance (off-campus) – panel |
2. Building road entrance | Building/other name – lettering |
3. Building entrance – academic or administrative | Building entrance – projecting |
4. Building entrance – residential | Building entrance (temp/off-campus) – panel |
5. Non-building entrance | Building occupant/access |
6. Car park entrance | Car park entrance – number |
7. Road name (on-campus) | |

For the full University of Reading external wayfinding signage system see figure 2.
For more about these types of signs see section 4.1.
Actual size files for these example signs are included in the supplementary material supplied with this report.

**figure 4** Location signs: modular signs (examples)
### Location Signs

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>MODULAR (SLATS SYSTEM)</th>
<th>NON-MODULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus road entrance</td>
<td>Hillside Court</td>
<td>1. Building road entrance (off-campus) – panel</td>
</tr>
<tr>
<td>Building road entrance</td>
<td>University of Reading Hillside Court Hillside House</td>
<td>2. Building/other name – lettering</td>
</tr>
<tr>
<td>Building entrance – academic or administrative</td>
<td>Benyon approx. 1000mm wide</td>
<td>3. Building entrance – projecting</td>
</tr>
<tr>
<td>Building entrance – residential</td>
<td>200mm cap height</td>
<td>4. Building entrance (temp/off-campus) – panel</td>
</tr>
<tr>
<td>Non-building entrance</td>
<td>University of Reading London Road campus 600mm deep</td>
<td>5. Building occupant/access</td>
</tr>
<tr>
<td>Car park entrance</td>
<td>University of Reading Hillside House 1600mm wide</td>
<td>6. Car park entrance – number</td>
</tr>
</tbody>
</table>

For the full University of Reading external wayfinding signage system, see figure 2.

For more about these types of signs, see section 4.1.

Actual size files for these example signs are included in the supplementary material supplied with this report.

---

**figure 5 Location signs: non-modular signs (examples)**

1. *University of Reading Hillside Court Hillside House* 1600mm wide 600mm deep

2. *Benyon* approx. 1000mm wide 200mm cap height

3. *University of Reading London Road campus* 690mm wide

4. *Student Common Room* 400mm wide 300mm deep

Sketch only: current London Road signs match original supplier’s artwork.

For the full University of Reading external wayfinding signage system, see figure 2.

For more about these types of signs, see section 4.1.

Actual size files for these example signs are included in the supplementary material supplied with this report.
figure 6  Location signs: non-modular signs (examples)

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>MODULAR (SLATS SYSTEM)</th>
<th>NON-MODULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOCATION SIGNS</td>
<td>Campus road entrance</td>
<td>1. Building road entrance (off-campus) – panel</td>
</tr>
<tr>
<td></td>
<td>Building road entrance</td>
<td>2. Building/other name – lettering</td>
</tr>
<tr>
<td></td>
<td>Building entrance – academic or administrative</td>
<td>3. Building entrance – projecting</td>
</tr>
<tr>
<td></td>
<td>Building entrance – residential</td>
<td>4. Building entrance (temp/off-campus) – panel</td>
</tr>
<tr>
<td></td>
<td>Non-building entrance</td>
<td>5. Building occupant/access</td>
</tr>
<tr>
<td></td>
<td>Car park entrance</td>
<td>6. Car park entrance – number</td>
</tr>
<tr>
<td></td>
<td>Road name (on-campus)</td>
<td></td>
</tr>
</tbody>
</table>

For the full University of Reading external wayfinding signage system see figure 2.
For more about these types of signs see section 4.1.
Actual size files for these example signs are included in the supplementary material supplied with this report.
4.2 Maps

Maps aid orientation and, supported by other signs, can also be used for navigation.

All external campus maps are user-oriented maps with a 'you are here' symbol indicating the user’s position in relation to nearby buildings and campus areas: they are 'heads up' so that what the user sees in their surroundings directly corresponds to their 'you are here' position on the map.

Types of external maps (see figure 1) include:

- **Large detail and context maps (1300mm square)** with a detail map showing the user’s position in relation to nearby buildings and their entrances, and a small overview context map showing the user’s position in relation to major areas of the campus.

- **Lectern-style ‘DDA’ maps (A2 landscape)** showing nearby buildings and their entrances, and indicating 'step-free' access for nearby buildings.

- **Large whole campus and full directory map (1300mm square)** showing all buildings and their entrances. This is only used at London Road as it is more efficient than having a map directory of occupants separate from the large detail maps (see section 1.4.1).

Map signs are usually post-mounted but can be wall-mounted.

4.3 Map-direction signs

Map signs need to be supported with directional information. At open areas connecting different parts of a campus (e.g. Pepper Lane to Earley Gate at Whiteknights), and near clusters of buildings, maps are combined with directions to form a ‘map-direction’ sign.

