CANEPARO ASSOCIATES
Transport Planning & Highway Design

Dukes Education Group Ltd

Kneller Hall, Twickenham

Outline Framework Demolition, Construction Management and Logistics Plan

September 2022

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1 INTRODUCTION

1.1 This Outline Framework Demolition, Construction Management and Logistics Plan (herein referred to as 'CMLP') has been prepared by Caneparo Associates Limited on behalf of Dukes Education Group ('the Applicant') in support of an application for the proposed redevelopment of Kneller Hall, Twickenham ('the Site') within the London Borough of Richmond upon Thames (LBRuT).

1.2 The Site comprises the Grade II listed Kneller Hall, various ancillary buildings, open space, playing fields and services area, which was previously occupied by the Royal Military Music School for teaching with associated residential accommodation.

1.3 The description of development is as follows:

"*The demolition of existing modern buildings on the site and the conversion of Kneller Hall and other ancillary buildings associated with the Royal Military Music School to a day school (use Class F1), together with the construction of associated new purpose-built buildings including teaching space, indoor sports facilities and sporting pavilion, and other ancillary works including landscaping, access and energy centre.*"

1.4 The proposed development comprises the following core elements:

- Use of the main Grade II listed Kneller Hall for Education Use (Use Class F1);
- Use of Guard Room and Band Practice Hall for Education Use (Class F1);
- Demolition of existing modern buildings on the site and the conversion of other existing single storey modern buildings to use as an energy centre and for maintenance storage, ancillary to the main school use (Use Class F1);
- New build development to provide new purpose-built buildings for school use including, teaching space and classrooms, an indoor sports facility with a swimming pool and sporting pavilion (Use Class F1);
- Upgrading and enhancing the existing playing fields and outside sports pitches at the Site;
- Ancillary works to facilitate the use of the Site as a school to include high quality sports facilities and a Forest School programme; and

- Facilitation of managed local school and local community group access to the sports and forest school facilities.

Purpose of CMLP

1.5 This CMLP details the management of traffic during construction of the proposed development and has been submitted as part of the planning application. It seeks to provide a robust strategy that will minimise the potential for disruption to 'Community Considerations' such as local residents, businesses, members of the public and visitors to the development, as well as other users of the adjacent highway network.

1.6 It also seeks to minimise the environmental impact of the construction process on the locality and will provide best endeavours to be part of a coordinated and collaborative approach with surrounding developments. The Applicant will maintain a dialogue with LBRuT, adjacent sites and the local community if / when suitable.

1.7 This CMLP has been prepared in line with TfL's Construction Logistics Plan guidance (July 2017).

CMLP Structure

1.8 The remainder of the CMLP is structured as follows:

- Section 2 - details the existing situation in the context of construction vehicles;
- Section 3 - includes the construction programme and proposed methodology;
- Section 4 - presents the vehicular routes to and from the Site access;
- Section 5 - details the strategies and measures to be adopted;
- Section 6 - presents the vehicular types and anticipated level of movements;
- Section 7 - includes details of the monitoring and review process for the CMLP; and
- Section 8 - provides a summary.

2 SITE CONTEXT AND SURROUNDING AREA

Policy Context

National Planning Policy Framework (July 2021)

2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how these are expected to be applied. The document sets out long-term strategies for sustainable development which includes the management of traffic, including those associated with construction activity.

2.2 With regards to assessing the impact of development, paragraph 111 states:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

2.3 Paragraph 112 of the NPPF states that within this context, applications for development should: *"Allow for the efficient delivery of goods and access by service and emergency vehicles"*.

London Plan (March 2021)

2.4 The London Plan 2021 was formally adopted in March 2021. The policy relevant to this CMLP is Policy T7 'Deliveries, Servicing and Construction' which states at Point G & K that:

2.5 "*G - Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments."*

"K – During the construction phase of development, inclusive and safe access for people walking or cycling should be prioritised and maintained at all times."

Mayor's Transport Strategy (March 2018)

2.6 The Mayor's Transport Strategy states at Proposal 15 that:

"The Mayor, through TfL and the boroughs, will work with businesses and the freight and servicing industry to reduce the adverse impacts of freight and service vehicles on the street network. The Mayor aims to reduce the number of lorries and vans entering central London in the morning peak by 10 per cent by 2026."

London Borough of Richmond Local Plan

2.7 Policy LP 45 'Policy Standards and Servicing' states the following with regards to Freight and Servicing:

"*New major development which involves freight movements and has servicing needs will be required to demonstrate through the submission of a Delivery and Servicing Plan and Construction and Logistics Plan that it creates no severe impacts on the efficient and safe operation of the road network and no material harm to the living conditions of nearby residents."*

Healthy Streets Approach and Vision Zero

2.8 TfL has adopted the Healthy Streets Approach (2017) to improve air quality, reduce congestion and help people lead a more active and healthier lifestyle. The Healthy Streets Approach puts people and their health at the centre of planning and therefore, this CMLP has sought to align the key transport planning proposals towards people first. This has been done in conjunction with Vision Zero, as set out in the Mayor's Transport Strategy (2018), which aims to remove all deaths and serious injuries from London's transport network by 2041.

The Existing Site and Surrounding Area

2.9 The existing Site is comprised of Kneller Hall, a Grade II listed building which lies alongside a Guard Room and Band Practice Hall, as well as accommodation buildings, open space and playing fields, measuring 9.7ha in total. The existing Site was used as residential accommodation that served the Royal Military School of Music. It was used by regiments who came to stay at the Site for music training courses. The Site is also associated with rugby training connected to Twickenham Stadium.

2.10 Kneller Hall is accessed from Kneller Road via two priority junctions, one to the south and one to the west, with Kneller Road also routing along the southern boundary. The Site is bound to the north by Kneller Gardens and Amberside Close, predominantly residential streets as well as a tennis club, the Site is bound to the east by Duke of Cambridge Close, a private residential road, the Site is bound to the south by Kneller Road and is bound to the west by Kneller Road and Whitton Dene. A Site location plan is included in **Figure 2.1** below.

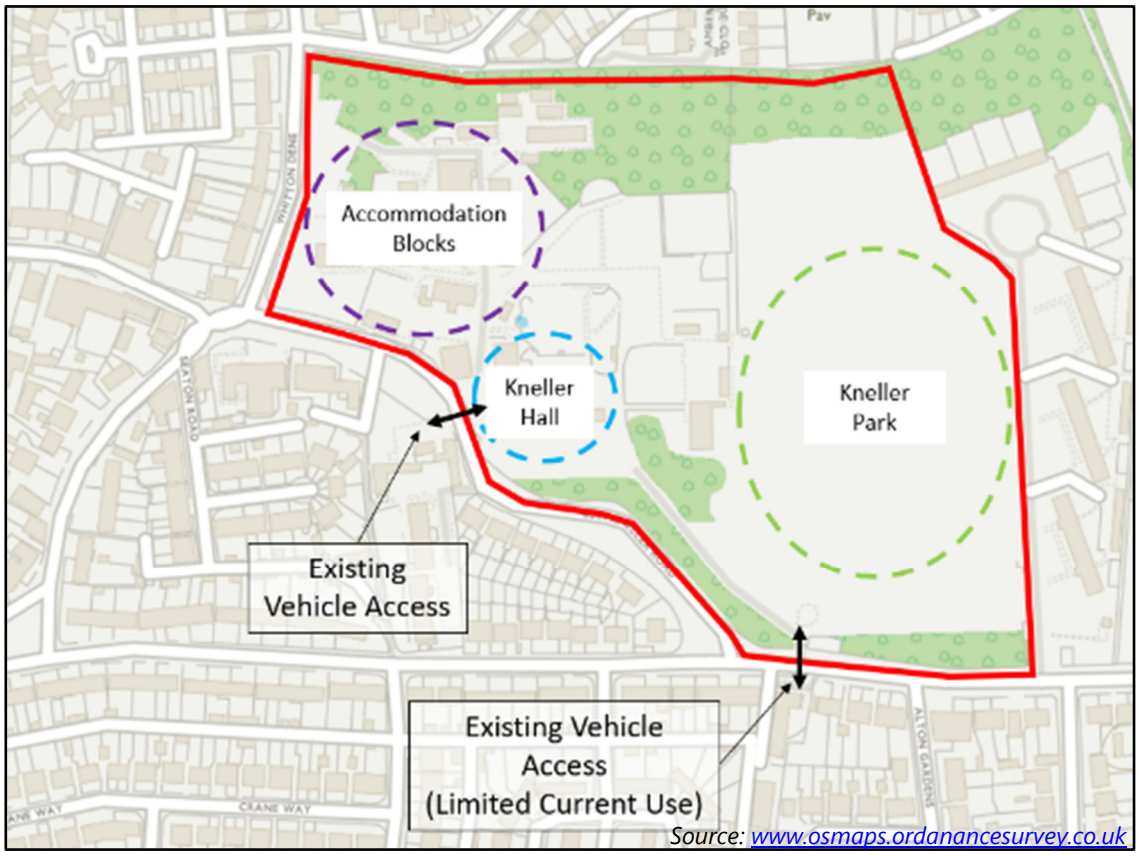


Figure 2.1: Site Location Plan

Local Highway Network

2.11 The existing Site is comprised of Kneller Hall, a Grade II listed building which lies alongside a Guard Room and Band Practice Hall, as well as accommodation buildings, open space and playing fields, measuring 9.7ha in total. The existing Site was used as teaching with associated residential accommodation that served the Royal Military School of Music. It was used by regiments who came to stay at the Site for music training courses. The Site is also associated with rugby training connected to Twickenham Stadium.

2.12 Warren Road (known as Kneller Road along the Site boundary to the south) is a two-way single carriageway road operating in an east to west orientation connecting to Whitton Road to the east and Nelson Road to the west. Warren Road also forms part of the B361 which provides access to the A316 to the south and the A314 to the north. Warren Road provides access into Kneller Road through a ghosted right-turn lane. In the vicinity, Warren Road measures circa 7.3m in width with cars able to park half-on / half-off the footway when driveways/vehicle crossovers are not present. Traffic is subject to a 20mph speed limit.

2.13 Operating to the northwest of the Site on the west and north boundaries of the Site respectively are Whitton Dene and Kneller Gardens. These roads are both primarily residential in nature, with kerbside controls and a mix of single yellow line and resident parking bays. The Site historically provided a vehicle access into the Site from Whitton Dene, now infilled but with dropped kerbs with tactile paving still present.

