Hayes Bridge Retail Park

Transport Assessment Addendum

Client: OXW Hayes S.à.r.l.

19 May 2023

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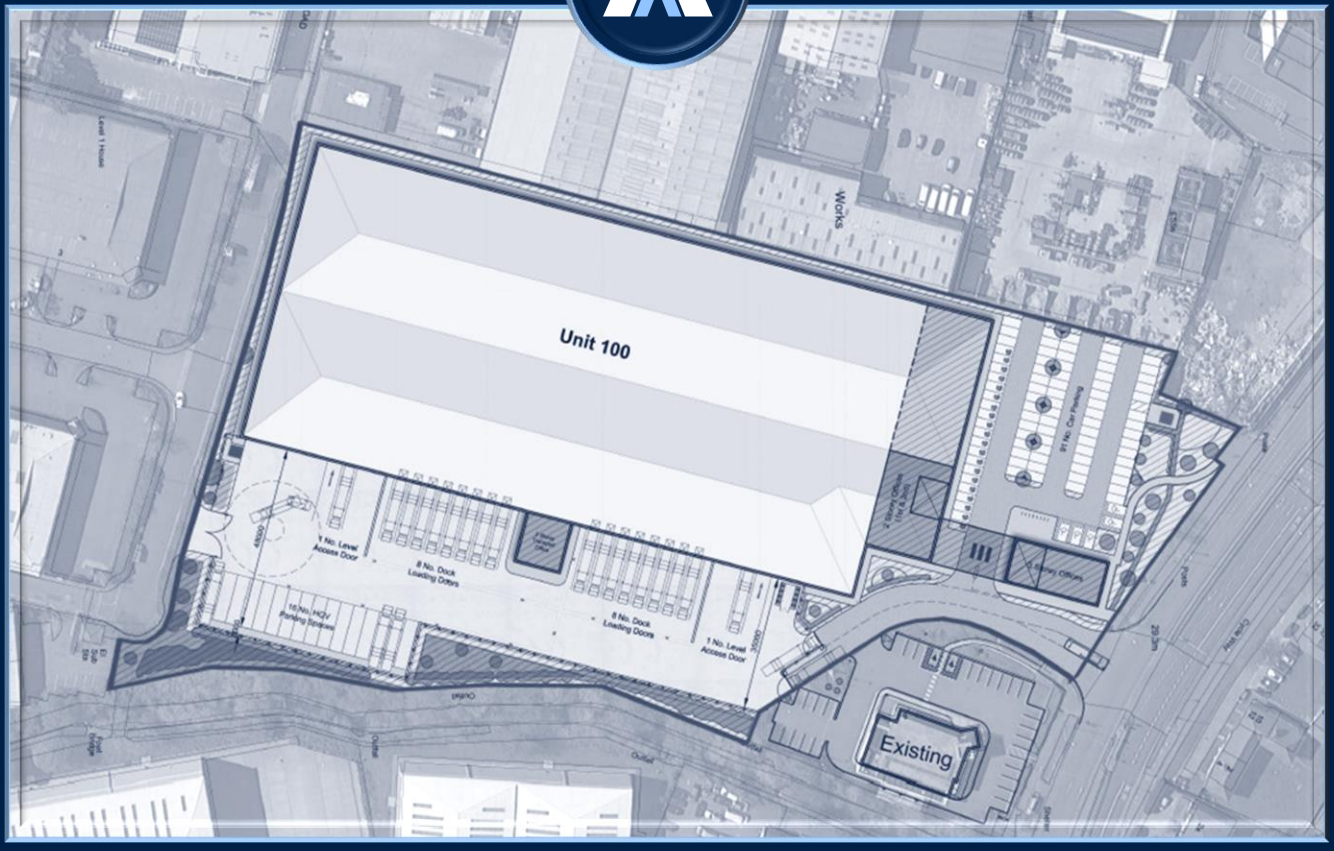

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REPORT DETAILS

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Issue No.	Status	Date	Produced by	Approved by	Revision Details
1	Final	19/05/2023	DC	DC	First Issue

NOTICE

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1. INTRODUCTION

1.1 Background

1.1.1 Apex Transport Planning Ltd ('Apex TP') has produced this Transport Assessment Addendum (TAA) in relation to a proposed development at the Hayes Bridge Retail Park, Uxbridge Road, Hayes in the London Borough of Hillingdon (LBH). This has been produced in support of planning application reference: 1911/APP/2022/1853.

1.1.2 The proposals comprise the demolition of existing buildings and the erection of a commercial building for employment purposes Class E(g)iii, B2 and B8, along with ancillary offices, gatehouse, associated infrastructure including; service yard, car parking, drainage and hard and soft landscaping.

1.1.3 The application site ('the site') is located to the south of Uxbridge Road and north of Bullsbrook Road with access obtained from both locations. It is a brownfield site with an existing retail use with a number of buildings located on the site.

1.1.4 A Transport Assessment was produced to support the original application (Apex Report No. C21096/TA01, dated 9th May 2022), for which consultation responses were received from Transport for London (TfL) and the Local Highway Authority (LHA) at LBH.

1.1.5 Two Transport Notes were produced to provide further information to both authorities in response to these comments (Apex Report Numbers C21096/TN01 and C21096/TN02, both dated 22 November 2022). In particular, C21096/TN01 provided an Active Travel Zone Assessment, which has not been reproduced within this TAA.

1.1.6 Following submission of these Transport Notes both TfL and the LHA provided further consultation responses, dated 1st February 2023 and 3rd February 2023.

1.1.7 The scheme has been amended to reflect the comments received from all consultees following submission, including from TfL and the LHA. This Addendum provides further information on the revised development proposals including the changes from the original submission, parking and access arrangements, and also responds in full to all outstanding queries raised by TfL and the LHA within their latest consultation comments.

1.1.8 Where required, for ease, the TAA has provided any specific TfL or LHA comments in *navy boxes* with the Apex further information provided underneath each comment.

1.1.9 The information set out within the originally submitted TA, as well as the two follow up Transport Notes remains valid, where this has not been superseded by or reproduced within this Addendum, which should therefore be read in conjunction with those reports. This is for ease of review for the LHA and TfL as this report considers the outstanding matters.

2. REVISED DEVELOPMENT PROPOSALS

2.1 Overview

2.1.1 The proposals are for a speculative development and the end user and specific operation of the site would not be known at this stage.

2.1.2 The proposals are for demolition of existing buildings and the erection of a commercial building for employment purposes Class E(g)iii, B2 and B8, along with ancillary offices, gatehouse, associated infrastructure including; service yard, car parking, drainage and hard and soft landscaping.

2.1.3 The revised proposals from the application provide an office block closer to Uxbridge Road, further landscaping, minor revisions to the service yard, and an amended car park layout and provision. The details of the proposals are set out in this section, and changes noted, where applicable.

2.1.4 In summary, the scheme consists of the following:

	Proposals	Change from application
Warehouse Area (GIA)	13,987 sqm	Decrease of 80 sqm
Ancillary Office Two Storeys (GIA)	1,411 sqm	
Ancillary Office Three Storeys (GIA)	805 sqm	Total Office Increase of 434 sqm
Ancillary Transport Office (GIA)	319 sqm	Remains the same
Total GIA	16,522 sqm	Increase of 354 sqm
Car Parking Spaces	91 (inc. 5 accessible)	Reduced by 37 spaces
Cycle Spaces	50	Remains the same
Dock Loading Doors	16	Remains the same
Level Access Doors	2	Remains the same
HGV Parking	16	Reduced by 1 space
Site Area	2.88 Ha	Remains the same

2.1.5 Although there are offices, these are ancillary to the main B2/B8 warehousing use.

2.1.6 The revised site layout plan is provided within Appendix A.

2.2 Site Layout

2.2.1 The site layout has been designed to accommodate HGV traffic and separate pedestrians and light vehicles from operational vehicle movements. The site would use the existing retail park access road which links to a signal controlled junction with Uxbridge Road at its northern end. This junction can accommodate all vehicle movements in all directions appropriately.

2.2.2 The on-site car park is situated at the northern end of the site and the HGV / operational entrance would be at the southern end of the internal access road to separate manoeuvring operational vehicles and light vehicles.

2.2.3 The aisle widths within the car park and the service yard area are appropriate to accommodate all movements. Swept path analysis is provided in Appendix B to demonstrate movements can be undertaken safely.

2.3 Access

Vehicular Access

2.3.1 The vehicular access into the site will be obtained from the existing signal controlled junction onto Uxbridge Road.

2.3.2 A Stage 1 Road Safety Audit (RSA) was undertaken by an independent specialist auditor of the existing site access junction in the context of the proposed development and likely change in vehicle movements. The full RSA and Designers Response has been set out in Appendix B of the initial Transport Note to the LHA (C21096/TN02). This provided two recommendations, both of which have been considered in relation to amendments to the site access. Firstly, the exit arm from the site access has been reduced to a single lane, with minor changes to the radii on the west side and secondly the "no HGV access" signage within the site will be removed.

2.3.3 A general arrangement drawing of the proposed layout at the site access is provided in Appendix C.

2.3.4 The junction has been amended to remove the two lane exit from the site. This has been reduced to a single lane exit for all movements so that vehicles can not queue side by side to minimise the potential of collisions for vehicles exiting the site. The lane width has been maintained at a minimum of 4m in width to ease vehicle movements and the radii has been amended onto Uxbridge Road to 15m. This has improved the ability for HGVs to turn out of the site appropriately and the swept paths are shown in Appendix C. This accords with the recommendation in the RSA.

2.3.5 As part of this amendment, the dropped kerb for the cycle lane on Uxbridge Road will be slightly amended and 9 metres of guardrail removed. The dropped kerb crossing point and tactile paving on the west side of the crossing will also be slightly amended, together with relocating the 'Look Right' road markings. These are minor changes and will not have a material impact on the operation of the crossing point. Indeed the pedestrian crossing over the site access arm would be slightly shorter in length. These detailed design matters can be agreed as part of the S278 technical approval.

2.3.6 As the proposals would significantly reduce the number of vehicle movements into and out of the site (as set out in Section 4), this amendment would not have a material impact on the capacity of this junction.

2.3.7 A HGV can manoeuvre into and out of the site appropriately to and from the west. All HGVs will be required to route in this direction, which will be set out in a Delivery and Servicing Plan (DSP) and the operator would strictly adhere to. The routing will be enforced by the operator who would likely have tracking devices on all operational vehicles for logistics purposes and can discipline individual drivers if this routing is not followed. If on the rare occasions that there is a local delivery which requires vehicles to turn to or from the east of the junction, firstly this is extremely unlikely to be an articulated vehicle for a local journey and secondly these would be required to U-turn at the A312 junction when leaving or arriving to the site (although movements to and from the east are achievable as shown in the swept path analysis submitted within the original Transport Assessment).

2.3.8 There can be signage placed within the site stating that HGVs are to turn left only out of the site. All drivers would be aware of the routing requirements as a condition of their employment. In addition, all suppliers and deliveries would be aware of this when delivering to the site.

2.3.9 As such, the access proposals are considered to be safe and suitable and in accordance with Vision Zero and London Plan policy T4. There are no outstanding issues from the independent RSA.

2.3.10 A further emergency site access is provided from the southern end of the site directly into the service yard area from Bullsbrook Road. This can accommodate an articulated vehicle, if needed, as shown in the swept path analysis in Appendix D. The emergency access provides appropriate visibility along Bullsbrook Road to the west, with at least 43m achievable to the nearside kerb and this can be accommodated within the site or the adopted highway, which is contiguous with the site boundary.

2.3.11 The existing site use generates HGV movements to and from the service yard which is accessed from the southern end of the site onto Bullsbrook Road.

2.3.12 As such, although there is an increase in HGVs generated by the site, these no longer access onto Bullsbrook Road / Springfield Road which are considered less appropriate as HGV routes by TfL, as set out within its previous consultation response. The movements access directly onto a higher standard A Road and would be within a short distance of a key TfL route at the A312, which is a benefit for this type of scheme and would minimise the impacts from HGV movements on the network. The significant reduction in total vehicle movements is also considered to offset the potential impacts from the much smaller increase in HGVs.

2.3.13 A serious injury accident also occurred on Bullsbrook Road involving a HGV in 2015. The proposals would remove HGVs from this route and these would be accommodated directly onto Uxbridge Road, which would therefore provide a benefit on this less appropriate route.

2.3.14 The access arrangements are therefore considered safe and suitable for accommodating all movements appropriately and would not lead to an increase in road danger.

Pedestrian and Cyclist Access

2.3.15 The access arrangements show a 3m wide shared footway / cycleway connecting to the existing footway / cycleway route along the northern boundary of the site on Uxbridge Road. A general drawing is provided in Appendix C which shows this arrangement and how this ties in with the existing provision on Uxbridge Road. There will be a 3m wide route connecting to the building and cycle parking area from Uxbridge Road, as well as a separate 2m route for pedestrians, as such cyclists can be accommodated within the site connecting to the cycle parking. If needed, pedestrians can also be separated from cyclists via the separate 2m route.

2.3.16 Signage will be provided on exit from the site requesting cyclists give-way to pedestrians as they cross the footway to the cycleway, or alternatively dismount as they cross this short section of footway. There is sufficient space for cyclists to pass any waiting pedestrians at the site access crossing. To incorporate this connection, a short section of guardrail (9m in length) will be removed from between the footway and the cycleway on Uxbridge Road and the central kerb removed at this location as well. The full details of this arrangement and the signage / line markings can be discussed and agreed as part of the S278 technical approval.

2.3.17 Pedestrians accessing the building from the car parking area will connect to the entrance separately from operational traffic, with the main entrances to the buildings adjacent to the car park. Pedestrians can therefore be accommodated appropriately and safely away from large vehicle movements.

2.4 Parking

Car Parking Provision

2.4.1 The parking standards within LBH are provided within the Local Plan Development Management Policies Appendix C (Jan 2020). For B2-B8 uses, the standards are suggested as two spaces plus 1 space per 50 – 100 sqm of GFA.

