MARKIDES ASSOCIATES

Transport Assessment Addendum

Avondale Drive Estate

11 November 2025

Prepared for London Borough of Hillingdon

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Executive Summary

This Transport Assessment Addendum, prepared by Markides Associates on behalf of the London Borough of Hillingdon supports a Section 73 application for the redevelopment of Avondale Drive Estate (UB3 3NR).

The Avondale Drive Estate is situated in Hayes, between Avondale Drive and Hitherbroom Park, within an established residential neighbourhood. Its proximity to schools, parks, and extensive open fields with sports facilities renders it a suitable location for family housing. The approved redevelopment proposals include the demolition of three existing council tower blocks and the delivery of approximately 240 new homes, alongside a new pocket park, associated landscaping, and podium parking.

The extant consent is a hybrid planning permission, with a detailed element (Phase 1a) comprising a 30 home residential block (Block A) and an outline element (Phase 1b and Phase 2) with all matters reserved. Following the discharge of relevant planning conditions and the approval of a number on non-material amendment applications, Block A is now complete on site, with handover anticipated in September 2025.

This Section 73 application seeks to revise specific conditions of the original planning consent (reference 76551/APP/2021/4502), including conditions 3 (approved plans), 4 (approved documents), 5 (land use/quantum), 6 (housing mix), 7 (phasing plan), 9 (density), 10 (building heights) and 15 (landscaping scheme).

The proposed Section 73 amendments encompass the following key changes to the outline area:

- An increase of 56 residential units overall, including an uplift of 33 affordable homes.
- Removal of the existing parking court and an increase in podium size, intended to enhance active frontages along Avondale Drive and improve site security.
- A revised height strategy to establish a lower-level frontage along Avondale Drive and mitigate overshadowing impacts on Hitherbroom Park.
- Deletion of vehicle access around Phase 1B, aimed at improving the quality of the public realm.
- Increased separation distances between Phases 1B and 2 to create a new public square, facilitating the relocation of play space to a safer, off-road position.

1. Introduction

1.1 Application Reference 76551/APP/2021/4502

1.1.1 In March 2022, the London Borough of Hillingdon (LBH) granted planning approval to the London Borough of Hillingdon as the Applicant for a hybrid planning application (reference 76551/APP/2021/4502) at a site, *Land at Avondale Drive, Hayes*, with description of development as follows:

Hybrid planning application seeking OUTLINE permission (with all matters reserved) for residential floorspace (Class C3) including demolition of all existing buildings and structures; erection of new buildings; new pedestrian and vehicular accesses; associated amenity space, open space, landscaping; car and cycle parking spaces; plant, refuse storage, servicing area and other works incidental to the proposed development; and FULL planning permission for Block A comprising 30 residential units (Class C3); new pedestrian access; associated amenity space and landscaping; cycle parking, refuse storage, and other associated infrastructure

1.1.2 Expanding upon this description, the approved development involved the phased demolition of the existing estate, which comprised of three 13-storey blocks of flats, each containing 48 flats (a total of 144 homes), to provide new affordable and private sale homes within a regenerated estate environment. The proposals sought to provide up to 240 residential dwellings, within residential blocks ranging from 2 storeys to 10 storeys in height, along with improved landscaping and public realm, delivered across three phases, Phase 1A, Phase 1B and Phase 2, with Phase 1A encompassing the full part of the hybrid application (Block A).

1.1.3 The application was supported by an illustrative masterplan. Phase 1A encompasses the western most block of the masterplan.

1.1.4 The application was supported by a series of Parameter Plans, which established the key parameters and principles of the Outline Area of the proposals in relation to Development Zones, Building Heights, Access, and Movement and Hard and Soft Landscaping.

1.1.5 The proposals were supported by a total of 68 on-site car parking spaces, a ratio of 0.28 spaces per unit, of which 8 were blue badge spaces (equating to 3% of unit numbers), delivered as both surface level and undercroft spaces, accommodated wholly within Phase 1B and Phase 2, with Phase 1A providing no allocated on-site car parking.

1.1.6 Phase 1B included a service road that wrapped round the proposed building, forming priority junctions with Abbotswood Way at either end.

1.1.7 The application was supported by sufficient information in relation to the Detailed First Phase, Phase 1A, to allow full planning approval to be granted and this part of the site, Block A, is now being delivered.

1.1.8 The hybrid application was supported by a Transport Assessment, prepared by Markides Associates (MA), the scope of which was informed by extensive pre-application engagement. The TA described the site location and accessibility, undertook an Active Travel Zone (ATZ) assessment, described the development proposals in detail in relation to access, servicing car parking and cycle parking strategies and quantified the anticipated trip generation associated with the proposals. With regards to car parking, the TA used the results of a parking stress survey and estimated car parking demand generated by the proposed scale of development to demonstrate that any parking overspill could be accommodated on-street. The TA concluded that the proposals would not have a material impact on the operation of the local highway network and complied with relevant transport related planning policies.

1.1.9 The planning approval is subject to planning conditions and is supported by a signed S106 Agreement which includes a number of obligations relating to transport, as follows (*summary provided, for full text see S106 Agreement*):

- Schedule 5 – Travel Plan
  - Submit a Travel Plan prior to occupation of Phase 1, based on the Framework Travel Plan submitted as part of the application;
- Schedule 7 – Highway Works
  - Not to occupy any phase of development until highway works associated with that phase have been complete, entering into highway agreements, as necessary.
- Schedule 10 – Active Travel Zone Contribution
  - Pay the ATZ contribution of £120,000 prior to occupation of Phase 1
- Schedule 11 – Parking Management Scheme Contribution

- Pay Parking Management Contribution of £50,000 prior to occupation of 31st dwelling. This would cover, an assessment of the impacts of the development on the local highway network, consultation and implementation costs associated with the introduction of the parking management scheme.

- Schedule 12 – Car Club
  - Prior to occupation of 50% of the dwellings, use reasonable endeavours to enter into an agreement with a car club operator.

- Schedule 13 – Residential Parking Permits
  - Residents are excluded from being able to apply for residential parking permits should a parking management scheme be implemented.

- Schedule 14 – Healthy Streets Contribution
  - Prior to occupation of first phase, pay Healthy Streets A312 Corridor Contribution of £51,000

1.2 Current S73 Application

1.2.1 LBH (the Applicant), has since formulated revised development proposals which necessitate the submission of a S73 Application minor material amendment.

1.2.2 The S73 Application is supported by a series of updated Parameter Plans, submitted for approval, which again seek to establish the key parameters and principles of the remaining Outline Area. The Parameter Plans underpin the principles of any future development proposal, setting the minimum and maximum parameters within which reserved matters applications will be brought forward in the future.

1.2.3 The S73 Application is supported by an updated Illustrative Masterplan, encompassing the same Outline Area, attached at **Appendix A**, with extract below at **Figure 1.1**. This is supported by an Illustrative Ground Floor Layout, also attached at **Appendix A**, with extract below at **Figure 1.2**.

1.2.4 Again, the Illustrative Masterplan demonstrates one way in which the outline components could come forward in the future in line with the parameters, representing design intent.

1.2.5 Whilst the Outline Area will be the subject of subsequent reserve matter applications, this TAA has assessed the revised access strategies associated with the revised Illustrative Masterplan in order to give officers confidence that should these proposals come forward they are deliverable and able to operate successfully and safely.

1.2.6 Changes to the illustrative masterplan, pertinent to transport, are summarised as follows:

- Increase in maximum number of residential units, family-sized homes, and number of affordable homes, from 240 approved to 296 (including 30 delivered Phase 1A), an increase of 56 homes.

- Increase in maximum car parking provision from 68 to 74, resulting in a parking ratio of 0.25 spaces per unit.

- Pro-rata increase in cycle parking.

- Removal of service vehicle route around Phase 1B, but with managed fire tender access and all refuse collection to occur from on-street.

Figure 1.1 Section 73 Illustrative Masterplan

Figure 1.2 Section 73 Illustrative Ground Floor Layout

1.3 TAA Scope and Structure

1.3.1 MA have been instructed by the Applicant to prepare this Transport Assessment Addendum (TAA), which has been identified as a validation requirement of the S73 Application.

1.3.2 As the recent planning approval has established the principle of development in this location, and the S106 Agreement has established transport related obligations associated with the development of the site, including levels of contribution, the TAA seeks to focus on the transport related changes associated with the S73 proposals and identify associated changes in terms of impacts.

1.3.3 As there have been no material changes in the existing transport infrastructure serving the site, it is not intended for the TAA to reproduce in detail a description of the existing situation nor be informed by updated analysis in terms of parking stress or ATZ assessments.

1.3.4 Following this Introduction, the TAA is therefore structured as follows:

- Section 2 considers any changes to transport related planning policy at National, Regional and Local levels since the original approval;
- Section 3 provides a summary description of the existing situation, largely taken from the original TA;
- Section 4 provides a description of the revised proposals that form the basis of the S73 Application;
- Section 5 provides an updated trip generation assessment, using the same methodology and assumptions that were adopted within the original TA; and
- Section 6 concludes.

Pre-application Engagement

1.3.5 In terms of pre-application engagement, the application team have engaged with both LBH planning and design officers and the Greater London Authority (GLA), which has included engagement with Transport for London (TfL), with this engagement having helped to evolve the proposals and informed design development.

1.3.6 In terms of TfL feedback, this is summarised below, with immediate responses provided where necessary:

- Car Parking. Car parking ratios in line with London Plan policy and an appropriate contribution should be secured to ensure proposed development does not increase car-dominance on surrounding streets. *Response – S106 Agreement has established obligation for development to provide funding toward parking management scheme consultation and implementation.*

- Healthy Streets. Creation of pedestrianised street to improve connection with adjoining park is welcomed.

- Delivery and Servicing. Information on measures to be implemented to ensure service bays are not misused should be provided including how ad hoc deliveries are managed to ensure no detrimental impact on the pedestrian environment. A delivery and service plan should support a formal application. *Response – as a residential development, it is beyond the scope of the Applicant to manage exactly how delivery vehicles will operate on the public highway. The S106 Agreement has however established that a highways agreement will be necessary to confirm any proposed works within the highway, which will include the formal designation of waiting controls confirming where, when, and how long on-street delivery and servicing can occur.*

- ATZ Assessment. An Updated ATZ assessment in darker hours should in included in the Transport Assessment for each site. *Response - The ATZ undertaken as part of the original TAA was thorough and generally the area is well-lit, with street-lighting across the local highway network. Furthermore, the S106 Obligation in relation to improvements to the local highway network has been previously agreed.*

- Cycle Parking. Cycle parking should be provided in line with London Plan standards both in terms of quantum and mix. *Response – cycle parking is provided in line with these expectations.*

- Transport Contributions. There should be a proportionate increase in transport contributions previously secured. *Response - Any additional contributions will be subject to viability testing. Contributions should not, by default, increase on a pro-rata basis. For example, the cost associated with consultation and implementation of a traffic management scheme should not increase as a result of the additional units.*

1.4 Reserve Matters Application

1.4.1 Following the submission of the S73 Application, it is intended for the design team to finalise the proposed detailed design, which will be the subject of a subsequent reserved matter application.

1.4.2 Any design concerns that may arise out of a review of the S73 Application proposals, could therefore be addressed as part of the subsequent reserve matter process.

2. Planning Policy

2.1 Original Planning Application

2.1.1 The original planning application was assessed against transport related planning policies contained within the following National, Regional and Local policy documents and found to be in compliance:

- National Planning Policy Framework (2021)
- London Plan (2021)
- Local Plan Strategic Policies (2012) and Development Management Policies (2020)

2.2 S73 Application

2.2.1 Since this approval there have been changes to NPPF only, with the London Plan and Local Plan being of the same status.

- National Planning Policy Framework (2024)

2.2.1 With regards to transport, NPPF Paragraph 115 states that:

> In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:
>
> - Sustainable transport modes are prioritised taking account of the vision for the site, the type of development and its location.
> - Safe and suitable access to the site can be achieved for all users.
> - The design of streets, parking areas, other transport elements, and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code (Policies and decisions should not make use of or reflect the former Design Bulletin 32, which was withdrawn in 2007).
> - Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree through a vision-led approach.

