local transport projects

traffic engineering and transport planning

Richard Caley

Proposed Café, Diving Centre & Boat Yard Development

Grange Farm, Aldbrough

Transport Assessment

October 2021

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Client Commission			
Client:	Richard Caley	Date Commissioned:	September 2021

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LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CVs are available upon request to demonstrate our experience and credentials.

Team Member	LTP Designation	Qualifications
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PROPOSED CAFÉ, DIVING CENTRE & BOAT YARD DEVELOPMENT GRANGE FARM, ALDBROUGH TRANSPORT ASSESSMENT

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EXECUTIVE SUMMARY

This Transport Assessment (TA) provides a detailed appraisal of the transport impact associated with the proposals for a café, diving centre and boat yard development at Grange Farm, in Aldbrough, East Riding of Yorkshire. The key findings of this TA are summarised below:

- The current planning application represents a revised version of a previous planning application (ref: 20/01992/PLF), with the proposals involving the change of use of an old farmstead to provide a café, a boat yard and a diving centre. The main difference between the previous and current schemes in transport terms is the replacement of the previously proposed wedding venue for up to 200 guests with a café.
- The site is to be accessed via all modes from a new priority T-junction from East Newton Road. This access is understood to remain as was proposed in the previous planning application at the site, which reflects improvements to the design that were requested by ERYC Highways. Swept path analysis has highlighted that the proposed access is able to accommodate vehicle movements at the site.
- The proposed car and cycle parking facilities are expected to be sufficient to support demand generated by staff and visitors.
- The site is situated within walking and cycling distance of the village of Aldbrough, where the #129 bus service is available. There are a number of amenities within Aldbrough, including a post office, a shop and a public house.
- Analysis of the most recently available road casualty data has not revealed any identifiable existing collision issues associated with the expected movements generated by the site. Therefore, it is considered that there are no pertinent existing road safety issues.
- The overall development could be expected to generate up to 11 vehicle arrivals during the AM peak hour and up to 31 vehicle trips (10 arrivals and 21 departures) during the PM peak hour
- The café section of the development could be expected to generate up to 10 arrivals and 10 departures during the development peak hour, whereas the wedding venue proposed as part of the former application was expected to generate 100 vehicle arrivals to the site prior to an event starting and 100 vehicle departures after an event finishes. As such, this revised application would be a smaller development resulting in fewer vehicle trips to/from the site.
- The required visibility splays to the left and right of the access junction appear to be achievable subject to the clearance of vegetation located within the public highway and within the bounds of the site.
- Analysis of East Newton Road has highlighted that vehicles can pass, at regular intervals, with reasonable levels of forward visibility along the route.
- It is concluded that the proposed development would not be expected to have a significant impact in terms of sustainable travel, road safety and traffic impact. As the impact of the proposals is not expected to be severe, the proposals are therefore considered to be in accordance with the National Planning Policy Framework (NPPF).

1. INTRODUCTION

1.1 Background

1.1.1 Local Transport Projects Ltd (LTP) has been commissioned to produce a Transport Assessment (TA) in support of the proposals for a café, diving centre and boat yard development at Grange Farm, in Aldbrough, East Riding of Yorkshire. This TA provides a detailed appraisal of the expected transport impacts of the proposals. The proposed site layout plan of the site is shown in Appendix 1.

1.1.2 The local planning and highway authority for the site is the East Riding of Yorkshire Council (ERYC).

1.1.3 The proposals follow on from a recent submission for an alternative scheme on the site, which included a diving centre and boat yard, but also a wedding venue (application 20/01992/PLF, see Section 2.2). A TA was produced for the previous scheme (LTP, 2020), which was based on detailed discussions with ERYC Highways. This TA has therefore been produced in light of the previous feedback from ERYC Highways, with consideration of the key issues raised in relation to the development of the site (some of which are common to both schemes), although it is key to note that the traffic impact of the current proposals is expected to be notably lower than the previous application.

1.2 Scope

1.2.1 The scope is written in accordance with the Government's *'National Planning Policy Framework'* (MHCLG, 2021) and *'Planning Practice Guidance'* (DCLG, 2014), as summarised below:

- ***Executive Summary:*** A non-technical summary of the report outlining the key outcomes of the assessment.
- ***Introduction & Description of Proposals:***
  - Description of the development site, including location and any existing access arrangements;
  - Summary of relevant planning and allocation history for the site;
  - Description of the proposed development including site layout, pedestrian/cycle facilities and assessment of the proposed access arrangements, including swept path analysis.
- ***Site Assessment:***
  - Site assessments to determine existing traffic conditions, such as posted speed limits, road restrictions, highway geometry, on-street parking restrictions and any other relevant features of the local area;
  - Assessment of the sustainable transport infrastructure (pedestrian, cycle, and public transport) local to the site.
- ***Road Casualty Appraisal:*** Examination of road collision records (5-year study period) and assessment of the road safety impact of the proposed development on the local highway network.
- ***Traffic Impact:***

  - Calculation of the projected trip generation for the proposed development;
  - Assessment of the likely traffic impact of the proposed development on the operation of the local highway network.

- ***Access, Parking & Internal Layout:*** Consideration of the proposed access route, including swept path analysis of passing places on East Newton Road, access arrangements, including visibility splay assessment and internal layout of the site, including parking provision and access/servicing arrangements.
- ***Conclusions:*** Conclusions summarising the outcomes of the TA, including a commentary on the suitability of the proposals in terms of sustainable travel, road safety and traffic impact.

1.2.2 This TA has been prepared in accordance with the above scope and reference has been made to the following documents where appropriate:

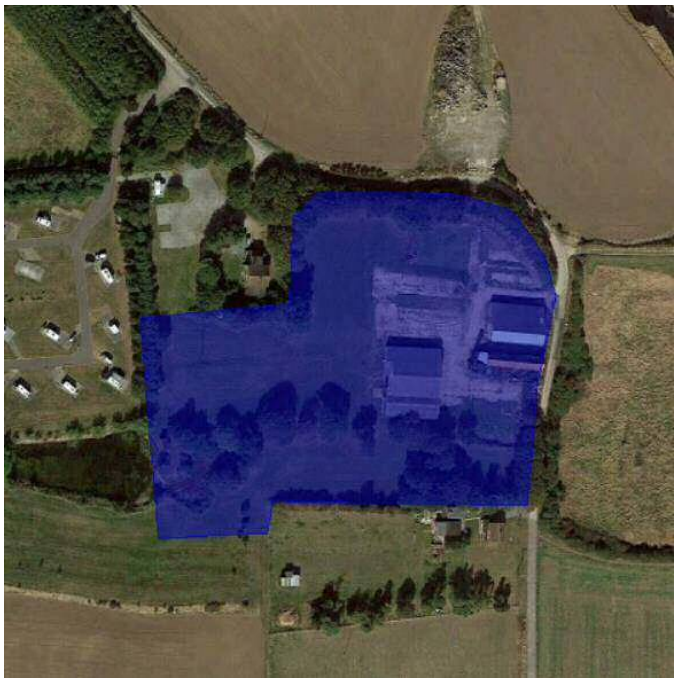
- National Planning Policy Framework (MHCLG, 2021);
- ERYC Sustainable Transport SPD (Supplementary Planning Document) (ERYC, 2016a);
- ERYC Local Plan: Allocations Document (ERYC, 2016b);
- ERYC Local Transport Plan (2015-2029) (ERYC, 2015);
- Planning Practice Guidance (DCLG, 2014);
- Manual for Streets 2: Wider Application of the Principles (CIHT, 2010);
- Guidance on Transport Assessment (DfT, 2007a); and
- Manual for Streets (DfT, 2007b).

2. SITE BACKGROUND

2.1 Site Location & Existing Use

2.1.1 The application site is located at Grange Farm in Aldbrough, East Riding of Yorkshire, and currently comprises agricultural buildings and associated land. The site is bound by East Newton Road to the north and east, grassland and a residential property to the south, with a combination of a single dwelling and land associated with a caravan development to the west (known as Newton Shores). The approximate boundary of the site is shown in Figure 1.

Figure 1: Site Location



Source Imagery: Copyright Google Earth Pro (License Key-JCPMR5M58LXF2GE)

2.2 Planning History

2.2.1 An application at the site (ref: 20/01992/PLF) was submitted in June 2020 and was subsequently withdrawn for the *"change of use and external alterations to existing framed buildings to create a specialist diving centre and entertainment complex, comprising of installation of wall and roof cladding, installation of solar PV panels, air source heat pump, package treatment plant, construction of concrete boundary walls to provide a secure boat storage compound, creation of vehicular accesses, car parking and a bund".* A TA (LTP, 2020) was submitted in support of the proposals, sections of which have been utilised/amended in this report to reflect the current proposals, including swept path analysis of the proposed access junction (which is to remain as was previously proposed) and passing places on East Newton Road.

2.2.2 Comments were raised by ERYC Highways (ref: Joe Hughes) regarding the above application, including those outlined below:

'We would be concerned about any increase in vehicle movements along these roads, due to the restricted width and construction of the roads, the additional vehicle movements passing by the school and within Aldbrough and also the increase in turning movements at the junctions with the B1242. Swept path analysis would be beneficial along the route, including the passing points, at the junctions and at the accesses to the site.

The visibility at the new northern access is restricted by the road alignment, vegetation and embankment levels.

The visibility from this eastern access is restricted by the road alignment, vegetation and embankment levels.

Vehicle swept path are required for vehicles entering and leaving the site and also within the site to demonstrate that vehicles can manoeuvre and turn within the site'.

2.2.3 Subsequent to the above comments, there were further discussions with ERYC Highways, with an ultimate acceptance of the previous scheme, subject to the provision of three off-site passing places on East Newton Road. The comments raised in regard to the previous application have been considered within this TA, although it is noted that the traffic impact of the revised scheme is notably smaller.

2.3 Development Proposals & Access Arrangements

2.3.1 The current planning application represents a revised version of the planning application outlined in Section 2.2, with the proposals involving the change of use of an old farmstead to provide a café, a boat yard and a diving centre. The main difference between the previous and current schemes in transport terms is the replacement of the previously proposed wedding venue for up to 200 guests with a café.

2.3.2 It is understood that the café is to have a Gross Floor Area (GFA) of 253m², the boat yard is likely to hold large boats long-term, and the diving centre is to initially use a single boat with a capacity of 14 people, with future potential to invest in a second boat. The proposals also involve the development of ancillary storage space with a GFA of 276m² and ancillary office/admin space with a GFA of 140m². The proposed site layout plan is shown in Appendix 1.

2.3.3 It is understood access to the entire site is to be provided via a new access from East Newton Road, to be located on the northern boundary of the site. It is envisaged that the access is to serve all site users including vehicles, pedestrians and cyclists. It should be noted that this access is understood to remain as was proposed in the previous planning application at the site, which reflects improvements to the design that were requested by ERYC Highways. The required visibility splays from the access junction appear to be achievable, as discussed in Section 6.1.

