



Southall Lane, Hayes

Transport Assessment

Client: Quattro UK Ltd

i-Transport Ref: NM/MD/AC/ITL11348-006B

Date: 04 June 2020

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Quality Management

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SECTION 1 Introduction

1.1 Overview

- 1.1.1 Quattro UK Ltd has appointed i-Transport LLP to provide transport and highways advice in relation to a retrospective planning application for a construction and demolition (C&D) waste recycling facility and concrete batching plant (CBP) on land at Southall Lane Hayes, in the London Borough of Hounslow (LBH).
- 1.1.2 The site is located off Southall Lane, approximately 1.5km straight line distance to the south-east of Hayes and Harlington railway station. The adjacent site to the west of the application site is a local authority household waste facility, granted in 2016.
- 1.1.3 The site has been built out and is currently operational. The C&D recycling facility became operational in September 2019 and the CBP in July 2018.

1.2 Planning History

- 1.2.1 The site currently has temporary planning permission (ending January 2021) for a C&D recycling plant and CBP. A temporary planning application (planning ref: 003/E/P44 / P/2016/5748) for the site was submitted in 2016 and allowed by decision notice dated 18 January 2018. The site has since been built out and is currently operational.
- 1.2.2 Due to a reduction in the available developable area, alterations had to be made to the scheme as approved in 2018 at the build out stage. Further, due to discussions with LBH officers and due to operational reasons, the built-out scheme has been further reviewed and additional works have been proposed to further enclose/clad elements of scheme, provide additional boundary treatment and relocate certain facilities. These additional works had been expected to be completed prior to the submission of this application but have been held up by the impact of the Covid-19 Coronavirus and subsequent restrictions on site working. However, the application has been made and assessed on the basis that all of the works as detailed on the submitted plans will be fully built out.
- 1.2.3 The 2016 application was supported by a Transport Assessment (TA) (report ref: ITL11348-001b R dated 22 December 2016) and a Transport Assessment Addendum (TAA) (report ref: ITL11348-003a dated 1 March 2017). Discussions were held with LBH officers and Transport for London

(TfL) regarding the traffic impact of the proposals which were found to be acceptable. A number of highways related conditions were attached to the planning permission which are summarised below:

- Condition 6 – cycle parking details;
- Condition 7 – vehicle parking details;
- Condition 8 – submission of the following reports:
 - Car Park Management Plan;
 - Servicing Management Plan;
 - Vehicle Routing Plan;
 - Construction Management Plan;
 - Plan/details showing the spread of vehicle movements from the site demonstrating the site operates in a manner to minimise impact on the surrounding highways network; and
 - Wheel wash details.
- Condition 10 – car, cycle, pedestrian and disabled access arrangements details.

1.2.4 A number of applications have already been made to discharge the majority of these conditions, with some approved and some pending determination. Those applications pending determination have been put on hold whilst this application has been under preparation. This revised/retrospective application seeks to reflect the requirements of the relevant conditions previously imposed and, as far as practicable, the requisite information has now been provided as part of this application submission. This has been agreed with LBH at the pre-submission stage.

1.3 Proposed Development

1.3.1 This current planning application is seeking permission for changes to the permitted scheme and that built out (which differs slightly from that permitted) as well as a number of further amendments. In addition, this proposal seeks an extension to the operating period of the site to December 2027.

1.3.2 The proposed development is for the following:

“Erection of construction and demolition waste recycling facility, concrete batching plant and associated weighbridge, weighbridge office, site office and welfare facilities, storage bays, substation, car and HGV parking and other ancillary structures, and use of land for fleet parking (works applied for retrospectively). Consent sought for temporary period ending 21 December 2027”

1.4 Structure

1.4.1 The remainder of this TA is set out as follows:

- Section 2 provides an overview of national and local policy to provide the context for the assessment of the proposed development;
- Section 3 reviews the transport conditions in the vicinity of the site, including facilities for pedestrians, cyclists, public transport and the local highway network;
- Section 4 describes the proposed development including hours of operation, access arrangements and car and cycle parking provision and main changes from the 2016 application;
- Section 5 sets out the trip generation of the application site;
- Section 6 assesses the traffic impact of the development proposal on the local highway network; and
- Section 7 provides the summary and conclusions of the TA.

SECTION 2 Policy Context

2.1 National Transport Policy

National Planning Policy Framework (NPPF) (February 2019)

- 2.1.1 The updated National Planning Policy Framework (NPPF) published in February 2019 sets out the Government's planning policies for England and how these are expected to be applied. It also constitutes guidance for local planning authorities and decision makers both in drawing up plans and as material consideration in determining applications.
- 2.1.2 The specific transport policies are contained within Section 9 of the NPPF. This sets out the importance of facilitating sustainable development by reducing the need to travel and offering a 'genuine' choice of transport in favour of sustainable modes.
- 2.1.3 The NPPF requires all developments that generate significant amounts of movement provide a travel plan, and to be supported by either a Transport Statement or Transport Assessment. The three key transport tests are set out in Paragraph 108:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

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

- 2.1.4 With regards to highways matters, it is clear that development ***"should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."*** (ref: NPPF, Paragraph 109)

Planning Practice Guidance

- 2.1.5 Planning Practice Guidance (PPG) is a government published web-based planning guidance resource that was launched in March 2014 and replaced a number of previous guidance documents, including the DfT's 'Guidance for Transport Assessment' (2007). It provides guidance on how the policies within the NPPF should be applied.

- 2.1.6 This Transport Statement has been prepared in accordance with the requirements of PPG, which states:

“Travel Plans, Transport Assessments and Statements are all ways of assessing and mitigating the negative transport impacts of development in order to promote sustainable development. They are required for all developments which generate significant amounts of movements”. (ID42 – 002);

“Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be “severe”, which may be a reason for refusal, in accordance with the National Planning Policy Framework”. (ID42 – 005).

2.2 Regional Transport Policy

The London Plan (March 2016)

- 2.2.1 The London Plan 2016 remains the currently adopted version and sets out the strategic targets for the spatial development of London to 2031 and beyond. From a transport perspective, the Mayor intends that London will be a city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling.
- 2.2.2 In achieving this aim, a series of policies have been developed that seek to ensure that new developments:
- Do not have an adverse effect upon the transport network and that impacts are appropriately assessed (Policy 6.3A);
 - Provide secure, integrated and accessible cycle parking facilities, together with on-site changing facilities (Policy 6.9B);
 - Incorporate high quality pedestrian links that connect with and enhance the current pedestrian environment (Policy 6.10B); and
 - Operate Delivery and Service Plans and Construction Logistics Plans to minimise disruption associated with larger vehicles (Policy 6.14B).

2.3 Local Policy

West London Waste Plan, July 2015

2.3.1 This is a joint Waste Plan for the London Boroughs of Brent, Ealing, Harrow, Hillingdon, Hounslow, Richmond upon Thames and Old Oak and Park Royal Development Corporation.

2.3.2 WLWP have several strategic objectives that are as follows:

- To identify sufficient land for the management of the six Borough's pooled waste apportionment as set out in the London Plan (2011);
- To ensure waste is managed as far up the waste hierarchy as possible by encouraging the minimisation of waste;
- To reduce the impact of waste management on climate change by encouraging the use of sustainable transport and new, clean technologies, whilst seeking to locate waste management facilities as close to waste sources as practicable;
- To ensure that waste facilities meet the highest standards possible of design, construction and operation to minimise adverse effects on local communities; and
- To support the key aims and objectives of Brent, Ealing, Harrow, Hillingdon, Hounslow and Richmond's Sustainable Community Strategies.

2.3.3 The application site is an allocated site in the Plan identified as a site with the opportunity to develop waste facilities.

The London Borough of Hounslow Local Plan, 2015-2030

2.3.4 The London Borough of Hounslow Local Plan is identified as a document to shape the future spatial strategy of the London Borough of Hounslow for the next 15 years. This Local Plan was adopted on 15th September 2015.

2.3.5 In the transport section of the document, the LBH Local Plan uses the NPPF as guidance, in particular taking heed of the principle that there is a 'presumption in favour of sustainable development'.

2.3.6 The primary borough specific strategy set out by LBH is 'A Vision for Hounslow 2030'. This identifies 'Improved connectivity and transportation improvements' for both residents and those using Hounslow for work as a main priority.

2.3.7 Policy SV2-West of Borough Plan sets out the main development objectives for sites within Southall. The objectives include:

- Objective 1 – Supporting our town centres;
- Objective 2 - Promoting economic growth and inward investment;
- Objective 3 - Delivering sustainable mixed communities;
- Objective 4 – Reinforcing local character and context;
- Objective 5 – Maximising the benefits of our green and blue infrastructure;
- Objective 6 – Delivering community infrastructure;
- Objective 7 – Ensuring environmental quality; and
- Objective 8 – Enhancing connectivity.

2.3.8 Policy EQ7 – Sustainable Waste Management states:

‘...we will work with the West London Waste Authority boroughs to meet our waste apportionment, whilst promoting the prevention, re-use, recycling and recovery of waste, consistent with the waste hierarchy’. It further states that they will expect development proposals to ‘incorporate suitable arrangements for waste management, including the location, size and design of waste and recycling facilities, and transport access’.

2.3.9 Policy EC2 – Developing a sustainable local transport network. This Policy states that LBH will encourage developments to provide sufficient car parking to meet the site specific requirements as well as ensuring new developments adhere to the car and cycle parking standards as set out in the London Plan.

2.3.10 Policy IMP2 – Delivering Site Allocations. The LBH will support in principle proposals that accord with the identified site allocation and the proposed use of the site.

2.4 Emerging Policy

The Draft London Plan (December 2019)

2.4.1 The Draft London Plan (Intend to Publish – December 2019), as examined by the Planning Inspectorate, sets out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. Following a response from the Secretary of State to the plan in March 2020, the Mayor is currently working with the MHCLG to

finalise the plan. TfL expects all new planning applications to give material consideration to the policies set out within this document.

2.4.2 Policy SI 8 – Waste capacity and net waste self-sufficiency states that development proposals for new waste sites or to increase the capacity of existing sites should be evaluated against the following criteria:

- The nature of the activity, its scale and location;
- Effective implementation of the waste hierarchy and its contribution to London’s circular economy;
- Achieving a positive carbon outcome (i.e. re-using and recycling high carbon content materials) resulting in significant greenhouse gas savings – all facilities generating energy from waste will need to meet, or demonstrate that steps are in place to meet, a minimum performance of 400g of CO₂ equivalent per kilowatt hour of electricity produced;
- The impact on amenity in surrounding areas (including but not limited to noise, odours, air quality and visual impact) – where a site is likely to produce significant air quality, dust or noise impacts, it should be fully enclosed; and
- The transport and environmental impacts of all vehicle movements related to the proposal – the use of renewable fuels from waste sources and the use of rail and waterway networks to transport waste should be supported.

2.5 Summary

2.5.1 Taken together, national and local transport planning policy have a presumption in favour of sustainable development, whilst supporting economic growth. National policy is clear that development should only be prevented or refused on transport grounds where the residual cumulative impacts of development would be severe.

2.5.2 The local, regional and national planning policy context has not changed materially since the grant of the original planning permission, nor the general context of the proposal, which was previously found acceptable in highways terms.

2.5.3 The following sections of the TA demonstrate how the proposed development complies with these transport planning policy considerations.

SECTION 3 Site Conditions

3.1 Introduction

3.1.1 This section of the TA sets out the transport conditions in the vicinity of the site.

3.2 Site Location

3.2.1 The site is located off Southall Lane, Hayes at approximately 1.5km straight line distance to the south-east of Hayes and Harlington railway station. A site location plan is provided as Image 3.1.

3.2.2 The site is bordered to the north by Costco, to the east by Southall Lane, to the south by the access road, and to the west by a household waste recycling facility. The latter was under construction at the time of the site's original approval albeit was accounted for in the original, approved, assessment.

Image 3.1: Site Location Plan



3.3 Opportunities for Walking and Cycling

- 3.3.1 There are wide footways, of between 2.8 to 3.1m width, along both sides of Southall Lane, which provides direct access to local bus stops. The road is street lit with tactile paving and dropped kerbs provided at the David Lloyd junction for access to the southbound bus stop and Cranford High Street located to the south.
- 3.3.2 There are intermittent on-carriageway advisory cycles lanes (1.2m wide) on either side of Southall Lane, including at the application site access junction. Further to the north of the site, along Hayes Road, there are segregated cycle lanes which provide a route north and south along the A312 The Parkway.
- 3.3.3 The site is well connected to local cycle routes in the immediate area. Southall Lane is identified in Transport for London's (TfL) Local Cycling Guide 6 as a route that is 'signed or marked for use by cyclists on a mixture of quieter or busier roads'. This is ideal for use by cyclists in the immediate area. Further, to the south-east of the application site, there are additional routes, which are identified as a mixture of quieter and busier roads suitable for cyclists.
- 3.3.4 These facilities are consistent with the provision available at the time of the original planning approval.

