Technical Note

Project: **Cheswick Green Primary School, Cheswick Green**

Subject: **Review of CGPC Response**

Client:	Solihull Metropolitan Borough Council	**Version:**	B
Project No:	05214	**Author:**	JO
Date:	20th November 2021	**Approved:**	CS

1 Introduction

1.1 Background

1.1.1 PJA has been commissioned by Solihull Metropolitan Borough Council (SMBC) to provide transport advice in relation to a planning application for a one form entry (1FE) expansion of Cheswick Green Primary School, Solihull.

1.1.2 A planning application for the expansion was submitted in May 2021 (planning reference: PL/2021/01418/PPFL). PJA prepared a Transport Assessment (TA), dated May 2021, that was submitted with the application.

1.1.3 Comments have subsequently been received from Cheswick Green Parish Council (CGPC) who have commissioned Pell Frischmann to review the TA, prepared by PJA and Travel Plan (TP), prepared by SMBC and the school .

1.2 Note Purpose

1.2.1 This Technical Note provides a response to the TA and TP Audit (dated July 2021) prepared by Pell Frischmann on behalf of CGPC (document reference: 105484/R01), and the formal planning objection prepared by PPL on behalf of CGPC (document reference: PPL.CHEB904HG).

2 Planning Objection (PPL on behalf of CGPC)

PPL Comment

The existing school causes significant parking issues and congestion in the area. This will worsen if the school is allowed to expand.

PJA Response

2.1.1 It is acknowledged that there are existing parking issues and congestion in the area surrounding the school at the start, and end of the school day. The TA has demonstrated that following implemention of the staggered start and end times and other mitigation measures, the maximum parking demand will not exceed the current levels of demand. Therefore, it is not considered that existing parking issues would be exacerbated to any great degree.

PPL Comment

Children who will be brought into the area from adjoining areas such as Blythe Valley are most likely to travel by car. Local children may also be brought to school by car as part of onward journeys by parents.

PJA Response

2.1.2 Whilst it is acknowledged that some children will be brought to school by car, it is proposed for a dedicated escorted school bus to be provided for pupils travelling to the school to/from Blythe Valley, as well as frequency improvements to be implemented on the A7/A8 local bus service. Together, these measures will give parents/pupils the opportunity to travel by modes other than the private car. In addition, measures such as Walking Bus and Travel Plan will encourage local children, living within Cheswick Green to travel on foot, or by bike.

PPL Comment

Paragraph 5.3.11 of the Travel Assessment submitted with the application acknowledges that the age of pupils and travel distances involved make walking or cycling to the application site from Blythe Valley unviable.

Indent III of Policy P7 (a) is clear that schools should be accessible on foot, bicycle, and bus by the community they serve. This is clearly not the case concerning the proposed intake of pupils from Blythe Valley.

There is no realistic prospect of walking or cycling from Blythe Valley to the application site.

PJA Response

2.1.3 It is acknowledged that Blythe Valley is not within walking and cycling distance for pupils, however, Policy P7(a) also states that development would be expected to meet the listed criteria unless justified by local circumstances. The local circumstances of this development, as follows:

- Blythe Valley Park was consented for residential development in March 2017, with no education provision on-site. The nearest primary school to the development is Cheswick Green Primary School;
- Despite being the nearest primary school, Blythe Valley Park is c. 1.2km as the crow flies from Cheswick Green Primary School. There are no existing suitable walking/cycling routes for pupils to/from the school, and previous appraisal work has identified that there are no alternative routes that can be provided using land in public maintainable highway/within the applicants control, that would bring the site within acceptable walking/cycling distance of Blythe Valley Park.

2.1.4 On this basis, it is considered that given these local circumstances, there is adequate justification for the proposals to focus on ensuring Blythe Valley Park is well-connected to Cheswick Green Primary School by bus only, as walking/cycling are not appropriate modes for the distances involved and age of the pupils.

3 Transport Assessment and Travel Plan Audit Response

3.1 Introduction

Pell Frischmann Comment

Section 1.1.2 of the TA states that the proposed school expansion will be phased over a 'number of years', however no details are provided to confirm the extent of building works that are to be undertaken during each phase and when these will be implemented.

In particular, it is not clear when the proposed increase in parking supply is to be constructed and how this relates to the associated phased expansion of the school buildings and parking demand. It is considered that no additional buildings should be implemented in advance of suitable parking supply and/or management measures being provided.

Furthermore, no details are provided in order to confirm how access for construction vehicles will be maintained over a 'number of years', given that the proposed route from Creynolds Lane is only intended to be provided as a 'temporary' access arrangement.

Further details on the proposed phasing should therefore be provided within the TA in order to fully clarify the associated parking and construction impacts and justify their appropriateness

PJA Response

3.1.1 A Construction Traffic Management Plan will likely be conditioned on the application to demonstrate how the building works will be undertaken and project managed to minimise the

impact on the local highway network, existing school, and local residents. The construction access off Creynolds Lane will be maintained for the duration of the construction period.

3.1.2 The proposed additional car parking will be provided prior to occupation of the new classrooms.

Pell Frischmann Comment

Figures suggest a disproportionate increase in the number of pupils when compared to staff and so further clarification on the assumptions surrounding the likely increases should be provided within the TA.

PJA Response

3.1.3 PJA were provided with current and future staffing numbers by Cheswick Green Primary School. The school advised that they currently have 44 members of staff. Assuming one headteacher, two assistance headteachers, one site manager and one business manager, the school estimated there would be 65 members of staff post-expansion.

3.1.4 It should be noted that expansion of a school would not generate an equal percentage increase in both pupils and staff numbers, as some staffing functions would not need to increase, in the case of this expansion. The ratio of pupil : staff based on the figures in Table 1-1 of the Transport Assessment is forecast to increase from 6.1 to 7.8.

Pell Frischmann Comment

Section 1.1.4 suggests that additional primary school places are required in order to accommodate demand from the Blythe Valley Park and Cheswick Place developments. However, the application information appears to confuse those existing, completed and occupied residential developments, with proposed or committed future housing. These developments have been under construction for a number of years, and, in the case of Cheswick Place, all properties have been occupied for over 1 year.

Further details on the number of properties completed and those still to be developed, should therefore be provided within the TA accordingly. This is required in order to justify the proposed assumptions around the future generation and distribution of trips as a result of the expansion proposals.

PJA Response

3.1.5 It is recognised that the Cheswick Place development is fully occupied and so some of the pupils will be included within the existing pupil data for the school, however, this does not prevent additional pupils being drawn from this estate or indeed the wider Cheswick Green area.

3.1.6 The Blythe Valley development is in the early stages of occupancy and build out, however it is understood that some pupils attending the school are already attending Cheswick Green Primary.

3.1.7 All assumptions made in relation to Cheswick Place and Blythe Valley are set out in information provided by the SMBC Education team in **Appendix A**.

3.2 Policy Framework

Pell Frischmann Comment

…there are a number of fundamental issues which suggest a contradiction between the proposed school extension and the polices that are listed in the TA.

PJA Response

National Planning Policy Framework (NPPF) (2021)

3.2.1 Paragraph 110 a) of the NPPF states that development should ensure "*appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location".*

3.2.2 This policy makes it clear that any opportunity to promote sustainable transport modes must be appropriate for the type of the development and its location. It does not specifically require developments to promote walking and cycling, rather, sustainable transport modes that are appropriate in the context of the site. Given the age of the pupils and distance between Blythe Valley Park and Cheswick Green Primary School, the Transport Assessment has acknowledged that it would not be suitable for pupils to walk/cycle to school using existing infrastructure, and land within the applicants control/publicly maintained highway boundary. On this basis, the mitigation measures set out within the Deliverability Note for pupils drawn from Blythe Valley primarily focus on those modes which would be appropriate, for example, public bus services, dedicated school buses and car sharing, all of which are sustainable transport modes.

3.2.3 In addition, whilst it would not be appropriate to encourage pupils drawn from Blythe Valley to walk and cycle for their whole journey, the proposed Walking Bus, and complementary softer

measures e.g. School Travel Plan and Car Parking Strategy, will encourage parents/children to walk for the final part of their journey, whilst also reducing parking demand within the direct vicinity of the school access. It is considered highly appropriate for existing pupils from Cheswick Green and additional pupils drawn from Cheswick Place to walk/cycle to and from school. Mode share surveys undertaken as part of the Transport Assessment illustrate that some families living within suitable walking/cycling distance of the school currently travel by private car. Mitigation measures such as the Walking Bus, Travel Plan and Car Parking Strategy aim to encourage those who are able to walk/cycle to do so.

3.2.4 It is therefore considered that the proposed mitigation measures will provide appropriate opportunities for parents/pupils to access the school via sustainable modes. This includes both new pupils drawn from Blythe Valley Park and Cheswick Place, and existing pupils.

Policy P7 a iii) – Solihull Local Plan (2013)

3.2.5 Policy P7 a iii) states that:

"iii) Proposed education, health and other public service facilities should be located where they are easily accessible on foot, by bicycle and bus by the local community they serve;"

3.2.6 To mitigate the impact of the development, it is proposed to implement the following measures to improve accessibility by bus for the local community served by the school:

- Increased frequency of A7/A8 bus service between Cheswick Green Primary and Blythe Valley Park; and
- Provision of dedicated school bus service between Cheswick Green Primary School and Blythe Valley Park.

3.2.7 The local community served by the school does not only increase pupils drawn from Blythe Valley. Mitigation measures have been included within the development proposals to improve access on foot/by bike from Cheswick Green and surrounding areas, including implementation of a Walking Bus, provision of dedicated cycle parking on-site for staff and pupils, and implementation of a School Travel Plan to promote sustainable modes.

3.2.8 Policy P7 states that "*Development will be expected to meet the following accessibility criteria, unless justified by local circumstances".* The local circumstances of this development, as follows:

- Blythe Valley Park was consented for residential development in March 2017, with no education provision on-site. The nearest primary school to the development is Cheswick Green Primary School;

- Despite being the nearest primary school, Blythe Valley Park is c. 1.2km as the crow flies from Cheswick Green Primary School. There are no existing suitable walking/cycling routes for pupils to/from the school, and previous appraisal work has identified that there are no alternative routes that can be provided using land in public maintainable highway/within the applicants control, that would bring the site within acceptable walking/cycling distance of Blythe Valley Park.

3.2.9 On this basis, it is considered that given these local circumstances, there is adequate justification for the proposals to focus on ensuring Blythe Valley Park is well-connected to Cheswick Green Primary School by bus only, as walking/cycling are not appropriate modes for the distances involved and age of the pupils.

Policy P8 – Solihull Local Plan (2013)

3.2.10 A summary of the development proposals accordance with Policy P8 of the Solihull Local Plan is provided in Table 1, below.

