For and on behalf of
Devonshire Developments Limited

Local Plan Representations – Highways and Transportation

Land at North Mundham, Chichester

February 2019

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1 INTRODUCTION

1.1 This Local Plan Representations Report has been prepared by Matrix Transport and Infrastructure Consultants Ltd. (Matrix) on behalf of Devonshire Developments Ltd to review the suitability in terms of transport and access of a potential residential allocation site on land to the west of North Mundham, Sussex.

1.2 It is understood that the draft Chichester District Council (CDC) Local Plan sets out a target for the delivery of 50 new dwellings in North Mundham during the life of the plan. This provision is not currently considered to be a strategic allocation.

1.3 It should be noted that the site to which this report relates was recognised in the CDC Housing and Economic Land Availability Assessment (HELAA, August 2018) as 'achievable' in terms of its potential to provide land for housing and economic development uses. Further detail on the current strategic land planning allocations associated with the HELAA and the CDC Draft Local Plan is provided in the Planning Representations submitted to support the allocation of the site by DLP Planning Limited.

1.4 This Report will provide a brief outline of the local road network and site accessibility, local sustainable transport options, site access options and potential Public Rights of Way (PRoW) and accessibility improvements and the potential traffic generation and impact/mitigation of the proposed site. A high-level review of the suitability of key alternative residential land allocations to the west of the site is also provided. Finally, a conclusion in terms of the overall suitability of the site to accommodate a quantum of residential development and the likely impact of such a development on the local road network will also be provided.

2 CONTEXT

Proposed Development Allocation Site

2.1 The overall site is bound by the B2166 to the north, by residential dwellings and Aylwin Place to the east, by a Public Right of Way (PRoW) and by North Farm Nursery and arable/wooded land to the south and further farm land to the west.

