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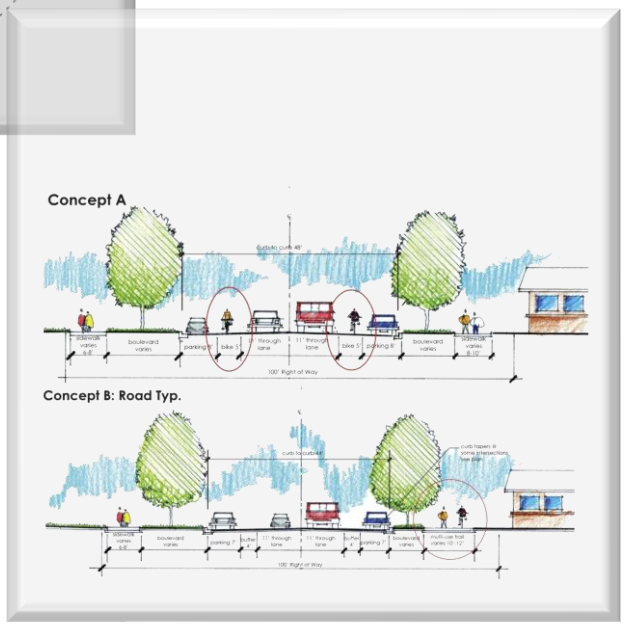

Transport Assessment - Scoping

Queen Elizabeth School Redevelopment

Whetstone Bridge Road

Hexham, Northumberland

Creative Minds, *Intelligent Thinking*

JOB NUMBER: 738			DOCUMENT REF: 190304-738-TA v4			
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3					AW	06/02/19
2					AW	06/02/19
1	Survey Data				AW	23/11/18
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Revision	Purpose Description					

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Best Transport Planning Consultancy 2019

i. iTransport Planning, a specialist division of iPRT© Group of companies, has been commissioned by the Applicant to produce a Transport Assessment (scoping stage) for the proposed redevelopment (expansion) of Queen Elizabeth High School (QE), Whetstone Bridge Road, Hexham (google maps link https://bit.ly/2TcKXDV) and merging with Hexham Middle School (HM).

ii. QE is in a sustainable location, served by public transport and is accessible by walking and cycling. The school redevelopment is therefore in line with the relevant national, regional and local transport policies where, at the heart of the NPPF, is a presumption in favour of sustainable development.

iii. There are no known committed developments or highway network changes that may have an impact on the findings of this Study.

iv. It is anticipated that the development would attract the usual servicing requirements. The design and layout allows for all movements and turning points to be accommodated within the site.

v. Parking would be provided having regards to Northumberland County Council (NoCC) Car Parking Guidelines.

vi. All personal injury collisions (PICs) are regrettable; review of the PICs in the vicinity of the for the most recent 5 years period demonstrated that there are no discernible patterns to collisions at any of the junctions or carriageways in the vicinity of the proposed development. There are no apparent collisions issue in the area that would affect, or be affected by, the proposed redevelopment. This will be verified as part of the planning submission.

vii. A Framework Travel Plan should be produced to promote and enhance the site's accessibility and sustainability and minimise the impact on the adjoining roads network (if any).

6.1 Detailed analysis and junctions' capacity assessment has demonstrated that:

- The highway network is adequate to support the vehicle movements for the proposed development, so as not to be detrimental to highway safety of road users;
- No mitigation measures are required; and
- The development does not result in an unacceptable impact on highway safety or a residual cumulative impact on the road network that is severe and thus should not be refused on transport grounds, as set out in paragraph 109 of the Revised NPPF

viii. It is concluded that the proposed development meets all safety and Planning Policy requirements and will have no material impact onto the highway network and as such, there are no transport / highways reasons for refusal of planning permission.

ROAD MAP AND CONTENTS OF THIS STUDY

Chapter 1
- Introduction
- Development Proposals
- Site Location

Chapter 2
- Scoping Study
- Guidance & Methodology

Chapter 3
- Existing Highway Conditions
- Non-Motorised Accessibility
- Committed Developments & Highway Network Changes
- Personal Injury Incidents (if relevant)

Chapter 4
- Development Proposals
- Movement & Accessibility Strategy
- Access Arrangements & Visibility Splays
- Parking Provision & Servicing Arrangements
- Trip Generation & Multi-Modal analysis

Chapter 5
- Multi-Modal Development Impact
- Preliminary Mitigation Proposals
- Travel Plan / Welcome Pack recommendations
- Preliminary Construction Traffic Management Plan

Chapter 6
- Summary & Conclusions

1.1 iTransport Planning, a specialist division of iPRT© Group of companies, has been commissioned by the Applicant to produce a Transport Assessment (scoping stage) for the proposed redevelopment (expansion) of QE school, Whetstone Bridge Road, Hexham (google maps link https://bit.ly/2TcKXDV) and merging with Hexham Middle School (HM).

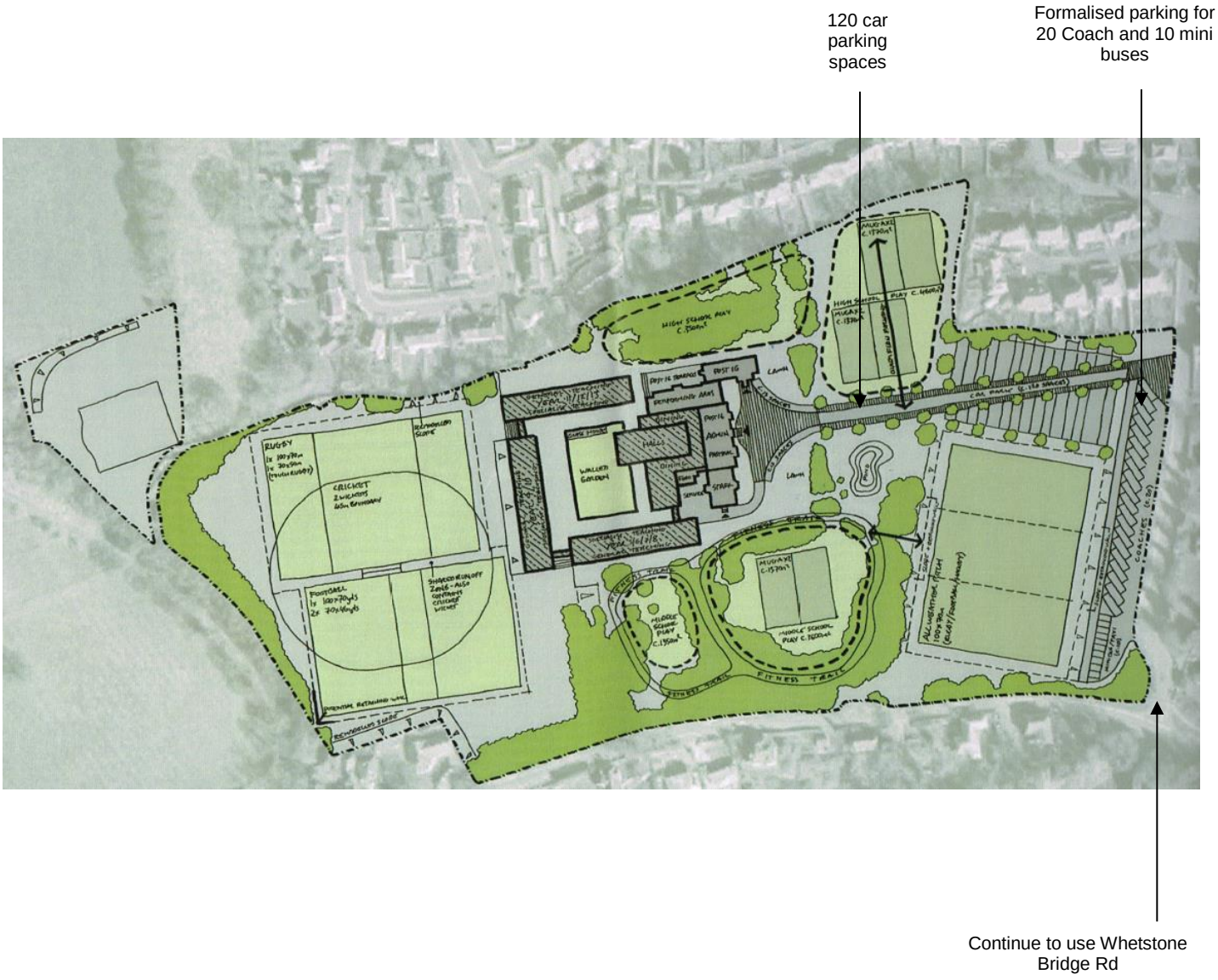


Figure 1.1
Illustrative sketch layout

SITE LOCATION

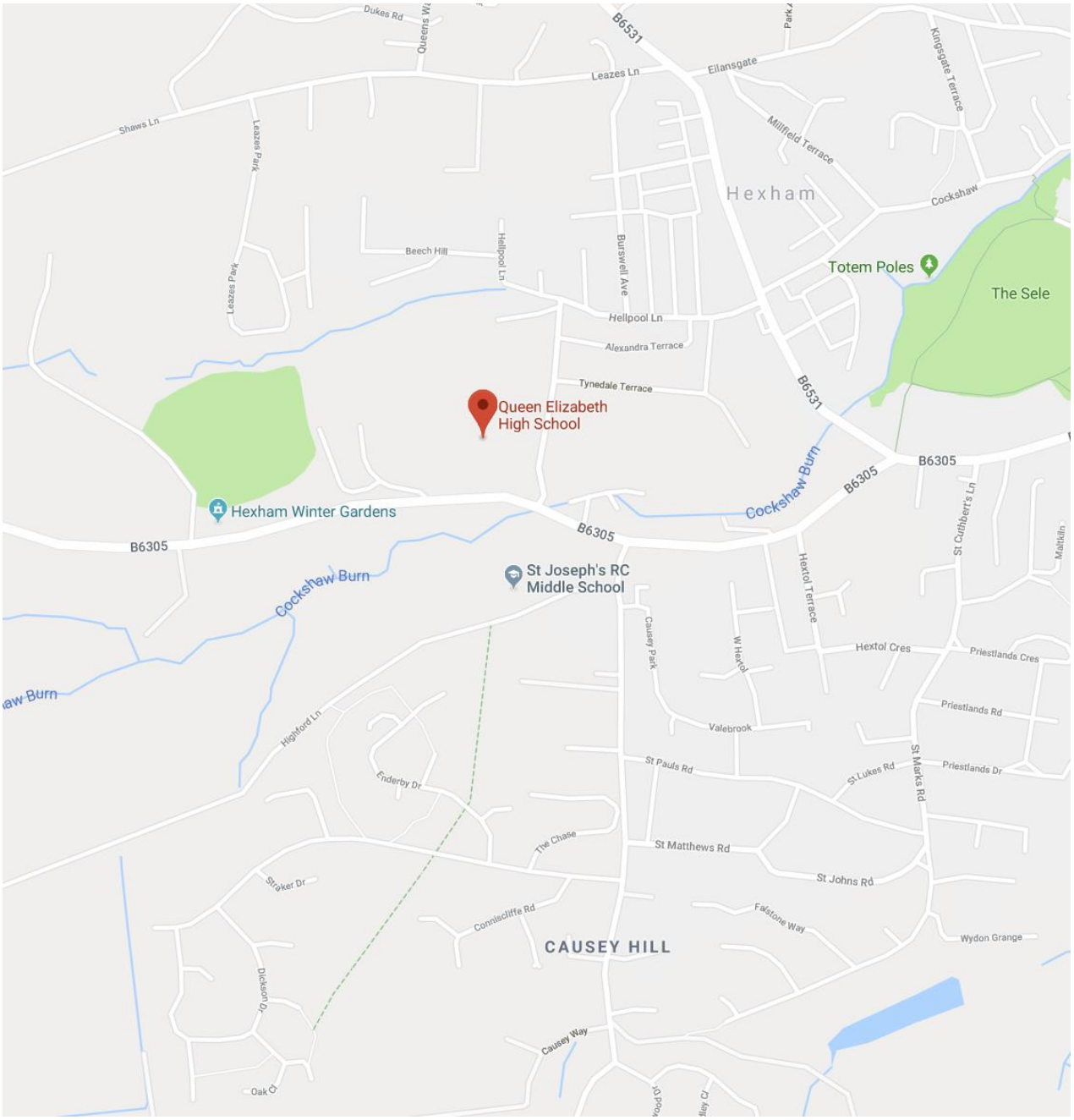


Figure 1.2
Illustrative site location
Google maps link https://bit.ly/2TcKXDV

2.1 The Applicants and their professional team has attended a number of preliminary discussions with NoCC and various other stakeholders. Based on the discussions and our professional experience of similar projects, the following is to be included as part of the Study:

- High-level review of the existing highway conditions;
- Development proposals, servicing arrangements, site connectivity and sustainability;
- Highway network proposals and site access arrangements;
- Car and Cycle Parking provision;
- Residual impact of the expanded school;
- Consideration of any committed developments and associated highway network changes in the immediate vicinity of the site.

REFERENCES, GUIDELINES & METHODOLOGY

2.2 Technical References and backup information are included in Appendix A.

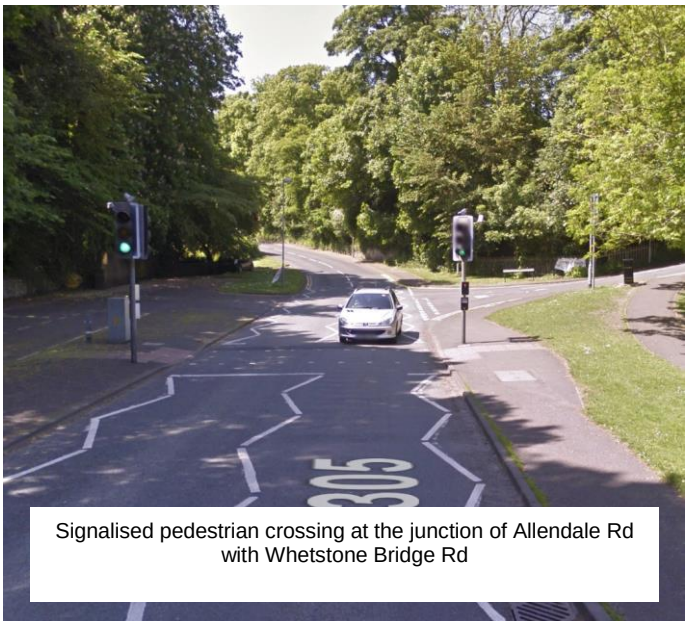
2.3 Where relevant, the Study will be in line with:

- Transport Evidence Bases in Plan Making and Decision Taking; and
- Travel plans, transport assessments and statements in decision-taking and their predecessors
    - "Guidance on Transport Assessment" produced in March 2007 by the Department for Transport;
    - "Good Practice Guidelines: delivering Travel Plans through the Planning Process" published in April 2009, by the Department for Transport [where relevant];
- Manual for Streets 1 & 2 [where relevant];
- DMRB - Design Manual for Roads and Bridges;
- National Transport Policy;
- National Planning Policy Framework [NPPF]; and
- NoCC LTP3 & Car Parking Guidelines.

