Cheltenham New Special School

Kier Construction – Western & Wales

Transport Assessment

October 2025

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1 Introduction

General

1.1 Rappor has been commissioned to prepare a Transport Assessment (TA) concerning a planning application for a new school for children with special educational needs and disabilities (SEND) on land owned by Gloucestershire County Council (GCC), located adjacent to Arle Road, Cheltenham.

1.2 The proposed school will be an 'all-through' school for up to 200 primary and secondary pupils, anticipated to open during the academic year 2027 / 28. Pupils will range between 4-16 years old (Reception and key stages 1-4) with classes potentially organised along 'needs' rather than strict age criteria, and facilities provided to predominantly cater for ambulant children, however some children with have mobility challenges.

1.3 As part of the planning application a Travel Plan (TP) will be submitted under a separate cover and should be read in conjunction with this TA. The TP includes a number of key measures and targets in order to promote sustainable modes of transport as well as reducing trips by private car.

1.4 Overall, this TA assesses how the proposed school will function in highways and transportation terms. It will consider appropriate access arrangements and the transport choices available to future users of the site and how the existing transport infrastructure surrounding the site will influence that choice, and where necessary, appropriate mitigation provided. The impact of traffic and parking demand generated by the proposals will be considered and quantified.

Requirements for a SEND School

1.5 There continues to be an increasing need for special school places in the county, with the highest number of places needed in Gloucester and Cheltenham. The shortage of places locally means some children currently travel to schools out of county or to independent schools to have their educational needs met. This new school would be centrally located within the county and within reasonable travelling distance of other parts of the county.

1.6 The need to increase the number of special school places is underpinned by Gloucestershire's SEND Strategy 2022-25 and the SEND Joint Commissioning Strategy 2025 – 2030.

Scope of Assessment

1.7 A pre-application enquiry has been submitted to GCC, as the local highway authority, with the details of the development proposals and scope of transport and highway works identified by Rappor provided in the form of a Highways and Transportation Scoping Note attached at **Appendix A** based on the early proposals for the school.

1.8 A response was received from GCC on 10th October 2025, which is attached at **Appendix A**.

1.9 In summary, the proposed transport strategy, including an advisory 20mph school safety zone on Arle Road, managed on-site drop-off areas, and preparation of a full Transport Assessment and School Travel Plan to accompany a full application, is considered acceptable in principle. The Road Safety Auditor has raised points requiring further evidence and clarification:

- The proximity of traffic calming to the railway bridge;
- The effectiveness of speed cushions to lower speeds;
- The compliance with guidance on safety zone length; and
- A Stage 1 Road Safety Audit and Designer's Response has been requested at the planning stage.

1.10 Overall, the pre-application response was positive, with the additional information requested to be addressed within this report.

Public Engagement Events

1.11 One public engagement event has been held concerning the proposed school. The meeting was held with local residents and interested parties and took place on 2nd October 2025 to obtain opinions and gauge any local concerns.

1.12 Feedback was provided throughout this consultation process, and the development proposals have sought to consider key issues or concerns raised as a result of feedback and address and incorporate this, where appropriate, into the design process.

Report Structure

1.13 The key issues that need to be addressed / reviewed within this TA, with reference to the size and location of the development proposal, are as follows.

Existing Conditions

a) Review of the site location, composition and local highway network;
b) A review of the relevant planning and transport policy.
c) Analysis of local highway safety data for the most recent five-year period available; and
d) Accessibility critique reviewing pedestrian, cycle and public transport access to the site, plus any infrastructure available to promote travel by sustainable means where possible, including a Walking Route Audit.

Proposed Conditions

a) Description of the development proposals;
b) Description and justification for the proposed access arrangement (vehicular and pedestrian/cycle), internal layout, car and cycle parking provision, and access for minibus, fire tenders, service and delivery vehicles, including all necessary swept-path assessments and visibility splays;
c) Forecast trip attraction, including distribution and assignment of both pupil related and staff trips;

d) Assess significance of development impact associated with the proposals upon the surrounding transport infrastructure and any necessary mitigation; and
e) Details of the Travel Plan and infrastructure measures to ensure that there is safe and suitable provision for staff.

1.14 Development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe, as per the National Planning Policy Framework (NPPF). This TA concludes that the proposed school, in highway and transportation terms, is acceptable and therefore there are no highway grounds that should prevent the planning application from being permitted.

2 Relevant Planning Policy

2.1 The relevant transportation policies and guidance against which the TA and TP shall be assessed are set out in the following National and Local documents:

a) National Planning Policy Framework (2025);
b) Planning Practice Guidance Travel Plans, Transport Assessment and Statements in Decision Taking (2014);
c) Manual for Streets (2007);
d) Manual for Streets 2 (2010);
e) Gloucestershire's Local Transport Plan (2021);
f) Manual for Gloucestershire Streets (2020);
g) Manual for Gloucestershire Streets Addendum (2021);
h) Joint Core Strategy (2017) and relevant emerging Local Plan documents;
i) Gloucestershire's Special Educational Needs and Disabilities Strategy 2022-25; and
j) GCC's Special Educational Needs and Disabilities Joint Commissioning Strategy 2025 – 2030.

National Policy and Guidance

National Planning Policy Framework (2024, updated February 2025)

2.2 National planning policies are set out in the revised NPPF published in December 2024, updated version February 2025, by the Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities. It sets out the Government's planning policies for England and how these should be applied. At the heart of the NPPF is a presumption in favour of sustainable development.

2.3 Chapter 9 of the NPPF deals with '*Promoting sustainable transport*' and Paragraph 109 of the NPPF states that:

> *"Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:*
>
> a) *making transport considerations an important part of early engagement with local communities;*
> b) *ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;*
> c) *understanding and addressing the potential impacts of development on transport networks;*
> d) *realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;*
> e) *identifying and pursuing opportunities to promote walking, cycling and public transport use; and*

f) *identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains."*

2.4 Paragraph 115 states that:

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

a) *sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location;*

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

c) *the design of streets, parking areas, and other transport elements and content of associated standards reflects current national guidance, including the National Design Guide and National Model Design Code; and*

d) *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach."*

2.5 Paragraph 116 states that "Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios".

2.6 Paragraph 117 states that:

"applications for development should:

a) *"Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment areas for bus or other public transport services, and appropriate facilities that encourage public transport use;*
b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
d) *allow for the efficient delivery of goods, and access by services and emergency vehicles; and*
e) *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.*"

2.7 Within Annex 2: Glossary, sustainable transports modes are defined as "Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, ultra-low and zero emission vehicles, car sharing and public transport."

2.8 The Education and Inspections Act 2006, Academies Act 2010 and Education Act 2011 placed a duty on local authorities to act as commissioners of School places. GCC, like all Local authorities, is under a statutory duty to:

a) Ensure there are sufficient School places in their area;

b) Promote high educational standards;
c) Ensure fair access and equal opportunity;
d) Promote the fulfilment of every child's educational potential;
e) Promote diversity in provision;
f) Expand popular and successful Schools; and
g) Increase opportunities for parents to access Schools of their choice.

2.9 It is the Council's policy to provide Schools and School places in locations, which enable children to be educated in their local community, minimise travel distance and journey times and prioritise pedestrian and cycle journeys.

2.10 The Government's planning practice guidance to the NPPF provides guidance on the overarching principles on TP in relation to decision-taking. The guidance highlights that *'Travel Plans should where possible, be considered in parallel to development proposals and readily integrated into the design and occupation of the new site rather than retrofitted after occupation.'*

Travel Plans, Transport Assessments and Statements (DLUHC)

2.11 The Government's guidance on TPs is set out in the Government's planning practice guidance to the NPPF which was launched as a web-based resource by the Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities and Local Government (MHCLG) on 6 March 2014. Guidance on TPs falls within the category 'Travel Plans, Transport Assessments and Statements' (Reference ID: 42 Revision date: 06 03 2014).

2.12 Paragraph 002 (Reference: ID: 42-002-20140306) states that "Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements."

2.13 Paragraph 006 (Reference: ID: 42-006-20140306) of the guidance considers that "Travel Plans, Transport Assessments and Statements can positively contribute to:

a) encouraging sustainable travel;
b) lessening traffic generation and its detrimental impacts;
c) reducing carbon emissions and climate impacts;
d) creating accessible, connected, inclusive communities;
e) improving health outcomes and quality of life;
f) improving road safety; and
g) reducing the need for new development to increase existing road capacity or provide new roads."

2.14 The site has good existing walking, cycling and public transport links which will facilitate access and enhance local facilities. This is further explored within **Section 4**.

Department for Communities and Local Government (DCLG) Letter to The Chief Planning Officer (15th August 2011)

2.15 The DCLG letter to the Chief Planning Officer sets out the Government's commitment to support the development of state funded Schools and their delivery through the planning system. The policy statement states that, 'the creation and development of state funded Schools is strongly in the national interest and that planning decision-makers can and should support that objective, in a manner consistent with their statutory obligations.'

2.16 It further states that the following principles should apply with immediate effect:

a) There should be a presumption in favour of the development of state-funded Schools;
b) Local Authorities should give full and thorough consideration to the importance of enabling the development of state funded Schools in their planning decisions;
c) Local Authorities should make full use of their planning powers to support state-funded School applications;
d) Local Authorities should only impose conditions that clearly and demonstrably meet the tests as set out in Circular 11/95;
e) Local Authorities should ensure that the process for submitting and determining state-funded Schools' applications is as streamlined as possible; and
f) A refusal of any application for a state-funded School or the imposition of conditions, will have to be clearly justified by the Local Planning Authority.

2.17 This has been endorsed as part of the NPPF.

Manual for Streets (March 2007)

2.18 Manual for Streets (MfS) is a Department for Transport (DfT) publication which provides guidance for planning and designing new streets. It aims to increase the quality of life through good design, which creates more people-orientated streets.

2.19 The guidance contains principles in the design of suitable pedestrian and cyclist facilities to encourage and facilitate travel via these modes. Making the local environment convenient and attractive to walk in can help prioritise walking and cycling and reduce reliance on motor transport.

2.20 The guidance emphasises the importance of connectivity and permeability to pedestrians and cyclists. A robust local highway network layout can reduce journey times, encourage active travel, and foster connections between communities.

Manual for Streets 2 (September 2010)

2.21 Manual for Streets 2 (MfS2) takes the principles set out in MfS and demonstrates through guidance and case studies how they can be applied to a wide range of street contexts. MfS2 does not supersede MfS, rather it explains how the principles of MfS can be applied more widely, exploring in greater detail how and where its key principles can be applied to busier streets and roads.

Local Policy and Guidance

Gloucestershire's Local Transport Plan 2020 - 41 (March 2021)

2.22 GCC's current Local Transport Plan (LTP) covers the period 2020 - 2041. The LTP sets the long-term transport strategy for Gloucestershire up to 2041. It supports delivery of the Strategic Economic Plan and the emerging Local Plans. The LTP sets out the issues and priorities for the County and identifies the approach to managing the increased transport demand which will go hand in hand with projected housing development and accelerated economic growth.

2.23 Looking towards 2041, Gloucestershire's vision for transport is for:

"A resilient transport network that enables sustainable economic growth by providing choices for all, making Gloucestershire a better place to live, work and visit"

2.24 The LTP outlines the transport strategy in two stages:

a) Until 2031, roughly in line with the time horizons for growth allocations in the adopted Local Plans; and
b) Up to 2041, the vision for which it is envisioned will inform discussions with the local planning authorities on current Local Plan reviews, following which there will be another review of the LTP once Gloucestershire's areas of growth post 2031 are better understood.

2.25 The LTP includes six mode policy documents which together provide the context of local transport delivery within the County.

2.26 Travel behavioural change is at the heart of the aims and objectives set out in the Local Plan. Gloucestershire's Thinktravel initiative aims to inform, educate and inspire people to make journeys in a smarter, more sustainable way and therefore reduce single occupancy car journeys on the transport network. The Thinktravel initiative is supported by an online information portal providing information about sustainable travel options such as walking, cycling, using public transport and car sharing aimed at individuals, communities, schools and businesses.

2.27 GCC will continue to work with schools on their TPs whilst promoting and encouraging young people through our Thinktravel programme to take up active travel modes as an alternative to car travel, where safe to do so.

Manual for Gloucestershire Streets (July 2020)

2.28 MfGS was adopted in July 2020 and establishes principles for good street design, with an emphasis on maintaining the local and often historic character of towns and villages within Gloucestershire. An addendum was published in October 2021.

2.29 The objectives of MfGS is to ensure that: *"*

- *Development is located in communities which are, or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes.*

This can help to reduce congestion and emissions, and improve air quality and public health;

ii) *Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

iii) *Safe and suitable access to the site can be achieved for all users; and*

iv) *Any significant impacts from the development on the transport network(in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.*

Applicants for development should:-

i) *Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – as far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

ii) *Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

iii) *Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

iv) *Allow for the efficient delivery of goods, and access by services and emergency vehicles; and*

v) *Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

Manual for Gloucestershire Streets Addendum (October 2021)

2.30 The MfGS Addendum seeks to address key matters for which national policy and guidance has superseded MfGS. Salient points include improved active travel infrastructure including segregated walking and cycling infrastructure; the inclusion of trees on all roads; reduction of carbon, which includes minimising concrete use; and reduction in car parking provision minimums.

Gloucester, Cheltenham and Tewkesbury Joint Core Strategy 2011 - 2031 (Dec 2017)

2.31 The Joint Core Strategy was created to jointly address development issues affecting Gloucester City, Cheltenham Borough, and Tewkesbury Borough. It allocates strategic sites for development within the region.

2.32 It identifies key challenges, including an ageing population; a lack of affordable housing; rising unemployment; localised deprivation; and meeting new housing needs under several geographical constraints.

Gloucestershire's SEND Strategy 2022-2025

2.33 The SEND Strategy 2022-2025 was adopted by GCC with the intention of removing barriers to education, and ensuring all children receive the support they need.

2.34 Priority 2 of the Strategy aims to ensure access to support is available when it is needed. The focus is on identifying need for support as early as possible, and ensuring support is accessible, streamlined and given flexibly. As part of Priority 2 the Strategy commits to:

"Develop our available special school provision in the country, through increased special school places and resource bases". Provision of a new SEND school will serve to increase special school capacity and will increase access to support.

Gloucestershire's SEND Joint Commissioning Strategy 2025 - 2030

2.35 GCC and the Gloucestershire Integrated Care Board have jointly developed a SEND Joint Commissioning Strategy for 2025–2030, designed to ensure that education, health, and social care services for children and young people with SEND are better aligned, more inclusive, and more responsive to need. The strategy establishes five priority areas, such as, promoting ambitious outcomes, early intervention, multi-agency working (especially for speech, communication, mental health, neurodiversity), inclusion in mainstream settings, and managing increasing complexity of need. It aims to use existing resources more efficiently, with additional funding only via business cases. Governance of delivery will be through the SEND & Inclusion Local Area Partnership Board (SILAP). Its adoption in Cheltenham means local schools, health services and social care in the Cheltenham area will have to work more closely together, operate under shared commissioning plans, and deliver more consistent and coordinated support to SEND children across the town, aligning with county-wide goals.

3 The Site and Adjacent Highway Network

3.1 The site is located to the west of Cheltenham Town Centre, in the neighbourhood area of Rowanfield. The parcel of land comprises an undeveloped area of grass and overgrown shrubs, which is accessed via an existing gated entrance located along Arle Road. This land is owned by GCC.

3.2 The site is located approximately 5km from the M5 motorway, with the nearest junction being J11. The site is also in proximity to the A40, which provides a link to Gloucester.

3.3 The site is bound to the north by Arle Road, to the east by a railway line, to the south by The Altus School (St George's Centre) Pupil Referral Unit / Cheltenham Sea Cadets buildings along Alstone Road, and to the west by residential properties. The location of the Site is shown on **Figure 3.1** below.

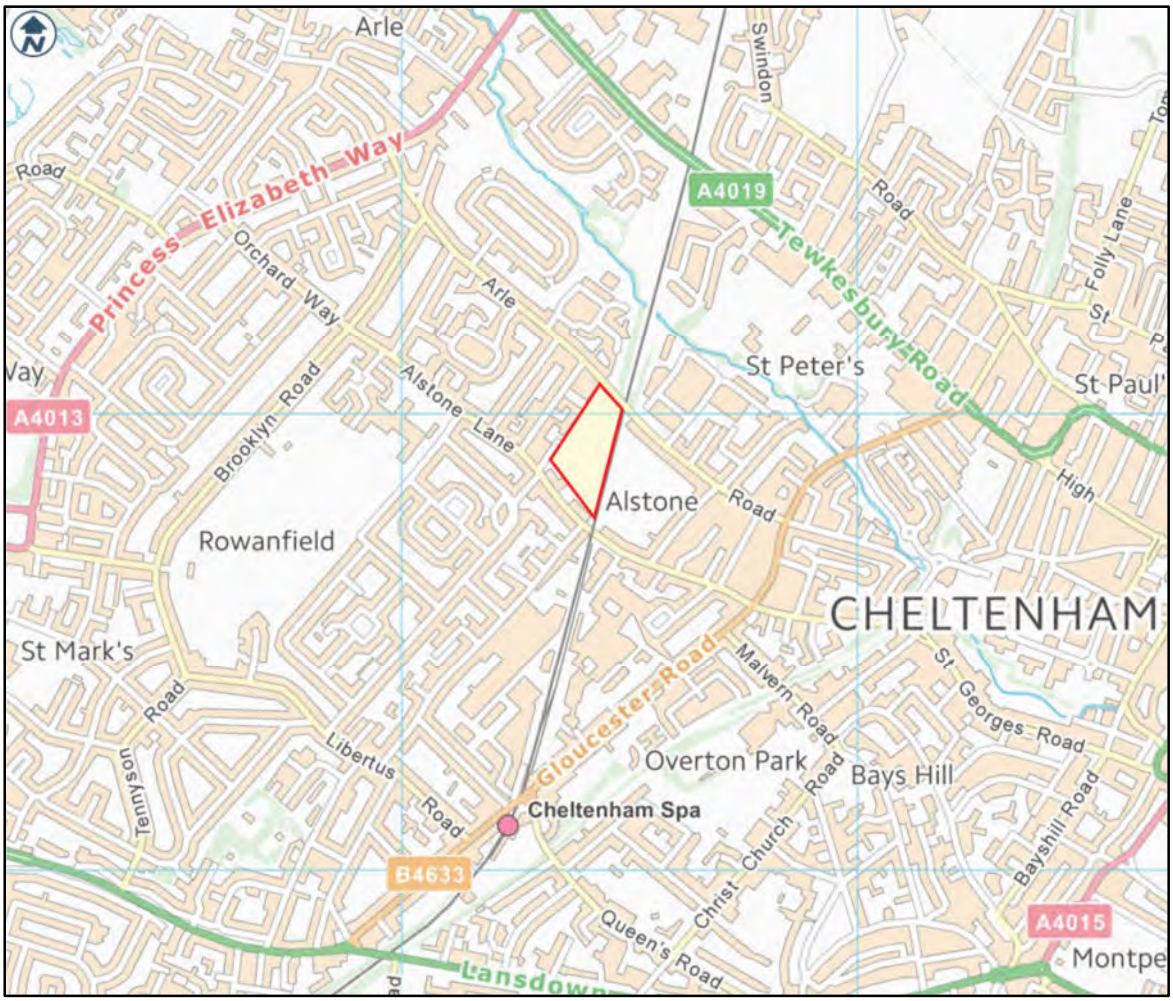

Figure 3.1 Site Location Plan

3.4 Using the GCC's Highways Rights of Way online mapping service, this confirms that there are no public rights of way crossing the site or within proximity.

Existing Traffic Data

3.5 In order to determine the speed of vehicles travelling along Arle Road, Rappor commissioned an independent traffic survey company (Auto Surveys Ltd) to install two Automatic Traffic Counters (ATCs) along Arle Road, located east and west of the anticipated access location.

3.6 ATCs are undertaken using pneumatic tubes installed across the road that measure vehicles flows and traffic speed. The ATCs were installed for a 7-day period along Arle Road from Thursday 5th June to Wednesday 11th June (inclusive), outside of school holidays, in order to obtain typical flows and speeds along the road in accordance with good practice. The locations of the ATC surveys are summarised below and their location shown on **Figure 3.2**.

Site 1 – Outside No.86 Arle Road, east of the railway bridge.

Site 2 – Outside No.113 Arle Road, west of the railway bridge and existing site access.

Figure 3.2 Location of ATC Surveys – Arle Road

3.7 The results of the ATC surveys including speeds measurements, are reproduced at **Appendix B**. The results of the surveys are summarised below in **Tables 3.1 and 3.2**.

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
North-west bound	25.4	30.2
South-east bound	25.4	30.0

Table 3.1 Site 1 – East of Site Frontage (at the bridge)

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
North-west bound	23.7	29.1
South-east bound	22.9	28.2

Table 3.2 Site 2 – West of the railway bridge and existing site access

3.8 In addition to ATCs along Arle Road, traffic surveys were also undertaken along Princess Elisabeth Way (PEW) in proximity to the PEW / Arle Road junction, and along Gloucester Road, in proximity to the Gloucester Road / St John's Court / Arle Road crossroad junction. The locations of the ATCs are shown in **Figure 3.3**.

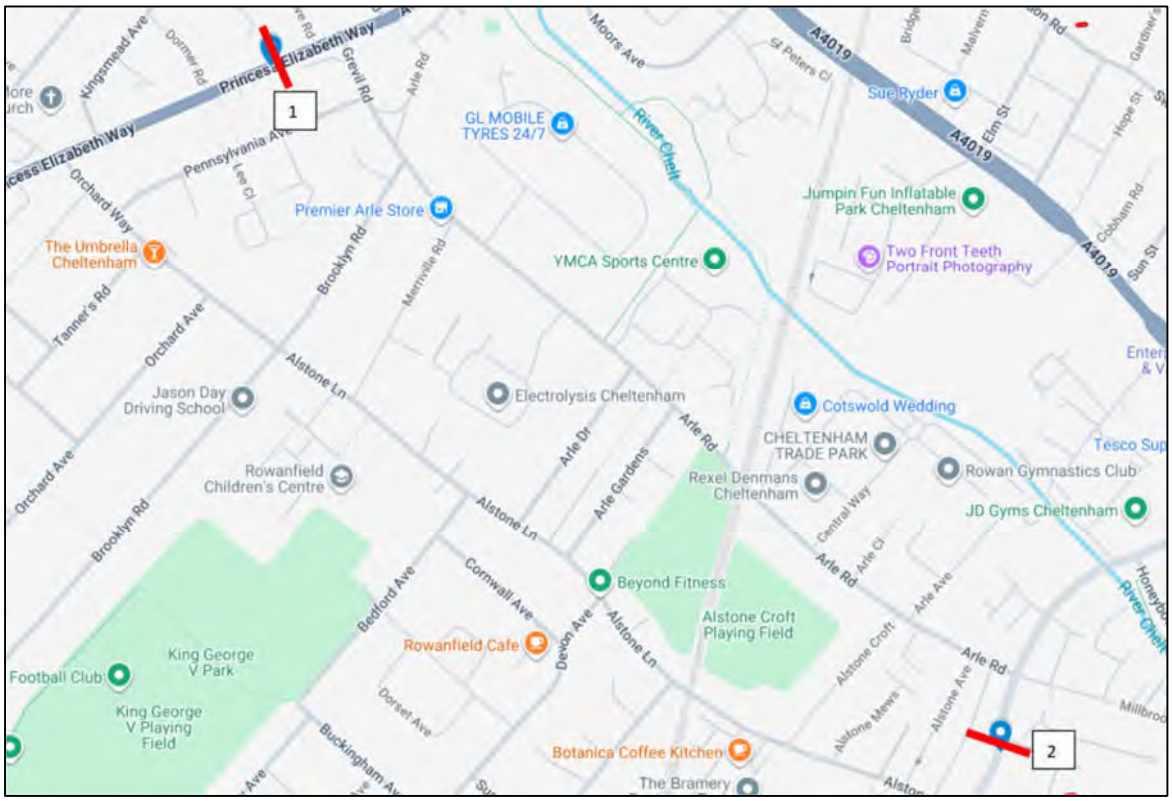

Figure 3.3 Location of ATC Surveys – PEW and Gloucester Road

3.9 The results of the ATC surveys including speeds measurements, are reproduced at **Appendix B**. The results of the surveys are summarised below in **Tables 3.3 - 3.6**.

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
Eastbound	25.2	30.7
Westbound	27.3	31.4

Table 3.3 PEW - Arle Road / PEW Junction Traffic Speeds

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
Northbound	21.8	26.3
Southbound	17.5	22.7

Table 3.4 Gloucester Road - Arle Road / Gloucester Road Junction Traffic Speeds

Peak Period Turning Traffic Flows

3.10 Furthermore, peak period turning count surveys were undertaken on Wednesday 10th September 2025, between 07:00-11:00, 14:00-19:00 to obtain the peak AM, School inter-peak and PM peak periods respectively at the following existing junctions within the study area:-

a) Site 1 – Gloucester Road B4633 (N) / St John's Court / Gloucester Road B4633 (S) / Arle Road; and

b) Site 2: PEW (E) / Grevil Road / PEW (W) / Redgrove Road.

3.11 The results of the turning count surveys at the above junctions are reproduced in **Appendix B**, which will inform the off-site traffic impact detailed in **Section 8**.

Local Highway Network

3.12 A description of the existing local road network and associated traffic flows along Arle Road are set out in the following sub sections.

Arle Road

3.13 Arle Road is a two-way residential road with footpaths along both sides of the carriageway and appropriate street lighting along its length. Cyclists are accommodated within the carriageway. A photo of Arle Road is shown below in **Figure 3.4**.

Figure 3.4 Photograph showing Arle Road

3.14 Arle Road is subject to a speed limit of 30mph and there are speed humps located intermittently along the road. The road runs in an east / west direction. To the west it connects to PEW via a priority junction arrangement. To the east, the road continues within a residential area.

3.15 There is no parking located on the kerbside of the road, residential developments have appropriate driveways.

Arle Road crosses the railway line over a bridge, however, there is no weight limit.

3.16 Based on the results of the ATC survey conducted along Arle Road to the east of the railway bridge, approximately 75m east of the existing site access, the recorded average weekday traffic flows were 2,331 vehicles northwest bound and 3,709 vehicles southeast bound. This location had an average seven-day speed of 25.4mph northwest bound and 25.4mph southeast bound and recorded 85th percentile speeds of 30.2mph northwest bound and 30.0mph southeast bound.

3.17 Based on the results of the ATC survey conducted along Arle Road to the west of the railway bridge, approximately 35m west of the existing site access, the recorded average weekday traffic flows were 2,418 vehicles northwest bound and 3,667 vehicles southeast bound. This location had an average seven-day speed of 23.7mph northwest bound and 22.9mph southeast bound and recorded 85th percentile speeds of 29.1mph northwest bound and 28.2mph southeast bound.

Alstone Lane

3.18 Alstone Lane is a two-way carriageway subject to a 30mph speed limit. There are footpaths located on both sides of the carriageway with appropriate street lighting. Cyclists are accommodated within the carriageway.

3.19 Alstone Lane runs in an east / west direction. To the east, it continues within a residential area, and to the west it connects to the PEW via a priority junction arrangement.

3.20 Alstone Lane crosses the railway line via a signalised level crossing, which results in queueing vehicles in both directions throughout the day.

Bryanstone Close

3.21 Bryanstone Close is a residential road of approximately 4.6m with, which provides access to 6no. residential houses and 16no. garages associated with residential properties in the local area. A photo of Bryanstone Close is shown below in **Figure 3.5**.

Figure 3.5 Photograph showing Bryanstone Close

3.22 It is a 'no through road' with a turning space located at it's most northern point. The road runs in a north/south direction, and it purely to allow residents access to their properties, and for student access to the Altus School (St George's Centre) Pupil Referral Unit.

3.23 Bryanstone Close joins onto Alstone Lane via a priority junction. Alstone Lane provides links to Gloucester and Cheltenham as explained above.

3.24 Bryanstone Close is subject to a 30mph speed limit and has a footway running along the western side only. Along the eastern side is a grass verge. Appropriate street lighting is present along its length.

Local Highway Safety

3.25 To determine whether there are any existing highway safety issues within the vicinity of the site, Personal Injury Collision (PIC) data has been obtained from GCC for the period 1st August 2020 – 31st July 2025.

3.26 The area under review is illustrated within **Figure 3.6**.

Figure 3.6 PIC Study Area

3.27 The report identified that within the most recent five-year period of personal injury collision (PIC) data available to July 2025, within the review area outlined above, there have been seven recorded PICs, 4 slight, 1 less serious, 1 moderately serious, and 1 very serious, resulting in a total of 7 casualties. The full detailed collision report and plot of incident locations are at **Appendix C**, with a summary provided with **Table 3.5**.

GCC Ref	Date	Location	No. of vehicles / no. of casualties	Severity	Weather / Surface	Non-motorised user involvement
20999081	10.11.20	Gloucester Road / Arle Road / St John's Court junction	2 / 1	Slight	Fine / Dry	1 Pedal Cyclist
211109219	11.11.21	Grevil Road / Brooklyn Road junction	2 / 1	Slight	Fine / Damp	1 Pedal Cyclist
231367423	26.10.23	Grevil Road / PEW junction	2 / 1	Slight	Fine / Dry	No
241517936	03.01.24	Grevil Road / PEW junction	2 / 1	Less Serious	Fine / Dry	No
241436129	26.04.24	Grevil Road / PEW junction	3 / 1	Slight	Fine / Dry	No
241443093	15.05.24	PEW / Kingsmead Road junction	2 / 1	Very Serious	Fine / Dry	No
251544543	20.01.25	Arle Road / Arle Gardens	2 / 1	Moderately Serious	Fine / Wet	No

Table 3.5 PIC Summary

Summary

3.28 The PIC analysis determines that no PICs have been recorded within 400m of the site within the most recent 5-year period available.

