Colliss Primary School – Transport Assessment

Prepared for Extra Space Solutions

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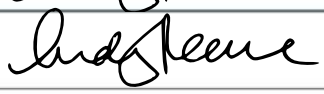
Approved by:	Andy Pearce		13.02.18

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DOCUMENT REVISIONS

Issue	Date	Details
0	13.02.18	Draft Report
1	16.08.19	Amended after client comments
2	16.08.19	Amended after additional client comments

Contents

1. Introduction

1.1. Extraspace Solutions Ltd has commissioned Wynns to provide advice on transport and highways in relation to Collis Primary School, Fairfax Road, Teddington, TW11 9BS. This Transport Assessment (TA) provides a framework to ensure that that the impact of traffic during construction and operation of the redevelopment of Collis Primary School is minimised. This document is being produced to support the planning application and to inform the planning and highway authorities.

1.2. The site location is shown in figure 1, below. It is located just off Fairfax Road in a residential area of Teddington in the London Borough of Richmond upon Thames.

Figure 1. Site Location of Collis Primary School

1.3. This Transport Assessment (TA) has been produced in accordance with the Government's latest Planning Practice Guidance (PPG) "Travel plans, transport assessments and statements in decision-taking"[1].

1.4. This report aims to demonstrate suitable site access, parking and servicing arrangements. It seeks to demonstrate that the proposals will not have a severe impact on the local

[1] Travel plans, transport assessments and statements in decision-taking, Department for Local Communities and Government, updated March 2014

highway network. Furthermore, in keeping with current Government policy contained within the National Planning Policy Framework (NPPF)[2], it will demonstrate that the proposals are sustainable in transport terms.

2. Policy

2.1. This TA examines the transport implications of the proposed development taking into account whether the following objectives included within the National Planning Policy Framework (NPPF) are met:

- the opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure
- safe and suitable access to the site can be achieved for all people, and
- improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of the developments are severe.

2.2. Guidance on Transport Assessment[2] (GTA) was archived in October 2014, and superseded by the Department for Communities and Local Government (DCLG) Planning Practice Guidance (PPG) documents. The PPG document 'Travel plans, transport assessments and statements in decision-taking' now provides advice on when Transport Assessments should be produced and what they should contain.

2.3. The key principles of GTA have been retained in the PPG document however it does not provide the same level of detailed guidance. Therefore, as appropriate, this report also considers the former best practice guidance contained in GTA, particularly in terms of identifying where significant impacts could occur. It is important to note that, as per paragraph 32 of the NPPF, the key consideration in terms of highway impact is now whether the residual cumulative impact would be 'severe'.

2.4. This report takes into account current best practice advice contained in the document Manual for Streets[3] (MfS), its companion document Manual for Streets 2 – Wider Application of the Principles[4] (MfS2).

3. Report Structure

3.1. This TA is therefore structured as follows:

- Section 4 reviews the existing baseline conditions, including a review of the current highway network, the existing opportunities for sustainable transport and a parking survey;
- Section 5 outlines the development proposals;

[2] Guidance on Transport Assessment, Department for Communities and Local Government, March 2007
[3] Manual for Streets, Department for Transport, March 2007
[4] Manual for Streets 2 Wider Application of the Principles, Chartered Institution of Highways & Transportation, September 201

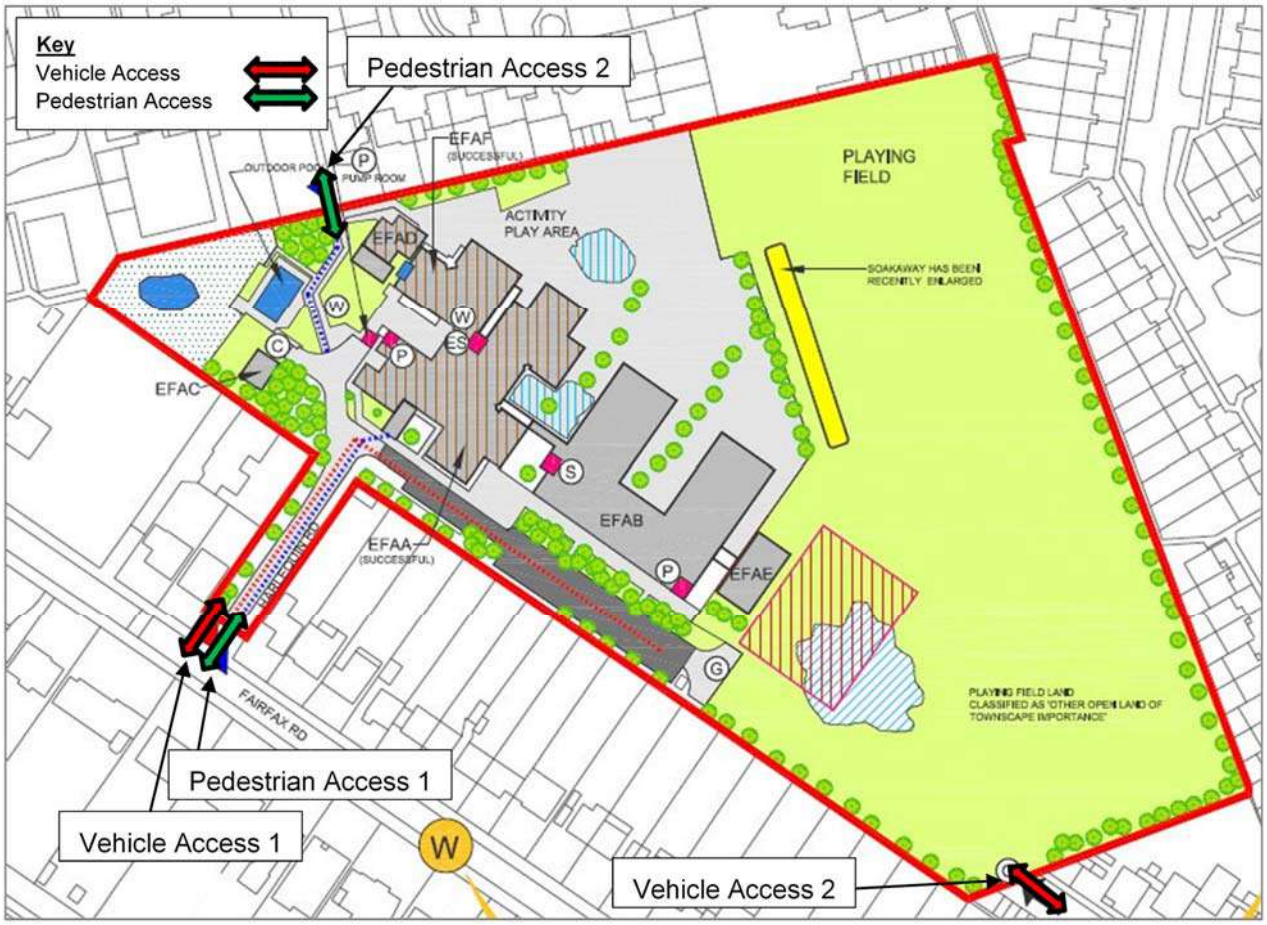
- Section 6 sets out the site's anticipated trip generation and details the site's impact on the local highway network;
- Section 7 summarises and concludes the report.

4. Existing Conditions

4.1. *Existing Conditions*

4.1.1. Figure 2. shows a detailed map of the existing site and accesses to the site.

Figure 2. Detailed Map of School Accesses



4.1.2. Collis Primary School is medium sized mixed community primary school with nursery, infant and junior departments providing education to pupils aged between 3 and 11 years old.

4.1.3. The school services the local residential area and has a small catchment area.

4.1.4. The school day starts at 08:45 and ends at 15:30, there is some variation between departments in the start and finish times:

Nursery – 08:45 to 15:30
Infants – 08:50 to 15:15
Junior – 08:50 to 15:20

4.1.5. The school runs a number of 'before and after' school activities, operating from 08:00 to 17:30 depending on the day. The school also operates some private lets. This includes Brownies, Guides and Cadets on a Wednesday (operating until 21:00) and Atoms Football Club who have use of the school playing field on Thursdays (18:00 to 19:00).

4.1.6. The school is used outside of term time for summer camps (organised by the school).

4.1.7. The existing number of pupils and staff at the school is summarised in Table 1.

Table 1. Existing Staff and Pupil Numbers

	Number of Pupils	Number of Staff	Full Time Staff
Existing	793	110	33

4.1.8. Of the 793 pupils attending the school, 51 are recorded as having Special Educational Needs (SEN). Of these 16 have Statement of Special Needs. Facilities for these students include a lift, sensory room and various necessary provisions and adaptations to the site.

4.1.9. There are currently 110 staff employed at the school of which 33 are full time employees.

4.1.10. The school has a school travel plan including pupil and staff travel behaviour for the 2018/2020 academic years based on the 793 pupils roll and the 110 members of staff.

4.1.11. Table 2 shows that the majority of pupils and staff walk to school (54%). The latest Gold Standard School Travel Plan encourages greater use of non-car modes and reduces the reliance on private cars.

Table 2. Pupil and Staff Travel Behaviour (2018/2020 Academic Years)

Mode	Pupils and Staff Combined %
Walking	54%
Scooting	18%
Buggy	0%
Cycling	10%
Rail (overground)	0%
Tube (underground)	0%
Docklands Light Railway (DLR)	0%
Tram	0%
Public Bus	3%
School Bus/Taxi	0%
River	0%
Car/Motorcycle	13%
Car Share	1%
Park & Stride	1%

4.2. *Vehicle and Pedestrian Access to Site*

4.2.1. There are two vehicular and two pedestrian accesses to the school site.

4.2.2.

4.2.3.

4.2.4. Table 3 and Table 4 provide details of the vehicle and pedestrian accesses respectively.

Table 3. Vehicular Access

Vehicle access	Photo of access	Description	Issues
Vehicle Access 1		- Access 1 is located on Fairfax Road. - There is a drop kerb across the access to the school site. - This allows access to the main car park and the school reception.	- No issues reported or observed during the site visit.
Vehicle Access 2		- Vehicle Access 2 is located off Harlequin Road. - Vehicle Access 2 provides access to school field, although was closed off during the site visit.	- No issues reported or observed during the site visit.

