

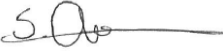
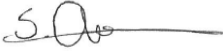




**Southgate Campus, Huddersfield University  
Building 2  
Transport Statement**

**November 2023 (Initial Issue)**

Prepared on behalf of

**The University of Huddersfield and Calderdale and  
Huddersfield NHS Trust**

# Quality Management

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# 1. Introduction

## 1.1 BACKGROUND

1.1.1 Optima Highways have been appointed by the University of Huddersfield to produce a Transport Statement (TS) in support of a new building for Huddersfield University and Calderdale and Huddersfield NHS Trust, on the Southgate masterplan, with Building 2 delivered as Phase 2 of the wider scheme and forms the focus of this report.

1.1.2 The Southgate Site previously housed Huddersfield Sports Centre, a multi storey car park and various other uses. It presently has a temporary car park on part of the wider site which is currently utilised by Kirklees Council and provides 159 parking spaces.

1.1.3 The Phase 1 Health and Wellbeing Academy building, as part of the National Health Innovation Campus, received reserved matters approval in September 2022 and is currently under construction and aims to be completed in 2024.

1.1.4 This report has been provided to support the reserved matters application for Phase 2 on behalf of the University of Huddersfield (UoH) and Calderdale and Huddersfield NHS Trust to Kirklees Metropolitan Borough Council (KMBC), acting as both the Local Planning Authority and Local Highway Authority.

1.1.5 The Phase 2 reserved matters application is submitted pursuant to the outline planning permission granted under reference 2021/91544 containing additional education buildings, external spaces, parking, servicing and cycle storage facilities.

1.1.6 This TS supports the proposal for Building 2 which will provide approximately 6,800m<sup>2</sup> of accommodation set over 5 storeys with a plant level below. The ground floor of the building will be occupied by the Calderdale and Huddersfield NHS Trust, the first and second floors by Department of Allied Health Professions, Sport and Exercise, the third floor is currently fallow of use and the fourth floor by The Innovation Centre, an enterprise by the University of Huddersfield that let out laboratories and offices for start-ups and collaborative projects and partnerships.

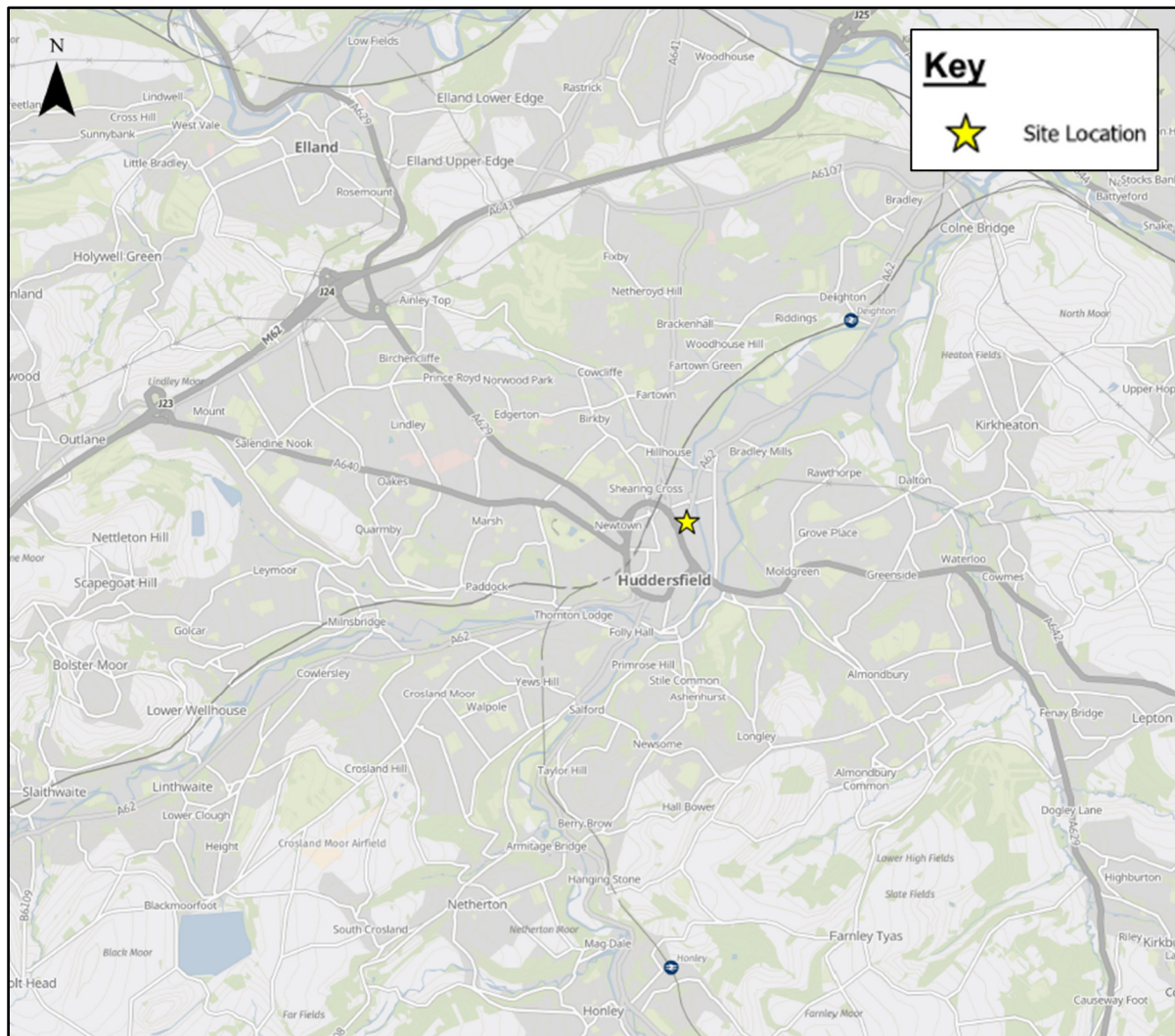
1.1.7 The flexibility in the design will also mean that the building can continue to evolve to meet the changing needs of the faculty.

1.1.8 The Site is located within Huddersfield Town Centre, with close links to the existing University campus and surrounding complimentary land uses, which are examined in detail.

1.1.9 The site location is shown in its strategic context in Image 1.1, which is an extract of Figure 1.



Image 1.1 Strategic Site Location



## 1.2 SCOPE

1.2.1 This report has been prepared in accordance with the Ministry of Housing, Communities & Local Government 'Travel Plans, Transport Assessments and Statements' advice published in 2014.

1.2.2 On 5th September 2023, the Ministry of Housing, Communities and Local Government published an updated National Planning Policy Framework (NPPF), which replaced the document that was first published on 27th March 2012 and updated in July 2018 and February 2019 and July 2021 respectively.

1.2.3 The new NPPF in paragraph 105 states that *"significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help reduce congestion and emissions and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be considered in both plan-making and decision-making."*

1.2.4 In paragraph 110 the NPPF states that when considering planning applications, it should be ensured that:



- Appropriate opportunities to promote sustainable transport can be or have been taken up, given the location and type of development;
- Safe and suitable access to the site can be achieved for all users; and
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

1.2.5 NPPF paragraph 111 states that *“Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe”*.

1.2.6 In relation to paragraph 111, developments should be in accordance with paragraph 112, which states:

- Give priority first to pedestrians and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- Address the needs of people with disabilities and reduce mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

1.2.7 Paragraph 113 of the NPPF states that all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.

1.2.8 The contents of the Southgate Campus reports were agreed during scoping discussions with Kirklees Highways Development Management during scoping discussions regarding the wider site and the Phase 1 reserved matters application. These scoping discussions are contained at **Appendix B**.

### 1.3 REPORT STRUCTURE

1.3.1 This report sets out the transport matters relating to the development proposals and considers the sustainability and accessibility of the Site, reviewing the provision and quality of facilities and connections to and from the surrounding areas. The document structure is as follows:

- Chapter 2 - describes the Site and the existing transport conditions and includes an analysis of personal injury collision data;
- Chapter 3 - describes the accessibility of the Site by non-car modes;
- Chapter 4 - defines the development proposals, servicing and access strategy and parking provision;



- Chapter 5 - set out the trip generation methodologies; and
- Chapter 6 - highlights the conclusions of the TS.



## 2. Existing Site Conditions

### 2.1 INTRODUCTION

2.1.1 This chapter describes the Site and considers the existing conditions on the surrounding highway network for a range of transport modes. It includes a review of existing collision data and describes the existing local facilities.

### 2.2 EXISTING SITE

2.2.1 The development site is located to the east of Huddersfield Ring Road and previously housed the towns sports centre, two residential blocks, a commercial centre, and a multi-storey car park – these have now been demolished.

2.2.2 Building 2 is bounded by Leeds Road to the North, the Phase 1 ‘Daphne Steele’ building to the West, Pine Street to the south and the future Southgate Building 3 to the East.

2.2.3 The Site in relation to the strategic and local transport networks is shown in Figures 1 and 2 respectively. Image 2.1 illustrates the indicative red line application boundary for Phase 2, which is taken from Figure 2.

Image 2.1 Local Site Location



2.2.4 This application relates to the redevelopment of the Southgate Site and focuses on the proposed 5-storey, Building 2, which will be used as a focal point where health professionals, students, academics and the community come together within a single building. The Site was previously occupied by a Council Pay and Display car park and the wider site now presently comprises of a temporary car park that is accessed from Pine Street and provides 159 car parking spaces.

### 2.3 EXISTING LOCAL HIGHWAY NETWORK

2.3.1 The Site is located at the junction of Leeds Road and the Huddersfield Ring Road (known as Southgate). The junction is signalised with pedestrian crossing facilities provided across all arms of the junction.

2.3.2 The availability of dropped kerbs and tactile paving at all major road junctions and signalised puffin / pelican crossings with central refuge areas at signalised junctions enable safe crossing for pedestrians and cyclists in the vicinity of the site.

#### Southgate

2.3.3 Huddersfield Ring Road is to the west of the site and forms a ring around the Town Centre. Within the vicinity of the site, it has either two or three lanes depending on the carriageway and is subject to a 30mph speed limit.

2.3.4 The Ring Road is lit and has double yellow lines in place around the site. It affords links to all arterial routes into Huddersfield and is strategically important within the local area. All pedestrian crossing points are signalised.

#### Leeds Road

2.3.5 Leeds Road (A62) is a dual carriageway past the site and links Huddersfield with Leeds and the M62 via junction 25. It offers accessibility to many residential and commercial areas and is one of the key routes into the town centre. It is subject to a 30mph speed limit.

2.3.6 Wide footways are available on both sides of the carriageway, the highway is lit and is subject to double yellow lines, prohibiting parking along its length.

2.3.7 As part of the 'City Deal' between West Yorkshire, York and central government, a £1 billion transport fund has been allocated to the region to increase housing, employment and economic growth. This funding has enabled a programme of transport improvements on the A62 Leeds Road corridor with works recently completed along the northern boundary of the Site.

2.3.8 These improvements stretch 1.5km and provide improved pedestrian and cyclist provision to facilities to the north including Great Northern Retail Park, Leeds Road Retail Park and The John Smith's Stadium.

2.3.9 The road improvements for the A62 from Huddersfield Town Centre to Old Fieldhouse Lane include the following in the vicinity of the site:

- Improvements to the signals, changes to lane markings and new signage at the Huddersfield Road / Southgate / Northumberland Street junction; and
- Upgrade the existing cycle provision to include separate cycle ways and on-road cycle lanes.

2.3.10 New cycle lanes are provided along the length of the A62 and in the vicinity of the site are off-road shared cycle footways provided on both sides of the carriageway. The Site will tie into these



improvements along Leeds Road and Southgate to aid permeability and encourage sustainable forms of transport. The A62 improvements in the vicinity of the Site at the Huddersfield Road / Southgate / Northumberland Street junction are shown in Image 2.2 below with the improvement works shown in context of the two retail parks and the stadium shown in Image 2.3.

**Image 2.2 A62 Leeds Road Smart Corridor General Arrangement (Southgate)**

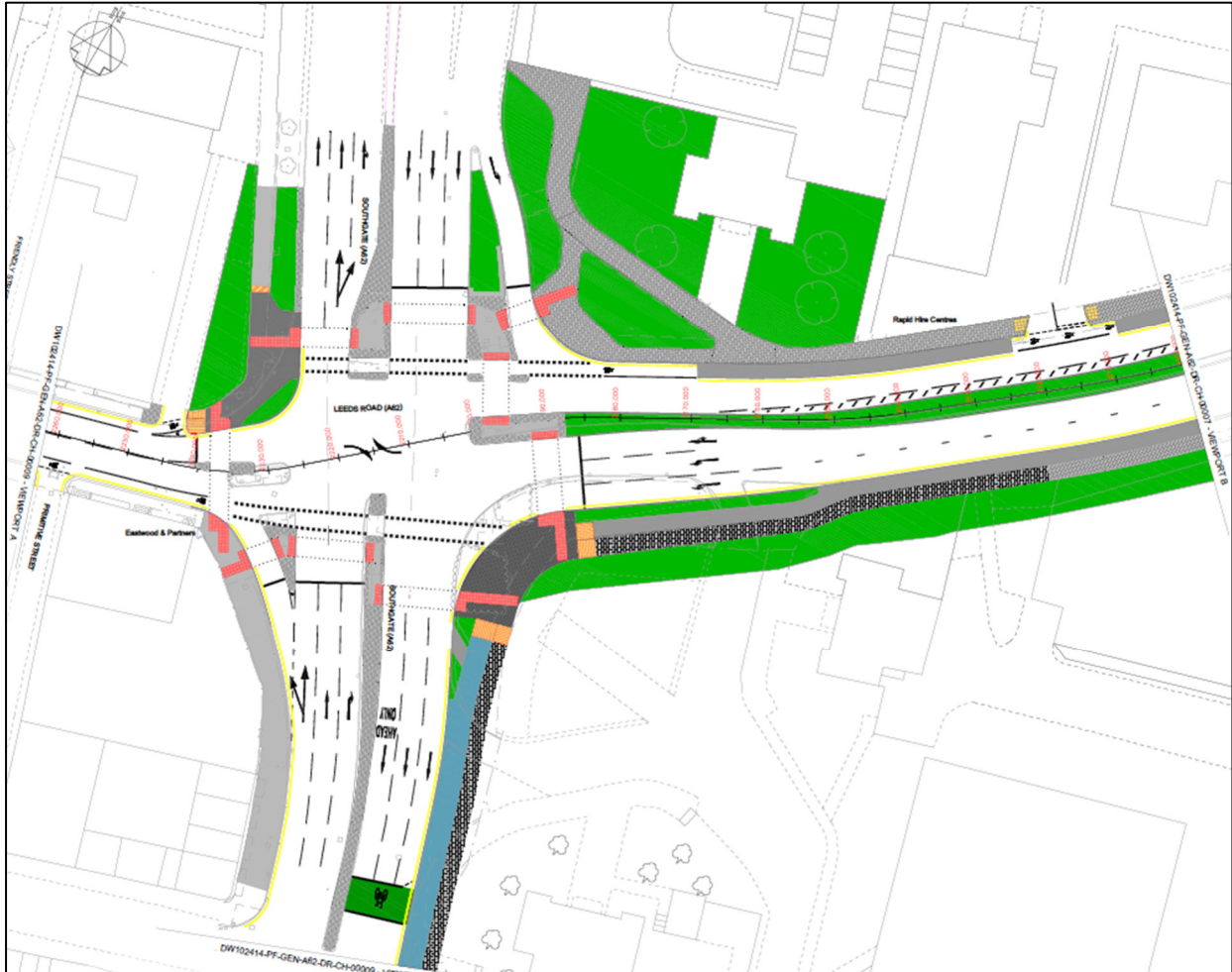


Image 2.3 Leeds Road Improvement Works



### Old Leeds Road / Pine Street

2.3.11 Leeds Road forms a priority junction with Old Leeds Road. Old Leeds Road is to the east and south of the site. It is a single carriageway street that offers access to various commercial properties along its length. Wide footways are provided on both sides of the carriageway.