3.4 Public Transport

PTAL

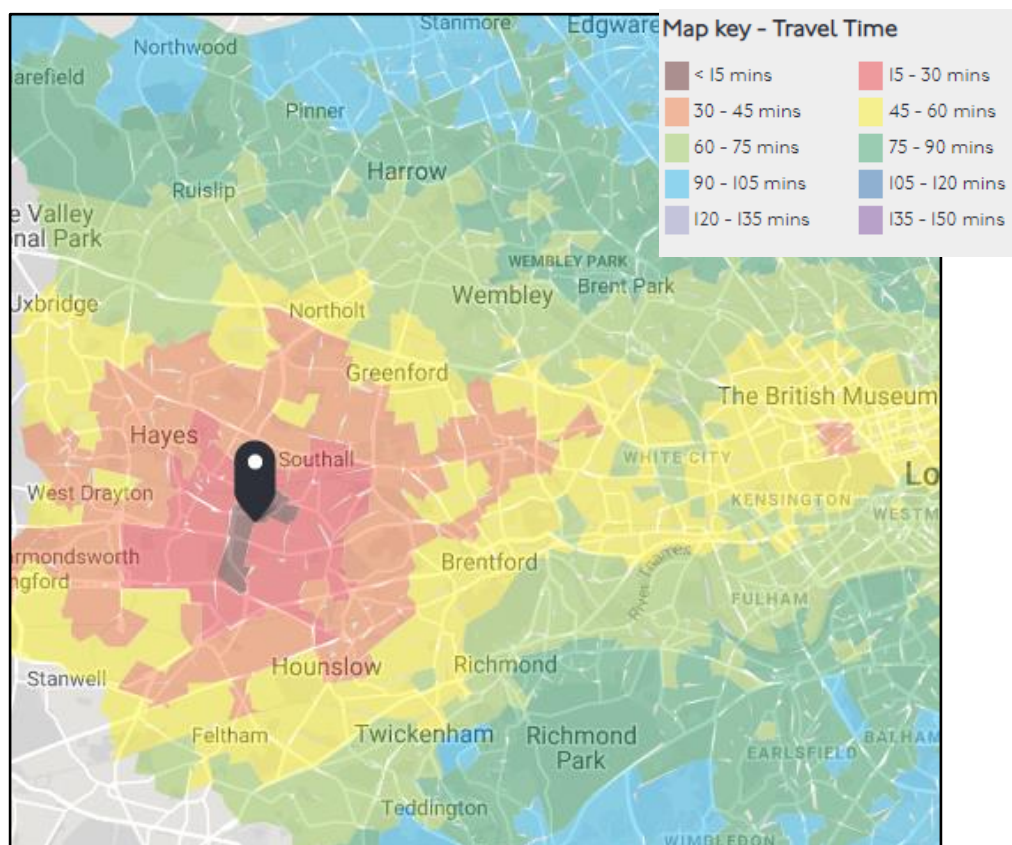
- 3.4.1 The accessibility of the site has been assessed using the TfL Public Transport Accessibility Level (PTAL) methodology. PTALs are a detailed measure of the accessibility of a site to the public transport network, taking into account the combination of walking time and service frequency.
- 3.4.2 The TfL WebCAT database records the PTAL of the site as a PTAL 2 (as was the case at the time of the original planning approval) indicating an average level of public transport accessibility. This PTAL rating is a result of the proximity to a number of bus services within walking distance of the site. The full PTAL is included as Appendix A.

Time Mapping (TIM)

- 3.4.3 TfL's WebCAT resource also provides travel time mapping (TIM) which reflects the travel time from the site to surrounding areas in London by public transport. Image 3.2 shows the average

travel times from the site, demonstrating that the site is accessible to Central London within 60-75 minutes, and the majority of suburban North, East and South London within 75 minutes.

Image 3.2 – TIM Mapping



Source: TfL

Bus

- 3.4.4** The closest bus stops to the site are located on Southall Lane, circa 160m walking distance from the site. These bus stops provide access to the 105 and H28 bus routes, which provide routes towards Greenford, Heathrow Airport, Hounslow and Osterley. An additional bus service, the 195, serving Hayes and Brentford, via Hayes and Harlington railway station, is available at the bus stops on Hayes Road, at approximately 450m walking distance from the site. A summary of the service and frequencies from these bus stops is summarised in Table 3.1 below.
- 3.4.5** It is noted that since the issuing of the TA produced in 2016 for the permitted scheme, the frequency of the local buses highlighted in Table 3.1 has increased on the routes 105 and H28 providing up to three additional bus services per hour across the week.

Table 3.1 – Bus Services

Service	Destinations	Frequency		
		Mon - Fri	Sat	Sun
105	Greenford Station – Greenford Broadway – Dormers Wells – Southall – Heston – Cranford – Heathrow Central	Up to 6 buses per hour (24hr)	Up to 8 buses per hour (24hr)	Up to 6 buses per hour (24hr)
195	Charville Lane Estate – Church Road – Hayes – Bulls Bridge – Southall – Ealing Hospital – Boston Manor – Brentford	Up to 6 buses per hour (05:37-00:47)	Up to 6 buses per hour (05:37-00:47)	Up to 5 buses per hour (05:37-00:47)
H28	Bulls Bridge – Heston – Hounslow – Spring Grove – Osterley (Towards Bulls Bridge Only)	Up to 4 buses per hour (06:41-00:16)	Up to 4 buses per hour (06:37-00:16)	Up to 3 buses per hour (06:32-00:16)

Source: TfL (accessed February 2020)

Rail

- 3.4.6 Mainline rail services are available from both Hayes & Harlington and Southall stations. These stations are both managed by Great Western Railway providing frequent services from London Paddington towards Reading. Heathrow Connect services are also available directly to London Heathrow Airport. This level of service is consistent with that at the time of the original planning approval.

Table 3.2: Hayes and Harlington Station – Rail Services

Destination	Typical Frequency	Average Journey Duration
Reading	4 trains per hour	40 minutes
London Heathrow Airport	2 trains per hour	14 minutes
London Paddington	8 trains per hour	14-20 minutes

Source: National Rail, accessed March 2020

- 3.4.7 Hayes and Harlington Station also provides car parking for 124 cars.

Future Rail

- 3.4.8 In addition to the services summarised above, Hayes and Harlington Station will benefit from major improvements in preparation for the Elizabeth Line. Once in operation, up to ten Elizabeth Line services an hour will allow passengers from Hayes & Harlington to travel to Reading or Heathrow in the west or through central London to Essex and southeast London.

3.5 Local Highway Network

- 3.5.1 As was the case at the time of the site's original approval, it is accessed via Southall Lane, at a priority junction with a two-way single carriageway road that is subject to a 30mph speed limit. There are double yellow lines in place outside the site access on Southall Lane, on either side of the carriageway indicating the on-street car parking is prohibited at all times. Southall Lane provides a route northbound to Hayes Lane and southbound towards Heston.
- 3.5.2 The site shares the access track with the Hounslow Waste Depot Site located to the west.
- 3.5.3 To the north of the site, Hayes Lane joins the wider highway network via a mini roundabout with Southall Lane. Hayes Lane provides an east-west route towards Southall to the west and the A312 Parkway to the east respectively. The road is subject to a 40mph speed limit and provides access to a number of retail and commercial units further to the west.
- 3.5.4 Hayes Road runs in an east-west direction between The Parkway (A312) to the west and Wentworth Road to the east.
- 3.5.5 The A312 is accessed via a four-arm signalised roundabout with Hayes Lane and North Hyde Road. The road provides a route northbound to the A40 and towards the M4 and A4 to the south.

3.6 Traffic Flows

- 3.6.1 A set of traffic surveys were undertaken on 5th March 2020. The surveys included traffic link counts along Southall Lane on a neutral weekday.
- 3.6.2 The observed highway peak hours are provided below:
- Morning Peak Hour – 0830-0930; and
 - Evening Peak Hour – 1715-1815.
- 3.6.3 The observed 2020 traffic flows are summarised in Table 3.3 for the morning and evening peak periods and the daily (0500-1800) observed period respectively. The daily period 0500-1800 is used in this assessment as it is the peak operational period at the site.

- 3.6.4 These surveys were undertaken a week before the government implemented guidance to work from home and social distance (w/c 16th March 2020) and therefore the traffic surveys are representative of normal traffic levels on the highway network.

Table 3.3 – 2020 Observed Vehicle Flows on Southall Lane

	AM Peak Hour (0830-0930)	PM Peak Hour (1715-1815)	Daily (0500-1800)
Northbound	370	511	4,597
Southbound	380	355	4,247
Two-Way	750	866	8,844

Source: Intelligent Data and Consultant's Estimates

3.7 Comparison to 2016 Traffic Flows

- 3.7.1 The previous planning approval was supported by traffic surveys undertaken in 2016. The observed 2020 traffic flows on Southall Lane, excluding site traffic, compared with the observed 2016 traffic flows on Southall Lane are summarised in Table 3.4 for the morning and evening peak periods and the daily observed period respectively.

Table 3.4 – Vehicle Flows on Southall Lane

Direction of Traffic	Two-Way Traffic		
	AM Peak Hour	PM Peak Hour	Daily Observed (0500-1800)
2016	818	834	9,703
2020 (Excluding site traffic)	739	841	8,533
Difference	-79	+7	-1,170
	-10%	+1%	-12%

Source: Intelligent Data and Consultants Calculations.

Notes: 2016 peak hours: 0745-084 and 1645-1745.

2020 peak hours: 0830-0930 and 1715-1815.

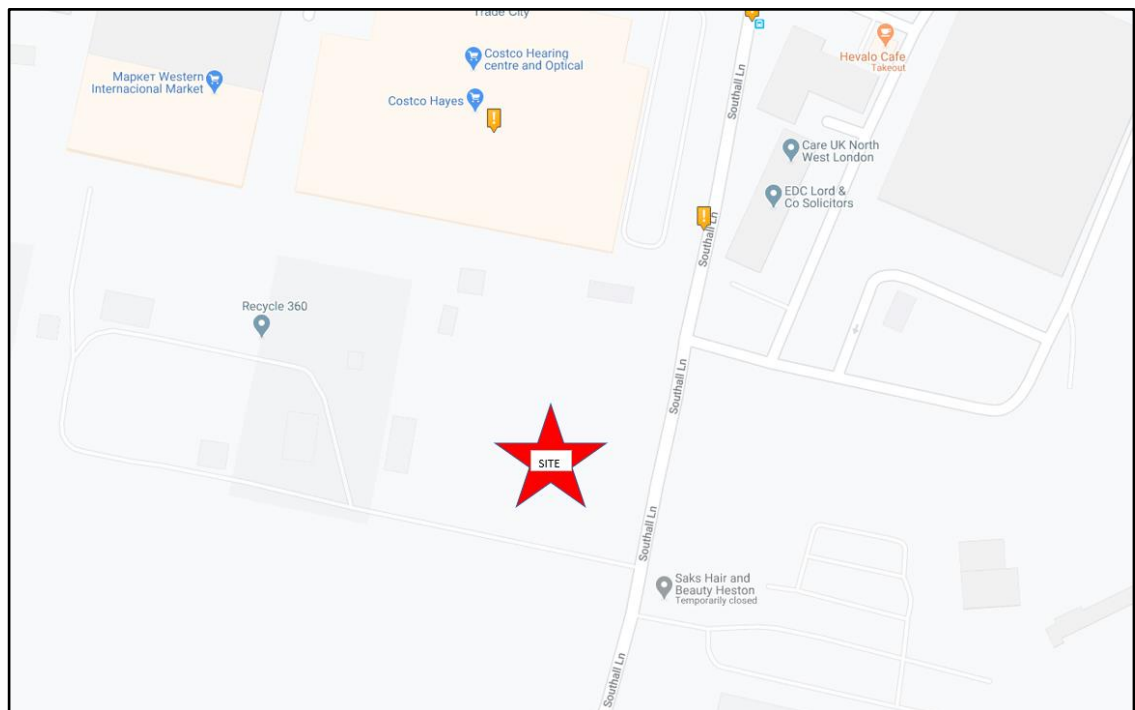
- 3.7.2 It is therefore clear that there has been a reduction in traffic flows on Southall Lane during both the morning peak hour and across the 13 hour day. Flows have remained largely static during the evening peak hour.
- 3.7.3 Traffic counts into the site were also recorded for a 24hr period on the same day. These traffic counts are summarised and detailed in Section 5.

3.8 Highway Safety

3.8.1 A review of accident data in the immediate vicinity of the site using Crashmap has identified that since May 2016 (the date at which data provided in the TA supporting the approved scheme concluded) and up until June 2019 (the date most recently available at the time of requesting), one slight injury accident occurred on Southall Lane in the vicinity of the site access.

3.8.2 An extract from Crashmap is provided in Image 3.3.

Image 3.3: Crashmap Extract



Source: Crashmap

3.8.3 The recorded incident occurred in December 2018 and involved two vehicles circa 150m north of the site access. It is noted that the C&D recycling facility became operational in September 2019 and the CBP in July 2018.

3.8.4 Therefore, whilst any accident is regrettable, there does not appear to be any common location, with a small number of slight incidents is not unusual for a busy urban highway network.

3.9 Summary

3.9.1 There is a good quality pedestrian network in the vicinity of the application site which provides access to local public transport services and key destinations. The application site is also well

accessed to local cycle routes, providing real opportunities to travel to the site on foot or by bicycle.

- 3.9.2 The application site is served by regular bus services providing frequent services to local areas and the opportunity to travel within greater London. The bus stops are located within a reasonable walking distance of the site.
- 3.9.3 A review of the latest available road safety data does not indicate any specific highway safety problem on the local highway network.
- 3.9.4 Very little has changed in transport and highways terms in the vicinity of the site since the original planning approval, other than the local bus services have become more frequent.

SECTION 4 The Development

4.1 Overview

- 4.1.1 The development proposal is for a C&D waste recycling facility and CBP on land at Southall Lane, Hayes. The proposed development is for the following:

“Erection of construction and demolition waste recycling facility, concrete batching plant and associated weighbridge, weighbridge office, site office and welfare facilities, storage bays, substation, car and HGV parking and other ancillary structures, and use of land for fleet parking (works applied for retrospectively). Consent sought for temporary period ending 21 December 2027”

- 4.1.2 The proposal will extend operations at the site for an additional seven years, from the end of the current permission (January 2021), up to the end of December 2027.
- 4.1.3 The development operates as per the extant planning permission in terms of operations. There are minor changes to the development in terms of layout which are summarised in this section.

