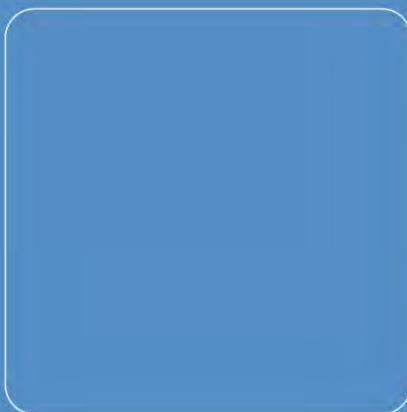


RPS

**THE CHANCELLOR'S BUILDING
UNIVERSITY OF READING
TRANSPORT STATEMENT**





THE CHANCELLOR'S BUILDING

UNIVERSITY OF READING

TRANSPORT STATEMENT

21 March 2016

Our Ref: DA/AH/sjs/JNY8671-04A

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1 INTRODUCTION

Background

- 1.1 The University is proposing a number of projects to improve, extend and refurbish existing buildings on the Whiteknights Campus in order to meet the current and future requirements of staff and students. In order to undertake these improvements, extensions and refurbishment works, staff and students will need to be temporarily relocated out of the existing buildings to allow the works to be undertaken.
- 1.2 The University is therefore proposing to construct a temporary building on the site of the former Rural History Centre (RHC) located on The Chancellor's Way, in order to accept the staff and students which are temporarily relocated as part of the other Whiteknights Campus improvement, extension and refurbishment projects. Through the various projects proposed for the Whiteknights Campus there is no intention to increase staff or pupil numbers at the University, this temporary accommodation is proposed to accommodate existing staff and students who have been relocated.
- 1.3 The site is closely related to the central part of the Whiteknights Campus where the proposed development projects such as Library, Urban and Regional Studies (URS) building, and Henley Business School (HBS) are located. The former RHC site is therefore a logical location to accommodate the temporary decanting of these existing teaching facilities and services during the construction phase of each of the individual projects.
- 1.4 This Transport Statement (TS) has been prepared by RPS Planning and Development on behalf of the University of Reading for the proposed development. The location of the proposed temporary building, hereafter called The Chancellor's Way Building (CWB), within the wider Whiteknights Campus, is shown in **Figure 1**.

Context

- 1.5 The University of Reading is embarking on a programme of building modernisation and improvements at the Whiteknights Campus, focussing on improving facilities for staff and students, consistent with Reading Borough Council Local Plan policy SA6:

"The University of Reading is a national and international educational establishment of strategic importance which will continue to adapt and expand over the plan period. The Whiteknights Campus as shown on the Proposals Map will continue to be a focus for development associated with the University of Reading. Such development may include additional student, staff, teaching, research and enterprise accommodation, infrastructure and services, and sports and leisure facilities among other uses. There will also be improvements to access, including rationalisation of vehicle entrances and exits.

Development will accord with the following criteria:

- **Areas of wildlife significance and current or potential green links will be retained or enhanced;**

- The safety of those using the campus will be maintained or enhanced;
- There will be no significant detrimental impact on neighbouring residential properties; and
- The loss of undeveloped areas on the site will be weighed against the benefits of development to the wider community.

The policy aims to ensure that the Whiteknights Campus continues to develop as the focus for the University of Reading and contribute to Reading as a whole and the wider national interest. This policy helps to achieve core objective 2 of the Core Strategy in that it improves the quality of life for those studying in Reading, and maintains good access to education. It also helps to strengthen the role of Reading within the Thames Valley and South East, which is part of core objective 1.”

Assessment Methodology

1.6 Research undertaken in connection with this assessment has included:

- Site visits to assess local infrastructure and facilities;
- Review of national and local government guidance;
- Assessment of existing public transport provision, timetable information, bus routes and services;
- Assessment of current infrastructure provision for pedestrians and cyclists;
- Analysis of traffic, pedestrian, cyclists and HGV movement patterns across the campus and on the adjoining road network;
- Review of the development proposals and the likely impacts of trips associated with the development on the local road network; and
- Review of Construction Traffic Management arrangements for The Chancellor's Way Building, taking into account other projects and improvement works scheduled to be undertaken on the Whiteknights campus.

1.7 This Transport Statement has had regard to the advice contained within the Planning Practice Guidance – ‘Travel plans, transport assessments and statements in decision-taking’ (March 2014).

2 POLICY APPRAISAL

Introduction

- 2.1 This section details the transport policy documents against which the development proposals will be considered from a national and local perspective.

National Policy

White Paper – ‘Creating Growth, Cutting Carbon’ (January 2011)

- 2.2 The White Paper has overall objectives to “create growth in the economy, and tackle climate change by cutting carbon emissions”. The White Paper notes at paragraph 4 that two-thirds of journeys are less than five miles and that these could easily be undertaken by cycling, walking or using public transport.
- 2.3 The White Paper confirms the Government’s commitment to sustainable local small-scale schemes to enable people to make more sustainable transport choices (paragraphs 9 to 11).

National Planning Policy Framework (NPPF) (March 2012)

- 2.4 The National Planning Policy Framework (NPPF) was published in March 2012 and sets out national policy for delivering sustainable growth and development. The NPPF aims to make the planning system less complex and more accessible. The NPPF replaces a number of Planning Policy Statements and Guidance including PPG13 – Transport and PPS1 - Delivering Sustainable Development.
- 2.5 The NPPF sets out the Government’s planning policies for England and how these are expected to be applied. In terms of transport, the objectives outlined in NPPF are to:
- **“The transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel.” (Paragraph 29)**
 - **“Encouragement should be given to solutions which support reductions in greenhouse gas emissions and reduce congestion. In preparing Local Plans, local planning authorities should therefore support a pattern of development which, where reasonable to do so, facilitates the use of sustainable modes of transport.” (Paragraph 30)**
- 2.6 When determining planning applications Paragraph 32 of the NPPF states that planning policies should consider whether:
- **“The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;**
 - **Safe and suitable access to the site can be achieved for all people;**
 - **improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development; and**

- **Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.”**

2.7 Whilst the NPPF provides no definition of what a ‘severe’ impact would be, it is clear that *de minimis* impacts are not a reason for preventing development from coming forward for transport reasons.

Planning Practice Guidance (PPG) – Travel Plans, Transport Assessments and Statements in Decision-Taking (March 2014)

2.8 The PPG was released in March 2014. The Planning Practice Guidance (PPG) document ‘*Travel Plans, Transport Assessments and Statements in Decision-Taking*’ provides a concise report on the use, importance of, and content to be provided within Transport Assessments, Transport Statements and Travel Plans.

2.9 With regard to whether to provide a Transport Assessment, Transport Statement or no assessment, the PPG states that local planning authorities, developers, relevant transport authorities, and neighbourhood planning organisations should agree what evaluation is needed in each instance. In this instance, due to the small scale nature of the proposals and the intention for these not to increase staff or pupil numbers, pre-application discussions between the University and Reading Borough Council has indicated the need for a simple Transport Statement to accompany the application.