2.3.12 On street parking is available, although only in marked bays and it is charged via a meter. Parking is not permitted apart from in marked bays. The street is subject to a 30mph speed limit and is lit along its length.

2.3.13 Pine Street extends into the wider Site and previously served a multi storey car park and provided on street parking along its length. Pine Street is now for parking only and is lit and subject to a 30mph speed limit. Footways are provided on both sides of the carriageway.

### Northumberland Street

2.3.14 Northumberland Street provides a direct link to Huddersfield railway station. Double yellow lines are provided on both sides of the carriageway prohibiting parking.



2.3.15 Northumberland Street is a single carriageway road with wide footways provided on either side of the carriageway.

**St Peter’s Street**

2.3.16 St Peter’s Street is considered a primary route towards Huddersfield town centre and extends westbound towards Station Street and is a one way single carriageway road with footways provided on either side of the carriageway. On-street parking is provided on the southern side of the carriageway.

**2.4 PERSONAL INJURY COLLISION DATA**

2.4.1 Personal Injury Collision (PIC) data has been obtained for the highway network in the vicinity of the Site from the Crashmap website for the period from January 2018 to 2022, which represents the most recent five-year period available.

2.4.2 The study area includes a length of Old Leeds Road from the proposed servicing access to its junction with Leeds Road. The study area also includes the Southgate / Leeds Road signalised junction adjacent to the Site. The data obtained from Crashmap, is shown below in Image 2.4.

**Image 2.4 Personal Injury Collision Locations**



**Table 2.1 Personal Injury Collision Analysis – Severity**

Severity	No of collisions	Percentage
Slight	6	80%
Serious	2	20%
Fatal	0	0%
Total	8	100%



**Table 2.2 Personal Injury Collision Analysis – Severity By Year**

Severity	2018	2019	2020	2021	2022	Total
Slight	1	1	2	1	1	6
Serious	0	0	1	0	1	2
Fatal	0	0	0	0	0	0
Total	1	1	3	1	2	8

2.4.3 There have been 8 collisions recorded in the vicinity of the sight with 6 classified as slight in severity and 2 classified as serious. No collisions have been recorded as fatal during the five-year study period.

2.4.4 Two of the collision occurred at the Leeds Road / Old Leeds Road junction with six occurring at the Southgate / Leeds Road junction.

2.4.5 Three of the recorded collisions involved pedestrian casualties. Two of these occurred on the Southgate northbound approach whilst one occurred on the Southgate southbound exit to the junction. Each collision involved once vehicle and resulted in one pedestrian casualty.

2.4.6 None of the recorded collisions involved cycle casualties.

2.4.7 Whilst any accident is regrettable, having reviewed the recorded information and taking into account the infrequency of incidents over a 5-year period, severity and the variety of locations, alongside the number of daily vehicle movements it is not considered that there is a specific accident concern or that the proposed development will exacerbate the existing situation.

2.4.8 It is therefore not anticipated that the traffic associated with the proposed development would result in any significant safety implications on the adjacent highway network.

## 2.5 BUS SERVICES

2.5.1 The Development is well-located for buses, being adjacent to a number of well-frequented existing bus routes connecting to a range of regional destinations.

2.5.2 Huddersfield Town Centre has an excellent overall public transport provision with a wide range of bus and rail services available. There is a dense bus network throughout the town and surrounding areas with bus stops and frequent services operating on all the principal road corridors.

2.5.3 The nearest bus stops to the Site are located on Leeds Road which are marked with a flag, and several stops on Lord Street which are provided with bus shelters, seating, and service information.

2.5.4 The Site is within walking distance of all key public transport corridors, including access to Huddersfield Bus Station which is situated on Upperhead Row, within a 7 minute walk of the Site.

2.5.5 Huddersfield Bus Station serves over 100 buses per hour inbound and outbound (Monday to Saturday) with some 39 buses per hour on a Sunday.

2.5.6 These routes serve a variety of short and long-distance destinations including Barnsley, Bradford, Brighouse, Denby Dale, Elland, Flockton, Halifax, Leeds, Manchester, Meltham, Milnsbridge, Woodedge and Wakefield.

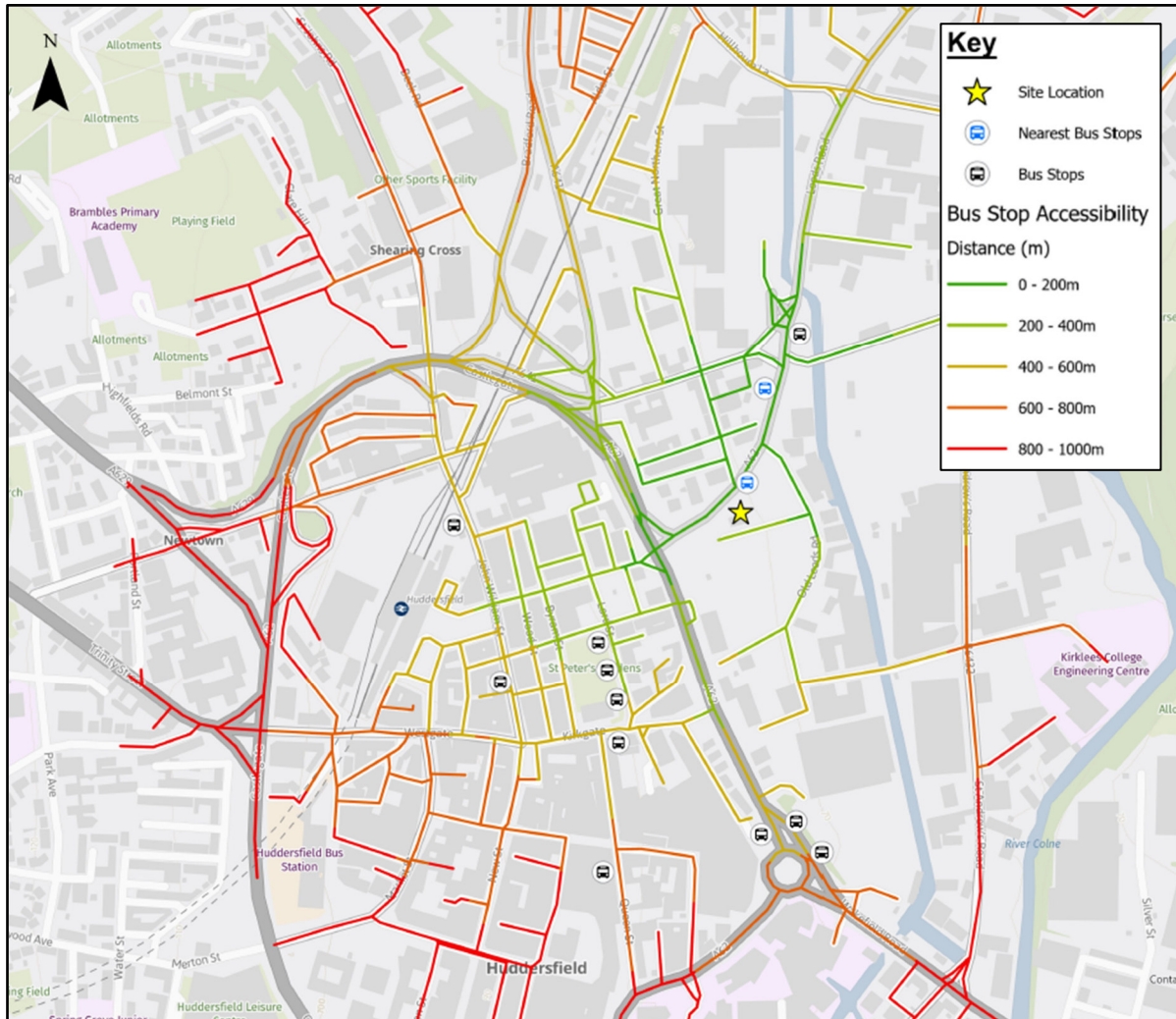
2.5.7 Buses operating along Leeds Road serve destinations including Batley, Dewsbury, Leeds and Wakefield. The westbound (inbound) bus stop on Leeds Road is located approximately 150 metres



from the proposed store entrance. The eastbound (outbound) stop is located on the opposite side of Leeds Road with an approximate 260m walk distance to the building entrance.

2.5.8 Figure 5 details all the available bus stops within 800m of the site. This shows the ready availability of multiple bus stops and corridors. A section of Figure 5 is shown as Image 2.5.

**Image 2.5 Bus Stop Accessibility**



2.5.9 With the site conveniently located adjacent to a number of bus stops, it is considered that the site can be easily accessed by this form of sustainable transport.

## 2.6 RAIL SERVICES

2.6.1 Huddersfield railway station is located some 400m from the Site, within a 5-minute walk.

2.6.2 Huddersfield railway station has direct trains to Leeds and Manchester with journey times of 17 minutes and 37 minutes respectively (with Leeds providing a train to London Kings Cross every 30 minutes).

## 2.7 PARKING AVAILABILITY

2.7.1 Several public car parks are located close to the site, most of which are Council operated. Table 2.3 provides capacity and pricing details on these car parks.



**Table 2.3 Local Off-Street Parking Locations**

<b>Car Park</b>	<b>Walking Time to Health and Wellbeing Academy</b>	<b>Total Spaces</b>	<b>Price</b>
<b>Brook Street</b>	3 minutes	32	70p per hour. £1.00 for 4 hours
<b>Oldgate</b>	4 minutes	12	80p per hour. £1.00 for 4 hours
<b>Cambridge Road</b>	9 minutes	220	50p for 1 hour, £1.00 for 2 hours, £1.50 for 3 hours, £2.50 for 5 hours and £3.00 all day
<b>Huddersfield Bus Station</b>	10 minutes	225	80p per hour and £2.00 for 3 hours £2.50 for 5 hours and £4.00 all day

2.7.2 On-street parking is available throughout the town centre and length of stay varies from 90 minutes up to 10 hours. Costs are typically £1.00 for 45 minutes and £2.00 for 90 minutes. For the long stay spaces costs are typically £2.50 for 5 hours and £4.00 all day.

2.7.3 In total, the Council offers more than 7,000 parking spaces in 95 off-street locations as well as more than 1,200 on-street pay-and-display spaces across the town.

2.7.4 The availability of secure off-street parking within an acceptable walk of the Site provides opportunity for visitors to park off-site should parking not be pre-booked or additional parking is required above that provided on-site.



## 3. Site Accessibility

### 3.1 ACCESSIBILITY ON FOOT

3.1.1 It is generally considered that an acceptable maximum walking distance from home to a place of work or education is 2km. The CIHT document 'Guidelines for Providing for Journeys on Foot' recommends various thresholds for desired, acceptable, and preferred maximum distances to various services as shown in Table 3.1.

**Table 3.1 Accessibility on Foot**

	Town Centres (m)	School/Work (m)	Elsewhere (m)
<b>Desirable</b>	200	500	400
<b>Acceptable</b>	400	1,000	800
<b>Preferred Maximum</b>	800	2,000	1,200

Source – Table 3.2 'Guidelines for Providing for Journeys on Foot' published by CIHT

3.1.2 The key pedestrian routes to the proposed development are considered to be from the town centre via Northumberland Street, Lord Street, St Peters Street and Beast Market.

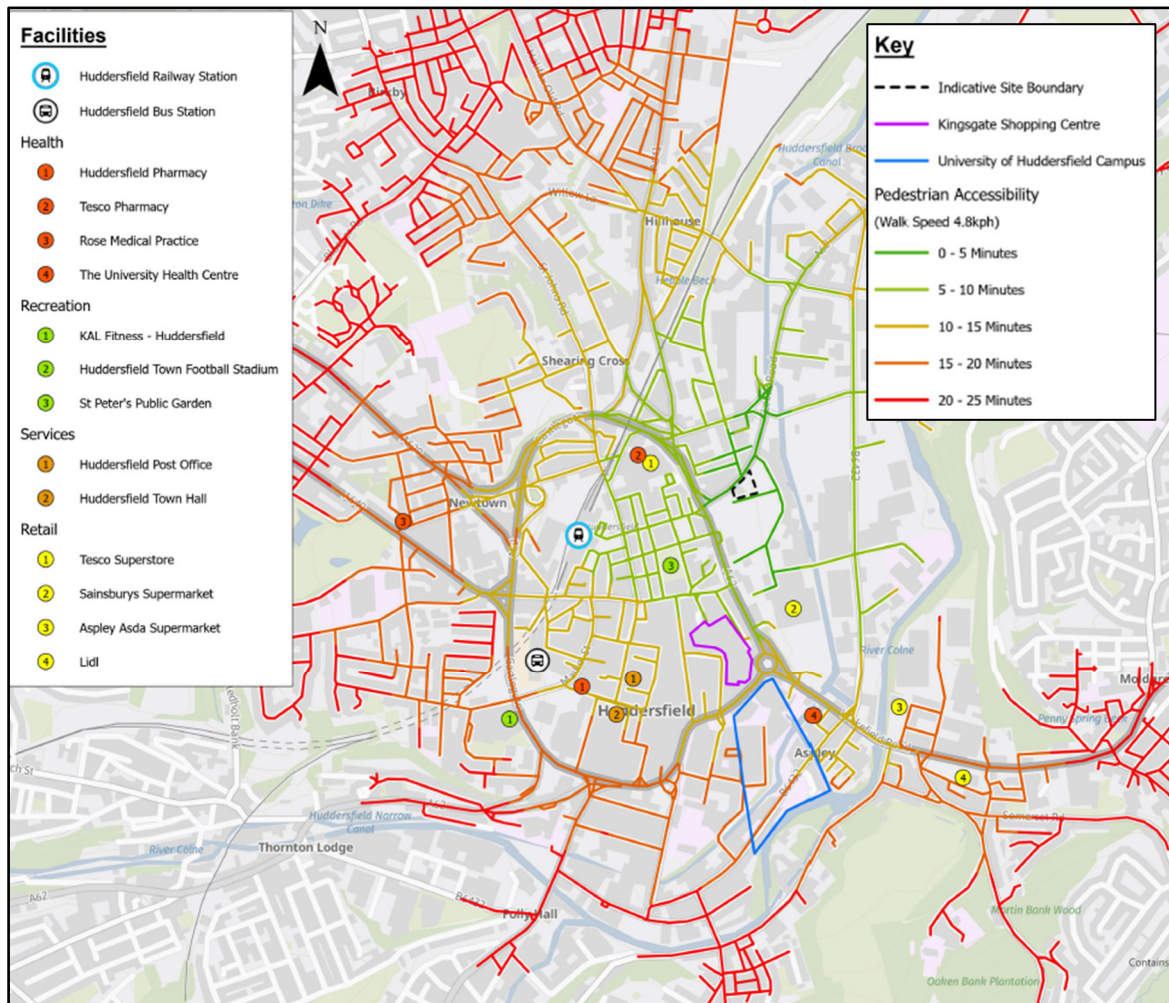
3.1.3 Pedestrian access to the site from Southgate is in the form of footways and controlled pedestrian crossings that are well established. Existing footway provision on both sides of Old Leeds Road and Leeds Road are of reasonable width, in good condition and well lit.

