



Transport Assessment Addendum

**Proposed Residential Development
Land north of Hookhams Lane
Salph End
Bedford**

Revision 0: June 2018

Report Reference: 248-TA-02-0



Report Originator(s)

[Redacted]

Director

[Redacted]

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1.0 Introduction

1.1 Planning Context

- 1.1.1 This Transport Assessment Addendum has been prepared in response to the Local Highway Authority's comments on MAC Transport Assessment (248-TA-01-B, March 2020).
- 1.1.2 The highway authority objection dated 1st June 2020 is enclosed in Appendix A. This Addendum should be read in conjunction with the Transport Assessment.

2.0 Site Access

- 2.1.1 As per the Transport Assessment Revision B, the proposed development will provide two number all movement accesses off Hookhams Lane and Ravensden Road. The proposed accesses are shown on the drawings enclosed in Appendices B.
- 2.1.2 The proposed Hookhams Lane access has been subject to a Stage 1 Road Safety Audit (RSA), see Appendix C. The RSA did not raise any significant concerns which could not be addressed at detailed design stage.
- 2.1.3 A planning application at 27 Hookhams Lane for 14 dwellings, planning reference 18/02496/MAF was recently refused. A new revised planning application, ref 20/00349/MAF, for 13 dwellings was submitted after this planning application for 400 dwellings. Therefore, the adjacent development has no planning status and both developments need to be considered on their own merits.

3.0 Accident Data

3.1 Introduction

3.1.1 For ease of reference the full Transport Assessment review of the accident data is enclosed in Appendix D with the full data enclosed in Appendix E

3.2 Junction 1: Hookhams Lane / Norse Road

3.2.1 It is highlighted by the LHA that two of the three accidents which occurred during the five-year period involved cyclists, both of which resulted in a slight injury. Details of the accidents involving cyclists are summarised below in Table 3.1.

Table 3.1: Accident Summary - J1 Hookhams Lane / Norse Road

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
313804	Slight	Hookhams Ln - NB	Dry	Cyclist crossed between SB queuing traffic and was obscured by van. Vehicle travelling NB collides with cyclist.
67374	Slight	On Roundabout near Norse Road	Dry	Vehicle pulls out and collides with cyclist on roundabout.

3.2.2 Accidents 313804 involved a 12-year-old cyclist who was using the shared footway / cycleway located around the northern side of the roundabout. The accident occurred as the cyclist crossed between stationary traffic and was obscured by a van before stepping into the opposite carriageway which was flowing freely.

3.2.3 The second accident (67374) occurred when an 81-year-old driver entered the roundabout failing to see a cyclist who was already on the carriageway. Contributory factors for the driver of the vehicle included 405 – Failed to look properly and 505 - Illness or disability, mental or physical.

3.2.4 Both accidents occurred on different areas of the roundabout both with very different circumstances. This would not indicate that the roundabout is unsafe for use by cyclists.

3.2.5 There is off carriageway cyclist provision to the north of the roundabout, but there is no provision to the south of the roundabout. This development will deliver or provide a contribution to fund the provision of a shared footway / cycleway around the entirety of the junction. Details of the extent of the new off carriageway are shown on shown drawing enclosed in Appendix F.

3.3 Junction 2: Wentworth Drive / Putnoe Lane

3.3.1 It is highlighted by the LHA that two of the three accidents which occurred during the five-year period involved “rear end shunts “. Details of all accidents at the junction are summarised below in Table 3.2.

Table 3.2: Accident Summary - J2 Wentworth Drive / Putnoe Lane

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
238382	Slight	Outside 36 Wentworth Drive	Dry	Vehicle is access driveway at roundabout and collides with cyclist on pavement.
15BA0577	Slight	On Roundabout	Dry	V2 travelling east makes late decision to turn right. V1 travelling west enters roundabout and collides with V2
15BA0013	Slight	Wentworth Dr - WB	Dry	V1 stops at roundabout selects reverse and drives in to V2. Driver of V1 has +ve breath test.

3.3.2 None of the accidents at this junction involved a rear end shunt with all three accidents happening in very different circumstances. Of the recorded accidents, one involved a driver who recorded a positive breath test (15BA0013) and reversed into the car behind them, one involved a resident accessing their private property which is accessed off the roundabout (238382) and colliding with a cyclist using the shared footway / cycleway. Only one accident occurred on the carriageway where a vehicle took a late decision to turn right and a vehicle entering the roundabout collided with the vehicle already on the carriageway.

3.3.3 As there are no common factors, we would consider that the junction currently operates in a safe manner and no improvements are necessary.

3.4 Junction 3: A4280 St Neots Road / A4280 Goldington Road / Norse Road

3.4.1 One accident involving a cyclist occurred at this location, hence, the highway authority, has requested that the cycle network is improved. From the accident data this incident is described thus:

“Cyclist 2 was cyclist in front of his cyclist [sic] heading west along A4280 towards roundabout with Norse Road. Veh 1 travelling in same direction overtook Cyclist 2 and came to a stop at red pedestrian traffic signals. As signals changed Cyclist 2 rode up the inside of Veh 1 and both vehicles gained speed. Driver of Veh 1 became annoyed with Cyclist 2 and has pulled to the nearside deliberately squeezing him out. Driver of Veh 1 has then braked hard causing Cyclist 2 to collide into the rear.”

3.4.2 This accident was caused by driver behaviour and was not because of any deficiencies in the highway network. It should also be noted that there a shared footway / cycleway on the north side of the junction and no pedestrian or cyclist provision to the south as there is not a requirement for any. Therefore, there are no requirements

3.5 Junction 4: A421 / St Neots Road / A4280

3.5.1 As noted by the highway authority three of the five accidents were due to lose of control. This was noted in the TA which said:

*“...three of which involved some form of slight collisions with cars on the opposite carriageway and a fourth involved a broken-down vehicle with police in attendance. The accidents are summarised below in **Error! Reference source not found.** below. Whist there are three accidents which result in a broadly similar accident involving a loss of control in damp conditions and hitting vehicles in the opposite direction, only two are in the same direction, they are of such a low frequency with enough differences to not form a pattern.”*

3.5.2 The developer will commit to the following survey and improvement works to investigate any deficiencies with the A4280 arm of the northern roundabout:

- Undertaken a survey of the surface including skid resistance to identify any deficiencies.
- If improvements are required to fund provision of a high friction surface topping.
- If skid resistance is deemed to be appropriate, the developer will fund a TRO application to reduce the speed limit.

3.5.3 The cost of any works will be capped at £10,000.

3.6 Junction 5: Ravensden Rd / Oldways Rd / Church End

3.6.1 The highway authority in their response state that the accidents were caused as the junction has “a low visibility”. The existing visibility has been reviewed, see drawing enclosed in Appendix G. This shows that visibility splays of 2.4m x 120m can be achieved which are appropriate for the 40mph speed limit of the road.

3.6.2 The developer will commit to funding speed surveys to determine the actual speed of vehicles. If speeds are significantly in excess of the 40mph speed limit, then the developer will fund measures up to the value of £10,000 aimed at reducing vehicle speeds in the proximity of this junction.

3.7 Summary

3.7.1 A further analysis of the accident data does not highlight any significant existing issues that would be made significantly worse by the development. However, the following improvements or actions are proposed:

- J1: Hookhams Lane / Norse Road – the development will deliver or provide a contribution to fund the provision of a shared footway / cycleway around the entirety of the junction, see Appendix F.
- Junction 4: A421 / St Neots Road / A4280 – the development will commit to funding the following survey and improvement works up to a value of £10,000.
 - Undertaken a survey of the surface including skid resistance to identify any deficiencies.
 - If improvements are required to fund provision of a high friction surface topping.
 - If skid resistance is deemed to be appropriate to fund a TRO application to reduce the speed limit.
- Junction 5: Ravensden Rd / Oldways Rd / Church End – the development will commit to funding the following survey and improvement works up to a value of £10,000.
 - The developer will commit to funding speed surveys to determine the actual speed of vehicles. If speeds are significantly in excess of the 40mph speed limit then the developer will fund traffic calming measures at reducing vehicle speeds in the proximity of this junction.

4.0 Traffic Analysis for Junctions

4.1 Introduction

- 4.1.1 Within the Transport Assessment improvements were proposed to Junctions 2 where the development has a minimal adverse impact and Junction 3. Relatively minor geometric improvements were shown to mitigate the impact of the development on both junctions.
- 4.1.2 The local authority has not raised any objections to the improvements proposed to junction 3. Considering the highways authority's comments requesting S106 contributions rather than works, the development will provide a contribution of £15,000 In lieu of highway works at this junction.
- 4.1.3 The development was also shown to have a small adverse impact on Junction 6, however, no improvement works are viable as described in full in the Transport Assessment. This approach has been accepted by the highway authority.

4.2 Junction 2: Wentworth Drive / Putnoe Lane

- 4.2.1 During the morning peak period the Wentworth Road (W) arm of the junction is operating over capacity. Without development a maximum RFC value of 0.98 is recorded which is increased by 0.02 to 1.00 as a result of the development. The proposed development will also increase vehicle queue length by 3 from 16 to 19. The impact of the development is small.
- 4.2.2 The small impact is further highlighted by the assessment which shows that minor alterations to the white lining would resolve the capacity issues.
- 4.2.3 It is demonstrated that the impact of the development would be relatively small. As per the highway authority's response dated 1 June 2020 the development will contribute of £5000 to cover the cost of the nil detriment improvements required to offset the impact of the proposed development.

4.3 Junction 4: A421 / St Neots Road / A4280

- 4.3.1 The assessment of this junction within the Transport Assessment shows that it operates within capacity and no improvement works are proposed.

5.0 Access to Local Amenities

5.1 Introduction

5.1.1 A review of the development's accessibility and existing footway and cycleway provision was undertaken within the Transport Assessment. Generally, the existing infrastructure is acceptable for use by new residents of the development.

5.1.2 As part of the review of accessibility revision B of the Transport Assessment made a commitment to provide the 'missing' section of footway on Hookhams Lane to the south of the site.

5.1.3 However, in their latest response the highway authority is still raising concerns about accessibility to the facilities listed below:

- Village Hall
- Pre-school nursery
- Renhold Primary School
- Mark Rutherford Secondary School

5.1.4 Each of these is assessed below building on the information provided in previous versions of the Transport Assessment.

5.2 Existing footway provision

5.2.1 Salph End and Renhold are characterised by single sided footways which are often found in more rural locations. Where single sided footway provision is found it is generally provided on the south and west of the carriageway thus providing a continuous link.

5.2.2 Footway widths vary but is generally around 1.6m to 1.8m near the site reducing in width towards Renhold through rural areas before increasing in width in Renhold. Within Salph End surface quality is generally good and acceptable further afield. The existing provision is appropriate for use by residents of the new development and would not discourage use of more sustainable forms of transport.

5.2.3 In areas of higher demand such as to access the local shop, to the secondary school and towards Bedford the footway provision with improvements is provided on both sides of the carriageway.

5.3 Village Hall and Renhold Primary School

- 5.3.1 A plan of the walking route is enclosed in Appendix H. This shows that there is a continuous footway connection between the development and both the Village Hall and Renhold Primary School.
- 5.3.2 The footway provision is generally adequate; however, new and improved crossing points are to be provided by the development as listed below. The locations of all proposed improvements are shown on the drawing enclosed in Appendix H.
- New uncontrolled crossing to be provided across Hookhams Lane, see also TA11C in Appendix H.
 - Tactile paving to be provided to existing Wilden Road crossing near Ravensden Road.
 - Dropped kerb and tactile paving to be provided to improve Brickfield Road crossing.
 - Tactile paving to be provided to existing Church End crossing near Wilden Road.
- 5.3.3 These small improvements will improve accessibility for existing and proposed users. As the development will provide a school demand to Renhold Primary School will be relatively low.

5.4 Nursery

- 5.4.1 An existing private nursery is located to the north of the site. An existing footway is provided on the opposite side of Ravensden Road which would allow access to the nursery. To remove the requirement to cross Ravensden Road twice a new footway will be provided on the south / west side of Ravensden Road to provide a direct access between the development and the nursery. This new footway is shown on the drawings enclosed in Appendices H and I.

5.5 Mark Rutherford Secondary School

- 5.5.1 The secondary school is located to the south of the site off Wentworth Road. Without improvements there is a continuous footway connection to the school, although this requires users to cross Hookhams Lane twice. Revision B of the Transport Assessment committed to filling the gap in footway provision so pedestrians would not need to cross Hookhams Lane to access the secondary school. This provision would be acceptable and allow residents of the development to access the secondary school safely.