WHETSTONE BRIDGE ROAD

Note: *All dimensions, descriptions and speeds are approximate and may not apply to the entire length of the carriageway. All images are for illustration puposes only*

Two lane single carriageway, c. 7m wide, bus stands along the carriageway, paved footways on both sides, 20mph, street lighting



Signalised pedestrian crossing at the junction of Allendale Rd with Whetstone Bridge Rd

Figure 3.1a
Whetstone Bridge Road

ALLENDALE ROAD

Figure 3.1b
B6305 - Allendale Road

3.1 The B6305 Allendale Rd is the distributor road between B6531 and Whetstone Bridge Road (southern junction with B6305) and is used by the substantial community residing to the south of the B6305. It will be the main route for pedestrians and cyclists to and from the school. As illustrated above, there are narrow footways and on occasions no footways (or no footway continuity) along its length. However, it has been serving the QEHS with no incidents involving students.

3.2 As part of the development proposals, an accessibility assessment should be undertaken by the Council safety Officer to identify the shortcomings and conflict points and introduce mitigation / improvements.

EXISTING SUSTAINABLE MODES OF TRAVEL

Bus Services

3.3 As demonstrated in Figures 3.2, bus stops are available in the immediate vicinity of the school and well within 200m (Technical References, Appendix A, Section A4).

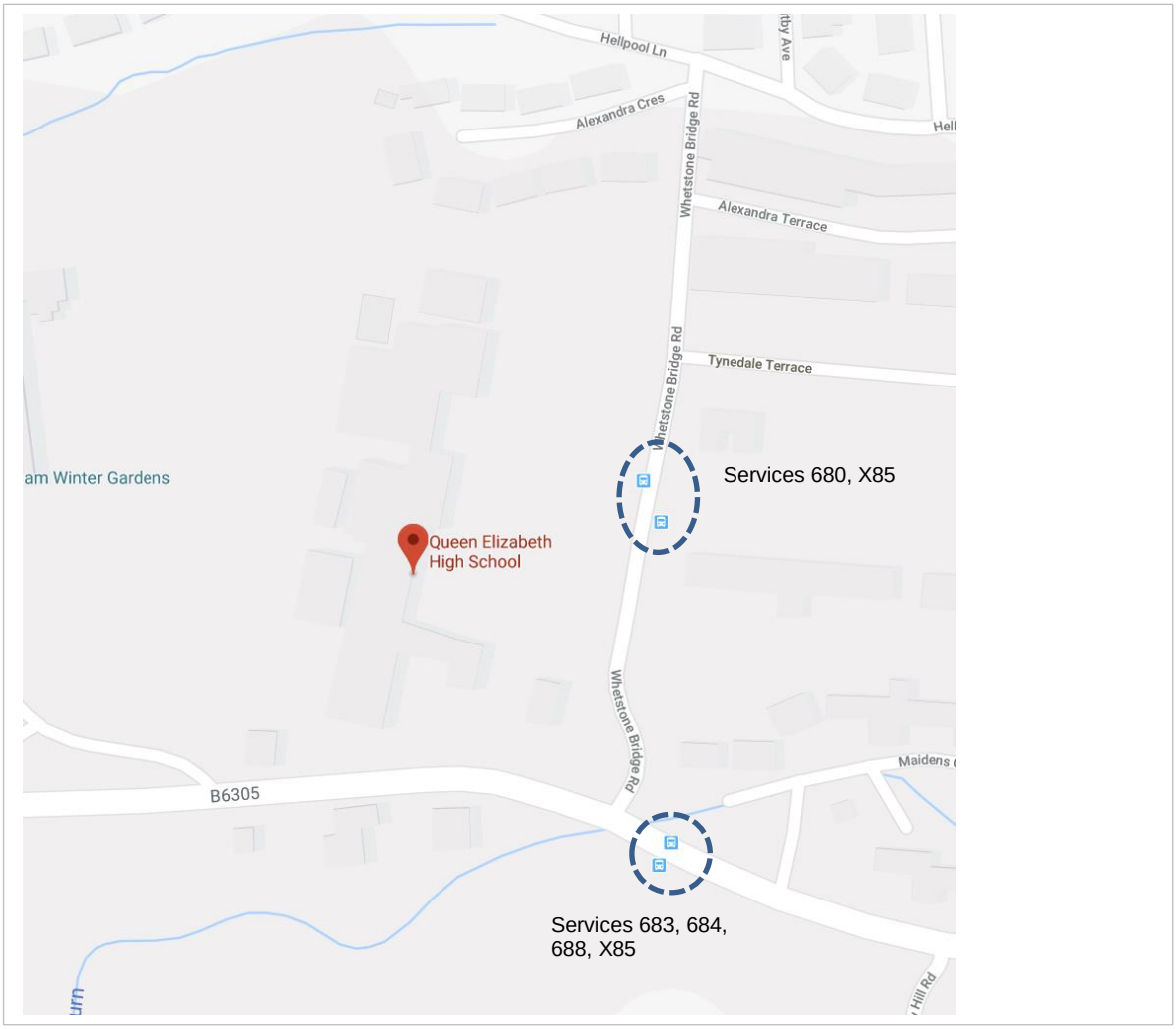
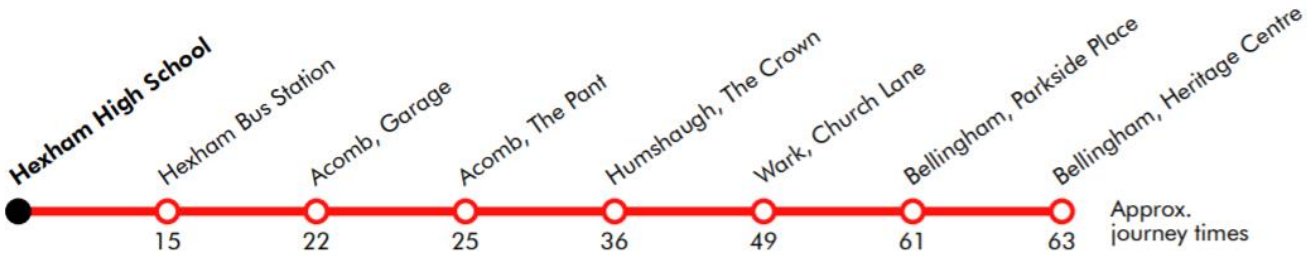


Figure 3.2
Bus stop locations

3.4 A summary of the Bus services is shown in Figures 3.3 with full timetables available at https://www.nexus.org.uk/bus/timetables

Bus Service	Route	Average Frequency Mon-Sat
X85	Newcastle - Corbridge - Hexham/ Haltwhistle - Carlisle	Hourly
		
680	Hexham - Bellingham	2 hrs
		
683	Hexham - Beaumont Park- Hexham	Hourly
		

684	Hexham - Priestlands - Hexham	Hourly

688	Hexham - Allendale - Allenheads	2 hrs

Figure 3.3
Summary Bus Services

3.5 As demonstrated in Figure 3.1, the school is well served by home to school coach transport which stops in the immediate vicinity of the school.

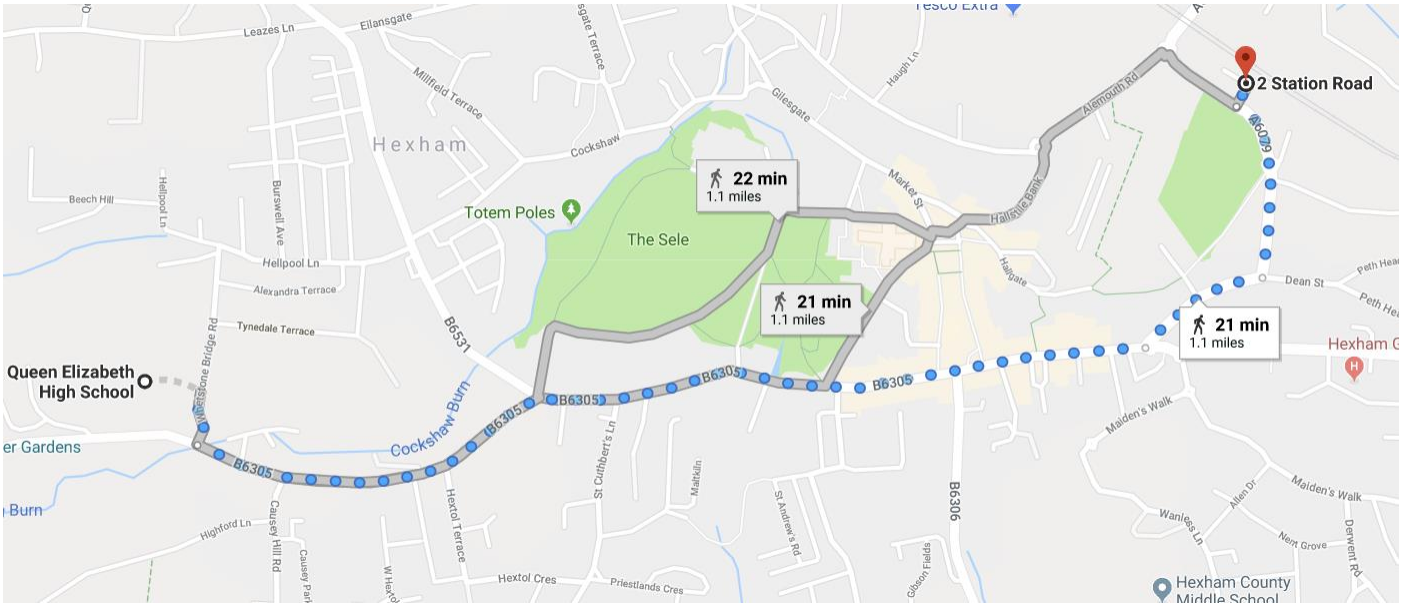
3.6 As such, it is considered that due to the destination served, the frequency of services available and the proximity of stops to the development proposals, the site is accessible by bus.

Car Sharing

3.7 Liftshare.com is one of many community car club. The programmes allow staff to sign up and view any car sharing opportunities in their area. This will allow some staff / commuters / students travelling by car to potentially car share with others residing in Hexham or outlying areas.

RAIL

3.8 Hexham Railway station is within 1800m / 21 minutes walking time from the site. It is located on the Tyne Valley Line which runs from Newcastle upon Tyne to Carlisle, and is managed by Northern who operate all passenger train services.



3.9 The railway station offers an option to commuters from further destination, e.g. Newcastle and those cycling or enjoy walking as a healthy option at the beginning and end of the working day.

3.10 The station has an hourly Northern service on weekdays westwards to Carlisle. There are two trains per hour to Newcastle - one of which runs through from Carlisle and serves only Prudhoe and the MetroCentre, whilst the other starts at Hexham and calls at most intermediate stations. Many of the latter continue on via the Durham Coast Line to Sunderland and Middlesbrough. A limited service of three trains each way between Newcastle and Glasgow Central via the Glasgow South Western Line is operated jointly with ScotRail.

3.11 On Sundays an hourly service operates between Carlisle and Newcastle (with many services continuing to Middlesbrough).

NON-MOTORISED ACCESSIBILITY

3.12 The government wants cycling and walking to become the norm by 2040 and will target funding at innovative ways to encourage people onto a bike or to use their own two feet for shorter journeys *[Appendix A].*

Walking

3.13 Supported by National Travel Statistics and the CIHT Walking is generally considered a viable travel choice up to 2000 metres (25 mins) where short journeys are required [Appendix A, Figure h]. The 400m, 800m and 2km isochrones are attached in Appendices 3 & 4.

3.14 The local pedestrian network is shown on Figure 3.1. There are footways ob both sides of Whetstone Bridge Rd linking to those along the B6305 and Hellpool Lane. Footways are generally continuous throughout the adjoining roads network and have been adequately and safely servicing the schools since inception.

Cycling

3.15 Similarly, also supported by National Travel Statistics and the CIHT and Sustrans' 2004 research Travel Behaviour Research Baseline Survey 'measuring the potential for change', it is recognised that cycling has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport. The 2km [10 mins cycling] and 5km [25 mins] isochrones are included in Appendix 4.

- The above referenced DfT Investment Strategy include specific objectives to double cycling, reduce cycling accidents and increase the proportion of 5 to 10 year-olds walking to school to 55% by 2025.

