

Dukes Education Group Ltd

Kneller Hall, Twickenham

Draft Delivery, Servicing & Waste Management Plan

September 2022

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1 INTRODUCTION

1.1 Caneparo Associates has been appointed by Dukes Education Ltd ('the Applicant') to provide traffic and transportation advice 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.
- 1.5 The Site will be used as a day school for up to 1,000 pupils. The Site will accommodate pupils between the ages of 11-18 and from Years 7 through to Sixth Form. The Site will not provide boarding or residential accommodation.
- 1.6 A copy of the Architect's Site masterplan is included at **Appendix A**.
- 1.7 This Draft Delivery, Servicing and Waste Management Plan (DSWMP) has been prepared to act as a framework for the provision of a final DSWMP. It is envisaged that a final DSWMP will be secured by way of planning condition and will be a pre-occupation condition, with the contents of the final DSWMP to be agreed with LBRuT.
- 1.8 This Draft DSWMP (herein referred to as DSWMP) outlines the measures that will be implemented for the proposed school. The document outlines the measures that will be implemented for servicing activity, as well as how the potential impact from deliveries associated with the Development will be minimised. In addition, it sets out the anticipated servicing demand and the way in which goods delivered to the Development will be managed and monitored.
- 1.9 This document should be read in conjunction with the Transport Assessment prepared by Caneparo Associates which provides additional information about the effects of the Development on the highway network.

Objectives

- 1.10 The primary objectives of the DSWMP are to manage deliveries and servicing to, from, and within the Site in order to ensure that servicing activity is undertaken successfully, and without conflict between vehicles and / or pedestrians and without adversely impacting on the local highway network.
- 1.11 The DSWMP includes measures to ensure servicing is undertaken efficiently and successfully, with vehicle activity recorded and monitored. The DSWMP is a live document that can be updated as necessary to ensure that the servicing arrangements remain appropriate and adaptable to changes in circumstance. Over time, the DSWMP will enable future deliveries, where possible and necessary, to be reduced, re-moded, re-timed and re-routed. Deliveries by smaller vehicles will always be a priority, as will delivering outside of weekday peak hours.



- 1.12 The DSWMP will manage deliveries and servicing to the premises in order to:
 - Ensure that, where possible, deliveries are planned so as to avoid multiple arrivals at any one time, reducing the impact on the public highway.
 - Ensure that, where possible, deliveries are undertaken by small to medium sized vehicles (e.g. bicycles, motorbikes, and vans) and electric or hybrid vehicles.
 - Ensure that vehicles load / unload within the on-site servicing area for the minimum time necessary, in order to ensure that the area is available for other incoming vehicles whenever possible and car parking within the area is not blocked.
 - Reduce the number of deliveries where possible through consolidation, shared suppliers and using locally based suppliers.

Benefits

- 1.13 The DSWMP aims to bring about a continual improvement in the way deliveries and servicing are undertaken by reducing its effect on the environment and local highway. It will also bring about a number of benefits to the school, including the following:
 - Opportunities to consolidate deliveries, saving time and money.
 - Improve safety by reducing the number of deliveries and overseeing activity.
 - Reduce harmful emissions through the use of greener and smaller vehicles.
 - Improve the scheduling of deliveries to reduce non-attendances, unsuccessful deliveries or idling vehicles.
 - Reduce congestion and environmental impacts, conversely resulting in improved air quality.
 - Improve amenity for users of the Development and the local area through reduced noise, emissions and intrusion from vehicles.
- 1.14 The remainder of the DSWMP is set out as follows:
 - Section 2 sets out the Development's servicing arrangements;
 - Section 3 describes the waste storage and collection strategy;
 - Section 4 identifies the initiatives of the DSWMP;
 - Section 5 details the monitoring and review of the DSWMP; and,
 - Section 6 provides a conclusion.



2 SERVICING ARRANGEMENTS

The Local Highway Network

- 2.1 Kneller Road is a two-way single carriageway road which operates in a broadly east to west orientation between Warren Road to the east and Hounslow Road to the west, and forms part of the B361. In the vicinity of the Site along its western boundary, the carriageway is circa 5m in width with single yellow lines present on both sides with the exception of two rows of parking bays. There are footways on both sides with street lighting also present. Traffic is subject to a 30mph speed limit.
- 2.2 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.
- 2.3 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.
- 2.4 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.