Table 1: Summary of accordance with Policy P8

Policy		Summary of Measures
P8 a i)	Development will not be permitted which results in a significant increase in delay to vehicles, pedestrians or cyclists or a reduction in safety for any users of the highway or other transport network;	Following implementation of the staggered start/end times, the demand for parking would not considerably exceed that currently experienced at the school. Spreading the arrivals/departures across a 45-minute period will also minimise any impact on vehicle delay at junctions on the local highway network. In addition, 6-43% of trips to the school in each peak are likely to be linked trips to/from destinations other than home, a proportion of which will already be present on the local highway network. Therefore it is not considered that the development will increase delay for any users of the local highway network. Following implementation of the staggered start/end times, the demand for parking would not considerably exceed that currently experienced at the school. It is acknowledged some inappropriate parking during school peaks does occur, which would be addressed through mitigation measures that seek to reduce demand for parking within the vicinity of the site either by encourage uptake of alternative modes or encouraging parents to park further from the school in more appropriate locations. As outlined within the Deliverability Strategy, this could also include implementation of TROs to restrict parking in specific locations within the vicinity of the site access, and a formal crossing provision on Cheswick Way, which would improve road safety for pedestrians and cyclists. A walking route audit of the key routes to/from the school has identified that there is suitable infrastructure to accommodate any uplift in pedestrian trips. On this basis, once the identified package of mitigation measures has been implemented, it is not considered that there will be a reduction in safety for any users of the local highway network.
P8 a ii)	Travel demands associated with development should be managed to minimise detrimental impact to the efficiency of the highway network;	A range of mitigation measures have been presented which both manage, and minimise the detrimental impact to the efficiency of the highway network, through encouraging the uptake of non-car modes, ensuring parents park appropriately within the vicinity of the site, and providing additional on-site parking for staff.

Policy		Summary of Measures
P8 a iii)	Ensure new development reduces the need to travel e.g. by promoting linked trips and encouraging mixed use development where appropriate;	The provision of a dedicated school bus for pupils from Blythe Valley will reduce the need for parents to travel, and increasing the frequency of the A7/A8 bus will encourage parents to utilise this for linked journeys into Solihull Town Centre for work, retail, or leisure purposes.
P8 a iv)	Provision for parking and servicing will be required in accordance with a Supplementary Planning Document on managing travel demands associated with development;	Based on providing 16 classrooms, this equates to a maximum provision of 32 parking spaces in line with SMBC parking standards (2006). It is proposed to provide 36 car parking spaces, which will reduce surplus parking demand generated by staff. The School Travel Plan and On-Site Car Park Management Strategy will seek to manage this parking, and encourage the uptake of sustainable modes amongst staff.
P8 b i)	Ensuring the design and management of the development enables and encourages the use of sustainable modes of transport;	The design incorporates dedicated cycle parking for both staff and pupils, encouraging the use of cycling for journeys to/from school. The Walking Bus will be managed by a member of staff, ensuring that this sustainable travel modes remains available for families to utilise as the school expands.
P8 b ii)	Ensuring transport planning measures are implemented to help and encourage people accessing the development to use sustainable transport modes;	The use of sustainable modes will be promoted to all users of the site through the School Travel Plan, to encourage uptake by all users of the site.
P8 b iii)	Ensuring the routes to the site from nearby services and local public transport stops are good quality, direct and attractive to use for all users.	A walking route audit has been undertaken within the Transport Assessment which identifies that key walking routes to/from the school have suitable provision to accommodate walking/cycling trips generated by the site.

3.3 Baseline Conditions

3.3.1 Page 8 of the report provides a number of photographs to illustrate the '*trends*' within the vicinity of the school. No information has been provided regarded the time, or date, that these photos were been taken, who took them and whether they represent 'typical' conditions and therefore it is not possible to verify the validity of the conclusions drawn from this evidence.

Pell Frischmann Comment

Information has been provided regarding the levels of occupation in the morning at Pre-School (6 pupils) and Nursery (20 pupils) which represents 20% and 66% of capacity respectively. In addition to this the TA indicates that 5 staff were onsite, however no details are provided in order to specify what a normal level of staffing would be without the reduced

COVID-19 capacity. Given the reduced capacity of the Pre-School and Nursery it would also be fair to assume that staffing levels would be similarly lower than normal.

Whilst attendance levels of both the pre-school and nursery have been provided for the day of the site visit, there is no information on the levels of occupation for those other year groups at the school or the number of staff present. For consistency and in order to understand the overall impact it is suggested that this additional information is provided within the TA.

PJA Response

3.3.2 The attendance was as follows on the dates of the site visit:

- Tuesday 10th November 2020
  - Children: 222
  - Staff: 48
  - Visitors: 7
- Thursday 12th November 2020;
  - Children: 225
  - Staff: 48
  - Visitors: 4

3.3.3 This represents the majority of children and staff; therefore, it is considered that the findings of the site visit are valid.

Pell Frischmann Comment

The TA states that the school offers before and after school provision in the form of Breakfast Club (from 07:30) and After School Club (until 18:00), attended by approximately 30-40 pupils each day Monday to Friday; After School Sports Clubs (15:30-16:30) are attended by approximately 15-20 pupils at each session, Monday to Thursday; and Before School Club (08:00-08:45) are attended by approximately 10-15 pupils at each session two days a week.

There is no information within the TA regarding any crossover between pupils attending before and after school provision, as can be seen above, there is potential for quite significant fluctuation in the number of pupils on site before and after school. Given the similarity in timings it is highly likely there is some crossover between the 'clubs' and as such this should be clarified.

PJA Response

3.3.4 It is recognised that there is potential for crossover between each of these before, and after school activities. To account for this, subsequent assessments presented within the Transport Assessment only removed the vehicle trips associated with 30 pupils/14% of primary school age children attending the Breakfast Club/After School Club (Cheswick Chimps) during school peak periods. This was explained within paragraph 5.3.6 of the TA. This presents a worst case assessment of likely vehicle trip generation for the site, as no trips have been removed for the after school sports club (15 – 20 children) or before school club (10 – 15 children).

3.3.5 Therefore, it is not considered that providing further details regarding the potential crossover would alter the assessment contained within the TA.

Pell Frischmann Comment

Within the TA, Figure 3.2 provides a plot of current pupil postcodes and the primary catchment area of the existing school. Whilst it is possible to establish some of these current trends, the key information included within this figure is not legible and as such an updated plan should be provided accordingly.

PJA Response

3.3.6 Figure 3-2 was included within the Transport Assessment to demonstrate the surrounding areas from which current pupils are drawn. The legibility of the plan is considered suitable to draw out these key trends. For completeness, a revised version of this plan is provided within **Appendix B.**

Pell Frischmann Comment

Existing mode share data was established through surveying pupils, parents and staff. Whilst details of the survey period for pupils (December 2020) are provided in section 3.4.1, the same information is not included for the parent and staff surveys. As such, it is requested that further details on these surveys are provided within the TA.

PJA Response

3.3.7 A link to the online parent and staff surveys was sent out to the school on 18th November 2020. The online survey remained open until the end of November, at which point, 102 parents/guardians had responded and 32 members of staff.

Pell Frischmann Comment

In terms of changes in travel behaviour due to COVID-19, the TA has sought to address this through an additional parent travel survey. The TA suggests that the majority of respondents are using the same mode of transport as they did prior to March 2020, however a total of 14% of respondents stated that they now use a different mode. In total 10 respondents suggested that they now walk rather than drive their children to school, with only 1 respondent now walking rather than driving. If these values are applied to the parent survey data, then this results in a 5% increase in car (driver) trips from 43% to 48%.

PJA Response

3.3.8 One of the survey results listed above is incorrect and does not reflect the survey results or the text in the Transport Assessment. Correct results are provided below (result in bold shows that which was incorrectly replicated by Pell Frischmann):

- 19% (10 respondents) of those who currently walk previously travelled by car (just their child) to school;
- **2% (1 respondent) of those who currently travel by car (just their child) previously walked to school;** and
- The number of respondents who car share (with multiple families) has decreased by 50% (1 respondent).

3.3.9 A range of questions in relation to mode share were included in the parent survey, as follows:

1 Since March 2020, which mode do you most frequently use to travel to/from Cheswick Green Primary?
2 Has the COVID-19 pandemic changed how you and your child travel to/from Cheswick Green Primary School?
3 If yes, which mode did you use most regularly to travel to/from school prior to March 2020?
4 What would be your preferred mode of travel to Cheswick Green Primary School?
5 If this is different to your current mode of travel, is there any particular reason that you do not use these travel modes more frequently to travel to Cheswick Green Primary School?

3.3.10 The results of the parental survey provided in Table 3-2 of the TA, relate to Question 4 and outline the preferred method of travel, not the actual mode of travel. Therefore it would be unsuitable to apply the survey results highlighting the impact of COVID-19 to this data.

Pell Frischmann Comment

The TA states that a Travel Plan for the school targets a 2% reduction in pupils travelling by car with a 2% increase in trips made by cycling and scooting, compared with current modal splits. This is considered to be only a modest target but reflects the limitations on the potential for cycling trips to occur. As previously indicated, travel to the school on foot or bicycle is only considered to be feasible for those that live within Cheswick Green. This is due to the distance from other surrounding settlements being too far, the age of pupils and the fact that there are no dedicated cycle facilities that link the village with surrounding areas.

Given the above, any increase in cycling is likely to result in a corresponding drop in walking trips to the school rather than an overall decrease in those travelling by car. This is because the majority of those trips made on foot are currently from within the village itself. Trips from within Cheswick Green being made by car will most likely be due to a specific reason and so changing these trips to cycle is likely to be very limited.

PJA Response

3.3.11 The Travel Plan on Modeshift STARs has been designed to be implemented at the school prior to expansion, with measures expanded as the school increases in size. Therefore, the 2% reduction in pupils travelling by private car reflects the mode share of pupils currently travelling to the site, and provide a target for this academic year only.

3.3.12 Within the TA, analysis was undertaken using guidance on acceptable walking distances to school contained within the IHT guidance document "*Providing for Journeys on Foot*". This demonstrated that based on the postcode data for pupils in Reception – Year 6 (currently 214 pupils on roll):

- 95 pupils (44%) live within desirable walking distance of the school;
- 154 pupils (72%) live within acceptable walking distance of the school; and
- 161 pupils (75%) lived within preferred maximum walking distance of the school.

3.3.13 The hands-up survey conducted with pupils in December 2020 found that 57% of pupils currently walk/cycle to school. Based on the above pupil numbers and percentages, it is therefore likely that all pupils that live within desirable walking distance travel on foot/by bike, but a proportion of those living up to 1,000m away, within 6-12 minute walk (acceptable distance) travel by private car.

3.3.14 It is therefore considered that there is some potential to influence the travel behaviours of these parents and increase the mode share of cycling and walking resulting in a decrease in those

travelling by car. Whilst it is acknowledged there is a reason why some parents travel by car to school, the measures contained within the Travel Plan and proposed mitigation measures for the expansion seek to address these, for example, the Walking Bus could be used by families who current drive to the school due to time pressures.

Pell Frischmann Comment

The TA notes that both Cheswick Way and Creynolds Lane are designated as quiet roads for cycling by SMBC and, as a result, suggests that these could facilitate connections from the school to residential areas, including Monkspath and Dickens Heath. However, due to the existing conditions, it is considered highly unlikely that parents would opt to cycle along the carriageway on these routes whilst accompanying their young children to school. As already noted, during school hours Cheswick Way is characterised by parked cars which restrict visibility and the flow of traffic, whereas Creynolds Lane is subject to a 40mph speed limit and is predominately rural in its nature. At school start and finishing times these roads are often busy and so the attractiveness of using the road for cycling will also be diminished. In addition to this, the practicalities of travelling between areas such as Monkspath and Cheswick Green with young children by bicycle do not make it an attractive mode of travel. The designation of these routes as 'quiet roads' by SMBC is considered to be more reflective of older and more proficient cyclists than suggested within the TA.

PJA Response

3.3.15 The Transport Assessment has undertaken a review of baseline conditions in terms of accessibility to the school for all users – parents, pupils, staff, and visitors.