3.1.4 With pedestrian crossing facilities available across Southgate at Northumberland Street, Beast Market and Kirkgate, it is considered that they provide important pedestrian linkages between the site and the town centre. Moreover, the linkages are of good quality with dropped kerbs and tactile paving provided, therefore making the town centre easily accessible on foot from the development site.

3.1.5 Using GIS Network Analyst software, typical walk times (up to 25 mins equating to 2km) have been plotted from the centre of the proposed development which are shown on Figure 3. An extract of Figure 3 is provided at Image 3.1.



Image 3.1 Pedestrian Accessibility



3.1.6 The following key facilities can be accessed on foot:

- The Kingsgate Shopping Centre is within a 10-15 minute walk from the site;
- Multiple nearby bus stops and Huddersfield Bus Station can be walked to within 15 minutes;
- The University of Huddersfield main campus buildings within a 15 minute walk from the site;
- Huddersfield rail station is within a 5 minute walk of the site; and
- Most of the Town Centre is within a 5 minute walk of the Site.

3.1.7 The Site is therefore within walking distance of local public transport facilities and the min Queensgate campus.

3.1.8 It is therefore concluded that the proposed development will be provided with appropriate accessibility on foot to a range of services and facilities in accordance with national MFS and CIHT guidance.



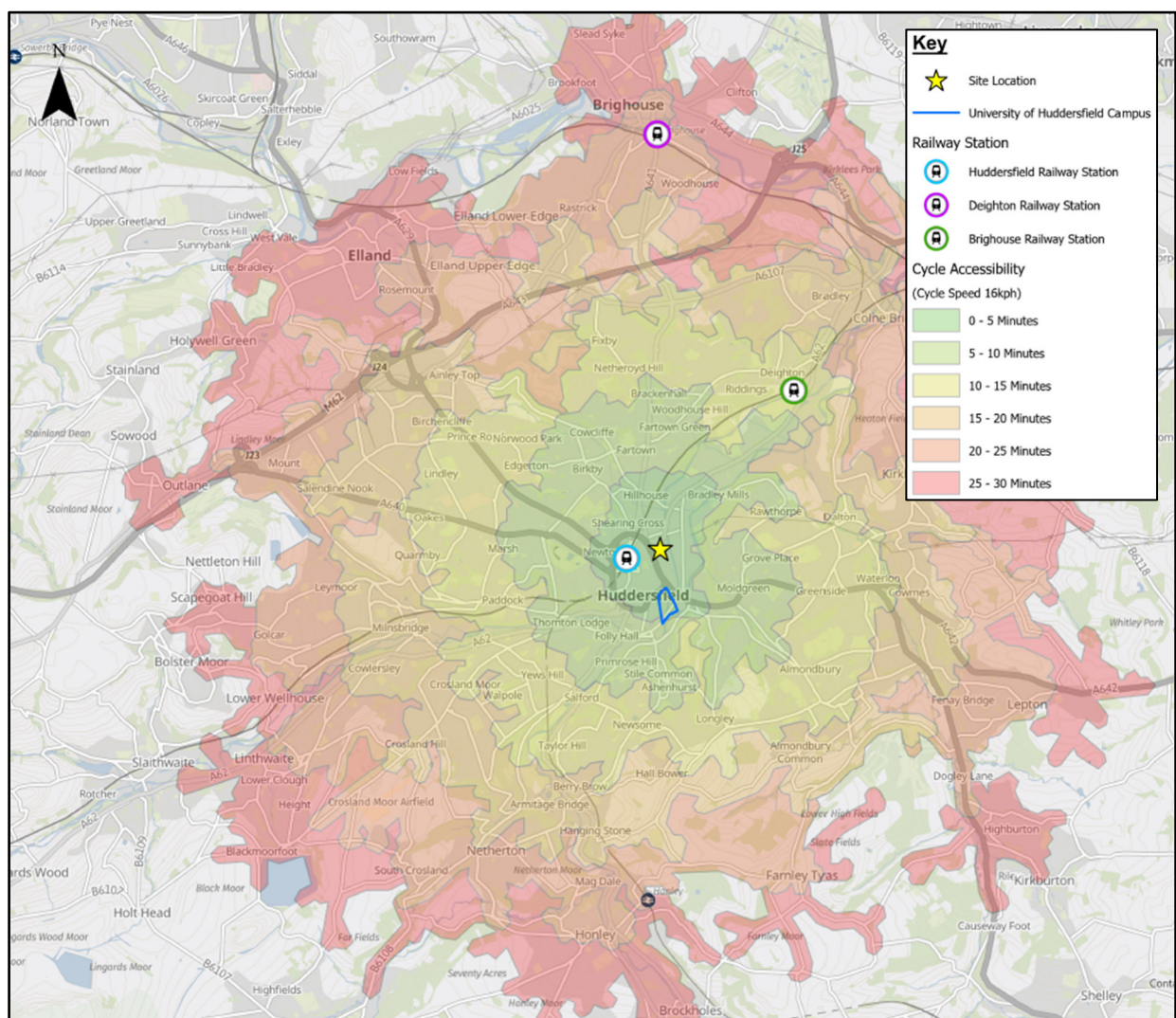
### 3.2 ACCESSIBILITY BY CYCLE

3.2.1 The existing cycle network in the vicinity of the development site is considered to be good, connecting the town centre to outlying residential areas.

3.2.2 An acceptable and comfortable distance for general cycling trips is considered to be up to 5km as referred to in Local Transport Note 2/08 (published by the Department for Transport (DfT)). However, the same guidance also refers to commuting cycle trips up to 8km. Whilst, in terms of design guidance for cycle facilities, this LTN has now been superseded by LTN 1/20, there is no reason to suggest that the accepted cycle distances have changed.

3.2.3 Figure 4 illustrates an 8km (30 minute) cycle distance produced using Network Analyst software. An extract of Figure 4 is shown on Image 3.2.

Image 3.2 Cycle Accessibility



3.2.4 From the Site, an 8km catchment area encompasses an extensive area including the whole of Huddersfield Town Centre, including the bus and rail station and some outer rail stations. It also includes the main University campus.

3.2.5 The new cycle infrastructure on Leeds Road, adjacent to the development site, links the town centre with residential areas out to the east, together with other cycle routes such as the Birkby to



Bradley Greenway (National Cycle Network route 69) to the west and the Calder Valley Greenway (National Cycle Network route 66) to the east.

3.2.6 Signed cycle routes are located on Old Leeds Road, connecting the site with the town centre, via Southgate and Kirkgate and south along Queen Street. In the outbound direction, this route continues from Old Leeds Road onto Quay Street and St Andrew’s Road, where it turns south towards the A629.

3.2.7 There are a number of existing cycle facilities within close proximity of the site, including the Huddersfield Broad Canal to Aspley Marina, Huddersfield Urban Canal Cruiser, North Huddersfield Explorer, The Mast and Castle Ride routes. There are also signed cycle routes on Old Leeds Road and cycle lane along Leeds Road and advanced cycle stop lines. These are shown in Image 3.3, which is an extract of the West Yorkshire Cycle Map.

Image 3.3 Local Cycle Facilities



Source: West Yorkshire Cycle Map

3.2.8 Cycling can therefore be considered to be an attractive travel choice for both staff and students at the site. This will be enhanced with the extensive cycle parking that will be provided at the development.



### 3.3 ACCESSIBILITY BY BUS

3.3.1 The centre of the development Site is located close to many existing bus services within the town centre with the closest bus stops located on Leeds Road. Both stops are recognised by a flag and pole and timetable information. As part of the proposals the bus stops will be upgraded to include a shelter and real-time travel information to satisfy S106 obligations.

3.3.2 To access the westbound stop, pedestrians would cross the Southgate junction by using the dropped kerbs, tactile paving and crossing facilities provided. A summary of the services available from these stops is provided in Table 3.2.

**Table 3.2 Bus Service Summary – Leeds Road (October 2023)**

Service	Route	Days of Operation	Approximate Frequency	Time of Operation
200	Huddersfield – Old Fieldhouse Lane	Monday – Friday	Every 20 minutes	18:17-20:32
		Saturday	Every 20-45 minutes	07:30-19:50
		Sunday	No Service	-
202	Leeds – Huddersfield	Monday – Friday	Every 30 minutes	06:23-23:30
		Saturday	Every 30 minutes	06:10-23:30
		Sunday	Every 60 minutes	08:57-23:30
203	Leeds – Huddersfield	Monday – Friday	Every 30 minutes	05:33-23:00
		Saturday	Every 30 minutes	07:34-23:00
		Sunday	Every 60 minutes	08:27-23:00
229	Leeds – Huddersfield	Monday – Friday	Every 15-20 minutes	05:40-22:30
		Saturday	Every 15-20 minutes	07:23-22:30
		Sunday	Every 30 minutes	09:22-21:38

3.3.3 The existing bus stops closest to the site off Leeds Road provide frequent services to all University facilities from the Site, along with services to all major local centres and residential areas.

### 3.4 ACCESSIBILITY BY TRAIN

3.4.1 The nearest railway station to the development is Huddersfield railway station, located 400m to the west of the Site off Railway Street. The station is managed by TransPennine Express and provides frequent services to Bradford, Hull, Leeds, Manchester, Newcastle, Sheffield and Wakefield making it the second busiest station in West Yorkshire.

3.4.2 The railway station can be accessed from the development within the following journey times:



- Walking – within a 5 minute walk; and
- Cycling – within a 2 minute cycle.

3.4.3 The station has space for 54 bicycles, in the form of the Cycle Hub storage facility located on Platform 1. There is CCTV covering the spaces. The station also has a car park with 28 spaces.

### 3.5 KEY ROUTES

3.5.1 It is anticipated that the majority of pedestrians arriving on the site will come from the west. There are also a significant number of bus stops along Southgate and Leeds Road and pedestrians will also arrive at the site from the south from the main University campus.

3.5.2 The predominant routes to the site will be from the west along St Peters Street or Northumberland Street from the town centre.

3.5.3 Strong linkages to the existing Queensgate Campus will also form a desired route along Southgate.

3.5.4 The main attractors to / from the site are listed below with a connectivity diagram shown at Image 3.4. A connectivity report has been prepared and submitted to support the application and should be read alongside the following paragraphs to provide additional detail.

#### University Queensgate Campus

3.5.5 The University of Huddersfield main Queensgate campus is located approximately 500m to the south of the Site off the Shorehead Roundabout within a 7 minute walk or 2 minute cycle of the Site.

3.5.6 From the Queensgate campus, movements will originate from Wakefield Road and travel along Southgate, utilising the crossing facilities north of Best Market to access the Site.

3.5.7 Alternative pedestrian and cycle routes are via the town centre which offers the safest routes and a number of facilities for pedestrians / cyclists to utilise while travelling between the two campuses.

#### Bus Station

3.5.8 Huddersfield Bus Station is located off Henry Street, approximately 600m to the west of the Site within a 7 minute walk or 2 minute cycle.

3.5.9 From the bus station, the desired route will follow Half Moon Street to Westgate before travelling along Kirkgate and Best Market and utilising the crossing facilities north of Best Market to access the Site.

#### Railway Station

3.5.10 Huddersfield Railway Station is located off Railway Street, approximately 400m to the west of the Site within a 5 minute walk or 2 minute cycle.

3.5.11 From the railway station, trips will originate at Railway Street and travel along Northumberland Street before using the crossing facilities at the Southgate junction to access the Site.

3.5.12 The Station- Stadium route has been identified as an important route and it is considered that the design of the Site will provide a range of permeable routes to guide pedestrians through the development.



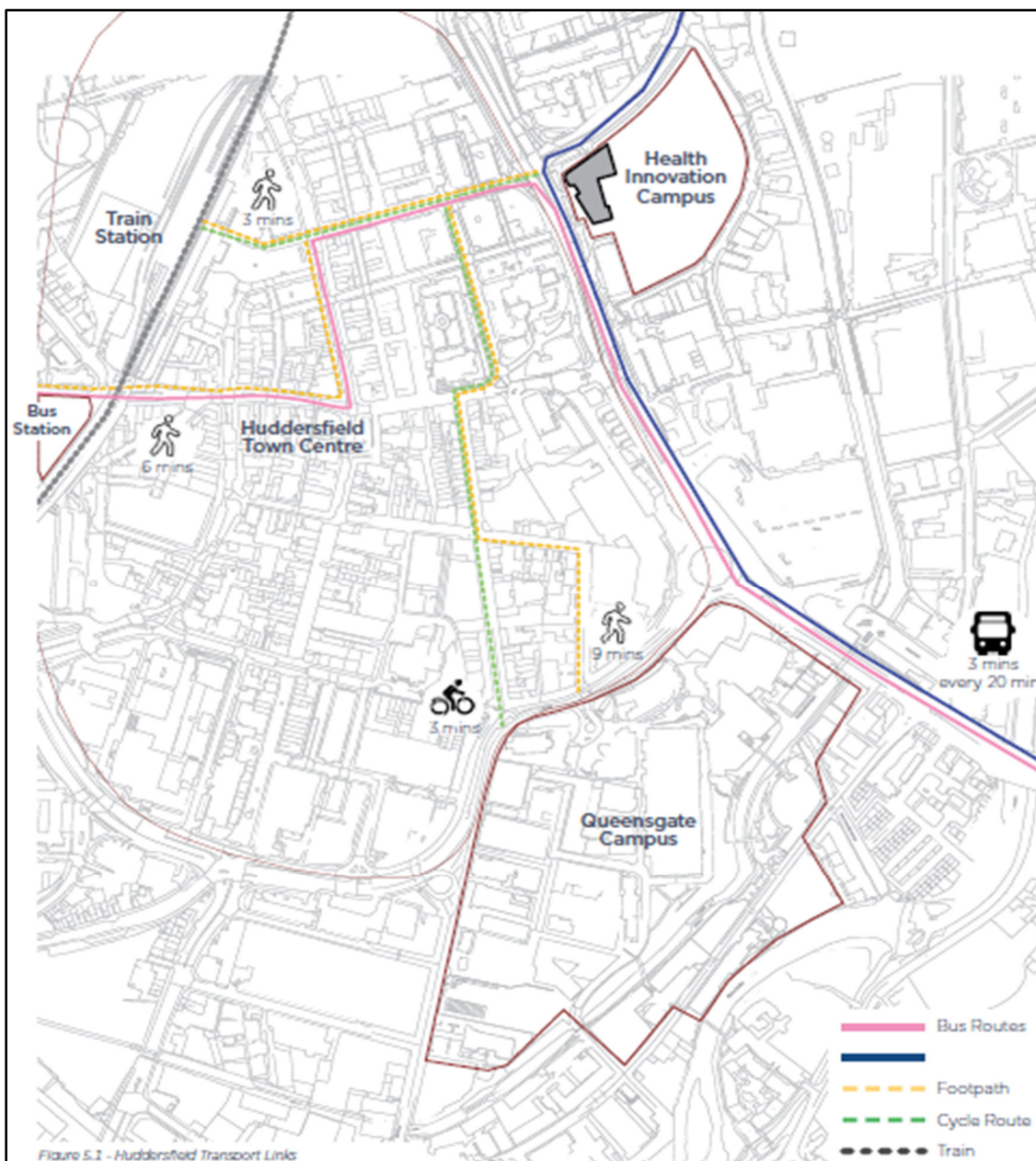
## Car Parks

3.5.13 It is anticipated that the most desirable town centre car parking locations will be Cambridge Road and Huddersfield Bus Station.

