

# St Nicholas Church in Wales Primary School, Vale of Glamorgan

Transport Assessment Addendum

Vale of Glamorgan Education Department

Project number: 60607807

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## 1. Introduction

### 1.1 Background and Planning Context

- 1.1.1 AECOM Development Transport Planning has been appointed by the Vale of Glamorgan Education Department to provide highway and transport services in relation to the proposed expansion of St Nicholas Church in Wales (CiW) Primary School in St Nicholas, Vale of Glamorgan.
- 1.1.2 A planning application was submitted to the Vale of Glamorgan Council (VOGC) in July 2020 (planning application reference: 2020/00874/RG3). The VOGC are the Local Planning Authority (LPA) and Local Highway Authority (LHA) for the application.
- 1.1.3 AECOM produced a Transport Assessment (TA) to inform the planning submission which included an assessment of the proposed development impact on the local highway network. The TA concluded that the expansion to the school site would not result in adverse highway conditions.
- 1.1.4 Following planning application submission, AECOM has produced a Technical Note (TN) to provide additional information requested, and to respond to specific questions posed by the LHA. The TN provided further information regarding the level and availability of before and after school provision following the proposed expansion, and the effect of this on the impact of traffic that could be associated with the school expansion. This is included at **Appendix A**.
- 1.1.5 This TA Addendum has been produced by AECOM to provide an update to the original content of the TA and provide further information in relation to the proposed development. Specifically, this is in relation to the following:
- Further details pertaining to the generation of the proposed increase in pupil numbers at the school, which includes analysis of the likely home location and method of travel to school for the new pupils;
  - An update to the on-site parking strategy for the proposed site layout;
  - The parking management for the school; and
  - Further details of, and additional measures for, the Transport Implementation Strategy (TIS).
- 1.1.6 The content of this TA Addendum has been informed by a meeting held between the applicant (VOGC Education Department), the LPA and the LHA on 15<sup>th</sup> September 2020.

### 1.2 Site Location and Existing Operation

- 1.2.1 The school is located in St Nicholas, a rural village located approximately 9.6km west of Cardiff City Centre and approximately 9.6km east of Cowbridge. The A48 runs east-west to the south of the settlement. The village comprises mostly residential dwellings, in addition to St Nicholas Church and St Nicholas CiW Primary school.
- 1.2.2 The school site is within the north-west of the village and is accessed via School Lane which is supplied by the A48. School Lane feeds into Well Lane to the northeast of the site and Church Row which runs through the middle of the village.
- 1.2.3 The existing school caters for Reception through to Year 6 pupils. The school currently has a capacity of 126 pupils with 21.5 Full Time Equivalent (FTE) staff based on-site. The catchment area includes rural villages situated between Bonvilston and Culverhouse Cross, including St Nicholas, Bonvilston and Duffryn.
- 1.2.4 Vehicular access to the school is via School Lane which leads to a school car park accommodating 15 parking spaces. Pedestrian access is achieved via school gates at the south western boundary of the school, to the south of the vehicle access. There are currently no formal facilities for the drop-off or collection of pupils on-site. The school operates a mini-bus service to collect / drop-off pupils from near to their home locations.

### 1.3 Development Proposals

- 1.3.1 The proposed development is for the expansion of St Nicholas CiW Primary School to enable an increase in pupil intake to a total of 234 pupils including 24 FTE pupils in a new nursery (an increase of 108 pupils). The number of staff will increase from 21.5 FTE to 24FTE members of staff (and increase of 2.5 staff FTE).
- 1.3.2 The proposals include the demolition of the existing school building which will be replaced by a new single-storey school building on the same site but situated further north within the site boundary away from School Lane. An additional vehicle access at the south-western frontage to School Lane will be formalised to operate alongside the existing vehicle access to the south-east. A one-way system will operate within the school site, with access via the western junction and egress via the eastern junction. A new car park and servicing area will be created to the south of the site. Further details for this are included in **Chapter 3** of this TA Addendum.
- 1.3.3 The site layout for the proposed development has been included at **Appendix C**.

## 1.4 Report Structure

- 1.4.1 The remainder of this TA Addendum is structured as follows:
- **Chapter 2: Additional School Enrolment and Mode Share** – provides pupil yield calculations from local committed development which demonstrates the need for the school expansion. Information on the likely home address and method of travel to school is provided.
  - **Chapter 3: Parking Management** – outlines the revised proposals for on-site parking supply and outlines the parking management for the expanded school.
  - **Chapter 4: Transport Implementation Strategy** – outlines the various improvements proposed to improve the active travel environment in and around the school site. This includes further detail on the measures outlined in the original the TA in addition to new measures confirmed for the expansion of the school.
  - **Chapter 5: Summary** – summarises the content of the TA Addendum.

## 2. Additional School Enrolment and Mode Share

### 2.1 Introduction

2.1.1 The LPA have requested that further evidence is provided in relation to the requirement for the school expansion, including further information on the number of pupils likely to walk to the school from the local area post-expansion.

### 2.2 Yield Calculation

2.2.1 The school currently has a consented capacity of 126 pupils with no pre-school / nursery provision. Under the development proposals the school will accommodate 234 pupils, including 24 nursery pupils. This is a proposed increase of 84 primary school places and 24 nursery places (a total of 108 pupils). The statutory proposal for the school expansion states that the expanded capacity would be filled by 2022 with nursery applications being received a year earlier in 2021.

2.2.2 The proposed expansion of the school is partly driven by committed residential developments in the local area. These developments are summarised as follows:

- Land to the east of Bonvilston – allocated in the VOGC Local Development Plan (LDP) for 120 dwellings (reference MG2 (40)). A planning application (for 120 dwellings was granted in October 2015 (planning application reference 2015/00960/FUL);
- Land to the east of St Nicholas – allocated in the LDP for 117 dwellings (reference MG2 (46)). A planning application for 100 dwellings was granted in December 2016 (planning application reference 2015/00249/FUL); and
- Land to the east of Mink Hollow – a LDP windfall site. A planning application was granted in November 2016 for 17 dwellings (planning application reference 2015/00662/FUL).

2.2.3 In total there are 237 new dwellings under construction at the committed development sites local to the school. The total number of committed dwellings has been considered against the yield factors as published in the VOGC's 'Planning Obligations Supplementary Planning Guidance (SPG) - Appendix 2: Development thresholds and formulas', as follows:

- Pre-School / Nursery – 0.100
- Primary School – 0.278

2.2.4 The resulting number of pre-school / nursery and primary school places required for each of the committed development, as a consequence of applying the above yield factors, is presented in **Table 2-1**, outlining that an additional 68 primary school places and an additional 24 nursery places will be required locally to meet the education need of the LDP. This is a total of 92 places.

**Table 2-1: Number of Additional School Places from Local Developments**

Local Development	Number of Dwellings	Pre-School Places	Primary School Places	Total Places
Land to the East of Bonvilston	120	12	33	45
Land to the East of St Nicholas	100	10	30	40
Land to the East of Mink Hollow	17	2	5	7
<b>Total</b>	<b>237</b>	<b>24</b>	<b>68</b>	<b>92</b>

2.2.5 The remaining pupils for the school expansion (16 primary school places) will originate from the wider area, fulfilling a wider need for school places across the Vale of Glamorgan. It is not possible to provide further certainty of where pupils will arrive from as pupil placement information would not be available until construction of the school is complete.

2.2.6 The VOGC Education Department has published the following projections of school pupils based upon the existing roll and projected numbers outlined above as part of the consultation to expand the school. This is reproduced in **Table 2-2**.

**Table 2-2: Forecasted Pupil Roll for St Nicholas School**

Year	Forecasted Number of Pupils
September 2019	143
September 2020	161
September 2021	171
September 2022	170
September 2023	168
September 2024	177
September 2025	187

Source: VOGC Education Department

Notes: 1) September 2019 is a forecast from before that time. Current pupil attendance may differ.

2.2.7 Whilst the planning application is for a school expansion for up to 234 pupils (210 primary and 24 FTE school pupils), this is not expected to be reached in the medium term, with the forecasted attendance reaching a maximum of 187 pupils by 2025.

## 2.3 Pupil Home Location and Mode Share

2.3.1 The locations of the local LDP committed development sites are shown on **Figure 2-1** along with an indicative 2km walking distance. The Institution for Highways and Transportation's (IHT's) *Guidelines for Providing for Journeys on Foot*, published in 2000, identifies 2km as the "preferred maximum" walking distance for school trips.

**Figure 2-1: Location of Local Committed Developments**



2.3.2 All three of the committed developments are considered to be within a 2km walking distance of the school. To understand the likely method of travel for these pupils, data from the National Travel Survey (NTS) 'Table NTS0614: Trips to School by main mode, trip length and age' has been interrogated. A summary of the mode share for pupils aged 5-10 (primary school age) is provided in **Table 2-3** for 2019.



**Table 2-3: NTS School Mode Share for Pupils Aged 5-10**

Main Mode	Mode Share (2019)				
	Under 1 Mile (Under 1.6km)	1 Mile to 2 Miles (1.6km to 3.2km)	2 Miles to 5 Miles (3.2km to 8.0km)	Over 5 Miles (Over 8.0km)	All Distances
Walk	80%	19%	1%	0%	46%
Bicycle	1%	4%	1%	0%	1%
Car / Van	18%	71%	87%	73%	47%
Bus	1%	5%	9%	18%	5%
Other	0%	1%	1%	9%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: National Travel Survey, 2019

Notes: 1) Summation errors are due to rounding.

2.3.3 The NTS mode shares have been applied to the nursery and primary school pupil yield calculations for each of the committed developments, and as set out below. The resulting multi-modal trips are presented in **Table 2-4**.

- The developments at 'Land to the east of St Nicholas' and 'Land to the east of Mink Hollow' are well within 2km walking distance and are positioned as an extension to the settlement of St Nicholas. It is therefore considered that the 12 nursery and 35 primary school places generated by these developments would most likely result in additional walking / cycling / scooting trips owing to the short walking distance to / from school. For illustrative purposes, the NTS mode share for journeys within one mile (1.6km) has been applied.
- The development at 'Land to the east of Bonvilston' is on the edge of a 2km walking distance, which is described as the "preferred maximum" by the IHT guidance. It is therefore likely that a higher proportion of trips to / from school will be via vehicle modes. The development is located approximately 1.2 miles from the school, and therefore the average mode share from the 'under one mile' and 'one mile to two miles' distance bands has been applied to the primary school pupils generated (47 nursery and primary school pupils) for illustrative purposes.
- The pupils expected to travel from the wider area are most likely to travel to school via a car / van, bus or the school mini-bus service, however for the purposes of this illustration the NTS mode share for 'All Distances' has been applied.