3.29 A record of seven collisions across the entire study area in the study period suggests there are no discernible patterns of highway safety concern within the vicinity of the site, and is commensurate with local roads of this type. The sporadic nature of the PICs and that they each occur at different times of day, demonstrates that there is no pattern of highway safety issues nor any inherent geometric fault with the local highway network.

3.30 Therefore, it is concluded that there are no existing safety issues on the local highway network that could be exacerbated by the proposed school.

4 Site Accessibility and Opportunities for Sustainable Travel

4.1 To ensure that the proposed school can operate sustainably in terms of minimising the overall level of daily vehicular trips to and from the site, particularly single-occupancy vehicle trips, it is necessary to identify what local services and amenities are located nearby. Furthermore, it is also important to review what sustainable travel opportunities are present to enable future staff and visitors to choose sustainable alternatives.

Walking and Cycling

Walking

4.2 Paragraph 4.4.1 of Manual for Streets (MfS) states that walkable neighbourhoods are typically characterised as having a range of facilities within 10 minutes walking distance (around 800m). However, it states that this is not an upper limit, and that walking offers the greatest potential to replace short car trips, particularly those under 2km.

4.3 The IHT guidance document 'Providing for Journeys on Foot' (published 2000) suggests an acceptable walking distance of 1km for commuting purposes and a preferred maximum walking distance of 2km.

4.4 The site is located in a residential area of Cheltenham. Therefore, within 2km of the site is a large population from which potential staff could be drawn, allowing them the opportunity to travel to work on foot.

Cycling

4.5 The Local Transport Note 1/20: Cycle Infrastructure Design, produced by the Department for Transport (DfT), states the following at paragraph 2.2.2:

> *'Two out of every three personal trips are less than five miles in length – an achievable distance to cycle for most people'.*

4.6 Cycling has the potential to substitute for short car trips, further facilitating sustainable travel, particularly those trips under five kilometres (20 minutes) and trips of 30-40 minutes are considered acceptable for commuting purposes. The increasing affordability and accessibility of electric bikes has increased the propensity to cycle, reduced journey times and has increased the ease with which cyclists can make further trips.

4.7 Given the nature and geometry of the immediate local highway network, it is likely suitable for experienced cyclists to travel along the carriageway.

4.8 Within 8km of the site is the area of Cheltenham, providing a large population of potential staff for whom it would be feasible to commute by cycle.

4.9 The 'Propensity to Cycle' (PCT) tool (www.pct.bike) is based on Census 2011 data and demonstrates the percentage of commuting trips made by cycling for each census Middle Super Output Area (MSOA). The PCT tool indicates that 8% of commuters in Cheltenham 007, the MSOA within which the site is located, travel to work by cycling, above average with the Gloucestershire average of 4%.

Proximity to Local Services, Facilities and Amenities

4.10 The site is located within the northwestern extent of Cheltenham Town Centre. Cheltenham Town Centre and the numerous amenities located therein is located approximately 2km from the site, which is approximately a 25-minute walk or an 8-minute cycle.

4.11 A summary of key services and amenities within the vicinity of the site is provided below, which can each be accessed within 2km for commuting purposes or during a lunch break, for example:

a) Cheltenham Trade Park Bus Stops
b) Botanica Coffee Kitchen
c) Rowanfield Café
d) Rowanfield Convenience Store
e) Waitrose Store
f) Cheltenham Coach Station
g) Cheltenham Spa Railway Station.

Department for Transport Walking Route Audit Tool

4.12 To support the assertion that there is a good level of accessibility from the site, a DfT Walking Route Audit Tool (WRAT) has been undertaken for the extent of Arle Road between the Grevil Road / Princess Elizabeth Way junction to the northwest, to the Gloucester Road / St John's Court / Arle Road signalised junction to the southeast.

4.13 The primary function of the WRAT is to assess the current condition and suitability of a walking route. It uses a range of criteria to assess how well a route meets the core design outcomes, with scoring ranging between 2 (the highest) and 0 (the lowest).

4.14 The criteria are:

a) Attractiveness;
b) Comfort;
c) Directness;
d) Safety;
e) Coherence.

4.15 A score of 70% is regarded as minimum level of provision, with scores less than this and factors that are scored 0 being used to identify where improvements would improve accessibility.

4.16 A map indicating the assessed routes is attached at **Appendix D**, with the detailed audit tool also attached at **Appendix D**. A summary of the performance scores of the route is summarised in **Table 4.1**. The document attached at **Appendix D** also illustrates photographs undertaken during the site visit on Wednesday 8th October 2025.

Criterion	Performance Scores
Attractiveness	3 / 6
Comfort	10/12
Directness	10/10
Safety	6/6
Coherence	0/2
Percentage	81%

Table 4.1 Summary of DfT Walking Audit Tool

4.17 As **Table 4.1** suggests, there are areas for improvement along the route, with the route specifically requiring an improvement in 'coherence'. The route scored '0' in coherence due to either the absence of a pedestrian crossing or the provision of a dropped-kerb crossing with no tactile paving. Nevertheless, the overall route scored 81%, which suggests that the route does meet the 'minimal level of provision' as set out by the WRAT.

4.18 Notwithstanding this, the following actions are proposed to be provided as part of the development proposals to enhance the accessibility of Arle Road for both existing locals and future staff / pupils / visitors of the school:

a) Tactile paving will be provided at the following junctions:

- Arle Road / Alstone Avenue
- Arle Road / Alstone Croft
- Arle Road / Arle Gardens
- Arle Road / Arle Drive
- Arle Road / Merriville Road
- Arle Road / Brooklyn Gardens
- Arle Road / Central Way
- Arle Road / Arle Close
- Arle Road / Arle Avenue

b) Provision of pedestrian crossing is to be investigated across Grevil Road to the SE of Pennsylvania Avenue to facilitate pedestrians to the footway along southern side of Arle Road to avoid the bifurcated junction. Currently, there is no dropped kerb present, and pedestrians are required to route off the desire line in order to access suitable crossing facilities.

4.19 The document attached at **Appendix D** illustrates photographs undertaken during the site visit of the aforementioned junctions.

4.20 In summary, the local highway network is suitable to serve the development proposals as the route meets the minimal provision, however, measures are proposed as part of the application to encourage walking where possible and can be secured by an appropriately worded planning condition.

Public Transport

Bus Services

4.21 The nearest bus stops are the 'Saxon Quarter' bus stops located 120m to the northwest of the site along Arle Road. The westbound stop benefits from a flag and pole with printed timetable information and on-carriageway CAGE markings. The eastbound stop benefits from a shelter with seating, flag, and printed timetable information. These stops serve the A bus route between Cheltenham and Arle Court Park & Ride 7 days a week. On weekdays, services run between 05:50 – 01:10, every 10-20 minutes. The detailed timetable in formation is attached at **Appendix E**.

4.22 The 'Saxon Quarter bus stops are shown within **Figure 4.1**.

Figure 4.1 Saxon Quarter Bus Stops – Arle Road

4.23 In addition to the above, the 'Cheltenham Trade Park' bus stops are located 140m to the southeast of the site along Arle Road. The eastbound stop benefits from a shelter with seating, flag, printed timetable information, and on-carriageway CAGE markings. The westbound stop benefits from a flag and pole with printed timetable information and on-carriageway CAGE markings. These stops also serve the A bus route between Cheltenham and Arle Court Park & Ride 7 days a week. On weekdays, services run between 05:50 – 01:10, every 10 minutes. The detailed timetable in formation is attached at **Appendix E**.

4.24 The 'Cheltenham Trade Park' bus stops are shown within **Figure 4.2**.

Figure 4.2 Cheltenham Trade Park Bus Stops – Arle Road

Rail Services

4.25 Cheltenham Spa railway station is located approximately 1.5km to the south of the site, and can be accessed via a 20-minute walk or via an 8-minute cycle. The station provides direct services to Gloucester, Cardiff, , Bristol, Worcester, and London, among other destinations on-route.

Summary

4.26 In summary, the site has proximity to services and amenities, and can be accessed by several bus services. There is a good level of alternative options to private car use for future staff and visitors to the site.

5 Proposed SEND School

Proposed School

5.1 A Site Masterplan, which sets out the layout of the school building, play areas, staff parking, and drop off / pick up areas is reproduced in **Appendix F**.

5.2 The proposed school will be an 'all-through' school for up to 200 primary and secondary pupils, anticipated to open during the academic year 2027 / 28.

5.3 Pupils will range between 4-16 years old (Reception and key stages 1-4) with classes potentially organised along 'needs' rather than strict age criteria, and facilities provided to predominantly cater for ambulant children, however some children with have mobility challenges as a result of their overall complex needs.

5.4 Where pupils live locally there are opportunities for children and young people to be supported to walk to school or utilise public transport. Training and support for the development of independent travel skills will be high on the agenda for this group of pupils.

5.5 An estimate of teaching, administration and teaching assistants (Tas) has been made by GCC Educational Authority to provide a total of approximately 70 staff members who are on site throughout the day, with around 35 additional staff present for part of the day. These additional staff shall include employees such as catering staff, lunchtime assistants, caretaker, cleaning staff etc.

5.6 Of the 70 staff members, it has been assumed there will be 25 teachers to include leadership and cover teachers, around 40 TAs and approximately 5 administration staff.

5.7 The split of full time and part time staff has yet to be determined; however, it is very unlikely that all members of staff will be in attendance at the school at the same time. SEND schools can also attract visiting professionals during the day (professionals working with children) that can be drawn from a wide geographical area.

5.8 Teaching staff are likely to arrive on site from 7.15 / 7.30 and a small proportion are likely to still be on site till 17.00, although due to the working remotely after school work by staff can now be undertaken off site, and so the majority of teaching staff would finish before 17:00. TA's and Admin staff will usually arrive on site between 08:00 and 08.30 and will leave site between 15:30 and 16:30.

Proposed Access Arrangements

5.9 Vehicular access into the site will be achieved from Arle Road located to the north of the site, in the vicinity of the existing maintenance access**,** comprising a vehicle crossover - 6m wide carriageway with 0.5m service margins either side, as requested by GCC within their pre-application advice. A separate 2m wide footway is to be provided at the northwestern extent of the site.

5.10 The proposed access arrangements are demonstrated on the drawing attached at **Appendix G**, which have been updated following GCC's pre-application response.

5.11 Swept path analysis of the proposed site access, demonstrating that an estate car, emergency vehicle, 12m Coach, and refuse vehicle can safely access and egress the site is contained in **Appendix G**.

5.12 In accordance with GCC School Safety Zone Guidance (April 2013), the proposed access arrangement shall include an advisory 20 mph school safety zone, as shown Rappor Drawing ref: 250619-TP- 6000 P01 (**Appendix H**), located along Arle Road in order to slow vehicle approach speeds in light of the proposed access and associated vehicles turning into and out of the school access. The school safety zone shall include the following measures to reduce vehicle speeds on approach:-

- Installation of a set of proposed speeds cushions located in between the two sets of existing speed cushions. Resulting in a total of 3 x sets of speeds cushions within the School Safety Zone. The proposed speed cushions are located 25m to the west of the wall adjacent the northern side of Arle Road, which is in accordance with LTN 01/07 paragraph 4.1.10, that states:

  "Other than in 20 mph zones, road humps must not be constructed on any bridge, subway, culvert, inside a tunnel or within 25 metres of any of these structures on the same carriageway or within 20 metres of a railway crossing. This requirement is to ensure that structural damage does not arise from vehicle impact or increased impact loading."

  The implementation of speed cushions along Arle Road are an effective measure to reduce vehicle speeds to approximately 20mph, in accordance with Table 4.3 of LTN 01/07, as the speed cushions are spaced c. 70m apart, which would result in an 'after' speed of around 15-16mph.

- Flashing School Signage (Wig Wags) located at either end of the School Safety Zone, in accordance with Traffic Signs Manual Chapter 4 Figure 8-12, in order to reinforce the safety zone message.

- Coloured Road Markings with SLOW lettering, located at either end of the School Safety Zone.

- School Mandatory Keep Clear / No Stopping Zig Zags, with on–street parking retained outside of the zone on the same side of road as the school. This has been designed in accordance with the Traffic Signs Manual Drawing Schedule 7 P1027.1 (Traffic Sign Drawing - Schedule 7 - P1027.1) and measures 25,560mm in length.

Visibility Assessment

5.13 Any new vehicle access and road junction should be reviewed and justified as being safe and suitable, so that there will be no highway safety issue arising from the operation of a new vehicular access.

5.14 The junction visibility splays and forward visibility for turning vehicles is shown on drawings 250619-TP-3200 P01. Visibility of 24.3m to the west has been based on the proposed school safety zone and advisory 20 mph proposed speed limit measured to a 600mm offset from the kerb, taking to account a deceleration rate visibility parameters of 3.68m/s, and a reaction time of 1.5 seconds have been applied as appropriate, in accordance with MfS2 to account for a bus travelling along Arle Road.

5.15 Visibility of 41.6m is available to the west measured to the centre line of Arle Road where any vehicle overtaking at this point would be seen, this distance is almost double the requirement for a 20mph speed limit. To the east the maximum visibility splay measured to a 600mm offset from the kerb is 67.8m which is nearly three times the requirement for a 20mph speed limit.

5.16 The drawing attached at **Appendix G** demonstrates that these visibility splays are achievable within the extent of the site and the adjacent adopted highway. The highway boundary data is attached at **Appendix I**.

5.17 The vertical visibility drawing at **Appendix J** demonstrates that there is a maximum achievable visibility for a vehicle approaching the junction from the east of 81.2m from 600mm – 2m above ground level, which is a suitable stopping distance for a vehicle travelling at speeds up to 40 mph**.**

Car, Servicing and Minibus – Swept Path Analysis

5.18 All servicing and refuse storage provision will be provided on-site. A separate bin storage is provided for servicing. Outside of the drop off and pick up periods the drop off area shall be utilised for visitors and deliveries if required. This shall enable refuse collection and catering to access the site without interfering with internal vehicle manoeuvres around the internal car park / loop road.

5.19 Swept path analysis demonstrating the suitability of the internal layout to enable an 8.17m refuse vehicle, a minibus, and standard cars/taxis to access / egress Arle Road, manoeuvre internally, has been undertaken as shown on Rappor Drawings reproduced at **Appendix K**.

Emergency and Maintenance Vehicles – Swept Path Analysis

5.20 In order to ensure that emergency service vehicles and maintenance vehicles will be able to access the play areas / rear of the school, a maintenance access road located to the southwest of the school onto Bryanstone Close is proposed. Swept path analysis demonstrating that a fire tender is able to access the rear of the site from Bryanstone Close and along the maintenance access is shown on Rappor Drawing reproduced at **Appendix K**.

5.21 Separate bin storage areas have been provided within the site, which do not conflict with any proposed parking spaces, and the swept path analysis of the refuse demonstrates that the internal road has sufficient with to accommodate a large refuse vehicle.

5.22 Overall, the application site access arrangements are safe and suitable in accordance with Paragraph 114 of the NPPF.

Internal Drop off / Pick Arrangements

5.23 The internal drop and pick arrangements at the proposed school are key to the safe operation of arrival and departures of pupils to /from the area. Given the specialised needs of the school children attending the site, there will be close supervision at all times at the start and end of the school day, and transport drop off and pickups will be carefully managed by the school.

5.24 Given the estimated number of vehicle trips (predominantly contracted taxi's, mini buses and a small proportion of parents) it is proposed to ensure that all vehicles arrive on site no earlier than 15 minutes before school start and end time and are held within the school grounds until such a time that an indication is given (i.e. a school bell or alarm) and then all children are permitted to exit or enter the vehicles and are either escorted to /from the school, or in the case of some of the older pupils, may be given the opportunity to walk to and from their vehicle to /from the school door unaided to promote independence. This method has been observed in practice at Belmont School in Cheltenham and is shown to operate in a safe and very efficient manner, such that no vehicles are queueing back out of the school onto the surrounding roads at any time. This also replicates the proposal that has been recently approved for a new 200-pupil SEND school located to the southeast of The Wheatridge East, Gloucester (Planning Reference: 24/0033/GLR3MJ).

5.25 In summary the process of drop off and pick will be as follows:-

Step 1 - Taxis/mini buses will arrive at the site between 8:30 and 8.45 and slowly fill up the internal loop road / car park, side by side.
Step 2 - Once in, all engines will be turned off and school gates will be shut. No vehicle movements shall take place.
Step 3 - Signal given for all pupils to disembark vehicles, aided and marshalled by Staff to enter school.
Step 4 - Once all pupils are in the school, it is then secured to allow no pupils to exit.
Step 5 - Signal given to turn vehicle engines on and the school gates will open.
Step 6 - Taxis/mini buses will be permitted to leave marshalled in a staggered orderly manner to disperse vehicles onto the local highway, avoiding platoons of vehicles.

5.26 Management of the car park will be the responsibility of the school. A car park management plan to be taken forward by the school shall be prepared following planning approval and prior to occupation and setting out the roles and responsibly of staff and the procedures to be undertaken to maintain the safe drop off and pick of pupils.

5.27 The internal drop off and pick up loop road / car park shall be designed to provide sufficient storage area for up to 80 vehicles (based on 6 metre average queueing length) which is based on the predicted number of vehicles entering the site at the start and end of the school day for pupil drop off / pick up. The internal loop road / car park shall therefore comprise a minimum of 6m width sufficient to store two cars alongside each other.

5.28 The proposed car park to the north comprising a minimum of 80 parking spaces is to solely be used by teaching, administrative staff and visitors, and all vehicle movements associated with this area shall not take place at the same time as pupil drop off / pick up times. Outside of pick up and drop off times the drop off bay can then also be used for visitor parking, therefore increasing the overall amount of onsite parking as required.

Staff Parking Provision

5.29 Given the specialised nature of the work catered for in special schools, it is found that teaching staff and TAs in special schools can be drawn from a wide geographical area, and they are likely to drive in, unlike TAs in mainstream schools which are often situated in the local area.

5.30 The vehicle parking has therefore been based on the forecast worst case staff vehicle trips associated with all full-time staff. It is therefore forecast that a total of up to 75 staff shall travel to the site by car. On this basis, 80 car parking spaces have been provided of which five disabled / accessible parking bays shall be provided in accordance with MfGS for a car park with 51 - 200 spaces along with 5 visitor parking spaces.

5.31 MfGS requires a total of 3 spaces plus 3% of the total car park provision is allocated to accessible parking spaces. Given the total 75 standard spaces, it is proposed to provide 5 disabled spaces located close to the main school entrance. Additional spaces suitable for disabled parking are also provided in the form of visitor drop off spaces located directly outside the school.

5.32 MfGS sets out that initially 5% of the total parking spaces should be provided with Electric Vehicle Charing Points (EVCP) with a further 5% provided at an agreed upon trigger but no later than three years from the first opening. On this basis, a total provision of 8 EVCP spaces will be provided on site from the offset. It is proposed that one of the disabled spaces shall be equipped with EVCP.

5.33 A total of 8 motorcycle spaces shall also be provided based on the ratio of 1 motorcycle spaces per 10 car parking spaces as set out in MfGS.

5.34 The car parking provision is considered suitable to account for the forecast trips associated with the staff likely to be on site at any one-time including visitors.

Cycle Parking

5.35 Cycle parking spaces for staff, visitors and potentially pupils shall be provided in accordance with MfGS guidance as stated in the Manual for Gloucestershire Streets Addendum dated October 2021 that refers to LTN 1/20 Guidance. Lockers for staff shall also be incorporated into the masterplan proposals. Based on the Guidance within LTN 1/20 it is anticipated that a minimum of 4 cycle spaces would be required at a ratio of 1 space per 20 staff. LTN 1/20 also advises 1 cycle parking space per 10 pupils but due to the complex needs of the students an additional 4 cycle parking spaces are proposed should any students be supported for cycling to school. There is suitable space within the site so that the cycle parking area could be expanded from the proposed 8 cycle parking spaces if required and more pupils are supported to cycle.

Stage 1 Road Safety Audit

5.36 A Stage 1 Road Safety Audit (RSA 1) will be commissioned post-planning to ensure that an independent safety review of the access arrangements and off site works within the public highway has been undertaken to provide to the developer, designer and GCC. A brief is attached at **Appendix L** to agree with GCC prior to undertaking.

Summary

5.37 The internal drop and pick arrangements at the proposed school are key to the safe operation of arrival and departures of pupils to / from the area.

5.38 Given the specialised needs of the school children attending the site, there will be close supervision at all times at the start and end of the school day, and transport drop off and pick ups will be carefully managed by the school. The internal drop off and pick up loop road / car park provides sufficient storage area for up to 80 vehicles (based on 6 metre average queueing length) which is based on the predicted number of vehicles entering the site at the start and end of the school day for pupil drop off / pick up.

5.39 The access arrangements and the internal layout have been demonstrated as suitable to accommodate the proposed number of vehicular trips and development traffic.

5.40 Cycle parking will be provided in accordance with the requirements of the proposed school and with understanding to the specialised needs of the school children attending the site. Car parking has been provided based on the forecast staff demand in accordance with MfGS, and will not result in any staff parking external to the school.

5.41 Overall, the access and internal layout of the site is safe and suitable for all users, in accordance with guidance provided in the NPPF.

6 Forecast Pupil and Staff Trip Attraction

Forecast Pupil Trip Attraction

6.1 The forecast trip attraction for both the 200 pupils and 105 staff (both fulltime and part time) which the school is expected to accommodate has been considered.

6.2 It is anticipated that the proposed school day for the school will start at around 09:00 AM and finish around 15:00 PM, and given the specialised nature of the school, no pupils are expected to travel to / from the school by any means other than vehicular transport for the purposes of this analysis, which is very much a 'worse case' scenario. In determining the operational hours of the school we have taken care to consider the start and finish times of other schools in the local area to avoid selecting similar start and finish times to assist with reducing the overall impact of school traffic in the local area.

6.3 Pupil trip rates by vehicle type have been determined in **Tables 6.1** to **6.5**. Average pupil occupancy for each vehicle and modal split has been determined following discussion with GCC Education and the SEN Travel Enablement Team.

6.4 It is anticipated that 4 minibuses are to be used with an average occupancy of 8 pupils per minibus, as shown in **Table 6.1.**

Average Number of Pupils per Minibus	Number of Minibuses	Number of Pupils Transported by Minibus	Calculated Total Minibus Trips (two-way)
8	4	32	8 (4 inbound and 4 outbound)

Table 6.1 Minibus Trip Rate

6.5 It is also predicted that 32 pupils will arrive at school in Multi-Purpose Vehicles (MPVs), with an average of 4 pupils per MPV, as shown in **Table 6.2**.

Average Number of Pupils per MPV	Vehicular Trip Rate per Pupil (two-way)	Number of Pupils Transported by MPV	Calculated Total MPV Trips (two-way)
4	0.5	32	16 (8 inbound and 8 outbound)

Table 6.2 MPV Trip Rate

6.6 For the pupils arriving by taxi, a taxi occupancy rate of 2.7 pupils per taxi has been used to calculate the trip rate, as demonstrated in **Table 6.3**.

Average Number of Pupils per Taxi	Vehicular Trip Rate per Pupil (two-way)	Number of Pupils Transported by Taxi	Calculated Total Taxi Trips (two-way)
2.7	0.74	121	90 (45 inbound and 45 outbound)

Table 6.3 Taxi Trip Rate

6.7 Additionally, based on previous discussions with GCC it is predicted that 15 pupils (8%) may not qualify for GCC-provided transport and being within a 3-mile distance from the school (unless approved through an appeals process), and will therefore be driven to school by a parent or guardian whilst these pupils will be supported to lift share, on a worst case scenario the number of parent vehicle trips are shown in **Table 6.4.**

Average Number of Pupils per Parent Vehicle	Number of Pupils Transported by Parents	Calculated Total Parent Vehicle Trips (two-way)
1	15	30 (15 inbound and 15 outbound)

Table 6.4 Parent Vehicle Trip Rate

6.8 Where pupils live locally there are opportunities for children and young people to be supported to walk to school or utilise public transport. Training and support for the development of independent travel skills will be high on the agenda for this group of pupils, however for the purpose of the Transport Assessment it is assumed that there will be no walking or cycling trips made by pupils to represent a worse case capacity analysis.

6.9 **Table 6.5** summarises the total pupil trip attraction to the school.

Mode	Number of Pupils	Inbound Trips	Outbound Trips	Number of Vehicular Trips (two-way)
Minibus	32	4	4	8
MPV	32	8	8	16
Taxi	121	45	45	90
Parent Vehicle	15	15	15	30
Walk/Cycle	0	0	0	0
Total	**200**	**72**	**72**	**144**

Table 6.5 Pupil Forecast Vehicular Trip Attraction

6.10 **Table 6.5** demonstrates that 144 pupil vehicular trips (72 inbound and 72 outbound) are expected in each school peak hour. Pupils are expected to arrive over an approximately 30-period between 08:30-09:00 and leave between 15:00 to 16:00, with vehicles arriving after 14:45.

6.11 It should also be noted that pupil absenteeism is likely to reduce the pupil forecast vehicle trips, it is not proposed to adjust the pupil forecast vehicle trip attraction for the purposes of this assessment, but it should be noted that this could reduce the vehicle trip attraction.

6.12 It is also confirmed that the school will not run any after school activities for external uses (i.e. use of the MUGA etc), therefore trips relating to the school shall only be associated with use by pupils attending the school.

Forecast Staff Trip Attraction

6.13 Of the staff at the school, it is predicted that approximately 70 staff will be full-time employed and 35 will be part-time employed.

6.14 The 70 full-time staff are expected to follow the commuting patterns described in **Table 6.6** below, assuming a worse case prediction that all staff will travel to and from the school by private motor car.

6.15 The 35 part-time staff are expected to work sporadically, arriving and departing during the school day, outside of the school peak hours. As such, they are unlikely to affect peak travel flows and have been excluded from the vehicle trips assessment.

6.16 Based on other similar special schools in the county and the recently approved scheme at Wheatridge East (Gloucester) (Planning Reference: 24/0033/GLR3MJ), a proportion of full time staff (50% of the total 70 full time staff) will arrive before 08:00, with the majority of TAs and admin staff (the remaining 50% of the total 70 full time staff) arriving between 08:00-08:30, ahead of the pupil arrivals. A staggered departure of staff from the school is also expected in the afternoons, with staff starting to depart from the end of school after 15:00, and the final staff departing before 18:00. Staff departures have been assigned equally between 15:00-16:00, 16:00-17:00, and 17:00-18:00. A summary of the forecast staff trips is provided in **Table 6.6.**

Peak Period	Inbound Trips	Outbound Trips	Number of Vehicular Trips
07:00 – 08:00	35	0	35
08:00 – 08:30	35	0	35
08:30 – 09:00	0	0	0
15:00 – 15:30	0	0	0
15:30 – 16:00	0	23	23
16:00 – 17:00	0	24	24
17:00 – 18:00	0	23	23

Table 6.6 Staff Forecast Vehicular Trip Attraction by time period

Combined Pupil and Staff Vehicular Trip Attraction

6.17 A summary of the estimated combined vehicle trip attraction for both pupils as demonstrated in **Table 6.5** and staff as demonstrated in **Table 6.6** is provided below in **Table 6.7**.

Peak Period	Inbound Trips	Outbound Trips	Number of Vehicular Trips
07:00 – 08:00	35	0	35
08:00 – 08:30	35	0	35
08:30 – 09:00	72	0	72
09:00 – 09:30	0	72	72
14:00 - 15:00	72	0	72
15:00 – 16:00	0	95	95
16:00 – 17:00	0	24	24
17:00 – 18:00	0	23	23

Table 6.7 Combined Pupil and Staff Trip Attraction by time period

6.18 **Table 6.7** demonstrates that the school is forecast to attract 107 vehicle trips in the total AM peak period (08:00-09:00), consisting of 35 staff (35 inbound and 0 outbound) related vehicles trips between 08:00-08:30 and 72 pupil related trips (72 inbound and 0 outbound) between 08:30-09:00. In the Inter-school peak period (15:00-16:00) there will be a total of 95 vehicles trips, consisting of 23 staff related vehicles trips (0 inbound and 23 outbound) between 15:30-16:00 and 72 pupil related trips (0 inbound and 72 outbound) between 15:00-15:30. In the network PM Peak period (17:00-18:00) there will be a total of 23 staff related vehicle trips only (0 inbound and 23 outbound).

7 Vehicle Trip Distribution and Assignment

Vehicle Trip Distribution

7.1 The distribution patterns of the forecast vehicle trips generated by both pupils and staff of the proposed school have been considered in this section.

Pupil Distribution

7.2 The proposed school is to accommodate a total 200 pupils with the catchment area confirmed. Whilst this is a county wide provision, there are already schools of this type in Tewkesbury, Stroud and from 2026, in Gloucester. It is therefore anticipated that pupils will be drawn from Cheltenham and the immediate surrounding areas.

7.3 Based on this, the Usual Residents Population Census 2011 data from the key populous areas within Gloucestershire, including Gloucester, Cheltenham, Stroud, Cotswold, Tewkesbury and Forest of Dean has been obtained to identify the most likely areas where pupils will be traveling from and at what proportion. The raw Residents Population Census 2011 data is provided at **Appendix M** and summarised at **Table 7.1**.

Key Areas	Usual Residents Population (Census 2011 Data)	Percentage
Gloucester	121,688	20.4%
Cheltenham	115,732	19.4%
Stroud	112,779	18.9%
Cotswold	82,881	13.9%
Tewkesbury	81,943	13.7%
Forest of Dean	81,961	13.7%
Total	**596,984**	**100%**

Table 7.1 Summary of Residents Population Census 2011 Data Within Key Areas of Gloucestershire

7.4 The resident population proportions of each of the key areas within Gloucestershire, identified within **Table 7.1**, have been used as the proportions for the distribution pattern of pupil vehicle trips attracted by the proposed school.

7.5 In order to assign the trips to the local highway network, the quickest route via Google Maps, from the residential centre of each key area to the site have been assessed, which allows for each route to the site to be allocated a number of daily trips, which can then be converted into a percentage distribution of traffic on the highway network surrounding the application site.