3.16 The local cycle network is also shown on Figure 3.5.

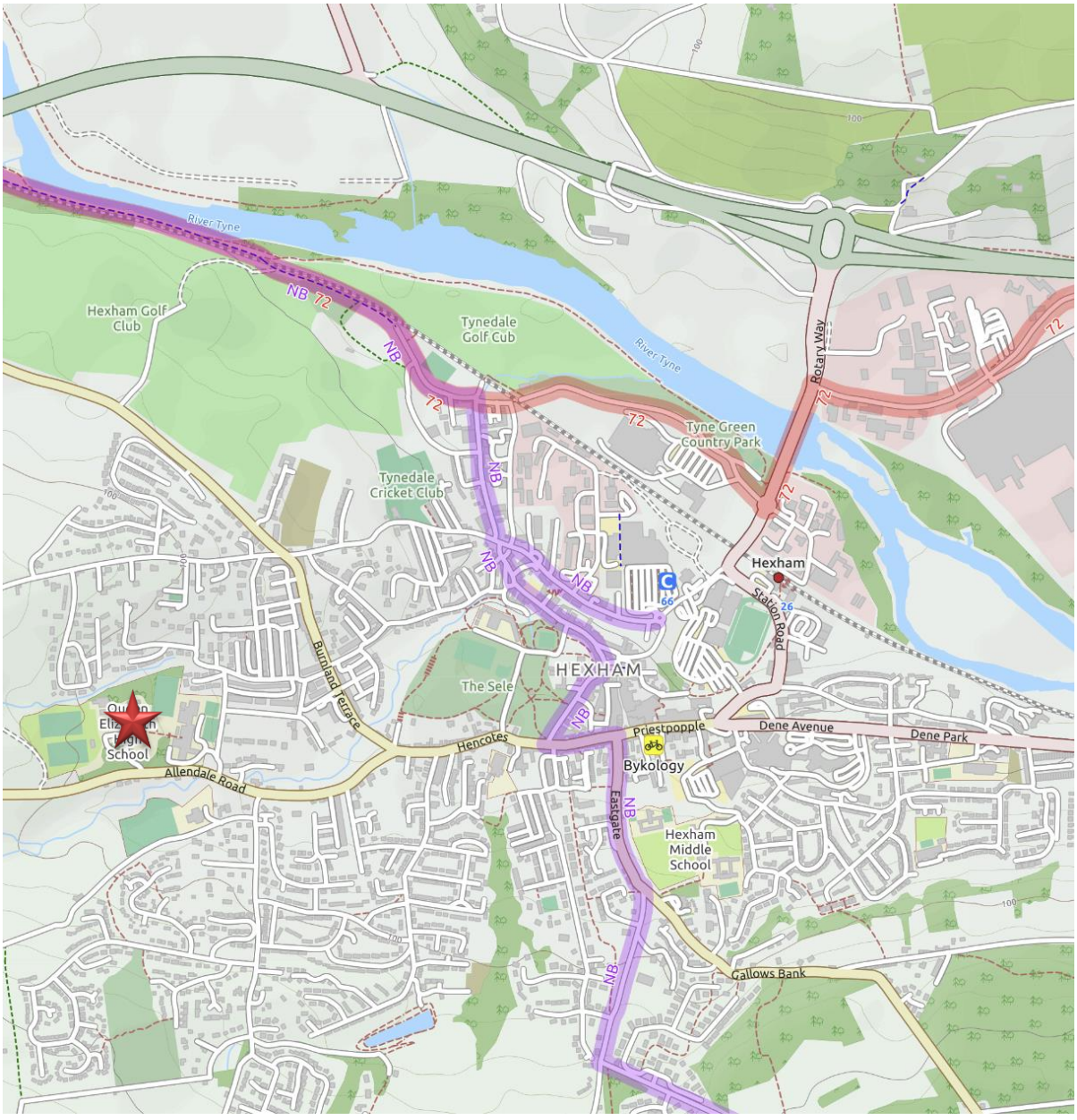


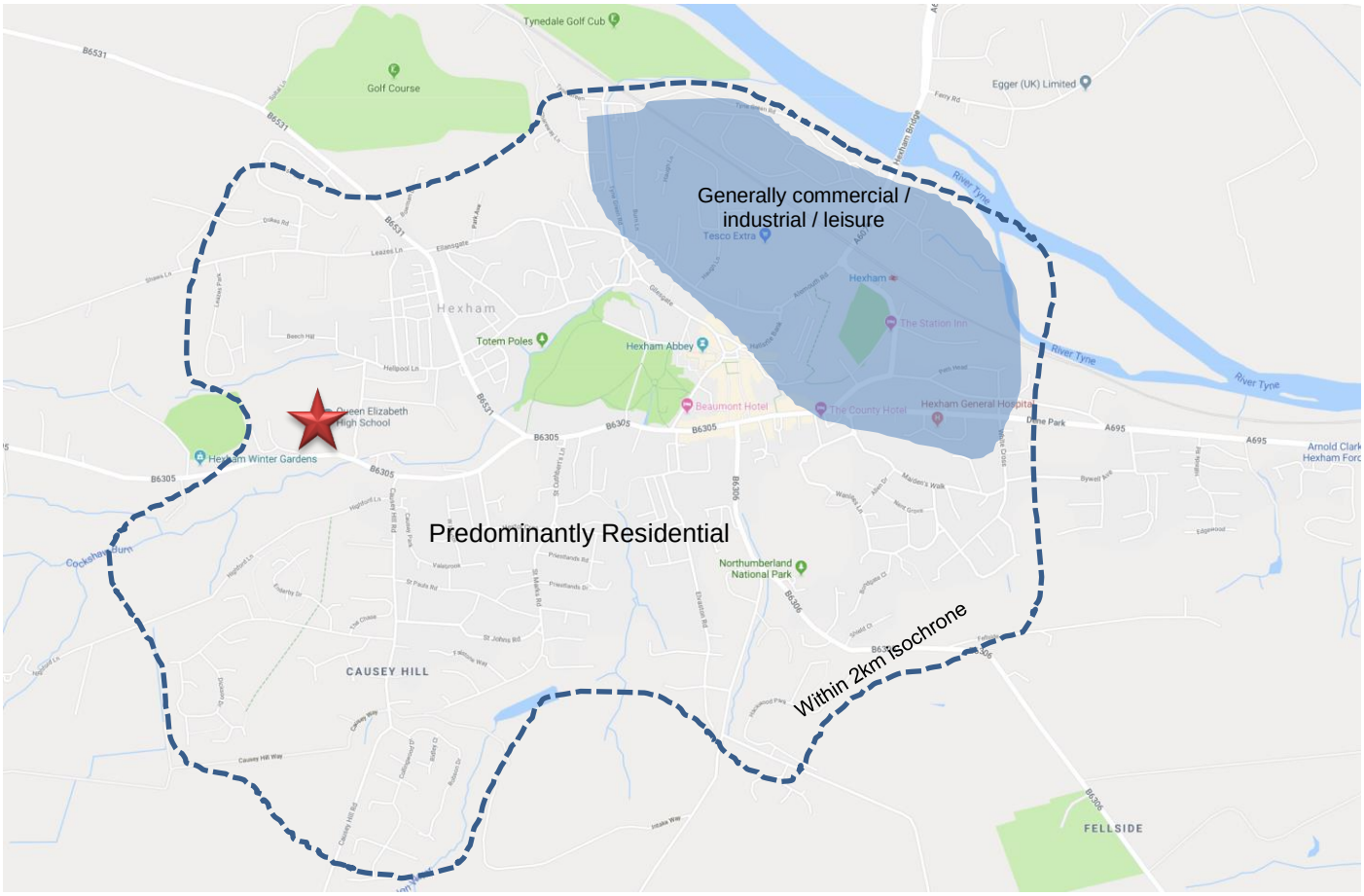
Figure 3.5
Cycle routes in the vicinity of the site

3.17 There are no dedicated local cycle routes in the immediate vicinity of the school however, there are cycle routes along Haugh Lane leading towards Tyne Green Rd which is identified as a local cycle route (National Byway) linking to National Route 72; NR72 starts in Kendal and makes its way around the Cumbrian coast via Barrow-in-Furness and Whitehaven to Silloth. From Silloth the route heads along the Solway Firth to Carlisle and across Northumberland to South Shields via Haltwhistle, roughly following Hadrian's Wall.

3.18 During a number of site visits, and as typical of Northumberland towns, cyclists were noted using the adjoining roads network, drivers are accustomed to their presence and courteous towards them.

Walking & Cycling Catchment Area

3.19 The application site is a destination / attraction rather than origin and in view of its intended use i.e. retail, its location in relation to residential and employment areas is key.



3.20 Hexham has somewhat a defined town centre with the commercial, retail and leisure areas predominantly located to the north east corner of Hexham with vast majority if not all Hexham residential catchment areas being within 2km from the site.

Accessibility Summary

3.21 In view of the connectivity, accessibility and residential areas within 2-5km from the site, it was demonstrated that the site is accessible by walking, cycling and public transport and offers significant opportunities for access by sustainable modes of travel other than car.

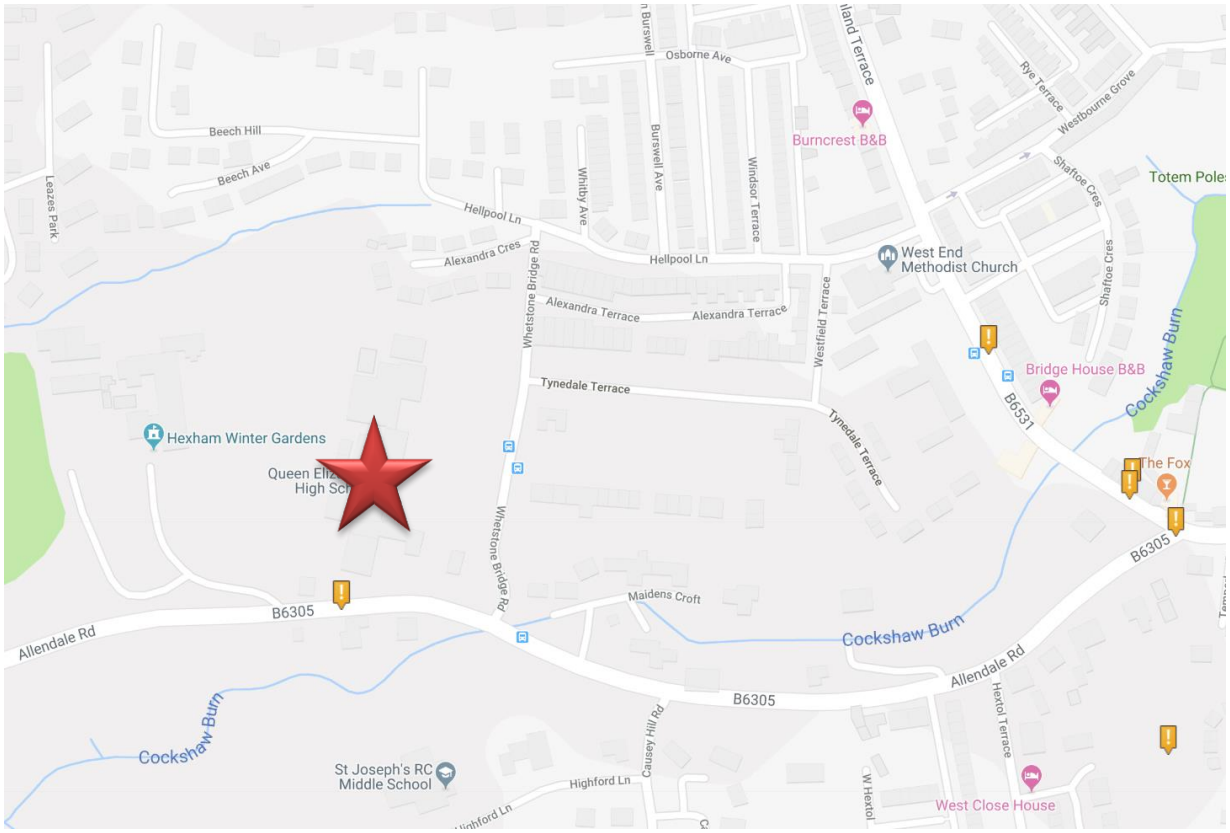
3.22 In line with the national planning policy, it has also been demonstrated that the development proposal fully accords with the objectives of the NPPF, which advices that in assessing and determining development proposals, local planning authorities should apply the presumption in favour of sustainable development.

COMMITTED DEVELOPMENTS & HIGHWAY NETWORK CHANGES

3.23 There are no committed developments or highway network changes in the vicinity of the site that may have an impact on the findings of this Study.

PERSONAL INJURY COLLISIONS

3.24 Crashmap is an online database of Department of Transport road casualty statistics which uses data collected by the police about road traffic incidents occurring on British roads where someone is injured. It has been used here to identify the timing and number of incidents over the most recent five year period.



3.25 Since 2013, there has been one slight incident (Jan 2016) and review of the causation factors indicated that, whilst all PICs are regrettable, there doesn't appear to be any discernible patterns to collisions at any of the junctions or carriageways in the vicinity of the proposed development; The PICs were due to road user error and there are no apparent issue in the area that would affect, or be affected by, the proposed development.

3.26 Should it be required, as part of the full planning submission, a PICs study area will be agreed with NoCC Highways and the analysis will be undertaken based on data acquired from NoCC Safety team (or TADU on their behalf).

DEVELOPMENT PROPOSALS

4.1 The development proposals comprise:

- The redevelopment of the existing QE school on the land to the north west of its existing location, and expanded to meet the requirements of the town and
- The possible merging with HM school.

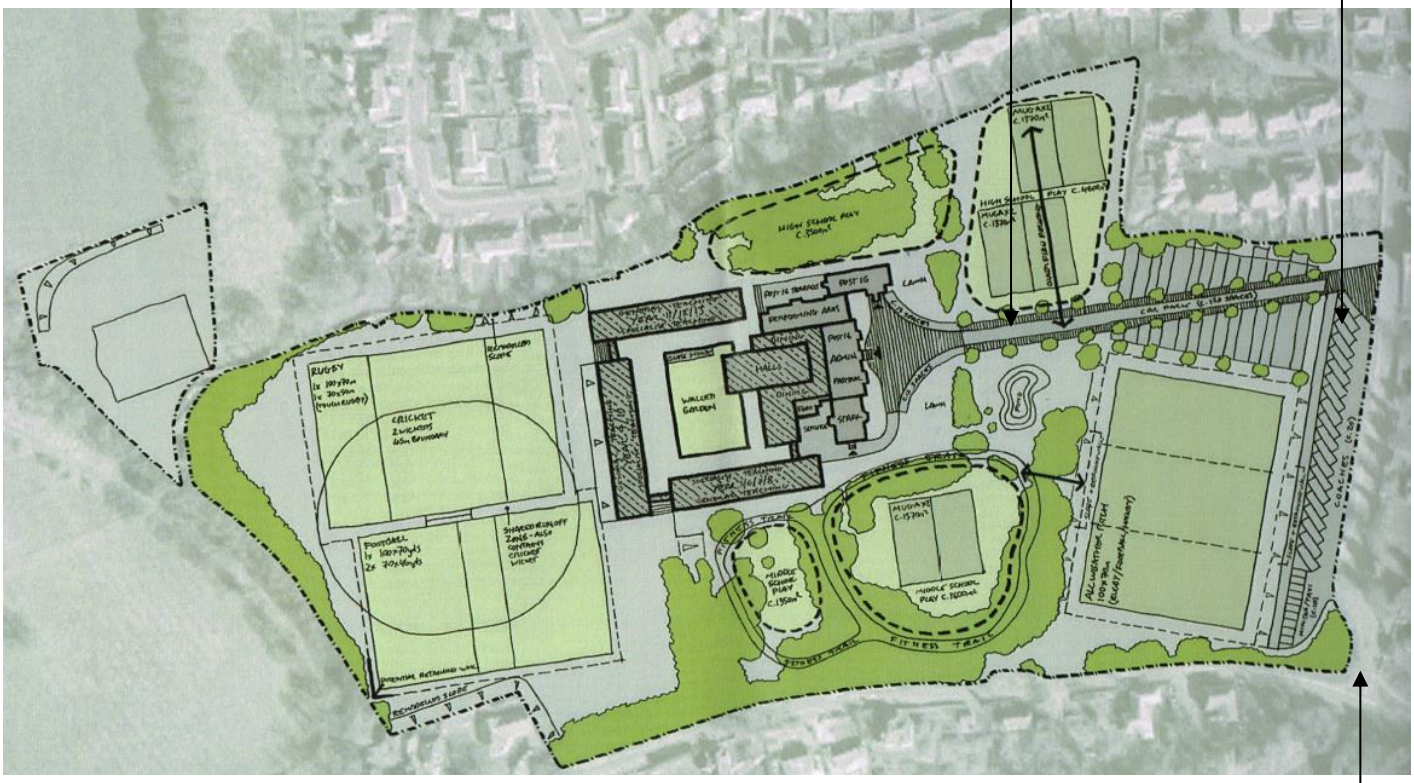


Figure 4.1
Illustrative sketch layout

HMS	PAN	NOR
Year 5	150	105
Year 6	150	116
Year 7	150	121
Year 8	150	113
Total	600	455
QEHS	**PAN**	**NOR**
Year 9	306	312
Year 10	306	301
Year 11	306	293
Year 12	200	205
Year 13	190	179
Total	1,308	1,290

Role	Headcount	FTE
Teachers	112	95.5
Support Staff	113	84.1
Total	225	179.7

Figure 4.2
Staff and student numbers
Existing & proposed

4.2 As a result of the redeveloped school, and merger with HM, Figure 4.2 assumed that staff will transfer from HM to QE and similarly, students attending HM will also transfer to QE.