2.14 The A316 is a two-way dual carriageway operating in a broadly north-east to south-west orientation between the A4 to the north-east and to the M3 to the south-west. In the vicinity of the Site, the carriageway measures circa 19m in width, with a 2.5m central margin separating traffic. There are a mixture of signalised crossings, pedestrian footbridges and underpasses to allow pedestrians to cross safely. Traffic is subject to a 40mph speed limit.

Controlled Parking Zone

2.15 The Site is located within a Controlled Parking Zone ('CPZ') 'R' which is only in operation on days when an event is occurring at Twickenham Stadium. Therefore, for the majority of time, the parking bays are unrestricted.

Access to the Development by Non-car Modes

2.16 The Healthy Streets approach is set out as part of the Mayor's Transport Strategy (2018) and puts human health and experience at the centre of planning. The aims of the strategy are to encourage all Londoners to do at least 20 minutes of active travel each day by 2041. To this end, TfL has defined 20-minute walking and cycling distances as an Active Travel Zone (ATZ).

Access by Walking

2.17 The surrounding area benefits from excellent pedestrian footway links, well paved footways provided on all desire lines in the vicinity of the Site. A footway of circa 1.6m wide is provided on the northern side of Kneller Road along the western boundary of the Site, which provides a walking route towards the bus stops on Nelson Road and on the B361.

2.18 Dropped kerbs are in place at the majority of crossing locations with refuge islands also present providing opportunities to cross, which are suitable for children, disabled users and the visually impaired. The nearest signalised crossings on Kneller Road and High Street Whitton are also provided with rotating cones suitable for visually impaired users.

2.19 There is an extensive network of Public Rights of Way (PRoW) in the vicinity of the Site, with the location and reference included in **Figure 2.2**.

Source: gisrichmond.gov.uk

Figure 2.2: Map of Public Rights of Way (LBRuT)

2.20 **Table 2.1** below summarises local amenities available for future users of the proposed development. This summarises the location of each amenity and provides approximate walking distances (measured from the southern Site access on Kneller Road), as well as approximate walking times, assuming an average walking speed of 80 metres per minute.

Table 2.1: Approximate Distances to local amenities			
Amenity	**Location**	**Distance (metres)**	**Approximate Walking Time (minutes)**
Public Transport Opportunities			
'Kneller Hall' Bus Stop A		50	<1
'Kneller Hall' Bus Stop Q		120	1
'Warren Road' Bus Stop V		250	3
'Warren Road' Bus Stop T		290	4
Whitton Rail Station		1,100	14
Hounslow Rail Station		1,600	20
Twickenham Rail Station		1,600	20
Facilities and Amenities			
Duke of Cambridge Pub	Kneller Road	50	1
Alton Convenience Store	Kneller Road	250	3
Chase Bridge Primary School	Kneller Road	350	4
Murray Park	Kneller Road	500	6
Minal Pharmacy	High Street Whitton	700	9
Caribbean Restaurant	Hounslow Road	750	10
Lidl Supermarket	High Street Whitton	750	10
Starbucks	High Street Whitton	800	10
Murray Park Community Hall	Murray Park	850	11
Sainsbury's Bank ATM	High Street Whitton	850	11
Post Office	High Street Whitton	850	11
Londis	Whitton Road	1,200	15
Maswell Park Health Centre	Hounslow Avenue	1,300	16
Anytime Fitness	London Road	1,600	21

2.21 The above table highlights that several local amenities and services, including several public transport nodes, are available within walking distance of the Site.

Access by Bicycle

2.22 As defined by TfL within the Healthy Streets guidance, a 20-minute cycle from the Site represents a suitable distance for staff / visitors to travel to / from the Site by bicycle. Therefore, there is scope for the uptake of this sustainable mode by users of the Site.

2.23 **Figure 2.3** shows a 20-minute cycle isochrone around the Site including areas such as Hampton, Teddington, Richmond, Osterley and Lampton.

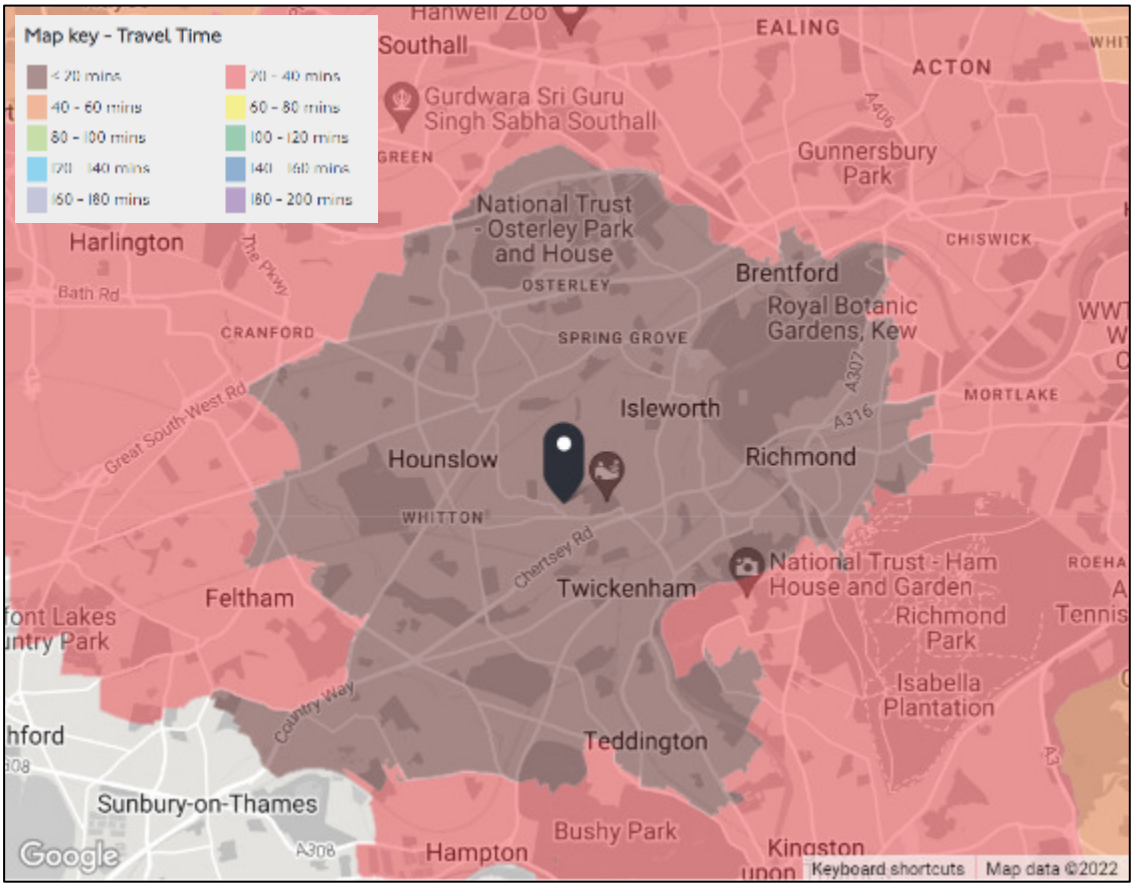


Figure 2.3: 20-minute Cycle Isochrone *Source: TfL*

2.24 Despite the lack of dedicated on-road cycle lanes in the vicinity of the Site, Richmond upon Thames Cycle Network Map (RuTCNP) highlights roads that are suitable for cycling on-road, as well as off-road routes.

2.25 Nelson Road and Whitton Dene are classified as '*main road cycle routes*' within the RuRCNP, with Chertsey Road being classified as '*off-road and quiet cycle routes suitable for family groups*'. An extract has been provided in **Figure 2.4** below.

2.26 National Cycle Network Route 4 is located approximately 4.8km (19-minute cycle) to the southeast of the Site on the eastern side of the River Thames. This provides a route between London and Fishguard via Reading.

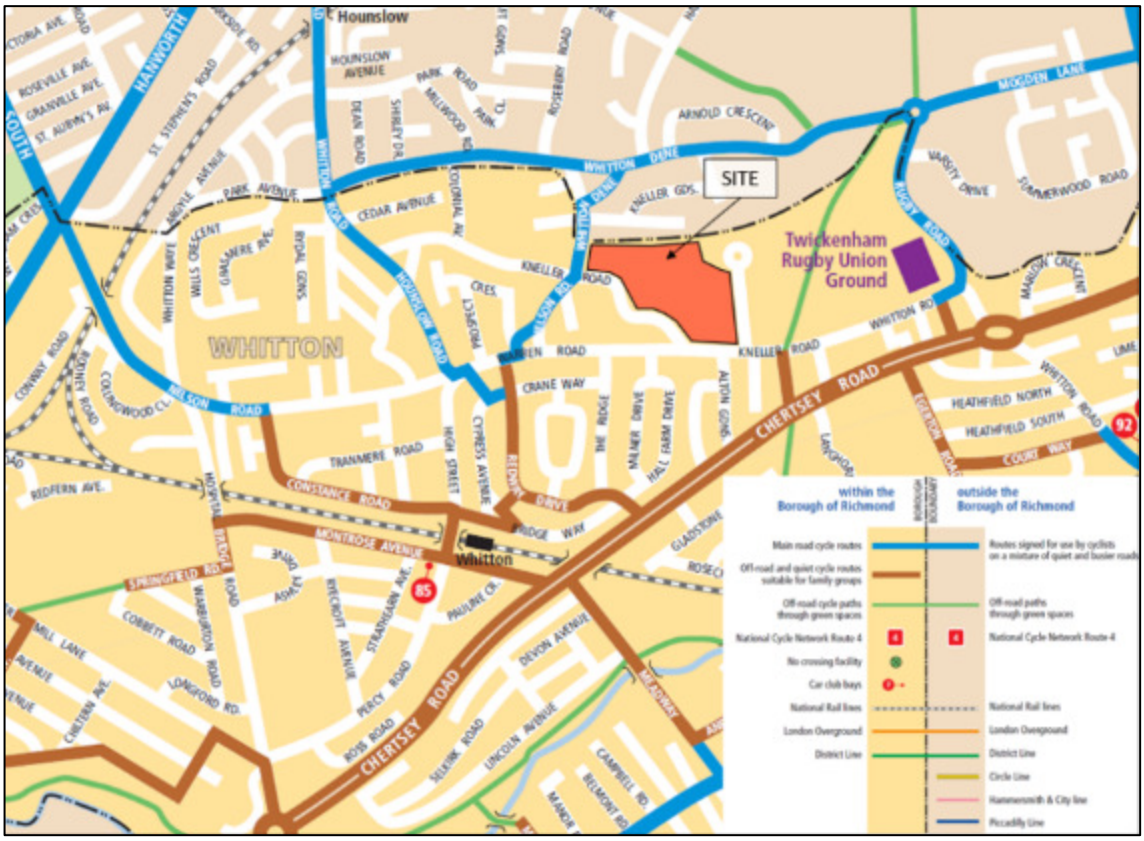


Figure 2.4: Richmond upon Thames Cycle Network Map *Source: www.richmondlcc.co.uk*

2.27 A Brompton Bike Hire Station is provided approximately 125m to the south of Twickenham Station, where folding Brompton Bikes can be hired for 24 hours for £5 a day.