Table 4. Pedestrian Access

Vehicle access	Photo of access	Description	Issues
Pedestrian Access 1		- Access 1 is located on Fairfax Road. - Access 1 is fully segregated from vehicle movements and provides access to the school for pedestrians and cyclists. - There is a gate which is only open during pupil drop off / pick up times.	- No issues reported or observed during the site visit.
Pedestrian Access 2		- Access 2 is located on Cromwell Road. - Access 2 is fully segregated from vehicle movements and provides access to the school for pedestrians and cyclists. - There is a gate which is only open during pupil drop off / pick up times. - A guardrail is present on the external footway at Pedestrian Access 2.	- No issues reported or observed during the site visit.

4.3. *Local Highway Network*

Table 5. Local Highway Network

Road name	Photo of road	Description	Issue
Fairfax Road		- Fairfax Road is a residential road which consists of a single vehicle carriageway in each direction. - Zig zag markings are present outside the school entrance on both sides of the road. - A good standard of street lighting is provided along Fairfax Road. - Traffic calming measures (speed bumps) are in place along Fairfax Road	- No issues reported or observed during the site visit.
Cromwell Road		- Cromwell Road is a residential road which consists of a single vehicle carriageway in each direction. - Zig zag markings are present outside the school pedestrian entrance. - A good standard of street lighting is provided along Cromwell Road. - Traffic calming measures (speed bumps) are in place along Cromwell Road.	- No issues reported or observed during the site visit.

Table 6. Pedestrian Highway Network

Road Name	Photo of Road	Description	Issue
Fairfax Road		- Footways are provided along both sides of Fairfax Road. - Footways are approximately 2 metres in width and are in a reasonable state of repair. - A good standard of street lighting is provided along Fairfax Road.	- No issues reported or observed during the site visit.
Cromwell Road		- Footways are provided along both sides of Cromwell Road. - Footways are approximately 2 metres in width. - A good standard of street lighting is provided along Cromwell Road.	- The footway is in a poor state of repair outside of the pedestrian entrance.

4.4. *Traffic Flow Data*

4.4.1. The Department for Transport traffic count database has been reviewed for available data. All of the sites were on A roads. All locations were approximately a kilometre or more from the school on roads that would carry traffic to and from elsewhere. Therefore, the traffic flows at these sites do not obviously represent trips associated with the school so an assessment of the traffic flows has not been undertaken.

4.5. *Accident Statistics*

4.5.1. In accordance with the guidance contained within the document 'Travel plans, transport assessments and statements in decision-taking', an assessment of existing Personal Injury Accident records for the local area was carried out to ensure that there are no existing highway safety issues that could be exacerbated by any increase in movements associated with the proposed development.

4.5.2. There were no accidents recorded over the assessed five-year period of 1 January 2012 to 31 December 2017. The data has been collected from the surrounding highway network to Collis Primary School.

4.6. *Car Parking Facilities*

4.6.1. The school site has two onsite car parking areas. In total, there are 37 parking spaces within the school site, including three spaces designated for disabled users. Both Car Park A and B are accessible via Vehicle Access 1. The car park locations are shown in the map and are summarised below as follows:

4.6.1.1. Car Park A – (30 parking spaces + 2 disabled bays and bus space. 8 are informal)

4.6.1.2. Car Park B – (4 parking spaces + 1 disabled bay)

4.6.2. Collis Primary School indicated that the demand for parking does not exceed the capacity due to a significant amount of staff walking or cycling to the school.

Figure 3. Location of Car Parks

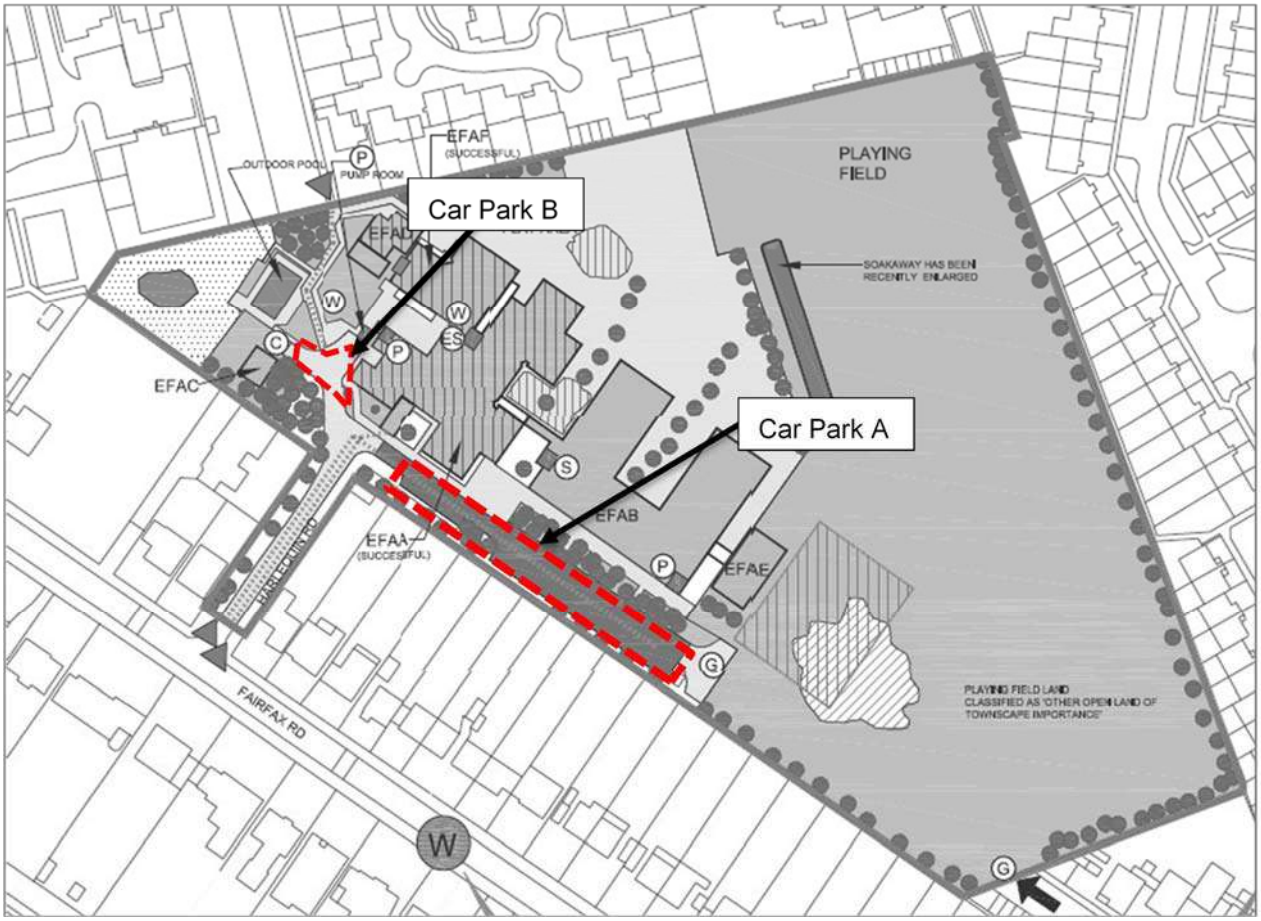


Table 7. Car Parking Facilities

Parking Area	Description	Issue
Car Park A	- Car Park A is located within the school site off Fairfax Road. - Car Park A has 30 parking spaces as well as two disabled bays and one space for a bus. - Parking on-site is for staff, disabled parents and parents with disabled children only.	- No issues reported or observed during the site visit
Car Park B	- Car Park B is located within the school site off Fairfax Road. - Car Park B has four car parking spaces and one disabled bay. - These spaces are only used by staff.	- The visibility of the parking bay markings is minimal due to wear. - Vehicle parked in an undesignated space.
Drop off / pick up	- Parents park on the external highway network during drop off / pick up times. - On-street parking during these periods is particularly evident outside both pedestrian accesses and along the length of Fairfax Road. -	- Roads become congested around the drop off / pick up periods.

4.7. *Pedestrian and Cycle Facilities*

4.7.1. Guidance provided by the Institution of Highways and Transportation (IHT) in their publication 'Guidelines for Providing for Journeys on Foot' (2000) suggests that in terms of commuting, walking to school and recreational journeys; walk distances of up to 2,000 metres can be considered, with the 'acceptable' and 'desirable' distances being 1,000 metres and 500 metres, respectively.

4.7.2. Assuming a typical walking speed of approximately 4.8kph that means that 500 metres can be covered in 6 minutes 15 seconds, or for 1,000 in 12 minutes 30 seconds, and 2,000 in 25 minutes.

4.7.3. It is generally accepted that cycling has the potential to substitute for short car trips, particularly those less than 5km, and to form part of a longer journey on public transport. At an average cycle speed of 16 km/hr, this relates to a journey time of circa 20 minutes.

4.7.4. Cycle / scooter parking is provided within the school site in the form of Sheffield stands. There are 7 stands located onsite with provision for 14 cycles. The cycle parking area is not sheltered.

4.7.5. The site visit was conducted during the school holidays so no observations regarding capacity could be made. However, the school did state that demand for cycle parking exceeded capacity.

4.7.6. As stated in Table 2, 4% of pupils (30 pupils) cycle to school. The number of pupils who cycle to the school site therefore exceeds the cycle parking provision. The lack of cycle parking provision at Collis Primary School may also deter pupils from cycling to school.

4.8. *Servicing*

4.8.1. Refuse vehicles enter the site via Vehicle Access 1 where the refuse storage is located. Emergency vehicles and service vehicles also access the site via Vehicle Access 1. No issues were reported or observed with the existing servicing arrangements and these are not expected to change as a result of the proposed development.

4.9. *Bus and Coach*

4.9.1. Collis Primary School does not operate a designated bus service. Buses used for school trips and events pick up pupils on the external highway network, outside Pedestrian Accesses 1 and 2.