7.6 The trips have been assigned based on the quickest / shortest route to and from the proposed school. Where multiple routes are equally fast / short, multiple routes have been assigned to each key area. It has been assumed that 20% of trips travelling along Route A will use either Pennsylvania Avenue and / or Brooklyn Road in order to gain access to/from A40 and M5 (J10).

7.7 **Table 7.2** below describes the routes taken, and the percentage of Gloucestershire's population assigned to each route based on the Google Maps and the population data provided in **Table 7.1** above.

Key Areas	Route
Gloucester	A
Cheltenham	C
Stroud	A
Cotswold	C
Tewkesbury	B
Forest of Dean	A

Table 7.2 Key Areas and Anticipated Route to / from Proposed School

Route	Route Description	Percentage
A	Left out of site onto Arle Road, left onto Princess Elisabeth Way to /from A40 and M5 (J10)	42.4%
	Left out of Site onto Arle Road, and left onto either Pennsylvania Avenue or Brooklyn Road to /from A40 and M5 (J10)	10.6%
B	Left out of site onto Arle Road, right onto Princess Elisabeth Way to /from A4019 and M5 (J11)	13.7%
C	Right out of site onto Arle Road, right onto B4633 at Signal Junction	16.7%
	Right out of site onto Arle Road, left onto B4633 at Signal Junction	16.6%
Total	-	**100.0%**

Table 7.3 Pupil Routing

7.8 The data provided within **Tables 7.1, 7.2 and 7.3** determines the distribution pattern and assignment of the pupil trips of the proposed school.

7.9 The routes in **Table 7.3** routes are in the school-to-home direction, and are therefore representative of the afternoon trips from the site. It is considered that the routes are reversible, so that the same route is taken in reverse for the home-to-school morning trips. This is acceptable due to the low proliferation of one-way roads or other road features that could materially change a route based on direction of travel.

Staff Distribution

7.10 The distribution pattern for the staff vehicle trips has been based on the 2011 Census Method of Travel to Work data, which has been extracted from Nomis (Office of National Statistics).

7.11 The car driver method of travel to work from the census data has been used to distribute traffic across the local highway network.

7.12 The proposed school site is situated within the Middle Super Output Area (MSOA) of Cheltenham 007. The census data identifies the origin Middle Super Output Areas of people that work within Cheltenham 007.

7.13 All Middle Super Output Areas from which 6 or more people travel to work by car in Cheltenham 007 are listed below in **Table 7.4**.

Middle Super Output Area	Car commuters to Cheltenham 007
Cheltenham 007	130
Cheltenham 003	107
Cheltenham 013	93
Cheltenham 005	91
Cheltenham 010	89
Cheltenham 012	84
Tewkesbury 005	82
Cheltenham 001	79
Tewkesbury 001	61
Tewkesbury 007	51
Cheltenham 011	50
Cheltenham 004	48
Cheltenham 009	46
Cheltenham 008	44
Cheltenham 006	42
Tewkesbury 004	39
Tewkesbury 008	39
Cheltenham 002	36
Tewkesbury 009	31
Gloucester 007	30
Tewkesbury 003	29
Cheltenham 014	26
Cheltenham 015	25
Tewkesbury 002	24
Gloucester 015	22
Gloucester 010	21
Gloucester 001	20
Tewkesbury 006	19
Gloucester 006	16
Gloucester 003	15
Forest of Dean 001	15
Gloucester 009	15
Cotswold 004	14
Forest of Dean 004	12
Gloucester 002	12
Gloucester 008	12
Gloucester 012	12
Stroud 001	12
Gloucester 011	11
Wychavon 019	10
Stroud 010	9
Gloucester 013	9
Gloucester 005	9
Malvern Hills 011	9
Gloucester 014	8
Stroud 006	7
Stroud 007	7
Forest of Dean 002	7
Cotswold 010	7
Cotswold 003	7
Birmingham 050	6
Wychavon 018	6
Wychavon 017	6
Worcester 008	6
Herefordshire 022	6
Cotswold 005	6
Forest of Dean 005	6
Forest of Dean 008	6
Stroud 009	6

Table 7.4 Middle Super Output Area car commuters to Cheltenham 007

7.14 The staff associated distribution pattern based on the above is identified at **Table 7.4**, with the full 2011 travel to work census data for the Cheltenham 007 MSOA reproduced at **Appendix M**.

7.15 To determine routes taken to / from the school, the quickest route via Google Maps from each output area to the site has been assessed, which allows for each route to the site to be allocated a number of daily trips, which can then be converted into a percentage distribution of traffic on the highway network surrounding the application site.

7.16 For the purposes of the quickest route via Google Maps, the most centrally located residential area in each origin MSOA has been chosen as the start of the route. The regions enclosed by each MSOA were obtained from DataShine Commute (commute.datashine.org.uk).

7.17 For Cheltenham 007, the majority of the residential development of the MSOA is situated south and west of the site. Therefore, cars from Cheltenham 007 have been assigned to travel on route A.

7.18 The routes in **Table 7.5** are in the school-to-home direction, and are therefore representative of the afternoon trips from the site. It is considered that the routes are reversible, so that the same route is taken in reverse for the home-to-school morning trips.

Route	Route Description	Percentage
A	Left out of site onto Arle Road, left onto Princess Elisabeth Way to /from A40 and M5 (J10)	49.3%
B	Left out of site onto Arle Road, right onto Princess Elisabeth Way to /from A4019 and M5 (J11)	24.2%
C	Right out of site onto Arle Road, right onto B4633 at Signal Junction	26.5%
Total	**-**	**100.0%**

Table 7.5 Staff Distribution (School to home direction)

Trip Assignment

Pupil Trip Assignment to Local Highway Network

7.19 The 144 pupil forecast vehicle trips (72 inbound and 72 outbound) identified within **Table 7.5** have been calculated against the pupil routing set out in **Table 7.3** to determine the impact of these trips onto the local highway network in 15-minute intervals.

7.20 A summary of the trip assignment onto the local highway network for the pupil vehicle trips is identified at **Table 7.6**.

Hour	Route	Inbound	Outbound	Total
08:00 - 08:15	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
08:15 - 08:30	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
08:30 - 08:45	A	20	0	20
	B	5*	0	5*
	C	12	0	12
	Total	**36***	**0**	**36***
08:45 - 09:00	A	19	0	20
	B	4	0	5
	C	12	0	12
	Total	**35**	**0**	**35**
AM Total		**72**	**0**	**72**
15:00 - 15:15	A	0	20	20
	B	0	5	5
	C	0	12	12
	Total	**0**	**37**	**37**
15:15 - 15:30	A	0	19	19
	B	0	4	4
	C	0	12	12
	Total	**0**	**35**	**35**
15:30 - 15:45	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
15:45 - 16:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
Inter-peak Total		**0**	**72**	**72**
17:00 - 17:15	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
17:15 - 17:30	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**

17:30 - 17:45	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
17:45 - 18:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
PM peak total		**0**	**0**	**0**

Table 7.6 Pupil Trip Assignment onto Local Highway Network

**subject to cumulative rounding*

7.21 The 70 full-time staff forecast vehicle trips have been calculated against the staff associated distribution pattern identified in **Table 7.5** to determine the impact of these trips onto the local highway. A summary of the trip assignment for the staff vehicle trips for each time period (in 15-minute intervals) are demonstrated in **Table 7.7**.

Hour	Route	Inbound	Outbound	Total
08:00 - 08:15	A	9*	0	9*
	B	5	0	5
	C	5	0	5
	Total	**18***	**0**	**18***
08:15 - 08:30	A	9*	0	9*
	B	5	0	5
	C	5	0	5
	Total	**18***	**0**	**18***
08:30 - 08:45	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
08:45 - 09:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
AM Total		**35**	**0**	**35**
15:00 - 15:15	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
15:15 - 15:30	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
15:30 - 15:45	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
15:45 - 16:00	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
Inter-peak Total		**0**	**23***	**23***

17:00 - 17:15	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total		**0**	**6***
17:15 - 17:30	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
17:30 - 17:45	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
17:45 - 18:00	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
PM Total		**0**	**23**	**23**

Table 7.7 Staff Trip Assignment onto Local Highway Network

**Subject to cumulative rounding*

Total Development Vehicular Trip Assignment to Local Highway Network

7.22 To provide a full picture of the vehicular trips on the local highway network, the assigned pupil trips shown in **Table 7.6** and the assigned staff trips shown in **Table 7.7** have been combined. **Table 7.8** indicates the total vehicular trip assignment to the local highway network.

Hour	Route	Inbound	Outbound	Total
08:00 - 08:15	A	9*	0	9*
	B	5	0	5
	C	5	0	5
	Total	**18***	**0**	**18***
08:15 - 08:30	A	9*	0	9*
	B	5	0	5
	C	5	0	5
	Total	**18***	**0**	**18***
08:30 - 08:45	A	20	0	20
	B	5*	0	5*
	C	12	0	12
	Total	**36***	**0**	**36***
08:45 - 09:00	A	20	0	20
	B	5*	0	5*
	C	12	0	12
	Total	**36***	**0**	**36***
AM Total		**107***	**0**	**107***

15:00 - 15:15	A	0	23	23
	B	0	7*	7*
	C	0	14	14
	Total	**0**	**43***	**43***
15:15 - 15:30	A	0	22	22
	B	0	6*	6*
	C	0	14	14
	Total	**0**	**41***	**41***
15:30 - 15:45	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
15:45 - 16:00	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
Inter-peak Total		**0**	**95***	**95***
17:00 - 17:15	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total		**0**	**6***
17:15 - 17:30	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
17:30 - 17:45	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
17:45 - 18:00	A	0	3*	3*
	B	0	2	2
	C	0	2	2
	Total	**0**	**6***	**6***
PM Total		**0**	**23***	**23***

Table 7.8 Total Trip Assignment onto Local Highway Network

7.23 **Table 7.8** demonstrates that the school is forecast to generate 107 vehicle trips (107 inbound and 0 outbound) in the total AM peak period (08:00-09:00), consisting of 35 staff related vehicles trips (35 inbound and 0 outbound) between 08:00-08:30 and 72 pupil related trips (72 inbound and 0 outbound) between 08:30-09:00.

7.24 In the inter-school peak period (15:00-16:00) there will be a total of 95 vehicles trips (0 inbound and 95 outbound), consisting of 23 staff related vehicles trips (0 inbound and 23 outbound) and 72 pupil related trips (0 inbound and 72 outbound).

7.25 In the network PM Peak period (17:00-18:00) there will be a total of 23 staff related vehicle trips only (0 inbound and 23 outbound).

Route Impact Assessment

7.26 To determine the development impact on the local highway network, the forecast development trip numbers at each of the following key junctions has been assessed, which has been informed by the trip numbers set out within **Table 7.8**:

a) B4633 Gloucester Road / Arle Road / St John's Court Signalised Junction; and
b) Grevil Road / Princess Elizabeth Way / Redgrove Road Staggered Junction.

7.27 The study area above is detailed further in **Section 8**. **Table 7.9** sets out the junction and associated forecast development trip numbers during the three peak hours.

Time Period	Junction + Forecast Development Trips	
	B4633 Gloucester Road / Arle Road / St John's Court Signalised Junction	Grevil Road / Princess Elizabeth Way / Redgrove Road Staggered Junction
AM Peak 08:00 - 08:15	+5	+13
AM peak 08:15 - 08:30	+5	+13
AM peak 08:30 - 08:45	+12	+20
AM peak 08:45 - 09:00	+12	+20
AM peak 08:00 - 09:00	**+33**	**+66**
Inter-Peak 15:00 - 15:15	+14	+25
Inter-Peak 15:15 - 15:30	+13	+24
Inter-Peak 15:30 - 15:45	+2	+4
Inter-Peak 15:45 - 16:00	+2	+6
Inter-Peak 15:00 - 16:00	**+30**	**+57**
PM Peak 17:00 - 17:15	+2	+4
PM Peak 17:15 - 17:30	+2	+4
PM Peak 17:30 - 17:45	+2	+4
PM Peak 17:45 - 18:00	+2	+4
PM Peak 17:00 - 18:00	**+6**	**+17**

Table 7.9 Total Trip Assignment onto Key Local Junctions

7.28 **Table 7.9** demonstrates that with the proposed school in place, the B4633 Gloucester Road / Arle Road / St John's Court signalised junction will be subject to 33 additional trips in the AM peak with a maximum of 12 trips in one 15-minute period (08:15 – 08:30 and 08:30 - 08:45), 30 additional trips in the inter-peak with a maximum of 14 trips in one 15-minute period (15:00 – 15:15), and 6 additional trips in the PM peak with a maximum of 2 trips in one 15-minute period across the hour.

7.29 **Table 7.9** also demonstrates that with the proposed school in place, the Grevil Road / Princess Elizabeth Way / Redgrove Road staggered junction will be subject to 66 additional trips in the AM peak with a maximum of 20 trips in one 15-minute period (08:15 – 08:30 and 08:30 -08:45), 57 additional trips in the inter-peak with a maximum of 25 trips in one 15-minute period (15:00 – 15:15), and 17 additional trips in the PM peak with a maximum of 4 trips in one 15-minute period across the hour.

7.30 As these junctions will be subject to over 30 additional trips with the proposed school in place, it is deemed appropriate to model each junction to determine the impact of the development onto the local highway network.

8 Traffic Impact Assessment

Base and Future Year Scenarios

8.1 All Traffic Flow Diagrams (TFDs) for the 2025 base year and 2031 future year scenarios, are provided at **Appendix N**.

8.2 The following traffic flow scenarios have been assessed for the weekday network AM, school inter peak and PM peak hours for the following assessment scenarios, with a forecast year of 2031 based on the end of local plan period and following full occupancy of the school.

a) 2025 Base Year; year of registration of planning application;
b) 2031 Future Base Year
c) 2031 Future Base Year + Proposed school

8.3 In order to estimate future traffic conditions and determine the impact of the forecast trip generation / attraction on the local highway network, the TEMPro database (Version 8.1) has been consulted using the 'Core' Scenario. This scenario assumes that traffic increases on a yearly basis, given ongoing population growth, and does not account for changes in travel behaviour and the uptake in more sustainable modes of travel in favour of private car journeys. This assumption is considered a traditional approach to forecasting traffic conditions / impact and follows a 'predict and provide' philosophy rather than forecasting more favourable and aspirational future conditions that may be realised through commitments / measures made to increase sustainable modes of travel. Given the inherent increase in background traffic associated with any impact assessment, this is considered to inform a robust analysis and present a worst-case scenario.

8.4 The growth factors are summarised in **Table 8.1** below, based on output area 'Cheltenham Authority' area based on all road types.

Time Period	Local Growth Figure 2025 to 2031
AM Morning Peak	1.0447
Inter School Peak	1.0556
PM Evening Peak	1.0444

Table 8.1 TEMPro Local Growth Figures to 2031

Impact Analysis Study Area

8.5 Based on the trip distribution and trip assignment set out in **Section 7** and the relative impact on the local highway network shown in **Table 7.9**, traffic impact assessments have been undertaken at the following junctions, for the scenarios set out above.

a) Junction 1 - Arle Road / Proposed school access;
b) Junction 2 - B4633 Gloucester Road / Arle Road / St John's Court Signalised Junction; and
c) Junction 3 - Grevil Road / Princess Elizabeth Way / Redgrove Road Staggered Junction.

8.6 As set out within **Section 3**, ATCs and MCC have been undertaken at the following locations in order to inform the traffic impact assessments. Queueing length surveys have also been undertaken to assist in validating the base year results.

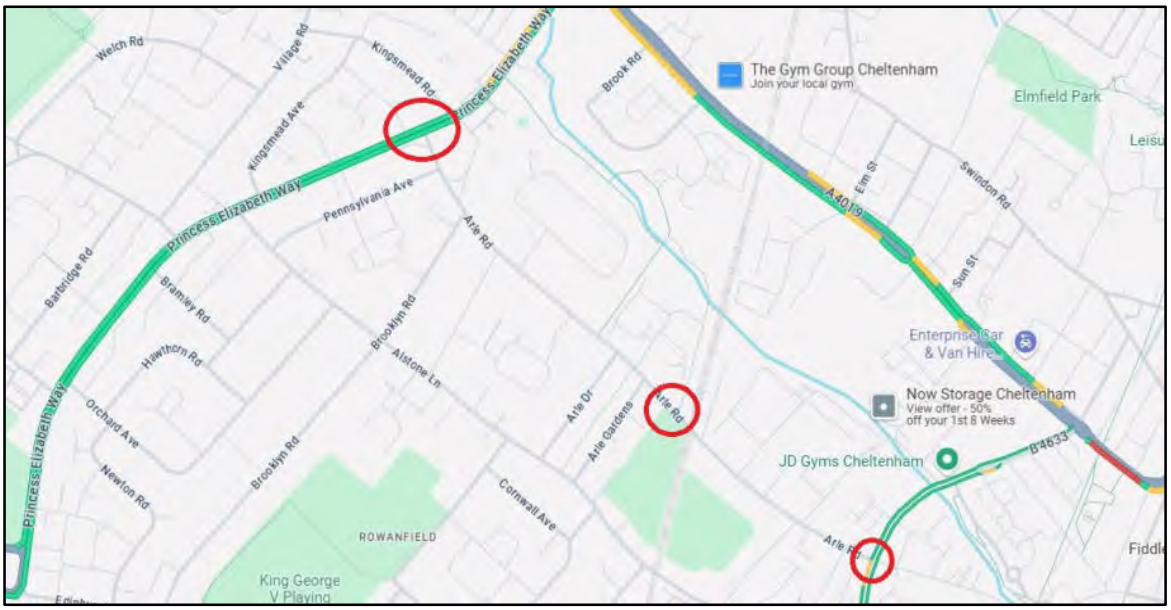

Figure 8.1 Manual Junction Count Survey Locations

Traffic Impact Assessment

8.7 The traffic impact assessment for the off-site junctions has been undertaken using both the PICADY and ARCADY modules within the TRL software package JUNCTIONS 11 and LINSIG for the signalised junction, which are considered appropriate tools to assess the impact of the proposed school.

Junction 1 - Arle Road / Proposed School Access

8.8 Given that the existing situation does not comprise a formal access into the school land and there are no existing uses within the site that give rise to daily vehicular trips, the results of the JUNCTIONS 11 PICADY model for the AM, school inter-peak and PM Peaks for the 2031 future base year + the proposed school scenario only, is presented in **Table 8.2**. The full model results for this scenario are contained in **Appendix O**.

Time Period	Stream	2031 Future Base Year + Proposed School		
		Mean Max Queue	Delay (s)	RFC
AM Peak (07:45 – 09:15)	B-AC	0.00	0.00	0.00
	C-AB	0.50	4.98	0.21
School Inter Peak (14:45 – 16:15)	B-C	0.30	8.70	0.20
	B-A	0.00	0.00	0.00
PM Peak (16:45-18:15)	B-C	0.10	7.22	0.05
	B-A	0.00	0.00	0.00

Table 8.2 Arle Road / Proposed School Access – 2031 Future Base Year + Proposed School
Arm A = Arle Road (East). Arm B = Proposed School Access. Arm C = Arle Road (West).

8.9 **Table 8.2** indicates that the Arle Road / proposed school access priority junction will operate well within capacity in the 2031 future base year + the proposed school in the AM peak, school inter-peak and PM peak periods.

8.10 In the AM, Inter and PM Peaks, the junction is forecast to have minimal queuing with a maximum RFC of 0.21 on the Arle Road (W) arm in the AM Peak hour resulting in a maximum queue of <1 vehicle.

8.11 As set out in **Section 5**, in the AM and inter-peak, it should be noted that vehicles will be slightly staggered to allow vehicles to disperse from the school access in a controlled manner to avoid vehicles arriving at local junctions in platoons.

Junction 2 Gloucester Road (N) / St John's Court / Gloucester Road (S) / Arle Road

2025 Base Year and Calibration

8.12 A LINSIG model for the 2025 Base has been produced and calibrated based on the existing signal timings provided by GCC.

8.13 The model has assessed the network in 15-minute segments across the three scenarios stated within **Paragraph 8.2** and across the following three peak hours:

a) AM – 08:00 – 09:00;
b) Inter – 15:00 – 16:00; and
c) PM – 17:00 – 18:00.

8.14 The full LINSIG model results are reproduced at **Appendix P** with the 2025 base summarised in **Table 8.3** for the most saturated 15-minute segments, which were determined to be:

a) During the AM peak hour: 08:45 – 09:00
b) During the Inter peak hour: 15:30 – 15:45; and
c) Durning PM peak hour: 17:00 – 17:15.

8.15 In the 2025 base year, across each peak hour, the junction generally operates with capacity along each arm, with only 15 to 30-minutes where the junction operates slightly over capacity on only one arm. The results for the most-saturated 15-minute period stated above has been summarised in **Table 8.3**.

Time Period	Link	Lane	2025 Base			Max Recorded Queues (Veh)
			Degree of Saturation (DoS)	Average Delay (s/PCU)	Mean Max Queue (PCU)	
AM 15 Minute Peak (08:45 – 09:00)	1/1+1/2	B4633 (S) Ahead Right Left	102.7 : 102.7%	90.1	22.6	22+
	2/1	Arle Road Left Ahead Right	71.8%	47.6	10.3	16
	3/1+3/2	B4633 (N) Left Right Ahead	81.9 : 81.9%	51.8	7.7	22+
	4/1	St Johns Court Right Ahead Left	22.2%	65.7	0.9	3
Inter 15 Minute Peak (15:30 – 15:45)	1/1+1/2	B4633 (S) Ahead Right Left	82.9 : 82.9%	53.4	14.3	22+
	2/1	Arle Road Left Ahead Right	54.1%	41.1	7.1	10
	3/1+3/2	B4633 (N) Left Right Ahead	68.7 : 68.7%	40.1	11.4	15
	4/1	St Johns Court Right Ahead Left	9.0%	62.1	0.4	1
PM Peak Hour (17:00 – 17:15)	1/1+1/2	B4633 (S) Ahead Right Left	87.4 : 87.4%	48.5	19.2	22+
	2/1	Arle Road Left Ahead Right	96.2%	86.9	12.9	13
	3/1+3/2	B4633 (N) Left Right Ahead	64.7 : 64.7%	32.8	11.2	22+
	4/1	St Johns Court Right Ahead Left	9.5%	62.9	0.4	1

Table 8.3 Summary of Calibrated 2025 Base LINSIG Assessment

8.16 **Table 8.3** indicates that the network operates over capacity on one arm in the 2025 base year during the 08:45 – 09:00 15-minute segment. The B4633 Gloucester Road (S) arm of the signalised junction is forecast to have a DoS of 102.7% during the 08:45 – 09:00 15-minute segment only, with forecast queuing of 22.6 PCU's. This results in queuing back and interaction the B4633 Gloucester Road / St George's Road / Alstone Road signalised junction during a short time period only. This is reflective of the recorded queue surveys.

8.17 Most of the arms within each junction calibrate well with the recorded queues. The majority modelled queuing resulting similar to the max recorded queue on each arm. The only significant exception is the B4633 Gloucester Road north arm of the junction. This arm underestimates queueing in both the AM and PM network peak hours and was unable to be calibrated further to be representative of the recorded queues without exceeding maximum green time within the traffic signal timings. Other factors such as interaction with other signals and / or interaction with on street parking on the B4633 Gloucester Road north arm affecting movements.

2031 Future Assessment Year

8.18 As above, the 2031 model has assessed the network across the same time periods and scenarios. The following criteria has been utilised to grade the differences in increases in queuing as a result of the proposed school from the LINSIG model.

a) **Minor Increase** (an increase in queue lengths of less than 10 vehicles)
b) **Moderate Increase** (an increase in queue lengths of between 10 and 25 vehicles)
c) **Significant Increase** (an increase in queue lengths of between 25 and 50 vehicles)
d) **Very Significant Increase** (an increase in queue lengths above 50 vehicles)

8.19 The following criteria has been utilised to grade the differences in increases in delay as a result of the proposed school from the LINSIG model.

a) **Minor Increase** (an increase in delay of less than 30 seconds)
b) **Moderate Increase** (an increase in delay of between 30 seconds and 90 seconds);
c) **Significant Increase** (an increase in delay of between 90 seconds and 180 seconds); and
d) **Very Significant Increase** (an increase in delay of over 180 seconds).

8.20 The LINSIG model results are reproduced at **Appendix P** with the 2031 future base year scenario is summarised in **Table 8.3** for the most saturated 15-minute segments, which were determined to be:

a) During the AM peak hour: 08:45 – 09:00
b) During the Inter peak hour: 15:45 – 16:00; and
c) Durning PM peak hour: 17:00 – 17:15.

8.21 In the 2031 base future year, across each peak hour, the junction generally operates with capacity along each arm, with only 15 to 30-minutes where the junction operates slightly over capacity. The results for the most-saturated 15-minute period stated above has been summarised in **Table 8.4**.

Time Period	Link	Lane	2031 Future Year		
			Degree of Saturation (DoS)	Average Delay (s/PCU)	Mean Max Queue (PCU)
AM 15 Minute Peak (08:45 – 09:00)	1/1+1/2	B4633 (S) Ahead Right Left	106.6 : 106.6%	106.6	25.4
	2/1	Arle Road Left Ahead Right	75.2%	49.5	11.2
	3/1+3/2	B4633 (N) Left Right Ahead	86.8 : 86.8%	56.2	8.8
	4/1	St Johns Court Right Ahead Left	22.2%	65.7	0.9
Inter 15 Minute Peak (15:45 – 16:00)	1/1+1/2	B4633 (S) Ahead Right Left	86.0 : 86.0%	56.5	15.1
	2/1	Arle Road Left Ahead Right	54.0%	41.0	7.1
	3/1+3/2	B4633 (N) Left Right Ahead	64.2 : 64.2%	37.5	11.1
	4/1	St Johns Court Right Ahead Left	6.7%	63.4	0.3
PM 15 minute Peak (17:00 – 17:15)	1/1+1/2	B4633 (S) Ahead Right Left	90.4 : 90.4%	51.9	20.5
	2/1	Arle Road Left Ahead Right	100.0%	94.3	14.1
	3/1+3/2	B4633 (N) Left Right Ahead	71.0 : 71.0%	35.1	12.1
	4/1	St Johns Court Right Ahead Left	9.5%	62.9	0.4

Table 8.4 Summary of 2031 Future Base Year LINSIG Assessment

8.22 **Table 8.4** indicates that the network continues to operate over or at capacity in the 2031 Base AM and PM network peak hours during short time periods only. The B4633 Gloucester Road (S) arm is forecast to continue to operate over capacity in the AM peak hour between 08:45 – 09:00 with a DoS of 106.6%. Furthermore, the Arle Road arm is forecast to operate at capacity in the PM peak hour between 17:00 – 17:15 with a DoS of 100.0%. There are no forecast capacity issues during the inter-peak.

8.23 In the AM peak hour, the forecast maximum queuing on the B4633 Gloucester Road (S) arm is 25.4 PCU's, which results in queuing back to the B4633 Gloucester Road / St George's Road / Alstone Lane signalised junction. As per the 2025 model, this arm underestimates queueing was unable to be calibrated further to be representative of the recorded queues without exceeding maximum green time within the traffic signal timings. Other factors such as interaction with other signals and / or interaction with on street parking on the B4633 Gloucester Road south arm also affects movements. In the network PM peak hour between 17:00 – 17:15, the forecast maximum queuing on the Arle Road arm is 14.2 PCU's.

2031 Future Assessment Year + Proposed School

8.24 The LINSIG model results are reproduced at **Appendix P** with the 2031 Base and 2031 Future Base Year + Proposed School scenarios are summarised in **Table 8.5** for the most saturated 15-minute segments, which were determined to be:

a) During the AM peak hour: 08:45 – 09:00
b) During the Inter peak hour: 15:30 – 15:45; and
c) Durning PM peak hour: 17:45 – 18:00.

8.25 In the 2031 base future year plus development, across each peak hour, the junction will operate slightly over capacity for short periods across the hour. The results for the most-saturated 15-minute period stated above has been summarised in **Table 8.5**.

Time Period	Link	Lane	2031 Future Year + Proposed School		
			Degree of Saturation (DoS)	Average Delay (s/PCU)	Mean Max Queue (PCU)
AM 15 Minute Peak (08:45 – 09:00)	1/1+1/2	B4633 (S) Ahead Right Left	112.2 : 112.2%	130.1	29.6
	2/1	Arle Road Left Ahead Right	75.2%	49.5	11.2
	3/1+3/2	B4633 (N) Left Right Ahead	101.2 : 101.2%	82.5	11.9
	4/1	St Johns Court Right Ahead Left	22.2%	65.7	0.9
Inter 15 Minute Peak (15:30 – 15:45)	1/1+1/2	B4633 (S) Ahead Right Left	87.4 : 87.4%	57.7	15.8
	2/1	Arle Road Left Ahead Right	62.5%	43.7	8.5
	3/1+3/2	B4633 (N) Left Right Ahead	75.5 : 75.5%	43.2	12.9
	4/1	St Johns Court Right Ahead Left	9.0%	62.1	0.4
PM 15 Minute Peak (17:45 – 18:00)	1/1+1/2	B4633 (S) Ahead Right Left	91.2 : 91.2%	52.9	21.1
	2/1	Arle Road Left Ahead Right	80.3%	65.6	9.1
	3/1+3/2	B4633 (N) Left Right Ahead	62.0 : 62.0%	32.4	10.0
	4/1	St Johns Court Right Ahead Left	9.8%	63.4	0.4

Table 8.5 Summary of 2031 Base and 2031 Future Base Year + Proposed School LINSIG Assessments

8.26 **Table 8.5** indicates that the network continues to operate over capacity in the 2031 Base AM peak for a short 15 – 30-minute period only. The B4633 Gloucester Road (S) arm is forecast to continue to operate over capacity between 08:45 – 09:00 with a DoS of 112.2%. In addition, the B4633 Gloucester Road (N) arm is also forecast to operate over capacity between 08:45 – 09:00 with a DoS of 101.2%. There are no forecast capacity issues during the inter-peak or PM peak with the proposed school in operation.