3.3.16 Traffic count data for Creynolds Lane[1], directly to the north of Cheswick Way, shows that the road is used by a modest number of cyclists over a 24hr period, as follows:

- 2019 – 42 cyclists; and
- 2020 – 82 cyclists.

3.3.17 It is therefore considered that it may not be suitable for parents with young children to cycle along Creynolds Lane, however, it may be a suitable route for some staff and visitors.

[1] DfT Traffic Count Data - https://roadtraffic.dft.gov.uk/manualcountpoints/810669

Pell Frischmann Comment

The TA notes that based on postcode data of pupils, the majority reside within 2km of the school and as such the level of accessibility by bicycle has the potential to be high. However, as already noted, the practicalities of parents travelling to school by bicycle and then returning home before going about the rest of their day means that increasing the levels of travel by this will be challenging, as those that can do this already are. Whilst this is acknowledged within the TA, it is suggested that cycling may be a more viable option for staff. However, the catchment area for staff is expected to be much wider than for pupils and as such for many this would mean that travel by this mode is not viable.

PJA Response

3.3.18 The National Travel Survey (NTS) is a household survey designed to monitor long term trends in personal travel and to inform the development of policy. NTS Table 0614 outlines modal split data for journeys to school, by age and travel distance. Table 2 shows the modal split for cycling journeys for pupils ages 5 – 10 years (primary school age pupils).

Table 2: Cycling Modal Split - Journeys to School (5 to 10 years), 2019

	% of trips
Under 1 mile	1
1 to under 2 miles	4
2 to under 5 miles	1
5 miles and over	0

3.3.19 Table 2 demonstrates that nationally, 1% of pupils living within one mile, and 4% of pupils living 1 to 2 miles from school travel by bike. Currently 12% of pupils travel by cycle/scoot, which is above the national average.

3.3.20 The viability of cycling is also dependent on the availability of suitable cycling infrastructure. It is considered that existing highway network is suitable to accommodate cycling trips from within Cheswick Green, or Cheswick Place to the school, as set out within the Transport Assessment.

3.3.21 On the basis of the national mode share data, existing travel behaviour at the school, and suitability of the local highway network, it is considered that it would be feasible for additional pupils drawn from Cheswick Place or existing pupils to travel by bike to school.

3.3.22 It is noted that the catchment area for staff is expected to be wider than for pupils, however, the Local Cycling and Walking Infrastructure Plans (LCWIP) Technical Guidance document states that cycling has the potential to replace trips of up to 10km in length. Cycle parking will be

provided on site and therefore it is considered that it would be a viable travel mode for some staff.

3.3.23 2011 census data for journeys to work within the Middle Super Output Area (MSOA) in which the site is located (Solihull 029 MSOA) has been analysed. A summary of the results are presented in Table 3.

Table 3: Cycling to Solihull: Nomis Method of Travel to Work

Method of Travel to Work	Modal Split (%)
Work mainly at or from home	7
Car	82
Car with passenger	4
Cycle	1
Walking	4
Bus	2
Total	**100**

3.3.24 Table 3 indicates 1% of journeys to workplaces within Solihull 029 MSOA are undertaken by bike. Modal split data collected from staff at the school shows that currently no member of staff cycle to work. Therefore, it is considered that it would be feasible to increase the proportion of staff cycling to school.

Pell Frischmann Comment

The only realistic bus service that could be used to travel to and from the school stops on Creynolds Lane (approximately 350m from the school). As can be seen in the photo below, using this service requires children to cross Creynolds Lane immediately, as no footway is provided on the southern side of the carriageway and there is only limited waiting capacity. As a result, pupils would need to be carefully supervised when crossing the road. For the return journey, the closest stop is over 550m from the school. Unless parents were to commit their time to accompany their children on these buses, and for their own return, a very high level of responsible adult supervision would be required.

PJA Response

3.3.25 The majority of demand on public transport will be accommodated on the dedicated school bus between Cheswick Green Primary and Blythe Valley Park. This will be staffed, and so will not require parents to accompany pupils on their journey to school. The demand for the public bus service will mostly be for staff and visitors, with some demand generated by parents/pupils. The

bus stop shown in the photograph on page 13 is the stop from which bus users would alight from the service (from Blythe Valley Park) and therefore waiting capacity is not a key consideration. Dropped kerbs are present in this location to aid crossing, and given the age of the pupils it would be expected that all would be accompanied by an adult.

Pell Frischmann Comment

The TA has obtained Personal Injury Collision (PIC) data from TfWM for the three-year period between 01/03/2017 and 29/02/2020. Ordinarily when analysing collisions trends it is best practice to review data over the most recent five-year period. This is because trends often take longer to establish. It is therefore suggested that the road safety appraisal is expanded accordingly.

In addition to the above, a review of the raw collision data indicates that there have in fact been 4 collisions at the Vicarage Road / Illshaw Heath / Watery Lane junction rather than the 1 stated within the TA. This assessment should therefore be updated accordingly.

PJA Response

3.3.26 Updated collision data has been provided by TfWM covering the periods 01/01/2016 to 30/06/2021.

3.3.27 There has been a total of 11 collisions across the whole study area within a five-year period. Of the recorded collisions 10 were slight and one serious in severity. There were no fatal collisions within the given study area. These general trends are comparable to those drawn out within the assessment contained within the Transport Assessment.

Figure 1: Accident Data Study Area

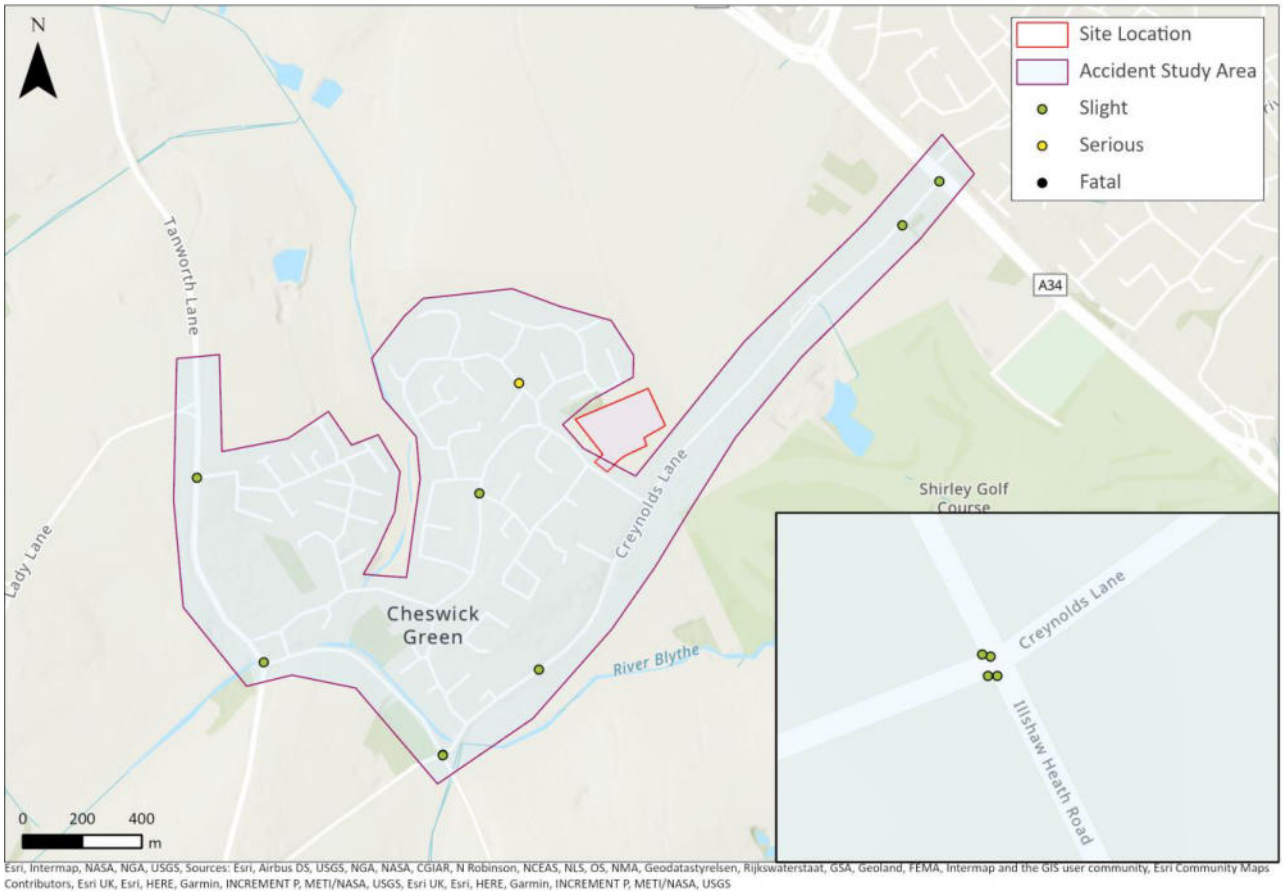


Table 4: Accident Data Summary

Location	Severity			Sensitive Road Users		
	Slight	Serious	Fatal	Pedestrian	Cyclist	Motorcyclist
Vicarage Road/Illshaw Heath Road/ Watery Lane / Creynolds Lane	4	0	0	0	1	0
Cheswick Way	1	0	0	0	0	0
Stratford Road/Creynolds Lane	1	0	0	0	0	0
Creynolds Lane	2	0	0	0	1	0
Watery Lane / Tanworth Rd	1	0	0	0	0	0
Tanworth Rd / Noble Way	1	0	0	0	0	1
Saxon Wood Rd	0	1	0	0	0	1
Total:	**10**	**1**	**0**	**0**	**2**	**2**

3.3.28 Table 2 demonstrates that across the study area there is an average of 2.2 collisions per annum over the five-year study period. Furthermore, Figure 2 illustrates that there is a low frequency of collisions within the vicinity of the school over the given study period. The following

paragraphs outline the key differences between this data and that summarised within the Transport Assessment.

3.3.29 The junction with the highest frequency of collisions occurred at junction of Vicarage Road/ Illshaw Heath Road / Watery Lane / Creynolds Lane. All incidents recorded at this junction were slight in severity and only involved one sensitive road users (pedal cyclist) who was not of school age. Additionally, the incident involving the sensitive road user occurred on a Saturday, outside the operational hours of the school.

3.3.30 Along Creynolds Lane, there two slight collisions were recorded at two different locations. One collision involved a pedal cyclist who was of school age (12-15 years), who reportedly entered the road from the pavement into the path of an oncoming vehicle.

3.3.31 Along Saxon Wood Road there was one serious collision reported which occurred on a Sunday, between an agricultural vehicle and a motorcycle. The causation was attributed to traveling to the agricultural vehicle travelling too fast and close to the motor cyclist. It is understood that this incident does not demonstrate a concern with regard to highway safety.

3.3.32 It is concluded that based on the assessment presented above there has been a low frequency of collisions within the study area. The collisions have not involved children of primary school age, nor occurred during school peak periods. In addition, none of the reported collisions have occurred in close proximity of the school. This revised data does not change the conclusions drawn in the Transport Assessment.

3.4 Development Proposals

Pell Frischmann Comment

The school currently has 13 on-site car parking spaces with one disabled parking space. The staff surveys undertaken as part of the TA indicate that 75% of staff currently travel to work by car, meaning there is currently demand for approximately 33 spaces leaving a surplus of 19 vehicles. The TA states that anecdotal evidence suggests that some staff double park within the site, with the rest parking on Cheswick Way. However, feedback obtained as part of this review suggests that the vast majority of surplus parking is understood to park on Cheswick Way rather than double parking within the site. As already noted, the level of staff parking along Cheswick Way is estimated to be between 14 and 21 vehicles. This suggests that more parking currently occurs on-street than within the site itself.