2.10 The Guidance states that Transport Assessments, Transport Statements and Travel Plans should be proportionate to the size and scope of the proposed development, be tailored to particular local circumstances and be established at the earliest practicable possible stage of a development proposal.

Local Policy

Reading Borough Council Local Plan

2.11 Reading Borough Council Local Plan Core Strategy was adopted in January 2008 with an alteration adopted 27th January 2015. The Spatial Strategy sets out a vision for Reading to 2023, derived from the City 2020 Vision. The Core objectives set out in the Core Strategy are:

- Strengthen the role of Reading;
- Improve the quality of life;
- Ensure new development is accessible and sustainable;
- Maintain and enhance the historic, built and natural environment;
- Improve and develop excellent transport systems;
- Improve and develop excellent transport systems; and
- Ensure that Reading is a multi-cultural city.

- 2.12 As set out in paragraph 1.5 above, Reading Borough Council Local Plan policy SA6 is specific to the Whiteknights Campus, University of Reading. This states:

“The University of Reading is a national and international educational establishment of strategic importance which will continue to adapt and expand over the plan period. The Whiteknights Campus as shown on the Proposals Map will continue to be a focus for development associated with the University of Reading. Such development may include additional student, staff, teaching, research and enterprise accommodation, infrastructure and services, and sports and leisure facilities among other uses. There will also be improvements to access, including rationalisation of vehicle entrances and exits.

Development will accord with the following criteria:

- **Areas of wildlife significance and current or potential green links will be retained or enhanced;**
- **The safety of those using the campus will be maintained or enhanced;**
- **There will be no significant detrimental impact on neighbouring residential properties; and**
- **The loss of undeveloped areas on the site will be weighed against the benefits of development to the wider community.**

The policy aims to ensure that the Whiteknights Campus continues to develop as the focus for the University of Reading and contribute to Reading as a whole and the wider national interest. This policy helps to achieve core objective 2 of the Core Strategy in that it improves the quality of life for those studying in Reading, and maintains good access to education. It also helps to strengthen the role of Reading within the Thames Valley and South East, which is part of core objective 1.”

- 2.13 Reading adopted a Supplementary Planning Document (SPD) ‘Revised Parking Standards and Design’ on 31st October 2011. This sets out the parking requirements for different land uses. This document also contains standards for cycle and motorcycle parking. The SPD sets out parking standards based on a number of ‘zones’ within Reading. The University is within Zone 4.

Wokingham Borough Council Local Plan

- 2.14 Although the site for the temporary accommodation building is located in Reading borough, the Whiteknights Campus as a whole spans both Reading and Wokingham Borough boundaries. Accordingly, the policy background for Wokingham has also been examined.
- 2.15 Wokingham Borough Council's Core Strategy policy CP6 describes the need to manage travel demand. This states that:

“Planning permission will be granted for schemes that:

- a) Provide for sustainable forms of transport to allow choice;**
- b) Are located where there are or will be at the time of development choices in the mode of transport available and which minimise the distance people need to travel;**
- c) Improve the existing infrastructure network, including road, rail and public transport, enhance facilities for pedestrians and cyclists, including provision for those with reduced mobility, and other users;**

- d) Provide appropriate vehicular parking, having regard to car ownership;**
- e) Mitigate any adverse effects upon the local and strategic transport network that arise from the development proposed;**
- f) Enhance road safety; and**
- g) Do not cause highway problems or lead to traffic related environmental problems.”**

3 EXISTING CONDITIONS

Site Location

- 3.1 It is proposed to construct The Chancellors Way Building (CWB) building on the site of the former Rural History Centre to the south of The Chancellor's Way. The Chancellor's Way is a private road and operates one-way west to east, providing an egress from the campus onto the A327 Shinfield Road. The one-way operation is a choice by the University rather than being mandated through a formal Traffic Regulation Order made by the Highway Authority.
- 3.2 The Whiteknights Campus has an internal private road network which links buildings on the campus to The Queens Drive access/egress onto A327 Shinfield Road, The Chancellor's Way egress onto A327 Shinfield Road, and the Pepper Lane access/egress. The site is bounded by the Russell Building and Car Park 7 to the south and The Chancellor's Way and sports pitches to the north. A site location plan is attached at **Figure 1**.
- 3.3 The majority of the internal campus road network is subject to a 20mph restricted speed limit (10mph in some places), and has a range of traffic calming measures, including zebra crossings and road narrowing. The Chancellor's Way, on which the site is located, has a priority T-junction onto A327 Shinfield Road at its western end.
- 3.4 The Campus itself is located east of A327 Shinfield Road, north-east of Pepper Lane, north-west of B3350 Wilderness Road, south-west of Whiteknights Road and south of Upper Redlands Road. The Campus is approximately 2.6 kilometres to the south-east of Reading town centre. The campus spans both Reading and Wokingham Borough areas.

Baseline Traffic Conditions

- 3.5 Surveys of the movement of people into and around the campus by all modes of travel were undertaken in October 2015, giving new starters to the University time to familiarise themselves and develop travel patterns. The University also operates an Automatic Number-plate Recognition (ANPR) system at the site accesses and egresses and data for University term time Tuesdays and Thursdays in April 2015 have been examined. Whilst the ANPR does not guarantee to pick-up every vehicle, the vast majority of vehicles are captured and the proportions of arrivals and departures from each access/egress can also be examined.
- 3.6 For the purpose of vehicle movements, the construction of a car park on The Queen's Drive was being undertaken at the time when traffic surveys were undertaken. This resulted in temporary traffic management one-way operation of The Queen's Drive for vehicles between 0700 and 1600 daily. In order to ensure that traffic flows are considered on a 'neutral' basis when temporary traffic management was not in place, the recorded traffic surveys have been compared with the proportions of arrivals and departures from the accesses and egresses from the University recorded through the ANPR surveys. For AM peak and inter-peak periods the ANPR proportions have been used to re-proportion the recorded traffic departures at The Chancellor's Way and The Queen's Drive. For the PM peak, when traffic surveys were recorded when temporary traffic management was lifted, the proportions of departures recorded and those from the ANPR results are similar and therefore the traffic survey departures have not been re-proportioned.

- 3.7 The resulting traffic flows into and out of the University during each time period is set out in **Table 2.1**.

Table 2.1 – Traffic Flows Used for Analysis

	AM Peak 08:00 - 09:00*			PM Peak 17:00 - 18:00		
Access / Egress	Arrive	Depart	Two-way	Arrive	Depart	Two-way
1. Chancellors Way	0	38	57	0	131	128
2. Pepper Lane	604	84	688	84	365	449
3. Earley Gate	278	43	321	125	115	240
4. Queens Drive	325	74	380	180	152	335
	Inter Peak 11:00 - 12:00*			Inter Peak 12:00 -13:00*		
Access / Egress	Arrive	Depart	Two-way	Arrive	Depart	Two-way
1. Chancellors Way	0	24	25	0	39	40
2. Pepper Lane	81	95	176	87	150	237
3. Earley Gate	128	76	204	136	77	213
4. Queens Drive	135	76	210	147	101	247

Notes: * indicates that recorded traffic flows have been re-proportioned for The Chancellors Way and The Queens Drive based upon ANPR records to account for the effect of temporary traffic management on The Queens Drive when traffic flows were recorded.