4.2 Operating Hours

- 4.2.1 The development operates 24 hours a day, 7 days a week, to allow for periods of high demand. However, the majority of the operations occur Monday to Saturday from 07:00 to 18:00.

4.3 Staff

- 4.3.1 The site employs some 85 members of staff. This is a reduction from the previously estimated (in the 2016 application) of 165 employees.

4.4 Access Arrangements

- 4.4.1 The site is accessed from Southall Lane via a priority junction. The access is designed to accommodate large vehicles turning right in and left out of the access. The site shares the access road with the Hounslow Waste Depot Site to the west. The access into the site is circa 75m west of the junction with Southall Lane (a slight shift east by less than 40m from the original approval). This change in location of the vehicular access is minimal and has no material impact compared to that originally approved.

4.4.2 A separate pedestrian only access is located directly from Southall Lane, at the site's eastern boundary in a similar arrangement to the permitted scheme. The access is gated, with only employees able to access the gate via an electric fob to provide access. Visitor access is made available via the entrance control intercom which calls the transport office which then in turn allows access. This system is also overseen by full site wide HD CCTV system so that the entire site is fully monitored by the transport and security offices.

4.4.3 The pedestrian gate is directly accessible via the footway on Southall Lane. There is a delineated pedestrian route from the gate through the car park to the main office. These advisory pedestrian routes will be marked onto the car park floor for both drivers and pedestrian safety.

4.5 **Car and Cycle Parking - Staff**

4.5.1 The site provides appropriate car and cycle parking spaces on-site for staff and visitors.

Car Parking – Staff

4.5.2 The development includes the provision of 26 car parking spaces for staff (reduced from the 37 previously approved). The number of car parking spaces is deemed appropriate and adequate taking into account, staffing levels and given the prevailing parking restrictions surrounding the site.

4.5.3 Swept path analysis has been undertaken for a number of the car parking spaces and is provided in Drawings ITL11348-GA-003 and ITL11348-GA-004 which demonstrate sufficient manoeuvring space for vehicles to get into and out of the spaces.

Cycle Parking

4.5.4 The development includes 20 covered and secure cycle parking spaces on-site with one space for larger, adapted bicycles. The cycle parking spaces will be marked by the advisory pedestrian routes from the main office, pedestrian entrance and around the car parking areas.

4.5.5 This level of cycle parking provision is the same as the approved development. With the reduced number of staff employed at the site compared to that originally estimated in the approved scheme, there are now more cycle parking spaces per staff member.

4.5.6 The vehicular car parking and cycle parking spaces have been shifted and re-aligned slightly compared to the 2016 application and as a result of the shift of the vehicular access. This has no

material impact on the accessibility and efficient operation of the site compared to the approved scheme.

4.6 **HGV Parking**

- 4.6.1 The development also provides 25 HGV parking spaces (reduced from 36 previously approved). The parking spaces will be used to park the fleet of Quattro HGVs overnight. The fleet parking plays a role in the supply and delivery of material to and from the site.
- 4.6.2 It is noted that the current provision has been reduced from that previously approved. This reduction in spaces is based on the Applicant's operational requirements.
- 4.6.3 Swept path analysis has been undertaken for a number of the HGV car parking spaces and is provided in Drawings ITL11348-GA-005 and ITL11348-GA-006 which demonstrate sufficient manoeuvring space for vehicles to get into and out of the spaces.

SECTION 5 Trip Generation

5.1 Overview

- 5.1.1 This section of the TA sets out the trip generation of the development. As the site is operational, counts have been undertaken at the site to record the number of vehicles entering and exiting the site across a weekday.

5.2 Trip Generation

- 5.2.1 The trip generation of the site has been determined from traffic surveys undertaken in March 2020. The traffic surveys recorded the number and type of vehicles entering and exiting the site across a 24hr period. The surveys were undertaken on Thursday 5th March 2020.
- 5.2.2 The Applicant has confirmed that, on the day of the traffic survey, vehicle flows and outputs were higher than usual/ the average. As such the vehicle trips recorded in March 2020 and summarised below represent a robust assessment of the traffic flows generated by the site.
- 5.2.3 The hourly in and out counts for non-HGV traffic, HGV traffic, and total vehicles is summarised in Tables 5.1-5.3 respectively.

Table 5.1: Non-HGV Traffic Daily Vehicle Counts – March 2020 Observed

Time	In	Out	Two-Way
0000-0100	0	0	0
0100-0200	0	0	0
0200-0300	0	0	0
0300-0400	0	0	0
0400-0500	0	0	0
0500-0600	9	1	10
0600-0700	19	1	20
0700-0800	2	0	2
0800-0900	0	0	0
0900-1000	0	0	0
1000-1100	1	1	2
1100-1200	1	0	1
1200-1300	2	1	3
1300-1400	3	2	5
1400-1500	0	1	1
1500-1600	1	2	3
1600-1700	0	5	5
1700-1800	2	9	11
1800-1900	1	11	12
1900-2000	0	6	6
2000-2100	0	0	0
2100-2200	0	0	0
2200-2300	0	0	0
2300-2400	0	0	0
Total 24 hr Period	41	40	81

Source: Intelligent Data (Non-HGV classified as Cars, LGV's, M/C and Cycle)

Table 5.2: HGV Traffic Daily Vehicle Counts – March 2020 Observed

Time	In	Out	Two-Way
0000-0100	0	0	0
0100-0200	1	0	1
0200-0300	0	1	1
0300-0400	1	1	2
0400-0500	0	0	0
0500-0600	0	1	1
0600-0700	0	10	10
0700-0800	7	9	16
0800-0900	6	15	21
0900-1000	4	1	5
1000-1100	13	13	26
1100-1200	14	14	28
1200-1300	14	10	24
1300-1400	19	16	35
1400-1500	9	16	25
1500-1600	16	16	32
1600-1700	7	3	10
1700-1800	12	3	15
1800-1900	4	0	4
1900-2000	4	1	5
2000-2100	0	0	0
2100-2200	0	0	0
2200-2300	0	0	0
2300-2400	0	0	0
Total 24 hr Period	131	130	261

Source: Intelligent Data (HGV classified as OGV1 and OGV2)

Table 5.3: Total Vehicle Traffic Daily Vehicle Counts – March 2020 Observed

Time	In	Out	Two-Way
0000-0100	0	0	0
0100-0200	1	0	1
0200-0300	0	1	1
0300-0400	1	1	2
0400-0500	0	0	0
0500-0600	9	2	11
0600-0700	19	11	30
0700-0800	9	9	18
0800-0900	6	15	21
0900-1000	4	1	5
1000-1100	14	14	28
1100-1200	15	14	29
1200-1300	16	11	27
1300-1400	22	18	40
1400-1500	9	17	26
1500-1600	17	18	35
1600-1700	7	8	15
1700-1800	14	12	26
1800-1900	5	11	16
1900-2000	4	7	11
2000-2100	0	0	0
2100-2200	0	0	0
2200-2300	0	0	0
2300-2400	0	0	0
Total 24 hr Period	172	170	342

Source: Intelligent Data – all movements.

5.2.4 Tables 5.1-5.3 demonstrate the following:

- The site attracts some 342 two-way movements across a 24 hour period;
- The majority of daily movements (76%) are made up of HGV vehicles;
- The observed peak hour occurs between 1300-1400 across all vehicle types;
- The observed non-HGV traffic peak hour occurs between 0600-0700; and

- The observed HGV traffic peak hour occurs between 1300-1400.

5.3 2016 Estimated Trip Generation Comparison

- 5.3.1 These trip movements have been compared with those estimated in the 2016 planning application. A summary of the total vehicle movements estimated in 2016 and those recorded at the site in March 2020 is provided in Table 5.4 below.

Table 5.4: Trip Generation Comparison

	Daily (two-way) Traffic 24hr		
	2016 Estimates	2020 Counts	Difference
Staff/ Non-HGV Traffic	148	81	- 67
HGV Traffic	228	261	+33
<i>Construction and demolition</i>	156		
<i>Concrete batching plant</i>	72		
Total	376	342	-34

Source: Consultants Estimates

- 5.3.2 Table 5.4 demonstrates that the site is currently operating, on the whole, below the estimated figures set out in the 2016 application. The HGV traffic (relating to the C&D recycling plant and CBP) is currently operating at a greater volume than the estimates contained within the 2016 application. This is largely accounted for by two factors. First, that there has been an increase in the annual throughput of the concrete batching plant from that previously envisaged (an increase in production from an estimated 50,000 m³ to 65,000 m³). The second is that the 2016 figures assumed an even spread of activity per working day across the year. In reality, some days will be busier than others depending on demand and local road conditions (i.e. some days there would be lower numbers of vehicles and other days would be higher).
- 5.3.3 As set out above, the Applicant has confirmed that, on the day of the traffic survey, vehicle flows and outputs were higher than usual/ the average. As such the vehicle trips recorded in March 2020 represent a robust assessment of the traffic flows generated by the site.

Horn Lane, Acton

- 5.3.4 Quattro have recently secured a recommendation for approval at planning committee for the relocation of their CBP site which has been displaced by the Compulsory Purchase Order (CPO) at their site at Park Royal. The site, off Horn Lane in Acton, will shift a number of movements currently associated with the CBP at this site to their new, permanent site in Acton.

- 5.3.5 The opening at Horn Lane will result in a circa 25% reduction in activity relating to this CBP, with a corresponding reduction in vehicle movements in the local highway network around the Southall Lane application site.

SECTION 6 Traffic Impact

6.1 Overview

6.1.1 This section of the TA assesses the traffic impact of the development on the local highway network, including the assessment of future year development scenarios to December 2027.

6.2 Background Traffic Growth

6.2.1 The traffic counts along Southall Lane undertaken in March 2020 have been compared to the flows obtained in 2016 for both the morning and evening peak hours. These were obtained during a traffic neutral period, with no known road closure or diversions in place, and before the UK Government's Covid-19 social distancing measures were introduced. A summary of the comparison is displayed in Table 6.1.

Table 6.1: Background Traffic Southall Lane

	Two-Way Traffic Flows – Southall Lane		
	AM Peak Hour	PM Peak Hour	Daily (0500-1800)
Southall Lane (All Traffic)			
2016	818	834	9,703
2020	750	866	8,844
Difference	-68	+32	-859
	-8%	+4%	-9%
Southall Lane (Excluding Site Traffic)			
2016	818	834	9,703
2020 (Excluding Site Traffic)	739	841	8,533
Difference (Excluding Site Traffic)	-79	+7	-1,170
	-10%	+1%	-12%

Source: Consultants Calculations

6.2.2 Table 6.1 demonstrates that traffic flows along Southall Lane have, on the whole, reduced in the 2020 period compared to 2016. The 13-hour two-way flows along Southall Lane are circa 1,100 less than in 2016. In the peak hour periods, the traffic flows in the morning peak hour are circa 70 vehicles lower, whilst in the evening peak hour there are some 30 additional vehicles.

6.3 Future Year Scenario

6.3.1 The applicant is seeking to obtain planning permission at the site up to December 2027. Local growth factors for 2020 to 2027 have been derived for the weekday morning and evening peak hours and average weekday from TEMPRO. It should be noted that despite “growth” factors being applied, traffic flows on Southall Lane have actually reduced over the last four years. A summary of the TEMPRO growth rates are provided in Table 6.2.

Table 6.2 – TEMPRO Growth Factors 2020 to 2027

Time Period	Local Growth Figure
AM Peak Period	1.076
PM Peak Period	1.072
Average Weekday	1.078

Source: TEMPRO V7.2b, Hounslow 005

6.3.2 The 2020 traffic flows have been factored up to reflect the 2027 future year. As noted above, the 2020 counts include traffic associated with the site and therefore only the background traffic (i.e. the traffic flows excluding the site traffic) have been growthed to a 2027 future year.

6.3.3 The 2027 baseline flows for the morning and evening peak hours, and the daily counts is presented in Table 6.3.

Table 6.3: Proposed Baseline Traffic Flows 2027

	Two-Way Traffic Flows – Southall Lane		
	AM Peak Hour	PM Peak Hour	Daily (0500-1800)
2020 (Excluding Site Traffic)	739	841	8,533
2027 (Excluding Site Traffic)	795	902	9,193
Increase	+56	+61	+660

Source: Consultant's Estimates

6.3.4 Table 6.3 suggest that in 2027 Southall Lane is likely to experience an additional 56 vehicles during the morning peak hour, 61 in the evening and 660 between 0500-1800 hours. However, due to the fall in background flows, the expected flow of traffic during the morning peak hour and across the day is anticipated to remain lower in 2027 than that observed in 2016.

6.4 Development Flows

6.4.1 The development flows have been taken from the March 2020 surveys. It is noted from the Applicant on the day of the March survey, it was a particularly busy day for the site. As such, for a robust assessment, these flows have been used in the assessment below. However, on average, it is likely that the development flows will be lower than this going forward, particularly when the new CBP opens in Acton.

6.4.2 The development flows during the morning and evening peak hours and across the daily profile (0500-1800) is summarised in Table 6.4.