5.5.2 The highway authority maintains their concerns regarding the footway provision. Therefore, further improvements are proposed as follows:

- Existing footway on Hookhams Lane to the south of the site, see Appendix H, will be widening removing the carriageway side verge. This will increase the width as far as is reasonable thus improving the walking environment for existing and proposed users.
- The new footway, also on Hookhams Lane to the south (Appendix H and J), will be provided with a minimum width of 2.0m as per the previous Transport Assessment. Where feasible this will be increased to 3m width to allow the existing footway / cycleway on Hookhams Lane to be extended to the north.

5.6 Summary

5.6.1 The existing network of footways within Salph End is generally appropriate for the users of the proposed development to access local facilities. There are some areas of the network which could be approved. The proposed improvements are as follows:

- New uncontrolled crossing to be provided across Hookhams Lane, see also TA11C in Appendix H.
- Tactile paving to be provided to existing Wilden Road crossing near Ravensden Road.
- Dropped kerb and tactile paving to be provided to improve Brickfield Road crossing.
- Tactile paving to be provided to existing Church End crossing near Wilden Road.
- New footway adjacent to Ravensden Road connecting with the development with the existing nurseway to the north.
- Existing footway on Hookhams Lane to the south of the site will be widening removing the carriageway side verge.
- The new footway, also on Hookhams Lane to the south will be provided with a minimum width of 2.0m as per previous Transport Assessment. Where feasible this will be increased to 3m width to allow the existing footway / cycleway on Hookhams Lane to be extended to the north.

6.0 Conclusion

6.1.1 This Transport Assessment Addendum has been prepared in response to the Local Highway Authority's dated 1st June 2020. This Addendum should be read in conjunction with the Transport Assessment.

6.2 Access

6.2.1 As per the Transport Assessment Revision B, the proposed development will provide two number all movement accesses off Hookhams Lane and Ravensden Road.

6.2.2 A planning application at 27 Hookhams Lane for 14 dwellings, planning reference 18/02496/MAF was recently refused. A new revised planning application, ref 20/00349/MAF, for 13 dwellings was submitted after this planning application for 400 dwellings. Therefore, the adjacent development has no planning status and both developments need to be considered on their own merits.

6.3 Accident Analysis

6.3.1 A further review of the accident data has not identified any safety concern which will be made worse by the proposed development. Although the developer will commit to undertaking or funding the following works / investigations:

- J1: Hookhams Lane / Norse Road – the development will deliver or provide a contribution to fund the provision of a shared footway / cycleway around the entirety of the junction, see Appendix F.
- Junction 4: A421 / St Neots Road / A4280 – the development will commit to funding the following survey and improvement works up to a value of £10,000.
 - Undertaken a survey of the surface including skid resistance to identify any deficiencies.
 - If improvements are required to fund provision of a high friction surface topping.
 - If skid resistance is deemed to be appropriate to fund a TRO application to reduce the speed limit.
- Junction 5: Ravensden Rd / Oldways Rd / Church End – the development will commit to funding the following survey and improvement works up to a value of £10,000.
 - The developer will commit to funding speed surveys to determine the actual speed of vehicles. If speeds are significantly in excess of the 40mph speed limit then the developer will fund traffic calming measures at reducing vehicle speeds in the proximity of this junction.

6.4 Traffic Analysis for Junctions

6.4.1 The adverse impact of the development at all junctions is insignificant. However, nil determinant improvements have been identified for two junctions. Because of the small impact only minor geometric improvements are necessary. The developer will undertake these works or provide a S106 contribution of £20,000 in lieu of works.

6.5 Access to Local Amenities

6.5.1 The existing network of footways within Salph End is generally appropriate for the users of the proposed development to access local facilities. There are some areas of the network which could be approved. The proposed improvements are as follows:

- New uncontrolled crossing to be provided across Hookhams Lane, see also TA11C in Appendix H.
- Tactile paving to be provided to existing Wilden Road crossing near Ravensden Road.
- Dropped kerb and tactile paving to be provided to improve Brickfield Road crossing.
- Tactile paving to be provided to existing Church End crossing near Wilden Road.
- New footway adjacent to Ravensden Road connecting with the development with the existing nurseway to the north.
- Existing footway on Hookhams Lane to the south of the site will be widening removing the carriageway side verge.
- The new footway, also on Hookhams Lane to the south will be provided with a minimum width of 2.0m as per previous Transport Assessment. Where feasible this will be increased to 3m width to allow the existing footway / cycleway on Hookhams Lane to be extended to the north.



Appendix A

Highway Authority Objection – 1st June 2020

RECOMMENDATION: OBJECTION

██████████
Planning DC
4th Floor
Borough Hall

Highways
Officer: ██████████

HDC File Ref:
Address:

Highways Development
Control
4th Floor
Borough Hall

Fax: ██████████

Date : 01 June 2020

APPLICATION NO : 19/01974/MAO
2nd re-
consultation.

PROPOSAL: Outline application with all matters reserved except access for up to 400 dwellings, land for a new primary school, open space, drainage, footpath improvements and vehicular access via 25 Hookhams Lane

LOCATION : Land Off Hookhams Lane Renhold Bedfordshire

Dear Mr ██████████

Thank you for your second re-consultation on the application for the above proposal which we received on 27 May 2020. On behalf of the Highway Authority I make the following comment:

The Transport Assessment has been revised twice with further information and therefore our response is updated. It is confirmed that Highway Development Control objects to the application as the further information has not been able to address the issues raised. Therefore the information below still stands where there is a lack of information about the internal site layout, the traffic impact of the site and the opportunities for sustainable travel to and from the site. This is our final response for this application.

Any further details to our response are added in italics below:

Site Access

Further information was requested about the two site accesses. A Road Safety Assessment was carried out of the Hookhams Lane access and in particular its distance from the proposed access to a residential development at 27 Hookhams Lane. It concluded that the access was not suitable for vehicles to turn into from Hookhams Lane. It has been proposed that the access is used as an exit from the site only but the Road Safety Assessment did not provide data about whether this would be suitable. It is Bedford Borough Council policy for a housing development of 400 dwellings to have 2 x 2 way accesses and therefore the proposal is not acceptable. This in reference to the Highway Development Control Design Guide 1995, page 3.3. As stated previously it would be logical to negotiate the use of the proposed access to the proposed

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neighbouring development at 27 Hookham's Lane. Therefore with the above further information Highway Development Control objects to the lack of two suitable accesses to this site.

Further information has been provided with a two way access from Hookham's Lane. In isolation this plan is suitable for a two way access at the planning stage. It is confirmed that the proposed access from Hookham's Lane at no.27 remains a material consideration. It is also stated that the Hookham's Lane access would be the primary access to the site, whereas a balance of traffic between the two accesses is needed.

Internal Layout

Further information was requested as part of the outline application about the internal network of the site. Although it is understood that this is an Outline application, the internal network to include dwellings, internal road and footways and parking is needed to demonstrate that there is sufficient capacity within the site for the proposal. The further information has not provided details of the internal layout and therefore Highway Development Control objects to the lack of information.

No further information has been provided about the internal layout. Therefore our response remains the same with an objection to the lack of information.

Accident data

Further information was provided as requested for the accident history of five junctions near to the site. Although there have been accidents at or near each junction the assessment considers that there is no pattern. For a residential development of this size it is expected that a more detailed assessment of the accident record would be made and any mitigation measures put forward. For example the speed of vehicles and their navigation of the junctions should be assessed. Therefore the further information provided does not provide all of the information needed for a large residential development and therefore Highway Development Control objects to the lack of information.

Further information was provided for Junction 1 Hookham's Lane/Norse Road where there have been three accidents including two cycle accidents but no further measures are considered. At this location we consider that the cycle network needs to be assessed and upgraded.

For Junction 2, Wentworth Drive and Putnoe Lane there have been two rear end shunts for vehicles turning right. It is proposed to adjust the white lines at the junction for vehicles turning right into Putnoe Lane but this change is considered to be small and an assessment of the junction is needed.

For Junction 3, St Neots Road/Goldington Road/Norse Road there has been one cyclist accident. In this location the cycle network needs to be improved as part of improvements to the junction for capacity, see below.

For Junction 4 A421/St Neots Road/A4280 there have been five accidents where three accidents were due to losing control. We consider that this shows that the speed limit and the road surface need to be assessed. There is a footpath around the junction where a shared use cycleway/footpath would assist cyclists at a busy junction.

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For Junction 5 Ravensden Road / Oldways / Church End there have been three accidents with one severe which involved right hand turns at the junction. No further measures are put forward. We consider that as the junction has a low visibility and therefore the junction needs to be assessed for an increased use.

For Junction 6, B660, Oldways, Thurleigh Road there were no recorded accidents. For the capacity of the junction see below.

With the further information provided about the accident data it is considered that the response to the accident data for each junction could have considered the evidence and recommended appropriate action. Therefore the Highway Development Control objection due to a lack of information has not changed.

Traffic analysis for junctions

Further information was provided where a manual traffic count took place on 27/11/2020 for 5 junctions near to the site which are in Appendix L of the Transport Assessment. It was found that 3 of the junctions are currently running at an overcapacity level but it was considered that the development would not have a further impact on these junctions. For a residential development of this size an assessment of the junctions running at overcapacity should be made to analyse the issues and to put forward mitigation measures to improve the junctions. The three junctions running at overcapacity are Wentworth Drive/Putnoe Lane, St Neots Road/Goldington Road/Norse Road and B660/Oldways/Thurleigh. Therefore with the further information provided Highway Development Control objects to the lack of information about how to address the overcapacity issues at the nearby junctions.

The most recent further information provides some mitigation for the three junctions which are running at overcapacity.

Junction 2, Wentworth Drive/Putnoe Lane, a small change to the white lines at the mini roundabout junction are proposed to adjust the width of the carriageway. It is considered that this would not assist with the overcapacity of the junction or the right hand turn accidents, see above. For the a development of this size which is likely to have a further impact on this junction, to access local facilities in Bedford, an assessment of the junction and appropriate highway safety measures need to be proposed.

Junction 4 A421/St Neots Road/A4280 is part of the primary network which has significant overcapacity where new development is likely to cause further traffic delays. Bedford Borough Council considers that the junction needs to be upgraded to accommodate any new development in this area. Therefore the proposal to change the white lines of one lane would not make a significant improvement to this junction.

For Junction 6, B660, Oldways, Thurleigh Road, this junction runs at an overcapacity and small measures are proposed but no information is given in the Transport Assessment. The Transport Assessment considers that the junction is too narrow for right hand turn lanes or roundabouts and therefore improvements are limited.

The junction has previously had some safety measures installed with the staggered junction to reduce traffic speeds. There is a high capacity of traffic moving from East to West as a key route for traffic from the North of the Borough to Bedford and back. It is observed that as this junction has been previously improved and due to the space at the junction there is limited scope for improvement, especially as the safety measures need to be kept in place.

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Mitigation to address overcapacity and safety of nearby junctions

The further information demonstrates that further measures are needed for the nearby junctions to address overcapacity and safety. For a development for 400 dwellings, Highway Development Control considers that an overall s106 contribution is more suitable for off-site traffic mitigations. This would be for the cost of the minor works to be delivered or as a contribution to any Bedford Borough Council schemes which come forward to address issues at the junctions listed above.

Access to local amenities

Further information was requested about access to local amenities and for the developer to assess and put forward sustainable travel measures such as improved footways, the establishment of cycleways to include access on foot or cycle to local amenities and the regular bus network. Here it was previously stated that the regular bus network is at Norse Road and the bus service at Salph End is considered to be infrequent.

In particular information was requested about access to local amenities within Renhold and Ravensden, such as the village hall and the pre-school nursery. Information was requested about school travel, such as the catchment for the proposed on-site school and how children from outside the development would travel to school. It is also important to have current standard walking and cycling links to Mark Rutherford Secondary School and to Renhold Primary School as not all children within the site would attend the on-site school. Further information was also requested about travel to and from the proposed on-site sports facility.

The further information received considers that the existing network is sufficient for walking, cycling and bus travel. Where the current provision is for Salph End which is one end of the village of Renhold, it is considered that the infrastructure is not suitable for a new housing development. Therefore Highway Development Control objects to the lack of information with regard to improvements to the walking, cycling and bus network.

The most recent further information received proposes a 2m wide footway to fill in the gap in the existing footway on Hookham's Lane towards Norse Road which is adjacent to the site. This is shown in Appendix X. This does not address the fact the existing footway on Hookham's Lane is substandard in width and has an uneven surface. The whole footway needs to be upgraded for access to mobility scooters and cycles. Therefore access has not been provided to the frequent buses on Norse Road or to the local amenities in Putnoe. This does provide a suitable pedestrian/cycle link to Mark Rutherford Secondary School where the route is also unlit.

The further information suggests that the on-site school would provide provision for pupils from the site or Salph End. As previously stated access by foot/cycle would need to be provided with safe routes to school for the whole of the Renhold parish which has not been shown.