2.2 A plan showing the indicative site area is shown at **Figure 2.1.**

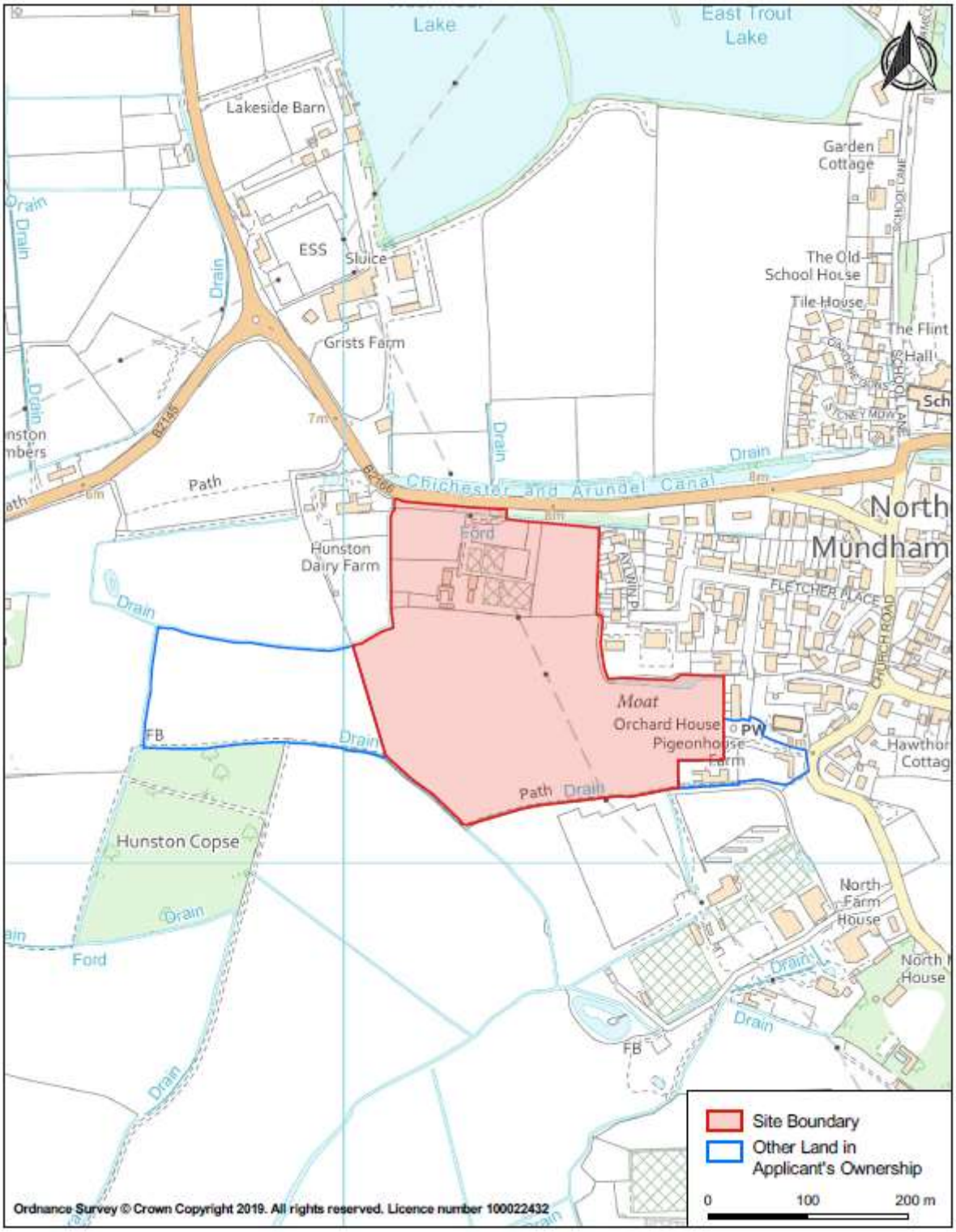

Figure 2.1: Indicative Site Location and Surrounding Highway Context

Potential Development Allocation

2.3 It is proposed the overall development site could accommodate of circa 200 new residential dwellings. This is in excess of the 50 allocated for north Mundham in the draft CDC Local Plan but is considered appropriate following a review of the potential access options, sustainable transport availability and the limited impact the provision could have on the surrounding road network. Further information on these matters is set out in this report.

3 EXISTING ACCESSIBILITY

Vehicle Access and Surrounding Road Network

3.1 The site benefits from and existing vehicle access on to the B2166 to the north which was previously used to serve the nursery that forms part of the site. An image of the existing access junction is shown in **Figure 3.1.**

Figure 3.1: Existing Site Access Junction with B2166

3.2 The B2166 is a two-way road that links the site with the centre of North Mundham approximately 400m to the east and with the three arm B2166/B2145 priority roundabout to the north west. The B2166 is subject to a national speed limit designation in the vicinity of the site. However, including that of the development site it also provides direct access to a number of residential dwellings as well as to a number of commercial farm uses between North Mundham and the B2166/B2145 roundabout.

3.3 From the B2166/B2145 roundabout the B2145 continues north for approximately 1.1km before it meets the A27 Chichester Bypass at a large priority roundabout. The A27 provides a dual carriageway bypass around the southern and eastern limits of Chichester and also provides a link to the wider strategic road network in the form of A3(M) and the M27 via Portsmouth some 18km to the west. To the east the A27 Chichester Bypass meets the A259 Bognor Road at a further large priority roundabout. From here the A27 continues north around the eastern boundary of Chichester and the A259 travels south east for some 5.2km towards the outskirts of the urban area of Bognor Regis.

3.4 To the east of the site the B2166 continues east to provide access to North Mundham centre with a speed limit reduction to 30mph approximately 220m to the east of the existing site access junction.

Pedestrian and Cycle Access

3.5 A desk top review indicates that a footway is provided on the southern side of the B2166 between the existing site access junction and North Mundham approximately 400m to the east.

3.6 Footways are provided on both sides of the Aylwin Place carriageway which bounds the site to the east. These link with the provision in the wider North Mundham centre area.

3.7 In addition, an existing Public Right of Way (PRoW) bounds the site to the south and links the site to Church Road in North Mundham to the east and to Hunston to the west.

3.8 There are no marked on or off-road cycle routes in the immediate vicinity of the proposed allocation site. However, the route to North Mundham is relatively level which could encourage trips to be made by more sustainable means.

Bus Services

3.9 The closest bus stops to the site are located on the B2166 approximately 400m to the east of the existing site access junction.

3.10 A signalised pedestrian crossing is provided immediately to the west of the east bound bus stop which facilitates pedestrian movements from the footway on the southern side of the B2166.

3.11 These stops are served by route number 600 which provides frequent (every 20 minutes during peak times) services to key destinations including but not exclusively Bognor Regis to the south and Chichester to the north. In terms of facilities, both east and west bound stops provide shelters and seating as well as timetable information.