Table 6.4: Development Flows

	Two-Way Traffic Flows		
	AM Peak Hour	PM Peak Hour	Daily (0500-1800)
Non-HGVs	0	15	63
HGVs	11	10	248
Total Traffic Flows	11	25	311

Source: Consultant's Estimates

6.4.3 The development therefore attracts up to 11 vehicles during the morning peak hour, of which all will be HGVs, 25 in the evening peak, consisting mainly of non-HGV traffic, and some 311 total vehicles across the daily period (0500-1800). This equates to a maximum of one vehicle every two minutes during the network peak hours.

6.5 Proportional Traffic Impact

6.5.1 The addition of the development traffic has been added to the 2027 baseline flows. The resultant proportional impact on Southall Lane in 2027 is summarised in Table 6.5.

Table 6.5: Proposed Baseline Traffic Flows 2027

	Two-Way Traffic Flows – Southall Lane		
	AM Peak Hour	PM Peak Hour	Daily (0500-1800)
2027 Base	795	902	9,193
Development Traffic	11	25	311
2027 With Development	806	927	9,504
Proportional Increase	+1.4%	+2.7%	+3.4%

Source: Consultant's Estimates

- 6.5.2 Table 6.5 demonstrates the proportional increase in traffic flows on Southall Lane, as a result of the development, will be less than 2-3% during the network peak hours and less than 4% across the day. This level of traffic is negligible in the wider context of the local network and is within the daily variations of traffic flows.
- 6.5.3 Importantly, even with the addition of a background growth in traffic flows between 2020 and 2027, and the development traffic, traffic flows on Southall Lane in 2027 are likely to remain at a level below that observed in 2016 during both the morning peak hour and across a 13 hour day. In addition, as noted above, the level of development traffic is considered a robust assessment, with the figures representing a peak/ higher than average day at the site. Further, these figures do not take into account the Horn Lane site that will open and will reduce flows associated with the CBP by circa 25%.
- 6.5.4 Further, a review of the 2016 application reveals the proportional impact on Southall Lane, which was agreed with LBH and TfL officers and found acceptable, was circa 7% in the peak hours. The estimates above are therefore considerably lower than what was previously found acceptable.

6.6 Conditions

- 6.6.1 As set out in Section 1, the approved permission included a number of conditions relating to highways. A summary of how these conditions have been dealt within in this application is summarised below:

Cycle Parking Details (Condition 6)

- 6.6.2 The cycle parking details were previously submitted to discharge the condition (ref: 01032/E/P44(5-17)). The details have been updated, to reflect the amended proposals, and are provided within the proposed drawings. The drawings illustrate the provision of 20 sheltered cycle parking spaces – a number consistent with the original approval).

Vehicle Parking Details (Condition 7)

- 6.6.3 The vehicle parking details were previously submitted to discharge the condition (ref: 01032/E/P44(5-17)). The details have been updated, to reflect the amended proposals, and are provided within the proposed drawings. The drawings illustrate the provision of 26 staff vehicle parking spaces and 25 HGV/ operational vehicle parking spaces.

Car Park Management Plan (Condition 8)

- 6.6.4 The car park management plan was previously submitted, approved and discharged by LBH (ref: 01032/E/P44(4,8i)). The report has been updated, to reflect the amended proposals, and is provided in i-Transport report reference: ITL11348-008A, submitted alongside this new application.

6.6.5 Servicing Management Plan (Condition 8)

- 6.6.6 The Servicing Management Plan was previously submitted, approved and discharged by LBH (ref: 01032/E/P44(4,8i)). The report has been updated, to reflect the amended proposals, and is provided in i-Transport report reference: ITL11348-007A, submitted with the new application.

Vehicle Routing Plan (Condition 8)

- 6.6.7 The vehicle routing plan was previously submitted, approved and discharged by LBH (ref: 01032/E/P44(4,8i)). The plan is provided within the updated servicing management plan (as Figure 4.1 of i-Transport report reference ITL11348-007A) and submitted with the new application.

Construction Management Plan / Wheel Wash Details (Condition 8)

- 6.6.8 A Construction Management Plan and details of wheel washing arrangements have not been updated or re-provided as the development has been substantially completed.

Vehicle Spread Plan (Condition 8)

- 6.6.9 The assignment of vehicles associated with the development across the local highway network, (calculated from the observed March 2020 traffic counts) is provided within Figure 4.1 of the updated Servicing Management Plan (i-Transport report reference ITL11348-007A) as submitted with this new application. This ensures that any impact of the development is minimised by distributing traffic associated with the site across the network, and therefore not placing undue pressure on any one location.

Car, cycle, pedestrian and disabled access arrangements details (Condition 10)

- 6.6.10 The details of car, cycle, pedestrian and disabled access arrangements were previously submitted to discharge the condition (ref: 01032/E/P44(5-17)). These details have been updated, to reflect the amended proposals, and are provided within the proposed drawings.

6.7 Summary

- 6.7.1 The anticipated vehicular trip attraction associated with the site has been estimated using a traffic survey at the site undertaken in March 2020.
- 6.7.2 The proposal seeks an extension to the current permission to operate at the site until 2027. The 2020 baseline flows have been factored up to 2027 to calculate the estimated future year opening scenario baseline flows. The figures from the March 2020 survey have been added to the morning and evening peak hour flows as well as across the daily profile (0500-1800).
- 6.7.3 The proportional impact along Southall Lane, as a result of the development, in the 2027 future year is anticipated to be less than 3% during the network peak hour, with up to 25 vehicles during the peak hours. This equates to less than one vehicle every two minutes during the peak hours. The proportional impact of the proposal across the day is less than 4%. This level of traffic is negligible in the wider context of the local network and is within the daily variations of traffic flows. The daily and morning peak hour traffic flows on Southall Lane will also remain below the 2016 observations in 2027.
- 6.7.4 Further, a review of the 2016 application reveals the proportional impact on Southall Lane, which was agreed with LBH and TfL officers and found acceptable, was circa 7% in the peak hours. The estimates above are therefore considerably lower than what was previously found acceptable.
- 6.7.5 These increases will therefore not lead to any noticeable impact on the local highway network and certainly not of a magnitude that can be considered 'severe'.

SECTION 7 Summary and Conclusions

7.1 Summary

- 7.1.1** Quattro UK Ltd has appointed i-Transport LLP to provide transport and highways advice in relation to a retrospective planning application for a construction and demolition (C&D) waste recycling facility and concrete batching plant (CBP) on land at Southall Lane Hayes, in the London Borough of Hounslow (LBH).
- 7.1.2** A temporary planning application (planning ref: P/2016/5748) for the site was submitted in 2016 and granted temporary planning permission in January 2018 for a C&D recycling plant and CBP. The site has been built out and is currently operational. The C&D recycling facility became operational in September 2019 and the CBP in July 2018. The site, however, has not been built out in accordance with the approved plans for operational and site constraint reasons. A retrospective application has been made to amend the plans and also seeks to extend the period of time allowed for the operation of the site for the previously approved uses to December 2027.
- 7.1.3** As set out within the various sections of this report, very little of any material significance has changed in terms of the local context of the site since the original approval. The main changes are the opening of the local authority household waste recycling facility on the land immediately to the west (although it was accounted for in the original, approved, assessment), an increased frequency of local bus services, and a slight overall reduction in vehicular flow along Southall Lane.
- 7.1.4** The site is located off Southall Lane, Hayes at approximately 1.5km straight line distance to the south-east of Hayes and Harlington railway station. There are wide footways along both sides of Southall Lane, which provides direct access to local bus stops. Mainline rail services are available from both Hayes and Harlington and Southall. These stations are both managed by Great Western Railway providing frequent services from London Paddington towards Reading. In addition, Hayes and Harlington Station will in the future be served by up to ten Elizabeth Line services an hour towards Reading or Heathrow in the west through central London to Essex and southeast London. As a result, those members of staff who are employed within the site office or are “collecting” on site vehicles have good opportunities to travel to the site by non-car modes.

- 7.1.5 The proposed development will operate largely as per the extant planning permission in terms of operations. Minor amendments have been made to parking layout and vehicular access these have been reviewed and do not result in material changes from the permitted scheme. The vehicular access has been shifted further east, compared to the permitted scheme, and the vehicular parking re-aligned as a result. The access arrangements and car parking area has been subject to swept path analysis which demonstrates vehicles are able to enter and exit the site suitably.
- 7.1.6 A set of traffic surveys were undertaken on 5th March 2020 at the site to record the number of vehicles entering and exiting the site. The surveys included traffic link counts along Southall Lane on a neutral weekday. The survey illustrated the site generates some 342 two-way movements across a 24 hour period, with the majority of daily movements (76%) made up of HGV vehicles.
- 7.1.7 The survey demonstrates that the site is currently operating, on a whole, below the estimated figures set out in the 2016 application. Similarly, the surveys revealed that Southall Lane is experiencing lower morning peak and daily traffic flows in 2020 compared to that observed in 2016.
- 7.1.8 Whilst HGV traffic (relating to the C&D recycling plant and CBP) is currently operating at higher volumes than the estimates contained within the 2016 application. This is largely accounted for by two factors. First, that there has been an increase in the annual throughput of the concrete batching plant from that previously envisaged (an increase in production from an estimated 50,000 m³ to 65,000 m³). The second is that the 2016 figures assumed an even spread of activity per working day across the year. In reality, some days will be busier than others depending on demand and local road conditions (i.e. some days there would be lower numbers of vehicles and other days would be higher).
- 7.1.9 Further, the Applicant has confirmed that, on the day of the traffic survey, vehicle flows and outputs were higher than usual/ the average. Vehicle flows will also likely reduce by circa 25% at the site when the applicant's new site in Acton opens. As such the vehicle trips recorded in March 2020 represent a robust assessment of the traffic flows generated by the site.
- 7.1.10 The proposal seeks an extension to the current permission to operate at the site until 2027. The 2020 baseline flows have been factored up to 2027 to calculate the estimated future year opening scenario baseline flows. The figures from the March 2020 survey have been added to the morning and evening peak hour flows as well as across the daily profile (0500-1800).

7.1.11 The proportional impact along Southall Lane, as a result of the development, in the 2027 future year is anticipated to be less than 3% during the network peak hour, with up to 25 vehicles during the peak hours. This equates to less than one vehicle every two minutes during the peak hours. The proportional impact of the proposal across the day is less than 4%. This level of traffic is negligible in the wider context of the local network and is within the daily variations of traffic flows.