2.3.4 Swept path analysis of the proposed access junction (see Appendix 2), which has been amended from that provided in the TA (LTP, 2020) for the previous planning application, highlights that a fire tender is able to access and egress the site in a forward gear, via the proposed access junction from East Newton Road. As such, it is considered that smaller vehicles (passenger car vehicles) would also be able to enter, exit and manoeuvre around the site.

2.3.5 Information provided by the client has suggested that there are expected to be 11 staff employed at the diving centre and boat yard sections of the development (eight staff at the diving centre, with one full-time and two part-time staff at the boat yard, as was previously envisaged with the withdrawn application on the site), with two full-time and two-part time staff members to be employed at the café, so circa three FTE (Full-Time Equivalent) staff.

2.3.6 A total of 40 car parking spaces are proposed to serve the entire site. Given the mixed-use nature of the site, it is understood that no specific parking requirements are outlined in ERYC's parking standards. However, as shown by the traffic projections in Section 5, it is expected that the proposed parking provision will be sufficient to accommodate the parking demand generated by staff and visitors at the site.

2.3.7 It should be noted that an existing approved car park and a boat launch ramp (shown in green in Figure 2), owned by the Applicant, are located on a section of land to the north of the site (accessed via East Newton Road) and could provide additional car parking spaces for the development if required, and would also provide a location from which to launch boats into the North Sea. As such, it is considered that the proposed parking provision should be sufficient to support demand generated by staff and visitors.

Figure 2: Additional Car Park & Boat Ramp

Source Imagery: Copyright Google Earth Pro (License Key-JCPMR5M58LXF2GE)

2.3.8 A minimum of 25 cycle parking spaces are proposed as part of the development.

2.3.9 As previously mentioned, the previous scheme was ultimately accepted by ERYC Highways, subject to the requirement to provide a Construction Traffic Management Plan (CTMP) to be secured as part of a planning condition. The proposals were also revised to include the removal of any boulders located within the highway and the provision of three additional passing places on East Newton Road.

2.3.10 It is understood that the Applicant has agreed to provide a CTMP as part of a planning condition, and remove any boulders within the highway as part of the proposals. Although, based on the traffic generation projections presented in Section 5, it is considered that the existing passing places on East Newton Road would be sufficient to serve the site, as discussed further in Section 6.2.

3. SITE ASSESSMENT

3.1 Local Highway Network

3.1.1 As previously mentioned in Section 2.2, the site is to be accessed via a new priority T-junction from East Newton Road. The generally single track road varies in width between approximately 3.3m and 4m and is subject to a derestricted speed limit (60mph) within the vicinity of the site access. There are not any parking or waiting restrictions in place on East Newton Road within the vicinity of the site access.

3.1.2 To the south of the site access East Newton Road forms an unnamed private track road, and approximately 2.5km to the north-west East Newton Road provides access to residential streets within the village of Aldborough. East Newton Road forms Headlands Road and High Street within Aldbrough, connecting with Hornsea Road (B1242) in the form of a simple priority T-junction approximately 3km to the north-west of the site in Aldbrough village centre.

Photo 1: East Newton Road

3.1.3 Information provided by the client has highlighted that East Newton Road has undergone road surfacing works in August 2020, and therefore the road is considered to be in good condition, as shown above.

3.1.4 The unnamed private track road measures approximately 3.8m in width and provides access to a gas storage facility to the south and East Newton Road to the north. It is understood that the track road is only accessible for authorised vehicles only.

3.2 Pedestrian Provision

3.2.1 Guidance from the Chartered Institution of Highways & Transportation (CIHT) suggests a preferred maximum walking distance of 2km for a number of trips, including commuting and school trips (IHT, 2000), although it is noted that actual walking distances may be longer. The site is located within a 2.5km walking distance of the village of Aldbrough, which has a number of amenities including a post office, a shop and a public house.

3.2.2 There is no formal pedestrian infrastructure within a 2.4km walk of the site, however East Newton Road (east of Aldbrough) is understood to be a lightly trafficked rural road and could therefore provide suitable pedestrian access to/from the site. A number of pedestrians were observed walking on this section of East Newton Road during a site visit.

3.2.3 Figure 3 shows the existing Public Rights of Way (PRoW) within the vicinity of the site (site indicated by a blue star with bridleway in pink and footpaths in red). There are a number of nearby public footpaths, including a public footpath located approximately 1km to the north of the site, providing a leisure route to the sea front, and a public bridleway to the south, providing a leisure route through nearby fields. There are also a number of public footpaths surrounding Aldbrough.

Figure 3: Public Rights of Way (PRoW)

Source: RoW Maps, 2020

3.3 Cycling Provision

3.3.1 Cycling is a low cost and healthy alternative to car use, which can substitute for short car trips, or can form part of a longer journey by public transport. The Department for Transport (DfT) state that journeys up to five miles (circa 8km) are "*an achievable distance to cycle for most people"* (DfT, 2020). The site is located within a reasonable cycle ride, up to 8km (approximately 25 minutes at the average cycling speed of 12mph), of the entire built-up area of Aldbrough. An isochrone map showing the areas within a 8km cycle ride of the site is provided within Figure 4.

Figure 4: 8km Cycle Isochrone

Source: ORS, 2021

3.3.2 There are no dedicated cycling facilities or National Cycle Network (NCN) routes within the vicinity of the site. Given the rural nature of East Newton Road, it is considered that the local environment within the vicinity of the site is generally conducive to encouraging cycling trips.

3.4 Public Transport Provision

3.4.1 The nearest bus stops to the site are located on East Newton Road in Aldbrough, approximately 2.5km to the north-west of the site, providing access to the #129 service, which runs four times daily in both directions, between Hornsea and Withernsea. It is acknowledged that public transport may not be a viable travel mode for site visitors/staff, given the distance to the nearest bus stop.

4. ROAD CASUALTY APPRAISAL

4.1 Collision Record

4.1.1 Personal Injury Collision (PIC) data for the highway network local to the development site for the most recent available five-year study period (01/01/2015 to 31/12/2019) was obtained via a search of the DfT's (Department for Transport) road safety data (DfT, 2021).

4.1.2 Only 1 collision occurred within the study area, which includes part of East Newton Road. The study area extents and the location of the collision are indicated on the plan attached as Appendix 2, with details of the PIC provided in Table 1 below:

Table 1: Collision Summary

Factor	Collision Data
Date	16/06/2015
Time	10:00
Lighting	Daylight
Weather	Fine
Road Surface	Dry
Casualty	One slight casualty
Location	East Newton Road (not at a junction), approximately 1.9km north-west of the site

4.2 2020 Update

4.2.1 The DfT has released provisional part-year 2020 collision data covering the period 01/01/2020 to 30/06/2020. It should be noted that as the data is provisional, it is subject to change and does not contain all the information to allow full analysis to be undertaken. The data shows that no additional collisions have occurred within the study area during this period.

4.3 Road Safety Impact

4.3.1 Only 1 collision, resulting in 1 casualty, has occurred within the study area during the five-year study period, and not within the vicinity of the site. Therefore, it is considered that there are no existing road safety issues pertinent to the development of the site.

4.3.2 If the proposed internal roads and car park are designed with due consideration to road safety, with appropriate highway design features incorporated into the detailed design, then the proposals should not have a detrimental road safety impact on the local highway network and should not adversely affect the safety of road users.

5. TRIP GENERATION & TRAFFIC IMPACT

5.1 Introduction

5.1.1 This section outlines the number of vehicle trips expected to be generated by the proposals. The potential traffic generation has been assessed for the following elements of the proposed development:

- Café;
- Diving Centre; and
- Boat yard.

5.1.2 Given the rural nature of the site it is unlikely that many visitors/staff members will travel to the site via sustainable modes (i.e. walking, cycling or public transport), and so this has been considered within the below assessment.

5.2 Traffic Generation – Café

5.2.1 The TRICS database is an industry-standard collection of traffic counts and trip generation statistics for calculating trip rates at development sites. A review of the latest database (v7.8.2) to identify comparable café sites has highlighted that there were no café sites available in TRICS. Similar sized restaurant sites were then interrogated, and although there was one 'Freestanding' site in the database, this site is not considered to not be fully comparable as it is located in Ireland. Other restaurant sites were interrogated and were also found to not be fully comparable due to their location ('Edge of Town', not 'Freestanding'). The vehicle trip generation of the café section of the development has therefore been based on information provided by the client and knowledge of other café sites located in similar locations.

5.2.2 Information provided by the client suggests that, whilst the café is to be open to the general public, it is expected to mainly serve visitors to the other site uses (e.g. the diving centre) and walkers who currently utilise a section of the coastal path between the Grange Farm Cottage and Cliff Farm.

5.2.3 As any vehicle trips by these visitors would be generated by the original journey purpose (e.g. walking/the diving centre), no vehicle trips are expected to be generated by these visitors utilising the café. Moreover, it could be expected that, by increasing the level of choice and providing a café that is close to the other site uses and the walking route (or more convenient to get to) than existing facilities, the proposed development could reduce the overall vehicle distance travelled in association with the trip purposes served at the site.

5.2.4 Based on knowledge of other similar sites, in a similar location, it is considered robust to assume that up to 20 vehicle trips could be generated by the general public during the development peak hour (10 arrivals and 10 departures), separate to trips associated with the other site uses. This is expected to represent a significant over-estimate, particularly during the majority of operational hours for the café, but it allows a quantified 'worst-case' appraisal for this TA. Whilst the opening times of the café are yet to be determined, based on the opening times of similar sites, the café could be expected to be operational between the hours of around 11:00 and 18:00. Therefore, the site is expected to generate a negligible number of vehicle trips during the AM peak hour (08:00-09:00), with up to 20 two-way vehicle trips during the PM peak hour, although the development peak hour is more likely to occur during the midday period.

5.3 Traffic Generation – Diving Centre

Visitors

5.3.1 As previously mentioned, initially the diving centre is expected to operate a single boat with the capacity of 14 passengers, with the potential for the purchase of a second boat in the future. For robustness the traffic associated with two boats has been assessed.

5.3.2 Given the nature of the passenger movements, the vehicle trips would be expected to occur outside of the typical network peak hours, given that boat trip times are likely to be staggered and run infrequently. As such, the two-way vehicle trips generated by passengers associated with the diving centre area are considered to have a negligible impact on the operation of the local highway network.

Staff

5.3.3 Information provided by the client suggests that each boat would require four staff members, it is assumed that all staff members will work full-time for robustness. It is expected that staff members would arrive on site during in the morning and leave in the afternoon, resulting in up to eight vehicle arrivals and up to eight vehicle departures at the site during the AM and PM peaks respectively, as a 'worst-case' assumption.

5.4 Traffic Generation – Boat Yard

Visitors

5.4.1 The exact number of trips to be generated by the boat yard part of the development is currently unknown. However, information provided by the client suggests that the boat yard will be used to store and launch large boats, most of which are likely to be associated with residents of the nearby caravan site (Newton Shores), located adjacent to the site (also owned by the client). Therefore it is expected that visitors to the boat yard will generate a negligible level of two-way trips, particularly during the network peak hours.