Rail Services

3.12 Chichester train station is located approximately 3.3km to the north of the centroid of the site. The station is operated by Southern and provides West Coastway Line services to a number of key destinations including but not exclusively London Victoria, Portsmouth, Brighton and Southampton.

Amenities

3.13 The site is located in a sustainable location with local amenities including a Primary School, village hall, recreation area and place of worship all provided in North Mundham approximately 450m to the east of the proposed allocation site.

3.14 In addition, the recently constructed Chichester Free School is located approximately 1km to the north west of the site and provides Secondary School education facilities within an appropriate cycling distance of the site.

3.15 Significant, employment, retail, education and health facilities are provided in and around the area of Chichester approximately 1.2km to the north of the site. Again, these facilities are located within in an appropriate distance to allow cycling to be a realistic alternative transport mode to that of the private car. In addition, frequent public transport services also link the site to the key facilities in Chichester.

Accident data

3.16 A review of Personal Injury Accident (PIA) data obtained from the 'Crashmap' website shows that there are no accident 'hotspots' within the local vicinity of the site. In particular, it indicates that in the latest five year period available there have been no accidents on the B2166 in or around the existing site access junction and only one serious accident at the B2145/B2166 roundabout junction to the north west and one slight accident recorded on the B2166 in the North Mundham area. A screenshot of the data obtained from the 'Crashmap' website is provided in **Figure 3.2**.

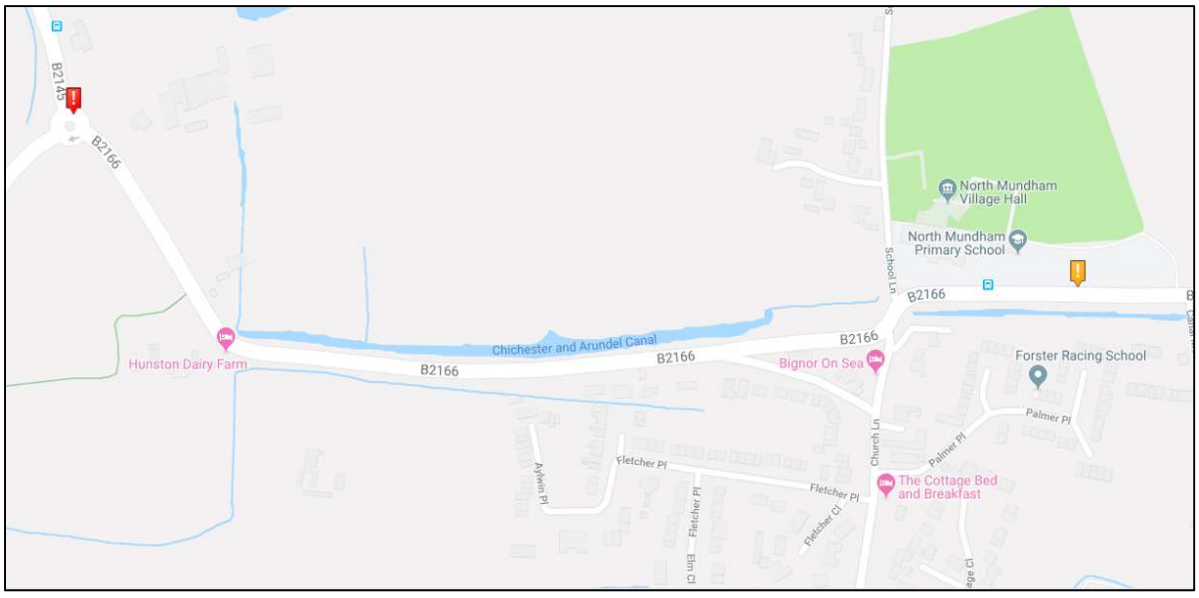

Figure 3.2: Latest 5 Years of 'Crashmap' PIA Data

4 POTENTIAL TRIP GENERATION

Potential Trip Generation

4.1 To forecast the level of vehicle movements that could be generated by the proposed residential allocation reference has been made to the TRICS 2018 (v7.5.4) database. The database has been interrogated under 'Houses Privately Owned'.

4.2 For robustness the system has been interrogated with the following parameters removed:

- Town Centre/Edge of Town Centre sites;
- Suburban Area;
- Free Standing sites; and
- All sites within Greater London/Ireland.

4.3 Table 4.1 summaries the results of the trip rate analysis and subsequent trip generation in relation to the potential allocation of circa 200 residential units in the AM and PM peak hours. Vehicle trips have been rounded to the nearest whole number.