2.4.2 Applying the standards to the proposed development (16,522 sqm) would equate to a maximum requirement for between 165 and 330 spaces.

2.4.3 The proposals are for 91 car parking spaces, which is well within the maximum LBH levels.

2.4.4 However, the London Plan was adopted in March 2021, which was after the Local Plan, and this sets out revised car parking standards.

2.4.5 The London Plan suggests parking standards of up to 1 space per 100 sqm for office use in an Outer London borough (there are no specific B2 / B8 standards). Applied to the floorspace of 16,522 sqm, this equates to a provision of 165 car parking spaces.

2.4.6 Considering the level of potential employees, the PTAL of 2, the constraint target modal split in the Travel Plan for vehicles (30% of all movements) and the shift working nature of the site, the proposed level of parking is considered appropriate for the use and location and still well below the maximum level based on the parking standards within the LBH Local Plan.

2.4.7 The applicant considers the proposed level of 91 parking spaces to be the minimum required to ensure the site is operationally viable for this location and this also allows appropriate flexibility for staff changeover times, particularly for overnight shifts. This is consistent with the view of The Mayor of London in the *Land for Industry and Transport SPG* (2012) paragraph 5.23.

2.4.8 The proposed parking provision is suitable for the use and provides a balance between requests for parking provision from TfL and the LHA, is appropriate for the location and in accordance with the LBH standards. The reduction from the LBH maximum parking levels and constraint target for modal share of journeys is in accordance with the Mayor's Transport Strategy for reducing car use. Measures within the Travel Plan would also encourage sustainable transport and car sharing to minimise any impact from potential overspill parking.

2.4.9 The proposed car parking provision is also a significant reduction from the existing use of the site. This demonstrates that the proposals could generate a significant reduction in vehicle movements generated to and from the site compared with the existing use, particularly considering the existing uses would have a shorter length of stay and a greater turnover of spaces. The trip generation comparison has been considered further in Section 4.

2.4.10 The applicant is willing to accept a suitably worded planning condition to produce a parking management plan and agree this with LBH prior to occupation.

Car Parking Design and Management

2.4.11 All car parking spaces have dimensions of 2.4m x 4.8m in accordance with the LBH standards and vehicles can enter and exit in forward gear, as shown in the swept path analysis in Appendix B.

2.4.12 Car parking will be managed through a permit scheme, for example by all employees providing number plates to the site manager, to ensure that only employees are able to park on the site. In addition, all visitor spaces will be required to be booked through reception and number plates provided in advance. This will ensure that members of the public do not use the car park. Private car park signage will also be provided at the car park entrance and the car park monitored, as needed.

2.4.13 In addition, all employees and visitors will be informed of the parking provision and encouraged to travel by sustainable modes through measures set out within the Travel Plan. This will minimise the demand for parking on the site and ensure the provision is appropriate and does not lead to overspill onto the highway.

Disabled Parking

2.4.14 The site provides five disabled parking bays, which is 5.5% of the total provision. The spaces allow for an additional 1.2m hatched area around the side and rear of the space to enable safe access to

vehicles for people with mobility impairments. The spaces are situated close to the building entrance and will have step free access from the spaces to the building entrance.

2.4.15 The disabled parking provision is therefore considered to be acceptable.

Electric Vehicle Charging

2.4.16 The LBH standards require electric vehicle charging to be provided at a minimum of 5% of the total car parking provision (equating to 5 spaces) with an additional 5% providing passive provision (an additional 5 spaces). The site provides 20 electric vehicle charging points which is in excess of 20% of the overall provision, and in excess of the LBH standards.

2.4.17 The applicant is willing to accept a suitably worded planning condition in relation to providing full details of the electric vehicle charge points proposed, including rapid electric charging.

Cycle Parking

2.4.18 The cycle parking standards are also provided in the LBH Local Plan Development Management Policies Appendix C. For B2-B8 uses the standards are suggested as one space per 500 sqm of GFA.

2.4.19 Applying the standards to the proposed development (16,522 sqm) would equate to a minimum requirement for 33 spaces.

2.4.20 The London Plan suggests the same provision for long stay parking and additionally suggests short stay parking for visitors at 1 space per 1,000 sqm, which would equate to an additional 16 cycle parking spaces. This would equate to a total of 49 spaces.

2.4.21 The proposals are for 36 secure and covered cycle parking spaces, internally within the main building. The site will also accommodate four adaptive cycles as part of this provision. There will also be 8 Sheffield Stands provided for short stay use (16 spaces). This would therefore total 52 cycle spaces overall, which is in excess of the minimum standards for a B2 / B8 use in LBH and the London Plan.

2.4.22 The cycle parking will be provided in accordance with the guidance contained in the London Cycling Design Standards, including where provision is made for adapted cycles for disabled people.

Response to outstanding TfL comments on parking

It is noted that there has been a reduction in the quantum of car parking spaces to 115 from 128. Whilst the reduction is welcomed, the quantum is not in line with London Plan policies and a further reduction is sought.

As highlighted in TfL's previous comments, 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'). Policy T6.2 states that the starting point for car parking provision at Use Classes B2 (general industrial) and B8 (storage or distribution) employment uses should have regard to these office parking standards and take account of the significantly lower density in such developments.

The modal split presented by the applicant indicates that 30 per cent of employees will be travelling to and from the site by private vehicle. This modal split is not in line with the Mayor's strategic mode shift referred to in Policy T1. The proposed development should be seeking to instil sustainable and active travel patterns to and from this site from the outset, and a further reduction in the quantum of car parking to support in achieving this should be delivered.

As highlighted previously, the applicant's own analysis indicates that the maximum number of parking spaces at this site will 95, as such providing 115 appears to be excessive and will not support achieving a strategic modal shift at this site.

The applicant has not provided any clear justification to support the proposed quantum of 115. In fact, most of their analysis appears to indicate that a lower parking provision at this site could be supported.

Furthermore, the modal split presented by the applicant indicates that 30 per cent of employees will be travelling to and from the site by private vehicle. This is not in line with the Mayor's strategic mode shift detailed in Policy T1. The proposed development, through its design, should be seeking to instill sustainable travel patterns from the outset. A reduction in the quantum of car parking, coupled with measures identified within the Travel Plan and enhancing the sustainable and active travel environment, can support achieving this.

2.4.23 The revised proposals reduce the car parking provision to 91 spaces. This is to reflect the further comments from both the LHA and TfL, with the highway authority specifically stating that the site could provide a maximum of 162 spaces and that the provision of 115 spaces (as provided in a previous iteration of a post-planning scheme) 'would provide a low amount of parking'. The applicant has taken into consideration the views of both TfL and the LHA and provided a further reduction in parking provision, but at a level which reflects the location of the site and the requirements of the highway authority.

2.4.24 The proposed level of parking is considered to be in line with the London Plan. This was addressed in detail in Transport Note C21096/TN01, which for ease has been reproduced as follows.

London Plan Guidance

2.4.25 London Plan policy T6 specifically references that developments in places not well connected by public transport (i.e. a PTAL of 2) be designed to provide the minimum necessary parking. Based on the operation of a B2 / B8 site with shift working outside of 'typical' hours, and extensive experience of other schemes, the applicant considers the proposed level of parking to be the minimum necessary to ensure that the scheme is viable for an operator in this specific Outer London location. This is also in line with comments provided by the LHA who have concerns over a low level of provision.

2.4.26 The parking standards in Table 10.4 of the London Plan are for offices.

2.4.27 As set out in Paragraph 10.6.7 of the London Plan *"in relation to Policy T6 Car parking Part L, where industrial sites are redeveloped parking will be considered on a **case by case basis** as set out in paragraph 10.6.18."*

2.4.28 The site has a previous use and is a brownfield redevelopment site and the existing use has significantly higher levels of car parking. It is therefore considered a redevelopment in the context of the Plan, therefore parking should be considered on a case by case basis, in accordance with paragraphs 10.6.7 and 10.6.18.

2.4.29 Whilst the policy does reference employment densities, it specifically states in paragraph 10.6.18 that for industrial sites *"parking – both for workers and operational vehicles – varies considerably depending on location and the type of development proposed. Provision should therefore be determined on a **case-by-case basis**, with the starting point for commuter parking being the standards in Table 10.4 with differences in employment densities taken into account. Flexibility may then be applied in light of site-specific circumstances as above."*

2.4.30 As a starting point for considering provision, the London Plan recommends considering employment densities, albeit this does not reflect the site specific use, shift patterns, location or PTAL which is also suggested in the London Plan. The parking policy does not require provision to be reduced in relation to employment density. This is the starting point, following which flexibility will be applied and the location and type of development proposed also need to be considered (i.e. on a case by case basis in accordance with 10.6.7).

Shift Working

2.4.31 Industrial employment shift patterns require increased parking demand at shift changeover, as well as there being a greater difficulty in travelling by sustainable modes at shift changeover times (for example at 02:00). Staff would be travelling to and from the site during the hours of darkness, when other modes would be less available and/or less attractive, albeit as shown in the ATZ assessment the routes at night time connecting with bus stops and the rail station are well lit and have high levels of activity.

2.4.32 The Mayor of London Land for Industry and Transport SPG (2012) recognises this by stating in paragraph 5.23 that the *"implementation of London Plan parking policy should take into account local circumstances, to ensure that there is adequate provision for work force parking recognising that many major industrial areas have poor public transport particularly to support late/early shift patterns and where businesses operate 24 hours."*

2.4.33 This supports the applicants view and outlines that when implementing London Plan policy there should be adequate provision for work force parking, based on shift working patterns. The applicant considers the proposed level of parking to be the minimum required to ensure the site is operationally viable in this location and has reduced the provision from that submitted with the application, and that submitted within previously revised proposals following submission.

2.4.34 As set out previously, the site has a PTAL of 2 and due to this and the shift working on the site, there will be less opportunities for sustainable travel, as well as more short term demand for spaces where shift changes occur. As such, the standards for offices are only considered to be a starting point, considering the flexibility and site-specific circumstances, appropriate provision has then been provided for 91 vehicles, which is in accordance with paragraph 10.6.18.

Outer London Opportunity Areas

2.4.35 The London Plan also sets out that the approach to Outer London Opportunity Areas should be set out in 'Opportunity Area Planning Frameworks' through which parking provision can vary to reflect PTAL.

2.4.36 The London Plan states in paragraphs 10.6.2 to 10.6.3 *"Differences in car use and ownership between inner and outer London are recognised, with trip distances and trip patterns sometimes making walking and cycling difficult in outer London… The approach to parking in outer London Opportunity Areas should be set out in Opportunity Area Planning Frameworks, complementing the OA mode share target (as required by the Mayor's Transport Strategy)."*

2.4.37 The site forms part of the Hayes Opportunity Area (OA), however there is no parking approach or mode share target within a Planning Framework within this OA. The level of parking on the site would ensure that movements are well below the baseline in the surrounding area and this will be monitored as part of the Travel Plan.

2.4.38 The existing PTAL for the site is 2 which is considered poor on the TfL scale and as such, in accordance with the London Plan, this should be reflected in the application of parking standards in Opportunity Areas to increase provision and not reduce it (in accordance with 10.6.2 – 10.6.3).

Local Plan

2.4.39 Separately from the London Plan 2021 standards, the current Local Plan in LBH has an adopted Development Management Policies document adopted in January 2020. For B2-B8 uses the standards are suggested as two spaces plus 1 space per 50 – 100 sqm of GFA. Applying the standards to the proposed development (16,522 sqm) would equate to a maximum requirement for between 165 and 330 spaces. The proposals are for 91 car parking spaces, which is well within the maximum LBH levels.

2.4.40 Based on the capacity of the building (for a B2 use) there could be 390 employees at the proposed development (maximum building capacity of 459 employees, with a factor of 0.85 to allow for business meetings, sickness and other absences, as well as operational flexibility). The revised site layout provides 91 car parking spaces. As such, assuming no vehicles are parked away from the site, this would equate to a 23.3% modal share of car drivers, if all spaces were occupied and all were allocated to staff (which would be unlikely).

2.4.41 This is a significant decrease from the surrounding baseline level of trips by car driver which show a total of 55.4% of movements as a car driver in the Hillingdon 026 middle layer super output area (MSOA) within which the site is situated (based on 2011 Census data).

2.4.42 This is in accordance with Policy T1 as this does not require all sites to deliver a modal share of 20% by sustainable modes, but to facilitate this target across the entire of London for all journey purposes. The potential modal share level at just over 20% (and Travel Plan constraint target of 30%) is a significant reduction on what occurs in the surrounding area for similar industrial uses, as well as what would occur for the existing site use and would therefore be in accordance with Policy T1. As set out by TfL, there would also be measures within a Travel Plan (as well as the DSP and Operational Management Plan) to support sustainable travel which is in accordance with relevant transport policies in the London Plan.

2.4.43 This demonstrates the provision is constrained as a 'car-lite' scheme, in accordance with the London Plan and that the applicant is committed to encouraging sustainable travel. It is considered reasonable for LBH to assess the parking provision against the standards within their Local Plan, particularly for a site providing such a significantly constrained provision and a reduction from existing levels and well below the level suggested by the LHA.

2.4.44 It is noted that within their original consultation response, the highway officer at LBH considers that the reduced standard within an OA in the London Plan is not suitable considering the site location and proposed use and references the LBH standards accordingly. The proposals for 91 spaces are therefore considered appropriate and in line with the requirements of LBH in this location, whilst suitably incorporating the requirements of TfL to further reduce provision.

2.5 Servicing

2.5.1 The site has been designed to accommodate service vehicles appropriately and provides a safe, clean and efficient site for accommodating freight. Vehicles are able to reverse against each proposed service bay throughout the site and a turning area is provided at the southern end of the site, if needed. Swept path analysis has been provided in Appendix D to demonstrate the suitability of the layout.

2.5.2 There are 16 HGV parking spaces within the service yard to appropriately accommodate vehicles within the site without overspill onto the access road or onto the highway network.