3.5.14 The location of Cambridge Road car park and the desired route for the bus station car park is set out in Paragraph 3.5.7 and 3.5.8 respectively.

3.5.15 The Cambridge Road car park is located off Cambridge Road approximately 600m to the northwest of the Site within an 8 minute walk or 3 minute cycle. From the Cambridge Road car park, the key route to the Site is via the crossing facilities at the Castlegate / St John's Road junction before continuing along the ring Road to the Southgate junction and using the crossing facilities to access the Site.

**Image 3.4 Connectivity Diagram**



### 3.6 ACCESSIBILITY SUMMARY

3.6.1 This section has shown that sustainable modes of travel can form viable alternatives to car travel to the proposed development.

3.6.2 As detailed, the proposed development site in terms of accessibility to sustainable modes is excellent. The pedestrian and cycle infrastructure adjacent to the highway network and crossing facilities are of a good quality and would encourage journeys on foot or by cycle.

3.6.3 The development is very well served by bus services within a short walk of the proposed site. The existing bus services would provide a highly attractive mode of transport to the proposed development. There is also significant opportunity for rail to form part of a wider journey.

3.6.4 The provision of local public transport and pedestrian and cycling facilities create conditions which are well suited to promote sustainable travel, minimising the number of staff and students travelling by car.



## 4. Development Proposals

### 4.1 SITE LAYOUT PROPOSALS

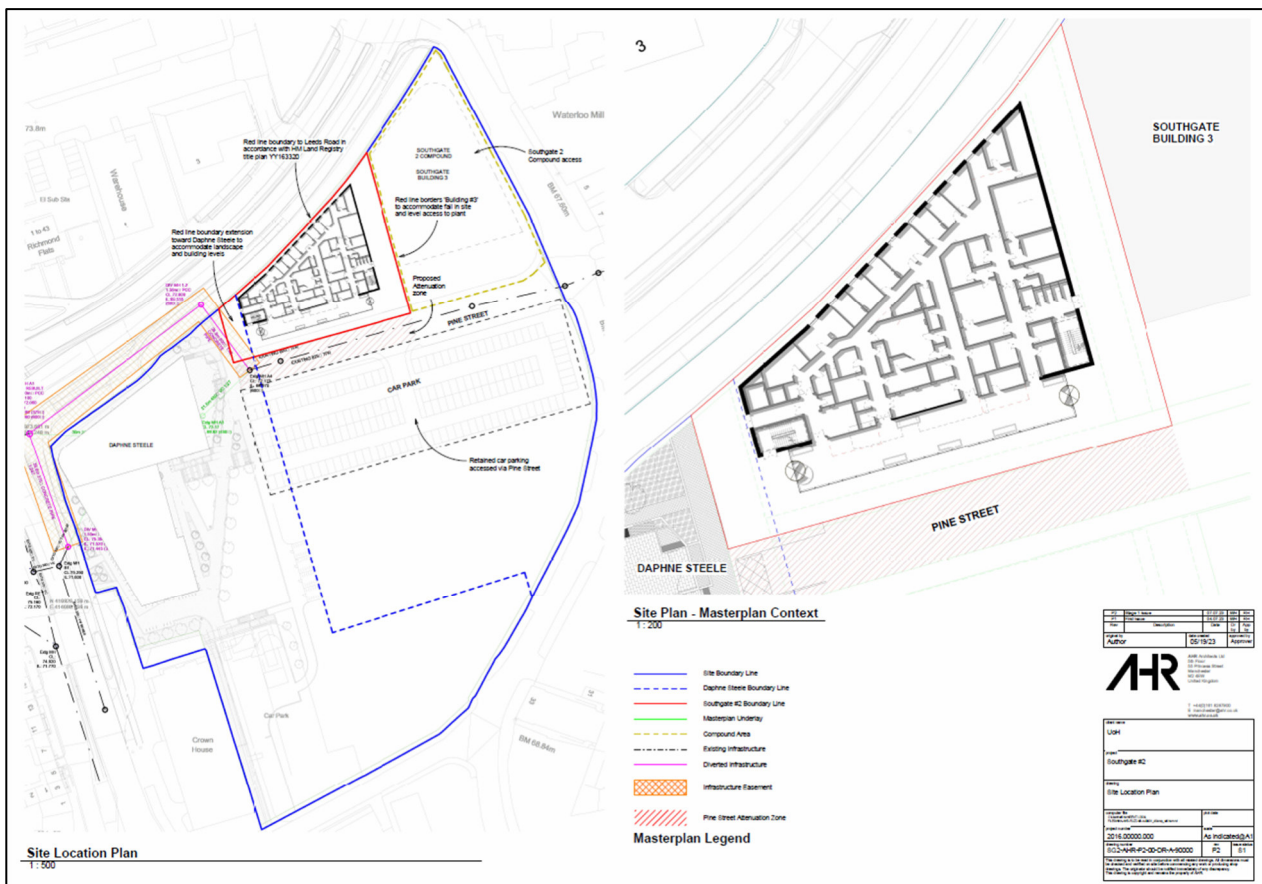
4.1.1 This section of the report provides details of the proposed development including the uses of the Site, access, parking and servicing arrangements, provided to support the construction of Southgate Building 2.

4.1.2 The second phase of the Southgate Masterplan is the new building for Huddersfield University and Calderdale and Huddersfield NHS Trust which is a predominantly learning and community use facility.

4.1.3 The new 5-storey building provides approximately 6,800m<sup>2</sup> of internal floor space, which will house a community diagnostics centre on the ground floor including an MRI scanner, CT scanner, X-ray, ultrasound, phlebotomy, lung function, clinical offices and consultation rooms, the Health Alliance forms part of the School of Health and Human Sciences and will host Medical Imaging on Level 1 and Dental Health on Level 2, Level 3 is currently fallow and Level 4 will house an innovation zone including a variety of wet lab spaces to let out that can be adapted in size for future use.

4.1.4 The site layout prepared by AHR Architects is illustrated in Image 4.1 below, with a copy provided in **Appendix A**.

Image 4.1 Proposed Site Layout Plan



4.1.5 The wider Southgate masterplan will be built out over a number of phases, with the full consented development made up of 7 plots totalling 75,000m<sup>2</sup> of floor area shown below in Image 4.2.



Image 4.2 Proposed Wider Southgate Masterplan



#### 4.2 PHASING STRATEGY

The site will be carefully phased in order to integrate the public realm and to develop connections into each phase of the development.

- Buildings will be phased along Leeds Road initially (Building 1,2 and 3) to form an edge of the site.
- Following the plots along the northern edge of the site building 4 along Old Leeds Road will be developed alongside the Strategic Transport Hub (building 5).
- Following the Strategic Transport Hub, the central core made up of building 6 and 7 will be developed.



4.2.1 This will allow the key public spaces, pedestrian boulevard and Pine Street to develop alongside each phase to fully connect the wider site to form a permeable network of footways and footpaths.

4.2.2 A description of each phase of the wider site is set out below and the phasing strategy is detailed in Image 4.3. A Phasing Plan has been prepared and submitted to support the application and should be read alongside the following paragraphs.

### Phase 1

4.2.3 The first phase of the Southgate Masterplan is the new health building which began construction in March 2023 and is expected to be completed in 2024. This plot occupies the most prominent part of the site and equally the building sets the tone for the rest of the masterplan phased development.

### Phase 2

4.2.4 Phase 2, which is the focus of this report, seeks to continue development to reinforce the prominent edge of the site boundary along Leeds Road. A service route is indicated to the east of the building, providing discrete access. This phase will utilise the existing 159 space surface car park.

### Phase 3

4.2.5 Phase 3 seeks to continue development to reinforce the prominent northern edge of the site boundary along Leeds Road and develops the prominent northeast corner which acts as a focal point, to the Leeds Road approach into the town centre. A service route is indicated to the west of the building plot, providing discrete access.

### Phase 4

4.2.6 Phase 4 seeks to continue development to reinforce the site boundary along Old Leeds Road. A service route is indicated to the west of the building plot, providing discrete access. The Linear Park, running west to east, begins to take form providing a new accessible pedestrian boulevard to the proposed development plot from Southgate, which continues onto Old Leeds Road.

### Phase 5

4.2.7 Phase 5 seeks to create a new Sustainable Transport Hub (STH) facility for the existing and future development plots. It has a central location and is easily accessed by all development plots. It will provide the required centralised facilities of Cycle Hub, Car parking, relevant EV charging facilities for all modes of transport, changing and showering facilities.

4.2.8 Access into the STH would be from the east access road leading off Old Leeds Road. Cyclists and pedestrians will be able to access the building from the northern edge off the Linear Park.

### Phase 6

4.2.9 Phase 6 seeks to complete the formation and reinforcement of the site boundary along Old Leeds Road. A service route is indicated to the west of the building plot, providing discrete access. The Linear Park, running west to east, begins to take form providing a new accessible pedestrian boulevard to the proposed development plot from Southgate, which continues onto Old Leeds Road.



## Phase 7

4.2.10 Phase 7 is the final development plot and completes the masterplan development, reinforcing the surrounding public realm squares and defining the edges to the proposed routes through the site. A service route is indicated to the east of the building plot, via Pine Street, providing discrete service access. The Linear Park, running west to east, along the south of the building plot.

**Image 4.3 Phasing Strategy**



## 4.3 PHASE 2 STUDENT AND STAFFING NUMBERS

4.3.1 Anticipated building occupancy of Building 2 has been provided by AHR Architects who have estimated approximately 650 daily building occupants.

4.3.2 This can be broken down as 267 staff alongside a student capacity of 240 and 143 visitors.



**Table 4.1 Anticipated Daily building Occupants**

Level	Staff	Visitors	Students
0	51	143	N/A
1	3	N/A	120
2	3	N/A	120
3	Maximum anticipated: 120 (use of floorplate unknown, as are total number of users)	N/A	N/A
4	90	N/A	N/A
TOTAL	267	143	240

#### 4.4 VEHICULAR ACCESS ARRANGEMENTS

4.4.1 The vehicular access to the development site is to be provided from Pine Street.

4.4.2 At Pine Street a visibility splay of 2.4m x 43m is provided to which aligns to a Manual for Street stopping sight distance of 30mph set out in Table 7.1 in Manual for Streets. Appropriate visibility splays are shown in **Appendix C**.

4.4.3 The existing layout at Pine Street will be maintained as it has been demonstrated that this junction meets geometric standards and has no history of recorded collisions.

4.4.4 The access junction layout has been designed to future proof the inclusion of the progressed Southgate Masterplan scheme.

4.4.5 As the masterplan progresses, Pine Street will develop to become a paved, shared surface street and Old Leeds Road will be utilised for access to the Strategic Transport Hub.

#### 4.5 PEDESTRIAN AND CYCLE ACCESS

4.5.1 The site has been designed with high quality pedestrian / cycle links to encourage reduced reliance on private vehicles and deliver a shift towards a healthier lifestyle. This will benefit occupiers of the Site and also adjacent communities for whom these routes offer quieter alternatives than currently exist. These connections are shown on Image 4.4.



Image 4.4 Wider Site Routing



4.5.2 To encourage walking trips to be undertaken by staff and students, pedestrian facilities are to be provided on all sides of the site, providing convenient access from all directions.

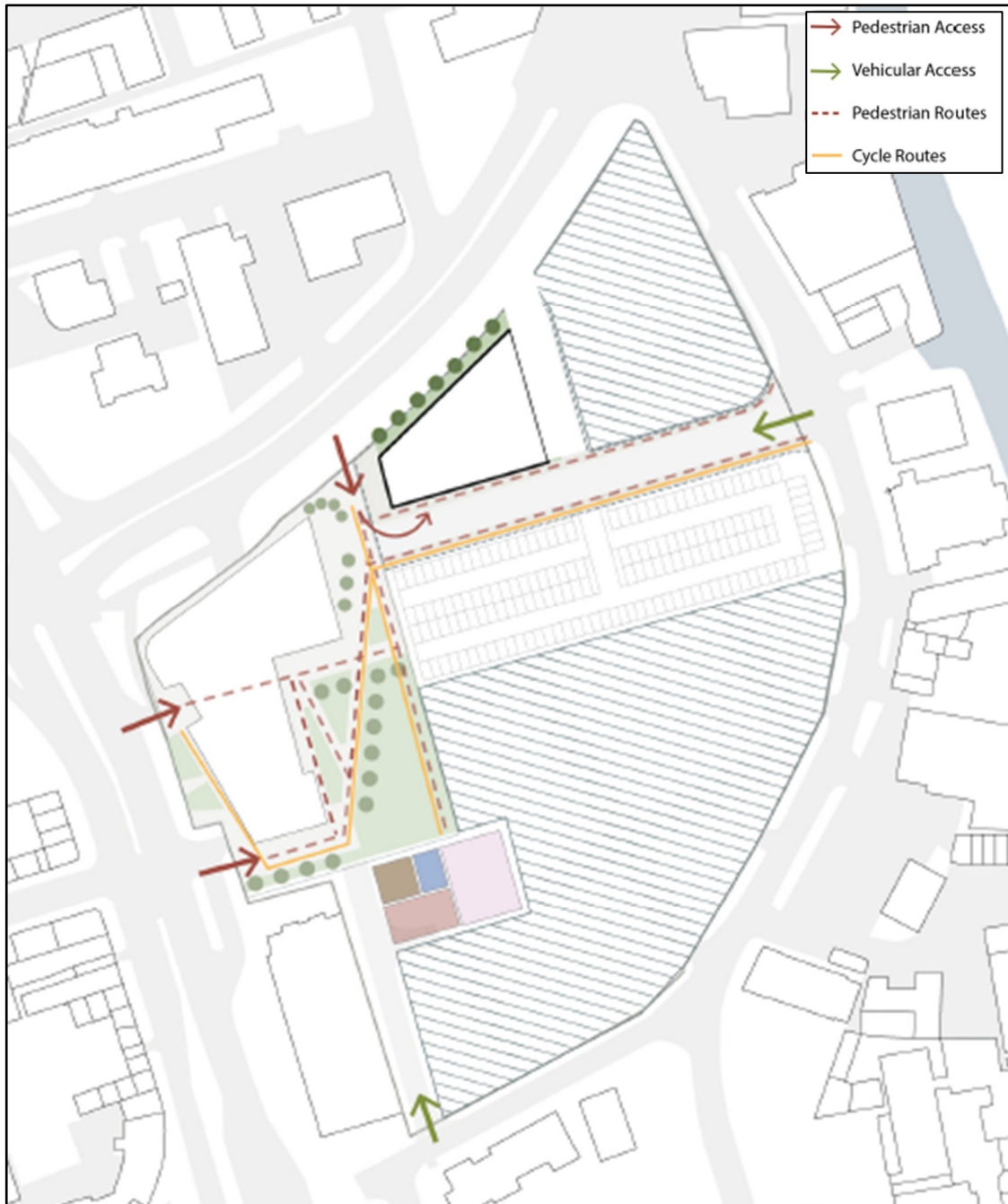
4.5.3 Pedestrian accesses are conveniently located off Southgate and Leeds Road and interface with the A62 smart corridor improvements.

