

**BRECKLAND DRAFT
LOCAL PLAN FULL
UPDATE (REGULATION
18)
REGULATION 18
CONSULTATION
DECEMBER 2025**



Quality Assurance

Site name: Breckland Draft Local Plan: Regulation 18
Consultation December 2025

Client name: Castlemeadow Care Ltd

Type of report: Regulation 18 Representation

Prepared by: Isabella Taylor MSc

Signed



Date December 2025

Reviewed by: Iain Hill BSc Hons DipTP MRTPI

Signed



Date December 2025



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Appendix 1

LOCAL PLAN REPRESENTATION (HOUSING LAND AVAILABILITY ASSESSMENT STAGE 2) – JULY 2025

Appendix 2

LETTER FROM ATTCARE DATED 12 DECEMBER 2025

1.0 Introduction

- 1.1 This Representation has been prepared by Bidwells LLP on behalf of Castlemeadow Care Ltd in response to Breckland Council's Preferred Options (Regulation 18) consultation on their Draft Local Plan – Full Update (October 2025).
- 1.2 Castlemeadow Care Ltd are bringing forward land adjacent to Lincoln House Care Home, Swanton Morley and land at the Former Brenntag Depot, White House Lane, Attleborough for care led development, including assisted living accommodation, extra care units and a care home.
- 1.3 Castlemeadow Care Ltd are an award winning, family owned business, who provide residential, nursing and specialist dementia care in high quality accommodation in Norfolk and Suffolk. Since 1999, their family-owned business has been helping the people of Norfolk and beyond to make the most of later life, offering specialist care, support and high-quality accommodation throughout their family of care homes and assisted living developments. Their mission is to help people in Norfolk and beyond make the most in later life.
- 1.4 At present, they have six locations across Norfolk including:
- St John's House, Norwich
 - The Paddocks, Swaffham
 - The Mayfields, Long Stratton
 - Lincoln House, Swanton Morley
 - Wyndham House, North Wootton
 - Heighfield House, Halesworth
- 1.5 Castlemeadow Care Ltd submitted an application for Full Planning Permission for the '*Erection of 36 assisted living bungalows (Use Class C2) and community hall*' in May 2019 (ref. 3PL/2019/0513/F). A resolution to grant planning permission was made at Planning Committee on 8th July 2025, subject to the completion of a Section 106 Agreement. This is due to be completed in the near future (the site has the Local Plan Reference 121).
- 1.6 In addition, Castlemeadow Care Ltd submitted an application for Full Planning Permission for the '*Demolition of existing buildings and erection of care home (Class C2), extra care units (Class C2), market housing (Class C3) and retail units (Class E), alongside associated amenity space, parking, highways improvements, installation of plant, landscaping enhancements and other associated works*' in December 2023 (ref. 3PL/2023/1152/F). A resolution to grant planning permission was made at Planning Committee on 4th February 2025, subject to the completion of a Section 106 Agreement. This is due to be completed in the near future. This is Phase 1 of the development of the site. Phase 2 of land at White House Lane has also been promoted by Castlemeadow Care Ltd (the site has the Local Plan Reference 121).
- 1.7 The sites have previously been put forward as a suitable location for residential / care led development through the Call for Sites (Housing Sites Submissions) consultation in April-December 2022. Further representations were submitted in support of the sites in 2024 during the

Issues and Options consultation and the Stage 2 Additional Evidence Assessments (July 2025).
The most recent Representation is attached at Appendix 1.

- 1.8 This Representation provides comments on the Regulation 18 Draft Local Plan and supporting Phase 2 Assessments and evidence base, in so far as they relate to the sites, to ensure that the sites are recognised within the Draft Local Plan as sites coming forward for development. In addition, Phase 2 of land at Attleborough is promoted for development.

2.0 Comments on Regulation 18 Draft Local Plan:

Site References 121 and 261 (Phase 1)

- 2.1 As currently drafted, the draft Local Plan is unclear as to the status of both land adjacent to Lincoln House Care Home, Swanton Morley and Land at White House Lane, Attleborough. It is unclear whether the sites are recognised as sites coming forward for development / committed sites.
- 2.2 As set out in the Introduction, Castlemeadow Care Ltd are bringing forward both sites for care led development. Castlemeadow Care Ltd have received resolutions to grant planning permission on both sites, subject to completion of the Section 106 Agreements; both of which are almost finalised. On this basis, planning permission will have been granted on both sites by time the Draft Local Plan is Adopted.
- 2.3 As demonstrated by the two planning permissions, the sites are entirely deliverable and available for delivery within the early stages of the plan period to 2042, with the commencement of development on sites targeted for Spring 2026 (Swanton Morley) and completion expected by early 2028. In relation to Attleborough, following demolition on site, formal construction is forecast for late 2026 with first completions envisaged from November 2027.
- 2.4 Notwithstanding the foregoing, the Council's Phase 2 Site Assessments (2025) identify the Swanton Morley site as an Alternative, whilst the Attleborough site (Phases 1 & 2) is identified as a Discounted site.
- 2.5 This approach is inconsistent with other sites which have secured planning permission, which are recognised within the Draft Local Plan as coming forward for development, either via a saved allocation or committed developments shown on the Policies Map. We support the principle that sites that have planning permission should be recognised as saved / consented sites within the draft Local Plan, as in the event that the planning consent lapses the site would still be recognised as a suitable location for development and, therefore, request that to provide certainty the same approach should be adopted for Castlemeadow Care Ltd's sites at Swanton Morley and Attleborough (Phase 1).
- 2.6 Regardless of whether the sites are identified within the Draft Local Plan as a site with planning permission, or part of the built form, there is no doubt that the Draft Local Plan needs to be amended to recognise that both sites are suitable locations for development.

3.0 Site Reference: Former Brenntag Depot, Attleborough - 261 (Phase 2)

- 3.1 As outlined above, the Attleborough site (referred to as the Fromer Brenntag Depot, Attleborough) has been granted planning permission for part of the site, subject to the signing of a Section 106 Agreement. However, the Phase 2 Sites Assessment (October 2025) identifies it as a discounted site. The Assessment notes that while the site may have some merit, it is not considered necessary to meet the Council's housing targets.

Comments on Housing Distribution & Delivery (Policy HOU2)

- 3.2 It is recognised that the Council are required to significantly increase their housing delivery to meet the mandatory housing requirement of a minimum 17,388 new homes, including 5% buffer, during the plan period (2024-2042). The Development Strategy proposed within the Draft Local Plan (Policy HOU 02) seeks to accommodate 12,792 (75.7%) of the total housing needs within the Strategic Development Areas (SDAs) and Market Towns, including existing and proposed Sustainable Urban Extensions (SUEs). Of this figure, approximately 13% will be delivered in the Strategic Development Areas and 17% will be delivered through the new SUEs in the market towns of Swaffham, Thetford and Watton. Accordingly, there is a significant reliance on these sites / allocations to meet the housing need during the plan period.
- 3.3 Work undertaken by Lichfield (March [2024](#)) states that sites of over 1,000 units take an average of 5 years to secure detailed consent, with a further 1.3-1.6 years for the first homes to be delivered. Furthermore, site-specific considerations need to be factored into the forecast of delivery rates, including infrastructure availability and the absorption rate of the area. The Housing Trajectory includes, as Appendix 2 of the Draft Local Plan, details that the SDAs will start delivering homes by 2032/33. Based on the Local Development Scheme published in March 2025, the Draft Local Plan is not expected to be Adopted until late 2027; therefore, it is very ambitious to assume that the SDAs will be delivering by 2032. Similarly, with regard to the SUEs, the Housing Trajectory states that these sites will be delivered by 2028/29; therefore, based on the evidence from Lichfield above, this trajectory is too ambitious.
- 3.4 On this basis, there has to be considerable doubt as to whether the proposed Development Strategy will meet the mandatory housing requirement during the plan period; therefore, we strongly recommend that the Council identify additional sites to ensure their housing need is met. When considering additional sites, the Council should give strong consideration to sites that are of a size that are capable of delivering quickly, in comparison to the SDAs and SUEs. Based on a review of delivery rates in Breckland in recent years, we strongly suggest that the additional sites to be identified to meet the housing requirement range between 75 and 400 homes. This will ensure that the Council's Development Strategy has a more diversified range of deliverable sites, and the Housing Trajectory is realistic and meets the identified housing need for the plan period.
- 3.5 Based on the forging, it is evident that the Council will be required to identify additional sites to meet their need.

Comments on Housing for the Elderly & Specialist Care (Policy HOU10)

- 3.6 As an experienced care provider within the District, Castlemeadow Care Ltd support the recognition at paragraphs 5.83 and 5.84 that there is significant need for housing suitable for older people in need of care, and that it will be necessary to promote and encourage this form of development. The draft Local Plan goes on to state that the need for this type of housing will be through a combination of allocations and windfall developments.
- 3.7 Notwithstanding this, the draft Local Plan fails to allocate any sites to meet the identified need for this type of accommodation; instead relying on windfall sites, which by nature do not provide certainty in terms of delivery. On this basis, it is difficult to see how the draft Local Plan will meet the identified need for Housing for the Elderly and Specialist Care.
- 3.8 It is, therefore, strongly requested that the draft Local Plan allocates sites which are capable of delivering housing for the elderly and specialist care.
- 3.9 Castlemeadow Care Ltd welcome amendments made to the wording of draft Policy HOU10, which have put sustainability at the heart of the location of elderly/specialist care schemes following previous representations. However, it is noted that Limbs b, c and d do not acknowledge that proposals for specialist housing and accommodation can come forward as outline proposals. As such, this policy fails to separate out issues to matters which should be dealt with at detailed design stage e.g. highway, parking, and servicing arrangements and the size/quality of garden space.
- 3.10 Whilst Castlemeadow Care Ltd considers it appropriate to require justification for the scale of development proposals based on evidenced need, Castlemeadow Care Ltd have reservations regarding the need to provide evidence *'which demonstrate that there are no alternative suitable available sites within or adjacent to the built form of settlements'*. This requirement is ambiguous and it is not clear how this relates to the provisions set out at limb a.

Confirmation of Deliverability (Site 261)

- 3.11 Based on the foregoing it is evident that the Council will be required to identify additional sites in order to meet the established housing and care needs across the district during the plan period, as the current Draft Local Plan fails to do this.
- 3.12 As detailed above, and in previous Representations submitted on behalf of Castlemeadow Care Ltd (see Appendix 1, in accordance with the National Planning Policy Framework (NPPF)) glossary definition of 'deliverable', the site represents a suitable location for housing / care development, is available now and there is a realistic prospect that housing will be delivered on site within 5 years. These points are addressed in further detail below.

Suitable

- 3.13 A detailed assessment of the suitability of the site for development is included within the Stage 2 Assessment (July 2025) previously submitted to the Council (attached as Appendix 1). The information provided includes: an indicative masterplan prepared by WT Design, a Highways Statement prepared by Richard Jackson and a Technical Note, addressing matters relating to flood

risk and drainage, prepared by Rossi Long. Based on a review of the Council's Phase 2 Site Assessments (October 2025), it is questionable if this information has been reviewed.

- 3.14 Notwithstanding the foregoing, in summary, the site is located on the southern fringes of Attleborough, which is a highly sustainable location and has a range of services and amenities with excellent transport links by both road and rail. In terms of the latter, to facilitate housing growth, the Government has recently announced (November 2025) that:

Housebuilding near well-connected train stations will receive a default “yes” in future if they meet certain rules, ensuring more high-quality, affordable homes are built in and around our key towns and cities, saving commuters time and boosting access to housing.

[Housebuilding around train stations will be given default “yes” - GOV.UK](#)

- 3.15 Attleborough as a Market Town in the Council's draft Local Plan is a highly sustainable location for growth. The site is located in the A11 'Norwich-Cambridge Tech Corridor', a key focus for the delivery of growth and investment across the region. The town benefits from a number of amenities such as a primary and secondary school, Attleborough Surgery, supermarkets, shops, restaurants and pubs.
- 3.16 The suitability of the location is shown by the grant of planning permission for Phase 1 for a care led development, including a care home, extra care, together with housing and retail. Following on from the Phase 1 consent, the proposal for Phase 2 would provide extra care units as well as housing.
- 3.17 The nearest bus stops are located on the B1077 Norwich Road, approximately 900m from the site and are marked by flag poles. A further Norwich bound stop is present on Church Street, within the town centre, also 900m from the site. This stop is also marked by a flagpole and has a layby for the bus, with seating and shelter available nearby. Both locations benefit from street lighting.
- 3.18 The site is not located within a Conservation Area, however, to the west of the site is Attleborough Conservation Area. There are listed buildings in proximity to the site, including Attleborough Station (Grade II listed) and Besthorpe Old Hall (Grade II listed). In addition, there is a cluster of listed buildings to the north of the site in the centre of Attleborough.
- 3.19 The site is in Flood Zone 1, which has a low probability of flooding from rivers or seas. The south of the site has a low, medium and high probability of surface water flooding. The site is also located in a Source Water Protection Zone.
- 3.20 As detailed by the letter attached as Appendix 2, Attleborough Health, Care & Wellbeing Trust Charity fully support the proposals, noting that they “support the planned extension of this much needed Care Village.”
- 3.21 Given the above and the existing Phase 1 pending consent, it is considered that the proposed is entirely suitable for development.

Available

- 3.22 Castlemeadow Care Ltd has the option to purchase the land which comprises Phase 2.
- 3.23 Castlemeadow Care Ltd are an established provider of elderly and dementia care throughout Suffolk and Norfolk, helping people make the most of later life, offering specialist care, support and high quality accommodation. At present they have six locations across Norfolk including; St John's House, Norwich, The Paddocks, Swaffham, The Mayfields, Long Stratton, Lincoln House, Swanton Morley, Wyndham House, North Wootton, and Heighfield House, Halesworth. Their intention would be to commence work on site at the earliest available opportunity and they would envisage delivery of 50 units per annum.
- 3.24 Whilst the site has already been cleared of buildings, Phase 1 of the development is due commence in late 2026, with occupations completions from late 2027. The intention would be to commence development of Phase 2 immediately thereafter, subject to the grant of planning permission. The entire development (Phase 1 & 2) would be completed in 5-10 years.
- 3.25 As requested by the Council, we have set out below the anticipated delivery trajectory:

YEARS	NUMBER OF DWELLINGS
2027 – 2032	206
2033 – 2038	70 (approx.)
2039 – 2042	-
After 2042	-
Total	276

Viable

- 3.26 The proposed development is also considered viable in the context of the draft Local Plan, subject to the changes sought by Castlemeadow Care Ltd in respect of the other policies.
- 3.27 Further evidence on viability can be provided on a strictly private and confidential basis, should this be deemed necessary at subsequent stages of the process.

Summary

- 3.28 Based on the foregoing, it is evident that the Council will require additional sites to meet their housing and care need, particularly for the first 5 years of the plan period. As outlined in this representation, this site represents a highly sustainable location for development, including housing for elderly and specialist care.
- 3.29 This Representation has also demonstrated that this site is available to be brought forward for development without delay, and previous planning permissions have demonstrated that the site is viable. On this basis, in accordance with the definitions within the NPPF, the site is entirely deliverable and should be allocated for development.

- 3.30 Furthermore, the site would represent sustainable development as defined by the NPPF. Attleborough is a sustainable location for growth and the foregoing text demonstrates the suitability of this specific site for both residential and for Housing for the Elderly and Specialist Care.
- 3.31 Economically, development here in the period to 2042 would help sustain the town and its services and facilities, and is within easy reach of key employment locations. The development would also generate construction jobs with associated benefits for the local economy during the build period.
- 3.32 Socially, the development would provide high quality housing for elderly and specialist care, for which there is an acute need, in a highly sustainable location.
- 3.33 Environmentally, the site is not located within a sensitive area and is at low risk of flooding and can be developed without harm to nearby heritage assets nor wider landscape views of the town. Development in this location would help safeguard other, more sensitive, locations.

APPENDIX 1

LOCAL PLAN REPRESENTATION (HOUSING LAND AVAILABILITY ASSESSMENT STAGE 2) – JULY 2025

**BRECKLAND HOUSING
LAND AVAILABILITY
ASSESSMENT: STAGE
2 ADDITIONAL
EVIDENCE (REF:
LPR/C4S/DEV/261)
LAND AT WHITE HOUSE
LANE, ATTLEBOROUGH**

Quality Assurance

Site name:	Land at White House Lane, Attleborough
Client name:	Castlemeadow Care Ltd
Type of report:	Housing Land Availability Assessment: Stage 2 Additional Evidence

Prepared by:	Lewis Matthews BA (Hons) MRTPI
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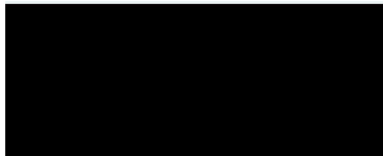
Signed



Date	July 2025
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Reviewed by:	Iain Hill Hons DipTP MRTPI
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Signed



Date	July 2025
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Appendix 1

SKETCH SITE PLAN PREPARED BY WT DESIGN LTD

Appendix 2

HIGHWAYS STATEMENT PREPARED BY RICHARD JACKSON LTD

Appendix 3

TECHNICAL NOTE PREPARED BY ROSSI LONG

1.0 Introduction

- 1.1 This document has been prepared by Bidwells LLP on behalf of Castlemeadow Care Ltd to support the Housing Land Availability Assessment Stage 2 consideration of Land at Station Road and White House Lane, Attleborough.
- 1.2 The site, which comprises 6ha of land, was previously put forward as a suitable location for a mixture of care, extra care and residential development, together with associated uses. The site was split into two phases as follows:
- Phase 1 – 60 bed care home, 110 extra care, 36 houses and retail; and
 - Phase 2 – extra care and housing.
- 1.3 Planning permission was granted in February 2025, subject to the signing of a Section 106 Agreement (Ref: 3PL/2023/1152/F), for Phase 1. Accordingly, it is evident that Phase 1 is suitable, available, viable and deliverable and, therefore, this document / assessment focuses on Phase 2 (Land at White House Lane).
- 1.4 As set out in the Council's Housing Land Assessment Methodology (HLAM) paper dated March 2025, Stage 1 seeks to identify sites which have fundamental constraints that cannot be overcome or mitigated for. The previous Call for Sites submission confirmed at Appendix 1 of that document, that none of the constraints apply to this site and, therefore, the site should move forward to Stage 2 Assessment.
- 1.5 Stage 2 is a detailed, site-specific assessment, and includes analysis of the sustainability of the site, its viability and the likelihood that it will be developed during the plan period. The HLAM includes a note to the promoters of all sites that they are required to address all the assessment criteria, and to undertake any relevant work to demonstrate that a site is suitable, available and deliverable no later than the end of July 2025. The HLAM sets out a total of 14 questions and advises that information is required from the promoter in response to each of these issues.
- 1.6 This document provides a response to each of the 14 Assessment Questions, including signposting to any separate technical work that has been prepared, where relevant. It concludes with an assessment of the site's suitability, availability and deliverability.
- 1.7 This information is intended to update/supplement the information previously provided in relation to the site, and comprises:
- Sketch Site Plan prepared by WT Design Ltd (Ref542-25 P1);
 - Highways Statement prepared by Richard Jackson Ltd (61132/DDP); and
 - Technical Note prepared by Rossi Long (251285).

2.0 Stage 2 Assessment Questions

Q1: Does the site have an available access point(s), with adequate visibility, from the existing public highway that is/are capable of serving the proposed development?

- 2.1 A Highways Statement has been prepared by Richard Jackson Ltd and is submitted in support of this Assessment. Access to the site will be taken via Phase 1 as shown on Drawing 61132/PP/SK04A, which is attached to the Highways Statement.
- 2.2 The vehicular access is to be a 6m wide carriageway with a 3m foot/cycleway plus a 2m verge separation and a further 2m footway, which continues through the adjacent site into the proposed development at the northwest point on the attached layout. At the junction to Station Road, 10m kerb radii would be provided along with visibility splays of 2.4m x 90m.
- 2.3 There would be no vehicular access to White House Lane. Potential for foot/cycle access would be considered at the application stage depending on the progress of the Attleborough Sustainable Urban Extension (SUE).

Q2: Have any significant and evidenced highway issues been identified relating to the site?

- 2.4 The Highways Statement prepared by Richard Jackson outlines that vehicular trip generation for Phase 2 of the development is low with up to 13 two-way additional vehicle trips expected in the highway network peak hours.
- 2.5 The capacity assessment included in the Highways Statement concludes that the highway network is expected to operate within capacity having regard to the second phase of development on the site.
- 2.6 There are no prevailing road safety issues in the vicinity of the site, and the level of additional traffic arising from development of the site would not give rise to any significant impact on the local highway network.
- 2.7 It can therefore be concluded that, in accordance with para 116 of the NPPF, the impacts on highway safety and the residual cumulative impacts on the road network following mitigation are not expected to be severe.

Q3: Does the site have suitable access to public transport, or can new services be provided?

- 2.8 As detailed in the Highways Statement prepared by Richard Jackson Ltd, the site is well served by public transport. Attleborough station on the Breckland Line is approximately 800m from the site. Regular services are available between Norwich and Stansted Airport via Ely and Cambridge.
- 2.9 At present, the nearest bus stops are located on the B1077 Norwich Road approximately 1,350m from the centre of Phase 2 and are marked by flag poles. A further Norwich bound stop is present on Church Street, within the town centre; 1,300m from the site.

- 2.10 The primary bus service from Attleborough is First Bus Turquoise Road 13/X13 to/from Norwich typically offering two services per hour Monday to Friday, three per hour on Saturdays and are hourly Sundays and during the evenings. Other destinations reachable by bus include, but are not limited to, Watton and Thetford via routes 37D/E/T.
- 2.11 The site will also be served by shared pedestrian and cycle facilities, providing easy access to the facilities within the centre of the village. A cycle route is proposed along the access route for the adjacent development continuing into the proposed site. A 3m cycleway is present on the eastern side of Station Road north of the rail station, providing access to the town centre.
- 2.12 As detailed in the Richard Jackson's Highways Statement, the opportunity exists to provide further pedestrian and cycle links from the site to the Attleborough Sustainable Urban Extension (SUE) as and when that site comes forward.
- 2.13 Accordingly, it can be concluded that the site has suitable access to public transport, which can be further enhanced by the development.

Q4: Is the site within close proximity and have linkages to a) education provision; b) local health facilities; c) local employment provision, d) local green space and community / recreation facilities and e) local shops and services?

- 2.14 Richard Jackson's Highways Statement assesses the potential for residents to access services and amenities in Attleborough. This is summarised below:

AMENITY	DISTANCE
Post Office and Shop	1.4km
Primary School	1.35km
Community Centre and children's play areas	0.9km
Pub (London Tavern)	1.35km
Pharmacy	1.3km
Nursery	1.15km
Gym	1.2km
Superstore (Sainsburys)	1.6km

- 2.15 In addition to the above, further local amenities are also likely to be provided to the south of the site within the Attleborough SUE such as a schools, retail, healthcare, and leisure.