Existing Modes of Travel – Students

4.3 QE and HM were surveyed as to their mode of travel in Nov 2018; Figures 4.3a and 4.3b indicates the following:

QEHSHow do you typically arrive at school (hands up poll):						
Response	Year 9	Year 10	Year 11	Sixth Form	Total	Percentage
Walk	96	88	97	121	402	40%
Bus drop off at school	120	108	116	84	428	43%
Lift in car	26	32	26	57	141	14%
Own car	0	0	0	25	25	2%
Cycle	2	0	0	1	3	0%
Taxi	2	3	0	1	6	1%
					1005	

QEHS How do you typically depart from school (hands up poll):						
Response	Year 9	Year 10	Year 11	Sixth Form	Total	Percentage
Walk	102	93	104	119	418	41%
Bus drop off at school	120	105	112	84	421	42%
Lift in car	27	29	21	59	136	13%
Own car	0	0	0	25	25	2%
Cycle	1	0	0	1	2	0%
Taxi	7	3	0	1	11	1%
					1013	

Figure 4.3a
QE Modal split

HMS How do you typically arrive at school						
Response	Year 5	Year 6	Year 7	Year 8	Total	Percentage
Walk	42	55	45	56	198	48%
Bus drop off at school	44	31	17	25	117	28%
Lift in car	14	19	25	25	83	20%
Own car	0	0	0	0	0	0%
Cycle	1	1	5	0	7	2%
Taxi	1	2	2	2	7	2%
					412	

HMS How do you typically depart from school (hands up poll):						
Response	Year 5	Year 6	Year 7	Year 8	Total	Percentage
Walk	44	52	41	58	195	48%
Bus drop off at school	44	35	19	27	125	31%
Lift in car	12	18	27	21	78	19%
Own car	0	0	0	0	0	0%
Cycle	0	0	5	0	5	1%
Taxi	1	2	0	2	5	1%
					408	

Figure 4.3b
HM Modal split

4.4 The above figures indicate that (generally) 20% of the middle school students travel by car (lift) and c. 80% travel sustainably; As would be expected, with QE students being older, less travel by car (lift) however, a good percentage of 6th Formers own and travel by SOV.

4.5 The combined modal split of both schools indicates that c. 16% of students may travel by car (lift) and 2% may own a car (6th Formers).

How do you typically arrive at school (hands up poll):										
	HMS				QEHS					
Response	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Sixth Form	Total	Percentage
Walk	42	55	45	56	96	88	97	121	600	42%
Bus drop off at school	44	31	17	25	120	108	116	84	545	38%
Lift in car	14	19	25	25	26	32	26	57	224	16%
Own car	0	0	0	0	0	0	0	25	25	2%
Cycle	1	1	5	0	2	0	0	1	10	1%
Taxi	1	2	2	2	2	3	0	1	13	1%
									1417	**100%**

How do you typically depart from school (hands up poll):										
	HMS				QEHS					
Response	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Sixth form	Total	Percentage
Walk	44	52	41	58	102	93	104	119	613	43%
Bus drop off at school	44	35	19	27	120	105	112	84	546	38%
Lift in car	12	18	27	21	27	29	21	59	214	15%
Own car	0	0	0	0	0	0	0	25	25	2%
Cycle	0	0	5	0	1	0	0	1	7	0%
Taxi	1	2	0	2	7	3	0	1	16	1%
									1421	**100%**

Figure 4.3C
Combined Modal split

Existing Modes of Travel – QE Staff

	Hadrian Learning Trust %						Total FTE in category
	Car	Walk	Bike	Bus	Train	Lift share	
Teachers	96%	4%	0%	0%	0%	0%	95.52
Finance/Admin	81%	13%	0%	0%	0%	6%	20.77
LSAs	82%	9%	0%	9%	0%	0%	24.83
Technicians	75%	0%	13%	0%	0%	13%	9.31
Catering	68%	32%	0%	0%	0%	0%	11.98
Cleaning	38%	44%	6%	13%	0%	0%	9.11
Site	67%	33%	0%	0%	0%	0%	4.87
Total support	76%	16%	1%	3%	0%	3%	84.14
Total staff	87%	9%	1%	1%	0%	1%	179.66

Figure 4.3 D
QE Modal Staff Survey

RESULTS ANALYSIS

4.6 The survey results in Figures 4.3a – d demonstrate that the schools must implement a robust travel plan to mitigate against car use and in particular if HM is merged with QE. The results indicate that:

- On average, 87% of staff travel by car. This figure is relatively high and the Travel Plan Co-ordinator must encourage staff to at least car share, particularly those living outside Hexham settlement or walk / cycle if they live locally;
- Walking & coach / bus modes of travel should become the preferred modes of transport;
- Reduce if not eliminate the car use by 6th Formers in favour of walking / cycling or car sharing; and
- Organise students carpool or join students Liftshare scheme.

4.7 It is also recommended that NCC highways survey the adjoining roads network to QE school and implement TRO restrictions to particularly discourage staff and students parking and reduce the number of parents dropping-off or picking-up from adjoining streets.

COACH AND MINI BUS SERVICES

4.8 Figure 4.4 (right) demonstrates the substantial number of coach and mini bus services serving the QE school.

4.9 Although some services are at capacity, which is efficient, some others have spare capacity and additional services can be introduced as required controlled as part of the Travel Plan measures.

Route Number	Capacity	Pupil Count	Stop
130	53	51	Hydro
131	53	45	Hydro
133	53	48	Hydro
135	49	28	Hydro
136	53	53	Hydro
137	33	22	Hydro
138	49	32	Hydro
140	49	29	Hydro
141	24	15	Hydro
149	49	38	Hydro
1332	**6**	**5**	**Hydro**
132	53	52	Whetstone
139	49	39	Whetstone
1300	16	6	Whetstone
1301	**14**	**12**	**Whetstone**
1302	4	3	Whetstone
1307	6	4	Whetstone
680	35	4	Whetstone
1306	12	6	Disabled Bay
1337	4	3	Disabled Bay

Figure 4.4
Coach and mini bus services

Drop-off / Pick-Up

4.10 It is understood that:

- Parent drop-offs/pick ups – no formal arrangements in place – parents tend to use the roads outside the schools and in the surrounding streets.
- Coach drop-offs/pick ups – at HMS this is on the road through the school site (so blocks access to the school for anyone in a car). At QE drop offs are on Whetstone Bridge Road, but pick-ups are split between Whetstone Bridge Road and the turning circle near the Hydro. St Josephs' students walk to the QE site to access their buses/coaches, as this transport is shared. At QE there are 10 normal size buses, 3 small buses (23-35 seats), 2 mini buses (14-16 seats) and 2 taxis (4-6 seats) each day. I think it's 3-4 buses plus a couple of smaller vehicles at HMS.

MOVEMENT AND ACCESSIBILITY STRATEGY

Accessibility Audit

Pedestrian and Cycle Connectivity

4.11 As part of the concept design of the masterplan, footways will be included within the school site linking to those along Whetstone Bridge Rd which will result in improved access from the development site into the surrounding area and provide permeability throughout the site to all pedestrians and cyclists.

4.12 As part of the development proposals, an accessibility assessment should be undertaken by the Council's Safety Officer to identify the shortcomings and conflict points of the adjoining roads network, in particular Allendale Road, and introduce mitigation / improvements.

4.13 It is considered that the development site could be integrated with existing pedestrian and cycle infrastructure in the area.

Access to Adjoining Residential Settlement

4.14 The site accessibility audit confirmed that the site is within an acceptable walking distance of the local residential settlement. These findings are supported by the CIHT document, Guidelines for Providing for Journeys on Foot (extract included in Appendix A, Section A4) which suggests 2,000m as an acceptable walking distance for commuting and access to local amenities.

4.15 In conclusion, taking into consideration para 4.12 above, it is considered that there are opportunities to encourage walking, cycling and public transport users to access the site from adjoining residential communities within Stirchley and other adjoining areas.

ACCESS ARRANGEMENTS

4.16 The existing school access is located at the south east corner of the site, directly off Whetstone Bridge Rd. As park of the development proposals, this will be relocated to the north east corner as illustrated in Figure 4.1.

4.17 The access road into the site shall be a minimum of 5.5m with 10m kerbline radius with Whetstone Bridge Rd. Swept path analysis will be undertaken as part of the formal submission to demonstrate that all vehicles (except coaches) including an 11.6m refuse HGV can enter and egress the site in forward gear.

4.18 Coaches and mini buses will not enter the site; at present, coaches / mini buses park along Whetstone Bridge Rd parallel to the carriageway. As part of the development proposals, echelon parking will be provided by taking land from within the school site, resulting in better parking capacity and increased width of Whetstone Bridge Road.

4.19 Coaches and mini bus directional flows would remain as existing; at present, they enter from the B6305, travel north along Whetstone Bridge RD and exit on Hellpool Ln east. This arrangement would remain unchanged as existing.

PEDESTRIAN AND CYCLISTS ACCESS

4.20 For safety and security it is proposed that a 3m shared pedestrian / cyclists footways are introduced on both sides of the schools access road linking to Whetstone Bridge Road through segregated accesses from that serving vehicles as illustrated below.

SERVICING ARRANGEMENTS

4.21 The development proposals will attract the usual servicing arrangements including food and non-food deliveries, stationery and refuse collection.

4.22 Loading areas and refuse collection arrangements will be identified as part of the application submission along with vehicle swept paths. If necessary, a Deliveries and Servicing Management Plan will be provided in satisfaction of any planning conditions imposed which in high-level terms:

- Ensure all deliveries and servicing arrangements are staggered so HGVs would not have to wait or obstruct the circulation of vehicles within the site;
- Avoid HGV manoeuvring conflicts within the school grounds;
- Safe manoeuvring within the site; and
- Outside the school peak hours.

4.23 Where required, a qualified Banksman / Traffic Marshall will be in place to direct and supervise the manoeuvring of HGV particularly in the vicinity of loading / service areas.

CAR PARKING

4.24 The car parking provision for the school has been designed having regards to NoCC Car Parking Guidelines:

	HEADCOUNT			PARKING STANDARD			PROVIDED
	QE	*HM*	*Total*	*Required*	*No. of Spaces*		
Teachers			112	1:1	112	246	120 48.8%
Staff			113	1:3	38		
Students	1908			1:20	96		
Coaches							20
Mini buses							10

Figure 4.4
Car Parking Provision

4.25 From the above, it is imperative that a robust travel plan be put in place to encourage walking, cycling, public transport and care sharing in conjunction with TROs along the adjoining roads network to prohibit indiscriminate parking.

4.26 In addition, it is proposed that a 100 cycle spaces be provided in a lit, secure and sheltered location. This provision will be monitored as part of the travel plan Actions and regularly reviewed to meet the targets of the Travel Plan.

POWERED TWO WHEELERS

4.27 In many situations PTW will be able to use car parking spaces; however in some situations it is appropriate to provide designated motorcycle bays particularly where there is a high density of development and where car parking is to be intensively used and where motorcycle parking is expected to be significant.

4.28 PTW users prefer to park close to their destination and secure their machine; it is not anticipated that motorcycle parking to be significant in this case hence, 5 parking spaces would be provided for mopeds and motorcycles.

4.29 Security is a key consideration for PTW parking facilities; a space for parking PTW is 2.0m x 0.8m, although it is not necessary to mark individual bays.

4.30 Fixed features such as rails, hoops and posts designed to provide a simple locking point to secure a motorcycle will be considered.

DISABLED ACCESS

4.31 Within the redline of the development, all newly constructed footpaths and kerbs would have level access approaches with drop kerbs at crossing points. It is intended that the development would be fully compliant with the Disability Discrimination Act 2005.

VEHICULAR TRIP GENERATION

4.32 In this specific case, it is relatively easy to try and accurately predict the vehicular movements associated with both QE and HM schools as students of both schools were surveyed in Nov 2018 (Figures 4.3a-c).

4.33 This indicates that on average 16% of students are dropped-off / picked-up by parents and 2% of 6th Formers (25 students) own a car and travel by SOV.

4.34 Figure 4.5 illustrates the locations of both schools; as such, merging both QE and HM on the QE site will result in neutral impact, if not betterment to the local roads network. This is due to a number of reasons such as:

- Students in one school may have siblings at the other school therefore, drop-off / pick-up will become more convenient if both schools are merged;
- Students who reside to the west of Hesham, west of B6306 or on either side of B6531 would not have to travel east on B6305 to the Middle School hence, result in betterment to this section of the roads network. Conversely, those residing to the east of B6306 may add additional trips to the B6305; however,
- Once the reduction in one direction is balanced with an increase in the other, and bearing in mind only 16% of the students travel by car some of who will have siblings at the High School, the net result in likely to be neutral / not material if not betterment.