Baseline Junction Operation

- 3.8 The existing capacity and operation of the junctions of A327 / the Queen's Drive and A327 / The Chancellor's Way have been tested using the industry standard software TRL Junctions 9 based upon the traffic flows in **Table 2.1**. **Tables 2.2 and 2.3** provide the baseline modelling results, which indicate that the junctions currently operate with sufficient reserve capacity during all time periods examined.

Table 2.2 – 2015 Baseline Junction Results – The Chancellor's Way / A327 Shinfield Road

	AM Peak 08:00-09:00				PM Peak 17:00-18:00			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0	10.29	0.02	B	0.1	8.47	0.09	A
Stream B-A	0.2	22.23	0.17	C	0.5	19.92	0.35	C
Stream C-AB	0	0	0	A	0	0	0	A
	Interpeak 11:00-12:00				Interpeak 12:00-13:00			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0	6.82	0.01	A	0	7.72	0.02	A
Stream B-A	0.1	23.17	0.12	C	0.2	18.04	0.14	C
Stream C-AB	0	0	0	A	0	0	0	A

Notes: Arm A: Shinfield Road (north), Arm B: The Chancellor's Way. Arm C: Shinfield Road south

Table 2.3 – 2015 Baseline Junction Results – The Queen's Drive / A327 Shinfield Road

	AM 0800-0900				PM 1700-1800			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0.1	7.08	0.11	A	0	10.33	0.04	B
Stream B-A	0.1	19.27	0.09	C	0.8	19.65	0.46	C
Stream C-AB	0.7	4.13	0.2	A	0.5	4.65	0.16	A
	Interpeak 1100-1200				Interpeak 1200-1300			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2015 Baseline							
Stream B-C	0.1	7.56	0.08	A	0.1	8.84	0.08	A
Stream B-A	0.2	13.35	0.13	B	0.3	14.2	0.23	B
Stream C-AB	0.2	4.69	0.1	A	0.2	4.82	0.1	A

notes: Arm A: Shinfield Road (north), Arm B: The Queen's Drive, Arm C: Shinfield Road south

Personal Injury Accident Records

3.9

Personal Injury Accident (PIA) data has been obtained from Wokingham Borough Council for the Whiteknights Campus area (both within Wokingham and Reading Borough Council areas) for the latest available three year period, inclusive of 1st September 2012 to 31st August 2015. The locations of recorded PIAs are shown at **Figure 2**.

- 3.10 The perimeter of the search area includes the following highway network:
- A327 from the signalised junction with Redlands Road / Elmhurst Road, to 160 metres south of the entrance to Leighton Park School;
 - Pepper Lane;
 - B3350 from the mini roundabout junction with Pepper Lane to that with Whiteknights Road;
 - Whiteknights Road;
 - Upper Redlands Road; and
 - Redlands Road from junction with A329 / Elmhurst Road / Northcourt Avenue to junction with Upper Redlands Road.

3.11 The data shows that 40 PIAs were recorded during the time period, of which two were classified as serious and the remaining 38 as slight. No fatal incidents occurred during the time period.

3.12 One of the serious incidents was located on the A327 Christchurch Road approximately 130 metres south-east of the A327 / Northcourt Avenue / Redlands Road signalised junction, when a pedestrian was struck by a car travelling south-east as they failed to look properly whilst attempting to cross the carriageway. The other serious incident was located at the same signalised junction, whereby a driver turning right into Elmhurst Road disobeyed the traffic signal and collided with a car travelling south-east on A327.

A327 / Northcourt Avenue / Redlands Road / Elmhurst Road signalised junction

3.13 Five of the slight incidents, in addition to one of the aforementioned serious incidents, took place at this junction and therefore this location is considered a 'cluster' for PIAs.

3.14 One of the slight incidents caused injury to pedestrian as they crossed the A327 through queueing traffic without looking properly, and was struck by a car in lane one travelling towards Reading town centre.

3.15 Two of the slight incidents involved the same manoeuvre with a car driver turning right onto Elmhurst Road from the A237. In both incidents the driver failed to look properly and collided with an oncoming vehicle travelling south-east bound on the A237. A separate slight incident was attributable to a shunting incident at the controlled traffic signal on the A327 north-western arm. The remaining slight incident was due to an intoxicated driver travelling south-east on A237 colliding with the traffic signal and left the carriageway.

A327 Shinfield Road / Wellington Avenue / Pepper Lane signalised crossroad junction

3.16 Five slight incidents took place at this junction, of which two sustained injury to a pedal cyclist. One was due to driver turning left onto Pepper Lane and failed to notice a cyclist travelling southbound, and the other was due to an LGV driver turning right onto Pepper Lane and failing to notice an oncoming cyclist in poor weather conditions. The remaining three incidents involved car drivers and were due to opening a passenger door negligently, misleading indication or disobeying the red traffic signal.

Remaining PIAs

- 3.17 The rest of the 28 incidents recorded over the three year period were dispersed over the study area with no clusters identified.
- 3.18 Eight incidents impacted upon a pedal cyclist, which were caused by one of or a combination of the following factors:
- Wet road surface;
 - Cyclist or another road user failing to look properly;
 - Overtaking at an inappropriate location;
 - Cyclist travelling in driver's blind spot; and
 - Failing to give way at roundabout junction.
- 3.19 Three incidents involved motorcyclists, with one attributable to a temporary road layout that an inexperienced rider was not familiar with, another carrying out a U-turn in an inappropriate location, and an electric scooter rider colliding with the kerb and falling off.
- 3.20 The remaining 17 PIAs involving cars or goods vehicles were due to one of or a combination of the following factors:
- Stationary or parked vehicle partially blocking driver's view;
 - Failing to judge other road user's speed;
 - Shunting incident;
 - Driver of a stolen vehicle driving aggressively north-east along Elmhurst Road and colliding with seven parked vehicles;
 - Speeding;
 - Emergency vehicle with no siren on colliding with car; and
 - Overloaded goods vehicle.
- 3.21 This analysis has demonstrated that the incidents recorded are all attributable to factors unrelated to the design of the highway network. Although two cluster points are identified from the data (A327 / Elmhurst Road junction and A327 / Pepper Lane junction), the PIAs here were due to driver / rider error. It can be concluded that the development proposals will not impact upon road safety.

Pedestrian Access

- 3.22 Whiteknights Campus is conducive to pedestrian movements with a network of traffic-free footpaths throughout the campus connecting to the various academic, catering, leisure and other facilities in addition to halls of residence. This includes a public footpath running along The Chancellor's Way adjacent to the proposed The Chancellor's Way Building.