Q5: Are there any significant concerns set out in the SFRA – Stage 1 which could impact on the delivery of the site?

- 2.16 The SFRA Stage 1 mapping reveals that the site is not within Flood Zone 2, 3a or 3b, and is therefore at low risk of flooding.
- 2.17 The Breckland Council Level 1 Strategic Flood Risk Final Report (SFRA), September 2024 states that Attleborough has experienced multiple instances of flooding. Rossi Long Consulting have

prepared a Technical Note which addresses Flood Risk and Surface Water Drainage, and as part of this, the SFRA has been reviewed and while Station Road is mentioned as being affected by flooding, White House Lane is not. The SFRA covers flooding from a range of sources which are covered in the Technical Note and shown to not affect the site with the exception of Surface Water.

- 2.18 While Surface Water flooding affects the site, the area affected is less than 50% of the site and the risk and hazard associated with the surface water flooding is low. The SFRA states that in these circumstances, management of surface water needs to be considered during design of the surface water system, possibly with the inclusion of flood routing, but that it does not preclude development. The Rossi Long Technical note demonstrates how such a drainage system could be provided. There are, therefore, no significant concerns raised within the SFRA which could impact the delivery of the site.

Q6: Has a site-specific flood risk assessment been carried out and appropriate mitigation measures agreed with the Lead Local Flood Authority been agreed?

- 2.19 A detailed site-specific Flood Risk Assessment has not been prepared at this stage but would be prepared to support any future planning application on the site, in accordance with paragraph 181 of the NPPF. However, Rossi Long have prepared a Technical Note which addresses Flood Risk and Surface Water Drainage and sets out the proposed strategy for the site.
- 2.20 It confirms that the site is at low risk of flooding for tidal or fluvial sources (i.e. Flood Zone 1) and that the majority of the site is at a 'very low' risk of flooding from surface water. Environment Agency mapping shows surface water flooding associated with the ditches on the site, predominantly affecting the south west part of the site. The Flood Maps for Planning indicate that there is only localised ponding in low spots up to the 1:100 annual likelihood, with flows migrating across the site only shown on the 1:1000 annual likelihood mapping. The Rossi Long Technical Note shows how the development can be safely planned around them to ensure that risks remain low for the lifetime of the development. In addition, the Note confirms that the risk of groundwater flooding is moderate, which is typical for sites in Breckland, and that there are no risks from artificial waterbodies/reservoirs.
- 2.21 The Note also confirms that the proposed development would not increase the risk of flooding elsewhere, and may provide a reduction in flood risk to downstream properties.

Q7: Where any proposed development itself (as opposed to open space or land for Biodiversity Net Gain etc) falls within the land at risk of flooding, has a Sequential Test been completed and agreed with the Lead Local Flood Authority?

- 2.22 The site is within Flood Zone 1 (lowest risk from tidal and fluvial flooding) according to the Environment Agency's Flood Map for Planning, and there are no areas with an annual likelihood of surface water flooding of 1 in 30 or 1 in 100 events. The areas of surface water flooding shown on the Flood Maps for Planning for the 1:100 annual likelihood are confined to areas of open space or other water compatible uses. Additional areas of surface water flood risk are shown on the mapping for the 1 in 1000 annual likelihood, however, the Technical Note suggests that this is largely site generated and would be mitigated (and possibly eliminated) by the introduction of a sustainable drainage system on the site. In addition, the proposed development area leaves a flood routing corridor available for safe conveyance of any residual surface water flooding. As such, any residual surface water flooding would be above the design event (1 in 100 year + CC event) and it

is considered that the site can be developed with no built development (including access or escape routes, land raising or other potentially vulnerable elements) in the areas at risk. Consequently, a Sequential Test would not be required, in accordance with paragraph 175 of the NPPF.

- 2.23 It is noted that the responsibility for the application and agreement of the Sequential Test lies with the Local Planning Authority and not the Lead Local Flood Authority.

Q8: Where appropriate has a Sustainable Urban Drainage Report(s) (SuDS) been prepared and submitted to the Council?

- 2.24 Rossi Long's Technical Note includes a desktop SuDS Assessment which benefits from additional information (including intrusive testing) from the adjacent site controlled by Castlemeadow Care Ltd. This assessment which confirms that the SuDS hierarchy will be followed, provides evidence for the types of SuDS that could be used and includes calculations demonstrating that sufficient space has been reserved for surface water attenuation. Rainwater re-use will be incorporated where possible, and BRE365 infiltration testing will be completed at a later stage, prior to the submission of a planning application, to confirm the extent of infiltration drainage that can be utilised. It is expected that only limited infiltration will be possible and that surface water will be attenuated and discharged to the ditch at the western side of the adjacent site, avoiding the ditch on White House Lane.
- 2.25 The Indicative Masterplan includes attenuation basins; and while the size and location of these are supported by calculations (see supporting Technical Note), they may be subject to change as the scheme progresses and following the completion of infiltration testing. However, The Masterplan demonstrates that it is entirely feasible to accommodate the volume of attenuation that may be required. At application stage, other SuDS measures will be considered including features such as swales, rain gardens, permeable paving and tree pits.
- 2.26 The Technical Note provides a proportionate level of evidence that a suitable surface water drainage strategy can be developed. The site will incorporate SuDS, which will provide multifunctional benefits in accordance with paragraph 182 of the NPPF. The precise details will be confirmed at planning application stage and will include details of long-term management and maintenance of all SuDS features.

Q9: Will the proposal involve the re-use of suitable previously developed land/buildings?

- 2.27 The proposal does not include the re-use of previously developed land or buildings.

Q10: Has the proposal demonstrated high standards of design that:

- 1) Complements and enhances its context
- 2) Follows inclusive processes of engagement
- 3) Helps to deliver better integration with nature
- 4) Encourages active travel and mitigates the impacts of vehicles
- 5) Creates beautiful places with distinctive local identity
- 6) Embeds climate responsive design?

- 2.28 An Indicative Masterplan has been prepared by WT Design Ltd, which demonstrates how the site could be developed. Whilst it is anticipated that adherence to the requirements of the Breckland

Design Guide will be secured via a general policy within the Plan, the Masterplan demonstrates that the site can meet the 6 requirements specified.

Complements and enhances its context

- 2.29** The proposed development has been carefully designed to respond positively to the character and setting of Attleborough, the scheme takes inspiration from the surrounding built form, including the new development to the west, which features traditional Norfolk architecture including red and buff bricks, pantiles and pitched roofs. The proposed development, as shown on the Indicative Masterplan incorporates 71 single storey dwellings and is based on strong landscape principles, respecting the rural edge of settlement character of White House Lane. The development scale, which could be up to two storeys, density, and grain have been designed to reflect the existing village form and takes reference from the new development to the west and softens the transition to the countryside.

Follows inclusive processes of engagement

- 2.30** Given the early stages of site promotion, no stakeholder engagement has yet been undertaken. However, Castlemeadow Care Ltd will undertake early engagement with all local stakeholders, including Attleborough Town Council and the local community at the appropriate stage. A public consultation exercise will be undertaken to present the emerging proposals. Further engagement will be planned as part of the pre-application planning process to ensure that the proposals remain responsive to local needs and expectations. An approach successfully adopted by Castlemeadow Care Ltd when bringing forward the development on Phase 1.

Helps to deliver better integration with nature

- 2.31** The development strategy is landscape-led, retaining existing mature hedgerows and trees to west and eastern boundaries, the existing woodland area to the centre of the site has been retained and acts for both visual and ecological functions running east to west, supporting habitat connectivity. The proposals include biodiversity enhancement measures in accordance with policy, aiming to deliver a net gain in biodiversity. This will be achieved through on-site habitat creation (wildflower meadows, native planting, swales, bat and bird boxes), and the enhancement of existing ecological features. The proposed open space and SuDS features are designed to be multifunctional linking to existing ditch network, combining recreation, amenity, and ecological value.

Encourages active travel and mitigates the impacts of vehicles

- 2.32** The layout has been designed to prioritise pedestrian and cyclist movement over cars, with direct and safe links to the range of services and amenities in Attleborough. The proposed internal road network will incorporate shared surfaces, street trees, and traffic calming measures to encourage low vehicle speeds. Cycle paths and footways will connect the site with the wider Attleborough area, each dwelling will be provided with EV charging infrastructure to promote sustainable transport. A Travel Plan will be prepared at the planning application stage.

Creates beautiful places with distinctive local identity

- 2.33 The development is underpinned by a clear design vision that draws on the distinctive identity of Banham. The Masterplan promotes varied yet coherent streetscapes with a hierarchy of spaces and a mix of dwelling types. Public open spaces and informal play areas will allow community interaction. Streets and buildings will be designed with a consistent palette of high-quality materials, boundary treatments, and planting schemes reflective of the local character. The development will also align with the Breckland Design Guide, ensuring a high standard of placemaking.

Embeds climate responsive design

- 2.34 As per the Phase 1 development, the proposals for Phase 2 will incorporate a range of climate-conscious design principles in line with national policy and local expectations. Homes will be energy efficient, with high thermal performance, and oriented to benefit from natural light and ventilation. Building materials will be selected with regard to their environmental impact, and opportunities for renewable technologies (e.g. solar panels and air-source heat pumps) will be explored at the detailed design stage. SuDS will manage surface water on-site while enhancing biodiversity. Tree planting and green infrastructure will provide shade and cooling, supporting climate resilience.

Q11: Has the proposal demonstrated sufficient evidence to show that broadband, power and water supplies are or can be made available to serve the whole development?

- 2.35 As detailed by the planning application on the adjacent site, power and water are both located within close proximity of the site. Anglian Water have confirmed the site drains to a WRC which has capacity for the additional flows. Discussions with providers will continue throughout the design and development process, but as detailed by the development on the adjacent site, utilities are not considered to present a constraint to development. No gas is required with all energy required by renewable sources.

Q12: Are there any legal or ownership impediments that could delay or prevent the development of the site within the Plan Period (to 2042)?

- 2.36 There are no legal or ownership impediments that would delay or prevent development of the site; there is a single landowner, and Castlemeadow Care Ltd have secured the site. There are no tenancies and no covenants relating to the land that would prevent development coming forward.

Q13: Has the applicant provided a statement of the achievability of development including consideration of viability to show the development is deliverable and financially viable?

- 2.37 Our understanding, based on the Council's Adopted Local Development Scheme, is that the Council are in the process of preparing a Whole Plan Viability Assessment to underpin the policies of the Local Plan and ensure that requirements, particularly for affordable housing, are at a level that takes account of affordable housing and infrastructure needs and allows for the planned development to be deliverable. This approach is in accordance with the National Planning Policy Guidance (PPG) (paragraph 10-002-20190509) which sets out that the role for viability assessment is primarily at the plan-making stage, and it is the responsibility of the plan makers to create realistic, deliverable policies.
- 2.38 Whilst the PPG further states that it is not necessary to individually test each site, nor provide assurance that each site is viable, we are confident that the delivery of the site is viable having

regard to the policy requirements of the Preferred Options Draft Plan (June 2024) and there are no factors that we are aware of, at this moment in time, that could prevent the delivery of the site.

Q14: Has evidence been provided to confirm if and when the site is available for development and if so could the development begin and/or be completed in the next 5 years, years 5-10 or years 10-15?

- 2.39 Phase 1 of the development is due commence in late 2025, with a target of completion in 2027. The intention would be to commence development of Phase 2 immediately thereafter, subject to the grant of planning permission. The entire development (Phase 1 & 2) would be completed in 5-10 years.

3.0 Conclusion

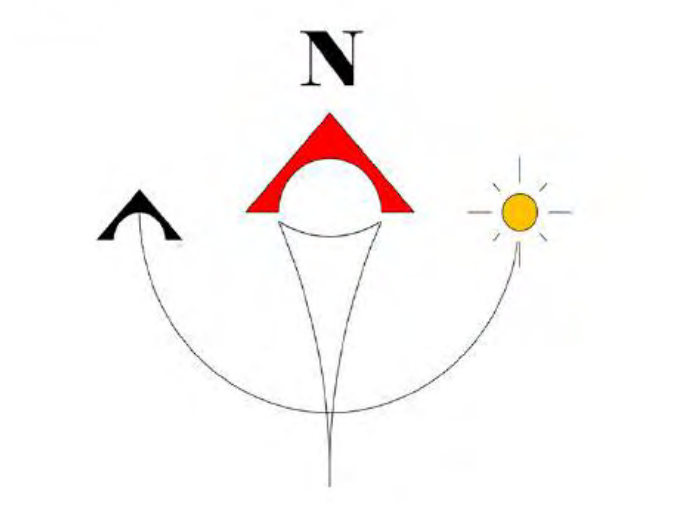
- 3.1 As set out previously, and further evidenced above, the site is suitable, available and viable. Development in this location would represent sustainable development as defined within the NPPF.
- 3.2 Attleborough as a Market Town in the Council's revised settlement hierarchy is a sustainable location for growth of the scale envisaged. The previously submitted Representations, together with the information appended to this document, demonstrate that this specific site is a suitable and sustainable location for future development in all respects.
- 3.3 Economically, development here in the period to 2042 would help support the town and its services, whilst also providing employment opportunities.
- 3.4 Socially, the development would provide for extra care needs, for which there is an identified need, in close proximity to an established and developing community.
- 3.5 Environmentally, the site is not subject to any designations. It is at low risk of flooding and can be developed without harm to the nearby heritage assets, nor wider landscape views of the town; providing a logical infill development. Development in this location would help safeguard other, more sensitive, locations in the district.
- 3.6 On this basis, the site should be taken forward as an allocation, and is capable of making a significant contribution to the planned growth in Breckland in the period to 2042.

APPENDIX 1

SKETCH SITE PLAN PREPARED BY WT DESIGN LTD

All dimensions to be verified on site by Main Contractor before the start of any shop drawings or work whatsoever either on their own behalf or that of sub-contractors. Report any discrepancies to the Contract Administrator at once. This drawing is to be read with all relevant Architect's and Engineer's drawings and other relevant information.
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NOTES:



DRAFT

P1	18-07-25	First Issue	AC	WT
Rev	Date	Description	Drawn	Chk

WTD

WT Design Ltd

Architectural Consultants

Project:
Phase 2,
Attleborough

Drawing Title:
Sketch Site Plan

Client:
Castlemeadow Care

Scale @A0:
1:500

Project Start Date:
06-2025

0m

10m

20m

30m

40m

Scale 1:500

Project Number: 542-25	Drawing Number: sk0100	Revision: P1
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Purpose of Issue:
Information

APPENDIX 2

HIGHWAYS STATEMENT PREPARED BY RICHARD JACKSON LTD

Our Ref: 61132/DDP

Your Ref:

23 July 2025

Dr Sanjay Kaushal
Castlemeadow Care Ltd
c/o Mr Saul Humphrey
Saul D Humphrey LLP
7 Quayside
Norwich
NR3 1RQ

Email Only

Dear Dr Kaushal

Re: White House Lane, Attleborough

1. Introduction

- 1.1. Richard Jackson Ltd have reviewed the access and transportation matters in respect of a development site to the north of White House Lane for potential allocation in the emerging Local Plan. The site location shown on **Figure 1** attached. The development would provide around 70 retirement and care community bungalows along with associated Club House/community centre. A site sketch plan as **Drawing 542-25 sk0100 P1** is attached, showing how 71 bungalows could be accommodated.
- 1.2. The site would provide a second phase to the already proposed retirement and care community lead development at the former Brenntag Depot (and adjacent land) to the southwest with access to Station Road for which planning application 3PL/2023/1152/F refers. At the time of writing, application 3PL/2023/1152/F had successfully passed the planning committee stage and formal approval is understood to be pending the completion of a Section 106 agreement.
- 1.3. The development associated with application 3PL/2023/1152/F would include a 60-bed care home, 110 dwelling retirement and care community (50 bungalows and 60 apartments), 36 residential dwellings (as flats) and 3 No small commercial/retail units totalling 675m² (excluding canopy and external storage). A village hub is to be provided for the retirement and care community comprising of amenities including spa (incorporating a swimming pool), hair & nail salon, gym and café/restaurant/bar.
- 1.4. This assessment considers the additional proposals based on current transport policy with regards to development and accessibility issues, which are addressed in the following matters:

Cont'd.../



also at: Cambridge 01223 314794, Colchester 01206 228800, Bristol 01172 020070 and London 020 7448 9910
Richard Jackson is a trading name of Richard Jackson Ltd. Registration No. 2744316 England.
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2. Access and the current situation.
3. Location and accessibility to services.
4. Transportation links including pedestrian, cycle, public transport modes and the local highway network.
5. Vehicular Trip Generation
6. Site Access Capacity
7. Any suggested highway/transportation mitigation.
8. Conclusions including a summary table.

2. Access and the current situation

- 2.1. The overall development would take access via application site 3PL/2023/1152/F to Station Road, where the access would be as shown on **Drawing 61132/PP/SK04A** attached. The vehicular access is to be a 6m wide carriageway with a 3m foot/cycleway plus a 2m verge separation and a further 2m footway which continues through the adjacent site into the proposed development at the northwest point on the attached layout. At the junction to Station Road 10m kerb radii would be provided along with visibility splays of 2.4m x 90m.
- 2.2. The access road through the adjacent development has been designed such that an emergency vehicle can overrun the foot/cycleway and verge areas to bypass any blocking of the carriageway. This was demonstrated for application 3PL/2023/1152/F through vehicle tracking by Rossi Long Consulting.
- 2.3. Internal loop sections are to be provided for in both the proposed site and adjacent developments. A single link would be provided between them of sufficient width for emergency vehicles as demonstrated for the adjacent site.
- 2.4. There would be no vehicular access to White House Lane. Potential for foot/cycle access could be considered at the application stage depending on the progress of the Attleborough Sustainable Urban Extension (SUE) site, however the only desire lines to the south and west would be for care workers living locally. The proposed site is not however considered to be reliant upon such a link.

3. Location and accessibility to Services

- 3.1. To assess the ability for potential residents to access services, research was undertaken for the Transport Assessment supporting application 3PL/2023/1152/F to locate the existing local services and amenities, which are tabulated in **Table 1**. The distances from application 3PL/2023/1152/F are shown as Phase 1 with the distance from this proposal as Phase 2.

Table 1 – Local Amenities/Services

Amenity	Description	Location	Distance (km) from Phase 1	Distance (km) from Phase 2
Recreation Area	Halford Road Playground	Halford Road	1.55	1.95
Bus Stops	Church Street Stops	Church Street	0.95	1.35
Train Station	Attleborough Train Station	Station Road	0.30	0.70
Doctors	Queens Square Surgery	Queens Road	1.10	1.50
Hotel	The Griffin Hotel	Church Street	0.90	1.30
Football Club	Attleborough Town Football Club	Station Road	0.45	0.85
Community Centre	Connaught Hall	Station Road	0.50	0.90
Church	St Mary's Church Attleborough	Church Street	0.85	1.25
Library	Attleborough Library	Church Street	0.80	1.20
Public House/Hotel	London Tavern	Church Street	0.95	1.35
Post Office	Attleborough Post Office	High Street	1.00	1.40
Pharmacy	Lloyds Pharmacy	Church Street	0.90	1.30
Superstore	Sainsburys	High Street	1.10	1.50
Superstore	Lidl	Queens Road	1.10	1.50
Primary School	Attleborough Primary School	Besthorpe Road	0.95	1.35
Secondary School	Attleborough Academy	Norwich Road	0.90	1.30
Nursery	Pavilion Pre School	Thieves Lane	0.75	1.15
Gym	NR Health and Fitness Club	Maurice Gaymer Road	0.80	1.20

3.2. In addition to **Table 1** are the amenities (retail and leisure) which are to be provided for application 3PL/2023/1152/F itself and would be available to the residents of the extended site along with the proposed Club House within the development of Phase 2.

3.3. Further local amenities are also likely to be provided to the south of the site within the Attleborough SUE such as a school, retail, healthcare, leisure uses etc.

4. Transportation Links for Pedestrian, Cycle, Public Transport and Highway Network

Pedestrians

4.1. There are no public rights of way on or adjacent to the site that the development proposals would affect.

4.2. The routes for pedestrians from the Station Road access are well served up to the town centre with a footway along the eastern side of Station Road of varying width but typically 1.5 metres up to the level crossing. At the level crossing, there are dedicated pedestrian walkways (at grade) across the rail tracks.

4.3. Elsewhere on the route to the town centre, tactile paving is provided at the B1077 Station Road/Thieves Lane/Connaught Road/Surrogate Street junction with a pedestrian signage is also present. The B1077 Surrogate Street/Church Street/Norwich Road/Besthorpe Road junction includes tactile paving on 3 out of 4 arms with Norwich Road and Church Street including controlled crossing facilities, a zebra crossing is present to the south on Surrogate Street. Tactile paving is also provided at the B1077

Connaught Road/Edenside Drive and B1077 Connaught Road/High Street/Exchange Street junctions.

Cyclists

- 4.4. A cycle route is proposed along the access route for the adjacent development continuing into the proposed site. Cycling on Station Road in the vicinity of the site access is however on-street.
- 4.5. A 3m cycleway is present on the eastern side of Station Road north from the rail station car park access to the town centre, utilising dropped kerb crossing points at the Thieves Lane and Besthorpe Road junctions.
- 4.6. The potential for a cycle route along Station Road between the site access and existing provision at the station car park was reviewed for application 3PL/2023/1152/F. Such a link is desirable but not critical to the development and it was found not to be achievable within the public highway. Should land within the Attleborough Community Hub which lies between the site and the station and is in public ownership be offered freely, then the provision of or financial contribution to such a cycle link would be investigated further at the application stage.

Public Transport

- 4.7. The nearest public transport provision is formed of rail services from Attleborough station on the Breckland Line approximately 300m from the centre of the site for application 3PL/2023/1152/F and 800m from the centre of Phase 2. Regular services are available between Norwich and Stansted Airport via Ely and Cambridge, with a limited service available towards Liverpool. There is typically one service to/from Norwich per hour in each direction on the Cambridge/Stansted Airport route.
- 4.8. The nearest bus stops are located on the B1077 Norwich Road approximately 950m from the site for application 3PL/2023/1152/F and 1,350m from the centre of Phase 2 and are marked by flag poles. A further Norwich bound stop is present on Church Street, within the town centre, also 900m/1300m from the site. This stop is also marked by a flagpole and has a layby for the bus, with seating and shelter available nearby. Both locations benefit from street lighting.
- 4.9. The primary bus service from Attleborough is First Bus Turquoise Road 13/X13 to/from Norwich typically offering 2 services per hour Monday to Friday, 3 per hour Saturday's and are hourly Sunday's and evenings. Other destinations reachable by bus include (but are not limited to) Watton and Thetford. There is a limited frequency service (2-3 services per direction per weekday) along Station Road as Coach services routes 37D/E/T.
- 4.10. The Travel Plan for application 3PL/2023/1152/F includes for an electric shuttle bus to be available to residents on a regular timetable and routing to local amenities including Attleborough town centre. Given that the proposals are for a second Phase of the development, it would be expected that such a service would be extended to the additional part of the development as the site progresses.