Staff

5.4.2 It is expected that one full-time staff member and two part-time staff members will be employed at the boat yard, thus generating up to three vehicle arrivals and up to three vehicle departures at the site during the AM and PM peaks respectively, as a 'worst-case' assumption.

5.5 Impact on the Local Highway Network

5.5.1 The DfT has previously issued guidance that transport assessment of development impacts could be based on a threshold of *"30 two-way peak hour vehicle trips"*, or *"100 or more two-way vehicle movements per day"* (DfT, 2007a). This guidance acknowledged that this threshold was not to be applied rigidly, but rather that it provided *"a useful point of reference from which to commence discussions"*.

5.5.2 This national DfT guidance has now been superseded and replaced with the *'National Planning Policy Framework'* (NPPF) (MHCLG, 2021) and its accompanying *'Planning Practice Guidance'* (PPG) (DCLG, 2014). NPPF and PPG require that transport assessment is undertaken for *"developments that generate significant amounts of movement"*, although this is not defined. It is therefore acknowledged that there is no set threshold for assessment within the current national planning policy.

5.5.3 It is expected that the majority of visitor trips across the entire site are likely to be staggered and occur outside of the typical network peak hours, thus having a negligible impact on the local highway network during peak hours. As these trips are not expected to coincide with peak hour traffic it is considered that they will not have a significant impact on local junctions (including the B1242 junction) or sensitive areas (including the highway network within the vicinity of Aldborough Primary School). It is understood that only one PIC has been recorded within the vicinity of the B1242 junction and no PICs have been recorded within the vicinity of Aldbrough Primary School, in the most recent five-year study period.

5.5.4 The café section of the development could be expected to generate up to 20 two-way vehicle trips during the peak hour, the diving centre could be expected to generate up to eight vehicle arrivals and up to eight vehicle departures during the AM and PM peaks, respectively, and the boat yard section could be expected to generate up to three vehicle arrivals and up to three vehicle departures during the AM and PM peaks, respectively. This equates to the overall development generating up to 11 vehicle arrivals during the AM peak hour and up to 31 vehicle trips (10 arrivals and 21 departures) during the PM peak hour. This applies a number of worst-case assumptions that all staff drive (no car sharing), the trips occur during the network peak hours, and part-time staff trips occur at the same times as full-time staff. It is also fundamentally based on a likely over-estimate of traffic generation associated with the proposed café.

5.5.5 It should be noted that, the café section of the development could be expected to generate up to 10 arrivals and 10 departures during the development peak hour, whereas the wedding venue proposed as part of the former application was expected to generate 100 vehicle arrivals to the site prior to an event starting and 100 vehicle departures after an event finishes. As such, this revised application would be a smaller development resulting in fewer vehicle trips to/from the site.

5.5.6 Based upon the assessments of this TA, it is considered that the proposed development will not have a significant impact on the operation of the local highway network. Therefore, as the impact of the development is not expected to be significant, the proposals are considered to be in accordance with the *'National Planning Policy Framework',* which states that *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"* (MHCLG, 2021).

6. HIGHWAY ACCESS APPRAISAL

6.1 Visibility Splays

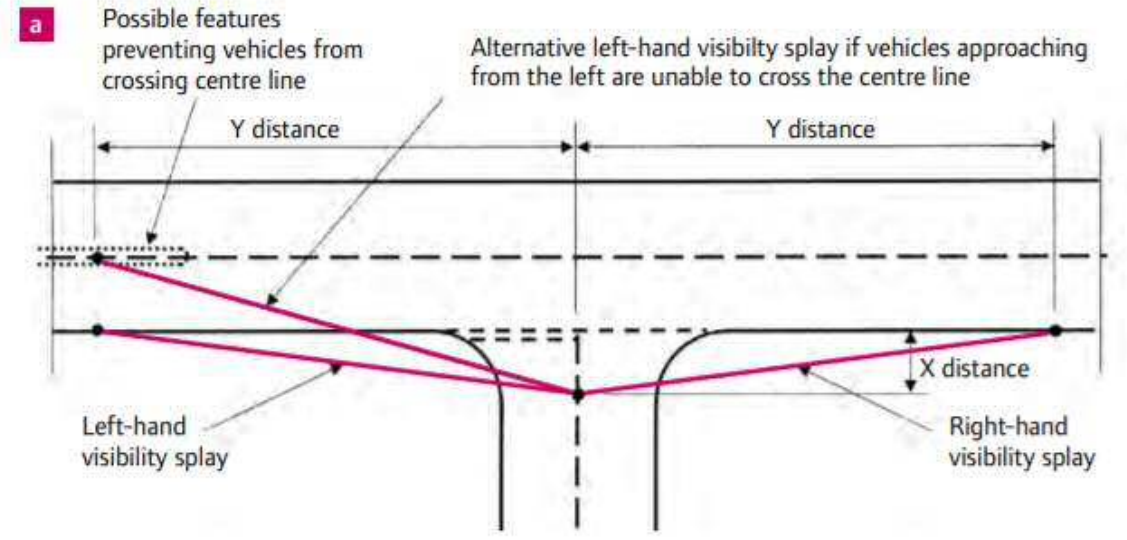
6.1.1 There are currently two key documents that provide guidance relating to Stopping Site Distance (SDD) and therefore visibility splay requirements; Design Manual for Roads and Bridges (DMRB), which is generally more applicable to predominantly trunk road, higher speed environments, and '*Manual for Streets*' (MfS) (DfT, 2007b), which is generally more applicable to low speed residential urban environments. MfS is also complemented by further guidance '*Manual for Streets 2*' (MfS2) (CIHT, 2010) for the application of the MfS principles on additional road types, such as busier streets and non-trunk roads.

6.1.2 East Newton Road is covered by a 60mph speed limit, although given the nature of the road as a single track lane and that the access is located within close proximity to a bend, actual vehicle speeds are expected to be below 20mph within the vicinity of the site. However, as requested by ERYC Highways, a design speed of 30mph has been adopted within this TA, for robustness.

6.1.3 MfS2 highlights that *"it is only where actual speeds are above 40mph for significant periods of the day that DMRB parameters for SSD are recommended"* (CIHT, 2010), and therefore it is considered that the MfS Stopping Sight Distance (SSD), and therefore visibility splay requirements, are applicable to the site.

6.1.4 For information, Figure 5 illustrates the definition and measurement of the visibility splay distances described in this section:

Figure 5: Definition of 'X' & 'Y' Distances



Source: DfT, 2007b

6.1.5 As stated in MfS, "*an 'x' distance of 2.4m should normally be used in most built-up situations*" (DfT, 2007). However, further guidance within MfS2 suggests that *"A minimum 'X' distance of 2m may be considered in some slow-speed situations when flows on the minor are low"* (CIHT, 2010).

6.1.6 With reference to MfS, Table 2 identifies the SSD, and therefore the 'Y' distance visibility splay requirements for measured speeds.

Table 2: MfS Stopping Sight Distances

Design Speed (kph)	Design Speed (mph)	Stopping Sight Distance (m)
16	10	9
32	20	25
48	30	43

6.1.7 Table 2 shows that visibility splays of 2m x 43m should be provided where vehicle speeds are 30mph, which is the expected to be in excess of actual vehicle speeds on East Newton Road within the vicinity of the access location. It would be reasonable to expect that vehicle speeds approaching the proposed access would be lower than 30mph, due to the existing constraints within the vicinity of the access location, although 30mph vehicle speeds have been assessed to form a robust assessment.

6.1.8 The supplied site layout plan has been used to assess the visibility splays from the proposed access junction and has shown that the required visibility splays to the left and right of the access appear to be achievable, subject to the clearance of vegetation located within the public highway and within the bounds of the site. Information provided by the client has confirmed that they are willing to clear any vegetation within the public highway or within the site boundary, to achieve the required visibility splays.

6.2 Passing Places

6.2.1 Ordnance Survey (OS) mapping has been used to assess the suitability of passing places on the approximately 2.4km length of East Newton Road, between the access and Aldbrough. This assessment has shown that vehicles can pass at 14 locations on the route, including 3 formally signposted passing places. The locations and distances between passing places are shown in Appendix 4.

6.2.2 As shown in Appendix 4, the majority of passing places are within 300m of each other, two passing places exceed the 300m maximum distance outlined by ERCY Highways. However, given the long line of forward visibility on these sections of road, a distance between passing places that exceeds the recommended maximum is considered suitable. Information provided by the client suggests during the winter months the site can be seen from Aldbrough.

6.2.3 Swept path analysis of the route has shown that two passenger car vehicles can pass at all 14 locations with some buffer, and it is also considered that the passing places could accommodate a HGV passing a stationary passenger car vehicle.

6.2.4 Therefore, the existing passing places along East Newton Road are considered sufficient to allow two-vehicles to pass, at regular intervals, with reasonable levels of forward visibility along the route.

6.2.5 It is noted that as part of the previous application at the site, it was agreed with ERYC Highways and the Client that additional formal passing places would be provided along the route. As outlined in Section 5.2, the café section of the development could be expected to generate up to 20 vehicle trips (10 arrivals and 10 departures) during the development peak hour, whereas the wedding venue proposed as part of the former application was expected to generate 100 vehicle arrivals to the site prior to an event starting and 100 vehicle departures after an event finishes. Given that this revised application would be a smaller development resulting in fewer vehicle trips to/from the site, it is considered that the existing passing places would be sufficient to serve the site, without the requirement for additional highway works.

7. CONCLUSIONS

7.1.1 This Transport Assessment (TA) provides a detailed appraisal of the expected transport impact of proposals for the development of a café, a diving centre and a boat yard at Grange Farm in Aldbrough, East Riding of Yorkshire.

7.1.2 The current planning application represents a revised version of a previous planning application (ref: 20/01992/PLF), with the proposals involving the change of use of an old farmstead to provide a café, a boat yard and a diving centre. The main difference between the previous and current schemes in transport terms is the replacement of the previously proposed wedding venue for up to 200 guests with a café.

7.1.3 The site is to be accessed via all modes from a new priority T-junction from East Newton Road on the northern boundary of the site. Swept path analysis has highlighted that the proposed access is able to accommodate vehicle movements at the site.

7.1.4 Information provided by the client has suggested that there are expected to be up to 15 staff members employed over the entire site.

7.1.5 A total of 40 car parking spaces are proposed to serve the entire site. Land to the north of the site is to provide additional parking should it be required. A minimum of 25 cycle parking spaces are proposed as part of the development. The proposed car and cycle parking facilities are expected to be sufficient to support demand generated by staff and visitors.

7.1.6 The site is situated within a 2.5km walking distance of the village of Aldbrough, which has a number of amenities including a post office, a shop and a public house. The entire built-up area of Aldbrough is within a 15-minute cycle ride of the site. The nearest bus stops to the site are located on East Newton Road in Aldbrough, approximately 2.5km to the north-west of the site, providing access to the #129 service, which runs four times daily in both directions, between Hornsea and Withernsea. It is acknowledged that public transport may not be a viable travel mode for site visitors/staff, given the distance to the nearest bus stop.