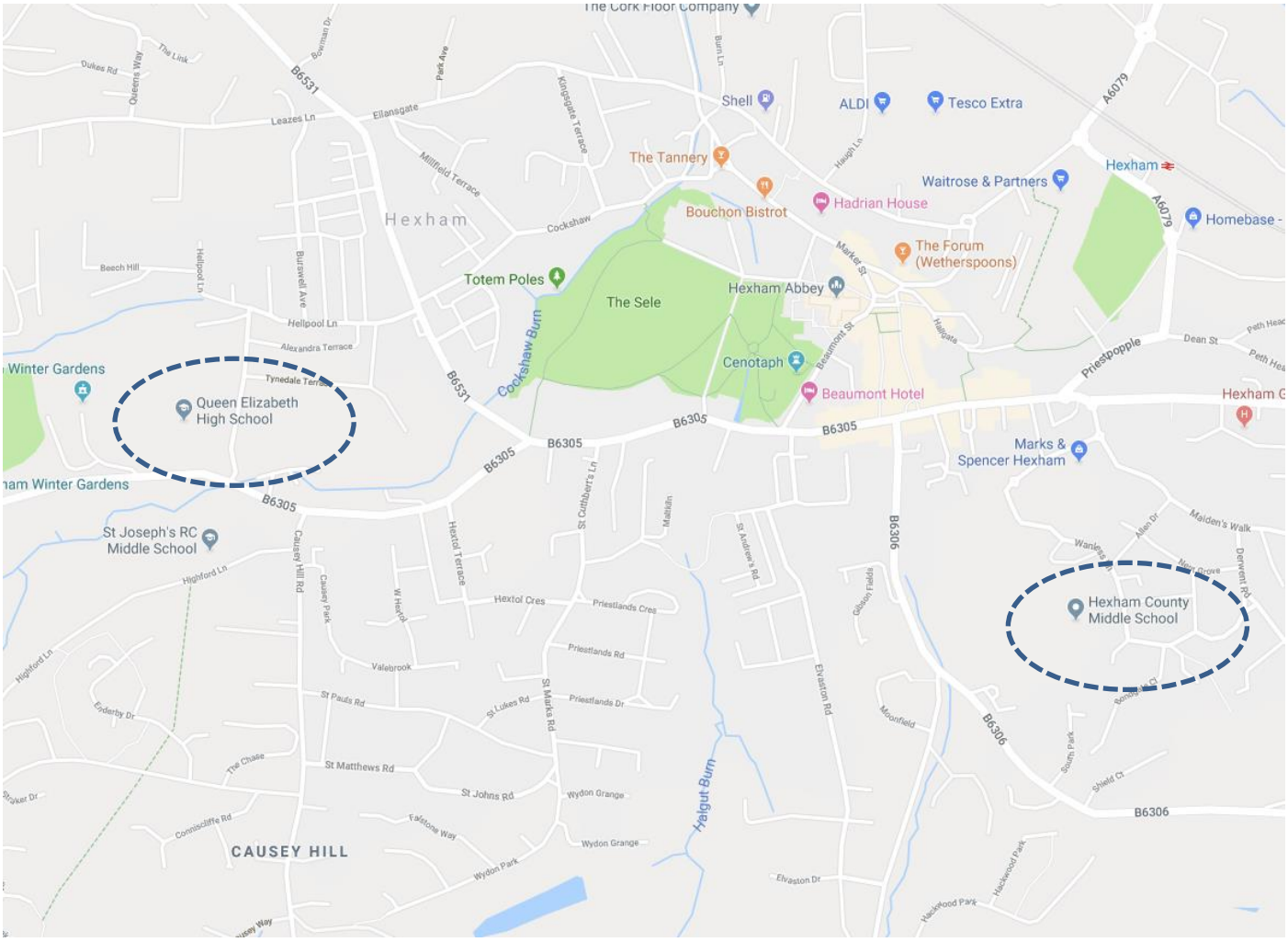


Figure 4.5
QE and HM relative to each other

4.35 In conclusion, strict implementation of a robust Travel Plan, particularly towards Staff and 6th Formers, is essential to minimise the vehicular movements associated with the school and mitigate the impact on the adjoining roads network.

EXISTING VS PROPOSED COMPARISON

	EXISTING	PROPOSED
Car Parking Spaces	256 (formal + informal)	120 formal
Cycle Parking	30 (between both schools)	100
	QE	
Coach/mini bus	*Drop-off* 6 on-street (Whetstone Bridge Rd) coach spaces (c. 98m marked bay) *Pick-up* split between Whetstone Bridge Road and the turning circle in the grounds near the Hydro	Formalised off-road 20 coaches and 10 mini buses
	HM	
	On the road or through the school site blocking access to the school for anyone in a car	N/A

Figure 4.6
Comparing existing schools vs proposed scheme

EXTENT OF IMPACT

Vehicular

5.1 Chapter 4 demonstrated that merging both QE and HM on the QE site will result in neutral / no material impact, if not betterment, to the local roads network. This is due to a number of reasons such as:

- Students in one school may have siblings at the other school therefore, drop-off / pick-up will become more convenient if both schools are merged;
- Students who reside to the west of Hesham, west of B6306 or on either side of B6531 would not have to travel east on B6305 to the Middle School hence, result in betterment to this section of the roads network. Conversely, those residing to the east of B6306 may add additional trips to the B6305; however,
- Once the reduction in one direction is balanced with an increase in the other, and bearing in mind only 16% of the students travel by car some of who will have siblings at the High School, the net result in likely to be neutral / not material if not betterment.

Pedestrians

5.2 C. 84% of the combined QE / HM students would travel by sustainable modes. Students who currently attend either school will already be walking hence, based on site observations, the potential number of approach routes and any mitigation measures proposed in the Travel Plan, the potential residual additional pedestrians trips on the highway network would be satisfactorily accommodated within the infrastructure surrounding the site.

Cyclists

5.3 To encourage cycling as an alternative mode of transport, the school will include secure cycle parking facilities. Given the provision of cycle parking and the Travel Plan measures, it is considered that the development proposals will encourage and facilitate travel by bike.

Travel to school 2012-16 (England): % of children who ...				
	... walked	... cycled	... were driven (car/van)	... went by other modes (bus/train etc.)
5-10 year-olds	46%	2%	45%	7%
11-16 year-olds	38%	3%	25%	35%

5.4 Cycling to schools is an acknowledged low percentage (3% in the above research). Cyclists would already be cycling within Hexham and its roads network hence, any additional trips can be accommodated without any detrimental impact.

Public Transport

5.5 38% of students already travel by school bus. In addition, Chapter 3 Public Transport analysis indicated that there will be at least 3 hourly bus services and as detailed in Figure 4.4 and 4.6, at least 20 coaches and mini buses hence, the level of any additional residual patronage will not have a detrimental impact on the operation of existing public transport and school bus services, the latter can be increased as part of the Travel Plan sustainability measures

FRAMEWORK TRAVEL PLAN

5.6 A Framework Travel Plan should be produced which in high-level terms sets out the overall outcomes, targets and indicators for the entire development. The Travel Plan key elements include:

KEY ELEMENT	CONTENT
Background	Explaining site, location, and numbers of people, measures already in place, current share of travel methods, if known and reason for producing the plan.
Scope of the plan	Identifying the travel elements of the destination's activity that the plan is addressing (commuter journeys, business travel, visitor travel, pupil and staff journeys) identifying main travel and transport issues.
Objectives	Stating what the plan is trying to achieve (e.g. reduction in single car users, increase in walking, cycling and public transport use).
Measures / Action Plan	Detailing the proposed actions and measures proposed to encourage sustainable travel, reduce single occupancy car use and achieve the stated objectives. The action plan will outline the implementation programme for the proposed measures, including roles and responsibilities, focusing on the implementation and delivery of the travel plan and including timeframes.
Surveys	Survey data outlining mode split travel for users.
Targets / Indicators	Identifying outcomes and targets against which the effectiveness of each measure will be reviewed (including short medium and long-term milestones).
Monitoring	Setting out arrangements for the review and monitoring of the plan on an ongoing basis to determine whether objectives are being met
Marketing & Promotion	A strategy for communicating the travel plan to all site users, including: • Raising awareness of sustainable travel options • Promoting individual measures and initiatives • Disseminating travel information from the outset and on an ongoing basis.

FRAMEWORK TRAFFIC MANAGEMENT PLAN - CONSTRUCTION PHASE

5.7 The CTMP will be produced and would typically be expected to contain some or all of the following in detail:

- The CTMP must be appropriately titled, include the site and planning permission number;
- Contact details of the Project Manager and Site Supervisor responsible for on-site works to be provided;
- Routing of construction traffic and delivery vehicles will be shown and signed appropriately to the necessary standards/requirements. This includes means of access into the site;
- Details of and approval of any road closures needed during construction;
- Details of and approval of any traffic management needed during construction;
- Details of appropriate signing, to accord with the necessary standards/requirements, for pedestrians during construction works, including any footpath diversions;
- The erection and maintenance of security hoarding / scaffolding if required;
- A regime to inspect and maintain all signing, barriers etc;
- Details of wheel cleaning/wash facilities – to prevent mud etc, in vehicle tyres/wheels, from migrating onto adjacent highway;
- The use of appropriately trained, qualified and certificated banksmen for guiding vehicles/unloading etc;
- No unnecessary parking of site related vehicles (worker transport etc) in the vicinity – details of where these will be parked and occupiers transported to/from site to be submitted for consideration and approval. Areas to be shown on a plan not less than 1:500.
- Layout plan of the site that shows structures, roads, site storage, compound, pedestrian routes etc.
- Any temporary access arrangements to be agreed with and approved by the LPA Highways dept;
- Details of times for construction traffic and delivery vehicles, which must be outside network peak and school peak hours.

5.8 Traffic movements and site conditions recommendations include but not limited to:

- Immediately upon commencement, all deliveries, operatives and visitors to the Project will report to the security gate. This will be communicated to all early works contractors at their Pre-start meeting;
- The main contractor should develop a logistics plan highlighting the access point for the project, loading bay, pedestrian / vehicular segregation, welfare, storage, security & material handling that will be enforced following the full Site establishment;
- Contractors, visitors and staff will use existing pedestrian pathways until such time as the sites are enclosed and access control is operational;
- As part of the construction period's mitigation measures, it is proposed that the construction HGV traffic be restricted between the hours of 07:00 – 09:00 and 16:00 – 18:00, Monday to Friday;

  No site clearance or construction work shall take place on the site on Sundays or public holidays. On all other days no site clearance or construction work shall take place on the site outside of the following times: 0700 – 1900 Mon – Fri and 0800 – 1300 Saturdays

- The construction materials 'lay down' areas will allow for a staggered delivery schedule throughout the day, avoiding peak and unsociable hours;
- An integral part to the progress meetings held with all trade contractors is the delivery schedule pro-forma. In line with the recommendations of this study, all contractors should be required to give details of proposed timing of material deliveries to the site. At this stage they will be given a specific area for delivery;
- The Traffic Management Plan and the control measures therein should be included within all trade contractor tender enquiries to ensure early understanding and acceptance / compliance with the rules that will be enforced on this project;
- Under no circumstance will HGVs be allowed to lay-up in surrounding roads. All personnel in the team will be in contact with each other and site management who in turn will have mobile and telephone contact with the subcontractors; and
- Maintain roads in a clean and safe condition.

5.9 The Principal Contractor would be encouraged to give serious consideration to local suppliers and priorities to those with premises adjoining the proposed development. This would enable construction materials to be delivered in the shortest possible distances, minimising the impact on the highways network.

5.10 Further, should any abnormal loads be delivered using the highways network, this would be programmed well in advance, notified to and in accordance with the Highways England [HE] and the Police and preferably between the hours of 22:00 and 05:00 [subject to the HE and traffic police agreement] and in line with the HE's latest abnormal loads procedures [ESDAL https://www.gov.uk/esdal-abnormal-load-notification].

5.11 HGVs must not arrive or leave the sites except between agreed hours. Any proposed HGV movements outside the agreed hours must be notified to the Construction Manager for prior approval with the Highway Authority and where relevant, the HE.

- Security / gatemen will be in position half an hour before start of work and before the earliest delivery time.
- If relevant, persistent offenders will be reported to the Project Manager, who will action with the directors of the offending company.

5.12 All plant and vehicles would have engines isolated when not in use.

5.13 The Principal Contractor to provide a schedule, detailing the volume, timing, density and type of construction traffic in order to ensure that impact on the highways network is kept to a minimum.

5.14 Measures shall be developed to control the traffic on site and the Traffic Management Plan must be updated regularly as the project develops.

5.15 The Principal Contractor, in liaison with the Highway Authority, would install access signage for their construction traffic at designated areas to minimise the potential of vehicles taking the incorrect route. The Principal Contractor and site operators must abide by all restrictions associated with Planning Permission.

5.16 Additional Advisory Guidance is included in Appendix A, Section A13.

S278 Works

5.17 Any improvements/highway mitigations on the public highway, highlighted as part of the planning application or negotiated will be undertaken under a S278 Agreement with the Highway Authority.

5.18 For example, highway works will be required as part of the development to facilitate the site access, on street coach and mini bus parking, provide pedestrian links and provide any appropriate mitigation identified within the planning applicaiton. These works will require the applicant to enter into a S278 Agreement with the Highway Authority to undertake them within the public highway.

5.19 Where necessary, all works within the public highway shall be accompanied by a Stage 1 Road Safety Audit submitted in satisfaction of any planning conditions imposed.

5.20 All improvements / highway mitigations shall be designed in accordance with adoptable standards in satisfaction of any planning conditions imposed.

Lighting

5.21 Details pertaining to the impacts on existing street lighting and provision of new street lighting will be included in the detailed design of the scheme in satisfaction of any planning conditions imposed.

5.22 External lighting of private areas will ensure that no light spill impacts upon the existing and future highway.

Countryside/Rights Of Way

5.23 If any, the Applicant will consider what impact the proposal may have on public rights of way and access by the public during the construction and operational phases of the project.