**Table 2-4: Additional Pupil Mode Share**

Main Mode	Committed Development				Total	
	Land to the east of Bonvilston	Land to the east of St Nicholas	Land to the east of Mink Hollow	Wider Locations	Number	Percentage
Walk	22	32	6	7	67	62%
Bicycle	1	0	0	0	2	2%
Car / Van	20	7	1	8	36	33%
Bus	1	0	0	1	3	2%
Other	0	0	0	0	0	0%
<b>Total</b>	<b>45</b>	<b>40</b>	<b>7</b>	<b>16</b>	<b>108</b>	<b>100%</b>

Notes: 1) Summation errors are due to rounding.

2.3.4 **Table 2-4** shows that of the 108 additional pupils, the majority (62%) are likely to walk to school although some will be expected to travel by car / van (33%).

- 2.3.5 This analysis is presented as a high level assessment of the information available based on reliable statistical data. It is acknowledged that following enrolment to the expanded school there may well be differences in mode share compared to that shown, however, the measures provided in **Chapter 4** of this Addendum will be fundamental in encouraging active travel to the school and ensuring that the propensity for active travel is maximised so that, where possible, pupils will have the opportunity to complete some or all their journey via an active travel mode.
- 2.3.6 It should also be acknowledged that owing to the COVID-19 pandemic, the future of travel and working life is expected to change significantly compared to previous conditions. More people are expected to choose or have the flexibility to work from home and it is expected that this will affect the method of travel to school as escorting adults are less likely to be required to complete an onward journey by car following or before the school drop-off / collection (for example to a workplace). This will mean that travel via sustainable modes of travel, which are typically less convenient compared to the car, will be a more viable option for households and is likely to be more prevalent in future compared to the existing school and the forecasted mode share presented in the TA.

## 3. Parking Management

### 3.1 Proposed On-Site Parking

- 3.1.1 The VOGC Parking Standards 2019 have been adopted as Supplementary Planning Guidance (SPG). The parking standards seek to assist developers, designers and builders in the preparation and submission of planning applications, and to achieve a common approach to the provision of vehicle parking facilities associated with new development and change of use. The parking standards are defined according to a zoning system based on the number, range and characteristics of facilities within walking distance and the level of public transport provision. St Nicholas village falls within Zone D – Countryside.
- 3.1.2 The level of parking provision for the proposed development was previously set out within Table 3-1 of the TA. The proposals included 27 members of staff (24 FTE), consisting of 21 teaching staff (18 FTE) and six support / ancillary staff (four FTE). Therefore, the parking allocation based on 18 FTE teaching staff and four FTE ancillary / support staff totalling 20 spaces, including three visitor spaces.
- 3.1.3 An update to the proposed split of forecast staff has since been provided by the VOGC Education Department, which includes the allocation of teaching support staff (including Learning Support Assistants (LSAs) and Additional Learning Needs (ALN) assistants) which has in turn affected the parking requirement onsite.
- 3.1.4 The proposed split of school staff, the VOGC parking standards for staff and the required number of spaces for staff is summarised in **Table 3-1**.

**Table 3-1: Updated Vehicle Parking Standards**

School Staff Type	Proposed Staff (Actual)	Proposed Staff (FTE)	Parking Standard (Zone D)	Number of Spaces Required
<b>Teaching Staff</b>				
Teachers – Full Time	7	7	1 space per 1 member of teaching staff (FTE)	7
Teachers – Part Time	3	1.5		1.5
LSA – Full Time	6	6		6
LSA – Part Time	3	1.5		1.5
ALN – Full Time	2	2		2
<b>Sub-Total</b>	<b>21</b>	<b>18</b>		<b>18</b>
<b>Ancillary Staff</b>				
Office Clerk – Full Time	1	1	1 space per 2 ancillary members of staff (FTE)	0.5
Caretaker – Part Time	1	0.5		0.25
Cook – Part Time	2	1		0.5
Head Teacher – Full Time	1	1		0.5
Cleaner – Part Time	1	0.5		0.25
<b>Sub-Total</b>	<b>6</b>	<b>4</b>		<b>2</b>
<b>Grand Total</b>	<b>27</b>	<b>22</b>	<b>-</b>	<b>20</b>

- 3.1.5 In addition to the spaces required for school staff, an additional three spaces are required for visitor use and an additional space is required for a commercial vehicle. The VOGC parking standards do not specify provision for disabled blue badge holders for the education land use class but state that *“appropriate provision must be provided for use by disabled people”*. The requirement for new employment development is set out in the SPG as 5% of the total parking provision to be allocated for disabled users. On this basis the requirement for disabled parking at the school is one.

- 3.1.6 The on-site parking supply is therefore as follows:
- School Staff – 20 spaces, including one allocated for disabled use;
  - Visitors – three spaces; and
  - Commercial – one space
- 3.1.7 The parking at the school site is proposed in accordance with VOGC standards. The level of parking provision on site is based on maximum requirement as the local highway network is sensitive to on-street parking from residential and school drop-off / collection demand. The maximum parking is proposed to prevent overspill parking to the local highway network, whilst not resulting in unnecessary levels of supply which could induce demand from the school staff.
- 3.1.8 The proposed layout of parking at the school is shown on the site plan included at **Appendix B**. The commercial vehicle space is provided within a service vehicle lay-by which will also form part of the on-site provision for pupil drop-off / collection. There is also a space provided for the school mini-bus which is considered to be an operational requirement and therefore separate to the parking standards calculation. Two of the spaces are proposed with passive utilities to allow for electric vehicle charging.

#### Swept Path Analysis

- 3.1.9 The original TA included Swept Path Analysis (SPA) of the site access and internal layout. This has been updated in line with the revised site plan.
- 3.1.10 The SPA has been included at **Appendix C**. There has been no material change to the site layout or the SPA findings which continue to show suitable access for a refuse vehicle, fire tender, mini-bus and servicing vehicle. The SPA also demonstrates that cars can be accommodated within the formal drop-off / collection lay-bys.

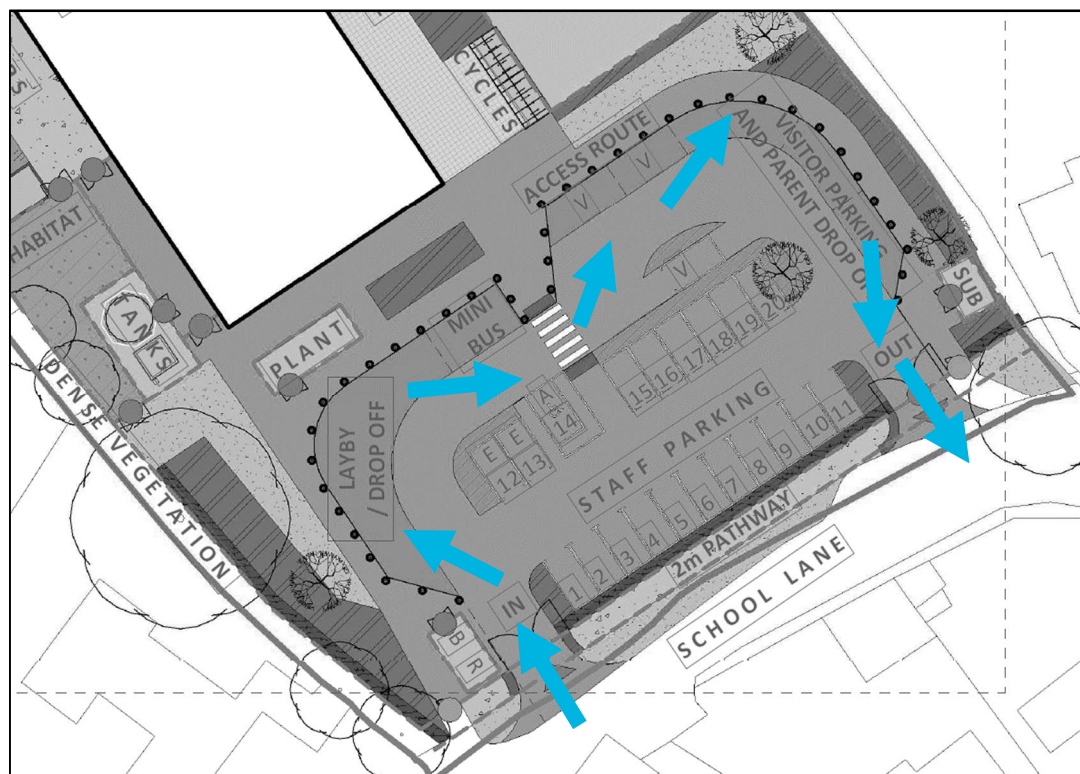
## 3.2 Drop-Off / Collection Parking Arrangements

- 3.2.1 It is suggested that the school is subject to a Traffic Management Plan (TMP) to manage vehicle movements during the morning drop-off and afternoon collection periods. The TMP will include arrangements for vehicles when escorting pupils to / from school. This process is outlined in this TA Addendum to provide certainty to the LHA that a suitable parking management system can be implemented prior to the production of the TMP.
- 3.2.2 The parking arrangements for vehicles dropping-off / collecting pupils from St Nicholas School is summarised in the following sections. The arrangements have been designed to work alongside the proposed one-way system for St Nicholas which will result in vehicles arriving via the westernmost junction with the A48 and departing via the Unnamed Road / A48 junction. Further details of the one-way system are provided in **Chapter 4**.

#### Formal Drop-Off / Collection Facility

- 3.2.3 The school car park to the south of the site includes a formal provision for the drop-off / collection of pupils. This is provided within laybys to the north of the car park as shown on the site plan included at **Appendix B**. The position of the laybys means that pupils will be able to access / egress from vehicles directly to the footpaths within the school site and therefore is a safe and suitable access arrangement.
- 3.2.4 Vehicles will access the site via the westernmost access, at which point they will be able to use the lay-bys and designated drop off / collection bays, accompany pupils to their registration area and then depart via the easternmost access. This process is illustrated in **Figure 3-1**.

**Figure 3-1: On-Site Drop-Off / Collection Arrangements**



- 3.2.5 Use of the on-site drop-off / collection facility will be limited to short-stay only. This will encourage a quick turnover of spaces which will in turn mean that more spaces are available on-site during the drop-off / collection times and limit the amount of on-street parking. Escorting adults will be asked to only use the on-site spaces as a 'short-stay' provision to allow them to accompany pupils to / from their registration area.
- 3.2.6 The provision of on-site drop-off / collection facilities is an improvement to the existing conditions at the school where all escorting adult parking is accommodated by the local highways. It is considered that this proposed provision will reduce on-street parking impact and largely off-set the additional parking demand from the expansion.