2.28 There are a number of dockless cycle hire companies across London, which provide a growing offer of cycle hire opportunities, and may allow people to cycle to / from the Site without needing to own a bike.

Accessibility by Public Transport

Public Transport Accessibility Level (PTAL)

2.29 Public Transport Accessibility Levels (PTALs) are a theoretical measure of the accessibility of a given point to the public transport network, taking into account walking time and service availability. The method is essentially a way of measuring the density of the public transport network at a particular point.

2.30 The PTAL is categorised in six levels, 1 to 6 where 6 represents a high level of accessibility and 1 a low level of accessibility. The PTAL levels 1 and 6 are further subdivided into 'a' and 'b' levels, with level 'a' indicating the location is rated towards the lower end of the PTAL category and 'b' towards the higher end.

2.31 The Site achieves a PTAL rating of between 1b and 2, which suggests there is a 'poor' level of access to public transport facilities surrounding the Site.

Bus Services

2.32 Several bus stops are located within a short walking distance of the Site, including the nearest stop located on Kneller Road ('Kneller Hall' Stop A & Q) and Warren Road ('Warren Road' Stop V & T) near the Site.

2.33 **Table 2.2** provides a summary of frequencies and routes of bus services available within the vicinity of the Site.

Table 2.2: Bus Services and Frequencies

Bus No.	Route	Frequency (Every 'x' Minutes)		
		Weekday	Saturday	Sunday
110	School Road – Hammersmith Bus Station	14 – 15	14 – 15	20
281	Hounslow Bus Station – Tolworth Tower	8 – 12	9 – 12	10 – 13
481	Cromwell Rd Bus Station – West Middlesex Hospital	30	30	60
H22	Hounslow High Street – West Middlesex Hospital	10 – 14	11 – 13	19 – 20

Rail Services

2.34 Whitton Rail Station is located approximately 1.1km from the Site (14 minutes' walk) which provides access to services operated by South Western Railway towards London Waterloo and Windsor & Eton Riverside. Two services operate in each direction each hour (off-peak).

2.35 In terms of station facilities, Whitton provides step-free access to all platforms. A total of 32 cycle parking spaces are also available at the booking hall entrance.

2.36 Twickenham Rail Station is located circa 1.6km from the Site (20 minutes' walk). The station is the following / preceding stop after Whitton for services towards London Waterloo and Windsor & Eton Riverside. Other South Western Railway services also operate to / from Twickenham, with 8 services towards London Waterloo and 2 services to Reading in addition to the aforementioned 2 services per hour towards Windsor & Eton Riverside (off-peak).

2.37 In terms of station facilities, Twickenham has step-free access to all platforms, with 78 cycle parking spaces also provided.

2.38 Hounslow Rail Station is also located approximately 1.6km from the Site (20 minutes' walk). The station is also served by South Western Railway trains on a different branch to the other aforementioned nearby stations. Services towards London Waterloo (via Chiswick) operate from the station every 30 mins, with services towards Weybridge also operating every 30 mins (off-peak). Cycle parking facilities are provided at the station, with 40 storage spaces available.

Community Considerations

2.39 Construction vehicles will use Nelson Road, Kneller Road and Whitton Dene to access / egress the Site, with vehicles expected to utilise strategic roads beyond this including the A316 Chertsey Way. Consideration will be taken in regard to the impact on pedestrians, cyclists and other vulnerable road users, utilising these roads as well as local residents.

2.40 Consideration will also be taken for the movement of larger vehicles servicing the development.

Schools and Community Spaces

2.41 There are a number of schools in close proximity to the development site. The nearest school to the Site is Chase Bridge Primary School, located approximately 350m to the east of the Site. All drivers will be made aware of the potential for school children on local footways during school start and finish times and construction vehicle activity will be avoided during school start and finish times, where possible.

Public Relations

2.42 A member of the project management team will be elected as a Community Liaison Officer whose contact details will be made available on the Site hoarding including a 24-hour emergency number. Their role and responsibilities will be inclusive of being the primary point of contact for the local community and answering queries and questions where necessary.

3 CONSTRUCTION PROGRAMME AND METHODOLOGY

3.1 A detailed construction programme will be submitted to the Council as part of the final CMLP prior to commencement of works.

Construction Phasing

3.2 Construction is expected to be phased with each phase delivering a different element of the development. It is anticipated that phase 1, which will primarily comprise the refurbishment of Kneller Hall, will take approximately 12-18 months, from receipt of planning permission. This is subject to the receipt of planning permission and associated discharge of planning conditions and obligations prior to commencement of development.

3.3 The construction works at the Site will be split into a variety of phases based on the element of the Site to be developed at any one time. The various phases of construction are set out in the following paragraphs. The development is envisioned to be delivered in two phases: September 2023 and April 2024, with the later phase comprising the delivery of new buildings to support the school.

3.4 The school is expected to open once the Phase 1 works are implemented, through the implementation of temporary teaching buildings and utilising the refurbished Kneller Hall building. Subsequent development will therefore take place whilst the school is operational.

Site Establishment, Demolition and Enabling Works

3.5 The initial phase will comprise asbestos removal and infrastructure works before undertaking the refurbishment of the listed buildings on-Site, the new build of the teaching block and sports pavilion. The second phase of construction will include the demolition of the existing accommodation blocks (re-purposed for temporary teaching accommodation) and construction of the sports centre.

3.6 Access into the Site during the enabling works will be provided via the entrance on Whitton Dene to the west of the Site, which will be re-opened for use by construction vehicles, as well as from Kneller Road to the south and west at the existing accesses. Pedestrian access for staff will be provided into the west access on Kneller Road.

Listed Building Refurbishment

3.7 Kneller Hall, Guard House and Band Practice Hall will all be refurbished as part of the construction works. Kneller Hall will undergo a sectional completion, with the main hall to be completed initially and the west wing to be completed thereafter. Access for vehicles during this phase will be provided primarily via Kneller Road south access, with secondary access also provided at the west access on Kneller Road.

Teaching Block Development

3.8 To facilitate the development of the new teaching block, access for vehicles will be provided via the Whitton Dene entrance into the Site, with smaller construction vehicles utilised owing to the constraints of the highway of Whitton Dene. In the event larger construction vehicles are required, these will make use of the south access from Kneller Road, outside of school or community use periods.

Pavilion, MUGA, Playing Fields

3.9 The detailed design and development of the sports pitches will be undertaken whilst the grass transplant, level of surface and scope of the playing fields are agreed through planning. All delivery vehicles will be received at the Kneller Road access to the south of the Site.

Proposed Site Arrangement

3.10 During the various construction phases, 3 vehicle access arrangements will be in place to facilitate the delivery and unloading of specialised goods into the Site.

3.11 A primary access will be provided via Kneller Road from the south, which will be used primary for construction vehicles for the listed buildings refurbishment and the construction of the playing fields.

3.12 The secondary access from Whitton Dene will also be re-opened to facilitate construction vehicle access for the initial enabling works and the sports hall / teaching block construction and refurbishments.

3.13 A third access will be provided from Kneller Road to the west, which will be used during the listed buildings refurbishment, although the Kneller Road south access will continue to be primarily for construction vehicles.

3.14 Included at **Appendix A** is swept path analysis which sets out the largest vehicles which are anticipated to use each of the above accesses. These comprise a 12-wheel articulated lorry and crane lorry accessing the Site from the south access from Kneller Road, a medium tipper accessing the Site from Kneller Road to the west and a small tipper and 7.5t panel van accessing the Site from the Whitton Dene access.

3.15 Traffic marshals will be employed in order to control vehicles on their approach and whilst accessing and egressing from the Site. Deliveries and vehicle movements will be planned with due cognisance taken of the adjacent areas.

3.16 All construction vehicle activity associated with the demolition and construction works will be accommodated on-site and will not require any on-street staging points for arriving vehicles.

3.17 Pedestrian Site access and egress for the workforce will be provided via Kneller Road using an access-controlled turnstile. Segregation of pedestrians and vehicles will always be maintained. This will be achieved by the erection of physical barriers.

3.18 The Site will be fully secured with hoarding to any exposed boundaries. The hoarding will be provided in line with all LBRuT regulations with a noticeboard placed in prominent visible positions on Kneller Road and Whitton Dene.

3.19 Fully equipped offices and welfare facilities for staff and operatives will be provided within the existing buildings on-site. All plant, material and equipment will be stored on-site and not on the public highway.

3.20 On-site parking will be provided for staff or visitors to the Site within the existing hard-standing, where travel to the Site by vehicle is necessary. All other members of staff will be encouraged to travel via the public transport services which are available within reasonable walking distance.

Traffic Hours

3.21 It is proposed that the core operational hours for work traffic will be as follows:

- Weekdays: 08:00 – 18:00.
- Saturday: 08:00 – 13:00.
- Sunday & bank holidays: no vehicle activity.

3.22 The above hours align with guidance on construction working hours provided on LBRuT website.

3.23 School start and finish times will be avoided where possible during construction, to reduce the potential for conflict between pedestrians and cyclists and construction vehicles.

3.24 There may be a requirement for vehicles to arrive and depart outside of usual traffic hours to allow specialist activities to be undertaken; or to deliver bulky machinery / materials before busy traffic periods. The Council will be provided with prior notification in regard to any special dispensation for out-of-hours vehicle activity.

3.25 There will be no working on Sundays and bank holidays unless there is a requirement for emergency works and abnormal deliveries. The Council will be provided with prior notification.

3.26 The Site will be provided with 24-hour security to prevent any unauthorised access outside of hours.

Vehicle Types

3.27 Various types of vehicles will be used to bring materials to and from the Site. It is anticipated that the following vehicles will be utilised during the construction phase:

- Small tipper/flatbed Lorry;
- 4-wheel tipper lorry / muck away Lorry;
- 6-wheel tipper lorry / muck away Lorry;
- 8-wheel tipper lorry / muck away Lorry;
- 10 and 12-wheel articulated lorries;
- Concrete pump vehicles; and,
- Cranes.