4.5.4 Pedestrians will be guided through the site to ensure their safety is maximised. Dropped kerbs and tactile paving will be provided at key locations to provide a pedestrian environment which is safe, secure, convenient, and attractive and include for those who are visually or mobility impaired.

4.5.5 The primary pedestrian routes through the wider site will run from east to west and north to south. A boulevard will become the connective avenue from east to west, connecting public spaces and buildings along the route as the wider masterplan site is developed. These routes are designed to maximise the permeability of the site for pedestrian and cycle movements in order to encourage the use of non-car modes.



Image 4.5 Phase 2 Internal Pedestrian and Cycle Routing



4.5.6 The masterplan has been developed to provide areas of wider footways and paved and landscaped areas to provide a high quality of public realm throughout the site.

4.5.7 A number of connections will be provided for pedestrians to access the development; one on Leeds Road and two from Southgate as shown on Image 4.5. It is considered that the majority of the pedestrians will arrive at the Site from the town centre and Southgate.

4.5.8 Cyclists access will also be provided from Leeds Road and Southgate as shown on the internal cycle routing plan at Image 4.5.



## 4.6 SERVICING ARRANGEMENTS

4.6.1 The servicing requirements of the development have been considered to ensure that the site can successfully be serviced by refuse vehicles, ensuring that reversing distances are kept to a minimum. It is envisaged that waste will be collected from the service route to the east of the building, with a refuse vehicle entering the site via Pine Street, manoeuvring within and exiting in a forward gear.

4.6.2 The University facilities management team provide a service that collects any relevant waste from each building's refuse holding area, from where waste will be transferred regularly by the University facilities management team to the centralised Waste Management Centre via a suitable electric vehicle. From here the waste is removed by a private contractor to follow the University's current processes which are set out below:

- General Waste: Weekdays during term time, Monday /Wednesday / Friday outside of teaching;
- Dry Mixed Recycling: Tuesday / Thursday weekly;
- Paper: Tuesday weekly;
- Food: Wednesday weekly;
- Glass: Tuesday fortnightly; and
- Metal – Ad hoc when needed.

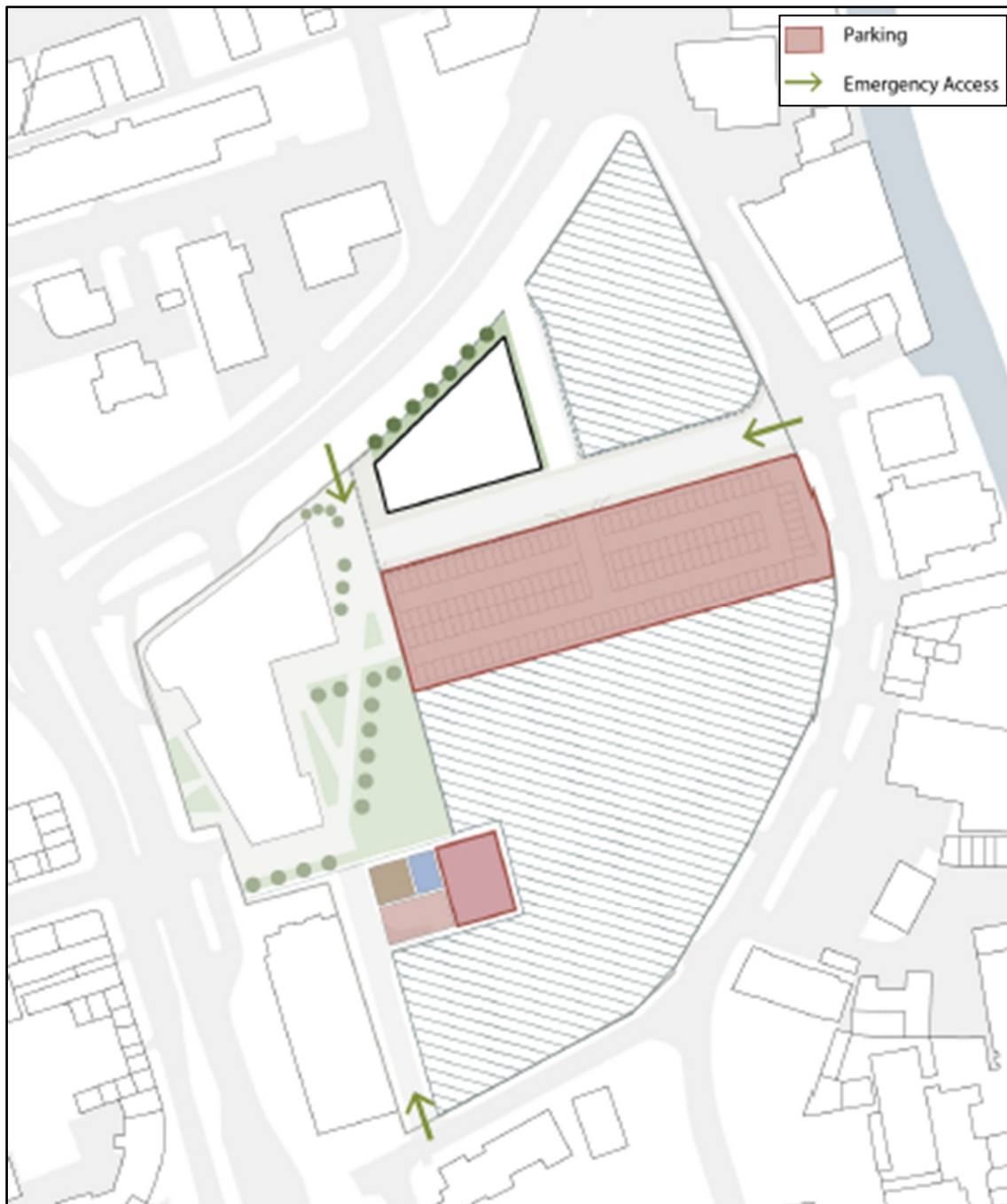
4.6.3 Swept path analysis has been undertaken with a large 4-axle refuse vehicle to demonstrate that the manoeuvres can be accommodated by the existing Pine Street access geometry as seen in **Appendix D**.

## 4.7 EMERGENCY ACCESS

4.7.1 Emergency access will be provided from Pine Street , Southgate and Leeds Road. The emergency access route is demonstrated in Image 4.7, below.



Image 4.6 Phase 2 Emergency Access



#### 4.8 PARKING

4.8.1 The development is proposed to be largely car-free due to its central location which benefits from excellent sustainable transport connections. Therefore, the proposed car parking provision is based around the sustainability vision for the wider Masterplan that enhances the use of public transport facilities and promotes walking and cycling.

4.8.2 The closest parking can be found to the east of the building on Pine Street. This is a car park currently owned by the University of Huddersfield and maintained by Kirklees Council.

4.8.3 The total provision in the car park is 159 spaces comprising of 8 disabled parking bays.



4.8.4 The car park is currently available for public use, but this will cease once the site is operational and it will then be for staff and visitor parking use only. The car park will not provide parking for students.

4.8.5 The University will apply its current parking regulations to the Pine Street car park which will apply to all University staff who have parking permits, blue badge holders, contractors, visitors, staff, students and all other vehicles brought onto the University premises.

4.8.6 University staff allocated a personal fixed bay parking space or a shared bay space will be provided with a parking permit identifying the allocated bay number and car park location.

4.8.7 Staff parking permits are issued after staff application to the University and charged on an annual basis with deductions made in 12 equal instalments throughout the year.

4.8.8 As applications are received, staff are placed at the bottom of the waiting list and as spaces are allocated, staff move up the list. As a parking space becomes available, it is offered to the member of staff on the top of the list. This ensures that the capacity of the car park is managed efficiently and encourages sustainable modes of travel.

4.8.9 A limited number of visitor parking spaces will be made available. These must be booked in advance direct with the University reception. Only visitors who have received an approved and dated visitor parking permit are permitted to park and therefore it is anticipated that most visitors will park off-site and utilise car parks listed in Table 2.3.

4.8.10 As part of the Southgate Masterplan, one of the plots includes for a Strategic Transport Hub which will become the central car park for the site. The Strategic Transport Hub will form Phase 5 of the wider site and once operational will provide the sites parking with the existing car park removed for the construction of Plot 4 and Plot 5 as shown in Image 4.2.

4.8.11 Parking standards from the now superseded Kirklees Unitary Development Plan have been utilised, as agreed during scoping discussions with Kirklees Council. These standards establish the maximum level of car parking generally allowed and have been used to help guide the parking provision for the Site.

4.8.12 The Site falls into use class D1: Non-residential Institutions and the parking standards for both an educational facility and medical facility are summarised in Table 4.1, due to the nature of the proposals.

**Table 4.2 Kirklees Unitary Development Plan – Maximum Parking Standards**

Specified Land Use	Visitor Provision	Staff Provision	Cycle Parking
Colleges of Further Education	1 space per 4 full time students plus 1 per 3 part time	1 space per 3 staff	1 space per 20 students and 1 space per 10 staff
Medical	4 spaces per consulting room	1 space per doctor or equivalent plus 1 per 3 other staff	1 space per 10 staff

4.8.13 The University have confirmed that car parking will not be made available for students and therefore only staff and visitor provision is catered for in the existing car park on a permit basis. For the purposes of this assessment it is anticipated that the staff associated with the currently fallow Floor 3 will not be provided with car parking due to the town centre location with good public transport accessibility.



4.8.14 Utilising the UDP standards, the Phase 2 Site requires a maximum of 49 staff car parking spaces based on a standard of 1 space per 3 University staff.

4.8.15 Visitor parking is based on that of a medical facility per consulting room. The Site will provide a total of five consulting rooms on the ground floor. This totals a visitor requirement of 20 car parking spaces.

4.8.16 A total of 5% of the parking will be provided for disabled.

4.8.17 A parking accumulation exercise has been undertaken and provided in Section 5 of this report to demonstrate adequate capacity within the 159 space Pine Street car park.

4.8.18 Cycle spaces are provided to exceed BREEAM requirements based on a ratio of 1 per 15 people for buildings with between 500 – 1,000 users, totalling a minimum of 35 spaces.

4.8.19 Adjacent to the Daphne Steel building, 15 secure, lit and sheltered cycle racks will be provided close to the entrances to the Health and Wellbeing Academy building off Southgate.

4.8.20 A further temporary cycle store with a maximum capacity of 96 bicycles will be located to the south-eastern corner of the site, providing secure cycle parking for staff. The temporary cycle store will be replaced by the cycle storage integrated into the Strategic Transport Hub once operational.

4.8.21 The proposed cycle provision is designed to encourage cycling to the proposed development for both students and staff and are located close to the building entrance and have access routes which avoid cyclists having to negotiate the car parking area should they wish to.

#### **4.9 PICK-UP / DROP-OFF PROVISION**

4.9.1 On-site provision will be made available to the western extent of the existing car park to cater for pick-up and drop-off provision.

4.9.2 Appropriate signage will be provided to indicate parking allocations and to discourage inappropriate parking in this location.



## 5. Trip Generation and Parking Demand

### 5.1 INTRODUCTION

5.1.1 This section considers the trip generation associated with the proposed Building 2 which forms Phase 2 of the Southgate masterplan. Consideration has been given to the use of the TRICS database to determine trip generation, but the health related facilities associated with the building are considered to differ from the trip generating potential of a typical University campus even though arrival and departure patterns will be similar. As such, a first principles approach to vehicular generation has been adopted based on information provided by the University of Huddersfield which converts the anticipated daily building occupants into anticipated vehicle trips.

5.1.2 Anticipated building occupancy has been provided by the University of Huddersfield and AHR Architects who have estimated 650 daily building occupants however, the anticipated 120 users of the currently fallow Floor 3 will not be provided with parking.

5.1.3 This can be broken down as 267 staff alongside a student capacity of 240 and 143 visitors.

5.1.4 The trip generating potential of the Site has been assessed in order to determine the number of potential vehicle trips generated on any given day.

### 5.2 STAFF TRAFFIC GENERATION

5.2.1 Holders of new staff positions generated by the proposals will need to travel to and from work. For the purpose of this assessment all staff positions have been assessed as new trips however, in practice a number of staff will be transferred from the Queensgate Campus. The University of Huddersfield have confirmed that transferred staff who hold parking permits at the Queensgate Campus are expected to continue parking at Queensgate and walk to the Phase 2 proposals.

5.2.2 The University of Huddersfield Travel Plan (2017-2023) provides a modal split for staff travel to campus for the 2017 academic year as shown in Appendix A of the document, which is considered to be an appropriate representation of mode split for the proposals. Travel survey results show that 43% of staff travel to campus via private car and this is considered to be a robust estimate when considering the sustainable location of the Site.

5.2.3 Assuming that 43% of new staff will drive to work, some 115 staff car trips would take place to and from the site each day as a result of the Phase 2 proposals.

5.2.4 It is assumed that the staff associated with the currently fallow Floor 3 will park elsewhere in the town centre at various on-street and off-street parking locations.

### 5.3 STUDENT TRAFFIC GENERATION

5.3.1 For the purpose of this assessment the maximum daily vehicle generation of the Phase 2 proposals has been set out below. It must be noted that the University of Huddersfield have confirmed that approximately 90% of students utilising the new building will be transferred from the Queensgate Campus and therefore new trips to the local highway network will be in the order of 10%.