#### **On-Street Parking**

- 3.2.7 On-street parking for school traffic will only be encouraged when there are no spaces available within the drop-off / collection facilities on site. The TMP will include details of areas where parking for the school will not be permitted. Use of the visitor spaces for parents with business at the school (for example loading / unloading bulky items, meetings with staff) will be allowed at prior headteacher discretion and in any event their use is likely to occur outside of school start and finish times.

#### **School Start / End Times**

- 3.2.8 It is envisioned that the school start times for various year groups will be arranged so as to allow for escorting adults with more than one pupil to drop-off / all pupils at once. This will be important to allow parents for multiple children to avoid having to complete two journeys to the school site, or else park on-site and then relocate to off-site.
- 3.2.9 An example of how this could work would be Year 3 to Year 6 being available for drop-off from anytime between 08:30 and 09:00 and Reception to Year 2 being available for drop-off from 08:45 to 09:00. Under this arrangement, parents with one child in Year 2 and one child in Year 6 could drop-off both pupils at the same time from 08:45 and avoid the need for multiple trips. Specific school timings will be confirmed by the school.

- 3.2.10 AECOM has produced a TN in relation to before and after-school provision which demonstrated that the proposed breakfast and after-school clubs will have sufficient capacity to accommodate pupils who arrive / depart the site outside of their specific year group start / finish times. The TN is included at **Appendix A**. The key information to note is that the TA analysis did not take into account the provision of these facilities to ensure a robust assessment of traffic. The reality is that there will be fewer cars attending the site within the school peak hours as a result of this provision.

## 4. Transport Implementation Strategy

### 4.1 Introduction

4.1.1 This chapter of the TA Addendum provides an update to the TIS as originally outlined in the TA. This includes further detail on the measures outlined in the original the TA, with the addition of new measures confirmed for the expansion of the school. Various improvements are proposed as a package of measures to improve the active travel environment in and around the school site.

4.1.2 A School Travel Plan (TP) has been produced and will be submitted alongside this TA Addendum to inform the planning application. The School TP will outline the school's mode share targets and how the school intends to achieve the targets through the promotion of sustainable travel to / from the school site. It should be noted that some of the measures outlined in this chapter will inform the TP and are therefore also documented in that document.

4.1.3 The TMP for the school will include information as to how these measures will support and improve vehicle movements in / around St Nicholas during drop-off / collection times.

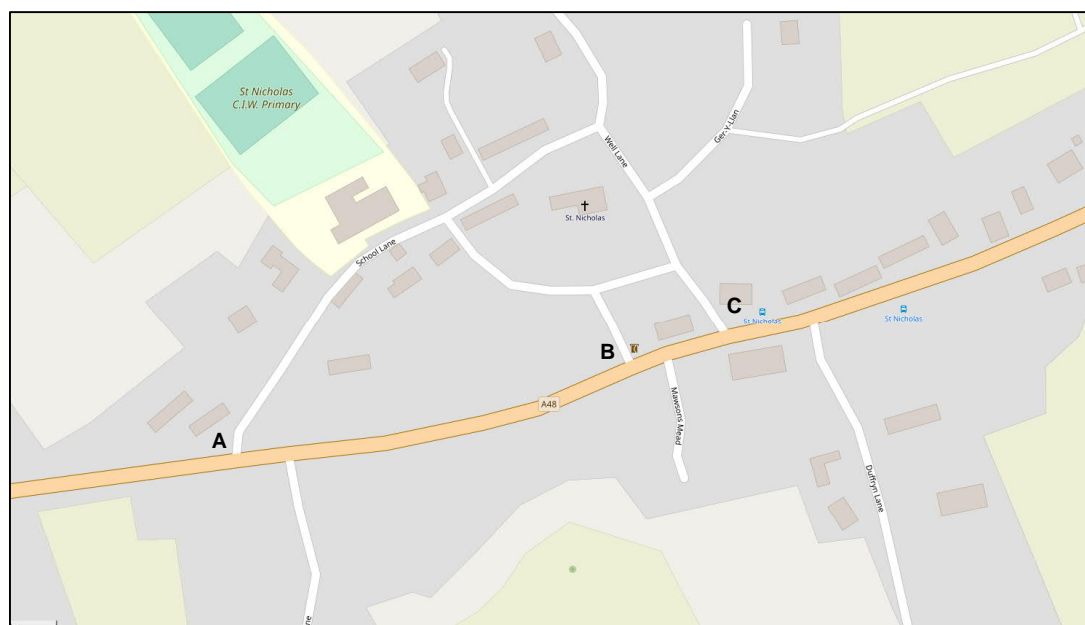
### 4.2 Pedestrianisation of A38 / School Lane Junction

4.2.1 The village of St Nicolas is located to the north of A48, a major highway connecting to the A4232 near Cardiff to the east, with Cowbridge to the west. At St Nicholas the A48 is a single-carriageway road subject to a 30mph speed limit. It carries approximately 1,000 two-way movements during peak hour periods including during the school drop-off / collection times. The highway environment is not conducive to walking cycling trips and therefore has been considered for enhancement.

4.2.2 There are three vehicle connections to the A48 at St Nicholas, which can be considered to be excessive for a settlement the size of St Nicholas and when considering these are interlinked. These are illustrated on **Figure 4-1**.

- A: School Lane West, a priority junction
- B: Unnamed Road, an undefined junction type with only give-way markings provided on Unnamed Road despite this being available for two-way traffic movements. Unnamed Road is approximately 5.3m wide at the junction.
- C: School Lane East, an undefined junction type similar to Unnamed Road. School Lane is approximately 3.8m wide at the junction.

**Figure 4-1: St Nicholas Vehicle Connections to A48**



Source: OpenStreetMap.

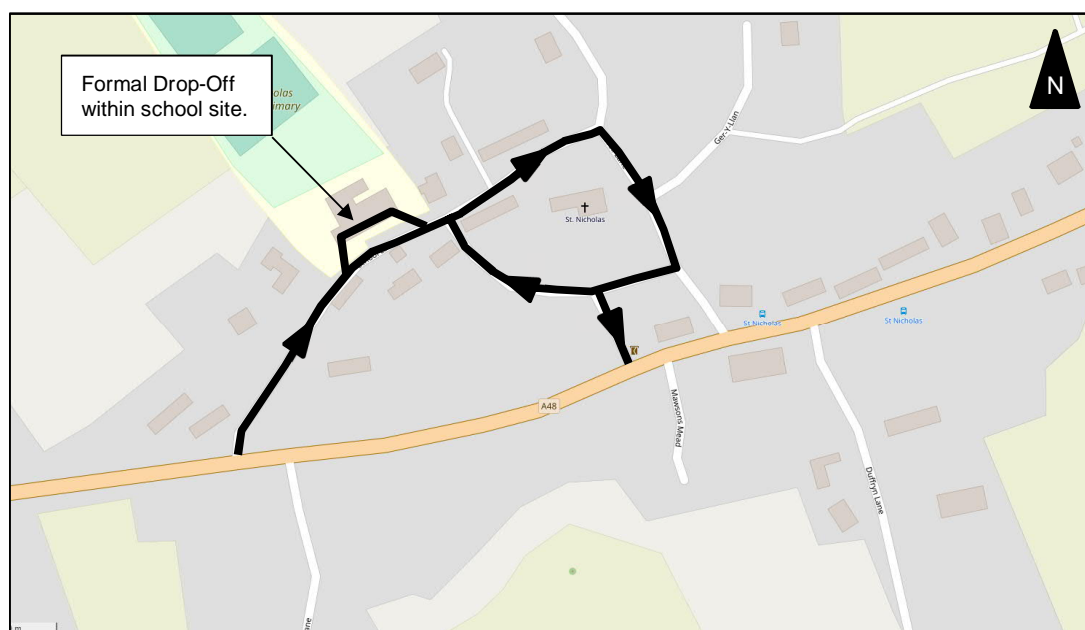


- 4.2.3 There are limited opportunities to widen School Lane at the eastern connection to the A48 to improve vehicle or active travel routes to the village. The emerging visibility for vehicles is also constrained by the walls on either side of School Lane, with visibility limited. This junction, in its current operation, is also not ideal for active travel movements to St Nicholas.
- 4.2.4 Through discussions with the LHA and LPA, it is proposed that the School Lane connection to the A48 (shown as Point C) is closed to vehicle traffic and retained for non-motorised access only. This will allow for improved access to St Nicholas for pedestrians travelling along the existing footway network on the A48 and improve the active travel environment. This would also tie into the proposed active travel route through the village, as discussed in the following section.
- 4.2.5 Details of the proposed pedestrianisation of School Lane is illustrated on the TIS Plan included at **Appendix D**.

### 4.3 One-Way System

- 4.3.1 The original TA outlined an indicative one-way system for school traffic. This was provided as an indication as to how such a system could be implemented. Further details of a revised one-way system are included in this section, which will accommodate the proposed pedestrianisation of School Lane / A48 junction. The one-way system is presented in **Figure 4-2** and also outlined on the TIS plan included at **Appendix D**.

**Figure 4-2: Proposed Routing of a One-Way System**



Source: OpenStreetMap.

- 4.3.2 The principals of this one-way system are as follows:
- East-bound only movements past the school site. Two-way movements along this link are known to result in difficult traffic conditions for vehicles and for pedestrians. All vehicles moving in the same way will significantly reduce conflicts.
  - This ties into the school access strategy for the drop-off / collection areas, which requires access via the eastern vehicle access and exit via the western access. This removes the need for complex two-way movements past the school gates and site frontage which will improve road safety and improve pedestrian amenity.
  - Once past the school, vehicles will be permitted to circulate the centre of St Nicholas via School Lane and Church Row. This will allow vehicles unable to use the formal drop-off areas within the school to find a parking space. Currently, school vehicles regularly park along Church Row.



- Egress back to the A48 is proposed via Unnamed Road only. The School Lane connection is proposed to be pedestrianised and therefore vehicle egress via this connection will not be permitted.
- Circulation routes mean that if parking is unavailable on the first loop around the village, it will not be debilitating to loop around again to find a parking space. The one-way loop is also not large enough as to be tortuous or time consuming for drivers and contribute to non-compliance.
- The direction of circulation around St Nicholas is as presented to remove complex manoeuvres / vehicle queues at the school frontage. Vehicles will only have one direction of travel at the School Lane / Church Row junction which will eliminate confusion and inefficiencies in vehicle movement.
- The one-way system is also designed to work with the active travel corridor (discussed below) so that the flow of traffic is predictable at pedestrian crossings and that footways can be provided by narrowing the carriageway at certain locations.

4.3.3 The one-way system will be implemented from the opening of the expanded school. This will be promoted as an informal system only and will not be secured by a Traffic Regulation Order (TRO). The one-way system will be communicated to parents / guardians through the available social media platforms available to the school (such as seesaw, dojo, parent mail, twitter, school website), with an indicative plan of the suggested one-way system. At the beginning of each school year temporary signs will be placed throughout the village to guide parents / guardians along the correct routes. These will not be official traffic signs, and will not be secured via a TRO. The TMP will include additional information on the implementation of the informal one-way system by the school.