7.1.7 A road casualty study showed that 1 Personal Injury Collision (PIC) occurred within the study area during the five-year study period, and not within the vicinity of the site. Therefore, it is considered that there are no existing road safety issues pertinent to the development of the site. If the proposed internal roads and car park are designed with due consideration to road safety, with appropriate highway design features incorporated into the detailed design, then the proposals should not have a detrimental road safety impact on the local highway network and should not adversely affect the safety of road users.

7.1.8 It is expected that the majority of visitor trips across the entire site are likely to be staggered and occur outside of the typical network peak hours, thus having a negligible impact on the local highway network during peak hours, including the B1242 junction and the highway network within the vicinity of Aldborough Primary School.

7.1.9 The overall development could be expected to generate up to 11 vehicle arrivals during the AM peak hour and up to 31 vehicle trips (10 arrivals and 21 departures) during the PM peak hour. This applies a number of worst-case assumptions that all staff drive (no car sharing), the trips occur during the network peak hours, and part-time staff trips occur at the same times as full-time staff. It is also fundamentally based on a likely over-estimate of traffic generation associated with the proposed café.

7.1.10 The café section of the development could be expected to generate up to 10 arrivals and 10 departures during the development peak hour, whereas the wedding venue proposed as part of the former application was expected to generate 100 vehicle arrivals to the site prior to an event starting and 100 vehicle departures after an event finishes. As such, this revised application would be a smaller development resulting in fewer vehicle trips to/from the site.

7.1.11 The required visibility splays to the left and right of the access junction appear to be achievable, subject to the clearance of vegetation located within the public highway and within the bounds of the site.

7.1.12 Analysis of East Newton Road has highlighted 14 locations where two vehicles can pass, with some buffer, and it is also considered that the passing places could accommodate a HGV passing a stationary passenger car vehicle. It is considered that these passing places are provided at regular intervals, with reasonable levels of forward visibility along the route

7.1.13 Based on the assessments of this TA, it is considered that the proposed development would not be expected to have a significant impact on the operation of the local highway network. Therefore, as the impact of the proposals at the site is not expected to be severe, the proposals are considered to be in accordance with the '*National Planning Policy Framework*' (NPPF) which states that *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"* (MHCLG, 2021).

7.1.14 It is concluded from the assessments within this TA that the proposed development would not be expected to have a significant impact in terms of sustainable travel, traffic impact and road safety.

8. REFERENCES

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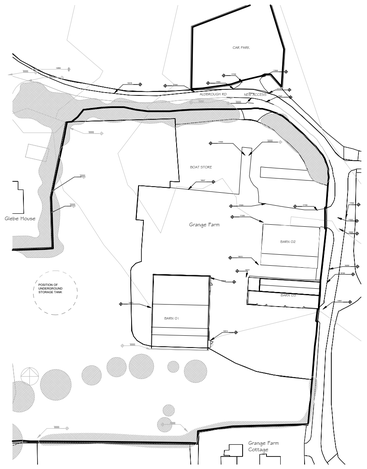
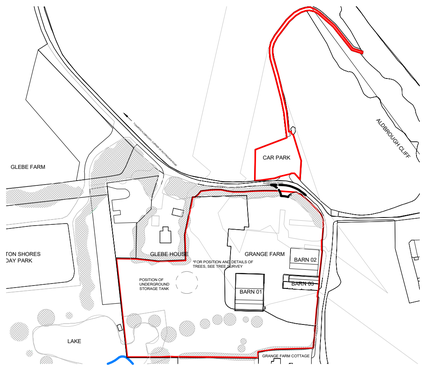
Appendix 1 – Proposed Site Layout Plan



Site Plan As Existing

0 10m 20m 50m

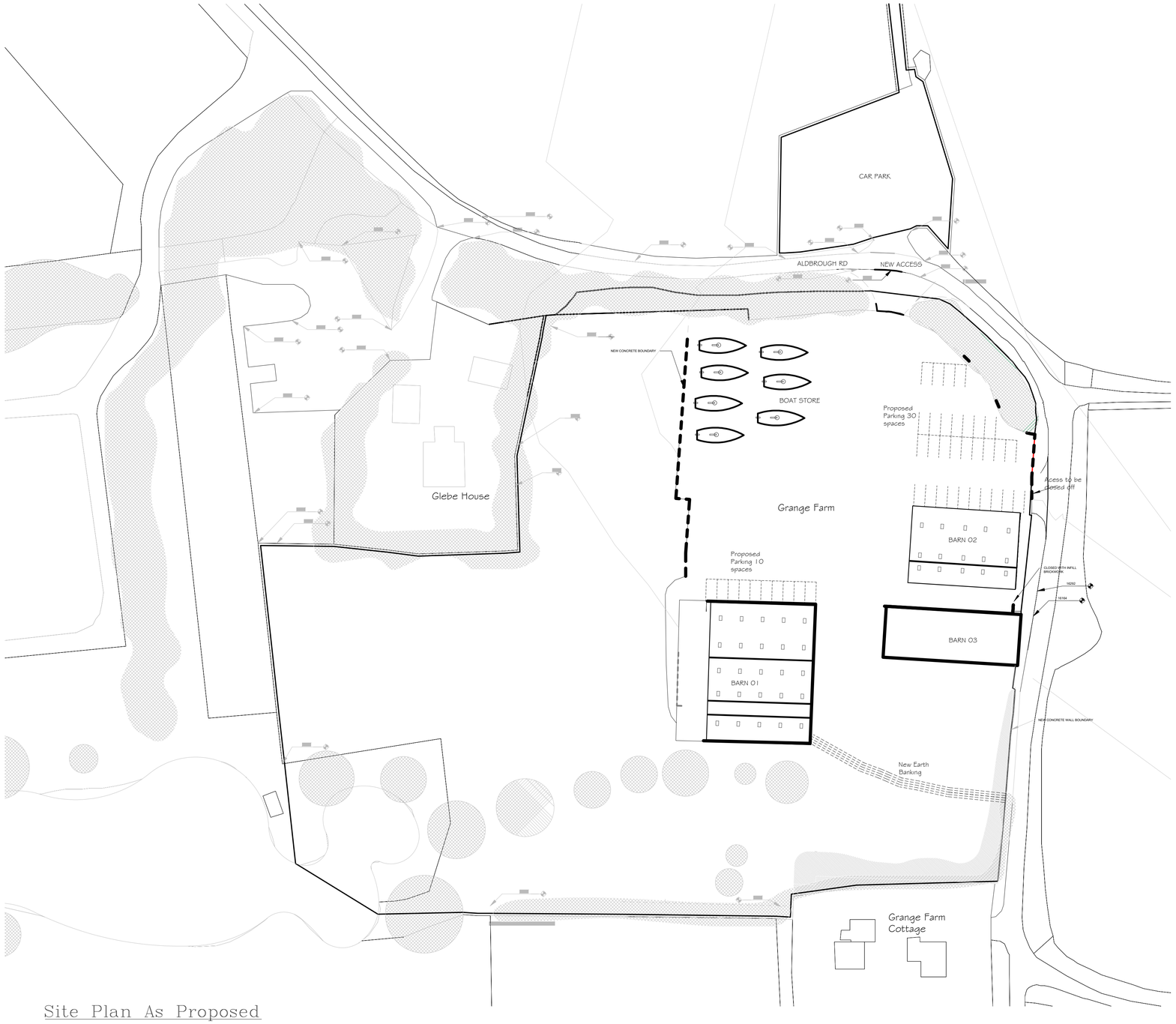
1:1250



Location 'Red Line'
Plan As Existing

0 20m 50m

1:2500



Site Plan As Proposed

0 5m 10m 20m

1:500

N

DATE	NOTES	BY	REV
22.09.21	First Draft For Client Approval	CL	A

Architectural
Phone: 01482 441948 Email:info@cka.design www.ckarchitecturalhull.co.uk

PROJECT TITLE **Diving Complex, Club House, Boat Store and Cafe**	CLIENT **Caley Partners, Glebe Farm, East Newton, Aldbrough**		
DRAWING STAGE **Planning**	SCALE **Various @ A1**	CHK **??**	DRAWN BY **C.Lawson**
SHEET TITLE **Site and Location Plans**	PROJECT NUMBER **HU11-2671**	STAGE **PLN**	REV **A**
			SHT **001**

Appendix 2 – Proposed Access Junction

10mm

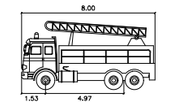
A3

Key:-

Outer Wheel Track	
Vehicle Swept Path	
Vehicle Centreline and Direction	

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.



FIRE APPLIANCE
metres
Width : 2.40 Lock to Lock Time : 6.0
Track : 2.40 Steering Angle : 41.7

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Rev.	Date	By	Chk	Description
B	23/09/2021	ZB	SW	Update based on change to proposals
A	01/02/2020	ZB	SW	Update based on minor layout alterations

Client
Richard Caley

Project
Proposed Café, Diving Centre & Boat Yard Development
Grange Farm, Aldbrough

Title
Swept Path Analysis of Proposed Accesses

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traffic engineering and transport planning
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Drawing number

Project	Job	Drawing	Sheet	Revision
LTP/	4293/	T1/	03	.01 B

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Appendix 3 – Collision Plot

Proposed Mixed-Use Development, Grange Farm, Aldbrough
Collision Plot 2014-2019Q2, Produced by Local Transport Projects Ltd (LTP/4293/ZB) 15/09/2020