2.2.2 Paragraph 116 states:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios."

2.2.3 Paragraph 117 states that applications for development should:

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

2.2.4 In terms of compliance with this policy, the S73 proposals continue to ensure that safe pedestrian and cycle access is facilitated, that all user groups are catered for, that the proposals include a reasonable amount of car parking and can be efficiently serviced and accessed by emergency vehicles. The TAA will demonstrate that the proposals will not result in a material impact on the operation of the local hig0whay network.

3. Existing Situation

3.1 Site Location and Existing Use

3.1.1 The site is located approximately 0.4 miles due north-east of Hayes Town Centre, bound by Avondale Drive to the south, beyond which is low rise housing. The site is bound to the east by Abbotsway Way, beyond which is the A312 The Parkway, separated by an area of soft landscaping. Minet Junior School is located directly to the west, with associated playing fields wrapping around the Site's northern boundary, which is shared by Hitherbroom Park.

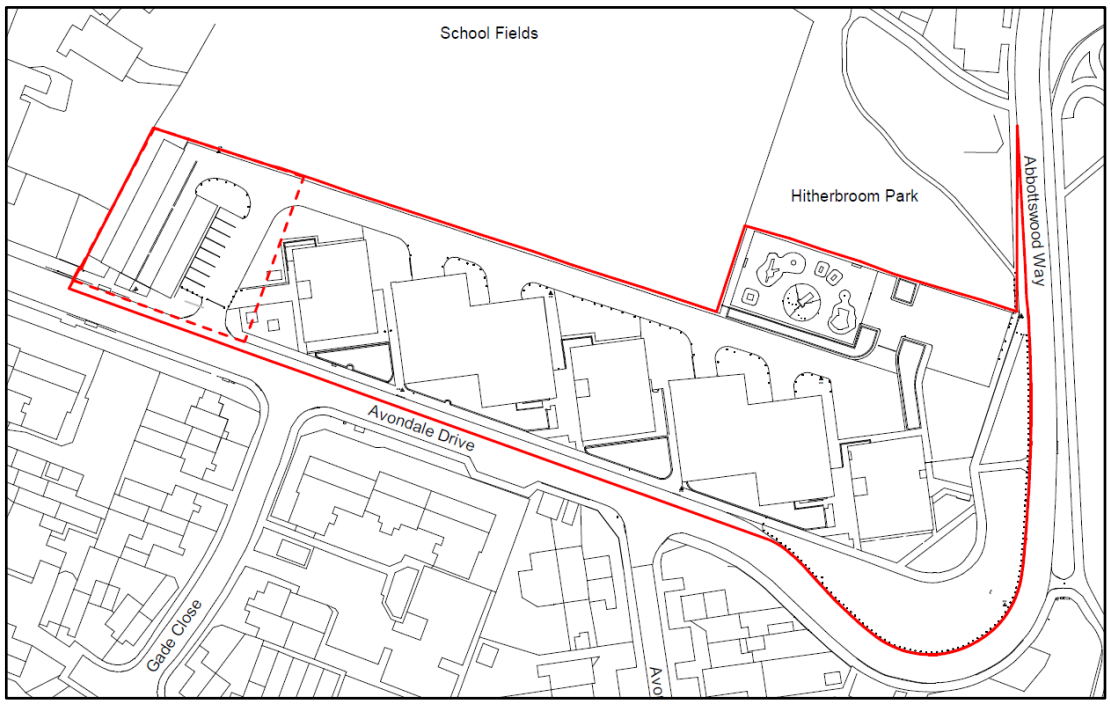
3.1.2 A site location plan is shown in **Figure 3.1**.

Figure 3.1 Site Location Plan

3.1.3 Prior to the delivery of Phase 1A (Block A), the site consisted of three 13-storey blocks of flats, each containing 48 flats, a total of 144 homes, between each of which were covered car parking areas. Vehicular access into the car parking areas was achieved via a simple priority junction with Avondale Drive, located immediately to the west of the westernmost residential block, serving an existing access road that runs to the rear of the site. Pedestrian access to the site was achieved from both the Abbotsway Way and Avondale Drive frontages.

3.1.4 The existing site layout, prior to the delivery of Phase 1A (Block A), is indicated below at **Figure 3.2**.

Figure 3.2 Existing Site Arrangement



3.2 Accessibility

3.2.1 The original TA submitted in support of the approved development demonstrated that the site benefits from a number of local amenities that can be accessed on foot, with Hayes Town Centre being located within an acceptable walk distance of most able-bodied residents, where a range of convenience retail and services can be accessed. To the north, the site also benefits from close proximity to the Lombardy Retail Park, within which there is an existing supermarket.

3.3 Transport Infrastructure

3.3.1 The original TA demonstrated that the site benefits from an established streetlit pedestrian network, local roads that are marked as suitable or signed for cyclists including route 88 (London Cycle Network numbering) along The Parkway to the east, route 88a along Station Road and Central Avenue to the west, and route 39 Uxbridge Road to the north of the site.

3.3.2 The original TA described the site's Public Transport Accessibility Level (PTAL) rating, as defined within TfL's WEBCAT service, of 1b, but noted a manual assessment revealed the site's western extent as having a PTAL of 2 and that the true accessibility of the site was likely to be higher on account of Hayes and Harlington Station being a reasonable walking distance from the site, providing access to the Elizabth Line to access workplace destinations within central London or Heathrow. The original TA noted that numerous bus services could be accessed from Coldharbour Lane.

3.3.3 The original TA noted that the existing on-site car parking accommodated 98 car parking spaces but that there was no private allocation strategy or permit system in place.

3.3.4 The original TA described Avondale Drive as a lightly trafficked 7.3m wide carriageway subject to a 20mph speed limit up to the junction with Avondale Drive Nos 35-135, after which it reverts to 30mph, with this speed limit continuing along Abbotswood Way. To the west, Avondale Drive forms a simple priority junction with Coldharbour Lane. After realigning north/south along the site frontage, where it becomes Abbotswood Way, the carriageway continues north where it accesses a residential estate that is essentially a large cul-de-sac, with their being no vehicular connection between Priory Close and Stirling Road. The original TA identified that the local highway network surrounding the site does not form part of a parking management scheme, allowing unfettered parking demand to occur on-street without the need for any permit and that there are no waiting/loading controls within the study area other than school keep clear markings along the school frontage, which are operational during school AM and PM drop-off/pick-up periods.

3.3.5 The original TA summarised the results of both an on-site and on-street parking stress survey. The on-site survey revealed total car parking demand, which when compared with the existing unit numbers, resulted in a parking ratio of approximately 0.59 cars per unit across the site, which broadly aligned with 2011 Census car ownership for 2-bed flats of 0.53. The on-street survey revealed low levels of parking stress, with the survey recording an average parking stress across unrestricted kerb length of approximately 47%, with reserve capacity to accommodate an additional 115 parked vehicles and 83 vehicles before a parking stress level of 85% is reached.

3.3.6 The original TA was informed by an ATZ, assessing key routes between the site and the most likely trip generators by active modes. It also examined the site in the context of the local area and its access to services, including local greenspace, and the permeability of local roads. The ATZ informed the S106 Agreement in terms of securing contributions from the development towards improving the surrounding active travel network and on that basis the ATZ does not need to be repeated.

4. Current S73 Application Development Proposals

4.1 S73 Application and Parameter Plans

4.1.1 This Section 73 application seeks to revise specific conditions of the original planning consent (reference 76551/APP/2021/4502), including conditions 3 (approved plans), 4 (approved documents), 5 (land use/quantum), 6 (housing mix), 7 (phasing plan), 9 (density), 10 (building heights) and 15 (landscaping scheme.

4.1.2 The S73 Application is supported by a series of updated Parameter Plans, submitted for approval, which again seek to establish the key parameters and principles of the remaining Outline Area. The Parameter Plans underpin the principles of any future development proposal, setting the minimum and maximum parameters within which reserved matters applications will be brought forward in the future.

4.1.3 These include Parameter Plan 3: Access and Movement, attached as **Appendix B**.

4.1.4 Parameter Plan 3 identifies how the site is intended to be accessed by all modes of travel and how these modes are envisaged to circulate through the site.

4.1.5 The S73 proposals differ from the approved development, as indicated on Parameter Plan 3, in that they remove the service vehicle route that ran around Phase 1B, remove a surface level car park that was accommodated within Phase 2 and accommodate a more generous offset between Phases 1B and 2.

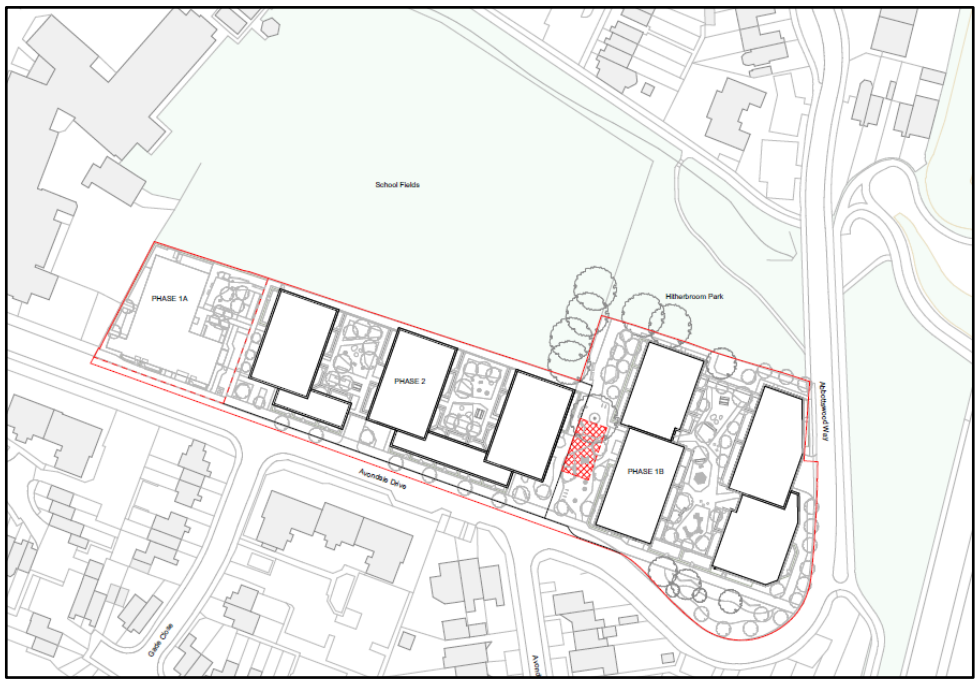
4.1.6 Phase 1B accommodates an undercroft parking area, accessed via a proposed access with Abbotswood Way, above which there is a resident's courtyard at first floor podium level.

4.1.7 Phase 2 accommodates an undercroft parking area, accessed via a proposed access with Avondale Drive, between Blocks B and C.

4.2 Detailed Phasing Plan

4.2.1 The S73 Application is supported by a Detailed Phasing Plan, which is submitted for approval, attached at **Appendix C**, with extract below at **Figure 4.1**.

Figure 4.1 S73 Phasing Plan



4.3 Detailed First Phase

4.3.1 The extant consent is a hybrid planning permission, with a detailed element (Phase 1a) comprising a 30 home residential block (Block A). Following the discharge of relevant planning conditions and the approval of a number on non-material amendment applications, Block A is now complete on site, with handover anticipated in September 2025.

4.3.2 Design related considerations associated with Phase 1 are not therefore considered within this TAA.

4.4 Illustrative Masterplan

4.4.1 The S73 Application is supported by an updated Illustrative Masterplan encompassing the same Outline Area as the approved development, attached at **Appendix A**.

4.4.2 Again, the Illustrative Masterplan demonstrates one way in which the outline components could come forward in the future in line with the parameters, representing design intent.

4.4.3 Whilst the Outline Area will be the subject of subsequent reserve matter applications, this TAA has assessed the revised access strategies associated with the revised Illustrative Masterplan in order to give officers confidence that should these proposals come forward they are deliverable and able to operate successfully and safely.

4.4.4 The Illustrative Masterplan therefore confirms the proposed introduction of a series of residential blocks aligned parallel with Avondale Drive.