4.3.4 It is recognised that local residents will not be obliged to use the informal one-way system given that it is not proposed to secure this via a TRO upon opening of the new school site. However, from a traffic operation and safety perspective, and for optimum results, it is recommended that all traffic movements during the school AM and PM Peak follow the one-way system arrangement.

4.3.5 It is understood that VOGC are considering implementing a one-way system formally via a TRO. It is not known when this will be implemented, or what the layout of the one-way system will be. However, it is considered that it will be similar to that presented in this Addendum. The one-way system is considered to operate effectively for residents, which will encourage uptake of the system when implemented informally, but also not be an inconvenience to residents if the system is formally implemented via a TRO.

## 4.4 Active Travel Route

4.4.1 It is proposed that an active travel route is installed through the village between the A48 and St Nicholas School. This will involve the creation of footways and pedestrian crossings to facilitate pedestrian movements for pupils who are walking to / from school, walking as part of the proposed walking bus (see below) and also walking from parked vehicles within the village.

4.4.2 The potential alignment of the active travel route is presented on the TIS Plan included at **Appendix D**. The route is summarised as follows:

- Access from the A48 at the newly pedestrianised section of School Lane;
- A footway provided along the eastern side of School Lane to a point north of its junction with Church Row;
- A crossing over School Lane north of Church Row. This will be a dropped-kerb crossing with tactile paving;
- A footway along the northern side of Church Row;
- A crossing over Church Row to the south of School Lane. The exact placement of the crossing will be confirmed following investigation of land ownership in this area;
- A footway on the western side of Church Row and extending to the junction with School Lane; and
- A crossing over School Lane to tie into the footway proposed along the school frontage.

- 4.4.3 Where necessary the carriageways may be narrowed to accommodate footway width and informed by the one-way system to remove the need for two-way traffic. Footways will be provided to an ideal width of 2.0m although some narrowing to a minimum of 1.5m may be required at some locations.

## 4.5 Connection to Cae Newydd

- 4.5.1 It is understood that the VOEG are investigating the possibility of installing a footway connection between Cae Newydd at the new housing development at 'Land to the east of St Nicholas', and Ger-Y-Lan. If provided there is the potential to continue the proposed footway provision on the western side of School Lane to connect to Ger-Y-Lan. This will support pedestrian movements to the footway on Church Row from the north. However, it is pertinent to note that this is in its early stages of investigation and will rely on the LHA and the Landowner discussion, and separate to this application. This route is shown indicatively on the TIS plan included at **Appendix E**.

## 4.6 Pedestrian Improvements at School Site

- 4.6.1 It is proposed that a 2.0m footway is installed outside the school connecting the two pedestrian gates. This will improve pedestrian accessibility to the site. The footway is shown on the site plan included at **Appendix D**.
- 4.6.2 Barriers will be installed outside the pedestrian gates along the school frontage as a highway safety measure. This will prevent pedestrians from being able to walk directly into the carriageway of school lane.

## 4.7 Walking Bus

- 4.7.1 The school will implement a formal Walking Bus for travel to / from the school site. The walking bus will operate between Cae Newydd, the new housing development at 'Land to the East of St Nicholas'. Escorting adults will be asked to arrive and park on Cae Newydd at a set time before / after school. School staff will then accompany school children on the walk to the school site.
- 4.7.2 The walking bus route will be via the footway on the A48 and the newly pedestrianised connection at School Lane. However, if the connection to the new development is confirmed the walking bus will be able to use this more convenient and direct route.

## 5. Summary

### 5.1 Background

- 5.1.1 AECOM Development Transport Planning has been appointed by the Vale of Glamorgan Education Department to provide highway and transport services in relation to the proposed expansion of St Nicholas Church in Wales (CiW) Primary School in St Nicholas, Vale of Glamorgan.
- 5.1.2 A planning application was submitted to the Vale of Glamorgan Council (VOGC) in July 2020 (planning application reference: 2020/00874/RG3). AECOM produced a Transport Assessment (TA) to inform the planning submission which included an assessment of the proposed development impact on the local highway network. The TA concluded that the expansion to the school site would not result in adverse highway conditions.
- 5.1.3 The proposed development is for the expansion of St Nicholas CiW Primary School to enable an increase in pupil intake to a total of 234 pupils including 24 FTE pupils in a new nursery (an increase of 108 pupils). The number of staff will increase from 21.5 FTE to 24FTE members of staff (and increase of 2.5 staff FTE). A new car park and servicing area will be created to the south of the site.
- 5.1.4 This TA Addendum has been produced by AECOM to provide an update to the original content of the TA and provide further information in relation to the proposed development.

### 5.2 Additional School Enrolment and Mode Share

- 5.2.1 The LPA have requested that further evidence is provided in relation to the requirement for the school expansion, including further information on the number of pupils likely to walk to the school from the local area post-expansion. The proposed expansion of the school is partly driven by committed residential developments in the local area comprising 237 dwellings. The nursery and primary school pupils generated by these developments have been derived from yield factors published in VOGC Supplementary Planning Guidance (SPG). This equates to 92 pupils (nursery and primary school). The remaining 16 pupils are assumed to come from the wider area fulfilling a wider need for school places across the Vale of Glamorgan.
- 5.2.2 The pupil yield has been applied to a mode share derived from the National Travel Survey (NTS) for school pupils aged between five and ten years old. This illustrates that approximately 33% of the additional pupils will travel to / from school in a car / van and 62% are likely to walk owing to the proximity of the committed developments to St Nicholas. It is acknowledged that following enrolment to the expanded school there may well be differences in mode share compared to that shown, however, the measures outlined in the Transport Implementation Strategy (TIS) will encourage active travel to the school.

### 5.3 Parking Management

- 5.3.1 The VOGC Education Department has clarified the number of teaching and ancillary staff to be based at the expanded school site which has in turn altered the number of parking spaces to be provided on-site under the development proposals. Parking will be provided at the maximum parking standard level to reduce the effects of displaced parking on the highway network. On-site parking is provided as follows:
- School Staff – 20 spaces, including one allocated for disabled use;
  - Visitors – three spaces; and
  - Commercial – one space
- 5.3.2 Swept Path Analysis (SPA) of the site layout has been completed which confirms that there has been no material change to the site layout or the TA SPA findings and continue to show suitable access for a refuse vehicle, fire tender, mini-bus and servicing vehicle. The SPA undertaken as part of this Addendum also demonstrates that cars can be accommodated within the formal drop-off / collection lay-bys.

- 5.3.3 The school car park to the south of the site includes a formal provision for the drop-off / collection of pupils. This is provided within laybys to the north of the car park meaning that pupils will be able to access / egress from vehicles directly to the footpaths within the school site. Use of the on-site drop-off / collection facility will be limited to short-stay only. This will encourage a quick turnover of spaces which will in turn mean that more spaces are available on-site during the drop-off / collection times and limit the amount of on-street parking. On-street parking for school traffic will only be encouraged when there are no spaces available within the drop-off / collection facilities on site and when escorting adults need to stay on-site for a more prolonged period of time.
- 5.3.4 It is envisioned that the school start times for various year groups will be arranged so as to allow for escorting adults with more than one pupil to drop-off / all pupils at once. This will be important to allow parents for multiple children to avoid having to complete two journeys to the school site, or else park on-site and then relocate to off-site.

## 5.4 Transport Implementation Strategy

- 5.4.1 Various improvements are proposed as a package of measures to improve the active travel environment in and around the school site. The TIS Plan included at **Appendix D** illustrates the location of these measures which are summarised as follows:
- Pedestrianisation of the eastern junction between School Lane and the A48. This will improve pedestrian access to the village and improve pedestrian amenity on the A48.
  - An informal one-way system through St Nicholas, resulting in vehicles accessing the village via the westernmost junction between School Lane and the A48, accessing the school site to use the formal drop-off / collection facilities, before continuing along School Lane and then accessing Church Row to either circulate for on-street parking or egress to the A48 via Unnamed Road. The one-way system will be implemented from the opening of the expanded school. As part of this application, this will be promoted as an informal system only and will not be secured by a Traffic Regulation Order (TRO). The one-way system will be communicated to parents / guardians through the available social media platforms available to the school. At the beginning of each school year temporary signs will be placed throughout the village to guide parents / guardians along the correct routes. It is understood that VOGC are considering implementing a one-way system formally via a TRO. It is not known when this will be implemented, or what the layout of the one-way system will be. However, it is considered that it will be similar to that presented.
  - An active travel route through St Nicholas which will comprise new footways and pedestrian crossings of the carriageway. This will route from the pedestrianised connection between School Lane and the A48, along Church Row before linking to the proposed footway along the school frontage to School Lane. Where necessary the carriageways may be narrowed to accommodate footway width and informed by the one-way system to remove the need for two-way traffic. Footways will be provided to an ideal width of 2.0m although some narrowing to a minimum of 1.5m may be required at some locations.
  - A potential connection to Cae Newydd which is being investigated by the VOGC as a separate exercise to this application. If provided there is the potential to continue the proposed footway provision on the western side of School Lane to connect to Ger-Y-Lan.
  - A footway and barrier will be installed along the site frontage to School Lane.
  - A walking bus will be provided by the school with the meeting point at Cae Newydd. This will access the school via the active travel route via either the A48 or the potential connection to Cae Newydd, if successfully provided.
- 5.4.2 A School Travel Plan (TP) has been produced and will be submitted alongside this TA Addendum to inform the planning application.
- 5.4.3 This Addendum supports the findings of the TA and provides further information and justification that the proposals will not result in unacceptable levels of traffic. The package of measures proposed work to mitigate impacts and overall improve the current situation through considered and appropriate design both onsite and offsite.

## Appendix A AECOM Technical Note

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Project:	<b>St Nicholas CiW Primary School</b>	Job No:	<b>60607807</b>
Subject:	<b>Before / After School Provision</b>		
Prepared by:	<b>Matthew Parker (Consultant)</b>	Date:	<b>03/09/2020</b>
Checked by:	<b>Kirsty Cox (Principal Consultant)</b>	Date:	<b>03/09/2020</b>
Approved by:	<b>Jeremy Douch (Regional Director)</b>	Date:	<b>04/09/2020</b>

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**Version 1**

## **1. Introduction**

This Technical Note (TN) has been produced by AECOM's Development Transport Planning team to inform a planning application for the proposed expansion to St Nicholas Church in Wales (CiW) Primary School (planning application reference: 2020/08874/RG3). The proposals include demolition of the existing building, and construction of a new facility on the same site to allow for an increase in pupil intake.

