

Cornerstone School

Transport Statement

Galliford Try

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Executive Summary

Cundall has been commissioned by Galliford Try to prepare a Transport Statement (TS) in support of a planning application for Cornerstone School, a new secondary school to be located within the former Woodside Sports College site on Halt Robin Road in Belvedere, within the LB of Bexley. This TS considers transport and highways matters associated with the proposals including the accessibility, parking and servicing provision and the effect the development on the surrounding the transport network.

The proposals seek the refurbishment of the existing school building and provision of a new build extension to the school.

The proposed new secondary school will accommodate up to 90 pupils with SEMH (Social, Emotional & Mental Health) and ASD (Autistic Spectrum Disorder) needs. The proposed school will be supported by 40 permanent staff and up to 15 professional visitors who will attend the site on a daily basis.

The area in the vicinity of the site has been assessed, including facilities for pedestrians and cyclists, public transport services and public transport accessibility. A review of the local highway network and road conditions in the area surrounding the site has also been undertaken via analysis of personal injury data.

The assessment has then identified the expected travel behaviour and volume of trips generated by the proposed school.

The assessment has considered the impacts of the proposed school on the local highway network, on on-site parking, off-site parking, non-vehicles users and road safety. A swept path analysis has also been undertaken demonstrating how each of the required vehicles will access the site.

A mitigation strategy, including travel demand management measures included in the School Travel Plan (STP) and a Car Park Management Plan (CPMP) have been proposed to encourage the use of sustainable transport modes.

The TS has concluded that, with the mitigation strategies in place and with the existing transport network already been in place to support the development, the proposed school is considered to be acceptable on transport and highways grounds and its likely transportation effects are considered to negligible.



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1.0 Introduction

1.1 Introduction

Cundall has been commissioned by Galliford Try to prepare a Transport Statement (TS) in support of a planning application for the provision of the Cornerstone School, a new secondary school to be located within the former Woodside Sports College site on Halt Robin Road in Belvedere, within the LB of Bexley (LBB).

The proposed new secondary school will accommodate up to 90 pupils with SEMH (Social, Emotional & Mental Health) and ASD (Autistic Spectrum Disorder) needs.

The proposals seek the refurbishment of the existing school building and provision of a new build extension to the school.

The site location in relation to the local area is shown in Figure 1-1.

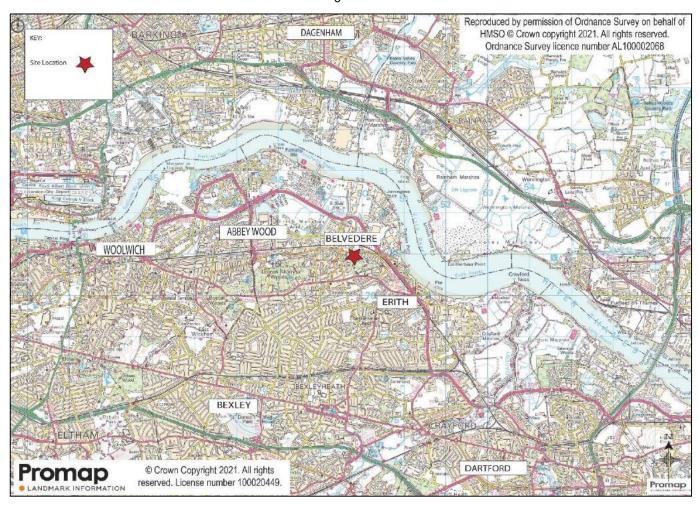


Figure 1-1: Site Location

1.2 Purpose of This Report

This TS report considers the likely transportation implications of the proposal and has been undertaken in accordance with guidelines set out by the government and relevant local guidelines.

This TS has been prepared following a pre-application process with LBB's Planning and Highways officer. A formal pre-application response letter (reference 21/00662/PREAPP dated 15.04.21, included in Appendix A) was received from LBB, including comments on the transportation aspects of the proposal (parking, access, refuse collection). Follow up



liaison were then undertaken with LBB's Highways officer to address any comments and agree the scope of work of this TS.

A School Travel Plan (STP) and a Car Park Management Plan (CPMP) have been prepared by Cundall as separate documents to accompany the planning application for the site.

1.3 Report Structure

Following this short introduction section, the report is set out as follows:

- Relevant transport planning policy at national and local levels are reviewed in Section 2;
- Section 3 describes the site's location and identifies existing local transport infrastructure;
- Section 4 details the existing site including the means of access and existing parking facilities;
- Section 5 details the development proposals including the means of access by all modes of travel;
- Section 6 assesses the trips anticipated to be generated by the proposal;
- Section 7 assesses the impact of the proposal in transport terms;
- Section 8 outlines any proposed mitigation measures; and
- Section 9 provides the conclusions of the study.



2.0 Policy Context

2.1 Introduction

The following section reviews key reference points within transport related planning policy at national and local levels to ensure specific policies are complemented by the development proposals.

2.2 National Policy

2.2.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) dated February 2019, updated in June 2019, sets out the Government's planning policies for England and how these are expected to be applied. It provides a framework for local planning authorities and decision makers, both in drawing up plans and as a material consideration in determining planning applications.

The document identifies that the purpose of the planning system is to contribute towards sustainable development, which is defined in terms of economic, environmental, and social sustainability. It states that:

• 'So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development' (Paragraph 10).

In relation to transport, the NPPF outlines, in Paragraph 102, that 'transport issues should be considered from the earliest stages of plan-making and development proposals, to ensure that:

- The potential impacts of the development on transport networks can be addressed;
- Opportunities from existing and proposed transport infrastructure, changing transport technology and usage, are realised;
- Opportunities to promote walking, cycling and public transport use are identified and pursued;
- The environmental impacts of traffic and transport infrastructure can be identified, assessed, and taken into account

 including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental
 gains; and
- Patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places.'

Paragraph 103 of the NPPF states that 'The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes'.

In setting local parking standards for non-residential developments, the NPPF states that 'policies should take into account the accessibility of the development; the type, mix and use of the development; the availability of an opportunities for public transport; local car ownership levels; and an overall need to reduce the use of high-emission vehicles'.

The NPPF outlines, in Paragraph 108, that, 'in assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- Appropriate opportunities to promote sustainable transport modes can be, or have been, taken up, given the type of development and its location;
- Safe and suitable access to the site can be achieved for all users; and
- Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'

Paragraph 109 continues to state that '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.'



The NPPF requires that 'applications for developments should:

- Give priority first to pedestrian and cycle movements, both within the scheme and within neighbouring areas; and second - so far as possible - facilitate access to high quality public transport, maximising catchment areas to services and implementing appropriate facilities to encourage use;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- Create places that are safe, secure and attractive which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- Allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.'

Paragraph 111 outlines that 'All developments that will generate significant amounts of trips should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed.'

2.2.2 Planning Practice Guidance

The Planning Practice Guidance was launched in March 2014. It brings together planning practice guidance for England and sits alongside the NPPF. It provides guidance on 'Travel plans, transport assessments and statements in decision-taking'. The guidance states that:

- 'Travel Plans, Transport Assessments and Statements can positively contribute to:
 - encouraging sustainable travel;
 - lessening traffic generation and its detrimental impacts;
 - reducing carbon emissions and climate impacts;
 - creating accessible, connected, inclusive communities;
 - improving health outcomes and quality of life;
 - improving road safety; and
 - reducing the need for new development to increase existing road capacity or provide new roads'.

2.3 Local Policy

2.3.1 The London Plan

In March 2021, the Mayor of London formally published a new London Plan, which is now the adopted policy and supersedes the 2016 London Plan.

The document brings together the geographical and locational aspects of the Mayor's other strategies, to ensure consistency with those strategies, including dealing with transport, environment, economic development, housing, culture, health and health inequalities. This London Plan runs from 2019 to 2041. This date has been chosen to provide a longer-term view of London's development to inform decision making.

Policy T1 Strategic approach to transport states that B 'All development should make the most effective use of land, reflecting its connectivity and accessibility by existing and future public transport, walking and cycling routes, and ensure that any impacts on London's transport networks and supporting infrastructure are mitigated'.

Policy T4 Assessing and mitigating transport impacts states that 'When required in accordance with national or local guidance, transport assessments/statements should be submitted with development proposals to ensure that impacts on the capacity of the transport network (including impacts on pedestrians and the cycle network), at the local, network-wide and strategic level, are fully assessed', and 'Development proposals should not increase road danger'.



Policy T5 Cycling states that:

'A Development Plan and development proposals should help remove barriers to cycling and create a healthy environment in which people choose to cycle. This will be achieved through:

- 1) supporting the delivery of a London-wide network of cycle routes, with new routes and improved infrastructure
- 2) securing the provision of appropriate levels of cycle parking which should be fit for purpose, secure and well-located. Developments should provide cycle parking at least in accordance with the minimum standards set out in Table 10.2 and Figure 10.2, ensuring that a minimum of two short-stay and two long-stay cycle parking spaces are provided where the application of the minimum standards would result in a lower provision.

B Cycle parking should be designed and laid out in accordance with the guidance contained in the London Cycling Design Standards. Development proposals should demonstrate how cycle parking facilities will cater for larger cycles, including adapted cycles for disabled people'.

Policy T6 Car Parking states that

'A Car parking should be restricted in line with levels of existing and future public transport accessibility and connectivity.

B Car-free development should be the starting point for all development proposals in places that are (or are planned to be) well-connected by public transport, with developments elsewhere designed to provide the minimum necessary parking ('car-lite'). Car- free development has no general parking but should still provide disabled persons parking in line with Part E of this policy.'

'D The maximum car parking standards set out in Policy T6.1 Residential parking to Policy T6.5 Non-residential disabled persons parking should be applied to development proposals and used to set local standards within Development Plans.

E Appropriate disabled persons parking for Blue Badge holders should be provided as set out in Policy T6.1 Residential parking to Policy T6.5 Non- residential disabled persons parking.'

'G Where car parking is provided in new developments, provision should be made for infrastructure for electric or other Ultra-Low Emission vehicles in line with Policy T6.1 Residential parking, Policy T6.2 Office Parking, Policy T6.3 Retail parking, and Policy T6.4 Hotel and leisure uses parking. All operational parking should make this provision, including offering rapid charging. New or re-provided petrol filling stations should provide rapid charging hubs and/or hydrogen refuelling facilities.'

'I Adequate provision should be made for efficient deliveries and servicing and emergency access.

J A Parking Design and Management Plan should be submitted alongside all applications which include car parking provision, indicating how the car parking will be designed and managed, with reference to Transport for London guidance on parking management and parking design.'

'L Where sites are redeveloped, parking provision should reflect the current approach and not be re-provided at previous levels where this exceeds the standards set out in this policy'.

Policy T6.5 Non-residential disabled parsons parking states that

'A Disabled persons parking should be provided in accordance with the levels set out in Table 10.6, ensuring that all non-residential elements should provide access to at least one on or off-street disabled persons parking bay.

B Disabled persons parking bays should be located on firm and level ground, as close as possible to the building entrance or facility they are associated with.

C Designated bays should be marked up as disabled persons parking bays from the outset.

D Enlarged bays should be large enough to become disabled persons parking bays quickly and easily via the



marking up of appropriate hatchings and symbols and the provision of signage, if required i.e. if it can be demonstrated that the existing level of disabled persons parking is not adequate. The process for converting enlarged bays should be set out in a Parking Design and Management Plan and secured at the planning stage.

Policy T7 Deliveries, servicing, and construction states that:

'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...

H Developments should be designed and managed so that deliveries can be received outside of peak hours and in the evening or night time. Appropriate facilities are required to minimise additional freight trips arising from missed deliveries and thus facilitate efficient online retailing.'

2.3.2 The Development Plan for LBB

The adopted Development Plan for LBB comprises the London Plan (2021) and Bexley Local Plan, consisting of Bexley's Core Strategy (2012), saved elements of the Unitary Development Plan (UDP) (2004, as saved from 2012) and technical documents. The Core Strategy sets out a spatial planning framework for the Council until 2026.

The current policies outlined within the LBB Local Plan (LBBLP) outlined the aim to achieve an integrated and sustainable transport system.

Policy CS15 Achieving an integrated and sustainable transport system states that

'The council will work to achieve a comprehensive, high quality, safe, integrated and sustainable transport system which makes the most of the existing and proposed transport infrastructure within the borough and seeks to ensure a much improved and expanded role for public transport through the following actions.

- a) Increasing the capacity, frequency, accessibility and safety of established bus and rail facilities.
- b) Working in partnership with Crossrail Limited and TfL to secure Crossrail to Abbey Wood and its potential extension to Gravesend and Hoo Junction, including the protection of the land required for the scheme in accordance with the safeguarding directions, and the managing development to preserve and enhance the viability of the scheme;
- adopting a parking policy that addresses the need for appropriate controls to secure a sustainable environment within the borough, whilst recognising the need to help viable development in town centres and major employment areas
- i) Encouraging walking and cycling within the borough through implementation of local and strategic walking and cycling programmes, school travel plans, local safety schemes and the provision of facilities within development proposals and environmental improvement projects
- j) developing priority road schemes, where they assist regeneration and/or reduce congestion, whilst generally promoting modal shift away from the use of the car; and
- k) effectively maintaining and managing the existing highway network to ensure the free flow of traffic, improve the environment, in particular air quality, and promote safety, health and wellbeing'.

Policy CS16 Reducing the need to travel and impact of travel states that

'The Council will seek to minimise the need for and distances people travel, thereby reducing the time, cost and environmental effects of transportation and improving accessibility and quality of life for Bexley residents by:

- a) Ensuring developments are equipped to benefit from new technology, which helps generate more sustainable travel patterns;
- b) Promoting the provision of live/work accommodation in appropriate developments; and
- c) Promoting travel awareness campaigns, workplace travel plans, area based travel plans and car clubs'.

LBB policies are in general conformity with the London Plan (2021).



2.3.3 Summary of Local Policies

While it is noted that there are no set requirement or standards for general car parking for education facilities, Table 2-1 indicates disabled parking and cycle parking standards for an education development in accordance with the 2021 London Plan policies (Table 10.6 for non-residential disabled persons parking standards and Table 10.2 for cycle parking standards and respectively); the same table also indicates the resulting number of required spaces for the proposed school.

It is also noted that LBB's pre-application response letter stated that 'Electric vehicle [EV] charging provision (20% active and 10% passive) and bicycle parking should be provided in accordance with the London standards'. This is also included in Table 2-1.

Disabled Car Parking	EV Charging Points	Cycle Parking			
[source: Table 10.6 from London Plan]	[source: LBB's pre- application advise]	[source: Table 10.2 from London Plan] Long Stay Short Stay		ау	
Minimum Requirement	Minimum Requirement	Minimum Requirement	Resulting minimum no. of Spaces	Minimum requirement	Resulting minimum no. of spaces
5% of the total parking provision requires to be designated disabled bay. 5% of the total parking provision to be designed as enlarged bays	20% active and 10% passive	1 space per 8 FTE staff + 1 space per 8 students	5 for staff 11 for students	1 space per 100 students	1

Table 2-1: Car and Cycle Parking standards for Education Facilities

2.4 Policy Compliance

The review of the transport planning policies has concluded that the development is supported by policies at national and local levels as it is located where it will be accessible by walking, cycling and public transport and where increased transport sustainability can be promoted to reduce impacts of the development on the highway network.



3.0 Site Accessibility

3.1 Introduction

This section of the report describes the accessibility of the site, including facilities for pedestrians and cyclists, public transport accessibility, the local road network, and its identifiable accident record.

Information to support the assessment has been collected from information publicly available in relation to the conditions on the local highway network outside the site and accessibility by non-car modes. This has been supplemented by Personal Injury Accident (PIA) data by Transport for London (TfL).

3.2 Site Location

The site is located within the former Woodside Sports College site in Belvedere, DA17 6DH, at the eastern extent of Halt Robin Road, within LBB.