4.4.5 Phase 1A, which was subject to full planning approval as part of the original application and which is currently delivering Block A, is located on the western edge of the site. Phase 1B is located on the eastern edge of the site, bound by Avondale Drive to the east and Abbotswood Way to the east, accommodating Blocks E and F, separated from Phase 2, which contains Blocks B/C/D, by a pedestrianised route and public square that will connect Avondale Drive with Hitherbroom Park.

4.5 Scale of Development

4.5.1 The revised development proposals which necessitate the submission of a S73 Application minor material amendment are for a scale of development totalling 296 homes, including Phase 1A, which was subject to full planning approval and is currently being delivered.

4.5.2 This represents an increase above the maximum approved scale of development totalling 56 homes, with proposed accommodation mix detailed below in **Table 4.1** (shown indicatively for outline phases).

Table 4.1 S73 Illustrative Accommodation Mix

Phase	Block	Tenure	1-bed Flats	2-bed Flats	3-bed Flats	4-bed Flats	Total
Detailed First Phase							
1A	Phase 1A Block A (Currently Being Delivered)	Social Rent	7	16	5	2	**30**
Outline Area (to be amended by S73 application)							
2	B	Social Rent	14	16	3		**33**
	C	Social Rent	14	16	2		**32**
	D	Social Rent	3	12	13		**28**
1B	E	Private	47	46			**93**
	Ground Floor Duplex	Social Rent	3	2	2	5	**12**
	F	Private	13	18	22		**53**
	F	Shared Ownership		4	11		**15**
Total							
Total			**101**	**130**	**58**	**7**	**296**

4.5.3 The Illustrative masterplan proposals therefore include 146 homes with private tenure and 150 homes with affordable tenure. This revised tenure mix will be captured through a deed of variation to the existing s106 agreement.

4.6 Pedestrian Access

4.6.1 Based on the Illustrative Masterplan, the S73 proposals maintain a 2.5m wide footway width along the Avondale Drive frontage, which continues along the frontage of Phase 2 and wraps around the Abbotswood Way frontage, up to the lobby access on this frontage. North of the Phase 2 parking access the proposals accommodate a 2m footway, which connects with the existing provision to the north along the Hitherbroom Park frontage.

4.6.2 A proposed 1.8m wide footpath wraps around the north of Phase 1B, providing ground floor access to duplex units on that northern frontage.

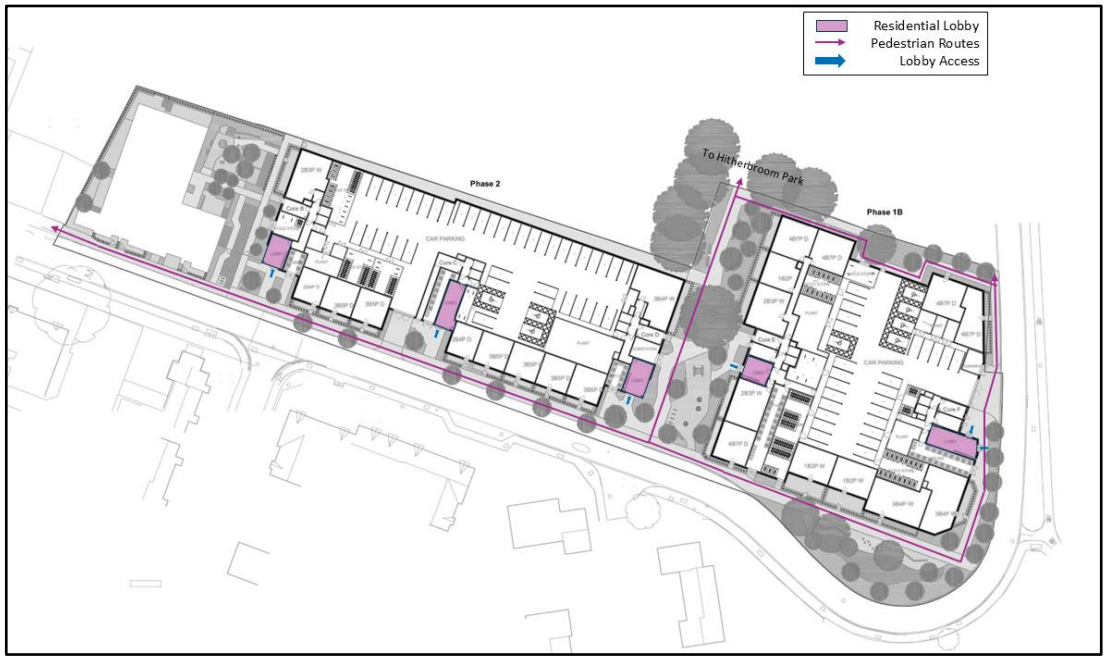
4.6.3 Direct pedestrian access to each of the proposed lobbies is taken from the footway.

4.6.4 The proposals include a pedestrian route between Phase 1B and Phase 2, which will provide public access to Hitherbroom Park to the north.

4.6.5 Vehicle crossovers will be supported by raised entry treatments and tactile paving in order to support pedestrian movements.

4.6.6 The proposed pedestrian arrangements are indicated below at **Figure 4.2.**

Figure 4.2 Indicative Pedestrian Access and Circulation



4.7 Cycle Access and Parking

4.7.1 The revised illustrative masterplan has been tested to ensure that it can accommodate secure cycle parking in accordance with London Plan standards both in terms of quantum and type, within each block.

4.7.2 The cycle parking requirements and proposals are summarised below in **Table 4.2**, with location indicated in **Figure 4.3**, accommodated within either the undercroft parking areas or dedicated ground floor stores, which by default will ensure they are secure and sheltered, with additional information provided at **Appendix D**.

Table 4.2 Outline Area Cycle Parking Policy Requirement

Phase	Block	One Bedroom	Two-Bedroom+	Requirement	Provision
2	B	14	19	59	137 as two-tier 42 as Sheffield Stands 8 as Wider Sheffield Stands 187 Total
	C	14	18	57	
	D	3	25	55	
	Total			171	
1B	E	47	46	163	236 as two-tier 64 as Sheffield Stands 16 as Wider Sheffield Stands 316 total
	F	13	55	130	
	Duplex	3	9	21	
	Total			315	

4.7.3 Access to the stores will be via the existing local highway network and then the sites internal access routes.

4.7.4 Where a cycle store is to the rear of car parking spaces, a minimum 1.5m offset will be retained for access.

4.7.5 In addition to the residential provision, short-stay visitor provision will be provided, dispersed across the layout, meeting the minimum policy requirement of 1 space per 40 units + 1 space (i.e. 8).

Figure 4.3 Indicative Cycle Access and Parking

4.8 Car Parking

4.8.1 The S73 proposals include the provision of an undercroft car parking area within each of the Phase 1B and Phase 2 areas, the location of which is indicated below at **Figure 4.4**, differing from the outline approval in that they remove a surface level car park that was previously included within the Phase 2 extent.

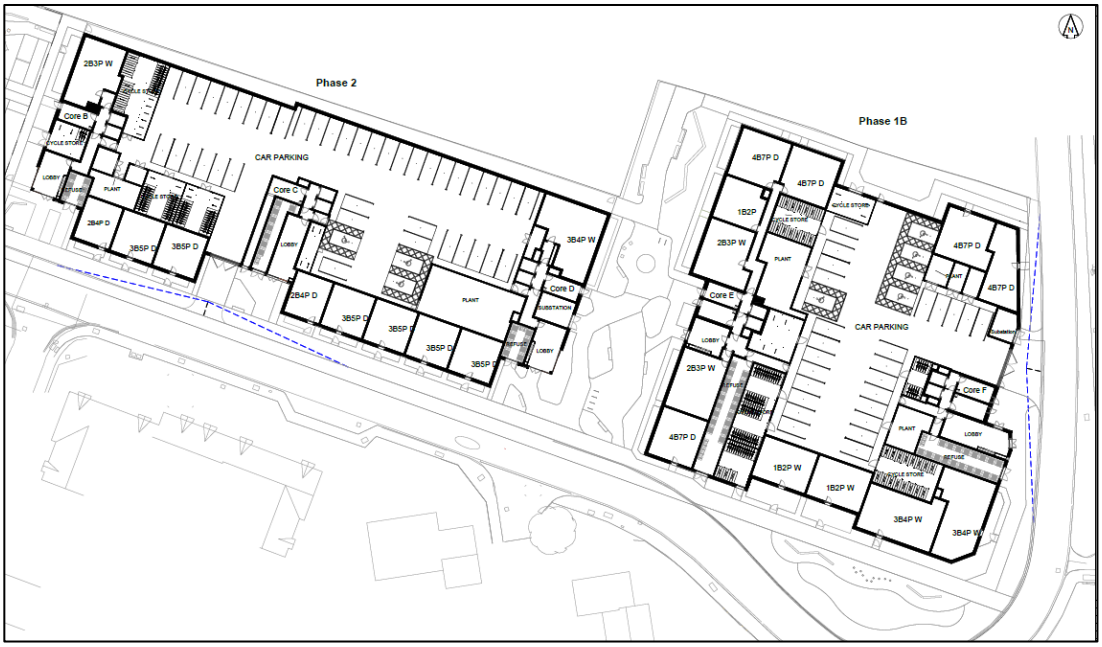
Figure 4.4 Indicative Car Parking Provision

4.8.2 Phase 1B is envisaged to accommodate an undercroft parking area, accessed via a proposed 4.5m wide access with Abbotswood Way, above which there is a resident's courtyard at first floor podium level.

4.8.3 Phase 2 is envisaged to accommodate an undercroft parking area, accessed via a 4.5m wide proposed access with Avondale Drive, between Blocks B and C.

4.8.4 Whilst the speed limit along the highway in front of each of the points of access is 30mph, observed speeds are low, dampened based on the 20mph speed limit immediately west of Avondale Drive and the bend in the road as it transitions to Abbotswood Way. On that basis **Drawing 25289-MA-XX-XX-DR-C-0101**, with extract below at **Figure 4.5**, confirms that visibility splays of 2.4m x 25m can be achieved from these points of access onto the public highway, reflecting a design speed closer to 20mph.

Figure 4.5 Drawing 25289-MA-XX-XX-DR-C-0101 Extract – Junction Visibility Splays 2.4m x 25m



4.8.5 Vehicle swept path analysis demonstrating a large car can access and egress the points of access and the car park are provided at **Drawing 25289-MA-XX-XX-DR-C-7002**, with extract below at **Figure 4.6**.

Figure 4.6 Drawing 25289-MA-XX-XX-DR-C-7002 Extract – Car Park Tracking

4.8.6 The proposed car parking quantum's are summarised below in **Table 4.2**.

Table 4.3 Indicative Car Parking Provision for Outline Areas

	Total	Standard	Blue Badge
Phase 1B Podium	30	25	5
Phase 2 Podium	44	41	3
Total	**74**	**66**	**8**

4.8.7 The proposals are therefore envisaged to include a total of 74 car parking spaces, a ratio of 0.25 spaces per unit, which is marginally less than the approved development parking ratio of 0.28 spaces per unit.

4.8.8 The indicative proposals meet the minimum policy requirement of blue badge parking provided for 3% of units within each phase. To accommodate additional blue badge demand in the future it will be possible to reallocate standard spaces to blue badge parking, facilitated by the fact that parking spaces will be leased and not sold.

4.8.9 Each of the parking spaces will be 2.4m x 4.8m, with additional width afforded to spaces that are bound by structure andF a minimal aisle width of 6m. Blue badge spaces are provided with 1.2m access margins on each side.

4.8.10 . Provision for electric vehicle charging will be made in line with London Plan Policy T6.1(c) and Condition 15/19, with at least 20% of spaces to be equipped with active charging points and the remainder designed with passive provision for future activation. Final details will be developed and approved through the condition discharge process.

4.8.11 In terms of compliance with parking standards, on the basis of the site having a PTAL rating of 1-2, the relevant London Plan standards for Outer London with this level of accessibility is a maximum range of 0.75 -1.5 spaces per unit. The indicative proposals are therefore approximately 15-30% of the maximum permitted car parking.