4 SITE ACCESS AND VEHICULAR ROUTING

Site Access

4.1 The Site will be fully hoarded on all boundaries. Entrance gates will be provided at the existing vehicle access from Kneller Road, separately for vehicles and pedestrians, with two further vehicle entrance gates provided on Whitton Dene at the re-opened access and the other existing access on Kneller Road at the southern boundary.

Proposed Vehicular Route

4.2 Vehicles arriving to the Site from all directions will make use of the B361 Kneller Road / Warren Road / Nelson Road / Whitton Road to the south of the Site as the primary route locally. This road connects to local A roads including the A316 and A310 accessible to the east and the A314, A3063 and A315 to the west.

4.3 In the vicinity of the Site, vehicles arriving along the B361 Nelson Road to the west of the Site will follow Nelson Road, before either turning north to join Whitton Dene to access the Site or continuing straight onto Kneller Road to enter the Site from the access on that route. Vehicles can also continue on the B361 to enter the Site via the southern access.

4.4 Vehicles arriving from the east via the B361 Whitton Road / Kneller Road will either enter via the southern access or will continue to travel north along Kneller Road to access the Site or turn northbound to join Whitton Dene to access the Site.

4.5 The proposed vehicle routes are considered to be the most appropriate and suitable for larger vehicles and seek to minimise disruption to local road users. All vehicle arrivals and departures will be managed by Banksmen and Road Marshalls to ensure appropriate safety and traffic management measures are adhered to. **Figure 4.1** below shows the anticipated vehicle routing.

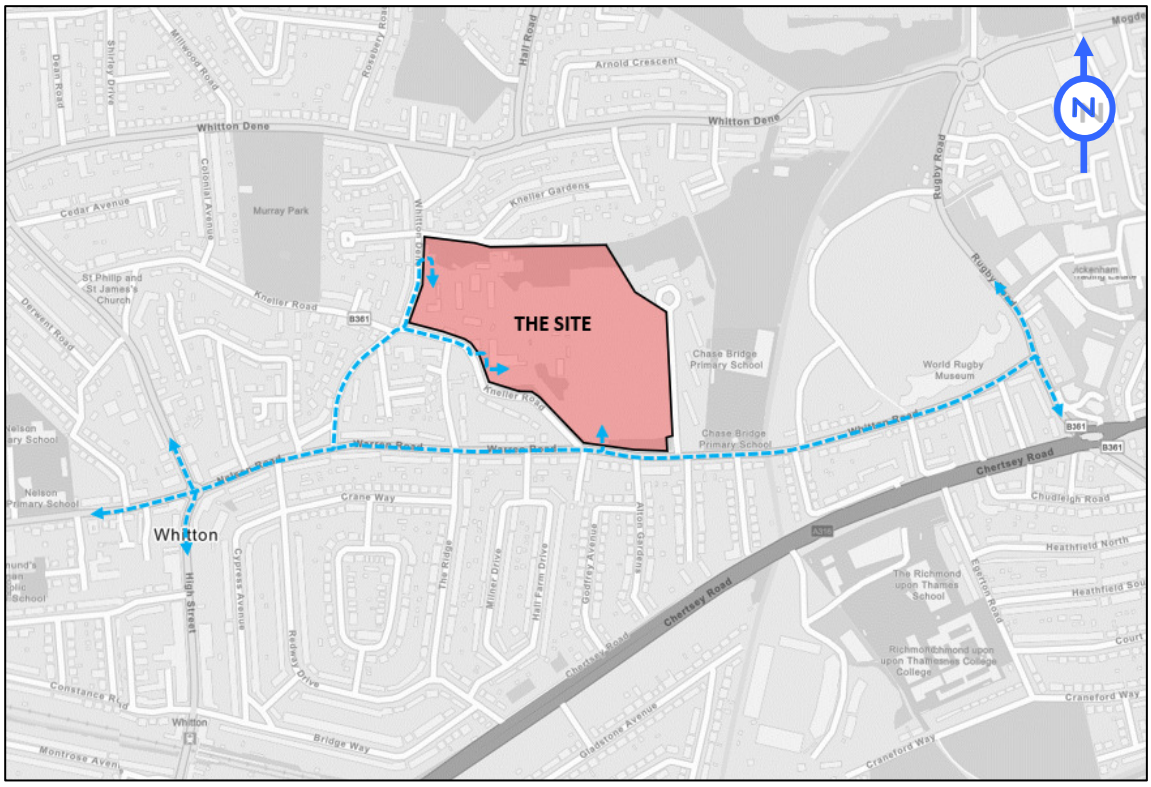


Figure 4.1: Anticipated Construction Vehicle Routing

Parking and Loading Management

4.6 Vehicle arrival timings will be managed by project management and staggered to reduce unnecessary congestion within the Site and the surrounding area. Where possible, all vehicles will arrive and depart the Site in forward gear using the one-way traffic management system which is proposed within the Site boundary.

4.7 If it is necessary in special circumstances for a vehicle or vehicles to reverse into or out of the Site (by virtue of its size) site personnel will liaise with the Council in order to discuss / agree the most appropriate time for such manoeuvres to be undertaken.

4.8 Availability of storage for materials will be limited and all deliveries will be on a 'just in time' basis.

4.9 Traffic marshals / banksmen shall be employed throughout the contract to ensure that no conflict occurs between local road users and construction vehicles. The surrounding highway will be kept open for normal traffic to ensure satisfactory access and movement for existing occupiers of neighbouring properties during the proposed works. Coordination will also be carried out with surrounding developments when necessary, to minimise potential disruption.

5 STRATEGIES TO REDUCE IMPACTS

Overview

5.1 **Table 5.1** below sets out the committed, proposed and considered checklist replicated from the TfL Construction Logistics Plan guidance (July 2017).

Table 5.1: High Impact Site Planned Measures Checklist			
	Committed	**Proposed**	**Considered**
Measures Influencing Construction Vehicles and Deliveries			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out of peak deliveries		X	
Re-timing for out of hours deliveries		X	
Use of holding areas and vehicle call off areas		X	
Use of logistics and consolidation centres		X	
Measures to Encourage Sustainable Freight			
Freight by Water			n/a
Freight by Rail			n/a
Material Procurement Measures			
DfMA and off-site manufacture		X	
Re-use of materials on site			X
Smart procurement		X	
Other Measures			
Collaboration amongst other sites in the area	X		
Implement a staff travel plan	X		

Preconstruction Manager

5.2 The Main Contractor for the Site is not yet appointed. A final contractor will be appointed prior to any demolition / construction works and the Main Contractor details will be provided within the Final CMLP below as follows:

Name:

Company:

Address:

Telephone:

Email:

Project Manager

5.3 The contact details for the Project Manager (Main Contractor), once appointed, will be displayed at the Site and published on any temporary licenses granted by the Council (such as for hoarding or scaffolding).

5.4 The Project Manager will liaise with local stakeholders when and where it is relevant to do so. The Project Manager will also be responsible for monitoring and reviewing this CMLP on an ongoing basis to reflect the changing needs of the project and / or any changes to the local road network.

5.5 The appointed Project Manager will act as a point of contact between local stakeholders / businesses so that in the event of issues / concerns arising during the construction process, action can be taken without delay. The Project Manager will liaise with the project managers for any other sites where work is carried out concurrently, such that matters can be coordinated where required.

5.6 Information boards will be displayed at the Site highlighting the key personnel on-site including their contact details. A 24-hour emergency contact number will also be provided.

5.7 A neighbourly meeting will occur prior to commencing on-site (if necessary/appropriate) and will occur throughout the construction process. Newsletters will also be produced and circulated by the Project Manager.

5.8 Local neighbours will be able to call the site office to raise any concerns and the Project Manager will personally deal with any comments or complaints to ensure that they are resolved quickly. A record will be kept of any / all comments and complaints received.

Measures Influencing Vehicles and Deliveries

Safety and environmental standards and programmes

5.9 The construction project will be registered with the Considerate Constructors Scheme in order to minimise any negative impact that the proposed works may have on the local area.

5.10 It will be a requirement for Contractors to be registered with the Fleet Operator Recognition Scheme (FORS) and to ensure all subcontractors are also registered. FORS will be a mandatory requirement where applicable (except for vehicle types and sizes that are not subject to the FORS standard) and recognise that FORS:

- Creates safer drivers – with significantly reduced occurrence of accidents;
- Will encourage suppliers to improve fuel economy associated with the project;
- Provides a system to identify 'at risk' drivers, allowing the project team and suppliers to target training and incentives effectively;
- Improves certainty of deliveries and collections; and
- Promotes a reduction in journeys to and from the Site.

5.11 A collision reporting system will be mandated to ensure all collisions and accidents involving the projects' vehicle and drivers are reported to the Project Manager and any relevant parties. In order to effectively undertake this, the 'FORS Manager' reporting tool will be utilised.

5.12 It is a requirement for all contractors to be signatories of the Construction Logistics and Community Safety (CLOCS) initiative. Operating to the CLOCS standard will ensure that transport and logistics are managed to the highest industry standard.

5.13 Banksmen and Traffic Marshalls will be on-site at all times throughout the proposed works to ensure appropriate safety and traffic management measures are adhered to.

Pedestrian and Cyclist Safety

5.14 Works traffic can pose a potential risk to pedestrian and cyclist safety when not managed effectively. Vulnerable road users' safety will be paramount throughout the proposed works period. The use of Banksmen and Traffic Marshalls during all periods of operation at the Site will assist pedestrian and cyclist safety, particularly when vehicles are manoeuvring to and from the Site on each of the surrounding roads.

5.15 A hoarding will be installed to all exposed boundaries at the Site. The hoarding will screen off any works or activities and protect passers-by as well as reduce dust and noise emissions.

5.16 In addition, the hoarding will contain lighting illumination, so it is easily seen at night by traffic and pedestrians using the surrounding roads. The hoarding will be secured each evening by the contractor's project team.

Adherence to Dedicated Routes

5.17 Details of routes to be used for journeys to and from Site for road operations are provided in Section 4. The routes to / from the Local and Strategic Road Network are specified. These access routes have been reviewed with respect to potential impacts, conflicts and hazards.

5.18 A routing plan will be given to all suppliers when orders are placed to ensure drivers are fully briefed on the required route to take. The supplier will be made aware that these routes are required to be followed at all times unless agreed or alternate diversions are in place.

5.19 Vehicle arrivals / departures will be programmed to reduce the potential for unnecessary delay and congestion at the Site.

5.20 The scheduling of materials, deliveries and waste collection will be managed in order to ensure simultaneous vehicle arrivals are prevented. Suppliers will be given instructions asking the vehicle driver to call ahead to ensure that the Site is ready to receive a vehicle. In addition, verbal briefings of the access route will be provided to all suppliers, contractors and visitors prior to them undertaking a journey.