Figure 3-1 shows the site's location in relation to the surrounding area.

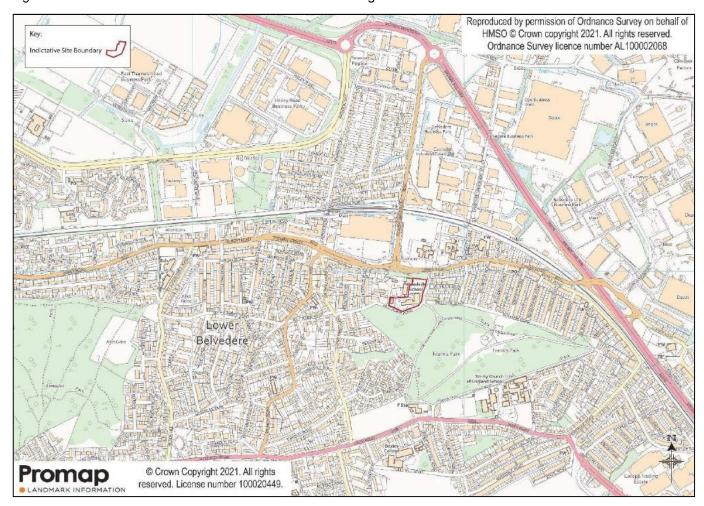


Figure 3-1: Indicative Site Boundary

3.3 Pedestrian Facilities

A comprehensive network of pedestrian facilities is provided within the immediate vicinity of the site, with lit footways also provided on most local streets. Between the end of the cul-de-sac and the junction with Gladeswood Road, there is only a pavement and street lighting on the northern side of Halt Road Robin. To the west of Gladeswood Road, pavements are present on both sides of the road.



At the eastern end of Halt Robin Road, the road connects with Parkside Road; however, the presence of a barrier restricts any vehicular connection between the two roads.

Parkside is accessible by pedestrians or cyclists, however there are no pavements present. Parkside does have street lighting provided.

A pedestrian footpath, named Halt Robin Lane, connects the eastern end of Halt Robin Road to Lower Road (B213) to the north, however, no street lighting is provided along this passage.

Gladeswood Road, to the west of the site, is provided with lit pedestrian pavements on either side of the road; an uncontrolled pedestrian crossing with central refuge island is provided at the northern end of the road, at its junction with Lower Road.

Additionally, there are a number of zebra crossings and uncontrolled crossings with central refuge island located along Lower Road, providing access on continuing journeys and to public transport facilities.

The location of the site in relation to local pedestrian facilities is indicated in Figure 3-2.

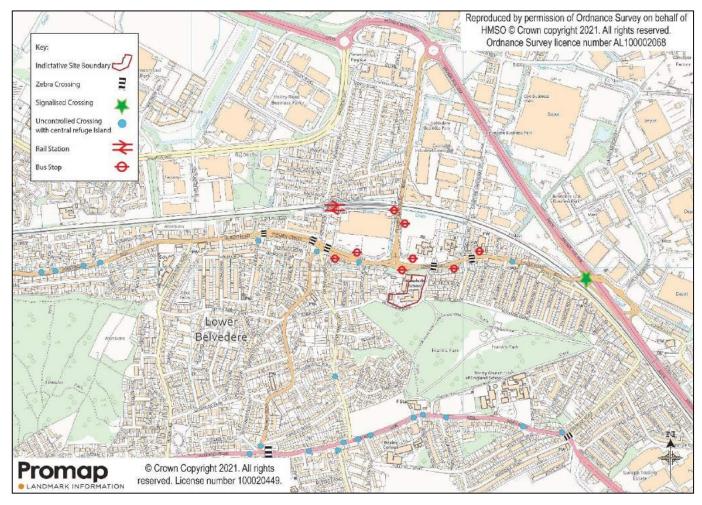


Figure 3-2: Pedestrian Facilities

The site's location in relation to the pedestrian network provides a good opportunity and direct routes for staff, students and visitors to access the site from the surrounding area on foot.

3.3.1 Walking Accessibility Assessment

The Institution of Highways and Transport (IHT) Guidelines for providing journeys on foot confirms that residents are generally prepared to walk up to 2km to access employment and education opportunities. A walking accessibility assessment has been undertaken to identify the areas which are located within a 640m, 960m and a 2km walk of the site and the results of the assessment are shown in Figure 3-3.



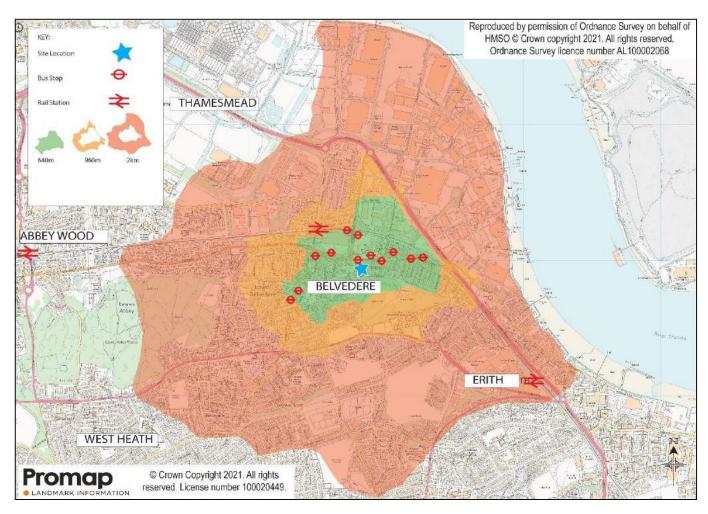


Figure 3-3: Walking Accessibility Map

The analysis included in Figure 3-3 shows that 12 bus stops are accessible within 640m walk of the site. Belvedere rail station is accessible within a 960km walk of the site and Erith rail station is accessible with a 2km walk of the site. The proximity of public transport facilities and nearby residential areas provide good opportunities for site users to access the development on foot, both as a purely walking trip or from a connected public transport and walk trip when coming from the wider area.

3.4 Cycling Facilities

Figure 3-4 shows the site's location in relation to local cycle facilities. As indicated in the image, the site is approximately within 1.2km of the National Cycle Route 1; this is a national cycle route, running from Dover to Scotland, which runs near to the site along the southern bank of the river Thames before routing towards Dartford station and in a similar direction as the A2.

Local cycle route 18 runs along Lower Road, provided with on-carriageway advisory cycle lanes.





Figure 3-4: Cycling Routes (Source: www.opencyclemap.org)

3.4.1 Cycle Accessibility Assessment

It is generally accepted that people are prepared to cycle up to 20 minutes to access their place of employment or education, a distance which equates to a 5km cycle. A cycling accessibility assessment has been undertaken to identify the area which is within this distance of the site and the results of the assessment are shown in Figure 3-5.



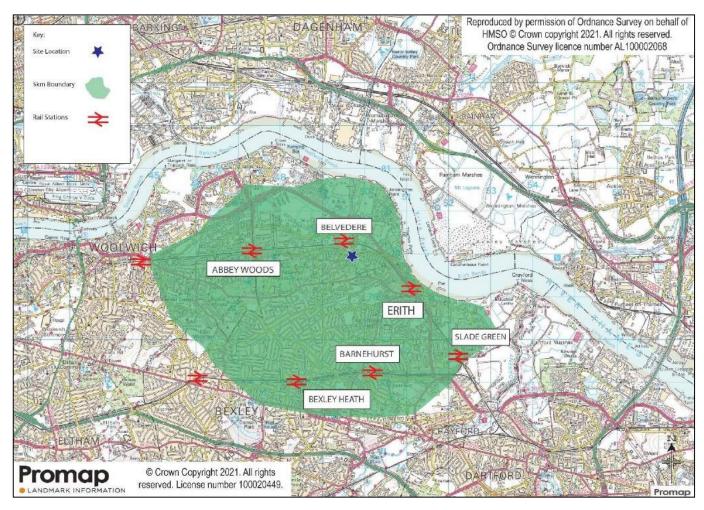


Figure 3-5: Cycle Accessibility Map

The analysis illustrates that there are 6 rail stations within the 5km distance from the site (i.e. Belvedere, Abbey Wood, Erith, Bexleyheath, Slade Green, and Barnehurst) The proximity of public transport facilities and nearby residential areas provides good opportunities for site users to access the site via public transport before cycling to the site when coming from the wider area.

3.5 Public Transport Facilities

3.5.1 Public Transport Accessibility Level (PTAL)

A PTAL assessment of the site was undertaken using the TfL database (www.tfl.gov.uk/webcat). The PTAL value is classified in bands ranging from 1a to 6b, where 1a is the lowest level of public transport accessibility (i.e. very poor) and 6b is the highest level of public transport accessibility (i.e. excellent).

The site is in an area of PTAL 2, as indicated in Figure 3-6, with the full PTAL assessment included within Appendix B.

While a PTAL of 2 corresponds to a poor accessibility to public transport, Figure 3-6 indicates that 12 bus stops are within approximately 640m distance of the site (as indicated in Figure 3-3), corresponding to a 10 minutes' walk. Belvedere rail station is located within 960m distance of the site.



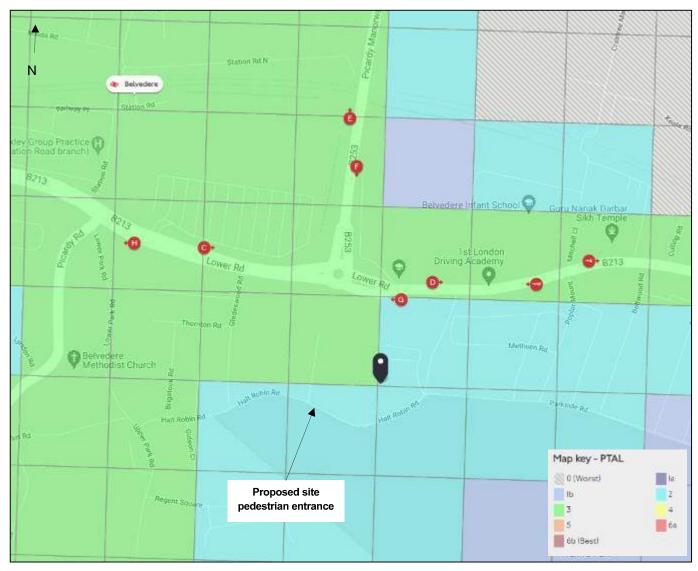


Figure 3-6 PTAL Score (Source: TfL)

3.5.2 Bus

All bus stops near to the site are provided with shelter, seating and timetable information. Table 3-1 summarises the frequency of the bus services operating within the vicinity of the site, as indicated by the PTAL report produced by TfL, while Appendix C includes a bus spider map indicating bus routes. Table 3-1 indicates the distance between the site and bus stops H and C.

Service No.	Bus Stop	Average Walk time from site (min) (*)	Route	Frequency (vph)
469	H, C, G, D	4.5	Between Queen Elizabeth Hospital and Erith Town Centre	4
229	H, C, G, D	4.5	Between Thamesmead Town Centre and Queen Mary's Hospital/Chislehurst Road	6
401	H, C, E, F	4.5	Between Thamesmead Town Centre and Anderson Way	4

Table 3-1: Bus Service Summary (source: www.tfl.gov.uk/webcat) (*) Distance from bus stops C and H



As can be seen in Table 3-1Figure 3-1, there are frequent bus journeys within a short walk from the site. These can provide direct links to key services and nearby areas as well as other public transport interchanges such as nearby train stations.

As stated previously, these bus stops and bus services provide good opportunities for staff and students to access the school by bus.

3.5.3 Train Services

There are no London Underground train stations near the site.

The nearest rail station to the site is Belvedere rail station, which is located approximately 736m from the site. Belvedere rail station provides links on Southeastern and Thameslink services and is located within Zone 5 of TfL's zone fare system. Destinations from Belvedere include London Cannon Street via Greenwich, Sidcup, London Charing Cross and Dartford. The services run approximately every 30 minutes.

3.6 Local Road Network

Figure 3-1 includes the local road network near to the site which would be anticipated to be most affected by the development site. Therefore, a description of each street has been summarised below. These roads identified are likely to be the roads used to commute to and from the development site.

Lower Road (B213) is a two-way 30mph road running from east to west, to the north of the site. Lower Road acts as a main through road with links to amenities, services, and the wider area. There are opportunities for unrestricted parking within bays located along both sides of the road. However, parking is not available for the whole stretch of the road and is only available in the allocated bays. Pedestrian crossings are also located along the road as indicated in Figure 3-2. Along both sides of the road there are on-carriageway advisory cycle lanes which are only partly interrupted by the presence of bus stops, also located along this road.

Lower Park Road is a two-way 30mph road running north to south, to the west of the site. Lower Park Road is residential in nature. Sections of Lower Park Road have unrestricted parking opportunities, while the sections of the road near junctions are provided with single or yellow lines restricting parking.

Halt Robin Road is a two-way 30mph cul-de-sac residential road, running from its junction with Upper Park Road to the west, and its connections with Parkside Road, to the east. As mentioned previously, the presence of a barrier restricts the connection between the two roads to bicycle and pedestrians only, while preventing vehicular access. Halt Robin Road has unrestricted parking with an execution of yellow zigzag restrictions near to the current school's entrance. There are no other markings or restrictions present on Halt Robin Road.

Gladeswood Road, to the west of the site, is a 30mph two-way residential road with unrestricted parking on either side which is broken up with drop kerb accesses to private driveways. Gladeswood Road runs from Lower Road in the north and to Halt Robin Road in the south.

The nearest car clubs to the site are located in Abbey Wood on Felixstowe Road which is approximately 2.64km from Halt Robin Road. There are three cars in total, two of which operated by Zipcar and one by Enterprise.

3.7 Personal Injury Accident Data

An assessment of personal injury accident (PIA) has been undertaken using data received from TfL for the most recent 5-year period available (ending September 2020) and is included in Appendix D. The study area for the accident analysis was as shown in Figure 3-7.



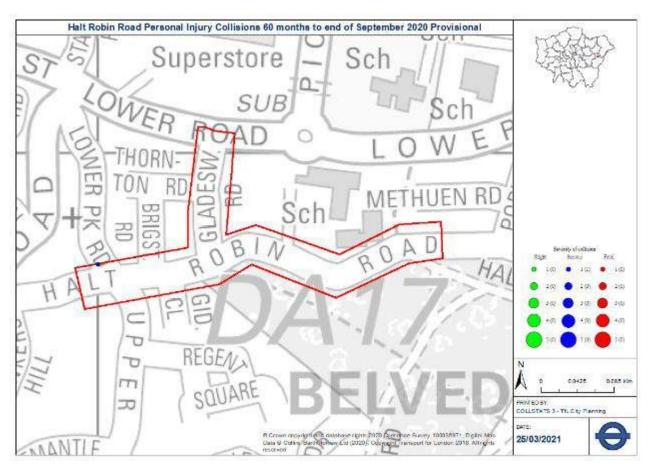


Figure 3-7: Accident Data (Source: TfL)

There was only one accident recorded during the assessed period.

An accident occurred on 30th January 2017 at 17:36 at Lower Park Road junction with Halt Robin Road. A car travelling southbound was hit by the front of a car travelling northbound, resulting in slight injuries to the driver of the first car and serious injuries to the driver of the second car. It was reported that the driver of the second car was travelling too fast. The conditions at the time of the accident were dark with dry road surfaces.

The above casualties are considered to have occurred due to road users' behavioural issues rather than any highway network design issues.

Following review of the only accident occurred in the study area over the 5-years period, no obvious trends were found. While it is acknowledged that all accidents are regrettable, the PIA data analysis has concluded that this accident has occurred due to road users' behavioural issues rather than any highway network design issues.



4.0 Existing Site

4.1 Description and Location

The site is located within the former Woodside Sports College site in Belvedere, DA17 6DH, at the eastern extent of Halt Robin Road, within LBB, as indicted in Figure 4-1.