4.8.12 Due to the lack of existing on-street waiting controls and/or parking management scheme, it is acknowledged that the proposals could result in parking overspill onto the local highway network. The TA prepared in support of the approved development quantified this potential impact by applying the observed existing on-site parking demand ratio of 0.59 spaces per unit to the proposed scale of development and subtracting the proportion of this demand that could be accommodated on site, which resulted in potential parking overspill totalling 74 vehicles, which the TA demonstrated could be accommodated within the existing on-street reserve capacity.

4.8.13 Adopting the same approach for the S73 proposals, the proposed scale of development, along with the additional demand generated by Phase 1A, could generate parking demand totalling 175 cars (0.59 cars per unit * 296 units). Subtracting the indicative car parking provision of 74 spaces results in a potential overspill totalling 101 cars.

4.8.14 It is acknowledged that applying this level of overspill to existing parking stress levels would result in a high level of parking stress exceeding 85% and that the introduction of proposed points of access into the site and need for formalised loading restrictions would impact this further by reducing the supply of kerb length for parking.

4.8.15 A number of interventions are therefore proposed that would seek to reduce the car ownership levels, as follows:

- Secure and sheltered cycle parking where there is currently none provided;
- Provision of 3 car club spaces, with research indicating that each car club vehicle has the potential to result in a reduction in ownership of privately owned vehicles;
- Travel Plan measures such as car share database;
- Structural changes such as increased cost of car ownership/ insurance; road space charging; increase in uptake of electric bikes/ scooters, which are likely to dampen car ownership levels in the future; and
- Contributions towards improved active mode infrastructure.

4.8.16 More importantly, in addition to these interventions, the S106 Agreement in relation to the approved development has also secured contributions towards the consultation and implementation of a potential Parking Management Scheme in order to mitigate the impacts of the development, along with an additional clause that would ensure residents of the development would not be able to apply for parking permits should a parking management scheme be necessary.

4.8.17 Given the potential increase in parking stress impacts associated with the additional scale of development, this obligation should be retained.

4.9 Car Club

4.9.1 As part of the parking strategy for the original planning application, Enterprise agreed to introduce car club provision associated with the site for a minimum period of 3 years and identified that the proposals would have the potential to support the introduction of 3 car club vehicles facilitated by an Applicant subsidy, which would include discounted membership for site residents.

4.9.2 This strategy is maintained as part of the S73 proposals, and it is acknowledged that the S106 Agreement requires reasonable endeavours to have secured this a car club agreement at 50% occupation of the development.

4.9.3 It is envisaged that this will involve the delivery of formalised car club parking bays along the Avondale Drive kerbline, with the Applicant being responsible for the delivery of the associated traffic regulation orders.

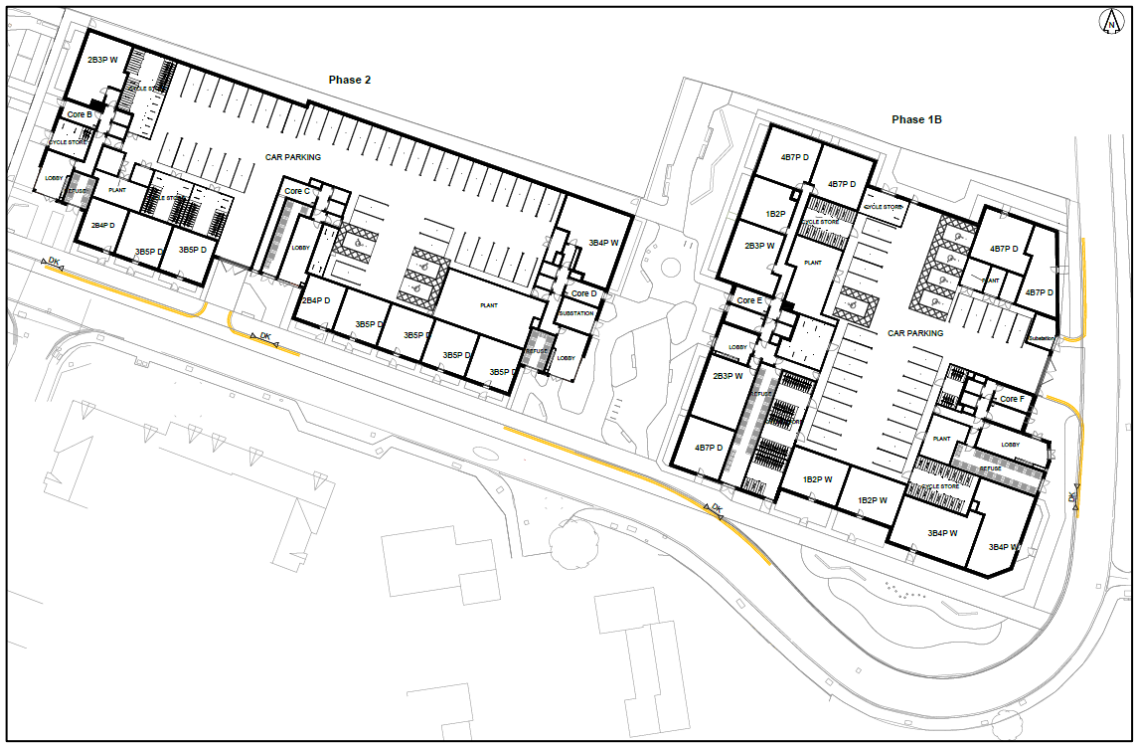
4.10 Delivery and Servicing

4.10.1 The indicative development proposals include a series of bin stores, located along the site frontage within 10m of the existing kerbline, which will be accessed via kerbside collection, the location of which is indicated on **Figure 4.7** with drop-kerbs provided in front of these bin stores.

Figure 4.7 Indicative Bin Store Locations

4.10.2 In order to ensure these bin stores are accessible to LBH refuse collection vehicles and not obstructed by parked vehicles, it will be necessary to introduce waiting controls in front of them, which will permit loading activity, which is indicated in **Drawing 25289-MA-XX-XX-DR-C-0102**, with extract below at **Figure 4.8.**

Figure 4.8 Drawing 25289-MA-XX-XX-DR-C-0102 Extract – Illustrative Waiting Controls



4.10.3 General delivery and servicing vehicles accessing the site will also be able to use these locations for loading activity.

4.10.4 If necessary, a formalised loading bay can be introduced along the site frontage as part of the subsequent implementation of any Parking Management Scheme.

4.11 Emergency Access

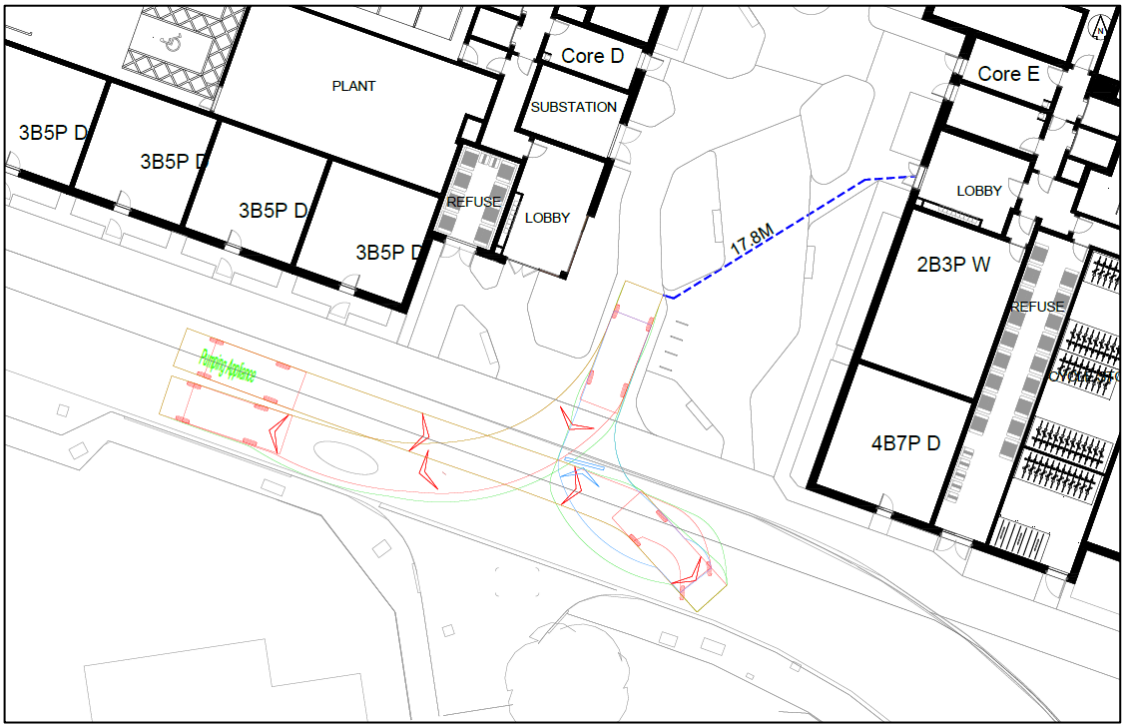
4.11.1 The core associated with each of the proposed blocks is located within 18m of the existing Avondale Drive and Abbottswood Way carriageway, allowing fire tender access from the existing kerbline.

4.11.2 Block E does however require a fire tender to access the southern extent of the pedestrianised route through to Hitherbroom Park in order to get within an acceptable distance of the associated core.

4.11.3 Access to this area will be facilitated by the introduction of a vehicle crossover in front of the pedestrianised route and a row of removable bollards that fire crews will be able to operate with a fire key, with these bollards otherwise ensuring the pedestrianised nature of this route on a day to day basis.

4.11.4 Vehicle swept path analysis demonstrating a fire tender can access and egress this area in forward gear is presented in **Drawing 25288-MA-XX-XX-DR-C-7005**, with extract below at **Figure 4.9**.

Figure 4.9 Drawing 25288-MA-XX-XX-DR-C-7005 – Fire Tender Access



4.12 Stopping Up and Adoption

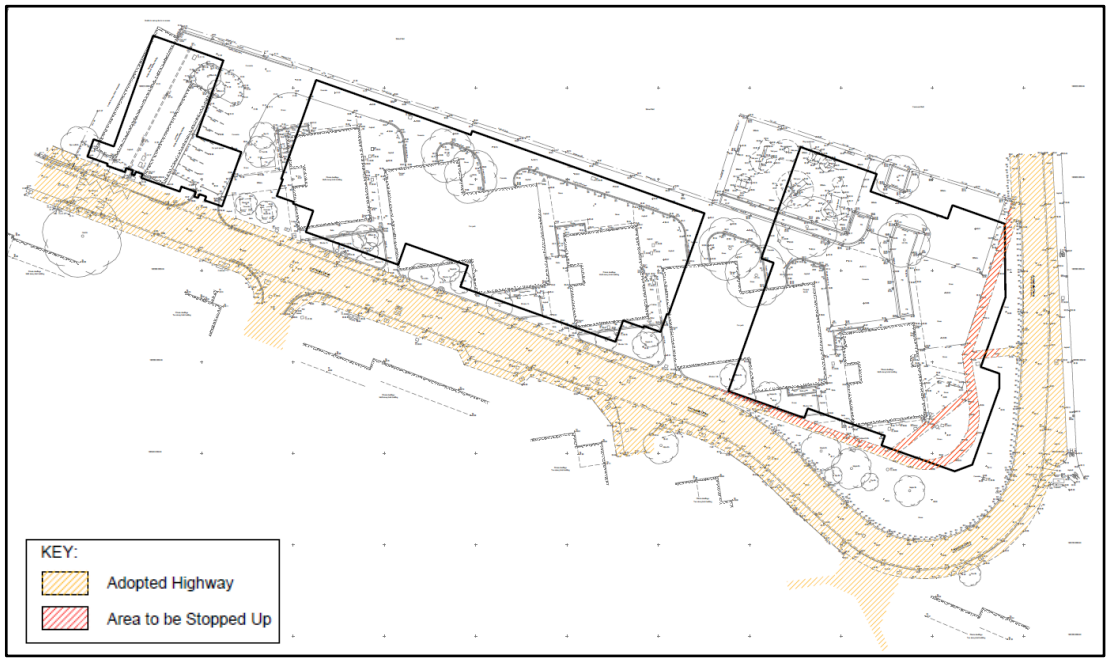
4.12.1 Consistent with the original approval, the S73 proposals result in the indicative Phase 1B building footprint encroaching onto existing footpaths around the existing building perimeter that form part of the adopted public highway.