This consists of directions above a large user-oriented detail and context map showing visitors their location and that of buildings nearby in relation to the rest of the campus (see figure 8).

Map-direction signs are modular and post-mounted, and can be single-sided or double-sided.
For the full University of Reading external wayfinding signage system see figure 2.

For more about these types of signs see section 4.2.

Actual size files for these example signs are included in the supplementary material supplied with this report.
External wayfinding and signage

For the full University of Reading external wayfinding signage system see figure 2.

For more about these types of signs see section 4.3.

The example shown here is a double-sided map-direction sign.

Actual size files for these example signs are included in the supplementary material supplied with this report.
4.4 Direction signs

Direction signs are positioned along official footpaths and roads, and near junctions and other key decision points to help visitors answer ‘Which way to …?’ on the campuses.

Direction signs indicate buildings, parts of campus, places (e.g. the Lake and the campus reception), car parks, delivery entrances and campus exits (see figure 9).

4.4.1 Information on direction signs

- Information on direction signs is segmented by direction (see section 4.4.2) and alphabetised within each segment.
- For buildings named after a department, e.g. ‘Chemistry & Pharmacy,’ the word ‘building’ is included wherever space allows.
- Car parks in a given direction are listed on the same slat (e.g. ‘car parks 8 to 10 and 14’) where space allows rather than on separate slats for each car park.
- Each building appears on a new slat. However, lists of residential blocks, and most London Road buildings can be listed run-on using a ‘/’ separator to avoid over-long signs and to keep signs as simple and compact as possible.

4.4.2 Arrow order on direction signs

Each segment of content is often arranged in a set order according to their direction:
1. left upwards (i.e. angled at 45 degrees left)
2. straight ahead
3. right upwards
4. left
5. right.

Avoid angled arrows wherever possible as they can confuse users if not used carefully (Barker and Fraser, 2000, p.38).

Upwards arrows should only be used at narrow corridors and to indicate destinations up steps or on a higher level. Downwards arrows are only used to indicate access (via stairs) to destinations on a lower level, in this order:
1. left downwards
2. right downwards.

This recommended order of arrows/directions is only a guide to aid consistency; arrow order can be changed to improve readability of a sign: for example, if there are many entries for ‘left’ but very few for ‘right’, the ‘right’ entries can be listed (with the appropriate arrow) before the ‘left’ entries.
**figure 9  Direction signs (examples)**

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>MODULAR (SLATS SYSTEM)</th>
<th>NON-MODULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIRECTION SIGNS</td>
<td>1. On campus</td>
<td>3. On campus</td>
</tr>
<tr>
<td></td>
<td>2. Off-campus buildings</td>
<td>4. Off-campus buildings/areas</td>
</tr>
</tbody>
</table>

1. 1300mm wide  
   - Ashbury/Blebury/Cholsey/Dunsden Crescent/Enborne/Fawley/Hurley (pedestrians)  
   - Upper Redlands Road exit (pedestrians)  
   - Park Place deliveries  
   - Greenow/McCombie  
   - 50mm deep plain spacer slat  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 50mm deep plain spacer slat

2. 1300mm wide  
   - Blandford Lodge  
   - Miller building (Admissions Office only)  
   - 27 Whiteknights House (University reception)  
   - 49 Miller building (main entrance)  
   - 50mm deep plain spacer slat  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 100mm deep  
   - 50mm deep plain spacer slat

3. 900mm wide  
   - Harris Garden  
   - 32 Philip Lyle building  
   - 46 Reading Science Centre (RSSL)  
   - 31 Harborne building  
   - 700mm deep  
   - 850mm deep

4. 900mm wide  
   - Benyon Hall (The Cottages/Fickling Court/The Granary)  
   - Creighton Court  
   - Sherfield Hall  
   - St Patrick’s Hall  
   - Exit (Northcourt Ave)  
   - Creighton Court  
   - Sherfield Hall  
   - St Patrick’s Hall  
   - 550mm deep

For the full University of Reading external wayfinding signage system see figure 2.

For more about these types of signs see section 4.4.

Actual size files for these example signs are included in the supplementary material supplied with this report.
4.5 Notification, warning and other signs

Notification and warning signs give conditions of use and access (in case of restrictions) and/or tell visitors what they must or must not do (see figure 10). They are often part of another signage system such as traffic signs, regulatory, or health and safety signs.

These signs can usually be bought off-the-shelf, but notification signs which state a campus, car park, building or substation name provide a secondary level of wayfinding information and are therefore included in the University signage system: they can help visitors confirm their location, allowing them to orient themselves and find their desired destination or, in the event of an emergency, give an accurate description of their location.