PJA Response

3.4.1 No further information regarding this "feedback" has been provided in the audit, in particular the source of the feedback or date at which it was obtained. Therefore it is not possible to verify the validity of the conclusions drawn from this feedback.

3.4.2 Feedback has been obtained from the school about whether staff currently double park on site, and the following response was provided:

"There is frequently double parking and blocking but staff manage this"

Pell Frischmann Comment

The TA states that the development proposals will increase provision in order to provide 36 car parking spaces, with nine of these being tandem spaces, plus one disabled space. However, a review of the site layout plan included as Appendix A shows provision of 33 car parking spaces, ten of which are tandem spaces with two disabled spaces. The actual proposed number of parking spaces therefore needs to be clarified and consistent between the report and site layout.

PJA Response

3.4.3 It is proposed to provide 35 car parking spaces on-site, 10 of which will be tandem spaces, and 2 will be disabled parking spaces.

Pell Frischmann Comment

Given the existing off-site parking trends and the unrestricted and readily available parking supply on Cheswick Way, it is considered highly unlikely that staff will choose to use all of the tandem spaces and risk being blocked in. As a result, this could reduce the overall on-site parking use by approximately 10 vehicles.

…The proposed car park management strategy noted within the TA is considered to be fundamentally flawed and is unlikely to result in mass take up of the tandem parking spaces. This is because the provision of telephone numbers in order to contact people that are blocked in does not guarantee to rectify the problem in a timely manner. It may also not be practical for some staff to leave their location in order to move their vehicle whilst supervising children. As a result, staff will soon become frustrated and revert to parking on street.

PJA Response

3.4.4 The proposed on-site Car Park Management Strategy will ensure that staff utilise tandem parking spaces appropriately. This approach is a well-established method of providing additional car parking demand at education facilities, including those across Solihull. Feedback has been sought from the above schools, in terms of how their spaces are managed, how well the spaces are used and any other general feedback on the provision, as follows:

Table 5: Tandem Parking and Car Park Management Feedback

School	Tandem Parking Provision	Feedback
Greswold Primary School	10 tandem spaces = 20 spaces	• All day staff are encouraged to use the rear parking space and half day staff are encouraged to use the front parking space so that no day staff are blocked in when they leave; and • Role modelling by senior members of staff is useful to demonstrate the best way to use the spaces.
Sharmans Cross Primary School	5 tandem spaces = 10 spaces	• Spaces are available on a first-come, first-serve basis; • Tandem parking bays work well, and they are monitored by the Site Manager on a regular basis to ensure that all staff are parked appropriately; and • The office maintains a list of car registrations to resolve any vehicles that are blocked in.
Blossomfield Infant and Nursery School	4 tandem spaces = 8 spaces	• Spaces are available for use primarily by staff, on a first-come, first-serve basis; • Staff are provided with a laminated car number which is displayed on their windscreen. If anyone is blocked in, staff can use this number to locate the relevant member of staff with the office who keep a corresponding list of car numbers and owners; and • The above system rarely causes problems.
Coleshill Heath School	Tandem parking implemented on temporary basis during construction works	• Staff sent a form to complete to find out what times they arrived and departed school • Parking zones are allocated based on staff that fall within each category; • The above system works well.

3.4.5 As part of the on-site Car Park Management Strategy and using the above feedback from existing schools in Solihull, the school have confirmed that staff would be paired based on working days/hours to utilise the tandem parking spaces, and that staff regularly based at the site would be allocated specific spaces. This would ensure that part-time staff utilising the tandem spaces would be paired with those who work similar hours i.e. those who leave at lunchtime park together. A record of registration numbers will be kept in the school office, including for visitors, in case these is a need to move any vehicles, however, if managed effectively, the risk of being "blocked in" is reduced considerably.

3.4.6 On the basis of the above, it is considered that all tandem spaces would be utilised on site by staff.

Pell Frischmann Comment

The TA states that the school Travel Plan will be used to promote car sharing and uptake of sustainable modes, this will be done in part through the provision of seven cycle parking spaces for staff. However, the Travel Plan states that two staff cycle parking spaces will be provided. The actual number of cycle parking spaces should therefore be clarified accordingly. Given that currently zero staff travel to work by bicycle, it is clear that the likelihood of reducing staff travel by car is very limited.

PJA Response

3.4.7 As set out within the Transport Assessment, it is proposed to provide a dedicated area for cycle parking adjacent to the existing playground. There will be 50 spaces provided for pupils and 7 spaces for staff, which will meet forecast future demand for cycling/scooting.

3.4.8 The Travel Plan on Modeshift STARS has been prepared for the school to implement prior to expansion. In the future, the Travel Plan will be expanded to ensure there are measures suitable for all pupils based at the school and updated to reflect the increase in cycle parking provision as part of the development proposals.

Pell Frischmann Comment

The TA suggests that the proposed construction access on Creynolds Lane is designed to reduce or remove the impact of construction vehicles on Cheswick Way. However, the drawing provided in Appendix H does not include tracking of the likely construction vehicles that are expected to use this access. Furthermore, no information is provided on the proposed width of the access track and so it is unclear whether two vehicles could feasibly pass each other when entering and exiting the site. The plan also fails to show how construction vehicles will navigate the site once within the school boundary. As can be seen in the drawing below, the proposed access track ends once inside the existing field boundary, whereas construction traffic will need to cross onto the other side of the school field in the vicinity of the existing school buildings.

PJA Response

3.4.9 A drawing showing the geometry of this access and vehicle tracking is provided within **Appendix C.**

3.5 Travel Demand and Impacts

Pell Frischmann Comment

Notwithstanding the above, in order to determine the existing mode share at the school, the TA has based its assumptions on a classroom based 'hands up' survey of pupils, rather than the survey of parents that was also carried out. Whilst the response rate of the 'hands up' survey was better than the parents' survey, it is considered that utilising information obtained from young children, especially those in the lower years at the school, is not as robust.

Based on the 'hands up' survey and according to the TA, the proposed school expansion could be expected to generate an additional 88 and 75 vehicles on the local highway network during the AM and PM peaks respectively. Had the parents survey been considered within the TA, then the proposals would be expected to generate an additional 105 vehicles in the AM peak and 90 in the PM peak.

PJA Response

3.5.1 The parents hand up survey results used to generate the table on Page 15 is using the preferred mode of travel (Table 3-2). This does not represent actual mode share, and was presented as contextual information as to why preferred travel modes were not used more often. Therefore it is considered unsuitable to utilise the results in the way they have been presented in this Audit.

3.5.2 The Transport Assessment utilises the mode share data collected from the hands-up survey with pupils for the following reasons:

- The hands-up survey had a much higher response rate than the online survey with parents (99% vs. 64%) and therefore provides a more complete picture of current trip making patterns at the school; and
- The online survey for parents presents mode share per family, whereas the hands-up survey presents the mode share for each individual child. It is considered that utilising the data from the hands-up surveys presents a robust assessment of the likely future vehicle trip generation as 39% of current families (approximately 56% of pupils) will have a sibling at the school and in these circumstances, each car trip will equate to one vehicle, rather than multiple vehicles.

3.5.3 For completeness, Table 6 and Table 7 present revised versions of Table 5-9 from the TA, which set out the total travel demand for the sensitivity scenario. The sensitivity scenario assumes:

- Mode share of existing pupils remains as per that collected in pupil hands up survey or parental survey for current mode of travel (since March 2020);

- Pupils based on Cheswick Place have the same mode share as pupils currently at the school;
- 54% of pupils from Blythe Valley Park will travel by the school bus service, with remainder of pupils travelling by car/car share based on existing mode share split; and
- Take up of before/after school care provision as existing pupils.

Table 6: Existing & Proposed Pupil Travel Demand (Sensitivity Test - Hands Up Survey)

Mode	Existing Mode Share	School AM Peak			School PM Peak		
		Existing	Proposed	Additional	Existing	Proposed	Additional
Walk	45.7%	110	148	38	82	107	25
Cycle/Scoot	11.5%	28	37	10	21	27	6
Bus	0.0%	0	68	68	0	68	68
Park & Stride	2.4%	6	8	2	4	6	1
Car Share	0.5%	1	2	1	1	2	1
Car	39.9%	96	187	91	72	151	79
Total (pupil trips)	**100%**	**240**	**450**	**210**	**180**	**360**	**180**
Total (vehicles)		**102**	**195**	**93**	**77**	**157**	**81**

Table 7: Existing & Proposed Pupil Travel Demand (Sensitivity Test – Parents Survey, mode since March 2020)

Mode	Existing Mode Share	School AM Peak			School PM Peak		
		Existing	Proposed	Additional	Existing	Proposed	Additional
Walk	48.6%	117	157	41	87	114	26
Cycle/Scoot	0.0%	0	0	0	0	0	0
Bus	1.9%	4	74	70	3	72	69
Park & Stride	0.0%	0	0	0	0	0	0
Car Share	1.9%	4	8	4	3	7	3
Car	45.8%	110	204	94	82	163	80
Other	1.9%	4	6	2	3	5	2
Total (pupil trips)	**100%**	**240**	**450**	**210**	**180**	**361**	**181**
Total (vehicles)		**112**	**208**	**96**	**84**	**166**	**82**

3.5.4 Table 6 shows that based on the pupil hands up survey, the expansion is forecast to generate an additional 93 vehicles in the AM peak and 81 vehicles in the PM peak.

3.5.5 Table 7 shows that based on the online survey data provided by parents, the expansion is forecast to generate an addition 96 vehicles in the AM peak and 82 vehicles in the PM Peak. This demonstrates that the forecast number of additional vehicle trips generated by the expansion is comparable between each of the data sources.

3.5.6 Therefore it is considered that the assessment contained within the TA, based on pupil hands up survey data is suitable for use.

Pell Frischmann Comment

Section 5.3.11 of the TA acknowledges that it would not be feasible for pupils to travel on foot or bicycle from properties located at Blythe Valley Park. Given that pupils from Blythe Valley are predicted to account for 70% of the proposed new places at the extended school, it is clear that this represents a fundamental flaw with the proposals and a contradiction of planning policy objectives at all levels. The proposed increase in vehicle trips will also impact on local air quality and remove the potential for children to benefit from healthier active travel alternatives.

PJA Response

3.5.7 Section 3.2 of this note outlines how the development proposals are in line with planning policy objectives at all levels.

3.5.8 The development proposals are forecast to generate additional vehicle trips, however, through the Travel Plan, and implementation of the proposed mitigation measures, the impact of the expansion on air quality will be minimised and potential for children living within suitable walking/cycling distance of the school to take up active travel modes.

Pell Frischmann Comment

The TA states that a S106 agreement secured as part of the Blythe Valley Park development will fund improvements to the existing A7/A8 bus service for a period of six years. However, no details are provided on when this six-year period will commence and how this relates to the phased extension of the school, which is due to be undertaken over a number of years. Whilst it is suggested that these changes could include amendments to align with school start and finish times, as well as a 30-minute frequency, the specific improvements to the service have yet to be finalised.