Servicing Arrangements

2.5 Servicing and deliveries to the Site will be made via the access from Whitton Dene, with servicing activity and staff car parking facilitated from this access. The access provides an inset gate line to allow delivery vehicles to pull in off the highway before being accepted into the Site by security, via an intercom system. This will prevent vehicles backing-up onto the highway of Whitton Dene.



- 2.6 Servicing within the Site will take place within the hardstanding area along the western boundary of the Site, shared with the staff car parking areas. As can be seen within the swept path analysis included at **Appendix B**, servicing vehicles up to and including a 7.5T box van will be able to enter and exit the Site in forward gear.
- 2.7 Deliveries will take place making use of a hatched area within the car park to be marked to be kept clear to enable servicing. This hatched area will facilitate the manoeuvring of servicing vehicles, as well as providing a waiting area for the unloading of goods without blocking the car parking area.

Servicing Movements

- 2.8 Schools typically generate a low demand for servicing each day, with deliveries primarily comprising food and drink deliveries, with occasional deliveries relating to stationary, literature and maintenance materials.
- 2.9 Following discussions with the Applicant and drawing upon data collected for previous school projects, it is anticipated that the Site will generate approximately 5 deliveries per day. These are anticipated to comprise 3 daily deliveries for food and drinks and 2 deliveries for stationary/maintenance related materials.

Types of Vehicle

- 2.10 It is anticipated that the vast majority of deliveries will be undertaken by small to medium sized vehicles (e.g. transit, panel and box vans), given that vehicles of this scale / nature will be able to utilise the on-site servicing space, due to the types of goods being delivered.
- 2.11 An example of likely vehicle types and specifications are illustrated below in **Figure 2.2**, showing a 3.5t panel van, a 4.6t van, a 7.5t panel van, and a 7.5t box van.



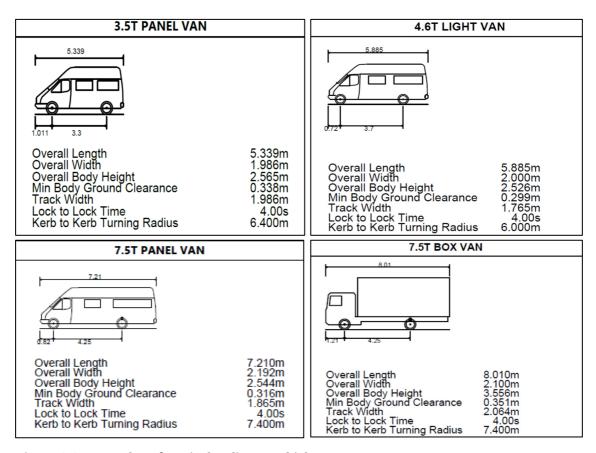


Figure 2.2: Examples of Typical Delivery Vehicles

Vehicle Routing

- 2.12 Vehicles will make use of major trunk / A-roads for the majority of their journeys to the Development, where possible.
- 2.13 To reach the Site it is proposed that servicing vehicles make use of the B361 Kneller Road/Warren Road/Nelson Road/Whitton Road to the south of the Site as the primary route locally, as this road provides access to local A roads which will provide the main routing to the local area. These A roads include the A316 and A310 accessible to the east and the A314, A3063 and A315 to the west.
- In the vicinity of the Site, vehicles arriving along the B361 Nelson Road to the west will reach the Site by following Nelson Road north before joining Whitton Dene and accessing the Site. Vehicles arriving from the east via the B361 Whitton Road/Kneller Road will make use of Kneller Road north before joining Whitton Dene and accessing the Site. **Figure 2.3** below demonstrates the vehicle routing to be adopted for servicing vehicles.





Figure 2.3: Servicing Vehicle Routing Plan



3 WASTE AND RECYCLING ARRANGEMENTS

3.1 Central Government's strategy for minimising waste generation and its transfer to landfill is most simply described by the 'Waste Hierarchy' shown in **Figure 3.1** below. Interventions are needed at all stages of the process to minimise waste going to landfill.