- 3.23 There are several pedestrian crossing points within the campus internal road network for the safety of students, staff and visitors including on all arms of the mini roundabout north of the Queens Drive access point into the campus.
- 3.24 The Queen's Drive provides pedestrian access from the central point of the campus to the University sports centre and has footway provision on its northern and eastern side. The Queen's Drive forms a priority 'T' junction with the A327 Shinfield Road, and 140 metres further north the signalised junction between A327 / Elmhurst Road / Redlands Road is located. There is a controlled pedestrian crossing on the A327 arm of the junction and an uncontrolled pedestrian crossing point marked by a traffic island and pedestrian refuges on the Elmhurst Road arm. A parade of shops is located on the south-western side of the A237 immediately north of the junction which students and staff are likely to access. Northcourt Avenue forms a minor arm to the A237 immediately south of the parade of shops which leads to halls of residence.
- 3.25 The route travelling north along Redlands Road provides access to Royal Berkshire Hospital, other University of Reading halls and facilities. There is footway provision on both sides of Redlands Road.
- 3.26 The most direct walking route from the Whiteknights Campus into Reading town centre is via the A327 Christchurch Road / Mount Pleasant / Southampton Street north-west of the signalised junction with Redlands Road / Elmhurst Road, covering a distance of approximately 2.5 kilometres. There is footway provision along the length of the A327 into the town centre, accompanied by street lighting, dropped kerbs and tactile paving at junctions with side roads and controlled pedestrian crossing points at major junctions and across the A327 itself. Bridge Street and London Street provided routes into the town centre area from the A327. There is footway provision and safe crossing points on both these routes. There are several commercial, retail and leisure facilities in the town centre along Broad Street, St Mary's Butts, Gun Street, Minster Street, Friar Street (and interconnecting streets) and within the Oracle shopping centre.
- 3.27 Reading railway station is located 550 metres in walking distance to the north of Castle Street / Gun Street / Bridge Street crossroad junction. The total walking distance between the railway station and The Chancellor's Way Building is circa 3 kilometres.

Cyclist Access

- 3.28 The University encourages staff, students and visitors to cycle to access University facilities. There are some shared and segregated cycleways / footpaths within the eastern Campus grounds. Through the main area of the Campus, cyclists are currently encouraged to use campus access roads but may share pedestrian routes with pedestrians having priority.
- 3.29 The University has commissioned the development of a Campus Routes Strategy which will set out provision of a network of 'recommended cycle routes' through the campus and physical improvements that the University can take to improve routes for cyclists and reduce any conflict with pedestrians.
- 3.30 The University has ReadyBike stands offering bike hire by the hour at the following locations:
- on the south-eastern corner of the Elmhurst Road / A327 / Redlands Road signalised junction;

- opposite the University's Chaplaincy Centre circa 500 metres from The Chancellor's Way Building; and
- east of Randolph College.

- 3.31 Shower facilities are located at several buildings on the campus, with the closest to The Chancellor's Way Building being located at the Archaeology Building. Basic cycle repair tools are available within the University's Chaplaincy Centre. Cycle parking, via Sheffield stands and secure compounds are available across the campus providing over 1,800 cycle parking spaces.
- 3.32 Reading Borough Council has issued a cycle route map for the Reading area which is attached at **Appendix B** identifying the suitability of cycle routes in the south-west part of the town.
- 3.33 The A327 and Redlands Road are highlighted in the extract as an on-road cycle route with no dedicated cyclist facilities. A route from the A327 via Kendrick Road and East Street provides an alternative.
- 3.34 Redlands Road forms a junction with the A4 London Road, which exhibits a blue signed shared cycleway / footway on both sides of the carriageway separated from the traffic. Watlington Street routes north from the A4 opposite Redlands Road and offers an on-road cycle route. The town centre area can then be reached from the traffic-free cycle route on the southern side of River Kennet and Yield Hall Place. This is the long distance National Cycle Network Route 4 which follows the Kennet and Avon Canal. Route 5 is accessible from the footbridge at the River Thames / Kennet confluence east of Cholmeley Road, which routes north towards Oxfordshire.
- 3.35 Reading railway station can be reached by continuing north on London Street, Duke Street, The Forbury and Forbury Road. There is secure and covered cycle parking available at the railway station.
- 3.36 To the east of the campus, Whiteknights Road and Erleigh Road are identified as suitable on-road cycle routes due to lower traffic volumes. The A329 Wokingham Road is accessible from the Earley Gate entrance to the campus in the eastern corner and has a shared cycleway / footway set back from the carriageway. This provides direct access from the campus to Earley railway station. Cycle parking is available at the railway station.

Public Transport

- 3.37 The closest bus stops to The Chancellor's Way Building are located on campus with stop for Earley-bound services on the eastern side of the carriageway outside the University reception, which has a shelter, seating, street lighting, real time information and a litter bin. The Reading-bound bus services call at the bus stop on The Chancellor's Way with the same facilities. These bus stops are served by Reading Bus service Claret 21 / 21a. The Claret 21a operates only during University term time, which is approximately half of the Claret 21 / 21a services combined.
- 3.38 Additional bus stops are provided outside of the University campus on the A327 with the northbound and southbound bus stops located either side of the priority 'T' junction with The Chancellor's Way. Both bus stops are marked by a flag and pole with the addition of a shelter, seating and real time information for the northbound stop. Reading Bus services 3 and 9 call at these stops which operate throughout the year and are not constrained to University term time.

3.39 The bus service details are outlined below in **Table 3.1** with their routes attached at **Appendix C**.

Table 3.1: Local Bus Services to Whiteknights Campus, University of Reading

Route No.	Bus Stop	Operator and Route	Frequency						
			Weekday					Weekend	
			AM Peak	Off Peak	PM Peak	First Service	Last Service	Sat	Sun
Claret 21 / 21a	The Queen's Drive (adj. University reception)	Reading Buses Reading Station - Christchurch Green - Whiteknights Campus - Asda, Chalfont Park - Earley	Every 10 minutes			04:09	04:11	Every 10 mins	Every 20 mins
	The Chancellor's Way	Reading Buses Earley - Asda, Chalfont Park, Whiteknights Campus - Christchurch Green - Reading Station	Every 10 minutes			04:36	04:24	Every 10 mins	Every 20 mins
Leopard 3	A327, adj. to The Chancellor's Way	Reading Buses Reading Station - Royal Berkshire Hospital - University - Shinfield - School Green - Arborfield - Wokingham	3 services per hour			05:41	23:03	3 services per hour	Every 30 mins
	A327, opp. to The Chancellor's Way	Reading Buses Wokingham - Arborfield - School Green - Shinfield - University - Royal Berkshire Hospital - Reading Station	3 services per hour			06:26	23:42	3 services per hour	Every 30 mins
Red 9	A327, adj. to The Chancellor's Way	Reading Buses Reading Station - Royal Berkshire Hospital - University - Beech Road - Woodside Way - Shinfield Park	Every 10 - 12 minutes			05:33	22:27	Every 15 minutes	Every 30 minutes
	A327, opp. to The Chancellor's Way	Reading Buses Woodside Way - Shinfield Park - The Maidens - University - Royal Berkshire Hospital - Reading Station	Every 10 - 12 minutes			05:48	10:58	Every 15 minutes	Every 30 minutes

Source: Reading Buses (accessed October 2015)

- 3.40 It is highlighted that Whiteknights Campus is accessible from a large range of destinations across south Reading by public transport, including residential areas such as Whitley, Earley and Shinfield, in addition to Reading town centre.
- 3.41 All three bus routes either commence or terminate at Reading railway station which provides rail services to several key regional and national destinations. This is a useful link for staff, students or visitors that may visit the campus from areas outside of Reading, combining a public transport journey with cycling or Reading Buses. Reading railway station has recently been subject to a multi-million pound improvement programme with upgraded access, platforms, waiting areas and improvements to line capacity to improve services.