5.24 Where an impact on the public right of way is identified and/or public access could be affected, the Applicant will explain what mitigation measures and/or temporary closures or diversions are proposed as part of the Reserved Matters Application.

RESIDUAL IMPACT

5.25 Taking into account all the factors assessed in this report and the mitigation measures outlined below, a final analysis of the impacts resulting from the development proposals has been carried to address:

- Junction / Link Capacity; Driver Delay; Environmental Impact; Road Safety; Public Rights of Way; and Overall Impact

6.2 This Scoping study assessed the impact of the proposed development on the highway network both during construction and once a development is completed and has ensured:

- That the highway network in the area can accommodate the anticipated trip generation;
- That adequate manoeuvring / parking space is provided and that safe access can be achieved;
- That the highway remains unobstructed for the safe passage of all users of the highway and that any development does not have an adverse impact on the safety of all users of the highway.

6.3 The Study described the development proposals and surrounding existing facilities such as local services, pedestrian routes, public transport services and cycle ways. These sections demonstrate that the development proposal complies with the local and national guidelines and policies.

6.4 Additionally, the report tests the impact of the development on the highway network to establish the extent of any significant highway impacts and evaluates compliance with the NPPF transport planning 'test' which prevents refusal on transport grounds unless the impacts of development are 'severe'.

6.5 Detailed analysis has demonstrated that:

- The highway network is adequate to support the vehicle movements for the proposed development, so as not to be detrimental to highway safety of road users;
- No mitigation measures are required; and
- The development does not result in an unacceptable impact on highway safety or a residual cumulative impact on the road network that is severe and thus should not be refused on transport grounds, as set out in paragraph 109 of the Revised NPPF.

6.6 It is concluded that the proposed development meets all safety and Planning Policy requirements and will have no material impact onto the highway network and as such, there are no transport / highways reasons for refusal of planning permission.

TERM	DEFINITION
AADT	**Annual Average Daily Traffic**. Average of 24 hours flows, seven days a week, for all days within the year
AAWT	**Annual Average Weekday Traffic**. As AADT but for five days, (Monday to Friday) only.
Accessibility	Accessibility can be defined as 'ease of reaching'. The accessibility objective is concerned with increasing the ability with which people in different locations, and with differing availability of transport, can reach different types of facility.
AM Peak	Denoting the morning peak period
AST	**Appraisal Summary Table**. This records the impacts of the scheme according to the Government's five key objects for transport, as defined in DFT guidance contained on its Transport Analysis Guidance web pages, Web TAG
ATC	**Automatic Traffic Count**, a machine which measures traffic flow at a point in the road.
AWT	**Average Weekday Traffic**. Average of Monday to Friday 24 hour flows.
CRF	**Congestion Reference Flow**. AADT flow at which a road is likely to be congested in the peak periods of an average day.
DfT	**Department for Transport**
DMRB	**Design Manual for Roads and Bridges**
FTP	**Framework Travel Plan**
HGV	**Heavy Goods Vehicle**
Highways Agency	An Executive Agency of the Department for Transport, responsible for operating maintaining and improving the strategic road network in England
IP	**Inter Peak**. The time between the AM and PM peaks
Light vehicle	Not a HGV. For traffic flow data. It is a vehicle less than 5.2m in length
MfS	**Manual for Streets**
NRTF	**National Road Traffic Forecast**. This document defines the latest forecasts of the growth in the volume of motor traffic.
OGV1,OGV2	**Other Goods Vehicle**. OGV1=Goods Vehicles with 2 or 3 axies, OGV2=Goods vehicle.
PIA	**Personal Injury Accident**. A road traffic accident in which at least one person required medical treatment.
PM Peak	Evening peak period.
Severance	Community severance is the separation of adjacent areas by road or heavy traffic, causing negative impact on non-motorised users, particularly pedestrians.
SRN	Strategic Road Network
TA / TIA	**Transport Assessment / Traffic Impact Assessment**
TP	**Travel Plan**
TS	**Transport Statement**
TAG	Transport Analysis Guidance, as defined in Web TAG
TEMPRO	**Trip End Model Presentation Program**, DFT software which provides forecast data on trips for transport planning purposes.
VPD	**Vehicles Per Day**
Web TAG	DFT's website for guidance on transport studies at http://www.webtag.org.uk/

A.1 PICS ANALYSIS CRITERIA

PRECIPITATING FACTORS	MAIN CONTRIBUTORY FACTOR
Failed to give way	Behaviour - careless/thoughtless/reckless Failed to judge other person's path or speed Failed to look Looked but did not see Inattention
Failed to avoid vehicle or object in carriageway	Behaviour - careless/thoughtless/reckless Failed to judge other person's path or speed Failed to look Looked but did not see Inattention Excessive speed Following too close Lack of judgement of own path
Loss of control of vehicle	Impairment – alcohol Behaviour - careless/thoughtless/reckless Behaviour - in a hurry Inattention Excessive speed Inexperience of driving Interaction/competition with other road users Lack of judgement of own path Site details - bend/winding road Slippery road
Pedestrian entered carriageway without due care	Impairment – alcohol Behaviour - careless/thoughtless/reckless Behaviour - in a hurry Failed to judge other person's path or speed Failed to look Looked but did not see Inattention Crossed from behind parked vehicle etc.
Poor turn / manoeuvre	Behaviour - careless/thoughtless/reckless Failed to judge other person's path or speed Failed to look Looked but did not see Inattention Excessive speed Lack of judgement of own path

Figure a
PIC Analysis Criteria

A2 VISIBILITY SPLAYS

1. Drivers emerging from minor roads or accesses require adequate visibility in each direction to enable a safe manoeuvre to be made. Visibility splay envelopes are made up of two elements, the 'x' distance and the 'y' distance. The 'x' distance is the distance along the minor road (site access) from the give way line with the major road and the 'y' distance is the distance along the nearside kerb in both directions from the centre line of the minor road. Figure b shows the construction of a typical visibility splay:

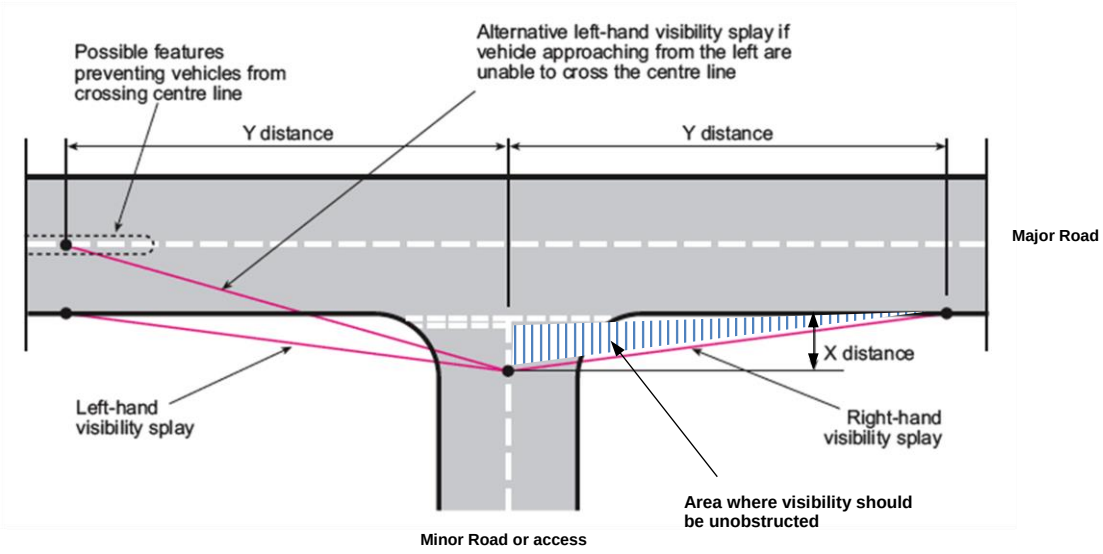


Figure b
Visibility splay requirements

2. The suggested requirements for the minor road distance (dimension 'x') is dependent upon the type of minor access and the choice of setback distance is related to the forecast traffic using the access. Figure c indicates typical requirements:

Type of Minor Road	X – Dimension (m)
The 4.5m allows vehicles to move slowly up to the give way line and leave the junction without stopping and covers the situation where two light vehicles may want to accept the same gap in the main road traffic.	4.5
The minimum necessary for motorists to see down the major road without encroaching upon it. The 2.4m set back relates to normally only one vehicle wishing to join the main road at one time.	2.4
Single dwelling or small cul-de-sac of a half a dozen dwellings, or cases of lightly used accesses and the site conditions are particularly difficult [the latter being as a relaxation]	2.0

Figure 4c
Typical Minor Road 'X' distance

3. The larger 'x' distance of 4.5 metres is used to reduce traffic delay on public roads and allows vehicles to move slowly up to the give way line and leave the junction without stopping. A shorter 'x' distance is appropriate as a reduced distance introduces an element of traffic calming, lowering vehicle speeds and hence, a minimum of 2.4 metres would be acceptable in this location.

4. The minimum requirement for the major road distance (dimension 'y') is dependent upon the speed of the major road. Department for Transport Design Manual for Roads and Bridges TD9/93 Table 3 [and similarly, TD42/95 Table 7/1] provides an indication of desirable minimum stopping sight distance [Figure d]

Design Speed of Major Road (kph)	'y' Distance (m)
50	70
60	90
70	120
85	160
100	215
120	295

Figure d
'y' visibility distance from the Minor Road

5. In the light of recent research into vehicle stopping distances and highway safety a recent DfT approved publication 'Manual for Streets 2 – Wider Application of the Principles (MfS2), published at the end of September 2010 states the following:

- Paragraph 1.3.2 states *"It is clear from Table 1.1 that most of MfS advice can be applied to a highway regardless of the speed limit.* ***It is therefore recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with MfS****".* The bold text is included within the publication itself and clearly supports the fact that vehicle stopping site distance variables are not dependent upon road classification or traffic volume, but only vehicle speed, driver perception-reaction time and deceleration
- Paragraph 1.3.6 states "*…It is only where actual speeds are above 40mph for significant periods of the day that DMRB parameters for SSD are recommended. Where speeds are lower, MfS parameters are recommended"*

Design Speed	Vehicle Type	Reaction Time	Deceleration Rate
60kph and below	Light vehicles	1.5s	0.45g
	HGVs	1.5s	0.375g
	Buses	1.5s	0.375g
Above 60kph	All vehicles	2s	0.375g (Absolute Min SSD)
	All vehicles	2s	0.25g (Desirable Min SSD)

$SSD = vt + v^2/2(d+0.1a)$
where:
v = speed (m/s)
t = driver perception-reaction time (seconds)
d = deceleration (m/s^2)
a = longitudinal gradient (%)
(+ for upgrades and - for downgrades)

Figure e
'SSD calculations formula based on MfS

Table 7.1 Derived SSDs for streets (figures rounded).

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted for bonnet length. See 7.6.4		11	14	17	18	23	25	33	39	43	45	59

Figure f
Derived SSDs for Streets – ref: MfS

A3 PEDESTRIAN VISIBILITY SPLAYS

6. Pedestrian sight splays of 2 metres x 2 metres will be provided to achieve clear visibility at a height not exceeding 600 mm above the adjoining carriageway level. As necessary, this will be achieved by:

- Splaying back the building or wall abutting the entrance;
- By setting the building or wall back 2 metres behind the back edge of the footway;
- By widening the entrance by 2 metres each side.

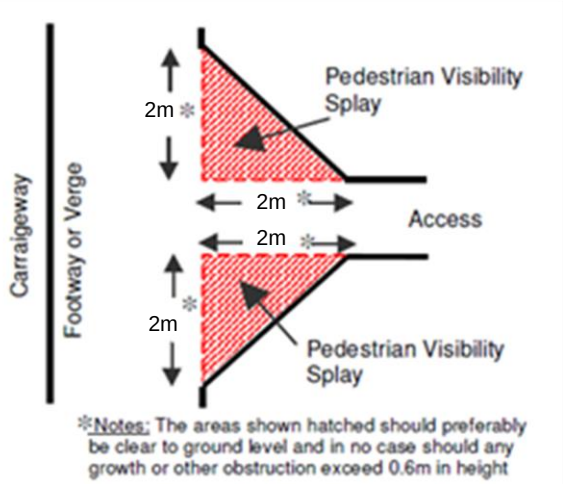


Figure g
Pedestrian Visibility Splays

A4 ACCEPTABLE WALKING DISTANCES – PUBLIC TRANSPORT

7. The Chartered Institution of Highways and Transportation (CIHT) publication "Guidelines for Planning for Public Transport in Developments" states

"Guidelines, not Standards; These Guidelines attempt to set out best practice. It is recognised that it will not always be possible to meet these criteria and that compromise must sometimes be made…It is the task of the professional planner, designer and engineer to decide if a lower standard is acceptable in given circumstances or if another approach would be more beneficial."

8. The above publication does state that the preferred walking distance to a bus stop is 400m, however, it further continues to state:

- "it is more important to provide frequent bus services that are easy for passengers to understand than to reduce walking distances to bus stops by a few meters"; and
- "The bus services should NOT be distorted to satisfy this criteria [400m]".

ACCEPTABLE WALKING DISTANCES *[INSTITUTE OF HIGHWAYS AND TRANSPORTATION]*			
Walking Distance	**Local Facilities ***	**District Facilities****	**Other**
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred Maximum	800m	2000m	1200m
* Includes food shops, public transport, primary schools, crèches, local play areas			
** Includes employment, secondary schools, health facilities, community / recreation facilities			

Figure h
Acceptable Walking Distances [CIHT Guidelines]

9. Walking distances have been analysed by iPRT for those trips where walking was the 1st stage mode of travel and bus was the 2nd stage mode of travel. The NTS data from 2002 to 2012 was used. The analysis shows, outside of London, the average distance people walk to a bus stop is 580m and the 85th percentile distance is 810m. It is concluded at 580m there is a good prospect people would walk to a stop and 810m is the furthest distance people could be expected to walk for a bus; these findings support Figure h.