Other exceptions to acquiring off-the-shelf signs can occur where a large quantity of notification signs need to be installed across a campus (e.g. ‘private property’ and ‘keep dogs on lead’ signs): here a consistent design which forms a coherent part of the signage system is important and allows the University full control over the look, size and content of the signs which is not possible with an off-the-shelf sign.

Signs in this group also include some traffic-style signs such as those indicating pedestrian routes at Pepper Lane, and the public footpath from Earley Gate to Chancellor’s Way.
### External wayfinding and signage

#### Other signs (examples)

<table>
<thead>
<tr>
<th>SIGN TYPE</th>
<th>MODULAR (SLATS SYSTEM)</th>
<th>NON-MODULAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHER SIGNS</td>
<td>-</td>
<td>1. Notification signs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Warning signs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Traffic-style signs</td>
</tr>
</tbody>
</table>

#### Figure 10: Other signs (examples)

- **Beyond this point Foxhill House only**
  - 600mm wide
  - 220mm deep

- **University of Reading Acacia Road car park Permit holders only Car park closes at 10pm**
  - 1160mm wide
  - 550mm deep

- **Dogs must be kept on a lead at all times**
  - 540mm wide
  - 230mm deep

- **Private property No public right of way. Pedestrians welcome at most times.**
  - 540mm wide
  - 500mm deep

- **Public Footpath**
  - 895mm wide
  - 750mm deep

- **Pedestrian route to Chancellor’s Way**
  - 600mm wide
  - 200mm deep

For the full University of Reading external wayfinding signage system [see figure 2](#).

For more about these types of signs [see section 4.5](#).

Actual size files for these example signs are included in the supplementary material supplied with this report.
figure 11  Photographs of example external signs

For the full University of Reading external wayfinding signage system see figure 2.
section 5  Continuing work

These are general notes about updates and future work. (Project methodology, artwork procedures and sign specifications are included in the supplementary material.)

5.1 External wayfinding signage asset register

Estates and Facilities maintain an in-house External wayfinding signage asset register (see Figure 12). This has been created to ensure that each wayfinding sign has its own unique reference number (along with its approximate location) logged, making it easier to accurately refer to signs, track changes to artwork and report signs that need installation, modification or renewal.

The University’s External wayfinding signage asset register must be updated within one week following the installation, modification or removal of any external wayfinding signage.

Updates to the asset register must be provided electronically to the Senior Projects Administrator, together with photographs of each asset, using the WREN ‘UoR External Wayfinding Signage’ module. A zipped copy of this database module can be obtained from the Estates and Facilities Business Systems Manager. Advice on the use of this module will be provided when the zip file is supplied.

figure 12  Template of asset register database
section 5: Continuing work

5.2 Updating existing signs

See Figure 13: Project methodology.

5.2.1 Always as part of the wayfinding system

All new signs and updates have to be considered as part of the existing system; this will affect sign location and content. Signs support each other in a systematic way so they must be updated or installed to maintain the integrity and consistency of the whole system. They must also comply with the wayfinding policy and signage principles summarised in this report.

5.2.2 Colour matching

Sign colours sometimes vary because suppliers do not match equivalent colours closely enough to the specified Pantone colour. Colours can also look different because of the anti-graffiti laminate used: a gloss laminate will result in a brighter colour (but increased glare) and a matt laminate will make the colour appear duller. Exact colour matches from different suppliers are not always possible but colours should be as close as possible to the specification.

5.2.3 Updating double-sided signs

Double-sided location signs have the same information on both sides of the sign. However, double-sided direction signs and map signs do not: the information changes depending on the user’s position.

Unfortunately, the physical system used for the modular signs does not allow one side of the sign to be updated independently of the other. For direction signs this means that a new or removed slat has to be considered in terms of its content on both sides, how it relates to the other existing slats on the sign, and the need to maintain alphabetical order on each side of a sign.

5.2.4 Campus signs with obsolete designs

A few campus signs pre-date the approved design approach. These include location signs which use indentation to indicate the hierarchy of occupant departments and units. Future updates to these obsolete location signs should follow the system approved shortly after these signs were installed:

- no indentation (occupant names are treated at the same level and alphabetised),
- ‘School of’ and ‘Department of’ are not included, and
- popular destinations open to the public are highlighted by being on the same dark grey background as the building entrance name.
section 5: Continuing work

5.2.5 Proposing new post-mounted signs

Post-mounted campus signs cannot be installed too close to high voltage (HV) and other cables and underground services.

Positions for new signs which require new holes in the ground need to be checked against an up-to-date HV etc. plan from Estates & Facilities to identify potential problem areas to discuss with project managers.