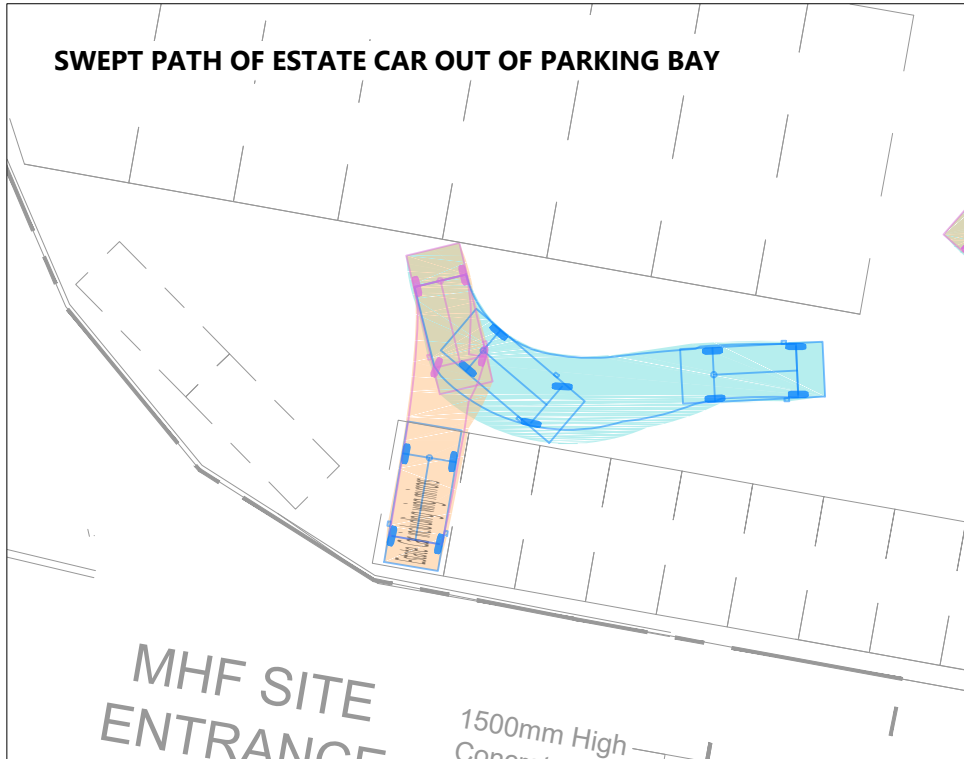
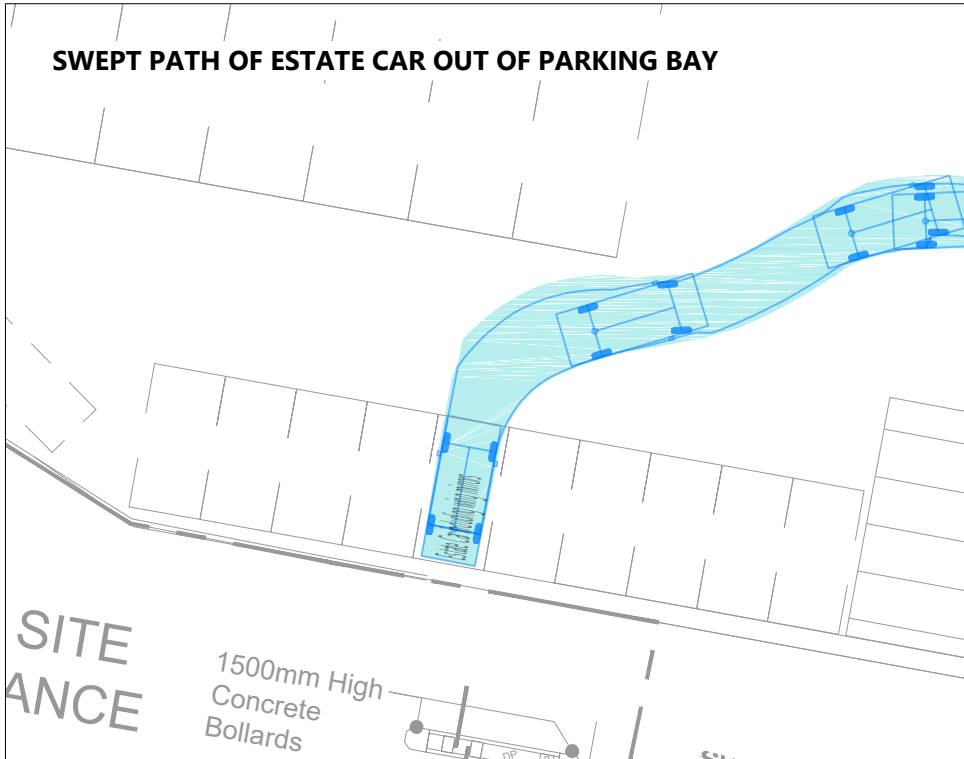
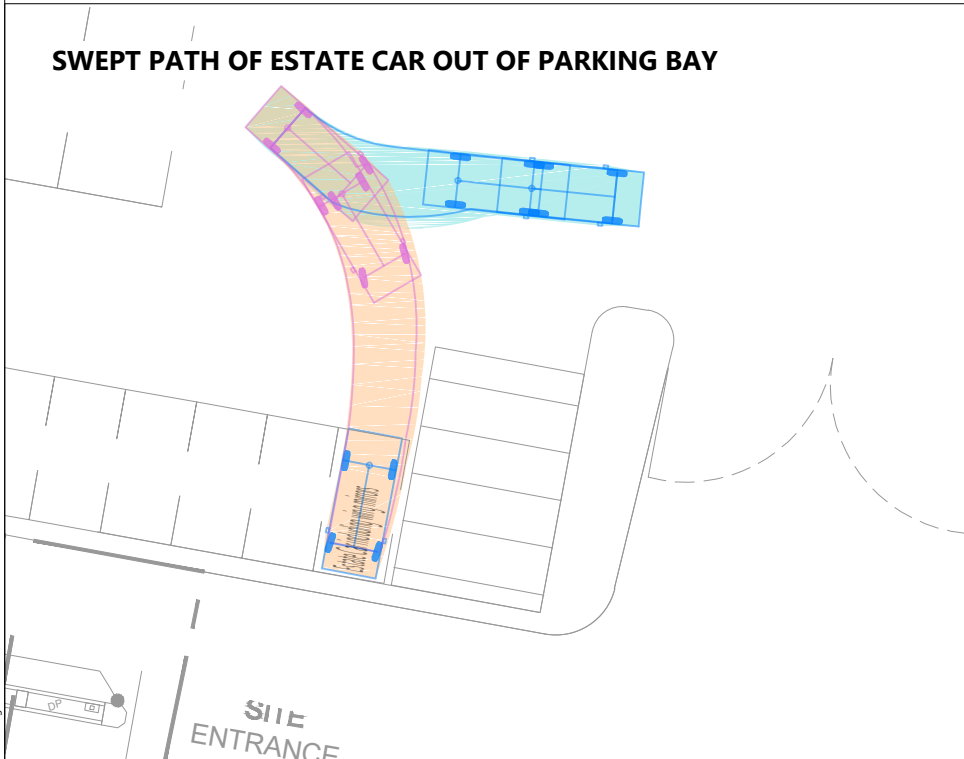
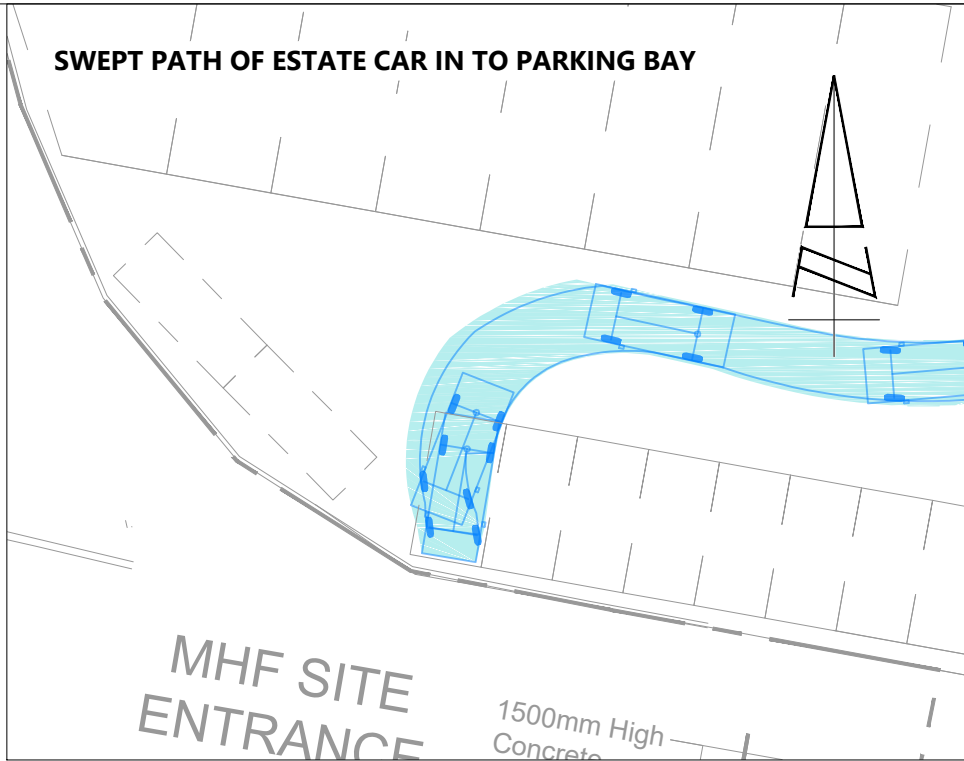
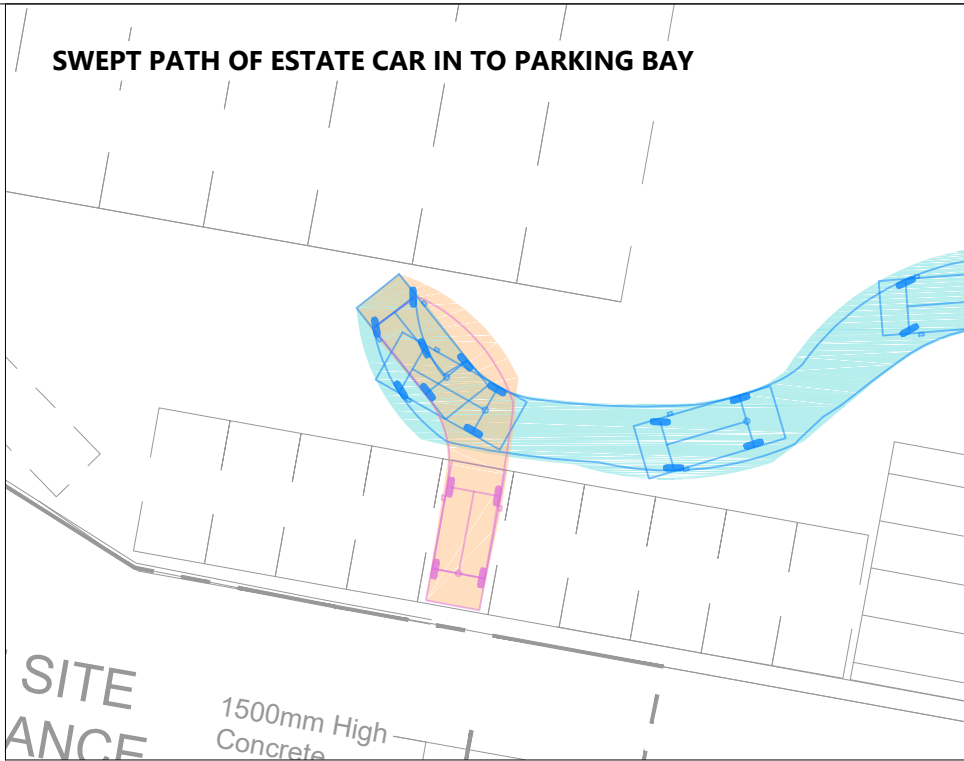
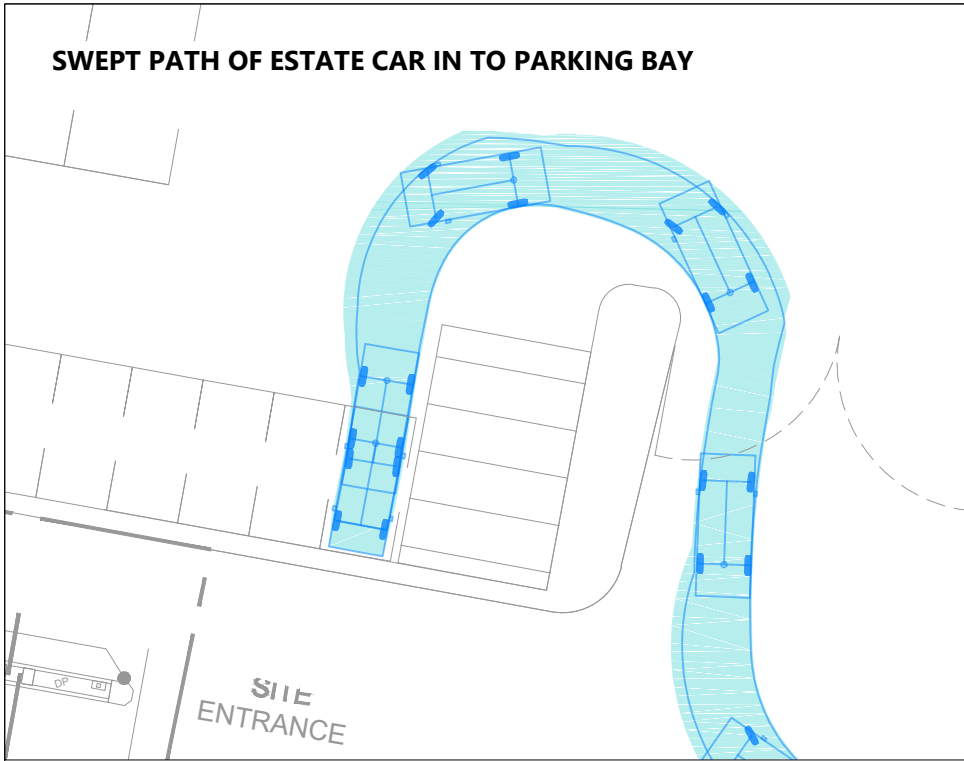
7.2 Conclusions

7.2.1 With reference to the key transport tests set out in paragraphs 108 and 109 of the NPPF, the main conclusions of the transport assessment are that:

- The site is in a sustainable location in transport terms. The proposed development is located where the need to travel will be minimised and well located for staff to 'take up' the opportunities for sustainable travel in the context of its location;
- The site will provide safe and appropriate access to the site for all people. The road accident data does not suggest an issue with the current, operational access arrangements for the site; and
- The transport impact will be minor and in terms of impact. The proposal will result in a less than 4% increase in traffic levels across the day and dropping to less than 3% during the network peak hours, based on a robust assessment of daily traffic levels from the development. Traffic flows across the day on the adjacent Southall Lane are anticipated to be lower in 2027 with the site operating than that experienced in 2016.

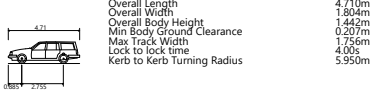
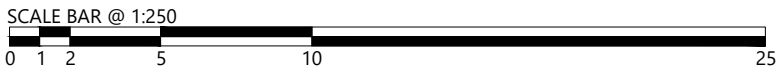
7.2.2 Against this background, the development proposal is considered acceptable in transport and highways terms, can be accommodated within the existing highway infrastructure, and the cumulative impact would be considered not severe.