It is stated that there is a footway from the site to Renhold Village Hall. There is a gap in the footway network with no footway leading up to the village hall. The available footway is substandard in width and crosses the road with no pedestrian crossing provision.

It is also stated that there is a footway to the local nursery which is near to the proposed Ravensden Road access. There is no footway adjacent to the site between the

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Ravensden Road access and the nursery access which would provide a safe route to the nursery school.

There is no further information about the provision of lighting for the pedestrian routes to amenities within Renhold and therefore they are unlikely to be used for travel after dark and in poor visibility. The network of paths in Renhold are narrow and are substandard for increased use by the development.

Therefore the Highway Development Control objection to the lack of information about sustainable travel links to schools and local amenities remains.

Conclusion

Highway Development Control objects to this application where the further information requested did not fulfil the questions raised about the proposed housing development with school and sports pitches. Therefore Highway Development Control objects for the following reasons:

- There are not 2 x 2 way accesses required for a 400 dwelling site.
- There is a lack of information about the internal layout, the accident record and mitigation, the overcapacity of nearby junctions and their mitigation and access to local amenities and schools via the walking, cycling and bus network.

The most recent information received does not address the points raised as detailed above in italics. Therefore our conclusion of objection to the application remains as above.

Reasons for objection

1RG14 LACK OF INFORMATION

Insufficient information has been provided by the applicant to enable an accurate assessment to be made of the highway safety/traffic impact implications of the development. The application as submitted is therefore contrary to saved Policy 31 of the Bedford Borough Local Plan 2030.

1RG9 ADDITIONAL ACCESS POINTS

The proposed access would increase the number of points at which vehicles enter and leave the public highway. This additional access point would unnecessarily add to the danger and inconvenience inherent in accesses to the highway and would have an adverse effect on road safety and the flow of traffic. The development is therefore contrary to saved Policy 31 of the Bedford Borough Local Plan 2030.

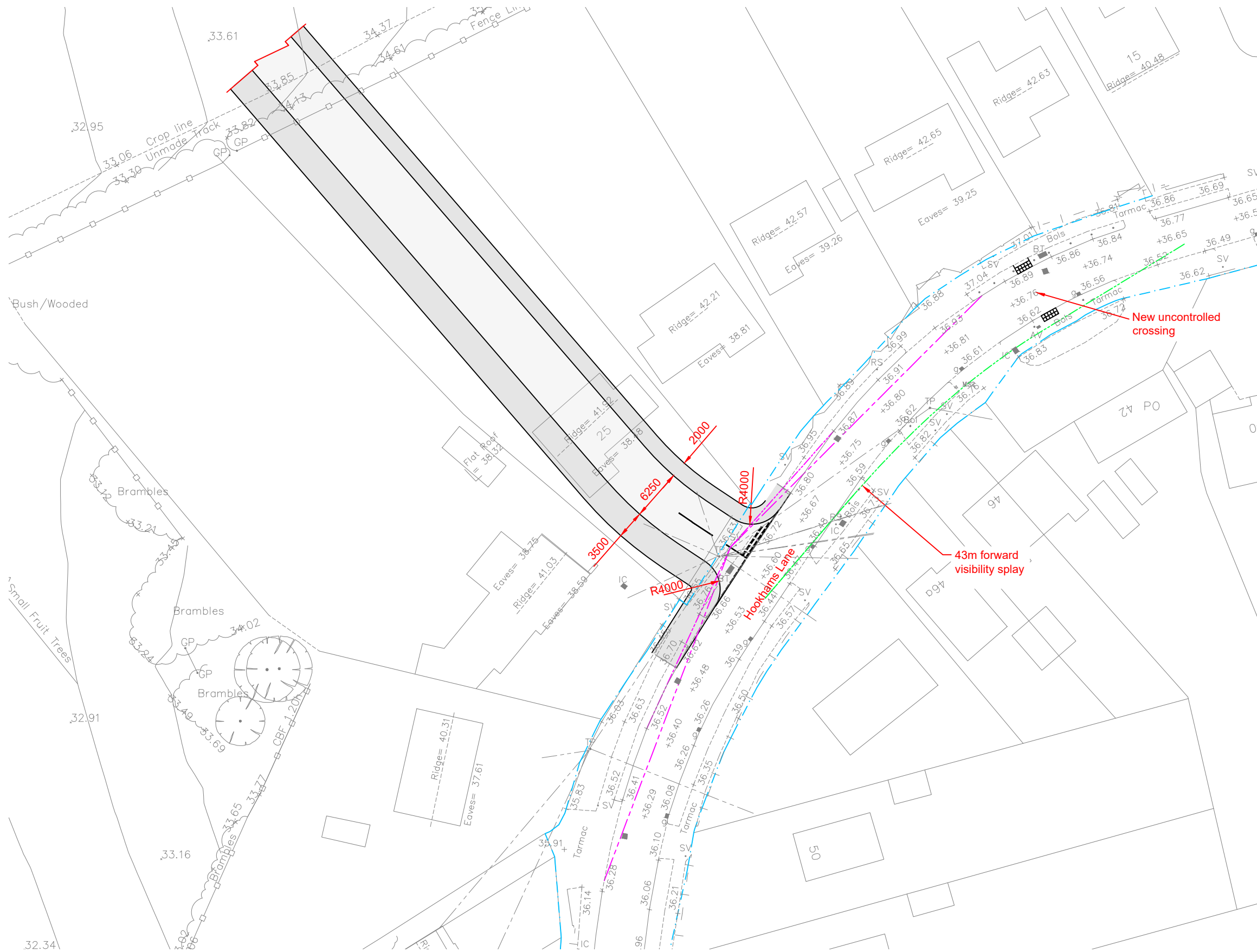
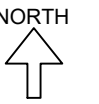
Regards





Appendix B

Hookhams Lane Access
MAC drawing no. 248-TA11C
and
Ravensden Road Access
MAC drawing no. 248-TA12C



Notes


1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.

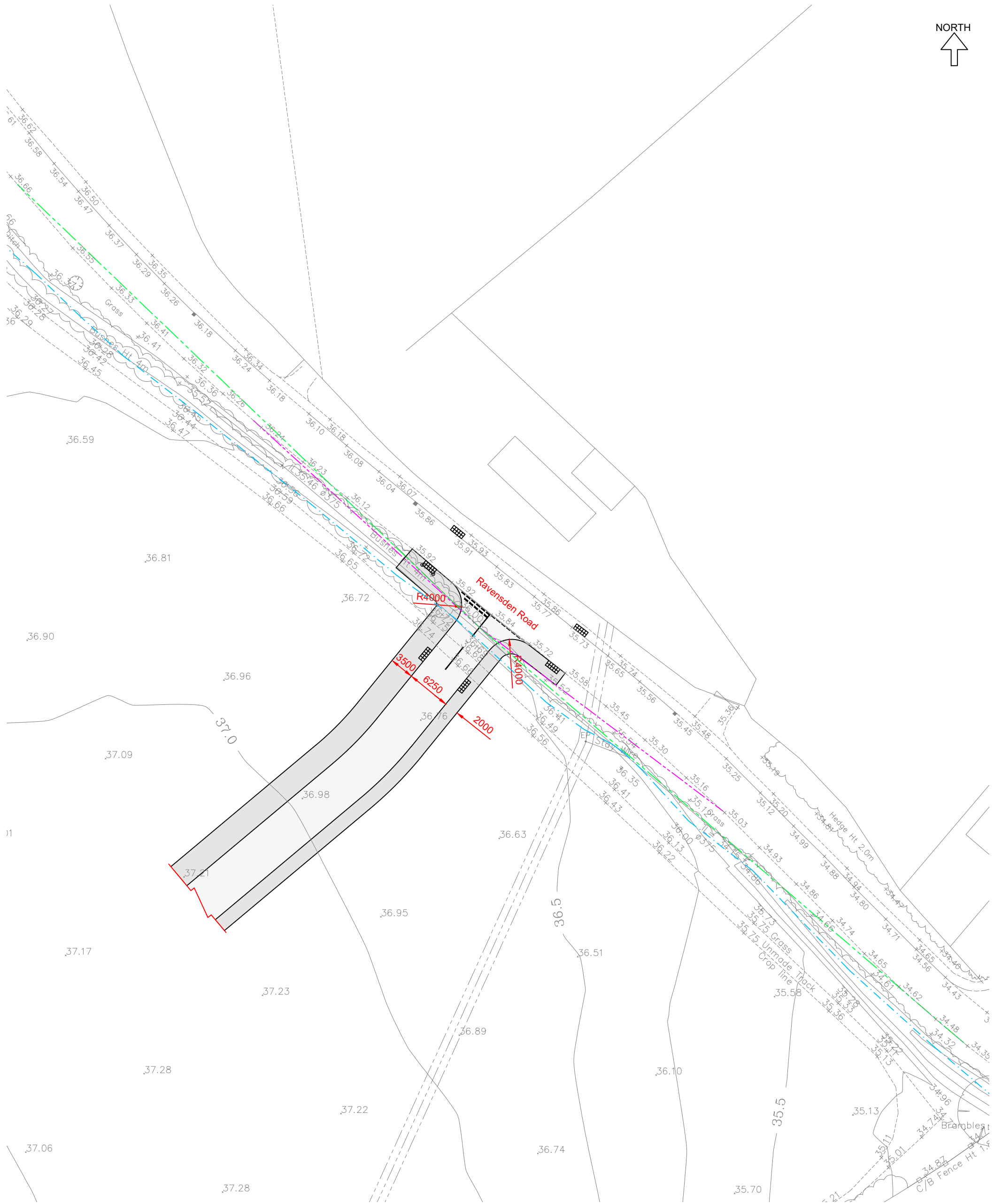
Key

- Visibility Splays - 2.4m x 43m
- Forward visibility splay - 43m
- Highway boundary

New uncontrolled crossing

43m forward visibility splay

 <p>T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd</p>	<ul style="list-style-type: none"> • Transport Assessments • Flood Risk Assessments • Highway Advice • Access Design • Drainage Strategies • Vehicle tracking 	Client: Manor Oak Homes	Project: Land North of Hookhams Lane, Salph End	
		Title: No. 25 Hookhams Lane - Access Option 1		Date: 11/06/20
				Drw: MJA
				Chk: MJA
		Drawing No: 248-TA11	Revision: C	
		Scale: 1:500		
		Size: A3		




Notes

1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.

Key

- Visibility Splays - 2.4m x 43m
- Visibility Splays - 2.4m x 90m
- Highway Boundary

 <p>T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd</p>	<ul style="list-style-type: none"> • Transport Assessments • Flood Risk Assessments • Highway Advice • Access Design • Drainage Strategies • Vehicle tracking 	<p>Client: Manor Oak Homes</p> <p>Project: Land North of Hookhams Lane Salph End</p>		
	<p>Title: Ravensden Road Access</p>	<p>Date: 19/01/20</p> <p>Drw: MJA</p> <p>Chk: MJA</p>		
	<p>Drawing No: 248-TA11</p>	<p>Revision: A</p>	<p>Scale: 1:500</p> <p>Size: A3</p>	



Appendix C
Road Safety Audit: Hookhams Lane



safer roads for everyone

**Land North of Hookhams Lane,
Renhold, Bedford**

(Drawing No. 248-TA11)

Road Safety Audit Stage 1

**on behalf of Martin Andrews Consulting Ltd
(Manor Oak Homes)**

TMS reference no: 15386

Date: 9th December 2019

Land North of Hookhams Lane, Renhold Lane, Bedford

Drawing No. 248-TA11

Road Safety Audit Stage 1

1. Introduction

- 1.1 This report describes a Stage 1 Road Safety Audit carried out on a proposed priority junction at Land North of Hookhams Lane, Renhold, Bedford, on behalf of Martin Andrews Consulting Ltd (Manor Oak Homes). This audit relates to drawing number 248-TA11. The audit was carried out on 9th December 2019 in the offices of TMS Consultancy.
- 1.2 The audit team members were as follows:

Audit Team Leader

[REDACTED]

Audit Team Member

[REDACTED]

- 1.3 The audit comprised an examination of the documents listed in **Appendix A**.
- 1.4 The site was visited by the Audit Team on 9th December 2019 at 11.25 am. The weather was fine and dry. Traffic flows were very light. No pedestrian and cycle flows were observed.
- 1.5 The terms of reference of the Road Safety Audit are as described in GG 119 (GG 119 superseded HD 19/15 in November 2018). The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria.
- 1.6 All of the problems described in this report are considered by the audit team to require action in order to improve the safety of the scheme and minimise collision occurrence.

- 1.7 A scheme drawing is included in **Appendix B**, where the locations of specific problems are referenced. A location plan of the scheme is also included in this Appendix.
- 1.8 The scheme consists of proposed priority junction access for land at 25 Hookhams Lane, Renhold, Bedford consisting of 400 dwellings and a two-form entry Primary School.
- 1.9 **Road Safety Audit Response Report**

Following the completion of the road safety audit, the design team should prepare a road safety audit response report in collaboration with the Overseeing Organisation.