Highway Network

- 4.11. The B1077 connects the site access with Attleborough town centre, the A11 and B1108 to the north, and to the A1066 for Diss to the south. The primary route for travel to the wider area is however likely to be via the A11 which connects Norwich to London.
- 4.12. The B1077 crosses the railway line at Attleborough station at a level crossing. Footways are present on both sides of the road at the crossing with white lines delineating both sides of each footway. A review of the level crossing in the Transport Assessment for application 3PL/2023/1152/F considered that all reasonable level crossing safety measures are likely to already be in place and the crossing is therefore considered to be appropriate for the location.
- 4.13. The Transport Assessment for application 3PL/2023/1152/F identified capacity constraints at the B1077 Station Road/Thieves Lane/Connaught Road/Surrogate Street junction. The junction was improved in 2018 and the potential for further improvements is unlikely. A new road between the B1077 Station Road and London Road is required of Attleborough SUE when it reaches 1,200 dwellings which would alleviate this constraint and would also lead to a reduction in vehicle trips over the Attleborough station at a level crossing. It is anticipated that the combined build rate of the two phases of development would be such that the additional development is likely to occur after the provision of the new road.

5. Vehicular Trip Generation

- 5.1. The trip generation for the proposals of application 3PL/2023/1152/F were based on trip rates from the TRICS databased as set out in the applications TA. The TRICS trips rates are reproduced as **Table 2** with corresponding trips in **Table 3**.

Table 2 - TRICS Based Vehicular Trip Rates

	AM Peak		PM Peak	
	Arrive	Depart	Arrive	Depart
Care Home (1 resident/bedroom)	0.068	0.050	0.038	0.053
Retirement & Care Community (1 Dwells)	0.113	0.063	0.063	0.121
Flats Privately Owned (1 Dwells)	0.068	0.206	0.187	0.100
Retail (100m ²)	9.064	8.380	13.492	13.967

Table 3 – Vehicular Trip Generation of application 3PL/2023/1152/F

	AM Peak		PM Peak	
	Arrive	Depart	Arrive	Depart
Care Home (60 Beds)	4	3	2	3
Retirement & Care Community (110 Dwells)	12	7	7	13
Flats Privately Owned (36 Dwells)	2	7	7	4
Total Trips (excluding retail)	19	17	16	20
Retail Trips (675m ²)	61	57	91	94
Total Trips at Site Access	80	74	107	114

- 5.2. The additional trips for the 71 retirement and care community dwellings illustrated on the attached layout are shown in **Table 4** based on the trip rates from **Table 2**. No specific additional trips are expected for the Club House in the weekday peaks as this primarily forms part of the retirement and care community use with mostly internal demand

(although it would not specifically be restricted as such). **Table 4** also summarises the combined development trip generation at the site access.

Table 4 - Combined Development Vehicular Trip Generation

	AM Peak		PM Peak	
	Arrive	Depart	Arrive	Depart
<i>Table 3 Total Trips</i>	80	74	107	114
Phase 2 Retirement & Care Community (71 Dwells)	8	4	4	9
Total Trips at Site Access	88	78	111	123

- 5.3. It can be seen from **Table 4** that the vehicular trip generation for the proposed additional retirement and care use is low at up to 13 two-way additional vehicles trips expected in the highway network peak hours.

6. Site Access Capacity

- 6.1. The capacity of the site access was reviewed for the development of application 3PL/2023/1152/F in its associated TA and has been considered further herein for the additional development as described below.

Traffic Forecasting

- 6.2. The capacity assessment remains based on traffic data collected in November 2021 collected for application 3PL/2023/1152/F. For the future year forecast of background traffic growth was previously applied to 2029 and has now been updated to 2031 based on a potential planning application in 2026. This has calculated using TEMPro based growth factors with datasets NTEM 80 (Core) and NRTP 2022 (Core). The calculation has been made for Breckland 011 with road type 'minor' and area 'Region'. The resulting growth factors for the 2021 survey year to 2031 forecast year are 1.0756 for the AM peak and 1.0751 for the PM peak (as shown attached).
- 6.3. The former Grampian Foods site on the B1077 Buckenham Road (planning application 3PL/2015/0546/O) along with 1,200 dwellings of the Attleborough SUE development (application 3PL/2017/0996/O) are considered as committed as committed development (with 1,000 SUE dwellings being previously considered as committed to 2029). The 1,200 dwellings of the Attleborough SUE development is the maximum permitted before the completion of a new link between Sation Road and London Road and therefore represents its likely worst case at site access.
- 6.4. The first phase of the care and community development (application 3PL/2023/1152/F) is also considered to be committed based on the trips shown in **Table 3**. Trip distribution at the access, except for retail trips, are based on observed turning proportions at the Buckenham Road/Blenheim Drive junction associated with the Grampian Foods assessment.
- 6.5. For the retail use, trips remain considered as linked/pass-by at the site access. The north/south split of trips were taken based on the ratio of northbound/southbound trips on the B1077 from a traffic survey of the Maurice Gaymer Road junction in November 2021. These trips are added

to the turning movements at the site access junction and removed from the background through movement (aggregated from arrivals and departures).

- 6.6. The trip generation for the additionally proposed development is taken from **Table 4** and distributed at the site access on the same basis as above.
- 6.7. Trip matrices in Passenger Car Units (PCUs) for the build up of traffic flows from the 2021 traffic data to 2031 with development are attached. As with the TA for application 3PL/2023/1152/F a vehicle to PCU factor of 1 is applied given the residential nature of the development.

Capacity Assessment

- 6.8. The Junctions 9 model of the Station Road site access from application 3PL/2023/1152/F has been updated with the 2031 with development flows with the results attached and summarised in Table 6. The results show all RFCs to remain within the preferred maximum of 0.85 and therefore the site access is expected to operate with capacity.

Table 6 - B1077 Station Road/Site Access Junction Summary

Arm/Movement	2031 AM Peak		2031 PM Peak	
	Queue	RFC	Queue	RFC
Site Access	0.4	0.30	1.1	0.54
Station Road (right turn)	0.6	0.18	0.8	0.22

- 6.9. As new highway infrastructure associated with the Attleborough SUE development would reduce through trips and the additional development is likely to be after this, the assessment is considered to be sufficiently robust at this stage. Depending on the opinion of the highway authority at the scoping stage of any future planning application, the assessment may however still need to be updated with new traffic data in due course.
- 6.10. The additional trips at the junctions of B1077 Station Road/Thieves Lane/Connaught Road/Surrogate Street junction and B1077 Station Road/Maurice Gaymer Road, are unlikely to be significant and further assessment of these locations is considered unlikely to be required.

7. Highway/Transportation Mitigation

- 7.1. The existing access to Station Road for the former Brenntag Depot site would be improve for the development proposed in application 3PL/2023/1152/F as shown on **Drawing 61132/PP/SK04A**. This would remain the case for the additional development considered herein.
- 7.2. As part of application 3PL/2023/1152/F new bus stops were identified for Station Road between the site and Maurice Gamer Close for access to existing services and potentially any future services associated with the Attleborough SUE. No other public transport improvements are expected to be required.
- 7.3. A cycle route link between the overall development site and existing provisions at the rail station is desirable but not critical to the development and cannot be accommodated within the existing highway

boundary. Should additional land become available, then this should be investigated further for any future applications.

- 7.4. Whilst there are existing constraints on the highway network to the north, the Attleborough SUE development will provide a new road between Station Road and London Road which will alleviate these. As such no further highway improvements are proposed.
- 7.5. A Travel Plan (excluding retail use) is expected to be implemented for application 3PL/2023/1152/F to minimise its vehicular trip generation. The Travel Plan could either be extended, or a further Travel Plan could be provided for the additional development as may be appropriate as the site progresses.

8. Conclusions

- 8.1. To collate the issues and highlight the matters that are relevant to transportation for a proposed development at White House Lane, Attleborough, **Table 7** shows the summary of opportunities / constraints that the scheme includes.

Table 7 - Summary Table

Matters	Comment	Satisfactory	Requires further investigation/improvement	Not Satisfactory
Principle of Site Vehicle Access	The principal of the overall development site access to Station Road has been established for application 3PL/2023/1152/F and as shown on Drawing 61132/PP/SK04A.			
Pedestrian/Cycle Access	Access is available for existing desire lines through the access arrangement for application 3PL/2023/1152/F. Whilst not require any potential foot/cycle connectivity to the Attleborough SUE site can be considered at the planning application stage.			
Accessibility to Services	Suitable existing local amenities have been identified within 2.0km. The development of application 3PL/2023/1152/F is already expected to provide further amenities within the overall development.			
Pedestrian Links	Suitable routes are available to local amenities and public transport boarding points.			
Cycle Facilities	No additional infrastructure deemed necessary, however there is potential for a cycle link to the rail station should additional land become available.			
Public Transport	The current public transport provision is suitable for the development. Additional bus stops are however required for application 3PL/2023/1152/F.			
Trip Generation and Site Access Capacity	The access to Station Road has sufficient vehicular capacity for the development.			
Highway Network	There are some existing constraints on the local highway network which would be alleviated by improvement works associated with the Attleborough SUE development. As such no further highway improvements are proposed.			

8.2. It is therefore concluded that in terms of access, accessibility to services, other modes of transport and the public transport provision, the development is likely to meet all necessary transport policy criteria.

8.3. I trust the foregoing is satisfactory but if we can be of any further assistance, please do not hesitate to contact us.

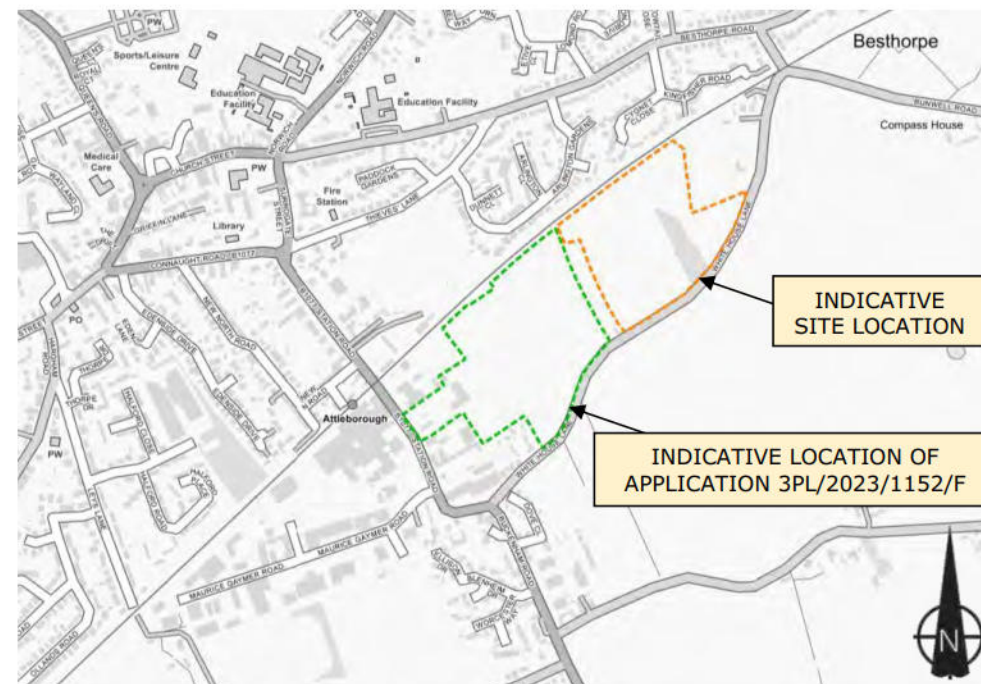
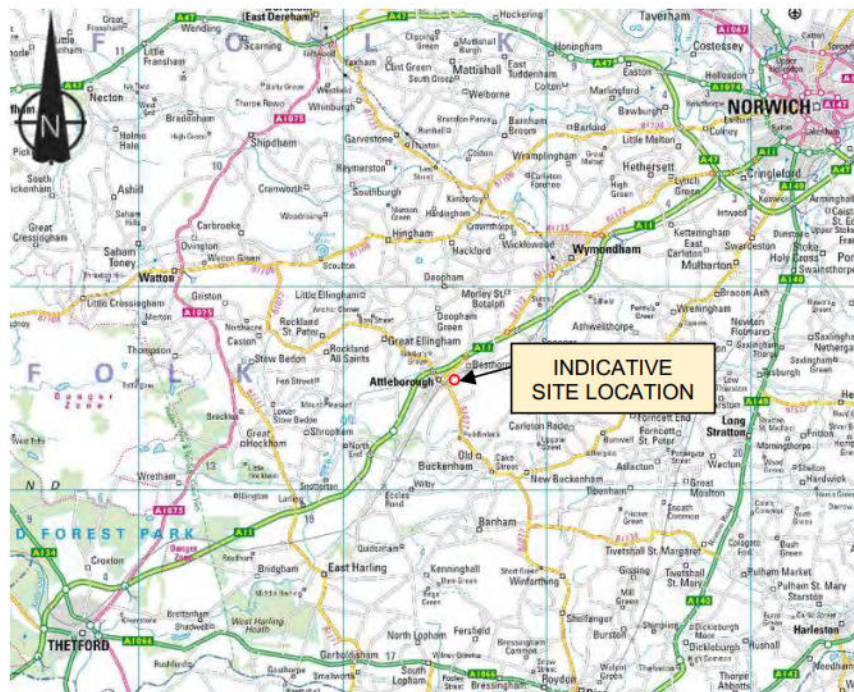
Yours sincerely



Duncan Palmer BSc (Hons) MCIHT MTPS
Transportation Engineer
on behalf of Richard Jackson Limited

Encs: Figure 1 - Site Location Plan
Drawings 542-25 sk0100 P1 & 61132/PP/SK04A
TEMPro Data
Traffic Matrices
Junctions 9 Model

CC: Iain Hill – Bidwells LLP



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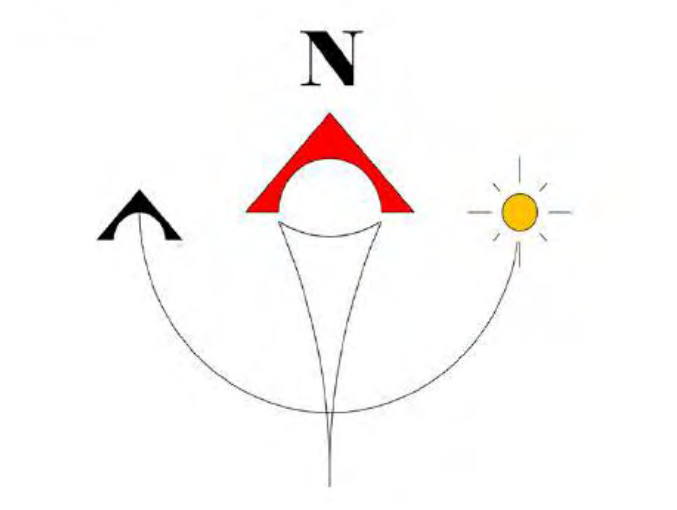
Site Location Grid Reference 605650, 295270 and Postcode NR17 2PB

Client:	Drawing Title:		
Castlemeadow Care Ltd	Site Location Plan		
Job Title:	Date:	Job No:	Dwg No:
Former Brenntag Depot, Attleborough	23/07/25	61132	Fig. 1

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www.richardjackson.uk.com

All dimensions to be verified on site by Main Contractor before the start of any shop drawings or work whatsoever either on their own behalf or that of sub-contractors. Report any discrepancies to the Contract Administrator at once. This drawing is to be read with all relevant Architect's and Engineer's drawings and other relevant information.
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NOTES:



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P1	18-07-25	First Issue	AC	WT
Rev	Date	Description	Drawn	Chk

WT

WT Design Ltd

Architectural Consultants

Project:
Phase 2,
Attleborough

Drawing Title:
Sketch Site Plan

Client:
Castlemeadow Care

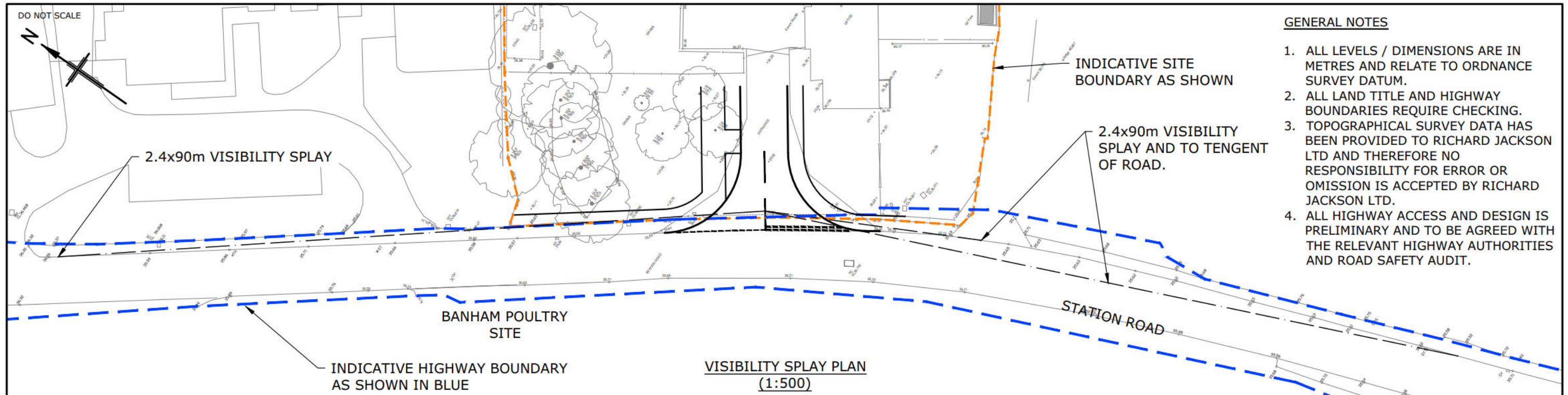
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Project Start Date:
06-2025

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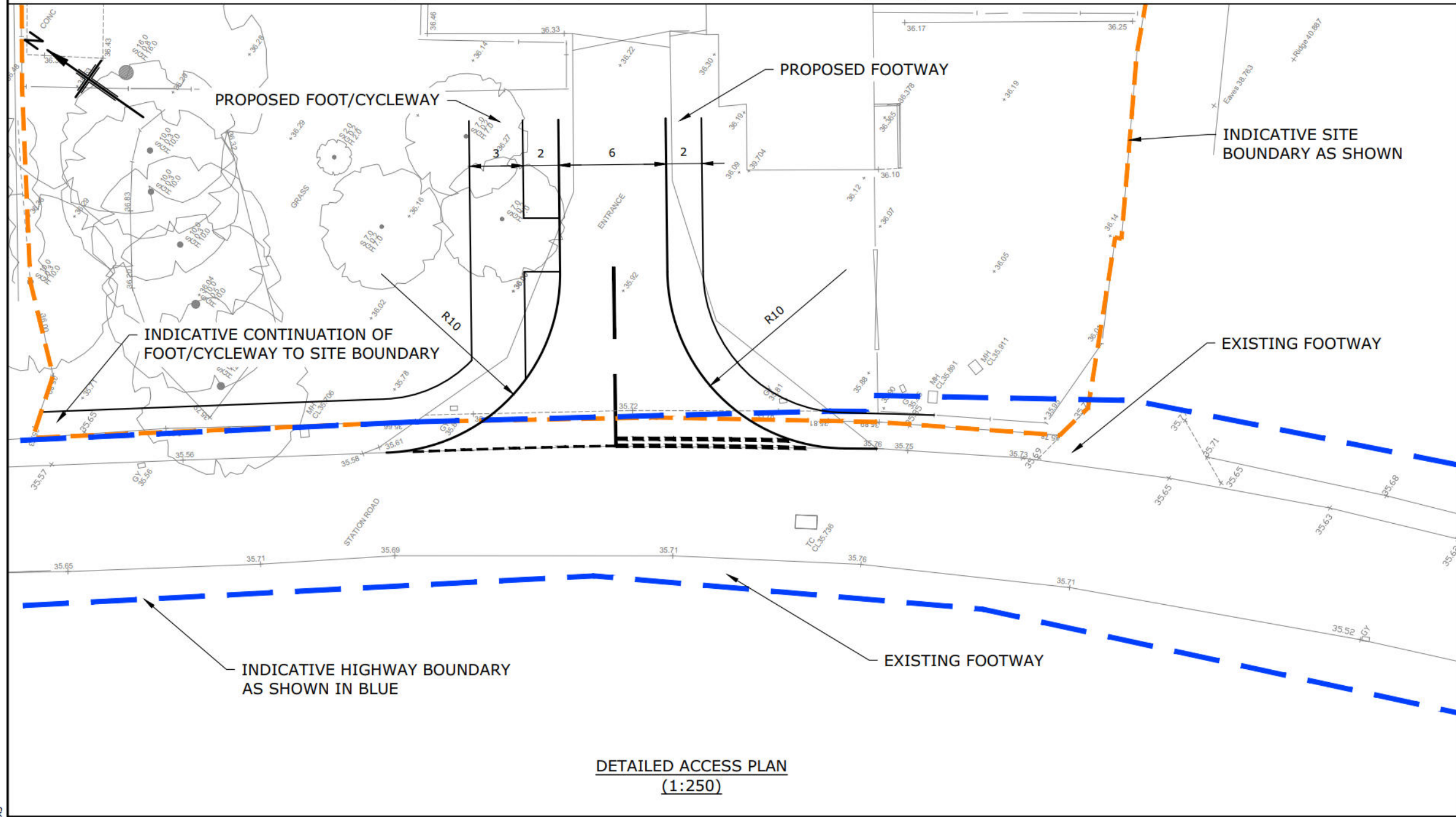
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Project Number: 542-25	Drawing Number: sk0100	Revision: P1
Purpose of Issue: Information		



GENERAL NOTES

1. ALL LEVELS / DIMENSIONS ARE IN METRES AND RELATE TO ORDNANCE SURVEY DATUM.
2. ALL LAND TITLE AND HIGHWAY BOUNDARIES REQUIRE CHECKING.
3. TOPOGRAPHICAL SURVEY DATA HAS BEEN PROVIDED TO RICHARD JACKSON LTD AND THEREFORE NO RESPONSIBILITY FOR ERROR OR OMISSION IS ACCEPTED BY RICHARD JACKSON LTD.
4. ALL HIGHWAY ACCESS AND DESIGN IS PRELIMINARY AND TO BE AGREED WITH THE RELEVANT HIGHWAY AUTHORITIES AND ROAD SAFETY AUDIT.



REV	DATE	DESCRIPTION	DRAWN	CHKD
A	17/11/23	UPDATED TO LAYOUT & NCC COMMENTS	DDP	MJD

REVISIONS

This drawing is to be read in conjunction with all other Engineer's drawings and all other project information. Any discrepancy between the Engineer's drawings and other project information is to be reported to the Engineer immediately.