5.21 Re-timing out of peak times will aid the operational efficiency of the Site and also the neighbouring area. The developer commits to attempting to re-time as many deliveries as reasonably possible out of the morning peak period (07:00-10:00).

5.22 In the event that an unauthorised delivery arrives at Site, the vehicle will be accommodated if there are no scheduled vehicles within the next available timeslot. Persistent unauthorised deliveries will be dealt with via a 3-strike policy whereby their contract to deliver to the Site will be reviewed.

Measures to Encourage Sustainable Freight

5.23 It is not possible to undertake deliveries by rail or water for this project due to the distance between the Site and the nearby rail lines and waterways.

Material Procurement Measures

5.24 Where possible, segregation of recyclable and non-recyclable material will be employed for all waste generated throughout the works proposed.

5.25 Where suitable, waste materials will be deposited into containers held on-site. Alternatively, waste will be transferred directly to a 'wait and load' skip and segregated off-site. All Site waste will be collected by a licensed waste carrier and will be taken to a registered waste transfer station for sorting and recycling or re-use.

5.26 Waste Management will be monitored and recorded as part of the Site's 'Smart Waste' obligations.

5.27 A Site Waste Management Plan (SWMP) will be implemented if deemed necessary / appropriate to detail the disposal and management procedures relevant to the proposed works. If implemented, the SWMP will seek to minimise and reduce waste production.

5.28 Consideration will be given to the opportunities to employ off-site manufacturing processes upon appointment of a contractor.

5.29 Consideration will be given to the employment of smart procurement measures such as last mile logistics solutions and sourcing local suppliers. This will also be explored following the appointment of a contractor.

Construction Staff Travel Plan

5.30 Implementation of a Construction Staff Travel Plan will be reviewed by the LPA and updated within the later iterations of this CMLP. A Construction Staff Travel Plan provides a suite of measures to discourage the use of private vehicles by encouraging the use of public transport and active modes of travel (walking and cycling).

5.31 Limited staff car parking will be provided on-site where required for the transportation of required materials and equipment. However, parking on-site will not be promoted and will be prevented wherever possible throughout the programme of works, with the majority of operatives generally encouraged to travel using public transport modes or walking and cycling.

Public Highway

5.32 At no time will material or plant be stored on the public highway at any point when on-site.

5.33 The Contractor will undertake a condition survey of the public highway in the immediate vicinity of the Site prior to work commencement. This survey will be used to monitor the condition of the public highway throughout the programme of works and be used to identify any issues which need to be rectified at the completion of the works.

5.34 The Project Manager will make contact with the relevant utility companies in order to co-ordinate any scheduled work.

Road Closure

5.35 In the event that a road closure is required, such as the need for crane lifts into the Site during the second phase, if necessary, appropriate consent and licenses will be obtained. Any road closures will be planned in advance, in accordance with the relevant authorities and in compliance with prescribed notice periods.

5.36 All appropriate consent and licenses will be obtained for on-street construction deliveries.

5.37 Notice regarding planned closures and diversions of roads and footpaths forming part of, or adjacent to, the site will be given to the Council, the Police, Fire Brigade, other emergency services and bus operators as appropriate.

Control of Dirt and Dust

5.38 The objective in regard to the control of dirt and dust is to ensure footways and carriageways adjacent to the Site are kept clean at all times. Further details of the dust mitigation measures during the construction phase are set out in Section 7 of the submitted Air Quality Assessment prepared by RPS (September 2022) that has been submitted as part of the planning application.

5.39 The following measures will be implemented where necessary:

- All removal of demolition spoil and soil will be sheeted over before leaving the Site to limit dust particulates.
- The Project Manager will ensure that the perimeter of the Site is patrolled at least once per day to ensure that the footway is kept clear of any works debris.

- Road sweeping will be employed to clean the Site hardstanding and any mud or debris deposited on roads or footpaths in the vicinity of the Site.
- Sufficient bins and waste facilities will be provided on-site.
- A litter picking facility will be provided for un-attributable materials.
- Continuous fine water spray facilities will be provided to minimise the formation and spread of dust.
- Banksmen will be charged with the responsibility of checking the cleanliness of vehicles leaving the site.

Noise

5.40 Noise and vibration caused by Site activities will be controlled as far as is reasonably practicable so that surrounding receptors are protected from excessive levels arising from the proposed works.

5.41 All hand operated tools and equipment shall be effectively silenced and will bear the manufacturer's guaranteed maximum sound level generated. The recommendations made in BS 5228-1: 2009 "Code of Practice for Noise and Vibration control on Construction and Open sites" will be adopted by subcontractors.

5.42 The Contractor will work under the guidelines set out in the legislation below.

- Public Health Act 1961
- Health & Safety at Work act 1974
- Control of Pollution Act 1974
- Environmental Protection Act 1990
- The Noise at Work regulations 2005
- British Standard 5228

5.43 The Contractor will aim to keep noise levels to a minimum. This will be carried out by:

- Ensuring all plant is fitted with the correct and working exhaust mufflers and noise suppression kits.
- Changing where possible methods and processes to keep noise levels low.

- Plant will be positioned as far away from residential property as physically possible.
- Limit the hours worked on noisy operations.

6 ESTIMATED VEHICULAR MOVEMENTS

6.1 A breakdown of average expected vehicle movements and anticipated dwell times during each phase of construction will be provided within the Final CMLP and once a contractor has been appointed.

6.2 The final construction vehicle movements will be determined based on the final contractor implemented, with the approach seeking to implement construction methods which utilise limited vehicle movements through pod construction approaches to elements of the developments' construction. As such, until a final contractor is appointed, the number, size and frequency of these deliveries is yet to be determined.

7 IMPLEMENTING, MONITORING AND UPDATING

7.1 An appointed Construction Logistics Manager will be in charge of implementing the plan, and the direction of the Project Manager. This role may be a part-time role undertaken by the Main Contractor. It is recognised that the CMLP is a 'live' document and as such will be subject to constant review and monitoring in order to react to any changes during its implementation.

7.2 The Construction Logistics Manager will monitor and record information on the following:

Number of Vehicle Movements to the Site

- Total;
- By vehicle type / size;
- Time spent on-site; and,
- Delivery / collection accuracy compared to schedule.

Breaches and Complaints

- Community concerns about construction activities;
- Unconformity to vehicle routing requirements;
- Unacceptable queuing;
- Unacceptable parking; and
- Breaches in compliance with safety and environmental standards and programmes.

Safety

- Record of any injuries; and
- Vehicles and operators not meeting safety requirements.

7.3 The safety record and any other information will be recorded by a member of staff, as well as through the delivery booking and tracking system to be implemented.

7.4 A Contractor Handbook and Driver Handbook will be produced as part of the CMLP in order to distribute information relating to site operations.

7.5 The core information to be provided in each handbook is summarised below:

Contractors Handbook

- Safety procedures;
- Anti-idling procedures;
- Vehicle routing and delivery scheduling; and
- Driver training.

Drivers Handbook

- Authorised routes to and from the Site;
- Site opening times;
- Booking and scheduling information;
- Designated loading area specifications and terms of use;
- Anti-Idling; and
- Vulnerable road user safety.

8 SUMMARY

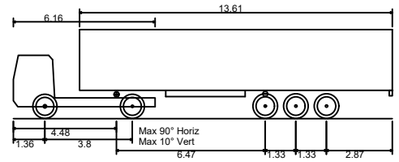
8.1 The CMLP provides all details required for the successful management of construction vehicles to and from the Site. The CMLP is a live document and will be updated into the final version with details of vehicle numbers and precise information on vehicle sizes and frequencies, as well as during construction if any changes are required throughout the proposed programme of works.

Appendix A

NOTES

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only.

FTA DESIGN ARTICULATED VEHICLE (1998)



Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	6.550m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:

- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - 16.5m Articulated Lorry

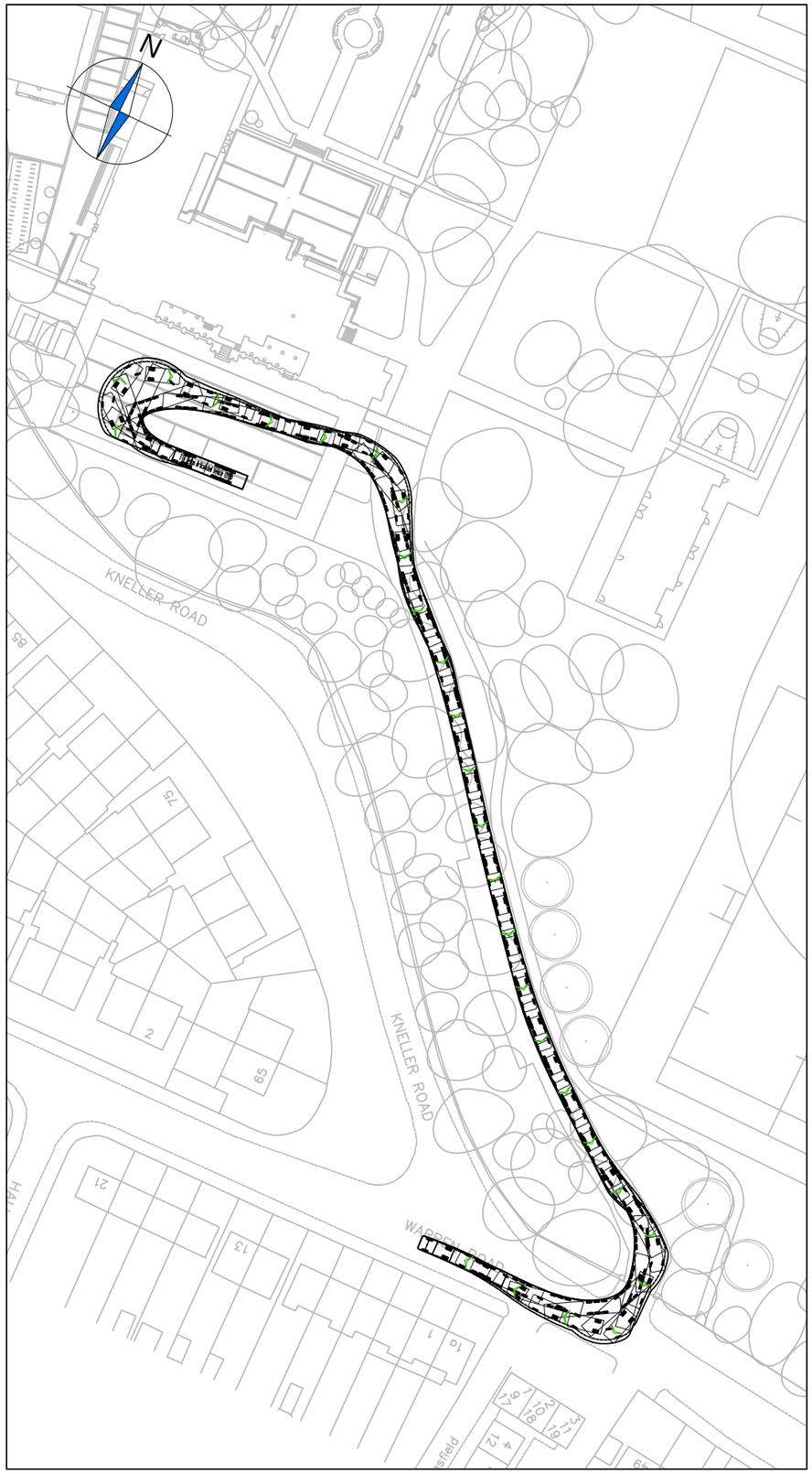
Scale:	Size:
1:1000	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