4.12.2 It will therefore be necessary to submit a stopping up allocation in accordance with Section 247 of the Town and County Planning Act, in good time prior to the delivery of Phase 1B.

4.12.3 The stopping up is mitigated via the delivery of an alternative footway around the proposed building footprint.

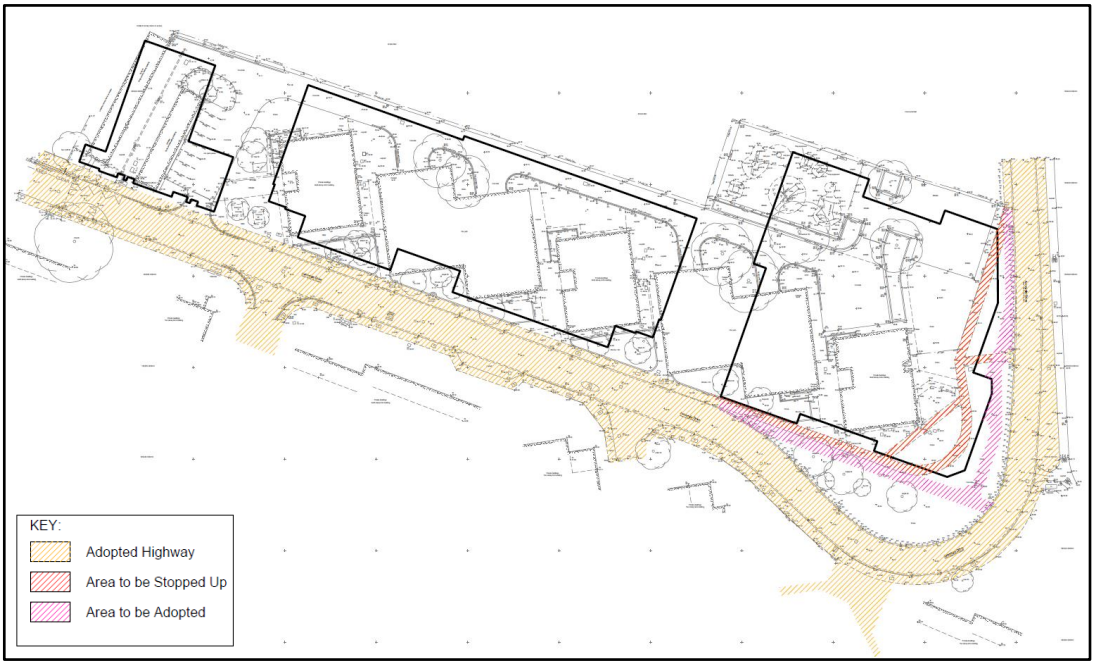
4.12.4 The stopping up extent is indicated on **Drawing 25289-MA-XX-XX-DR-C-0103**, with extract below at **Figure 4.10**

Figure 4.10 Drawing 25289-MA-XX-XX-DR-C-0103 Extract – Stopping Up Extent



4.12.5 It is understood that Abbotswood Way, including the adjoining footway, has already been adopted by the London Borough of Hillingdon. Accordingly, the proposed replacement footway would form part of the existing adopted highway network. Should any areas of new or realigned footway fall outside the current extent of adopted highway, these would be offered for adoption via a Section 38 Agreement, as indicated on **Drawing 25289-MA-XX-XX-DR-C-0104**, with extract below at **Figure 4.11.**

Figure 4.11 Drawing 25289-MA-XX-XX-DR-C-0104 Extract – Adoption Extent



5. Trip Generation

5.1 Trip Generation

5.1.1 The TA prepared in support of the approved development used the industry standard TRICS database to source trip rates representative of the site and proposals.

5.1.2 Due to a high proportion of affordable units within the development mix, which typically have a higher expected all person daily trip rates than private units, two separate site selections methods were adopted to source separate rates for each of the affordable and private tenures, as follows:

- Residential - Affordable / local authority flats within PTAL 2 to 3; and
- Residential - Flats privately owned within PTAL 1b to 2.

5.1.3 For both user groups Greater London sites were selected only, with central London sites removed.

5.1.4 The resultant total person and vehicular trip rates for affordable and private units are reproduced below in **Table 5.1**, with original TRICS outputs attached at **Appendix E.**

Table 5.1 Residential Trip Rates

Mode	AM Peak			PM Peak			Daily Flows		
	In	Out	Total	In	Out	Total	In	Out	Total
Total People									
Affordable	0.131	0.619	0.75	0.457	0.215	0.672	3.368	3.354	6.722
Private	0.073	0.42	0.493	0.226	0.13	0.356	2.463	2.357	4.820
Total Vehicle									
Affordable	0.093	0.238	0.331	0.101	0.097	0.198	1.026	1.24	2.266
Private	0.028	0.119	0.147	0.098	0.06	0.158	0.932	0.883	1.815

5.1.5 The TA then applied the trip rates to the resultant uplift in units for each tenure to quantify the net change in Total People and Total Vehicle trips.

5.1.6 The same method has been adopted for the S73 proposals using the same trip rates, with resultant trip generation summarised below in **Table 5.2**.

Table 5.2 Residential Trip Rates (based on indicative proposed unit mix)

	Mode	AM Peak			PM Peak			Daily Flows		
		In	Out	Total	In	Out	Total	In	Out	Total
Existing (121 affordable / 23 private)	Total People									
	Affordable	16	75	91	55	26	81	408	406	813
	Private	2	10	11	5	3	8	57	54	111
	Total People	**18**	**85**	**102**	**60**	**29**	**90**	**464**	**460**	**924**
	Total Vehicle									
	Affordable	11	29	40	12	12	24	124	150	274
	Private	1	3	3	2	1	4	21	20	42
	Total Vehicle	**12**	**32**	**43**	**14**	**13**	**28**	**146**	**170**	**316**
S73 Proposals (150 affordable / 146 private)	**Total People**									
	Affordable	20	93	113	69	32	101	505	503	1008
	Private	11	61	72	33	19	52	360	344	704
	Total People	**30**	**154**	**184**	**102**	**51**	**153**	**865**	**847**	**1712**
	Total Vehicle									
	Affordable	14	36	50	15	15	30	154	186	340
	Private	4	17	21	14	9	23	136	129	265
	Total Vehicle	**18**	**53**	**71**	**29**	**23**	**53**	**290**	**315**	**605**
Net Uplift (29 affordable / 123 private)	**Net Uplift**									
	Total People	**13**	**70**	**82**	**41**	**22**	**63**	**401**	**387**	**788**
	Total Vehicle	**6**	**22**	**28**	**15**	**10**	**25**	**144**	**145**	**289**

5.1.7 **Table 5.2** indicates that based on this analysis a total of 82 additional two-way total person trips are likely to be generated in the AM peak and 63 in the PM peak.

5.1.8 The vehicular impact of the development proposals is expected to be limited to 28 additional two-way trips in the AM Peak and 25 in the PM Peak, which is imperceptible across a full hour.

5.1.9 On this basis, reflecting the conclusions of the original TA, the S73 proposals are not anticipated to have a material effect on the operation of local highway network during peak hours.

5.2 Non-vehicular Multimodal Trip Generation

5.2.1 To quantify the net increase in non-vehicular trip generation, the TA prepared in support of the approved development, used Method of Travel to Work data for the Resident Population of the Middle Super Output Area within which the site was located, Hillingdon 026, taken from the 2011 Census, to proportion Total Person trips to different modes of travel.

5.2.2 The same methodology has been adopted for the S73 development proposals, with resultant non-vehicular trip generation detailed below in **Table 5.3**.

Table 5.3 Net Non-vehicular Trip Generation

Mode of Travel	%	AM Peak			PM Peak			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total
Underground, metro, light rail or tram	12%	1	6	7	3	1	5	31	29	60
Train	11%	1	5	6	3	1	4	28	27	55
Bus, minibus, or coach	51%	3	25	28	13	6	19	131	124	254
Passenger in a car or van	9%	1	4	5	2	1	3	23	22	45
Bicycle	3%	0	1	2	1	0	1	8	7	15
On foot	14%	1	7	8	4	2	5	36	34	70
Other method of travel to work	0%	0	0	0	0	0	0	0	0	0
Total	**100%**	**7**	**48**	**55**	**26**	**12**	**38**	**256**	**243**	**499**

5.2.3 Given the accessible location of the site and range of established services that are available, these trips will be distributed across a variety of routes and sustainable transport opportunities including rail, bus, cycling and walking and given the range of established services that are available. It is anticipated that this impact will be imperceptible on the operation of the highway and transport networks in the vicinity of the site.

6. Summary and Conclusion

6.1.1 In March 2022, the London Borough of Hillingdon granted planning approval to the London Borough of Hillingdon as the Applicant for a hybrid planning application (reference 76551/APP/2021/4502) at a site, *Land at Avondale Drive, Hayes.* The proposals involved the phased demolition of the existing estate, which comprised of three 13-storey blocks of flats, each containing 48 flats (a total of 144 homes), to provide new affordable and private sale homes within a regenerated estate environment. The proposals sought to provide up to 240 residential dwellings.

6.1.2 The application was supported by sufficient information in relation to the Detailed First Phase, Phase 1A, to allow full planning approval to be granted and this part of the site, Block A, is now being delivered.

6.1.3 The previous illustrative masterplan was proposed to be supported by a total of 68 on-site car parking spaces, a ratio of 0.28 spaces per unit.

6.1.4 The hybrid application was supported by a Transport Assessment, prepared by Markides Associates (MA), the scope of which was informed by extensive pre-application engagement. The TA described the site location and accessibility, undertook an Active Travel Zone assessment, described the development proposals in detail in relation to access, servicing car parking and cycle parking strategies and quantified the anticipated trip generation associated with the proposals. With regards to car parking, the TA used the results of a parking stress survey and estimated car parking demand generated by the proposed scale of development to demonstrate that any parking overspill could be accommodated on-street. The TA concluded that the proposals would not have a material impact on the operation of the local highway network and complied with relevant transport related planning policies.

6.1.5 The planning approval was subject to planning conditions and a signed S106 Agreement which includes a number of obligations relating to transport.

6.1.6 The Applicant has since formulated revised development proposals (captured in the illustrative masterplan) which necessitate the submission of a S73 Application to amend the approved parameter plans listed under condition 3 and the wording of several other planning conditions (see Planning Statement Addendum for further details).

6.1.7 Changes, pertinent to transport, are summarised as follows:

- Increase in residential units, family-sized homes, and number of affordable homes, from up to 240 approved to up to 296 (including delivered Phase 1A), an increase of 56 homes.
- Increase in indicative car parking provision (pursuant to the above quantum of housing) from 68 to 74 spaces, resulting in a parking ratio of 0.25 spaces per unit.
- Pro-rata increase in cycle parking.

- Removal of service vehicle route around Phase 1B, but with managed fire tender access and all refuse collection to occur from on-street.

6.1.8 Markides Associates have been instructed by LBH to prepare this Transport Assessment Addendum, which has been identified as a validation requirement of the S73 Application.

6.1.9 The TAA has focused on the transport related changes associated with the S73 proposals and has identified associated changes in terms of impacts.

6.1.10 The TAA identifies that the site continues to be an accessible location appropriate for development.

6.1.11 The TAA identifies that the proposals will not result in a material traffic impact and that additional trip generation should be accommodated within the existing transport infrastructure.

6.1.12 The TAA has demonstrated that the revised illustrative masterplan is capable of providing policy compliant levels of cycle parking, can be readily serviced and include a quantum of car parking that broadly reflects the ratios established as part of the original planning application. Whilst there is risk of car parking overspill onto the adjacent local highway network, this can be mitigated by the implementation of a Parking Management Scheme, for which future residents would be exempt for applying for permits, the principle of which has been established as part of the original planning application.

6.1.13 There have been no material changes in planning policy other than an update to NPPF, against which the proposals continue to be compliant.

6.1.14 Any detailed design related concerns can be addressed as part of any subsequent reserve matters application.

6.1.15 Changes to the local highway will be subject to further scrutiny as part of a S278 Agreement and any requirement for stopping up/adoption can be addressed post approval.