AECOM has produced a Transport Assessment (TA) to inform the application. The Vale of Glamorgan Council (VoG) as the Local Highway Authority have provided comments in response to the TA which included a request for confirmation on the number of pupils likely to use the before / after school provision at the expanded school. Whilst the TA includes reference to before / after school provision, the assessment of development traffic impact assumed that no pupils will use these services. This TN provides information on the proposed before / after school provision and outlines the effect of such provision on the traffic impact of the proposed development.

This TN also includes information on the proposed offset to the expanded school start / finish times to ameliorate the effects of the school traffic generation during peak times. This has been discussed in relation to the before / after school provision.

The TN is issued to the VoG as a supplement to the TA.

## **2. Before School Provision**

The before school provision for the expansion to the school will include a breakfast club, as a continuation of the existing provision. The club commences at 07:50 and runs for one-hour until school starting time at 08:50. The breakfast club is provided Monday through to Friday.

The current capacity of the breakfast club is limited to 50 pupils owing to the COVID19 pandemic. Following the school expansion, the maximum capacity of the breakfast club will be increased to 105 pupils, equating to 45% of the maximum pupil population of the site (234 pupils, including nursery). The exact uptake of the breakfast club is unknown as this will vary from term-to-term and year-to-year. However, historically attendance has been close to the capacity of the breakfast club and therefore it is considered likely that this will continue to be the case in future, with daily attendance reaching close to 105 pupils.

It is also likely that a significant proportion of breakfast club pupils will be dropped-off for 07:50hrs, effectively shifting a proportional amount of school traffic movements to before, and out of, the weekday AM peak hour period. Furthermore, the remaining breakfast club pupils are likely to be dropped-off in the earlier part of the AM Peak hour (for example, between 08:00 and 08:30) meaning that development traffic is likely to be more spread out across the hour-long period, and less likely to occur in the half-hour prior to the school start time.

As such, the school breakfast club will help to reduce the number of school trips occurring during the AM peak hour and will also result in a less pronounced peak period during the school drop-off period. The overall traffic attraction of the school will not change but traffic will be ‘spread out’ over a longer period of time, resulting in less significant impacts overall. The TA concluded that without consideration for before school provision that the traffic impact will be minor during the AM peak hour. Any pupil attendance of the breakfast club is therefore considered to be a benefit to AM peak hour traffic generation for the school. It is also considered unlikely that the trips which will occur before the AM Peak hour will result in a significant impact on the local highway.

**3. After School Provision**

The after school provision for the school expansion currently includes various clubs which will continue to operate following the school expansion. Clubs can include sports clubs, arts and crafts clubs, reading clubs and cooking clubs. Historically, attendance of the after school clubs has been low and therefore the number and type of clubs provided is decided on a term-by-term basis depending on interest. This will also be the case following expansion of the school. Currently, there are three sports clubs, each with a capacity of 10 pupils (up to a total of 30 pupils per day). These clubs run from the end of school period at 15:30hrs and finish at 16:30hrs. Currently the after school clubs are provided Monday to Wednesday.

It is not possible to determine the exact uptake of after school clubs following the expansion as the number of clubs will continue to vary on a term-by term basis. The TA demonstrates that, without any pupils attending after school clubs, there is a minor impact on the local highway network during the school PM peak hour. Therefore, any pupils attending after school clubs will be expected to reduce the traffic generation of the School PM peak hour, effectively deferring trips to the following hour (16:00-17:00hr). It is considered unlikely that the trips which are deferred will result in a material impact during the hour commencing 16:00hrs.

For illustrative purposes, the impact of one, two or three sports clubs being provided at the expanded school (as is the current provision at the existing school) in terms of the shift in traffic generation from the School PM peak hour is shown in **Table 1**. This has been calculated using the same assumptions of pupil trip generation as outlined in the TA. In practice the provision of after school clubs may be higher or lower depending on the specific provision for that term. The higher the attendance of after school clubs the amount of school traffic which occurs later in the afternoon (but before the PM peak hour) is increased.

**Table 1: Effect of After School Provision on School PM Peak Hour Traffic Generation**

After School Club Uptake	School PM Peak Hour (15:00-16:00)			Post-School PM Peak Hour (16:00-17:00)		
	Arrivals	Departures	Two-Way	Arrivals	Departures	Two-Way
0 Clubs, 0 Pupils	119	119	239	0	0	0
1 Club, up to 10 Pupils	113	113	226	6	6	13
2 Clubs, up to 20 Pupils	106	106	213	13	13	26
3 Clubs, up to 30 Pupils	100	100	200	19	19	39

Notes: 1) The reduction in vehicle trip generation is shown only. There will also be reductions in walking movements, however the majority (~90%) of departures are assumed to depart from sports clubs via vehicle mode.  
 2) Summation errors are due to rounding.

The uptake of after school clubs by 30 pupils will reduce the trip generation of the school during the school PM peak hour by up to 39 two-way movements. Taking into account these trip changes, there are forecast to be 200 two-way movements during the School PM peak hour.

As the TA concluded that there will be an acceptable impact from the proposed development without consideration for after school provision, the sports clubs are considered to be a benefit to the network, which reduces impact further. It is unlikely that the trips which are deferred to the Post School PM Peak hour, will result in a significant impact on the local highway.

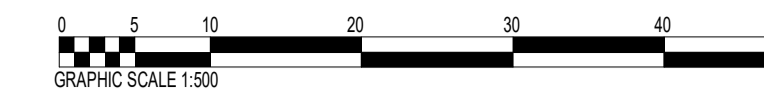
## **4. Staggered School Start / Finish Times and Minibus Operation**

As part of the Transport Implementation Strategy (TIS) for the school, it has been suggested that the start / finish times for each year group / key stage group could be staggered. This will 'spread out' the schools traffic demand during the AM and School PM peak hours and to reduce pressure on parking on School Lane local to the school site.

AECOM understands that a key consideration for implementing a staggered school timetable is how the school minibus will operate around the individual pupil start / finish times. Ultimately the school administration will decide how this will occur, however one option could be to arrange for the minibus to pick-up pupils starting on the early timetable first with pupils starting later collected on the subsequent runs. The breakfast club is considered to have sufficient capacity to accommodate minibus pupils who arrive prior to their registration time. In the afternoon, a minibus club will be provided (as is the current situation) to accommodate pupils waiting for the mini-bus to drop them back to their home locations. Staggering the school timetable will likely reduce the requirement for some pupils to wait at the beginning / end of the school day as they will be in lessons.



## Appendix B Site Layout

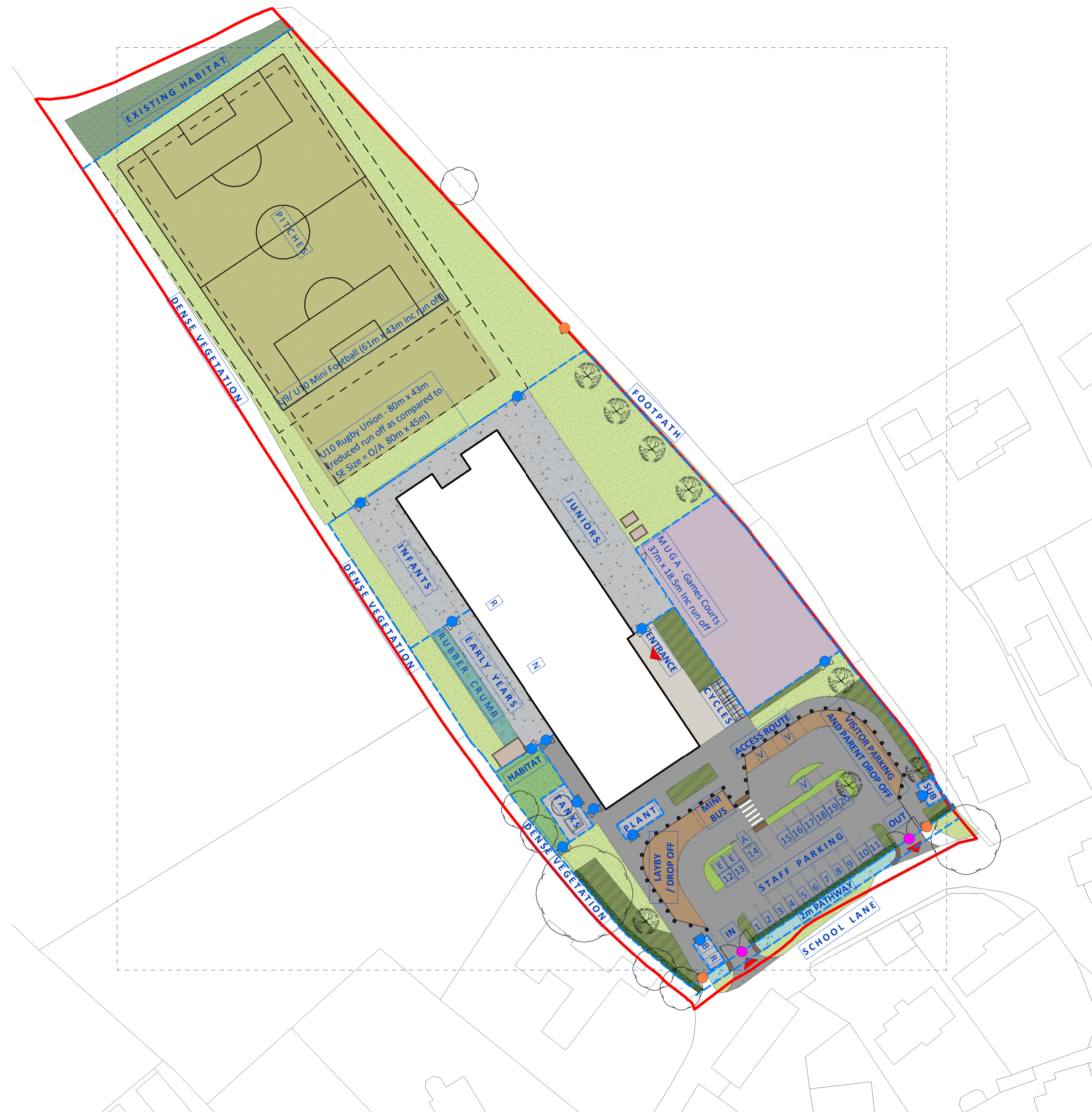


Responsibility is not accepted for errors made by others in scaling from this drawing.  
All construction information should be taken from figured dimensions only.