CANEPARO ASSOCIATES
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	1 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG



NOTES

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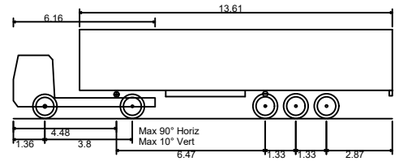
FTA DESIGN ARTICULATED VEHICLE (1998)



Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to Lock Time	3.00s
Kerb to Kerb Turning Radius	6.550m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	REVISION HISTORY	Drawn	Checked	Date

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - 16.5m Articulated Lorry

Scale:	Size:
1:1000	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

CANEPARO ASSOCIATES
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21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	2 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG

NOTES

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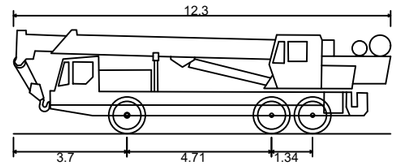
LARGE MOBILE CRANE



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

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	REVISION HISTORY	Drawn	Checked	Date

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - Large Mobile Crane

Scale:	Size:
1:1000	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

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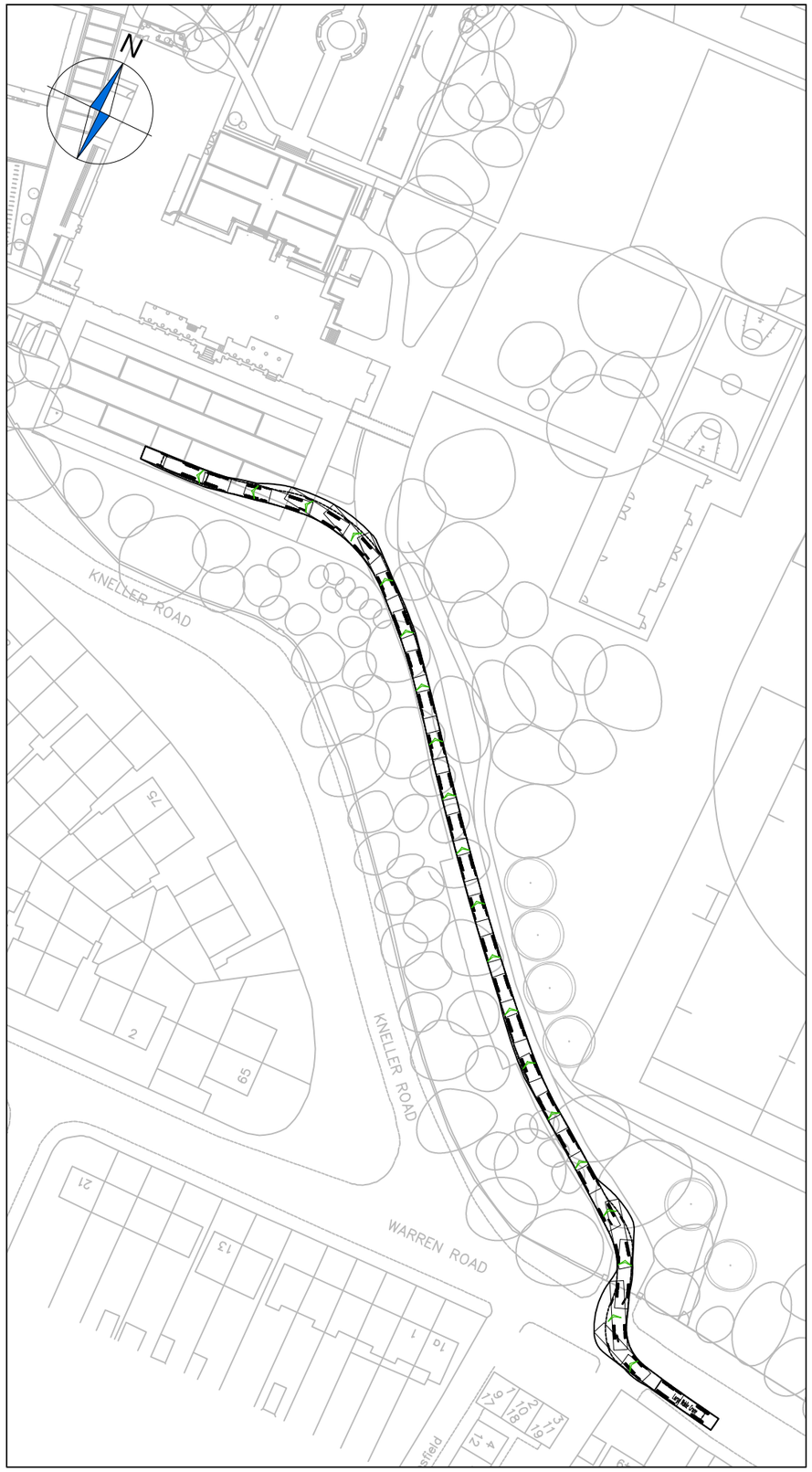
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	3 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG



NOTES

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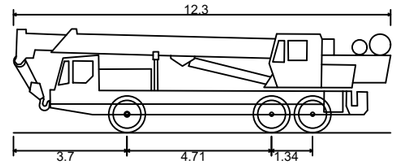
LARGE MOBILE CRANE



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

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

REVISION HISTORY

Rev	Details	Drawn	Checked	Date

Status:
- ☐ Preliminary
- ☐ For Approval
- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - Large Mobile Crane

Scale:	Size:	Drawn by:	Checked by:	Date:
1:1000	A3	JS	DB	23.09.2022

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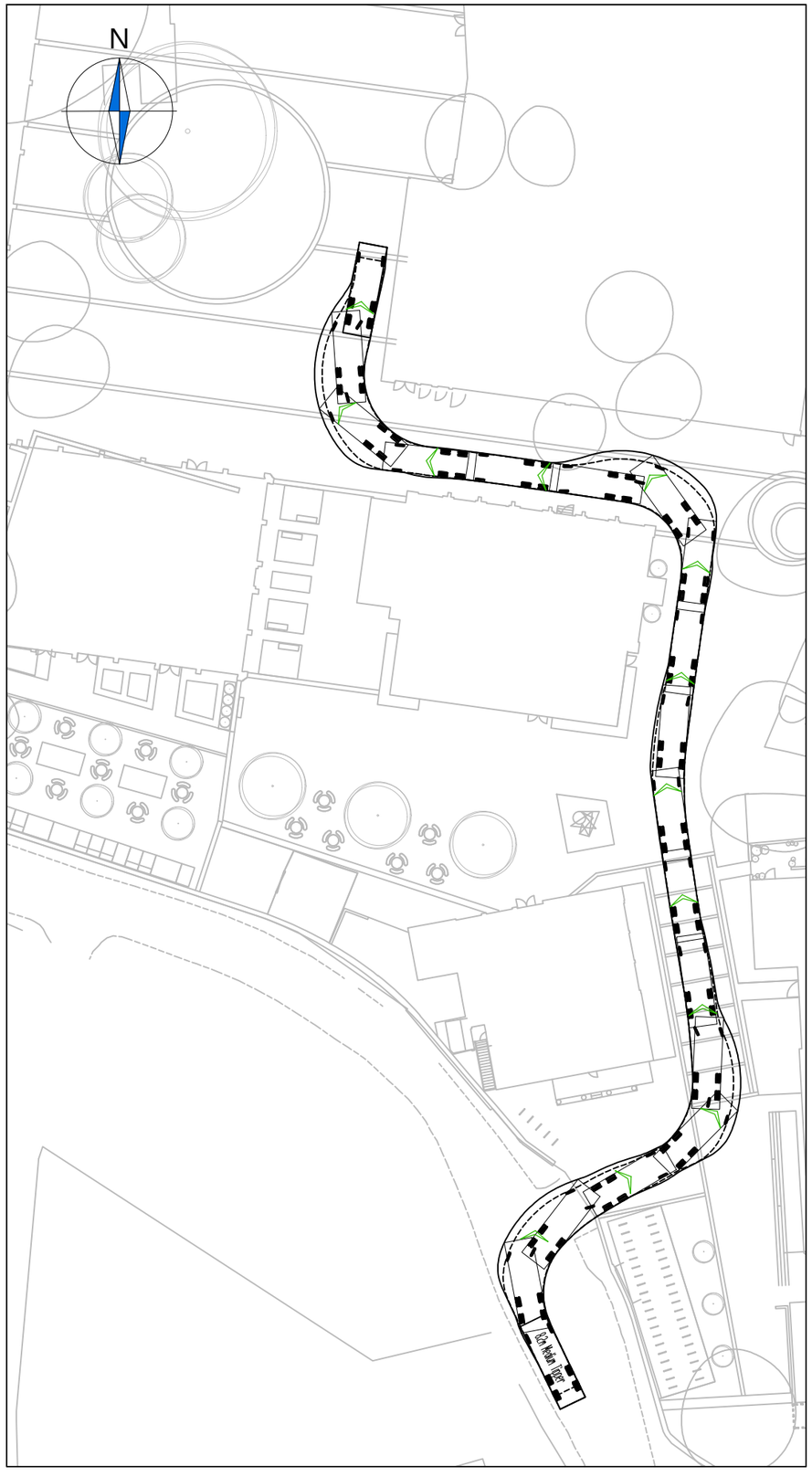
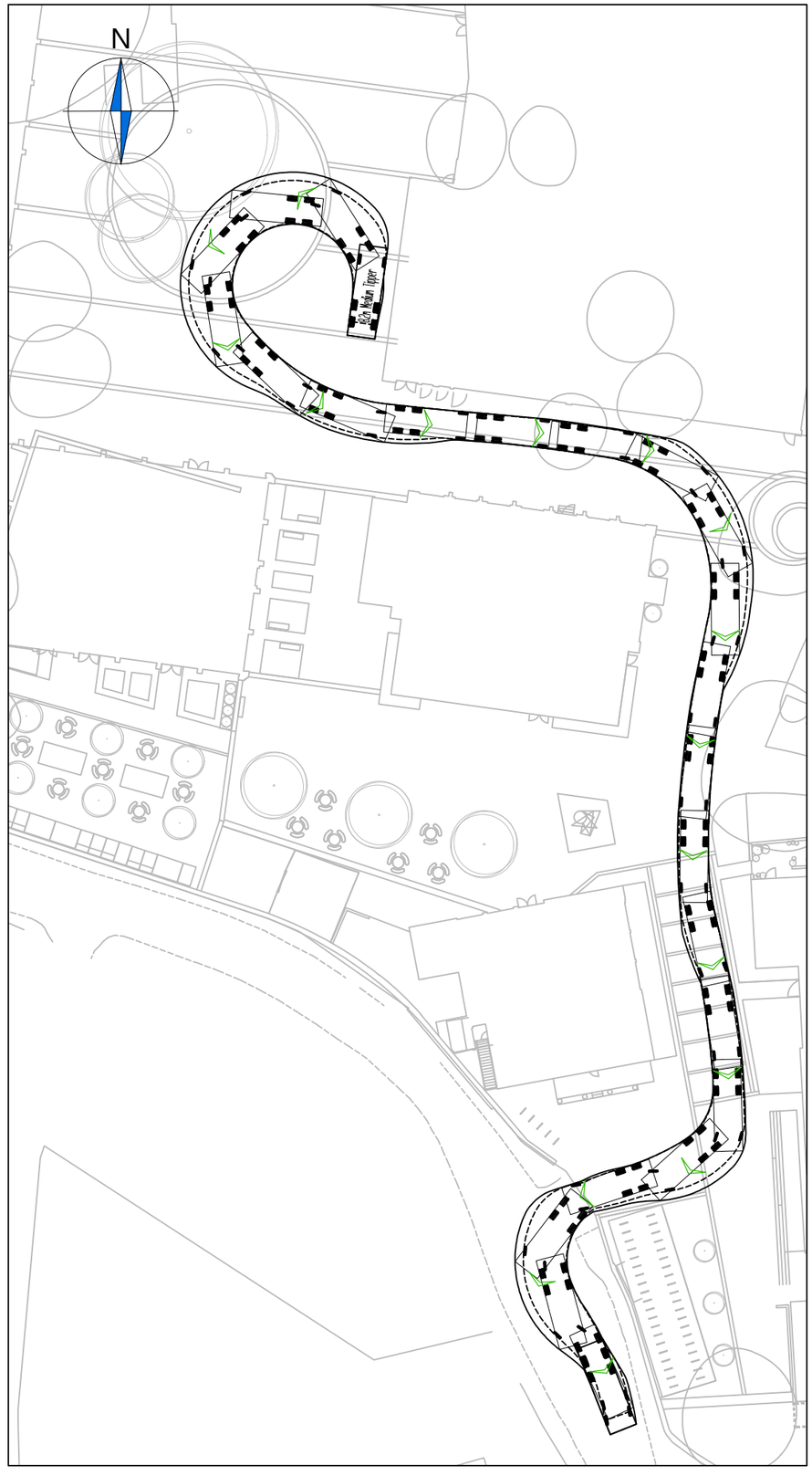
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	4 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG





NOTES

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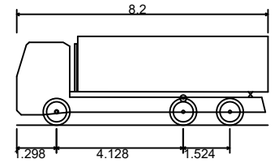
MEDIUM TIPPER



Overall Length	8.200m
Overall Width	2.500m
Overall Body Height	2.894m
Min Body Ground Clearance	0.344m
Max Track Width	2.500m
Lock to Lock Time	5.00s
Kerb to Kerb Turning Radius	9.284m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	REVISION HISTORY	Drawn	Checked	Date

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☑ For Information ☐ For Tender ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - Medium Tipper

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

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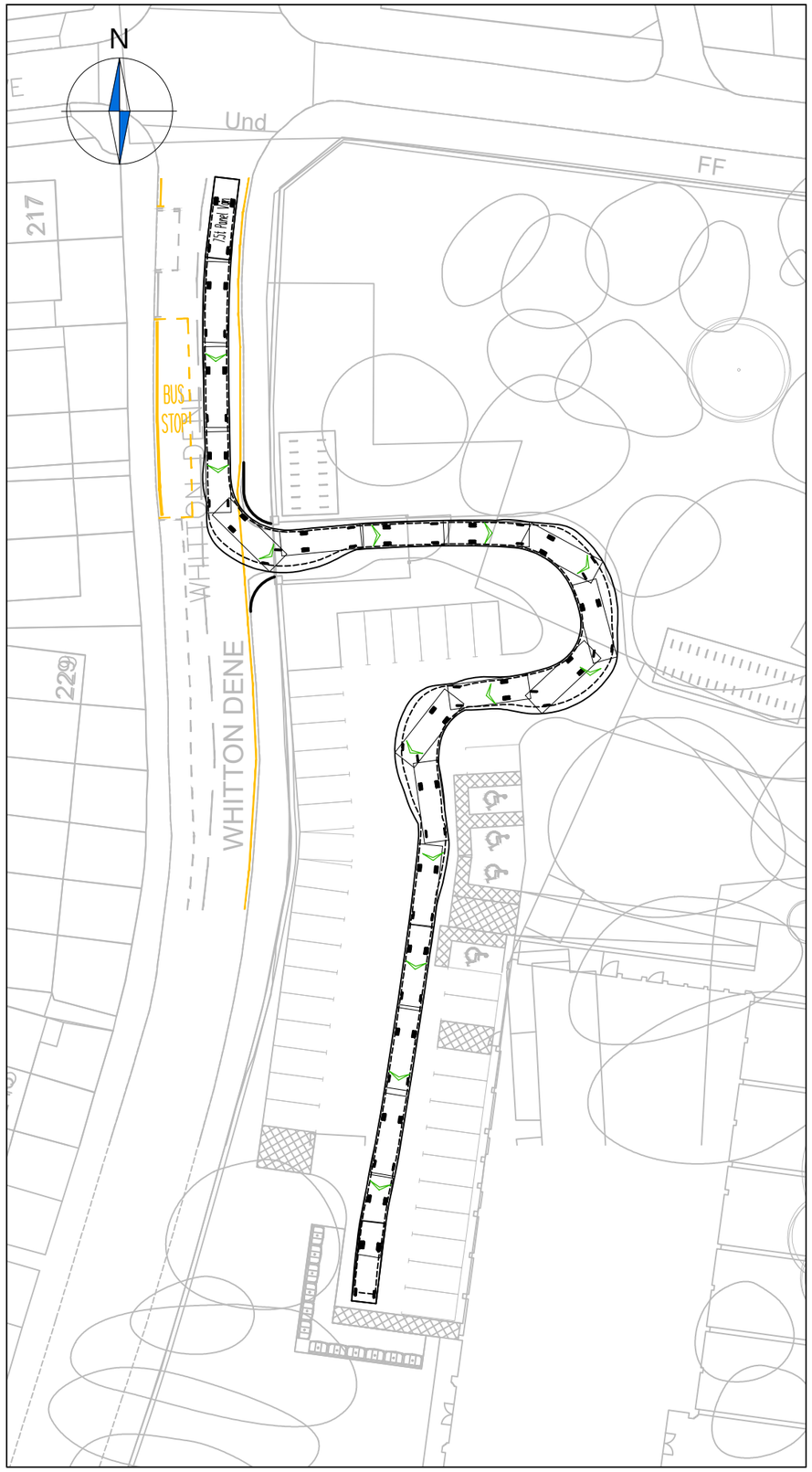
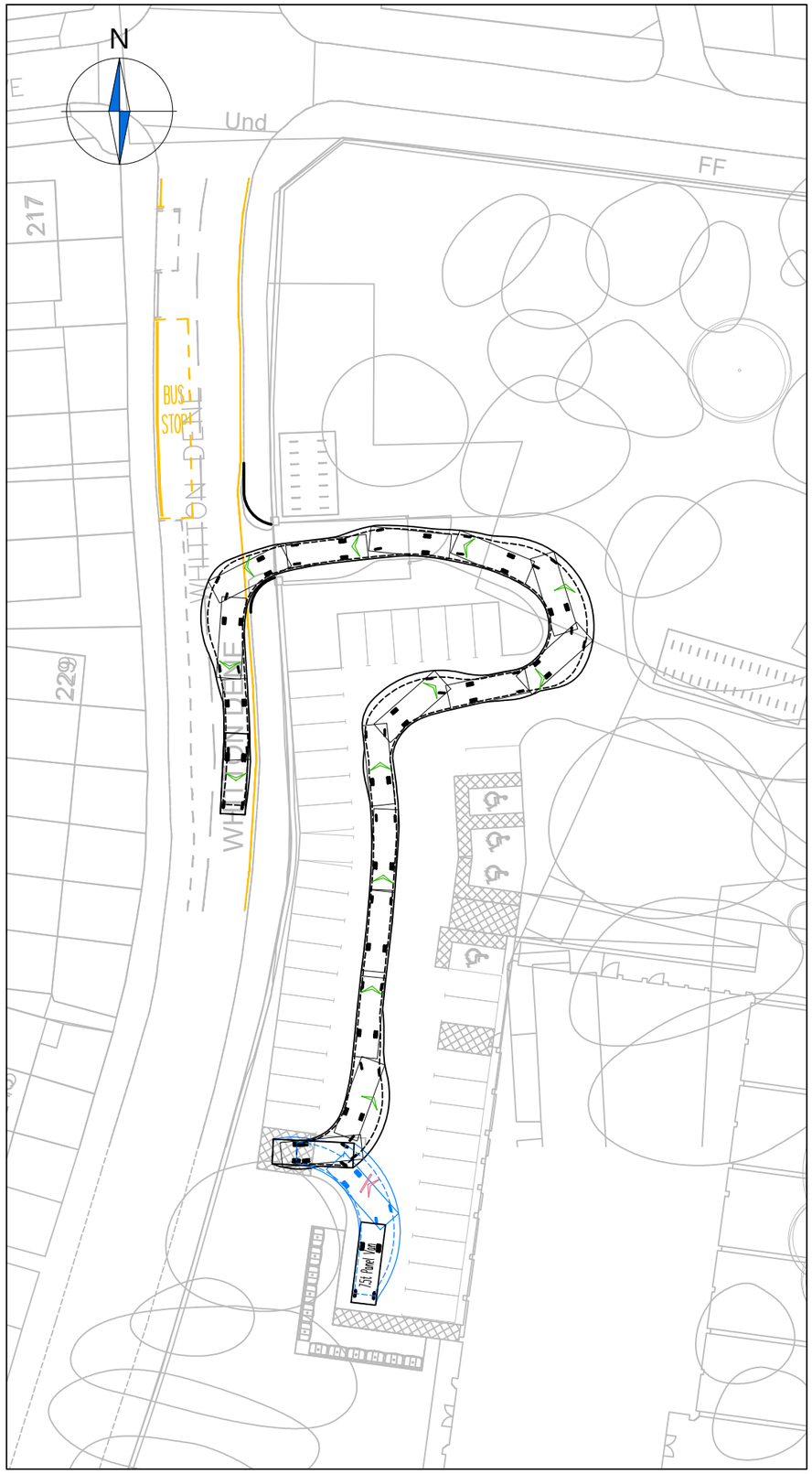
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	5 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG





NOTES

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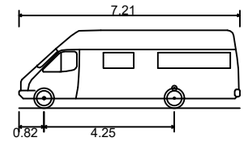
7.5T PANEL VAN



Overall Length	7.210m
Overall Width	2.192m
Overall Body Height	2.544m
Min Body Ground Clearance	0.316m
Track Width	1.865m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	7.400m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status: ☐ Preliminary ☐ For Approval ☐ For Construction ☑ For Information ☐ For Tender ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - 7.5T Panel Van

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

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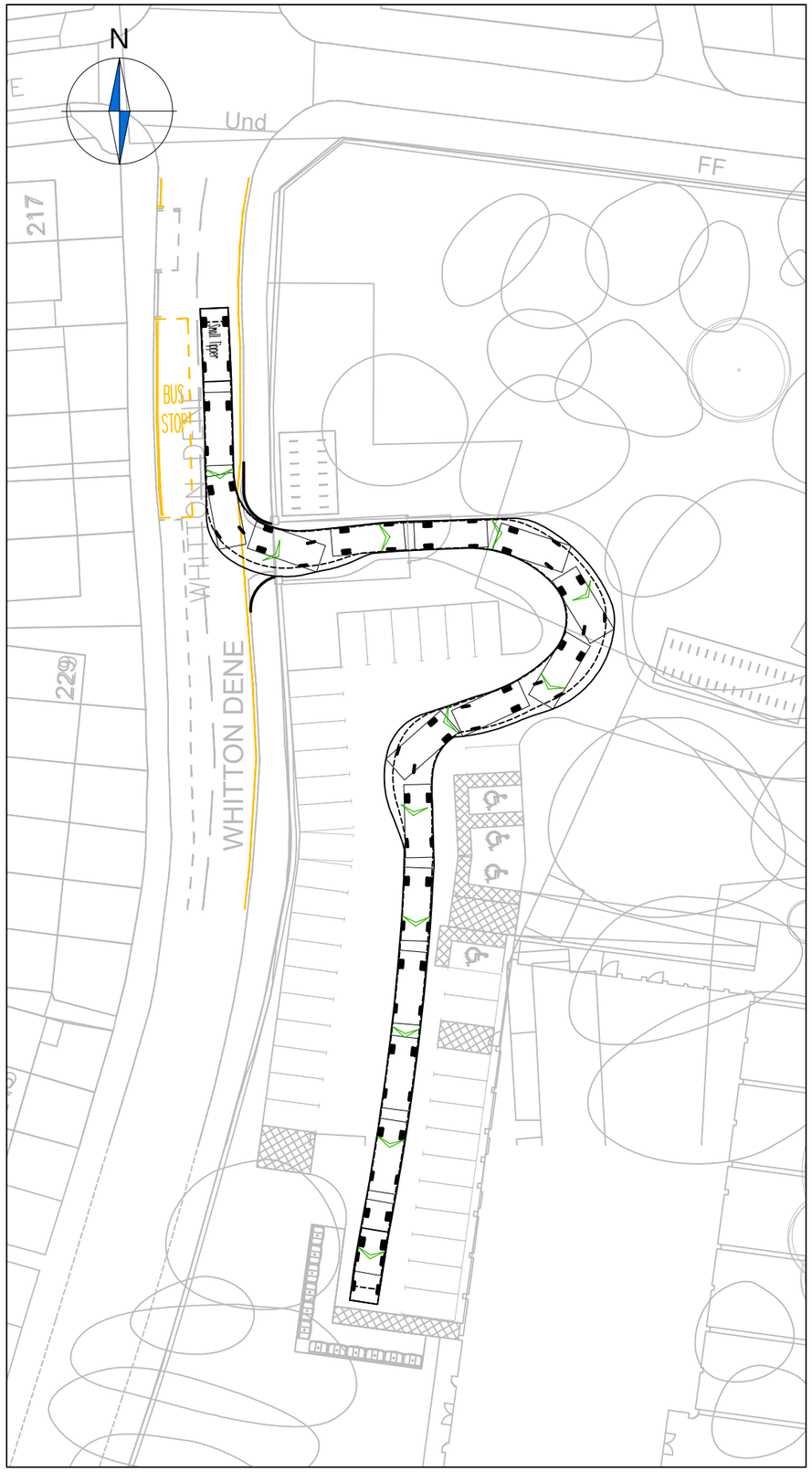
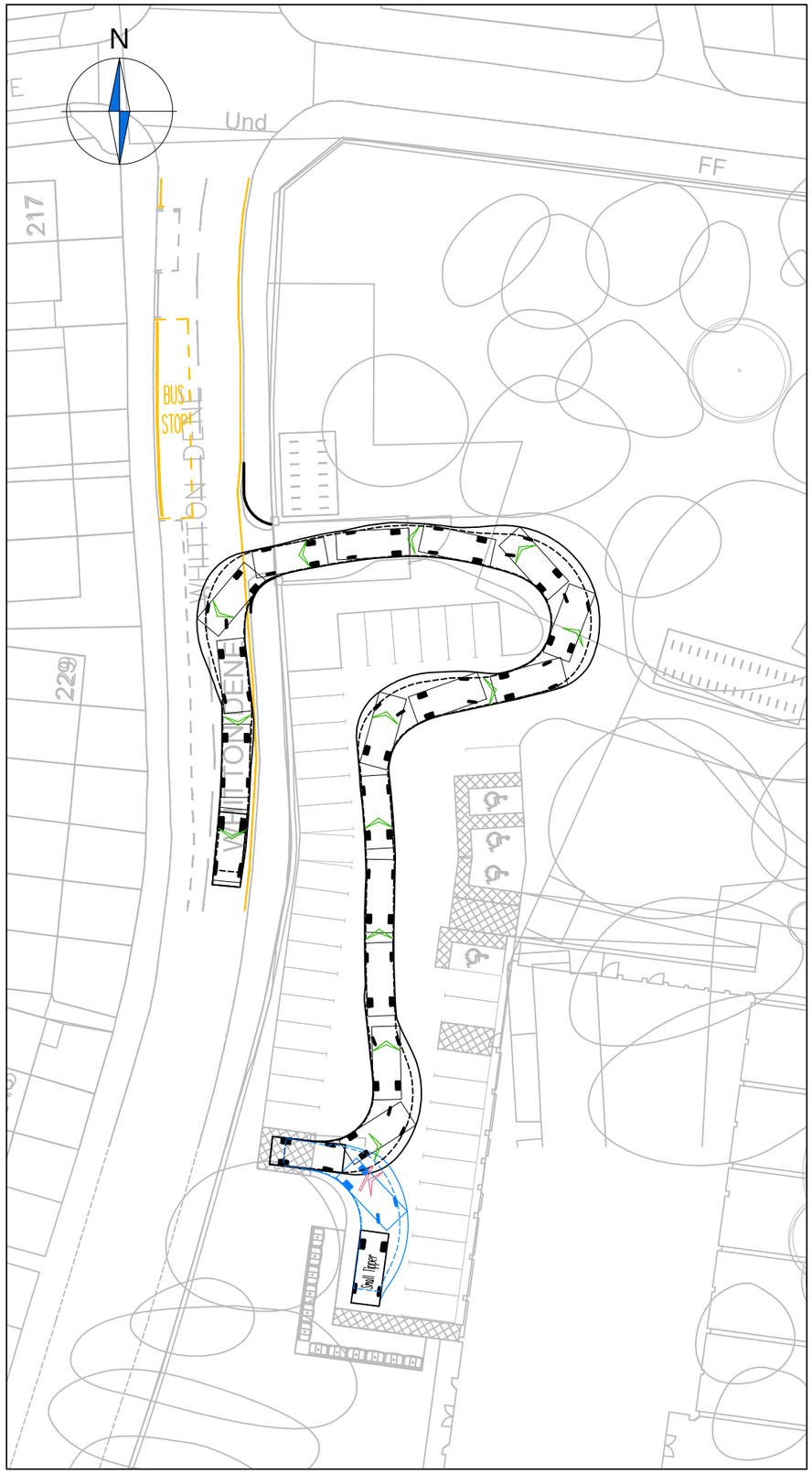
Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	6 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG





NOTES

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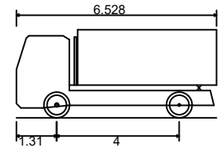
SMALL TIPPER



Overall Length	6.528m
Overall Width	2.500m
Overall Body Height	2.877m
Min Body Ground Clearance	0.327m
Track Width	2.393m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	7.850m

FORWARD MOVEMENTS ARE SHOWN IN BLACK *(design speed - 5kph)*

REVERSE MOVEMENTS ARE SHOWN IN BLUE *(design speed - 2.5kph)*

Rev	Details	Drawn	Checked	Date

REVISION HISTORY

Status:
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- ☐ For Construction
- ☑ For Information
- ☐ For Tender
- ☐ As Built

Client:

Dukes Education Group Limited

Project:

Kneller Hall
Twickenham

Drawing Title:

Swept Path Analysis for Construction Vehicles - Small Tipper

Scale:	Size:
1:500	A3

Drawn by:	Checked by:	Date:
JS	DB	23.09.2022

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Transport Planning & Highway Design
21 Little Portland Street • London • W1W 8BT • Tel. 020 3617 8200

Scheme Ref:	Drawing No:	Sheet :	Rev:
4543	TR008	7 of 7	...

CA_4543_TR008 - SWEPT PATH ANALYSIS FOR CONSTRUCTION VEHICLES.DWG