5.3.2 Given that the proposed development site is accessible by public transport and no car parking provision will be provided on-site for students, it is considered likely that the majority of students will live in locations close to the Site in student residential accommodation and access the Site via sustainable travel modes such as walking, cycling or on public transport. Therefore, it is anticipated that the majority of students will access the site via sustainable means.



5.3.3 The University of Huddersfield Travel Plan lists student commuter travel via private car at approximately 23%.

5.3.4 Assuming that 23% of students will travel via private car and park elsewhere in the town centre at various on-street and off-street parking locations, a maximum of 55 daily vehicle arrivals and departures will be generated by the Phase 2 proposals.

5.3.5 As approximately 90% of the 55 daily arrivals and departures already exist on the local highway network the proposals will in reality generate an additional 6 vehicle arrivals and departures which can be considered new to the local highway network.

#### 5.4 VISITOR TRAFFIC GENERATION

5.4.1 The University estimates that the site will generate 143 daily visitors who will be attending the site for an appointment. In order to estimate a robust patient and visitor vehicular generation, a number of NHS travel plans have been reviewed to understand a typical patient and visitor mode share. The Sheffield Children's NHS Foundation Trust Travel plan lists visitor private car travel at approximately 76%.

5.4.2 Using 76% as a robust estimate for visitors arriving by private car generates a maximum of 109 daily vehicle arrivals and departures.

#### 5.5 ANTICIPATED HIGHWAY IMPACT

5.5.1 Based on the staff, student and visitor traffic generation estimates, the maximum number of daily vehicle trips arising from the proposed Phase 2 development will be 558 two-way trips a day i.e. 279 arrivals and 279 departures. Again, it must be stressed that this does not take into account the number of transferred trips from the Queensgate Campus in order to robustly demonstrate the impact of the Phase 2 proposals. Taking into account transferred trips from the existing University Campus, the maximum number of new daily vehicle trips arising from the proposed Phase 2 development will be 460 two-way trips a day i.e. 230 arrivals and 230 departures.

5.5.2 Utilising the typical University arrival and departure profile derived from the TRICS database the anticipated weekday vehicle trips have been calculated and split across a typical day as set out in Table 5.1. This is considered to be a robust assessment as visitor trips have been distributed based on a University profile whereas in practice appointments will be spread across the day and typically short in duration.

**Table 5.1 Anticipated Weekday Assignment and Numbers**

Time Period	Arrivals	Vehicle Arrivals	Departures	Vehicle Departures
07:00-08:00	7%	20	2%	6
<b>08:00-09:00</b>	<b>20%</b>	<b>56</b>	<b>2%</b>	<b>6</b>
09:00-10:00	15%	42	3%	8
10:00-11:00	8%	22	4%	11
11:00-12:00	6%	17	5%	14
12:00-13:00	8%	22	7%	20



13:00-14:00	6%	17	6%	17
14:00-15:00	5%	14	9%	25
15:00-16:00	4%	11	10%	28
16:00-17:00	4%	11	15%	42
<b>17:00-18:00</b>	<b>5%</b>	<b>14</b>	<b>13%</b>	<b>36</b>
18:00-19:00	5%	11	8%	22
19:00-20:00	3%	8	7%	20
20:00-21:00	2%	6	6%	17
21:00-22:00	1%	3	3%	8

5.5.3 It is anticipated that the site will generate 61 two-way trips during the AM peak hour (08:00-09:00) and 50 two-way trips during the PM peak hour (17:00-18:00). This equates to approximately one additional vehicle movements per minute during the AM peak hour and PM peak hour.

5.5.4 Consideration must also be made to the number of car trips being made being distributed across a number of public car parks which will disperse across a number of localised junctions as a result of the site not providing parking for students.

5.5.5 The majority of trips are anticipated to be made on foot by cycle or by public transport, which can be accommodated by the walking, cycling and bus and rail network around the site and in the wider town centre.

5.5.6 The University of Huddersfield Travel Plan (2017-2023) provides updated targets to reduce single occupancy staff vehicle journeys to meet the 20% target, building on the results achieved by the end of the last travel plan in 2017. This aims to see a further 9% reduction by 2023 in single occupancy vehicle trips to be achieved through reviewing the criteria for allocating parking spaces.

## 5.6 PARKING ANALYSIS

5.6.1 Based on the proposed vehicle trips set out above and excluding any student or Floor 3 vehicle generation due to no parking availability provided on-site for students, a parking accumulation exercise has been undertaken in order to estimate the parking demand generated by the Site based on the site generating 172 arrival and departure vehicle trips made up of staff and visitors.

5.6.2 Due to the nature of the visitors, it has been assumed that these will involve short consultations of less than 60 minutes and therefore the length of stay and arrival / departure profile of these visits will be vastly different to University staff who will typically be on-site for a full working day. On this basis, it is considered that the visitor profile of trips will resemble that of a GP surgery.

5.6.3 The arrival and departure profile has been based on surveys of University sites and GP surgeries acquired from the TRICS database. The TRICS outputs are shown at **Appendix E**. Sites have been selected based on the following parameters:



- Greater London and Ireland sites excluded;
- Land use: Education – College / University & Health – GP Surgeries;
- Location: Edge of Town Centre; and
- Weekdays only.

5.6.4 The trip generation profile in Table 5.2 demonstrates the typical arrival and departure profile of other Universities. The peak movements occur in the morning upon opening before lectures (arrivals) and are spread over a number of hours during the PM (departures).

**Table 5.2 Typical University Arrival / Departure Profile**

Time Period	Arrivals	Departures
07:00-08:00	7%	2%
08:00-09:00	20%	2%
09:00-10:00	15%	3%
10:00-11:00	8%	4%
11:00-12:00	6%	5%
12:00-13:00	8%	7%
13:00-14:00	6%	6%
14:00-15:00	5%	9%
15:00-16:00	4%	10%
16:00-17:00	4%	15%
17:00-18:00	5%	13%
18:00-19:00	5%	8%
19:00-20:00	3%	7%
20:00-21:00	2%	6%
21:00-22:00	1%	3%

5.6.5 The trip generation profile in Table 5.3 demonstrates the typical arrival and departure profile of a GP Surgery. This demonstrates that arrivals and departures are evenly spread throughout the day with no defined AM and PM peaks.



**Table 5.3 Typical GP Surgery Arrival / Departure Profile**

Time Period	Arrivals	Departures
07:00-08:00	5%	3%
08:00-09:00	10%	6%
09:00-10:00	12%	11%
10:00-11:00	11%	10%
11:00-12:00	10%	11%
12:00-13:00	10%	10%
13:00-14:00	8%	7%
14:00-15:00	8%	9%
15:00-16:00	9%	8%
16:00-17:00	9%	9%
17:00-18:00	5%	7%
18:00-19:00	2%	4%
19:00-20:00	0%	2%
20:00-21:00	1%	4%
21:00-22:00	0%	0%

5.6.6 The results of the parking accumulation exercise can be seen below in Table 5.4 and detailed at **Appendix F**.

**Table 5.4 Predicted Car Parking Demand**

Time Period	Arrivals	Departures	Accumulation
07:00-08:00	3	3	6
08:00-09:00	14	8	22
09:00-10:00	22	9	31
10:00-11:00	25	10	34
11:00-12:00	25	10	35
12:00-13:00	26	9	35
13:00-14:00	26	10	36
14:00-15:00	23	9	32
15:00-16:00	20	10	29
16:00-17:00	13	10	23
17:00-18:00	8	8	15
18:00-19:00	6	5	11
19:00-20:00	3	4	7
20:00-21:00	1	0	1
21:00-22:00	-1	0	-1

5.6.7 The accumulation exercise has shown that the peak demand occurs between 13:00-14:00 totalling 36 spaces.



5.6.8 The predicted parking demand can be accommodated within the existing Pine Street car park which provides a total of 159 spaces. The Phase 1 proposals were forecast to generate a peak demand of 95 spaces. Adding this to the demand of 36 spaces for Phase 2 totals 131 spaces. This ensures there will be spare capacity to ensure sufficient parking is available at times of increased demand and if visitors stay longer at the facility than anticipated. The spare capacity also provides comfort that parking will remain available as additional phases of the masterplan come forward before the Strategic Transport Hub is operational. As subsequent phases of development come forward their car parking requirements will be assessed within the context of overall sustainability and the site masterplan and provision identified as required within the Southgate site.

5.6.9 Therefore, it is considered that the proposed parking provision of 159 spaces is sufficient to serve the development given the central location of the site, and the opportunity to access the site by alternative modes of travel, such as via public transport.



## 6. Summary and Conclusions

### 6.1 SUMMARY

6.1.1 Optima has been instructed by The University of Huddersfield to prepare a Transport Statement to support a reserved matters planning application for a new Higher Education Development on the Southgate Site in Huddersfield Town Centre.

6.1.2 Building 2 which will provide approximately 6,800m<sup>2</sup> of accommodation set over 5 storeys with a plant level below. The ground floor of the building will be occupied by the Calderdale and Huddersfield NHS Trust, the first and second floors by Department of Allied Health Professions, Sport and Exercise, the third floor is currently fallow of use and the fourth floor by The Innovation Centre, an enterprise by the University of Huddersfield that let out laboratories and offices for start-ups and collaborative projects and partnerships.

6.1.3 The road safety record for the local highway network has been reviewed. It is apparent from the recorded collisions that there are no significant historical road safety issues associated with the highway network which would be exacerbated by the likely traffic generated by the Site.

6.1.4 A site accessibility audit has concluded that the site is highly accessible by sustainable transport and affords excellent opportunities to encourage and promote alternative modes of travel to the use of the private car for visitors, students, and staff. In particular, this report also shows that the site is currently very well served to provide the ability to readily access wider destinations by walking, cycling, bus or rail. Good public transport accessibility provides a key advantage in providing a real alternative to car travel (e.g. for journeys to work) and as such promotes the aim of reducing car travel.

6.1.5 The swept path analysis undertaken has demonstrated that the proposed access arrangements and geometry at Pine Street are suitable for deliveries and servicing alongside emergency vehicles and that all manoeuvres can be successfully performed.

6.1.6 The predicted trip generation for the development proposals demonstrates that the parking demand can be satisfactorily accommodated within the existing Pine Street car park which provides a total of 159 spaces. The development proposals will generate approximately one additional vehicle movement a minute during the AM peak and PM peak hours.

6.1.7 The traffic impact assessment therefore shows that the proposed development would not have a “severe” impact on the local highway network.

6.1.8 A Travel Plan will be implemented as part of the development to further encourage travel by sustainable modes and this will include improvements for pedestrians, cyclists and public transport services and facilities.

### 6.2 CONCLUSION

6.2.1 Having undertaken a comprehensive analysis of the development site and after reviewing planning policies, it has been demonstrated that the proposed development accords with highway access design recommendations and sustainable values and there are no significant residual cumulative impacts in terms of highway safety or the operation of the surrounding highway network.

6.2.2 It is therefore concluded that there are no highways or transport reasons why planning permission for the proposals should not be granted and it has been demonstrated that there will not be any material impact on highway safety, or any adverse residual cumulative impacts on the road network. Therefore, the tests for refusal, set out in paragraphs 102-111 from NPPF, are not met.