2.5.3 The servicing arrangements are in accordance with the LBH standards which state that *"sufficient space for the standing and manoeuvring of all goods and service vehicles likely to serve the development at any one time is essential."* And that *"Development layouts should allow all vehicles to load/unload and enter and leave the site in a forward gear."*

2.5.4 Within the servicing area, in accordance with the London Plan, a rapid electric vehicle charging point will be provided for operational vehicles.

2.5.5 In addition, electric vehicle charging points will be provided for each of the HGV bays, as requested by TfL, to ensure that these could be utilised by electric vehicles, to encourage their use by a future occupier.

2.5.6 The proposals provide marked pedestrian routes within the yard to ensure safe crossing for pedestrians, where needed. The bin stores can be accessed from the building without crossing the yard within the vicinity of reversing HGVs, which would minimise the need for pedestrians to walk within the yard space.

2.5.7 Measures will be set out within a DSP which will seek to minimise the impact of servicing movements on the wider highway network, in particular through encouraging sustainable last-mile deliveries, where feasible, as well as cargo bikes.

2.5.8 Only vehicles achieving only a particular safety rating such as FORS Gold or 5* DVS will access the site and this can be set out within the DSP. This will relate to the end operator of the site, but they can implement this measure and this can be agreed as part of the DSP. The operator will also adhere to the Direct Vision Standard, the details of which will again be set out in the DSP.

Response to TfL comments on the provision of HGV parking

The applicant has stated that the level of HGV parking on site has been based on the extensive experience of the applicant and architect on other similar projects. No information on 'other similar projects' has been provided, nor is it clear whether the applicant has spoken to potential operators to justify this quantum.

As such, TfL is of the view that robust justification has not been provided by the applicant to demonstrate that they are providing the minimum necessary level of parking for HGVs.

2.5.9 A review of the TRICS sites used to generate the commercial warehousing trip generation has been undertaken. The sites, floorspaces and OGV parking / loading bays are provided in Table 2-1.

Table 2-1: HGV Parking by TRICS Site

Reference	Description	Town/City	GFA (sqm)	Loading Bays	HGV Parking Bays	Loading Bay Ratio (1 space per x sqm)	Parking Bay Ratio (1 space per x sqm)
EN-02-F-01	WAREHOUSING	ENFIELD	13251	24	20	552.1	662.6
EX-02-F-01	SPORTS SUPPLEMENTS	COLCHESTER	6560	3	15	2186.7	437.3
HC-02-F-02	LOGISTICS	BASINGSTOKE	13200	25	70	528.0	188.6
HD-02-F-01	FOOD DISTRIBUTOR	HAYES	8673	10	0	867.3	-
HO-02-F-01	LOGISTICS AND FREIGHT	FELTHAM	13500	27	50	500.0	270.0
MW-02-F-02	COMMERCIAL WAREHOUSING	AYLESFORD	11200	8	2	1400.0	5600.0
					Average	**1005.7**	**1431.7**

2.5.10 As shown, there can be considerable variation in loading bays and parking bays on a site by site basis and the suitability of these would relate to the end operator. A potential operator would be aware of the number of bays whilst considering a site and if this is not considered appropriate for their purposes, they would be unlikely to sign a lease and occupy the site.

2.5.11 However, if applying the average ratios to the floorspace of the proposals, this would equate to a provision of 17 loading bays and 12 HGV parking bays. This is broadly consistent with the proposals for 18 loading bays and 16 HGV parking bays. As such, the proposed provision is appropriate to attract a number of different operators falling within the proposed planning use, without an overprovision of HGV parking leading to excessive generation on the network.

2.5.12 The closest comparable site to the proposals (not in TRICS) is Nature Delivered Ltd on Springfield Road. This has a GFA of 8,225 sqm and 8 loading bays (1 per 1,028 sqm). Applied to the site floorspace this would equate to 16 loading bays, which is also broadly consistent with the proposals (18 loading bays).

2.5.13 The proposed level of HGV loading bays and parking on the site is appropriate and enables the proposals to attract a suitable occupier. The provision of electric vehicle charging points across all spaces will also facilitate the use of more sustainable freight modes.

Response to TfL comments on servicing and principle of development

TfL is still not convinced that this application is in line with Policy T7. As highlighted in our previous comments, the predominant focus of this development seems to be on that of HGV movement, with the number of HGV movements increasing from 37 over a 12-hour period to 172. This represents a 365% increase in HGV movement. This appears to be counterintuitive to the London Plan, the Mayor's Transport Strategy and the Freight Action Plan. It is also useful to highlight that the Mayor's Transport Strategy aims to reduce the number of lorries and vans that enter central London in the morning peak (07:00-10:00) by 10 per cent by 2026, compared to 2016/17 levels.

2.5.14 The proposals are forecast to significantly reduce vehicle movements in comparison to the existing scheme in the network peak hours, over a 12 hour period and over a 24 hour period. As set out in Section 4, over a daily period, there is a forecast decrease in of over 2,800 total vehicle movements and a forecast increase of 268 HGVs. As such, there is a significant decrease in overall vehicle movements, even if considering passenger car units (PCU's).

2.5.15 The existing site use generates HGV movements to and from the service yard which is accessed from the southern end of the site onto Bullsbrook Road. Although there is an increase in HGVs generated

by the site, these no longer access onto Bullsbrook Road / Springfield Road which are considered less appropriate as HGV routes.

2.5.16 The movements access directly onto a higher standard A Road and would be within a short distance onto a key TfL route at the A312, which is a benefit to this type of scheme and would minimise the impacts from HGV movements on the local highway network and less suitable routes. The significant reduction in total vehicle movements is also considered to offset the potential impacts from the much smaller increase in HGVs.

2.5.17 The proposals will provide rapid electric vehicle charging for freight vehicles, which will encourage the use of more sustainable freight movements which is in accordance with Policy T7(A, B, C and F). In addition, Policy T7(E) specifically states that distribution sites should be designed to enable 24 hour operation to encourage and support out of peak deliveries. This is reiterated in T7(H). Again, the proposals would be in accordance with Policy T7 in this regard.

2.5.18 A Construction Logistics Plan (CLP) and DSP will be conditioned, in accordance with Policy T7 (G, I and K). The DSP will seek to minimise the impact of servicing movements on the wider highway network, in particular through encouraging sustainable last-mile deliveries, where feasible, as well as cargo bikes.

2.5.19 The proposal provides a safe, clean and efficient site for accommodating freight. The site will be providing a rapid electric vehicle charging point within the service yard to encourage and promote more sustainable electric vehicle freight use.

2.5.20 In addition, measures will be set out within the DSP to minimise the impact of servicing vehicles and encourage more sustainable vehicles.

2.5.21 As such, the proposals are fully in accordance with all aspects of Policy T7.

2.5.22 The Mayors Transport Strategy Proposal 15 sets out that the Mayor aims to reduce the number of lorries and vans entering **central London** in the morning peak by 10 per cent by 2026.

2.5.23 The site is situated in an Outer London borough, rather than central London and is accessed from a dual carriageway road situated within close proximity to the strategic red route network at the A312. The red routes are to ensure crucial deliveries and journeys can be made safely and as such, the close proximity to the red route network would be a benefit for this type of scheme and would minimise the impact on local streets from HGV traffic.

2.5.24 All HGVs will be required to route in this direction, which will be set out in the DSP and the operator would adhere to. This will be enforced by the operator who would likely have tracking devices on all operational vehicles for logistics purposes and can discipline individual drivers if this routing is not followed.

The Mayor's Freight and Servicing Action Plan calls for safe and efficient freight traffic in London. It is widely documented that HGV movement carries greater road safety risk. The applicant will need to undertake all relevant action to mitigate any likely impact on other roads, particularly that of vulnerable road users (VRUs). This includes, but not limited to, ensuring a high safety standard FORS Gold and 5 DVS and CLOCS) for all HGVs coming to this site, detailed within an operational management plan secured in the S106 agreement. Further mitigation will be required and will be identified once the additional information set out below has been provided for review.*

2.5.25 The applicant is willing to accept a condition to produce an operational management plan which would include full details of FORS Gold or 5* DVS vehicle measures. This will be produced alongside the DSP which will include further measures to ensure safe delivery of HGVs. This will relate to the end

operator of the site so these plans can be provided once the operator is known, and agreed with LBH, as needed, to discharge the condition.

The applicant states one rapid electric vehicle charging point will be provided within the service yard to encourage and promote more sustainable electric vehicle freight use, with electric vehicle charging points provided within each of the HGV bays. Whilst the provision of electric vehicle charging infrastructure at this site is welcomed, it is considered that further measures are required. This includes, but not limited to, the use of electric vehicles where possible, the implementation of a cargo bike strategy and provision of facilities to support this use for the site, and re-timing of deliveries to minimise the impact on congestion and noise pollution. These measures should be secured through the operational management plan. It is noted that the applicant has stated that the vehicle routing will be secured through the DSP. This should also be secured within the operational management plan.

2.5.26 As previously, the operational management plan and DSP can be conditioned and these will include full details of the operation of the site and management of HGV movements, as stated. This can be produced by the operator of the site once they are known.

The original and additional information provided from the applicant contains limited information on reducing movements through consolidation. Whilst it is noted that the end occupier of this development is not yet known, the applicant should still consider and identify the measures that will be implemented to support combining trips I.e. sharing materials between sites, compacting waste from nearby sites before removal.

2.5.27 This would be set out within the DSP, once the end operator is known.

3. HEALTHY STREETS AND CONNECTIVITY BY SUSTAINABLE MODES

3.1 Introduction

3.1.1 The original TA submitted with the application provided a detailed review of the sustainable connectivity of the site and this analysis remains valid. In summary;

- On the southern side of Uxbridge Road to the west of the site access, there is a segregated footway / cycleway. Footways are provided adjacent to all surrounding streets. In addition, at the site access there are signal controlled crossings at the site access, which enable pedestrians to cross both the site access and Uxbridge Road.
- The site has excellent access by active travel and enables a significant number of potential future employees from surrounding residential areas to access the site via walking and cycling.
- The site has excellent connections by frequent bus services to a variety of destinations. This includes services which operate for the majority of the day on a weekday and are therefore suitable for employees' working shifts.
- Southall Rail Station is situated approximately a 1.9km walk to the southeast of the site. This can be accessed on foot by continuous footways linking to the site.
- The PTAL score is 2, although it is considered that the proximity of the site to bus stops would offer an attractive alternative for potential future employees and visitors. There are a significant number of public transport services within a short walking distance of the site which provide regular services to a variety of destinations. The PTAL score also does not consider the rail services which are within a walkable distance via good quality and continuous pedestrian routes.

3.1.2 An Active Travel Zone (ATZ) assessment was undertaken and presented in Transport Note C21096/TN02, with the routes considered being agreed with the LHA and TfL.

3.1.3 The ATZ assessment concluded that improvements are not considered to be required as part of the development to accommodate movements associated with employees and visitors, although the LHA and TfL had comments on this which are considered in more detail within this section.

3.1.4 In considering comments and potential contributions towards improvements on the network (as requested by TfL and the LHA), the site is liable for the Mayoral Community Infrastructure Levy (CIL) which would be based on the floorspace of the building. It is considered that this CIL payment would provide a suitable contribution towards wider sustainable transport improvements and as such any additional specific contributions have been considered on this basis as these would need to be proportionate to the impact of the development, particularly given the more intensive vehicle trip generation of the existing use.

3.1.5 In relation to the connection from the site to the surrounding routes, the site access proposals show a shared footway / cycleway connecting to the existing route along Uxbridge Road along the northern boundary of the site. This is considered appropriate for accommodating active travel movements to and from the surrounding network and the full details of how the arrangement connects into the existing network and the signage / line markings can be discussed and agreed as part of the S278 technical approval.

3.1.6 The footway / cycleway link internally within the site is an improvement over the existing situation and will suitably further encourage active travel movements on the network.

Response to TfL comments on Healthy Streets

It is noted that the applicant has undertaken an Active Travel Zone (ATZ) assessment, the scope of which was agreed with the Council and TfL prior to it being undertaken. The assessment concluded that improvements are not considered to be required as part of the development to accommodate movements associated with employee and visitors.

3.1.7 This is noted, and full details are provided in Transport Note C21096/TN02.

Furthermore, as highlighted below the quantum of parking proposed at this site is above the minimum standards identified within the London Plan. In line with Policy T1, the proposed development should be seeking to facilitate a strategic modal shift towards more active and sustainable travel. To support this modal shift, it should be ensured that the surrounding active travel network is of a high-quality. Noting the shift nature of this development, it should be ensured that the surrounding active travel network around the site are of a high-quality and safe and attractive at all times of the day. Whilst it is noted that the applicant has carried out a night-time ATZ assessment, the full ATZ photography has not been provided.

3.1.8 The parking provision is considered in detail in Section 2 and demonstrates that the provision is appropriate and in accordance with the relevant policies and encourages a significant modal shift to sustainable modes compared with both the existing site use, and the surrounding employment uses.

3.1.9 The applicant is also proposing a contribution towards off-site improvements for active travel and healthy streets at a total of £46,718.75, which includes a list of improvements for healthy streets as outlined by LBH. This is considered appropriate to encourage travel by sustainable modes, together with measures which are set out and will be implemented within the Travel Plan.

3.1.10 The photographs provided within the ATZ assessment represent the worst part of each journey, in accordance with the ATZ assessment methodology. Further photos of the routes can be provided, if needed, although a contribution towards active travel and healthy streets improvements has been proposed.

It is noted that the applicant has revised the site layout, with an amended shared footway/cycleway connecting from the route adjacent to the site and linking to the building and the cycle parking area. The applicant has stated that this route is 3m – is this clear effective width?

3.1.11 This is clear effective width connecting to the site, although the site proposals have since been amended further, including the shared footway / cycleway route which links to the building on a different alignment than the original submission which is shown on the layout plan in Appendix A.