DRAWINGS

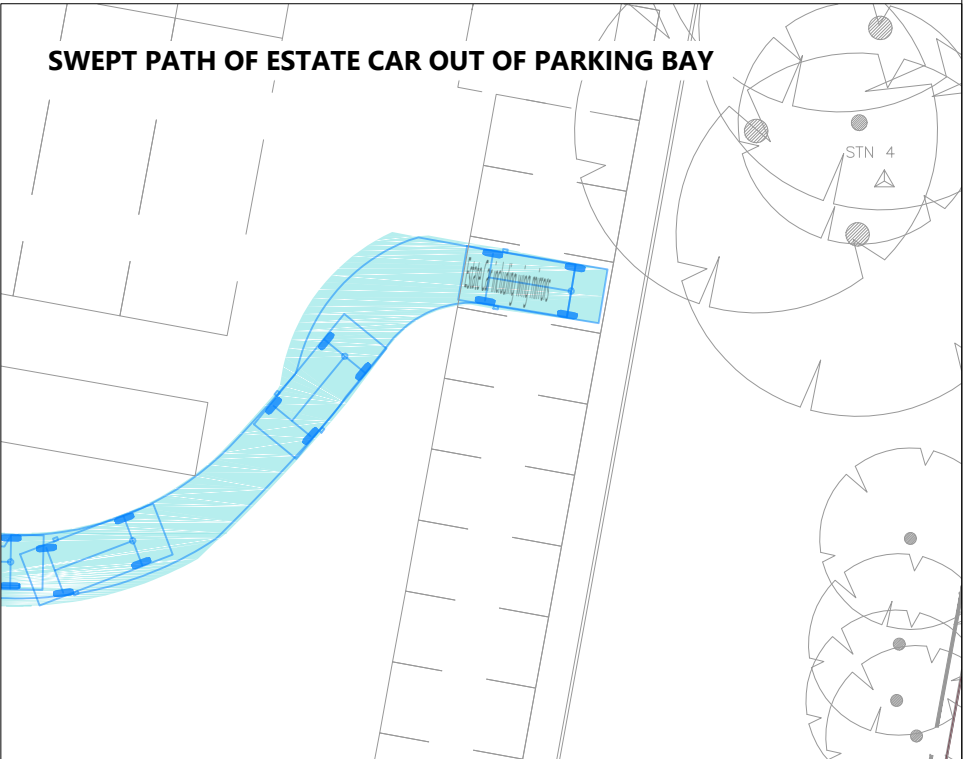
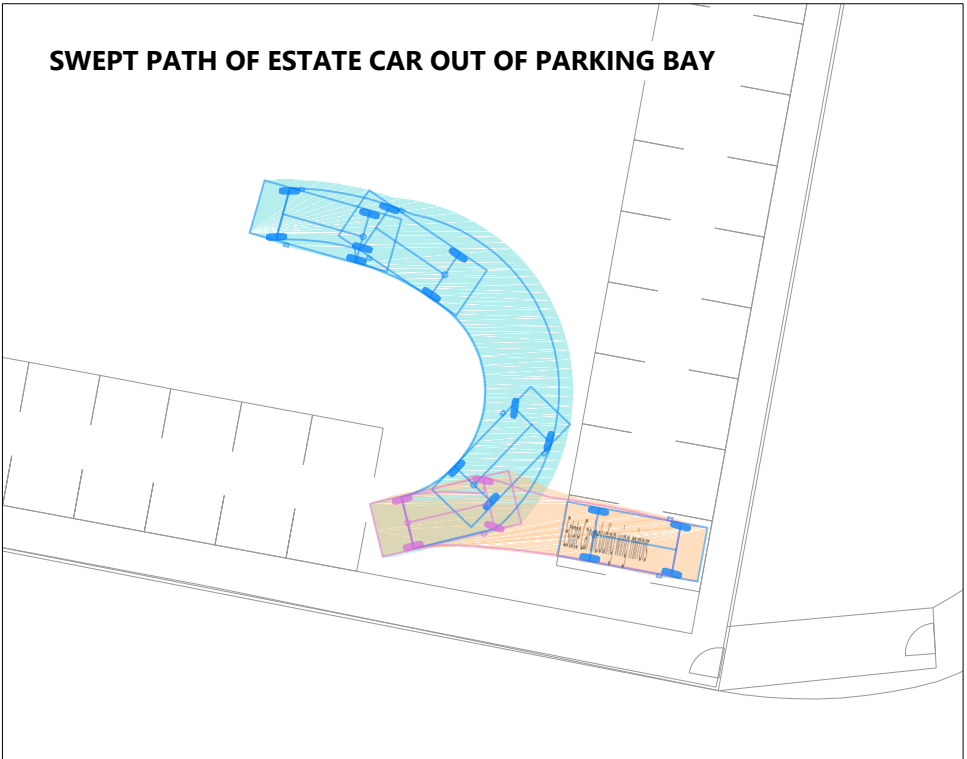
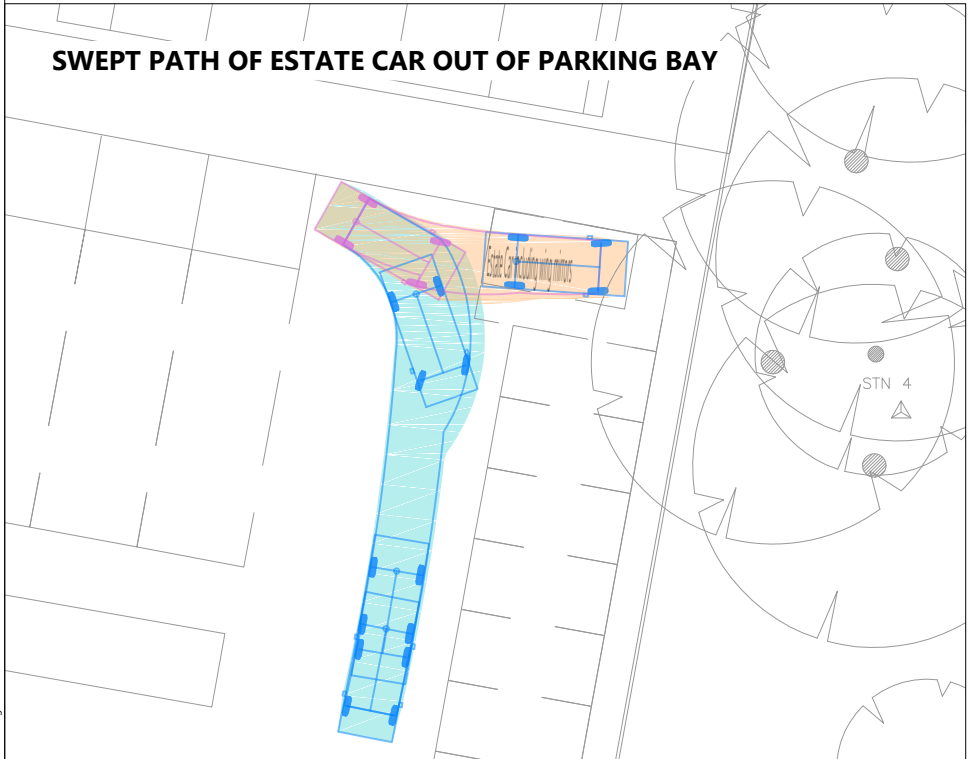
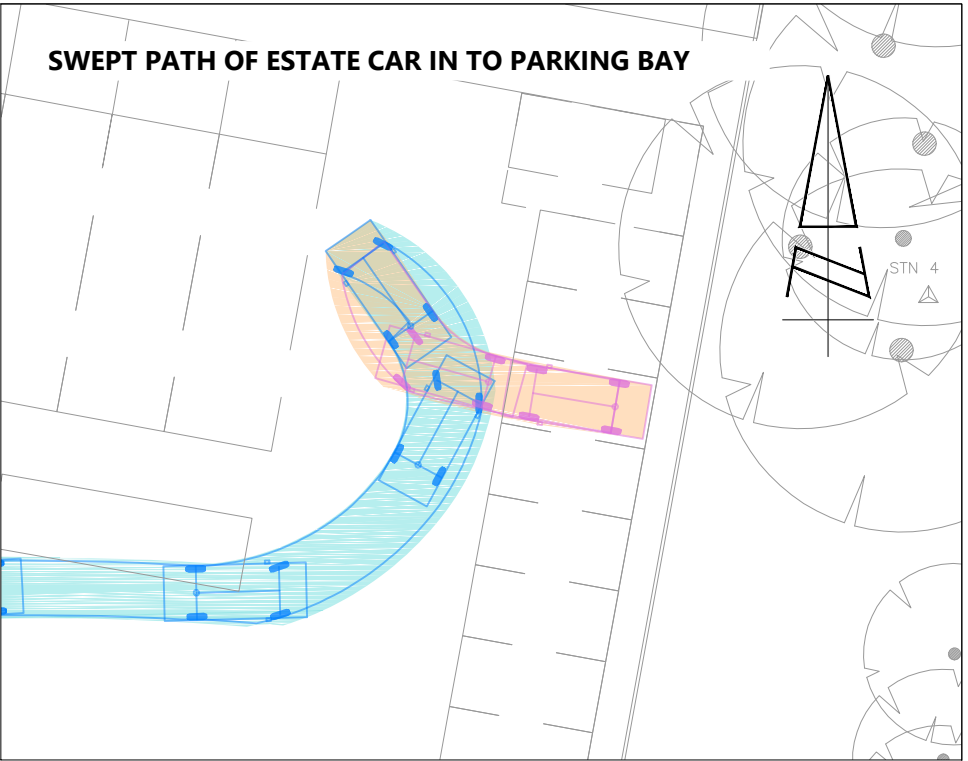
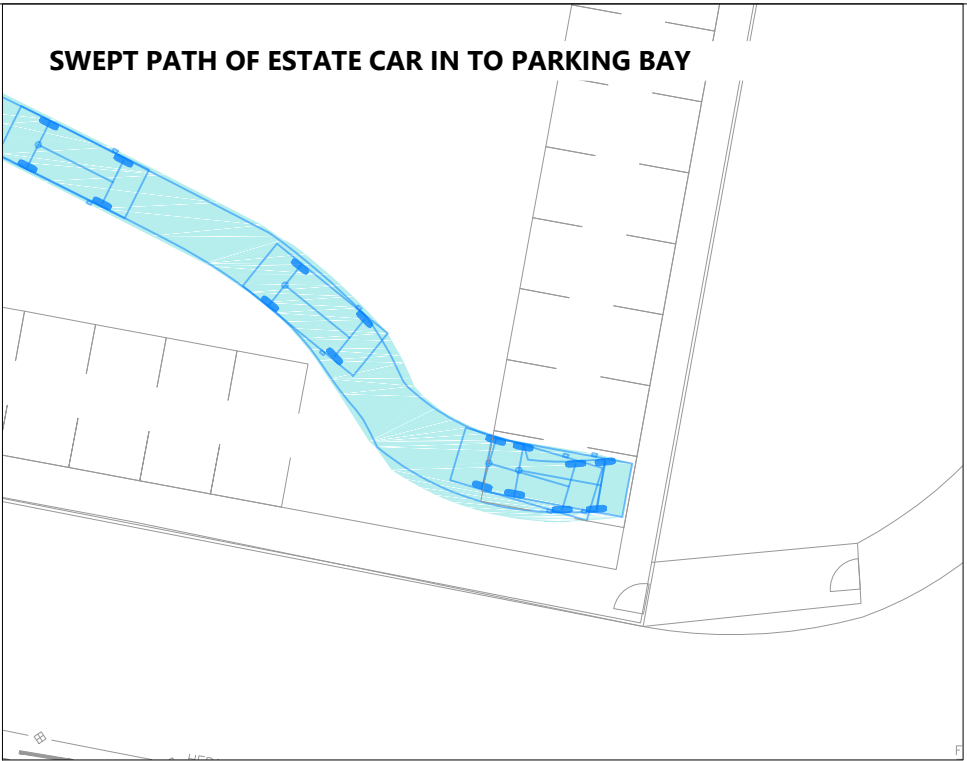
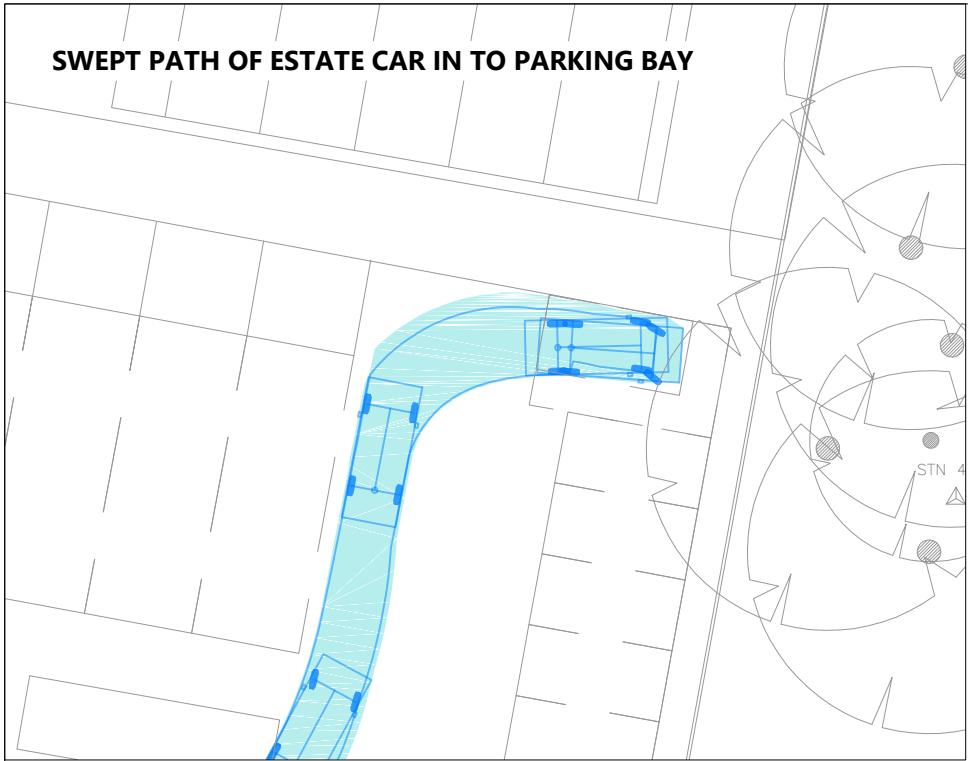


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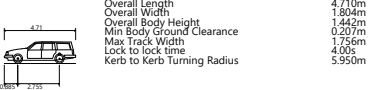
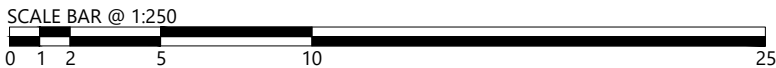