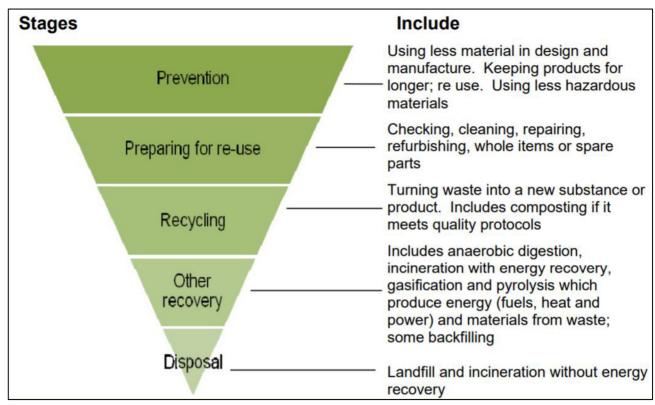


Figure 3.1: Waste Hierarchy Plan

- 3.2 Throughout the school, separate waste and recycling bins will be provided for staff and students.

 The staff and maintenance team will be responsible for determining the location of these.

 Minimising waste, re-use and recycling will be encouraged, to minimise the school's waste and pupils will be taught good practice measures. The school and Dukes Education Group is aware of the environmental impact of the work that they do and strive to reduce their carbon footprint.
- 3.3 The school cleaners will be responsible for bagging waste and recycling, into separate bags, at the end of the day and move it to the waste storage area.
- 3.4 Waste storage will be provided for the Site within a single dedicated waste store to be located adjacent to the hardstanding area accessed from Whitton Dene, where waste collections will take place. This store will provide dedicated bins to enable the separate collection of waste and recycling, with the design enabling the storage of up to 12 x 1,100L Eurobins.



- 3.5 LBRuT provides guidance on waste provision in its Refuse and Recycling Storage Requirements Supplementary Planning Document (April 2015). This guidance, has been followed when designing the waste storage at the Site, with bin dimensions accounted for with regard to 1,100L Eurobins, with guidance stating dimensions of 1,220mm width by 1,070mm depth.
- 3.6 It is proposed that waste is collected twice per week, with waste to be collected directly from the waste store by private collection operatives. The approach to collecting twice per week aligns with the existing Radnor House School strategy and reduces the time in which food waste is stored at the Site, reducing potential for cleanliness and smell issues. **Figure 3.2** below illustrates the route for waste transfer from the waste store to collection vehicle.
- 3.7 Waste will be collected by a private contractor and collections will be undertaken by small waste collection vehicles (up to circa 8m in length). Swept path analysis of an 8m waste vehicle accessing the loading area is provided within **Appendix B**, which demonstrates waste can be collected onsite in the proposed location. An example of likely waste vehicle type and specification is illustrated below in **Figure 3.2**, showing an 8m waste vehicle.



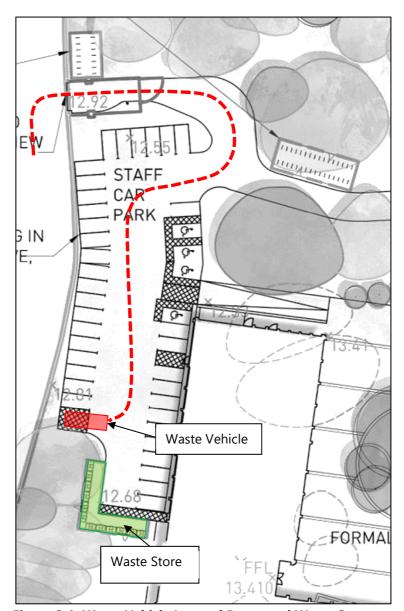


Figure 3.1: Waste Vehicle Internal Route and Waste Store

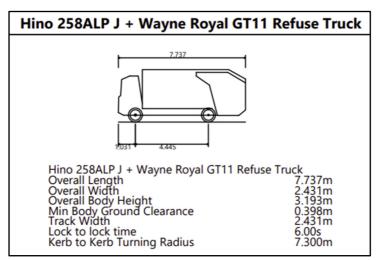


Figure 3.2: Example of Typical Waste Vehicle



3.8 To ensure that waste can be collected in a timely manner, without vehicles having to wait onstreet to access the servicing space, all deliveries will be scheduled outside of the waste collection period.