The site is bounded by Halt Robin Road to the south. To the east of the site is Halt Robin Lane and residential properties. To the north and west is part of the previous Woodside Sports College which is not being developed under this proposal.

Figure 4-1 includes the site's red boundary.

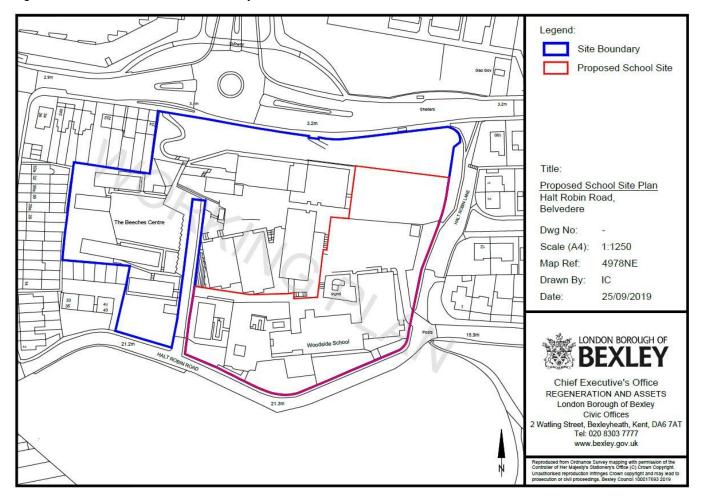


Figure 4-1: Proposed site boundary

The site is currently vacant; however its previous use was as Woodside Sports College which is now permanently closed.

Woodside Sports College accommodated up to 220 pupils when it was running full time until 2013. After 2013, there were then approximately 50 students who remained at the school until 2017 when it permanently closed, and the students were moved to another site.

The nearby area to the west and south of the site is predominantly residential in nature. There are also other educational land uses within the wider area such as Belvedere Junior School and Belvedere Infant School. Belvedere Junior School is approximately 210m north of the site and is located on the northern side of Lower Road (B213), east of the roundabout with Picardy Manorway.



4.2 Access

The existing site has two vehicular accesses. One access (seeFigure 4-2: Western site accesses (source Google Street View, November 2020) Figure 4-2) is located near to the north west of the site for the Woodside school, which is still signposted as the access for emergency vehicles. The other access (see Figure 4-3) is located at the end of Halt Robin Road, which used to be the main vehicular access point for Woodside Sports College.

Two dedicated pedestrian access were also provided to the existing site, one located on Halt Robin Road (see Figure 4-2), to the east of the (emergency) vehicular access, and the second one located opposite Parkside Road (see Figure 4-3).



Figure 4-2: Western site accesses (source Google Street View, November 2020)





Figure 4-3: Eastern site accesses (source Google Street View, November 2020)

4.3 Parking

The previous Woodside Sports College had approximately 37 car parking spaces provided onsite, located to the north east boundary of the site and accessed via Halt Robin Road.

4.4 Trip Generation

As the site is currently vacant, there are no trips associated with the existing site. However, as previously mentioned, the site was in use as Woodside Sports College which would have had trips made by staff, students and visitors, alongside additional deliveries and servicing trip. All of these trips would have utilised the local road network and accessed the site via Halt Robin Road.



5.0 Proposed Development

5.1 Description

The proposal seeks the development for a special educational needs secondary school called the Cornerstone School, to be located on Halt Robin Road where the former Woodside Sports School resided.

The proposal consists of the refurbishment of the existing school building and provision of a new build school extension.

The proposed school will accommodate up to 90 students and will be supported by 40 permanent staff and up to 15 visiting professionals. Liaison with the school Trust confirmed the following with regard to school staff:

• 'The nature of the special school provision requires regular outside input including routine meetings of up to 15+ participants, including Trust staff, visiting professionals (eg education psychologists, education welfare officers and speech and language therapist etc) as well as parents and their representatives. The nature of the special education provision means that the school will recruit specialist/experienced teaching staff who may not live as local to the schools as in a 'mainstream' school setting and so the school is likely to have a higher percentage of staff that need to drive to work'.

The proposed landscape plan is shown within Figure 5-1, and also included in Appendix E. This provides the ground floor outline including the car parking facilities, sporting facilities, grounds and the school building itself.



Figure 5-1: Proposed landscape plan

The proposal includes the provision of a MUGA, located to the north of the school building.



5.2 Proposed Site Occupation

The new school building is proposed to open by September 2022 and operate at full capacity by September 2025. Table 5-1 indicates the breakdown of students per opening years. It is anticipated that the school will be supported by up to 16 staff during its first year of operation.

Key Stage	2022/23	2023/24	2024/25	2025/26
Key Stage 3	32	48	48	48
Key Stage 4		16	32	32
Key State 5				10
Total	32	54	80	90

Table 5-1: Operational Plan

5.3 Operational Hours

The proposed operational hours of the school are summarised in Table 5-2; this information has been obtained through liaison with the school Trust, which also confirmed that pupils are not allowed to arrive on site until the right staff are in place, and that at the end of the day no pupils are left on site without the right members of staff also being present. Table 5-2 takes account of this procedure.

Activity	Operational Hours		
Staff Arrives	Before 08:00		
Breakfast Clubs	08:00-08:40		
Start/End of Lessons	08:40– 15:20		
After-School Activities	15:20 - 16:30		
Staff Departures	After 16:30		

Table 5-2: Operational Hours

5.4 Anticipated Peak Hours Travel Demand

As indicated in Table 5-1, the school day will begin at 08:40 and will end at 15:20. For the purpose of testing a worst-case scenario, it has been assumed that 20% of students attend breakfast clubs and after-school activities.

On the basis of the above assumptions, the anticipated peak travel hours for the proposed school are as shown in Table 5-3.

Category	Arrivals		Departures		
	07:00-08:00	08:00-09:00	14:30-15:30	16:00-17:00	
Students	0%	100%	80%	20%	
Staff	100%	0%	0%	100%	

Table 5-3: Distribution of travel demand across peak hour periods

5.5 Students Catchment Area

Liaison with the school trust confirmed that pupils will come from all across the borough potentially, as it is a specialist provision. There will also be a small number of pupils travelling from neighbouring local authorities (Bromley / Greenwich / Lewisham etc).



5.6 Community Use

It is anticipated that MUGA, Sports hall / fitness room will be available for community use after school hours (i.e. after 17:00) or at weekends. The school carpark might be used for community use, in which case it will be staffed by a lettings company who will manage access to the required area being used.

5.7 Access

The proposal includes retaining the existing eastern vehicular access located at the end of the cul-de-sac on Halt Robin Road, opposite Parkside Road, in the south east corner of the site for the proposed school. This vehicular access will be used by staff/visitors accessing the car park, minibuses parking within the site (not for drop-off/pick-up), emergency vehicles and refuse vehicles.

The existing western vehicular access is not anticipated to be used by the proposed school. There will be a double manual gate provided at this former emergency access.

The main pedestrian access will be provided at the same location as the existing pedestrian access, located in the south western corner of the site, on Halt Robin Road. This pedestrian access will be for students and staff on foot and will consist of stairs and a ramp, to ensure it is accessible by all. The ramp will have a gradient of 1:21 and will weave down to the lower height of the school.

A second pedestrian access will be situated next to the proposed vehicle access which will lead to the main reception area of the school and will be used by visitors and by staff using the school car park.

The access for cyclists will be via the visitor entrance, where access to the main building can be accessed from; this is because the cycle parking spaces are located near this entrance, as explained in the next paragraphs.

All accesses are indicated on the proposed landscape plan included in Figure 5-1 and will all be gated.

5.8 Parking

5.8.1 Car Parking

Car parking will be provided within the same location as the existing car park, in the north-east side of the site, accessed from the eastern end of Halt Robin Road.

The car park will be provided with a total of 31 parking spaces, accommodating the following breakdown, also indicated in Figure 5-2:

- 28 spaces for staff, provided in the form of perpendicular bays;
- 2 disabled bays;
- 1 enlarged bay.

Additionally, 1 minibus bay is also provided on-site.





Figure 5-2: Proposed Car Park Layout

6 active EV charging points and 3 passive EV charging points will also be provided. This provision in accordance with the London Plan (see Table 2-1).

Steps will be provided out of the car park to separate pedestrians from vehicles. A one-way system will also be implemented within the car park.

The provided number of disabled and enlarged bays correspond to 10% of the total car parking provision, in accordance with the London Plan's requirements included in Table 2-1.

The one enlarged parking bay provided, when first occupied, will not be marked as a disabled parking bay and therefore would be useable by anyone, but it is in place to be converted to a disabled parking bay should additional spaces be required.

Further, should there be a requirement for additional spaces (i.e. beyond the 2 disabled bays and the enlarged bay converted to disabled bay), this will be provided to the north of the proposed enlarged bay.

All the car parking bays measure 4.8m by 2.4m. The disabled/enlarged bays have the same measurement with an additional 1.2m of hatching to the side and back. The minibus parking space measures 2.5m by 7.5m.

A swept path analysis, included in Appendix F, has been undertaken for the car park using the following vehicles:

- Large car;
- Minibus:
- Fire Tender.

The swept path demonstrated that the above vehicles can access and egress the site in forward gear.

A CPMP has been produced in support of this planning application, providing detailed information on the proposed parking strategy.

5.8.2 Cycle Parking

The proposal includes the provision of 20 cycle parking spaces in accordance with the following breakdown:

- 12 cycle parking spaces for students;
- 6 cycle parking spaces for staff
- 2 spaces for visitors.

The proposed cycle parking provision is above the London Plan's minimum requirements included in Table 2-1.

Figure 5-1 displays the location of where the cycle parking will be situated. All of the cycle parking will be situated together (staff, students and visitors). This will be located and accessed to the south of the visitor's entrance, contained



within the school fence. All the long stay cycle parking spaces (staff and students) will be covered whilst the visitor cycle parking will not be covered. All cycle parking will be secure.

5.9 Drop-Off/Pick-Up

Drop off/pick up is proposed to be undertaken on street, from Halt Robin Road.

The pavement along the northern side of Halt Robin Road, by the proposed pedestrian entrance, is in excess of 1.6m, while the width of Halt Robin Road allows for parking cars without interfering with a two-way circulation of the road. This is indicated in Figure 5-3 which shows historical images extracted from Google Street View from 2008 and 2012.



Figure 5-3: Halt Robin Road (source: Google Street View, 2008 and 2012)

It is proposed that cars/taxis/minibuses will park on the northern side of the road (as in Figure 5-3) along the 120m extent indicated in red in Figure 5-4, from where they will perform drop off/pick up activities.

It is also proposed that all vehicles will use the area at the eastern end of Halt Robin Road to perform turning manoeuvres.

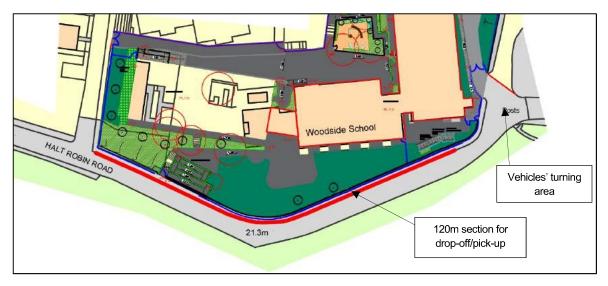


Figure 5-4: Location of drop-off/ pick-up on Halt Robin Road

Staff will supervise these activities at all times, and measures to this extent will be included in the STP.

It is noted that vehicles will only attend the site for the time required and are not expected to be parked along Halt Robin Road, outside of these hours.

The trust confirmed that the proposed drop-off/pick-up arrangements are acceptable.



5.10 Deliveries and Servicing

Delivery activities are proposed to be undertaken on-street, on Halt Robin Road.

It is proposed that delivery vehicles travelling eastbound on Halt Robin Road will park near to the proposed pedestrian access opposite Parkside Road. The vehicle will then turn within the cul-de-sac of Halt Robin Road, before continuing westbound in forward gear on Halt Robin Road.

It is anticipated that deliveries will be undertaken outside of the school peak hours (i.e. between 07:30-09:00 and between 15:00-17:00), and that reversing manoeuvres will be supervised. Halt Robin Road is not a through road and therefore there is little to no impact on the traffic within the area.

A swept path analysis, included within Appendix F, has been undertaken to demonstrate that there is ample room for a 10m rigid vehicle to perform the above manoeuvre.

Waste and refuse collection is proposed to be undertaken on-site. The refuse vehicle will enter the site in forward gear, pulling up to the bin store within the site boundary (south eastern extent of the site), at a suitable distance as to allow for the storage doors to be able to open and access to the bins. Once loaded and the empty bins are returned to the store, the refuse vehicle will then proceed to reverse out of the main entrance before turning within the cul-de-sac of Halt Robin Road and continuing its journey westbound in a forward gear.

Liaison has taken place with the Waste & Recycling Project Officer at LBB, who confirmed that this arrangement is acceptable. It was also confirmed that each refuse collection team is formed of a minimum of two operatives, which allows for one of them to act as a reversing assistant on manoeuvres.

LBB council have confirmed that the refuse vehicle which is used by the council is the Olympus Duo 16W 6x2RS + Combi Recycling Box, shown in Appendix F. Therefore the 11.2m refuse vehicle which has been used to undertake the swept path analysis (also included in Appendix F) is a suitable representation of the vehicle and the manoeuvres that would need to be undertaken.

It is anticipated that there will be two refuse collections a week, this will include general waste as well as recycling.



6.0 Trip Generation

6.1 Introduction

A trip generation exercise has been undertaken to establish the likely trips that could be generated by the proposed school. The trip generation is based on a total of 90 students and 55 staff members (40 permanent staff members and 15 visiting professionals), which are anticipated to be required on a daily basis.

6.2 Students Trips

The school Trust confirmed that it has not previously managed any existing SEN (special need education) schools and therefore have no details of students travel surveys for similar schools, which can be used as a comparison.

For the purpose of this assessment, the mode share data for nearby SEN secondary schools in LBB was obtained from 2011 School Census data. The mode shares extracted from four SEN schools are provided in Table 6-1, with the average mode shares from these sites also provided in the table.

Travel Mode	Oakwood School	Woodside School	Shenstone School	Marlborough School	Average
Car/Taxi	5%	9%	7%	8%	7%
Minibus	87%	83%	93%	92%	89%
Public Transport	0%	0%	0%	0%	0%
Cycle	7%	0%	0%	0%	2%
Walk	-	8%	0%	0%	2%
Total	100% (*)	100%	100%	100%	100% (*)

Table 6-1: Modal Split for LBB's SEN secondary school (source: 2011 school census) * Due to Rounding

The average modal split from Table 6-1 was then applied to the 90 students who will attend the proposed school, to predict the number of trips each mode will have from the students; this is included in Table 6-2.

Travel Mode	Anticipated mode share %	No. of trips
Car/Taxi	7%	7
Minibus	89%	80
Public Transport	0%	0
Cycle	2%	2
Walk	2%	2
Total	100%	90(*)

Table 6-2: Anticipated students' trips generation * Due to Rounding

Table 6-2 indicates that 89% of students are anticipated to travel by minibus, 7% will travel by car/taxi. The remaining 5% will either walk (2%) or cycle (2%).

The school Trust confirmed that 16-seater minibuses will be used for transferring these students to and from the site. For robustness of this assessment, it has been assumed that the minibuses will be used to a capacity of 75%, which is 12 students per bus (total of approximately 7 minibuses required for the anticipated 80 pupils travelling by this mode).

With the above assumption, the proposed school is anticipated to generate a total of approximately 14 students' vehicular trips during the morning drop-off and evening pick up periods, including car/taxi and minibus trips.



6.3 Staff Trips

As mentioned, the trust has not previously managed any existing SEN schools and therefore have no details of staff travel surveys for similar schools, which can be used as a comparison.