6.1.16 On this basis Markides Associates are of the view that there are no transport related reasons why the S73 application should not be approved.

FIGURES

DRAWINGS

25288-MA-XX-XX-DR-C-7005 P02 Fire Tender Swept Path Analysis

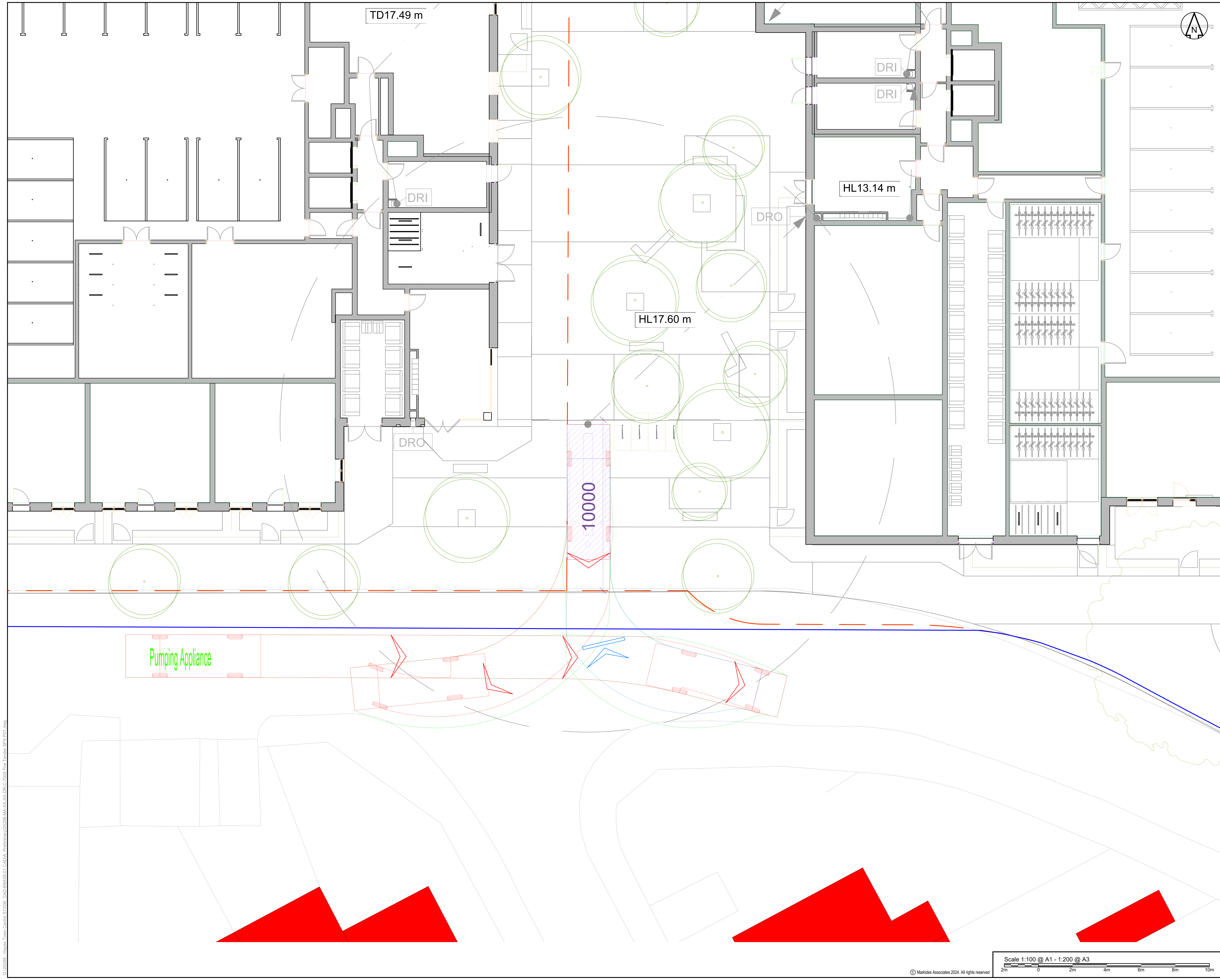
25289-MA-XX-XX-DR-C-0101 P01 Vehicle Sightlines 2.4m x 25m

25289-MA-XX-XX-DR-C-0102 P01 Illustrative Waiting Controls

25289-MA-XX-XX-DR-C-0103 P01 Stopping Up Extent

25289-MA-XX-XX-DR-C-0104 P01 Highways Adoption Extent

25289-MA-XX-XX-DR-C-7002 P01 Car Parking Swept Path Analysis



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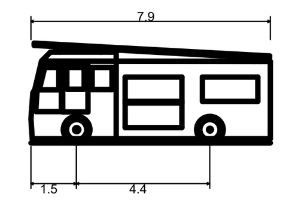

Pumping Appliance	
Overall Length	7.900m
Overall Width	2.500m
Overall Body Height	3.300m
Min Body Ground Clearance	0.140m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.750m

KEY

- VEHICLE BODY LINE
- VEHICLE WHEEL LINE
- REVERSE GEAR

Revision History

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	19.08.25

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	19.08.25

S2 - FOR INFORMATION

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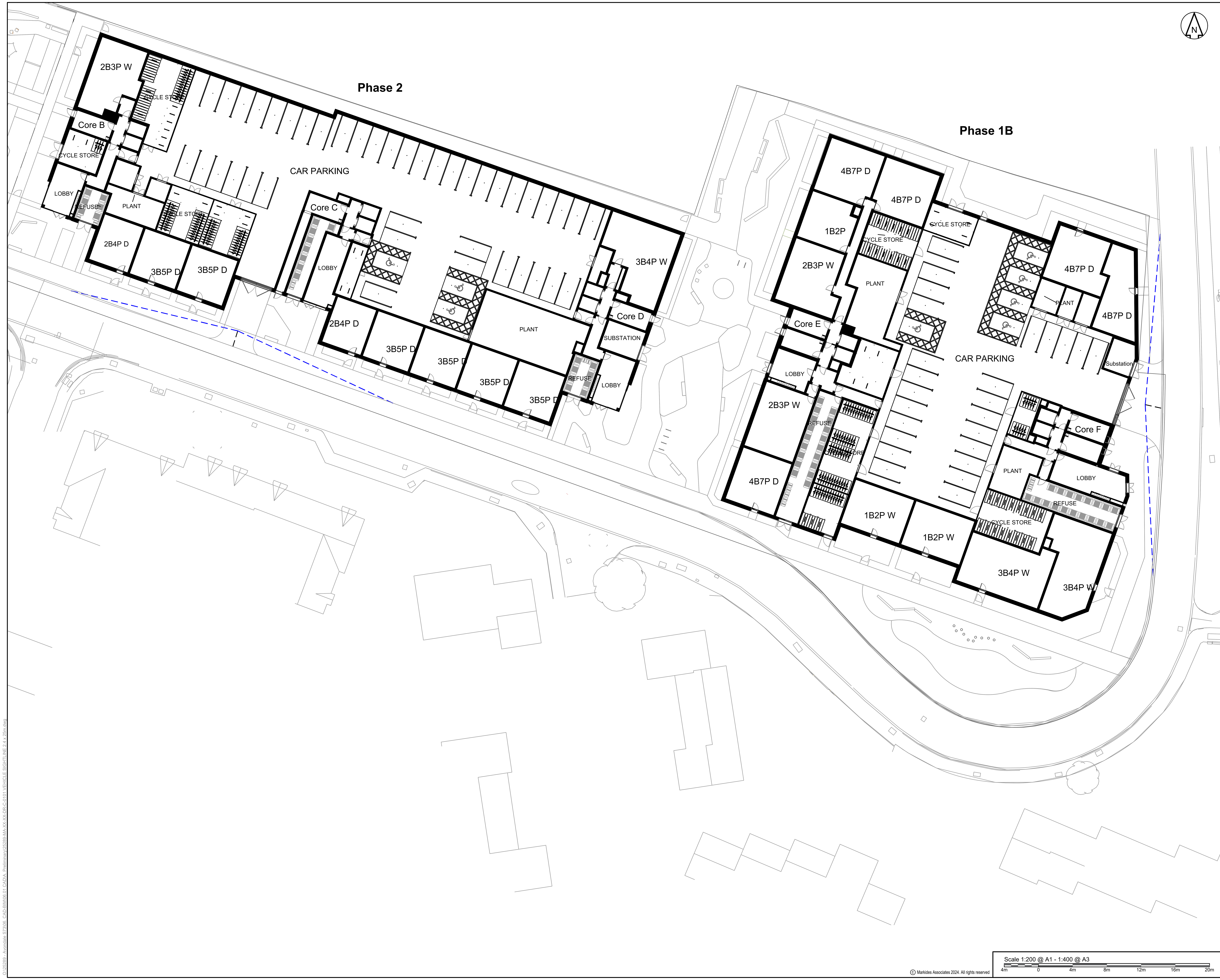
Project
Avondale

Drawing Title
Fire Tender SPA

Markides Associates reference: 25288 1:100 @ A1

25288-MA-XX-XX-DR-C-7005 - P01



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Revision History

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25

S2 - FOR INFORMATION

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Project
AVONDALE S73

Drawing Title
VEHICLE SIGHTLINES
2.4M X 25M

Markides Associates reference: 25289 1:200 @ A1

25289-MA-XX-XX-DR-C-0101 - P01

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Revision History

P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25
Rev	Comment	By	Chkd	Appr	Date

Current Revision

P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25
Rev	Comment	By	Chkd	Appr	Date

S2 - FOR INFORMATION

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Project

AVONDALE S73

Drawing Title

ILLUSTRATIVE WAITING CONTROLS

Markides Associates reference: 25289

1:250 @ A1

25289-MA-XX-XX-DR-C-0102 - P01

Scale 1:250 @ A1 - 1:500 @ A3

5m 0 5m 10m 15m 20m 25m

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KEY:

▨	Adopted Highway
▨	Area to be Stopped Up

Revision History

P01	FOR INFORMATION	JPB	AKS	AKS	24.09.25
Rev	Comment	By	Chkd	Appr	Date

Current Revision

P01	FOR INFORMATION	JPB	AKS	AKS	24.09.25
Rev	Comment	By	Chkd	Appr	Date

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Project

AVONDALE S73

Drawing Title

STOPPING UP PLAN

Scale 1:500 @ A1 - 1:1000 @ A3

10m 0 10m 20m 30m 40m 50m

Markides Associates reference: 25289

1:500

25289-MA-XX-XX-DR-C-0103 - P01

Scale 1:500 @ A1 - 1:1000 @ A3

10m 0 10m 20m 30m 40m 50m

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KEY:

▨ Adopted Highway
▨ Area to be Stopped Up
▨ Area to be Adopted

Revision History

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	24.09.25

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	24.09.25

S2 - FOR INFORMATION

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Project
AVONDALE S73

Drawing Title
HIGHWAYS ADOPTION PLAN

Markides Associates reference: 25289 1:500

25289-MA-XX-XX-DR-C-0104 - P01

Scale 1:250 @ A1 - 1:500 @ A3

5m 0 5m 10m 15m 20m 25m

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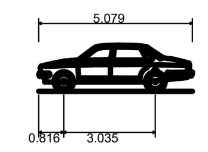
3. Markides Associates accept no responsibility for any unauthorised amendments to this drawing. Do not rely on dimensions scaled from this plan
4. Any swept path analysis has been undertaken using Autodesk vehicle tracking software (AutoTRACK) and Markides Associates shall not be liable for any inaccuracies or deficiencies.



Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.900m

KEY

- VEHICLE BODY LINE
- VEHICLE WHEEL LINE
- REVERSE GEAR

Revision History

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25

Current Revision

Rev	Comment	By	Chkd	Appr	Date
P01	FOR INFORMATION	JPB	AKS	AKS	23.09.25

S2 - FOR INFORMATION

HIGGINS PARTNERSHIP

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Project

AVONDALE S73

Drawing Title

CAR PARKING SWEPT PATH ANALYSIS

Markides Associates reference: 25289 1:250 @ A1

25289-MA-XX-XX-DR-C-7002 - P01

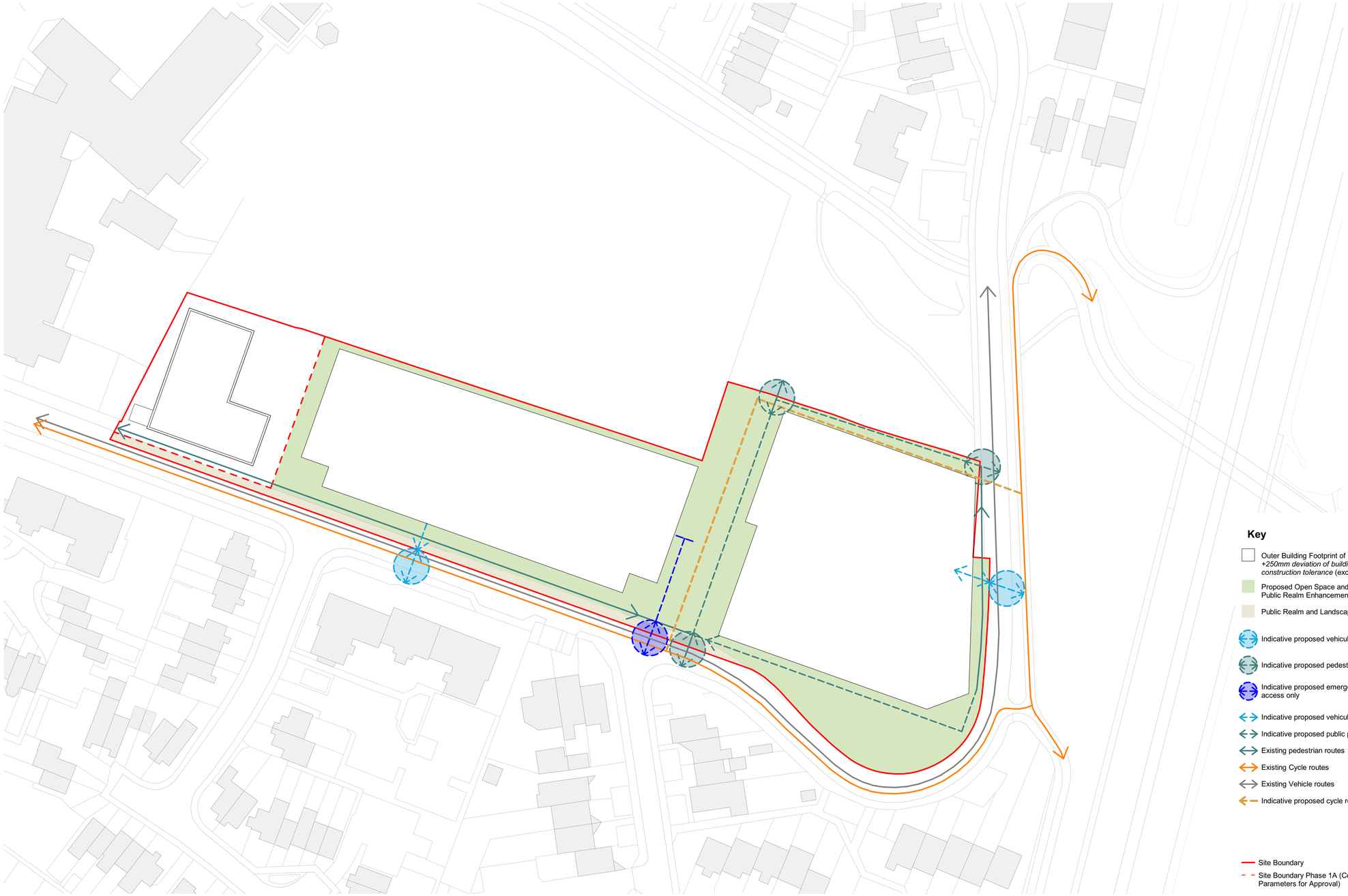
APPENDICES

Appendix A – Section 73 Illustrative Masterplan and Illustrative Ground floor plan
Appendix B – Parameter Plan 3
Appendix C – Phasing Plan
Appendix D – Cycle Parking
Appendix E - TRICS Outputs

APPENDIX A – SECTION 73 ILLUSTRATIVE MASTERPLAN AND ILLUSTRATIVE GROUND FLOOR PLAN


School Fields
Hitherbroom Park
Phase 1A
- no change
Abbotswood Way
Avondale Drive
Avondale Drive
Glade Close

APPENDIX B – PARAMETER PLAN 3



Key

- Outer Building Footprint of Development Zone
  +250mm deviation of building outline permitted for construction tolerance (excluding above ground projections)
- Proposed Open Space and Landscape/ Public Realm Enhancement
- Public Realm and Landscape improvements
- Indicative proposed vehicular access points
- Indicative proposed pedestrian access points
- Indicative proposed emergency/maintenance vehicle access only
- Indicative proposed vehicular routes
- Indicative proposed public pedestrian routes
- Existing pedestrian routes
- Existing Cycle routes
- Existing Vehicle routes
- Indicative proposed cycle routes

- Site Boundary
- Site Boundary Phase 1A (Context Only Outside Outline Parameters for Approval)

0m 10m 20m 30m 40m

Designed with reference to the surveys, information and reports listed:
15873-21-31652BWLS - Topographical Survey (Survey Solutions); C154569-01-01-RevB - Tree Survey Plan (Midelmarch Environmental); 12124_12125_001 - Utility Survey (ND Oliver & Co); Avondale Drive-Existing level survey of future development areas (MB Modebest)

Rev	Date	Description
P1	19-09-25	ISSUE FOR PLANNING

Dwn	Ckd
BC	IC

Drawn	BC
Checked	YW
Date	Sept 2025
Scale @ A1	1 : 500

Avondale Drive

Parameters Plan 3
Access & Movement

Project	Origin	Zone	Level	Type	Role	Number
AVD -	PRP -	ZZ -	ZZ -	DR -	A -	20055

Revision: **P1 - STAGE ISSUE**
Status: **S4 - PLANNING**

PRP

APPENDIX C – PHASING PLAN

Avondale Drive Phasing

Proposed Development Phase		Start Date	Finish Date
Construction of Phase 1A (DZ1)		Completed	
Outline Permission	Construction of Phase 1B (DZ2)	Q1 Spring 2027	Q1 Winter 2030
	Construction of Phase 2 (DZ3)	Q2 Summer 2027	Q4 Autum 2029

Note: *For the purposes of CIL, demolition within a phase will not constitute commencement of that Phase.*

0m 10m 20m 30m 40m

Designed with reference to the surveys, information and reports listed:
15873-21-31652BWLS - Topographical Survey (Survey Solutions); C154569-01-01-RevB - Tree Survey Plan (Midelmarch Environmental); 12124_12125_001 - Utility Survey (ND Oliver & Co); Avondale Drive-Existing level survey of future development areas (MB Modebest)

Rev	Date	Description
P1	19-09-25	ISSUE FOR PLANNING

Dwn	Ckd
BC	IC

Drawn	BC
Checked	YW
Date	Sept 2025
Scale @ A1	As indicated

Avondale Drive

Phasing Plan

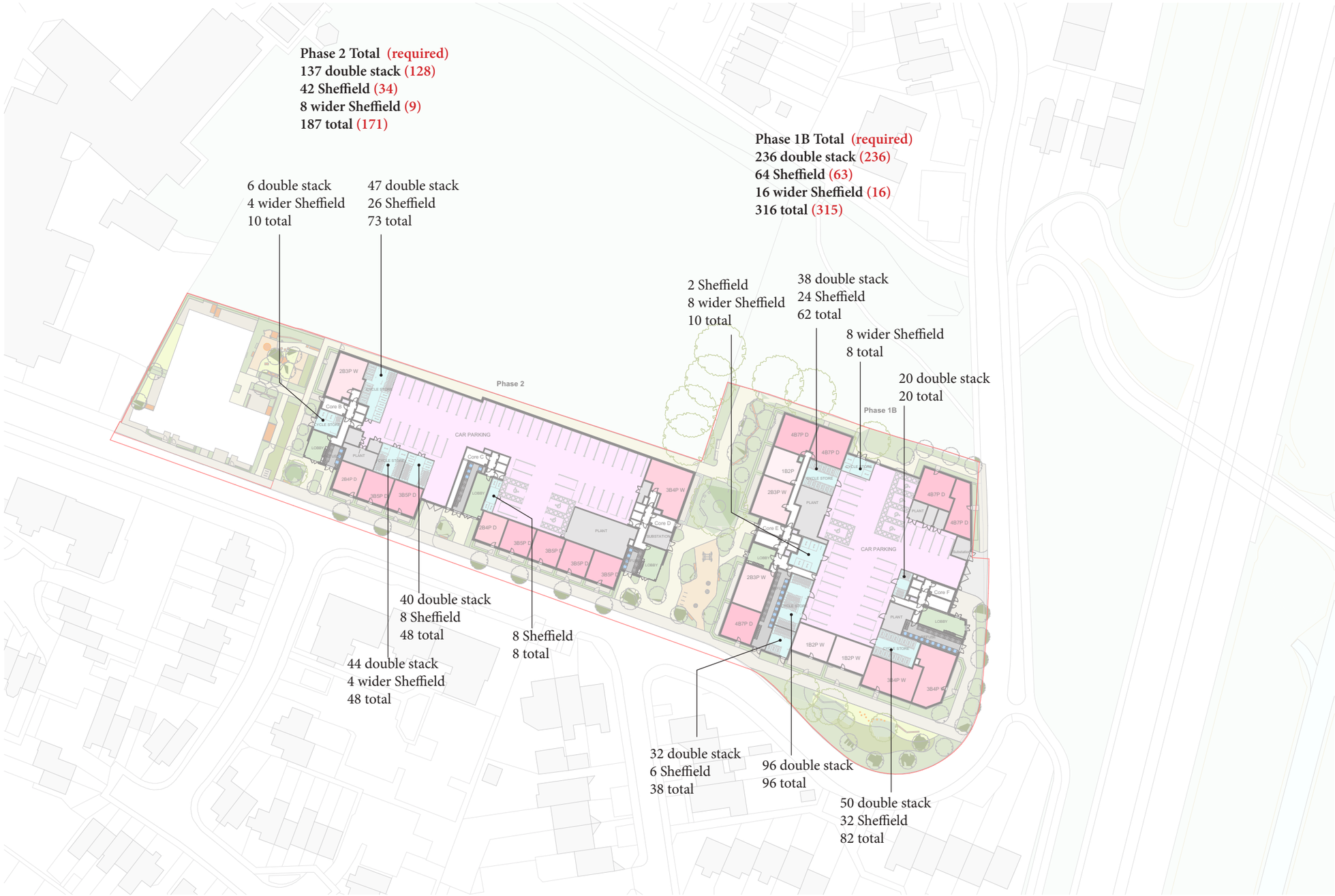
Project	Origin	Zone	Level	Type	Role	Number
AVD -	PRP -	ZZ -	ZZ -	DR -	A -	20060

Revision: **P1 - STAGE ISSUE**

Status: **S4 - PLANNING**

PRP

APPENDIX D – CYCLE PARKING



Legend

- RESIDENTIAL COMMUNAL
- CYCLE STORE
- REFUSE
- SERVICING AND PLANT
- CAR PARKING
- SR 1B2P FL
- SR 1B2P FL W
- SR 2B3P FL W
- SR 2B4P H
- SR 3B4P FL W
- SR 3B5P H
- SR 4B7P H
- SMOKE EXTRACT NATURAL
- Smoke Vent Natural

0m 10m 20m 30m 40m

Designed with reference to the surveys, information and reports listed:
Xxxxxxxxxxxxx Xxxxxxxxxxxxx, Xxxxxxxxxxx Xxxxxxxxxx,
Xxxxxxxxxxx Xxxxxxxxxx, Xxxxxxxxxxx Xxxxxxxxxx, Xxxxxxxxxxx
Xxxxxxxxxx.