Collision data supplied by the Department for Transport under the Open Government licence
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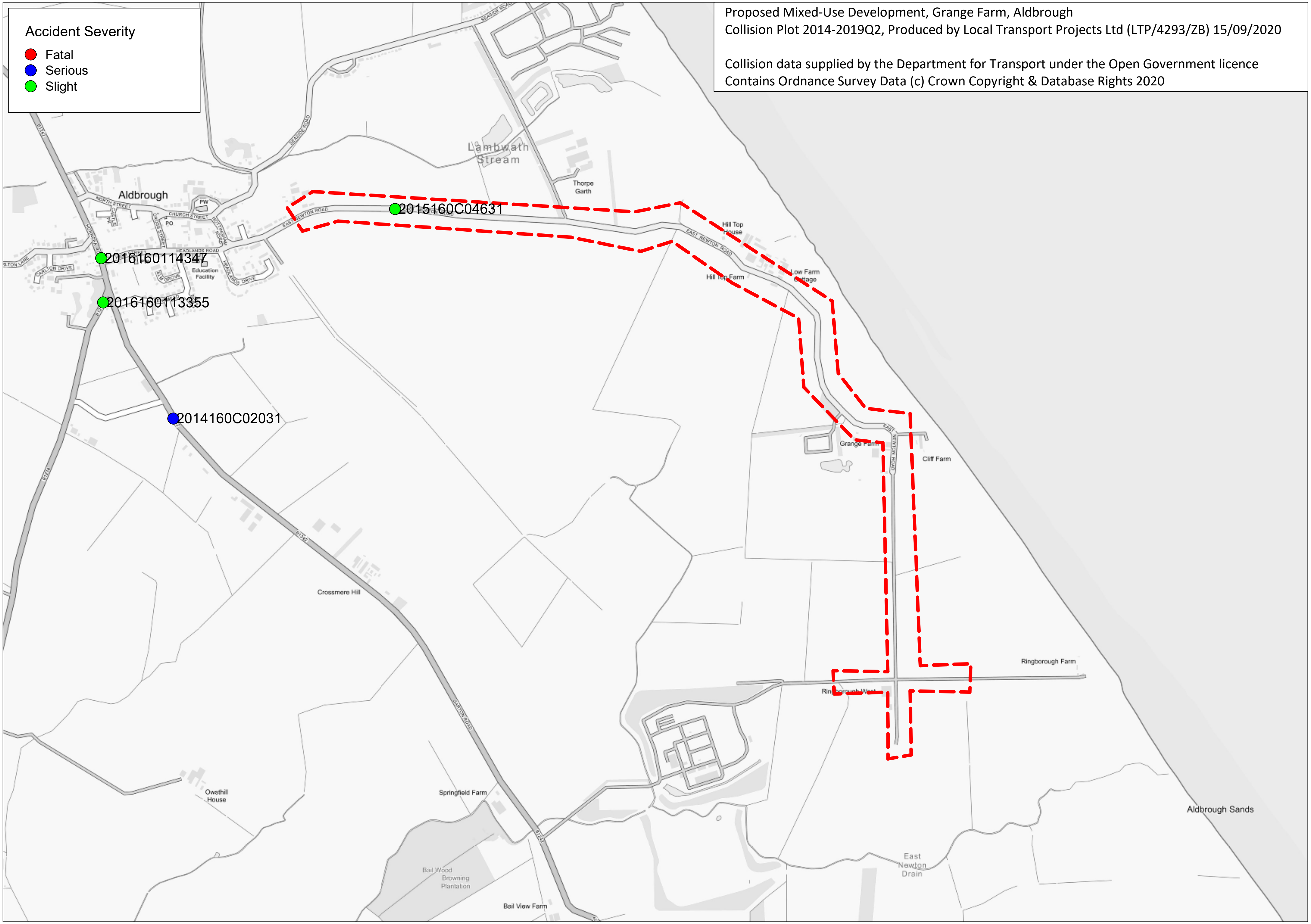
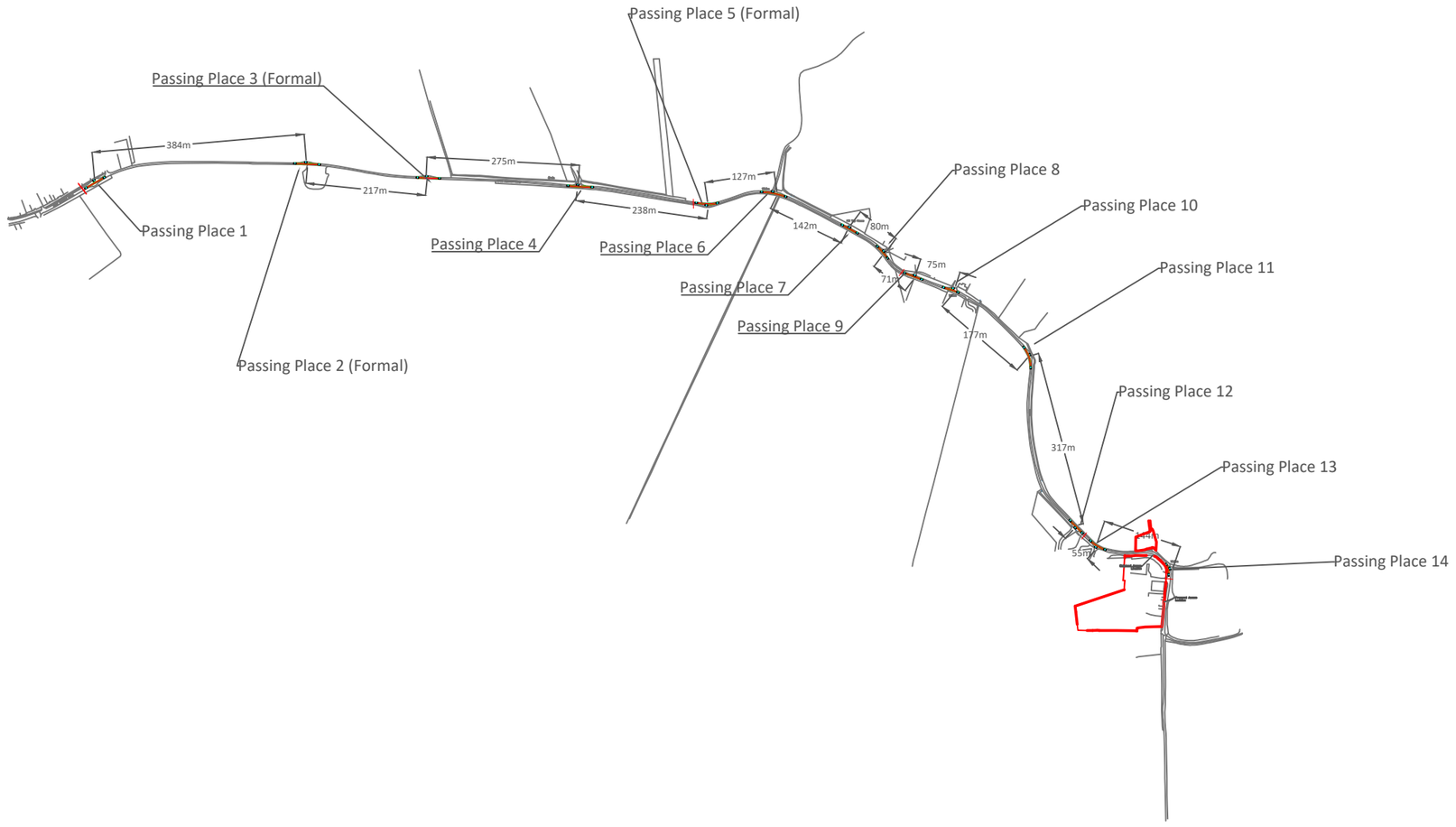


Appendix 4 – Passing Places SPA



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10mm

A3

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Rev.	Date	By	Chk	Description
0	.	-	-	-

Client
Richard Caley

Project
Proposed Mixed-Use Development, Grange Farm, Aldbrough

Title
Existing Passing Places on East Newton Road Overview Sheet

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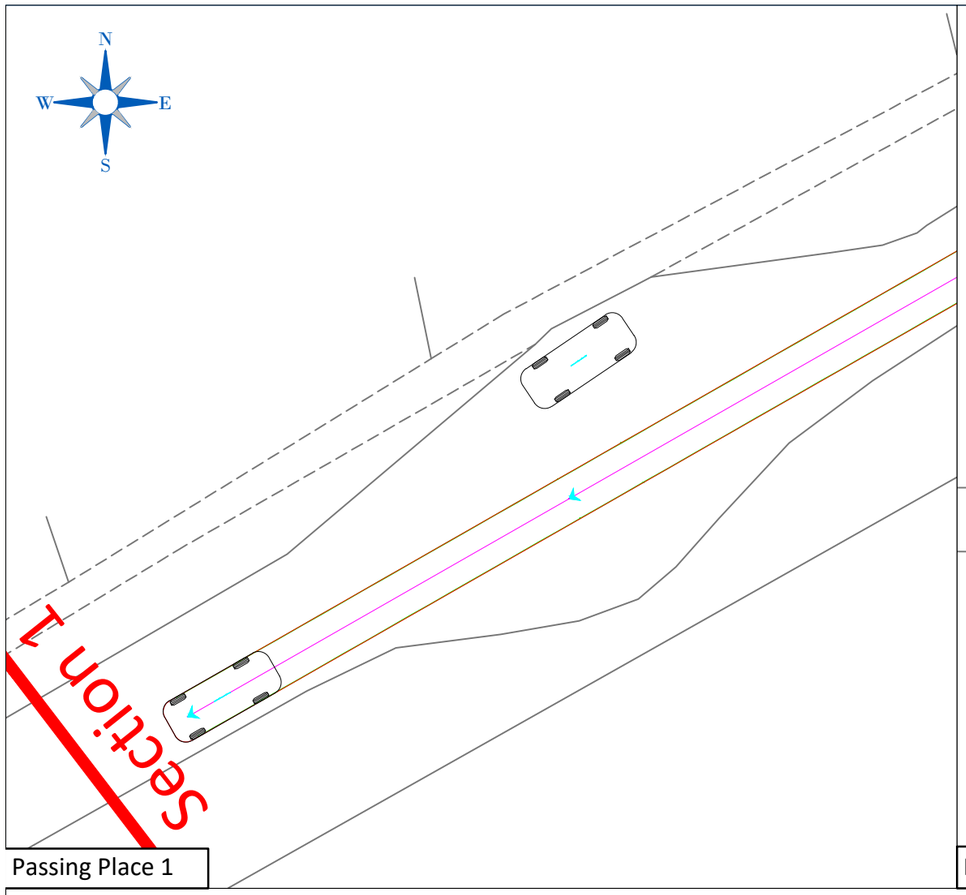
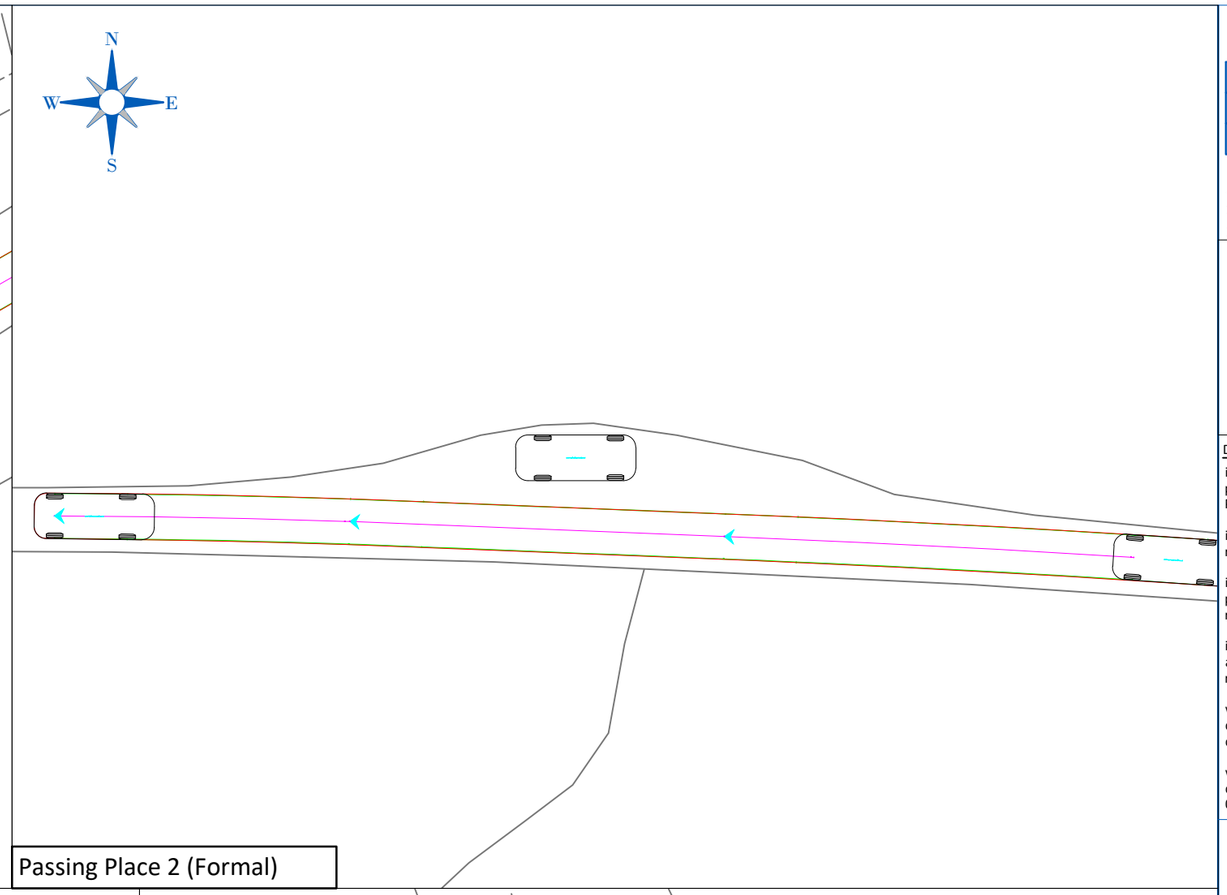