**Legend**

- Site boundary.
- - - Fence.  
Refer to drawing SNPS-STL-XX-XX-DR-L-9004 Fencing and Security Plan for details.
- Gates**
- Pedestrian single gate.
- Site entrance vehicle gate.
- Pedestrian and/or maintenance double gate.
- R** Recycling bins.
- B** General waste bins.
- A** Accessible parking space.
- E** Electric charging space.
- Bollard.  
Refer to drawing SNPS-STL-XX-XX-DR-L-9002 Hard Landscape Plan for details.
- New tree planting.  
Refer to drawing SNPS-STL-XX-XX-DR-L-9003 Soft Landscape Plan for details.
- Existing trees to be retained to BS 5837:2012.

**NOTE:**  
For levels and drainage information refer to engineers plans and details.



General Arrangement Plan  
1 : 500

STATUS	REV	DATE	DESCRIPTION
PL	PL07	30/09/20	Updated anotation and planting for planning
PL	PL06	17/09/20	Highways input update for discharge of conditions
PL	PL05	13/09/20	For discharge of conditions
PL	PL04	09/09/20	Amended for Planning Issue
PL	PL01	07/09/20	For Stage 3 Issue
S4	PL01	07/09/20	For Stage 3 Issue
PL	PL03	25/06/20	For Planning
PL	PL02	15/06/20	PAC Submission
PL	PL01	12/06/20	PAC Submission

CLIENT	REVISD BY
Vale of Glamorgan Council	CCM
CHECKED BY	CS
ORIGINATOR NO	152853

CONSULTANT  
**STRIDE TREGLOWN**  
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 PROJECT  
**St Nicholas Primary School**

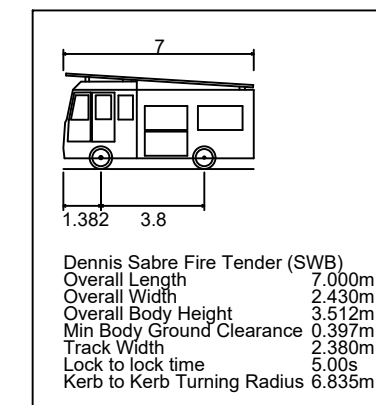
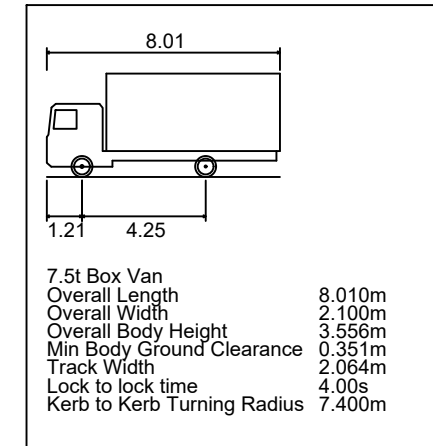
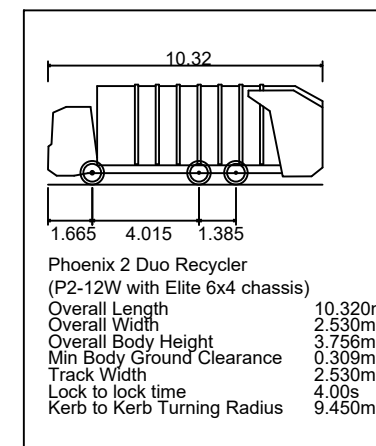
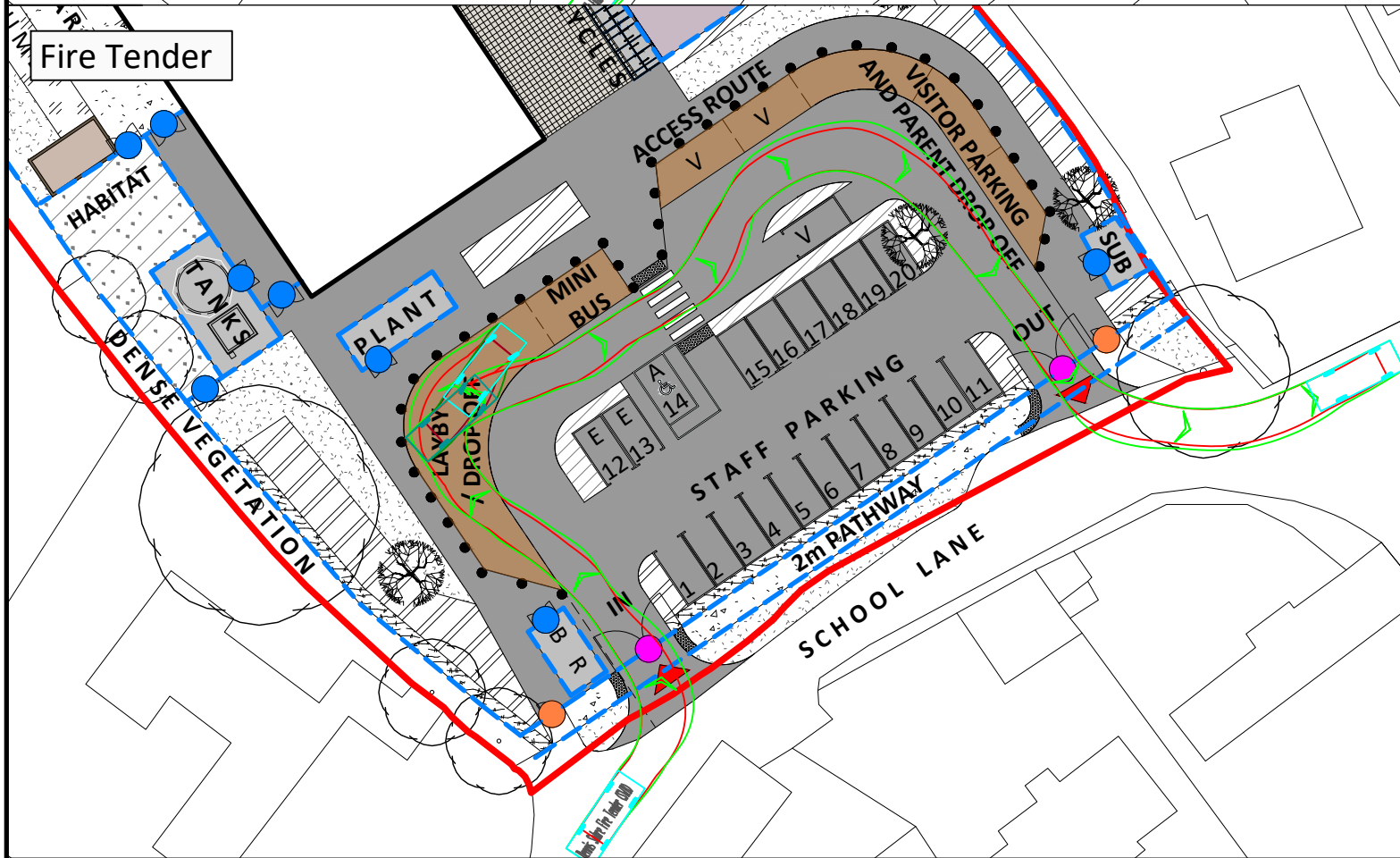
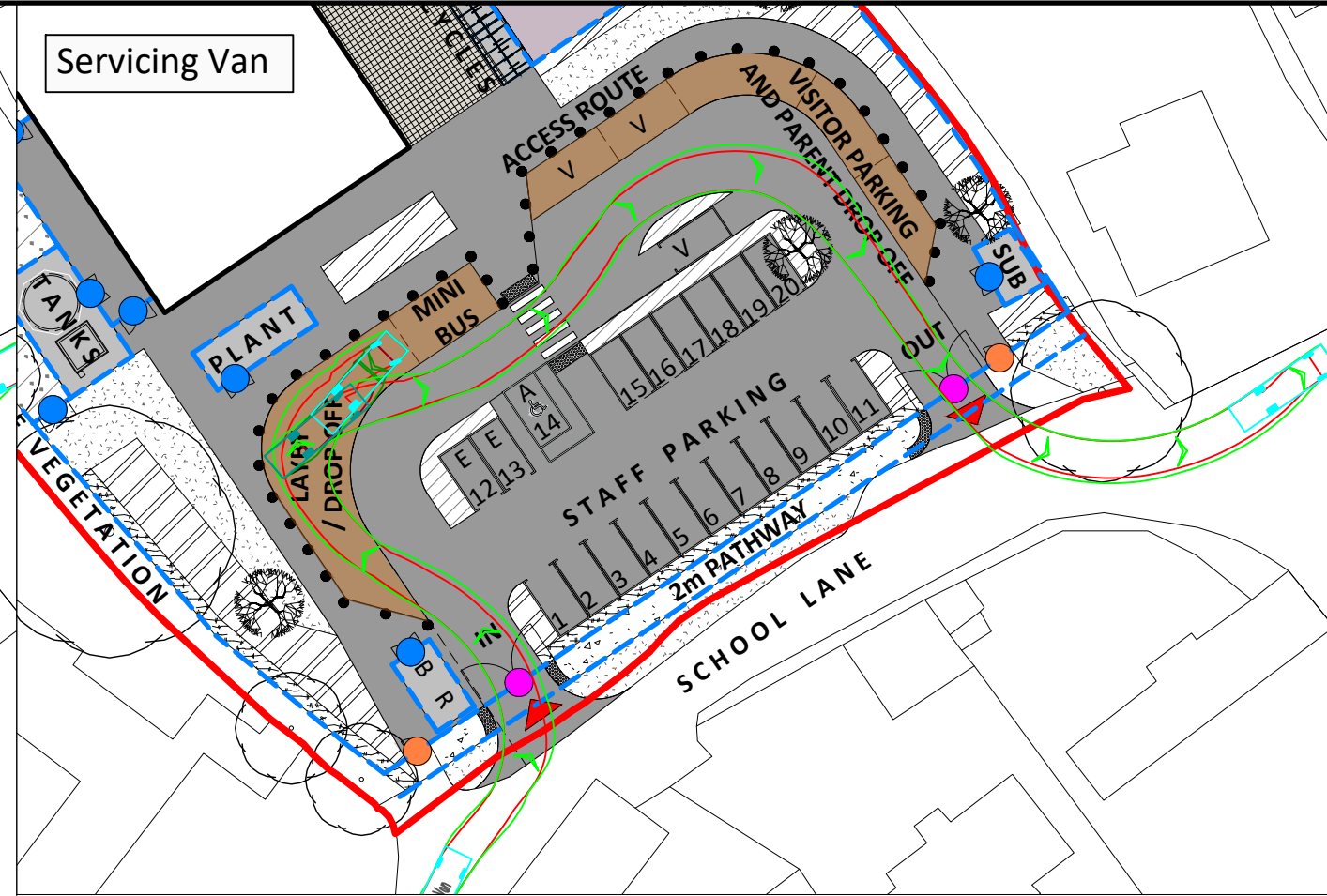
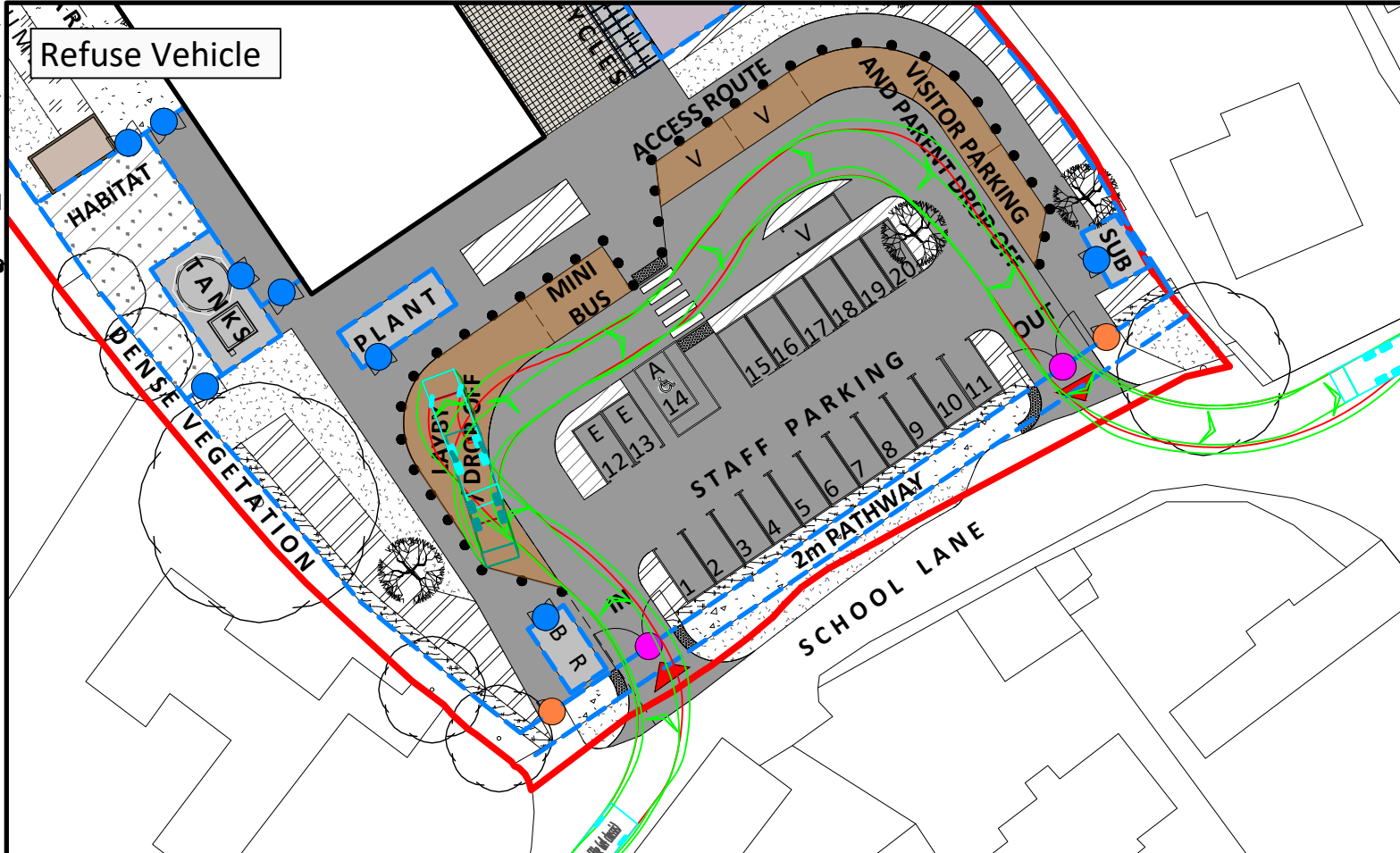
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**General Arrangement Plan**