For the purpose of assessing anticipated trip generation demand, the 2011 Census was queried. In particular, the data for Method of Travel to Work was analysed. Census data (WU03EW – Location of usual residence and place of work by method travel to work (MSOA level)) was acquired for everyone who travels from all of the 32 London boroughs into the area the school is located within, which is Bexley 003. This allowed for the average modal split to be calculated, which is included in Table 6-3, where the average is also applied to the proposed number of staff (i.e. 55 in total).

It should be noted, that the 'working from home' category was removed as this equated to 0 trips. Additionally, trips from 'Underground, metro, light rail or tram and 'Train' have been combined into one category labelled train. The 'other method of travel to work' equated to 0.3% of total trips and has been included within the car mode to present a worst-case scenario.

Travel Mode	Anticipated mode share %	No. of trips		
Car	56%	31		
Taxi	0%	0		
Car Share	5%	3		
Bus	17%	9		
Train	7%	4		
Motorcycle	1%	1		
Cycle	2%	1		
Walk	12%	7		
Total	100%	55(*)		

Table 6-3: Anticipated staff trip generation * Due to Rounding

Table 6-3 indicates that 56% of staff are anticipated to travel by car, with 5% travelling by car share and 1% travelling via motorcycle. It is anticipated that 17% will use the bus and 7% will use trains. The remaining 14% will either walk (12%) or cycle (2%).

6.4 Overall School Trips

By applying the anticipated mode share information for students (Table 6-2) and staff (Table 6-3) to the anticipated peak hour travel demand (Table 5-3), the peak hour trips are presented in Table 6-4.

Travel Mode	07:00-08:00		08:00-09:00		14:30-15:30		16:00-17:00	
	Students	Staff	Student	Staff	Student	Staff	Student	Staff
Car	0	31	7	0	5	0	1	31
Taxi	-	0	-	0	-	0	-	0
Car Share	-	3	-	0	-	0	-	3
Minibus	-	-	80	-	64	-	16	-
Bus	0	9	-	0	-	0	-	9
Train	0	4	0	0	0	0	0	4
Motorcycle	-	1	-	0	-	0	-	1
Cycle	0	1	2	0	1	0	0	1
Walk	0	7	2	0	2	0	0	7
Sub-total	0	55	90(*)	0	72	0	18	55
Total	55		90(*)		72		73	

Table 6-4: Anticipated total person's trip generation * Due to Rounding



Table 6-4 indicates that the highest number of peak hour person's trips is 90 (combined staff and students' trips), which will occur in the morning between 08:00-09:00.

Similarly, the anticipated total vehicle trip generation, accounting for the previous assumptions of minibuses being used to 75% of their capacity, is as follows; it is noted that staff trips are one-way trips (to the site in the morning and from the site in the afternoon), while students trips are two-way trips every time.

- 31 one-way hourly vehicle trips between 07:00-08:00;
- 28 two-way hourly vehicle trips between 08:00-09:00;
- 22 two- way hourly vehicle trips between 14:30-15:30;
- 31 one-way vehicle trips and 6 two-way vehicle trips between 16:00-17:00.

Therefore, the peak hour period for vehicle trips is between 16:00-17:00, anticipated to generate a total of 31 one-way trip and 6 two-way trips.



7.0 Development Impacts

7.1 Introduction

This section reviews the impacts of the proposed school on the local highway network, on parking, non-vehicle users and road safety.

7.2 Local Highway Network

As included in Section 6, the proposed school is anticipated to generate a maximum of 31 one-way vehicular trips and 6 two-ways vehicles trips within the 16:00-17:00 peak hour period.

This level of vehicular trips is considered negligible, as confirmed by the comment included within LBB's pre-application letter included in Appendix A which states:

'It is understood the former school accommodated up to 220 SEN pupils up until 2013 when 120 pupils were moved to another school in the borough, with the remaining 50 pupils remaining at the site until 2017 when they were moved to another site. It is accepted that the proposed school would be smaller than the former and therefore generate fewer vehicular and person trips.'

Nevertheless, the STP will include measures to encourage the use of more sustainable modes of transport in place of the private car. Mitigation measures are included in Section 8.

7.3 Parking

7.3.1 On-site

The assessment included in Section 6 predicted an on-site staff parking demand for 31 spaces. These will be accommodated within the 31 car parking spaces provided on-site, with no overspill parking on-street.

Nevertheless, the STP will include measures to encourage staff to use more sustainable mode of transport in place of the private car. In particular, the STP for the first year of operation (when only up to 16 staff will be working at the school site) targets a reduction in 3 staff's vehicular trips.

Mitigation measures are discussed in Section 8.

It is noted that the width of the access into the car park, from the gate to the location of the minibus bay, only allows for a one-way traffic circulation. Since the car park is proposed for the use of staff members only, it is expected that all vehicles will be arriving and leaving at similar timings of the day (i.e. one-way flow), with no issues with vehicles trying to enter/exit the site at the same time (i.e. two-way flow). However, should this problem arise, the school will locate a member of staff at the proposed school gate to help with vehicular circulation at peak time periods only.

7.3.2 Off-site

Section 6 anticipated that a total of 14 vehicles would be required for getting students to/from the school site.

The proposal includes for drop off/pick-up activities to be undertaken on street, from Halt Robin Road, along the 120m section indicated in Figure 5-4. Assuming a 7m parking length is required for the average vehicle (this is the worst-case scenario considering that a minibus is 6.3m long while a large car is 5m long), this section of the road could accommodate a total of 17 vehicles all at once (i.e. 120m/7m).

Therefore, the selected stretch of the road along Halt Robin Road will be able to accommodate the anticipated parking demand. It is also noted that these vehicles will only stop for the time required to drop off/pick up the students.

Pictures included in Figure 7-1 indicate that, while used previously by users of the former school located on the site, this stretch of Halt Robin Road is not currently used for residential parking and is therefore available for use during drop-off/pick-up periods associated with the proposed school. This therefore further confirms the feasibility of the proposed arrangements.





Figure 7-1: Google Street View imaging of Halt Robin Road: 2008 (top-left), 2012 (top-right), 2014 (bottom-left), 2020 (bottom-right)

Nevertheless, the STP will include measures to encourage students to use more sustainable mode of transport as much as possible, in order to further reduce the level of on-street parking linked with drop-off/pick-up activities.

In particular, the STP for the first year of operation (i.e. with up to 32 students) targets a reduction in 2 students' car trips (in favour of cycling/walking/use of public transport), while maintaining the same % of students travelling by minibus.

STP measures will also include the following:

- Members of staff will supervise the proposed pedestrian access to ensure students are arriving and leaving school safely and vehicles are able to attend the site as needed;
- Parents driving to the school and minibuses will be asked to park on the northern side of Halt Robin Road only and to reverse within the cul-de-sac area only;
- Delivery and servicing will be scheduled outside of drop-off/pick-up times to ensure the carriageway and turning place is not occupied by larger vehicles.

These mitigation measures are included in Section 8.

7.4 Pedestrian, Cyclists, Public Transport users

The proposal will not change the existing infrastructure of walking and cycling routes. Due to the nature of the school, it is not anticipated that a high portion of students will commute via active travel (walking and cycling).

As mentioned in Section 4, Halt Robin Lane connects Halt Robin Road with Lower Road. It is however not anticipated that users of the proposed school will use this pedestrian route.

Figure 7-2 indicates that the shortest route between the proposed pedestrian access and Belvedere station is through Halt Robin Road.



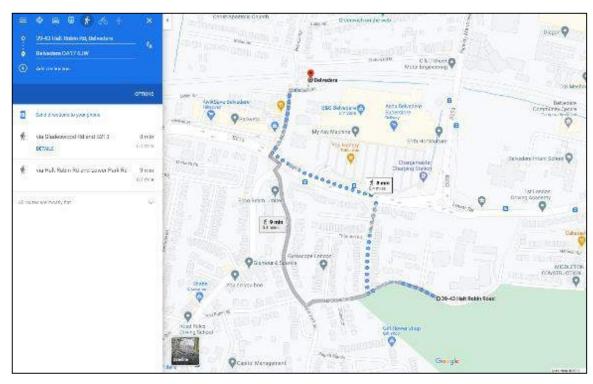


Figure 7-2: Walking route between the proposed pedestrian access and Belvedere Station

Additionally, the school will ask any students travelling by bus to use Lower Road's bus stops, to the east of Picardy Manorway, as identified in Figure 7-3. The access to the eastbound bus stop (bus stop C) will be facilitated by the presence of the existing uncontrolled pedestrian crossing with refuge island, also indicated in Figure 7-3.

As mentioned, due to the nature of the school, it is however not anticipated that a high portion of students will commute via public transport.



Figure 7-3: Walking route between the proposed pedestrian access and bus stops on Lower Road



7.5 Road Safety

The analysis of the immediate area for personal injury accident data demonstrated there are no existing issues which would raise concern over road safety. Whilst it is recognised that the increase of vehicles into the area may increase the likelihood of a collision, it is acknowledge that the majority of students are to travel to and from school via minibuses which attend and leave the site from outside/near to the pedestrian access, which reduces the risk of a collision as fewer individuals are walking or cycling from the development.

Similarly, due to the small size of the school, it is only anticipated approximately 7 cars and 7 minibus will attend the site at similar times to pick up and drop off students. It is also anticipated that members of staff will attend the site earlier and leave the site later than the students, reducing the conflict between how staff and students attend the site.

It is also noted that the site is placed within an area which is characterised by its residential nature, meaning there a little conflicting businesses or services which have their own traffic influx and therefore raise little concern for road safety. The residential nature usually would mean slower speeds are taken within the local area.



8.0 Mitigations

8.1 Introduction

This section outlines the mitigation measures proposed to minimise the potential impacts anticipated to be produced by the development proposal.

8.2 Design Process

The design process allowed for steps to be taken from the start of the proposal to reduce any potential impacts foreseen to occur as a result of the proposed school, in regard to transport matters including the local highways and its users.

8.2.1 Pedestrian Safety

Dedicated pedestrian and vehicle accesses have been provided to ensure safety of the two users once within the site.

An existing pavement of more than 1.6m in width is provided along the school side of Halt Robin Road, which allows safe access to the pedestrian entrance/exit. Both stairs and a ramp access are provided between the pedestrian access and the school building to ensure it is accessible by all.

8.2.2 Access

The pedestrian and vehicular accesses were put within adequate distance of each other as to not create any conflict between the two road users.

As mentioned, the access into the car park, from the gate to the location of the minibus, only allows a one-way traffic circulation. However, since the car park is proposed for the use of staff members only, it is expected that all vehicles will be arriving and leaving at similar timings of the day, with no issues with vehicles trying to enter/exit the site at the same time. However, should this problem arise, the school will locate a member of staff at the proposed school gate to help with vehicular circulation at peak time periods only.

8.2.3 Accessible Parking

Two disabled parking bays and one enlarged parking bay are provided on site, corresponding to 10% of the total car parking spaces, as requested within the London Plan.

The enlarged parking bay when first occupied will not be marked as a disabled parking bay and therefore would be useable by anyone, but it is in place to be converted to a disabled parking bay should additional spaces be required. Further, should there be a requirement for one additional one, this will be provided to the north of the proposed enlarged bay.

8.3 School Travel Plan

A STP has been developed in support of the proposed development which is to be submitted alongside the TS in the planning application.

The STP provides management strategies and measures for all site users in order to encourage sustainable travel practices and minimise the impact of the school on the local road network. The document also provides details of the proposed physical and management measures which will be implemented at the site.

Dialogue with the school in relation to the preparation of this STP has been undertaken. A draft of the STP has been reviewed, approved in relation to its objectives, targets and monitoring strategy as demonstrated by the Trust signature in the STP report.



Some of the STP measures will include the following:

- Stagger the arrival and departure of students via running breakfast clubs and after school clubs;
- Encourage staff to use more sustainable modes of transport in place of the private car;
- Encourage students to use more sustainable mode of transport as much as possible;
- Members of staff will supervise the proposed pedestrian access to ensure students are arriving and leaving school safely and vehicles are able to attend the site as needed;
- The school will ask any students travelling by bus to use Lower Road's bus stops located to the east of Picardy Manorway; the use of Halt Robin Lane will be discouraged by the school;
- Parents driving to the school and minibuses will be asked to park on the northern side of halt Robin Road only and to reverse within the cul-de-sac area only;
- Delivery and servicing will be scheduled outside of drop-off/pick-up times to ensure the carriageway and turning place is not occupied by larger vehicles;
- (if required) locate a member of staff at the proposed school gate to help with vehicular circulation at peak time periods only.

8.4 Car Park Management Plan

A CPMP has been produced in support of the proposed school development. The CPMP outlines how the needs of the car park will be managed including the development of further EV charging facilities and the conversion and provision of spaces into dedicated disabled parking spaces.

The CPMP outlines how car parking and its associated facilities will be managed once the site is in use.

8.5 Construction Management Plan

A Construction Management Plan has also been produced by Galliford Try to support the planning application. This document provides a strategy to minimise the impact of the construction on the surrounding community, both for the construction on site and the transport arrangements for servicing the site. The completed plan addresses how impacts associated with the proposed works will be mitigated and manage the cumulative impacts of construction in the vicinity of the site.



9.0 Conclusions

The conclusions of this Transport Statement are as follows:

- A comprehensive network of pedestrian facilities is provided within the immediate vicinity of the site, with lit footways also provided on most local streets. While the site is situated in a PTAL of 2 rating, 8 bus stops and one rail station are provided within a 640m distance (10 minutes' walk) from the site;
- The surrounding area has only had one accident in the past 5 years identified and therefore the immediate transport network is considered safe and would be suitable for commuting via active travel;
- Following review of the only accident occurred in the study area over the assessed 5-years period, no obvious
 trends were found and the accident was determined to be as a result of road users behavioural rather than any
 highway network design issues;
- The proposals include the provision of an on-site car park providing 28 car parking spaces for staff, 2 disabled parking bays and 1 enlarged parking bay. 6 of these car parking bays will be equipped with active charging facilities and 3 will have passive charging facilities for future provision. Cornerstone School's parking facilities are in accordance with the London Plan and pre-application discussion with LBB council.
- The proposal also includes 18 long stay covered and secured cycle parking spaces (12 for students and 6 for staff) plus 2 short stay cycle parking spaces for visitors, which is in excess of the London Plan's standards;
- Students drop off/pick up activities are proposed to be undertaken on street, from Halt Robin Road. It is proposed
 that cars/taxis/minibuses will park on the northern side of the road, from where they will perform drop off/pick up
 activities. It is also proposed that all vehicles will use the area at the eastern end of Halt Robin Road to perform
 turning manoeuvres;
- Waste and refuse collection will take place onsite, and deliveries will take place within the turning place outside of the vehicle access of the site;
- The peak hour period for persons trips is between 08:00-09:00, which is anticipated to generate a total of 91 persons trips (combined staff and students' trips). The peak hour period for vehicle trips is between 16:00-17:00, which is anticipated to generate a total of 31 one-way trip and 6 two-way trips;
- The assessment of the on-site parking capacity has determined that all staff parking generated by the school will be accommodated within the proposed on-site car park. Similarly, the anticipated off-site parking levels generated by drop-off/pick-up activities will be accommodated within the 120m section of Halt Robin Road;
- A School TP and a CPMP have been developed as mitigation measures towards reducing reliance of vehicle
 modes to and from the school by staff and students and for the use of the car park to be monitored to allow for
 further electric charging points or disabled bays where required.