3.2 Active Travel Improvements

Response to TfL comments on Active Travel Improvements

It is understood that the applicant considers the cycle route adjacent to the site entrance is of appropriate quality to accommodate cyclists travelling to and from the site. TfL does not necessarily agree with this conclusion, and consider that improvements, such as improving the surface of this route which currently appears to be mismatched, should be made to this route to accommodate cycling trips to and from this site, and led to an increase in this mode. Furthermore, from the information provided it is not clear what this route looks like during darker hours – is it well lit? It is useful to note that Policy T5 states that development proposals should help to remove barriers to cycling and create a healthy environment in which people choose to cycle, which will be achieved through not only providing

appropriate levels of cycle parking that are fit for purpose but also supporting the delivery of a London-wide network of cycles routes, with new routes and improved infrastructure.

A contribution towards delivering improvements to this cycling route should be secured from this development, to support the trips of the proposed development and support increasing the uptake in this mode.

3.2.1 In accordance with comments from both LBH (set out below) and TfL the applicant is willing to provide a contribution towards active travel improvements along the extent of the route identified by LBH, specifically from the Grand Union Canal to the western boundary of the site.

3.2.2 This would include the upgrades to the shared use footway / cycleways along each section of carriageway, totalling around 125m. The applicant suggests a contribution of £25,000 towards these works.

3.2.3 The internal route within the site will be lit, as needed to ensure that active travel is fully encouraged for all employees and visitors on the site.

Response to LHA comments on Active Travel Improvements

The Highway Authority require that a further set of General Arrangement drawings are submitted that show how the needs of cyclists and pedestrians would be provided for at this junction to facilitate safe and convenient trip making by these modes. These plans should include proposed works to both the junction mouth and the shared use footway between the Grand Union Canal and the western boundary of the site. At the design stage the applicant is advised to the Transport for London, London Cycle Design Standards. These plans shall then be submitted to the Highway Authority for approval. The agreed works would then be delivered by the applicant under a 1980 Highways Act s.278 agreement.

3.2.4 In accordance with comments from both LBH and TfL the applicant is willing to provide a contribution towards active travel improvements along the extent of the route identified by LBH, specifically from the Grand Union Canal to the western boundary of the site.

3.2.5 This would include the upgrades to the shared use footway / cycleways along each section of carriageway, totalling around 125m. The applicant suggests a contribution of £25,000 towards these works.

3.2.6 The S278 agreement would therefore relate to the delivery of the minor amendment to the kerbline at the access, reduction in width of the exit lane to a single lane, minor road marking amendments and removal of the guardrail and central kerbing for 9m within the vicinity of the new footway connections point as shown in the general arrangement drawing in Appendix C. This may require minor amendments to dropped kerbs, tactile paving and drainage which would all be agreed as part of the technical approval process. The further improvements to the active travel route on each side of the access would then be delivered by LBH through the contribution provided by the applicant.

Initially highways objected to this proposal because an Active Travel Zone assessment had not been provided. This assessment has now been undertaken and the findings submitted to the Council. The report authors conclude that "improvements are not considered to be required as part of the development to accommodate movements associated with employees and visitors".

The Highway Authority does not accept this conclusion, there are works required to accommodate trip making to and from the site, for example the pedestrian/cyclist shared use footway along the northern boundary would be used by people visiting the site but it is in a poor state of repair. This footway has

been excavated and resurfaced many times creating a patch work of surfacing materials that are uneven, this detracts from the quality of provision and presents a road safety risk to its users.

3.2.7 As above, the applicant is willing to provide a financial contribution towards improvements to the footway / cycleway to improve the condition of this route.

The shared use footway in the vicinity of the Delamere bus stop also requires a review and modification for it to be in accordance the Transport for London, London Cycle Design Standards.

As mentioned above the proposal would have a minimal amount of car parking spaces, 115no. would be provided, the London Plan would allow up to 162no. - a difference of 47no. For the site to be self-sufficient in transport terms, the proposal should make a contribution towards active travel measures that broaden travel choice. Without these measures there is a risk that employees and people visiting the site may drive, with there being limited car parking on-plot people may resort to parking injudiciously on the surrounding streets presenting a risk to road safety and hindering the free flow of traffic. This would be counter to the London Plan policy T4 Assessing and mitigating transportation impacts which requires that "development proposals should not increase road danger".

In view of the above, the Highway Authority requires that the applicant enters a 1990 Town and Country Planning Act s.106 legal agreement that requires them to fund the delivery of works that will facilitate safe and convenient active travel to the site. This will broaden the travel choice offered to workers and visitors thereby reducing the number of private car trips generated. This would allow the site to be self-sufficient in transport terms given that on-plot parking would be limited.

1990 Town and Country Planning Act Healthy Street Heads of Terms

Description	***Price***
Supply & install 2no. new street benches	*£6,250.00*
Supply & install 6no. new Sheffield cycle stands	*£2,250.00*
Supply & install new replacement guard rail	*£7,656.25*
Supply & plant 5no. new tree pit & tree	*£11,562.50*
Total	***£21,718.75***

3.2.8 The applicant accepts the contribution of £21,718 towards these works. As such, this equates to a total proposed contribution of £46,718.75 towards sustainable travel / active travel improvements.

4. TRIP GENERATION AND DISTRIBUTION

4.1 Introduction

4.1.1 The trip generation for the existing and proposed schemes was set out in Transport Assessment based on TRICS analysis based on the submitted proposals.

4.1.2 Additional analysis was undertaken within the Transport Notes C21096/TN01 and C21096/TN02 to consider movements over a daily period, rather than a 12 hour period based on the available TRICS trip rates.

4.1.3 The analysis presented for the existing scheme remains valid and details of how this has been calculated is set out in the originally submitted Transport Assessment. The proposed generation has been updated within this section to respond in full to comments from the LHA and TfL, as well as reflect the latest scheme proposals.

4.1.4 As such, this section has replicated some of the comments from the original TfL and LHA consultation responses, where needed, to ensure all information is provided appropriately.

4.2 Existing Site

4.2.1 The trip generation for the existing site use has been set out within the original Transport Assessment and has not been reproduced within this section.

Response to Initial TfL Comments on Existing Retail Use Trips

TRICS has also used for the existing retail use, despite the applicant undertaking a survey of vehicle movement at this site.

4.2.2 In relation to the existing site trips, the site was not fully occupied at the time of the survey and also provides access to the Metro bank which does not form party of the application. As such, the survey does not reflect what the site could legitimately generate, if it were fully occupied and/or occupied by different end users within its existing use class. On this basis, it was considered appropriate to obtain trip rates from other similar sites by way of comparison to the survey.

4.2.3 Even considering the obtained flows from the traffic survey, the proposals would generate a reduction in vehicle movements in comparison to the existing use over the combined peak hours. This is reflected in the significant reduction in car parking spaces being provided on the site.

4.2.4 In addition, the traffic survey does not consider the servicing movements generated by the site which currently access from the southern boundary via Bullsbrook Road. These would generate some additional movements on the network which are included in the TRICS analysis.

Response to TfL Comments on Existing Retail Use Trips

As highlighted at Stage 1, the applicant had undertaken a survey of the existing vehicle movement at this site, but instead decided to use TRICS to establish the number of vehicle movements for the existing. The reason cited by the applicant for not using this survey data was that the site was not fully occupied at the time of the survey and that the junction also provided access to the Metro Bank, which is not party to the proposed application. No information was provided on the number of units that were not in operation at the time of the survey. TfL is also not convinced that discounting this survey due to it providing access to Metro Bank is a valid reason, noting that there is high possibility that trips to the site will be linked with that of the proposed development. The applicant has also stated that the

traffic surveys do not consider the servicing movements generated by the site which are currently accessed from the southern boundary. It is not clear why their surveys did not include the servicing access.

4.2.5 The traffic surveys were undertaken at the access to obtain turning movements at the junction and to provide an indication of trip generation into and out of the site on one specific day at this site access point.

4.2.6 The site has a retail planning use which is not restricted by the type of retail use. As such, the site could be re-occupied by any potential operator within this use class without the requirement for planning permission. On this basis, this forms the fallback position and is what the forecast vehicle generation should be considered against.

4.2.7 At the time of the survey one unit on the site was not occupied, which was an Argos Extra site, which would reduce the level of generation in comparison to when the site was fully occupied. However, the entire site could be occupied, in theory, by high trip generating uses in peak hours and over a daily period such as a deep-discount food retail use. As such, the survey does not reflect what the site could legitimately generate, if it were fully occupied and/or occupied by different end users within its existing use class.

4.2.8 As such, obtaining trip rates from a number of similar retail park uses from TRICS to estimate what the existing site planning use could generate, without the requirement for planning permission, is considered the most appropriate way in which to compare the proposed use vehicle generation against the existing planning use (i.e. the fallback position).

4.2.9 This information has been presented within the originally submitted Transport Assessment and the post-application Transport Note (C21096/TN01) is considered to remain appropriate to assess the net change in movements generated by the proposals.

4.3 Proposed Development Vehicle Trip Generation

Response to Initial LHA Comments on Trip Generation

It is unclear from the information submitted what the end use of the proposal would be. It could be manufacturing where materials arrive by HGV and the finish product leaves by HGV or storage and distribution where goods arrive by HGV and are then distributed using LGV's. This needs to be clarified as the two end uses generate different trip generation profiles, modal choice - vehicle type, distribution – local or national and assignment.

4.3.1 The proposals are for a speculative B2 / B8 development and the end user and specific operation of the site would not be known at this stage. As such, the trip generation analysis within the originally submitted TA presented the forecast generation using similar B8 commercial warehousing TRICS sites (as far as possible) and applying an average position. This presents a robust position of the potential trip generation by both the total number of vehicles and the number of HGVs.

4.3.2 The B8 trip rates have been used as these generate a higher level of HGV movements and are therefore considered a robust worst case analysis on this basis.

4.3.3 In terms of the distribution of movements, this would not be known at this speculative application stage where an operator is not currently in place. However, all HGV movements to and from the site would be required to travel west to the A312 roundabout as part of the routing agreement which would be set out in detail in the DSP. The operator would enforce this as appropriate through

measures within the DSP and any driver/s found to be in breach of this routing would be subject to a potential disciplinary procedure.

4.3.4 In addition, as the proposals are significantly reducing vehicle movements on the network, the distribution of movements has not been considered in detail as there would not be a material impact during peak hours regardless of the end user.

4.3.5 By way of comparison, an analysis of trips which would be generated by a potential B2 industrial use has been undertaken through further TRICS analysis. This has been set out together with the updated B8 trip generation based on the latest proposals.

B8 Commercial Warehousing

4.3.6 The following search criteria have been applied in TRICS to obtain surveys of similar uses to the proposals, if these were occupied for a B8 use:

- 02 – Employment/F - Warehousing (commercial)
- Located in South East England and Greater London
- Surveys from Monday to Friday
- Units with a GFA of between 5,000sqm and 20,000sqm
- Vehicle surveys carried out since 2006
- Manual removal of sites in a non-comparable location

4.3.7 The above search criteria resulted in the identification of six similar sites. The forecast vehicle and HGV trip rates per 100sqm GFA and trip generation are set out in Table 4-1 and Table 4-2. The full TRICS reports are included in the originally submitted Transport Assessment.

Table 4-1: Proposed Warehouse development – Vehicle Trip Generation

Time Period	Trip Rates (per 100m2 GFA)			Trip Generation (16,522 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.309	0.101	0.410	51	17	68
PM Peak (17:00-18:00)	0.108	0.295	0.403	18	49	67
12 Hour (07:00-19:00)	2.160	2.242	4.402	357	372	729

Table 4-2: Proposed Warehouse development – HGV Trip Generation

Time Period	Trip Rates (per 100m2 GFA)			Trip Generation (16,522 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.047	0.036	0.083	8	6	14
PM Peak (17:00-18:00)	0.027	0.035	0.062	4	6	10
12 Hour (07:00-19:00)	0.563	0.501	1.064	93	83	176

4.3.8 The proposed warehouse use is forecast to generate 68 two-way vehicle trips in the AM network peak hour and 67 two-way vehicle trips in the PM network peak hour. Over a 12 hour period (over which the averaged TRICS data extends), the site is forecast to generate around 729 two-way vehicle movements.

B2 Industrial Unit Use

4.3.9 The following search criteria have been applied in TRICS to obtain surveys of similar uses to the proposals, if these were occupied for B2 industrial use:

- 02 – Employment/C - Industrial Unit
- Located in Large Cities (due to lack of comparable data in South East and London)
- Surveys from Monday to Friday
- Units with a GFA of between 5,000sqm and 20,000sqm

- Vehicle surveys carried out since 2006
- Sites with a population in excess of 125,000 within five miles

4.3.10 The above search criteria resulted in the identification of four similar sites. The forecast vehicle and HGV trip rates per 100sqm GFA and trip generation are set out in Table 4-3 and Table 4-4. The full TRICS reports are included in Transport Note C21035/TN02.

Table 4-3: Proposed Industrial Unit development – Vehicle Trip Generation

Time Period	Trip Rates (per 100m2 GFA)			Trip Generation (16,522 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.227	0.058	0.285	43	7	50
PM Peak (17:00-18:00)	0.052	0.184	0.236	9	30	39
12 Hour (07:00-19:00)	1.345	1.549	2.894	222	256	478

Table 4-4: Proposed Industrial Unit development – HGV Trip Generation

Time Period	Trip Rates (per 100m2 GFA)			Trip Generation (16,522 sqm)		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
AM Peak (08:00-09:00)	0.021	0.025	0.046	3	4	7
PM Peak (17:00-18:00)	0.003	0.000	0.003	0	0	0
12 Hour (07:00-19:00)	0.226	0.23	0.456	37	38	75

4.3.11 The proposed use, based on an industrial unit occupier, is forecast to generate 50 two-way vehicle trips in the AM network peak hour and 39 two-way vehicle trips in the PM network peak hour. Over a 12 hour period, the site is forecast to generate around 478 two-way vehicle movements.

4.3.12 In addition, over a 12 hour period the proposals are forecast to generate 75 two-way HGV movements.

4.3.13 These trip rates are also considered comparable with a light industrial use and further analysis of the generation of a Use Class E(g)iii occupier has not been undertaken.