The response report should incorporate the following:

- **Decision Log** spreadsheet, where each Problem and Recommendation in the Safety Audit report is reiterated
- In the Decision Log, a response should be provided by the Design Team and Overseeing Organisation for each problem raised in the RSA report, together with an agreed action

Further information is provided in **GG 119 Sections 4.11 to 4.19** and **Appendix F** (where a road safety audit response report template is available).

The response report should be produced and finalised within *one month* of the issue of the RSA report. A copy of the response report should be issued to the Safety Audit Team for information.

2. Items resulting from this Stage 1 Audit

2.1 PROBLEM

Location – Hookhams Lane; site access junction

Summary: Potential darkness related vehicle collisions

There is no existing street lighting within the vicinity of the proposed site access at No. 25 Hookhams Lane. Given the introduction of the junction and a significant amount of additional traffic (and new turning manoeuvres), the lack of illumination may increase the potential for darkness related vehicle collisions.

RECOMMENDATION

At the detailed design stage, the site access junction should be illuminated.

2.2 PROBLEM

Location – Hookhams Lane

Summary: Potential trip hazard to pedestrians

There are shops on the south side of Hookhams Lane within the vicinity of the proposed site access junction, which is likely to introduce a pedestrian desire line to and from the development. Pedestrians wishing to cross Hookhams Lane will have to do so via full height kerbs, which may be a potential trip hazard to pedestrians, particularly to those with visual and mobility impairments.

RECOMMENDATION

At the detailed design stage, an uncontrolled pedestrian crossing point with dropped kerbs and tactile paving should be provided across Hookhams Lane adjacent to the site access junction.

Also, at the detailed design stage, an uncontrolled pedestrian crossing should be provided across the site access road adjacent to the junction with Hookhams Lane.

2.3 OTHER ISSUE

There is an existing BT cover and telegraph pole within the footway that will both be located within the proposed junction area. At the detailed design stage, both the service cover and telegraph poles should be appropriately relocated out of the carriageway into the footway.

3. Audit Team Statement

We certify that the terms of reference of the road safety audit are as described in GG 119 (formerly HD 19/15).

Audit Team Leader

[Redacted Name]

Principal Engineer, TMS Consultancy

Signed [Redacted Signature]

Date 9th December 2019

Audit Team Member

[Redacted Name]

Signed [Redacted Signature]

Date 9th December 2019

TMS Consultancy

Unit 1b, Sovereign Court 2,
University of Warwick Science Park
Sir William Lyons Road
Coventry,
CV4 7EZ



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info@tmsconsultancy.co.uk



www.tmsconsultancy.co.uk

Appendix A

Documents Examined:

- 248-TA13-Hookhams Access--Both Accesses.pdf
- Salph End ACCIDENT PLAN.pdf
- Salph End ACCIDENT REPORTS.pdf
- 18+02496+MAF+V13-Transport Statement.pdf
- 18+02496+MAF+V26..pdf
- 18+02496+MAF+V26A..pdf
- 18+02496+MAF+V27..pdf
- 248-TA-01-0-Salph End.pdf
- 248-TA01A-Location Plan.pdf
- 248-TA11A-No. 25 Hookhams Lane Access Option 1.pdf

Other Information Provided:

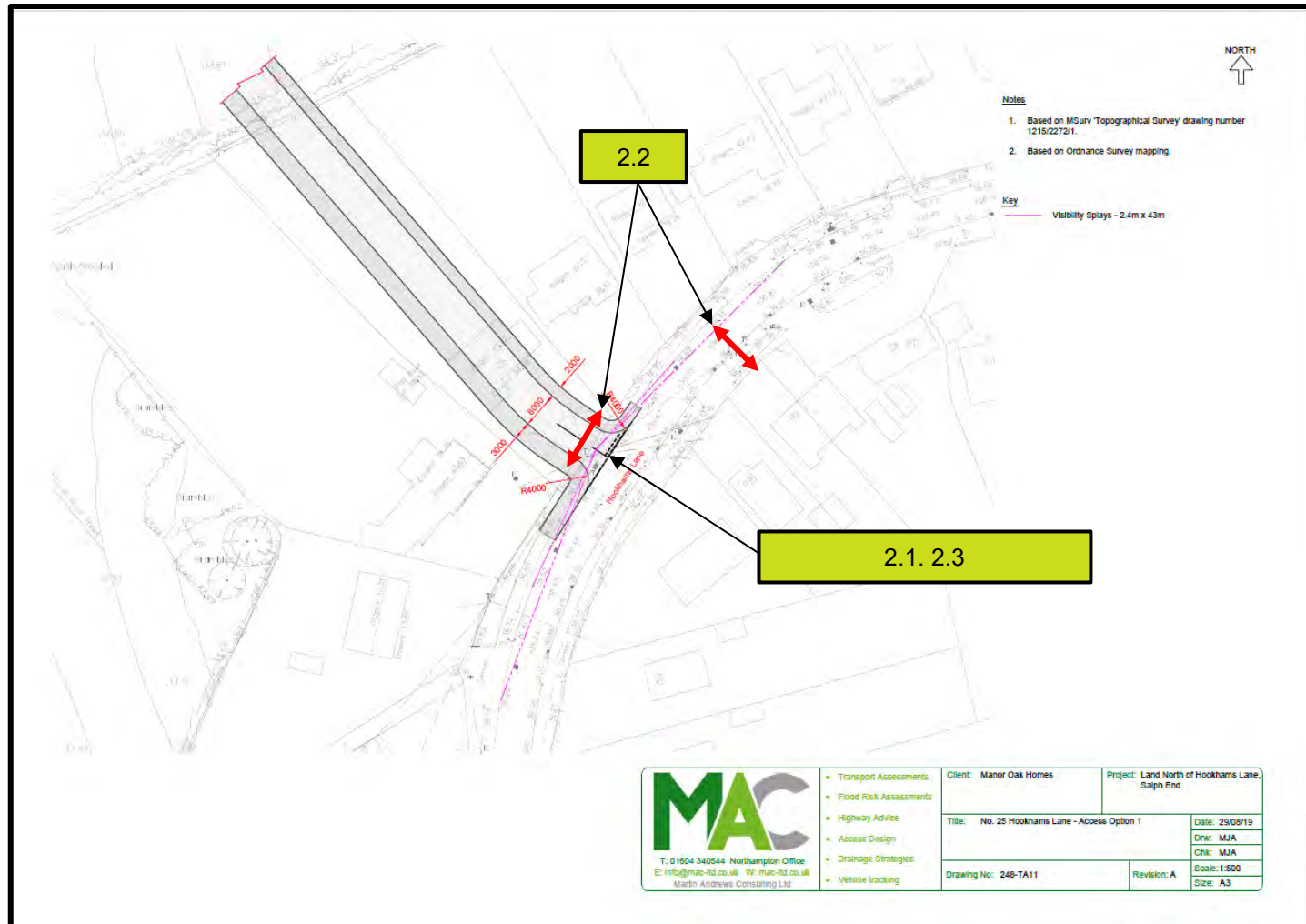
- RSA1 - Checklist of Information Required.docx

Appendix B

Please refer to the following page for a plan illustrating the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).

The location of the scheme is shown below:







Appendix D

MAC Transport Assessment (Rev B): Accident Data Review

3.4 Accident Data

3.4.1 Accident data has been obtained from the local highway authority. The first issue of the Transport Assessment included an accident search comprising Ravensden Road, Hookhams Lane and the Norse Road roundabout. This data covered the most recent 5 year period available at the time from 19 May 2014 to 18 May 2019-. A copy of the accident data is enclosed in Appendix F.

3.4.2 This showed that there had been no accidents on Hookhams Lane or Ravensden Road during this 5 year period.

3.4.3 At Junction 1 Hookhams Lane / Norse Road roundabout there have been two recorded slight accidents and one serious accident. The accidents are summarised below in Table 3.5 below. A review of the basic facts shows that all three accidents occurred in different locations and under different circumstances. There are not any common causes for the accidents.

Table 3.5: Accident Summary - J1 Hookhams Lane / Norse Road

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
313804	Slight	Hookhams Ln - NB	Dry	Cyclist crossed between SB queuing traffic and was obscured by van. Vehicle travelling NB collides with cyclist.
67374	Slight	On Roundabout near Norse Road	Dry	Vehicle pulls out and collides with cyclist on roundabout.
112248	Serious	Norse Road - WB	Dry	Car left carriageway no other vehicles involved. Tiredness / Illness listed as contributory factor

3.4.4 Accident data for the remaining junctions was obtained at a later date at the request of Bedford Borough Council. This accident data covers the period 10 October 2014 to 9 October 2019.

3.4.5 At Junction 2 Wentworth Drive / Putnoe Lane there have been three recorded slight accidents. One slight accident occurred on Wentworth Road east arm with two accidents recorded on the circulatory carriageway. The accidents are summarised below in Table 3.6 below. A review of the basic facts shows that all three accidents occurred in different locations and under different circumstances. There are not any common causes for the accidents.

Table 3.6: Accident Summary - J2 Wentworth Drive / Putnoe Lane

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
238382	Slight	Outside 36 Wentworth Drive	Dry	Vehicle is access driveway at roundabout and collides with cyclist on pavement.
15BA0577	Slight	On Roundabout	Dry	V2 travelling east makes late decision to turn right. V1 travelling west enters roundabout and collides with V2

15BA0013	Slight	Wentworth Dr - WB	Dry	V1 stops at roundabout selects reverse and drives in to V2. Driver of V2 has +ve breath test.
----------	--------	-------------------	-----	---

3.4.6 At Junction 3 A4280 St Neots Road / A4280 Goldington Road / Norse Road there have been no recorded accidents. On the Goldington Road approach there has been a single accident. The accident is summarised below in Table 3.7 below. As there is only a single accident there are an no common causes to review.

Table 3.7: Accident Summary - J3 A4280 St Neots Rd / A4280 Goldington Rd / Norse Rd

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
70704	Serious	St Neots Rd, 75m east of junction WB	Dry	Aggressive driving by car causes crash with cyclist.

3.4.7 At Junction 4 A421 / St Neots Road / A4280 northern roundabout there are five recorded slight injury accidents. Four of which have occurred on the A4280 arm, three of which involved some form of slight collisions with cars on the opposite carriageway and a fourth involved a broken-down vehicle with police in attendance. The accidents are summarised below in Table 3.8 below. Whilst there are three accidents which result in a broadly similar accident involving a loss of control in damp conditions and hitting vehicles in the opposite direction, only two are in the same direction, they are of such a low frequency with enough differences to not form a pattern.

Table 3.8: Accident Summary - J4 A421 / St Neots Road / A4280 northern roundabout

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
14BA1259	Slight	A4280 St Neots Rd NW	Wet	V2 sees police car about to enter roundabout on an emergency call and brakes. V1 collides into rear of V2.
235061	Slight	A4280 St Neots Rd - SW	Wet	V1 lost control in damp conditions and collided with V2 travelling in opposite direction. Contributory factors – swerved and aggressive driving V1
337716	Slight	A4280 St Neots Rd - SW	Wet	V2 exiting roundabout collides with V1 on opposite side of the carriageway
802367	Slight	A4280 St Neots Rd - NE	Wet	V4 police car had stopped on side of road, helping a broken down vehicle. V3 slowed on opposite side of carriage way after seeing blue lights but did not notice v2 had pulled over and stopped. V3 collided with v2, pushing it into the rear of v1.
80273	Slight	A4280 St Neots Rd - NE	Wet	V1 loses control has possibly mis-judged the carriageway and junction and has then collided with the V2 travelling in opposite direction.

3.4.8 At Junction 4 A421 / St Neots Road / A4280 southern roundabout there are three recorded slight injury accidents. All three accidents are shut type. The accidents are summarised below in Table 3.8 below. Three shunt accidents at a junction of this type with the volume of traffic is not unexpected over a five year period.

Table 3.9: Accident Summary - J4 A421 / St Neots Road / A4280 southern roundabout

Reference	Severity	Location / Direction of travel	Dry / Wet	Description
14BA0998	Slight	A421 Westbound Entry Slip	Dry	V1 a motorcycle travelling too close to V2 and collides into the rear of V1.
15BA0259	Slight	A421 Exit slip - SW	Dry	V2 trav SW, stops at the end of the slip road, waiting to enter rdbt and is struck from behind by V1.
167994	Slight	A4280 St Neots Rd - SW	Dry	V2 trav SW, stops at the end of the slip road, waiting to enter rdbt and is struck from behind by V1.