8.27 The forecast queuing of the B4633 Gloucester Road (S) arm is 29.6 PCU's between 08:45 – 09:00 only, which results in queuing back to the B4633 Gloucester Road / St George's Road / Alstone Lane signalised junction for a short period only. The forecast queuing of the B4633 Gloucester Road (N) arm is 11.9 PCU's between 08:45 – 09:00 only. The forecast queuing of the Arle Road arm is 15.2 PCU's between 17:00 – 17:15 only.

8.28 Along the B4633 Gloucester Road (S) arm between 08:45 – 09:00 only, the addition of the proposed school is forecast to result in an increase in DoS of 5.6%, a minor increase in delay of 23.4 seconds, and a minor increase in queuing of 4.2 PCU's. Along the B4633 Gloucester Road (N) arm between 08:45 – 09:00 only, the proposed school is forecast to result in an increase in DoS of 14.4%, a minor increase in delay of 26.3 seconds and minor increase of queuing of 3.1 PCU's. Across the proposed school peak (inter-peak) and the PM peak hour, the junction is forecast to operate with capacity across all arms.

8.29 The impact of the proposed school on the network in the 2031 future year is forecast to be minor increase with less than 30 seconds increase in delay and less than 5 PCU's queuing during a 15-minute segment across the AM peak hour only. Across the proposed school peak (inter-peak) and the PM peak hour, the junction is forecast to operate with capacity across all arms. In the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

Summary

8.30 This section has demonstrated that the 2025 Base LINSIG model for the B4633 Gloucester Road / St John's Court / Arle Road signalised network has been calibrated against MCC surveys and recorded queues. Overall, the network relatively calibrates well and is considered to mostly reflect the MCC surveys and recorded queues, with the exception of the B4633 Gloucester Road North arm.

8.31 The traffic impact assessment has demonstrated that the existing network operates over capacity in the 2025 and 2031 base traffic flow scenarios during a short time period of 15-30 minutes only. Occasionally, queuing extends from the B4633 Gloucester Road / St John's Court / Arle Road junction north and south along the B4633 Gloucester Road for a short period of time during the AM peak only.

8.32 The impact of the proposed school on the network in the 2031 future year is forecast to be minor increase with less than 30 seconds increase in delay and less than 5 PCU's queuing during a 15-minute segment across the AM peak hour only. Across the proposed school peak (inter-peak) and the PM peak hour, the junction is forecast to operate with capacity across all arms. In the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

Junction 3 Grevil Road / PEW / Red Grove Road Linked Priority Junctions

8.33 Due to the proximity of the junctions to one another, a linked junction assessment with lane simulation has been undertaken utilising the industry standard TRL software ARCADY module of Junctions 11 for the following junctions:

a) 'Junction 1': Princess Elizabeth Way / Grevil Road junction; and
b) 'Junction 2': Princess Elizabeth Way / Redgrove Road junction.

8.34 This has included a Puffin crossing across Arm A (Princess Elizabeth Way East) and informal crossings across 'Junction 1' and 'Junction 2'.

8.35 Initially, this junction assessment was undertaken as a staggered junction, based on the junction geometry and recorded flows obtained from the traffic surveys set out within **Section 3**. The results of the modelling portrayed that the staggered junction operated well within capacity in each scenario, with no existing or forecasted queuing or delay. These results are not representative of the observed and recorded traffic at the junction. Therefore, the junction has been assessed as a linked junction using lane simulation which has been calibrated to provide a more representative model.

8.36 The model has been calibrated through artificially constraining it using reduced lane capacity and bottleneck functions to represent the interaction with junctions to the east and west. This has limited the functionality of the model as whilst it is representative of recorded queuing based on observations it has overestimated delay particularly on the minor arms of Grevil Road and Redgrove Road. This is due to the constraining of the model as it is unable to represent the queuing without increasing delay, and as set out in the TRICS good practice guidance where a junction becomes more constrained and closer to capacity queuing and delay become more random and less reliable. It is noted from observations of the junction where eastbound queuing vehicles allow egress from both minor arms and this is often reciprocated by westbound vehicles. This observed behaviour cannot be replicated within the model.

8.37 As with the LINSIG assessment, the model has assessed the network in 15-minute segments across the three scenarios stated within **Paragraph 8.2** and across the AM peak, inter-peak, and PM peak.

8.38 The Junctions 11 ARCADY lane simulation utilises delay and queuing as the most useful measures of performance of a junction as set out in TRL's guidance. Although RFC can be calculated within lane simulation, it is not possible where there are internal connections used within this model.

8.39 Similar to the LINSIG model, the following criteria has been utilised to grade the differences in increases in queuing as a result of the proposed school from the ARCADY model.

a) **Minor Increase** (an increase in queue lengths of less than 10 vehicles)
b) **Moderate Increase** (an increase in queue lengths of between 10 and 25 vehicles)
c) **Significant Increase** (an increase in queue lengths of between 25 and 50 vehicles)
d) **Very Significant Increase** (an increase in queue lengths above 50 vehicles)

8.40 The following criteria has been utilised to grade the differences in increases in delay as a result of the proposed school from the ARCADY model.

a) **Minor Increase** (an increase in delay of less than 30 seconds)
b) **Moderate Increase** (an increase in delay of between 30 seconds and 90 seconds);
c) **Significant Increase** (an increase in delay of between 90 seconds and 180 seconds); and
d) **Very Significant Increase** (an increase in delay of over 180 seconds).

8.41 The results of the ARCADY model for the AM peak, inter-peak and PM peak across the loading of the 2025 Base Year traffic flow scenario, the loading of the 2031 future base year, and the loading of the 2031 future base year + proposed school is presented in **Tables 8.6 – 8.8**. The full model results are contained in **Appendix Q**.

AM Peak Results and Analysis

Junction 3	Q (Veh)	Delay (s)	Junction Delay (s)
[Lane Simulation] - 2025 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	2.2	31.32	58.49
1 - PE Way / Gevil Road - B - Grevil Road	2.9	188.07	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.8	59.03	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	10.0	148.11	74.46
2 - PE Way / Redgrove Road - B - Redgrove Road	0.4	64.11	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.2	3.96	
[Lane Simulation] - 2031 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	3.1	39.98	67.36
1 - PE Way / Gevil Road - B - Grevil Road	3.3	220.01	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.6	62.53	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	13.9	195.53	97.70
2 - PE Way / Redgrove Road - B - Redgrove Road	0.6	71.87	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.2	3.91	

[Lane Simulation] - 2031 + Dev - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	3.5	41.62	64.63
1 - PE Way / Gevil Road - B - Grevil Road	3.2	213.92	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.7	56.31	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	16.2	210.71	107.76
2 - PE Way / Redgrove Road - B - Redgrove Road	0.6	70.67	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.2	3.91	

Table 8.6 Grevil Road / PEW / Redgrove Road Junctions – AM Peak

8.42 Across the AM peak, the most saturated 15-minute segment was determined to be 08:30 – 08:45 in 2025 base year scenario, in the 2031 future base year scenario, and in the 2031 future base year + proposed school scenario.

8.43 In the 2025 base year scenario during the most-saturated time period of 08:45 – 09:00, there is an existing delay of 188.07 seconds and queuing of 2.9 vehicles along Grevil Road at 'Junction 1', and an existing delay of 148.11 seconds and queuing of 10 vehicles along PEW at 'Junction 2'. Overall, 'Junction 1' has a maximum delay of 58.49 seconds, and Junction 2 has a maximum delay of 74.46 seconds in the 2025 base year scenario between 08:45 – 09:00 only.

8.44 In the 2031 future year scenario between 08:45 - 09:00, there is forecast to be a maximum delay of 220.01 seconds and maximum queuing of 3.3 vehicles along Grevil Road at 'Junction 1'. This is a moderate increase in delay of 31.94 seconds along Grevil Road and a minor increase of 0.4 vehicles compared to the 2025 base year scenario. There is also a minor increase in delay and vehicles along the PEW arms (NE and SW). 'Junction 1' is forecast to be subject to an overall delay of 67.36 seconds in the 2031 future base year scenario between 08:45 – 09:00 only, which is a minor increase of 8.87 seconds when compared to the 2025 base year scenario.

8.45 Furthermore, in the 2031 future year scenario between 08:45 – 09:00, there is a forecast maximum delay of 195.53 seconds and maximum queuing of 13.9 vehicles along PEW SW at 'Junction 2'. This is a moderate increase in delay of 47.42 seconds along PEW SW and a minor increase of 3.9 vehicles. There is also a minor increase in delay and vehicles along Redgrove Road and PEW NE. 'Junction 2' is forecast to have an overall delay of 97.7 seconds in the 2031 future base year scenario during the AM peak, which is a minor increase of 23.24 seconds when compared to the 2025 base year scenario.

8.46 In the 2031 future year + proposed school scenario between 08:45 - 09:00 only, the forecast delay continues along PEW SW at 'Junction 2', with a minor decrease forecasted along Grevil Road at 'Junction 1'.

8.47 In the 2031 future base year + proposed school scenario between 08:45 – 09:00, there is forecast to be a maximum delay of 213.92 seconds and maximum queuing of 3.1 vehicles along Grevil Road at 'Junction 1', which is a decrease in delay of 6.09 seconds along Grevil Road and a decrease of 0.1 vehicles when compared to the 2031 future base year scenario. There is also a minor decrease in delay and vehicles along the PEW arms (NE and SW). In the 2031 future base year + proposed school scenario between 08:45 – 09:00, 'Junction 1' is forecast to have an overall delay of 64.63 seconds, which is a minor decrease of 3 seconds when compared to the 2031 future base year.

8.48 Furthermore, in the 2031 future base year + proposed school scenario between 08:45 – 09:00, there is a forecast maximum delay of 210.71 seconds and maximum queuing of 16.2 vehicles along PEW SW at 'Junction 2'. This is a minor increase in delay of 15.18 seconds along PEW SW and a minor increase of 2.3 vehicles when compared to the 2031 future base year. There is also a minor increase in delay and vehicles along Redgrove Road and no increase in delay along PEW NE. In the 2031 future base year + proposed school scenario, 'Junction 2' is forecast to have an overall delay of 107.76 seconds, which is a minor increase of 10.06 seconds when compared to the 2031 future base year.

8.49 As previously mentioned, the model has been calibrated through artificially constraining it using reduced lane capacity and bottleneck functions to represent the interaction with junctions to the east and west. This has limited the functionality of the model as whilst it is representative of recorded queuing based on observations it has overestimated delay particularly on the minor arms of Grevil Road and Redgrove Road. Overall, during the AM peak hour the existing junction is forecast to operate with some capacity issues but only during a short period of time.

8.50 The impact of the proposed school on the network in the 2031 future year during the AM peak hour (specifically the 08:45 – 09:00 period) is forecast to be a minor increase with less than 30 seconds increase in delay and less than 10 PCU's queuing during the 15-minute segment. In the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

Inter-Peak Results and Analysis

Junction 3	Q (Veh)	Delay (s)	Junction Delay (s)
[Lane Simulation] - 2025 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	4.7	48.84	81.01
1 - PE Way / Gevil Road - B - Grevil Road	5.4	396.86	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	2.4	45.76	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	16.7	238.52	116.65
2 - PE Way / Redgrove Road - B - Redgrove Road	0.3	77.52	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.7	11.52	
[Lane Simulation] - 2031 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	6.0	60.90	97.64
1 - PE Way / Gevil Road - B - Grevil Road	6.8	490.99	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	2.6	46.94	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	23.0	299.02	145.97
2 - PE Way / Redgrove Road - B - Redgrove Road	0.5	80.53	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.8	11.67	

[Lane Simulation] - 2031 + Dev - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	7.6	72.81	150.94
1 - PE Way / Gevil Road - B - Grevil Road	13.4	790.36	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	2.6	49.49	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	25.1	327.03	157.24
2 - PE Way / Redgrove Road - B - Redgrove Road	0.4	79.68	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.8	11.73	

Table 8.7 Grevil Road / PEW / Redgrove Road Junctions – Inter-Peak

8.51 Across the Inter-peak, the most saturated 15-minute segment was determined to be 15:30 – 15:45 in 2025 base year, in the 2031 future base year, and in the 2031 future base year + proposed school.

8.52 **Table 8.7** indicates that the network operates over capacity in the inter-peak period at 'Junction 1' and 'Junction 2' in the 2025 base year, in the 2031 future base year, and in the 2031 future base year + proposed school during a short period of time only.

8.53 In the 2025 base year scenario during the inter-peak between 15:30 – 15:45, there is an existing maximum delay of 396.86 seconds and maximum queuing of 5.4 vehicles along Grevil Road at 'Junction 1', and an existing maximum delay of 238.52 seconds and maximum queuing of 16.7 vehicles along PEW at 'Junction 2'. Overall, 'Junction 1' has a maximum delay of 81.01 seconds, and 'Junction 2' has a maximum delay of 116.65 seconds in the inter-peak period during the 2025 base year scenario.

8.54 In the 2031 future base year scenario during the inter-peak between 15:30 – 15:45 only, there is forecast to be a maximum delay of 490.99 seconds and maximum queuing of 6.8 vehicles along Grevil Road at 'Junction 1'. This is a significant increase in delay of 94.13 seconds along Grevil Road, and a minor increase of 1.4 vehicles compared to the 2025 base year scenario. There is also a minor increase in delay and vehicles along the PEW arms (NE and SW). 'Junction 1' is forecast to have an overall delay of 97.64 seconds, which is a minor increase of 16.63 seconds when compared to the 2025 base year scenario. As previously mentioned, the model has been calibrated through artificially constraining it using reduced lane capacity and bottleneck functions to represent the interaction with junctions to the east and west. This has limited the functionality of the model as whilst it is representative of recorded queuing based on observations it has overestimated delay particularly on the minor arm of Grevil Road.

8.55 Furthermore, in the 2031 future year scenario during the inter-peak between 15:30 – 15:45, there is a forecast maximum delay of 299.02 seconds and maximum queuing of 23.0 vehicles along PEW SW at 'Junction 2'. This is a moderate increase in delay of 60.5 seconds along PEW SW and a minor increase of 6.3 vehicles. There is also a minor increase in delay and vehicles along Redgrove Road and PEW NE. 'Junction 2' is forecast to have an overall delay of 145.97 seconds, which is a minor increase of 29.32 seconds when compared to the 2025 base year scenario.

8.56 In the 2031 future year + proposed school scenario during the inter-peak between 15:30 – 15:45, the forecast delay continues along Grevil Road at 'Junction 1' and PEW SW at 'Junction 2' for a short time period only.

8.57 There is forecast to be a maximum delay of 790.36 seconds and maximum queuing of 13.4 vehicles along Grevil Road at 'Junction 1', which is a very significant increase of 299.37 seconds and a minor increase of 6.6 vehicles when compared to the 2031 future base year scenario. 'Junction' 1 is forecast to have an overall delay of 150.94 seconds, which is a moderate increase of 53.3 seconds when compared to the 2031 future base year scenario.

8.58 As previously mentioned, the model has been calibrated through artificially constraining it using reduced lane capacity and bottleneck functions to represent the interaction with junctions to the east and west. This has limited the functionality of the model as whilst it is representative of recorded queuing based on observations it has overestimated delay particularly on the minor arm of Grevil Road.

8.59 Furthermore, in the 2031 future year + proposed school scenario during the inter-peak between 15:30 – 15:45, there is a forecast maximum delay of 327.03 seconds and maximum queuing of 25.1 vehicles along PEW SW at 'Junction 2'. This is a minor increase in delay of 28.01 seconds along PEW SW and a minor increase of 2.1 vehicles when compared to the 2031 future base year scenario for a short time period only. There is also a minor increase in delay and vehicles along Redgrove Road and PEW NE. In the 2031 future year + proposed school scenario, 'Junction' 2 is forecast to have an overall delay of 157.24 seconds, which is a minor increase of 11.27 seconds when compared to the 2031 future based year.

8.60 Across the inter-peak (specifically 15:30 – 15:45), the impact of the proposed school on the network in the 2031 future year is forecast to be moderate increase with less than 60 seconds increase in delay and less than 5 PCU's queuing during the 15-minute segment only. In the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

PM Peak Results and Analysis

Junction 3	Q (Veh)	Delay (s)	Junction Delay (s)
[Lane Simulation] - 2025 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	1.9	25.60	84.86
1 - PE Way / Gevil Road - B - Grevil Road	7.3	343.08	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.7	77.34	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	9.7	218.67	100.28
2 - PE Way / Redgrove Road - B - Redgrove Road	0.2	70.24	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.2	3.99	
[Lane Simulation] - 2031 - Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	2.9	36.72	103.16
1 - PE Way / Gevil Road - B - Grevil Road	9.4	430.06	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.7	80.48	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	13.4	301.17	138.61
2 - PE Way / Redgrove Road - B - Redgrove Road	0.2	77.70	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.3	3.91	

[Lane Simulation] - 2031 + Dev – Base			
1 - PE Way / Gevil Road - A - Princess Elzabeth Way NE	3.0	42.11	110.79
1 - PE Way / Gevil Road - B - Grevil Road	10.8	444.51	
1 - PE Way / Gevil Road - C - Princess Elzabeth Way	3.7	79.47	
2 - PE Way / Redgrove Road - A - Princess Elizabeth Way SW	13.7	311.18	140.96
2 - PE Way / Redgrove Road - B - Redgrove Road	0.2	74.14	
2 - PE Way / Redgrove Road - C - Princess Elizabeth Way	0.3	3.98	

Table 8.8 Grevil Road / PEW / Redgrove Road Junctions – PM Peak

8.61 Across the PM-peak, the most saturated 15-minute segment was determined to be 17:30 – 17:45 in 2025 base year scenario, in the 2031 future base year scenario, and in the 2031 future base year + proposed school scenario.

8.62 **Table 8.8** indicates that the network continues to operate over capacity in the PM-peak period at 'Junction 1' and 'Junction 2' in the 2025 base year scenario between 17:00 – 17:15 only, in the 2031 future year scenario, and in the 2031 future year + proposed school scenario.

8.63 It should be noted that the proposed school is only forecasted to generate 23 vehicle trips across the PM peak hour as summarised in **Table 7.8**.

8.64 In the 2025 base year scenario between 17:00 – 17:15 only, there is an existing delay of 343.08 seconds and queuing of 7.3 vehicles along Grevil Road at 'Junction 1', and an existing delay of 218.67 seconds and queuing of 9.7 vehicles along PEW at 'Junction 2'. Overall, 'Junction 1' has a delay of 84.86 seconds, and 'Junction 2' has a delay of 100.28 seconds in the inter-peak period during the 2025 bas year scenario in the most-saturated period.

8.65 In the 2031 future base year scenario during the inter-peak between 15:30 – 15:45, there is forecast to be a maximum delay of 430.06 seconds and maximum queuing of 9.4 vehicles along Grevil Road at 'Junction 1'. This is a moderate increase in delay of 86.98 seconds along Grevil Road and a minor increase of 2.1 vehicles when compared to the 2025 base year scenario. There is also a minor increase in delay and vehicles along the PEW arms (NE and SW). 'Junction 1' is forecast to have an overall delay of 103.16 seconds, which is a minor increase of 18.3 seconds when compared to the 2025 base year scenario.

8.66 Furthermore, in the 2031 future base year scenario during the inter-peak between 15:30 – 15:45, there is a forecast maximum delay of 301.17 seconds and maximum queuing of 13.4 vehicles along PEW SW at 'Junction 2'. This is a moderate increase in delay of 82.5 seconds along PEW SW and a minor increase of 3.7 vehicles. There is also a minor increase in delay and vehicles along Redgrove Road and PEW NE. 'Junction 2' is forecast to have an overall delay of 138.61 seconds, which is a moderate increase of 38.33 seconds when compared to the 2025 base year scenario.

8.67 In the 2031 future year + proposed school scenario during the inter-peak between 15:30 – 15:45, the forecast delay continues along Grevil Road at 'Junction 1' and PEW SW at 'Junction 2' during this short time period only.

8.68 In the 2031 future year + proposed school scenario during the inter-peak between 15:30 – 15:45, there is forecast to be a maximum delay of 444.51 seconds and maximum queuing of 10.8 vehicles along Grevil Road at 'Junction 1', which is a minor increase of 14.45 seconds and a minor increase of 1.4 vehicles when compared to the 2031 future base year scenario. Junction 1 is forecast to have an overall delay of 110.79 seconds, which is a minor increase of 7.63 seconds when compared to the 2031 future base year scenario.

8.69 As previously mentioned, the model has been calibrated through artificially constraining it using reduced lane capacity and bottleneck functions to represent the interaction with junctions to the east and west. This has limited the functionality of the model as whilst it is representative of recorded queuing based on observations it has overestimated delay particularly on the minor arms of Grevil Road.

8.70 Furthermore, in the 2031 future base year + proposed school scenario during the inter-peak between 15:30 – 15:45, there is a forecast maximum delay of 311.18 seconds and maximum queuing of 13.7 vehicles along PEW SW at 'Junction 2'. This is a minor increase in delay of 10.01 seconds along PEW SW and a minor increase of 0.3 vehicles when compared to the 2031 future base year scenario. There is also a minor increase in delay and vehicles PEW NE and minor decrease along Redgrove Road. In the 2031 future base year + proposed school scenario, Junction 2 is forecast to have an overall delay of 140.96 seconds, which is a minor increase of 2.35 seconds when compared to the 2031 future base year scenario.

8.71 Across the PM peak (specifically 17:00 – 17:15), the impact of the proposed school on the network in the 2031 future year is forecast to be minor increase with less than 30 seconds increase in delay and less than 5 PCU's queuing during the 15-minute segment only. In the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

Summary

8.72 In summary, 'Junction 1' and 'Junction 2' currently operate in 2025 with existing capacity issues for short periods of the day across the three peak hours assessed, with existing queuing and delay recorded and modelled on Grevil Road of 'Junction 1' and PEW SW of 'Junction 2', which is supported by the queue surveys obtained at the junction as set out within **Section 3**.

8.73 In the 2031 future base year scenario and the 2031 future base year + proposed school scenario, these capacity issues are forecasted to continue along both Grevil Road and PEW SW for a short period (15 – 30 minutes) across the three peak hours.

8.74 In the AM peak during the most-saturated 15-minute period, with the proposed school in operation in 2031, 'Junction 1' is forecasted to observe a decrease in delay of 3 seconds when compared to the 2031 future base year scenario. 'Junction 2' is forecasted to be subject to a maximum increase in delay of 10.06 seconds, which is a minor increase when compared to the 2031 future base year scenario.

8.75 In the inter-peak during the most-saturated 15-minute period, with the proposed school in operation in 2031, 'Junction 1' is forecasted to be subject to a maximum increase of 53.3 seconds, which is a moderate increase when compared to the 2031 future base year scenario. 'Junction 2' is forecasted be subject to a maximum increase in delay of 11.27 seconds, which is a minor increase when compared to the 2031 future base year. These forecast increases in delay will only occur during a short time period across the three peak hours and therefore in the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

8.76 In the PM peak during the most-saturated 15-minute period, with the proposed school in operation in 2031, Junction 1 is forecasted to be subject to an increase of 7.63 seconds, which is a minor increase when compared to the 2031 future base year scenario. Junction 2 is forecasted be subject to an increase in delay of 2.35 seconds, which is a minor increase when compared to the 2031 future base year scenario. These forecast increases in delay will only occur during a short time period across the three peak hours and therefore in the context of Paragraph 116 of the NPPF the forecast cumulative impact is not severe.

8.77 As set out in **Section 5**, in the AM and inter peak, it should be noted that vehicles will be slightly staggered to allow vehicles to disperse from the school access in a controlled manner to avoid vehicles arriving at local junctions in platoons.

8.78 As shown within **Section 7**, **Table 7.8** demonstrates that the school is forecast to generate 107 vehicle trips (107 inbound and 0 outbound) in the total AM peak period (08:00-09:00), consisting of 35 staff related vehicles trips (35 inbound and 0 outbound) between 08:00-08:30 and 72 pupil related trips (72 inbound and 0 outbound) between 08:30-09:00.

8.79 In the inter-school peak period (15:00-16:00) there will be a total of 95 vehicles trips (0 inbound and 95 outbound), consisting of 23 staff related vehicles trips (0 inbound and 23 outbound) and 72 pupil related trips (0 inbound and 72 outbound).

8.80 In the network PM Peak period (17:00-18:00) there will be a total of 23 staff related vehicle trips only (0 inbound and 23 outbound).

8.81 Overall, the proposed school will result in an increase in delay at each junction, however, this increase is not considered to be severe in the context of the existing junction capacity and will only occur across three 15-minute periods across the day.

8.82 Paragraph 116 of the NPPF states that development should only be prevented or refused on highway grounds where there will be an unacceptable impact on highway safety or a severe residual cumulative impact on the road network. It has been demonstrated that the residual cumulative impact of the development, i.e. the addition of the development traffic after background growth compared to the without development scenarios, would not be severe.

9 School Travel Plan

9.1 As part of the planning application a TP will be submitted under a separate cover and should be read in conjunction with this TA. The TP includes a number of key measures and targets in order to promote sustainable modes of transport aimed at staff, rather than pupil travel due to their specific needs.

9.2 The TP includes basic principles for the school site and a list of potential measures that could be implemented to affect modal choice and a management strategy. GCC state that monitoring of the TP should occur annually for its 'lifetime'; it is proposed that the TP be an ongoing documents that is adopted by the school.

9.3 The TP will be managed and monitored by a Travel Plan Co-ordinator (TPC) who will work with senior member of the school to deliver the content of the TP and ensure the measures are carried out effectively. It will be the responsibility of the school to ensure the appointment and funding of a suitably qualified person to perform the role of the TPC, in order to ensure compliance with the TP. A TPC shall be appointed at least three months prior to the occupation of the School.

9.4 The TP has been prepared to assist the promotion of sustainable travel modes, primarily amongst staff of the proposed school, but will also prove beneficial in encouraging visitors to the application site to utilise sustainable modes of travel. This may be achieved through the reduction in the number of individual private vehicle trips; and / or the encouragement of public transport, walking and cycling as travel alternatives. Success in this respect will help to mitigate the impact of additional traffic generated by the development, reducing carbon footprint, boosting the surrounding economy, and contributing to a fitter workforce.

9.5 The TP is intended to reduce environmental, social and business impacts associated with staff transport by reducing journeys by single occupancy vehicles and raising awareness of travel choices available to staff. The principal objective of the TP is to promote and provide alternative sustainable modes of transport and to ensure staff are fully aware of the sustainable travel options available to them.

9.6 All staff at the site shall receive information such as public transport, pedestrian and cycle routes serving the application site, information on the car sharing scheme and updates on the progress of local sustainable travel initiatives.

9.7 Monitoring shall be undertaken to analyse the travel patterns and trips to the school to ensure the forecasts are representative of the real term operation of the school and potential mitigation measures are identified, if required.

10 Mitigation Measures

10.1 A set of mitigation measures are proposed to improve highway safety, improve the public realm and encourage travel to school by sustainable modes of transport. This section summarises the mitigation measures proposed as part of the proposed school.

Parking Measures

10.2 Management of the car park will be the responsibility of the school. A car park management plan to be taken forward by the school shall be prepared following planning approval and prior to occupation and setting out the roles and responsibly of staff and the procedures to be undertaken to maintain the safe drop off and pick of pupils.

10.3 Parking measures within the site is designed to cater for demand without impacting onto the local roads. The internal drop off and pick up loop road has been designed to provide sufficient storage area for up to 80 vehicles (based on 6 metre average queueing length) which is based on the predicted number of vehicles entering the site at the start and end of the school day for pupil drop off / pick up, and car parking comprising of 75 parking spaces is to solely be used by teaching and administrative staff, and all vehicle movements associated with these spaces shall not take place at the same time as pupil drop off / pick up times.

10.4 EV and cycling parking will be provided for staff and visitor usage.

Sustainable Infrastructure

10.5 The WRAT included at **Appendix D** of this report, sets out the proposed infrastructure improvements to aid walking and cycling aimed predominantly at staff and visitors to the school. In summary measures include:-

a) Tactile paving will be provided at the following junctions:

- Arle Road / Alstone Avenue
- Arle Road / Alstone Croft
- Arle Road / Arle Gardens
- Arle Road / Arle Drive
- Arle Road / Merriville Road
- Arle Road / Brooklyn Gardens
- Arle Road / Central Way
- Arle Road / Arle Close
- Arle Road / Arle Avenue

b) Provision of pedestrian crossing is to be investigated across Grevil Road to the SE of Pennsylvania Avenue to facilitate pedestrians to the footway along southern side of Arle Road to avoid the bifurcated junction. Currently, there is no dropped kerb present, and pedestrians are required to route off the desire line in order to access suitable crossing facilities.

School Travel Planning

10.6 As mentioned in **Section 9**, a TP has been prepared. The TP includes a number of key measures and targets in order to promote sustainable modes of transport aimed at staff, rather than pupil travel due to their specific needs.

Summary

10.7 Proposed mitigation includes walking infrastructure, strict parking control and travel planning measures. It is considered that the mitigation proposed as part of the application is appropriate and proportional in scale, based on the operational needs of a SEND school.

11 Summary and Conclusion

11.1 Rappor has been commissioned to prepare a TA concerning a planning application for a new school for children with SEND on land owned by GCC, located adjacent to Arle Road, Cheltenham.

11.2 The proposed school will be an ‘all-through’ school for up to 200 primary and secondary pupils, anticipated to open during the academic year 2027 / 28. Pupils will range between 4-16 years old (Reception and key stages 1-4) with classes potentially organised along 'needs' rather than strict age criteria, and facilities provided to predominantly cater for ambulant children, however some children with have mobility challenges.

11.3 A public engagement event has been held concerning the proposed school. Feedback was provided throughout this consultation process and the development proposals have sought to consider key issues or concerns raised as a result of feedback and address and incorporate this, where appropriate, into the design process.

11.4 A review of the PIC data has identified that there is no pattern or history of collisions in the immediate locality of the site. The sporadic nature and contributory factor of the collisions that have taken place suggests driver / user error rather than any inherent highway safety problem or geometric feature of the road layout.