Project
FORMER BENNTAG DEPOT
ATTLEBOROUGH
NORFOLK

Title
PRELIMINARY ACCESS DESIGN

Client
CASTLEMEADOW CARE LTD

Scale	Drawn	Date
AS SHOWN @A3	R LONG	24/03/22

Job Manager	Checked	Approved
RNL	RNL	RNL

Richard Jackson Engineering Consultants

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Drawing No.
61132/PP/SK04

Revision
A

Drawing Status

☒ INFORMATION	☐ APPROVAL	☐ COSTING
☐ TENDER	☐ CONSTRUCTION	☐ AS CONSTRUCTED

TEMPro main form

Select Type of Comparison:
 Data selections:
 Select dataset version: 80
 Select scenario 1: Core

Result type
 ☒ Trip ends by time period
 ☐ Trip ends by car availability
 ☐ Car ownership data
 ☐ Planning data
 Set area definition...

Base Year: 2021
 Enter future year: 2031
 Trip end selections:
 Trip end by time period selections:
 Select time period: Weekday AM peak period (0700 - 0959)
 Trip end type
 ☐ Production/Attraction
 ☒ Origin/Destination

Select data type
 ☒ Growth factors (2031 Data/2021 Data)
 ☐ Future Year (2031) - Base Year (2021)
 ☐ Base year data (2021)
 ☐ Future year data (2031)
 *Italicised results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels

Results
 Car Driver Combined Modes
 Area Description:
 Level Name Origin Destination
 E02005513 Breckland 011 1.078 1.071

NTM Traffic Growth Calculations

Scenario: Core Base Year: 2021 Future Year: 2031
 Time Period: Weekday AM peak period (0700 - 0959)
 1: Select NTM Dataset:
 NTM Dataset Description From To
 N RTP 2022 Core 2015 2060
 N RTP 2022 Behavioural Change 2015 2060
 N RTP 2022 High Economy 2015 2060
 N RTP 2022 Low Economy 2015 2060
 N RTP 2022 Mode-balanced Decarbonisation 2015 2060
 N RTP 2022 Regional 2015 2060
 N RTP 2022 Technology 2015 2060
 N RTP 2022 Vehicle-led Decarbonisation 2015 2060

2: Select Areas to make up the geographic region:
 ☒ Breckland 011 (E02005513)
 3: Select area type:
 ☐ Urban
 ☐ Rural
 ☒ All
 4: Select road type:
 ☐ Motorway
 ☐ Trunk
 ☐ A Road
 ☒ Minor
 ☐ All
 5: Select which area it serves:
 ☒ Region
 ☐ England
 Calculate the adjusted local growth figure

Results
 Level Area Local Growth Figure
 E02005513 Breckland 011 1.0756

TEMPro main form

Select Type of Comparison:
 Data selections:
 Select dataset version: 80
 Select scenario 1: Core

Result type
 ☒ Trip ends by time period
 ☐ Trip ends by car availability
 ☐ Car ownership data
 ☐ Planning data
 Set area definition...

Base Year: 2021
 Enter future year: 2031
 Trip end selections:
 Trip end by time period selections:
 Select time period: Weekday PM peak period (1600 - 1859)
 Trip end type
 ☐ Production/Attraction
 ☒ Origin/Destination

Select data type
 ☒ Growth factors (2031 Data/2021 Data)
 ☐ Future Year (2031) - Base Year (2021)
 ☐ Base year data (2021)
 ☐ Future year data (2031)
 *Italicised results indicate that there is a lower level of confidence in data presented at the zonal level than when aggregated to higher geographical levels

Results
 Car Driver Combined Modes
 Area Description:
 Level Name Origin Destination
 E02005513 Breckland 011 1.0721 1.0758

NTM Traffic Growth Calculations

Scenario: Core Base Year: 2021 Future Year: 2031
 Time Period: Weekday PM peak period (1600 - 1859)
 1: Select NTM Dataset:
 NTM Dataset Description From To
 N RTP 2022 Core 2015 2060
 N RTP 2022 Behavioural Change 2015 2060
 N RTP 2022 High Economy 2015 2060
 N RTP 2022 Low Economy 2015 2060
 N RTP 2022 Mode-balanced Decarbonisation 2015 2060
 N RTP 2022 Regional 2015 2060
 N RTP 2022 Technology 2015 2060
 N RTP 2022 Vehicle-led Decarbonisation 2015 2060

2: Select Areas to make up the geographic region:
 ☒ Breckland 011 (E02005513)
 3: Select area type:
 ☐ Urban
 ☐ Rural
 ☒ All
 4: Select road type:
 ☐ Motorway
 ☐ Trunk
 ☐ A Road
 ☒ Minor
 ☐ All
 5: Select which area it serves:
 ☒ Region
 ☐ England
 Calculate the adjusted local growth figure

Results
 Level Area Local Growth Figure
 E02005513 Breckland 011 1.0751

AM - Observed (25/11/2021 0745-0845)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	478
Site Access	0	0	0
B1077(s)	407	0	0

Flows on B1107 north of junction with Maurice Gaymer Road (inclusive of 2No U-turners at junction in each peak)

AM - 2031

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	514
Site Access	0	0	0
B1077(s)	438	0	0

Growth Factor 2021-2031 : 1.0756

AM - Grampian Foods (App. 3PL/2015/0546/O)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	4
Site Access	0	0	0
B1077(s)	65	0	0

AM - Attleborough SUE (App. 3PL/2017/0996/O)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	111
Site Access	0	0	0
B1077(s)	311	0	0

Trips for 1,200 Dwellings

AM - Phase 1 (App 3PL/2023/1152/F) (Ex Retail)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	8	0
Site Access	16	0	1
B1077(s)	0	11	0

AM - Phase 1 (App 3PL/2023/1152/F) (Retail only)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	33	-32
Site Access	26	0	31
B1077(s)	-27	28	0

Trips taken as linked/pass-by therefore through movement decreased as a result of trips on site access

AM - Phase 2

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	3	0
Site Access	4	0	0
B1077(s)	0	5	0

AM - 2031 with Committed and Proposed Dev's

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	44	598
Site Access	46	0	32
B1077(s)	787	44	0

PM 2021 Observed (25/11/2021 1615-1715)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	369
Site Access	0	0	0
B1077(s)	572	0	0

PM - 2031

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	396
Site Access	0	0	0
B1077(s)	615	0	0

Growth Factor 2021-2031 : 1.0751

PM - Grampian Foods (App. 3PL/2015/0546/O)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	74
Site Access	0	0	0
B1077(s)	29	0	0

PM - Attleborough SUE (App. 3PL/2017/0996/O)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	0	259
Site Access	0	0	0
B1077(s)	106	0	0

PM - Phase 1 (App 3PL/2023/1152/F) (Ex Retail)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	15	0
Site Access	16	0	4
B1077(s)	0	1	0

PM - Phase 1 (App 3PL/2023/1152/F) (Retail only)

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	36	-36
Site Access	57	0	37
B1077(s)	-56	55	0

PM - Phase 2

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	4	0
Site Access	7	0	2
B1077(s)	0	0	0

PM - 2031 with Committed and Proposed Dev's

From \ To	B1077 (n)	Site Access	B1077(s)
B1077 (n)	0	55	693
Site Access	80	0	42
B1077(s)	693	57	0

Notes:

All traffic flows are in PUC's.

Values shown (and modelled) rounded to nearest integer, actual values are used in calculations.

HGV% taken from 2021 traffic data in TA and assumed to remain constant for simplicity as the relative affect is limited.

Junctions 9	
PICADY 9 - Priority Intersection Module	
Version: 9.5.1.7462 © Copyright TRL Limited, 2019	
For sales and distribution information, program advice and maintenance, contact TRL: +44 (0)1344 379777 software@trl.co.uk www.trlsoftware.co.uk	
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution	

Filename: Site Access - Phase 2 Call for Sites.j9

Path: O:\61000 - Engineering\61100\61132 - Former Brenntag Depot, Attleborough\Calculations\Transport\Models

Report generation date: 23/07/2025 12:11:45

»2031 with Committed & Proposed Developments, AM
»2031 with Committed & Proposed Developments, PM

Summary of junction performance

	AM		PM	
	Queue (PCU)	RFC	Queue (PCU)	RFC
2031 with Committed & Proposed Developments				
Stream B-AC	0.4	0.30	1.1	0.54
Stream C-AB	0.6	0.18	0.8	0.22

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	B1077/Site Access
Location	
Site number	
Date	23/07/2025
Version	
Status	Call for Sites
Identifier	
Client	
Jobnumber	
Enumerator	RJPLC\duncanpalmer
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
5.75				0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031 with Committed & Proposed Developments	AM	ONE HOUR	07:30	09:00	15	✓
D2	2031 with Committed & Proposed Developments	PM	ONE HOUR	16:00	17:30	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

2031 with Committed & Proposed Developments, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B1077/Site Access	T-Junction	Two-way		1.32	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Name	Description	Arm type
A	Station Road		Major
B	Site Access		Minor
C	Station Road		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right turn bay	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Station Road	6.30			250.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Site Access	One lane	3.65	15	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	524	0.094	0.238	0.150	0.340
B-C	678	0.103	0.259	-	-
C-B	719	0.275	0.275	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2031 with Committed & Proposed Developments	AM	ONE HOUR	07:30	09:00	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Station Road		ONE HOUR	✓	642	100.000
B - Site Access		ONE HOUR	✓	78	100.000
C - Station Road		ONE HOUR	✓	831	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Station Road	B - Site Access	C - Station Road
From	A - Station Road	0	44	598
	B - Site Access	46	0	32
	C - Station Road	787	44	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Station Road	B - Site Access	C - Station Road
From	A - Station Road	0	0	5
	B - Site Access	0	0	0
	C - Station Road	6	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.30	18.35	0.4	C	72	107
C-AB	0.18	4.15	0.6	A	137	205
C-A					626	939
AB					40	61
AC					549	823

Main Results for each time segment

07:30 - 07:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	383	0.154	58	0.0	0.2	11.069	B
C-AB	83	21	986	0.084	82	0.0	0.2	4.126	A
C-A	543	136			543				
AB	33	8			33				
AC	450	113			450				

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	70	18	341	0.205	70	0.2	0.3	13.238	B
C-AB	122	31	1048	0.117	122	0.2	0.3	4.038	A
C-A	625	156			625				
AB	40	10			40				
AC	538	134			538				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	21	282	0.304	85	0.3	0.4	18.205	C
C-AB	204	51	1139	0.179	203	0.3	0.6	4.016	A
C-A	711	178			711				
AB	48	12			48				
AC	658	165			658				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	86	21	282	0.305	86	0.4	0.4	18.345	C
C-AB	205	51	1140	0.180	205	0.6	0.6	4.036	A
C-A	710	178			710				
AB	48	12			48				
AC	658	165			658				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	70	18	341	0.206	71	0.4	0.3	13.349	B
C-AB	123	31	1049	0.117	124	0.6	0.3	4.076	A
C-A	624	156			624				
AB	40	10			40				
AC	538	134			538				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	59	15	382	0.154	59	0.3	0.2	11.149	B
C-AB	84	21	986	0.085	84	0.3	0.2	4.149	A
C-A	542	135			542				
AB	33	8			33				
AC	450	113			450				

2031 with Committed & Proposed Developments, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Major road direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	B1077/Site Access	T-Junction	Two-way		2.82	A

Junction Network Options

Driving side	Lighting
Left	Normal/unknown

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2031 with Committed & Proposed Developments	PM	ONE HOUR	16:00	17:30	15	✓

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Station Road		ONE HOUR	✓	748	100.000
B - Site Access		ONE HOUR	✓	122	100.000
C - Station Road		ONE HOUR	✓	750	100.000

Origin-Destination Data

Demand (PCU/hr)

	To			
		A - Station Road	B - Site Access	C - Station Road
From	A - Station Road	0	55	693
	B - Site Access	80	0	42
	C - Station Road	693	57	0

Vehicle Mix

Heavy Vehicle Percentages

	To			
		A - Station Road	B - Site Access	C - Station Road
From	A - Station Road	0	0	6
	B - Site Access	0	0	0
	C - Station Road	4	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.54	30.91	1.1	D	112	168
C-AB	0.22	4.57	0.8	A	159	238
C-A					529	794
AB					50	76
AC					636	954

Main Results for each time segment

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	357	0.257	90	0.0	0.3	13.443	B
C-AB	99	25	922	0.107	98	0.0	0.2	4.463	A
C-A	466	116			466				
AB	41	10			41				
AC	522	130			522				

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	313	0.350	109	0.3	0.5	17.560	C
C-AB	143	36	973	0.148	143	0.2	0.4	4.449	A
C-A	531	133			531				
AB	49	12			49				
AC	623	156			623				

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	250	0.536	132	0.5	1.1	29.854	D
C-AB	233	58	1047	0.223	232	0.4	0.7	4.548	A
C-A	592	148			592				
AB	61	15			61				
AC	763	191			763				

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	134	34	250	0.537	134	1.1	1.1	30.914	D
C-AB	234	59	1048	0.223	234	0.7	0.8	4.568	A
C-A	592	148			592				
AB	61	15			61				
AC	763	191			763				

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	110	27	313	0.351	112	1.1	0.6	18.111	C
C-AB	144	36	974	0.148	146	0.8	0.4	4.486	A
C-A	530	132			530				
AB	49	12			49				
AC	623	156			623				

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	92	23	357	0.258	93	0.6	0.4	13.678	B
C-AB	100	25	923	0.108	100	0.4	0.2	4.491	A
C-A	465	116			465				
AB	41	10			41				
AC	522	130			522				

APPENDIX 3

TECHNICAL NOTE PREPARED BY ROSSI LONG

Technical Note on Flood Risk and Sustainable Drainage

Land at Whitehouse Lane

Attleborough

Norfolk

RLC Ref: 251285

July 2025

Rev.00

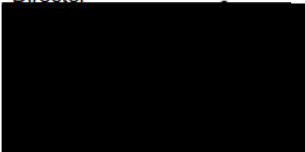
Prepared for

Castlemeadow Care Ltd

Revision Schedule

RLC Ref. 251285

July 2025

Rev	Date	Details	Prepared by	Reviewed by
00	30 July 2025	First Issue	Nicholas Hooper BSc(Hons), Dip pol CON Principal Civil Engineer 	Mike Lloyd BEng(Hons), CEng, MStructE Director 

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Limitations

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1 Client Brief

- 1.1 Rossi Long Consulting Ltd was instructed by Castlemeadow Care Ltd to prepare a Technical Note to support the Stage 2 Land Availability Assessment prepared by Bidwells on Behalf of Castlemeadow Care for Land at White House Lane, Attleborough (The Site) in the emerging Breckland District Council Local Plan. The report centers on the relevant questions in the Breckland Council Call for Sites 2025 “Housing, Gypsy and Travelling Showpeople: Housing Land Availability Assessment”, March 2025, under the section “Flood Risk and Sustainable Urban Drainage”. The questions are listed below;
- Q5: Are there any significant concerns set out in the SFRA – Stage 1 which could impact on the delivery of the site?
- Q6: Has a site-specific flood risk assessment been carried out and appropriate mitigation measures agreed with the Lead Local Flood Authority been agreed?
- Q7: Where any proposed development itself (as opposed to open space or land for Biodiversity Net Gain etc) falls within the land at risk of flooding, has a Sequential Test been completed and agreed with the Lead Local Flood Authority?
- Q8: Where appropriate has a Sustainable Urban Drainage Report(s) (SuDS) been prepared and submitted to the Council?
- 1.2 This Technical Note is intended to act as the site specific flood risk assessment. It also addresses sequential testing and acts as the Sustainable Drainage Systems (SuDS) report.

2 Introduction

- 2.1 The proposed development site is 6.51 hectares (ha) of land situated off White House Lane, Attleborough. The former Brenntag site (under the control of Castlemeadow) is located to the west and benefits from planning consent for a new care community under consent ref: 3PL/2023/1152/F (Demolition of existing buildings and erection of care home (Class C2), extra care units (Class C2), market housing (Class C3) and retail units (Class E), alongside associated amenity space, parking, highways improvements, installation of plant, landscaping enhancements and other associated works). The Ordnance Survey grid reference at the centre of the site is TG 053 950. A location plan is shown below:



Figure 2.1.1: Location Plan

- 2.2 The site comprises grazing land with access to White House Lane. The site contains a small area of woodland and there are a number of ditches at field margins across the site. The site is located immediately north of the Attleborough Strategic Urban Extension (SUE) area.
- 2.3 Topographical survey drawings showing existing site features and ground levels to GPS Datum are appended to this Technical Note. Site levels for the triangular western part of the site fall from approximately 38.2m AOD at the eastern end to 36.3m AOD at the north west corner. The main part of the site falls to White Horse Lane which has levels of between 37.4m AOD on the northern boundary adjacent to the railway line to 36.3m AOD in the south west corner

3 Question 5

“Are there any significant concerns set out in the SFRA – Stage 1 which could impact on the delivery of the site?”

SFRA - Surface Water

- 3.1 The Breckland District Council Level 1 Strategic Flood Risk Final Report, September 2024, (SFRA) has been interrogated with respect to Question 5. Supporting information has been used as directed by the SFRA.
- 3.2 The SFRA identifies surface water flow paths as affecting Attleborough and while it highlights flooding in Attleborough as an issue affecting the town but contains little detail is provided on specific locations. The area around Station Road, to the east of the proposed site, is mentioned with respect to past incidents of flooding. Table 5-1 refers to Ellingham Road (2019) due to surface water, various locations (2014- 17 and June 2017-January 2018) due to surface water and blockages and widespread locations in the district (Winter 202/21) due to surface water/drainage system blockage/failure combined with some fluvial flooding
- 3.3 There is a surface water flow path affecting the proposed site, however, the flow path affects less than 50% of the site. Appendix C of the SFRA classifies this as Medium Risk and suggests that “Development may be appropriate and consultations should be held with the Lead Local Flood Authority”.
- 3.4 The flow path is not present in the 1% AEP mapping (Figure 3.2.1) and the 0.1% AEP mapping (Figure 3.2.2) appears to show that the site is the head of the flow path and that it is self-generated, indicating that the development of the site will reduce the level of surface water flooding. It is suggested that this could be confirmed by future hydrological assessment as part of a planning application.
- 3.5 The flow paths appear to be associated with the ditches. Most notably, the ditch to the west of the woodland is cut against the slope resulting in the top of bank at the northern end being lower than the southern end, causing flows to “cut the corner” of the field. This could potentially be resolved by maintenance to the ditch network.
- 3.6 Level analysis indicates that the larger area of flooding shown on the 0.1% map is due to backing up of water from a culverted field access, causing shallow flows from overtopping the ditch where there is a low top of bank, with water running across the site as a relatively broad and shallow sheet

flow. This is evidenced by the fact that White House Lane is not flooded. The level of the verge adjacent to the road at the south west corner of the site is approximately 36.5m AOD, whereas flows exit the ditch at a level of 36.7m AOD.

- 3.7 The area of flooding indicated in the south west corner of the site is, therefore, due to a localised low spot with White House Lane and the land to the west sitting higher than the site, and flows in the ditch being restricted by culverted sections. While a small section of this could reach a depth of up to 300-400mm, the majority of the flow path is at a depth of less than 200mm.

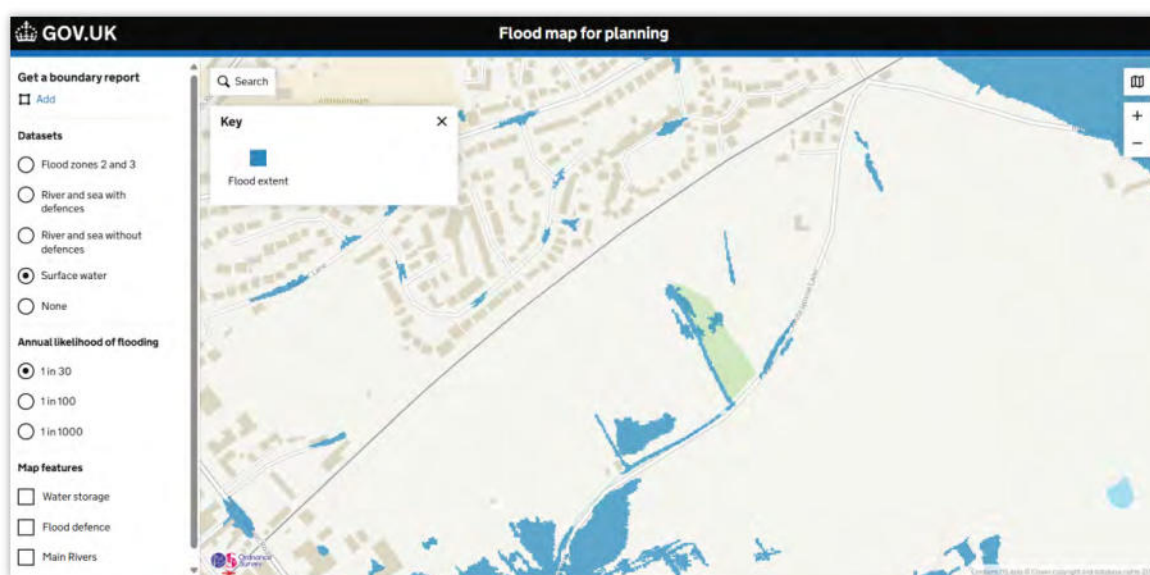


Figure 3.7.1: Surface Water Flood Map – 0.33% AEP

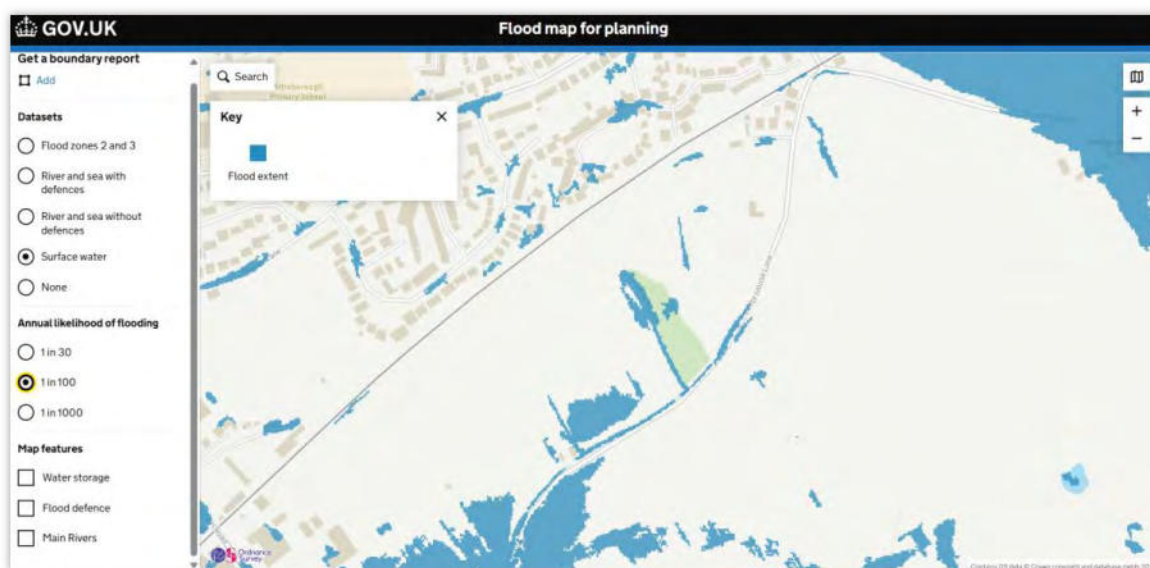


Figure 3.7.2: Surface Water Flood Map – 1% AEP

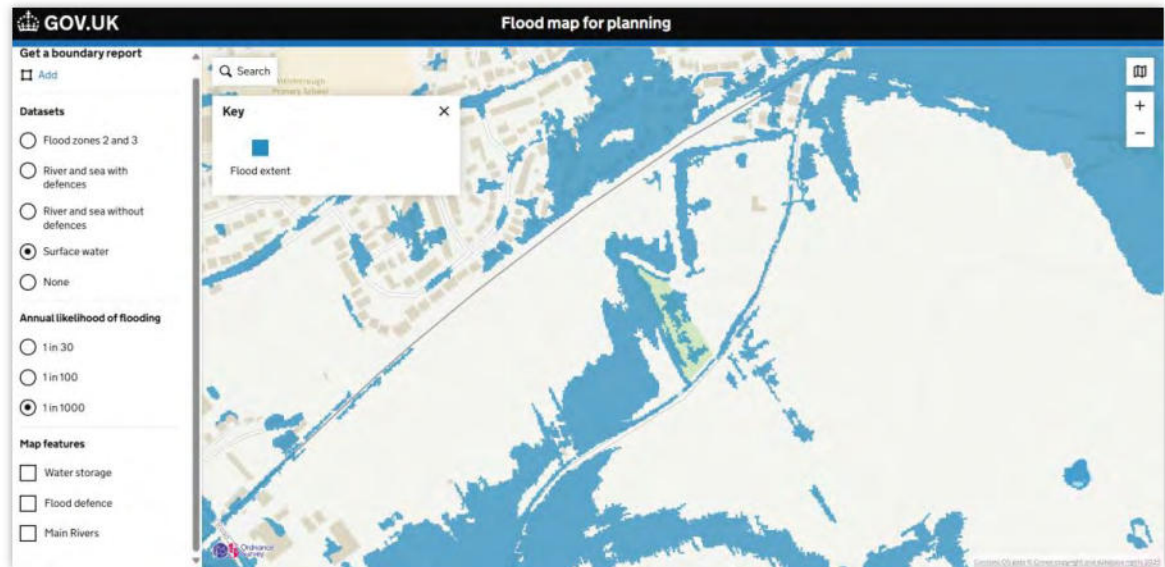


Figure 3.7.3: Surface Water Flood Map – 0.1% AEP

- 3.8 Figure 3.8.1 shows the planning flood map extent for the 1:100 (1% AEP) flood. IT can be seen that there is a discrepancy with the topographical survey with the survey levels indicating that flooding would be less extensive than shown on the EA flood maps.