4.10. *Public Transport*

4.10.1. In relation to public transport provision Section IN6 of the 6Cs Design Guide states that: "...for new development within the Principal Urban Area (PUA) and Sub Regional Centres (SRC):

- Public transport to a main public transport interchange should be within 800m (10min) walk
- "In more rural areas i.e. those outside the PUA and SRC the following will apply:
- Minimum of hourly bus service to SRC within 800m (10min) walk
- PUA / SRC within 5km"

4.10.2. In respect of accessibility, Paragraph 5.11 of The Guidelines for Planning for Public Transport in Developments (IHT, 1999) states that:

"There are two aspects to identifying public transport accessibility

- access to public transport, which measures how far a location is from the public transport network and the level of service on that network; and
- access by public transport, which takes account of where the services go and identifies the public transport catchment areas."

4.10.3. Collis Primary School is not served by a dedicated bus service, although is located in close proximity to public transport links.

4.10.4. The Chartered Institute of Highways and Transportation (CIHT) publication 'Guidelines for Planning for Public Transport in Developments' (1999) states that the maximum walking distance to a bus stop should not exceed 400m.

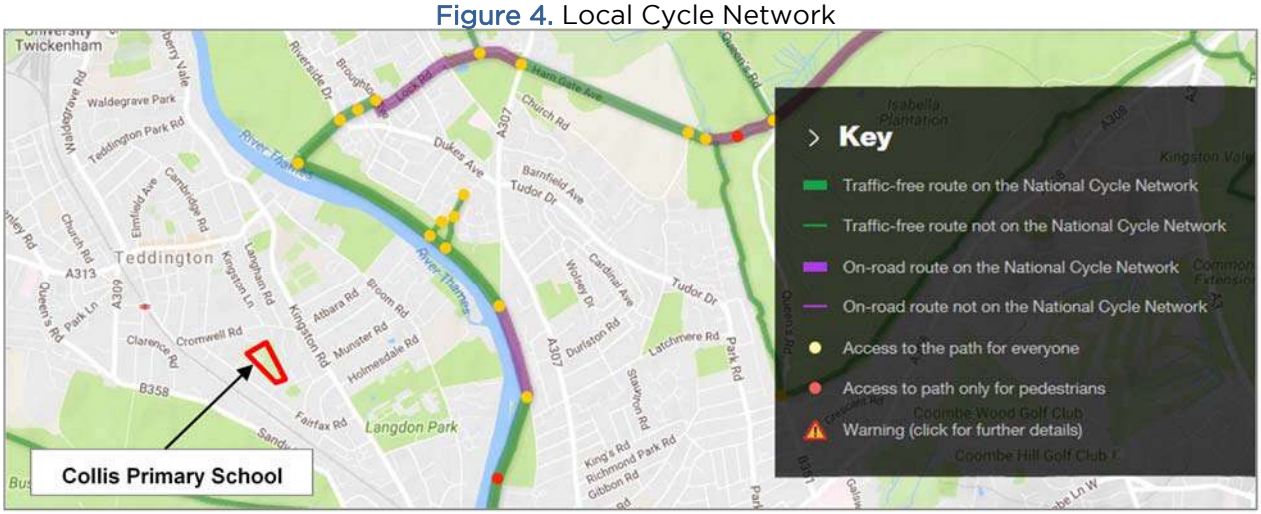
4.10.5. Collis Primary School is not served by a specific bus route. The nearest bus stop is located on Kingston Road, 0.5 miles away from the main entrance. The bus stop is served by the 281 and 285 bus routes. The 281 goes from Hounslow Bus Station to Tolworth Tower, which has a frequency of 6-12 minutes from 08:00 to 00:00. The 285 goes from Heathrow Central Bus Station to Cromwell Road Bus Station, which has a frequency of 6-15 minutes from 08:00 to 00:00. 2% of pupils and 4% of staff travel to school via bus.

4.10.6. The nearest rail station to the school is Teddington Railway Station, located in the centre of Teddington. From the school, it is an 8-10 minute walk to the station. 1% of pupils and 2% of staff travel to school via rail.

4.11. *Access to the wider cycle network*

4.11.1. Collis Primary school is not located on a designated cycle route. However, there is a cycle route in the vicinity of the school as shown in Figure 4. National Cycle Network (NCN) Route 4 is accessed from the school site via a bridge off Ferry Road, 0.8 miles north of the school. This is a shared path for both pedestrians and cyclists which runs alongside the River Thames. 4% of pupils and 15% of staff cycle to school.

Figure 4. Local Cycle Network



Source: www.sustrans.org.uk (2016)

5. Development Proposals

5.1. Collis Primary School will construct a new block and demolish old blocks in poor condition (EFAD, EFAF, and AFAA) as shown in Appendix 3. Demolished blocks will be replaced with hard surfaced / grassed play areas.

5.2. There will be no additional pupils or staff, so it is not expected to impact upon traffic numbers. The staff and pupil numbers will remain the same as outlined in Table 8. Existing car parking capacity will be retained.

Table 8. Numbers of Staff and Pupils

	Number of Pupils	Number of Staff
Existing	793	110
Proposed	793	110
Change	0	0

6. Transport Considerations

6.1. *Transport Considerations*

6.1.1. Because there is no change in the number of staff and negligible change in pupils, it is reasonable to assume that there will be no change to the travel demands to and from the school. Therefore, the transport impact of the development proposals on the local area will be negligible.

6.1.2. However, during the construction period there will be a need for additional traffic to and from the site. Notably, there will be a requirement for a construction management plan. This proposed plan is contained in Appendix 1 and in the following section 'Construction Traffic Management Plan'.

6.1.3. Construction access will be via the Harlequin Road access in the South East of the site (Vehicle Access 2), thereby segregating regular school operations with construction traffic. By separating the activities this will minimise conflict between construction related traffic and children and staff using the school. The car park and delivery access will be maintained via Vehicle Access 1 via Harlequin Road and Fairfax Road to the West of the site.

6.1.4. The playground will be reduced in size during the construction period since the new block is being constructed on part of it.

6.2. *Construction Traffic Management Plan*

6.2.1. Construction access will be via the Harlequin Road entrance in the South East of the site (Vehicle Access 2). Traffic will access Fairfax Road from the A310 to the South East. The car park and delivery access will be maintained via Vehicle Access 1 onto Harlequin Road and Fairfax Road to the West of the site.

6.2.2. This access was used in the previous construction that was granted planning in 2005.

6.2.3. Appendix 1 contains a draft Construction Traffic Management Plan. This includes several steps to minimise impact on the local area including:

- Restricting traffic to outside peak pupil arrival times;
- Good communication channels between the school, contractor, and local highways planning authority;
- Repairs of highway by contractor where damage is reasonably believed to be a result of construction traffic;
- Minimising mud and dirt on local highways;
- Clear signage for construction traffic to direct it to the Vehicle Access 2 on Harlequin Road from Fairfax Road and the A310, away from the main school entrance. A temporary traffic regulation order will be needed to suspend parking along Harlequin Road to allow HGVs to enter the site.
- Signage will be added for the general public about when the route is to be used for construction traffic with warning and information signs installed prior to and during works.

6.2.4. The implications from having to potentially reverse a refuse lorry more than 12m to exit the site onto Fairfax Road once the site has been completed are being dealt with separately and will be sent with the planning application.

6.3. *Change in Traffic Conditions*

6.3.1. No change in traffic conditions are anticipated. As shown in Table 9, there will be a negligible change to pupil numbers and no change to staff numbers.

6.3.2. The school day typically operates between 08:45 and 15:30.

6.3.3. The school runs several 'before and after' school activities, operating from 08:00 to 17:30 depending on the day. This includes many private lets including Brownies, Guides, and Cadets on Wednesday (until 21:00) and a football club from 18:00 to 19:00.

6.4. *Access to Non-Car Modes*

6.4.1. The key emphasis of the NPPF is on the need for all new developments to be sustainable. Part of this requirement for sustainability means providing reasonable opportunities for travel to and from sites by non-car modes, with Paragraph 29 stating that:

"…the transport system needs to be balanced in favour of sustainable transport modes, giving people a real choice about how they travel. However, the Government recognises that different policies and measures will be required in different communities and opportunities to maximise sustainable transport solutions will vary from urban to rural areas."

6.4.2. The school has an active Gold Travel Plan (2018-20). This encourages greater use of non-car modes and reduces the reliance on private cars.

6.5. *Initial Road Safety Assessment*

6.5.1. A road safety expert has completed an initial road safety assessment of Collis Primary School and his judgements are as follows:

6.5.2. There are no formal crossings on Fairfax Road. A lack of dropped kerb crossing points with tactile paving may lead to pedestrian trip type injuries on full height kerbs. Sight and mobility-impaired pedestrians are particularly vulnerable. Uncontrolled dropped kerb

crossing points with tactile paving should be provided on Fairfax Road either side of the school access.

6.5.3. There is no tactile paving at the existing school access. A lack of tactile paving may lead to sight-impaired pedestrians unknowingly stepping into the carriageway and colliding with vehicles. Tactile paving should be provided at the dropped kerbs on either side of the school access. The existing dropped kerbs should be re-laid if the upstand exceeds 6mm or they are not symmetrically aligned.

6.5.4. It is not clear what facilities are being provided to enable pedestrians to cross from the eastern side of the access road to reach the school building. It appears that pedestrians must cross the path of vehicles and there is no apparent designated crossing. This may lead to drivers failing to give way to pedestrians and collisions occurring. The pedestrian route should be highlighted and dropped kerbs provided where appropriate.

6.5.5. There are no formal crossings on Cromwell Road near to the north-western access. A lack of dropped kerb crossing points with tactile paving may lead to pedestrian trip type injuries on full height kerbs. Sight and mobility impaired pedestrians are particularly vulnerable. Uncontrolled dropped kerb crossing points with tactile paving should be provided on Cromwell Road either side of the school access.

6.5.6. The pedestrian route from the north-western access passes the outdoor pool. It is not clear if the pool is protected. The pool should be fenced off to prevent pedestrians falling in the pool, with a risk of drowning.

6.5.7. As this is not an expansion the above comments are acknowledged, however as this is an improvement of facilities within the site, there would be a neutral or improved impact on highways overall, negating in the need to provide these changes.