	Median	Mean	85th Percentile
Bus Stops	480	580	810
Rail Stations	810	1010	1610

10. Further, the CIHT 2018 Buses In Urban Development publications recommends:

Table 4: Recommended maximum walking distances to bus stops

Situation	Maximum walking distance
Core bus corridors with two or more high-frequency services	500 metres
Single high-frequency routes (every 12 minutes or better)	400 metres
Less frequent routes	300 metres
Town/city centres	250 metres

A5 ACCEPTABLE WALKING DISTANCES - WALKING

11. Whilst superseded by NPPF, the former PPG13 - Transport sets out useful guidance related to walking and cycling catchments, it states: "Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres" (Paragraph 74):

- The Department for Transport's (DfT) document entitled 'Manual for Streets' dated 2007 at Sections 4.4 sets out the requirements for pedestrians stating "Walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800 m) walking distance of residential areas which residents may access comfortably on foot".
- Paragraph 6.3.1 of the Department for Transport (DfT) document 'Manual for Streets' (2007) identifies that a 20 minute walk time (equivalent to a 1.6km walk distance) is acceptable subject to an attractive walking environment.
- Table 3.2 of the Institute of Highways and Transportation (IHT) document 'Providing for Journeys on Foot' sets out acceptable maximum walk distances of, 2km for Commuting and School journeys, 800m for Town Centres, and 1.2km for elsewhere and states: "walking accounts for over a quarter of all journeys and four fifths of journeys of less than one mile" (paragraph 1.12, page 11).

12. In support of Figure H findings, walking for all purposes as the main mode of travel was interrogated using the National Travel Survey data (NTS) to calculate the average and 85th percentile distances travelled. The NTS data had between 7,700 to 8,200 fully co-operating households covering over 18,000 individuals, and so provides a robust sample. The analysis shows, outside London, the average distance people walk is 1.15km and the 85th percentile distance is 1.95km. iPRT recommends the 85th percentile distance should be used to establish the walking catchment.

Journey Purpose	Sample Size	% Split	Median (m)	Mean (m)	85th Percentile (m)
Commuting	2166	7.1%	1000	1250	2100
Business	290	1.0%			
Education / Escort	5609	18.5%	800	1000	1600
Shopping	5958	19.6%	800	1000	1600
Other Escort	1392	4.6%	800	1100	1600
Personal Business	2730	9.0%	800	1000	1600
Leisure	5539	18.2%	800	1150	1950
Other (Including just walk)	6698	22.0%	1200	1450	2400
All	**30382**	**100%**	**800**	**1150**	**1950**

13. The actual distance that people will be prepared to walk to access facilities from the proposal site will depend on a number of factors, including the purpose of their journey. As stated previously, walking has the potential to replace car journeys for purposes such as employment and accessing local facilities where the distance is up to 2km.

A6 ACCEPTABLE WALKING DISTANCES - CYCLING

14. It has been widely acknowledged that cycling has the potential to substitute for short car trips, particularly those under 5km and to form part of a longer journey by public transport.

- This is supported by Sustrans' 2004 research Travel Behaviour Research Baseline Survey 'measuring the potential for change' that cycling offers an alternative to car travel, and particularly for trips of less than 5 kilometres. This research is supported by the 2011 National Travel Survey, which specified average journey lengths, by cycle, of c5km.
- Similar to walking, cycling for all purposes as the main mode of travel was also interrogated using the 2010 to 2012 NTS. The analysis shows, outside London, the average distance people cycle is 4.3km and the 85th percentile distance is 7.25km. iPRT recommends the 85th percentile distance should be used to establish the cycling catchment.

Journey Purpose	Mean Distance Cycled (m)	85th Percentile Distance Cycled (m)
Commuting	4750	8050
Leisure	5350	9650
Shopping	2550	4000
Education / Escort	2300	4000
Business	4450	8050
Personal Business	3150	4800
Other Escort	2700	4800
All Purposes	**4300**	**7250**

- The 2015 CIHT publication Planning for Cycling states that "the majority of cycling trips are for short distances, with 80% being less than five miles and with 40% being less than two miles. However, the majority of trips by all modes are also short distances (67% are less than five miles, and 38% are less than two miles); therefore, the bicycle is a potential mode for many of these trips (DfT, 2014a). Electric bicycles extend the range that can be cycled comfortably, and combined cycle-rail or cycle-bus journeys offer an alternative to car travel for many longer trips.

DfT Cycling and Walking Investment Strategy

15. In April 2017, the government has published its £1.2 billion long-term plan to make cycling and walking the natural choice for shorter journeys.

16. The government wants cycling and walking to become the norm by 2040 and will target funding at innovative ways to encourage people onto a bike or to use their own two feet for shorter journeys.

17. Plans include specific objectives to double cycling, reduce cycling accidents and increase the proportion of 5 to 10 year-olds walking to school to 55% by 2025.

18. The £1.2 billion is allocated as follows:

- £50 million to provide cycling proficiency training for further 1.3 million children
- £101 million to improve cycling infrastructure and expand cycle routes between the city centres, local communities, and key employment and retail sites
- £85 million to make improvements to 200 sections of roads for cyclists
- £80 million for safety and awareness training for cyclists, extra secure cycle storage, bike repair, maintenance courses and road safety measures
- £389.5 million for councils to invest in walking and cycling schemes
- £476.4 million from local growth funding to support walking and cycling

19. In addition, the government is investing an extra:

- £5 million on improving cycle facilities at railway stations
- £1 million on Living Streets' outreach programmes to encourage children to walk to school
- £1 million on Cycling UK's 'Big Bike Revival' scheme which provides free bike maintenance and cycling classes

Access to Employment

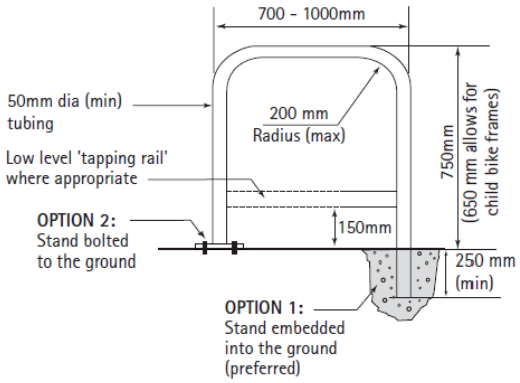
20. The accessibility audit has identified several employment opportunities within an acceptable walking distance of the site, based on information published by the Department for Transport (DfT) and the Chartered Institution of Highways and Transportation (CIHT).

21. The CIHT document, Guidelines for Providing for Journeys on Foot suggests 2,000m as an acceptable walking distance for commuting, but also recognises a distance of up to two miles (3,200m) is practicable for walking.

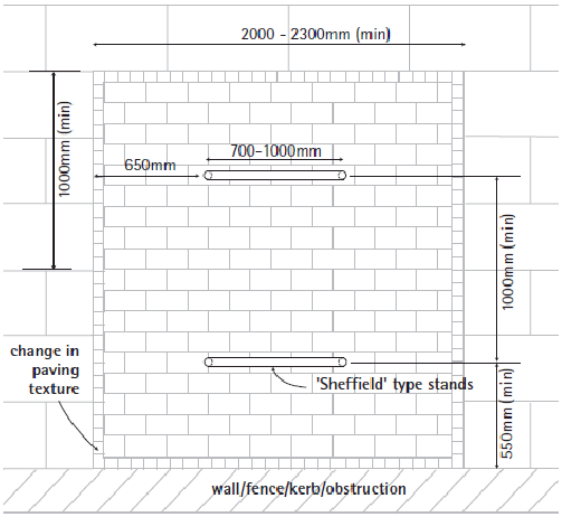
22. This is supported by DfT data which shows over 40% of commuter journeys of less than 2 miles (3,200m) are by walking (Travel To Work – Personal Travel Factsheet 2011, Chart 4).

23. When considering acceptable cycling distances, DFT statistics (National Travel Survey 2014, Table NTS0306) indicate that the average cycle trip is 3.3 miles (5,300m) and DfT Local Transport Note 2/08 (LTN 2/08 – Cycle Infrastructure Design) considers that commuter trips over 5 miles (>8,000m) are not uncommon.

Sheffield Stand

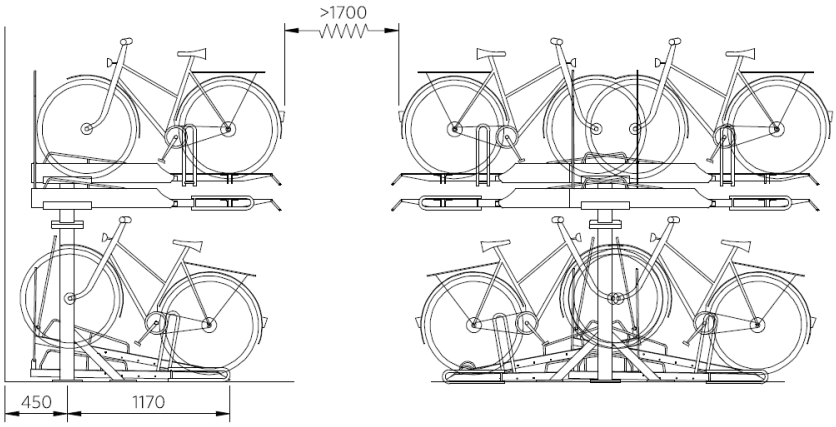


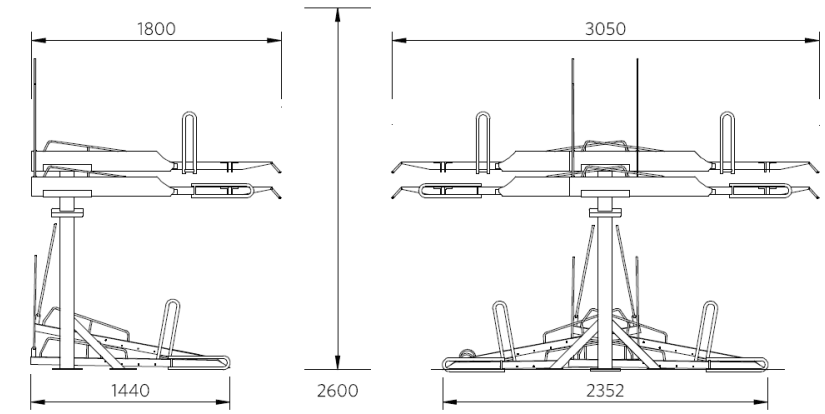
Cycle Parking Stand footprint (plan view)



Site Requirements

- The headroom is the most important factor for this racking system. A minimum of 2600mm is required for maximum capacity.
- Leave 300 to any adjoining side wall to give space for the handlebars.
- The racks are then spaced at a minimum of 400mm apart. We have found 450mm to be a good planning spacing, giving capacity as well as ensuring ease of use.
- Please allow 2000mm for the rack itself, plus a minimum of 1700mm in front for access. This access space can be used by the next row as well.
- The racks can also be installed from a central spine. For this option, please leave 2000mm for access on both sides. The 2-sided unit is then 3100m wide.
- Racks can also be installed at a 45 or 55 degree angle to minimise space.





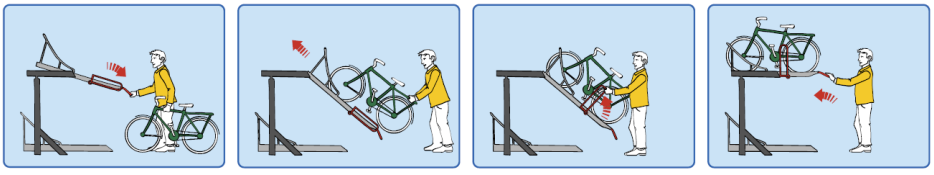


Figure i
Typical cycle stand layout (top image)
High Capacity racks (bottom image)

A7 FORM OF ACCESS

24. DMRB TD41/95 and TD 42/95 which generally provide a number of basic direct access layout types which form the basis of local designs

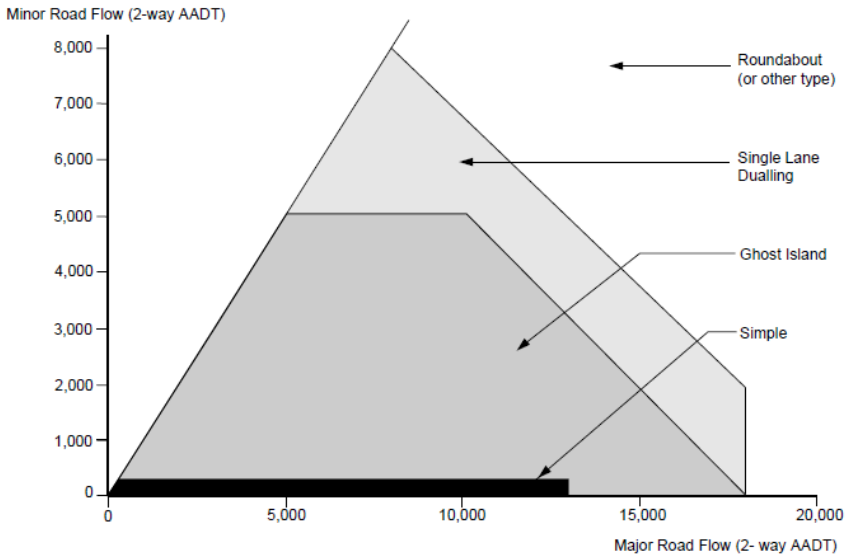


Figure j
Form of Access

A8 TRICS

25. The following site compatibility by main location type matrix was used [TRICS Table 4.1]:

Location Type	Town Centre	Edge of Town Centre	Suburban Area	Edge of Town	Neighbourhood Centre	Free Standing
Town Centre	-	Possibly compatible	Not compatible	Not compatible	Not compatible	Not compatible
Edge of Town Centre	Possibly compatible	-	Possibly compatible	Possibly compatible	Not compatible	Not compatible
Suburban Area	Not compatible	Possibly compatible	-	Possibly compatible	Possibly compatible	Not compatible
Edge of Town	Not compatible	Possibly compatible	Possibly compatible	-	Possibly compatible	Possibly compatible
Neighbourhood Centre	Not compatible	Not compatible	Possibly compatible	Possibly compatible	-	Not compatible
Free Standing	Not compatible	Not compatible	Not compatible	Possibly compatible	Not compatible	-

Figure k
TRICS sites compatibility

A9 DfT and HE Guidance on Development Impact

26. Although superseded, the technical principles of the DfT Guidance on Transport Assessment [GTA] are robust and suggest in Paragraph 2.11 that the thresholds below which a formal assessment may not be needed, and above which the preparation of a TS or a TA would be appropriate. The thresholds are based upon scenarios which would typically generate 30 two-way peak hour vehicle trips. However, the Guidance does further state that *"Whilst there is no suggestion that 30 two-way peak hour vehicle trips would, in themselves, cause a detrimental impact, it is a useful point of reference from which to commence discussions".*

27. Further, 'Guidelines for Traffic Impact Assessment' published by The Chartered Institution of Highways and Transportation' principles also remain robust and indicate that a significant traffic impact occurs when:-

- Traffic to and from the development exceeds 10% of the existing two-way traffic flow on the adjoining highway.
- Traffic to and from the development exceeds 5% of the existing two-way traffic flow on the adjoining highway, where traffic congestion exists or will exist within the assessment period or in other sensitive locations.