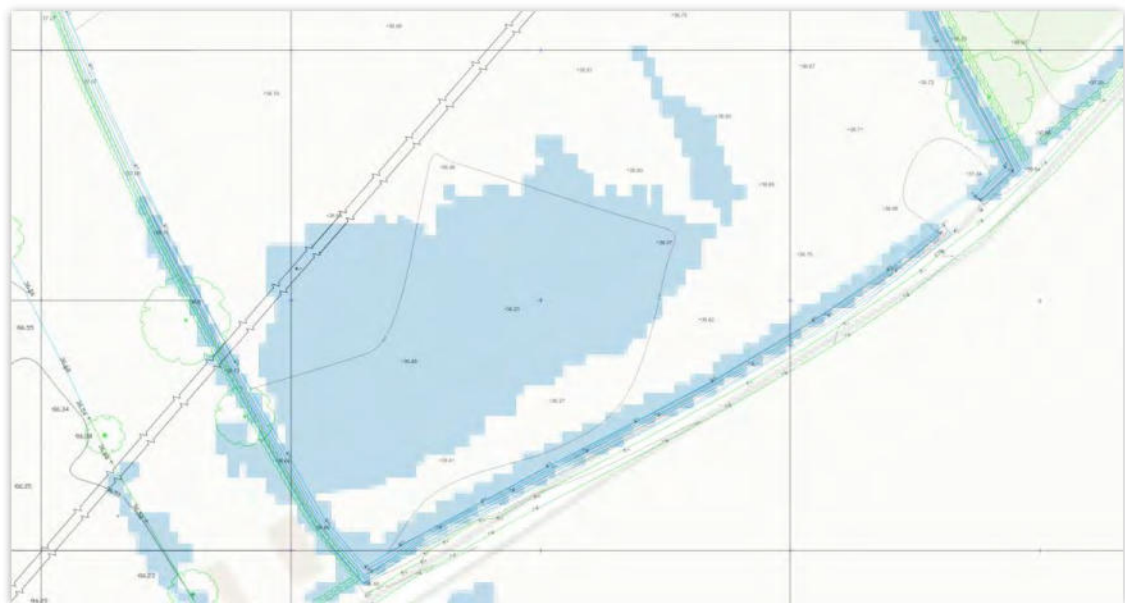


Figure 3.8.1: Surface Water Flood Map – 1.0% AEP Overlay with Survey

- 3.9 It is noted that similar flow paths affect the SUE area to the south and areas to the north between the A11 and Norwich Road, which is currently being developed for housing. The SFRA Cumulative Impact Assessment highlights that “the northern part of Attleborough, [is] where most of the recorded historic flooding incidences are concentrated”.

SFRA - Ground Water

- 3.10 The SFRA doesn't raise groundwater as a specific risk, stating in Section 5.7 that "Groundwater risk within Breckland is generally limited to the southwest of the district, and the vicinity of the River Wensum in the northeast". The SFRA suggest using MAGIC Map to assess the level of risk for ground water flooding, which is "medium" (Figure 3.10.1).

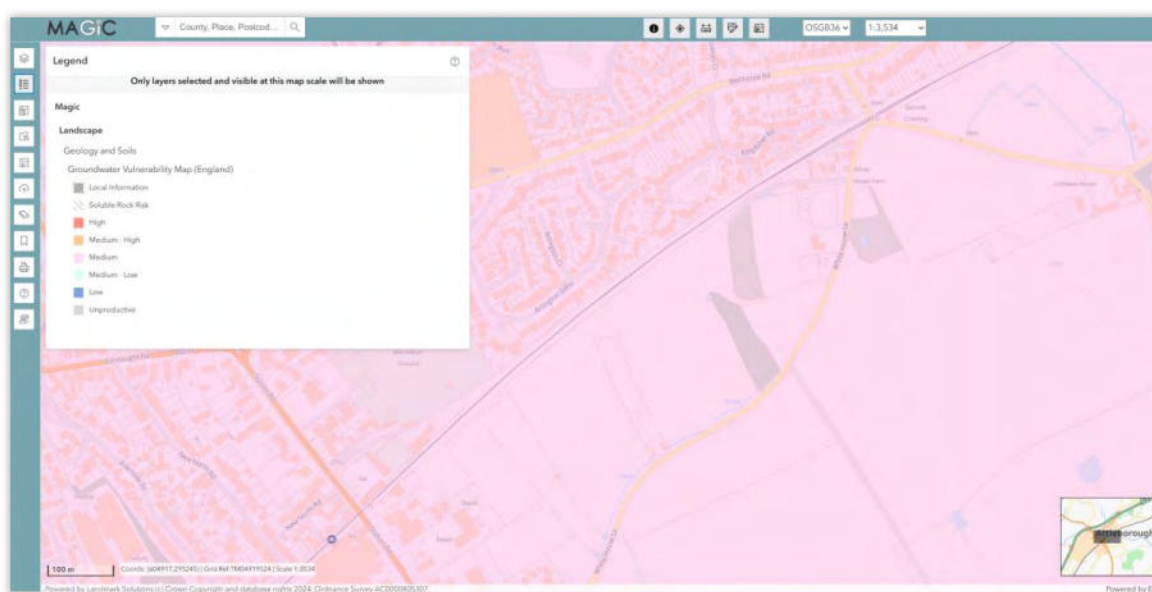


Figure 3.10.1: Ground water flood risk level – Proposed Site

- 3.11 This is relatively low for Breckland, which has relatively high risks of groundwater flooding, as can be seen from Figure 3.11.1.

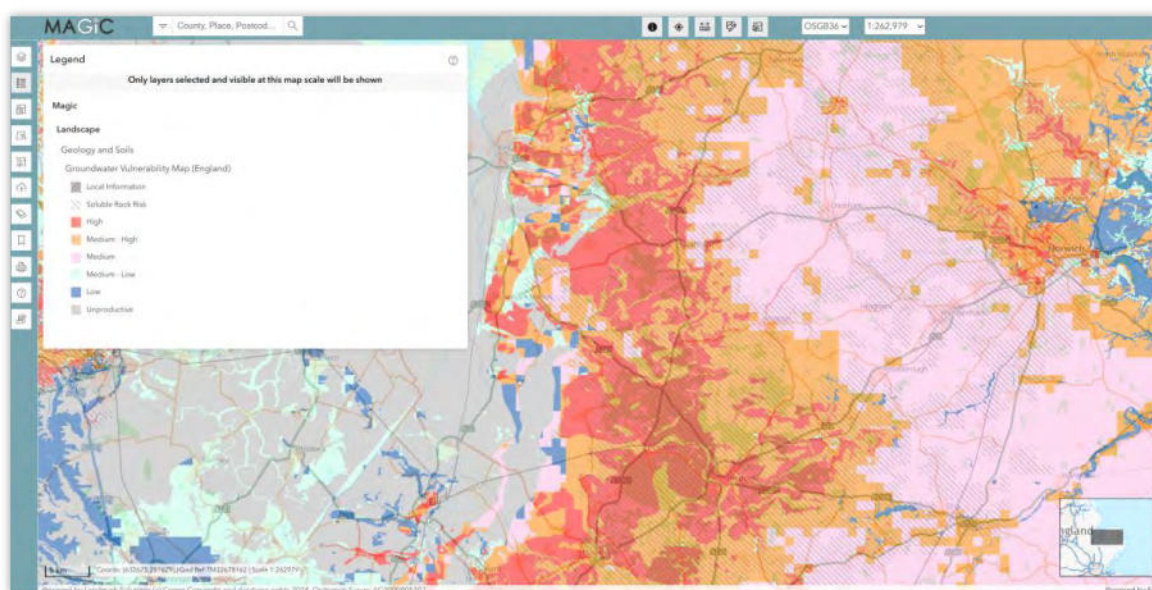


Figure 3.11.1: Ground water flood risk level - Breckland

SFRA – Pluvial Flooding

- 3.12 The proposed site is in Flood Zone 1 and is not susceptible to flooding from rivers and streams (Figure 3.12.1).

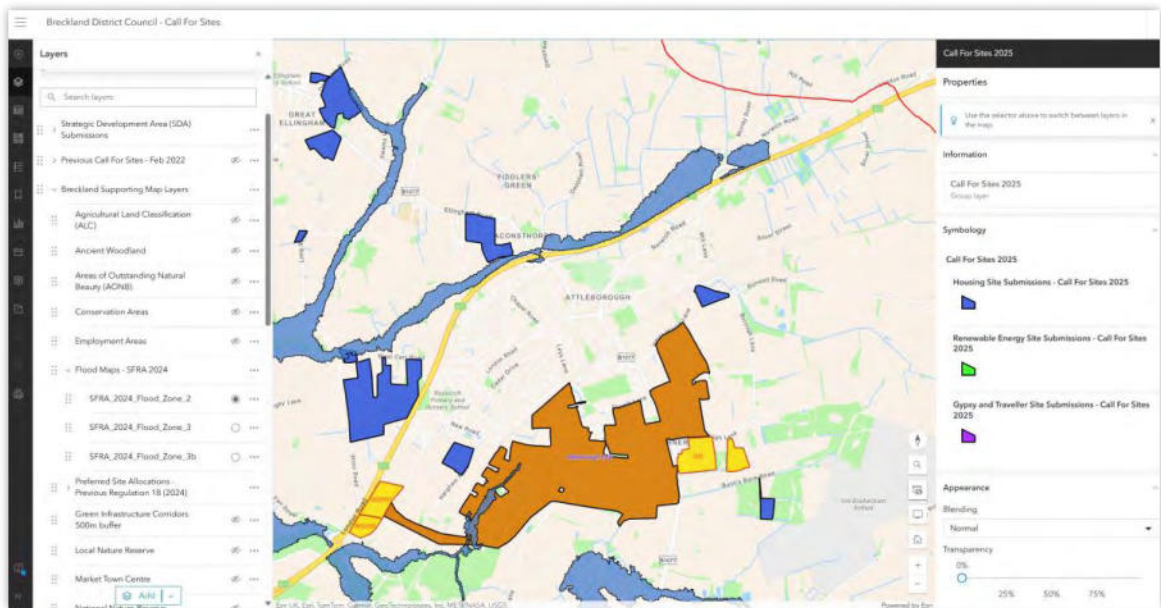


Figure 3.12.1: Ground water flood risk level - Breckland

SFRA – Reservoir Flooding

- 3.13 The SFRA highlights that there are 49 reservoirs that affect Breckland and these are listed in Table 5-4 of the SFRA. Environment Agency mapping shows that Attleborough is unaffected (Figure 3.9.1).

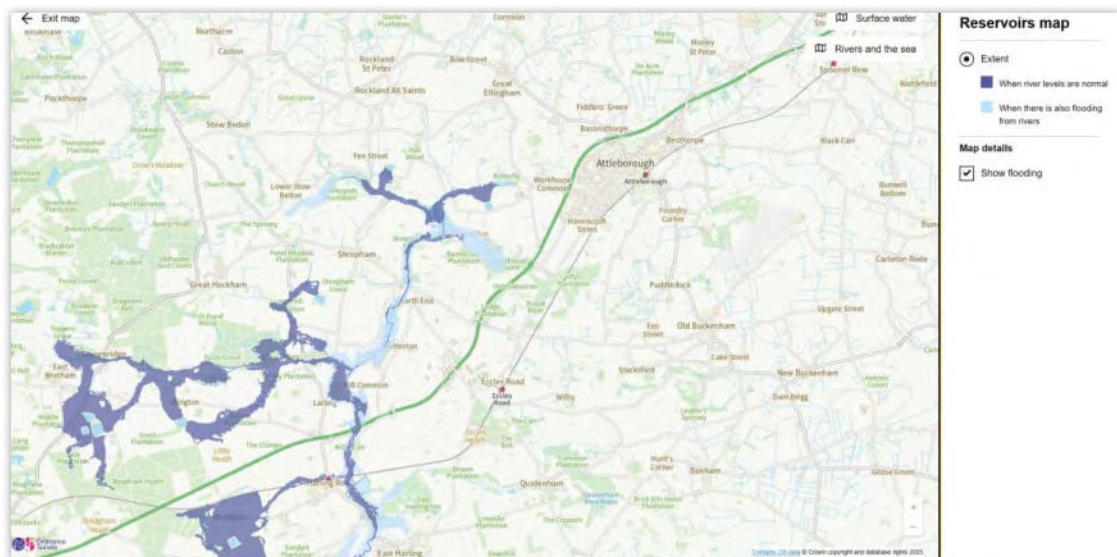


Figure 3.13.1: Reservoir Flooding

Summary

- 3.14 The SFRA indicates that surface water flooding needs to be considered in future assessments but does not preclude development on the proposed site. Initial appraisal suggests that the flooding shown on the EA mapping is largely site generated and can be easily mitigate through the implementation of SuDS and / or by maintenance of the exiting ditches on the site.
- 3.15 Additional, more detailed investigation, and potentially hydraulic modelling will be required to support a planning application, in order to clarify the extent of flooding and design flood routing and floor levels. This information would be assessed by the LLFA to ensure there is no adverse effect from any proposed development.

4 Question 6

“Has a site-specific flood risk assessment been carried out and appropriate mitigation measures agreed with the Lead Local Flood Authority been agreed?”

- 4.1 The Section 2 addresses the SFRA prepared for Breckland District Council and offers an initial appraisal of the level of flood risk to the proposed site. This section offers additional detail specific to the site such that this document can be considered a site specific flood risk assessment for the purpose of the call to sites.

Planning Policy and Flood Risk: National Planning Policy

- 4.2 The National Planning Policy Framework (NPPF) was published by the Department for Communities and Local Government in March 2012 and updated in July 2021 and September 2023. NPPF requires that flood risk is taken into account in the planning process, to avoid inappropriate development in areas at risk of flooding and to direct development away from areas at highest risk. The overall aim should be to steer new development towards Flood Zone 1. As identified in Section 2, the proposed site is in Flood Zone 1. There are no restrictions to the type of development permitted within Flood Zone 1.
- 4.3 Properly prepared assessments of flood risk will inform the decision-making process at all stages of development planning. A Strategic Flood Risk Assessment is a study carried out by one or more local planning authorities to assess the risk to an area from flooding from all sources, now and in the future, taking account of the impacts of climate change, and to assess the impact that changes or development in the area will have on flood risk. It may also identify, particularly at more local levels, how to manage those changes to ensure that flood risk is not increased. A site-specific Flood Risk Assessment is carried out by, or on behalf of, a developer to assess the risk to a development site and demonstrate how flood risk from all sources of flooding to the development itself and flood risk to others will be managed now, and taking climate change into account.
- 4.4 For site-specific Flood Risk Assessments the main study requirement is to identify the flood zone and vulnerability classification relevant to the proposed development, based on an assessment of current and future conditions. A site-specific Flood Risk Assessment must demonstrate that the development will be safe for its lifetime, taking account of the vulnerability of its users without increasing flood risk elsewhere and, where possible, will reduce flood risk overall.

- 4.5 For sites in Flood Zone 1, the Flood Risk Assessment is principally required to consider the management of surface water run-off together with flood risk from sources other than rivers and the sea. Surface water arising from a developed site should, as far as practicable, be managed in a sustainable manner to mimic the surface water flows arising from the site prior to the proposed development, while reducing the flood risk to the site itself and elsewhere, taking climate change into account.

Local Planning Policy

- 4.6 Policy ENV9 of the adopted Breckland Local Plan states the following;

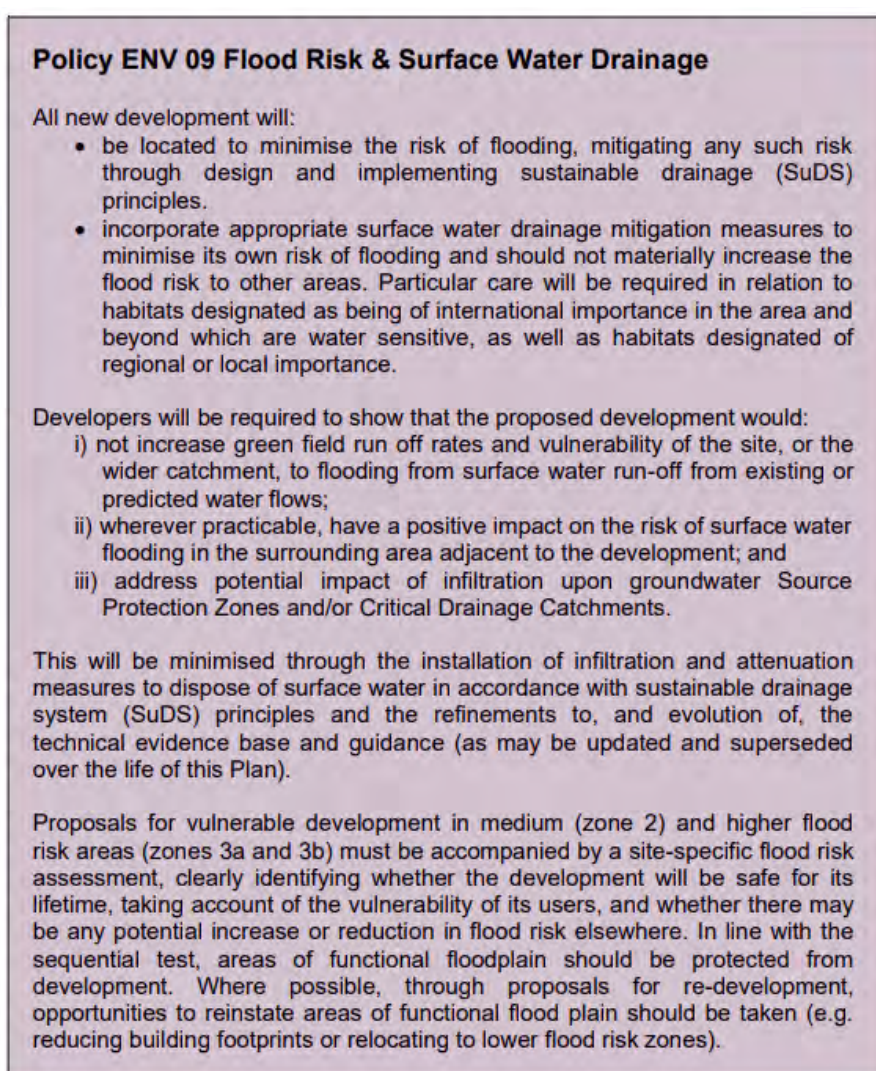


Figure 4.6.1: Policy ENV09 Part 1

Consideration should be given to assessing opportunities to undertake river restoration and enhancement as part of a development to make space for water. Enhancement opportunities for renewing assets will be encouraged, where viable (e.g de-converting, the use of bio-engineered river walls, raising bridge so fits to take into account climate change). Any proposals for enhancement and restoration of the river corridor should be subject to consultation with Norfolk County Council as Lead Local Flood Authority, and in relevant cases with neighbouring authorities.

In the case of major development on unallocated sites, if the sequential test shows that it isn't possible to use an alternative site, the applicant will need to submit an additional exception test in line with national policy on Flood Risk Assessments.

All applications should reflect best practice and the Lead Local Flood Authority (LLFA) guidance, and any updated version (currently April 2017) providing the appropriate information required to assist in the determination of such application as issued by the LLFA. This includes the requirement to provide details of means of adoption and maintenance of the systems over the lifetime of the development at the pre-application stage. In adherence with this guidance, drainage strategies must also consider the potential increase in the volume of run-off from a development as a result of increases in the area of impermeable surfaces. Although run-off rates may be restricted to equivalent greenfield rates, the duration over which the site could discharge at this rate is likely to increase.

Figure 4.6.2: Policy ENV09 Part 2

- 4.7 Norfolk County Council policy as the Lead Local Flood Authority (LLFA) is published in their document "Lead Local Flood Authority Statutory Consultee for Planning – Guidance Document Version 6.1, October 2022. This guidance seeks to ensure that the requirements of both national and local planning policies are met by proposed developments in terms of flood risk and surface water management. This includes mitigation on the impact of run-off rates and volumes caused by new development and ensuring that appropriate pollution control measures are included in designs for the drainage of new development. In order to ensure that the proposals satisfied local policy requirements, pre-application consultation was undertaken with the LLFA and the drainage and flood risk proposals contained in the report reflect what was agreed during that consultation.