Rev	Date	Description
P6	20-08-25	Pre-App 6
P7	03-09-25	Issued for coordination
P8	09-09-25	Issued for coordination
P9	09-09-25	Issued for coordination - redline update
P10	12-09-25	S73 Design Freeze Issue

Dwn	Ckd
ed	YW
BC	YW
YW	YW
YW	YW
YW	YW

Drawn JR
Checked YW
Date 24/11/22
Scale @ A1 1 : 500

Avondale Drive

Site Plan Ground Level GA

Project	Origin	Zone	Level	Type	Role	Number
AVD -	PRP -	ZZ -	00 -	DR -	A -	10050

Revision: **P10 - PRELIMINARY**
Status: **S2 - For Comments**

PRP

APPENDIX E - TRICS OUTPUTS

Calculation Reference: AUDIT-860401-211210-1227

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BE	BEXLEY	1 days
	HO	HOUNSLOW	1 days
	HV	HAVERING	1 days
	KI	KINGSTON	1 days
	TH	TOWER HAMLETS	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 20 to 493 (units:)
Range Selected by User: 9 to 493 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 06/03/20

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	1 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town Centre	2
Suburban Area (PPS6 Out of Centre)	1
Edge of Town	1
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Industrial Zone	1
Development Zone	1
Residential Zone	1
Built-Up Zone	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

10,001 to 15,000	1 days
15,001 to 20,000	1 days
25,001 to 50,000	2 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

125,001 to 250,000	2 days
500,001 or More	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	3 days
No	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

1b Very poor	1 days
2 Poor	4 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BE-03-C-02 BLOCKS OF FLATS BEXLEY
CLYDESDALE WAY
BELVEDERE

Edge of Town
Industrial Zone
Total No of Dwellings: 402
Survey date: WEDNESDAY *19/09/18* *Survey Type: MANUAL*

2 HO-03-C-03 BLOCKS OF FLATS HOUNSLOW
COMMERCE ROAD
BRENTFORD

Edge of Town Centre
Development Zone
Total No of Dwellings: 150
Survey date: FRIDAY *18/11/16* *Survey Type: MANUAL*

3 HV-03-C-02 BLOCKS OF FLATS HAVERING
WATERLOO ROAD
ROMFORD

Suburban Area (PPS6 Out of Centre)
Built-Up Zone
Total No of Dwellings: 493
Survey date: TUESDAY *22/11/16* *Survey Type: MANUAL*

4 KI-03-C-03 BLOCK OF FLATS KINGSTON
PORTSMOUTH ROAD
SURBITON

Edge of Town Centre
Residential Zone
Total No of Dwellings: 20
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

5 TH-03-C-04 BLOCK OF FLATS TOWER HAMLETS
LEVEN ROAD
POPLAR
ABERFELDY VILLAGE
Neighbourhood Centre (PPS6 Local Centre)
No Sub Category
Total No of Dwellings: 83
Survey date: FRIDAY *21/06/19* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BE-03-C-01	PTAL
BT-03-C-01	PTAL
BT-03-C-02	PTAL
EN-03-C-02	PTAL
EN-03-C-03	PTAL
HG-03-C-01	PTAL
HG-03-C-02	PTAL
HK-03-C-03	PTAL
HO-03-C-04	PTAL
HO-03-C-05	size
IS-03-C-03	PTAL
IS-03-C-05	PTAL
IS-03-C-06	PTAL
IS-03-C-07	PTAL
NH-03-C-01	PTAL
RD-03-C-04	PTAL
SK-03-C-01	PTAL
SK-03-C-02	PTAL
SK-03-C-03	PTAL
WF-03-C-01	PTAL

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	230	0.025	5	230	0.107	5	230	0.132
08:00 - 09:00	5	230	0.028	5	230	0.119	5	230	0.147
09:00 - 10:00	5	230	0.047	5	230	0.053	5	230	0.100
10:00 - 11:00	5	230	0.033	5	230	0.045	5	230	0.078
11:00 - 12:00	5	230	0.033	5	230	0.052	5	230	0.085
12:00 - 13:00	5	230	0.050	5	230	0.044	5	230	0.094
13:00 - 14:00	5	230	0.052	5	230	0.057	5	230	0.109
14:00 - 15:00	5	230	0.048	5	230	0.053	5	230	0.101
15:00 - 16:00	5	230	0.078	5	230	0.058	5	230	0.136
16:00 - 17:00	5	230	0.098	5	230	0.060	5	230	0.158
17:00 - 18:00	5	230	0.114	5	230	0.063	5	230	0.177
18:00 - 19:00	5	230	0.126	5	230	0.060	5	230	0.186
19:00 - 20:00	4	164	0.102	4	164	0.060	4	164	0.162
20:00 - 21:00	4	164	0.098	4	164	0.052	4	164	0.150
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.932			0.883			1.815

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	20 - 493 (units:)
Survey date date range:	01/01/13 - 06/03/20
Number of weekdays (Monday-Friday):	5
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	20

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	230	0.054	5	230	0.291	5	230	0.345
08:00 - 09:00	5	230	0.073	5	230	0.420	5	230	0.493
09:00 - 10:00	5	230	0.119	5	230	0.149	5	230	0.268
10:00 - 11:00	5	230	0.069	5	230	0.115	5	230	0.184
11:00 - 12:00	5	230	0.088	5	230	0.134	5	230	0.222
12:00 - 13:00	5	230	0.142	5	230	0.127	5	230	0.269
13:00 - 14:00	5	230	0.126	5	230	0.144	5	230	0.270
14:00 - 15:00	5	230	0.125	5	230	0.145	5	230	0.270
15:00 - 16:00	5	230	0.210	5	230	0.141	5	230	0.351
16:00 - 17:00	5	230	0.226	5	230	0.130	5	230	0.356
17:00 - 18:00	5	230	0.280	5	230	0.135	5	230	0.415
18:00 - 19:00	5	230	0.328	5	230	0.129	5	230	0.457
19:00 - 20:00	4	164	0.342	4	164	0.157	4	164	0.499
20:00 - 21:00	4	164	0.281	4	164	0.140	4	164	0.421
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.463			2.357			4.820

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-860401-220311-0325

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS
MULTI-MODAL TOTAL PEOPLE

Selected regions and areas:

01	GREATER LONDON		
	HA	HARROW	1 days
	HG	HARINGEY	1 days
	IS	ISLINGTON	3 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 36 to 250 (units:)
Range Selected by User: 15 to 339 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 27/06/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Thursday	3 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	5 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	2
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	5

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	5 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	1 days
100,001 or More	3 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

500,001 or More	5 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.5 or Less	3 days
0.6 to 1.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

3 Moderate	1 days
4 Good	1 days
5 Very Good	2 days
6a Excellent	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 HA-03-D-01 BLOCKS OF FLATS HARROW
THE MALL
KINGSBURY
KINGSBURY CIRCLE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 88
Survey date: THURSDAY *17/07/14* *Survey Type: MANUAL*

2 HG-03-D-03 BLOCKS OF FLATS HARINGEY
COMMERCE ROAD
WOOD GREEN
WOODSIDE PARK
Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 90
Survey date: FRIDAY *26/09/14* *Survey Type: MANUAL*

3 IS-03-D-02 BLOCKS OF FLATS ISLINGTON
COPENHAGEN STREET
ISLINGTON
BARNARD PARK
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 250
Survey date: THURSDAY *28/11/13* *Survey Type: MANUAL*

4 IS-03-D-03 BLOCK OF FLATS ISLINGTON
HAWES STREET
ISLINGTON

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 36
Survey date: THURSDAY *21/11/13* *Survey Type: MANUAL*

5 IS-03-D-04 BLOCKS OF FLATS ISLINGTON
LIVERPOOL ROAD
HIGHBURY

Edge of Town Centre
Residential Zone
Total No of Dwellings: 247
Survey date: MONDAY *27/06/16* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BT-03-D-01	anomolous AM departure

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 5.86

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	5	142	0.059	5	142	0.212	5	142	0.271
08:00 - 09:00	5	142	0.131	5	142	0.619	5	142	0.750
09:00 - 10:00	5	142	0.172	5	142	0.260	5	142	0.432
10:00 - 11:00	5	142	0.124	5	142	0.172	5	142	0.296
11:00 - 12:00	5	142	0.142	5	142	0.217	5	142	0.359
12:00 - 13:00	5	142	0.221	5	142	0.226	5	142	0.447
13:00 - 14:00	5	142	0.169	5	142	0.152	5	142	0.321
14:00 - 15:00	5	142	0.191	5	142	0.219	5	142	0.410
15:00 - 16:00	5	142	0.464	5	142	0.286	5	142	0.750
16:00 - 17:00	5	142	0.457	5	142	0.215	5	142	0.672
17:00 - 18:00	5	142	0.352	5	142	0.232	5	142	0.584
18:00 - 19:00	5	142	0.311	5	142	0.180	5	142	0.491
19:00 - 20:00	1	247	0.364	1	247	0.271	1	247	0.635
20:00 - 21:00	1	247	0.211	1	247	0.093	1	247	0.304
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.368			3.354			6.722

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Calculation Reference: AUDIT-860401-211210-1229

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : D - AFFORDABLE/LOCAL AUTHORITY FLATS
MULTI-MODAL TOTAL VEHICLES

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	1 days
	HA	HARROW	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
Actual Range: 88 to 160 (units:)
Range Selected by User: 15 to 339 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/13 to 27/06/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	2 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	2 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

25,001 to 50,000	1 days
50,001 to 100,000	1 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

500,001 or More	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

2 Poor	1 days
3 Moderate	1 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 BT-03-D-01 BLOCKS OF FLATS BRENT
FLOWERS CLOSE
DOLLIS HILL

Suburban Area (PPS6 Out of Centre)
Residential Zone
Total No of Dwellings: 160
Survey date: THURSDAY *26/06/14* *Survey Type: MANUAL*

2 HA-03-D-01 BLOCKS OF FLATS HARROW
THE MALL
KINGSBURY
KINGSBURY CIRCLE
Neighbourhood Centre (PPS6 Local Centre)
Residential Zone
Total No of Dwellings: 88
Survey date: THURSDAY *17/07/14* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
HG-03-D-03	PTAL
IS-03-D-02	PTAL
IS-03-D-03	PTAL

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
MULTI-MODAL TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	124	0.036	2	124	0.085	2	124	0.121
08:00 - 09:00	2	124	0.093	2	124	0.238	2	124	0.331
09:00 - 10:00	2	124	0.093	2	124	0.093	2	124	0.186
10:00 - 11:00	2	124	0.093	2	124	0.121	2	124	0.214
11:00 - 12:00	2	124	0.093	2	124	0.085	2	124	0.178
12:00 - 13:00	2	124	0.085	2	124	0.105	2	124	0.190
13:00 - 14:00	2	124	0.044	2	124	0.060	2	124	0.104
14:00 - 15:00	2	124	0.069	2	124	0.085	2	124	0.154
15:00 - 16:00	2	124	0.141	2	124	0.133	2	124	0.274
16:00 - 17:00	2	124	0.101	2	124	0.097	2	124	0.198
17:00 - 18:00	2	124	0.089	2	124	0.069	2	124	0.158
18:00 - 19:00	2	124	0.089	2	124	0.069	2	124	0.158
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.026			1.240			2.266

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

Parameter summary

Trip rate parameter range selected:	88 - 160 (units:)
Survey date date range:	01/01/13 - 27/06/16
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	3

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/D - AFFORDABLE/LOCAL AUTHORITY FLATS
MULTI-MODAL TOTAL PEOPLE
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	2	124	0.052	2	124	0.440	2	124	0.492
08:00 - 09:00	2	124	0.145	2	124	1.194	2	124	1.339
09:00 - 10:00	2	124	0.190	2	124	0.173	2	124	0.363
10:00 - 11:00	2	124	0.181	2	124	0.230	2	124	0.411
11:00 - 12:00	2	124	0.198	2	124	0.218	2	124	0.416
12:00 - 13:00	2	124	0.194	2	124	0.250	2	124	0.444
13:00 - 14:00	2	124	0.157	2	124	0.133	2	124	0.290
14:00 - 15:00	2	124	0.129	2	124	0.323	2	124	0.452
15:00 - 16:00	2	124	0.464	2	124	0.270	2	124	0.734
16:00 - 17:00	2	124	0.706	2	124	0.226	2	124	0.932
17:00 - 18:00	2	124	0.435	2	124	0.258	2	124	0.693
18:00 - 19:00	2	124	0.375	2	124	0.173	2	124	0.548
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.226			3.888			7.114

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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