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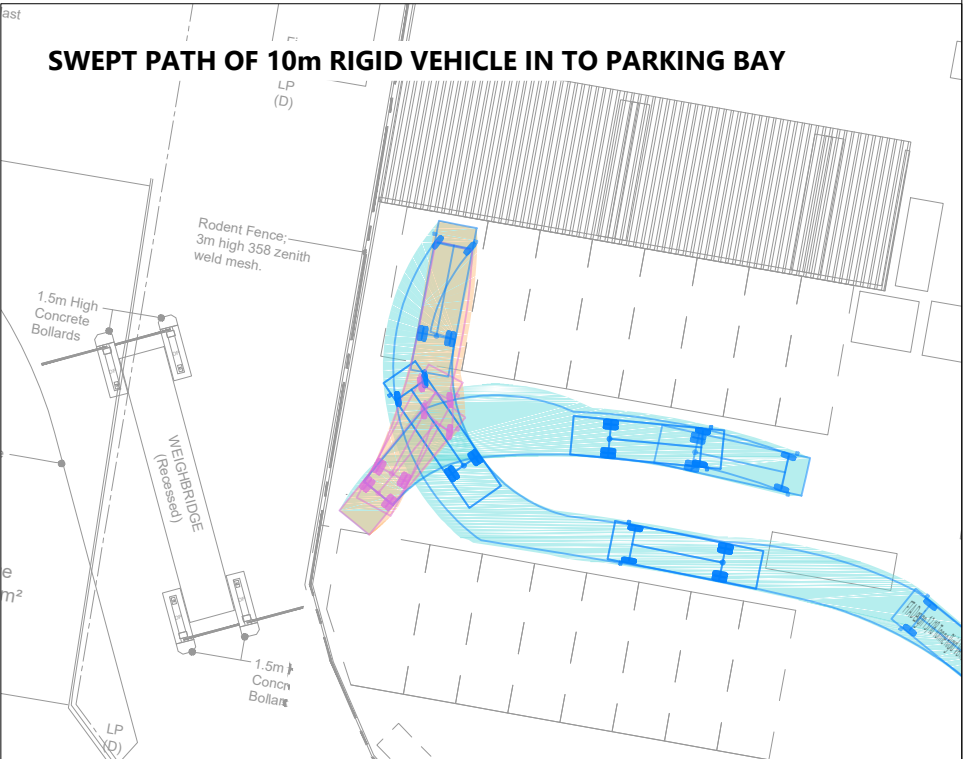
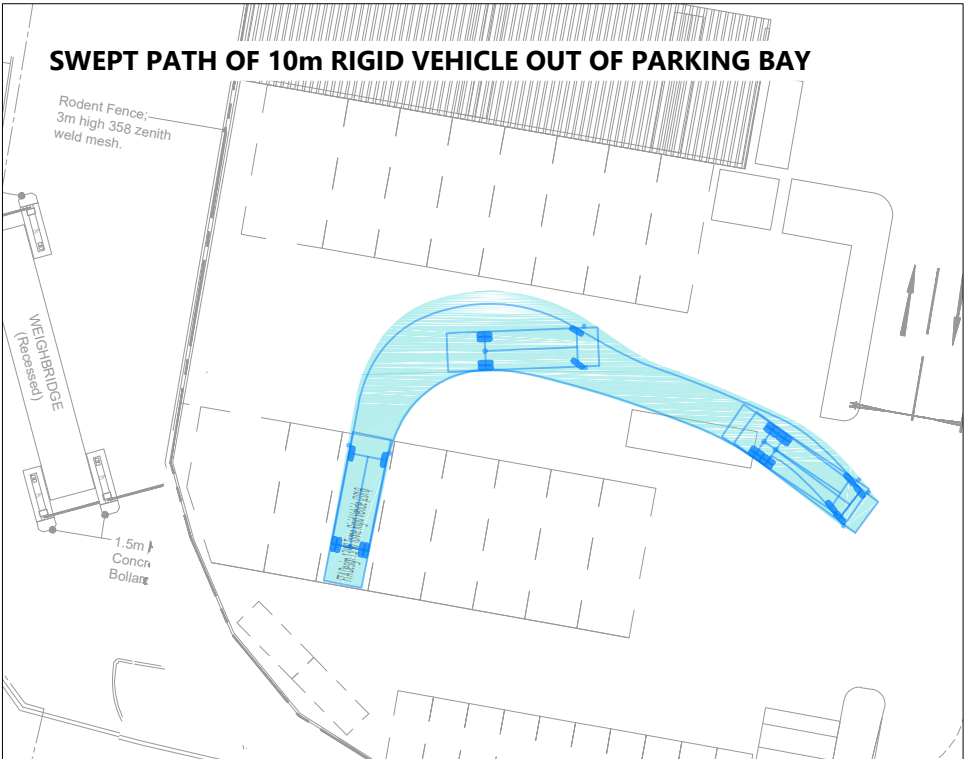
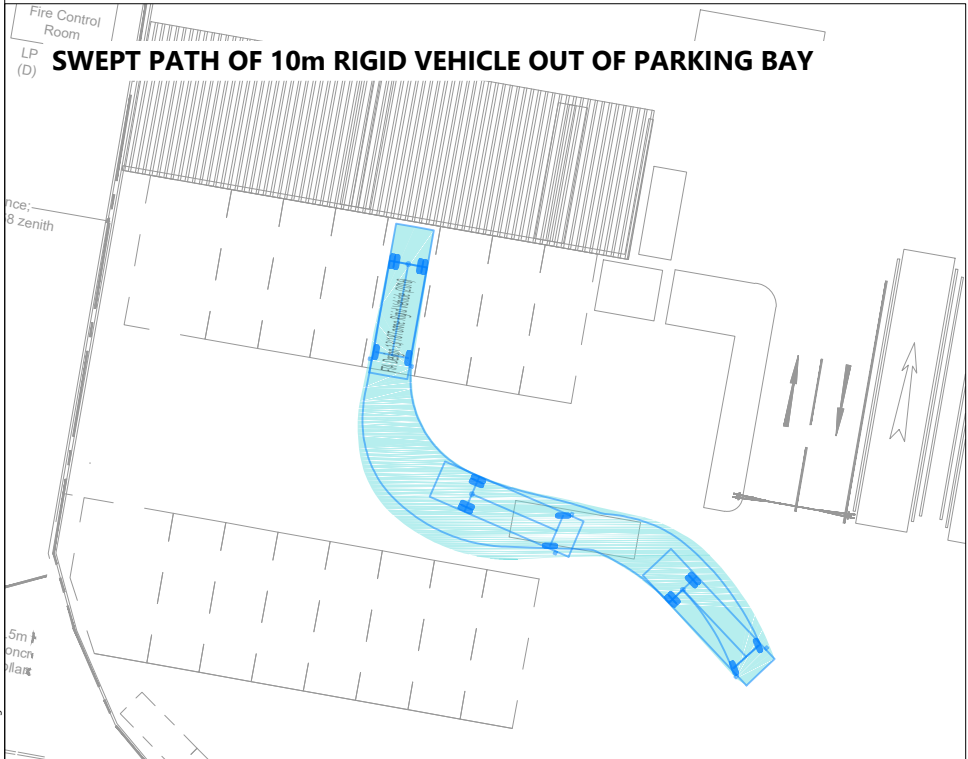
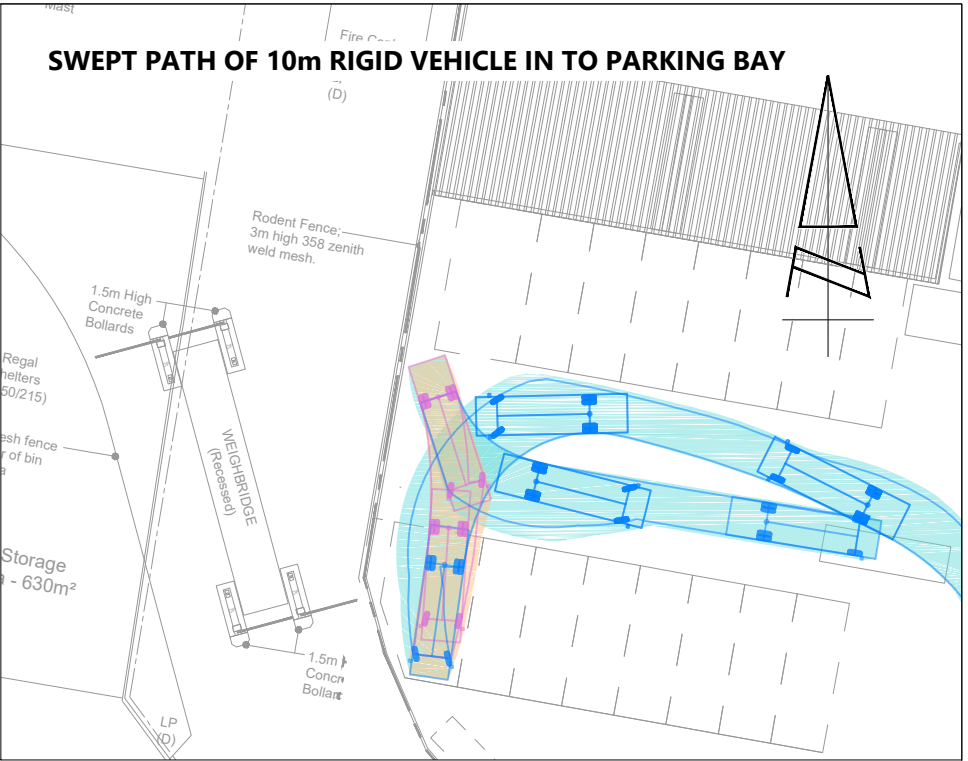
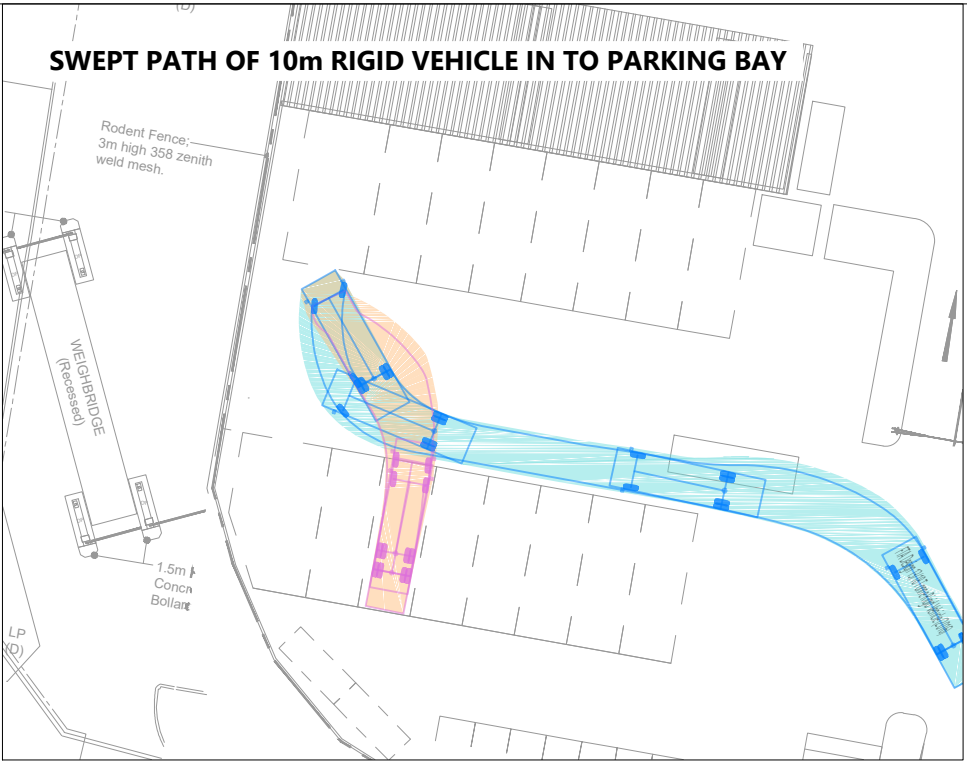
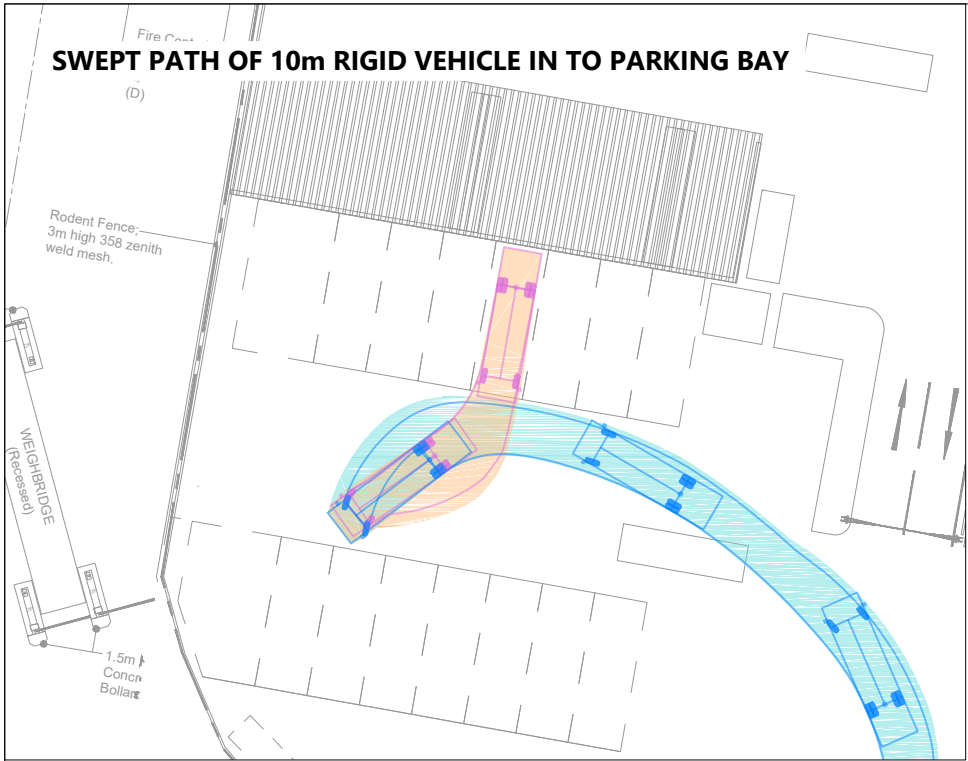