Ground Conditions and Hydrogeology

- 4.8 British Geological Survey (BGS) mapping shows that the site is principally situated upon superficial geology of Lowestoft Formation – Diamicton. The Lowestoft Formation forms an extensive sheet of chalky till, together with outwash sands and gravels, silts and clays. On the south-west side, the Lowestoft Formation is shown as Sand and Gravel. The underlying bedrock geology is Lewes Nodular and other Chalk Formations – Chalk:

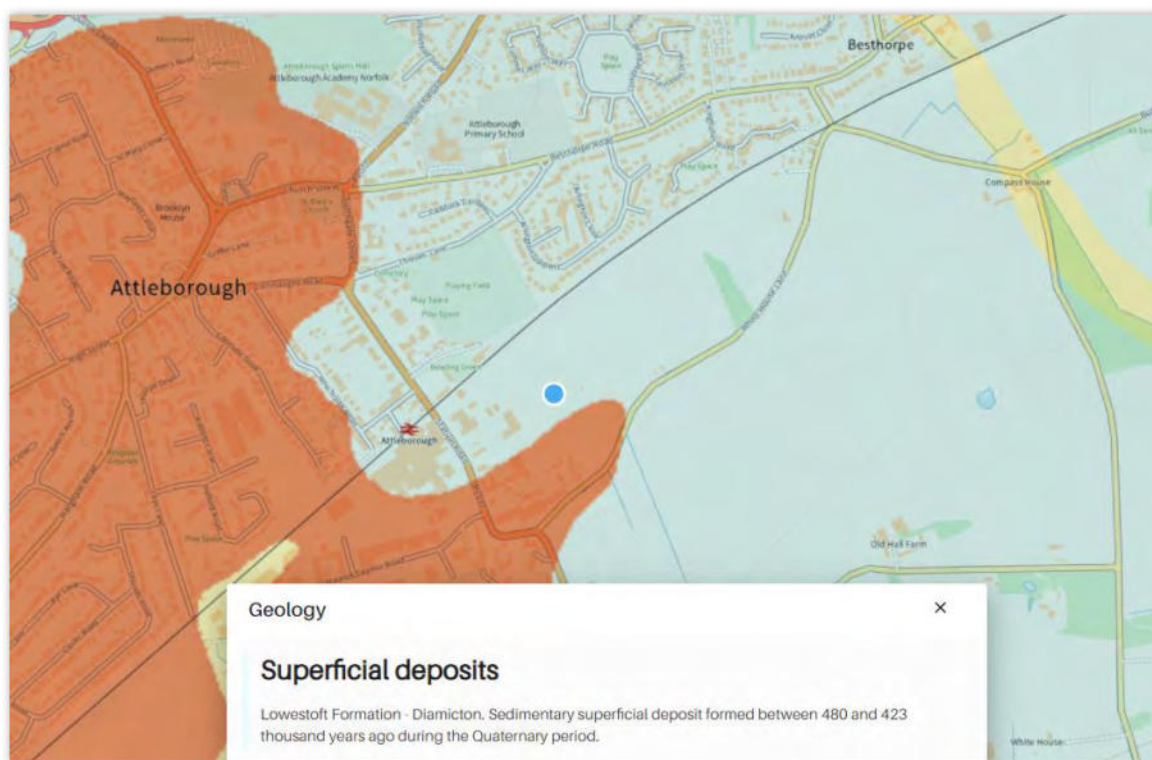


Figure 4.8.1: BGS Map of Superficial Geology

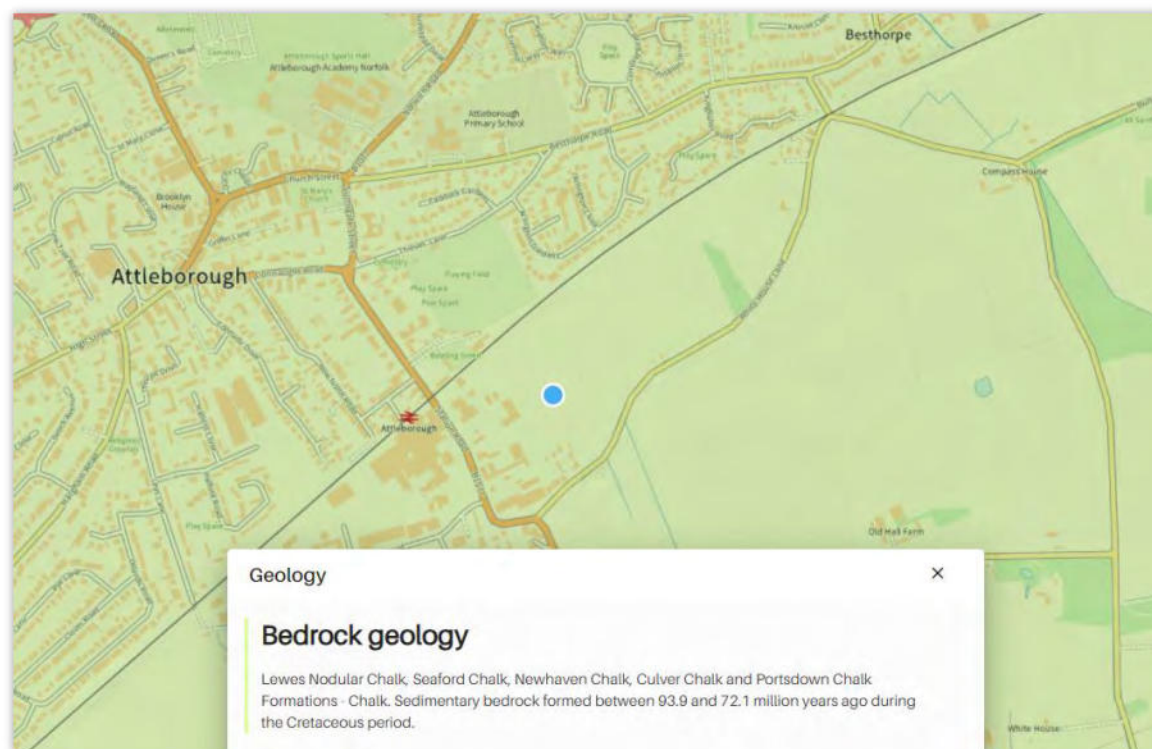


Figure 4.8.2: BGS Map of Bedrock Geology

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- 4.9 Site investigation has been carried out on the adjacent site to the west as part of Application reference 3PL/2023/1152/F comprising a series of windowless sampler boreholes to depths of up to 5.0m below ground level (bgl), and machine dug trial pits excavated to depths between 1.0m to 2.5m bgl. Infiltration testing to BRE Digest 365 was attempted in 3No. trial pits. Two of these provided trial pit logs and infiltration rates close to the western boundary of the proposed site. Geological mapping suggests that the ground conditions are likely to be consistent across both sites.
- 4.10 For the adjacent site the Lowestoft Formation was typically encountered as soft to stiff, sandy, silty, gravelly CLAY with gravel composed of flint and chalk. Lenses of orange, medium sand were recorded in the Lowestoft Formation in WS512 & WS513. Ground conditions encountered were considered to be consistent with the mapped BGS survey data.
- 4.11 Some high ground water was encountered across the adjacent site but it was not consistent, appearing to be locally perched water. Additional intrusive investigation will need to be undertaken to confirm the conditions on the proposed allocation site, however, indications are that the natural infiltration rate of the underlying soils will allow the use of high level infiltration such as permeable paving.
- 4.12 According to the Regional Hydrogeology Map of Northern East Anglia, the Chalk Formation is the Principal Aquifer for the area. The mapping indicates that the minimum hydrostatic level of the Chalk water table in the vicinity of the site is a little more than 30m AOD. Site ground levels are approximately in the range 35m to 38m AOD and the groundwater table is therefore estimated to be in the region of 3m or 4m below site ground levels. A BGS historic borehole record for a borehole nearby shows an 'at rest' groundwater level at 3.0m bgl, which is consistent with the map data. This is further reinforced by on-site testing submitted with application ref: 3PL/2023/1152/F showing multiple test sites with water levels approx. 3m BGL or less.
- 4.13 The aquifer designation map identifies different types of aquifer – underground layers of water-bearing permeable rock or drift deposits from which groundwater can be extracted. The aquifer status of the site is linked to the underlying soil types. For the superficial geology the aquifer designation is 'Secondary B', and for the solid bedrock geology the aquifer designation is 'Principal Aquifer'.
- 4.14 A groundwater Source Protection Zone (SPZ) is an area of protection placed around abstraction sites that supplies groundwater of potable quality. The Gov.UK Magic Map Application shows the site is located within a Groundwater Source Protection, Zones I and II. (see below):



Figure 4.3: Groundwater SPZ Mapping

Existing Drainage

- 4.15 The site is served by a number of ditches, eventually draining to the south west corner where flows proceed in a westerly direction along White House Lane towards Station Road. The watercourse is culverted under the Banham Poultry site, runs adjacent to the railway line, and eventually meets the mapped watercourse to the south west.
- 4.16 The land to the west of the allocation site is underlain primarily by clay soils with only moderate infiltration potential. It is therefore expected that, during high levels of rainfall, the majority of the rainfall will run-off across the land following the local topography to watercourses. This can be confirmed in the future by intrusive investigation and will be required by the LLFA as part of any planning application.
- 4.17 As part of application ref: 3PL/2023/1152/F, a Surface Water Catchment Study was submitted detailing the wider surface water network. The FRA submitted with that application contained a CCTV report for the pipes in the western end of White House Lane and Station Road. It showed the existing watercourse flows under Banham Poultry and into the open watercourse south of the railway line at grid coordinate 604920,294735. It also highlighted the poor condition of the culverted watercourse at the White House Lane/Station Road junction.

- 4.18 Figure 5.3.1 shows the section of the drainage system covered by the CCTV report. This suggested that there were two routes for flows to reach the Banham Poultry culvert but subsequent investigation failed to demonstrate the existence of that connection.

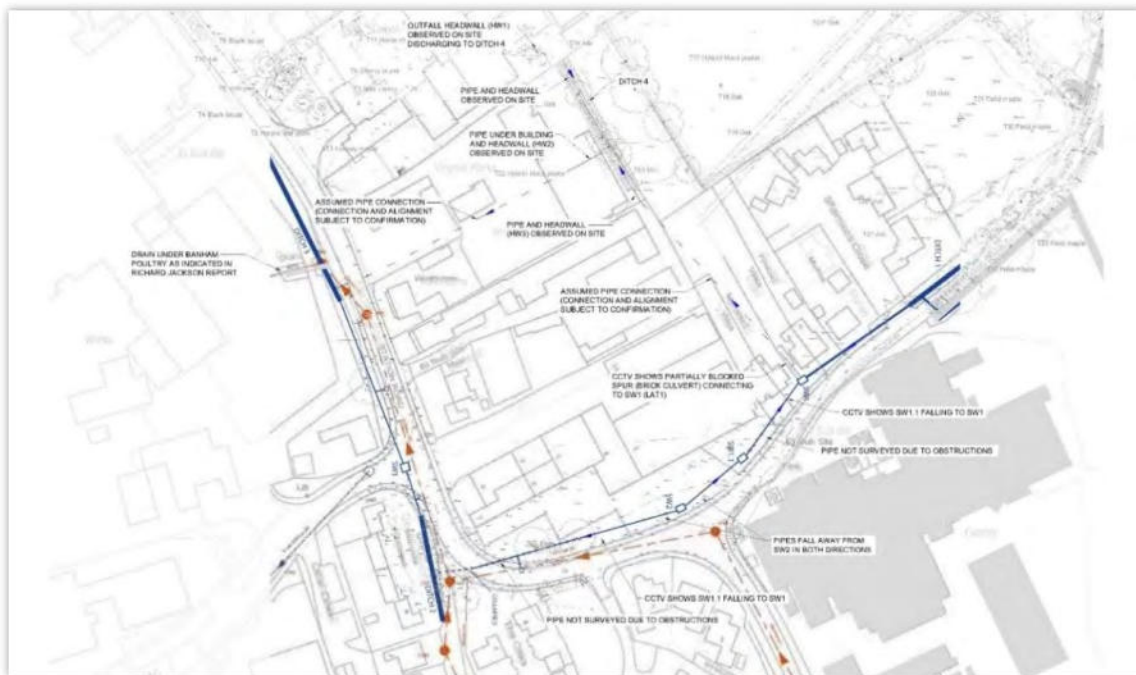


Figure 5.2: Local Drainage Network Updated to Site Observations and CCTV

- 4.19 The survey shows that the principal route for surface water is from the western boundary of the site under the commercial units on Station Road and not to the south of the site adjacent to White House Lane. There appears to be a poorly functional (possibly non-functional route) along White House Lane to Station Road; however, this does appear to be the primary route with a connection north to the western boundary of the site identified on the CCTV survey.
- 4.20 Surface water run-off from the site to the river catchment is calculated at 'greenfield' rates using the FEH Statistical Methodology contained in HR Wallingford's online calculator. Run-off volumes have been calculated using Micro Drainage. The results are contained in Appendix E and summarised below:
- 4.21 Public sewers are operated and maintained by Anglian Water and record drawings show that a foul drainage system is located to the west of Station Road. No surface water sewers are shown on the mapping. No sewers are present in White House Lane. The development of four dwellings under 3PL/2018/1105/F, located at the eastern end of White House Lane, utilised on-site treatment and disposal of flows to ground by infiltration, indicating the absence of public foul water sewers in that location.



Figure 5.6: Extract from Anglian Water Mapping

5 Question 7

“Where any proposed development itself (as opposed to open space or land for Biodiversity Net Gain etc) falls within the land at risk of flooding, has a Sequential Test been completed and agreed with the Lead Local Flood Authority?”

Introduction

- 5.1 The site is in Flood Zone 1 (lowest risk from tidal and fluvial flooding) according to the Flood Map for Planning and SFRA Mapping (Figure 3.12.1).

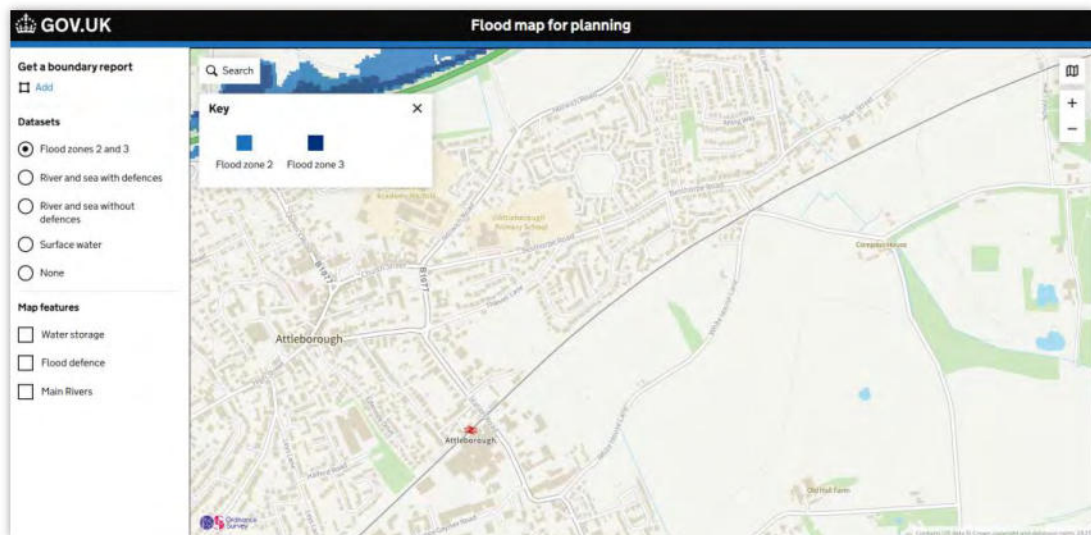


Figure 5.1.1: Flood Map for Planning – Flood Zones

- 5.2 The areas of surface water flooding shown on the Flood Maps for Planning for the 1:30 annual likelihood are generally confined to areas of open space (or other water compatible uses).



Figure 5.2.1: Flood Map for Planning 1:30yr Surface Water Overlaid on Indicative Layout

- 5.3 Additional areas of surface water flood risk are shown on the mapping for the 1 in 100 and 1:1000 annual likelihood, however, this is largely site generated and would be mitigated (and possibly eliminated) by the introduction of a sustainable drainage system on the site. This is evidenced by the lack of connectivity to the flood flow path immediately to the north east, which is associate with a different sub-catchment and flows to the north west, away from The Site.



Figure 5.3.1: Flood Map for Planning 1:1000yr Surface Water Flooding Analysis

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- 5.4 It is suggested that detailed modelling need to be undertaken to confirm the potential volume of water that may be generated from off-site that could cause surface water flooding on-site (excluding the site to avoid double counting) and storage, in the form of freeboard to the attenuation basins allowing residual surface water flooding to be stored on site, can be checked to ensure there is no loss of storage for off-site flows.
- 5.5 In addition, the proposed development area leaves a flood routing corridor available for safe conveyance of any residual surface water flooding. As such, any residual surface water flooding would be above the design event (1 in 100 year + CC event) and it is considered that the site can be developed with no built development (including access or escape routes, land raising or other potentially vulnerable elements) in the areas at risk.
- 5.6 As development can be located outside the areas of the highest flood risk, accounting for adjustments to the existing surface water flood envelope that are likely to result from the site benefiting from a sustainable drainage system, the housing is not likely to be located in areas at risk of flooding from any sources. Consequently, while sequential testing should be addressed by a future FRA accompanying a planning application, a Sequential Test would not be required at this stage in accordance with paragraph 175 of the NPPF.
- 5.7 It is noted that the responsibility for the application and agreement of the Sequential Test lies with the Local Planning Authority and not the Lead Local Flood Authority.

6 Question 8

“Where appropriate has a Sustainable Urban Drainage Report(s) (SuDS) been prepared and submitted to the Council??”

Introduction

- 6.1 The National Planning Policy requires that, for planning applications relating to major development (development of 10 dwellings or more) or equivalent non-residential or mixed development, sustainable drainage systems for the management of run-off are put in place, unless demonstrated to be inappropriate. Sustainable Drainage Systems (SuDS) is an approach to managing surface water which seeks to slow down and reduce the amount of run-off from a development, mimicking natural drainage systems as far as possible as opposed to using traditional drainage methods which involve piping water off-site as quickly as possible.
- 6.2 The SuDS approach helps to ensure downstream flood risk is not increased whilst also reducing the risk of pollution to receiving water bodies. In addition, adopting SuDS techniques gives developments the opportunity to provide green corridors that link to existing natural spaces, thus enhancing biodiversity as well as creating an environment that can benefit the overall quality of life for local residents and the wider community.
- 6.3 The benefits of SuDS can broadly be split into the four categories, i.e. water quantity, water quality, amenity and biodiversity. These are known as the Four Pillars of SuDS:
- 6.4 It is also a requirement of the NPPF that the development does not increase flood risk elsewhere. Regulators will normally require that, for the range of annual flow rate probabilities up to and including the 1% annual probability (1 in 100 year event), the developed rate of run-off should be no greater than the undeveloped rate of run-off for the same event. Exceptions only apply where it is not practical to achieve this due to the size of the hydraulic control unit. The purpose of this is to retain a natural flow regime in the receiving watercourse and not increase peak rates of flow for events of an annual probability greater than 1%.
- 6.5 Norfolk County Council (NCC) is the Lead Local Flood Authority (LLFA) for this area and are a consultee for planning applications. Any future planning application would be expected to comply with National and Local policy and this section is an appraisal of the ability of The Site to benefit from a compliant sustainable drainage system. To comply, the system should be able to deliver adequate performance in a number of areas.

Surface Water Drainage Strategy – Water Quantity

- 6.6 The first of these areas is Water Quantity. A development on The Site should reduce the rate, and preferably volume, of the water being discharged from the site for larger storm events, thus reducing flood risk downstream. It should safely store water as required and be sized to manage any third party flows entering the site. A preliminary design of a surface water drainage system has been undertaken, based on the indicative layout, to demonstrate viability. A drainage strategy drawing and calculations have been appended to this Technical Note. The drainage strategy is based on the following;
- i. Site investigation has been completed for the adjacent site highlighted perched groundwater and expected poor infiltration rates in the saturated CLAY layers, with functional rates found at higher level and in unsaturated soils.
 - ii. Private roads, driveways and parking spaces are assumed to have permeable surfaces to allow for any natural infiltration to occur into the subsoil.
 - iii. Roof run-off shall be directed to a receiving drainage system for attenuation and controlled run-off into the existing surface water drainage network. The main part of the system would be expected to be offered for adoption to Anglian Water.
 - iv. Access would typically be by adoptable estate roads which would fall to a roadside filter drains via a filter strip. Roads would have flush kerbing to allow water to shed from the carriage to the filter strips. The filter drains would allow for any natural infiltration to occur into the subsoil wherever possible, but they may drain to the receiving drainage system but no infiltration is assumed for the road corridor.
 - v. The detention basins have been sized based on the indicative layout to attenuate the run-off from roofs and highway for all storm events up to and including the 1% AEP event +40% allowance for climate change. This includes Urban Creep and Pervious Uplift in accordance with LLFA policy.
 - vi. For the purpose of this assessment the total maximum discharge rate of 3.0l/s has been assumed. Run-off rates will need to be agreed with the LLFA as part of any planning application.

-
- vii. The ditch network on White House Lane downstream from the site is known to have capacity problems, which was the reason for the adjacent site discharging to an alternative location. The drainage system for The Site will discharge to the same location as the adjacent phase, which will require pumping. If it can be shown that the network on White House Lane can be repaired, discharge directly to the adjacent ditch may be possible. This could be investigated as part of a future planning application.

Surface Water Drainage Strategy – Water Quality

- 6.7 CIRIA guidance requires all run-off should be treated to remove a range of contaminants prior to discharge to the environment. CIRIA guidance C753 'The SuDS Manual' describes the process to be followed to assess the site classification in terms of pollution risk and the mitigation measures that should be put into place to adequately reduce the risk of pollution to the environment.
- 6.8 Table 4.3 from C753 provides minimum water quality management requirements for discharges to receiving surface waters and groundwater. For residential roofs the pollution hazard level is given as 'very low' and for external paved areas, such as driveways, residential car parks and low traffic estate roads, the hazard level is given as 'low'. For these levels of hazard the 'simple index approach' is recommended to formulate the appropriate mitigation measures for the site, as indicated in Table 26.2 below:

TABLE 26.2 Pollution hazard indices for different land use classifications				
Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydro-carbons
Residential roofs	Very low	0.2	0.2	0.05
Other roofs (typically commercial/ industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways ¹	Medium	0.7	0.6	0.7
Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways ¹	High	0.8 ²	0.8 ²	0.9 ²

Figure 9.1: Pollution Hazard Indices

- 6.9 Pollution hazard indices are given for different land use classifications and the indices relevant to housing sites are 0.2, 0.2 & 0.05 for roof areas and 0.5, 0.4 & 0.4 for external paved areas and estate roads.