Section 5.6.2 of the TA suggests that after the initial six-year funding period, it is expected that the enhanced A7/A8 service will have become commercially viable. However, no evidence is provided within the TA to support this claim. The assumption within the TA that the proposed dedicated service will become commercial viable once funding period has ended is therefore considered to be optimistic and not based on supporting evidence. Furthermore, given the proposal to stagger start and finish times it is not clear how this service would

feasibly be implemented to cater for all year groups. The existing bus stops are also located over 350m from the primary school access on Creynolds Lane

PJA Response

3.5.9 The current timings of the A7/A8 bus service do not correlate well with existing current school start/end times, or the indicative staggered timings presented within the TA. Therefore, the Transport Assessment proposed to increase the frequency of the A7/A8 bus service to coincide with these timings.

3.5.10 The A7/A8 bus service is supported with funding from the Blythe Valley S106 which outlined that:

"the enhanced service should provide a 30 minute service between the development Solihull Town Centre, Cheswick Green and Dorridge Village Centre, Monday to Saturday, or such other bus service serving the development as the Council determines".

3.5.11 Initial discussions with officers at TfWM have been undertaken via email, however a full response has not been provided at the time of writing this report. TfWM have confirmed that any alterations to these services need take into account the use of the A7/A8 service for journeys to other educational establishments, and that a full response will be provided in due course.

3.5.12 The applicant will continue to undertake discussions with TfWM to seek that the A7/A8 bus service will operate at 30 minute frequency, in line with the signed S106 agreement which supports the use of the bus service for those attending after-school activities, nursery and the proposed staggered timings.

Pell Frischmann Comment

Given the above, it is clear that the only existing viable means of travel from Blythe Valley Park to Cheswick Green Primary School is by car. All other travel options are not currently feasible from this location and so would require substantial mitigation and a permanent funding commitment by SMBC in the form of additional bus services. Based on the figures presented in the TA, this would result in an additional 136 two-way trips being added to the network in both the AM and PM peak periods and further increase the pressure of on-street parking and local air quality within Cheswick Green.

PJA Response

3.5.13 The school bus is currently provided free of charge to pupils residing in Blythe Valley Park in accordance with the Home to School Transport Policy approved by the CPH for Children, Education & Skills on an annual basis. The provision and funding of the school bus was approved by the Cabinet Member for Education and Children in March 20212. Funding of the School bus will be from the Home to School Transport Budget.

3.5.14 The Transport Assessment has demonstrated that implementation of staggered start/end times to the day would spread the demand for on-street parking at peak periods, and therefore it would not considerably exceed the current parking demand generated by the school or pressure for parking spaces.

Pell Frischmann Comment

Staff Trips Excluded – the assessment suggests that all staff trips should be excluded on the basis that these will occur outside the peak hours of 8am to 9am and 3pm to 4pm. However, this assumption is disputed as some existing staff trips have been observed arriving or departing during these times and the proposed staggering of hours is unlikely to fundamentally change these trends for additional new staff.

PJA Response

3.5.15 It is recognised that some staff will arrive and depart the site during these peak hours (08:00 – 09:00 and 15:00 – 16:00), however, given the start/end times of the school and likely working patterns of staff, the majority of staff will leave outside these peaks.

3.5.16 The school have confirmed the following:

- There are 4/5 staff that arrive between 07:00 and 07:30 and the rest generally arrive between 07:30 and 08:30; and
- Staff leave the site between 15:40 and 18:00, with teachers generally staying later on staff meetings nights.

3.5.17 This shows that in the AM peak, there is only a 30 minute overlap between the peak hours and typical arrival times, in addition, these trips are unlikely to be concentrated within this 30 minute period based on the information provided by the school. In the PM peak, there is likely to be some overlap, however again, these will not be concentrated within this central peak hour.

[2] Cabinet Member Report - https://eservices.solihull.gov.uk/mgInternet/ieListDocuments.aspx?CId=552&MId=8420

3.5.18 In addition, the additional 15 staff vehicles in each peak would not have a material impact on the operation of the wider highway network.

Pell Frischmann Comment

Linked Trips – the TA suggests that between 6% and 43% of school trips could potentially be linked with other purposes. However, given the proportion of predicted new trips generated by the Blythe Valley development (70%) and the limited number of destinations within Cheswick Green, it is suggested that the potential for linked trips within the immediate network is limited. It is more likely that any linked trips will be diverted from the A34 Stratford Road and as such this would increase movements through the key A34 Stratford Road / Creynolds Lane junction.

PJA Response

3.5.19 The Transport Assessment recognised that the potential for linked trips to occur depended on the origin and final destination of these trips, hence why a range of values was presented (6 – 43%). It is noted that there are limited trip generators within the direct vicinity of the site, however, if a resident of Blythe Valley travelled by car and dropped their child off on the way to Solihull Town Centre, there would only be an increase of one two-way trip through the A34 / Creynolds Lane junction, rather than two two-way trips if the journey was not part of an existing trip on the network. Therefore it is considered that there is potential for a proportion of the trips to/from the school to already be present on the local highway network.

Pell Frischmann Comment

Blythe Valley Park Trip Generation – the TA suggests that trips associated with the already committed Blythe Valley Park development have been accounted for in previous Transport Assessments. However, the assumptions surrounding active trips made by parents and children using public rights of way (85%) indicates that the overall approach to trip generation from this development is fundamentally flawed.

PJA Response

3.5.20 The planning application, and supporting documentation, for residential development at Blythe Valley Park, has been approved by SMBC and therefore should not be subject to further discussion or dispute.

3.5.21 Notwithstanding that, the Blythe Valley Park Transport Assessment states that it assumed 85% of trips would go to or from Cheswick Green Primary School, and that as a result there could be up to 97 two-way trips by foot and seven trips by cycle to Cheswick Green (paragraph 4.7.16).

However, the vehicle trip generation is based on trip rates extracted from the industry standards database, TRICs and distributed using 2011 Census Journey to Work Data. Therefore, these two assessments are not linked, and the conclusion within this Transport Assessment remains valid – that some of the additional trips will have already been accounted for within the assessment of the local network in the Blythe Valley TA.

Pell Frischmann Comment

Given that SMBC specifically requested consideration of the A34 Stratford Road / Creynolds Lane junction as part of the scoping discussions, it is recommended that detailed junction assessments are undertaken.

PJA Response

3.5.22 The development is forecast to add an additional 82 two-way trips through A34 Stratford Road / Creynolds Road in the school AM Peak and 56 two-way vehicle trips through the junction in the school PM Peak. Not all of these "*new*" trips on the network for the reasons set out within 5.4.9 of the Transport Assessment. Following submission of the Transport Assessment and justification contained within it, no further requests for junction capacity modelling have been made by SMBC Highways.

3.6 Mitigation Measures

Pell Frischmann Comment

The Travel Plan measures are also focused on active travel measures; however these are of little relevance to the vast majority (70%) of the proposed expansion trips, which the TA acknowledges are not feasible from the Blythe Valley Park development.

PJA Response

3.6.1 The Travel Plan on Modeshift STARs has been designed to be implemented at the school prior to expansion, with measures expanded as the school increases in size. The Travel Plan will promote awareness of modes such as car sharing and public transport, both of which are relevant to residents of Blythe Valley.

Pell Frischmann Comment

The proposed staggered start and finish times may in fact lead to an overall increase in the dwell time for some parents who are dropping off or collecting more than one child in different year groups (39% with more than one child). Whilst this may have been acceptable

to parents during COVID 19, it is evident that a reasonable proportion of respondents (26%) were not in favour of this proposal as a long term measure

PJA Response

3.6.2 As stated within the TA, the school would be required to provide wrap around care (20 minutes at the start and end of the school day) for those pupils who have siblings in other staggers, to ensure each family only generates one trip, and to not prolong dwell time. The majority of families at the school currently have only one child (61%). In addition, the year groups within each stagger are flexible and so can be amended to best meet the needs of the school and minimise the number of children requiring wrap around care, reviewed on a regular basis. Further details on how this would be managed and delivered by the school are provided within the Deliverability Strategy.

3.6.3 In addition, whilst 26% of parents were not open to the continued use of staggered start/end times, the majority of parents (74%) were open to continued use of this system.

Pell Frischmann Comment

There is no indication within the TA as to whether funding of a dedicated school bus from Blythe Valley Park would be free for pupils or if fares would be subsidised. It is also not specified how long the approved funding period will last. If fares are introduced or increased after the funding period has lapsed, then the attractiveness of the service will most likely be diminished and those trips will shift from bus to car and further increase demand for on-street parking in Cheswick Green. Given the limitations within the site as well as presence of on street parking on Cheswick Way, it is also unclear how the bus service will safely access and escort children to school. The specific detail and practicalities of implementing this service should be described within the TA in order to determine their overall feasibility. As already noted, the existing us service operators have already diverted routes away from stops on Cheswick Way adjacent to the school due to presence of on-street parking.

PJA Response

3.6.4 The specific detail surrounding implementation of the bus service, and funding is set out within the Deliverability Strategy.

Pell Frischmann Comment

The TA suggests that a walking bus could be implemented but provides no specific details on how this could be applied to the proposed extension

PJA Response

3.6.5 The specific detail surrounding implementation of the walking bus, and funding arrangements are provided within the Deliverability Strategy.

Pell Frischmann Comment

In terms of the proposed on-site parking strategy, as already noted this is fundamentally flawed and is unlikely to result in mass take up of the tandem parking spaces. This is because the provision of telephone numbers in order to contact people that are blocked in does not guarantee to rectify the problem in a timely manner. It may also not be practical for some staff to leave their location in order to move their vehicle whilst supervising children. As a result, staff will soon become frustrated and revert to parking on street.

PJA Response

3.6.6 See paragraph 3.4.6 for response.

Appendix A Assumptions

Housing	BVP	Cheswick Place	Total
% affordable housing approved	25%	40%	
Number affordable dwellings	188	100	288
Other dwellings	562	150	712
Total approved dwellings	750	250	1000

Pupil Yield	BVP	Cheswick Place	Total
Pupil Yield Affordable	53	28	81
Pupil Yield Other	157	42	199
Forecast total primary pupils	210	70	280

Assume 70% catchment take up	BVP	Cheswick Place	Total
Affordable housing	37	20	57
Other	110	29	139
Forecast total catchment pupils	147	49	196
Forecast per school intake at Reception	21	7	28

	Assumed pupil yield by School Year						
School Year	22/23	23/24	24/25	25/26	26/27	27/28	28/29
BVP	21	42	63	84	105	126	147
Cheswick Place	7	14	21	28	35	42	49
Total pupils	28	56	84	112	140	168	196
Intake at Recption	4	8	12	16	20	24	28

	Forecast pupils travelling by school bus from BVP to Cheswick Green Primary						
Assumption	22/23	23/24	24/25	25/26	26/27	27/28	28/29
50%	11	21	32	42	53	63	74
75%	16	32	47	63	79	95	110

Notes on assumptions

Pupil yields calculated on 28 primary pupils (R to Yr 6) per 100 houses

Early Years pupils excluded as this is non-statutory and subject to wider market patterns of delivery

70% catchment area trend applied based on current school trend in Cheswick Green

Cheswick Place is already completed so some pupils will already be included existing pupil data/capacity

Cheswick Place is within walking distance of Cheswick Green Primary School

Pupil yield by school year assumes equal distribution of housing completions and even pupils distribution over the time frame.