4.3.14 This B2 trip generation is lower than the B8 generation in the peak hours, over a 12 hour period and for HGVs.

4.3.15 As such, it is considered that the analysis presented in the original TA is robust and that B8 use would generate a higher level of vehicle movements. However, regardless of the end user, the proposals would generate a significantly lower level of vehicle movements than the existing site use. There would not be a severe impact on the capacity of the wider highway network and the access proposals are safe and suitable. On this basis, the conclusions set out within the TA would remain valid in this regard.

4.4 Daily Movements

Response to Initial TfL Comments on Trip Generation

The submitted TA only provided data for a 12-hour period, with the applicant citing that these are the only hours available from surveys in the TRICS database. The applicant has stated that during the overnight period, the proposals are likely to generate a lower level of vehicle movements as typically sites operate at a lower capacity and would not have office staff. An uplift factor of between c1.2 and c1.3 was applied to the 12-hour trip rate, with it estimated that the proposed development would generate 853-924 vehicle movements over a 24-hour period. It is not clear how the uplift factor was identified. No trip profile has been provided for the 24-hour period. Noting that this application is looking to secure 24-hour operation, this profile is key. The applicant should simulate the 24/7 operation so TfL and LB Hillingdon can assess the impact on the local and strategic highway network. There is a also a number of references to shift working within the submitted Transport Assessment, and

there is a concern that there could an intensity in vehicle movement (as acknowledged by the applicant) during a short period at this site at the shift end/start period. The applicant should provide a trip generation analysis for the shift working scenario for review to enable a robust assessment of the impact on the surrounding transport network.

4.4.1 The forecast 24 hour movements by vehicle type for a B8 use (being the worst case movements) have been set out in Table 4-5. These movements were calculated for the Air Quality Assessment, although these have been updated for the amended floorspace for the revised proposals.

4.4.2 These have compared 24 hour movements throughout the day between the existing and proposed site planning uses. The level of overnight generation is based on the only 24 hour survey of B2 or B8 uses in TRICS, which is for a food distribution use. The percentage of movements in each hour from that survey has been applied to the 12 hour obtained trip rates for the proposals and factored to each hour accordingly. The existing retail park movements have been obtained directly from the TRICS analysis.

Table 4-5: Forecast 24 Hour Vehicle Trip Generation and Net Change compared with Existing Site

Time Period	Proposed B8 Use (16,522 sqm GFA)			Existing Retail Park (10,000 sqm GFA)			Net Change		
	Two-Way			Two-Way			Two-Way		
	HGV	Lights	Total	HGV	Lights	Total	HGV	Lights	Total
00:00-01:00	14	46	60	0	0	0	14	46	60
01:00-02:00	8	22	30	0	0	0	8	22	30
02:00-03:00	8	26	34	0	0	0	8	26	34
03:00-04:00	8	24	32	0	0	0	8	24	32
04:00-05:00	12	34	46	0	0	0	12	34	46
05:00-06:00	14	40	54	0	0	0	14	40	54
06:00-07:00	24	72	96	0	0	0	24	72	96
07:00-08:00	13	46	59	2	14	16	11	32	43
08:00-09:00	14	54	68	1	92	93	13	-38	-25
09:00-10:00	15	47	62	4	213	217	11	-166	-155
10:00-11:00	20	33	53	3	296	299	17	-263	-246
11:00-12:00	19	48	67	4	338	342	15	-290	-275
12:00-13:00	17	48	65	4	366	370	13	-318	-305
13:00-14:00	20	48	68	4	382	386	16	-334	-318
14:00-15:00	17	44	61	4	364	368	13	-320	-307
15:00-16:00	11	43	54	4	338	342	7	-295	-288
16:00-17:00	12	46	58	3	313	316	9	-267	-258
17:00-18:00	10	57	67	3	280	283	7	-223	-216
18:00-19:00	8	39	47	1	315	316	7	-276	-269
19:00-20:00	8	24	32	0	275	275	8	-251	-243
20:00-21:00	8	24	32	1	80	81	7	-56	-49
21:00-22:00	6	20	26	0	138	138	6	-118	-112
22:00-23:00	12	34	46	0	0	0	12	34	46
23:00-24:00	8	24	32	0	0	0	8	24	32
Daily	**306**	**943**	**1249**	**38**	**3804**	**3842**	**268**	**-2861**	**-2593**

4.4.3 This shows that the proposals would significantly reduce total vehicle movements over a 24 hour period including in the network peak hours, compared with the existing site use. In particular, there is a significant decrease in vehicle movements in the PM Peak hours. Throughout the busiest hours of the day on the network the proposals would significantly reduce vehicle movements in comparison with the existing use. On this basis, the proposals would offer a betterment over the existing situation.

4.4.4 The light vehicle movements be a mixture of operational and employee movements so would not all result in a demand for car parking on the site and do not reflect employee movements.

4.4.5 The proposals are forecast to significantly reduce total vehicle movements in comparison to the existing scheme (2,681 movements), although there is a forecast increase in HGV movements at a much lower level (135 movements).

4.4.6 The existing site use generates HGV movements to and from the service yard which is accessed from the southern end of the site onto Bullsbrook Road.

4.4.7 As such, although there is an increase in HGVs generated by the site, these no longer access onto Bullsbrook Road / Springfield Road which are considered less appropriate as HGV routes by TfL. The movements access directly onto a higher standard A Road and would be within a short distance of a key TfL route at the A312, which is a benefit to this type of scheme and would minimise the impacts from HGV movements on the network. The significant reduction in total vehicle movements is also considered to offset the potential impacts from the much smaller increase in HGVs.

4.5 TRICS Site Analysis

Response to Initial TfL Comments on TRICS methodology

It is noted that the applicant has used TRICS data to identify vehicle trip generation proposed use, which includes a number of sites used to identify the trip rate not falling within the London boundary. It is noted that two sites have been discounted from this assessment due to the location not being comparable. Further information is required as to why these sites have been discounted. In addition, could clarity be provided on why the date range 01/01/06 to 14/03/19.

4.5.1 In relation to the proposed use, there are a limited number of comparable sites within the TRICS database for sites in London, so only those which had a comparable location, use and scale have been used. The parameters were extended to the most recent 15 years (2006 - 2021) to capture additional sites and included South East England, as there were only three sites within London. The end date automatically changed within the software to the final survey date as there were no other surveys beyond this date (and there have been no further surveys added since the TRICS assessment from November 2021, so the sites remain the same).

4.5.2 In relation to the removal of the two sites in non-comparable locations, these sites were removed as they were based in Wales and Yorkshire and the comparison was focused on London and the South east only (the primary filtering parameters were not selected correctly, so these were manually removed as part of the secondary filtering).

4.6 Analysis of Generation by all Vehicle Types

Response to Initial TfL Comments on vehicle types

Furthermore, based on the information provided it is not clear what the function of the site is and whether the applicant's assertion that the proposed development will result in a reduction in the number of LGV vehicle movements is accurate. This information is also required to ensure that the sites identified within the TRICS assessment is appropriate and will provide an accurate representation of the proposed use.

4.6.1 The proposals are for a speculative B2 / B8 development and the end user and specific operation of the site would not be known at this stage. As such, the trip generation analysis has presented the forecast generation using similar TRICS sites (as far as possible) and applying an average position. This presents a robust position of the potential trip generation by both the total number of vehicles and the number of HGVs, in the context that the sites used have higher levels of parking and the trip

generation is not considering the constraint targets which will significantly reduce vehicle movements generated by the site to target levels.

4.6.2 The number of Light Goods Vehicles (LGV's) is not provided or referenced within the original TA so there is no assumption that there would be a reduction in light goods vehicles, but there would be a significant reduction in light vehicles. A proportion of the light vehicles would also likely be operational vehicles, as well as staff and visitor movements.

4.6.3 As such, to consider the LGVs in more detail, all of the sites used within the TRICS analysis have been reviewed to forecast the percentage of OGV1, OGV2, LGVs, car and motorcycle movements. All six of the surveys of the sites used in the TRICS analysis have a breakdown of vehicle types. The percentage and number of movements by each vehicle by site, and then applied to the proposals have been set out in Table 4-6.

Table 4-6: Vehicle Types by TRICS site

Reference	Description	Town/City	GFA (sqm)	OGV1	OGV2	LGV	Car	Mcycle
EN-02-F-01	WAREHOUSING	ENFIELD	13251	9%	30%	14%	46%	1%
EX-02-F-01	SPORTS SUPPLEMENTS	COLCHESTER	6560	15%	2%	21%	61%	1%
HC-02-F-02	LOGISTICS	BASINGSTOKE	13200	20%	27%	12%	40%	1%
HD-02-F-01	FOOD DISTRIBUTOR	HAYES	8673	9%	8%	37%	43%	3%
HO-02-F-01	LOGISTICS AND FREIGHT	FELTHAM	13500	9%	10%	18%	62%	1%
MW-02-F-02	COMMERCIAL WAREHOUSING	AYLESFORD	11200	7%	7%	36%	50%	0%
			Average %	*12%*	*14%*	*23%*	*50%*	*1%*
			Proposed Development Movements	**78**	**94**	**166**	**364**	**9**

** OGV 1 and OGV 2 equate to 172 HGV movements and LGV / Car / Motorcycle to 539 light vehicle movements*

4.6.4 There is forecast to be approximately 166 light goods vehicle movements and 364 car movements based on this analysis, although this is considered to be extremely robust given the constraints on parking on the site and the application of targets to constrain vehicle use in the travel plan. In addition, just over half of the HGVs are forecast to be OGV2's with the remainder being smaller OGV1's.

4.6.5 As set out in CD224 of the DMRB an OGV1 is an 'Other Goods Vehicle – 2 and 3 axle rigid vehicles' – i.e. any vehicle over 7.5 tonnes with 3 axles or less. An OGV2 is 'Other Goods Vehicle – 4-axle rigid and articulated vehicles with any number of axles' – albeit this does not necessarily mean these are all articulated vehicles. On this basis, just under half of the HGVs forecast may be smaller box van type vehicles rather than 16.5m long articulated vehicles, which would reduce the perceived impact on the network from large articulated HGVs accordingly.

4.6.6 The further trip generation analysis presented further sets out that the proposals would generate a significant reduction in vehicle movements in comparison with the existing use and the TRICS analysis is considered robust and appropriate.

4.7 Multi-Modal Trip Generation

Response to Initial TfL Comments on Multi-Modal Generation

Only a vehicle trip generation assessment has been provided. A multi-modal trip generation assessment should be provided for review. Subject to this assessment, contributions towards public transport and active travel enhancements may be required in line with Policy T4.

4.7.1 In relation to a multi-modal assessment, the level of movements by each mode has been calculated within this TN based on Census journey to work data for the Hillingdon 026 middle layer super output area (MSOA) within which the site is situated. The 2011 data is set out within the TA in Section 2.6. This demonstrates that 55.4% of existing commuting movements in the surrounding area are made as a car driver (which would also include existing commuting movements to the site itself).

4.7.2 Based on the capacity of the building (for a B2 use as a worst case) there could be 390 employees at the proposed development (maximum capacity of 459 employees, with a factor of 0.85 to allow for business meetings, sickness and other absences, as well as operational flexibility). The revised site layout provides 91 car parking spaces. As such, assuming no vehicles are parked away from the site, this would equate to a 23.3% modal share of car drivers, if all spaces were occupied and all were allocated to staff (which would be unlikely). This demonstrates the sustainability of the site as this would be a significant reduction in the percentage of car drivers in comparison to the surrounding area.

4.7.3 The movements by other modes of travel have then considered the Census data, with sustainable modes of travel factored by 1.56 from the baseline level to reflect the difference in sustainable trips from 44.6% (background levels) to 69.6% (forecast for the site). The resultant trips by all modes in the AM and PM peak hours, as well as over a 12 hour period (based on TRICS data) have been set out in Table 4-7. The car driver movements have been based on the total vehicles minus HGVs, albeit some of these vehicles would also be operational movements. The forecast constraint target will be in place from first occupation and movements constrained to this level from commencement of operations, and this is reflected in the Travel Plan.

Table 4-7: Forecast Trips by all modes for proposals

Mode	Baseline	Forecast Constraint Target	Movements		
	%	%	AM Peak	PM Peak	12 Hours
Underground	3.6%	5.5%	10	10	101
Train	2.5%	5.0%	9	10	92
Bus	20.9%	28.0%	50	53	516
Car Driver	55.4%	30.0%	54	57	553
Car Passenger	4.9%	10.0%	18	19	184
Motorcycle	0.4%	0.6%	1	1	11
Bicycle	1.6%	5.0%	9	10	92
On Foot	9.9%	15.0%	27	29	277
Other	0.9%	0.9%	2	2	17
Total	**100.00%**	**100.00%**	**180**	**190**	**1,843**

4.7.4 There is forecast to be a low level of movements by underground and train, possibly reflecting the distance from the nearest station, although there would be a high level of movements by bus and on foot, which reflects the location near a significant number of residential areas and adjacent to bus stops with a high frequency of service. There is a relatively low level of background movements by cycling, which may reflect the nature of the uses surrounding the site (there is a number of industrial units which would generate movements in hours of darkness).

4.7.5 It is noted that the existing site would also generate a number of movements by sustainable modes throughout the day, although there is limited comparable survey data on multi-modal trips within TRICS for retail parks and no sites from within London in the most recent 15 year period.

4.7.6 In terms of a contribution towards public transport and active travel enhancements, the ATZ Assessment did not identify any specific improvements which should be delivered by the proposals to ensure movements can be accommodated safely, particularly in the context of the existing site use.

4.7.7 In addition, the site is liable for the Mayoral Community Infrastructure Levy (CIL) which would be based on the floorspace of the building. It is considered that this CIL payment would provide a suitable contribution towards wider sustainable transport improvements.

4.7.8 However, as set out in Section 3, the applicant would accept a total proposed contribution of £46,718.75 towards sustainable travel / active travel improvements.