6.6. *Local Parking Standards*

6.6.1. Richmond Borough Council sets out its parking standards in Policy LP45 of the Local Plan (2018) and Appendix 3. Vehicle parking would normally be 1 per 2 staff. Long term Cycle parking is 1 per 8 pupils and staff. This would result in a 113 cycle store provision. Short term cycle parking is 1 per 100 staff. The existing Sheffield stands will cover this requirement.

6.6.2. It is also stated that “arrangements must also be made for adequate setting down areas and visitor parking spaces. Adequate facilities for the setting down of coaches shall also be considered”.

6.6.3. There are 26 onsite car parking spaces available across two car parks, with are observed to be under capacity. Applying the Richmond Borough Council standards to the school, there should be a maximum of 51 vehicular parking spaces (based upon there being 102 staff, and one space per two staff). Due to the existing car parking facilities observed to be under capacity, it is not considered necessary to increase staff parking provision at Collis Primary School.

6.6.4. With regard to cycle parking at Collis Primary School, the site visit was conducted during the school holidays, so no observations could be made regarding capacity. However, there are 14 cycle spaces available, with these stated as being over capacity by the school, and possibly acting as a deterrent for more pupils to cycle to school. Applying the Richmond

Borough Council standards to the school, there should be a minimum of 125 cycle parking spaces provided at the school (25 classrooms, 5 spaces per classroom). As stated in Table 2.2, however, 4% of pupils (30 pupils) typically cycle to school. The number of pupils who cycle to the school site exceeds the cycle parking provision. It is therefore recommended that additional cycle parking provision is provided to cater for the existing and future demand of both staff and pupil cyclists.

6.6.5. Furthermore, as highlighted by Richmond Borough Council in response to Mott MacDonald's pre-application enquiry, scooter parking should be provided based upon the existing number of pupils who scoot to school. Based upon the information provided in Table 2.2 it is therefore recommended that scooter parking provision is provided to cater for the existing demand (currently 133 pupils scoot to school).

6.7. *Liaison with the local highway authority*

6.7.1. The Local Highway Authority (Richmond and Wandsworth) have been consulted to discuss the proposed development. Below is a summary of comments received in their email dated 01.05.19 (sent by Anita Vedi (Senior Planning Officer) to Brian Kavanagh of Nicholas Taylor Associates) in respect to transport.

- *Concerns are raised regarding the implications from having to potentially reverse a refuse lorry more than 12m to exit the site onto Fairfax Road. A hammerhead turning area within the site may be acceptable, any proposal should show the tracking of this on a plan to demonstrate that the lorry can leave the site in forward gear.*
- *The small parking area off Harlequin Road (8 garages) is a classified highway and it will need to be clarified whether these areas will need to be suspended during the course of construction. Any potential application will need to provide a plan showing tracking and details regarding the intended schedule of deliveries (days, times etc) number of deliveries that will be expected to provide the modules.*
- *The proposal should meet Council's current standards for cycle parking provision. Given there are no changes to the number of pupils and staff on site, the provision of the current parking spaces may be accepted.*
- *CMS- it should be made very clear in the CMS what the impact on Harlequin Road will be. Members of the public should be made aware that the works will be temporary with limitations on the time of day and day of the year.*
- *The wheel washing facilities should be as close to the gate as possible so trucks do not have to drive back through muddied site to exit the site.*
- *Main access is to be retained as existing, however location of main office will be moved further back within the site.*
- *A statement regarding a Highway Condition Survey should be included in the CMS, Highways team will need to be contacted to undertake this survey prior to commencement of works.*
- *Construction traffic – a temporary traffic regulation order will be needed to suspend parking along Harlequin Road to allow HGVs to enter the site.*
- *Construction traffic – it is not clear which way vehicles will leave the site. Will they turn and then exit where they came in? If so, an HGV turning in the designated turning area needs to be tracked*
- *Construction traffic – a highway pre-commencement condition survey needs to be carried out prior to the commencement of development. The applicant*

will need to liaise with the London Borough of Richmond's Highway network Management team to organise this.

- *Construction traffic – please restrict deliveries and collections by HGVs to the hours of 09.30-15.00, Monday – Friday.*
- *S278 agreement is needed to provide tactile paving wither side of the main entrance to the school from Fairfax Road and to install a courtesy crossing on Cromwell Road. I will need to do a site visit to ascertain the best position for this.*
- *School travel plan – this needs a lot of work as parents currently drop children off in Fairfax Road, which is not part of a CPZ. The travel plan does not appear to have any targets for the reduction in car journeys among pupils and employees. Please see the link below for more details: https://stars.tfl.gov.uk/*
- *Following on from the above, what target do the school have regarding increasing the percentage of total pupils who cycle to school and when do they plan to achieve this? Sufficient cycle parking needs to be provided to accommodate this targeted number.*
- *There will be no net or gross increase in the number of pupils or employees so I am satisfied that the current levels of vehicular parking on-site are sufficient.*

6.7.2. It is considered that all the above have been addressed in this updated Transport Assessment.

6.8. *Construction Issues*

6.8.1. The Local Highway Authority stated that a Construction Method Statement is required to support the planning application. As stated in Richmond Borough Council's Local Validation Checklist for All Applications 2015, this should include:

1. The size, number, routing, and manoeuvring tracking of construction vehicles to and from the site, and holding areas for these on/off site
2. Site layout plan showing manoeuvring tracks for vehicles accessing the site to allow these to turn and exit in forward gear
3. Details and location of parking for site operatives and visitor vehicles (including measures taken to ensure satisfactory access and movement for existing occupiers of neighbouring properties during construction)
4. Details and location where plant and materials will be loaded and unloaded
5. Details and location where plant and materials used in constructing the development will be stored, and the location of skips on the highway if required
6. Details of any necessary supervision of pavement, road space, bus stops and/or parking bays
7. Details where security hoardings (including decorative displays and facilities for public viewing) will be installed, and the maintenance of such
8. Details of any wheel washing facilities which will be as close to the gate as possible as shown on the Site Phase Plan so trucks do not have to drive back through muddied site to exit the site.
9. Details of a scheme for recycling/disposing of waste resulting from demolition and construction works (including excavation, location and emptying of skips)
10. Details of measures that will be applied to control the emission of noise, vibration and dust including working hours. This should follow Best Practice detailed within BS5288:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites
11. Details of any highway licenses and traffic orders that may be required (such as for licenses for any structures/ materials on the highway or pavement; or suspensions to allow the routing of construction vehicles to the site)
12. Details of the phasing programming and timing of works
13. Where applicable, the Construction Management Statement should be written in conjunction with the Arboricultural Method Statement, and in accordance with British Statement 5837:2012 'Trees: in relation to design, demolition and construction – recommendations', in particular section 5.5, 6.1, 6.2, 6.3 and 7

14. A construction programme including a 24 hour emergency contact number
15. See also TfL guidance on Construction Logistics Plans.

6.9. *Abnormal Indivisible Loads (AIL)*

6.9.1. There will also be some Abnormal Indivisible Loads (AIL) required for the construction. These will include delivery of the modular building components. These will be addressed under separate arrangements by the appointed haulage contractor at the time of movement requirement and will be transported within The Road Vehicles (Construction and Use) Regulations 1986 (as amended) and Special Types General Order (STGO) 2003 Regulations. This will include all required notifications to highway and structural authorities and police.

6.9.2. At this stage it is expected that the largest modular components will be the modular buildings and these will be expected to be delivered on a 4 axle extendible step frame delivery vehicle transport arrangement.

6.9.3. These AILs may require a self/private escort due to its and width. The exact escort requirements will be confirmed with the police before AIL delivery by the appointed haulage contractor.

6.9.4. Although the exact access route will be confirmed by specialist haulage contractors at the time of requirement in formal consultation with highway authorities and police it is reasonable to assume access will be from the A310 and Fairfax Road to the east of the school. Based on the assumption that AILs could be transported from significant distances away, it may be appropriate to consider access from the A3 Arterial Route via A244 Copsem Lane, A307 Portsmouth Road and A309 Hampton Court Road to the A310 High Street and Upper Teddington Road providing access to Fairfax Road.

6.9.5. There are 4.8m nominal headroom clearances on the railway bridges at Hampton Court Way and Hampton Wick. However, it is expected based on current information that the AILs will be transported at a height in the region of about 4.465m and as such so they could obtain clearance beneath the low bridges.

6.9.6. A Swept Path Assessment (SPA) has been undertaken of the most onerous AIL at the site entrance on Fairfax Road and Harlequin Road and this is provided in Appendix 2. The drawings showing the SPA of the Modular Building and 4 axle extendible step frame delivery vehicle, have been constructed using the site layout data as provided by the client, as well as background OS Mastermap data and aerial imagery.

6.9.7. It should be noted that representative assisted rear wheel steering has been applied in the construction of the vehicle SPA, and that vehicles without assisted rear wheel steering technology would not be able to follow the same paths, and consequently are not considered accessible to the site, due to likely conflict with the site entrance gate posts.

6.9.8. It can be seen on drawing number ESS-CPS-SP01 sheets 1 and 2 that the AIL delivery vehicle is able to negotiate the left turn from Fairfax Road and Harlequin Road into site and no negotiability concerns are expected. However it is recommended that temporary parking restrictions are enforced along Fairfax Road, Harlequin Road, and in front of Potterill Court and the garages immediately prior to access to the site in order to ensure that the road space is available for out of gauge AILs. It is expected that this will require

Temporary Traffic Regulation Orders (TTROs) to be applied for from the London Borough of Richmond on Thames.

6.9.9. A minimum temporary site entrance gate width is required to accommodate the delivery vehicle of 5.0m due to angle of existing fence line (if temporary gate and fence can be realigned so that they are perpendicular to the road, then the gate width could be reduced to 4.0m).

6.9.10. Other plant deliveries that may be AILs, such as mobile cranes, would use the routes and times as specified in this plan.