Appendix B Postcode Plot

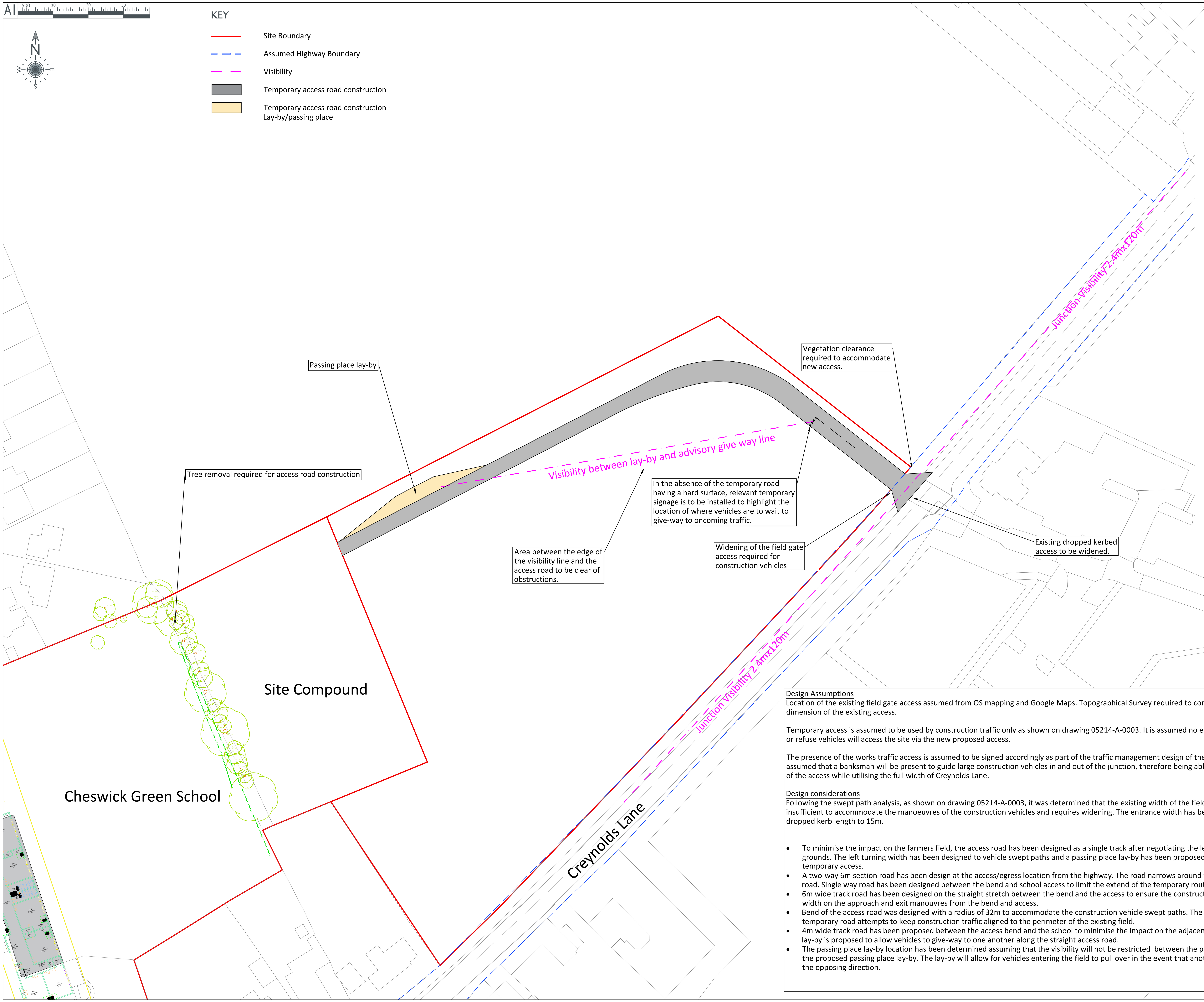
Cheswick Green Primary School

Current Year R - Year 6

Primary Catchment Areas

Our Lady of Compassion Catholic Primary School
Damson Wood Nursery and Infant School
Langley Primary School
Oak Cottage Primary School
Greswold Primary School
Streetsbrook Infant and Early Years Academy
Sharmans Cross Junior School
Haslucks Green School
Blossomfield Infant and Nursery School
St Alphege Church of England Infant and Nursery School
Tudor Grange Primary Academy St James
St Alphege Church of England Junior School
Burman Infant School
Peterbrook Primary School
Mill Lodge Primary School
St Augustine's Catholic Primary School
Shirley Heath Junior School
Cranmore Infant School
Widney Junior School
Woodlands Infant School
Our Lady of the Wayside Catholic Primary School
Monkspath Junior and Infant School
Dickens Heath Community Primary School
Tidbury Green School
St Patrick's C of E Primary Academy
Hockley Heath Academy

Appendix C Construction Access Drawing and Tracking



NOTES

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

1. Do not scale from this drawing.
2. All dimensions are in metres unless stated otherwise.
3. This drawing is based on Ordnance Survey. All works are proposed to be within the highway boundary or Developer owned land.
4. This drawing is to be read in conjunction with all other relevant Engineering drawing and details.
5. This drawing is not to be reproduced in any part or form without consent of PJA Civil Engineering Ltd. All copyright reserved.
6. Reproduction from the Ordnance Survey map with permission of the controller of Her Majesty's Stationary Office.
7. The design details presented must be reviewed in conjunction with the wider site information and site constraints which may not be evident on drawing and must be requested if not already provided.
8. The drawing details have been composed for access viability purposes only. The drawing should not be used for tendering or construction purposed. The information is subject to change during the detailed design and understand of highway authority preferences, which vary between authorities.
9. Site specific detailed surveys need to be carried out to confirm design information which may impact the outline design proposals. These include, but are not limited to ground conditions (geotechnical and geo-environmental), groundwater levels, buried services, remnant obstructions, ecology, tree protection and topography.
10. Impacts relating to other civils features; namely: fencing, drainage, pavement, kerbing, footway construction, have not been detailed and are subject to detailed design.
11. The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found.
12. Any existing details which are shown on this drawing are for guidance only and are to be checked on site. The impact on existing street furniture, road signs, utilities etc has not been highlighted and will be subject to a detailed design review.
13. Highways boundary extent will need to be confirmed to ensure visibility lines can be maintained.
14. The junction has been designed to allow the swept paths of the design vehicle access and egress the proposed development.
15. The existing road widths are based upon the Ordnance Survey information.
16. The design speed of the roads have been assumed. However, this is subject to a speed survey to verify the design speed of the road based on 85th percentile speed.
17. The proposals outlined are subject to a Road Safety Audit.
18. Design speed
 - Creynolds Lane - 70kph assumed based on existing road speed limit (40mph), subject to ATC peed data for the 85th percentile.
 - Access Road - 10mph subject to confirmation by the client.
19. Ordnance survey, site extents and proposed site layout received from Solihull Metropolitan Borough Council on 24 August 2021.

Until Technical Approval has been obtained from the relevant Local Authorities or Statutory Bodies, it should be understood that all drawings are issued as preliminary and NOT for Construction. Should the Contractor and / or Employer commence work prior to approval being given, it is entirely at their own Risk

PRELIMINARY SCHEME
For comment and review only.
Design is based upon information available at the time. Design is subject to full review as additional information becomes available.
Design is subject to full review upon receipt of comments from
- Development Control
- LA Planning Authority
- Environment Agency
- LA Highways Department
- Sewerage Undertaker

Design Assumptions

Location of the existing field gate access assumed from OS mapping and Google Maps. Topographical Survey required to confirm precise location and dimension of the existing access.

Temporary access is assumed to be used by construction traffic only as shown on drawing 05214-A-0003. It is assumed no emergency service vehicles or refuse vehicles will access the site via the new proposed access.

The presence of the works traffic access is assumed to be signed accordingly as part of the traffic management design of the Principal Contractor. It is assumed that a banksman will be present to guide large construction vehicles in and out of the junction, therefore being able to manoeuvre in and out of the access while utilising the full width of Creynolds Lane.

Design considerations

Following the swept path analysis, as shown on drawing 05214-A-0003, it was determined that the existing width of the field access (appx. 4m) is insufficient to accommodate the manoeuvres of the construction vehicles and requires widening. The entrance width has been increase to 7m and the dropped kerb length to 15m.

- To minimise the impact on the farmers field, the access road has been designed as a single track after negotiating the left turn towards the school grounds. The left turning width has been designed to vehicle swept paths and a passing place lay-by has been proposed along the single track temporary access.
- A two-way 6m section road has been design at the access/egress location from the highway. The road narrows around the bend to a single track road. Single way road has been designed between the bend and school access to limit the extend of the temporary route to the school.
- 6m wide track road has been designed on the straight stretch between the bend and the access to ensure the construction vehicles have sufficient width on the approach and exit manouvres from the bend and access.
- Bend of the access road was designed with a radius of 32m to accommodate the construction vehicle swept paths. The proposed radii of the temporary road attempts to keep construction traffic aligned to the perimeter of the existing field.
- 4m wide track road has been proposed between the access bend and the school to minimise the impact on the adjacent field. A passing place lay-by is proposed to allow vehicles to give-way to one another along the straight access road.
- The passing place lay-by location has been determined assuming that the visibility will not be restricted between the proposed give-way line and the proposed passing place lay-by. The lay-by will allow for vehicles entering the field to pull over in the event that another vehicle is traveling in the opposing direction.

REV	DATE	REVISION NOTE	BY
P1	10/09/2021	Notes amended	DO
P0	27/08/2021	Initial Issue	DO

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CLIENT
Solihull Metropolitan Borough Council