11.5 Given the estimated number of vehicle trips it is proposed to ensure that all vehicles arrive on site no earlier than 15 minutes before school start and end time and are held within the school grounds until such a time that an indication is given (i.e. a school bell or alarm) and then all children are permitted to exit or enter the vehicles and are either escorted to /from the school, or in the case of some of the older pupils, may be given the opportunity to walk to and from their vehicle to /from the school door unaided to promote independence. The overall parking provision and operational management of the school peaks in terms of drop off and pick up of pupils will ensure that there is no adverse impact upon the local highway network.

11.6 Management of the car park will be the responsibility of the School. A car park management plan to be taken forward by the school shall be prepared following planning approval and prior to occupation and setting out the roles and responsibly of staff and the procedures to be undertaken to maintain the safe drop off and pick of pupils.

11.7 The internal drop off and pick up loop road is designed to provide sufficient storage area for up to 80 vehicles (based on 6 metre average queueing length) which is based on the predicted number of vehicles entering the site at the start and end of the school day for pupil drop off / pick up.

11.8 The access arrangements and the internal layout are suitable to accommodate the proposed number of vehicular trips and development traffic. Cycle parking will be provided in accordance with the requirements of the proposed school and with understanding to the specialised needs of the school children attending the site. Car parking has been provided based on the forecast staff demand in accordance with MfGS, and will not result in any staff parking external to the school.

11.9 The results of highway capacity modelling indicate that in all scenarios, the proposed school will result in an increase in delay at each junction, however, this increase is not considered to be severe in the context of the existing junction capacity and will only occur across three 15-minute periods across the day

Conclusions

11.10 Rappor concludes that approval of this planning application will not result in a severe impact upon the safety or operation of the surrounding local highway network.

11.11 Access to the site is safe and suitable for all users, in accordance with paragraph 110 of the NPPF, whilst the internal layout complies with paragraph 112 of the NPPF, and design guidelines contained in both MfS and MfS2.

11.12 Consequently, it is concluded that there are no material highways and transportation matter that would preclude GCC from recommending no objection this planning application, and as such there are no significant highways and transportation matters that would preclude the local planning authority from recommending approval of this planning application.

Appendix A – Rappor – Transport Scoping Note & GCC Highway Pre-Application Response

Cheltenham New Special School

Kier Construction – Western & Wales

Transport Scoping Note

August 2025

Document Control

Job No.	250356	
Project Name	Cheltenham New Special School	
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Status	Issue 01	
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Introduction

General

1.1 Rappor has been commissioned to prepare the necessary highway and transportation reports concerning a planning application for a new SEN school for children with special educational needs and disabilities on land owned by Gloucestershire County Council (GCC), located adjacent to Arle Road, Cheltenham.

1.2 The Proposed School will be an 'all-through' school for up to 200 primary and secondary pupils, anticipated to open during the academic year 2027 / 28.. Pupils will range between 4-16 years old (Reception and key stages 1-4) with classes potentially organised along 'needs' rather than strict age criteria, and facilities provided to predominantly cater for ambulant children, however some children with have mobility challenges.

1.3 An early concept plan of the site layout, including staff parking and drop off / pick up areas is reproduced in **Appendix A**.

Requirements for a SEN School

1.4 There continues to be an increasing need for special school places in the county, with the highest number of places needed in Gloucester and Cheltenham. The shortage of places locally means some children currently travel to schools out of county or to independent schools to have their educational needs met. This new school would be centrally located within the county and within reasonable travelling distance of other parts of the county.

1.5 The need to increase the number of special school places is underpinned by Gloucestershire's Special Educational Needs and Disabilities (SEND) Strategy 2022-25 and the Special Educational Needs and Disabilities (SEND) Joint Commissioning Strategy 2025 – 2030.

1.6 The purpose of this pre-application Transport Scoping Note (TSN) is to facilitate discussions with GCC and determine the level of highway assessment required for a Transport Assessment (TA) and Travel Plan (TP), to be submitted in support of a planning application at the Site. The TSN describes the methodology proposed for assessing the potential development impact on the surrounding transport infrastructure and is written in accordance with 'Transport Assessments and Transport Statements,' which forms part of the National Planning Practice Guidance.

Key Stages

1.7 To reduce the risk of abortive work, it would be prudent to agree to each of the key stages up to submission of the planning application and these are considered as follows:

a) Forecast multimodal trip generation for the new school using average multimodal split data obtained from either a comparable donor site or first principles approach.
b) Distribution and assignment of pupil trips based on catchment area.
c) Distribution and assignment of staff trips based on Travel to Work data from the 2011 Census.

d) Agreement of any junction capacity modelling that may be required based on the outcome of Trip Attraction, Assignment, and Distribution.

2 Relevant Planning Policy

2.1 The relevant transportation policies and guidance against which the TA and TP shall be assessed are set out in the following National and Local documents:

a) National Planning Policy Framework (2025);
b) Planning Practice Guidance Travel Plans, Transport Assessment and Statements in Decision Taking (2014);
c) Manual for Streets (2007);
d) Manual for Streets 2 (2010);
e) Manual for Gloucestershire Streets (2020);
f) Gloucestershire's Local Transport Plan (2021);
g) Joint Core Strategy (2017) and relevant emerging Local Plan documents;
h) Gloucestershire's Special Educational Needs and Disabilities (SEND) Strategy 2022-25; and
i) GCC's Special Educational Needs and Disabilities (SEND) Joint Commissioning Strategy 2025 – 2030.

2.2 The TA shall set out the relevant policies and guidance and how the Site meets or addresses these requirements in order that the redevelopment of this Site is consistent with the policies of local and national government.

3 The Site and Adjacent Highway Network

3.1 The Site is located to the west of Cheltenham Town Centre, in the neighbourhood area of Rowanfield. The parcel of land comprises an undeveloped area of grass and overgrown shrubs, which is accessed via an existing gated entrance located along Arle Road. This land is owned by Gloucestershire County Council.

3.2 The site is located approximately 5km from the M5 motorway, with the nearest junction being J11. The site is also in close proximity to the A40 which provides a link to Gloucester.

3.3 The Site is bound to the north by Arle Road, to the east by a railway line, to the south by The Altus School (St George's Centre) Pupil Referral Unit / Cheltenham Sea Cadets buildings along Alstone Road, and to the west by residential properties. The location of the Site is shown on **Figure 3.1** below.

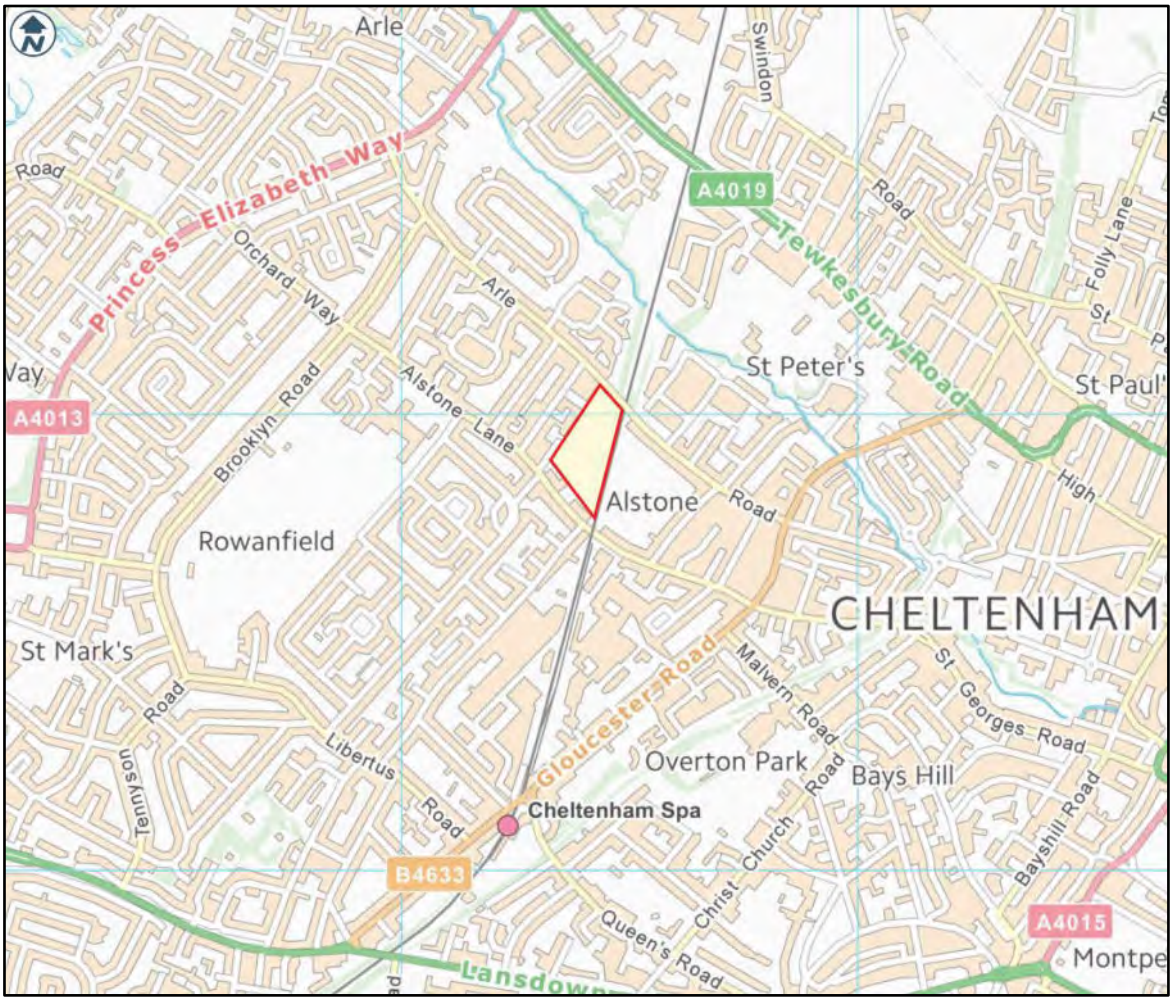

Figure 3.1 Site Location Plan

3.4 Using the GCC's Highways Rights of Way online mapping service, this confirms that there are no public rights of way crossing the Site or within close proximity.

Highway Network

3.5 In order to determine the speed of vehicles travelling along Arle Road, Rappor commissioned an independent traffic survey company (Auto Surveys Ltd) to install two Automatic Traffic Counters (ATCs) along Arle Road, located east and west of the anticipated proposed access location.

3.6 Automatic Traffic Counts are undertaken using pneumatic tubes installed across the road that measure vehicles flows and traffic speed. The Counters were installed for a 7 day period along Arle Road from Thursday 5th June to Wednesday 11th June (inclusive), outside of school holidays, in order to obtain typical flows and speeds along the road in accordance with good practice. The locations of the ATC surveys are summarised below and their location shown on **Figure 3.2**.

Site 1 – Outside No.86 Arle Road, east of the railway bridge.

Site 2 – Outside No.113 Arle Road, west of the railway bridge and existing site access.

Figure 3.2 Location of ATC Surveys

3.7 The results of the ATC surveys including speeds measurements, are reproduced at **Appendix B**. The results of the surveys are summarised below in **Tables 3.1 and 3.2**.

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
North-west bound	25.4	30.2
South-east bound	25.4	30.0

Table 3.1 Site 1 – East of Site Frontage (at the bridge)

Direction	Mean Speed (mph)	85th Percentile Speed (mph)
North-west bound	23.7	29.1
South-east bound	22.9	28.2

Table 3.2 Site 2 – West of the railway bridge and existing site access

3.8 Public Highway Records as obtained from GCC are reproduced at **Appendix C.**

3.9 A description of the existing local road network and associated traffic flows along Arle Road are set out in the following sub sections.

Arle Road

3.10 Arle Road is a two-way residential road with footpaths along both sides of the carriageway and appropriate street lighting along its length. A photo of Arle Road is shown below in **Figure 3.3.**

Figure 3.3 Photograph showing Arle Road

3.11 Arle Road is subject to a speed limit of 30mph and there are speed humps located intermittently along the road. The road runs in an east / west direction. To the west it connects to the Princess Elizabeth Way via a priority junction arrangement, which provides connections in Cheltenham Town Centre and Gloucester. To the east, the road continues within a residential area.

3.12 There is no parking located on the kerbside of the road, residential developments have appropriate driveways.

3.13 Arle Road crosses the railway line over a bridge, however there is no weight limit.

3.14 Based on the results of the ATC survey conducted along Arle Road to the east of the railway bridge, approximately 75m east of the existing site access, the recorded average weekday traffic flows were 2,331 vehicles northwest bound and 3,709 vehicles southeast bound. This location had an average seven-day speed of 25.4mph northwest bound and 25.4mph southeast bound and recorded 85th percentile speeds of 30.2mph northwest bound and 30.0mph southeast bound.

3.15 Based on the results of the ATC survey conducted along Arle Road to the west of the railway bridge, approximately 35m west of the existing site access, the recorded average weekday traffic flows were 2,418 vehicles northwest bound and 3,667 vehicles southeast bound. This location had an average seven-day speed of 23.7mph northwest bound and 22.9mph southeast bound and recorded 85th percentile speeds of 29.1mph northwest bound and 28.2mph southeast bound.

Alstone Lane

3.16 Alstone Lane is a two-way carriageway subject to a 30mph speed limit. There are footpaths located on both sides of the carriage way with appropriate street lighting.

3.17 Alstone Lane runs in an east / west direction. To the east, it continues within a residential area, and to the west it connects to the Princess Elizabeth Way via a priority junction arrangement which provides connections in Cheltenham Town Centre and Gloucester.

3.18 Alstone Lane crosses the railway line via a signalised level crossing, which results in queueing vehicles in both directions throughout the day.

Bryanstone Close

3.19 Bryanstone Close is a residential road of approximately 4.6m with, which provides access to 6no. residential houses and 16no. garages associated with residential properties in the local area. A photo of Bryanstone Close is shown below in **Figure 3.4.**

Figure 3.4 Photograph showing Bryanstone Close

3.20 It is a 'no through road' with a turning space located at it's most northern point. The road runs in a north/south direction, and it purely to allow residents access to their properties, and for student access to the Altus School (St George's Centre) Pupil Referral Unit.

3.21 Bryanstone Close joins onto Alstone Lane via a priority junction. Alstone Lane provides links to Gloucester and Cheltenham as explained above.

3.22 Bryanstone Close is subject to a 30mph speed limit and has a footway running along the western side only. Along the eastern side is a grass verge. Appropriate street lighting is present along its length.

Local Highway Safety

3.23 Personal Injury Collision (PIC) data shall be obtained from the GCC database for the most recently available five-year period available. The location and details of recorded collisions shall be provided in the TA and analysed to determine if there are any existing safety issues that could be exacerbated by the school proposals.

4 Proposed SEN School

Proposed Development

4.1 The Proposed School will be an ‘all-through’ school for up to 200 primary and secondary pupils, anticipated to open during the academic year 2027 / 28.

4.2 Pupils will range between 4-16 years old (Reception and key stages 1-4) with classes potentially organised along 'needs' rather than strict age criteria, and facilities provided to predominantly cater for ambulant children, however some children with have mobility challenges as a result of their overall complex needs.

4.3 Where pupils live locally there are opportunities for children and young people to be supported to walk to school or utilise public transport. Training and support for the development of independent travel skills will be high on the agenda for this group of pupils.

4.4 Whilst the school is still at the early stages of planning, an estimate of teaching, administration and teaching assistants has been made by GCC Educational Authority to provide a total of approx. 70 staff members who are on site throughout the day, with around 35 additional staff present for part of the day. These additional staff shall include employees such as catering staff, lunchtime assistants, caretaker, cleaning staff etc.

4.5 Of the 70 staff members, it has been assumed there will be 25 teachers to include leadership and cover teachers, around 40 Teaching Assistants (TA’s) and approximately 5 administration staff.

4.6 The split of full time and part time staff has yet to be determined however it is very unlikely that all member of staff will be in attendance at the school at the same time. Special schools can also attract visiting professionals during the day (professionals working with children) that can be drawn from a wide geographical area.

4.7 Teaching staff are likely to arrive on site from 7.15 / 7.30 and a small proportion are likely to still be on site till 17.00, although due to working remotely after school work by staff can now be undertaken off site, and so the majority of teaching staff would finish before 17:00. TA’s and Admin staff will usually arrive on site between 8:00 and 8.30am and will leave site between 15:30 and 16:30.

4.8 An early concept plan of the site layout, including staff parking and drop off / pick up areas is reproduced in **Appendix A**. Please note that this plan is at an early stage of its development and is subject to change, but is included for the purposes of initial engagement with GCC Highways in assisting with the development of the internal layout scheme. Drop Off and Pick up arrangements are set out in full below.

Access Arrangements

4.9 Vehicular and pedestrian access into the Site will be situated from Arle Road located to the north of the Site, in the vicinity of the existing maintenance access.

4.10 Initial access proposals are demonstrated on Rappor Drawings ref: 250619-TP-3200, 3021 and 6000, as reproduced at **Appendix D**. The proposals shall comprise a 6.0m wide carriageway (sufficient for two cars to pass) and minimum 2.0m footway located to the north west of the access road. The access shall also include 6m radii to reduce vehicle entry/exit speeds with Arle Road.

4.11 In accordance with GCC School Safety Zone Guidance (April 2013) the proposed access arrangement shall include an advisory 20 mph school safety zone, as shown Rappor Drawing ref: 250619-TP- 6000, located along Arle Road in order to slow vehicle approach speeds in light of the proposed access and associated vehicles turning into and out of the school access. The school safety zone shall include the following measures to reduce vehicle speeds on approach:-

- Installation of a set of proposed speeds cushions located in between the two sets of existing speed cushions located at approximately 80-90 metre spacing. Resulting in a total of 3 x sets of speeds cushions within the School Safety Zone.
- Flashing School Signage (Wig Wags) located at either end of the School Safety Zone, in accordance with Traffic Signal Manual Chapter 4 Figure 8-12, in order to reinforce the safety zone message.
- Coloured Road Markings with SLOW lettering, located at either end of the School Safety Zone.
- School Mandatory Keep Clear/No Stopping Zig Zags, with on–street parking retained outside of the zone on the same side of road as the school.

4.12 The junction visibility splays and forward visibility for turning vehicles is shown on drawings 250619-TP-3200 and 3201. Visibility of 24.3m to the west has been based on the proposed school safety zone and advisory 20 mph proposed speed limit measured to a 600mm offset from the kerb, taking to account a deceleration rate visibility parameters of 3.68m/s, and a reaction time of 1.5 seconds have been applied as appropriate, in accordance with MfS2 to account for a bus travelling along Arle Road. Visibility of 41.6m is available to the west measured to the centre line of Arle Road where any vehicle overtaking at this point would be seen, this distance is almost double the requirement for a 20mph speed limit. To the east the maximum visibility splay measured to a 600mm offset from the kerb is 67.8m which is nearly three times the requirement for a 20mph speed limit.

4.13 The vertical visibility drawing 250619-TP-3201 demonstrates that there is a maximum achievable visibility for a vehicle approaching the junction from the east of 81.2m from 600mm – 2m above ground level, which is a suitable stopping distance for a vehicle travelling at speeds up to 40 mph**.**

Internal Drop off / Pick Arrangements

4.14 The internal drop and pick arrangements at the proposed school are key to the safe operation of arrival and departures of pupils to / from the area. Given the specialised needs of the school children attending the site, there will be close supervision at all times at the start and end of the school day, and transport drop off and pick ups will be carefully managed by the school.

4.15 Given the estimated number of vehicle trips (predominantly contracted taxi's, MPV's, mini buses and a small proportion of parents) it is proposed to ensure that all vehicles arrive on site no earlier than 15 minutes before school start and end time and are held within the school grounds until such a time that an indication is given (i.e. a school bell or alarm) and then all children are permitted to exit or enter the vehicles and are either escorted to /from the school, or in the case of some of the older pupils, may be given the opportunity to walk to and from their vehicle to / from the school door unaided to promote independence. This method has been observed in practice at Belmont School in Cheltenham and is shown to operate in a safe and very efficient manner, such that no vehicles are queueing back out of the school onto the surrounding roads at any time.

4.16 The internal drop off and pick up loop road shall be designed to provide sufficient storage area for up to 80 vehicles (based on 6 metre average queueing length) which is based on the predicted number of vehicles entering the site at the start and end of the school day for pupil drop off / pick up. The internal loop road shall therefore comprise a minimum of 6m width sufficient to store two cars alongside each other.

4.17 The proposed car park to the north comprising a minimum of 80 parking spaces is to solely be used by teaching, administrative staff and visitors, and all vehicle movements associated with this area shall not take place at the same time as pupil drop off / pick up times. Outside of pick up and drop off times the drop off bay can then also be used for visitor parking, therefore increasing the overall amount of onsite parking as required.

4.18 Swept path analysis of cars, refuse vehicles, max length rigid delivery trucks, and emergency vehicles will be undertaken as part of the TA to demonstrate that all vehicles can access and egress each access and utilise on-site parking and loading arrangements.

Staff Parking Provision

4.19 Given the specialised nature of the work catered for in special schools, it is found that teaching staff and TAs in special schools can be drawn from a wide geographical area, and they are likely to drive in, unlike TAs in mainstream schools which are often situated in the local area.

4.20 The vehicle parking has therefore been based on the forecast worst case staff vehicle trips associated with all full time staff. It is therefore forecast that a total of up to 75 staff shall travel to the site by car. On this basis, 80 car parking spaces have been provided of which five disabled / accessible parking bays shall be provided in accordance with MfGS for a car park with 51 - 200 spaces along with 5 visitor parking spaces.

4.21 The car parking provision is considered suitable to account for the forecast trips associated with the staff likely to be on site at any one time including visitors.

4.22 MfGS sets out that initially 5% of the total parking spaces should be provided with Electric Vehicle Charing Points (EVCP) with a further 5% provided at an agreed upon trigger but no later than three years from the first opening. On this basis, a total provision of 4 EVCP spaces will be provided on site from the offset. It is proposed that one of the disabled spaces shall be equipped with EVCP.

4.23 A total of 8 motorcycle spaces shall also be provided based on the ratio of 1 motorcycle spaces per 10 car parking spaces as set out in MfGS.

4.24 Further evidence to demonstrate the appropriateness of the parking provision shall be provided in the TA.

4.25 Cycle parking spaces for staff, visitors and potentially pupils shall be provided in accordance with MfGS guidance as stated in the Manual for Gloucestershire Streets Addendum dated October 2021 that refers to LTN 1/20 Guidance. Lockers for staff shall also be incorporated into the masterplan proposals. Based on the Guidance within LTN 1/20 it is anticipated that a minimum of 4 cycle spaces would be required at a ratio of 1 space per 20 staff. LTN 1/20 also advises 1 cycle parking space per 10 pupils but due to the complex needs of the students space will be reserved for additional cycle parking should any students be supported for cycling to school so that the cycle parking area could be expanded if required.

4.26 Options for staff car sharing shall also be considered as part of the Travel Plan proposals.

Summary

4.27 Rappor would be pleased to consult with GCC to determine the suitability of the access arrangements, proposed school safety zone measures along Arle Road, the site layout principles and parking provision.

5 Forecast Pupil and Staff Trip Attraction

Forecast Pupil Trip Attraction

5.1 The forecast trip attraction for both the 200 pupils and 105 staff (both fulltime and part time) which the school is expected to accommodate has been considered.

5.2 It is anticipated that the proposed school day for the school will start at around 09:00 AM and finish around 15:00 PM, and given the specialised nature of the school, no pupils are expected to travel to/from the school by any means other than vehicular transport for the purposes of this analysis, which is very much a 'worse case' scenario. In determining the operational hours of the school we have taken care to consider the start and finish times of other schools in the local area to avoid selecting similar start and finish times to assist with reducing the overall impact of school traffic in the local area.

5.3 Pupil trip rates by vehicle type have been determined in **Tables 5.1 to 5.5**. Average pupil occupancy for each vehicle and modal split has been determined following discussion with GCC Education and the SEN Travel Enablement Team.

5.4 It is anticipated that 4 minibuses are to be used with an average occupancy of 8 pupils per minibus, as shown in **Table 5.1.**

Average Number of Pupils per Minibus	Number of Minibuses	Number of Pupils Transported by Minibus	Calculated Total Minibus Trips (two-way)
8	4	32	8 (4 inbound and 4 outbound)

Table 5.1 Minibus Trip Rate

5.5 It is also predicted that 32 pupils will arrive at school in Multi-Purpose Vehicles (MPVs), with an average of 4 pupils per MPV, as shown in **Table 5.2**.

Average Number of Pupils per MPV	Vehicular Trip Rate per Pupil (two-way)	Number of Pupils Transported by MPV	Calculated Total MPV Trips (two-way)
4	0.5	32	16 (8 inbound and 8 outbound)

Table 5.2 MPV Trip Rate

5.6 For the pupils arriving by taxi, a taxi occupancy rate of 2.7 pupils per taxi has been used to calculate the trip rate, as demonstrated in **Table 5.3**.

Average Number of Pupils per Taxi	Vehicular Trip Rate per Pupil (two-way)	Number of Pupils Transported by Taxi	Calculated Total Taxi Trips (two-way)
2.7	0.74	121	90 (45 inbound and 45 outbound)

Table 5.3 Taxi Trip Rate

5.7 Additionally, based on previous discussions with GCC it is predicted that 15 pupils (8%) may not qualify for GCC-provided transport and being within a 3-mile distance from the

school (unless approved through an appeals process), and will therefore be driven to school by a parent or guardian whilst these pupils will be supported to lift share, on a worst case scenario the number of parent vehicle trips are shown in **Table 5.4.**

Average Number of Pupils per Parent Vehicle	Number of Pupils Transported by Parents	Calculated Total Parent Vehicle Trips (two-way)
1	15	30 (15 inbound and 15 outbound)

Table 5.4 Parent Vehicle Trip Rate

5.8 Where pupils live locally there are opportunities for children and young people to be supported to walk to school or utilize public transport. Training and support for the development of independent travel skills will be high on the agenda for this group of pupils, however for the purpose of the Transport Assessment it is assumed that there will be no walking or cycling trips made by pupils to represent a worse case capacity analysis.

5.9 **Table 5.5** summarises the total pupil trip attraction to the school.

Mode	Number of Pupils	Inbound Trips	Outbound Trips	Number of Vehicular Trips (two-way)
Minibus	32	4	4	8
MPV	32	8	8	16
Taxi	121	45	45	90
Parent Vehicle	15	15	15	30
Walk/Cycle	0	0	0	0
Total	**200**	**72**	**72**	**144**

Table 5.5 Pupil Forecast Vehicular Trip Attraction

5.10 **Table 5.5** demonstrates that 144 pupil vehicular trips (72 inbound and 72 outbound) are expected in each school peak hour. Pupils are expected to arrive over an approximately 15- to 20-minute period between 08:30-09:00 and leave around 15:00, with vehicles arriving after 14:45.

5.11 It should also be noted that pupil absenteeism is likely to reduce the pupil forecast vehicle trips, it is not proposed to adjust the pupil forecast vehicle trip attraction for the purposes of this assessment, it should be noted that this could reduce the vehicle trip attraction.

5.12 It is also confirmed that the school will not run any after school activities for external uses (i.e. use of the MUGA etc), therefore trips relating to the school shall only be associated with use by pupils attending the school.

Forecast Staff Trip Attraction

5.13 Of the staff at the school, it is predicted that approximately 70 staff will be full-time employed and 35 will be part-time employed. The 70 full-time staff are expected to follow the commuting patterns described in **Table 5.6** below, assuming a worse case prediction that all staff will travel to and from the school by private motor car.

5.14 The 35 part-time staff are expected to work sporadically, arriving and departing during the school day, outside of the school peak hours. As such, they are unlikely to affect peak travel flows and have been excluded from the vehicle trips assessment.

5.15 Based on other similar special schools in the county, a proportion of full time staff (50% of the total 70 full time staff) will arrive before 08:00, with the majority of TA's and admin staff (the remaining 50% of the total 70 full time staff) arriving between 08:00-08:30 ahead of the pupil arrivals. A staggered departure of staff from the school is also expected in the afternoons, with staff starting to depart from the end of school after 15:30, and the final staff departing before 18:00. Staff departures have been assigned equally between 15:00-16:00, 16:00-17:00, and 17:00-18:00. A summary of the forecast staff trips is provided in **Table 5.6.**

Peak Period	Inbound Trips	Outbound Trips	Number of Vehicular Trips
07:00 – 08:00	35	0	35
08:00 – 08:30	35	0	35
08:30 – 09:00	0	0	0
15:00 – 15:30	0	0	0
15:30 – 16:00	0	23	23
16:00 – 17:00	0	24	24
17:00 – 18:00	0	23	23

Table 5.6 Staff Forecast Vehicular Trip Attraction by time period

Combined Pupil and Staff Vehicular Trip Attraction

5.16 A summary of the estimated combined vehicle trip attraction for both pupils as demonstrated in **Table 5.5** and staff as demonstrated in **Table 5.6** is provided below in **Table 5.7**.

Peak Period	Inbound Trips	Outbound Trips	Number of Vehicular Trips
07:00 – 08:00	35	0	35
08:00 – 08:30	35	0	35
08:30 – 09:00	72	0	72
09:00 – 09:30	0	72	72
14:00 - 15:00	72	0	72
15:00 – 16:00	0	95	95
16:00 – 17:00	0	24	24
17:00 – 18:00	0	23	23

Table 5.7 Combined Pupil and Staff Trip Attraction by time period

5.17 **Table 5.7** demonstrates that the school is forecast to generate 107 vehicle trips in the total AM peak period (08:00-09:00), consisting of 35 staff (350 inbound and 0 outbound) related vehicles trips between 08:00-08:30 and 72 pupil related trips (72 inbound and 0 outbound) between 08:30-09:00.

5.18 In the PM school peak period (15:00-16:00) there will be a total of 95 vehicles trips, consisting of 23 staff related vehicles trips (0 inbound and 23 outbound) between 15:30-16:00 and 72 pupil related trips (0 inbound and 72 outbound) between 15:00-15:30.

5.19 In the Highway PM Peak period (17:00-18:00) there will be a total of 23 staff related vehicle trips only (0 inbound and 23 outbound).