It is concluded that the proposed development is considered acceptable on a transport and highways grounds, and transport network and onsite facilities are suitable for the development and in relation to previous uses will bring fewer trips in the local area. On this basis the development should be granted planning consent



Appendix A



Development Management
Place
Civic Offices, 2 Watling Street,
Bexleyheath, Kent, DA6 7AT
Telephone 020 8303 7777

The person dealing with this matter is: Avril Mcnamara

Direct Dial: 0203 045 4433

Email: avril.mcnamara@bexley.gov.uk

Our reference: 21/00662/PREAPP

Date: 15 April 2021

London Borough of Bexley
C/o Edge Plan Contact: Chris Maltby
16 Upper Woburn Place
London
WC1H 0BS
BY EMAIL

Dear Chris

Re: PROPOSED CORNERSTONE SCHOOL (FORMALLY WOODSIDE SCHOOL), HALT ROBIN ROAD, BELVEDERE ALTERATIONS AND EXTENSION TO PROVIDE TEACHING ACCOMMODATION FOR 90 PUPIL SEMH SCHOOL WITH SIXTH FORM

INTRODUCTION

Thank you for engaging with the London Borough of Bexley's pre-application service. We hope you have found the process useful in developing your proposals.

I have set out below my comments on the scheme following our meeting on 25/3/2021. The purpose of the meeting was to seek the Council's view on a draft layout for the proposals and to provide an update on timescales. The advice provided in this letter is a follow up to the last pre-application letter on this scheme, dated 5/3/2020 for pre-application advice (20/00165/PREAPP). Since, the last pre-app, there has been informal discussions relating to the scheme, with advice sought on biodiversity. With regards to the Development Plan context, the new London Plan 2021 has now been published and so reference will be made to the relevant policies from that plan.

The main conclusions provided in the last pre-app can be summarised as follows:

- The principle of the development is supported;
- To engage with Sport England regarding the loss of the playing field (I have noted that this has been actioned)
- A high quality contemporary design will be the most appropriate design solution, with a brick or timber finish
- A flat or mono pitch roof would be most appropriate, and a green roof should be incorporated;
- If floodlighting is proposed, there will need to be limits on hours of operation; also need to account for impact on the ecology of the site, such as roosting bats;
- A detailed transport statement is required;
- Swept path drawings are required to demonstrate that access can accommodate the various sized vehicles;
- Servicing within the site is required as it is not easy for vehicles to turn in Halt Robin Road:
- Consult Refuse:
- 5% of parking provided should be designed for disabled with a further 5% of bays enlarged for future conversion to disabled parking if required;
- Staff travel surveys required prior to Highways agreeing to car parking numbers;
- Provision needs to be made for the dropping off and picking up of pupils in cars, taxis or minibuses;
- The site is adjacent to Franks Park, Site of Importance for Nature Conservation:
- An Ecological Appraisal Survey Report and Protected Species Assessment is required (it is noted that this has been undertaken);
- Ecological enhancements are required;
- An Arboricultural Impact Assessment is required; any trees to be lost should be replaced;
- An Air Quality Assessment is required to achieve an air quality neutral appraisal of the development;
- A Contamination report is not required, but it is likely there will be a 'watching brief' planning condition;
- Flood Risk Assessment is required;
- Sustainable Drainage scheme is required. The strategy should accompany the planning application;
- BREEAM very good should be achieved, a detailed Energy Assessment is required;
- A detailed list of planning application requirements was provided (this will need to be updated, to comply with the new London Plan 2021 requirements).

PROPOSAL

The development that is proposed has remained the same as the previous pre-app, being alterations and extension to provide teaching accommodation for a 90 pupil SEMH School with sixth form.

RELEVANT PLANNING CONSIDERATIONS

The Development Plan

The adopted Development Plan for the London Borough of Bexley comprises; the London Plan (2021), Bexley's Core Strategy (2012), and saved elements of the Unitary Development Plan (UDP) (2004, as saved from 2012).

The Core Strategy sets out a spatial planning framework for the borough until 2026.

The UDP is arranged into Part 1, which sets out the Council's general strategy and policies; Part 2, which sets out to detail policies and proposals for a range of topics, together with their justifications; the Design and Development Control Guidelines, which expand the policies by setting out a number of detailed planning and environmental considerations that will be taken into account in the determination of planning applications; and an Appendices section.

These documents are in general conformity with the London Plan (2021). This document provides the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20–25 years.

The following advice contains reference to relevant planning policies within these documents. These are all available to view in full on (or via) the council's website: https://www.bexley.gov.uk/services/planning-and-building-control/planning-policy-and-guidance

Other material considerations

The National Planning Policy Framework (revised in February 2019) acts as guidance for local planning authorities and decision-takers, both in drawing up plans and making decisions about planning applications. At the heart of the NPPF is a presumption in favour of sustainable development. The document, as a whole, forms a key and material consideration in the determination of any planning permission.

PLANNING ASSESSMENT

The main matters that were considered in the pre-app meeting were as follows:

- Parking and access considerations;
- Design Considerations
- Refuse collection arrangements;
- Ecology and tree considerations

Parking and Access Considerations

It is proposed to retain the existing vehicular access in the south east corner of the site for the proposed school. This will provide access to the school car park which is located north of the building. It was originally envisaged that the access may also be used by minibuses transporting pupils to and from school at the start and end of the school day, and on trips as and when necessary.

It is acknowledged that it will be necessary to undertake swept path assessments to demonstrate that the access is suitable to accommodate the various sized vehicles such as mini buses along with delivery vehicles and potentially a refuse vehicle depending on the location of the refuse store.

However, it is unlikely that refuse vehicles and larger delivery vehicles will be able to easily turn in Halt Robin Road due limited width of the highway and steep gradients.

The pupil entrance would be in the south-western corner of the site where new stairs and a ramp would be provided. Pupil dropping off and collection is indicated to be via Halt Robin Road which has a carriageway width of 5m and a single footway on its northern side 1.5m wide.

There also appears to be a possible pedestrian access to the north linking with Lower Road. The applicant needs to confirm if this route will be made available as it would provide a shorter walking distance to Belvedere Station.

A Transport Statement is to be produced by "Cundalls" which needs to provide details of the predicted travel patterns including all modes, arrival/departure profiles, times and numbers, which could be critical because of the limited space available for parking and turning.

In terms of car parking the indicative plan suggests a total of 42 parking spaces for the school including 2 disabled spaces plus a mini bus parking bay.

Whilst there is no parking standard for schools in the London Plan it states that 5% of parking provided for workplace and education uses should be designed for the disabled with a further 5% of bays enlarged for future conversion to disabled parking if required and these requirements should be complied with.

The parking standards in the UDP which were replaced by the London Plan Standards in 2012 indicate a maximum provision for every full-time member of staff or full time equivalent. The Highway Authority would request details of staff travel surveys relating to the previous school travel plan before agreeing a final figure.

A Parking Design and Management Plan, indicating how the car parking will be designed and managed, with reference to Transport for London guidance on parking management and parking design (London Plan 2021, Policy T6).

Electric vehicle charging provision (20% active and 10% passive) and bicycle parking should be provided in accordance with London Plan standards.

It is unclear if the staff numbers are based on full time equivalents where there could be two part time staff on site during the lunchtime periods for example. This needs to be clarified along with the likely impact on car parking numbers within the Transport Statement.

It is understood the former school accommodated up to 220 SEN pupils up until 2013 when 120 pupils were moved to another school in the borough, with the remaining 50 pupils remaining at the site until 2017 when they were moved to another site.

It is accepted that the proposed school would be smaller than the former and therefore generate fewer vehicular and person trips.

However, there will be a need to quantify the number of trips and mode share. This assessment will also help to inform the quantity of staff car parking provided and the design/capacity of the pupil drop off/collection areas.

It should be possible to produce an assessment based on the previous school travel plan data relating to this site, providing the type of pupil disabilities are similar.

It is noted that no parking is specifically being provided within the school for the dropping off and picking up of pupils in cars, taxis, or minibuses. It is usual in the case of special needs schools that most pupils are delivered and collected by vehicles which enter the school grounds.

The acceptability of this arrangement needs to be discussed with the school operator, as it has been a requirement for previous schemes that vehicle drop off and collection is undertaken from within a secure site.

It may therefore be necessary to provide an off-street dropping off and collection are within the site.

At a pre-application meeting on 25th March 2021 the possibility of erecting a security fence on the highway along southern site boundary of the site in Halt Robin Road was discussed. Having measured the width of the existing footway and carriageway the Highway Authority requires further justification for this request before agreeing to any possible application for the "stopping up" of a strip of highway to accommodate the fence.

A condition survey, assessment and structural calculations will be needed before the Highway Authority can consider any application.

With regards to cycling, London Plan 2021 Policy T5 (Cycling) states that the requirement is long term 1 space per 8 FTE staff and 1 space for 8 students and

short term 1 space per 100 students. Cycle parking is to be laid out in accordance with the guidance contained in the London Cycling Design Standards and should include facility for adapted cycles for disabled people.

London Plan 2021 Policy T7 (Deliveries, servicing and construction) requires that

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

Design Considerations

Draft elevational drawings have been provided and these indicate a brick finish, two storey building with flat roof. The front elevation of the original building will contain a number of small annexes which are used as calm spaces.

The site is provided with a new car park in the Northern part of the site, in addition to a new MUGA. It was suggested at the meeting that both the new building (which contains a sports hall) and the MUGA may also be used as a community facility.

The site has a steep gradient from Halt Robin Road, in a northerly direction. A ramp and step access is proposed from Halt Robin Road as it is the intention for school pupils to be dropped off by minibus in Halt Robin Road by the ramped access.

There will be a dedicated pedestrian path from the car park to the school.

An outside classroom is also provided to the South of the new building.

With regards to the proposed elevational treatment of the new building it is welcomed that reference is made to the existing building and as such it is proposed to be finished in a complementary brick finish, with red brick details around the windows (to pick up on the header bricks used in the retained building). There is verticality in the layout and type of windows and the windows also appear to be recessed to reflect the detail in the older part of the school. The flat roof is acceptable as this achieves a reduced mass and provides the opportunity to include a green roof and solar panels.

The need for the calm rooms is acknowledged and there was some discussion on the form that these should take, whilst still achieving light within the adjoining classrooms. A brick finish for these rooms is proposed to seek to complement the brickwork used on the original building. From a design point of view, the layout of the calm rooms seems to lack sympathy with the host building and externally they appear to read as very small rooms which seems unwelcoming, however, given the specialised requirement for these spaces, I do not wish to be critical of the design and their layout, but if there is an alternative way of providing these spaces, this should be explored.

The London Plan 2021, sets out a number of additional requirements that should be incorporated as part of the application package. Policy D5 requires an Inclusive Design Statement. Policy D11 requires that safety, security and resilience to

emergency is addressed. Proposals should ensure that developments create places that are safe, inclusive and accessible for existing and future users. Early liaison with the Local Crime Prevention Officer is recommended.

It is recommended that you contact Mark Headley of the Metropolitan Police Service (Mark.A.P.Headley@met.pnn.police.uk / 0208 284 8889) directly to discuss secured by design principles for this development.

Policy D12 will require a Fire Safety Statement to be provided. This is an independent fire strategy, produced by a third party, suitably qualified assessor.

These are all required at the time of submission.

With regards to noise, Policy D13 (agent of change) will require details of an acoustic assessment and appropriate noise mitigation to be submitted with the planning application. In this respect, the proposed MUGA is noted to be closer to the residential area to the East of the site (within 40m) than the original MUGA. An example of a similar situation where noise mitigation was considered necessary is the Erith Sports Ground application (Ref: 19/01677/FUL) where residential was a comparable distance to this case, an acoustic assessment was undertaken. This concluded that acoustic fencing would be required at the sensitive boundaries to ensure acceptable noise levels were achieved.

Similarly consideration will need to be given to any potential glare from floodlighting and evening hours of operation if this is proposed as part of the MUGA.

Refuse Collection arrangements

The Council's Waste & Street Services team should be provided with details of the proposed collection point with levels and longitudinal sections and consulted for their views at an early stage. In addition details of where the waste will be stored prior to collection are required. The bins will need to be stored in locations that are unaffected by steep gradients. Extensive use of vehicle tracking will be needed to show that the proposed access routes are possible and safe for RCVs (the vehicle length is 9.84m, vehicle specifications are attached). The contact in the Waste & Street Services team is John Matthews (0203 0454632; john.matthews@bexley.gov.uk).

Sustainability Requirements

Development Plan policy requires the following standards are met for all new development:

BREEAM for major non-residential

 Use of sustainable urban drainage systems to minimise the surface water runoff from the site to no more greenfield runoff rate having regard to the effects of climate change;

When addressing the sustainable development requirements please address the London Plan 2021 relevant policies, SI.2 (Minimising greenhouse gases), SI.3 (Energy Infrastructure), SI.4 (managing heat risk), SI 5 (water infrastructure), SI7 (reducing waste and supporting the circular economy), SI 12 (Flood risk management) and SI13 (Sustainable drainage).

A suitable SuDS (sustainable urban drainage systems) strategy must be employed to ensure that greenfield run-off rates are achieved and to counter the effect of increasing the surface water flood risk.

It is a requirement that the SuDS hierarchy is correctly followed and that surface water is dealt with on site at source as much as possible (As required by the Mayor's London Plan 2021, the Building Regulations, Bexley's SFRA, the SuDS Manual and "Sewers for Adoption").

Disposal hierarchy (SuDS criteria C753) as follows:

- 1st Store rain water for later use;
- 2nd Use infiltration techniques, such as porous surfaces in non-clay areas;
- 3rd Attenuate rainwater in ponds or open water features for gradual release to a watercourse;
- 4th Attenuate rainwater by storing in tanks or sealed water feature for gradual release to a watercourse;
- 5th Discharge rainwater direct to watercourse;
- 6th Discharge rainwater to a surface water drain; and
- 7th Discharge to the combined sewer (Note there aren't any here).

The drainage proposals must conform to the following policies and standards:

- 1. Greenfield run off rates and volumes for the site are required to be met by London Plan Sustainable Design and Construction Supplementary Planning Guidance (3.4.10), London Plan Policy SI13, Bexley's Strategic Flood Risk Assessment (7.1.2) and Bexley's Sustainable Design and Development Construction Guide SPD (Guidance Note 12) and the Rainfall Runoff Management for Developments (2013). Even though as this site can be classified as a previously used "Brownfield site", the Sustainable Design and Construction Supplementary Guidance Section 3.4.10 states that on previously developed sites, runoff rates should not be more than three times greenfield runoff as a minimum requirement.
- 2. If SuDS schemes are not practical then attenuation and long term storage must be provided to ensure greenfield run off rates are met. This is taken from the SuDS Manual (CIRIA 753) and the Rainfall Runoff Management for Developments (2013) which requires long term storage to be provided for (M100 6 hours) for the developed site (M100 6 hours) greenfield.

- 3. The development must not make the flooding worse either on or off site as per National Planning Policy Framework (NPPF) and where possible will reduce the flood risk overall.
- 4. Exceedance routes for the 100 year design storm plus climate change, to be plotted and protected under planning (NPPF & Designing for exceedance in urban drainage (Ciria 635)).
- 5. Surface Water discharge into a Foul Sewer is strictly not allowed and likewise Foul discharge into a Surface Water Sewer is strictly not allowed.

The drainage designs must also comply with Building Regulations Part H and comply with Thames Water Authority adoptions and approvals.

Thames Water Utilities Limited should be consulted regarding any new sewer connections, sewer capacities, new water supplies and new water meters.

Any future planning application will need to be accompanied by a Flood Risk Assessment, as the site is in a Vulnerable Drainage Area.

The proposed development will involve the loss of large areas of soft landscaping and natural soakage, therefore a Sustainable Drainage (SuDS) scheme will be required to mitigate the effect of increasing local flood risk through increased surface water runoff or increased discharge into the surface water sewer system. For example, any new hard standing areas or sports pitches should be constructed in permeable materials, which would go a long way towards to satisfying the SuDS hierarchy and improving water quality.

Other Environmental Considerations

Air quality and contamination issues were considered in the last pre-application letter. The advice was that an air quality assessment is required with the planning application. A preliminary contamination assessment is not required.