# Figures

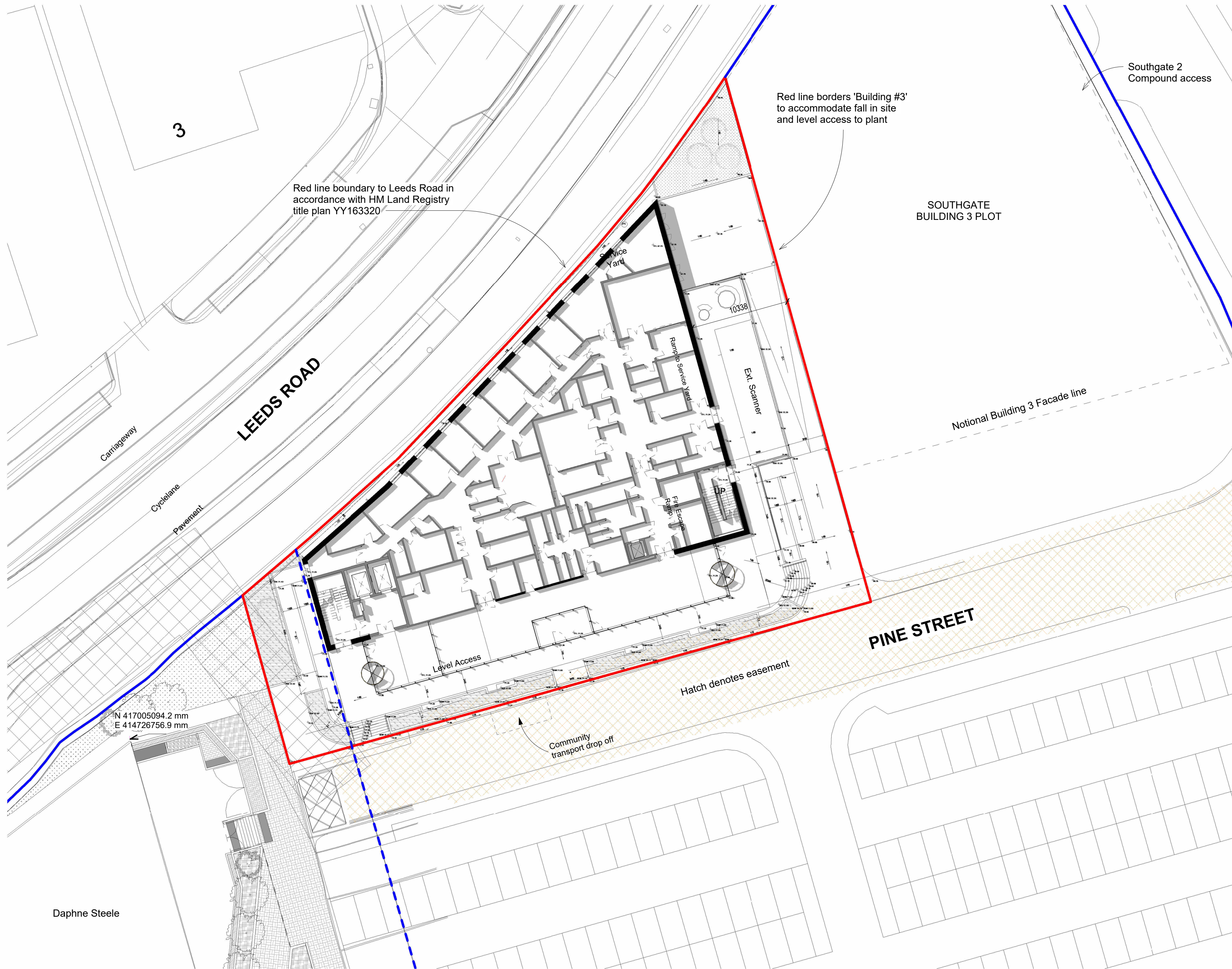


# Appendices

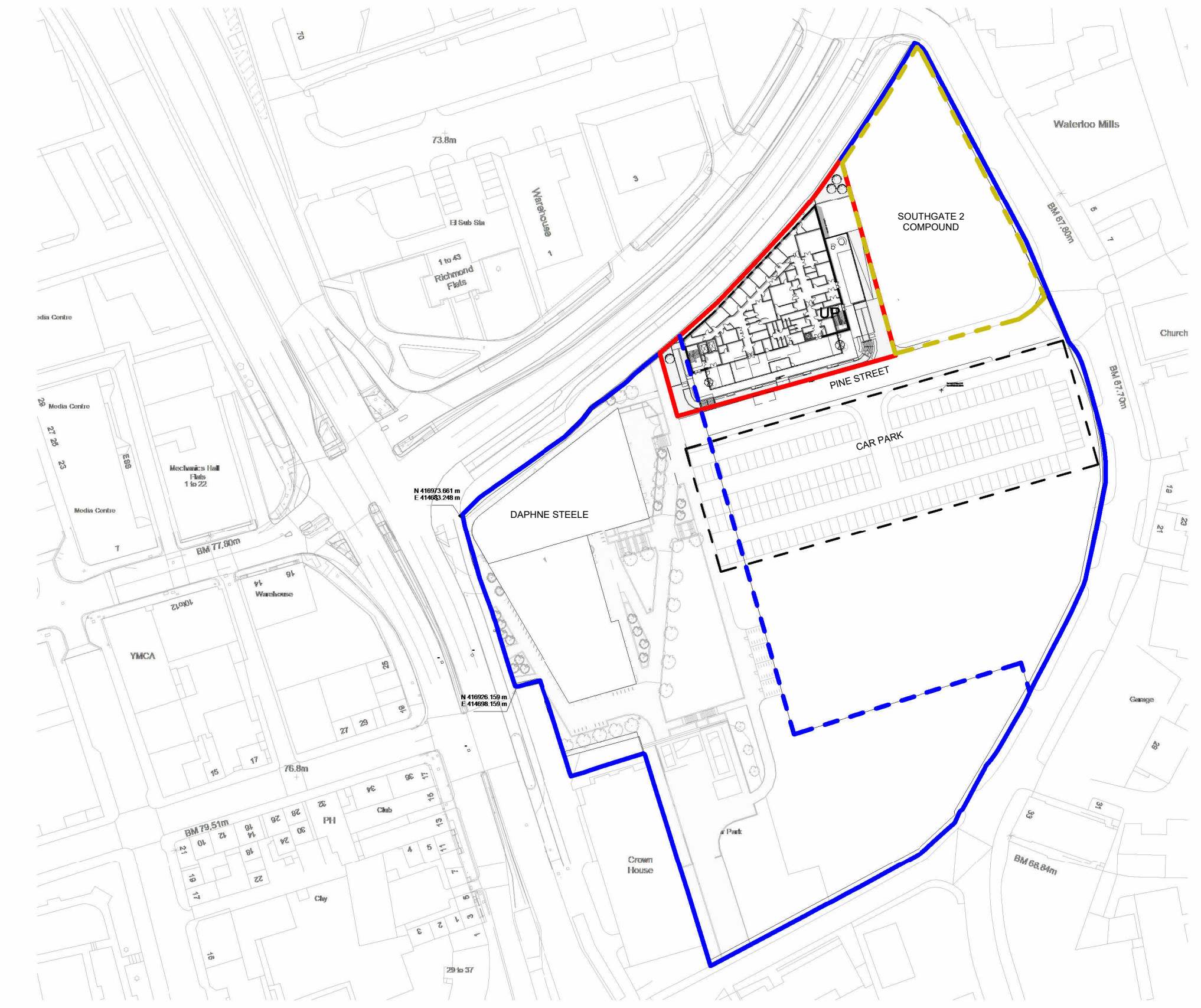


## Appendix A Proposed Site Layout





**Site Plan - Masterplan Context**  
1 : 250



**Site Location Plan**  
1 : 1250

- Site Boundary Line
- - - Daphne Steele Boundary Line
- Southgate #2 Boundary Line
- Masterplan Underlay
- - - Compound Area
- - - Existing Infrastructure
- Diverted Infrastructure
- Infrastructure Easement

**Masterplan Legend**

P2	Planning Update	20.11.23	JE	RH	
P1	Planning Issue	30.10.23	WH	RH	
Rev	Description	Date	Dr	App	
original by	Author	date created	08/03/23	approved by	Approver

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client name	UoH		
project	Southgate #2		
drawing	Planning - Site Location Plan		
computer file	I:\0321\110EM_Profiles_Folder_redirection\110EM\Documents\Revit\Final\Revit\202303\AHR-B2-DR-A-08500_1.rvt		
project number	2023.00229.000	plot date	As indicated@A1
drawing number	SG2-AHR-B2-00-DR-A-08500	scale	As indicated@A1
		rev	P2
		issue status	S1

This drawing is to be read in conjunction with all related drawings. All dimensions must be checked and verified on site before commencing any work or producing shop drawings. The originator should be notified immediately of any discrepancy. This drawing is copyright and remains the property of AHR.

## Appendix B Phase 1 Scoping Response



## Sam Chapman

---

**From:** Philip Owen  
**Sent:** 29 June 2022 14:03  
**To:** Sam Chapman; Jamie.Turner@kirklees.gov.uk  
**Cc:** Adam.Darwin@kirklees.gov.uk; Nick.Hirst@kirklees.gov.uk  
**Subject:** RE: Huddersfield Uni, Southgate Scoping - Highways Input

Thanks for the call Jamie. In summary:

- With respect to condition 9 it is not necessary to provide a 7.3m wide carriageway. In principle a 5.5m carriageway (subject to tracking etc round any bends) will be satisfactory. Also segregated cycleways are not required;
- The existing Pine Street car park will not be available for public use in the future and so we do not need to account for the existing situation in the proposed parking demand scenario; and
- You are going to send through the CAD plans of the A62 improvements (once your colleague gets back to you).

Thanks for all your assistance on this.

Regards, Phil

**Philip Owen**  
**BEng (Hons), CEng, MICE, MIHT**  
**Managing Director**  
**Optima Highways & Transportation**

---

**From:** Sam Chapman <Sam.Chapman@optimahighways.com>  
**Sent:** 24 June 2022 16:25  
**To:** Jamie.Turner@kirklees.gov.uk  
**Cc:** Philip Owen <Philip.Owen@Optimahighways.com>; Adam.Darwin@kirklees.gov.uk; Nick.Hirst@kirklees.gov.uk  
**Subject:** Huddersfield Uni, Southgate Scoping - Highways Input

Hi Jamie

Thank you for going through the input you think is required from a highway's perspective earlier this morning with myself and Phil in order for us to define the exact scope of works required for the Southgate 'Health & Wellbeing Academy' planning application.

As agreed, I have set out the scope of works below which will be encapsulated within a Transport Statement which we agreed is sufficient to support the application on highways grounds. This report will demonstrate that the proposed Phase 1 building will be capable of operating satisfactorily as a standalone building as well as when the full development site comes forward.

The agreed scope of work to be included within the Transport Statement is as follows:

1. Description of the site and local highway network including personal injury collision review and details on the ped / cycle connectivity post completion of the A62 improvements;
2. Detailed breakdown of local sustainable travel options, including walking, cycling and public transport, inclusive of accessibility mapping;
3. Identification of key routes for students between the site and the University campus, bus station railway station and town centre car parks;
4. A detailed description of the proposed development and phasing strategy including a review of the site access off Pine Street and servicing / emergency access from Old Leeds Road;

5. Visibility splays showing 2.4 x 43m splays from the Pine Street access;
6. Consider traffic generation of the new building and expand on what was provided in the Transport Statement submitted to support the outline application. This will be based on the breakdown of students, staff and patients and will be founded on a first principles basis considering the limited parking spaces on site which will not provide parking for students;
7. Demonstrate adequate parking with reference to the temporary car park and how parking will be managed going forward between the temporary car park and proposed multi-storey. This will include a description of parking requirements for each phase of the development;
8. Justification for cycle parking provision when considered against BREEAM standards and the now superseded UDP parking standards which sets out student and medical staff parking requirements;
9. Details for drop-off arrangements and the location of this facility;
10. Swept path assessment of the access taken from Old Leeds Road and internals for refuse collection using Huddersfield refuse vehicle specification and emergency vehicle (fire tender);
11. Summarise the above and provide conclusions within a TS report.

Please can you confirm that the above actions and contents of our submission are acceptable and sufficient to cover the cumulative comments from emails dated 8<sup>th</sup> June (Jamie Turner), 9<sup>th</sup> June (Adam Darwin) and 21<sup>st</sup> June (Nick Hirst) via email – all as discussed in this morning's Teams meeting.

As agreed during our call please can you forward the latest Leeds Road / Southgate scheme drawings in both PDF and .dwg format, the Pine Street adopted highway plan, UDP parking standards extract and existing parking numbers and hourly / daily costs for the Pine Street car park. Can you also clarify Condition 9 requirements set out by Nick in his email which states a carriageway width of 7.3m wide. This seems excessive and we would assume an access of 5.5m is acceptable in this instance.

Regards

**Sam Chapman**

**Principal Transport Planner**

**Optima Highways & Transportation**

Suite 1, 3<sup>rd</sup> Floor, Goodbard House, Infirmary Street, Leeds, LS1 2JP

Tel: 0113 245 1679

Mobile: 07853866936



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Registered address - Leigh House 28-32 St Paul's Street, Leeds, LS1 2JT

Company Registration Number: 07328946

## Appendix C Pine Street Visibility Splays



KEY:

--- VISIBILITY SPLAY (2.4m x 43m)

DO NOT SCALE


OLD LEEDS ROAD

BM 67.60m

5

7

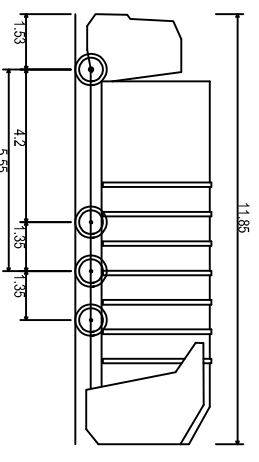
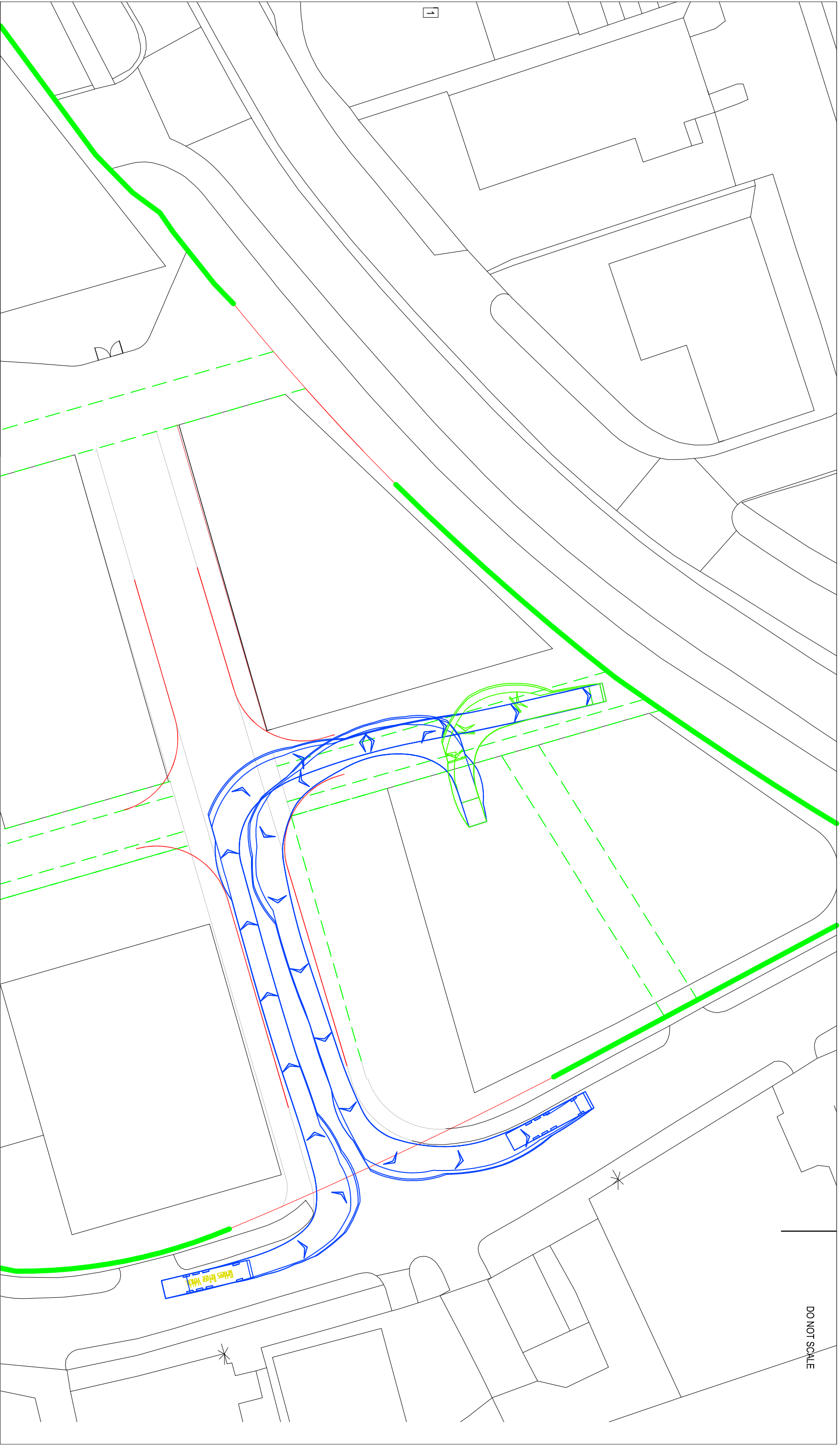
BM 67.70m

		PROJECT		SOUTHGATE, UNIVERSITY OF HUDDERSFIELD		CLIENT		UNIVERSITY OF HUDDERSFIELD		 <b>OPTIMA</b> Intelligent Highway Solutions Suite 1, 3rd Floor, Goodbard House, Infirmary Street Leeds LS1 2JP optimahighways.com T 0113 245 1679	
-	12/07/22	CJF	INITIAL ISSUE	SC	SC	DRAWING TITLE		CHECKED	APPROVED		DRG No.
REV	DATE	BY	DESCRIPTION	CHK	APP	PINE STREET/OLD LEEDS ROAD JUNCTION VISIBILITY SPLAY ANALYSIS		SC	SC		11004/P26/IN/01
STATUS			PRELIMINARY			DRAWN BY:	SCALE @ A3	DATE	REV.		
						CJF	1:250	JULY 2022	-		