Passing Place 1



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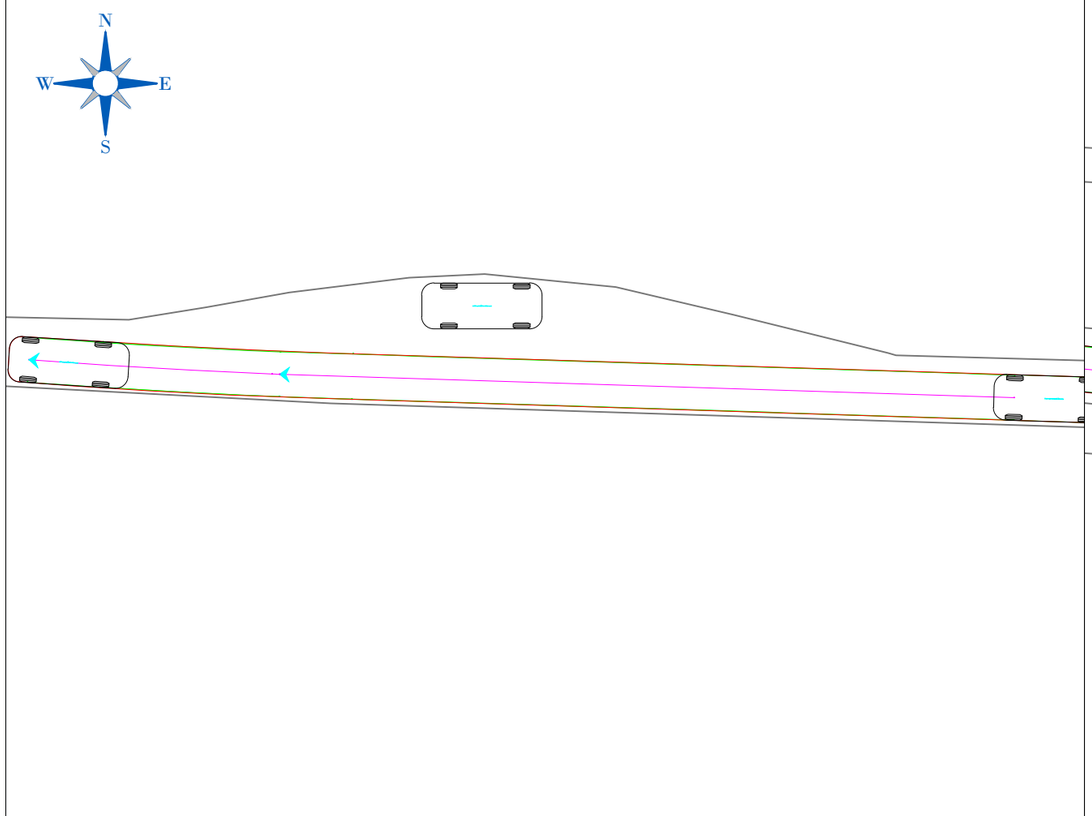
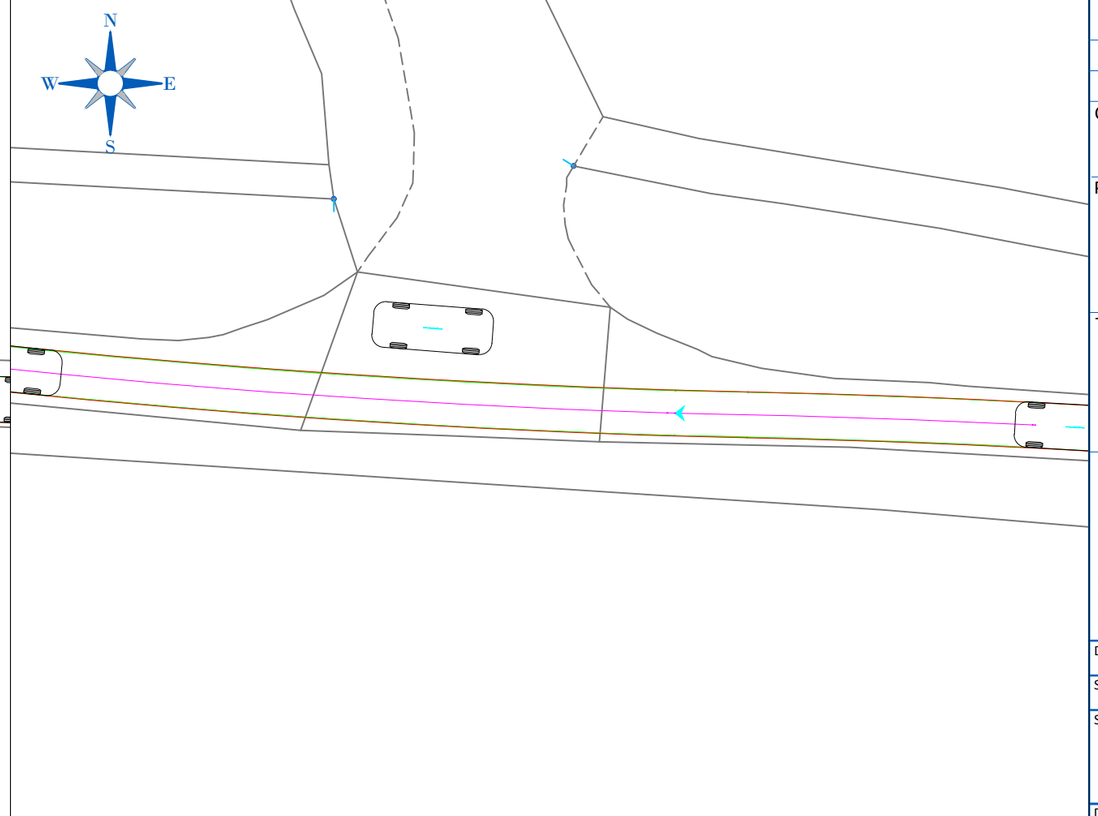


Formal Passing Place 3 (Formal)



Passing Place 4

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10mm

A3

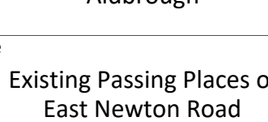
Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.

BMW 5 Series



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Client: Richard Caley

Project: Proposed Mixed-Use Development, Grange Farm, Aldbrough

Title: Existing Passing Places on East Newton Road Sheet 1 of 4

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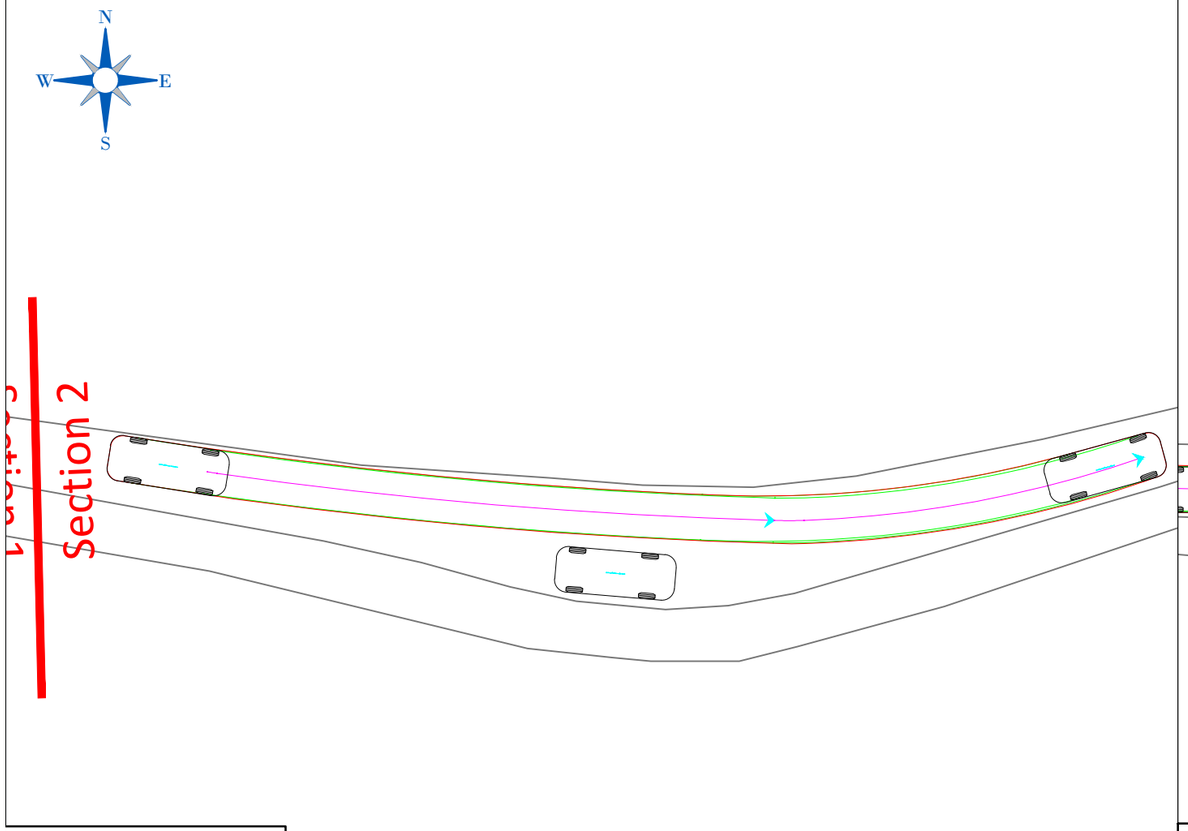
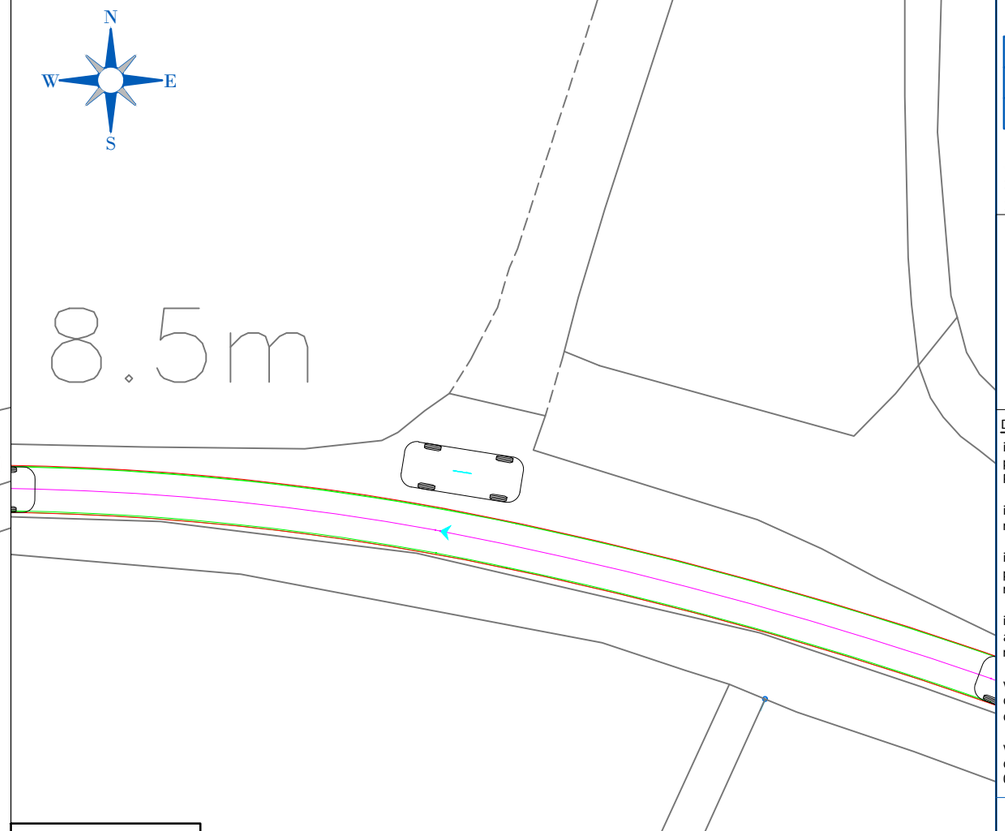