If the TA confirms that a development will have severe impact on the highway network, the level of impact at all critical locations on the network should be established. A particular example of severe impact would be severe worsening of congestion.

28. Highway England's Network Analysis Tool [NAT] suggests that NO material impact may occur because there is no link where development of the site would generate a two-way total of more than 30 trips. The NAT states:

- *No material impact* – because there is no link where development of the site would generate a two-way total of more than 30 trips.
- *Minimal material impact* – where there is no link where the total increase in two-way AM peak hour flow is greater than 35 trips. The choice of 35 is based on an application of the expectation that travel planning cannot deliver a mode shift of more than 15%. Therefore, a robust travel plan to be implemented in these cases.
- *Material impact* – where the increase in total two-way flow on any link is in the range 35-50 trips. At these locations, it is expected that a robust travel plan and a case-by-case assessment of the need for physical mitigation measures.
- *Major impact* - with an increase in total two-way flow on any link in excess of 50 trips. It is expected that a robust travel plan with physical mitigation likely to be necessary and funded by the developer

A10 ENVIRONMENTAL IMPACT

29. 'Guidelines for the Environmental Assessment of Road Traffic' sets out two rules which justify the need for an environmental assessment and indicate potential impacts.

- Rule 1 include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%).
- Rule 2 include any other specifically sensitive areas where traffic flows have increased by 10% or more (or HGV flows have increased significantly).

A11 CAR PARKING – NPPF

30. The NPPF mirrors previous amendments to PPG13 issued in January 2011 aiming to reduce congestion and encourage sustainable development and shared parking, particularly in town centres; This government is keen to ensure that there is adequate parking provision both in new residential developments and around our town centres and high streets.

31. The imposition of maximum parking standards under previous governments lead to blocked and congested streets and pavement parking. Arbitrarily restricting new off-street parking spaces does not reduce car use, it just leads to parking misery. It is for this reason that the government abolished national maximum parking standards in 2011. The market is best placed to decide if additional parking spaces should be provided

32. The 2018 Revised NPPF now states:

If setting local parking standards for residential and non-residential development, policies should take into account (para 105):

a. the accessibility of the development;
b. the type, mix and use of development;
c. the availability of and opportunities for public transport;
d. local car ownership levels; and
e. the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists (para 106)

A12 SETTING OF LOCAL SPEED LIMITS

33. The Department for Transport Circular 01/2013 - 'Setting of Local Speed Limits' identified that each Local Authority should respond to the guidance by undertaking a review of all their A & B class roads. The Circular also states that all traffic authorities are required to use the guidance to keep their speed limits under review to accommodate changing circumstances.

34. A key theme of the guidance is that speed limits should be evidence led, self-explaining and seek to re-enforce drivers assessment of what is a safe speed and therefore encourage self-compliance. The guidance also identifies the role of effective speed management and defines that many components of design will need to be considered in parallel to help and encourage road users to adopt compliant and safe speeds.

A13 CONSTRUCTION TRAFFIC GUIDANCE

35. The law says that you must organise a construction site so that vehicles and pedestrians using site routes can move around safely. The routes need to be suitable for the persons or vehicles using them, in suitable positions and sufficient in number and size. The term 'vehicles' includes: cars, vans, lorries, low-loaders and mobile plant such as excavators, lift trucks and site dumpers etc.

36. *The key message is*: construction site vehicle incidents can and should be prevented by the effective management of transport operations throughout the construction process.

37. Key issues in dealing with traffic management on site are:

- Keeping pedestrians and vehicles apart
- Minimising vehicle movements
- People on site
- Turning vehicles
- Visibility
- Signs and instructions

Keeping pedestrians and vehicles apart

38. The majority of construction transport accidents result from the inadequate separation of pedestrians and vehicles. This can usually be avoided by careful planning, particularly at the design stage, and by controlling vehicle operations during construction work.

39. The following actions will help keep pedestrians and vehicles apart:

- **Entrances and exits** - provide separate entry and exit gateways for pedestrians and vehicles;

- **Walkways** - provide firm, level, well-drained pedestrian walkways that take a direct route where possible;
- **Crossings** - where walkways cross roadways, provide a clearly signed and lit crossing point where drivers and pedestrians can see each other clearly;
- **Visibility** - make sure drivers driving out onto public roads can see both ways along the footway before they move on to it;
- **Obstructions** – do not block walkways so that pedestrians have to step onto the vehicle route; and
- **Barriers** - think about installing a barrier between the roadway and walkway.

Minimising vehicle movements

40. Good planning can help to minimise vehicle movement around a site. For example, landscaping to reduce the quantities of fill or spoil movement. To limit the number of vehicles on site:

- provide car and van parking for the workforce and visitors away from the work area;
- control entry to the work area; and
- plan storage areas so that delivery vehicles do not have to cross the site.

People on site

41. The Contractor should take steps to make sure that all workers are fit and competent to operate the vehicles, machines and attachments they use on site by, for example:

- checks when recruiting drivers/operators or hiring contractors;
- training drivers and operators;
- managing the activities of visiting drivers;
- People who direct vehicle movements (signallers) must be trained and authorised to do so and
- Accidents can also occur when untrained or inexperienced workers drive construction vehicles without authority. Access to vehicles should be managed and people alerted to the risk.

Turning vehicles

- The need for vehicles to reverse should be avoided where possible as reversing is a major cause of fatal accidents.
- One-way systems can reduce the risk, especially in storage areas.
- A turning circle could be installed so that vehicles can turn without reversing.

Visibility

42. If vehicles reverse in areas where pedestrians cannot be excluded the risk is elevated and visibility becomes a vital consideration.

43. The Contractor should consider:

- **Aids for drivers** - mirrors, CCTV cameras or reversing alarms that can help drivers can see movement all round the vehicle;
- **Signallers** - who can be appointed to control manoeuvres and who are trained in the task;
- **Lighting** - so that drivers and pedestrians on shared routes can see each other easily. Lighting may be needed after sunset or in bad weather;
- **Clothing** - pedestrians on site should wear high-visibility clothing.

Signs and instructions

44. The Contractor should:

- Make sure that all drivers and pedestrians know and understand the routes and traffic rules on site. Use standard road signs where appropriate
- Provide induction training for drivers, **workers** and visitors and send instructions out to visitors before their visit.

TRANSPORT POLICY CONTEXT

National Transport Policy

i. The Government's long term strategy for transport is set out in "The Future of Transport – a Network for 2030" (DfT White Paper, 2004). An underlying objective of the strategy set out in the White Paper is to deal with the pressures of increasing demand for travel by striking the right balance between environmental, economic and social objectives, now and into the future. In terms of the road network, this means:

- New capacity, where it is needed and justified, on environmental and social grounds;
- Locking in the benefits of new capacity through measures such as high occupancy vehicle lanes and tolling, where appropriate;
- The Government leading the debate on road pricing and the opportunity this gives to motorists to make better choices;
- Better management of the network; and
- Using new technology, so the travelling public can make smarter journey choices.

ii. In terms of enhancing local travel this means:

- Freer-flowing local roads delivered through measures such as congestion charging;
- More, and more reliable buses enjoying more road space;
- Demand-responsive bus services that provide accessibility in areas that cannot support conventional services;
- Looking at ways to make services more accessible, so that people have a real choice about how and when they travel;
- Tackling the environmental impacts of travel by encouraging more sustainable travel choices through promoting the use of construction travel plans, workplace travel plans and personalised journey planning, and encouraging people to consider alternatives to using their cars, and
- Creating a culture and improved quality of local environment, so that cycling and walking are seen as an alternative to car travel for short journeys, particularly for children.

iii. The Local Transport White Paper, 'Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen' (January 2011) reiterates the Government's vision for a sustainable local transport system that supports the economy and reduces carbon emissions. It explains how the Government is placing localism at the heart of the transport agenda, taking measures to empower local authorities when it comes to tackling these issues in their areas. The White Paper also underlines the Government's direct support to local authorities, including through the Local Sustainable Transport Fund.

iv. The five National Transport Goals are:

- Goal 1: To reduce transport's emissions of carbon dioxide and other greenhouse gases, with the desired outcome of tackling climate change;

- Goal 2: To support economic competitiveness and growth, by delivering reliable and efficient transport networks;
- Goal 3: To promote greater equality of opportunity for all citizens, with the desired outcome of achieving a fairer society;
- Goal 4: To contribute to better safety, security and health and longer life expectancy by reducing the risk of death, injury or illness arising from transport, and by promoting travel modes that are beneficial to health; and
- Goal 5: To improve quality of life for transport users and non-transport users, and to promote a healthy natural environment.

National Planning Policy Framework [NPPF] – *para numbering reflects that in the NPPF*

Promoting sustainable transport

102. Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

a. the potential impacts of development on transport networks can be addressed;

b. opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;

c. opportunities to promote walking, cycling and public transport use are identified and pursued;

d. the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and

e. patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.

103. The planning system should actively manage patterns of growth in support of these objectives. 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 to 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 taken into account in both plan-making and decision-making.

104. Planning policies should:

a. support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;

b. be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;

c. identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;

d. provide for high quality walking and cycling networks and supporting facilities such as cycle parking (drawing on Local Cycling and Walking Infrastructure Plans);

e. provide for any large scale transport facilities that need to be located in the area, and the infrastructure and wider development required to support their operation, expansion and contribution to the wider economy. In doing so they should take into account whether such development is likely to be a nationally significant infrastructure project and any relevant national policy statements; and

f. recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy.

105. If setting local parking standards for residential and non-residential development, policies should take into account:

f. the accessibility of the development;

g. the type, mix and use of development;

h. the availability of and opportunities for public transport;

i. local car ownership levels; and

j. the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

106. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.

107. Planning policies and decisions should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance. Proposals for new or expanded distribution centres should make provision for sufficient lorry parking to cater for their anticipated use.

Considering development proposals

108. In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

a. appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

b. safe and suitable access to the site can be achieved for all users; and

c. 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.

109. Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

110. Within this context, applications for development should:

a. give priority first to pedestrian 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;

b. address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c. 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;

d. allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e. be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

111. 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.

LOCAL POLICIES

v. Please refer to planning statement

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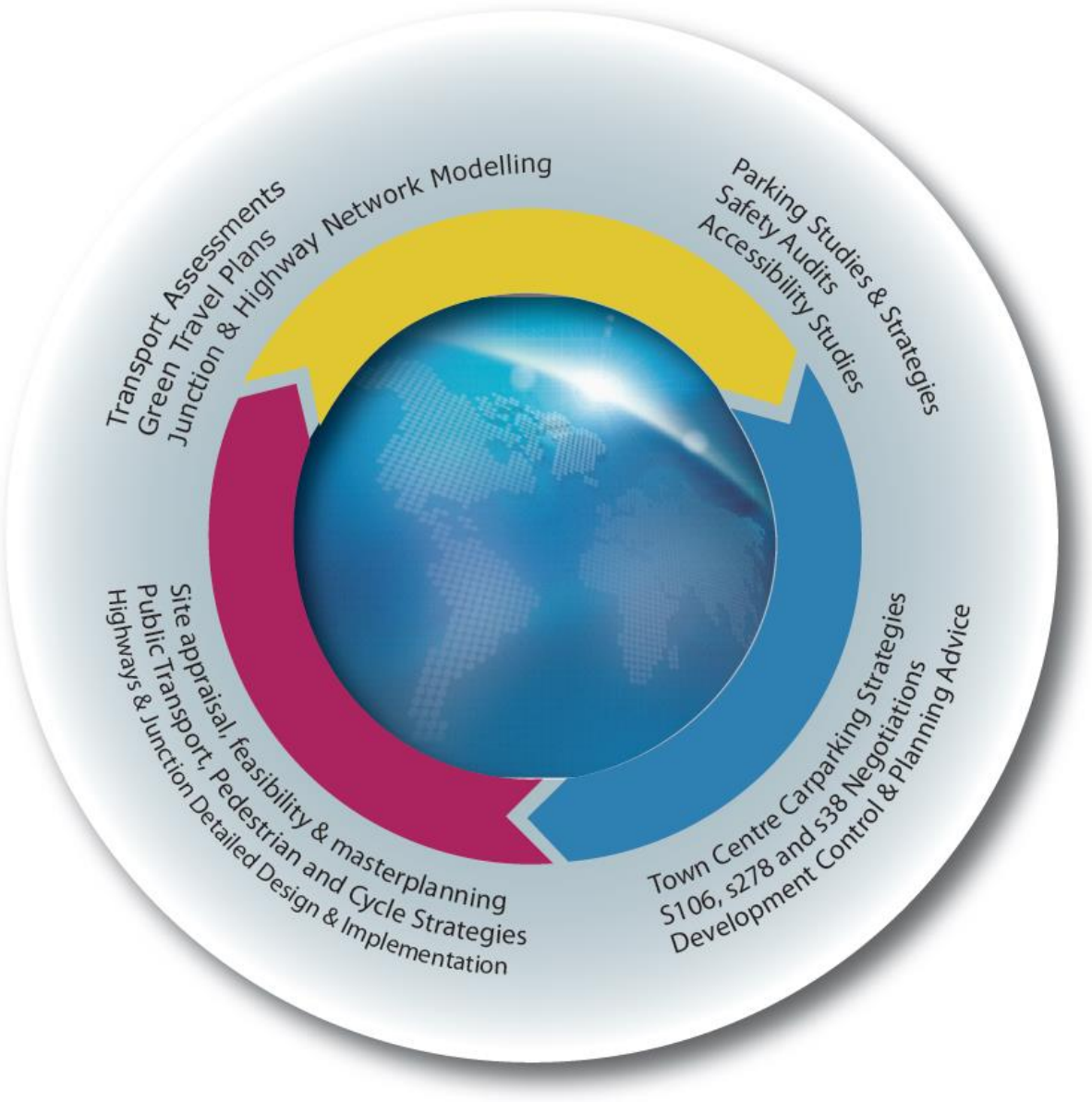

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