Summary

- 3.42 This site accessibility appraisal demonstrates that The Chancellor's Way Building and Whiteknights Campus as a whole are highly accessible and can be reached by sustainable modes from a large range of local and regional destinations; this accords with the University's sustainability principles and local and national policy. It should be further emphasised that a wide range of facilities are located within the campus boundaries itself which internalise staff, student and visitor trips.

4 PROPOSED DEVELOPMENT

Development Proposals

- 4.1 The proposed Chancellor's Way Building will comprise approx. 3,400 square metres of floor space across two floors. The accommodation will comprise the erection of high quality modular buildings that connect together to form a fully functioning University facility with teaching, administration and student space. The Chancellor's Way Building is required for about 5 years in order to support the implementation of the various development projects across the campus over this time.

Access

- 4.2 The site is accessed from The Chancellor's Way, a private road. This operates one-way from the internal campus road network to the A327 Shinfield Road. Reading Borough Council's Streetworks team has confirmed that there is no Traffic Regulation Order preventing access to The Chancellor's Way from Shinfield Road; the one-way operation is therefore under the control of the University.
- 4.3 The construction of The Chancellor's Way Building will require large HGVs and abnormal loads in order to deliver and erect the modular building structure. The modular building itself is anticipated to require up to 100 deliveries of modular building components, including craneage, each up to 3 x 3 x 12 m in size; along with other HGV movements delivering plant and materials.
- 4.4 It is likely that The Chancellor's Way will be closed for through traffic for the duration of The Chancellor's Way Building construction works in order to prevent interaction between general campus travel movements (pedestrian, cycle and vehicle) and construction traffic, including abnormal loads. It is proposed to temporarily suspend the one-way operation of The Chancellor's Way for construction traffic only, allowing HGVs to enter the construction area from A327 Shinfield Road along Chancellor's Way, to avoid routing large HGVs around The Queen's Drive at the same time as university staff and students are using the network.
- 4.5 Buses would have to be diverted as part of the temporary suspension of the one-way operation. This is likely to be via other existing routes within the campus, most likely via Pepper Lane. It is anticipated that any such diversion would result in no difficulties with bus operators and / or services based on past experience of closing / resurfacing the Pepper Lane entrance.
- 4.6 This overall closure of The Chancellor's Way combined with suspension of the one-way operation will allow some planned resurfacing of The Chancellor's Way to be undertaken within the same time-frame as The Chancellor's Way Building construction. This Transport Statement considers both the construction and resurfacing works, splitting The Chancellor's Way into eastern and western sections as set out in **Table 4.1** and show in drawing JNY8671-02 revision A within **Appendix D**.

- 4.7 Large HGV deliveries into Chancellor's Way from A327 Shinfield Road, including modular building components and cranes, would be permitted from the north (left-in) only to prevent any blocking of through traffic on A327 Shinfield Road. The preferred route for construction vehicles from the M4 to the site would be using A33 northwards, Rose Kiln Lane, B3031 Basingstoke Road and A327 Christchurch Road, turning left-in to The Chancellor's Way to reach the site.

Table 4.1 – Proposed Operation of The Chancellor's Way to Accommodate The Chancellor's Way building construction and resurfacing

Westerns section of The Chancellor's Way (access to/from A327 Shinfield Road)	Eastern section of The Chancellor's Way (access via campus road network)
Construction traffic for The Chancellor's Way Building including delivery of modular building components and cranes using large HGVs.	Resurfacing works, no through-route to The Chancellor's Way Building construction site or for University travel movements.
Resurfacing works, no through-route to The Chancellor's Way Building construction site or for University travel movements.	Light vehicle movements for The Chancellor's Way Building fit-out, such as trades.

- 4.8 Pedestrian access to the site will be taken via a newly constructed footpath linking directly onto existing facilities on The Chancellors Way on the eastern side of the building.
- 4.9 There are currently over 1,800 cycle parking spaces on campus and these will be retained for continued use. There will be no increase in the number of staff or students as a result of these proposals and so there would be no change to the demand for cycle parking. Notwithstanding this a limited number of new cycle parking spaces could be provided to the east of the building.
- 4.10 A new vehicular access will be formed onto The Chancellors Way to the west of the building providing access to four car parking spaces, two of which would be for disabled users.

Impact of Closure of The Chancellor's Way

- 4.11 The impact of the possible closure of The Chancellor's Way on University traffic using this route has been examined using TRL Junctions 9. As a worst case assumption, all The Chancellor's Way traffic has been re-assigned to exit the campus via The Queen's Drive. The results of this assessment are shown in **Table 4.2**.
- 4.12 The results indicate a potential for delay and queuing exiting The Queen's Drive during the PM peak hour. However, this is unlikely to occur in practice for two reasons:
- The closure of The Chancellor's Way is expected to be undertaken during the University holidays when traffic flows are likely to be lighter than those surveyed (during term time);
 - The worst case assumption of all traffic exiting via Queen's Drive is unlikely to occur in practice as some diverted traffic may exit the campus via Pepper Lane, particularly if queues are experienced at The Queen's Drive.
- 4.13 Accordingly, it is not anticipated that the closure of The Chancellor's Way during University holidays, for construction of The Chancellor's Way Building and resurfacing, would result in any cause for concern.

- 4.14 The results indicate that it would be unwise to add additional construction traffic via The Queen's Drive if The Chancellor's Way was closed. During the recent Queen's Drive car park works when this arose, construction finished before 16:30 thus avoiding the evening peak hour. Accordingly, the Construction Traffic Management Plan will set out that if a scenario ever arose when The Chancellor's Way was closed then working hours for all construction traffic would avoid the evening peak. Notwithstanding this, such a scenario is not envisaged.
- 4.15 HGVs will be required to avoid network peak hours in any case, to avoid adding large vehicles to the local road network during periods when they are less able to be accommodated.