Other matters arising from new London Plan 2021

Policy S3 (Education and childcare facilities) requires that safe routes, traffic calming at entrances, maximising and extending or multiple use of educational facilities for community or recreational use is encouraged as well as an inclusive design approach.

Trees & Landscape

You have advised that the scheme will require the removal of a number of trees particularly in the Southern part of the site, however a number are also required to be removed for the outdoor playground. Given the proximity of the car park to the

band of trees adjacent to the northern boundary, there will also be a need to provide root protection measures for trees to be retained. I have forwarded the arboricultural report to the Tree department, and have been advised that the following details are required: an extra column on the tree survey to indicate which trees are to be lost and these should also be shown on a plan; a plan to show the location of the existing trees. Please refer to the London Plan 2021 Policy G7 Trees and woodlands which requires that Category A and B trees should be retained and the need to provide replacement trees.

Biodiversity

As discussed, the proposal will need to incorporate biodiversity enhancements. An ecology assessment has been produced which includes a number of recommendations to be incorporated within the scheme. Consideration will need to be given to the impact of floodlighting on biodiversity, particularly the roosting bats that have been identified within the site. London Plan 2021 Policy S5 Sports and recreation facilities supports the provision of lighting within reasonable hours, unless lighting gives rise to demonstrable harm to the local community or biodiversity.

It will be a requirement to provide a green roof as part of the scheme to enhance biodiversity, contribute to the sustainable drainage strategy and enhance urban greening (London Plan 2021 Policy G5 Urban greening).

Pre-commencement conditions

New Regulations require pre-commencement conditions to be agreed with the applicant/agent. If that agreement is not forthcoming it may result in the planning permission being refused. As part of a planning application, the Planning Authority will write to requesting agreement to such conditions. It is in your/your client's interests to respond promptly to that request and it is good practice if precommencement conditions can be agreed as early as possible.

List of Documentation to be submitted with application

The link below takes you to a document which details the requirements for the valid submission of different types of planning applications to the London Borough of Bexley.

https://www.bexley.gov.uk/services/planning-and-building-control/planning/make-planning-application

The key documents to be submitted will include the following. This is not necessarily an exhaustive list; please refer to national and local validation requirements as per the above link.

Completed Application Form

- Signed Ownership and Agricultural Holdings Certificate
- Application fee
- Location plan
- Site / block plan
- Floor plans
- Roof plans
- Sections and site levels
- Elevations
- Planning Statement
- Design and Access Statement including CGI images of the proposed development from a range of viewpoints
- Transport Statement
- Swept path assessments to demonstrate that the access is suitable to accommodate the various sized vehicles such as mini buses along with delivery vehicles and potentially a refuse vehicle depending on the location of the refuse store.
- A Parking Design and Management Plan
- Green Travel Plan
- Air Quality Assessment
- Noise Impact Assessment and mitigation
- Fire Safety Statement
- Inclusive Design Statement
- Sustainable Design, Construction and Renewable Energy Statement
- Landscaping Plan(s) and Planting Schedules
- Ecological Appraisal Survey Report, Protected Species Assessment and Ecological Method Statement and mitigation
- Details of biodiverse roof
- Lighting Assessment (in relation to proposed floodlighting and other external lighting)
- Arboricultural Impact Assessment
- Flood Risk Assessment and Drainage Strategy
- Detailed energy strategy to also include details of managing heat risk
- Sustainable design, construction and renewable energy statement
- Circular Economy Statement
- Landscaping Plans and Planting Schedules
- Statement of Community Involvement detailing pre-application community engagement

CONCLUSION

It is considered that further investigation is required regarding the servicing and refuse arrangements for the site. The strategy will need to be accompanied with detailed swept path diagrams to demonstrate how this will work, taking into account the steep gradient of the site. The design principles for the new build are accepted. Further feedback regarding the loss of trees will be provided as soon as this is available. However London Plan 2021 seeks to retain trees categorised as grade A and B and requires replacement tree planting. If floodlighting is proposed, measures

to ensure that this is appropriate in the context of the biodiversity of the site need to be provided. It will also be necessary that the relevant supporting documents are provided as part of the future planning application submission; this will assist in preventing delays during the planning application process.

This pre-application advice follows an initial officer assessment of the information you have provided. Every formal application is subject to a statutory assessment process and it is only then that a full assessment of all the material planning considerations can be made in the context of relevant development plan policies. Some important considerations may only arise or become apparent during this formal process, which includes consultation with residents and other third parties affected by the development. This officer advice is therefore given for your general guidance in the preparation of a future planning application or proposal. The advice does not prejudice the Council's consideration or decision on any future application that may be submitted.

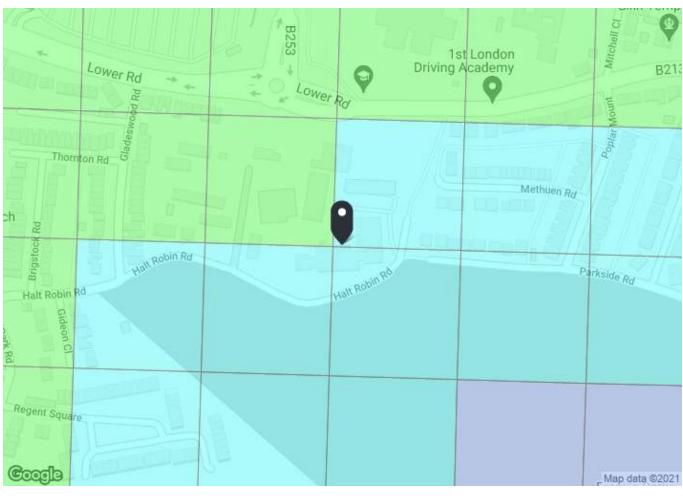
Yours sincerely,

Avril McNamara
PLANNING OFFICER
Planning Department – Development Management
Place



Appendix B







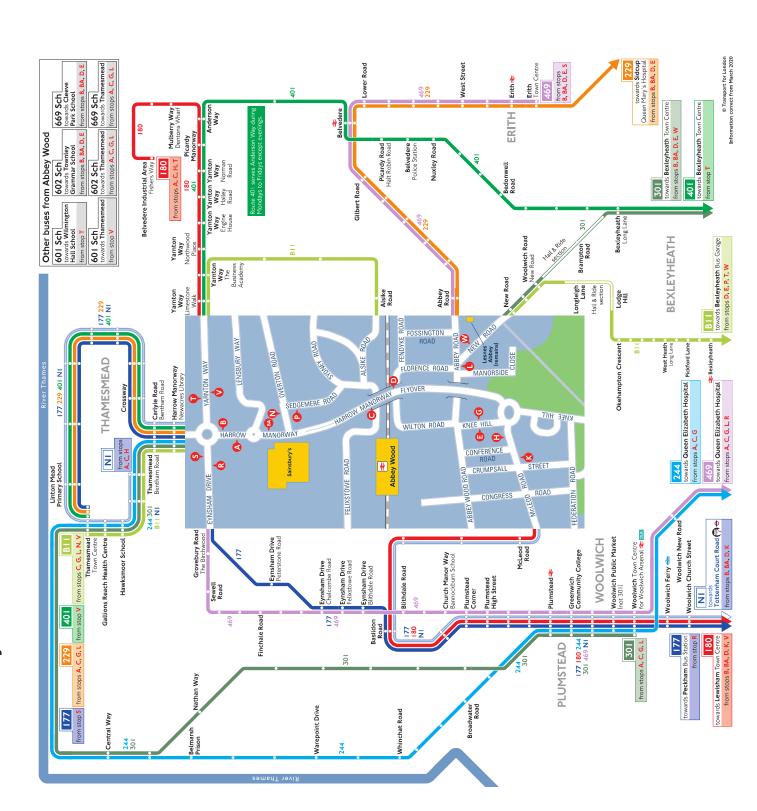


Calculation data									
Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	A
CRABTREE MANORWAY	469	336	4	4.2	9.5	13.7	2.19	0.5	1.09
CRABTREE MANORWAY	229	336	6	4.2	7	11.2	2.68	1	2.68
LOWER ROAD BELVEDERE STN	401	526.02	4	6.58	9.5	16.08	1.87	0.5	0.93
Belvedere	'DARTFD-CANONST 2B07'	736.08	2.33	9.2	13.63	22.83	1.31	1	1.31
Belvedere	'SLADEGN-CANONST 2B29'	736.08	0.33	9.2	91.66	100.86	0.3	0.5	0.15
Belvedere	'CANONST-DARTFD 2E11'	736.08	2	9.2	15.75	24.95	1.2	0.5	0.6
Belvedere	'CANONST-SLADEGN 2E25'	736.08	1.67	9.2	18.71	27.92	1.07	0.5	0.54
Belvedere	'CANONST-BRNHRST 2E27'	736.08	0.33	9.2	91.66	100.86	0.3	0.5	0.15
Belvedere	'CANONST-CANONST 2I13'	736.08	0.33	9.2	91.66	100.86	0.3	0.5	0.15
Belvedere	'CANONST-CANONST 2I15'	736.08	1.33	9.2	23.31	32.51	0.92	0.5	0.46
Belvedere	'CANONST-CANONST 2019'	736.08	1.33	9.2	23.31	32.51	0.92	0.5	0.46
Belvedere	'SLADEGN-CHRX 2B14'	736.08	2	9.2	15.75	24.95	1.2	0.5	0.6
								Total Grid Cell Al:	9.13
	Stop CRABTREE MANORWAY CRABTREE MANORWAY LOWER ROAD BELVEDERE STN Belvedere Belvedere	StopRouteCRABTREE MANORWAY469CRABTREE MANORWAY229LOWER ROAD BELVEDERE STN401Belvedere'DARTFD-CANONST 2B07'Belvedere'SLADEGN-CANONST 2B29'Belvedere'CANONST-DARTFD 2E11'Belvedere'CANONST-SLADEGN 2E25'Belvedere'CANONST-BRNHRST 2E27'Belvedere'CANONST-CANONST 2113'Belvedere'CANONST-CANONST 215'Belvedere'CANONST-CANONST 215'Belvedere'CANONST-CANONST 215'	Stop Route Distance (metres) CRABTREE MANORWAY 469 336 CRABTREE MANORWAY 229 336 LOWER ROAD BELVEDERE STN 401 526.02 Belvedere 'DARTFD-CANONST 2B07' 736.08 Belvedere 'SLADEGN-CANONST 2B29' 736.08 Belvedere 'CANONST-DARTFD 2E11' 736.08 Belvedere 'CANONST-SLADEGN 2E25' 736.08 Belvedere 'CANONST-CANONST 2113' 736.08 Belvedere 'CANONST-CANONST 2113' 736.08 Belvedere 'CANONST-CANONST 2115' 736.08 Belvedere 'CANONST-CANONST 215' 736.08	Stop Route Distance (metres) Frequency (vph) CRABTREE MANORWAY 469 336 4 CRABTREE MANORWAY 229 336 6 LOWER ROAD BELVEDERE STN 401 526,02 4 Belvedere 'DARTFD-CANONST 2B07' 736,08 2,33 Belvedere 'SLADEGN-CANONST 2B29' 736,08 0,33 Belvedere 'CANONST-DARTFD 2E11' 736,08 1,67 Belvedere 'CANONST-SLADEGN 2E25' 736,08 0,33 Belvedere 'CANONST-CANONST 2H3' 736,08 0,33 Belvedere 'CANONST-CANONST 2H3' 736,08 1,33 Belvedere 'CANONST-CANONST 2H3' 736,08 1,33 Belvedere 'CANONST-CANONST 2H3' 736,08 1,33	Stop Route Distance (metres) Frequency (vp) Walk Time (mins) CRABTREE MANORWAY 469 336 4 42 CRABTREE MANORWAY 229 336 6 42 LOWER ROAD BELVEDERE STIN 401 526,02 4 58 Belvedere 'DARTFD-CANONST 2B07' 736,08 2,33 92 Belvedere 'SLADEGN-CANONST 2B29' 736,08 2 92 Belvedere 'CANONST-DARTFD 2E11' 736,08 1,67 92 Belvedere 'CANONST-SLADEGN 2E25' 736,08 0,33 92 Belvedere 'CANONST-CANONST 2H2' 736,08 0,33 92 Belvedere 'CANONST-CANONST 2H2' 736,08 0,33 92 Belvedere 'CANONST-CANONST 2H2' 736,08 1,33 92 Belvedere 'CANONST-CANONST 2H2' 736,08 1,33 92 Belvedere 'CANONST-CANONST 2H2' 736,08 1,33 92	Stop Route Distance (metres) Frequency (wp) Walk Time (miss) SWT (miss) CRABTREE MANORWAY 469 336 4 4.2 9.5 CRABTREE MANORWAY 229 336 6 4.2 7 LOWER ROAD BELVEDERE STIN 401 526,02 4 5.8 9.5 Belvedere 'DARTFD-CANONST 2B07' 736,08 2.33 9.2 13.63 Belvedere 'SLADEGN-CANONST 2B29' 736,08 2 9.2 15.75 Belvedere 'CANONST-BARTFD 2E11' 736,08 1.67 9.2 18.71 Belvedere 'CANONST-SLADEGN 2E25' 736,08 0.33 9.2 91.66 Belvedere 'CANONST-CANONST 2112' 736,08 0.33 9.2 91.66 Belvedere 'CANONST-CANONST 2112' 736,08 1.33 9.2 23.31 Belvedere 'CANONST-CANONST 2112' 736,08 1.33 9.2 23.31 Belvedere 'CANONST-CANONST 2112' 736,08 1.33 9.2	Stop Route Distance (metres) Frequency (vpl) Walk Time (min) Walk Time (min) TAT (min) CRABTREE MANORWAY 469 336 4 4.2 9.5 13.7 CRABTREE MANORWAY 229 336 6 4.2 7 11.2 LOWER ROAD BELVEDERE STIN 401 256.02 4 5.8 9.5 15.0 Belvedere 'DARTFD-CANONST 2B07' 736.08 2.3 9.2 13.63 2.83 Belvedere 'CANONST-DARTFD 2E11' 736.08 2 9.2 15.75 24.95 Belvedere 'CANONST-SLADEGN 2E25' 736.08 1.67 9.2 18.71 27.92 Belvedere 'CANONST-BRNHRST 2E27' 736.08 0.33 9.2 91.66 100.86 Belvedere 'CANONST-CANONST 2115' 736.08 1.33 9.2 33.1 25.1 Belvedere 'CANONST-CANONST 2115' 736.08 1.33 9.2 33.1 25.1 Belvedere 'CANONST-CANONST 2115' 7	Stop Route Distance (metres) Frequency (vph) Walk Time (min) WT (min) TAT (min) EDF CRABTREE MANORWAY 469 336 4 4.2 9.5 13.7 2.9 CRABTREE MANORWAY 229 336 6 4.2 7 11.2 2.8 LOWER ROAD BELVEDERE STIN 401 5602 4 5.8 9.5 10.8 1.87 Belvedere 10ARTFD-CANONST 2807 736.08 2.3 9.2 13.63 2.83 1.3 Belvedere 10ARTFD-CANONST 2807 736.08 2.3 9.2 15.75 24.95 1.7 Belvedere 10ARTFD-CANONST 2807 736.08 1.67 9.2 18.71 27.92 1.7 Belvedere 10ARTFD-CANONST 2807 736.08 1.33 9.2 91.66 100.86 9.3 Belvedere 10ARTFD-CANONST 2807 736.08 1.33 9.2 33.1 32.51 9.2 Belvedere 10ARTFD-CANONST 2807 736.08	Stop Route Distance (metres) Frequency (vph) Walk Time (min) WT (min) EDF Weight CRABTREE MANORWAY 469 336 4 42 9.5 13.7 219 0.5 CRABTREE MANORWAY 229 336 6 42 7 11.2 263 1.0 LOWER ROAD BELVEDERE STIN 401 256.02 4 58 9.5 16.08 1.87 258 1.5 0.5 Belvedere 'DARTFD-CANONST 2B07' 736.08 233 9.2 13.63 22.83 1.3 1.2