6.10. *Site Access off Highway*

6.10.1. To enable drivers emerging from the access to see and be seen by drivers proceeding along the carriageway unobstructed visibility is needed within the proximity of the junction. The distance along the centreline of the access from the carriageway edge to the point where the emerging driver should be able to see a specified distance in each direction of the principal carriageway can be derived and much of the access design criteria on which the planning authorities relies upon is contained in the Department for Transports "Manual for Streets". In particular this sets out the visibility standards at access onto the road network. The sight line information, shown in Table 7.1 extracted from this document below, has been considered in conjunction with the turning radii information detailed within the transport configuration drawing.

Table 7.1 Derived SSDs for streets (figures rounded).

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
SSD (metres)		9	12	15	16	20	22	31	36	40	43	56
SSD adjusted for bonnet length. See 7.6.4		11	14	17	18	23	25	33	39	43	45	59
		Additional features will be needed to achieve low speeds										

Source - DfT Manual for Streets

6.10.2. The site access via Harlequin Road (Vehicle Access 2) is on a road with a 30mph speed limit and as such requires 43m visibility splays. The existing site entrance off the highway is considered to be accessible for the proposed loads required during construction and provides adequate opportunity to leave the highway with expediency for general Construction and Use traffic although the AILs associated with delivery of modular components will require specific consideration of access as described within Section 6.9 of this report. The turning circles identified within the transport configuration drawing number ESS-CPS-TC01 are acceptable and no additional design works for remediation of visibility splays are considered necessary.

6.10.3. It should be noted that the site access currently exists and no changes are required. It is not a new site access road and the required visibility lines are already in place.

7. Summary and Conclusions

7.1. This report demonstrates that the proposed development will not have a major impact on the local highway network.

7.2. The key issue being that little has changed with respect to the school's transport situation because the number of staff and pupils has remained the same.

7.3. The school's travel plan should be updated for the current academic year. More can always be done to better promote these forms of transport. A draft travel plan is being submitted in parallel to this document.

7.4. The main highway effects will be during construction. To minimise potential conflict with existing school operations an entirely separate access is proposed to be used via Harlequin Road, which has been used in the recent past for construction.

7.5. Recommendations have been made for accommodating the construction traffic is set out in Appendix 1 which contains a Draft Construction Traffic Management Plan. Its main components include:

- Construction traffic should be restricted to outside peak school traffic times;
- Good communication should be established between the contractors and the school management to ensure that when issues arise they are properly dealt with;
- Damage reasonably believed to be caused by construction traffic to the nearby highway should be repaired by the contractor;
- To minimise mud and dust on the road some key steps are identified;
- Clear signage for construction traffic to direct it to the construction entrance along the A310 to Fairfax Road and Harlequin Road avoiding the school main entrance further along Fairfax Road and Harlequin Road.

Appendix 1

Draft Construction Management Plan

Colliss Primary School – Draft Traffic Management Plan

Prepared for Extra Space Solutions

Shaftesbury House, High Street, Eccleshall, Staffordshire ST21 6BZ, UK
Tel: +44 (0)1785 850411

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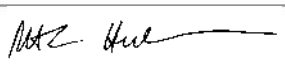
NAME		SIGNATURE	DATE
Prepared by:	Richard Hudson		07.02.18
Checked by:	Andy Pearce		13.02.18
Approved by:	Andy Pearce		13.02.18

DISCLAIMER

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DOCUMENT REVISIONS

Issue	Date	Details
0	13.02.18	Draft Report
1	16.08.19	Reviewed after client comments
2		

Contents

1. Introduction

1.1. A detailed Construction Traffic Management Plan (CTMP) will be produced post planning which aims to be simple and easily understood, making implementation and enforcement easier for all involved.

1.2. The sections below identify the main proposed elements of the CTMP.

2. Mud & Dust on Road

2.1. To minimise the potential for mud and dust the following will be provided:

- an easily cleaned hard standing area for vehicles;
- wheel wash facilities that will be as close to the gate as possible so that trucks do not have to drive back through muddied site to exit the site.
- a mechanical road sweeper. This would be used:
  - on site to regularly brush hard surfaced areas and when appropriate also spray down with water spray;
  - off site on Greengate Lane, if mud or dust appears then brush and /or spray as appropriate;
- sheeting of each lorry where spoil is removed.

3. Vehicle Routeing

3.1. All goods vehicles to and from the site will access from Harlequin Road and Fairfax Road to the South East of the site. The A310 is approximately 600m from the site entrance. Warning and information signs will be installed prior to and during works. Temporary road signs stating 'School Construction Traffic' will be erected to direct construction traffic from the A310 to the school site ensuring that construction traffic avoids the main entrance. A Temporary Regulation Order will be needed to suspend parking along Halequin Road to allow HGVs to enter the site.

3.2. On completion of the construction works these temporary route signs will be removed.

4. Vehicle Timings

4.1. All goods vehicles accessing the site will be limited to the working hours which are restricted by planning condition. Any restriction to be agreed as part of the planning process.

4.2. Subject to discussions with the school no other restrictions should be necessary as the construction access is segregated from the school access.

5. Carriageway Maintenance

5.1. The highway surface of Harlequin Road, Fairfax Road, and the A310 will be repaired between the site and the A310 where damage has reasonably taken place due to the construction traffic. This would need to be carried out in agreement with the Highway Authority. A conditions survey will be carried out before and after the construction on the local roads to be agreed by the Local Highway Authority. Appendices to the Full CTMP will set out the legislation guidance and more detailed specification.

6. Responsibilities

6.1. The security gate house will have authority to stop any goods vehicles leaving or entering the site which do not comply with the Plan.

6.2. The main contractor, Extraspace Solutions Ltd, will be responsible for implementing this Plan. During construction the site manager will be the main point of contact. At all times during construction a copy of this plan will be kept in the following locations:

- site office;
- site office notice board (Action Plan);
- security gate house (Action Plan).

6.3. The security gate house will have authority to stop any goods vehicles leaving or entering the site which do not comply with the Plan.

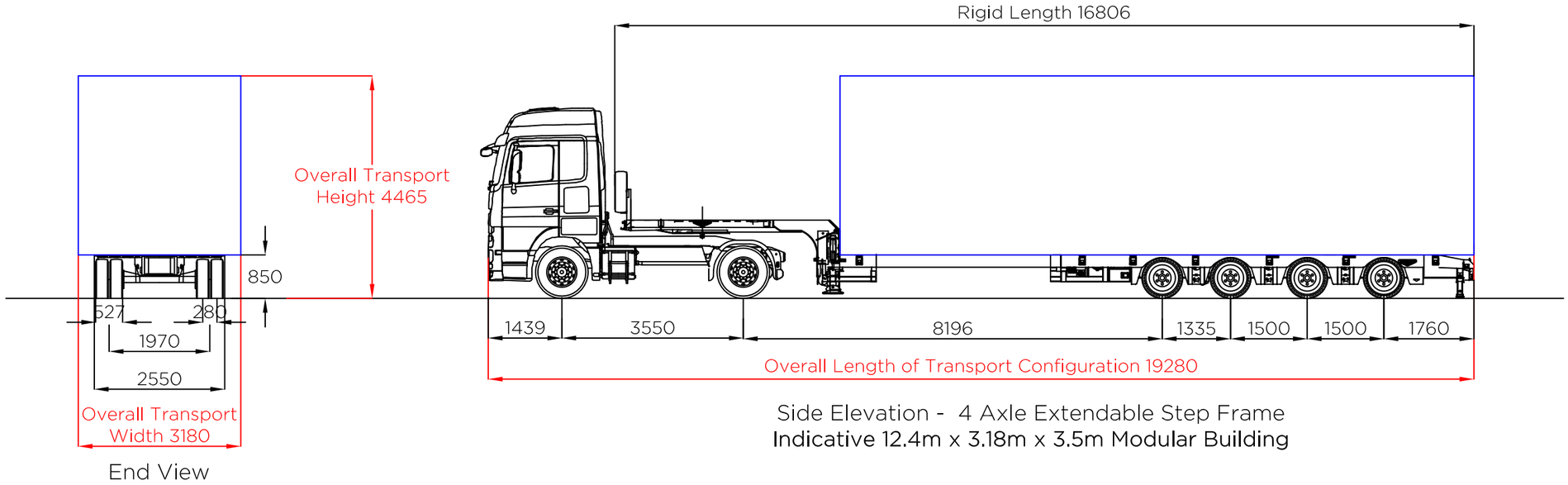
7. Consultation

7.1. Consultation and working with the local planning and highway authorities are an important element of the Plan. A planning condition would be expected to ensure the delivery of the CTMP.

7.2. In addition, during the construction process, it is intended that the contractor regularly liaise with the Local Highway Authority and school to assist with minimising any traffic disruption. This could be through a regular forum, however, it is suggested that discussions take place on an as needs basis.