Table 4.2 – 2015 With Diverted Chancellor's Way Traffic – The Queen's Drive / A327 Shinfield Road

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2015 - Chancellor's Way Traffic Diverted to Queen's Drive								
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Stream B-C	0.2	9.2	0.15	A	0.3	19.33	0.24	C
Stream B-A	0.4	25.82	0.28	D	3.2	48.08	0.78	E
Stream C-AB	0.6	4.18	0.19	A	0.4	4.88	0.15	A
Interpeak 11-12					Interpeak 12-13			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
2015 - Chancellor's Way Traffic Diverted to Queen's Drive								
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Stream B-C	0.1	8.61	0.1	A	0.1	9.89	0.11	A
Stream B-A	0.3	18.43	0.25	C	0.5	18.01	0.35	C
Stream C-AB	0.2	4.76	0.09	A	0.2	4.93	0.08	A

Notes: Arm A: Shinfield Road (north), Arm B: The Chancellor's Way, Arm C: Shinfield Road (south)

- 4.16 The closure of The Chancellor's Way will also require temporary diversion or temporary closure of Reading Public Right of Way Footpath 9. **Appendix A** shows the current definitive map extract for the footpath and **Appendix D** provides details of the proposed temporary arrangements during construction of The Chancellor's Way Building and resurfacing of The Chancellor's Way.

Trip Generation

- 4.17 The project is not intended to increase staff or pupil numbers at the University as a whole and therefore, once constructed, the project would not increase overall trip making to or from the University.
- 4.18 The building would be constructed during the University summer holidays, minimising impact on students and staff. Whilst there would still be some staff and post-graduate students on campus, many of the undergraduate students would be on holiday.

- 4.19 It is anticipated that the project could take up to three months (July to September). The modular building construction and fit-out would be undertaken in parallel with the resurfacing of The Chancellor's Way, as set out in **Appendix D**.
- 4.20 The delivery and erection of modular building components is likely to be undertaken within the first month. Assuming working hours of 07:00 to 16:30 hours Monday to Friday and Saturdays between 08:00 and 14:00, with no HGV movements permitted between 07:45 and 09:15 on a weekday to avoid the network traffic peak. This gives a working week of 53.5 hours and an HGV delivery window of 45 hours weekly.
- 4.21 The modular building itself is anticipated to require up to 100 deliveries of modular building components, including craneage, each up to 3 x 3 x 12 m in size; along with other HGV movements delivering plant and materials. Assuming additional HGV deliveries of up to 50 vehicles over a four week period, this would equate to around one large HGV arrival and one large HGV departure per hour on average. The number of staff or contractors required on site for the project at any one time is likely to be around 20. Staff and contractors would be asked to park off-site in the first instance (as set out in the Construction Traffic Management Plan below) and mini-buses would be used to transport staff from these locations to the site, to avoid build-up of contractor vehicle parking on the University Campus.
- 4.22 Given the restrictions on working hours and HGV deliveries, and the use of The Chancellor's Way for construction purposes only, it is not anticipated that the works would result in any traffic impact that cannot be accommodated on the local and campus road networks.

Parking and Cycle Parking

- 4.23 Parking for The Chancellor's Building will make use of the existing facilities across the campus. There will be no change to the number of staff or students as a result of the proposals and therefore no change in demand.
- 4.24 Notwithstanding this, a limited amount of cycle parking could be provided to the east of the building whilst four car parking spaces are proposed to the west, two of which would be for disabled users.

Public Right of Way along The Chancellor's Way

- 4.25 The Public Right of Way along The Chancellor's Way (footpath 9) would be temporarily closed during The Chancellor's Way Building construction and resurfacing of The Chancellor's Way.
- 4.26 A Traffic Regulation Order (TRO) can be made under Section 14 of the Road Traffic Act (1984) to temporarily divert or close a Public Right of Way (PRoW). The order can be made on the following grounds:
1. Works being undertaken on or near the PRoW;
 2. Likelihood of danger to the public or damage to the PRoW; or
 3. Enable cleaning of the PROW or litter clearing to be undertaken.
- 4.27 The proposed diversion would be undertaken on criteria 1 and 2 in relation to works on the public right of way (resurfacing) and likelihood of danger to the public (manoeuvring of large loads and construction vehicles).

- 4.28 The maximum length of temporary diversion or closure order is six months. No subsequent order can be made within the following 12 month period.

5 CONSTRUCTION TRAFFIC MANAGEMENT

Introduction

- 5.1 As far as is known at this time, the following section describes the construction programme and construction vehicle access to The Chancellor's Way Building.

Construction Programme

- 5.2 It is anticipated that the main construction programme works be undertaken over a period of three months during the University summer holidays in 2016. This presents a higher intensity construction period than other campus projects, but during a time when the University Campus is less busy. In addition, proposals for HGV access, particularly for large loads such as modular building components, are set out to avoid routes along the Queen's Drive and campus road network. Construction can be broadly split into the construction phases, activities and likely types of vehicles shown in **Table 5.1**.

Table 5.1: Construction Phases and Types of Vehicle

Construction Phase	Typical Activities	Typical Vehicles
Pre-Construction	Temporary Diversion or Temporary Closure of Reading Footpath 9. Advertising closure of The Chancellor's Way on the campus road network and to University users via electronic means.	N/A
Site Setup	Delivery of plant; Establishment of welfare; Establishment of wheel wash facility; Establish construction compound; Perimeter fencing and hoarding.	Low loaders carrying plant and materials; Light vehicles for staff and contractors.
Foundations	Excavation; Construction of foundations;	Low loaders carrying plant and materials; Concrete pouring vehicles; Light vehicles for staff and contractors.
Modular Building Components	Delivery of modular building components; Delivery of mobile crane(s); Erect modular building.	Circa 100 low loaders carrying modular building components (circa 12m x 3m x 3m loads) ¹ ; Mobile crane ² .

Construction Phase	Typical Activities	Typical Vehicles
Linking modular building components and establishment of building interior.	Works to link modular building components and create internal areas; Insulation; Internal walls and ceilings.	Low loaders carrying plant and materials; Light vehicles for staff and contractors.
Fit Out	Fixtures and fittings (incl. café); Carpentry; Electrics & IT; Plumbing & heating; Flooring; Access ramps and hand rails; Furniture delivery.	Light vehicles for staff and contractors. Box vans and large HGVs delivering materials and furniture.
Exterior areas	Create new exterior landscape; Create parking and hard standing; Install new cycle parking; Install street furniture.	Low loaders and HGVs delivering hard and soft surfacing materials, cycle parking and street furniture; Light vehicles for staff and contractors; Light vehicles delivering materials.

Notes:

- 1 The Road Vehicles (Construction and Use) Regulations 1986 identify an abnormal load as having a width exceeding 2.9m (for Construction and Use loads). Appropriate notification of police and highway authorities will be required if loads exceed 2.9m in width.
- 2 The Road Vehicles (Authorisation of Special Types) (General) Order 2003 sets out the required notification of police and highway authorities in respect to movement of mobile cranes.