4 INITIATIVES OF THE PLAN

Servicing and Deliveries

- 4.1 A member of the SMT will be appointed to oversee servicing and delivery operations at the Site.

 They will be made aware of the servicing patterns of the school and will maintain logs of all servicing activity on-site.
- 4.2 The SMT will be aware of all forthcoming deliveries particularly, if / when exceptional activity is planned / expected.
- 4.3 In order to meet the objectives of the DSWMP, the following initiatives will be adopted:
 - The SMT will issue written / email instructions to all suppliers who book deliveries, setting out the delivery procedures to be adopted by them. An example of Supplier Instructions is included at **Appendix C.**
 - Suppliers will be required to pre-book delivery slots with the occupant prior to delivery, avoiding the morning and school finish peak hours (08:00-09:30 and 15:00-16:30) and waste collection times, where possible. Information including details of the type of vehicle that will be used to undertake the delivery and the scale / nature of goods to be supplied should be provided.
 - The SMT will operate a warning system whereby failure to abide by supplier instructions will result in the delivery company receiving a 'strike'. If three strikes are received the supplier's contract will be reviewed.
 - Suppliers will be required to use the intercom system at the Site entrance from Whitton Dene, whereby the SMT will enable entry to the Site for authorised deliveries.
 - > Suppliers will be encouraged to take away their packaging to minimise the accumulation of waste.
 - Suppliers will be informed that vehicle engines must be switched off whilst goods are being loaded / unloaded (i.e. when their vehicle is stationary).



Waste Storage and Collection

- 4.4 The following initiatives and measures will be in place for waste and recycling.
 - The SMT will be responsible for ensuring that waste is stored appropriately and, subsequently, made available in good time prior to collection.
 - Deliveries will be scheduled so as to avoid waste / recycling collection.
 - Waste bins will be kept in the appropriate storage location at all times.
 - The waste store will be kept clear from obstruction and in good order as far as is reasonably practicable. The storage area will be inspected on a regular basis and cleaned when necessary.
 - The SMT will be responsible for ensuring that waste is stored appropriately and available in good time prior to collection.
 - Waste collection vehicles will be required to use the intercom system at the Site access from Whitton Dene, whereby the SMT will provide entry for the collection vehicle in line with an agreed collection schedule.

Consolidation

- 4.5 The consolidation of deliveries is an effective way of reducing the number of vehicle attendances at the Site, whilst also offering innovative ways of using more environmentally friendly methods such as 'last mile' initiatives, whereby goods are transferred to a sustainable mode (e.g. a bicycle or electric vehicle) for the last part of the journey, which is often through the more congested and worst affected parts of London.
- 4.6 This DSWMP encourages consolidation and the SMT will review opportunities to consolidate food and drink deliveries and stationery and maintenance materials deliveries where appropriate, so as to reduce servicing vehicle movements associated with the Site.



5 MONITORING AND REVIEW OF THE PLAN

- 5.1 The SMT will maintain a record of servicing, which will include the following information:
 - Day
 - Date
 - Delivery slot(s) booked
 - Supplier
 - > Type of vehicle
 - Goods carried
 - Location
 - > Time of arrival
 - > Time of departure
 - Any other comments
- 5.2 The SMT will regularly monitor / review the success of the DSWMP and, if considered necessary / appropriate, will propose changes to be approved by LBRuT.
- 5.3 The SMT will review any comments received from the School and / or third parties regarding servicing activity and notify LBRuT if necessary / appropriate during the next annual review of the document.
- As part of the monitoring / review of the DSWMP, the SMT will take into consideration any other developments in the locality which could potentially affect or be affected by servicing activity associated with the Site.
- 5.5 The DSWMP will be subject to internal review, with the SMT reviewing any comments received from the School and / or third parties regarding servicing activities. If any major changes are made to the DSWMP (i.e. changes to the agreed delivery or collection strategy) the Council will be notified.



6 CONCLUSION

- 6.1 This DSWMP has been prepared to ensure the successful operation of servicing activity and waste collection at the Site on a day-to-day basis.
- 6.2 The DSWMP will ensure that conflicts with pedestrians and other vehicles will be minimised and that the servicing of the Site will not affect the free flow or environmental condition of the public highway.