4.8 Trip Distribution

Response to Initial TfL Comments on Trip Distribution

No information has been provided on where the proposed HGV movements will be coming from or going to, both prior to and after use of the proposed development. The London Plan is supportive of storage facilities where consolidation of movement and distribution can be implemented. There is no evidence in the current proposal of any consolidation, particularly with regards the onward travel of goods. In light of this, it has not been demonstrated this proposal supports last-mile movements and sustainable trips in line with Policy T7.

4.8.1 The full details of the operational movements will be set out in the DSP which will be produced by the end operator prior to occupation. This can form a condition of any forthcoming planning application.

4.8.2 The proposed layout would support last mile movements appropriately and would encourage sustainable forms of travel through the implementation of electric vehicle charging within the service yard. In addition, the DSP would set out measures to minimise the impact of operational vehicle movements.

4.8.3 In terms of the location of movements and where they will be coming from or going to, this would not be known at this speculative application stage where an operator is not currently in place. However, all HGV movements to and from the site would be required to travel west to the A312 roundabout as part of the routing agreement which would be set out in detail in the DSP. The operator would enforce this as appropriate through measures within the DSP and any driver/s found to be in breach of this routing would be subject to a potential disciplinary procedure.

Noting the above, there is a concern that the proposed assessment is resulting in an underestimation of the vehicle trip generation. As such further thought on the methodology, ensuring the above concerns are addressed is required. Subject to this revised assessment further analysis, which could take the form of highway modelling, may be required.

4.8.4 The vehicle generation is robust for the proposals and based on the most similar sites within the TRICS database. This section of this report has provided further information in this regard, including additional TRICS analysis on vehicle types and modal share. As such, it is considered robust and appropriate both for the existing and proposed uses and as a comparison between the two. The proposals would significantly reduce vehicle movements over a daily period and in the peak hours compared to the existing use.

5. IMPACTS ON THE HIGHWAY NETWORK

Response to TfL Comments on Impacts on the Highway Network

The applicant should also submit any modelling analysis that was undertaken to inform the Transport Assessment for MAP review. The review of models will only commence once trip generation is agreed and reflect TfL and LBH requirements.

5.1.1 The LHA has raised no concerns over the trip rates or generation provided and has not raised concerns with the impact on the operational capacity on the network. The trip generation as shown in Table 4-5 clearly demonstrates there is a significant reduction in vehicle movements on the network resulting from the proposals.

No further information has been provided on the movements of HGVs to and from this site, stating that this application is speculative at this stage. They have however stated that all vehicles will travel west to the A312 roundabout as part of the routing agreement which is currently proposed to be set out in the DSP for the site. As highlighted in TfL's comments, TfL has a scheme at Bulls Bridge which seeks to deliver a range of benefits across modes under the Healthy Streets umbrella. As highlighted within TfL's Stage 1 and detailed comments, a contribution towards this scheme would be appropriate. The exact amount can be determined once a robust and agreed trip generation has been provided.

5.1.2 As set out in Transport Note C21096/TN01, the full details of the operational movements will be set out in the DSP which will be produced by the end operator prior to occupation. This can form a condition of any forthcoming planning application.

5.1.3 The proposed layout would support last mile movements appropriately and would encourage sustainable forms of travel through the implementation of electric vehicle charging within the service yard. In addition, the DSP would set out measures to minimise the impact of operational vehicle movements.

5.1.4 In terms of the location of movements and where they will be coming from or going to, this would not be known at this speculative application stage where an operator is not currently in place. However, all HGV movements to and from the site would be required to travel west to the A312 roundabout as part of the routing agreement which would be set out in detail in the DSP. The operator would enforce this as appropriate through measures within the DSP and any driver/s found to be in breach of this routing would be subject to a potential disciplinary procedure.

5.1.5 The trip generation as shown in Table 4-5 clearly demonstrates there is a significant reduction in vehicle movements on the network resulting from the proposals. Given that the proposals would have access within a short distance to the Red Route network, HGV movements would be appropriately accommodated with a minimal impact on local streets (particularly in the context of the significant reduction in vehicle movements generated by the proposals).

5.1.6 The London Plan Policy T4 states that *"Where appropriate, mitigation, either through direct provision of public transport, walking and cycling facilities and highways improvements or through financial contributions, will be required to address adverse transport impacts that are identified."*

5.1.7 In relation to this proposal, there is a significant decrease in vehicle movements in comparison with the fallback position of the existing site use, which would provide a highway benefit, particularly on the A312 and therefore a request for a contribution would not be in accordance with Policy T4 (i.e. there are no adverse transport impacts).

5.1.8 The site is also liable for the Mayoral Community Infrastructure Levy (CIL) which would be based on the floorspace of the building. It is considered that this CIL payment would provide a suitable contribution towards wider sustainable transport and healthy streets improvements and an additional specific contribution (over and above the agreed contribution set out in Section 3) would not be proportionate or reasonable in relation to the impact of the proposals.

Contributions towards improvements/mitigation at Ossie roundabout, as well as safety improvements at both junctions to accommodate the additional HGV movement that the proposed development will generate, could also be required. The exact amount and form of the improvements/mitigation can be determined following the provision and agreement of the additional information identified above.

5.1.9 The forecast increase in HGV movements relates to approximately one additional HGV per 5 minutes, on average, on the network. This is a minimal increase in the context of the significant reduction in total vehicle movements and these movements can be accommodated appropriately on the network based on the geometry.

5.1.10 This would not result in an unacceptable impact on road safety, particularly in the context of the Ossie roundabout which already accommodates a high level of HGV movements generated by the industrial and employment uses surrounding the site (as well as those movements generated by the site itself). It is forecast that vehicle movements would decrease during network peak hours (significantly in the PM peak) and as such, this should offer a betterment in terms of capacity and operation at the Ossie roundabout.

5.1.11 As above, mitigation at this location is not considered to be in accordance with London Plan Policy T4, as this is not required to address adverse transport impacts of the proposals.

5.1.12 In addition, the CIL payment would provide a suitable contribution towards wider sustainable transport, healthy streets and junction improvements and an additional specific contribution outside of the sustainable contribution amount set out in Section 3, would not be proportionate or reasonable in relation to the impact of the proposals.

6. CONSTRUCTION LOGISTICS PLAN

Response to TfL Comments on Construction Logistics Plan

It is noted that the applicant has agreed to Construction Logistics Plan being secured through condition. This must detail the measures that will be used to ensure that pedestrian and cyclist safety along the site perimeter will be maintained. Noting the sites proximity to a bus stop, the CLP will also need to detail the measures that will be implemented to ensure no adverse impact on bus operations in proximity to the site, in line with Policy T3. The CLP should be prepared in line with TfL guidance.

6.1.1 This is all noted and will be included within the CLP, which will be agreed with LBH to discharge the condition.

7. SUMMARY AND CONCLUSIONS

7.1.1 This Addendum has set out full details of the revised development proposals, including the trip generation and impacts from the revised scheme.

7.1.2 It has set out full details of the proposed parking and access, and how this differs from the originally submitted scheme.

7.1.3 It also fully considers comments raised by TfL and the Local Highway Authority, providing additional information in response to outstanding queries which have been raised.

7.1.4 Based on the work within this Addendum, the conclusions within the originally submitted Transport Assessment would remain valid. These have been reproduced as follows.

7.1.5 The proposals offer a choice of travel options and represent sustainable development in line with the requirements of the NPPF, London Plan, Mayors Transport Strategy and Local Plan.

7.1.6 The proposed parking provision is appropriate and acceptable and is in accordance with the London Plan as well as the objectives for encouraging sustainable travel and reducing car use as set out in London Plan and the Local Plan.

7.1.7 The development proposals will not have a severe impact on the operation of the surrounding highway network or an unacceptable impact on road safety and are therefore in accordance with the NPPF as well as the London Plan and Local Plan.

7.1.8 The applicant will agree to a contribution for sustainable transport improvements along Uxbridge Road. The CIL payment would provide a suitable contribution towards wider sustainable transport, healthy streets and junction improvements. As such, suitable mitigation can be provided to accommodate the scheme.

7.1.9 As such, the analysis presented within this report should allow TfL and the LHA to provide a positive recommendation on the planning application.

Appendix A Revised Site Layout Plan

- Dimensions are in millimeters, unless stated otherwise.
- Scaling of this drawing is not recommended.
- It is the recipients responsibility to print this document to the correct scale.
- All relevant drawings and specifications should be read in conjunction with this drawing.

Internal arrangement shown for illustrative purposes only.

N

SCHEDULE OF ACCOMMODATION

Gross Internal Area (GIA)

Unit 1			
Warehouse Area	-	150,553 ft²	(13,987 m²)
2 Storey Office	-	15,187 ft²	(1411 m²)
3 Storey Office	-	8,666 ft²	(805 m²)
Transport Office	-	3,433 ft²	(319 m²)
Total Area	**-**	**177,839 ft²**	(16,522 m²)

Key

Application Boundary 7.11 Ac (2.88 Ha)

Ownership Boundary 7.84 Ac (3.17 Ha)

Green Roof

Existing	-	0m²
HC Proposal	-	2,910m²
Option 2A (shown)	-	1,755m²

Landscaping Area

Existing	-	1,150m²
HC Proposal	-	3,240m²
Option 2A (shown)	-	3,330m²

Green Wall Area

Option 2A (shown)	-	164 m²

Total Green Area (% of site area)

Existing	-	1,150m²	(4%)
HC Proposal	-	6,150m²	(21%)
Option 2A (shown)	-	5,249m²	(18%)

Cycle Parking

Long Stay	-	36 (incl. 4 Adaptive)
Short Stay	-	16

rev	amendments	by	ckd	date
H	Alterations to landscaping, access alignment and cycle parking	RS	AJL	18/05/23
G	New site layout to include an extension of 3 storey offices, updated car park arrangement and additional landscaping.	TH	AJL	30/03/23
F	Transport office green roof updated	TH	AJL	08/12/22
E	Car parking arrangement amended - Entrance island and 6 larger spaces added	LBR	AJL	22/11/22
D	Estate road access amended to suit highway road design	TH	AJL	21/11/22
C	Additional landscaping indicated	TH	AJL	21/10/22
B	Watercourse offset indicated.	JWY	AJL	26/09/22

Bridge Retail Park, Hayes

Site Layout

OXENWOOD REAL ESTATE

GRAFTONGATE

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Drawing Status:	Preliminary
Drawn / Checked:	jrh / AJL
Date:	21/11/2022
Scale:	1:500 A1
Drawing no:	Revision:
21048 P0001	H

10m SCALE 1:500

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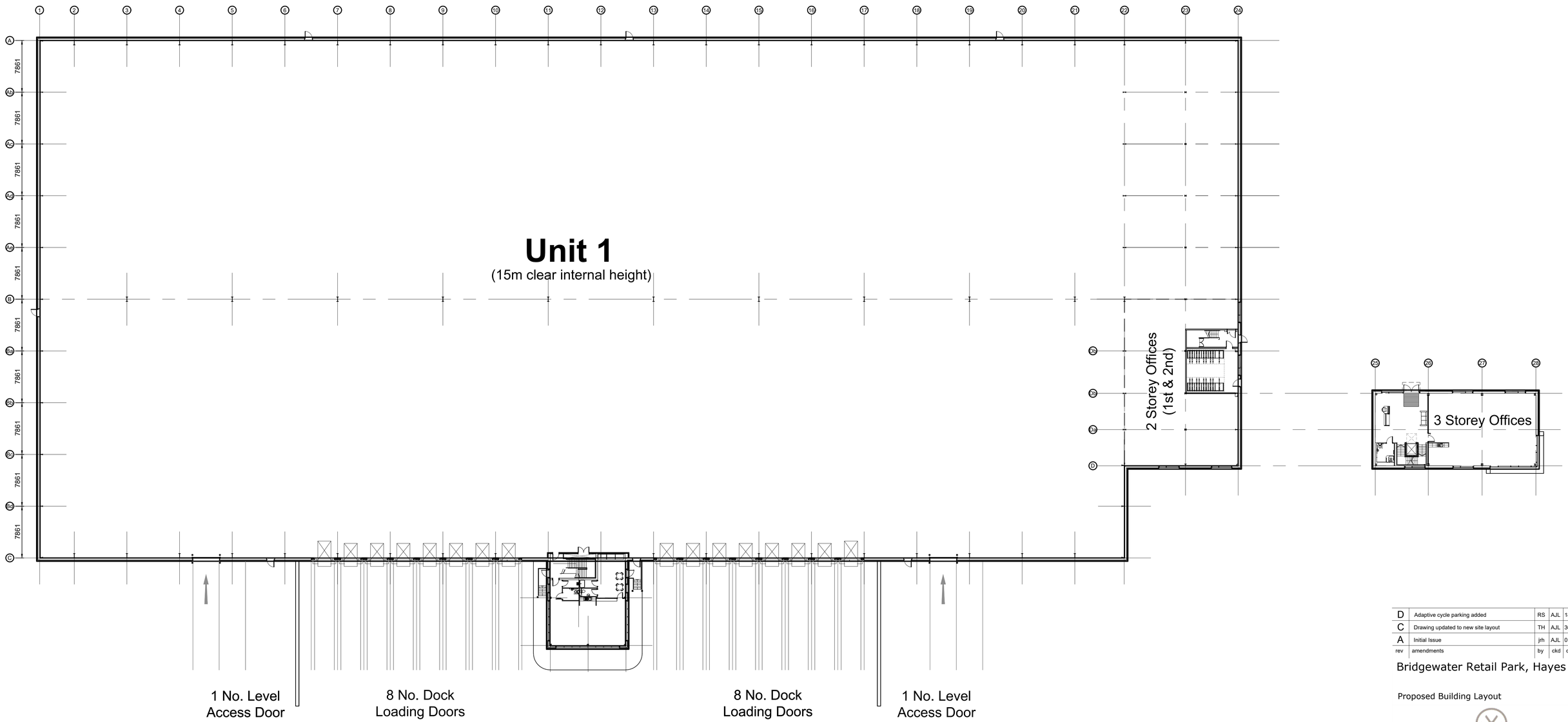