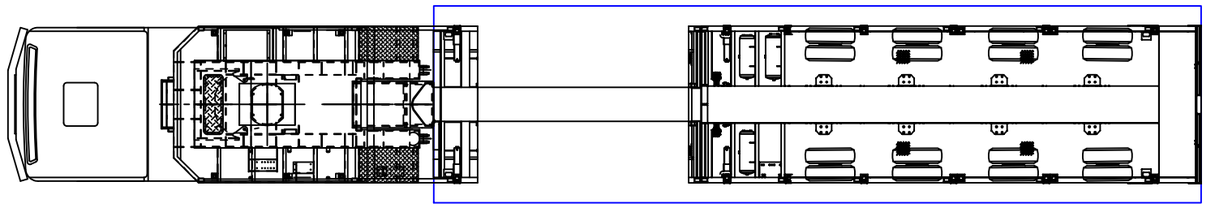
Figure 1. Construction Traffic Route Phase 1

Figure 2. Construction Traffic Route Phase 2

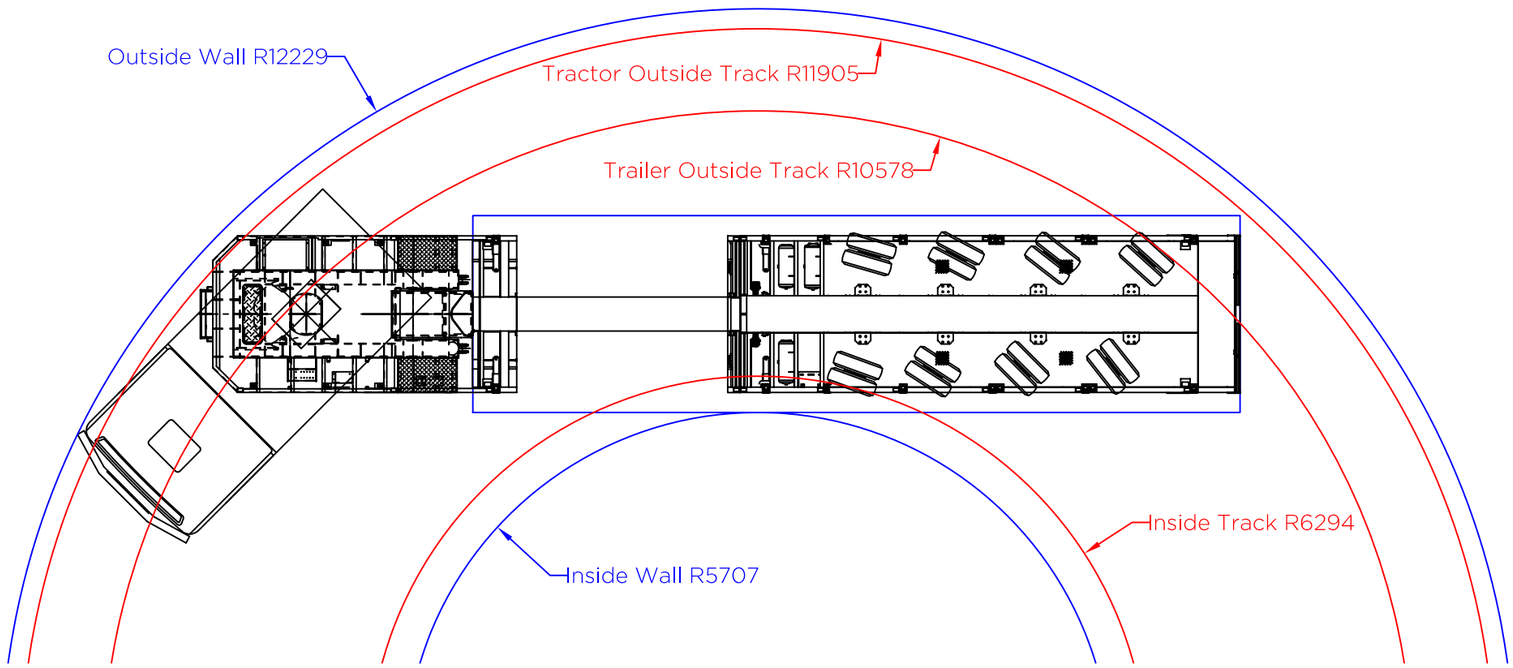


End View

Side Elevation - 4 Axle Extendable Step Frame
Indicative 12.4m x 3.18m x 3.5m Modular Building



Plan View - 4 Axle Extendable Step Frame
Indicative 12.4m x 3.18m x 3.5m Modular Building



Minimum Turning Radii Information - 4 Axle Extendable Step Frame
Indicative 12.4m x 3.18m x 3.5m Modular Building

Load Table	
4 Axle Extendable Step Frame	
Self Weight of Load	10.5 Te
Self Weight of Trailer (Say)	15.0 Te
Self Weight of Tractor	7.6 Te
Total Combined Weight	33.1 Te
Load Per Axle Line	5.1 Te
Load Per Wheel (4 per axle)	1.275 Te
Overall Ground Bearing Pressure	1.85 Te/m^2
Tyre Contact Patch (est. min)	300mm x 180mm
Tyre Pressure	140psi / 9bar
Tractor (7.6Te)	
Front Axle	5.35 Te
Rear Axle	2.25 Te

Actual dimensions, including axle spacing and mean running height, may vary slightly depending on manufacturer of trailer deployed.

All linear measures in millimetres unless stated otherwise.

Indicative Modular Building drawing shown only.

*Note generic transport arrangement shown only. No consideration has been given to individual routes to specific site locations.

Rev.	Date	Ammendments
A		
0	30.01.18	Issued for comment
		Revisions

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Tel: (01785) 850411

Independent Transportation Engineers

Client:

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Unit 15, Spice Court
Ivory Square
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SW11 3UE

Project:

Collis Primary School

Title:

Indicative Transport Configuration
12.4m x 3.18m x 3.5m Modular Building
Transported upon typical
4 Axle Extendable Step Frame Trailer
Showing Minimum Turning Radii

Drawing Status:

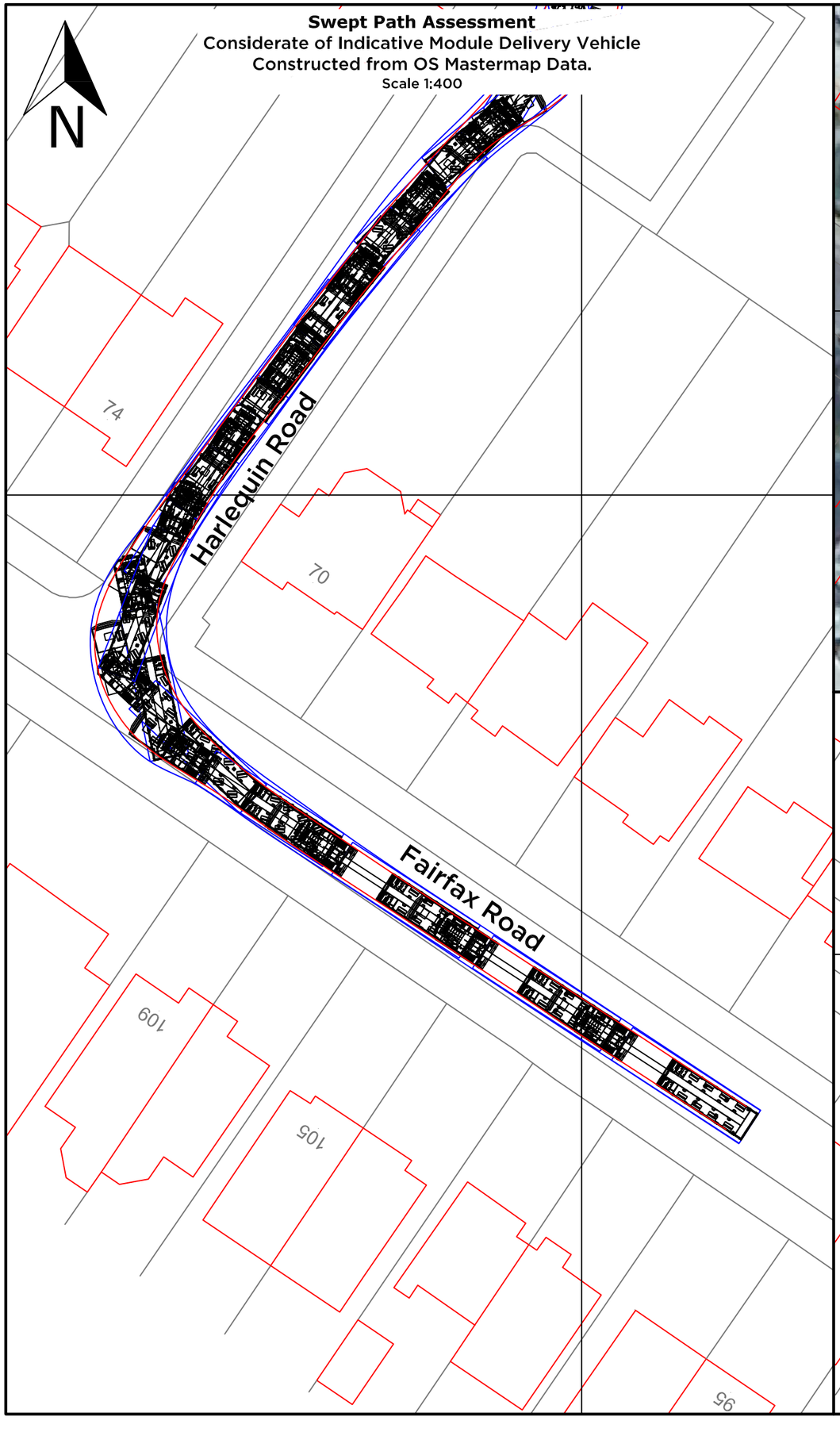
Final Report

Scale (A3):	Drawn By:	Checked By:
1:100	DJT	AP

DWG. No:	Sheet:	Rev:
ESS-CPS-TC01	1 of 1	0

P:\Clients\Existing Clients\Extraspace Solutions\18-940 Colliss Primary School\4 axle extendible step frame.dwg

Swept Path Assessment
Considerate of Indicative Module Delivery Vehicle
Constructed from OS Mastermap Data.
Scale 1:400