Table 4.1 – Vehicle Trip Generation

	Weekday AM Peak Hour			Weekday PM Peak Hour		
	Arr	Dep	Two-way	Arr	Dep	Two-way
Person Trip Rates (Per Hour)						
Vehicle Trip Rates (per dwelling)	0.132	0.368	0.500	0.312	0.140	0.452
Potential Vehicle Trips (200 units)	26	74	100	62	28	90

4.4 As shown in the table above, the potential allocation of circa 200 residential units could lead to around eight additional two-way movement on the surrounding road network every five minutes during the morning and evening peaks hours. This is not material and would be well within daily traffic network peak hour fluctuations.

4.5 In addition, should the allocation progress, a planning application for a residential development of this nature would be supported by a Travel Plan which would include measures to increase the level of more sustainable trips made by residents and reduce the number of shorter trips that are made by car.

4.6 Given the accessible location of the site and its good links to footways and off PRoWs it is proposed that the vehicle trip generation of the site could even be lower than that set out in **Table 4.1.**

5 POTENTIAL SITE ACCESS AND ACCESSIBILITY

B2166

5.1 The site benefits from an existing point of access on to the B2166 which bounds the site to the north. An initial review indicates that the existing site access could be improved to accommodate two-way development traffic. This could include for the provision of a right turn lane to facilitate movements in to the site. Desk to analysis indicates that any carriageway widening associated with the potential allocation site could be undertaken within the extent of adopted highways and land in the ownership of the Client. As such, no third-party land would be required to provide an appropriate access in to the site.

5.2 In addition, given the site land available that bounds the B2166 there is potential to close up the existing access and provide a new junction towards the western boundary of the B2166 frontage. This would increase the visibility to the west for vehicles leaving the site.

5.3 Further junction design work would be undertaken as the proposals progress and these would be informed by key traffic volume and speed data which would be collected via an Automatic Traffic Counter on the B2166.

Aylwin Place

5.4 As set out the north eastern element of the site is bound by the residential road of Aylwin Place to the east. This road currently provides access to a limited number of residential dwellings and continues east towards the centre of North Mundham as Fletcher Place.

5.5 A desk top review indicates that Aylwin Place and the existing turning head that abuts the north eastern site boundary could be adopted highway and as such could provide a further link in to the site. Depending of the scale of the residential allocation and confirmation of the extent of adopted highway, this could provide a pedestrian/cycle link which could double as a secondary/emergency vehicle access to the wider site. A further detailed review of this access option including detail on the finite extent of adopted highway would be undertaken as part of a more detailed access appraisal review.

Pedestrian and Cycle Access

5.6 Following an initial desk top review, it is considered that appropriate pedestrian and cycle access could be provided at both of the access points set out above. This provision would allow for a permeable and sustainable development to be provided which would encourage shorter trips to local facilities including those to the North Mundham Primary School, bus stops and leisure facilities already provided in North Mundham to be made by more sustainable means.

5.7 All of the potential access routes link to existing footway provision and as such would provide a consistent walking route for movements to and from the site.

5.8 In addition, as part of any allocation the existing PRoW that bounds the site to the south could be upgraded to provide an attractive, off road walking and cycling link to North Mundham to the east and to Hunston to the west. An upgrade to this route would benefit those living at the site but also those who live in the wider area and would provide the opportunity for trips already being made by the private car to be made by more sustainable means.

6 POTENTIAL TRAFFIC IMPACT

6.1 Further to this Local Plan Representations Note, if appropriate, a full scoping exercise would be undertaken with the LHA to agree the extent of work required to inform a Transport Assessment to support any planning application.

Potential Impact on the B2166

6.2 Based on an initial review it is anticipated that the majority of traffic associated with potential allocation site is likely to join the road network at the existing or a new junction with the B2166 which bounds the site to the north.

6.3 Information in terms of existing and potential traffic flows on the B2166 was included as part of the Chichester Free School planning application which was submitted in 2015. A summary of the two way flows for both the Base 2015 traffic and the 2020 + School Traffic scenarios are shown in Table 6.1.

Table 6.1 – Two-way Traffic Flows on the B2166 Taken From Chichester Free School Planning Application

	Weekday AM Peak Hour			Weekday PM Peak Hour		
	West Bound	East Bound	Two-way	West Bound	East Bound	Two-way
Traffic Flow Scenario						
2015 Base	977	560	1537	486	854	1340
2020 + School Traffic	1065	609	1674	532	933	1465

6.4 To assess the percentage increase in traffic that could be associated with the potential allocation site the vehicle Trip rates calculated using the TRICS database have been applied to the flow scenarios in Table 6.1. A summary of this calculation is shown in Table 6.2.