Proposed Building Layout Scale 1:300

D	Adaptive cycle parking added	RS	AJL	18/05/23
C	Drawing updated to new site layout	TH	AJL	30/03/23
A	Initial Issue	jrh	AJL	01/12/21
rev	amendments	by	ckd	date

Bridgewater Retail Park, Hayes

Proposed Building Layout

OXENWOOD
REAL ESTATE

GRAFTONGATE

PLANNING
THIS DRAWING IS FOR PLANNING CONSIDERATION ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE

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Drawing Status:	Planning
Drawn / Checked:	jrh / AJL
Date:	01/12/2021
Scale:	1:300 A1
Drawing no:	Revision:
21048 P0002	D

3m SCALE 1:300

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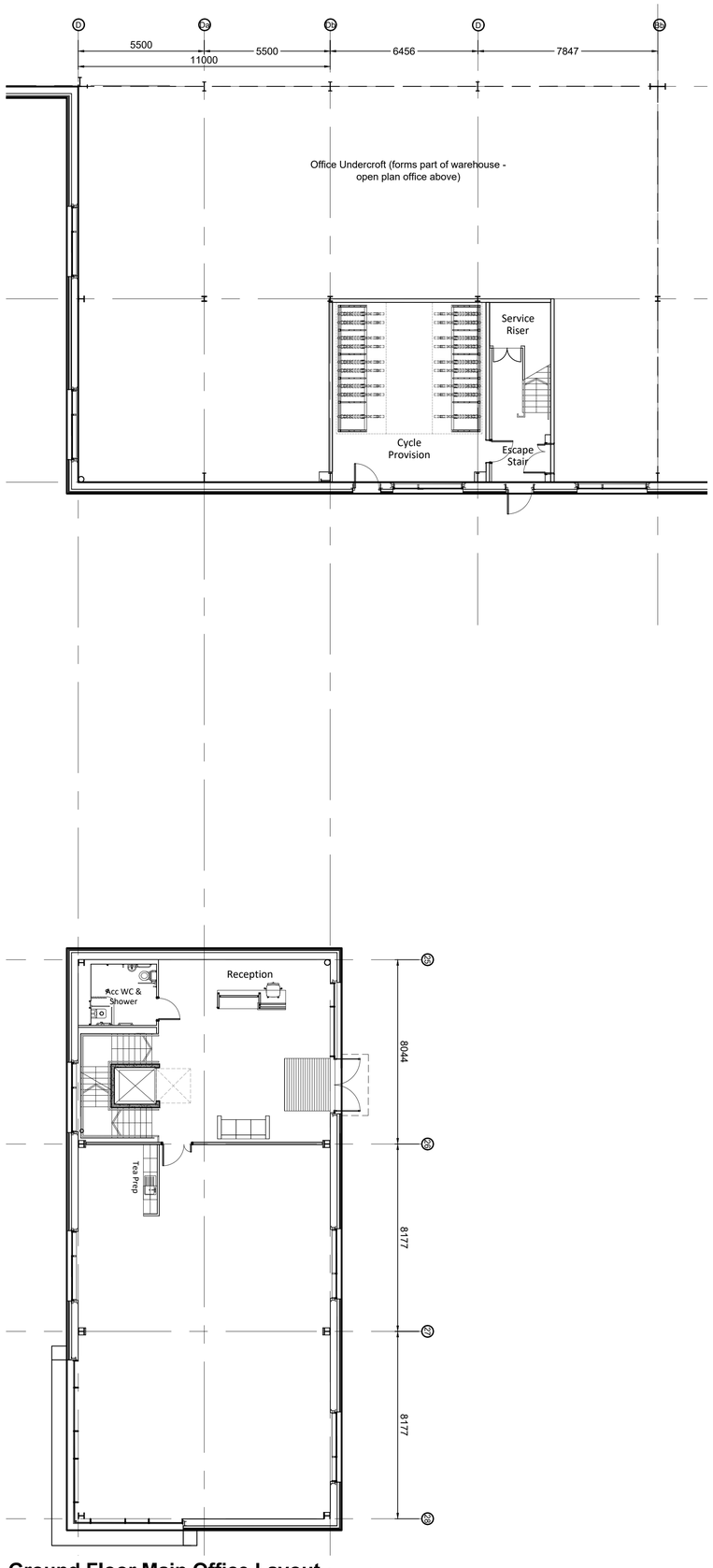
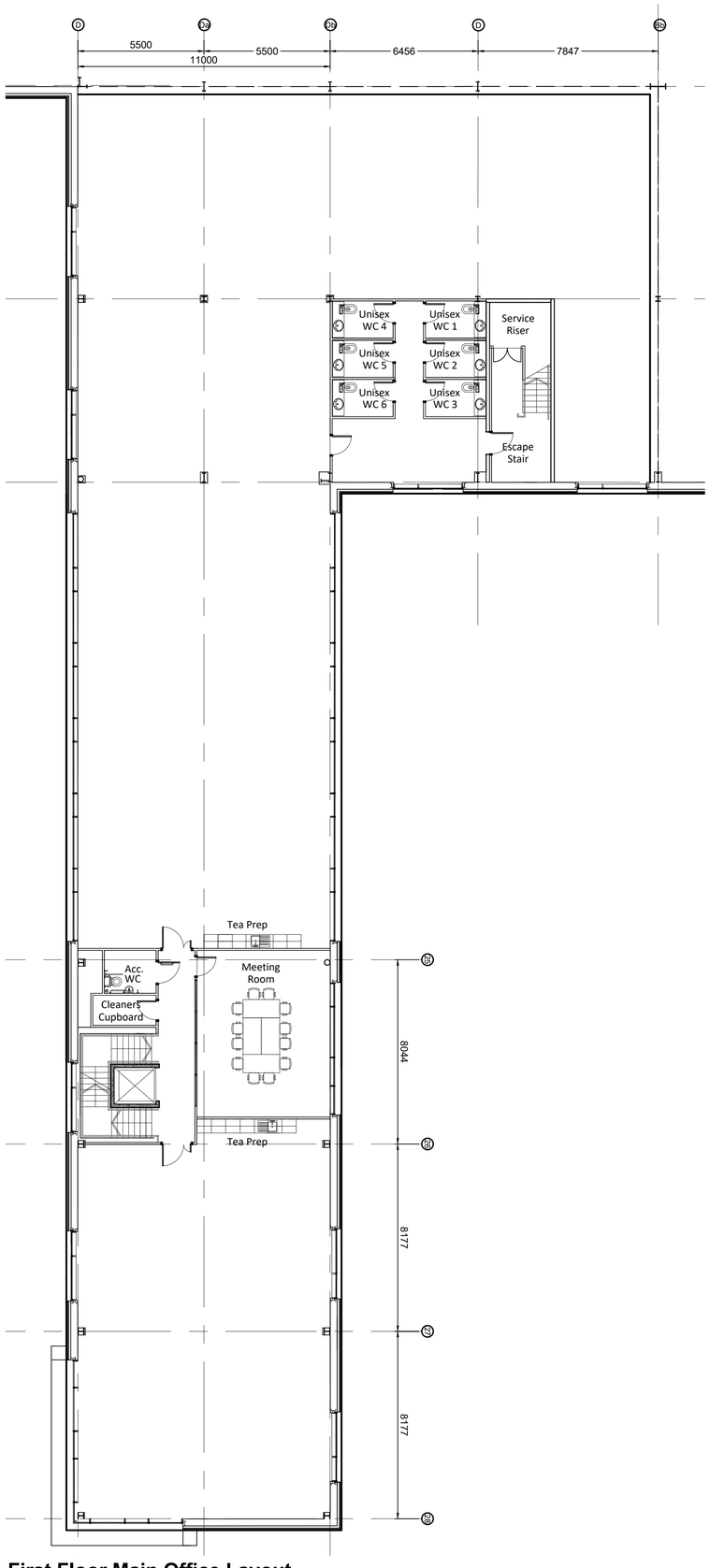
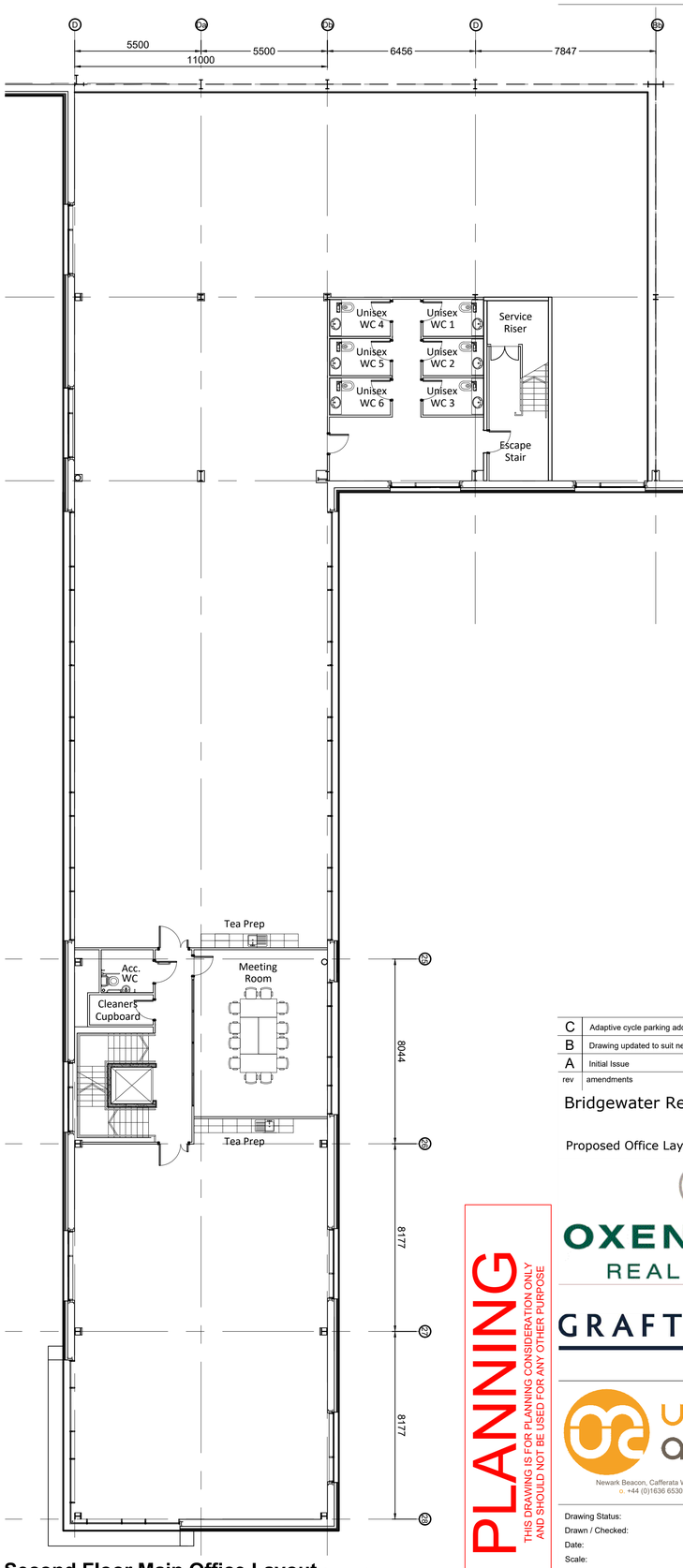


Ground Floor Main Office Layout Scale 1:125



First Floor Main Office Layout Scale 1:125



Second Floor Main Office Layout Scale 1:125

2.5m SCALE 1:125

N

rev	amendments	by	ckd	date
C	Adaptive cycle parking added	RS	AJL	18/05/23
B	Drawing updated to suit new building layout	TH	AJL	30/03/23
A	Initial Issue	jrh	AJL	01/12/21

Bridgewater Retail Park, Hayes

Proposed Office Layout

PLANNING

THIS DRAWING IS FOR PLANNING CONSIDERATION ONLY AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE

OXENWOOD REAL ESTATE

GRAFTONGATE

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Drawing Status:	Planning
Drawn / Checked:	jrh / AJL
Date:	01/12/2021
Scale:	1:125 A1
Drawing no:	Revision:
21048 P0003	C

Appendix B Swept Path Analysis - Car Park

OS NORTH

SCALE BAR

0m 10m 20m

SCALE BAR (1:500)

VEHICLE PROFILE

2010 BMW 5-Series

	metres
Width	: 1.86
Track	: 1.85
Lock to Lock Time	: 6.0
Steering Angle	: 36.9

NOTES

Background mapping utilising topographical survey from Greenhatch Group - November 2021. Drawing No: 42047_T

Site layout plan using UMC Architects Drawing Number 21048 P0001 RevH.

REVISIONS

Rev	Date	Description	By	App
P01	17/05/23	First Issue.	DC	DC

Apex TRANSPORT PLANNING

23-24 PARK PLACE
CARDIFF
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CLIENT
OXW Hayes S.à.r.l.