Indicative Swept Path Assessment
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Swept Path Assessment
Considerate of Indicative Module Delivery Vehicle
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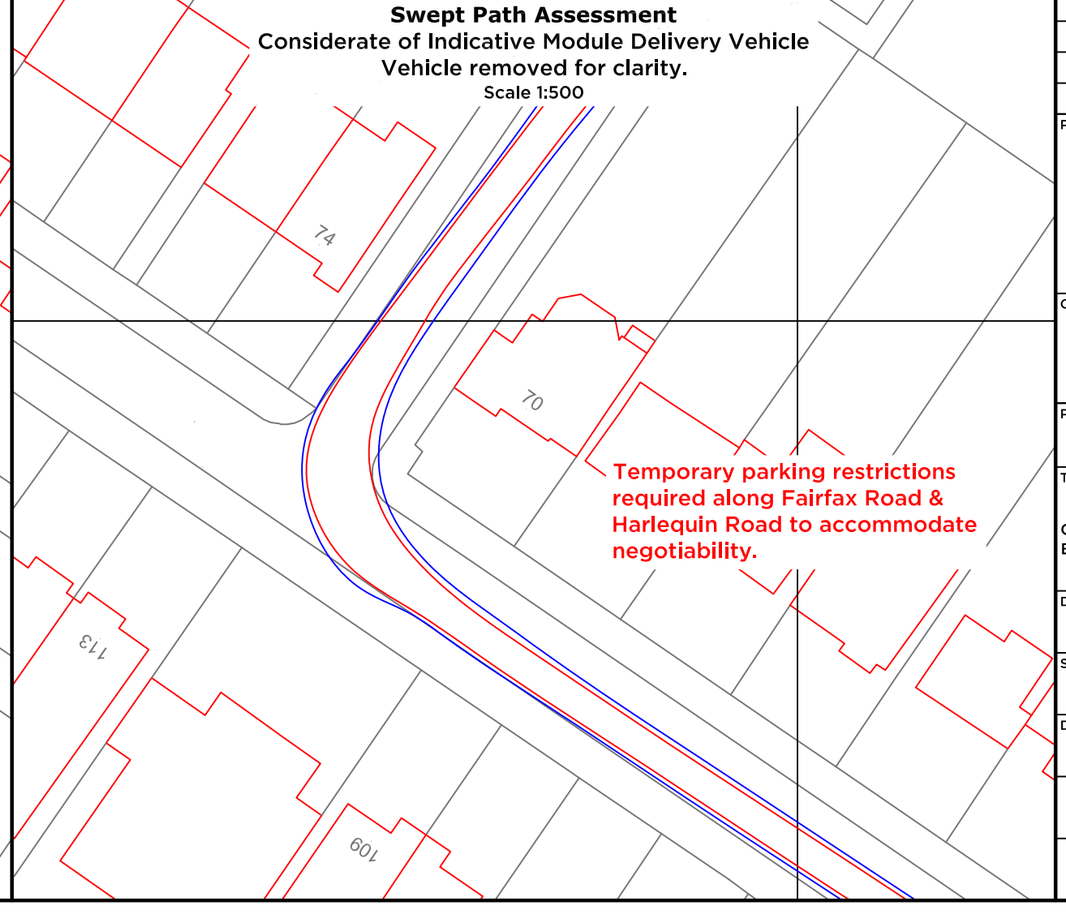
Scale 1:500



Location Plan

Legend:

Module Transport Configuration.
Minimum turning arrangements.
See Drawing Ref. ESS-CPS-TC01

Extent of Vehicle Track

Extent of Over-sail

Rev.	Date	Ammendments
A		
0	07.02.18	Issued for comment
		Revisions

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Project:

Collis Primary School

Title:

Swept Path Assessment
Right turn from Fairfax Road into Harlequin Road.
Considerate of Indicative 12.4m x 3.18m x 3.5m Modular Building Transported on 4 Axle Extendable Step Frame
Approximate OS Grid Reference: TQ 1666 7039

Drawing Status:

Final Report

Scale (A3):	Drawn By:	Checked By:
As Shown	DJT	AP

DWG. No:	Sheet:	Rev:
ESS-CPS-SP01	1 of 2	0

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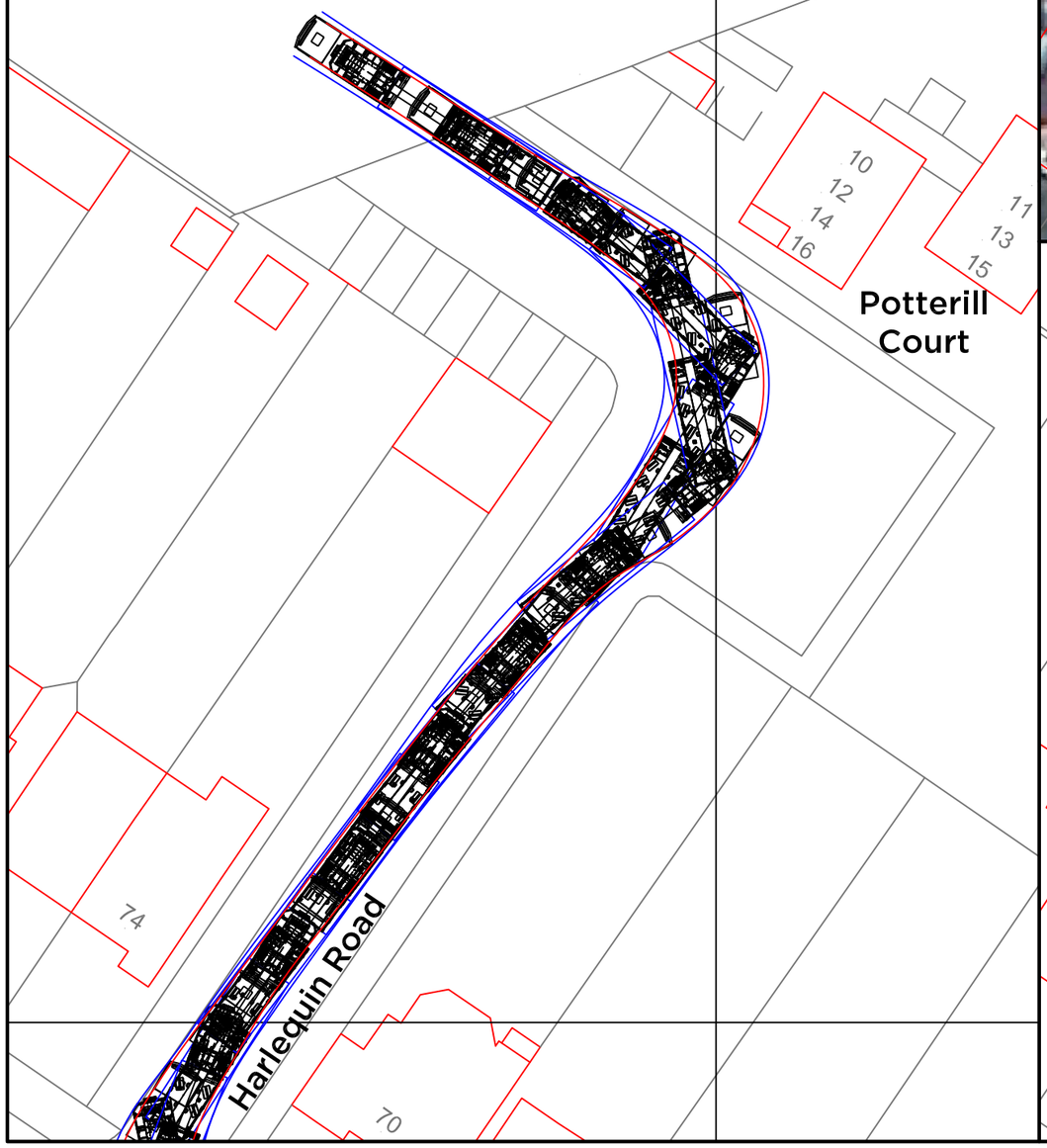
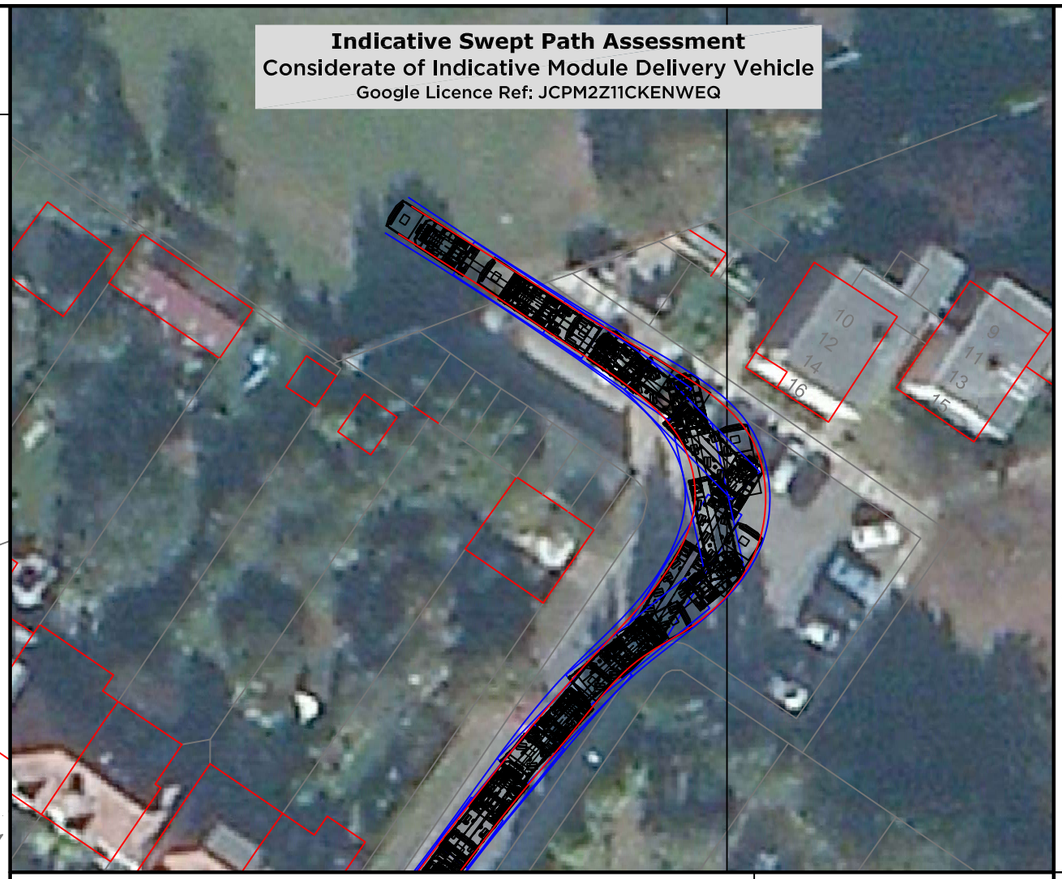
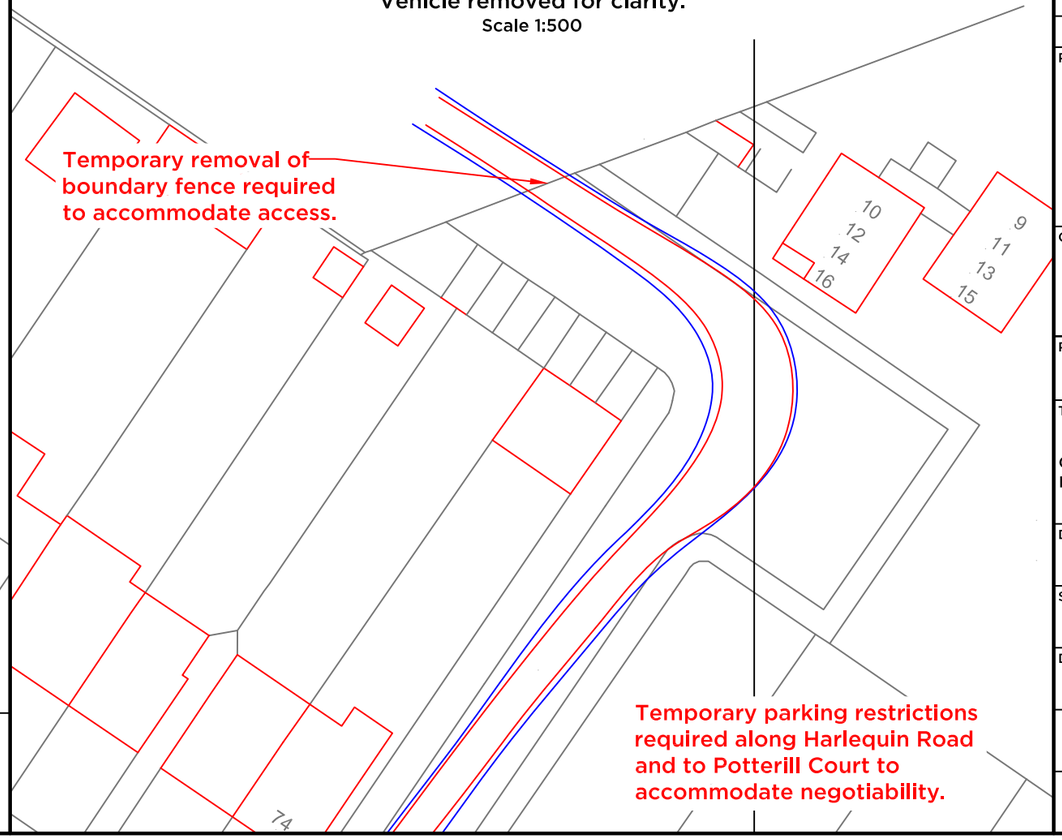
Swept Path Assessment
Considerate of Indicative Module Delivery Vehicle
Constructed from OS Mastermap Data.
Scale 1:400