3.4.9 At Junction 5 Ravensden Rd / Oldways Rd / Church End there have been two recorded slight injury accidents and a single serious accident. The accidents are summarised below in Table 3.10 below. Two accidents, including the serious accident, involved vehicles waiting to turn right onto Church End and failing to see an approaching vehicle. Whilst the third accident involved someone turning right from Church End and again failing to see a vehicle. The type of accidents are as would be expected with a junction of this type in this location. The proposed development is not expected to result in a significant adverse impact.

Table 3.10: Accident Summary - J5 Ravensden Rd / Oldways Rd / Church End t

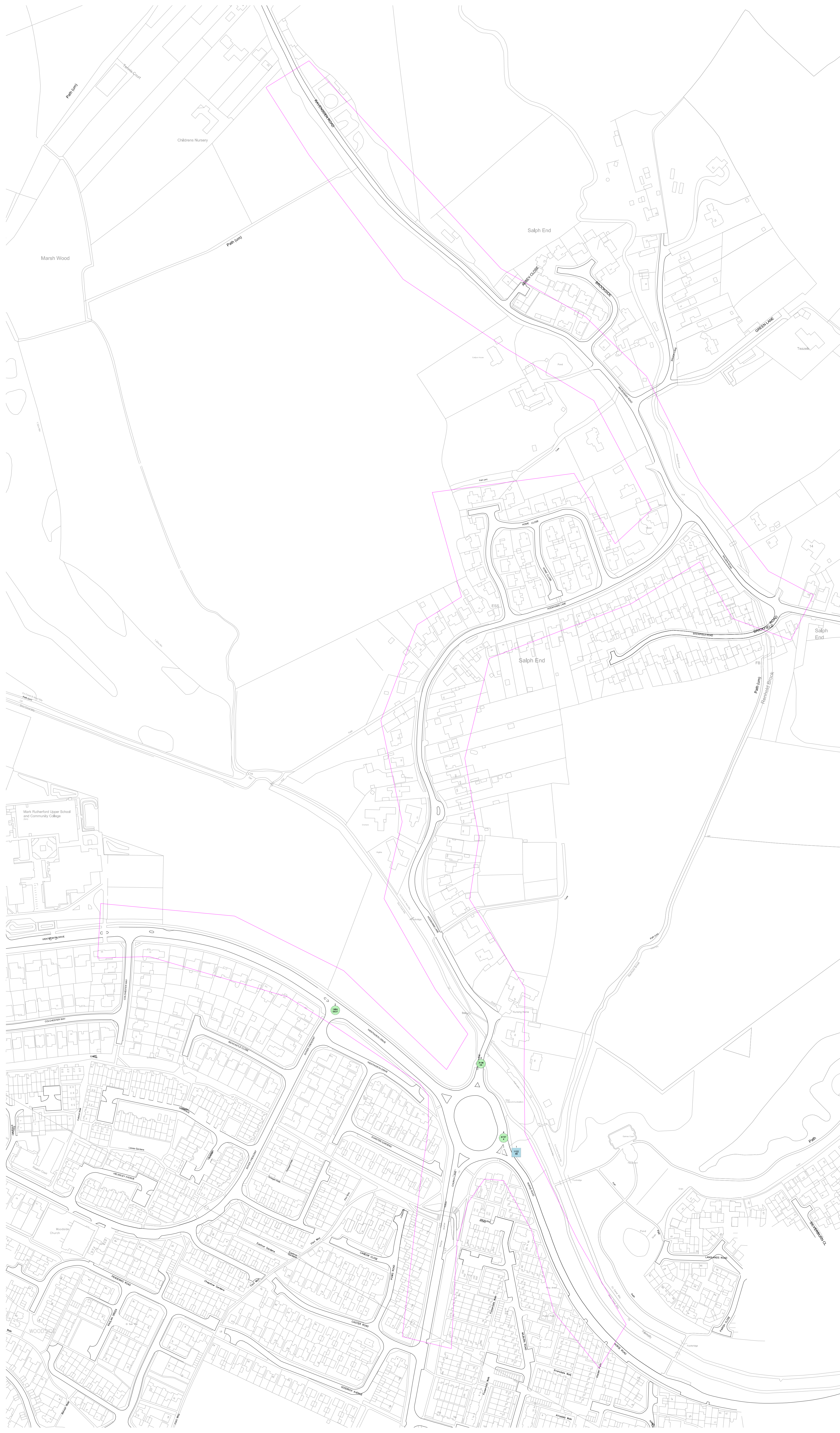
Reference	Severity	Location / Direction of travel	Dry / Wet	Description
14BA1304	Serious	Ravensden Rd - NW	Wet	V1 travelling NW turns right across path of V2. V2 collides with V1.
15BA0669	Slight	Church End - SW	Dry	V1 turns right onto Oldways and strikes V2 travelling SE.
249935	Slight	Ravensden Rd - NW	Wet	V1 travelling NW turns right across path of V2. V2 collides with V1.

3.4.10 At Junction 6 B660 / Oldways Rd / Thurleigh Rd there were no recorded accidents.

3.4.11 The accident data review has not identified any areas of concern. Therefore, the proposed development is not expected to have an adverse impact on the operation safety of the local junctions.

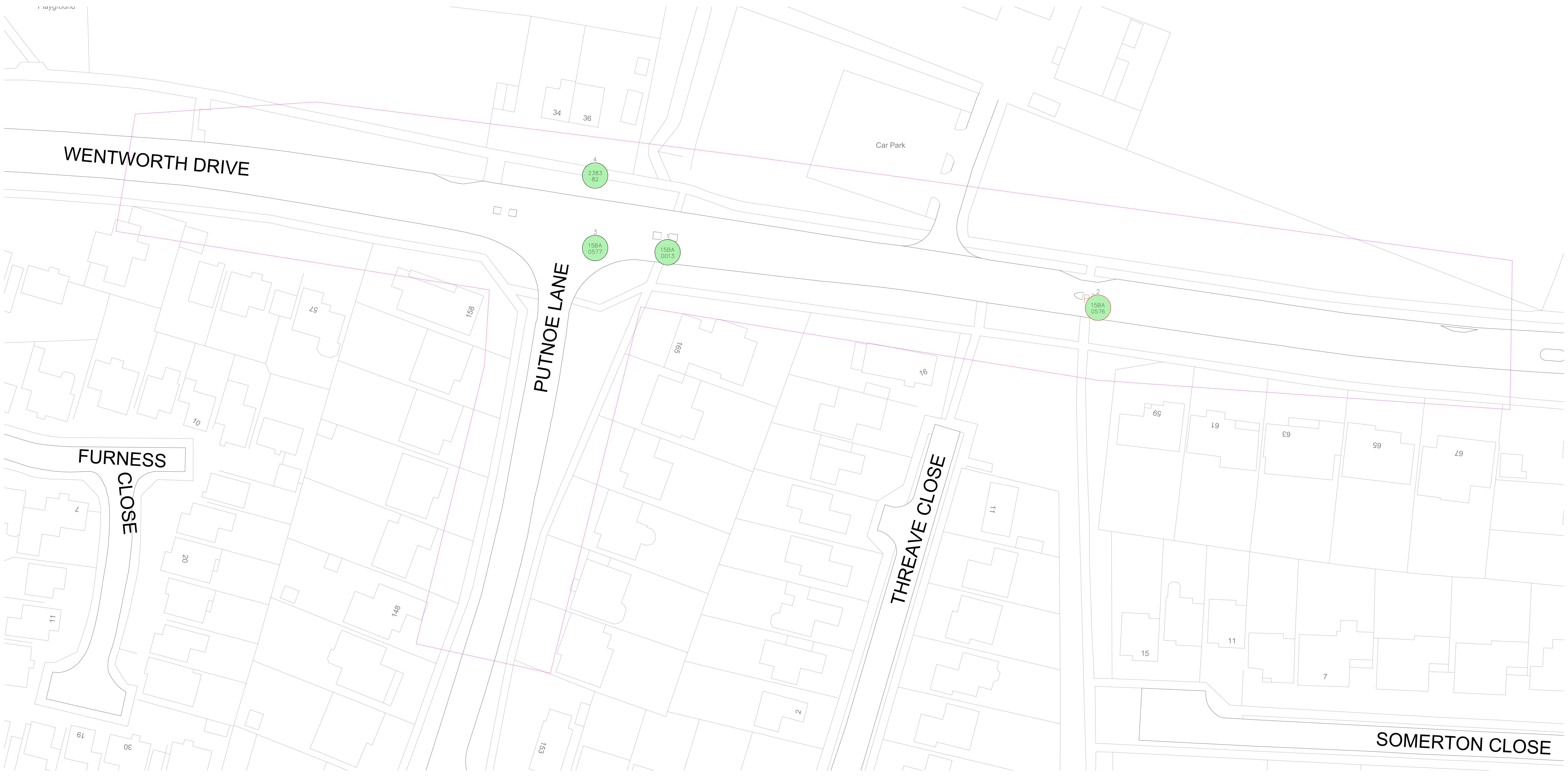


Appendix E
Full Accident Data



Accident Date BETWEEN '19-May-2014' AND '18-May-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	112248	Serious	Tuesday	13/09/2016	23:08	507760/252080						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION 10 METRES SOUTH OF JUNCTION WITH CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Dark/lights lit	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Lt hand bend	SE	NW On main	Junt appr	No	None	Offside	Tree	Female	70	N/R
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	70	Serious	No	Not ped	Not ped	Not ped	Other			
2	1	Passenger	Male	76	Slight	Front	Not ped	Not ped	Not ped	Other			
Description: V1 has been travelling along Norse Road heading towards roundabout on Church Lane. V1 has left the carriageway into a small woodland area, where it has collided with a tree.													
User Information: Contributory Factors: 503V001B 505V001B													
2	E06000055	14BA0537	Slight	Wednesday	11/06/2014	09:50	507560/252237						
Location: Uc Wentworth Drive Metres Uc Dover Crescent, Bedford, Bedfordshire 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	Mini-R Give	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Bus or Coach	No	Right turn	S	E On main	Mid junction	No	None		None	Male	51	-ve
2	Car	No	Going ahead	E	W On main	Mid junction	No	None		None	Female	37	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Female	37	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 Trav West onto Rdbt. V1 a Bus, Trav North, turning right at Rdbt, Fails to Give Way to V2 and Collision Occurs.													
User Information: Contributory Factors: 405V001A													
3	E06000055	313804	Slight	Friday	29/06/2018	08:08	507721/252178						
Location: HOOKHAMS LANE 1st Rd: U 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	NotJCT	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	S	N On main	Not at	No	None		None	Female	26	N/R
2	Pedal Cycle	No	Start	E	W On main	Not at	No	None		None	Male	12	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	12	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 was entering Hookhams Lane from the roundabout. On the other side of the road was a queue of traffic where a pedestrian crossing over the road has been covered by a white van. As V1 has been driving down Hookhams Lane, a 12 year old male on a bicycle (V2) has come out from behind the van into the road. Driver of V1 has a short period of time to react managing to brake but has collided with the male causing him to fall off his bicycle hitting his head, knee and ankle.													
User Information: Contributory Factors: 801C001A 802C001B													
4	E06000055	67374	Slight	Monday	02/05/2016	09:15	507746/252096						
Location: NORSE ROAD UNSPECIFIED ROAD OR LOCATION CHURCH LANE C40 1st Rd: U0 2nd Rd: C40													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	R'dabt Give	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	NW	SE On main	Leave r'about	No	None		None	Male	81	-ve
2	Pedal Cycle	No	Going ahead	N	S On main	Mid junction	No	None		None	Male	37	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	37	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 was travelling southbound from Hook Lane Renhold to Church Lane round the roundabout. V1 was travelling eastbound from Wentworth Drive to Norse Road. V2 was coming past the Norse Road junction, as v1 attempted to pull off the roundabout v1 pulled directly into v2's path causing him to fall off into the road.													
User Information: Contributory Factors: 405V001A 403V001A 505V001B													



WENTWORTH DRIVE

PUTNOE LANE

THREAVE CLOSE

FURNESS CLOSE

SOMERTON CLOSE

Car Park

4
2383
82

3
15BA
0577

15BA
0013

2
15BA
0576

34 36

57

58

165

16

10

7

148

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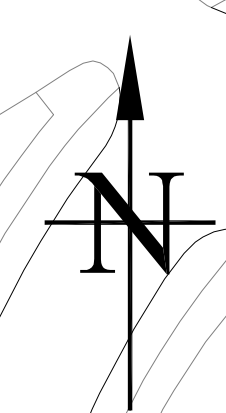
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2

Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	15BA0013	Slight	Saturday	10/01/2015	17:13	506862/252331						
Location: Uc Wentworth Drive 10 Metres East of Uc Putnoe Lane, Bedford, Bedfordshire 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	R'dabt Give	Dark/lights lit	Fine Wind	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Reversing	W E	On main	Junt appr	No	None		None	Male	39	+ve
2	Car	No	Waiting	E W	On main	Junt appr	No	None		None	Male	20	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Male	39	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 Trav in Front of V2 on Trav West on Approach to Rdbt. V2 Hangs Back Owing to Erratic Driving by V1. V1 Stops at Rdbt and then Selects Reverse and Collides into Front of V2. V1 Drives off Failing to Stop. Apprehended Shortly After.													
User Information: Contributory Factors: 501V001A 601V001A													
2	E06000055	15BA0576	Slight	Monday	22/06/2015	15:04	506963/252318						
Location: Unclassified Road WENTWORTH DRIVE at SOMERTON WALK, BEDFORD, Bedfordshire 1st Rd: U 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	NotJCT	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	E W	On main	Not at	No	None		None	Male	43	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Pedestrian	Female	14	Slight	No	South	Offside	Ped x'ing	Yes			
Description: CAS1 A PED CROSSES ROAD AT CENTRAL REFUGE. CAS1 IS ALLOWED TO CROSS BY SLOWING VEHICLE ON EAST CARRIAGEWAY BUT CAS1 FAILS TO CHECK WESTBOUND SIDE, STEPS INTO ROAD AND IS STRUCK BY V1 TRAV WEST.													
User Information: Contributory Factors: 802C001A													
3	E06000055	15BA0577	Slight	Tuesday	23/06/2015	14:10	506845/252332						
Location: Unclassified Road WENTWORTH DRIVE, at its Junction with Unclassified Road PUTNOE LANE, BEDFORD, Bedfordshire 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	Mini-R Give	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	E W	On main	Mid junction	No	None		None	Female	78	-ve
2	Car	No	Right turn	W S	On main	Mid junction	No	None		None	Female	74	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	78	Slight	No	Not ped	Not ped	Not ped	Other			
2	2	Drv/Rider	Female	74	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 TRAV EAST, MAKES A LATE DECISION TO TURN RIGHT AT RDBT JUNC. V1 TRAV WEST, ENTERS RDBT AND COLLIDES WITH V2.													
User Information: Contributory Factors: 406V001A 403V002A													
4	E06000055	238382	Slight	Tuesday	26/09/2017	16:20	506845/252349						
Location: OUTSIDE NO 36 WENTWORTH DRIVE AT JN WITH PUTNOE LANE 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Roundabout	Mini-R Give	Daylight	Fine	Dry	None	Refuge	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	S N	Cycleway	Leave r'about	No	None		None	Male	69	-ve
2	Pedal Cycle	No	Going ahead	E W	Cycleway	Junt appr	No	None		None	Male	15	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	15	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V001 WAS TRAVELLING ALONG PUTNOE LANE TOWARDS ROUNDABOUT WITH WENTWORTH DRIVE. V001'S DRIVEWAY IS IMMEDIATELY OFF THE ROUNDABOUT BETWEEN 1ST AND 3RD EXIT. V002 WAS CYCLING ALONG HE PAVEMENT. V001 ENTERED ROUNDABOUT AND SAW A VEHICLE TO HIS NEAR SIDE COMING ONTO ROUNDABOUT AS HE SLOWED TO ENTER HIS DRIVEWAY AND COLLIDED WITH A CYCLIST (V002) AS HE DROVE ONTO HIS DRIVEWAY													
User Information: Contributory Factors: 108V001A													

Limegrove House



EI Sub Sta

ESSs

Caxton Court

Sedac House

CAXTON ROAD

3 Sub Sta

Retail Unit

Works

Warehouse

GOLDINGTON ROAD

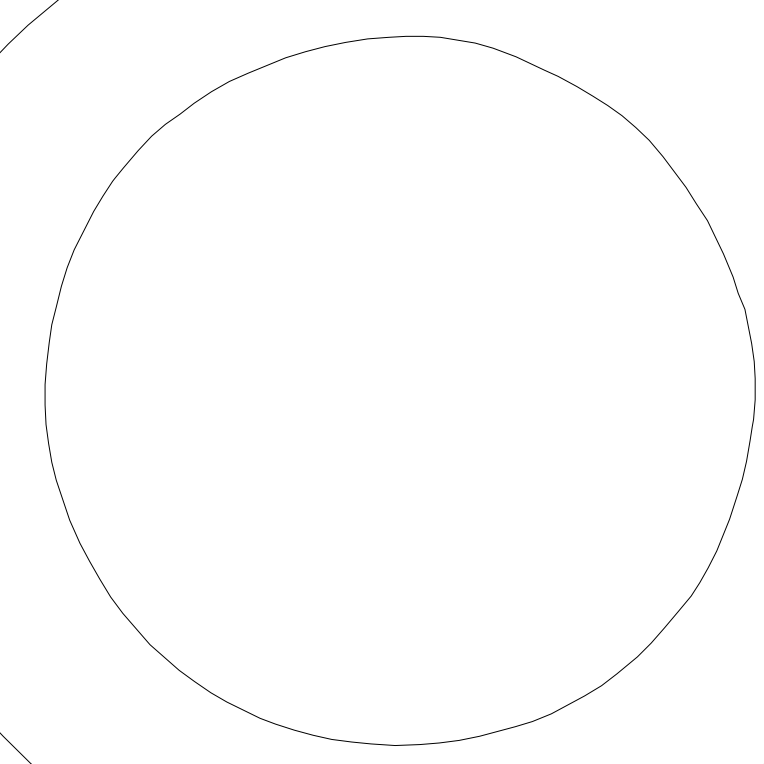
EI Sub Sta

NORSE ROAD

C/D

Rainfall Brook

Shed



EI Sub Sta

GOLDINGTON ROAD A 4280

Pumping Station

7070
4

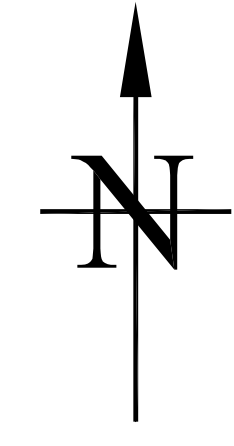
Rainfall Brook

Castle Mill Farm

Garage

Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area	L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street			
1	E06000055		70704	Serious	Saturday	07/05/2016	10:00	508998/251153					
Location: ST NEOTS ROAD A4280 75 METRES EAST OF JUNCTION WITH NORSE ROAD 1st Rd: A4280 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
40 MPH	Roundabout	NotJCT	Daylight	Fine	Dry	None	None	None	None	None			
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	NE SW	On main	Not at	No	None		None	Male	57	N/R
2	Pedal Cycle	No	Going ahead	NE SW	On main	Not at	No	None		None	Male	51	N/A
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	51	Serious	No	Not ped	Not ped	Not ped	Other			
Description: LOCATION IS A SINGLE CARRIAGEWAY ROAD ON THE OUTSKIRTS OF TOWN. CYCLIST 2 WAS CYCLIST IN FRONT OF HIS CYCLIST HEADING WEST ALONG A4280 TOWARDS ROUNDABOUT WITH NORSE ROAD. VEH 1 TRAVELLING IN SAME DIRECTION OVERTOOK CYCLIST 2 AND CAME TO A STOP AT RED PEDESTRIAN TRAFFIC SIGNALS. AS SIGNALS CHANGED CYCLIST 2 RODE UP THE INSIDE OF VEH 1 AND BOTH VEHICLES GAINED SPEED. DRIVER OF VEH 1 BECAME ANNOYED WITH CYCLIST 2 AND HAS PULLED TO THE NEARSIDE DELIBERATELY SQUEEZING HIM OUT. DRIVER OF VEH 1 HAS THEN BRAKED HARD CAUSING CYCLIST 2 TO COLLIDE INTO THE REAR.													
User Information:						Contributory Factors: 601V001A							



Issues

WATER END

Pond

Drain

Pond

WATER END

A 4280

WATER END

A 421

ST NEOTS ROAD

Trunk WATER END

ST NEOTS ROAD

Fairfield Cottage

Water End Cottage

Tunnel

Pumping Station

Earthwork

Hillcrest

CS

Bais

148A 1201

1481 27

11 8027 3

2300 61

10 8023 62

9 3377 16

148A 1259

148A 3096

158A 2259

1679 94

2586 20

Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	148127	Slight	Saturday	07/01/2017	23:47	510330/251418						
Location: MARKER POST 246 BYPASS A421 1st Rd: A421 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
70 MPH	Roundabout	NotJCT	Dark/no lights	Fine	Dry	None	None	None	P/Acc				
Veh	Vehicle type	Towing	Manoeuvr	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	E W	On main	Not at	No	None	O/s rebound	Cent barr	Male	49	N/C
2	Car	No	Going ahead	E W	On main	Not at	No	Prev acc	O/s rebound	Cent barr	Male	30	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	30	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 HAD BEEN TRAVELLING WESTBOUND ALONG THE A421, WHEN IT COLLIDED HEAVILY WITH THE CENTRAL RESERVATION BARRIER, CAUSING EXTENSIVE DAMAGE TO X17 UPRIGHT POSTS AND TO THE VEHICLE ITSELF. AS A RESULT OF THIS COLLISION, V1 CAME TO A STOP IN LANE 1, AND HAD NO HAZARD OR MAIN LIGHTS ILLUMINATED. V2 HAD ALSO BEEN TRAVELLING WESTBOUND ALONG THE A421, AND HAD TO SWERVE OUT OF THE WAY TO AVOID A DIRECT COLLISION, WITH V1, AS IT SAW IT AT THE LAST MINUTE, DUE TO NO LIGHTS BEING ILLUMINATED. AS A RESULT, V2 ALSO COLLIDED WITH THE CENTRAL RESERVATION BARRIER, BEFORE COMING TO A STOP IN LANE 1. DAMAGE TO X5 MORE UPRIGHTS HAD BEEN CAUSED BY V2.													
User Information:					Contributory Factors:								
2	E06000055	14BA0998	Slight	Monday	27/10/2014	18:06	510624/251560						
Location: A4280 St Neots Road Metres A421 Westbound Entry Slip, Renhold, Bedfordshire 1st Rd: A4280 2nd Rd: A421													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	Roundabout	R'dabt Give	Dark/lights lit	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvr	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	M/cycle 50 - 1	No	Right turn	NW SW	On main	Mid junction	No	None		None	Male	32	-ve
2	Car	No	Right turn	NW SW	On main	Mid junction	No	None		None	Female	23	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Male	32	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 a Motor Cycle Trav Behind V2 onto Rdbt. V2 Starts to Turn right and V1 Following Too Close Collides into Rear of V2. Rider of V1 Falls Off.													
User Information:					Contributory Factors: 403V001B 403V002B								
3	E06000055	14BA1259	Slight	Saturday	27/12/2014	16:53	510504/251620						
Location: A428 Saint Neots Road Metres A421 Bedford Bypass, Renhold, Bedfordshire 1st Rd: A428 2nd Rd: A421													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	Roundabout	R'dabt Give	Dark/lights lit	Rain Wind	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvr	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	SE SW	On main	Ent r'about	Yes	None		None	Male	48	-ve
2	Car	No	Stop	SE SW	On main	Ent r'about	No	None		None	Male	32	-ve
3	Car	No	Left turn	SW NW	On main	Ent r'about	No	None		None	Male	29	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	32	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V2 Trav Nw, Enters Rdbt, Followed by V1. V2 Driver Sees V3, a Marked Police Vehicle on Blue Lights and Sirens About to Enter Rdbt from N/S Slip Road. V2 Brakes and is Hit from Behind by V1. V3 Unaware Continues On.													
User Information:					Contributory Factors: 103V001A 408V002B 307V001B								
4	E06000055	14BA1291	Slight	Monday	08/12/2014	08:15	510298/251452						
Location: A4280 Saint Neots Road 250 Metres West of Water End, Renhold, Bedfordshire 1st Rd: A4280 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	Single c'way	NotJCT	Daylight	Fine	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvr	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	SW NE	On main	Not at	Yes	None		None	Male	25	-ve
2	Car	No	Stop	SW NE	On main	Not at	No	None		None	Female	37	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Female	37	Slight	No	Not ped	Not ped	Not ped	Other			
2	2	Passenger	Female	8	Slight	Front	Not ped	Not ped	Not ped	Other			
Description: V2 Trav Ne, Begins to Slow Gently on Approach to Rdbt Junc Ahead. V1 Trav Behind Witnessed Trav Too Fast for Conditions, Brakes and Skids into Rear of V2.													
User Information:					Contributory Factors: 103V001A 307V001A 308V001A 406V001A 602V001B								

Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
5	E06000055	15BA0259	Slight	Thursday	26/03/2015	18:00	510635/251565						
Location: A421 BEDFORD BYPASS, at its Junction with A4280 SAINT NEOTS ROAD, RENHOLD, BEDFORDSHIRE 1st Rd: A421 2nd Rd: A4280													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
70 MPH	Slip road	R'dabt Give	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Waiting	NE	SW On main	Junt appr	No	None		None	Male	-1	N/C
2	Car	No	Waiting	NE	SW On main	Junt appr	No	None		None	Female	20	N/C
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Female	20	Slight	No	Not ped	Not ped	Not ped	Other			

Description: V2 TRAV SW, STOPS AT THE END OF THE SLIP ROAD, WAITING TO ENTER RDBT AND IS STRUCK FROM BEHIND BY V1.