Working Hours

- 5.3 The working hours will vary by activity, to reduce impact on both University and non-University neighbours. Delivery of large loads, such as modular building components and cranes, will be undertaken outside of peak hours on the local road network to reduce traffic impacts.
- 5.4 It is anticipated that, in a similar manner to the Queen's Drive car park currently being undertaken, work would be conducted between 07:00 and 16:30 hours Monday to Friday with limited construction activities on Saturdays between 08:00 and 14:00. Very limited construction activities will take place on a Sunday or Bank Holiday. The weekday close-down of construction activities by 16:30 will also avoid construction traffic adding to capacity constraints at the Queen's Drive access onto the A327 and capacity constraints on the local road network.

- 5.5 All site management and operatives will be made aware of typical lecture changeover times and busy periods during the University day. Where possible, vehicle movements along the campus road network will be minimised during these periods, to reduce conflict between construction activities and pedestrians and cyclists using the Campus. Construction traffic will use the access via the Chancellor's Way wherever possible to minimise construction traffic within the campus.

Access to the Site

- 5.6 Access via the Chancellor's Way for HGVs will be left-in wherever possible, to limit the number of HGVs turning right from A327 Shinfield Road and any potential for disruption to through traffic along A327 Shinfield Road. Swept paths for the access into the Chancellor's Way are provided in drawing JNY8671-01 in **Appendix E**. Depending on the types of vehicle used some kerb realignment may be required.
- 5.7 Large HGV deliveries into Chancellor's Way from A327 Shinfield Road, including modular building components and cranes, would be permitted from the north (left-in) only to prevent any blocking of through traffic on A327 Shinfield Road. The preferred route for construction vehicles from the M4 to the site would be using A33 northwards, Rose Kiln Lane, B3031 Basingstoke Road and A327 Christchurch Road, turning left-in to The Chancellor's Way to reach the site. Swept paths for a right turn at the compact roundabout of B3031 Basingstoke Road / A327 Christchurch Road is provided in **Appendix F**.

Deliveries

- 5.8 The western end of The Chancellor's Way will be used for HGV deliveries, operating two-way from the junction with Shinfield Road for erection of the modular building. Whilst this activity is being undertaken, the eastern end of The Chancellor's Way would be resurfaced. Once these activities have completed, operation of The Chancellor's Way would reverse with resurfacing undertaken on the western section and traffic movements for the fit-out of the modular building using the eastern section of The Chancellor's Way and the Campus road network.
- 5.9 Consideration will need to be given to the movement of staff and students at all times when works are being undertaken. Temporary signage (as appropriate to Traffic Signs Manual Chapter 8) will be erected informing pedestrians, cyclists and vehicles of the construction work and any changes to normal routes, movements or special requirements due to the works.
- 5.10 The proposed construction compound will provide an area for waiting and off-loading if required. All deliveries by large vehicles (>3.5 tonnes) will be undertaken outside of the morning network peak of 07:45 to 09:15hrs. Vehicle restrictions may also be applied to accord with University operations. Any vehicle on-route and likely to arrive during the restricted period(s) will be required to park in the nearest layby or service station, until the restricted period has passed, drivers legal driving hours permitting.

Transport Co-ordination

5.11 Turner and Townsend have developed a Construction Logistics Strategy (CLS) which will be directed towards framework contractors and project teams as well as the University of Reading itself. A Logistics Coordinator will be appointed to manage the campus wide operations, whilst the Project Coordinator for each project site will manage the operations within each individual project site. They will work together to instil safe methodologies and minimize disruption to the campus and local road network. Together they will undertake the transport co-ordination role for the site. In this respect, their main responsibilities will include:

- Vehicle scheduling;
- Checking for scheduled road works on <http://roadworks.org> and in liaison with the local authorities;
- Checking for scheduled refuse collections with RBC and WBC to avoid conflict with HGV deliveries where possible;
- Handling any complaints;
- Acting as a point of contact for employees, contractors, staff and students of the University, and the general public.
- Liaising with the University's Sustainable Travel Coordinator;
- Liaising with other local stakeholders such as emergency services or local transport providers; and
- RBC and WBC.

Environmental Impact Measures During Construction

5.12 Suitable mitigation measures aimed at reducing environmental impacts with specific regard to transport are outlined on **Appendix G**.