Appendix C

Buses from Abbey Wood



How to use this map

- Find your destination on the map
 See the coloured lines on the map for the bus routes that go to your destination
- Check the map (at the end of each coloured line) for the bus stops to catch your bus from

4 m 0

- Use the central map to find the nearest bus stop for your route
- \bullet Look for the bus stop letters at the top of the stop (see example for stop ${\bf A}$ to the right)

Key

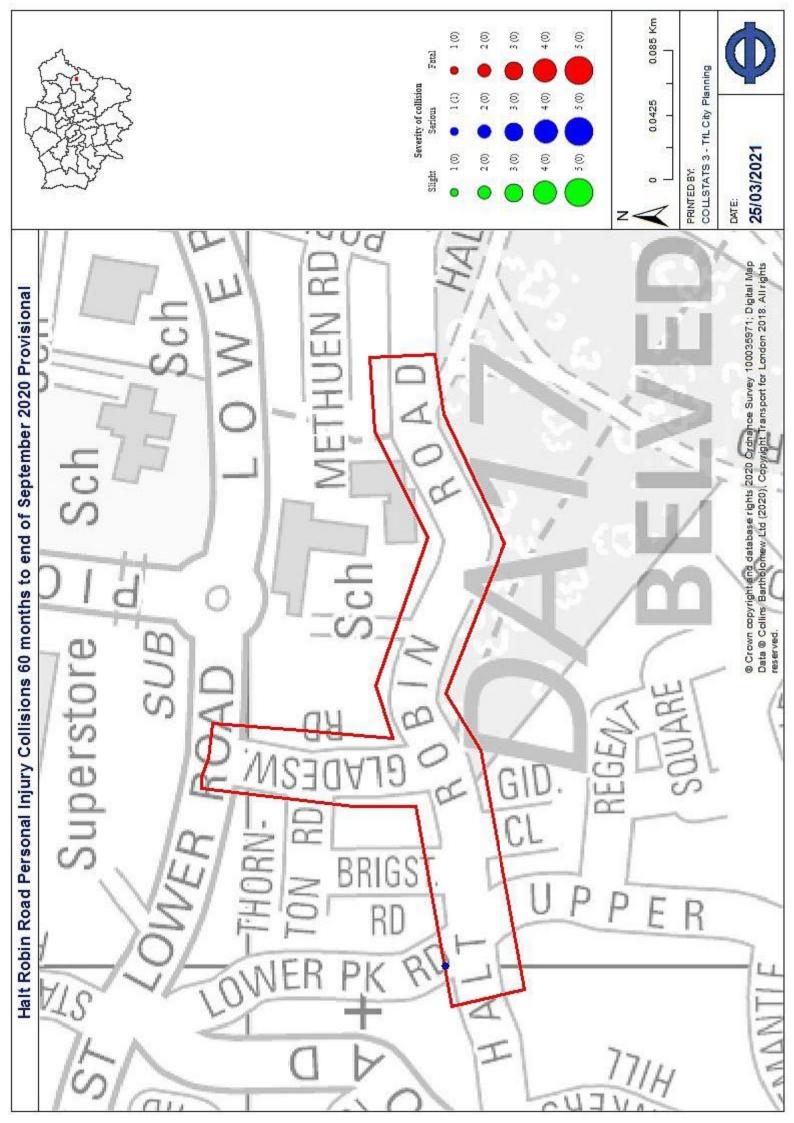
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Ways to pay





Appendix D



Halt Robin Road Personal Injury Collisions 60 months to end of September 2020 Provisional

SUMMARY OF COLLISIONS SELECTED
SITE REFERENCE AND DESCRIPTION
HALT ROBIN ROAD AREA GIS AREA B18 - HALT ROBIN ROAD AREA(P)

DATE PERIOD 60MTS TO SEP/2020

ACCIDENT COUNT

ELF-REPORTING HAVE LIMITED INFORMATION AND TEND TO BE LOWER IN QUALITY THAN POLICE REPORTS. THE INTRODUCTION OF ONLINE SELF-REPORTING HAS MADE IT EASIER FOR MEMBERS OF THE THE DESCRIPTION OF HOW THE COLLISION OCCURRED AND THE CONTRIBUTORY FACTORS ARE THE REPORTING OFFICER'S OPINION AT THE TIME OF REPORTING AND MAY NOT BE THE RESULT OF EXTENSIVE PUBLIC TO REPORT COLLISIONS TO THE POLICE. THERE HAVE BEEN YEAR ON YEAR INCREASES IN SELF-REPORTS SINCE THIS WAS INTRODUCED. THIS HAS CONTRIBUTED TO AN OVERALL INCREASE IN THE PERSONALLY IDENTIFIABLE INFORMATION, BUT SHOULD YOU RECEIVE ANY IN ERROR PLEASE INFORM THE COLLISIONS DATA TEAM AS SOON AS PRACTICAL. SELF-REPORTED COLLISIONS INTRODUCED IN INVESTIGATION. NOTE THAT SELF-REPORTED COLLISIONS (INTRODUCED IN SEPTEMBER 2016) MAY HAVE LIMITED INFORMATION. DESCRIPTIONS HAVE BEEN AUTOMATICALLY REDACTED TO REMOVE ALL NUMBER OF CASUALTIES REPORTED ON LONDON'S ROADS.

	549500/178870	NONE IN 50M					
	0/178500	IN 50M			J/P - UNKN JCT APP	J/P - UNKN JCT APP	
	18 CELL 549500/178500	NO XING FACIL IN 50M			(N TO S) O/S HIT FIRST	(S TO N) FRONT HIT FIRST	
60MTS TO SEP/2020		GIVEWAY /UNCONT			G/AHEAD - OTHER	G/AHEAD - OTHER	
60MTS	LOWER PARK RD J/W HALT ROBIN RD	T/STAG JUN	DRIVER/RIDER	DRIVER/RIDER			
	LOWER PARK RE	SINGLE CWY	SLIGHT	SERIOUS	(26 YRS - F - REDACT)	(33 YRS - M - REDACT)	(SNDITIONS)
ROAD AREA(P)	DARK	WEATHER- FINE	(EDA)	(EDA)			307 (TRAVELLING TOO FAST FOR CONDITIONS)
HALT ROBIN ROAD AREA GIS AREA B18 - HALT ROBIN ROAD AREA(P)	17 17:36	ROAD-DRY	(26 YRS - F - REDA)	(33 YRS - M - REDA)	CAR BT - NEG	CAR BT - NOT REQ	307 (TRAVELLI
OAD AREA GIS AREA	MON 30/01/2017 17:36	CENE	001 (001)	002 (002)	001 (000)	002 (000)	В
HALT ROBIN R	1 01170015234	POLICE - AT SCENE	CASUALTY	CASUALTY	VEHICLE	VEHICLE	7002

Halt Robin Road Personal Injury Collisions 60 months to end of September 2020 Provisional

Halt Robin Road Area GIS AREA B18 - Halt Robin Road Area(P) Summary of Collisions Selected Site Reference and Description

60MTS TO Sep/2020 Date Period

Accident Count

automatically redacted to remove all personally identifiable information, but should you receive any in error please inform the Collisions Data Team as soon as The description of how the collision occurred and the contributory factors are the reporting officer's opinion at the time of reporting and may not be the result introduction of online self-reporting has made it easier for members of the public to report collisions to the police. There have been year on year increases in practical. Self-reported collisions introduced in September 2016 may have limited information and tend to be lower in quality than police reports. The of extensive investigation. Note that self-reported collisions (introduced in September 2016) may have limited information. Descriptions have been self-reports since this was introduced. This has contributed to an overall increase in the number of casualties reported on London's roads.

%0
0
Pedestrian

%0 0	%0 0	1 100%
Pedestrian	Wet	Dark

%0	100%	%0
0	~	0
Fatal	Serious	Slight

Please note that these figures represent the number of collisions that resulted in each type of casualty.

Reference Day Date Time Light Conds Road Surface Severity

01170015234 MONDA Y 30/01/2017 17:36 DA RK DRY SERIOUS

Conflict

307 V002 B

Ped Location Contributory (* denotes pre-2005)