Indicative Swept Path Assessment
Considerate of Indicative Module Delivery Vehicle
Google Licence Ref: JCPM2Z11CKENWEQ



Swept Path Assessment
Considerate of Indicative Module Delivery Vehicle
Vehicle removed for clarity.
Scale 1:500



Location Plan

Legend:

- Module Transport Configuration. Minimum turning arrangements. See Drawing Ref. ESS-CPS-TC01
- Extent of Vehicle Track
- Extent of Over-sail

Rev.	Date	Ammendments
A		
0	07.02.18	Issued for comment
		Revisions

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Project:

Collis Primary School

Title:

Swept Path Assessment
Left turn into Site Entrance from Harlequin Road.
Considerate of Indicative 12.4m x 3.18m x 3.5m Modular Building Transported on 4 Axle Extendable Step Frame
Approximate OS Grid Reference: TQ 1670 7044

Drawing Status:

Final Report

Scale (A3):	Drawn By:	Checked By:
As Shown	DJT	AP

DWG. No:	Sheet:	Rev:
ESS-CPS-SP01	2 of 2	0

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Appendix 3

Site Layout and Construction Access

1. PL-Proposed Whole Site

PLANNING ISSUE

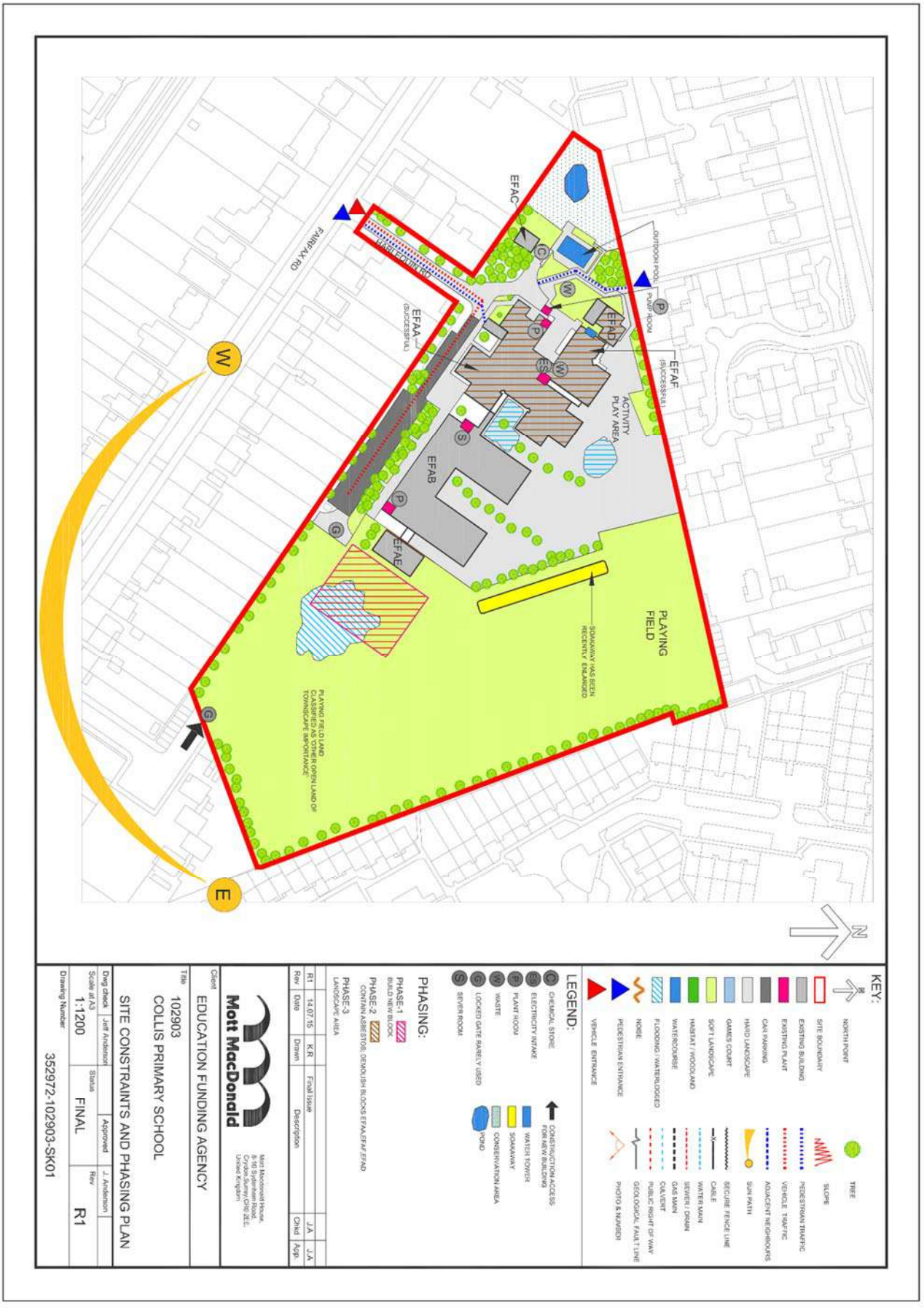
1. PL-Phase 1 - Construction of Main School Building.

1. PLPhase 2 - Demolition of Existing School

PLANNING ISSUE

Appendix 4

Red Line Drawing


EFAC
EFAD
EFAF
(SUCCESSFUL)
EFAA
(SUCCESSFUL)
EFAB
EFAE
ACTIVITY PLAY AREA
PLAYING FIELD
SOAKAWAY HAS BEEN RECENTLY ENLARGED
PLAYING FIELD LAND CLASSIFIED AS 'OTHER OPEN LAND OF TOWNSCAPE IMPORTANCE'
FAIRFAX RD
OUTDOOR POOL
PUMP ROOM
W
E
N
KEY:
NORTH POINT
SITE BOUNDARY
EXISTING BUILDING
EXISTING PLANT
CAR PARKING
HARD LANDSCAPE
GAMES COURT
SOFT LANDSCAPE
HABITAT / WOODLAND
WATERCOURSE
FLOODING / WATERLOGGED
NOISE
PEDESTRIAN ENTRANCE
VEHICLE ENTRANCE
TREE
SLOPE
PEDESTRIAN TRAFFIC
VEHICLE TRAFFIC
ADJACENT NEIGHBOURS
SUN PATH
SECURE FENCE LINE
CABLE
WATER MAIN
SEWER / DRAIN
GAS MAIN
CULVERT
PUBLIC RIGHT OF WAY
GEOLOGICAL FAULT LINE
PHOTO & NUMBER
LEGEND:
CHEMICAL STORE
ELECTRICITY INTAKE
PLANT ROOM
WASTE
LOCKED GATE RARELY USED
SEWER ROOM
CONSTRUCTION ACCESS FOR NEW BUILDING
WATER TOWER
SOAKAWAY
CONSERVATION AREA
POND
PHASING:
PHASE-1
BUILD NEW BLOCK
PHASE-2
CONTAIN ASBESTOS, DEMOLISH BLOCKS EFAA,EFAF,EFAD
PHASE-3
LANDSCAPE AREA
Rev Date Drawn Description Chkd Appr.
R1 14.07.15 K.R Final Issue J.A J.A
Mott MacDonald
Mott Macdonald House, 8-10 Sydenham Road, Croydon, Surrey, CR0 2EE, United Kingdom
Client
EDUCATION FUNDING AGENCY
Title
102903
COLLIS PRIMARY SCHOOL
SITE CONSTRAINTS AND PHASING PLAN
Dwg check Jeff Anderson Approved J. Anderson
Scale at A3 1:1200 Status FINAL Rev R1
Drawing Number
352972-102903-SK01