PROJECT
HAYES BRIDGE RETAIL PARK

TITLE
SWEPT PATH ANALYSIS - LARGE CAR

PROJECT NO.
C21096

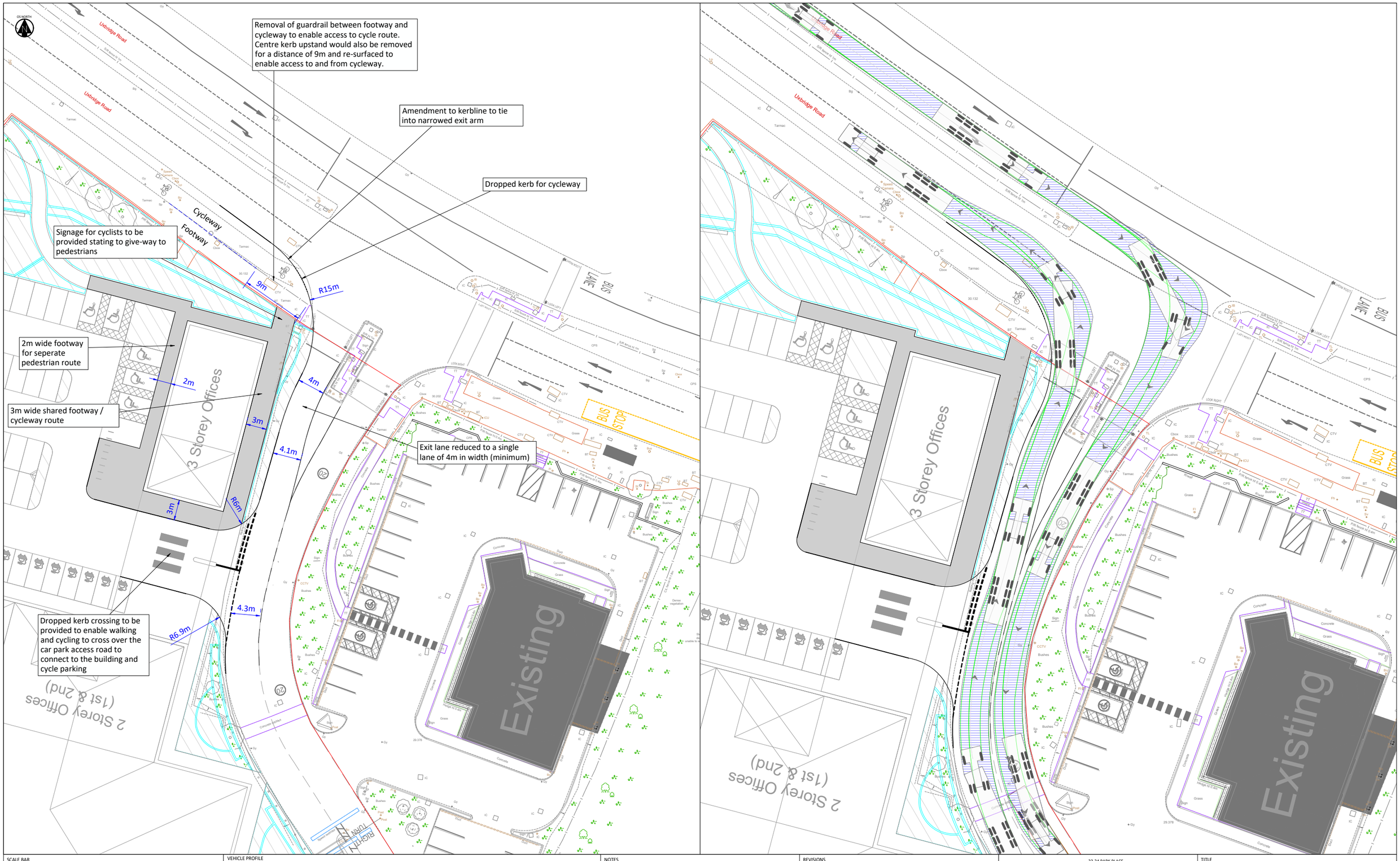
SCALE @ A3
1:500

STATUS DESCRIPTION
INFORMATION

STATUS
S2

DRAWING NO.
C21096-ATP-DR-TP-007

Appendix C General Arrangement of Proposed Amendments to Site Access

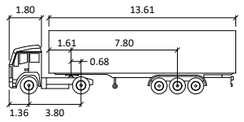


SCALE BAR

0m 10m 20m

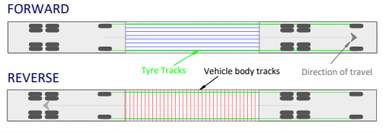
SCALE BAR (1:500)

VEHICLE PROFILE



Articulated max legal 16.5m

	metres
Tractor Width	: 2.55
Trailer Width	: 2.55
Tractor Track	: 2.55
Trailer Track	: 2.55
Lock to Lock Time	: 6.0
Steering Angle	: 42.7
Articulating Angle	: 70.0



NOTES

1. General Arrangement drawing suitable for planning purposes only. This drawing is not suitable for construction
2. The content of this drawing will require further work at S278 detailed design stage to incorporate drainage, surfacing, lighting and signage.
3. Please do not scale from this drawing
4. Background mapping utilising topographical survey from Greenhatch Group - November 2021. Drawing No: 42047_T
5. Site layout plan using UMC Architects Drawing Number 21048 P0001 RevH.

REVISIONS

Rev	Date	Description	By	App
P02	18/05/23	Second Issue.	DC	DC
P01	17/05/23	First Issue.	DC	DC

Apex TRANSPORT PLANNING
23-24 PARK PLACE
CARDIFF
CF10 9BA
t: 02920 619 361
e: info@apextp.co.uk

CLIENT
OXW Hayes S.à.r.l.

PROJECT
HAYES BRIDGE RETAIL PARK

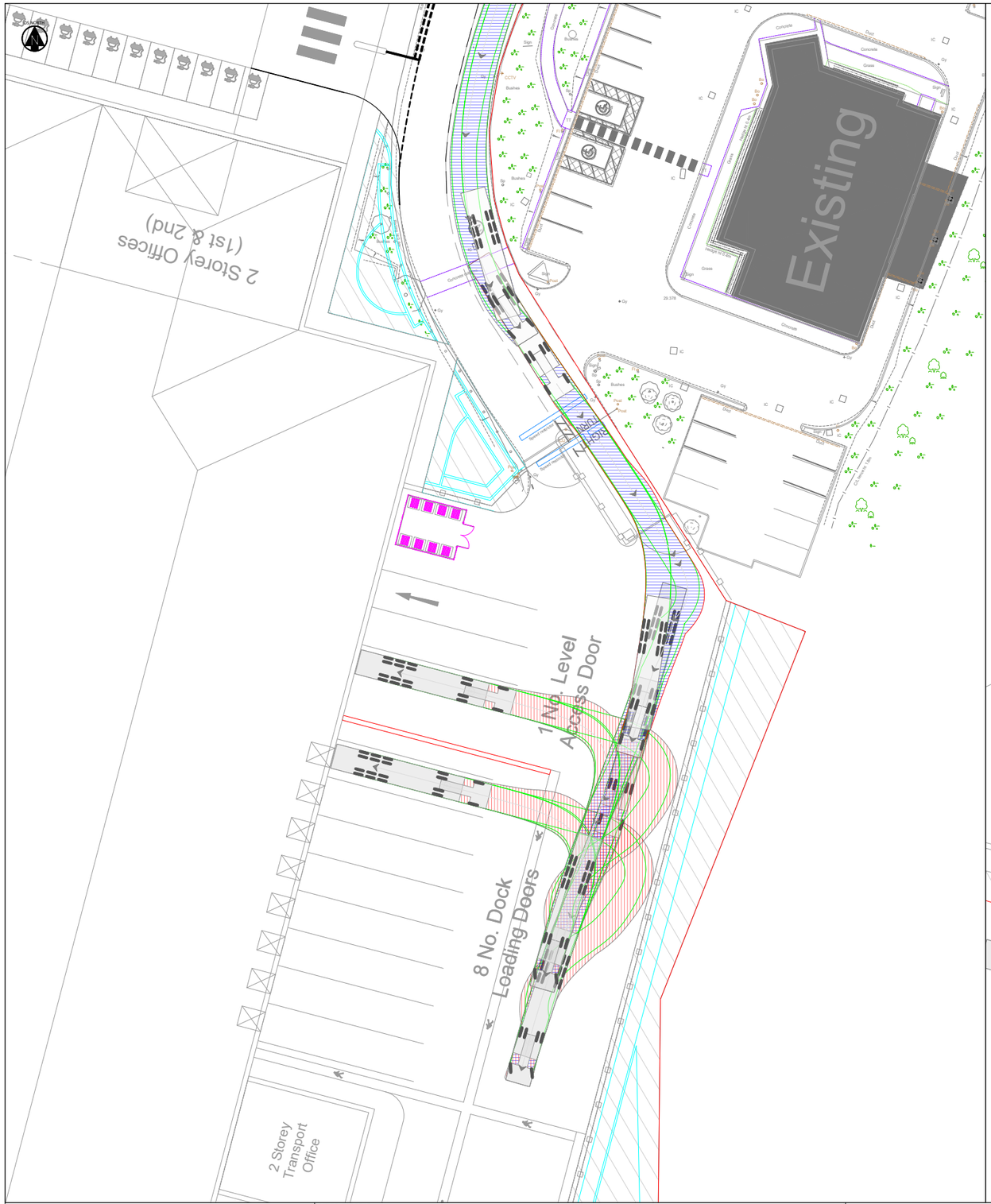
TITLE
GENERAL ARRANGEMENT OF PROPOSED ACCESS AMENDMENTS AND FOOTWAY / CYCLEWAY CONNECTION

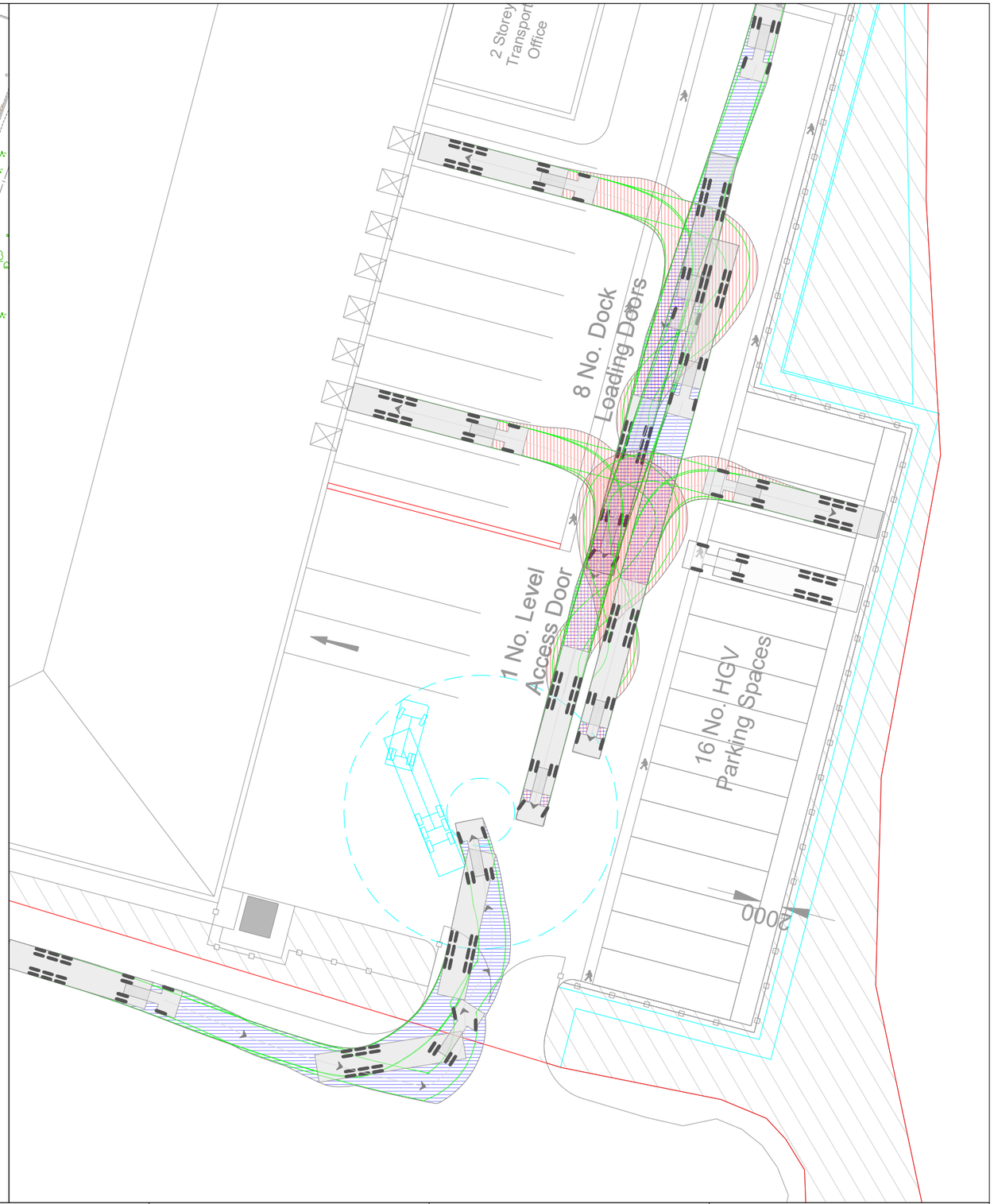
PROJECT NO.	SCALE @ A3
C21096	1:500

STATUS DESCRIPTION	STATUS
INFORMATION	S2

DRAWING NO.
C21096-ATP-DR-TP-005

Appendix D Swept Path Analysis – Servicing Yard



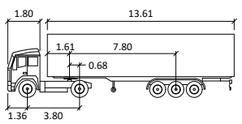


SCALE BAR

0m 10m 20m

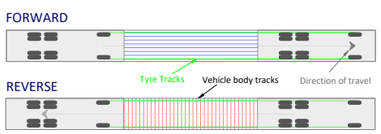
SCALE BAR (1:500)

VEHICLE PROFILE



Articulated max legal 16.5m

	metres
Tractor Width	: 2.55
Trailer Width	: 2.55
Tractor Track	: 2.55
Trailer Track	: 2.55
Lock to Lock Time	: 6.0
Steering Angle	: 42.7
Articulating Angle	: 70.0



NOTES

Background mapping utilising topographical survey from Greenhatch Group - November 2021. Drawing No: 42047_T

Site layout plan using UMC Architects Drawing Number 21048 P0001 RevH.

REVISIONS

Rev	Date	Description	By	App
P01	17/05/23	First Issue.	DC	DC

Apex TRANSPORT PLANNING

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CLIENT
OXW Hayes S.à.r.l.

PROJECT
HAYES BRIDGE RETAIL PARK

TITLE
SWEPT PATH ANALYSIS - ARTICULATED VEHICLE

PROJECT NO.	SCALE @ A3
C21096	1:500

STATUS DESCRIPTION	STATUS
INFORMATION	S2

DRAWING NO.
C21096-ATP-DR-TP-006