PROJECT
Cheswick Green Primary School Temporary Site Access

DRAWING TITLE
General Arrangment

DRAWING ISSUE STATUS
INFORMATION

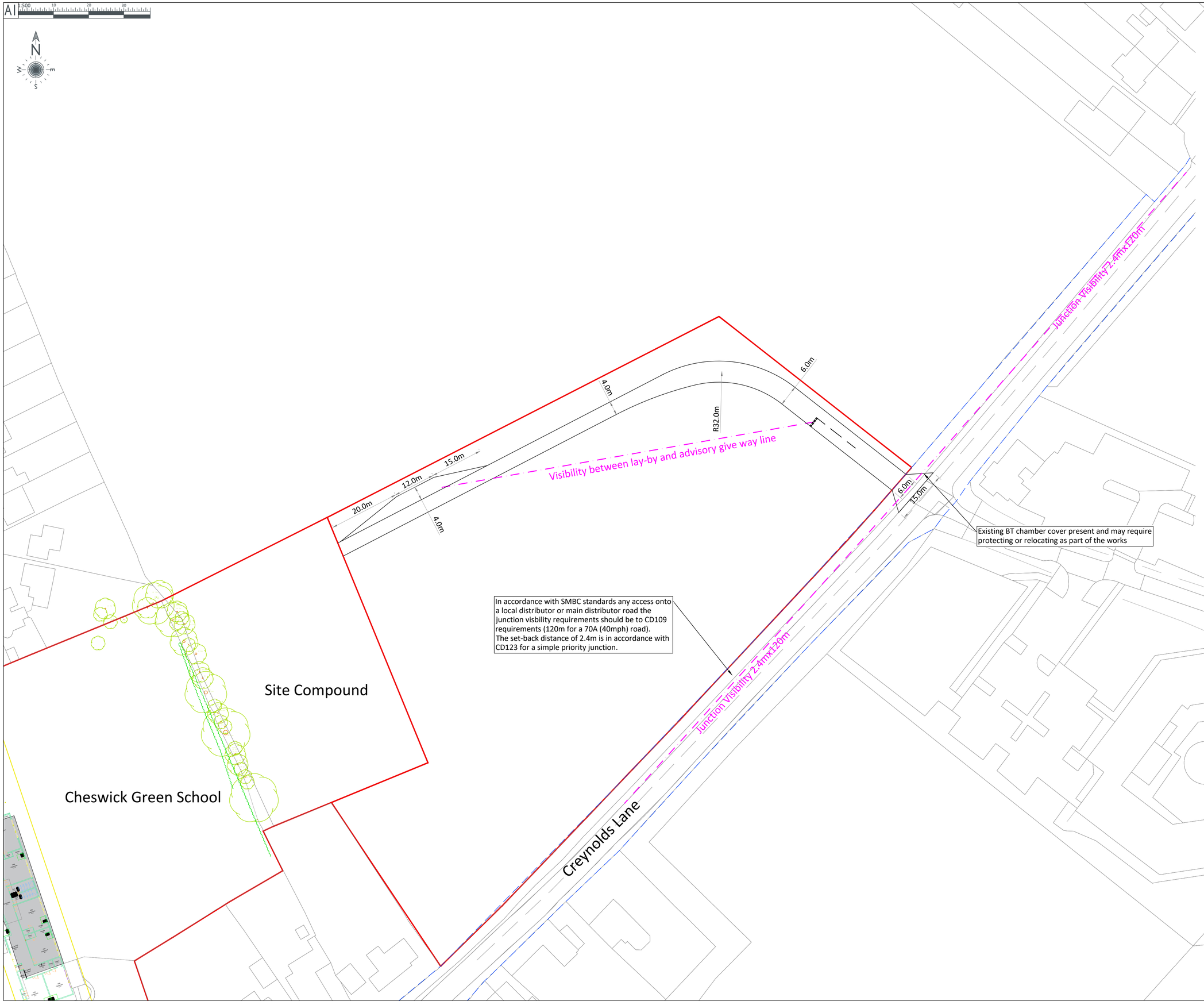
PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
05214	A	0001	P1

Revision Letter : P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE

SCALE	DRAWN	REVIEWED	DATE
A1@1:500	DO		10/09/2021

A1 1:500 10 20 30



NOTES

These drawings have been produced with reference to the CDM Regulations 2015. Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9

1. Do not scale from this drawing.
2. All dimensions are in metres unless stated otherwise.
3. This drawing is based on Ordnance Survey. All works are proposed to be within the highway boundary or Developer owned land.
4. This drawing is to be read in conjunction with all other relevant Engineering drawing and details.
5. This drawing is not to be reproduced in any part or form without consent of PJA Civil Engineering Ltd. All copyright reserved.
6. Reproduction from the Ordnance Survey map with permission of the controller of Her Majesty's Stationary Office.
7. The design details presented must be reviewed in conjunction with the wider site information and site constraints which may not be evident on drawing and must be requested if not already provided.
8. The drawing details have been composed for access viability purposes only. The drawing should not be used for tendering or construction purposed. The information is subject to change during the detailed design and understand of highway authority preferences, which vary between authorities.
9. Site specific detailed surveys need to be carried out to confirm design information which may impact the outline design proposals. These include, but are not limited to ground conditions (geotechnical and geo-environmental), groundwater levels, buried services, remnant obstructions, ecology, tree protection and topography.
10. Impacts relating to other civils features; namely: fencing, drainage, pavement, kerbing, footway construction, have not been detailed and are subject to detailed design.
11. The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found.
12. Any existing details which are shown on this drawing are for guidance only and are to be checked on site. The impact on existing street furniture, road signs, utilities etc has not been highlighted and will be subject to a detailed design review.
13. Highways boundary extent will need to be confirmed to ensure visibility lines can be maintained.
14. The junction has been designed to allow the swept paths of the design vehicle access and egress the proposed development.
15. The existing road widths are based upon the Ordnance Survey information.
16. The design speed of the roads have been assumed. However, this is subject to a speed survey to verify the design speed of the road based on 85th percentile speed.
17. The proposals outlined are subject to a Road Safety Audit.
18. Design speed
    - Creynolds Lane - 70kph assumed based on existing road speed limit (40mph), subject to ATC peed data for the 85th percentile.
    - Access Road - 10mph subject to confirmation by the client.
19. Ordnance survey, site extents and proposed site layout received from Solihull Metropolitan Borough Council on 24 August 2021.

Until Technical Approval has been obtained from the relevant Local Authorities or Statutory Bodies, it should be understood that all drawings are issued as preliminary and NOT for Construction. Should the Contractor and / or Employer commence work prior to approval being given, it is entirely at their own Risk

PRELIMINARY SCHEME
For comment and review only.
Design is based upon information available at the time.
Design is subject to full review as additional information becomes available.
Design is subject to full review upon receipt of comments from
- Development Control
- LA Planning Authority
- Environment Agency
- LA Highways Department
- Sewerage Undertaker

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CLIENT
Solihull Metropolitan Borough Council

PROJECT
Cheswick Green
Primary School
Temporary Site Access

DRAWING TITLE
Geometry

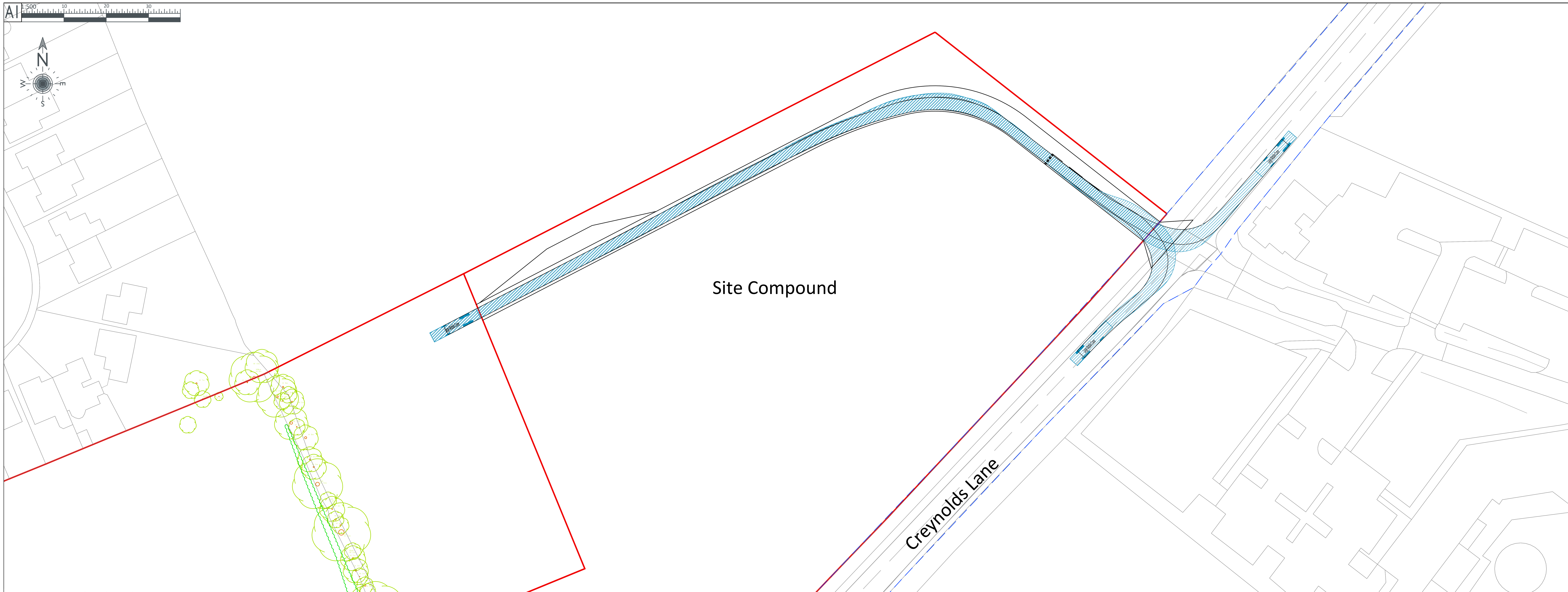
DRAWING ISSUE STATUS
INFORMATION

PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
05214	A	0002	P0

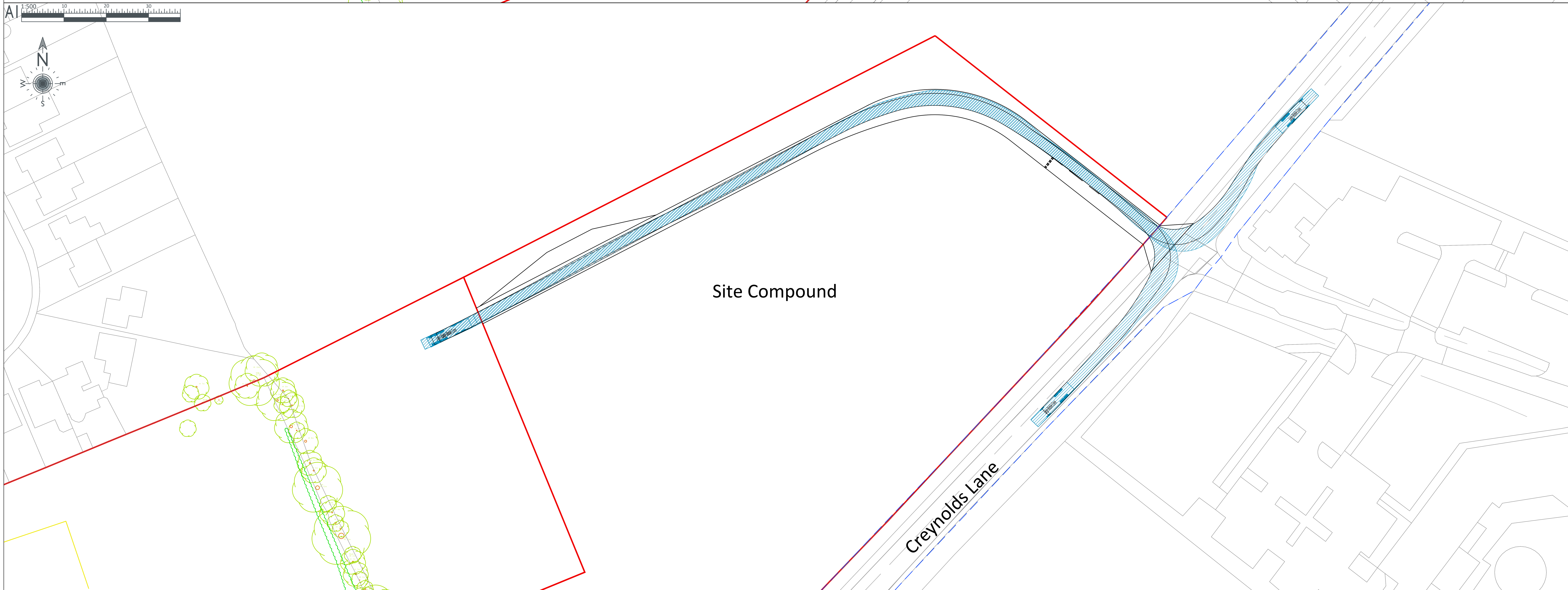
Revision Letter / P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE

SCALE	DRAWN	REVIEWED	DATE
A1@1:500	DO		27/08/2021



VIEWPORT 1 - LARGE MOBILE CRANE - IN



VIEWPORT 2 - LARGE MOBILE CRANE - OUT

NOTES

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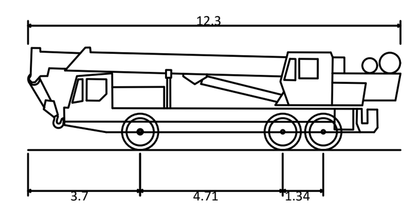
SWEPT PATH ANALYSIS NOTES:

1. This drawing is to be read in conjunction with all other relevant Engineering and Architect's details.
2. The purpose of this drawing is to display the various design vehicle swept paths maneuvering through the proposed junction. The drawing is for discussion purposes only, with the design subject to further design development, modeling assessment, data collection and consideration of constraints.
3. The concept design is based on OS mapping, received on 24 August 2021, from Metropolitan Borough Council.
4. The concept alignment and junction has been based on existing road conditions and the vehicle swept paths presented have informed/validated the proposed geometry of the junction.
5. The design geometrical parameters are presented on the supporting geometry plan with drawing reference 05214-A-0002.
6. The design vehicles that have been considered in the swept path analysis have been listed below and the relevant vehicle profiles are included to highlight the vehicle dimensions. The vehicle profiles selected below have been assumed and need to be confirmed by the Client, Contractor and/or Local Authority.