6 Vehicle Trip Distribution and Assignment

Vehicle Trip Distribution

6.1 The distribution patterns of the forecast vehicle trips generated by both pupils and staff of the proposed school have been considered in this section.

Pupil Distribution

6.2 The proposed school is to accommodate a total 200 pupils with the catchment area confirmed by GCC Education to be from within Gloucestershire. Whilst this is a county wide provision, there are already schools of this type in Tewkesbury, Stroud and from 2027 in Gloucester. It is therefore anticipated that pupils will be drawn from Cheltenham and the immediate surrounding areas.

6.3 Based on this, the Usual Residents Population Census 2011 data from the key populous areas within Gloucestershire, including Gloucester, Cheltenham, Stroud, Cotswold, Tewkesbury and Forest of Dean has been obtained to identify the most likely areas where pupils will be traveling from and at what proportion. The raw Residents Population Census 2011 data is provided at **Appendix E** and summarised at **Table 6.1**.

Key Areas	Usual Residents Population (Census 2011 Data)	Percentage
Gloucester	121,688	20.4%
Cheltenham	115,732	19.4%
Stroud	112,779	18.9%
Cotswold	82,881	13.9%
Tewkesbury	81,943	13.7%
Forest of Dean	81,961	13.7%
Total	**596,984**	**100%**

Table 6.1 Summary of Residents Population Census 2011 Data Within Key Areas of Gloucestershire

6.4 The Resident Population proportions of each of the key areas within Gloucestershire, identified within **Table 6.1**, have been used as the proportions for the distribution pattern of pupil vehicle trips attracted by the proposed development.

6.5 In order to assign the trips to the local highway network, the quickest route via Google Maps, from the residential centre of each key area to the site have been assessed, which allows for each route to the site to be allocated a number of daily trips, which can then be converted into a percentage distribution of traffic on the highway network surrounding the application site.

6.6 The trips have been assigned based on the quickest / shortest route to and from the proposed school. Where multiple routes are equally fast / short, multiple routes have been assigned to each key area. It has been assumed that 20% of trips travelling along Route A

will use either Pennsylvania Avenue and / or Brooklyn Road in order to gain access to/from A40 and M5 (J10).

6.7 **Table 6.2** below describes the routes taken, and the percentage of Gloucestershire's population assigned to each route based on the Google Maps and the population data provided in **Table 6.1** above.

Key Areas	Route
Gloucester	A
Cheltenham	C
Stroud	A
Cotswold	C
Tewkesbury	B
Forest of Dean	A

Table 6.2 Key Areas and Anticipated Route to / from Proposed Development

Route	Route Description	Percentage
A	Left out of site onto Arle Road, left onto Princess Elisabeth Way to /from A40 and M5 (J10)	42.4%
	Left out of Site onto Arle Road, and left onto either Pennsylvania Avenue or Brooklyn Road to /from A40 and M5 (J10)	10.6%
B	Left out of site onto Arle Road, right onto Princess Elisabeth Way to /from A4019 and M5 (J11)	13.7%
C	Right out of site onto Arle Road, right onto B4633 at Signal Junction	16.7%
	Right out of site onto Arle Road, left onto B4633 at Signal Junction	16.6%
Total	**-**	**100.0%**

Table 6.3 Pupil Routing

6.8 The data provided within **Tables 6.1, 6.2 and 6.3** determines the distribution pattern and assignment of the pupil trips of the proposed development.

6.9 The routes in **Table 6.3** routes are in the school-to-home direction, and are therefore representative of the afternoon trips from the site. It is considered that the routes are reversible, so that the same route is taken in reverse for the home-to-school morning trips. This is acceptable due to the low proliferation of one-way roads or other road features that could materially change a route based on direction of travel.

Staff Distribution

6.10 The distribution pattern for the staff vehicle trips has been based on the 2011 Census Method of Travel to Work data, which has been extracted from Nomis (Office of National Statistics).

6.11 The car driver method of travel to work from the census data has been used to distribute traffic across the local highway network.

6.12 The proposed development site is situated within the Middle Super Output Area (MSOA) of Cheltenham 007. The census data identifies the origin Middle Super Output Areas of people that work within Cheltenham 007.

6.13 The staff associated distribution pattern based on the above is identified at **Table 6.4**, with the full 2011 travel to work census data for the Cheltenham 007 MSOA reproduced at **Appendix F**.

6.14 To determine routes taken to/from the school, the quickest route via Google Maps from each output area to the application site has been assessed, which allows for each route to the site to be allocated a number of daily trips, which can then be converted into a percentage distribution of traffic on the highway network surrounding the application site.

6.15 For the purposes of the quickest route via Google Maps, the most centrally located residential area in each origin MSOA has been chosen as the start of the route. The regions enclosed by each MSOA were obtained from DataShine Commute (commute.datashine.org.uk).

6.16 For Cheltenham 007, the majority of the residential development of the MSOA is situated south and west of the application site. Therefore, cars from Cheltenham 007 have been assigned to travel on route A.

6.17 The routes in **Table 6.4** routes are in the school-to-home direction, and are therefore representative of the afternoon trips from the site. It is considered that the routes are reversible, so that the same route is taken in reverse for the home-to-school morning trips.

Route	Route Description	Percentage
A	Left out of site onto Arle Road, left onto Princess Elisabeth Way to /from A40 and M5 (J10)	49.3%
B	Left out of site onto Arle Road, right onto Princess Elisabeth Way to /from A4019 and M5 (J11)	24.2%
C	Right out of site onto Arle Road, right onto B4633 at Signal Junction	26.5%
Total	**-**	**100.0%**

Table 6.4 Staff Distribution (School to home direction)

Trip Assignment

Pupil Trip Assignment to Local Highway Network

6.18 The 144 pupil forecast vehicle trips (72 inbound and 72 outbound) identified within **Table 5.5** have been calculated against the pupil routing set out in **Table 6.2** to determine the impact of these trips onto the local highway network.

6.19 A summary of the trip assignment onto the local highway network for the pupil vehicle trips is identified at **Table 6.5**.

Hour	Route	Inbound	Outbound	Total
07:00-08:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
08:00-08:30	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
08:30-09:00	A	39	0	39
	B	9	0	9
	C	24	0	24
	Total	**72**	**0**	**72**
09:00-09:30	A	0	39	39
	B	0	9	9
	C	0	24	24
	Total	**0**	**72**	**72**
AM Total		**72**	**72**	**144**
14:00-15:00	A	39	0	39
	B	9	0	9
	C	24	0	24
	Total	**72**	**0**	**72**
15:00-16:00	A	0	39	39
	B	0	9	9
	C	0	24	24
	Total	**0**	**72**	**72**
16:00-17:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
PM Network Peak 17:00-18:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
PM Total		**72**	**72**	**144**

Table 6.5 Pupil Trip Assignment onto Local Highway Network

Staff Trip Assignment to Local Highway Network

6.20 The 70 full-time staff forecast vehicle trips identified within **Table 5.6** have been calculated against the staff associated distribution pattern identified in **Table 6.5** to determine the

impact of these trips onto the local highway. A summary of the trip assignment for the staff vehicle trips for each time period are demonstrated in **Table 6.6.**

Hour	Route	Inbound	Outbound	Total
07:00-08:00	A	17	0	17
	B	9	0	9
	C	9	0	9
	Total	**35**	**0**	**35**
08:00-08:30	A	17	0	17
	B	9	0	9
	C	9	0	9
	Total	**35**	**0**	**35**
08:30-09:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
09:00-09:30	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
AM Total		**70**	**0**	**0**
14:00-15:00	A	0	0	0
	B	0	0	0
	C	0	0	0
	Total	**0**	**0**	**0**
15:00-16:00	A	0	11	11
	B	0	6	6
	C	0	6	6
	Total	**0**	**23**	**23**
16:00-17:00	A	0	12	12
	B	0	6	6
	C	0	6	6
	Total	**0**	**24**	**24**
PM Network Peak 17:00-18:00	A	0	11	11
	B	0	6	6
	C	0	6	6
	Total	**0**	**23**	**23**
PM Total		**0**	**70**	**70**

Table 6.6 Staff Trip Assignment onto Local Highway Network

Total Development Vehicular Trip Assignment to Local Highway Network

6.21 To provide a full picture of the vehicular trips on the local highway network, the assigned pupil trips shown in **Table 6.5** and the assigned staff trips shown in **Table 6.6** have been combined. **Table 6.7** indicates the total vehicular trip assignment to the local highway network.

Hour	Route	Inbound	Outbound	Total
07:00-08:00	A	17	0	17
	B	9	0	9
	C	9	0	9
	Total	**35**	**0**	**35**
08:00-08:30	A	17	0	17
	B	9	0	9
	C	9	0	9
	Total	**35**	**0**	**35**
08:30-09:00	A	39	0	39
	B	9	0	9
	C	24	0	24
	Total	**72**	**0**	**72**
09:00-09:30	A	0	39	39
	B	0	9	9
	C	0	24	24
	Total	**0**	**72**	**72**
AM Total		**142**	**72**	**214**
14:00-15:00	A	39	0	39
	B	9	0	9
	C	24	0	24
	Total	**72**	**0**	**72**
15:00-16:00	A	0	50	50
	B	0	15	15
	C	0	30	30
	Total	**0**	**95**	**95**
16:00-17:00	A	0	12	12
	B	0	6	6
	C	0	6	6
	Total	**0**	**24**	**24**
PM Network Peak 17:00-18:00	A	0	11	11
	B	0	6	6
	C	0	6	6
	Total	**0**	**23**	**23**
PM Total		**72**	**142**	**214**

Table 6.7 Total Trip Assignment onto Local Highway Network

7 Junction Capacity Analysis

Base and Future Year Scenarios

7.1 At this stage, it is envisaged that the following assessment scenarios would need to be considered, with a forecast year of 2031 based on the end of local plan period and following full occupancy of the school.

a) 2025 Base Year – year of registration of planning application;

b) 2031 Forecast Year (both without development and with development)

7.2 In order to estimate future traffic conditions and determine the impact of the forecast trip generation / attraction on the local highway network, the TEMPro database (Version 8.1) has been consulted using the 'Core' Scenario. This scenario assumes that traffic increases on a yearly basis, given ongoing population growth, and does not account for changes in travel behaviour and the uptake in more sustainable modes of travel in favour of private car journeys. This assumption is considered a traditional approach to forecasting traffic conditions / impact and follows a 'predict and provide' philosophy rather than forecasting more favourable and aspirational future conditions that may be realised through commitments / measures made to increase sustainable modes of travel. Given the inherent increase in background traffic associated with any impact assessment, this is considered to inform a robust analysis and present a worst-case scenario.

7.3 The growth factors are summarised in **Table 7.1** below, based on output area "Cheltenham Authority' area based on all road types.

Time Period	Local Growth Figure 2025 to 2031
AM Morning Peak	1.0447
Inter School Peak	1.0556
PM Evening Peak	1.0444

Table 7.1 TEMRro Local Growth Figures to 2031

Proposed Junction Capacity Analysis

7.4 Based on the trip distribution and trip assignment review in the previous section and the relative impact on the local highway network, It is proposed that the following junctions shall be tested for capacity using both Junctions 11 and LINSIG modelling software for the 2025 Base year in order to validate results, and 2031 forecast year scenarios both with and without proposed development, based on local junctions within excess of 30 two-way movements in any one hour.

1) Arle Road / School Access;
2) Grevil Road / Queen Elizabeth Way Priority Junction
3) B4633 / Arle Road / St John's Court Signalised Junction

7.5 Traffic Surveys in the form of Manual turning counts shall be undertaken in mid September 2025, at the following locations in order to inform the junction capacity analysis. Queueing length surveys shall also be undertaken in order to validate the base year results.

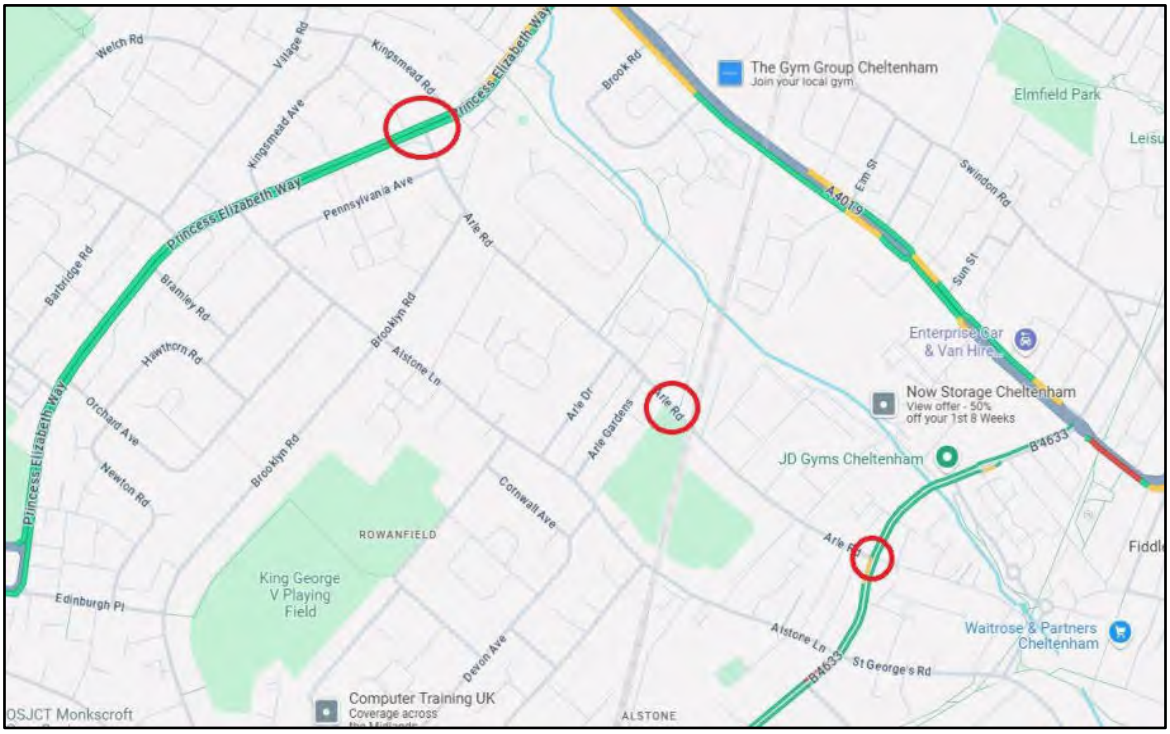

Table 7.2 Manual Junction Count Survey Locations

Committed Development Flows

7.6 Traffic flows relating to relevant committed developments situated in the local area shall be reviewed and added to the future year scenarios, if necessary, in order to account for localised traffic increases. GCC shall advise of committed development that will require to be included along with any adjustments and / or removal of TEMPro growth to avoid double counting.

Summary

7.7 The forecast trip impact is not considered to be significant and therefore the resultant cumulative impacts on the road network are not anticipated to be severe, in the context of the NPPF. On this basis, we consider that the capacity analysis of junctions set out in this section and scenarios to be tested are considered appropriate and reasonable.

7.8 This is an approach that we would like to agree with GCC Highways as part of the scoping discussions.

8 Summary of Scope of Works to Support a Planning Application

8.1 Based on the scale of the proposed development, it is anticipated that the following would be prepared by Rappor to support a planning application for the Cheltenham New Special School, and we would be grateful for confirmation by GCC that the documents below are required to support the application:

1) Transport Assessment; and
2) Travel Plan.

Transport Assessment

8.2 It is anticipated that the Transport Assessment will comprise the following detailed below:

Existing Conditions

a) A review of the site location and composition;
b) A review of the local highway network;
c) An accessibility assessment of existing pedestrian, cycle and public transport facilities mainly focused at staff use, due to the specialised nature of the school;
d) An analysis of local highway safety data for the most recent five-year period available; and
e) A review of relevant planning and transport policy to understand the framework within the site and land use it sits.

Proposed Conditions

f) A description of the development proposal;
g) Description and justification for the proposed access arrangements by all modes;
h) Justification of car and cycle parking provision and access for mini-bus / taxis / coaches, fire tenders, service and delivery vehicles, including all necessary swept-path assessments;
i) Forecast multi-modal trip rates for staff and pupils using modal split data based on the first principles approach set out in Section 5 of this TSN.
j) Assessment of distribution based on where the staff and pupils will be travelling to/from network using the shortest route to the proposed school, as set out in Chapter 6 of this TSN.
k) Assess significance of development impact upon surrounding transport infrastructure using stand-alone junction capacity testing;
l) Assessment of parking demand associated with the proposals.
m) Potential mitigation measures, if required.

School Travel Plan

8.3 A School Travel Plan will be provided which will contain:

a) A summary of the existing transport situation on the local highway network and accessibility of the site by all transport modes;

b) An audit of the key routes to the site to understand barriers to walking and cycling;
c) A management strategy that includes identifying the role and responsibility of the Travel Plan Coordinator;
d) Use of multi-modal travel survey data obtained for the Transport Assessment to provide a baseline modal split;
e) Set realistic target levels for the site;
f) Set out a Travel Plan Action Plan which will identify measures to reduce single occupancy car use to the site and promote sustainable modes of access and;
g) Provide a monitoring and implementation strategy.

Summary and Conclusion

8.4 This TSN has been prepared to facilitate discussions with GCC, as the local highway authority, to agree the transport assessment methodology and strategy and obtain the initial views from GCC. Rappor would be pleased to engage with GCC to obtain their view in writing on the suitability of the proposed development and the assessment requirements to support a future planning application.

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Our Ref: GED/2025/058021	Your Ref: 25/0063/PAPP2	Date: 10 October 2025

Proposal:	To erect a new 200 place special school for primary and secondary aged pupils with Moderate and Additional Learning Difficulties (MALD) on the former St Benedict School playing field	Received date:	5 September 2025
Document(s), drawing(s) and reference(s):	• 250356 – Transport Scoping Note (TSN) • 250619-RAP-XX-XX-TP-DR-3200 - Proposed Access Arrangement Visibility Assessment • 250619-RAP-XX-XX-TP-DR-6000 - Proposed School Safety Zone General Arrangements • 250619-RAP-XX-XX-TP-DR-3201 - Maximum Achievable Vertical Visibility Splay Assessment • GCC HDM pre-app response dated 5 September 2025		

GCC Pre-application advice

The TSN sets out the approach to be taken in terms of addressing policies and guidance documents. It provides information about the site, where it is and how it fits into the local highway network. Speed surveys have been conducted to calculate the required access visibility. Proposals to obtain highway extent data and personal injury collision data are noted and agreed.

It is proposed to provide an advisory 20mph school safety zone on Arle Road, including a pair of speed cushions, wig-wag signals, school warning signs and coloured road surfacing with “SLOW” markings at the entries to the zone plus enforceable yellow School Keep Clear / zig-zag markings along part of the frontage.

The internal layout of the site includes transport drop-off and pick-up space which will be actively managed by school staff. A limited window will exist for pupil arrivals and departures with staff arrivals and departures outside these times.

The indicative mix of transport options including minibuses, MPVs, taxis and private cars is noted. 15 pupil arrivals transported by their parents is noted. Chapters 5 & 6 lay out the forecast for pupil and staff trips and their distribution / assignment on the network. Chapter 7 looks at junction capacity and it was proposed to undertake manual turning counts in mid-September at 3 locations on Arle Road. These were agreed previously as acceptable locations.

A transport assessment (TA) and (school) travel plan (TP) are proposed to be submitted

which the Highway Authority agrees to. School travel plans are a unique subset of travel planning with their own challenges. Often, the most effective measure is to provide heavy encouragement for car sharing, even if there is initial resistance. Walking and cycling, whilst ideal from an environmental perspective is less likely to be taken up because of the wide area from which specialist staff are drawn. This should not be a barrier to these modes being promoted especially if the local network is assessed as being of a high quality and accessible.

The overall approach proposed in the TSN to support the application is acceptable to the Highway Authority.

GCC's Road Safety Auditor has confirmed that the School Safety Zone proposals are potentially acceptable. Some points have been raised however:

- The proximity of vertical traffic calming measures to a structure – the railway bridge – needs to be checked that it is not too close.
- Evidence or research should be provided to confirm that speed cushions are effective at reducing vehicle speeds to ~20mph.
- Confirmation that the length of the School Safety Zone is in line with guidance / regulations
- Would a Variable Message Sign, akin to those in use on motorways with variable speed limits be a viable alternative to enable full enforceability? The digits would change from 30 to 20 but the red border would be consistent. On this point, please contact Hannah Bassett-Louis, our TRO manager.
- A stage 1 Road Safety Audit and Designer's Response should be undertaken as part of the application.
- Look at the option to retain the vehicle crossover form of access. If the tree requires protecting from the swept path of vehicles, some new kerbing may be required.

Required consultation:	ITU		Highways Records	X
	Rd Safety	x	Fire Service	
	PROW		Structures	X
	LHM		Police	
Further information to be submitted at planning application stage:				

NOTE:

This advice is issued without prejudice to any recommendations given to the planning authority at the planning application stage. The above will all need to be assessed on their merits at full application stage. This advice is based on the information submitted to GCC, if there are any material changes/new information provided at full application stage this advice may change.

Appendix B – ATC Survey Results & MCC Survey Results

Appendix C – Personal Injury Collision Data

Gloucestershire County Council	Collision Plot of Arle Road Cheltenham - Site 1 Crown copyright and database rights 2025 Ordnance Survey Gloucestershire County Council Licence No. AC0000850000	SCALE	1 : 1180
		DATE	24/09/2025
		DRAWING No.	1
		DRAWN BY	Luke Staples

Gloucestershire COUNTY COUNCIL	Collision Plot of Arle Road Cheltenham - Site 2 Crown copyright and database rights 2025 Ordnance Survey Gloucestershire County Council Licence No. AC0000850000	SCALE	1 : 4720
		DATE	24/09/2025
		DRAWING No.	2
		DRAWN BY	Luke Staples

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

20999081	**10/11/2020**	Tuesday	1418	Daylight	Fine - no high winds	Vehs: 2	Cas: 1
Slight	B 4633	Speed limit: 30		Single carriageway	Road surface Dry	E393840	N222762
Junction detail:	Crossroads				Crossing facilities: Pedestrian phase at traffic signal junction		
Junction Control:	Automatic traffic signal				Carriageway hazards: None		
Did officer attend:	Member of public reported at police station				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

GLOUCESTER ROAD (B4633) AT JUNCTION WITH ARLE ROAD, CHELTENHAM
V2 CYCLING TOWARDS TESCOS BEHIND SEVERAL CARS, KEEPING TO LEFT, ON BICYCLE LANE. V1, VAN ON OPP SIDE, TURNED ONTO ARLE RD ONCE CARS HAD PASSED, BUT CYCLIST WAS STILL CROSSING. V2 WAS HIT ON RIGHT, INTO ARLE RD & HIT WINDSHIELD.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Vehicle 1 : Pedal Cycle (Including pedal assisted electric bicycles)	Age: 28 Female	
Going ahead other		VRM: **Excluded**
Travelling SW - NE	Impact: Offside	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Mid Junction - on roundabout or main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Commuting to/from work
Casualty 1: Driver / Rider	Age: 28 Female	Slight
Seatbelt: Not applicable		

Vehicle 2 : Van / Goods 3.5 tonnes mgw and under	Age: 21 Male	
Turning right		VRM: **Excluded**
Travelling NE - NW	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Leaving main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

251544543	**20/01/2025**	Monday	0925	Daylight	Fine - no high winds	Vehs: 2	Cas: 1
Moderately serious	C 9039	Speed limit: 30		Single carriageway	Road surface Wet/Damp	E393398	N223115
Junction detail:	Staggered or T Junction				Crossing facilities: No crossing facility within 50 metres		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Officer attended the collision				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

ARLE GARDENS AT JUNCTION WITH ARLE ROAD, CHELTENHAM
V1 APPRO JUNC WITH ARLE RD FROM ARLE GARDENS, INTENDING TO TURN RIGHT. V1 HAS THEN PULLED OUT, INTO PATH OF M/C V2, TRAVELLING TOWARDS PRINCESS ELIZABETH WAY ON ARLE RD, CAUSING V2 TO COLLIDE WITH THE FRONT OFFSIDE OF V1.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

Vehicle 1 : Car	Age: 67 Male	
Turning right		VRM: **Excluded**
Travelling SW - NE	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Mid Junction - on roundabout or main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Vehicle 2 : Motor Cycle over 50 cc and up to 125cc	Age: 48 Male	
Going ahead other		VRM: **Excluded**
Travelling SE - NW	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Approaching junction/Parked at approach	Hit and Run: Not hit and run
Skid: Overturned	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Casualty 1: Driver / Rider	Age: 48 Male	Moderately serious
Seatbelt: Not applicable		

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor Vehicles Only	0	0	0	0
2-wheeled motor vehicles	0	1	0	1
Pedal Cycles	0	0	1	1
Horses & Other	0	0	0	0
Total Accidents	**0**	**1**	**1**	**2**

Casualties:

	Fatal	Serious	Slight	Total
Vehicle Driver	0	0	0	0
Vehicle Passenger	0	0	0	0
Motorcycle rider	0	1	0	1
Cyclist	0	0	1	1
Pedestrians	0	0	0	0
Other	0	0	0	0
Total	**0**	**1**	**1**	**2**

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

211109219	**11/11/2021**	Thursday	1810	Darkness: street lights present and lit	Fine - no high winds	Vehs: 2	Cas: 1
Slight	C 9039	Speed limit: 30		Single carriageway	Road surface Wet/Damp	E393056	N223424
Junction detail:	Staggered or T Junction				Crossing facilities: No crossing facility within 50 metres		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Member of public reported via web				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

ARLE ROAD AT JUNCTION WITH BROOKLYN ROAD, CHELTENHAM
V2 CYCLING TO P E WAY WHEN V1, WHITE VAN, O/T V2 AT SPEED & IMMEDIATELY TURNED LEFT INTO BROOKLYN RD. RIDER UNABLE TO STOP, COLLIDED WITH SIDE OF V1 & WAS KNOCKED OFF. V1 SPED AWAY. RIDER HAD YELLOW REFLECTIVE JACKET & LIGHTS.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Vehicle 1 : Van / Goods 3.5 tonnes mgw and under	Age: Not known	
Turning left		VRM: **Excluded**
Travelling SE - SW	Impact: Nearside	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Leaving main road	Hit and Run: Vehicle hit but failed to stop
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Vehicle 2 : Pedal Cycle (Including pedal assisted electric bicycles)	Age: 64 Male	
Going ahead other		VRM: **Excluded**
Travelling SE - NW	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Mid Junction - on roundabout or main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Commuting to/from work

Casualty 1: Driver / Rider	Age: 64 Male	Slight
Seatbelt: Not applicable		

231367423	**26/10/2023**	Thursday	1525	Daylight	Fine - no high winds	Vehs: 2	Cas: 1
Slight	A 4013	Speed limit: 30		Single carriageway	Road surface Dry	E392967	N223590
Junction detail:	Staggered or T Junction				Crossing facilities: Pelican, puffin, toucan or similar non-junction pedestrian light crossing		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Officer attended the collision				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

A4013 PRINCESS ELIZABETH WAY AT JUNCTION WITH GREVIL ROAD, CHELTENHAM
V1 WAS TURNING RIGHT ONTO PE WAY & FRONT RH SIDE OF V1 STRUCK MOPED V2. V1 DRIVER BELIEVES THAT ANOTHER CAR FROM TEWS RD DIR JUMPED RED LIGHT & TURNED LEFT AND V2 WAS BEHIND THIS VEH. WITNESS SAID V2 OVERTOOK VEH.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

Vehicle 1 : Car	Age: 66 Female	
Turning right		VRM: **Excluded**
Travelling E - W	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Entering main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Vehicle 2 : Motor Cycle over 50 cc and up to 125cc	Age: 28 Male	
Going ahead other		VRM: **Excluded**
Travelling N - S	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Mid Junction - on roundabout or main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Journey as part of work

Casualty 1: Driver / Rider Age: 28 Male Slight
Seatbelt: Not applicable

241517936	**03/01/2024**	Wednesday	1755	Darkness: street lights present and lit	Fine - no high winds	Vehs: 2	Cas: 1
Less serious	A 4013	Speed limit: 30		Single carriageway	Road surface Dry	E392957	N223588
Junction detail:	Staggered or T Junction				Crossing facilities: No crossing facility within 50 metres		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Officer attended the collision				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

A4013 PRINCESS ELIZABETH WAY AT JUNCTION WITH GREVIL ROAD, CHELTENHAM
THIS REPORT WAS NOT COMPLETED UNTIL NOVEMBER 2024. THE ATTENDING OFFICERS COULD NOT RECALL HOW THE COLLISION OCCURRED.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Vehicle 1 : Car	Age: 51 Female	
Starting		VRM: **Excluded**
Travelling N - S	Impact: Front	Breath test: **Excluded**
Location Lane: In lay-by or hard shoulder	Junction location: Approaching junction/Parked at approach	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Vehicle 2 : Motorcycle - unknown cc	Age: 52 Male	
Going ahead other		VRM: **Excluded**
Travelling S - N	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Cleared junction or waiting/parked at junction exit	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Other

Casualty 1: Driver / Rider Age: 52 Male Less serious
Seatbelt: Not applicable

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

241436129	**26/04/2024**	Friday	1300	Daylight	Fine - no high winds	Vehs: 3	Cas: 1
Slight	A 4013	Speed limit: 30		Single carriageway	Road surface Dry	E392954	N223589
Junction detail:	Staggered or T Junction				Crossing facilities: No crossing facility within 50 metres		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Officer attended the collision				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

A4013 PRINCESS ELIZABETH WAY NEAR JUNCTION WITH GREVIL ROAD, CHELTENHAM

V1 M/C FILTERING PAST SLOW MOVING TRAFFIC. AS V2 MOVED TO THE RIGHT ONTO HATCHED MARKINGS TO PREPARE TO TURN INTO GREVIL RD. V1 COLLIDED INTO O/S OF V2, WAS DEFLECTED & THEN HIT FRONT OF ONCOMING V3, WHICH HAD STOPPED PRIOR TO IMPACT.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Vehicle 1 : Motor Cycle over 50 cc and up to 125cc	Age: 20 Male	
Overtaking moving vehicle on offside		VRM: **Excluded**
Travelling SW - NE	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Approaching junction/Parked at approach	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Commuting to/from work

Casualty 1: Driver / Rider	Age: 20 Male	Slight
Seatbelt: Not applicable		

Vehicle 2 : Car	Age: 25 Male	
Lane change to right		VRM: **Excluded**
Travelling SW - NE	Impact: Offside	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Approaching junction/Parked at approach	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

Vehicle 3 : Car	Age: 30 Female	
Stopping		VRM: **Excluded**
Travelling NE - SW	Impact: Front	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Cleared junction or waiting/parked at junction exit	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Unknown

241443093	**15/05/2024**	Wednesday	0810	Daylight	Fine - no high winds	Vehs: 2	Cas: 1
Very serious	A 4013	Speed limit: 30		Single carriageway	Road surface Dry	E393030	N223619
Junction detail:	Staggered or T Junction				Crossing facilities: Pelican, puffin, toucan or similar non-junction pedestrian light crossing		
Junction Control:	Give way or Uncontrolled				Carriageway hazards: None		
Did officer attend:	Officer attended the collision				Crossing control: None in 50m / not controlled		
					Special Conditions: None		

A4013 PRINCESS ELIZABETH WAY AT JUNCTION WITH KINGSMEAD ROAD, CHELTENHAM

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

V1 TRAV PE-WAY FROM KINGSDITCH. AS V1 WAS PARALLEL WITH KINGSMEAD RD IT WAS HALTED IN TRAFFIC DUE TO PED XING BEING RED. V2 MOTORBIKE TRAV SAME DIR FILTERED THROUGH TRAFFIC AS V1 DECIDED TO TURN RIGHT. V1 TURNED INTO V2, CAUSING IT TO FALL.