Statement

6.3 Once reviewed and agreed with LBRuT, the final DSWMP will include the following statement (subject to any agreed amendments considered necessary / appropriate).

"The agreed contents of this Delivery, Servicing and Waste Management Plan must be complied with unless otherwise agreed in writing with the Council. The SMT shall work with the Council to review this Delivery and Servicing Plan as above. Any future revisions must be approved by the Council and complied with."

Appendix A



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LEGEND



PLANNING APPLICATION RED LINE



METROPOLITAN OPEN LAND (MOL)
DEMARKATION LINE

FENCE TYPES



EXISTING BOUNDARY TREATMENT TO BE RETAINED AND MADE GOOD.



3M HIGH TIMBER ACOUSTIC FENCE



3M HIGH WELD MESH FENCE TO ALL WEATHER HOCKEY PITCH



1.8M HIGH SECURE TIMBER ENCLOSURE TO CYCLE AND REFUSE STORES.

HARD LANDSCAPE





PERMEABLE PAVING

TARMAC



RESIN BOUND GRAVEL



ALL WEATHER PITCH



SOFT LANDSCAPE



EXISTING TREE

PROPOSED PARKLAND TREE (64NO. ADDED) PROPOSED ORNAMENTAL TREE

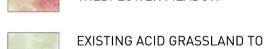


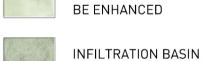






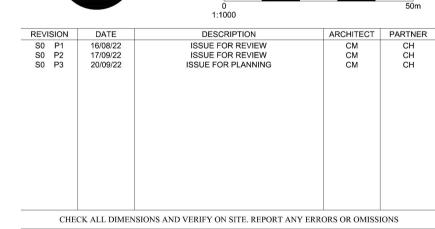








STAGE 3





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KNELLER HALL

DRAWING TITLE: LANDSCAPE MASTERPLAN

SCALE:

1:1000

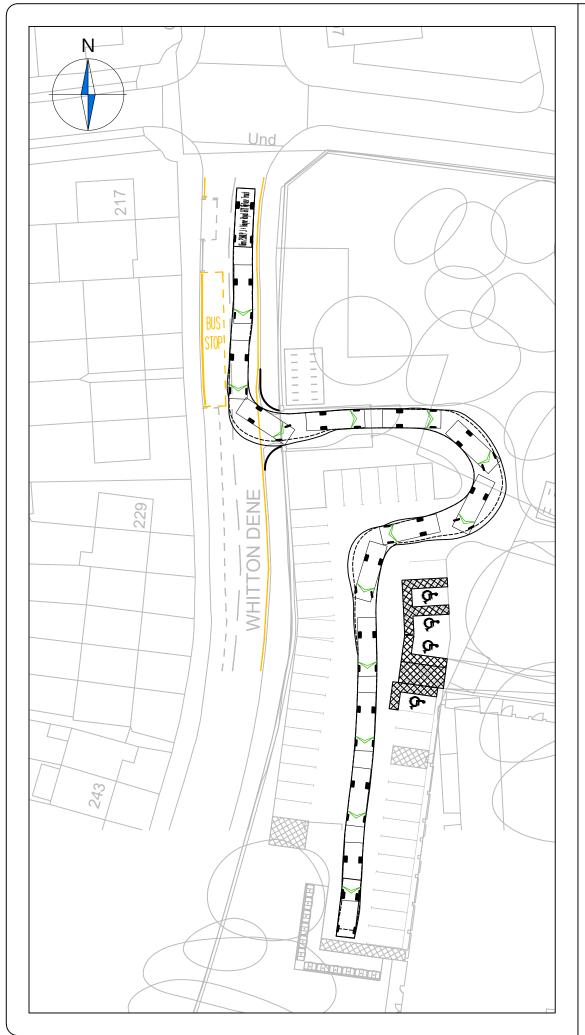
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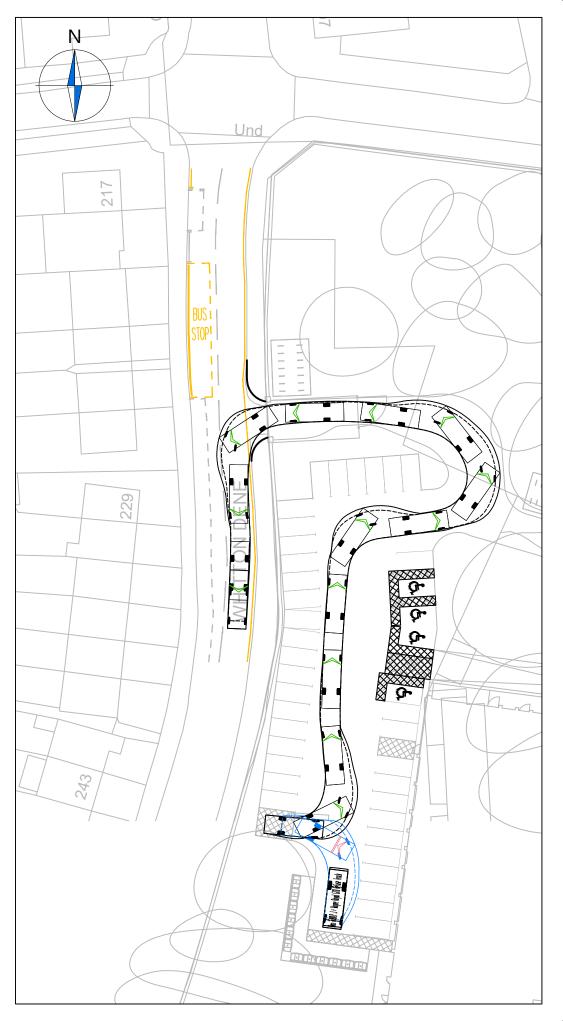
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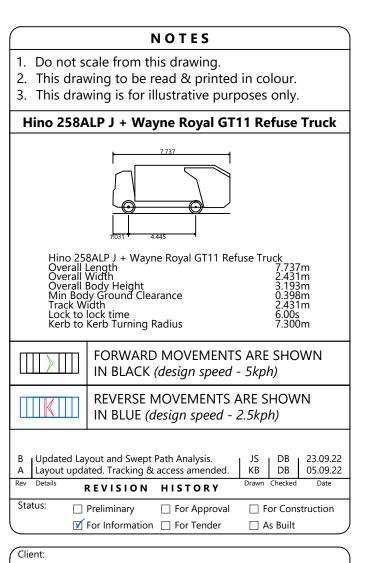
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Appendix B









Project

Kneller Hall Twickenham

Drawing Title:

Swept Path Analysis using a Small Refuse Vehicle

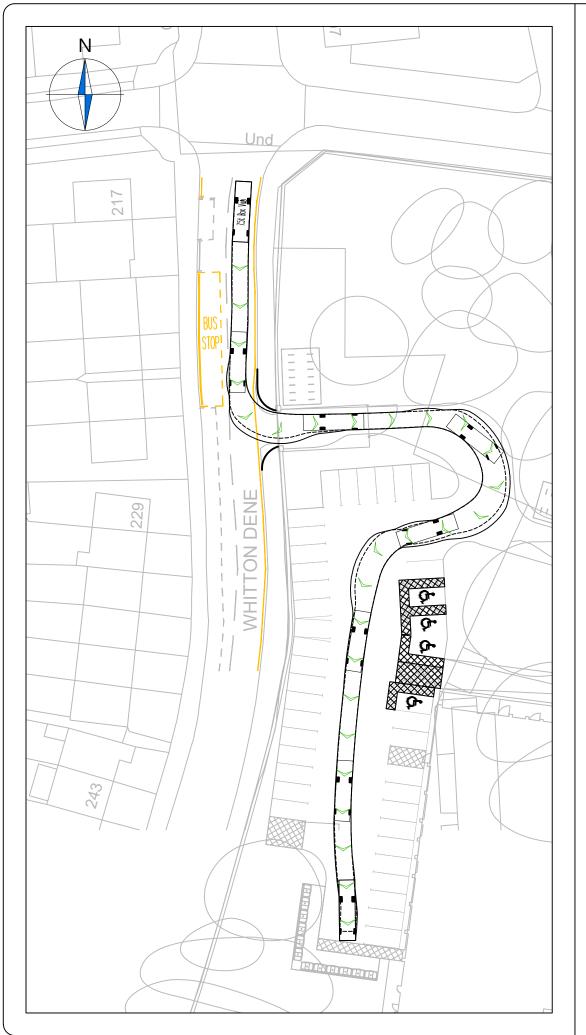
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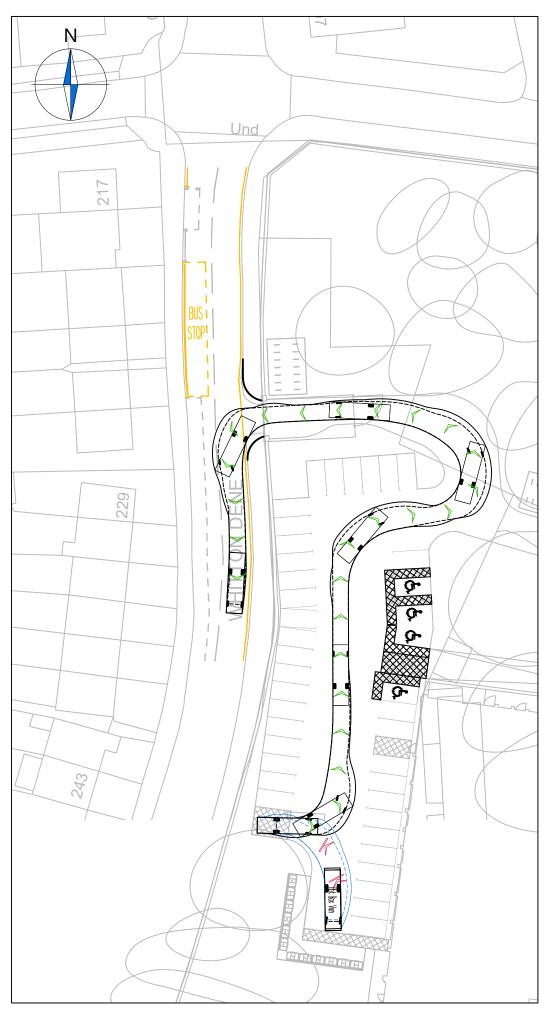


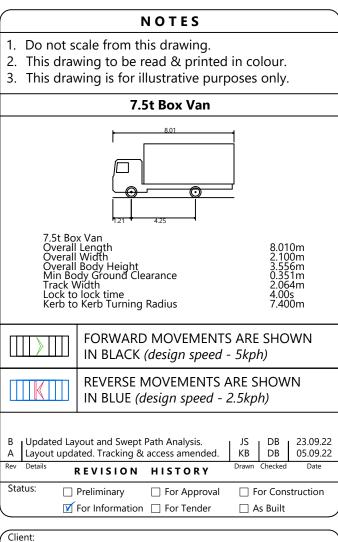
Transport Planning & Highway Design

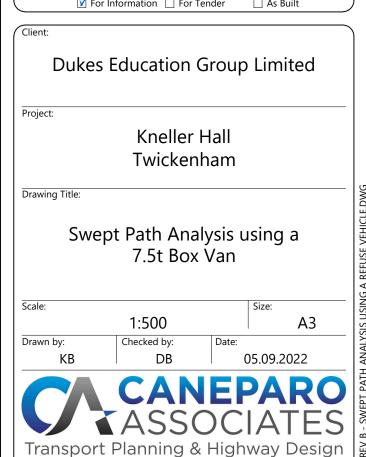
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TR005

2 of 2

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Scheme Ref:

4543

Appendix C

Supplier Instructions

- 1. Suppliers must liaise with the Site Management Team to ensure delivery slots are booked prior to arriving at the School.
- 2. Servicing activity for the School is to take place on-site within the staff car park accessed from Whitton Dene, with servicing vehicles to make use of the hatched turning area at the south of the car park.
- 3. Suppliers must use the intercom system at the School entrance from Whitton Dene and ensure that the Site Management Team is aware of their arrival and delivery information.
- 4. Servicing activity should not take place at the School between 08:00-09:30 & 15:00-17:30.
- 5. Vehicle engines must be switched off whilst goods are being loaded / unloaded (i.e. when their vehicle is stationary).
- 6. Suppliers should remove / recycle their own waste and packaging from the School.