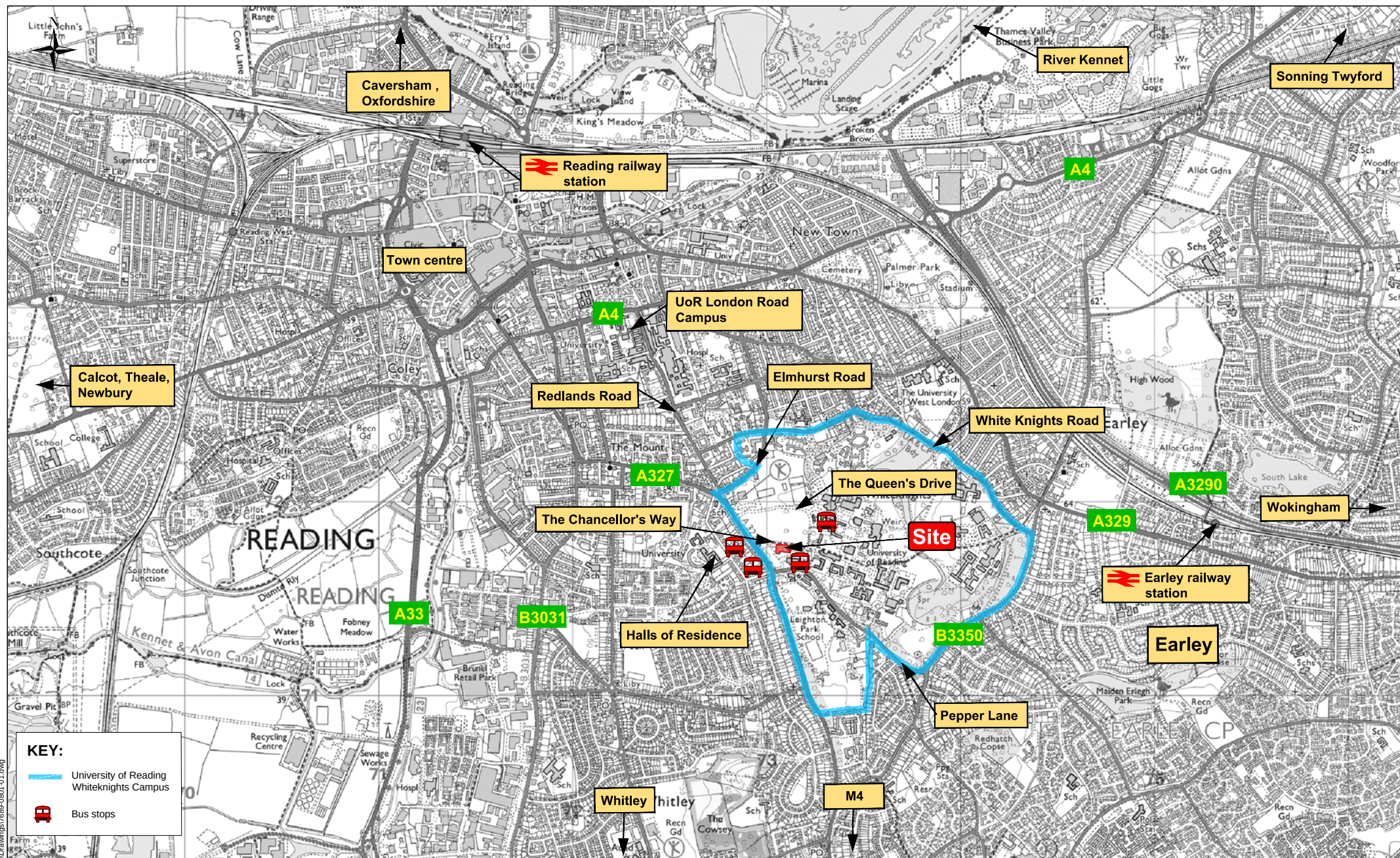
6 SUMMARY AND CONCLUSIONS

- 6.1 This Transport Statement report assesses the transport and travel implications of the University of Reading's proposal to construct a temporary building, located south of The Chancellor's Way on the Whiteknights Campus, to enable staff and students to be decanted from other buildings on campus whilst works to improve those buildings are undertaken.
- 6.2 The project will not increase staff or pupil numbers at the University as a whole, and therefore would not increase overall trip making to or from the University once construction is complete.
- 6.3 Depending on the final programme for construction of the building, there may be some planned resurfacing works on The Chancellor's Way and the impacts of this along with temporarily closing it whilst construction takes place, have been discussed in this document and found to be not significant. The capacity of Shinfield Road/The Queen's Drive junction has been tested with diverted traffic and is shown to operate close to capacity (but not in excess of capacity) during the evening peak hour. The report has shown that the transport implications resulting from the proposals are acceptable.
- 6.4 Construction traffic will be managed and controlled so that it does not impact on the operation of the University or the wider highway network, and so that works are undertaken in a safe manner with regard to pedestrian, cycle and vehicle movements both within the Campus and elsewhere.
- 6.5 Car parking and cycle parking demand will be catered for using the existing facilities within the campus. Although there would be no increase in users, a limited additional amount of cycle parking will be provided at the building along with four car parking spaces, two of which would be for disabled users.
- 6.6 No transport implications are predicted and it is therefore considered that there are no traffic or transport reasons for not permitting development.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Personal Injury Accident Location Plan



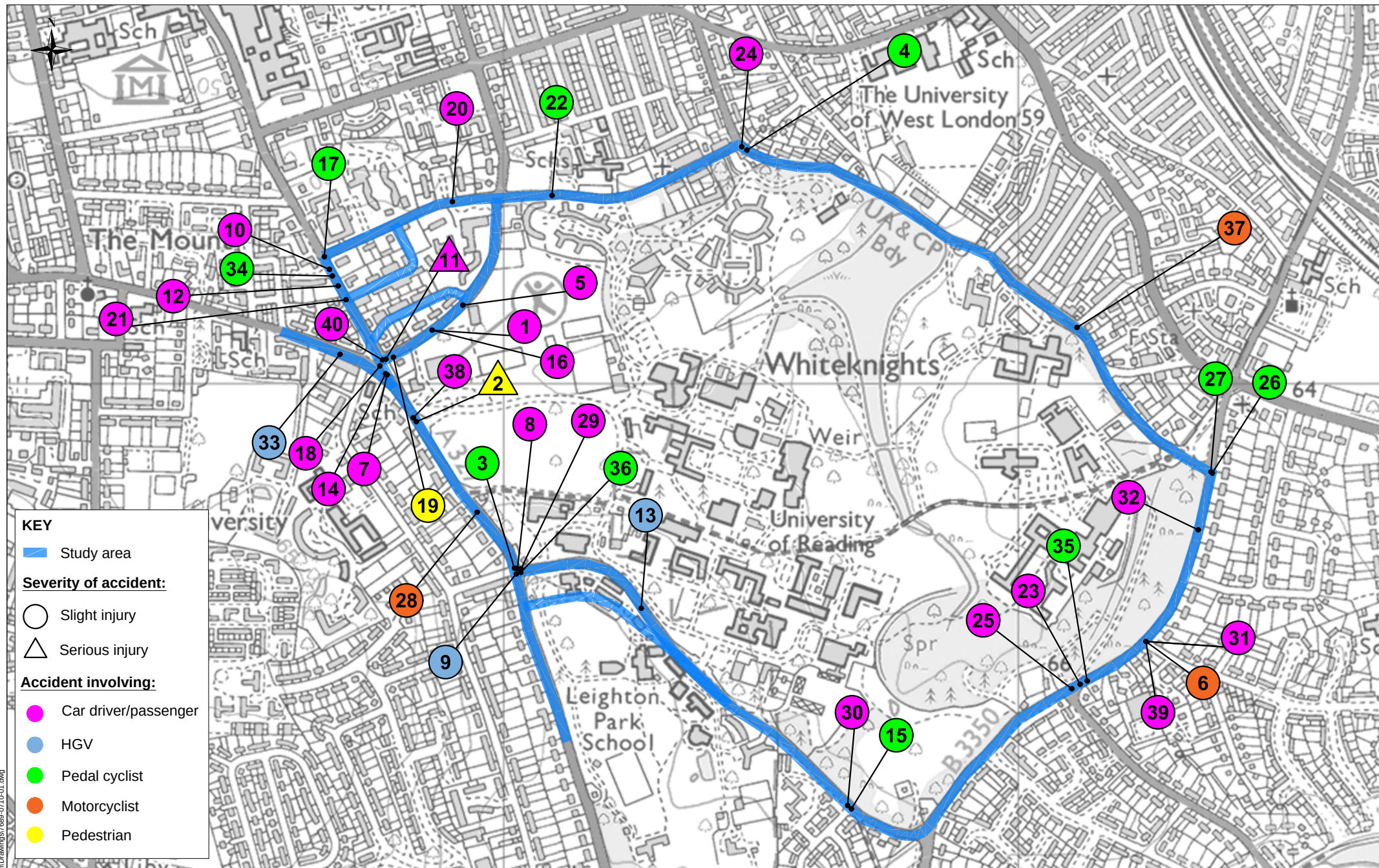
Date: **MARCH 2016** Scale: **NTS** Rev: **-**
 Dwg. No: **JNY8671-01** Drawn: **AVG** Checked: **AH**

Project: **WHITEKNIGHTS CAMPUS PROJECTS**

Title: **SITE LOCATION PLAN**

Figure No: **1**

Transport



Date: NOV 2015 Scale: NTS Rev: -
Drwg. No: JNY8671 Drawn: AVG Checked: AG

Project:
WHITEKNIGHTS CAMPUS PROJECTS

Title:
PIA ANALYSIS

Figure No:
2

Transport

APPENDICES

APPENDIX A – PUBLIC RIGHT OF WAY



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