Contributory/Road Safety factors and confidence of the Officer recording the collision information ***WARNING: FACTOR DATA IS SUBJECTVE***

Excluded	**Excluded**
Excluded	**Excluded**
Excluded	**Excluded**

Vehicle 1 : Car	Age: 52 Male	
Turning right		VRM: **Excluded**
Travelling NE - NW	Impact: Offside	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Leaving main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Other

Vehicle 2 : Motorcycle over 500cc	Age: 59 Male	
Overtaking moving vehicle on offside		VRM: **Excluded**
Travelling NE - SW	Impact: Nearside	Breath test: **Excluded**
Location Lane: On main carriageway	Junction location: Mid Junction - on roundabout or main road	Hit and Run: Not hit and run
Skid: Did not skid, jack-knife or overturn	No tow / articulation	Left hand drive: No
Hit object In/Off c'way: None/None		Journey: Commuting to/from work

Casualty 1: Driver / Rider	Age: 59 Male	Very serious
Seatbelt: Not applicable		

Accidents between dates: 01/08/2020 and 31/07/2025
Selection: Selected using Manual Selection

Notes:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor Vehicles Only	0	0	0	0
2-wheeled motor vehicles	0	2	2	4
Pedal Cycles	0	0	1	1
Horses & Other	0	0	0	0
Total Accidents	**0**	**2**	**3**	**5**

Casualties:

	Fatal	Serious	Slight	Total
Vehicle Driver	0	0	0	0
Vehicle Passenger	0	0	0	0
Motorcycle rider	0	2	2	4
Cyclist	0	0	1	1
Pedestrians	0	0	0	0
Other	0	0	0	0
Total	**0**	**2**	**3**	**5**

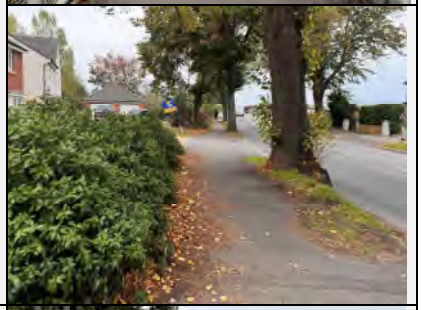
Appendix D – WRAT & Photographs

ROUTE MAP


Legend
Indicative Site Boundary
Route A -Arle Road
Elmfield Park
Premier Arle Store
GL MOBILE TYRES 24-7
Jason Day Driving School
Alstone Croft Playing Field
King George V Park
King George V Playing Field
Rowanfield Cafe
Beyond Fitness
Rexel Denmans Cheltenham
CHELTENHAM TRADE PARK
Rovan Gymnastics Club
JD Gyms Cheltenham
YMCA Sports Centre
Google Earth
300 m
N

Local Cycling and Walking Infrastructure Plan: Walking Route Selection Tool

Walking Route Audit Tool

Audit Categories	2 (Green)	1 (Amber)	0 (Red)	Score	Comments	Actions	RAPPOR - Photos
1. ATTRACTIVENESS - maintenance	Footways well maintained, with no significant issues noted.	Minor littering. Overgrown vegetation. Street furniture falling into minor disrepair (for example, peeling paint).	Littering and/or dog mess prevalent. Seriously overgrown vegetation, including low branches. Street furniture falling into major disrepair.	1	Overgrown vegetation observed along southern side of the railway bridge. Leaf fall also observed along northern side of carriageway, at NW extent.	LHA to maintain footway.	 
2. ATTRACTIVENESS - fear of crime	No evidence of vandalism with appropriate natural surveillance.	Minor vandalism. Lack of active frontage and natural surveillance (e.g. houses set back or back onto street).	Major or prevalent vandalism. Evidence of criminal/antisocial activity. Route is isolated, not subject to natural surveillance (including where sight lines are inadequate).	1	Markings present on railway bridge, but the route is very well overlooked along its extent.		
3. ATTRACTIVENESS - traffic noise and pollution	Traffic noise and pollution do not affect the attractiveness	Levels of traffic noise and/or pollution could be improved	Severe traffic pollution and/or severe traffic noise	1	The route is well used by pedestrians, cyclists, and vehicles. It also serves as a bus route.		
4. ATTRACTIVENESS - other	Examples of 'other' attractiveness issues include: - Evidence that lighting is not present, or is deficient; - Temporary features affecting the attractiveness of routes (e.g. refuse sacks). - Excessive use of guardrail or bollards				No Comment		
ATTRACTIVENESS				3			

5. COMFORT - condition	Footways level and in good condition, with no trip hazards.	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	Large number of footway crossovers resulting in uneven surface, subsided or fretted pavement, or significant uneven patching or trenching.	**1**	Some defects noted, typically isolated (such as trenching or patching) or minor (such as cracked, but level pavers). Defects unlikely to result in trips or difficulty for wheelchairs, prams etc. Some footway crossovers resulting in uneven surface.	LHA to maintain footway.	
6. COMFORT - footway width	Able to accommodate all users without 'give and take' between users or walking on roads. Footway widths generally in excess of 2m.	Footway widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Footway widths of less than 1.5m (i.e. standard wheelchair width). Limited footway width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Footway is of at least 2m width along extent on either side of carriageway.		
7. COMFORT - width on staggered crossings/ pedestrian islands/refuges	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.	Widths of between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads.	Widths of less than 1.5m (i.e. standard wheelchair width). Limited width requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay.	**2**	Able to accommodate all users without 'give and take' between users or walking on roads. Widths generally in excess of 2m to accommodate wheel-chair users.		
8. COMFORT - footway parking	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.	Clearance widths between approximately 1.5m and 2m. Occasional need for 'give and take' between users and walking on roads due to footway parking. Footway parking causes some deviation from desire lines.	Clearance widths less than 1.5m. Footway parking requires users to 'give and take' frequently, walk on roads and/or results in crowding/delay. Footway parking causes significant deviation from desire lines.	**2**	No instances of vehicles parking on footways noted. Clearance widths generally in excess of 2m between permanent obstructions.		
9. COMFORT - gradient	There are no slopes on footway.	Slopes exist but gradients do not exceed 8 per cent (1 in 12).	Gradients exceed 8 per cent (1 in 12).	**2**	There are no slopes on footway.		
10.COMFORT - other	Examples of 'other' comfort issues include: - Temporary obstructions restricting clearance width for pedestrians (e.g. driveway gates opened into footway); - Barriers/gates restricting access; and - Bus shelters restricting clearance width. - Poorly drained footways resulting in noticeable ponding issues/slippery surfaces			**1**	Bus shelters present		
COMFORT				**10**			
11.DIRECTNESS - footway provision	Footways are provided to cater for pedestrian desire lines (e.g. adjacent to road).	Footway provision could be improved to better cater for pedestrian desire lines.	Footways are not provided to cater for pedestrian desire lines.	**2**	Footways abut either side of the carriageway along the full extent		
12.DIRECTNESS - location of crossings in relation to desire lines	Crossings follow desire lines.	Crossings partially diverting pedestrians away from desire lines.	Crossings deviate significantly from desire lines.	**2**	Dropped kerb crossing, tactile paved crossing, and signalised crossings are present along the desire line		

13.DIRECTNESS - gaps in traffic (where no controlled crossings present or if likely to cross outside of controlled crossing)	Crossing of road easy, direct, and comfortable and without delay (< 5s average).	Crossing of road direct, but associated with some delay (up to 15s average).	Crossing of road associated indirect, or associated with significant delay (>15s average).	**2**	At time of visit, no delay in crossing the road		
14.DIRECTNESS - impact of controlled crossings on journey time	Crossings are single phase pelican/puffin or zebra crossings.	Crossings are staggered but do not add significantly to journey time. Unlikely to wait >5s in pedestrian island.	Staggered crossings add significantly to journey time. Likely to wait >10s in pedestrian island.	**2**	Signalised crossings are single phased		
15. DIRECTNESS - green man time	Green man time is of sufficient length to cross comfortably.	Pedestrians would benefit from extended green man time but current time unlikely to deter	Green man time would not give vulnerable users sufficient time to cross comfortably.	**2**	Sufficient green man time		
16.DIRECTNESS - other	Examples of 'other' directness issues include: - Routes to/from bus stops not accommodated; - Steps restricting access for all users; - Confusing layout for pedestrians creating severance issues for users.						
DIRECTNESS				**10**			
17.SAFETY - traffic volume	Traffic volume low, or pedestrians can keep distance from moderate traffic volumes.	Traffic volume moderate and pedestrians in close proximity.	High traffic volume, with pedestrians unable to keep their distance from traffic.	**2**	Grass verge present between carriageway and footway along majority of extent		
18.SAFETY - traffic speed	Traffic speeds low, or pedestrians can keep distance from moderate traffic speeds.	Traffic speeds moderate and pedestrians in close proximity.	High traffic speeds, with pedestrians unable to keep their distance from traffic.	**2**	Grass verge present between carriageway and footway along majority of extent		
19.SAFETY - visibility	Good visibility for all users.	Visibility could be somewhat improved but unlikely to result in collisions.	Poor visibility, likely to result in collisions.	**2**	Good visibility for all users.		
SAFETY				**6**			
20. COHERENCE - dropped kerbs and tactile paving	Adequate dropped kerb and tactile paving provision.	Dropped kerbs and tactile paving provided, albeit not to current standards.	Dropped kerbs and tactile paving absent or incorrect.	**0**	Dropped kerbs are present throughout but many do no benefit from tactile paving. No crossing facility present a the Grevil Road / Arle Road bifurictaed junction.	Tactile paving is proposed to be provided at the following junctions: Arle Road / Alstone Avenue  Arle Road / Alstone Croft 	Tactile paving is proposed to be provided at the following junctions:

Arle Road / Arle Gardens	
Arle Road / Arle Drive	
Arle Road / Merriville Road	
Arle Road / Brooklyn Gardens	

						Arle Road / Central Way	
						Arle Road / Arle Close	
						Arle Road / Arle Avenue	
						Provision of pedestrian crossing to be investigated across Grevil Road to the SE of Pennsylvania Avenue to facilitate pedestrians to footway along southern side of Arle Road to avoid the bifuricated junction.	
COHERENCE				**0**			

Total Score	**29**			

ROUTE SUMMARY

Route Name	Route A
Length	1.2km
Name of Assessor(s)	Rowena Cameron
Date of Assessment	08.10.25

Criterion	**Performance Scores**
Attractiveness	3
Comfort	10
Directness	10
Safety	6
Coherence	0
Total	29
Highest Possible Score	36
Percentage	81%

Comments	Site visit was undertaken during 07:30 - 08:30
Actions	Tactile paving is proposed to be provided at the following junctions:
	Arle Road / Alstone Avenue
	Arle Road / Alstone Croft
	Arle Road / Arle Gardens
	Arle Road / Arle Drive
	Arle Road / Merriville Road
	Arle Road / Brooklyn Gardens
	Arle Road / Central Way
	Arle Road / Arle Close
	Arle Road / Arle Avenue
	Provision of pedestrian crossing to be investigated across Grevil

Appendix E – Bus Timetable Information

Bus departures from this stop
Alstone
opp Cheltenham Trade Park

A Arle Court P&R - Cheltenham

Stagecoach West

here — 7 Hester's Way, Coronation Square Shops — 12 Arle Court, Arle Court Park & Ride

The numbers circled indicate approximate timings in minutes from Alstone, Cheltenham Trade Park

Mondays to Fridays

Bus times commencing 1st October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0552	A		*0849*	A		*1037*	A		*1225*	A		*1413*	A		*1611*	A		*1814*	A		*2108*	A	
0648	A		*0901*	A		*1049*	A		*1237*	A		*1425*	A		*1627*	A		*1827*	A		*2140*	A	
0717	A		*0913*	A		*1101*	A		*1249*	A		*1437*	A		*1639*	A		*1839*	A		*2210*	A	
0732	A		*0925*	A		*1113*	A		*1301*	A		*1449*	A		*1651*	A		*1858*	A		*2240*	A	
0746	A		*0937*	A		*1125*	A		*1313*	A		*1501*	A		*1706*	A		*1915*	A		*2310*	A	
0801	A		*0949*	A		*1137*	A		*1325*	A		*1515*	A		*1721*	A		*1932*	A		*2340*	A	
0813	A		*1001*	A		*1149*	A		*1337*	A		*1529*	A		*1735*	A		*1949*	A		*0010*	A	
0825	A		*1013*	A		*1201*	A		*1349*	A		*1544*	A		*1748*	A		*2006*	A		*0040*	A	F
0837	A		*1025*	A		*1213*	A		*1401*	A		*1558*	A		*1803*	A		*2040*	A		*0110*	A	F

Saturdays

Bus times commencing 4th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0713	A		*1013*	A		*1149*	A		*1325*	A		*1501*	A		*1637*	A		*1838*	A		*2140*	A	
0737	A		*1025*	A		*1201*	A		*1337*	A		*1513*	A		*1649*	A		*1857*	A		*2210*	A	
0813	A		*1037*	A		*1213*	A		*1349*	A		*1525*	A		*1701*	A		*1915*	A		*2240*	A	
0843	A		*1049*	A		*1225*	A		*1401*	A		*1537*	A		*1713*	A		*1935*	A		*2310*	A	
0904	A		*1101*	A		*1237*	A		*1413*	A		*1549*	A		*1728*	A		*1949*	A		*2340*	A	
0926	A		*1113*	A		*1249*	A		*1425*	A		*1601*	A		*1743*	A		*2006*	A		*0010*	A	
0946	A		*1125*	A		*1301*	A		*1437*	A		*1613*	A		*1758*	A		*2040*	A		*0040*	A	
1001	A		*1137*	A		*1313*	A		*1449*	A		*1625*	A		*1818*	A		*2108*	A		*0110*	A	

Sundays

Bus times commencing 5th October 2025

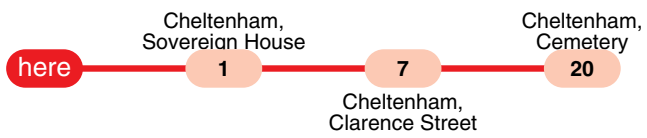
Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0837	A		*1032*	A		*1152*	A		*1312*	A		*1432*	A		*1552*	A		*1712*	A		*1922*	A	
0907	A		*1052*	A		*1212*	A		*1332*	A		*1452*	A		*1612*	A		*1742*	A		*2022*	A	
0937	A		*1112*	A		*1232*	A		*1352*	A		*1512*	A		*1632*	A		*1815*	A		*2122*	A	
1007	A		*1132*	A		*1252*	A		*1412*	A		*1532*	A		*1652*	A		*1847*	A		*2252*	A	

Notes: **F** - Fridays
Times shown in italics are approximate times

Bus departures from this stop
Alstone
o/s Cheltenham Trade Park

A Cheltenham - Arle Court P&R

Stagecoach West



The numbers circled indicate approximate timings in minutes from Alstone, Cheltenham Trade Park

Mondays to Fridays

Bus times commencing 1st October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0555	A		*0823*	A		*1015*	A		*1203*	A		*1351*	A		*1543*	A		*1800*	A		*2155*	A	
0624	A		*0838*	A		*1027*	A		*1215*	A		*1403*	A		*1558*	A		*1820*	A		*2225*	A	
0649	A		*0850*	A		*1039*	A		*1227*	A		*1415*	A		*1613*	A		*1840*	A		*2255*	A	
0712	A		*0903*	A		*1051*	A		*1239*	A		*1427*	A		*1628*	A		*1900*	A		*2325*	A	
0722	A		*0915*	A		*1103*	A		*1251*	A		*1439*	A		*1643*	A		*1917*	A		*2355*	A	F
0733	A		*0927*	A		*1115*	A		*1303*	A		*1451*	A		*1658*	A		*1952*	A		*0025*	A	F
0745	A		*0939*	A		*1127*	A		*1315*	A		*1503*	A		*1713*	A		*2022*	A				
0757	A		*0951*	A		*1139*	A		*1327*	A		*1519*	A		*1728*	A		*2055*	A				
0809	A		*1003*	A		*1151*	A		*1339*	A		*1531*	A		*1741*	A		*2125*	A				

Saturdays

Bus times commencing 4th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0620	A		*0927*	A		*1103*	A		*1239*	A		*1415*	A		*1551*	A		*1800*	A		*2125*	A	
0720	A		*0939*	A		*1115*	A		*1251*	A		*1427*	A		*1603*	A		*1820*	A		*2155*	A	
0750	A		*0951*	A		*1127*	A		*1303*	A		*1439*	A		*1615*	A		*1840*	A		*2225*	A	
0810	A		*1003*	A		*1139*	A		*1315*	A		*1451*	A		*1630*	A		*1900*	A		*2255*	A	
0830	A		*1015*	A		*1151*	A		*1327*	A		*1503*	A		*1645*	A		*1917*	A		*2325*	A	
0849	A		*1027*	A		*1203*	A		*1339*	A		*1515*	A		*1700*	A		*1952*	A		*2355*	A	
0903	A		*1039*	A		*1215*	A		*1351*	A		*1527*	A		*1720*	A		*2022*	A		*0025*	A	
0915	A		*1051*	A		*1227*	A		*1403*	A		*1539*	A		*1740*	A		*2055*	A				

Sundays

Bus times commencing 5th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0748	A		*0943*	A		*1103*	A		*1223*	A		*1343*	A		*1503*	A		*1623*	A		*1837*	A	
0818	A		*1003*	A		*1123*	A		*1243*	A		*1403*	A		*1523*	A		*1653*	A		*1937*	A	
0848	A		*1023*	A		*1143*	A		*1303*	A		*1423*	A		*1543*	A		*1728*	A		*2037*	A	
0918	A		*1043*	A		*1203*	A		*1323*	A		*1443*	A		*1603*	A		*1802*	A		*2207*	A	

Notes: **F** - Fridays
Times shown in italics are approximate times

Bus departures from this stop
Arle
opp Saxon Quarter

A **Arle Court P&R - Cheltenham** **Stagecoach West**

here — 6 Hester's Way, Coronation Square Shops — 11 Arle Court, Arle Court Park & Ride

The numbers circled indicate approximate timings in minutes from Arle, Saxon Quarter

Mondays to Fridays

Bus times commencing 9th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0553	A		*0850*	A		*1038*	A		*1226*	A		*1414*	A		*1612*	A		*1815*	A		*2109*	A	
0649	A		*0902*	A		*1050*	A		*1238*	A		*1426*	A		*1628*	A		*1828*	A		*2141*	A	
0718	A		*0914*	A		*1102*	A		*1250*	A		*1438*	A		*1640*	A		*1840*	A		*2211*	A	
0733	A		*0926*	A		*1114*	A		*1302*	A		*1450*	A		*1652*	A		*1859*	A		*2241*	A	
0747	A		*0938*	A		*1126*	A		*1314*	A		*1502*	A		*1707*	A		*1916*	A		*2311*	A	
0802	A		*0950*	A		*1138*	A		*1326*	A		*1516*	A		*1722*	A		*1933*	A		*2341*	A	
0814	A		*1002*	A		*1150*	A		*1338*	A		*1530*	A		*1736*	A		*1950*	A		*0011*	A	
0826	A		*1014*	A		*1202*	A		*1350*	A		*1545*	A		*1749*	A		*2007*	A		*0041*	A	F
0838	A		*1026*	A		*1214*	A		*1402*	A		*1559*	A		*1804*	A		*2041*	A		*0111*	A	F

Saturdays

Bus times commencing 11th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0714	A		*1014*	A		*1150*	A		*1326*	A		*1502*	A		*1638*	A		*1839*	A		*2141*	A	
0738	A		*1026*	A		*1202*	A		*1338*	A		*1514*	A		*1650*	A		*1858*	A		*2211*	A	
0814	A		*1038*	A		*1214*	A		*1350*	A		*1526*	A		*1702*	A		*1916*	A		*2241*	A	
0844	A		*1050*	A		*1226*	A		*1402*	A		*1538*	A		*1714*	A		*1936*	A		*2311*	A	
0905	A		*1102*	A		*1238*	A		*1414*	A		*1550*	A		*1729*	A		*1950*	A		*2341*	A	
0927	A		*1114*	A		*1250*	A		*1426*	A		*1602*	A		*1744*	A		*2007*	A		*0011*	A	
0947	A		*1126*	A		*1302*	A		*1438*	A		*1614*	A		*1759*	A		*2041*	A		*0041*	A	
1002	A		*1138*	A		*1314*	A		*1450*	A		*1626*	A		*1819*	A		*2109*	A		*0111*	A	

Sundays

Bus times commencing 12th October 2025

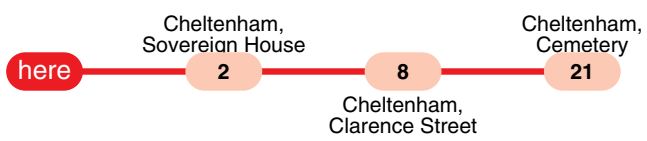
Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0838	A		*1033*	A		*1153*	A		*1313*	A		*1433*	A		*1553*	A		*1713*	A		*1923*	A	
0908	A		*1053*	A		*1213*	A		*1333*	A		*1453*	A		*1613*	A		*1743*	A		*2023*	A	
0938	A		*1113*	A		*1233*	A		*1353*	A		*1513*	A		*1633*	A		*1816*	A		*2123*	A	
1008	A		*1133*	A		*1253*	A		*1413*	A		*1533*	A		*1653*	A		*1848*	A		*2253*	A	

Notes: **F** - Fridays
Times shown in italics are approximate times

Bus departures from this stop
Arle
nr Saxon Quarter

A Cheltenham - Arle Court P&R

Stagecoach West



The numbers circled indicate approximate timings in minutes from Arle, Saxon Quarter

Mondays to Fridays

Bus times commencing 9th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0555	A		*0822*	A		*1015*	A		*1203*	A		*1351*	A		*1542*	A		*1800*	A		*2154*	A	
0624	A		*0837*	A		*1027*	A		*1215*	A		*1403*	A		*1557*	A		*1820*	A		*2224*	A	
0649	A		*0849*	A		*1039*	A		*1227*	A		*1415*	A		*1612*	A		*1840*	A		*2254*	A	
0712	A		*0902*	A		*1051*	A		*1239*	A		*1427*	A		*1627*	A		*1900*	A		*2324*	A	
0722	A		*0915*	A		*1103*	A		*1251*	A		*1439*	A		*1642*	A		*1916*	A		*2354*	A	F
0733	A		*0927*	A		*1115*	A		*1303*	A		*1451*	A		*1657*	A		*1951*	A		*0024*	A	F
0744	A		*0939*	A		*1127*	A		*1315*	A		*1503*	A		*1712*	A		*2021*	A				
0756	A		*0951*	A		*1139*	A		*1327*	A		*1518*	A		*1727*	A		*2054*	A				
0808	A		*1003*	A		*1151*	A		*1339*	A		*1530*	A		*1741*	A		*2124*	A				

Saturdays

Bus times commencing 11th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0620	A		*0927*	A		*1103*	A		*1239*	A		*1415*	A		*1551*	A		*1800*	A		*2124*	A	
0720	A		*0939*	A		*1115*	A		*1251*	A		*1427*	A		*1603*	A		*1820*	A		*2154*	A	
0750	A		*0951*	A		*1127*	A		*1303*	A		*1439*	A		*1615*	A		*1840*	A		*2224*	A	
0810	A		*1003*	A		*1139*	A		*1315*	A		*1451*	A		*1630*	A		*1900*	A		*2254*	A	
0830	A		*1015*	A		*1151*	A		*1327*	A		*1503*	A		*1645*	A		*1916*	A		*2324*	A	
0849	A		*1027*	A		*1203*	A		*1339*	A		*1515*	A		*1700*	A		*1951*	A		*2354*	A	
0903	A		*1039*	A		*1215*	A		*1351*	A		*1527*	A		*1720*	A		*2021*	A		*0024*	A	
0915	A		*1051*	A		*1227*	A		*1403*	A		*1539*	A		*1740*	A		*2054*	A				

Sundays

Bus times commencing 12th October 2025

Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note	Time	Service	Note
0747	A		*0942*	A		*1102*	A		*1222*	A		*1342*	A		*1502*	A		*1622*	A		*1836*	A	
0817	A		*1002*	A		*1122*	A		*1242*	A		*1402*	A		*1522*	A		*1652*	A		*1936*	A	
0847	A		*1022*	A		*1142*	A		*1302*	A		*1422*	A		*1542*	A		*1727*	A		*2036*	A	
0917	A		*1042*	A		*1202*	A		*1322*	A		*1442*	A		*1602*	A		*1801*	A		*2206*	A	

Notes: **F** - Fridays
Times shown in italics are approximate times

Appendix F – Site Masterplan

For continued landscape proposals refer to Rappor dwg. no. NSSC-RAP-XX-XX-D-L-002101

KEY

Site Boundary

PROPOSED | HARDSCAPE

- Permeable asphalt TO ENGINEER'S SPEC
- Paving Type 1 Size:300x200x80mm Colour: Silver grey
- Paving Type 2 Size:400x400x65mm Colour: Natural
- Proposed Bark area
- Proposed Self binding Gravel Path
- Tactile Paving
- Brushed Concrete to service yard
- Soft Play Areas Rubber Safety Surface
- Gates
- Fire Hydrant access gate
- Secure Boundary Fence 2.4m high with matching vehicle and pedestrian gates
- Acoustic Boundary Fence 2.4m high timber closeboard acoustic fence
- Weld mesh fence 1.2m high with matching pedestrian gates
- Weld mesh fence 1.8m high with matching gates
- Service Yard Fence 2m high timber hit and miss
- Rebound Fence 3.00m high with matching gates
- Habitat fence Timber post and rail fence with matching gates
- Electric Vehicle Charging Stations
- Bins within service yard
- Cycle Shelter with Cycle Stands
- Lay By Parking
- 1800mm bench
- Logs and rocks to habitat area
- External teaching canopy adajcent to Reception classroom
- Tensile shade canopy to primary classrooms
- Landform within grass

PROPOSED | SOFTSCAPE

- Proposed Trees
- Proposed Native Scrub Planting
- Proposed Native Scrub Planting with thornless species
- Proposed Ornamental Planting
- Proposed Native Hedge Planting
- Proposed Ornamental Hedge Planting
- Amenity Grass Areas
- Wildflower Areas
- Mown Path through wildflower areas

Rev	Date	Details	By	Chkd	Appd
P07	23.10.25	Entry Junction revised Fire gate added from Arle Gardens	TG	RM	-
P06	22.10.25	Building plan updated	TG	RM	-
P05	21.10.25	Update following discussion with trust	TG	RM	-
P04	15.10.25	Update following building revison	TG	RM	-
P03	30.9.25	Work in progress Issue	JN	TG	-
P02	29.9.25	Work in progress Issue following CEM11	JN	TG	-
P01	23.9.25	Issued for presentation CEM10	JN	TG	-

Notes:

1. All dimensions are in mm, unless stated otherwise.
2. This drawing is based on the Architect's layout NSSC-RL-01-00-D-A-102101_Proposed Ground Floor Plan
3. Drawing to be read in conjunction with all other drawings. Any discrepancies are to be reported to the engineer 5 working days in advance of undertaking any work.
4. Work to be undertaken in accordance with the GCC Specification.