Suppliers will then need to arrange a 'permit to dig' with Estates & Facilities where a precise scan is done of each proposed sign location to confirm where holes can be dug and signs can be installed. If a sign’s location has to be changed this may affect the information on the sign (especially if it gives directions, or is a ‘you are here’ user-oriented map).

5.3 Future projects

Areas and/or campuses with incomplete signage and known issues which need to be resolved in future signage projects include:

- **Henley campus** (full wayfinding and signage review recommended)
- **Whiteknights campus** (new buildings expected and some building names may change)
- **London Road** (changes to building names expected to affect campus signs).

5.3.1 London Road: effect of naming buildings

Almost all London Road buildings are referred to by their ‘L’ number (e.g. ‘L16’) and do not have names similar to those on Whiteknights.

Most London Road buildings have two non-modular location signs (red and dark grey) at each entrance. The Great Hall is currently the only building at London Road that has a modular post-mounted location sign.

If London Road buildings are named, the Institute of Education reception and admin building (L16) and the main teaching building (L22) both have space for University standard post- or wall-mounted location signs at their entrances.

For all other buildings, only the red building label sign needs to be changed to reflect their new name. However, all the dibond signs at London Road could be replaced with more formal-looking ‘tray’ signs (see section 2.2) when building names are confirmed.

If buildings are named, it is recommended direction signs only state the name of popular buildings (L16 and L22) in the same way that other key buildings/places (Great Hall, Eat & Drink) are already shown. Other campus buildings would remain listed on these direction signs using only their ‘L’ name/number. This will allow direction signs to be remain accessible: less cluttered and retaining the larger text needed for distance viewing.
section 5: Continuing work

figure 13  Project methodology

Current project methodology (EXT)

External signs and wayfinding report at the University of Reading (20-Nov-13)

Tasks performed by Design & Print Studio and Estates & Facilities, and how we work together on external signage projects.

Artwork instructions, sign suppliers, and examples of the specifications and guides mentioned below are included in the accompanying supplementary material.

Simple external signage projects

For changes to single signs (e.g. a new building occupant or new name for an occupant listed on a location sign) or for new one-off signs (e.g. road entrance sign for a hall of residence):

1. Project manager (PM) from Estates and Facilities (E&F) contacts Design & Print Studio with specific requests from occupants for new signs or updates to existing location signs.
2. Email or call PM to clarify requirements.
3. Determine work needed:
   • if modifying an existing sign, check files held.
   • if creating a new sign, check for similar signs and use the relevant existing files.
4. Quote to PM, including a proposed schedule, estimated cost and a restatement of required tasks. These tasks could include:
   • site visit (not always necessary if PM provides photo of existing sign or of the location for a new sign, that can be used in the specifications guide sent to suppliers)
   • artwork
   • simple specifications guide and proof for PM to sign off and for supplier quotes
   • (after sign-off) request quote from suppliers on PM’s behalf when applicable (send specifications to suppliers cc PM requesting quotes are addressed to PM and emailed to PM cc us)
   • outline eps and/or pdf files (depending on the sign type) as artwork to suppliers.
5. Go-ahead and codes from PM.
6. Carry out tasks as above, then change and close the project.

Notes for large and complex projects are on pages 2-3 of this document.
section 5: Continuing work

figure 13  Project methodology (continued)

9. Feedback from PM then revise guides and artwork proofs.
10. Guides double-checked and proofread in-house then sent with a sign-off sheet to PM.
11. Sign-off from PM.
12. Supplier correspondence (if requested by PM) – send approved guides to suppliers for quotes (This step – sending specifications to suppliers for quotes – can also be performed by the University’s Procurement team but they may need a cover email for context):
   • answer supplier queries regarding specifications
   • check supplier quotes for accuracy against the original specification and comment on these to PM
   • suppliers respond to queries from PM and we check updated quotes for accuracy.
13. If the restated specification in supplier quotes is accurate, we confirm this with the PM who can then place a formal order with signs supplier(s). Lead times from receipt of an order from the University to installation on campus vary depending on the sign type and the supplier’s schedule but they range from about a week for non-modular signs, to 4–6 weeks for the modular/slat signs.
14. PM confirms orders have been placed and with which supplier(s).
15. Supplier artwork – create and send outline eps signs artwork (and pdf outline artwork for maps) to suppliers cc PM.
16. If provided, check supplier proofs then email PM with comments so they can approve/request changes before production.
17. Answer any artwork queries from suppliers.
18. If requested, check on installed signs then report status and any problems to PM.
19. PM to confirm our agreed tasks are completed.
20. Charge and close project.
External wayfinding standards and signage system

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