Passing Place 5 (Formal)



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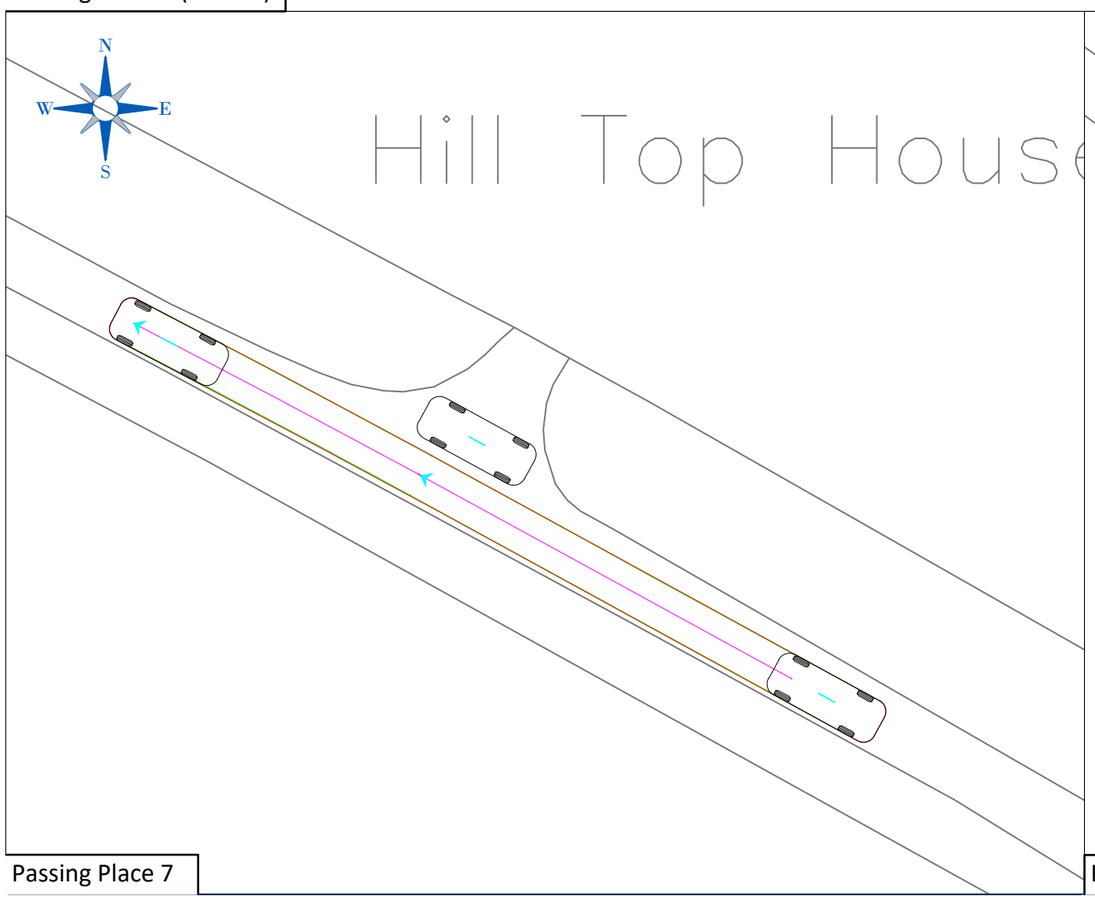
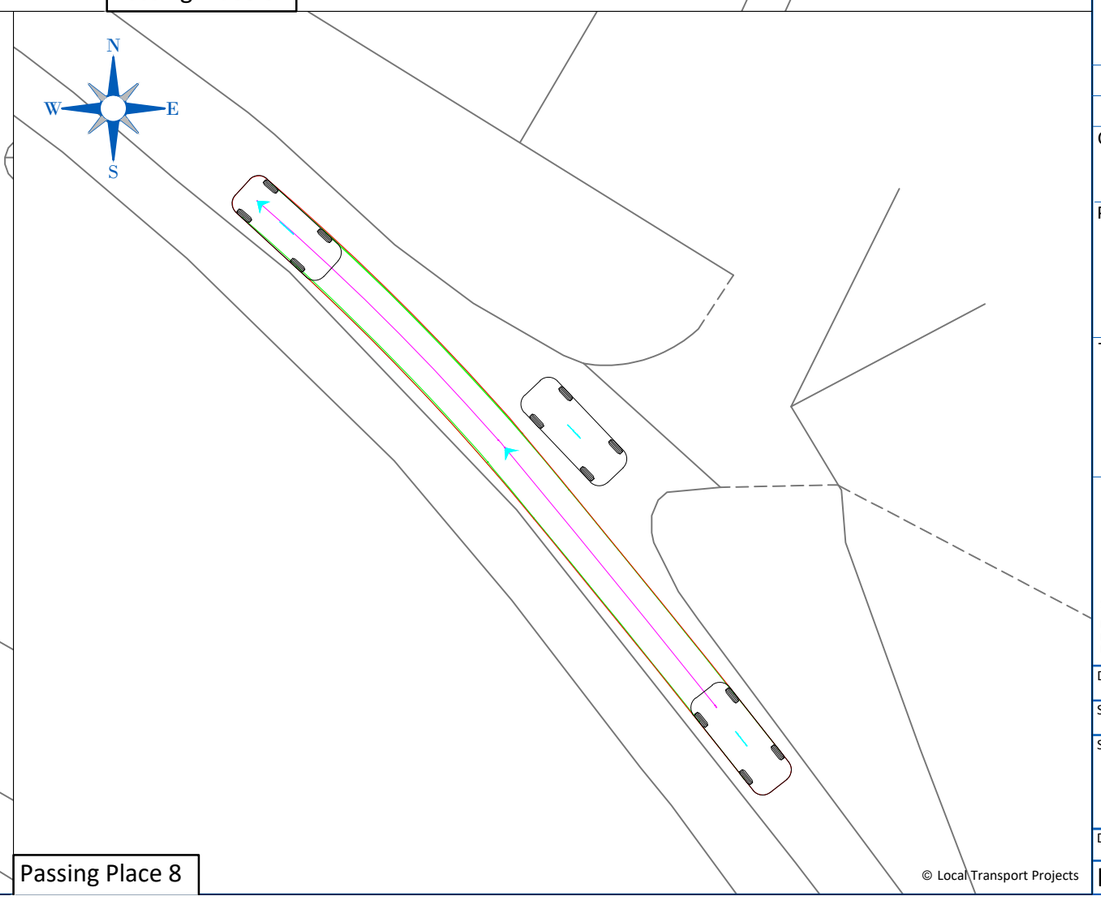


Passing Place 7



Passing Place 8

10mm A3

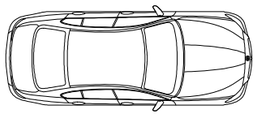
Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.