STATUS CODE  
**PL : Authorized and accepted** SCALE  
**1 : 500@A1**

DRAWING USAGE:  
 PROJECT - ORIGINATOR - VOLUME - LEVEL - TYPE - ROLE - CLASS - NUMBER STATUS\_REVISION  
**SNPS-STL-XX-XX-DR-L-9001 PL\_PL07**

## Appendix C Swept Path Assessments



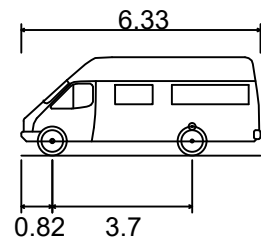
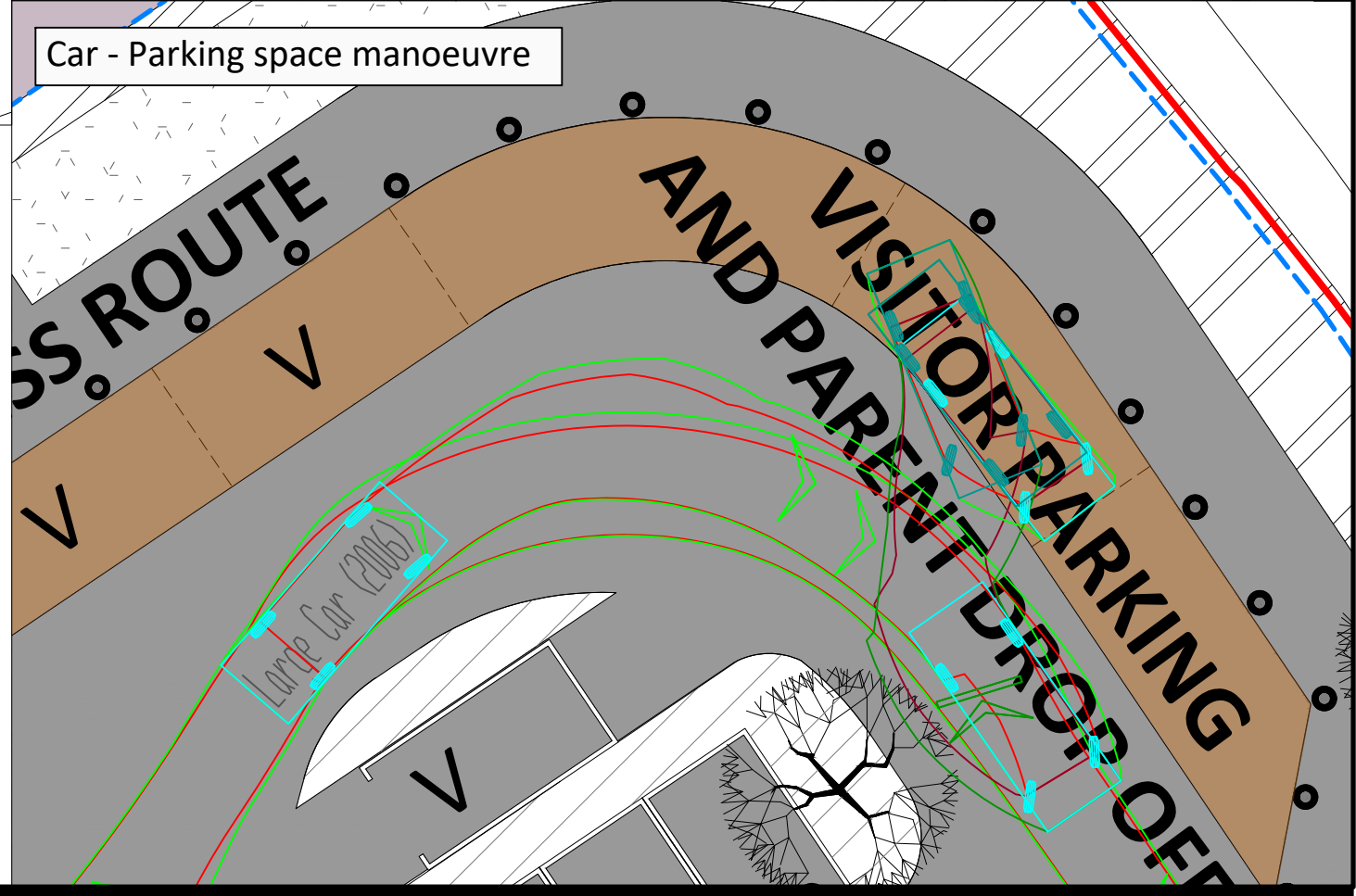
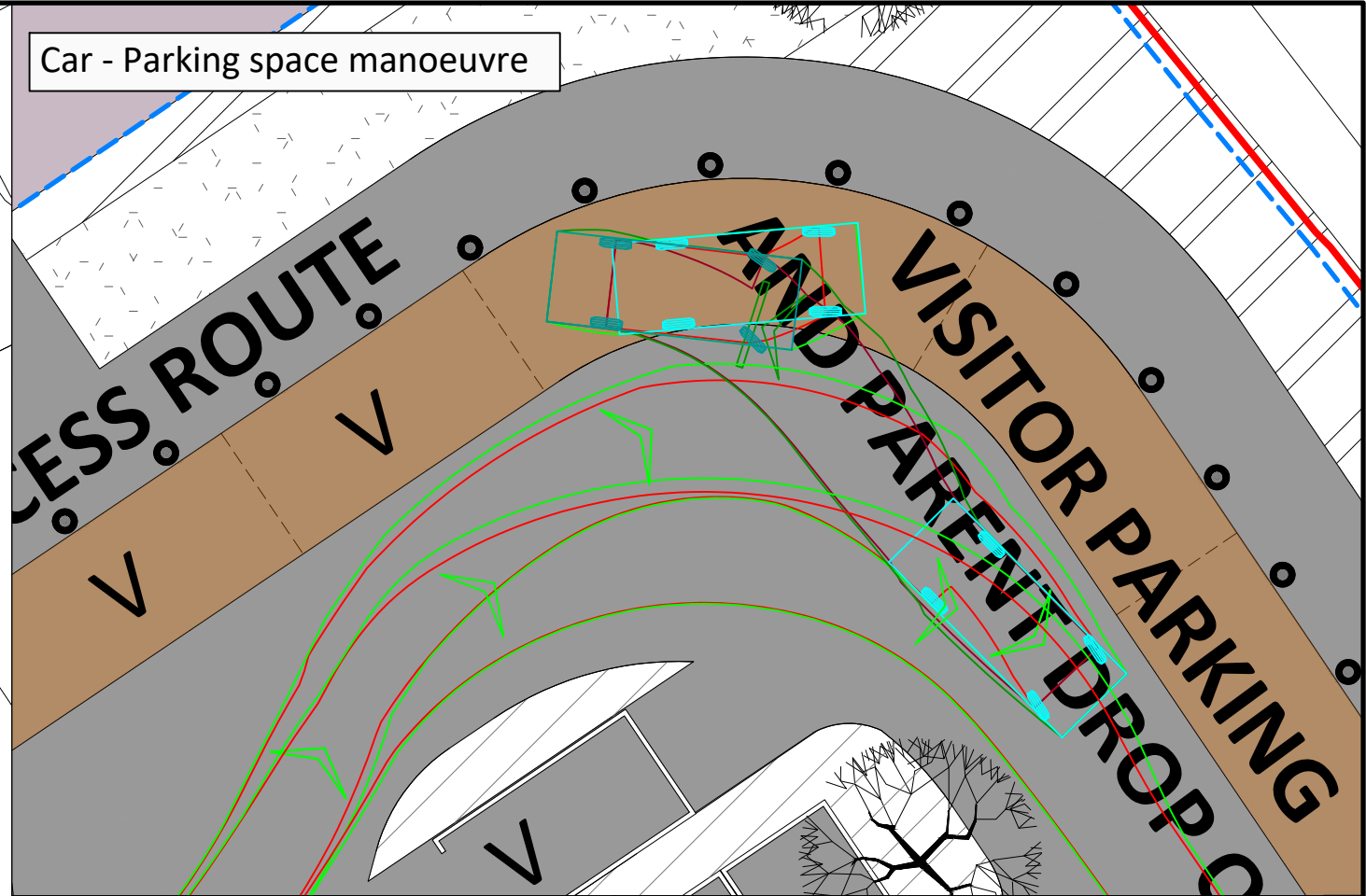
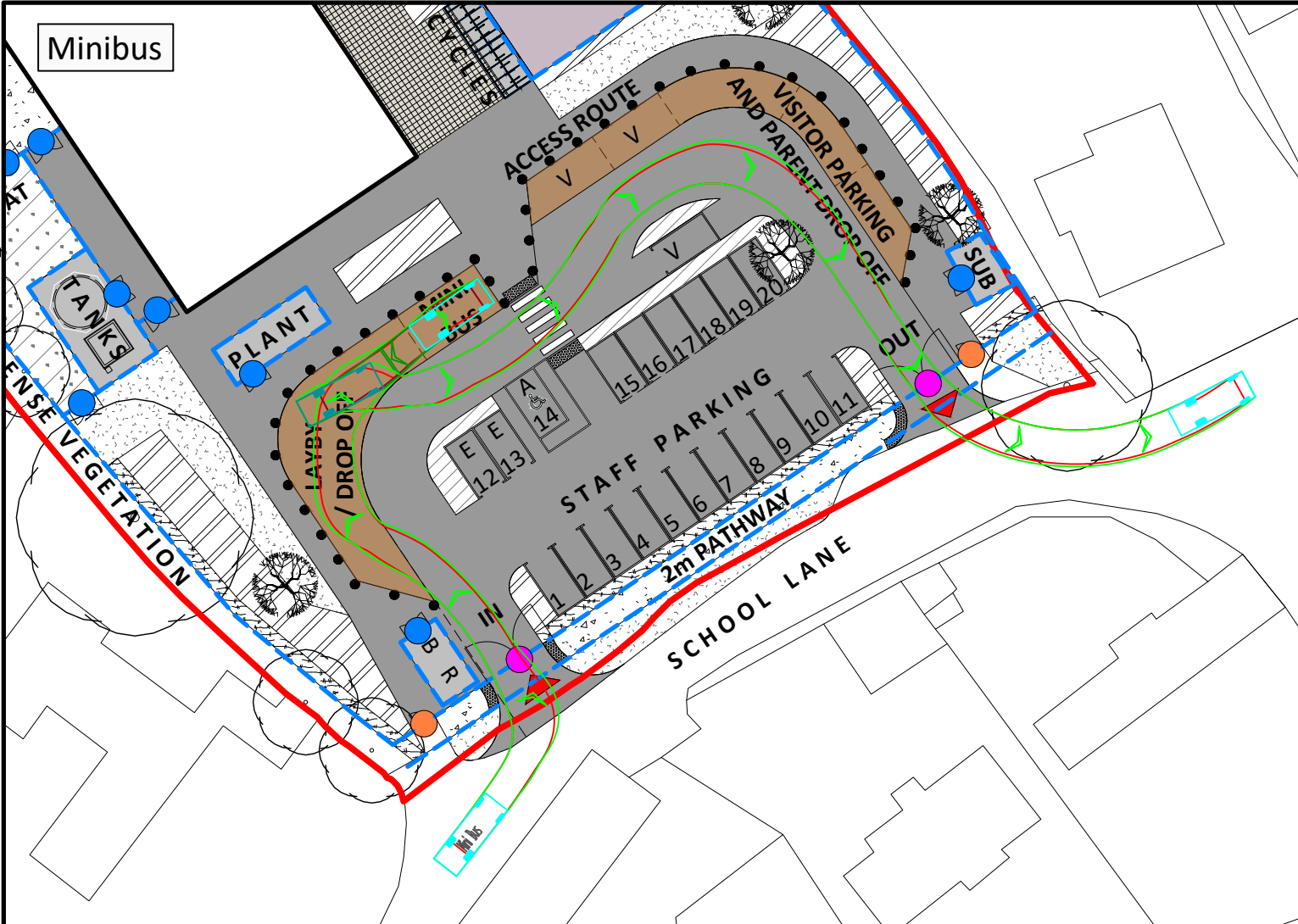