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CLIENT: Gloucester City Council

PROJECT: New Special School Cheltenham

TITLE: General Arrangement Sheet 1 of 2

STATUS: For Information

SCALE @ A1: 1:250

DRAWING NO: NSSC-RAP-XX-XX-D-L-002101

REVISION: P07

For continued landscape proposals refer to Rappor dwg. no. NSSC-RAP-XX-XX-D-L-002101

BRYANSTONE CLOSE

St Georges Centre

KEY

- Site Boundary

PROPOSED | HARDSCAPE

- Permeable asphalt TO ENGINEER'S SPEC
- Paving Type 1 Size:300x200x80mm Colour: Silver grey
- Paving Type 2 Size:400x400x65mm Colour: Natural
- Proposed Bark area
- Proposed Self binding Gravel Path
- Tactile Paving
- Brushed Concrete to service yard
- Soft Play Areas Rubber Safety Surface
- Gates
- Fire Hydrant access gate
- Secure Boundary Fence 2.4m high with matching vehicle and pedestrian gates
- Acoustic Boundary Fence 2.4m high timber closeboard acoustic fence
- Weld mesh fence 1.2m high with matching pedestrian gates
- Weld mesh fence 1.8m high with matching gates
- Service Yard Fence 2m high timber hit and miss
- Rebound Fence 3.00m high with matching gates
- Habitat fence Timber post and rail fence with matching gates
- Electric Vehicle Charging Stations
- Bins within service yard
- Cycle Shelter with Cycle Stands
- Lay By Parking
- 1800mm bench
- Logs and rocks to habitat area
- External teaching canopy adajcent to Reception classroom
- Tensile shade canopy to primary classrooms
- Landform within grass

PROPOSED | SOFTSCAPE

- Proposed Trees
- Proposed Native Scrub Planting
- Proposed Native Scrub Planting with thornless species
- Proposed Ornamental Planting
- Proposed Native Hedge Planting
- Proposed Ornamental Hedge Planting
- Amenity Grass Areas
- Wildflower Areas
- Mown Path through wildflower areas

N

Notes:

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2. This drawing is based on the Architect's layout NSSC-RL-01-00-D-A-102101_Proposed Ground Floor Plan
3. Drawing to be read in conjunction with all other drawings. Any discrepancies are to be reported to the engineer 5 working days in advance of undertaking any work.
4. Work to be undertaken in accordance with the GCC Specification.

Rev	Date	Details	By	Chkd	Appd
P07	23.10.25	Entry Junction revised	TG	RM	-
P06	22.10.25	Building plan updated	TG	RM	-
P05	21.10.25	Update following discussion with trust	TG	RM	-
P04	15.10.25	Update following building revison	TG	RM	-
P03	30.9.25	Work in progress Issue	JN	TG	-
P02	29.9.25	Work in progress Issue following CEM11	JN	TG	-
P01	23.9.25	Issued for presentation CEM10	JN	TG	-

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CLIENT: Gloucester City Council

PROJECT: New Special School Cheltenham

TITLE: General Arrangement Sheet 2 of 2

STATUS: For Information

SCALE @ A1: 1:250

DRAWING NO: NSSC-RAP-XX-XX-D-L-002102

REVISION: P07

Appendix G – Proposed Site Access Arrangements

Proposed Signage. See Drawing Number 250619-RAP-XX-XX-TP-DR-6000

Existing Speed Cushions

Proposed Speed Cushions

The Site

CREST OF BRIDGE

SLOW

ARLE ROAD

SCHOOL — KEEP — CLEAR

1:500

Inset A

1.75

6

1:250

Notes:

1. Do not scale from this drawing. All dimensions are in meters, unless stated otherwise.
2. This drawing is based on topographical survey data provided by Solum Surveying Ltd (Drawing Number 14273-Rev R1) dated 28.05.25.
4. Highway boundary information has been provided by Gloucestershire County Council dated 18/06/25, and has been overlaid by Rappor onto the Topographical Survey on a best fits basis. The applicant should undertake all necessary checks to ensure all visibility splays and necessary works can be accommodated within the adopted highway or land controlled by the applicant.
5. The site layout has been provided by Rappor, Drawing Number NSSC-RAP-XX-XX-D-L-002101 REV P07.
3. Drawing to be read in conjunction with all other drawings. Any discrepancies are to be reported to the engineer 5 working days in advance of undertaking any work.
4. The layout is subject to detailed design, capacity testing, ground investigations & earth modelling, road safety audit, utilities & services and confirmation of land ownership.
5. Use of the drawing does not absolve the client from their responsibilities in regards to health & safety and CDM regulations.

Key:

- Adopted Highway Boundary
- Existing Tree (trunk 800mm wide)
- 2.4m x 24.3m Visibility Splay measured to a 600mm offset from the kerb (Based on a proposed design speed of 20mph)
- 2.4m x 67.8m Maximum Achievable Visibility Splay measured to a 600mm offset from the kerb
- 2.4m x 41.6m Visibility Splay measured to the centreline looking left
- Site Boundary

Rev	Date	Details	By	Chkd
P01	13.10.25	Updated Access Arrangement	RC	JM

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CLIENT: Kier Construction

PROJECT: St Georges School SEN, Cheltenham

TITLE: Proposed Access Arrangement Visibility Assessment

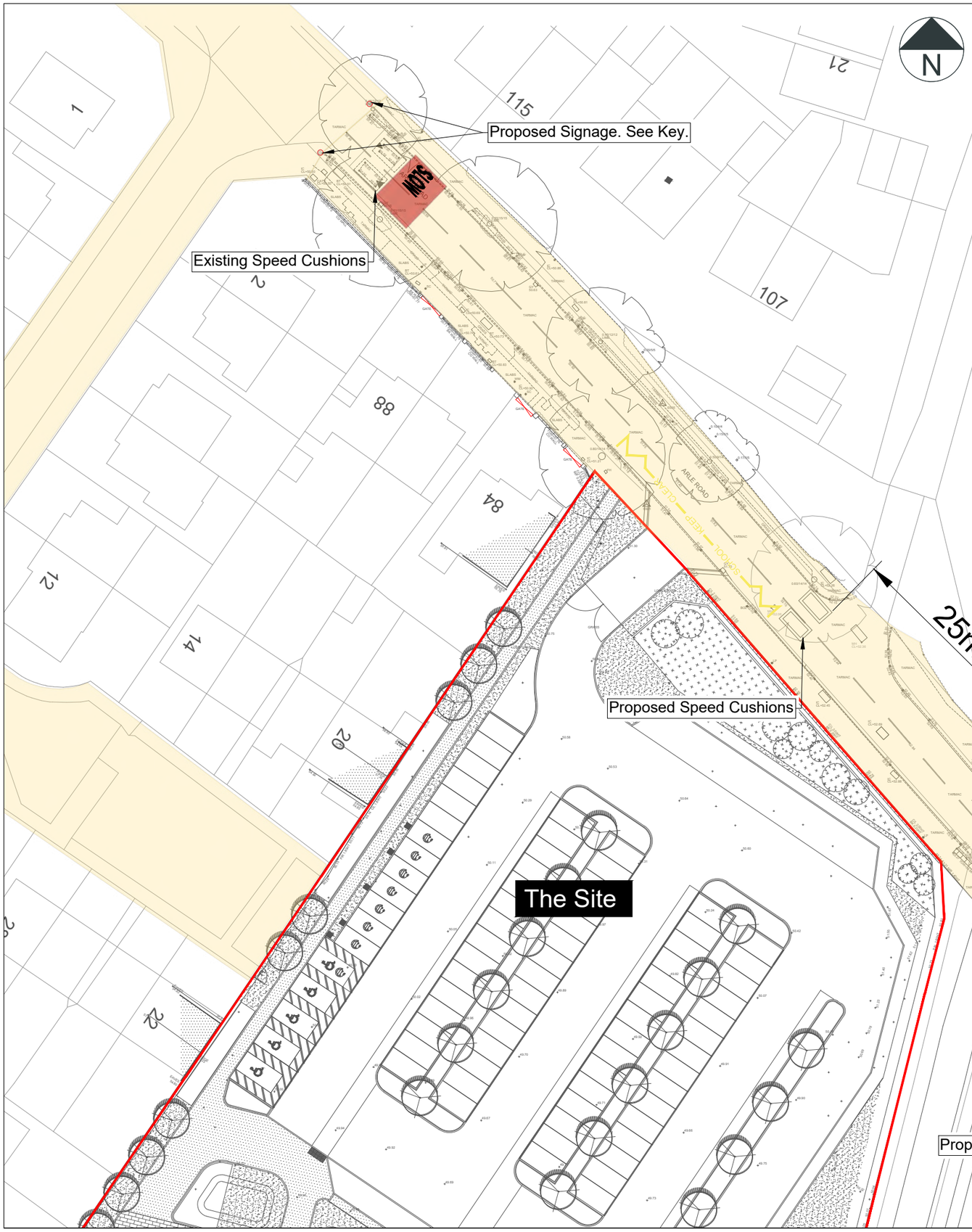
SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:500	14.07.25	RC	TS	TS

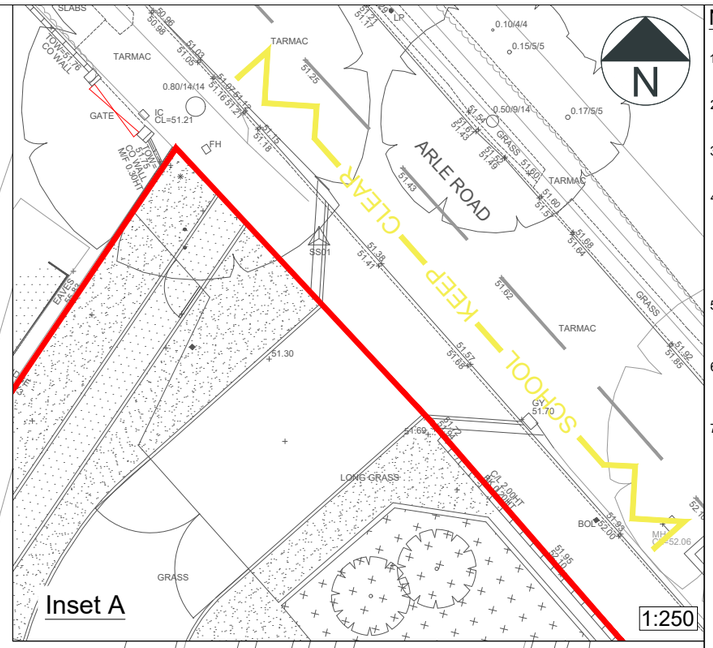
STATUS: INFORMATION

DRAWING NO: 250619-RAP-XX-XX-TP-DR-3200

REVISION: P01

Appendix H – Proposed School Safety Zone





Notes:

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2. This drawing is based on topographical survey data provided by Solum Surveying Ltd (Drawing Number 14273-Rev R1) dated 28.05.25.
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6. The layout is subject to detailed design, capacity testing, ground investigations & earth modelling, road safety audit, utilities & services and confirmation of land ownership.
7. Use of the drawing does not absolve the client from their responsibilities in regards to health & safety and CDM regulations.

Key:

- Adopted Highway Boundary
- Existing Tree (trunk 800mm wide)
- 400mm x 400mm Tactile Paving (Buff Coloured)
- Traffic Signal Manual Chapter 4 Figure 8-12

Figure 8-12 Part-time advisory 20 mph speed limit at or near a school (S14-2-09)

Rev	Date	Details	By	Chkd
P01	13.10.25	Updated Access Arrangement	RC	JM

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Infrastructure and environmental consultants
rappor.co.uk

CLIENT: Kier Construction

PROJECT: St Georges School SEN, Cheltenham

TITLE: Proposed School Safety Zone General Arrangements

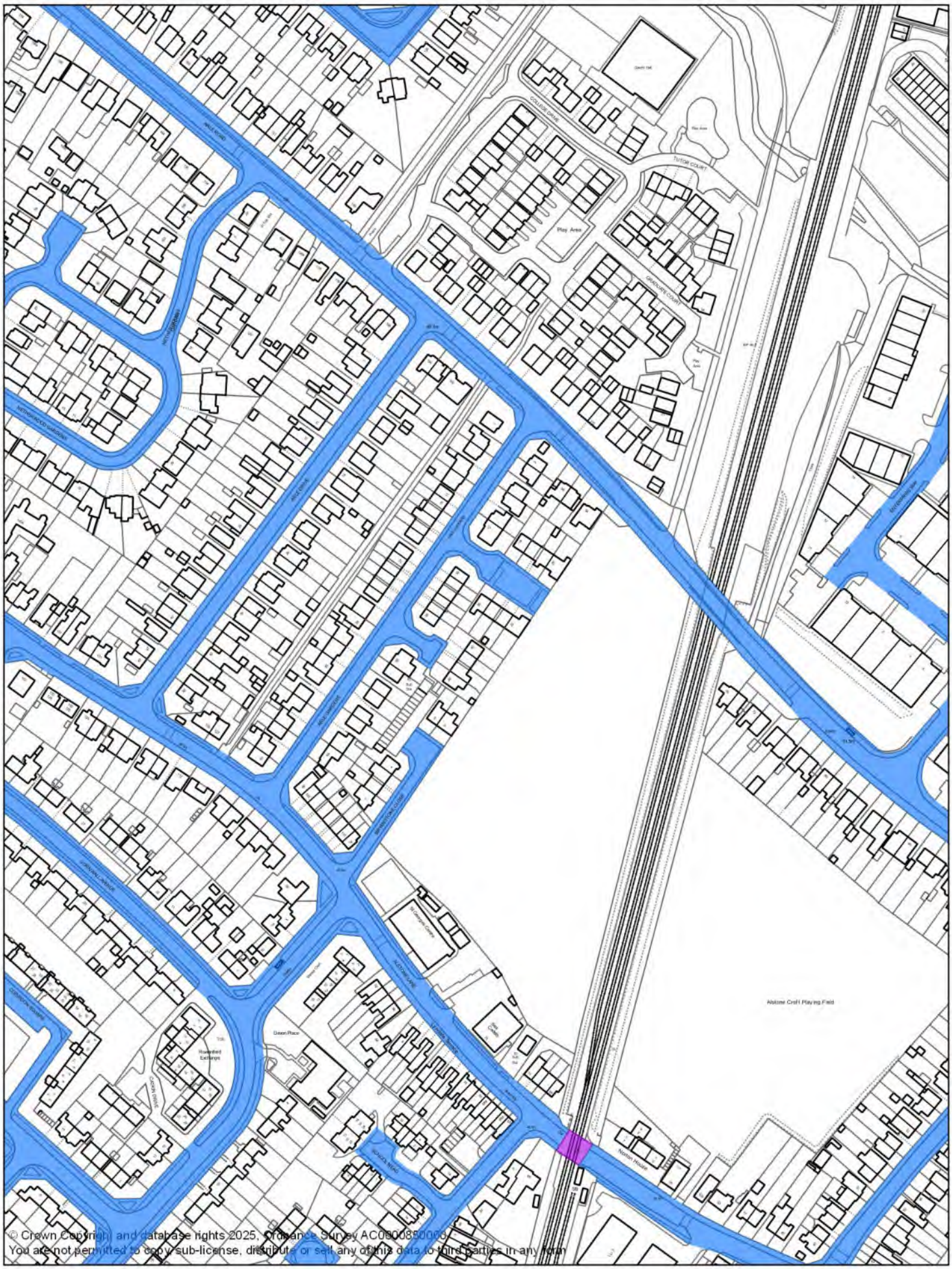
SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:500	07.08.25	RC	TS	TS

STATUS: INFORMATION

DRAWING NO: 250619-RAP-XX-XX-TP-DR-6000

REVISION: P01

Appendix I – Adopted Highway Boundary Extent



SCALE @A4: 1:2,500

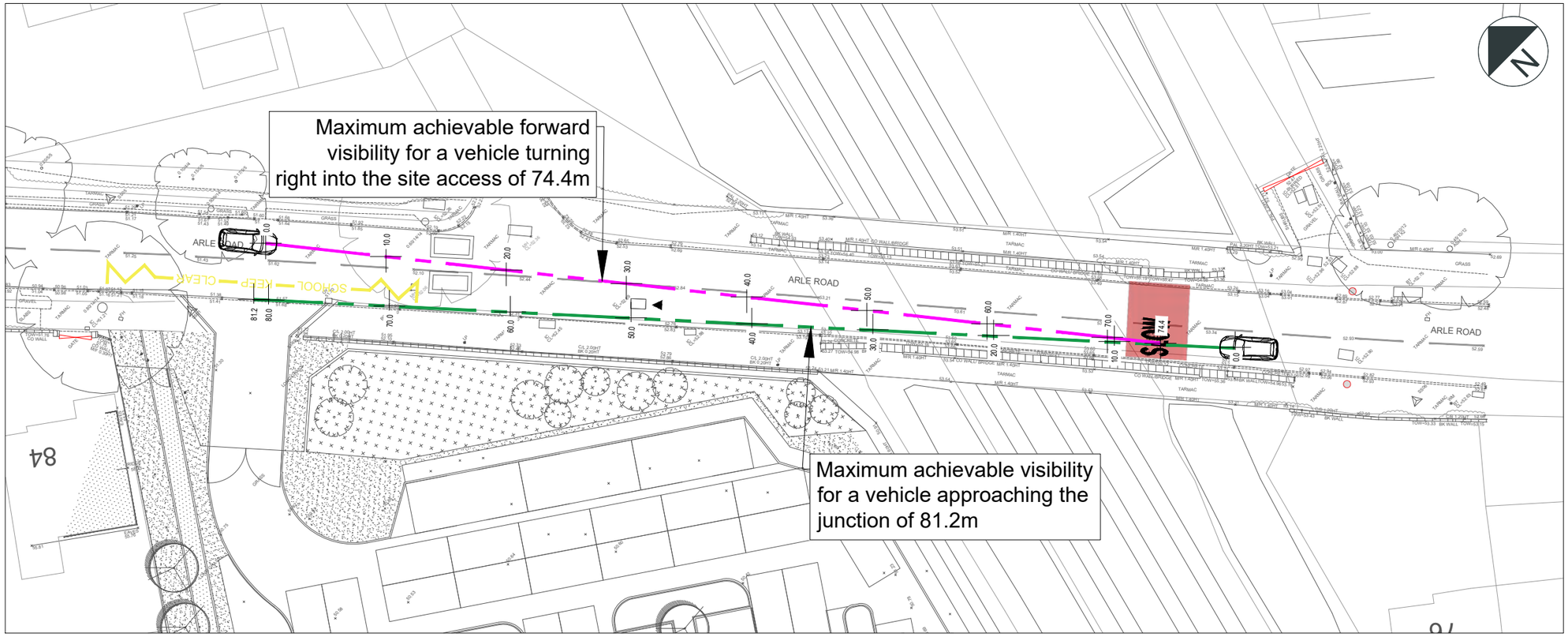
DATE: 18/06/2025

Please refer to the accompanying written material for an explanation of the information shown.
The general boundaries extent of publicly maintainable highway has been marked in accordance with records examined by Gloucestershire County Council, and in the absence of evidence to the contrary.
This Council does not accept any liability for any loss or damage arising from the interpretation or use of the information supplied. This plan may be subject to distortions in scale so any measurements taken may not match those between the same points on the ground.

GCC

N

Appendix J – Vertical Visibility Assessment



Notes:

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2. This drawing is based on topographical survey data provided by Solum Surveying Ltd (Drawing Number 14273-Rev R1) dated 28.05.25.
3. The site layout has been provided by Rappor, Drawing Number NSSC-RAP-XX-XX-D-L-002101 REV P07.
4. Drawing to be read in conjunction with all other drawings. Any discrepancies are to be reported to the engineer 5 working days in advance of undertaking any work.
5. The layout is subject to detailed design, capacity testing, ground investigations & earth modelling, road safety audit, utilities & services and confirmation of land ownership.
6. Use of the drawing does not absolve the client from their responsibilities in regards to health & safety and CDM regulations.

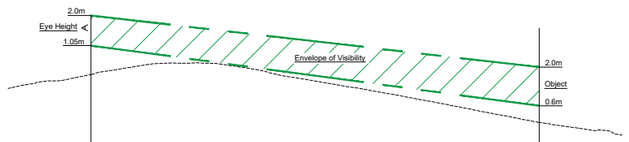
Key:

Maximum achievable visibility for a vehicle approaching the junction from the east of 81.2m from 1.05m above ground level to 0.6m above ground level

Maximum achievable visibility forward visibility for a vehicle turning right into the site of 74.4m from 1.05m above ground level to 0.6m above ground level

Longsection for max visibility to the junction

Visibility to the Junction

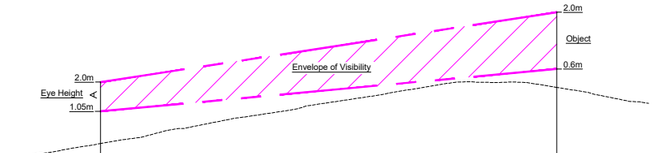


Datum: 46.000M AOD

CHAINAGE ON VISIBILITY (m)	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	81.216
LEVELS ON VISIBILITY OF CARRIAGEWAY (m)	54.253	53.986	53.717	53.448	53.179	52.910	52.641	52.372	52.070
VERTICAL DESIGN ON CARRIAGEWAY VISIBILITY	GRADIENT -2.7% (-1 in 37) LENGTH = 81.216m								
HORIZONTAL DESIGN ON CARRIAGEWAY VISIBILITY	STRAIGHT LENGTH = 81.216m								
EXISTING LEVELS (m)	53.355	53.567	53.822	53.382	52.987	52.652	52.287	51.899	51.764 51.745

Longsection for right turn maximum visibility

Right Turn Max Forward Visibility



Datum: 46.000M AOD

CHAINAGE ON VISIBILITY (m)	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	74.412
LEVELS ON VISIBILITY OF CARRIAGEWAY (m)	52.657	52.842	53.028	53.213	53.398	53.584	53.769	53.954	54.036
VERTICAL DESIGN ON CARRIAGEWAY VISIBILITY	GRADIENT 1.9% (1 in 54) LENGTH = 74.412m								
HORIZONTAL DESIGN ON CARRIAGEWAY VISIBILITY	STRAIGHT LENGTH = 74.412m								
EXISTING LEVELS (m)	51.607	51.888	52.354	52.668	53.023	53.349	53.021	53.579	53.436

Rev	Date	Details	By	Chkd
P01	24.10.25	Updated site access arrangement	RC	JM

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Infrastructure and environmental consultants

rappor.co.uk

CLIENT: Kier Construction

PROJECT: Cheltenham New Special School

TITLE: Maximum Achievable Vertical Visibility Splay Assessment

SCALE @ A3:	DATE:	DRAWN:	CHECKED:	APPROVED:
1:500	14.07.25	RC	TS	TS

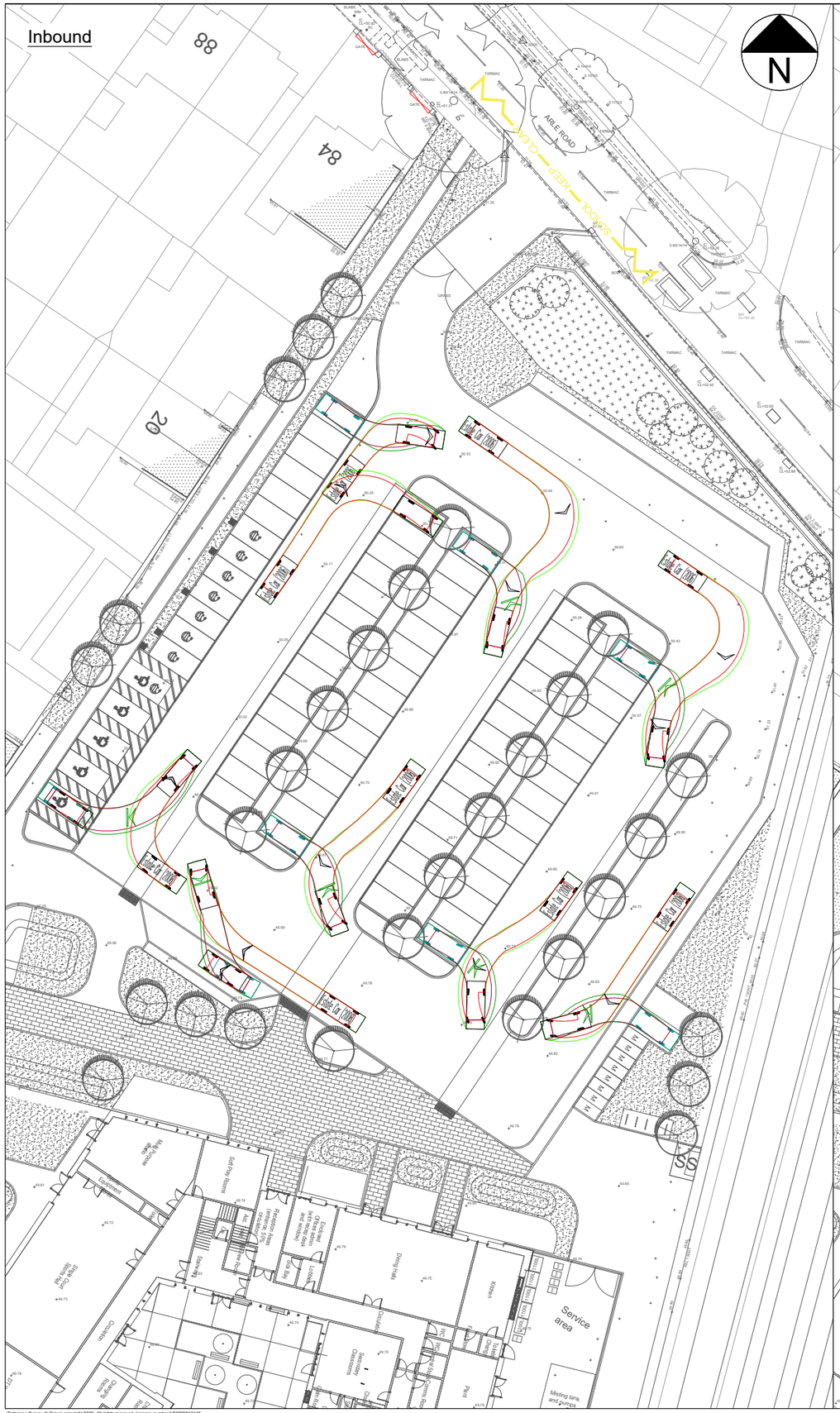
STATUS: INFORMATION

DRAWING NO: 250619-RAP-XX-XX-TP-DR-3201

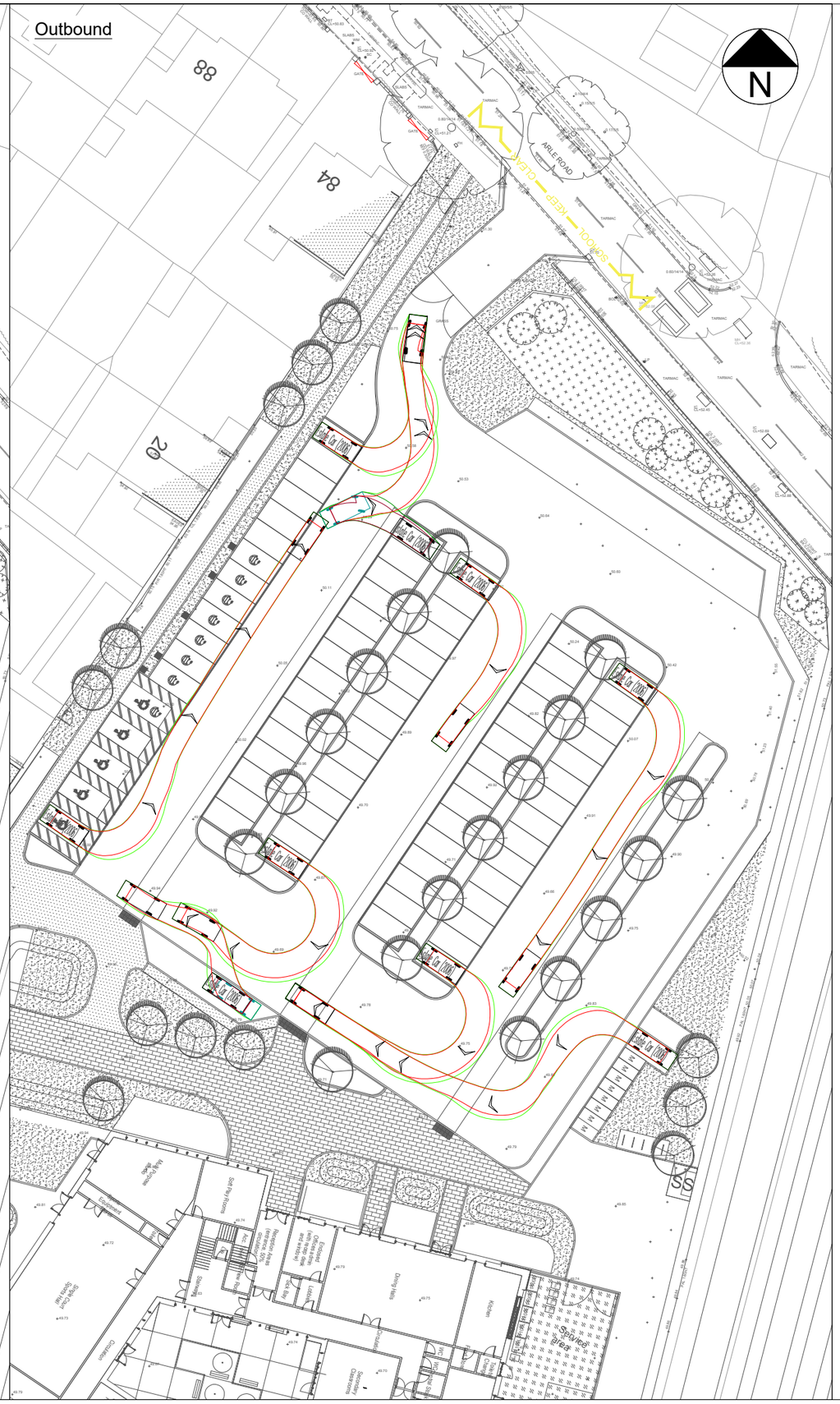
REVISION: P01

Appendix K – Swept Path Analysis – Estate Car / Refuse Vehicle / Fire Tender / Minibus

Inbound



Outbound



Notes:

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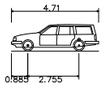
Vehicle Profile



Estate Car (2006)	
Overall Length	4.710m
Overall Width	1.804m
Overall Body Height	1.442m
Min Body Ground Clearance	0.207m
Max Track Width	1.756m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.950m

Rev	Date	Details	By	Chkd	Appd

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CLIENT:
Kier Construction

PROJECT:
Cheltenham New Special School

TITLE:
Swept Path Analysis: Estate Car - Parking

STATUS: PLANNING

1:500
1:500

DRAWING NO:
250356-RAP-XX-XX-TP-DR-4100

REVISION:
-