Easting/Northing 549500 178870

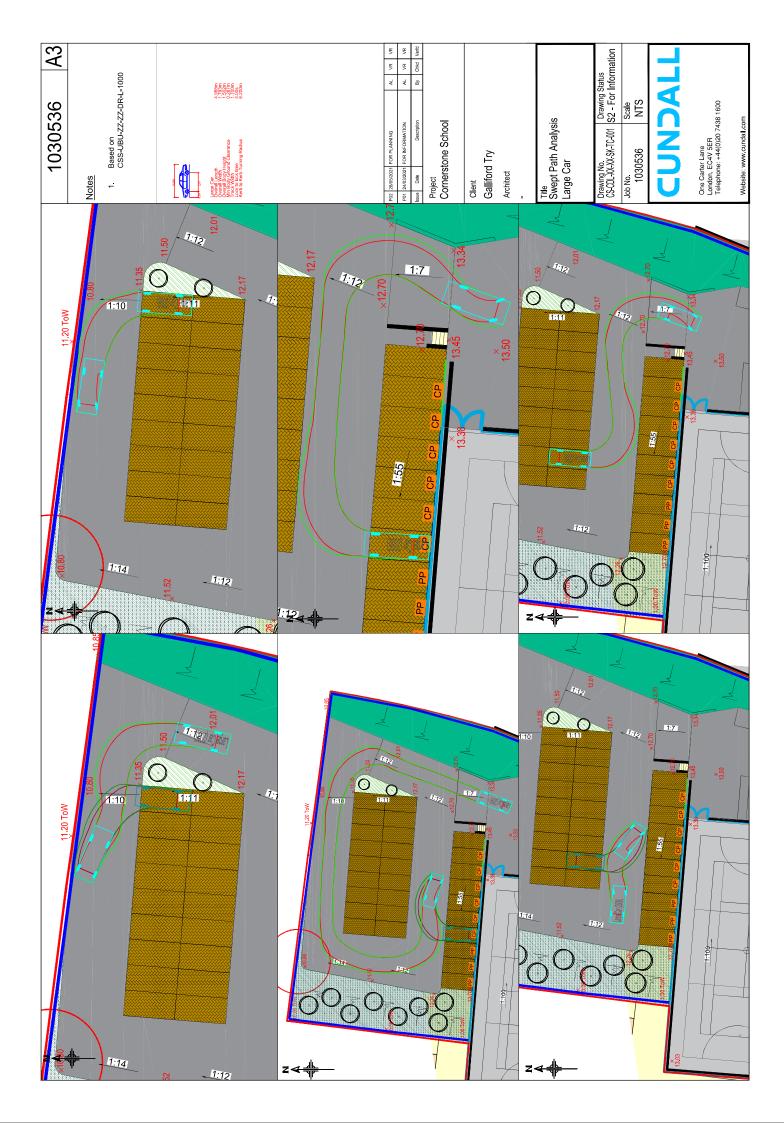


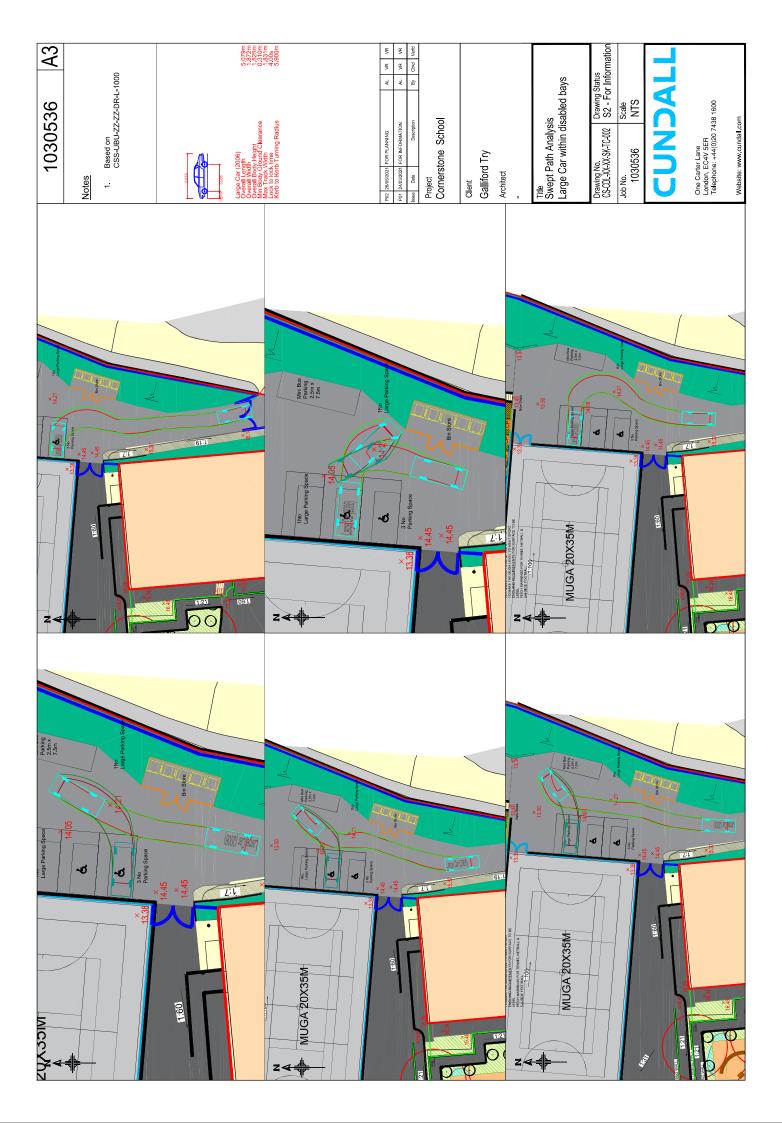
Appendix E

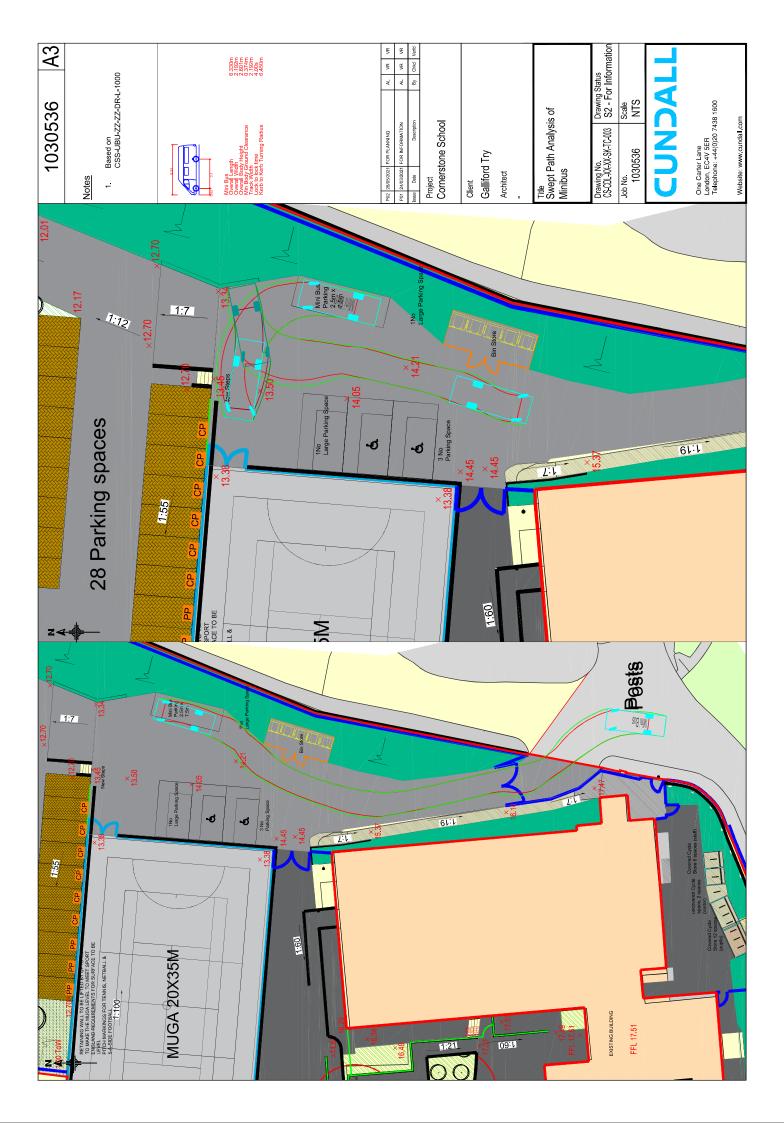


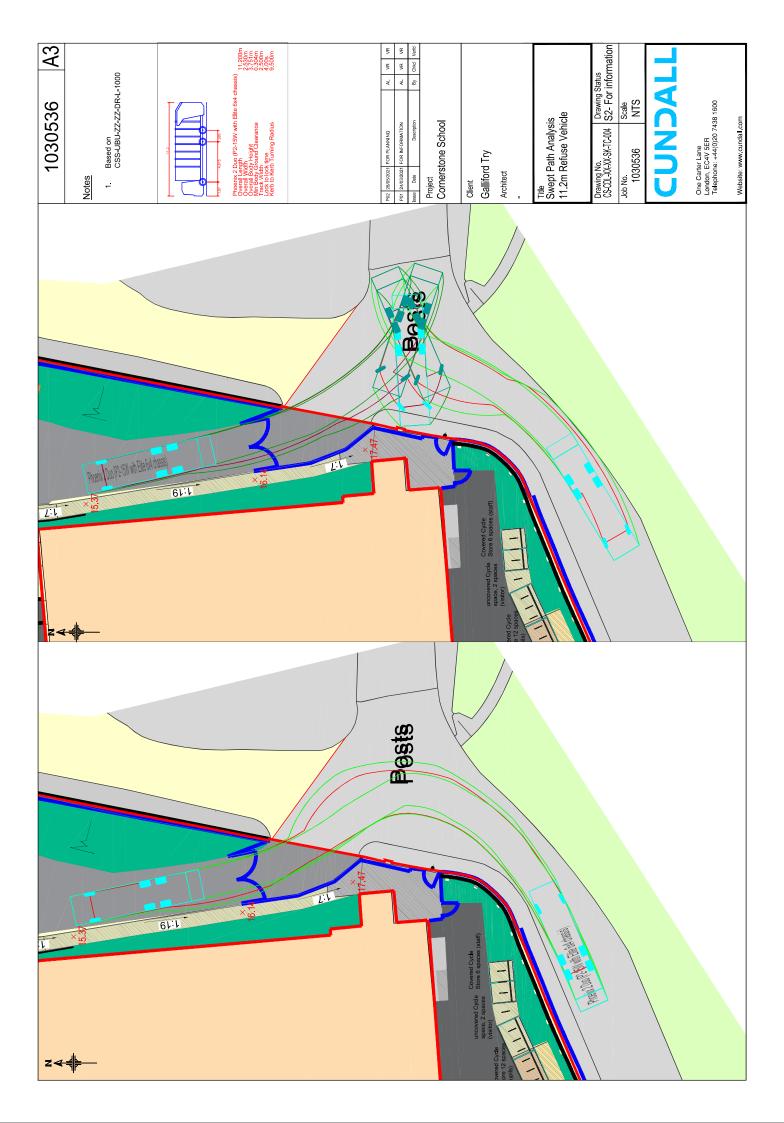


Appendix F













Riso, Valeria

Matthews, John < John.Matthews@bexley.gov.uk> From:

Sent: 26 April 2021 13:56 To: Riso, Valeria

Subject: RE: Cornerstone pre application meeting- 20/00662/PREAPP

Valeria,

Sorry for the delay in getting back to you on this.

Option 2 would be the preferred approach. The reversing manoeuvre looks to be acceptable and I can confirm that all teams are formed of at least two operatives so that one of the team can act a reversing assistant for manoeuvres such as this.

Regards

John Matthews Waste & Recycling Projects Officer London Borough of Bexley

Tel: 020 3045 4632 Fax: 020 3045 4610

Email: john.matthews@bexley.gov.uk

Waste & Street Services Team 1st Floor, Foots Cray Offices Maidstone Road, Sidcup, Kent DA14 5HS

www.bexley.gov.uk/recycling



From: Riso, Valeria <v.riso@cundall.com>

Sent: 19 April 2021 17:58

To: Matthews, John < John.Matthews@bexley.gov.uk>

Subject: RE: Cornerstone pre application meeting- 20/00662/PREAPP

Hi John

Please find attached a pre-app letter response we received from Avril below, for a proposed school site on Halt Robin Road, in Belvedere. Avril asked us to check refuse collection arrangements with you.

Attached is a WIP landscape plan, for which we have tested the following options:

- 1. On-site refuse collection, using a smaller vehicle as included in drawing TC-005
- 2. On-site refuse collection with a large refuse vehicle, which need to reverse out of the site as included in drawing TC-004
- 3. On-site refuse collection with a large refuse vehicle, which would require parking management measures in place so that no cars are parked in the bays highlighted in red in drawing TC-008

Would you be happy with either option 1 (using smaller vehicles) or option 2 (vehicle reversing out – reversing manoeuvres to be manned)?

Many thanks in advance and please let me know if you require any additional information.

Regards, Valeria

Valeria Riso Associate Director Cundall

One Carter Lane, London, EC4V 5ER, United Kingdom D +44 20 7438 1663 T +44 20 7438 1600 M +44 7718 492855

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From: McNamara, Avril < Avril. McNamara@bexley.gov.uk >

Sent: 15 April 2021 19:37

To: Chris Maltby <chris.maltby@edgeplan.co.uk>

Subject: RE: Cornerstone pre application meeting- 20/00662/PREAPP

Hi Chris

Please find attached the pre-app letter and details of refuse vehicle specification.

Kind regards

Avril McNamara
Planning Officer
Development Control
Bexley Civic Offices

e-mail: avril.mcnamara@bexley.gov.uk

Tirect Dial. 0203 045 4433

Ext. 4433

From: Chris Maltby <chris.maltby@edgeplan.co.uk>

Sent: 15 April 2021 08:38

To: McNamara, Avril < Avril. McNamara@bexley.gov.uk >

Subject: RE: Cornerstone pre application meeting- 20/00165/PREAPP

Perfect, thanks very much Avril,

Regards,

Chris

Chris Maltby EdgePlan

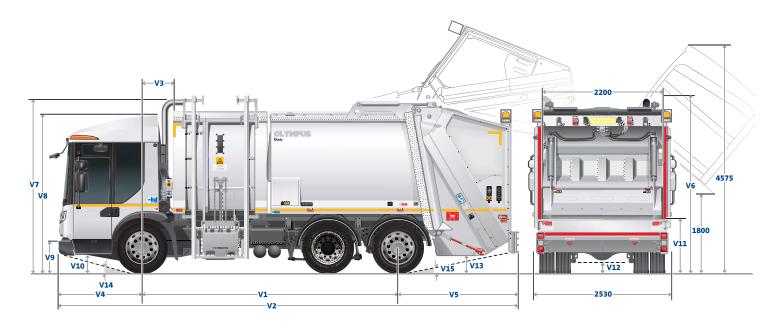
m. 07908 046060

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OLYMPUS Duo 16W - 6x2RS Wide - Kitchen & Food Waste Recycler

Elite 6 - 6x2RS Wide Track

Euro 6 SPECIFICATIONS



Vehic	le model	OL-16W 6x2RS + Combi Recycling Box			
Comp	paction body type - effective volume(s)	Olympus 16W (15.6 m ³)			
Elite chassis type		6x2RS (Rear Steer) Wide Track			
GVW	(Gross Vehicle Weight)	26000			
Front	axle plated weight	8000 (7100*)			
Rear	axle/bogie plated weight	19000			
Recyc	ling box type	Terberg Combi recycler box with pannier binlift - top discharge			
Recyc	ling box type (capacity m ³)	TD3 TL 3.3W (3.3 m ³)	TD3 TL 4.8W (4.8 m ³)		
V1	Overall wheelbase	5550	5900		
Turni	ng circle - overall (metres)	17.8***	19.1***		
Vehic	le unladen weight**	14870	15030		
V2	Overall length [§]	9430	9840		
	Overall length - tailgate raised [§]	10510	10920		
V3	Front axle to front of compaction body	2140	2550		
V4	Front overhang	1665			
	Front overhang - cab tilted	3465			
V5	Rear overhang	2215	2275		
	Rear overhang - tailgate raised	3295	3355		
V6	Overall height	3540			
	Overall height - tailgate raised	5100			
V7	Height at exhaust tip	3530			
V8	Cab roof height	3130			
	Cab roof height - cab tilted	3690			
V9	Cab floor height	825 Driver side, 885 Passenger side			
V10	First cab step height from ground	495			
V11	Rave rail height	1050			
V12	Ground clearance at lowest part of vehicle	250			
V13	Ground clearance - tailgate	435			
V14	Approach angle	15.5°			
V15	Departure angle	15°			

- (*) Optional front axle plated weight of 7100 kg with 295/80R22.5 tyres.
- (**) Typical rear mounted lifting device equipment will add up to 1200 kg.
- (***) Turning circle shown is for worst case, fitment of optional tyres may reduce turning circle.
- (§) Excludes front view mirror which adds approx. 230 mm

NOTE: Unless otherwise stated, all dimensions are nominal, in mm and represent an unladen vehicle without a lifting device and fitted with standard tyres; tyre deflection is not included. All specifications are subject to manufacturers tolerances. An allowance of +/- 2% should be made for all weights. All weights are in kgs and include oil and water, and on diesel fuelled vehicles, AdBlue and 50 litres of fuel. Additional equipment may alter dimensions and weights quoted.



OLYMPUS Duo 16W - 6x2RS Wide - Kitchen & Food Waste Recycler

Elite 6 - 6x2RS Wide Track

Chassis cabElite 6 6x2RS (Rear Steer) Wide Track.

- Cab Low floor with one step entry, Cromweld stainless steel construction, standard seating for driver + 3 crew, optional driver + 1 or driver + 4 seating.
- Engine Volvo (Euro 6) D8K 280/320 bhp, 6 cylinder, 7.7 litre in-line diesel.
- Braking system full air twin circuit, EBS with Electronic Stability Program, Traction control (ASR), 4 wheel parking brake.
- Gearbox Allison MD 3000, 6 speed automatic.
- Electronic Levelling Control (ELC)
- Front suspension Full air self-levelling suspension with anti-roll bar.
- Drive axle suspension Self-levelling air suspension with chassis raise and chassis lower functions and anti-roll bar.
- Rear axle suspension Trailing arm air.
- For detailed specification and options, see relevant Elite 6 Datasheet.

Body

- Constructed from high tensile steel one piece rolled side sheets and braced by front and rear hoops, with pressed integral channels and 'keel' type floor.
- Sides in 4 mm S275 EN10025, Roof in S355 EN10025.
- Floor in three sections across width: 4-5 mm S355 EN10025.
- Rear hoop: 5-6 mm S355 EN10025.
- Barrier rails: 8 mm DOMEX 700 (700 N/mm²).
- Rear cross-member: 6 mm DOMEX 650 (650 N/mm²).
- Fitted with under-floor sump to prevent liquid seepage and to allow clean discharge of any liquid content. (100 mm depth).
- Only two greasing points in body and tailgate.

Refuse Ejection Plate

- Ejection plate face is manufactured from high tensile abrasion resistant steel, forming a smooth and unobstructed discharge surface.
- Pressure regulation of the ejection plate from cab display.
- Self lubricating bearings guide the ejection plate along rails within the body.
- Multi-staged double acting hydraulic cylinder enables efficient ejection and retraction.

Tailgate

- Optimised 2.8 m³ swept volume capacity, resulting in fewer packing cycles, reducing wear, fuel consumption and noise.
- Full 2.2 m uncluttered loading width without lifting device.
- Low rave rail height for manual loading and versatile lifting device mounting with bolton rave rail adaptor for lifting devices.
- Substantial pressed side plates form integrated channels to guide the compaction mechanism.
- Hydraulic packer plate cylinders are positioned to eliminate damage from waste.
- Reduced overhang for improved weight distribution and manoeuvrability.
- Integral rear frame for lifting device mounting.

Floor: 8 mm HARDOX 400 (400 HB- 1000 N/mm²).
 Sides: 7 mm HARDOX 400 (400 HB- 1000 N/mm²).

Rave Rail: 4 mm HARDOX 400 (400 HB- 1000 N/mm²).

Retainer Plate: 4 mm WELDOX 700 (700 N/mm²).

Compaction Mechanism

- Proven two-plate fabricated carriage plate and packer plate design.
- Manufactured using high tensile abrasion resistant steel.
- Slides within tailgate channels on low friction self lubricating bearings.
- · Heavy duty carriage and packer cylinders.
- The remaining structural elements are constructed in steel S355 EN10025 (355 N/mm²).

• Base sheet & tube: 4 mm HARDOX 400 (1000 N/mm²).

 Packer plate base: 6 mm HARDOX 400 (1000 N/mm²).

• Nominal 18 second cycle time.

Hydraulic System

- Quiet, PTO mounted close-coupled standard pump delivers 88 litres/minute at 1000 rpm.
- Body mounted 125 litre tank with remote pressure fill.
- Full flow 10 micron return line filter controls contaminant levels.
- Engine speed is maintained by electronic throttle control system when hydraulic power consumption increases.
- Heavy duty inverted packer plate cylinders fitted with maintenance free spherical bearings.
- Heavy duty inverted compaction cylinders mounted outside the compaction mechanism, clear of the loading area.
- Roof mounted tailgate lift cylinders.
- Retention barrier with adjustable pressure.

Electrical System

 Fully integrated CANbus system logic (CANopen) with integral axle load weight indication

Euro 6 SPECIFICATIONS

- Simple display unit in cab for body controls and diagnostics.
- Fully water-proofed side mounted junction box contained within a locker allowing easy access for diagnostics and maintenance via laptop.
- Number and colour coded wiring for easy identification, maintenance and fault finding.
- Weatherproof switch, plug and socket connectors.

Safety

- C € Approved. Safe by design.
- Circuit designed to enhance Health & Safety features, and installation of lifting devices.
- Prepared for EN 1501-1:2011 & EN 1501-5:2011.
- Two-plate design, automatic body/tailgate locks and clean discharge remove the need to approach moving parts.
- Interlocks prevent the mechanism from working unless the tailgate is fully lowered.
- Automatic gearbox interlocks enhance safe operations.
- Tailgate lift rams are fitted with integral pilot operated load holding valves so that even if a hose fails, or is removed, the tailgate cannot descend unless positively powered downwards.
- Indicator icons show the driver when the mechanism is in operation, and when the tailgate is out of its locks.
- In cab discharge controls as standard, with external tailgate lower controls for optimised safety.
- Interlocked access door for safe maintenance operations.

Recycling Box

- Fabricated steel construction with fully 'tanked' pod, means no liquid leak. Mounted in robust steel frame.
- Pneumatically locked lid.
- Payload emptied to right-hand side of vehicle by means of high-level tipping pod with safety valves to hydraulic cylinders.
- In-cab controls for tipping and door operation.
- Push button controls for lifter operation.
- TL360 Lifting device for single 240 or 360 litre waste container with option of detachable pannier.

Options

- A range of compatible lifting devices and DIN frames are available.
- Ladder to access the side door of the body.
- Leachate tank between body and tailgate.
- Brush & shovel with mountings.
- · Hand wash unit.
- Rubber packer plate flap.

For more details of specifications and options please consult a Dennis Eagle Sales representative.



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