Table 6.2 – Potential Percentage Increase In Vehicle Movements on the B2166		
	Weekday AM Peak Hour	Weekday PM Peak Hour
	Two-way	Two-way
Traffic Flow Scenario		
2015 Base	7%	7%
2020 + School Traffic	6%	6%

6.5 As set out in Table 6.2, the potential North Mundham residential site could lead to a possible maximum increase of 6% in terms of total movements on the B2166 to the north of the site. This is not material and would have no impact on the operation of the B2166.

6.6 This assertion is supported by information set out in DMRB document TA/79/99 which provides guidance of how to determine urban road capacity. This document states that a 6.1m road described as 'a high standard single/dual carriageway road carrying predominantly through traffic with limited access' (UAP1 Road) would have a one way hourly maximum capacity of 1020 vehicles. Two way this equates to 2,040 two-way movements per hour.

6.7 Having reviewed the potential trip generation of the site and added this to the traffic flow data provided in the Chichester Free School traffic data, even with the additional traffic that could be associated with the potential allocation site, the B2166 would still operate well within its theoretical capacity. As such, it is not anticipated that the potential allocation would have a material impact on the operation of the B2166 link. This would be reviewed further and confirmed as part of any Transport Assessment submitted to support a planning application for the potential allocation site.

7 REVIEW OF POTENTIAL HUNSTON ALLOCATION SITES

7.1 The CDC HELAA indicates that there are a number of potential residential development sites in Hunston immediately to the west of the proposed allocation site. These include sites HHN0003, HN0005, HN0007 and HN0008 which principally bound Hunston to the north east and east as shown in Figure 7.1

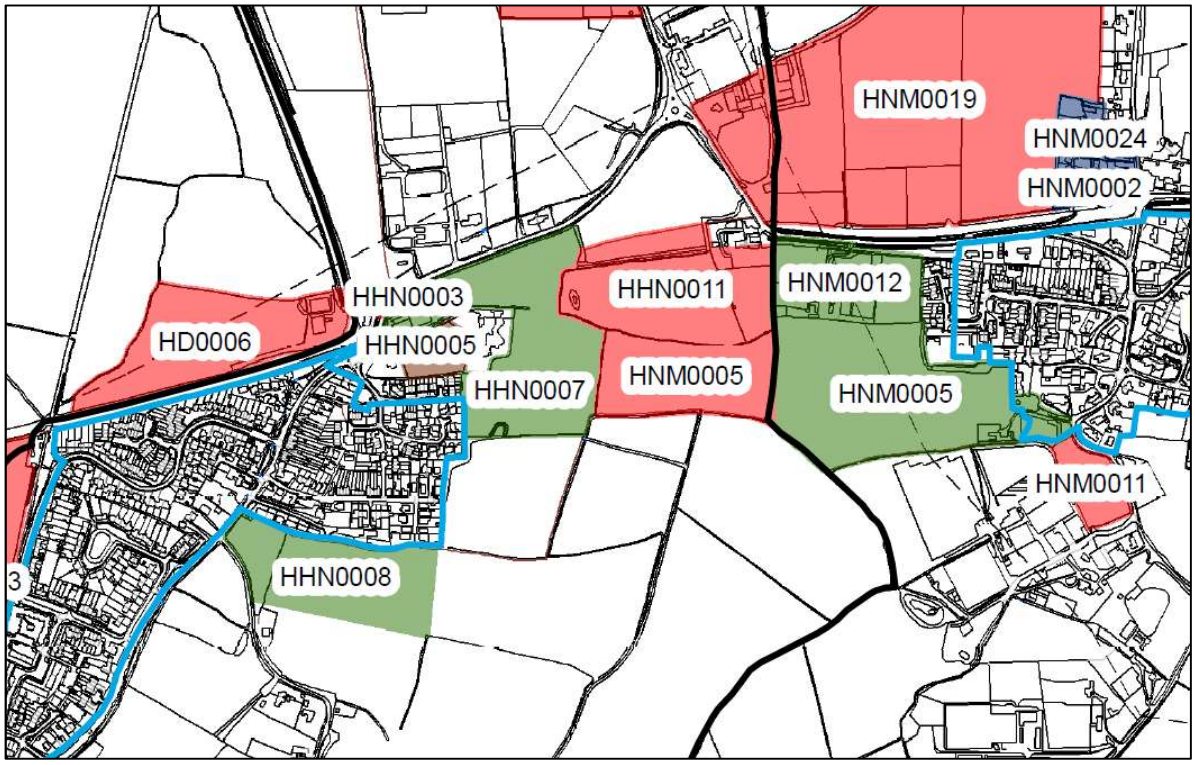

Figure 7.1: Potential Allocation Sites in Hunston and North Mundham (CDC HELAA)