User Information:

Contributory Factors:

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
6	E06000055	167994	Slight	Wednesday	15/03/2017	17:40	510634/251572						
Location: GREAT BARFORD BYPASS A421 AT JN WITH ST NEOTS ROAD 1st Rd: A421 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30 MPH	Roundabout	R'dabt Give	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	NE	SW On main	Junt appr	No	None		None	Untra.	-1	N/C
2	Car	No	Stop	NE	SW On main	Junt appr	No	None		None	Male	43	N/C
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
2	2	Drv/Rider	Male	43	Slight	No	Not ped	Not ped	Not ped	Other			

Description: VEH 2 HAS BEEN TRAVELLING UP SLIP ROAD WHEN VEH 1 HAS FAILED TO STOP AND HAS COLLIDED WITH THE REAR OF VEH 2. ALL DETAILS EXCHANGED AT SCENE BUT DRIVER OF VEH 2 HAS NOW DISCLOSED THAT HE IS HAVING PAIN IN HIS BACK. HE HAS PHONED THE DOCTORS AND THEY HAVE ADVISED TO TAKE PAIN KILLERS SO ASKED TO RECORD IT AS AN INJURY OWING TO THE RTC

User Information:

Contributory Factors:

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
7	E06000055	230561	Slight	Sunday	08/10/2017	02:48	510423/251601						
Location: ST NEOTS ROAD A4280 AT JN WITH WATER END 1st Rd: A4280 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	Single c'way	R'dabt Give	Dark/lights lit	Fine	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	SW	NE On main	Ent r'about	Yes	None		None	Male	28	-ve
2	Taxi	No	Going ahead	NE	SW On main	Leave r'about	No	None		None	Male	45	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	45	Slight	No	Not ped	Not ped	Not ped	Other			
2	1	Passenger	Female	30	Slight	No	Not ped	Not ped	Not ped	Other			

Description: V1 lost control on bend in damp conditions collided had on with V2 travelling in opposite direction.

User Information:

Contributory Factors: 409V001A 601V001A

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
8	E06000055	258620	Slight	Wednesday	10/01/2018	09:06	510669/251704						
Location: WESTBOUND A421 AT JN WITH WATER END 1st Rd: A421 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
70 MPH	Dual c'way	Slip-R Give	Daylight	Rain	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	W	E On main	Junt cleared	No	None		None	Male	-1	-ve
2	Car	No	Stop	W	E On main	Junt cleared	Yes	None		None	Male	20	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	2	Drv/Rider	Male	20	Slight	No	Not ped	Not ped	Not ped	Other			

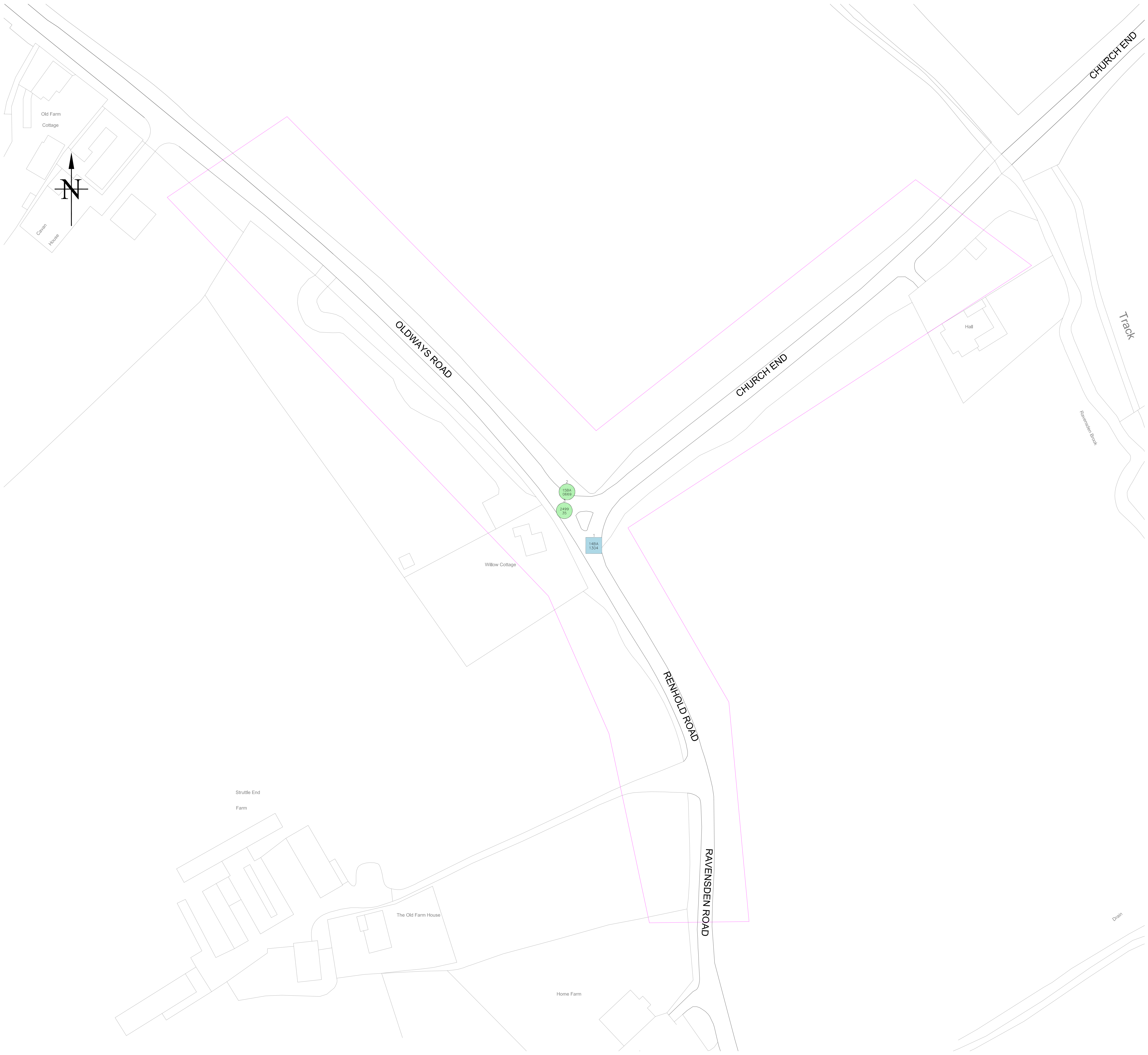
Description: Both vehicles driving westbound on A421, weather conditions were wet & raining, DV1 saw the traffic in front of him slow down so came to a stop, Vehicle behind (V02) was allegedly driving about 50 mph, started to slow down & skidded in the road.

User Information:

Contributory Factors: 103V002A

Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
9	E06000055	337716	Slight	Monday	15/10/2018	12:00	510466/251641						
Location: A428 AT JN WITH WATER END 1st Rd: A428 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	Roundabout	R'dabt Give	Daylight	Rain	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	SW	NE On main	Ent r'about	No	None		None	Female	38	N/R
2	Car	No	Going ahead	SE	SW On main	Leave r'about	Yes	None		None	Female	50	N/P
Cas	No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil		
1	1		Drv/Rider	Female	38	Slight	No	Not ped	Not ped	Not ped	Other		
2	2		Drv/Rider	Female	50	Slight	No	Not ped	Not ped	Not ped	Other		
Description: V1 was sitting in stationary traffic approaching the roundabout, V2 has exited the roundabout and slid into V1.													
User Information:					Contributory Factors:								
10	E06000055	802367	Slight	Tuesday	20/11/2018	14:10	510455/251633						
Location: ST NEOTS ROAD (A4280) NEAR JUNCTION WITH WATER END (A4280) 1st Rd: A4280 2nd Rd: A4280													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30 MPH	Dual c'way	R'dabt Give	Daylight	Rain	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Stop	NE	SW On main	Leave r'about	No	None		None	Female	30	-ve
2	Car	No	Stop	NE	SW On main	Leave r'about	No	None		None	Male	49	-ve
3	Car	No	Stop	NE	SW On main	Leave r'about	No	None		None	Female	64	-ve
4	Car	No	Parked	P	P On main	Leave r'about	No	None		None	Male	28	-ve
Cas	No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil		
1	1		Drv/Rider	Female	30	Slight	No	Not ped	Not ped	Not ped	Other		
2	2		Drv/Rider	Male	49	Slight	No	Not ped	Not ped	Not ped	Other		
3	2		Passenger	Female	-1	Slight	Front	Not ped	Not ped	Not ped	Other		
Description: V4 police car had stopped on side of road, helping a broken down vehicle. V3 slowed on opposite side of carriage way after seeing blue lights but did not notice v2 had pulled over and stopped. V3 collided with v2, pushing it into the rear of v1.													
User Information:					Contributory Factors: 405V003A 406V003A 510V003A								
11	E06000055	80273	Slight	Tuesday	17/05/2016	22:45	510402/251561						
Location: ST NEOTS ROAD A4280 100 METRES WEST OF JUNCTION WITH WATER END C44 1st Rd: A4280 2nd Rd:													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
60 MPH	One Way St	NotJCT	Dark/lights lit	Rain	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Going ahead	SW	NE On main	Not at	No	None		None	Female	68	N/R
2	Taxi	No	Going ahead	NE	SW On main	Not at	No	None		None	Male	61	N/R
Cas	No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil		
1	1		Drv/Rider	Female	68	Slight	No	Not ped	Not ped	Not ped	Other		
Description: Vehicle one has been driving up Goldington Road out of Bedford, towards the A421, vehicle 002 has been coming in the other direction. Vehicle 001 has possibly mis-judged the carriageway and junction and has then collided with the other vehicle													
User Information:					Contributory Factors: 405V001A 410V001B								



Old Farm
Cottage

North
Arrow

OLDWAYS ROAD

CHURCH END

CHURCH END

Track

Ravensden Brook

158A
1589

2499
35

148A
1504

Willow Cottage

RENFOLD ROAD

RAVENS DEN ROAD

Struttie End
Farm

The Old Farm House

Home Farm

Drain

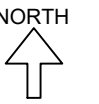
Accident Date BETWEEN '10-Oct-2014' AND '09-Oct-2019'

No.	Area L/A	Reference	Severity	Day	Date	Time	Grid Coords	Link/Node	Street				
1	E06000055	14BA1304	Serious	Saturday	06/12/2014	10:56	507314/253804						
Location: C43 Revensden Road Metres Uc42 Church Road, Ravensden, Bedfordshire 1st Rd: C43 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
40MPH	Single c'way	T/Stag Give	Daylight	Fine	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Right turn	SE	NE On main	Mid junction	No	None		None	Female	76	-ve
2	Car	No	Going ahead	NW	SE On main	Mid junction	No	None		None	Female	39	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	76	Serious	No	Not ped	Not ped	Not ped	Other			
2	2	Drv/Rider	Female	39	Serious	No	Not ped	Not ped	Not ped	Other			
Description: V1 Trav Nw, Turns right at T Junc, across the Path of Oncoming V2. V2 Collides into V1.													
User Information:										Contributory Factors: 999V001B 103V001A 103V002B			
2	E06000055	15BA0669	Slight	Wednesday	22/07/2015	17:00	507304/253824						
Location: C43 OLDWAYS ROAD, at its Junction with U42 CHURCH END, RAVENS DEN, Bedfordshire 1st Rd: C43 2nd Rd: U42													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
40MPH	Single c'way	T/Stag Give	Daylight	Fine	Dry	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Right turn	NE	NW On main	Mid junction	No	None		None	Male	72	-ve
2	Car	No	Going ahead	NW	SE On main	Mid junction	No	None		None	Female	47	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Male	72	Slight	No	Not ped	Not ped	Not ped	Other			
2	2	Drv/Rider	Female	47	Slight	No	Not ped	Not ped	Not ped	Other			
Description: V1 TRAV SW, TURNS RIGHT ONTO MAIN ROAD, FAILING TO SEE OR GIVE WAY TO V2 TRAV SE. V1 STRIKES V2 TO E/N/S.													
User Information:										Contributory Factors: 706V001B 406V001A			
3	E06000055	249935	Slight	Thursday	07/12/2017	08:18	507303/253817						
Location: RAVENS DEN ROAD AT JN WITH CHURCH END 1st Rd: U 2nd Rd: U													
Speed	C'Way	Jct Det/Ctrl	Lighting	Weather	Rd Surf	PedX - Human	- Phy Fac	Special	Hazard				
30MPH	Single c'way	Other Give	Daylight	Rain	Wet	None	None	None	None				
Veh	Vehicle type	Towing	Manoeuvre	Dir	Veh loc	Junct. loc	Skidding	Hit obj in	Left cway	Hit obj off	Sex	Age	B/T
1	Car	No	Right turn	SE	NE On main	Junt appr	No	None		None	Female	55	-ve
2	Car	No	Rt hand bend	NW	SE On main	Junt appr	No	None		None	Male	30	-ve
3	Car	No	Lt hand bend	SE	NW On main	Junt appr	No	None		None	Female	55	-ve
Cas No	Veh ref	Cas Class	Sex	Age	Severity	Car Pass	Ped Direction	Ped Movement	Ped location	School Pupil			
1	1	Drv/Rider	Female	55	Slight	No	Not ped	Not ped	Not ped	Other			
2	2	Drv/Rider	Male	30	Slight	No	Not ped	Not ped	Not ped	Other			
3	1	Passenger	Female	62	Slight	Front	Not ped	Not ped	Not ped	Other			
Description: V1 was travelling along Ravensden Road, waiting to turn right onto church end. V1 failed to see V2 and turned right in front of V2, colliding with V2. V3 was travelling behind V1 and was hit by debris caused by the collision between V1 and V2.													
User Information:										Contributory Factors: 401V001A			