6.10 Typical mitigation indices are provided in Tables 26.3 and 26.4 of C753 for various types of SuDS components, and SuDS techniques should be selected to provide a mitigation index at least equal to the pollution hazard indices indicated above. Tables 26.3 & 26.4 are reproduced below:

TABLE 26.3 Indicative SuDS mitigation indices for discharges to surface waters				
Type of SuDS component	Mitigation indices¹			
	TSS	Metals	Hydrocarbons	
Filter strip	0.4	0.4	0.5	
Filter drain	0.4 ²	0.4	0.4	
Swale	0.5	0.6	0.6	
Bioretention system	0.8	0.8	0.8	
Permeable pavement	0.7	0.6	0.7	
Detention basin	0.5	0.5	0.6	
Pond ⁴	0.7 ³	0.7	0.5	
Wetland	0.8 ³	0.8	0.8	
Proprietary treatment systems ^{5,6}	These must demonstrate that they can address each of the contaminant types to acceptable levels for frequent events up to approximately the 1 in 1 year return period event, for inflow concentrations relevant to the contributing drainage area.			

Figure 9.2: Mitigation Indices – Surface Waters

TABLE 26.4 Indicative SuDS mitigation indices for discharges to groundwater				
Characteristics of the material overlying the proposed infiltration surface, through which the runoff percolates¹		TSS	Metals	Hydrocarbons
A layer of dense vegetation underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³		0.6 ⁴	0.5	0.6
A soil with good contaminant attenuation potential ² of at least 300 mm in depth ³		0.4 ⁴	0.3	0.3
Infiltration trench (where a suitable depth of filtration material is included that provides treatment, ie graded gravel with sufficient smaller particles but not single size coarse aggregate such as 20 mm gravel) underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³		0.4 ⁴	0.4	0.4
Constructed permeable pavement (where a suitable filtration layer is included that provides treatment, and including a geotextile at the base separating the foundation from the subgrade) underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³		0.7	0.6	0.7
Bioretention underlain by a soil with good contaminant attenuation potential ² of at least 300 mm in depth ³		0.8 ⁴	0.8	0.8
Proprietary treatment systems ^{5,6}		These must demonstrate that they can address each of the contaminant types to acceptable levels for inflow concentrations relevant to the contributing drainage area.		

Figure 9.3: Mitigation Indices – Discharge to Ground

- 6.11 SuDS techniques should be selected to provide a mitigation index at least equal to the pollution hazard indices using the following formula:

$$\text{The Total Mitigation Index} = \text{Mitigation Index (1)} + 0.5 \text{ Mitigation Index (2)}$$

- 6.12 The use of SuDS techniques prior to discharge to surface or groundwater can usually be shown to provide mitigation indices that exceed the potential hazard indices and provide a satisfactory solution to pollution control complying with a second Pillar of SuDS, 'Water Quality'. A detailed assessment would be expected to accompany a planning application and would require the approval of the LLFA.

Amenity and Biodiversity

- 6.13 Chapter 5 of The CIRIA SuDS Manual presents how sustainable drainage systems can be utilised to enhance amenity in the urban environment. Table 5.2 below outlines the amenity design criteria and offers examples on how such criteria can be met:

TABLE 5.2 Amenity design criteria and example indicators		
	Amenity design criteria	Example indicators
1	Maximise multi-functionality	The number, variety and quality of additional and multi-functional uses for SuDS, such as recreational areas, car parking or traffic management
2	Enhance visual character	The proportion of the drainage system that is designed to be visually attractive, adds visual value to the development, supports local heritage and landscape character and integrates appropriately with the surrounding area
3	Deliver safe surface water management systems	The consideration of public safety within the design of each SuDS component (related to the "use" of the system as an amenity feature)
4	Support development resilience/adaptability to future change	The proportion of the drainage system that is designed with an allowance for future climate change or development change The proportion of the drainage system that will contribute to the development's climate resilience, such as reducing the heating/cooling needs of buildings or through shade provision
5	Maximise legibility	The proportion of the system that is visible
6	Support community environmental learning	The extent of community awareness strategies, school involvement, community education strategies, visitor provision etc

Figure 10.1: Amenity Design Criteria

- 6.14 The drainage proposals for the site will be required by the LLFA to utilise a number of SuDS features which will provide amenity benefits for the development for the development, thus meeting the third Pillar of SuDS, 'Amenity': The layout provided shows the use of attenuation basins and other SuDS features that provide excellent opportunities for biodiversity improvements.

- 6.15 10.2 Chapter 6 of The CIRIA SuDS Manual offers guidance on how sustainable drainage systems can be utilised to enhance biodiversity in the urban environment. Table 6.1 below outlines the biodiversity design criteria and offers examples on how such criteria can be met:

TABLE 6.1 Biodiversity design criteria and example indicators		
	Biodiversity design criteria	Example indicator
1	Support and protect natural local habitat and species	The extent, quality and significance of local habitats supported or enhanced by the SuDS design
2	Contribute to the delivery of local biodiversity objectives	The habitats delivered by the SuDS design that meet objectives set out in local biodiversity frameworks/strategies
3	Contribute to habitat connectivity	The extent to which the SuDS scheme is integrated with wider green infrastructure strategies, or is helping to support or connect habitats.
4	Create diverse, self-sustaining and resilient ecosystems	The range and diversity of habitat types delivered or supported by the SuDS design, and the likely resilience of these habitats and the ecosystems they support to potential future change

Figure 10.3: Biodiversity Design Criteria

- 6.16 The drainage proposals for the site will be required by the LLFA to utilise a number of SuDS features which will provide biodiversity benefits for the development, thus meeting the fourth Pillar of SuDS, 'Biodiversity'. The layout provided shows the use of attenuation basins and other SuDS features that provide excellent opportunities for biodiversity improvements.

Management and Maintenance

- 6.17 To ensure Sustainable Drainage Systems sustain their functionality throughout the lifetime of the development, maintenance is vital. It is expected that a management and maintenance plan would be provided as part of a future planning application to be approved by the LLFA.

Foul Drainage

- 6.18 The first priority under the Building Regulations is for foul drainage to connect to a public foul sewer system. Only if a public foul sewer is not available, should an alternative means of disposal be considered.
- 6.19 As discussed above, Anglian Water records indicate that a foul sewer is available in Station Road and Whitehouse Lane. Consequently, the proposed foul drainage strategy will be to drain to the public sewer in Station Road. This is likely to require a new pumping station; however, a pumping station will be provided to serve the adjacent development and it may be possible for the proposed

site to gravitate to this pumping station. Which option is utilised can be determined as part of a future planning application.:

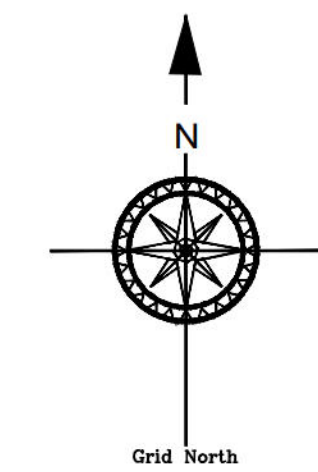
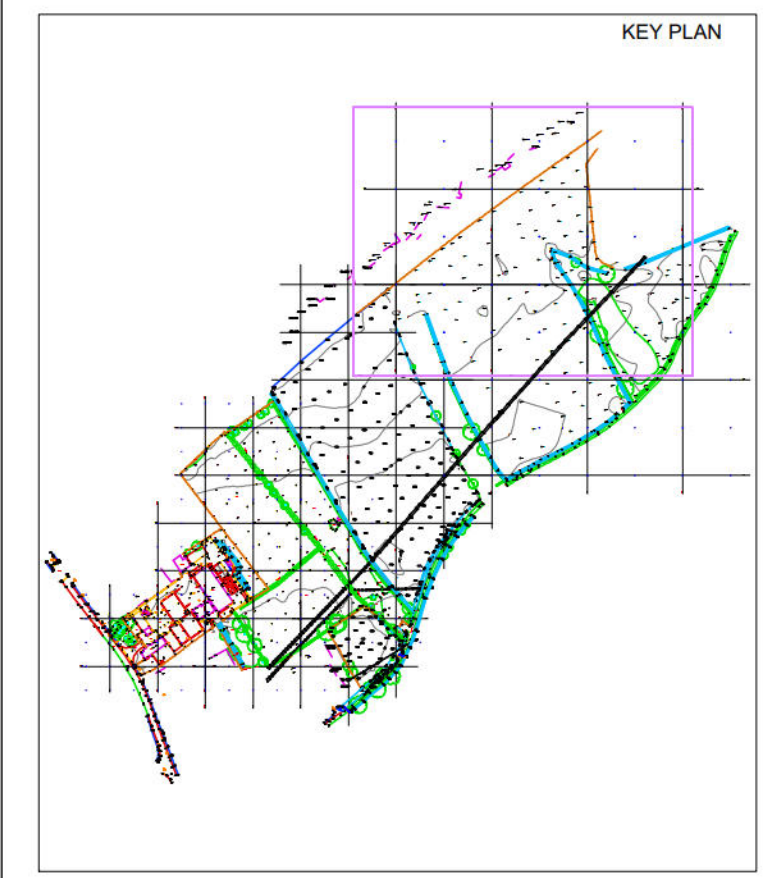
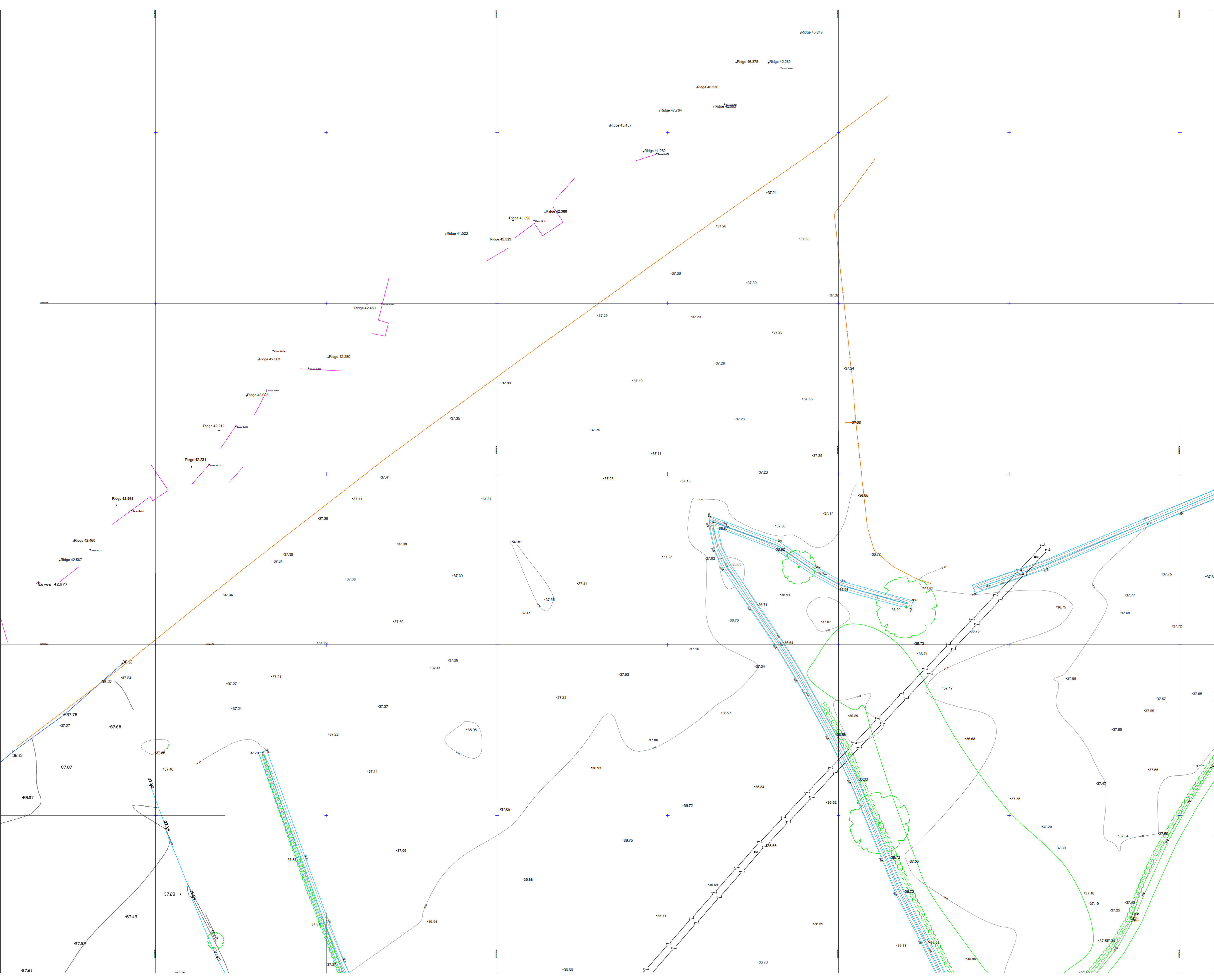
- 6.20 The site is within the Attleborough Water Recycling Centre area. Anglia Water are currently objecting to connections to more than half of Norfolk's treatment works due to capacity limitations and difficulties in complying with EA permits. Anglian Water is obligated to accept the foul flows from the development with the benefit of Planning Consent and has stated they would take the necessary steps to ensure that there is sufficient treatment capacity should planning permission be granted.

Summary

- 6.21 This Technical Note contains an analysis of Sustainable Drainage and constitutes a Sustainable Drainage Report. The analysis indicates that The Site is able to support a sustainable drainage system in accordance with local and national policy.

7 Supporting Information

Topographical Survey



SURVEY TO ORDNANCE SURVEY
GPS DATUM AND GRID.
OSGB36(02) TRANSLATED FROM
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OSTN02 MODELS

Co-Ordinates

M1	605201.009	294933.213	35.712
M2	605226.039	294912.053	35.924

FENCE TYPES			
BW	Barbed Wire	CP	Chestnut Paling
CB	Close Boarding	IR	Iron Railing
CI	Corrugated Iron	IW	Interwoven
CL	Chainlink	PR	Post & Rail
P/S	Palisade	P/W	Post & Wire

LEGEND			
AV	Air Valve	MH	Manhole
BD	Bollard	MK	Marker
BH	Borehole	NP	Street Name Plate
CB	Cable Box	OH	Overhead
CHY	Chimney	OSBM	Ordnance Bench
CL	Cover Level	P	Post Or Pillar
CONC	Concrete	PM	Parking Meter
CTV	Cable Television	RE	Rodding Eye
DK	Drop Kerb	RS	Road Sign
DP	Down Pipe	SAP	Sapping
DR	Drain	SC	Stop Cock
ELC	Electricity	SL	Sump Level
EP	Electricity Pole	ST	Stop Tap
ER	Earth Rod	SV	Sluice Valve
FB	Flower Bed	TAR	Tarmac
FH	Fire Hydrant	TCS	Telephone Call Box
GP	Flag Pole	TL	Traffic Lights
GV	Gas Valve	TP	Telegraph Pole
IC	Inspection Cover	TV	Television Box
IL	Invert Level	UTL	Unable to lift
JB	Junction Box	VP	Vent Pipe
KO	Kerb Outlet	WL	Water Level
LB	Letter Box	WM	Water Meter
LP	Lamp Post	WO	Wash Out

Banking	Hedge	Tree	Bush	Gate	OH Electric	OH Telecom	Control Station
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Date: December 2021

Scale:- 1:500

Drawing Number: ALS7712/500/05

Client: Castlemeadow Care Limited

Project: Brenntag Depot
Attleborough

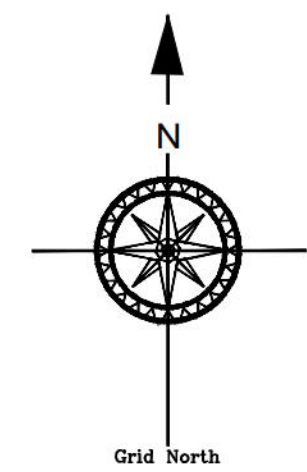
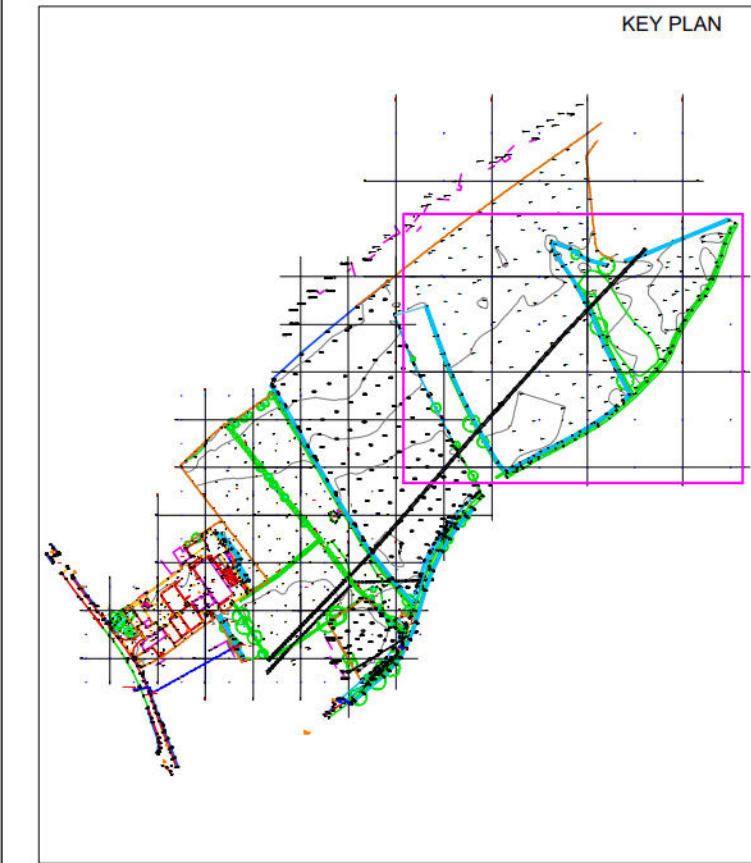
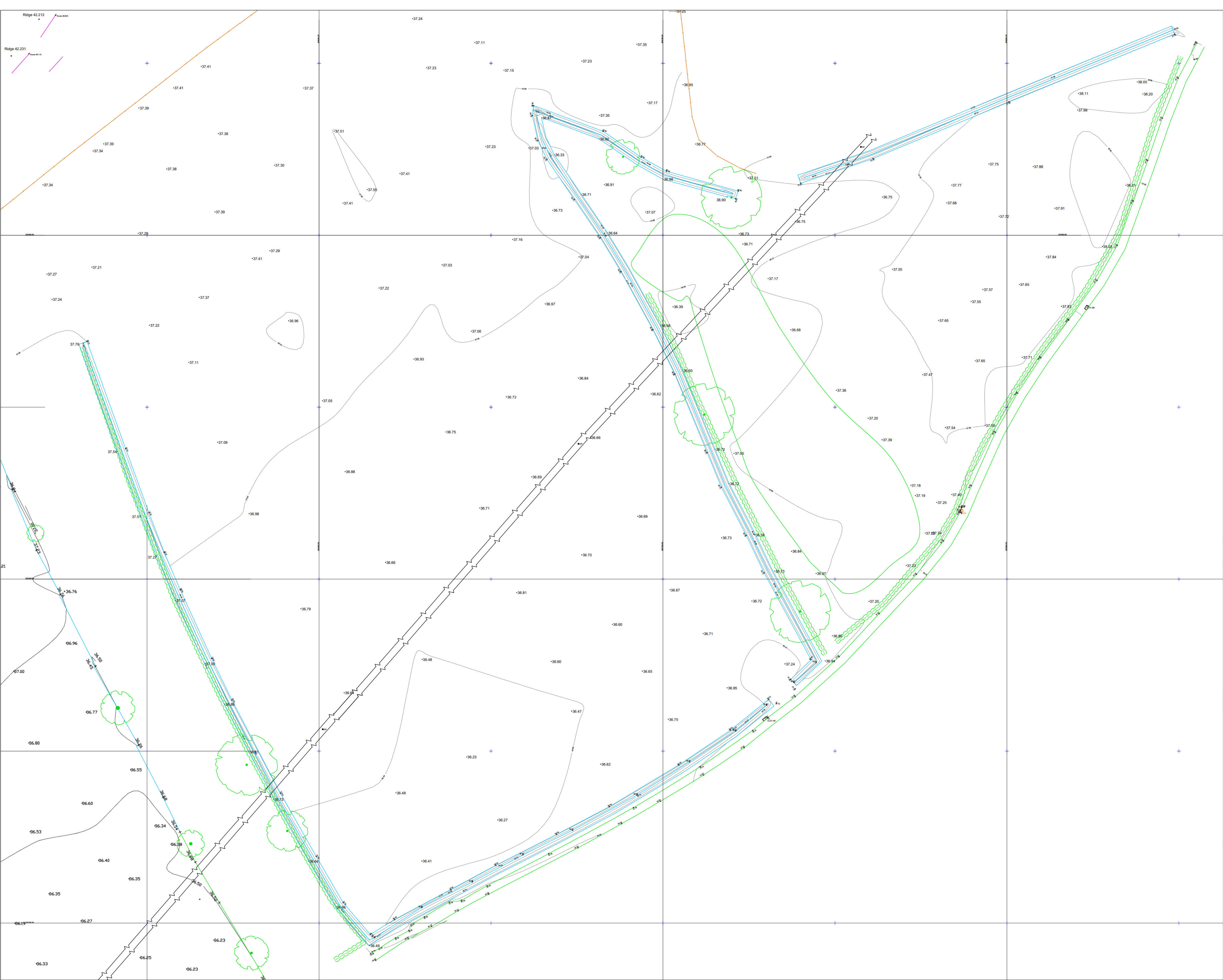
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Anglia Land Surveys Ltd

Bowthorpe Hall,
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Tel: (01603) 749600
Fax: (01603) 734798
e-mail: mail@pals-surveys.com
Website: www.als-surveys.com



SURVEY TO ORDNANCE SURVEY
GPS DATUM AND GRID.
OSGB36(02) TRANSLATED FROM
ETRS89 USING OSGM02 AND
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C/I	Corrugated Iron	I/W	Interwoven		
C/L	Chainlink	P/R	Post & Rail		

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CHY	Chimney
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CONC	Concrete
CTV	Cable Television
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DP	Down Pipe
DR	Drain
ELC	Electricity
EP	Electricity Pole
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FH	Fire Hydrant
FP	Flag Pole
GP	Gate Post
GV	Gas Valve
IC	Inspection Cover
IL	Invert Level
JB	Junction Box
KO	Kerb Outlet
LB	Letter Box
LP	Lamp Post
MH	Manhole
MR	Marker
NP	Street Name Plate
OH	Overhead
OSBM	Ordnance Bench
P	Post Or Pillar
PM	Parking Meter
RE	Rodding Eye
RS	Road Sign
SAP	Sagging
SC	Stop Cock
SL	Sump Level
ST	Stop Tap
SV	Sluice Valve
TAR	Tarmac
TCS	Telephone Call Box
TL	Traffic Lights
TP	Telegraph Pole
TV	Television Box
UTL	Unable to IR
VP	Vent Pipe
WL	Water Level
WM	Water Meter
WO	Wash Out
Banking	
Hedge	
Tree	
Bush	
Gate	
OH Electric	
OH Telecom	
S1	Control Station