7.2 An initial desk top review indicates that only site reference HHN003 benefits from a formalised access on to the existing road network. However, this access junction is located on the inside of a 'S' bend type road alignment only around 40m to the north east of the B2145/Foxbridge Drive mini roundabout junction. Given the location of the existing access and the geometry of the carriageway on to which it gains access, it is not considered that the junction could be improved significantly to provide an appropriate access to a significant level of residential development.

7.3 In terms of facilities, Hunston does not benefit from Primary School provision with the closest being North Mundham Primary School approximately 1.25km to the east. As such, it is considered that trips to and from Primary education would likely be made by car. This is not the case for the potential North Mundham allocation site to which this Report refers which is around 450m to the west of the Primary School which would encourage trips to be made by more sustainable means.

7.4 Based on an initial review, it is considered that any vehicle traffic associated with site HHN0008 would have to travel through the northern section of Hunston to access the majority of day to day facilities provided in the wider Chichester area. This is not the case for the potential North Mundham allocation site where vehicles travelling towards Chichester are not required to pass through or by any significant residential areas before reaching the wider Chichester facilities.

7.5 Given the desk top review undertaken, it is considered that the proposed North Mundham allocation site provides a more suitable vehicle access point, is more likely to encourage sustainable travel choices and would have less of an impact on existing local residential areas than the potential sites in Hunston.

8 SUMMARY AND CONCLUSION

7.6 This Report has provided a brief outline of the existing site situation and a summary of the potential development proposals including the possible trip generation and site access options for the potential allocation site. It has also provided a high-level assessment as to the potential impact on the development on the wider road network.

7.7 The site is in a sustainable location with good transport links to local and regional destinations, as well as being in close proximity to employment opportunities, healthcare, Schools, amenities and retail in the wider Chichester urban area.

7.8 PIA data indicates that there are no specific safety 'hotspots' on roads in the vicinity of the site.

7.9 The proposals could generate around eight additional vehicle movement every five minutes during peak periods. This is not considered to be material and could be further reduced by the provision of a robust Travel Plan and PRoW and footway/cycleway improvement strategy which would be prepared to inform any planning application.

7.10 This initial review indicates that the existing site access on to the B2166 to the north of the site could be improved to provide an appropriate access in the development area. Alternatively, the existing access could be relocated towards the western boundary of the site. Any carriageway widening associated with improvements to or the relocation of the existing access could be accommodated within existing adopted highway or on land in the ownership of the Client.

7.11 It is not considered that the potential limited traffic associated with the site would have a material impact on the operation of the B2166. Information on the extent of adopted highway would be obtained and a detailed access design process undertaken as part of any further application work. Early discussions would also be held with key officers to agree key access principles.

7.12 Information provided by DfT documentation and traffic flows contained in the Chichester Free School planning application indicate that even with the potential allocation site traffic added the B2166 would still operate well below its maximum theoretical capacity with the percentage increase in traffic at or below typical daily traffic fluctuations on the road.

7.13 Improvements to existing and the provision of new walking and cycling routes would be recommended as part of any work to support a planning application for the site. This would provide a permeable development and also improve connectivity for existing residents to the surrounding open space and PRoW routes that bound the site to the south.

7.14 The initial work undertaken indicates that the potential Hunston allocation sites are inferior in terms of vehicle access and sustainable travel opportunities and would have a greater impact on the local residential areas than the proposed North Mundham site.

7.15 A Transport Assessment will be required to further investigate the existing conditions and suitability of the site access options and potential off-site highway works. However, at this time it is considered that appropriate solutions can be found to ensure that the potential allocation site provides a site that is accessible and encourages sustainable transport choices. In addition, the potential development traffic would not have a 'severe' residual impact on the surrounding road network. As such, it is considered that the proposed allocation site is appropriate for residential development in highways and accessibility terms.

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