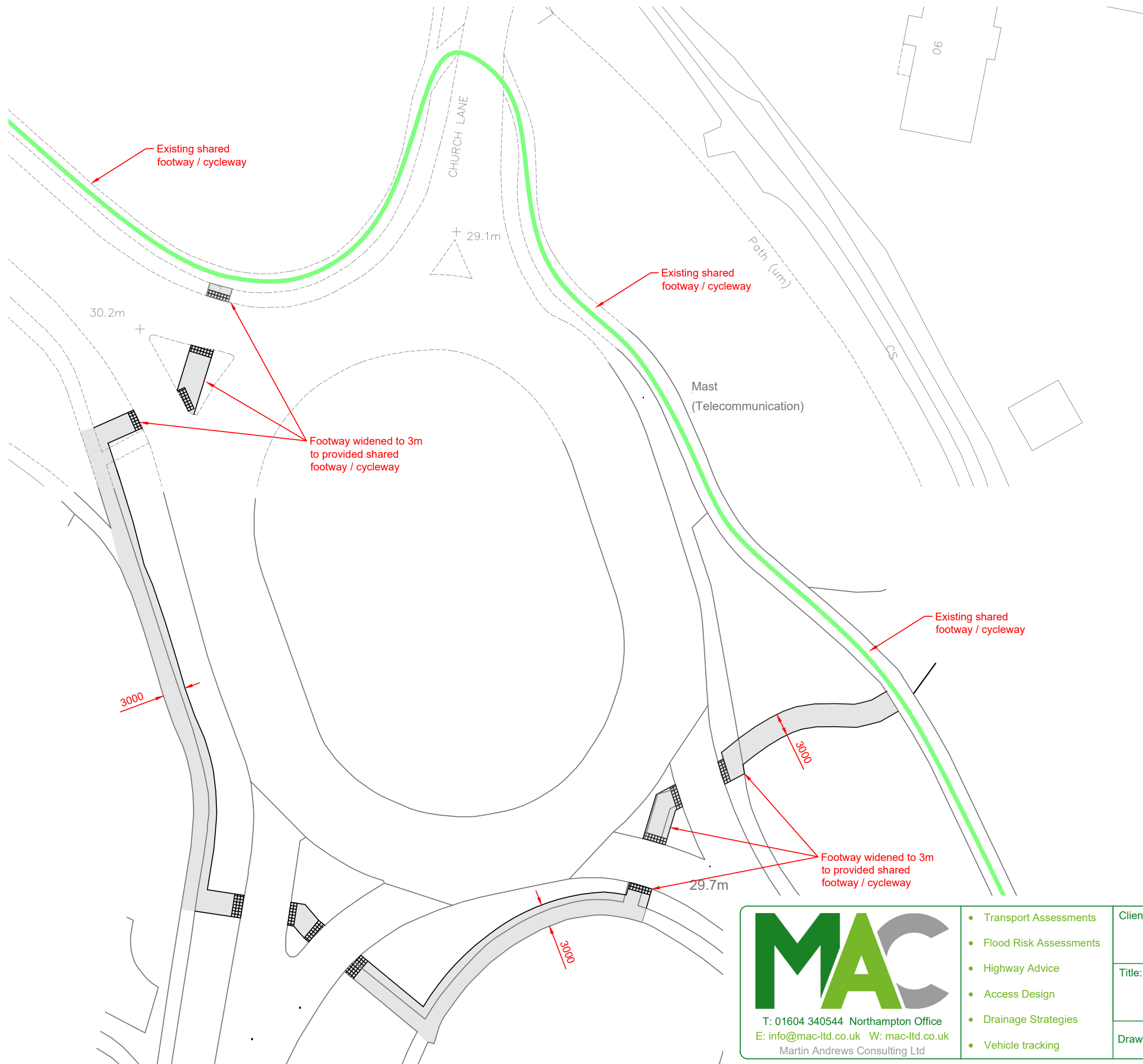
Appendix F

J1: Hookhams Lane / Norse Road: Cycleway Improvements
MAC drawing no. 248-TA18



Notes

1. Based on Ordnance Survey mapping. ©Crown Copyright and database rights 2019 OS 100019980



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Martin Andrews Consulting Ltd

- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes	Project: Land North of Hookhams Lane, Salph End	
Title: J1: Hookhams Lane / Norse Road: Cycleway Improvements	Date: 12/06/20	
	Drw: MJA	
Drawing No: 248-TA18	Revision: -	
	Chk: MJA	
Scale: 1:500		
Size: A3		



Appendix G

J5: Ravensden Road / Oldways / Church End: Existing Visibility
MAC drawing no. 248-TA16




Notes

1. Based on Ordnance Survey mapping. ©Crown Copyright and database rights 2019 OS 100019980

Key

- Visibility Splay - 2.4m x 120m
- Visibility Splay - 2.4m x 120m
- Visibility Splay - 2.4m x 120m

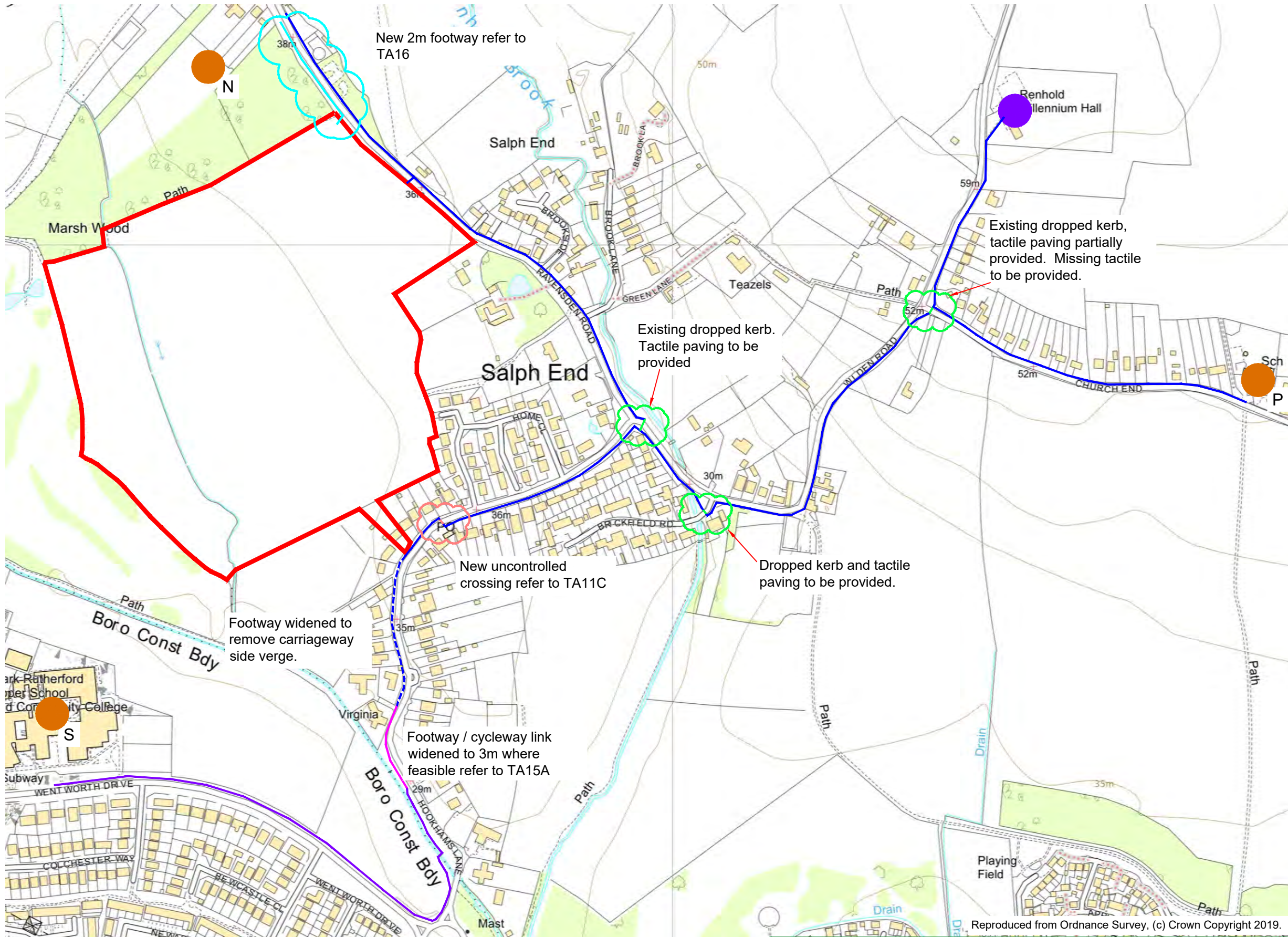
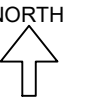


 T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	Client: Manor Oak Homes		Project: Land north of Hookhams Lane Salph End		Date: 10/06/20
	Title: J5: Ravensden Rd / Oldways Rd / Church End Existing Visibility				Drw: MJA
					Chk: MJA
	Drawing No. 248-TA16				Revision -



Appendix H

Pedestrian and Cyclist Routes to Key Facilities with Improvements
MAC drawing no. 248-TA03



Reproduced from Ordnance Survey, (c) Crown Copyright 2019.

Notes:

- The only footway and cycleway connections which are shown are to access marked facilities. Many connections existing which are not shown on this drawing.
- Access routes shown to facilities highlighted as a concern by the highway authority.

Key

- Site Boundary
- Education - Existing Nursery (N) / Primary (P) Secondary (S)
- Village Hall
- Existing footway
- Proposed footway
- Existing cycleway
- Proposed cycleway
- Upgraded crossing
- New crossing - See TA11
- - - Existing footway - upgraded

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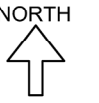
- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes	Project: Land between Hookhams Lane and Ravensden Rd Salph End, Beds	
Title: Pedestrian and Cyclist Routes to Key Facilities with Improvements	Date: 11/06/20	Drw: MJA
Drawing No: 248-TA03	Revision: -	Chk: MJA
		Scale: 1:5,000
		Size: A3



Appendix I

Footway Improvements: Ravensden Road
MAC drawing no. 248-TA17



Notes

1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.



 MAC T: 01604 340544 Northampton Office E: info@mac-ltd.co.uk W: mac-ltd.co.uk Martin Andrews Consulting Ltd	<ul style="list-style-type: none"> • Transport Assessments • Flood Risk Assessments • Highway Advice • Access Design • Drainage Strategies • Vehicle tracking 	Client: Manor Oak Homes		Project: Land North of Hookhams Lane Salph End		
		Title: Footway Improvements: Ravensden Road			Date: 12/06/20	
		Drawing No: 248-TA17			Revision: -	
					Drw: MJA Chk: MJA Scale: 1:500 Size: A3	



Appendix J

Footway Improvements – South of 43 Hookhams Lane
MAC drawing no. 248-TA15A



Notes

1. Based on MSurv 'Topographical Survey' drawing number 1215/2272/1.
2. Based on Ordnance Survey mapping.



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- Transport Assessments
- Flood Risk Assessments
- Highway Advice
- Access Design
- Drainage Strategies
- Vehicle tracking

Client: Manor Oak Homes	Project: Land North of Hookhams Lane, Salph End
Title: Footway Improvements - South of 43 Hookhams Lane	Date: 11/06/20
	Drw: MJA
	Chk: MJA
Drawing No: 248-TA15	Revision: A
	Scale: 1:500
	Size: A3