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Project: Brenntag Depot
Attleborough

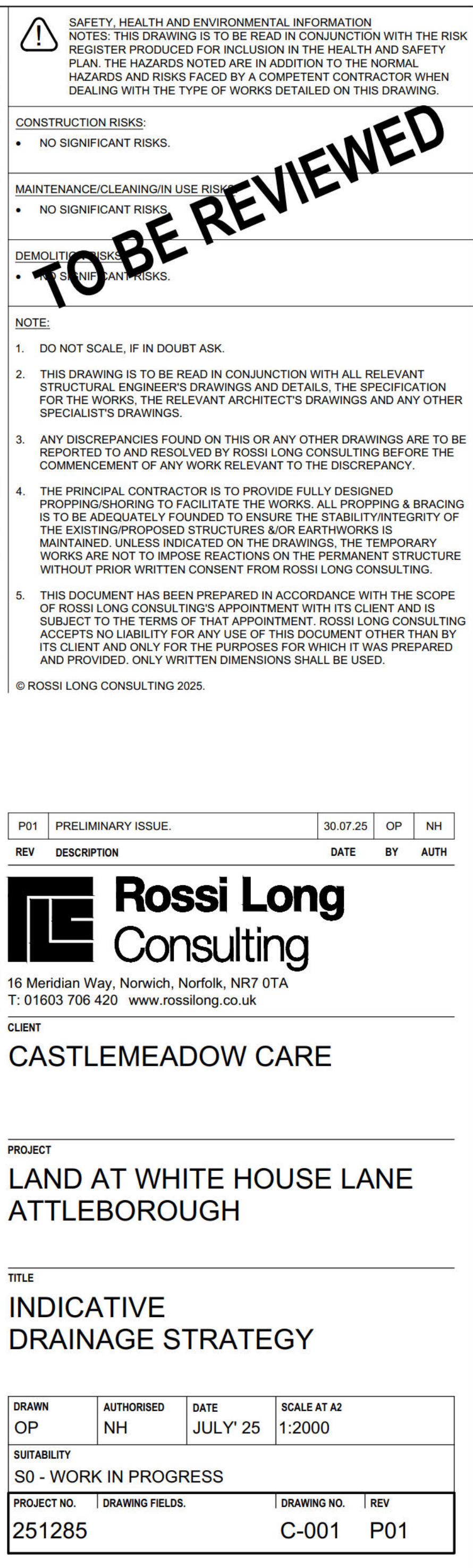
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Anglia Land Surveys Ltd

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Bowthorpe Hall Road,
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Tel: (01603) 749600
Fax: (01603) 734798
e-mail: mail@als-surveys.com
Website: www.als-surveys.com

Drainage Strategy Plan



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NO SIGNIFICANT RISKS.			
MAINTENANCE/CLEANING/IN USE RISKS:			
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DEMOLITION RISKS:			
NO SIGNIFICANT RISKS.			
NOTE:			
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REV	DESCRIPTION	DATE	BY	AUTH



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CLIENT

CASTLEMEADOW CARE

PROJECT

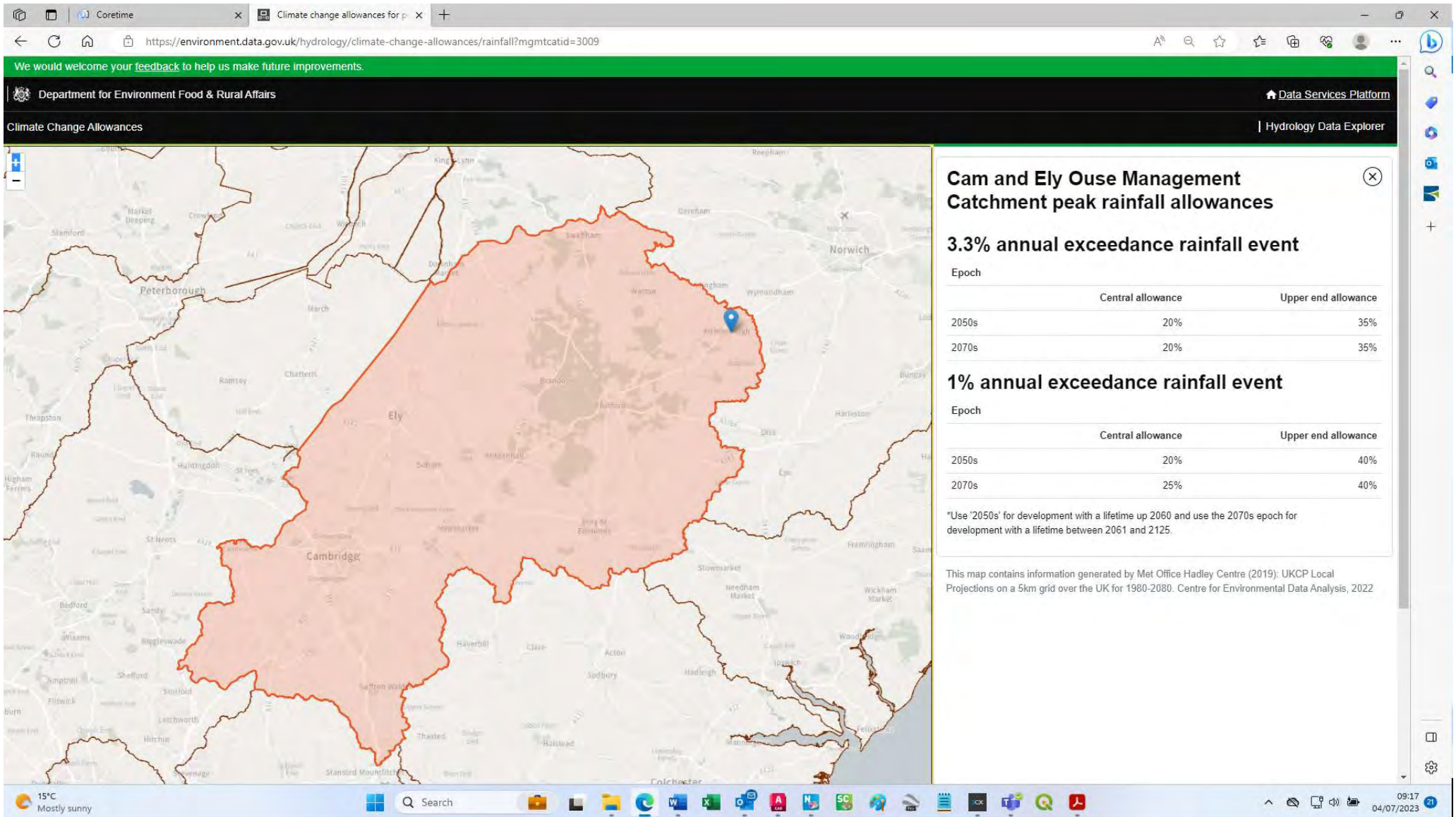
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ATTLEBOROUGH

TITLE

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Drainage Attenuation Volume Calculations



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Date 30/07/2025 File PHASE 2 MAIN.SRCX		Designed by OP Checked by NH			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 200 year Return Period (+45%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	35.249	0.349	2.0	949.0	O K
30 min Summer	35.346	0.446	2.0	1230.0	O K
60 min Summer	35.439	0.539	2.0	1509.4	O K
120 min Summer	35.520	0.620	2.0	1757.2	O K
180 min Summer	35.573	0.673	2.0	1923.4	O K
240 min Summer	35.616	0.716	2.0	2058.8	O K
360 min Summer	35.689	0.789	2.0	2294.1	O K
480 min Summer	35.752	0.852	2.0	2504.1	O K
600 min Summer	35.807	0.907	2.0	2686.3	O K
720 min Summer	35.854	0.954	2.0	2845.4	O K
960 min Summer	35.927	1.027	2.0	3098.8	O K
1440 min Summer	36.023	1.123	2.0	3436.5	O K
2160 min Summer	36.097	1.197	2.0	3706.2	O K
2880 min Summer	36.132	1.232	2.0	3834.0	Flood Risk
4320 min Summer	36.154	1.254	2.0	3913.2	Flood Risk
5760 min Summer	36.146	1.246	2.0	3886.1	Flood Risk
7200 min Summer	36.124	1.224	2.0	3803.6	Flood Risk
8640 min Summer	36.097	1.197	2.0	3704.1	O K
10080 min Summer	36.067	1.167	2.0	3595.9	O K
15 min Winter	35.249	0.349	2.0	949.0	O K
30 min Winter	35.346	0.446	2.0	1230.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
15 min Summer	205.909	0.0	171.9	27	
30 min Summer	133.514	0.0	171.4	42	
60 min Summer	82.032	0.0	343.6	72	
120 min Summer	47.880	0.0	342.4	132	
180 min Summer	35.030	0.0	341.3	192	
240 min Summer	28.188	0.0	340.3	252	
360 min Summer	21.027	0.0	338.5	372	
480 min Summer	17.278	0.0	337.0	492	
600 min Summer	14.879	0.0	335.5	612	
720 min Summer	13.175	0.0	334.2	730	
960 min Summer	10.827	0.0	331.6	970	
1440 min Summer	8.098	0.0	326.7	1450	
2160 min Summer	5.923	0.0	665.0	2168	
2880 min Summer	4.675	0.0	657.4	2888	
4320 min Summer	3.294	0.0	641.6	4328	
5760 min Summer	2.543	0.0	1315.9	5768	
7200 min Summer	2.067	0.0	1297.4	7208	
8640 min Summer	1.742	0.0	1277.3	8640	
10080 min Summer	1.507	0.0	1255.5	10080	
15 min Winter	205.909	0.0	171.9	27	
30 min Winter	133.514	0.0	171.5	42	
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Meridian House 16 Meridian Way, Norwich Norfolk, NR7 0TA	Castlemeadow Care Community 251344	
Date 30/07/2025 File PHASE 2 MAIN.SRCX	Designed by OP Checked by NH	
Innovyze	Source Control 2020.1.3	

Summary of Results for 200 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
60 min Winter	35.439	0.539	2.0	1509.4	O K
120 min Winter	35.520	0.620	2.0	1757.2	O K
180 min Winter	35.573	0.673	2.0	1923.7	O K
240 min Winter	35.616	0.716	2.0	2059.1	O K
360 min Winter	35.689	0.789	2.0	2294.6	O K
480 min Winter	35.753	0.853	2.0	2504.9	O K
600 min Winter	35.807	0.907	2.0	2687.3	O K
720 min Winter	35.854	0.954	2.0	2846.6	O K
960 min Winter	35.928	1.028	2.0	3100.4	O K
1440 min Winter	36.023	1.123	2.0	3439.1	O K
2160 min Winter	36.099	1.199	2.0	3710.4	O K
2880 min Winter	36.134	1.234	2.0	3839.8	Flood Risk
4320 min Winter	36.156	1.256	2.0	3922.3	Flood Risk
5760 min Winter	36.150	1.250	2.0	3899.3	Flood Risk
7200 min Winter	36.129	1.229	2.0	3821.2	Flood Risk
8640 min Winter	36.103	1.203	2.0	3726.3	Flood Risk
10080 min Winter	36.075	1.175	2.0	3623.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
60 min Winter	82.032	0.0	343.6	72
120 min Winter	47.880	0.0	342.4	130
180 min Winter	35.030	0.0	341.2	190
240 min Winter	28.188	0.0	340.2	250
360 min Winter	21.027	0.0	338.3	368
480 min Winter	17.278	0.0	336.6	486
600 min Winter	14.879	0.0	335.0	606
720 min Winter	13.175	0.0	333.5	724
960 min Winter	10.827	0.0	330.7	962
1440 min Winter	8.098	0.0	325.1	1436
2160 min Winter	5.923	0.0	662.5	2148
2880 min Winter	4.675	0.0	654.0	2856
4320 min Winter	3.294	0.0	636.6	4276
5760 min Winter	2.543	0.0	1309.6	5656
7200 min Winter	2.067	0.0	1290.0	7056
8640 min Winter	1.742	0.0	1269.4	8392
10080 min Winter	1.507	0.0	1247.4	9776

Rossi Long Consulting Limited			Page 4																																																																																
Meridian House 16 Meridian Way, Norwich Norfolk, NR7 0TA		Castlemeadow Care Community 251344																																																																																	
Date 30/07/2025		Designed by OP																																																																																	
File PHASE 2 MAIN.SRCX		Checked by NH																																																																																	
Innovyze		Source Control 2020.1.3																																																																																	
<u>Model Details</u> Storage is Online Cover Level (m) 36.400 <u>Tank or Pond Structure</u> Invert Level (m) 34.900 <table><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr><tr><td>0.000</td><td>2571.0</td><td>1.500</td><td>3954.0</td></tr></table> <u>Pump Outflow Control</u> Invert Level (m) 34.900 <table><tr><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th></tr><tr><td>0.100</td><td>2.0000</td><td>0.900</td><td>2.0000</td><td>1.700</td><td>2.0000</td><td>2.500</td><td>2.0000</td></tr><tr><td>0.200</td><td>2.0000</td><td>1.000</td><td>2.0000</td><td>1.800</td><td>2.0000</td><td>2.600</td><td>2.0000</td></tr><tr><td>0.300</td><td>2.0000</td><td>1.100</td><td>2.0000</td><td>1.900</td><td>2.0000</td><td>2.700</td><td>2.0000</td></tr><tr><td>0.400</td><td>2.0000</td><td>1.200</td><td>2.0000</td><td>2.000</td><td>2.0000</td><td>2.800</td><td>2.0000</td></tr><tr><td>0.500</td><td>2.0000</td><td>1.300</td><td>2.0000</td><td>2.100</td><td>2.0000</td><td>2.900</td><td>2.0000</td></tr><tr><td>0.600</td><td>2.0000</td><td>1.400</td><td>2.0000</td><td>2.200</td><td>2.0000</td><td>3.000</td><td>2.0000</td></tr><tr><td>0.700</td><td>2.0000</td><td>1.500</td><td>2.0000</td><td>2.300</td><td>2.0000</td><td></td><td></td></tr><tr><td>0.800</td><td>2.0000</td><td>1.600</td><td>2.0000</td><td>2.400</td><td>2.0000</td><td></td><td></td></tr></table>				Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	2571.0	1.500	3954.0	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	2.0000	0.900	2.0000	1.700	2.0000	2.500	2.0000	0.200	2.0000	1.000	2.0000	1.800	2.0000	2.600	2.0000	0.300	2.0000	1.100	2.0000	1.900	2.0000	2.700	2.0000	0.400	2.0000	1.200	2.0000	2.000	2.0000	2.800	2.0000	0.500	2.0000	1.300	2.0000	2.100	2.0000	2.900	2.0000	0.600	2.0000	1.400	2.0000	2.200	2.0000	3.000	2.0000	0.700	2.0000	1.500	2.0000	2.300	2.0000			0.800	2.0000	1.600	2.0000	2.400	2.0000		
Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																
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Rossi Long Consulting Limited					Page 1
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Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 200 year Return Period (+45%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
15 min Summer	36.082	0.382	1.0	410.5	O K
30 min Summer	36.184	0.484	1.0	531.8	O K
60 min Summer	36.280	0.580	1.0	652.2	O K
120 min Summer	36.362	0.662	1.0	758.5	O K
180 min Summer	36.415	0.715	1.0	829.5	O K
240 min Summer	36.457	0.757	1.0	887.2	O K
360 min Summer	36.529	0.829	1.0	987.3	O K
480 min Summer	36.591	0.891	1.0	1076.6	O K
600 min Summer	36.644	0.944	1.0	1153.9	O K
720 min Summer	36.689	0.989	1.0	1221.2	O K
960 min Summer	36.758	1.058	1.0	1327.7	O K
1440 min Summer	36.847	1.147	1.0	1468.0	O K
2160 min Summer	36.913	1.213	1.0	1575.8	Flood Risk
2880 min Summer	36.941	1.241	1.0	1622.0	Flood Risk
4320 min Summer	36.951	1.251	1.0	1637.9	Flood Risk
5760 min Summer	36.932	1.232	1.0	1607.1	Flood Risk
7200 min Summer	36.899	1.199	1.0	1551.9	O K
8640 min Summer	36.860	1.160	1.0	1488.6	O K
10080 min Summer	36.817	1.117	1.0	1420.7	O K
15 min Winter	36.082	0.382	1.0	410.5	O K
30 min Winter	36.184	0.484	1.0	531.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
15 min Summer	205.909	0.0	86.4	23	
30 min Summer	133.514	0.0	86.4	38	
60 min Summer	82.032	0.0	172.8	68	
120 min Summer	47.880	0.0	172.8	128	
180 min Summer	35.030	0.0	172.8	188	
240 min Summer	28.188	0.0	172.8	248	
360 min Summer	21.027	0.0	172.8	368	
480 min Summer	17.278	0.0	172.8	488	
600 min Summer	14.879	0.0	172.8	608	
720 min Summer	13.175	0.0	172.8	728	
960 min Summer	10.827	0.0	172.8	966	
1440 min Summer	8.098	0.0	172.8	1446	
2160 min Summer	5.923	0.0	345.6	2168	
2880 min Summer	4.675	0.0	345.6	2884	
4320 min Summer	3.294	0.0	345.6	4324	
5760 min Summer	2.543	0.0	691.2	5760	
7200 min Summer	2.067	0.0	691.2	7200	
8640 min Summer	1.742	0.0	691.2	8640	
10080 min Summer	1.507	0.0	691.2	10080	
15 min Winter	205.909	0.0	86.4	23	
30 min Winter	133.514	0.0	86.4	38	
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Meridian House 16 Meridian Way, Norwich Norfolk, NR7 0TA		Castlemeadow Care Community 251344			
Date 30/07/2025 File PHASE 2 MINOR.SRCX		Designed by OP Checked by NH			
Innovyze		Source Control 2020.1.3			
<u>Summary of Results for 200 year Return Period (+45%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
60 min Winter	36.280	0.580	1.0	652.2	O K
120 min Winter	36.362	0.662	1.0	758.4	O K
180 min Winter	36.415	0.715	1.0	829.6	O K
240 min Winter	36.457	0.757	1.0	887.3	O K
360 min Winter	36.529	0.829	1.0	987.5	O K
480 min Winter	36.591	0.891	1.0	1076.9	O K
600 min Winter	36.644	0.944	1.0	1154.2	O K
720 min Winter	36.689	0.989	1.0	1221.6	O K
960 min Winter	36.759	1.059	1.0	1328.4	O K
1440 min Winter	36.848	1.148	1.0	1469.0	O K
2160 min Winter	36.914	1.214	1.0	1577.5	Flood Risk
2880 min Winter	36.943	1.243	1.0	1624.5	Flood Risk
4320 min Winter	36.953	1.253	1.0	1642.4	Flood Risk
5760 min Winter	36.937	1.237	1.0	1614.9	Flood Risk
7200 min Winter	36.906	1.206	1.0	1563.4	Flood Risk
8640 min Winter	36.870	1.170	1.0	1505.0	O K
10080 min Winter	36.831	1.131	1.0	1443.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
60 min Winter	82.032	0.0	172.8	68	
120 min Winter	47.880	0.0	172.8	126	
180 min Winter	35.030	0.0	172.8	186	
240 min Winter	28.188	0.0	172.7	246	
360 min Winter	21.027	0.0	172.7	364	
480 min Winter	17.278	0.0	172.7	484	
600 min Winter	14.879	0.0	172.6	602	
720 min Winter	13.175	0.0	172.6	720	
960 min Winter	10.827	0.0	172.5	958	
1440 min Winter	8.098	0.0	172.3	1432	
2160 min Winter	5.923	0.0	344.8	2144	
2880 min Winter	4.675	0.0	344.4	2852	
4320 min Winter	3.294	0.0	343.4	4240	
5760 min Winter	2.543	0.0	687.5	5648	
7200 min Winter	2.067	0.0	685.6	6992	
8640 min Winter	1.742	0.0	683.1	8384	
10080 min Winter	1.507	0.0	680.0	9680	
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Meridian House 16 Meridian Way, Norwich Norfolk, NR7 0TA	Castlemeadow Care Community 251344	
Date 30/07/2025	Designed by OP	
File PHASE 2 MINOR.SRCX	Checked by NH	
Innovyze	Source Control 2020.1.3	

Rainfall Details

Rainfall Model	FEH
Return Period (years)	200
FEH Rainfall Version	2013
Site Location	GB 605371 294984 TM 05371 94984
Data Type	Point
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	1.000
Cv (Winter)	1.000
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+45

Time Area Diagram

Total Area (ha) 0.800

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.400	4 8	0.400

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Meridian House 16 Meridian Way, Norwich Norfolk, NR7 0TA	Castlemeadow Care Community 251344	
Date 30/07/2025	Designed by OP	
File PHASE 2 MINOR.SRCX	Checked by NH	
Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 37.200

Tank or Pond Structure

Invert Level (m) 35.700

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	979.0	1.500	1831.0

Pump Outflow Control

Invert Level (m) 34.900

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.0000	0.900	1.0000	1.700	1.0000	2.500	1.0000
0.200	1.0000	1.000	1.0000	1.800	1.0000	2.600	1.0000
0.300	1.0000	1.100	1.0000	1.900	1.0000	2.700	1.0000
0.400	1.0000	1.200	1.0000	2.000	1.0000	2.800	1.0000
0.500	1.0000	1.300	1.0000	2.100	1.0000	2.900	1.0000
0.600	1.0000	1.400	1.0000	2.200	1.0000	3.000	1.0000
0.700	1.0000	1.500	1.0000	2.300	1.0000		
0.800	1.0000	1.600	1.0000	2.400	1.0000		

APPENDIX 2

LETTER FROM ATTCARE DATED 12 DECEMBER 2025



ATT CARE

Attleborough Health, Care & Wellbeing Trust Charity

Registration 1173821

c/o Alma House, Station Road,
Attleborough, Norfolk NR17 2AS
Email: attcare21@gmail.com

12th December 2025

Dear Sirs,

Castlemeadow Care Site, Buckenham Road, Attleborough – Phase 2

The local charity, ATT CARE, has been closely involved with this project since considering the site in 2017. See Planning ref: 3PL/2023/1152/F

We have assisted to facilitate the initial conversations that formed part of the long term aims of Attcare for contributions to health and well-being while proving a range of care provision in context.

We admire the well-considered and professional design within the phases of this application. The sensible investment gives an opportunity for a wide range of facilities, in a single area, to cater for a mixed community that addresses key needs in the town on a neglected “Brown Field” site. We support the planned extension of this much needed Care Village.

The proposals indicate an important addition to Attleborough that avoids isolation or Ghetto feeling.

Yours faithfully,

George Ridgway
George Ridgway
Chair of the Board of Trustees
ATT CARE