   Design Vehicles
   - Large Tipper
   - Large Mobile Crane
7. The speeds at which vehicle swept paths have been tracked have been summarised below;
   - Large Tipper 10mph
   - Large Mobile Crane 10mph

11. Design approach/summary/assumptions;
    - To minimise the impact on the farmers field, the access road has been designed as a single track after negotiating the left turn towards the school grounds. The left turning width has been designed to vehicle swept paths and a passing place lay-by has been proposed along the single track temporary access.
    - A two-way 6m section road has been design at the access/egress location from the highway. The road narrows around the bend to a single track road. Single way road has been designed between the bend and school access to limit the extend of the temporary route to the school.
    - 6m wide track road was designed on the straight stretch between the bend and the access to ensure the construction vehicles have sufficient width on the approach and exit manouvres from the bend and access.
    - Bend of the access road was designed with a radius of 32m to accommodate the construction vehicle swept paths. This has allowed to keep the access road as close to the perimeter of the designated farmers field as possible, minimising the impact on the south side of the field.
    - 4m wide track road was designed between the bend and the site compound due to the stretch of the road being sufficiently long for construction vehicles to finish the manouver around the bend and being able to travel in a straight line minimising the impact on the south side of the field.
    - The passing place lay-by location has been determined assuming that the visibility will not be restricted between the proposed give-way line and the proposed passing place lay-by. The lay-by will allow for vehicles entering the field to pull over in the event that another vehicle is traveling in the opposing direction.



Large Mobile Crane	
Overall Length	12.300m
Overall Width	2.430m
Overall Body Height	3.386m
Min Body Ground Clearance	0.590m
Track Width	2.430m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	10.000m

PRELIMINARY SCHEME
For comment and review only.
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Design is subject to full review upon receipt of comments from
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- LA Planning Authority
- Environment Agency
- LA Highways Department
- Sewerage Undertaker

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Solihull Metropolitan Borough Council

PROJECT
Cheswick Green
Primary School
Temporary Site Access

DRAWING TITLE
Vehicle Tracking
Large Mobile Crane

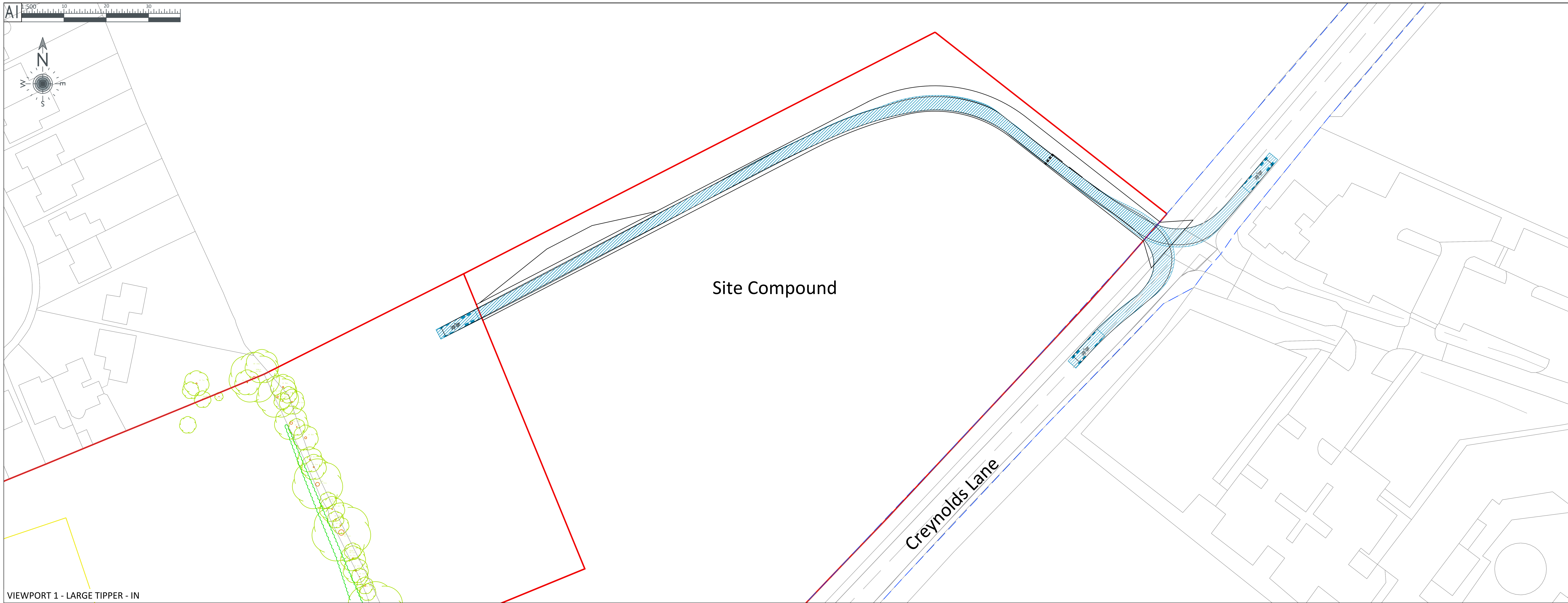
DRAWING ISSUE STATUS
INFORMATION

PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
05214 -	A -	0003 -	P0

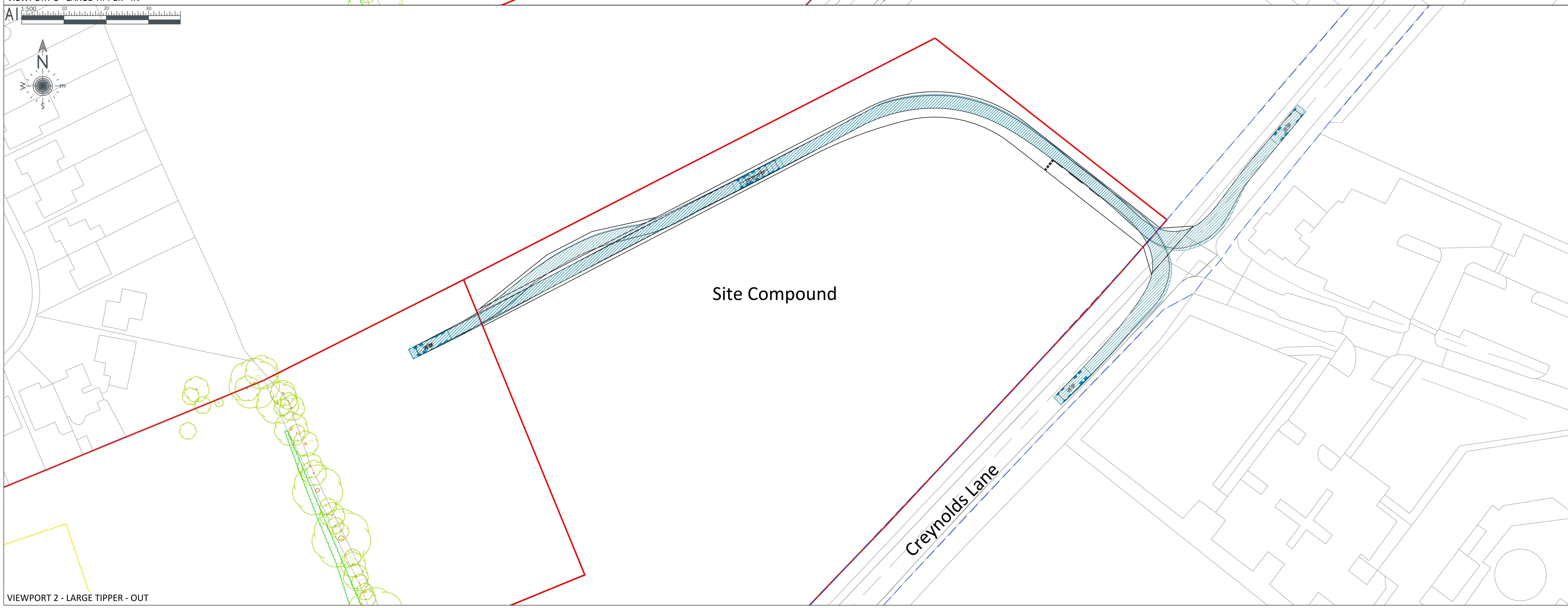
Revision Letter : P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE

SCALE	DRAWN	REVIEWED	DATE
A1@1:500	DO		27/08/2021



VIEWPORT 1 - LARGE TIPPER - IN



VIEWPORT 2 - LARGE TIPPER - OUT

NOTES

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SWEPT PATH ANALYSIS NOTES:

1. This drawing is to be read in conjunction with all other relevant Engineering and Architect's details.

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   - Large Tipper
   - Large Mobile Crane

7. The speeds at which vehicle swept paths have been tracked have been summarised below;

   - Large Tipper 10mph
   - Large Mobile Crane 10mph

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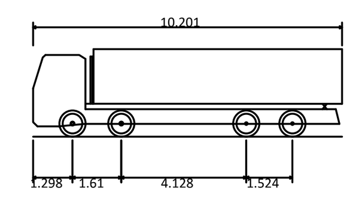
   - 4m wide track road was designed between the bend and the site compound due to the stretch of the road being sufficiently long for construction vehicles to finish the manouver around the bend and being able to travel in a straight line minimising the impact on the south side of the field.
   - The passing place lay-by location has been determined assuming that the visibility will not be restricted between the proposed give-way line and the proposed passing place lay-by. The lay-by will allow for vehicles entering the field to pull over in the event that another vehicle is traveling in the opposing direction.



Large Tipper	
Overall Length	10.201m
Overall Width	2.495m
Overall Body Height	2.890m
Min Body Ground Clearance	0.341m
Track Width	2.471m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

PRELIMINARY SCHEME
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Solihull Metropolitan Borough Council

PROJECT
Cheswick Green Primary School Temporary Site Access

DRAWING TITLE
Vehicle Tracking Large Tipper

DRAWING ISSUE STATUS
INFORMATION

PJA JOB No.	SUB-CODE	DRAWING NO.	REVISION
05214	A	0004	P0

Revision Letter : P - Prelim / A - Approval / T - Tender / C - Construction

BIM DRAWING REFERENCE

SCALE	DRAWN	REVIEWED	DATE
A1@1:500	DO		27/08/2021