Tracking Based on Drawing:  
SNPS-STL-XX-XX-M2-L-0001-St Nicholas Landscape  
Model - 9001 - GA Layout

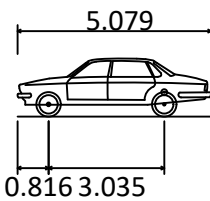
# St Nicholas Primary School







Mini Bus  
 Overall Length 6.330m  
 Overall Width 2.192m  
 Overall Body Height 2.601m  
 Min Body Ground Clearance 0.374m  
 Track Width 2.192m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 6.450m



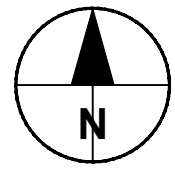
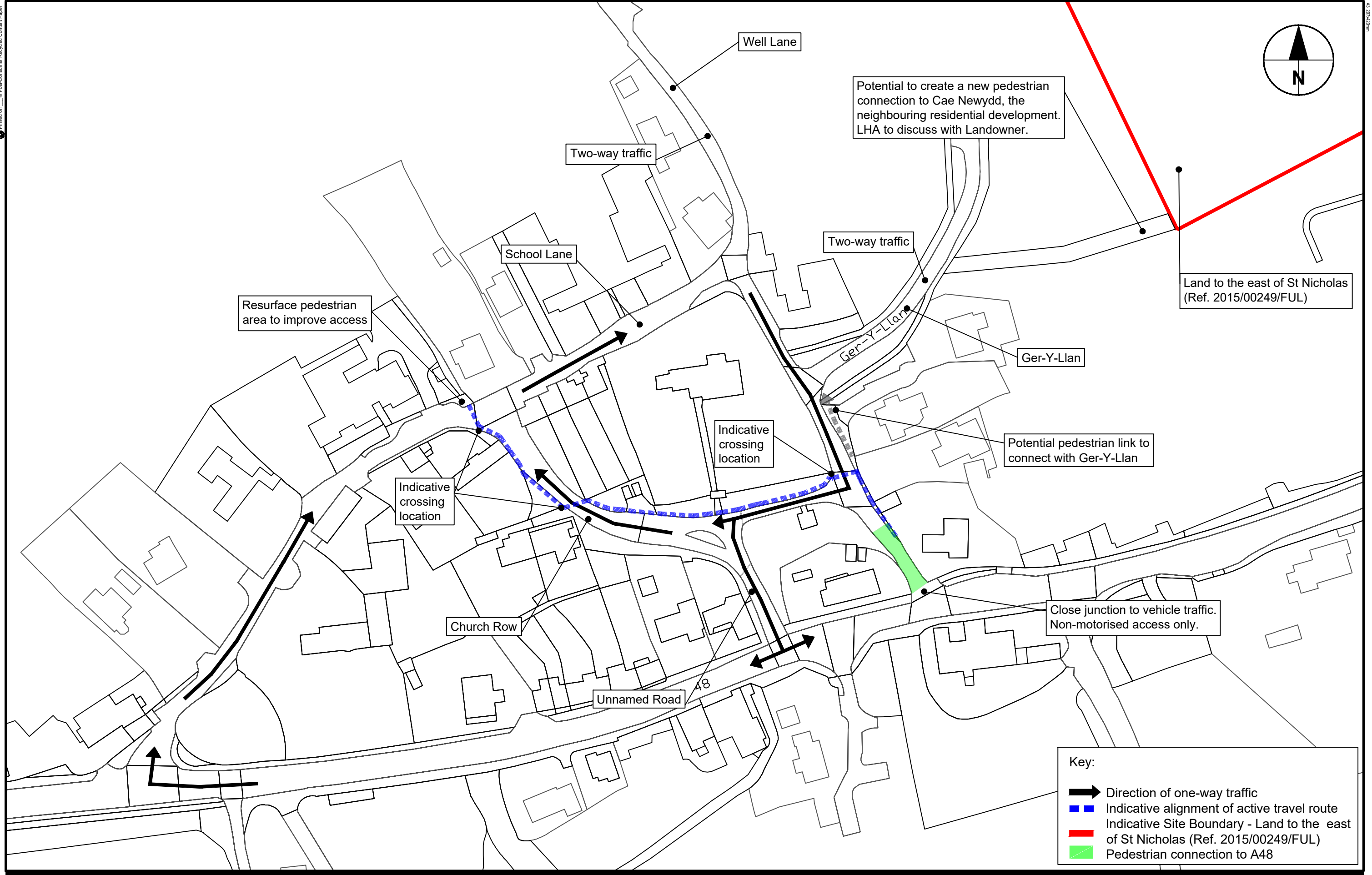
Large Car (2006)  
 Overall Length 5.079m  
 Overall Width 1.872m  
 Overall Body Height 1.525m  
 Min Body Ground Clearance 0.310m  
 Max Track Width 1.831m  
 Lock to lock time 4.00s  
 Kerb to Kerb Turning Radius 5.900m

Tracking Based on Drawing:  
 SNPS-STL-XX-XX-M2-L-0001-St Nicholas Landscape  
 Model - 9001 - GA Layout

# St Nicholas Primary School



## Appendix D Transport Implementation Plan



**Key:**

- Direction of one-way traffic
- Indicative alignment of active travel route
- Indicative Site Boundary - Land to the east of St Nicholas (Ref. 2015/00249/FUL)
- Pedestrian connection to A48

# St Nicholas Church in Wales Primary School, Vale of Glamorgan

Transport Assessment Addendum  
Indicative Active Travel Route



60607807