## Appendix D Pine Street Swept Path Assessment



DO NOT SCALE



**Kirklees Refuse Vehicle**  
 Overall Length 11.850m  
 Overall Width 2.500m  
 Overall Body Height 3.749m  
 Min Body Ground Clearance 0.302m  
 Track Width 2.480m  
 Lock to lock time 6.00s  
 Wall to Wall Turning Radius 11.000m

REV	DATE	BY	INITIAL ISSUE	DESCRIPTION	CHK	APP
-	01/11/23	SC			SC	SC

STATUS: PRELIMINARY

**PROJECT**  
 SOUTHGATE PHASE 2,  
 HUDDERSFIELD UNIVERSITY

**DRAWING TITLE**  
 REFUSE VEHICLE ACCESS  
 SWEEP PATH ANALYSIS

CLIENT		THE UNIVERSITY OF HUDDERSFIELD	
CHECKED	SC	APPROVED	SC
DRAWN BY:	SC	SCALE @ A3	1:500
DRG No.	11004/P26/ATR01	DATE	NOVEMBER 2023
REV.	-		



**OPTIMA**  
 Intelligent Highway Solutions  
 Suite 1, 3rd Floor, Goodhand House, Infrmary Street  
 Leeds LS1 2JP  
 optimahighways.com T 0113 245 1679

## Appendix E TRICS Output



Calculation Reference: AUDIT-750701-220714-0713

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 04 - EDUCATION  
Category : C - COLLEGE/UNIVERSITY

**TOTAL VEHICLES**

Selected regions and areas:

**02 SOUTH EAST**  
BU BUCKINGHAMSHIRE 1 days  
WS WEST SUSSEX 2 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

**Primary Filtering selection:**

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: Gross floor area  
Actual Range: 23330 to 65000 (units: sqm)  
Range Selected by User: 2099 to 162000 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 06/04/22

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Tuesday 2 days  
Wednesday 1 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 3 days  
Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town Centre 3

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone 1  
Built-Up Zone 1  
No Sub Category 1

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

**Secondary Filtering selection:**

Use Class:

F1(a) 3 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

**Secondary Filtering selection (Cont.):**

Population within 1 mile:

10,001 to 15,000	1 days
25,001 to 50,000	2 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	2 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	2 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

Yes	3 days
-----	--------

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present	3 days
-----------------	--------

*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

- |  |   |
|--|---|
| <p><b>1 BU-04-C-01 UNIVERSITY</b><br/>                 QUEEN ALEXANDRA ROAD<br/>                 HIGH WYCOMBE</p> <p>Edge of Town Centre<br/>                 Built-Up Zone<br/>                 Total Gross floor area: 36755 sqm<br/> <i>Survey date: TUESDAY 24/01/17</i></p>                 | <p><b>BUCKINGHAMSHIRE</b></p> <p><i>Survey Type: MANUAL</i></p> |
| <p><b>2 WS-04-C-08 UNIVERSITY OF CHICHESTER</b><br/>                 COLLEGE LANE<br/>                 CHICHESTER</p> <p>Edge of Town Centre<br/>                 No Sub Category<br/>                 Total Gross floor area: 65000 sqm<br/> <i>Survey date: TUESDAY 05/04/22</i></p>           | <p><b>WEST SUSSEX</b></p> <p><i>Survey Type: MANUAL</i></p>     |
| <p><b>3 WS-04-C-09 UNIVERSITY OF CHICHESTER</b><br/>                 UPPER BOGNOR ROAD<br/>                 BOGNOR REGIS</p> <p>Edge of Town Centre<br/>                 Residential Zone<br/>                 Total Gross floor area: 23330 sqm<br/> <i>Survey date: WEDNESDAY 06/04/22</i></p> | <p><b>WEST SUSSEX</b></p> <p><i>Survey Type: MANUAL</i></p>     |

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
CA-04-C-02	College
WY-04-C-02	College

TRIP RATE for Land Use 04 - EDUCATION/C - COLLEGE/UNIVERSITY

**TOTAL VEHICLES****Calculation factor: 100 sqm****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	3	41695	0.107	3	41695	0.024	3	41695	0.131
08:00 - 09:00	<b>3</b>	<b>41695</b>	<b>0.315</b>	3	41695	0.038	<b>3</b>	<b>41695</b>	<b>0.353</b>
09:00 - 10:00	3	41695	0.229	3	41695	0.043	3	41695	0.272
10:00 - 11:00	3	41695	0.119	3	41695	0.064	3	41695	0.183
11:00 - 12:00	3	41695	0.088	3	41695	0.076	3	41695	0.164
12:00 - 13:00	3	41695	0.129	3	41695	0.104	3	41695	0.233
13:00 - 14:00	3	41695	0.097	3	41695	0.098	3	41695	0.195
14:00 - 15:00	3	41695	0.075	3	41695	0.131	3	41695	0.206
15:00 - 16:00	3	41695	0.066	3	41695	0.147	3	41695	0.213
16:00 - 17:00	3	41695	0.062	<b>3</b>	<b>41695</b>	<b>0.235</b>	3	41695	0.297
17:00 - 18:00	3	41695	0.071	3	41695	0.201	3	41695	0.272
18:00 - 19:00	3	41695	0.078	3	41695	0.115	3	41695	0.193
19:00 - 20:00	3	41695	0.046	3	41695	0.101	3	41695	0.147
20:00 - 21:00	3	41695	0.035	3	41695	0.097	3	41695	0.132
21:00 - 22:00	3	41695	0.022	3	41695	0.053	3	41695	0.075
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.539			1.527			3.066

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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**Parameter summary**

Trip rate parameter range selected:	23330 - 65000 (units: sqm)
Survey date range:	01/01/14 - 06/04/22
Number of weekdays (Monday-Friday):	3
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	4
Surveys manually removed from selection:	2

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 05 - HEALTH  
 Category : G - GP SURGERIES

**TOTAL VEHICLES**

Selected regions and areas:

<b>03</b>	<b>SOUTH WEST</b>	
	SM SOMERSET	1 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	1 days
	WY WEST YORKSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	1 days
<b>11</b>	<b>SCOTLAND</b>	
	DU DUNDEE CITY	1 days
	HI HIGHLAND	1 days

*This section displays the number of survey days per TRICS® sub-region in the selected set*

**Primary Filtering selection:**

*This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.*

Parameter: No of Employees  
 Actual Range: 17 to 80 (units: )  
 Range Selected by User: 8 to 80 (units: )

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 23/09/21

*This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.*

Selected survey days:

Monday 3 days  
 Wednesday 3 days

*This data displays the number of selected surveys by day of the week.*

Selected survey types:

Manual count 6 days  
 Directional ATC Count 0 days

*This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.*

Selected Locations:

Edge of Town Centre 6

*This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.*

Selected Location Sub Categories:

Residential Zone 2  
 Built-Up Zone 2  
 No Sub Category 2

*This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.*

**Secondary Filtering selection:**

Use Class:

E(e) 6 days

*This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.*

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days
20,001 to 25,000	1 days
25,001 to 50,000	1 days

*This data displays the number of selected surveys within stated 1-mile radii of population.*

Population within 5 miles:

50,001 to 75,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	1 days
250,001 to 500,000	1 days

*This data displays the number of selected surveys within stated 5-mile radii of population.*

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	3 days

*This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.*

Travel Plan:

No 6 days

*This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.*

PTAL Rating:

No PTAL Present 6 days

*This data displays the number of selected surveys with PTAL Ratings.*

Covid-19 Restrictions	Yes	At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions
-----------------------	-----	--

LIST OF SITES relevant to selection parameters

<b>1</b>	<b>CH-05-G-06</b> LONDON ROAD NORTHWICH	<b>GP SURGERY</b>	<b>CHESHIRE</b>
	Edge of Town Centre Residential Zone Total No of Employees: 80 Survey date: WEDNESDAY 21/04/21		Survey Type: MANUAL
<b>2</b>	<b>DU-05-G-01</b> PRINCES STREET DUNDEE	<b>GP SURGERY</b>	<b>DUNDEE CITY</b>
	Edge of Town Centre Built-Up Zone Total No of Employees: 17 Survey date: MONDAY 24/04/17		Survey Type: MANUAL
<b>3</b>	<b>HI-05-G-01</b> BALLIFEARY LANE INVERNESS	<b>GP SURGERY</b>	<b>HIGHLAND</b>
	Edge of Town Centre No Sub Category Total No of Employees: 27 Survey date: MONDAY 16/04/18		Survey Type: MANUAL
<b>4</b>	<b>NY-05-G-02</b> ASH TREE ROAD KNARESBOROUGH	<b>GP SURGERY</b>	<b>NORTH YORKSHIRE</b>
	Edge of Town Centre Residential Zone Total No of Employees: 31 Survey date: WEDNESDAY 28/09/16		Survey Type: MANUAL
<b>5</b>	<b>SM-05-G-02</b> COAL ORCHARD TAUNTON	<b>GP SURGERY</b>	<b>SOMERSET</b>
	Edge of Town Centre Built-Up Zone Total No of Employees: 32 Survey date: WEDNESDAY 03/04/19		Survey Type: MANUAL
<b>6</b>	<b>WY-05-G-02</b> BLACKBURN ROAD BIRSTALL BIRSTALL SMITHIES	<b>GP SURGERY</b>	<b>WEST YORKSHIRE</b>
	Edge of Town Centre No Sub Category Total No of Employees: 18 Survey date: MONDAY 15/10/18		Survey Type: MANUAL

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

TRIP RATE for Land Use 05 - HEALTH/G - GP SURGERIES

**TOTAL VEHICLES**

**Calculation factor: 1 EMPLOY**

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate	No. Days	Ave. EMPLOY	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	4	36	0.303	4	36	0.155	4	36	0.458
08:00 - 09:00	6	34	0.571	6	34	0.341	6	34	0.912
09:00 - 10:00	<b>6</b>	<b>34</b>	<b>0.688</b>	<b>6</b>	<b>34</b>	<b>0.644</b>	<b>6</b>	<b>34</b>	<b>1.332</b>
10:00 - 11:00	6	34	0.605	6	34	0.590	6	34	1.195
11:00 - 12:00	6	34	0.576	6	34	0.600	6	34	1.176
12:00 - 13:00	6	34	0.551	6	34	0.576	6	34	1.127
13:00 - 14:00	6	34	0.415	6	34	0.405	6	34	0.820
14:00 - 15:00	6	34	0.434	6	34	0.488	6	34	0.922
15:00 - 16:00	6	34	0.483	6	34	0.454	6	34	0.937
16:00 - 17:00	6	34	0.498	6	34	0.507	6	34	1.005
17:00 - 18:00	6	34	0.254	6	34	0.380	6	34	0.634
18:00 - 19:00	4	39	0.083	4	39	0.224	4	39	0.307
19:00 - 20:00	2	56	0.027	2	56	0.107	2	56	0.134
20:00 - 21:00	1	32	0.031	1	32	0.219	1	32	0.250
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
<b>Total Rates:</b>			5.519			5.690			11.209

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP\*FACT. Trip rates are then rounded to 3 decimal places.

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**Parameter summary**

Trip rate parameter range selected: 17 - 80 (units: )  
 Survey date range: 01/01/14 - 23/09/21  
 Number of weekdays (Monday-Friday): 6  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys automatically removed from selection: 1  
 Surveys manually removed from selection: 0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

## Appendix F Pine Street Car Park Accumulation

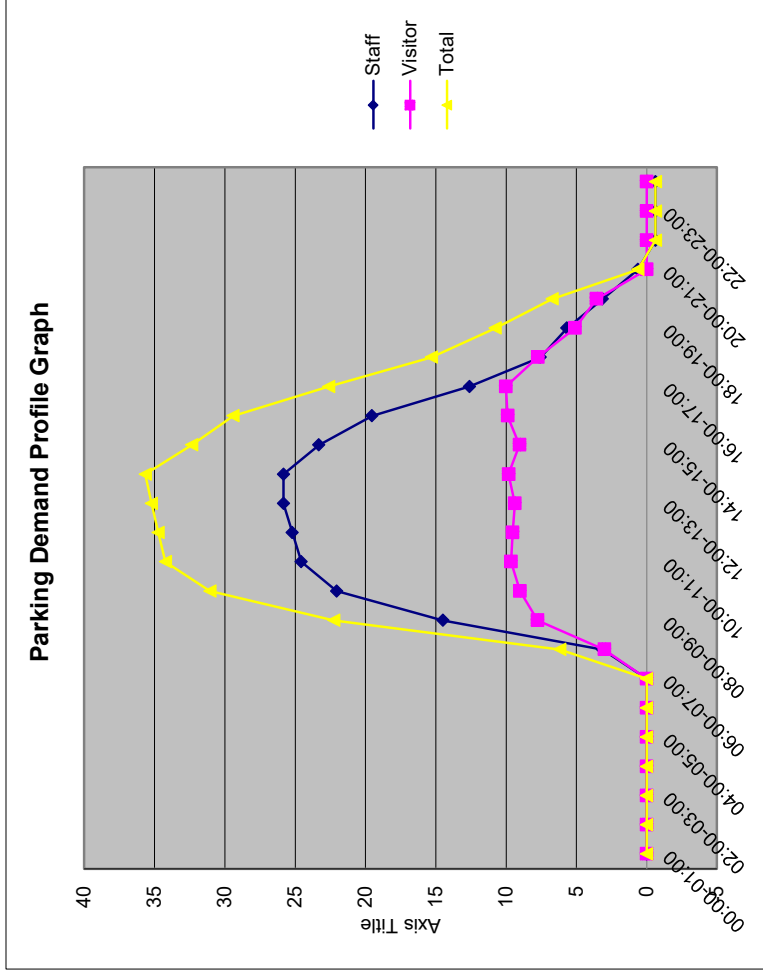


**CAR PARK ACCUMULATION ASSESSMENT - TOTAL**

The total car parking accumulation / demand at the proposed development is the sum of the demand for the proposed Self Storage unit as follows:-

Time Range	Staff	Visitor	Total
00:00-01:00	0	0	0
01:00-02:00	0	0	0
02:00-03:00	0	0	0
03:00-04:00	0	0	0
04:00-05:00	0	0	0
05:00-06:00	0	0	0
06:00-07:00	0	0	0
07:00-08:00	3	3	6
08:00-09:00	14	8	22
09:00-10:00	22	9	31
10:00-11:00	25	10	34
11:00-12:00	25	10	35
12:00-13:00	26	9	35
13:00-14:00	26	10	36
14:00-15:00	23	9	32
15:00-16:00	20	10	29
16:00-17:00	13	10	23
17:00-18:00	8	8	15
18:00-19:00	6	5	11
19:00-20:00	3	4	7
20:00-21:00	1	0	1
21:00-22:00	-1	0	-1
22:00-23:00	-1	0	-1
23:00-24:00	-1	0	-1

**Maximum Parking Demand: 36**



**Total Car Park Accumulation / Demand Assessment - Building 2**  
**Southgate Campus, Huddersfield**

**Appendix F**