BMW 5 Series



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Client: Richard Caley

Project: Proposed Mixed-Use Development, Grange Farm, Aldbrough

Title: Existing Passing Places on East Newton Road Sheet 2 of 4

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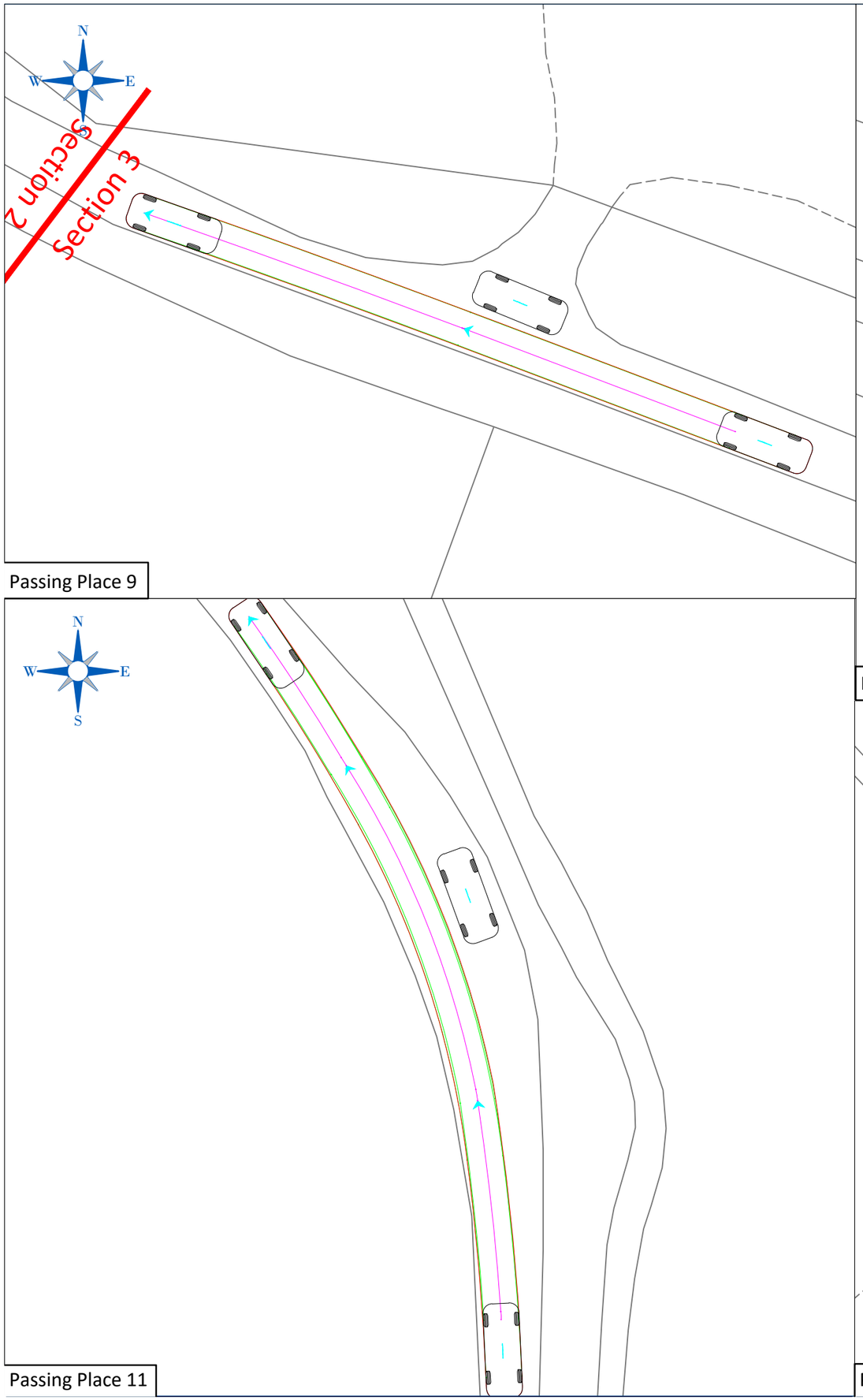

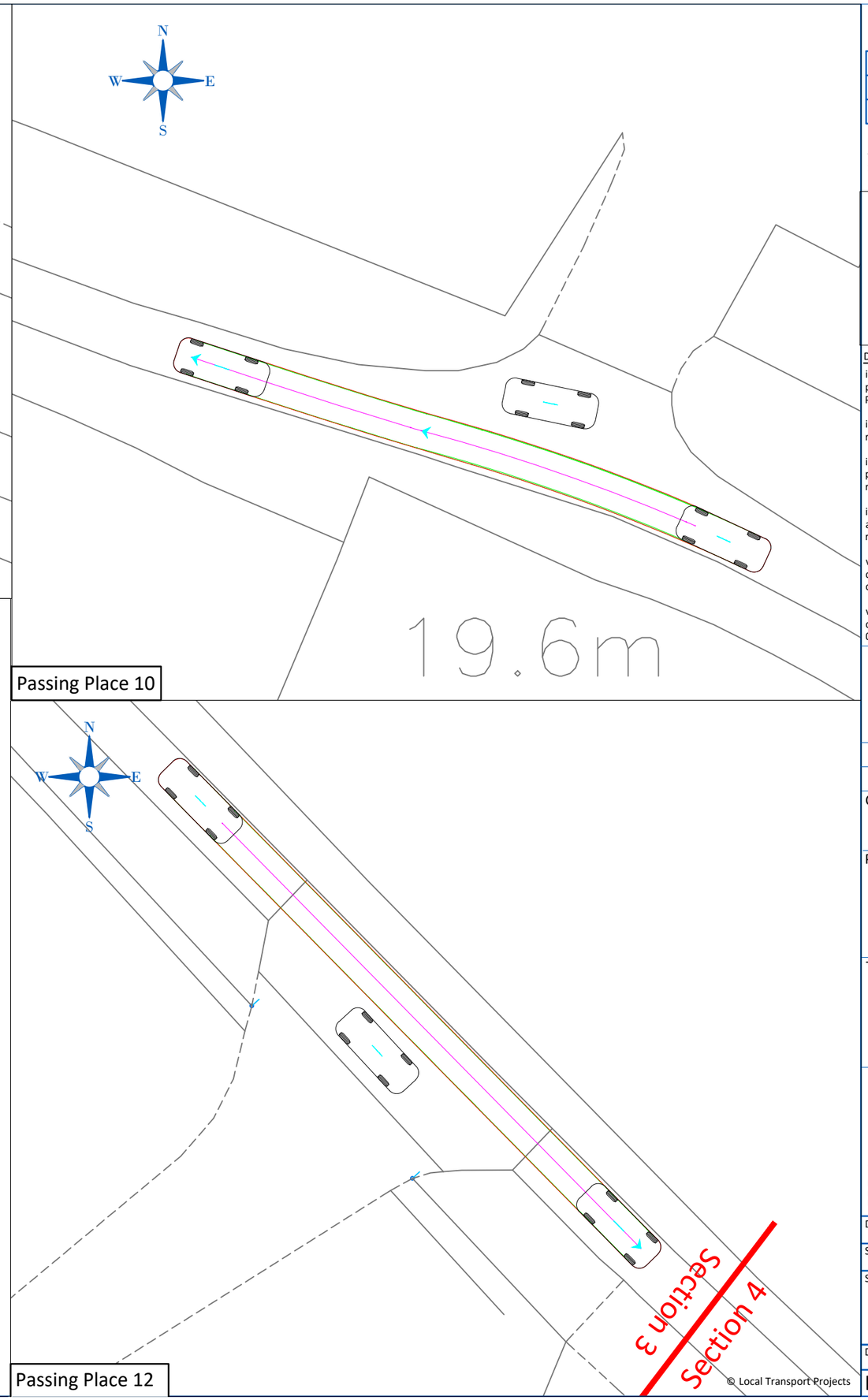

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A3

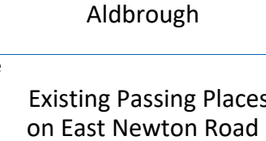
Key:-

	Outer Wheel Track
	Vehicle Swept Path
	Vehicle Centreline and Direction

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.

BMW 5 Series



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Client

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Project

Proposed Mixed-Use Development, Grange Farm, Aldbrough

Title

Existing Passing Places on East Newton Road Sheet 3 of 4

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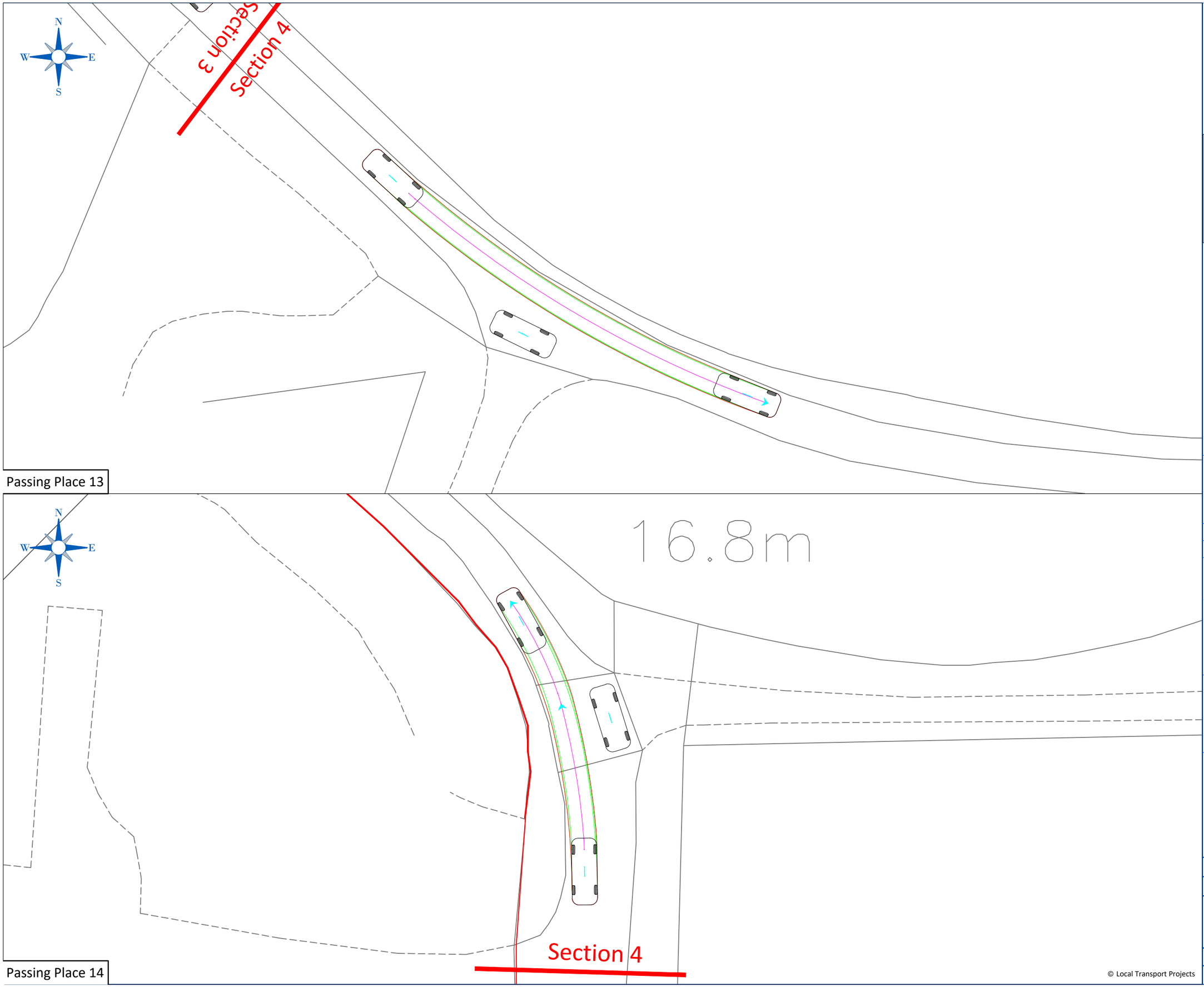


10mm

A3

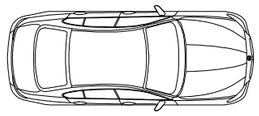
Key:-

Outer Wheel Track	
Vehicle Swept Path	
Vehicle Centreline and Direction	

Notes:-

1. Simulated speed - not more than 5 mph
2. Actual vehicle dimensions and track may vary.

BMW 5 Series



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Client

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Project

Proposed Mixed-Use Development, Grange Farm, Aldbrough

Title

Existing Passing Places on East Newton Road Sheet 4 of 4

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