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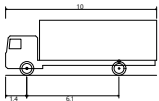


 85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215 www.i-transport.co.uk		REVDATEBYDESCRIPTIONCHKAPD		TITLE: SWEPT PATH ANALYSIS - ESTATE CAR - STAFF PARKING 2 OF 2		DRAWN: JB	CHECKED: MD	APPROVED: NM
						PROJECT No: ITL11348	SCALE @ A3: 1:250	DATE: 18.03.20
STATUS: FOR INFORMATION		PROJECT: SOUTHALL LANE, HAYES		CLIENT: QUATTRO LTD		DRAWING No: ITL11348-GA-004		REV: -



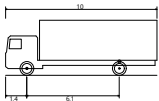
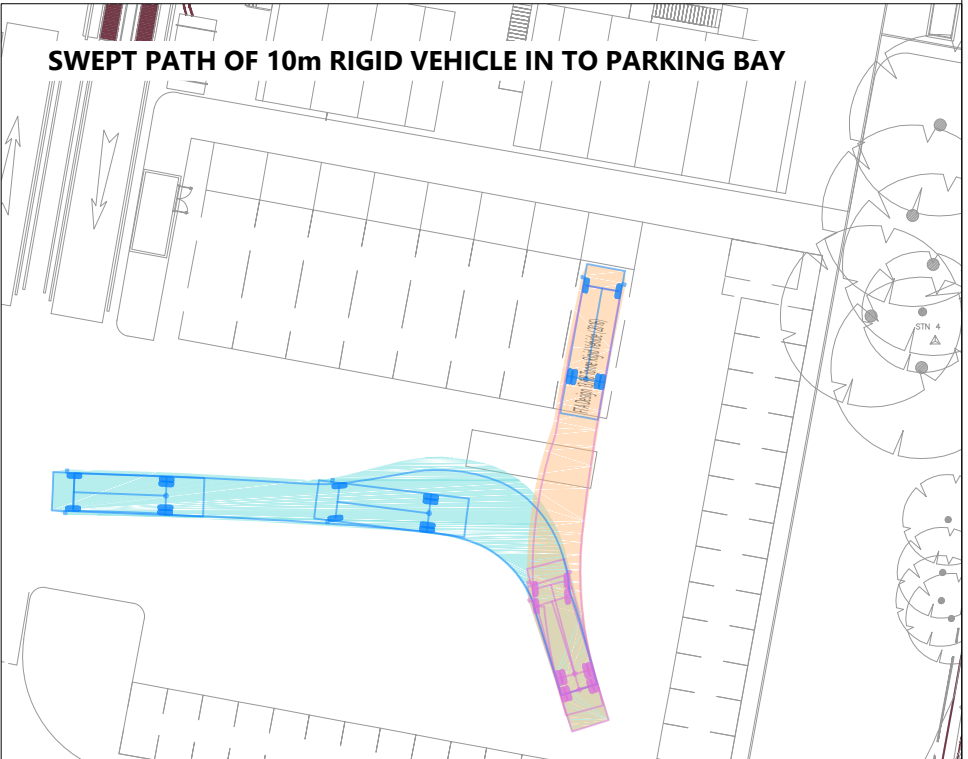
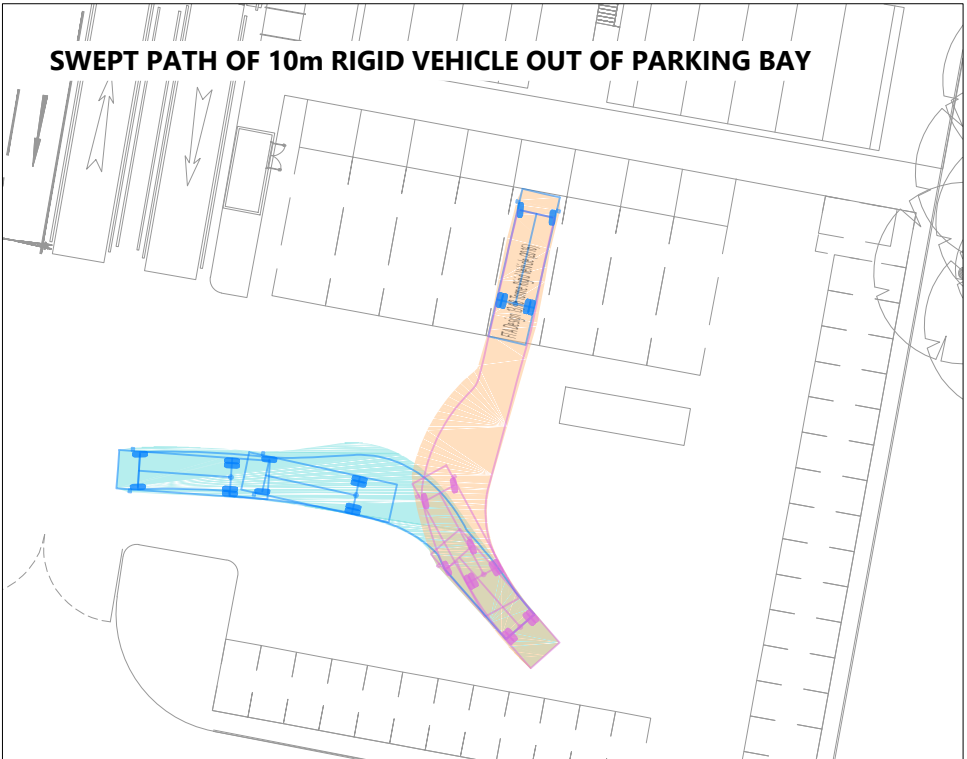
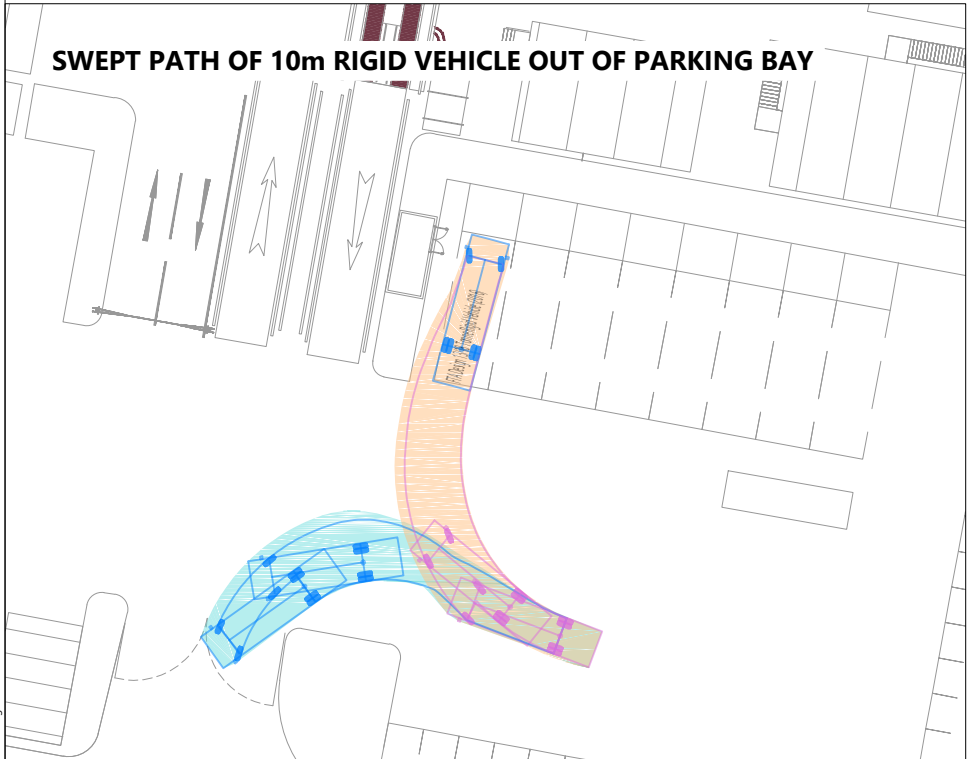
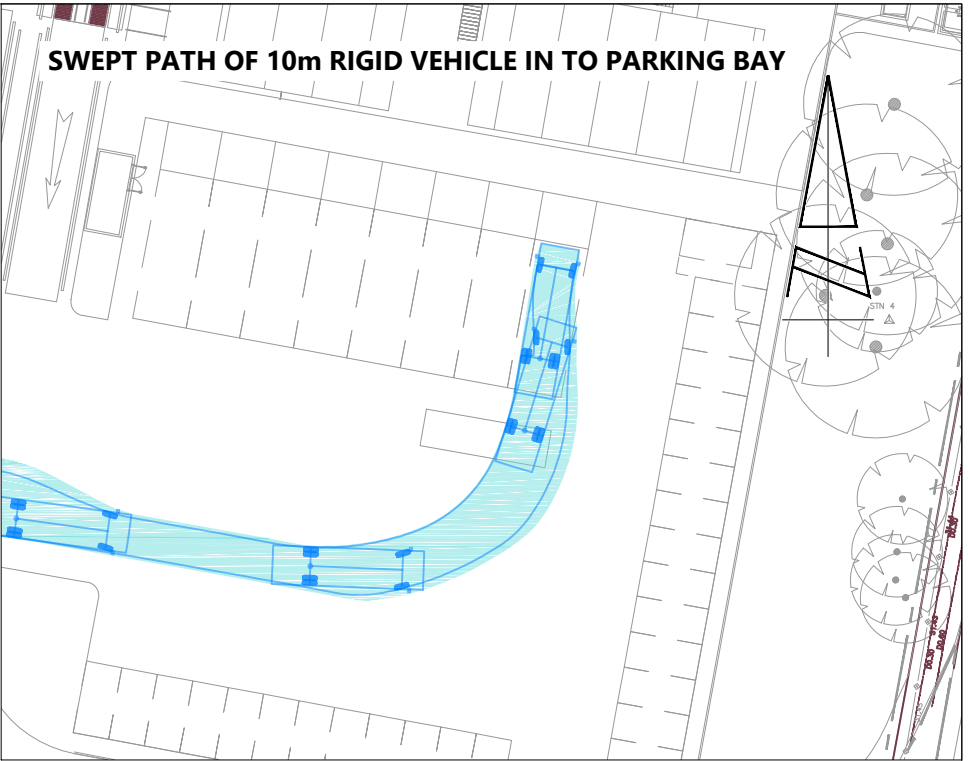
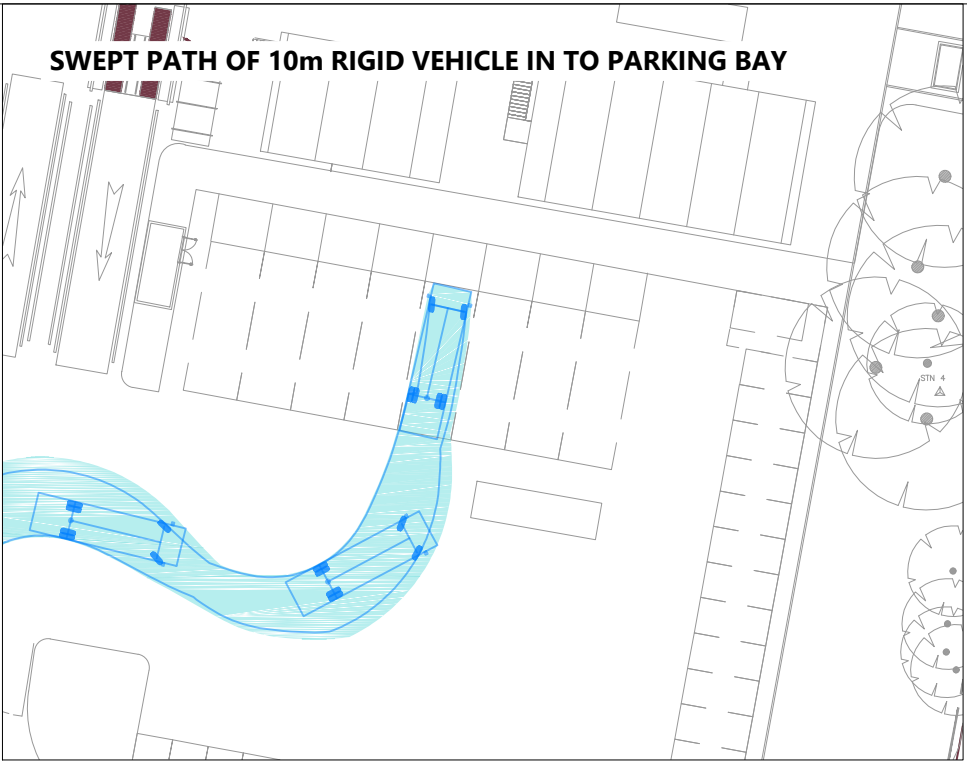
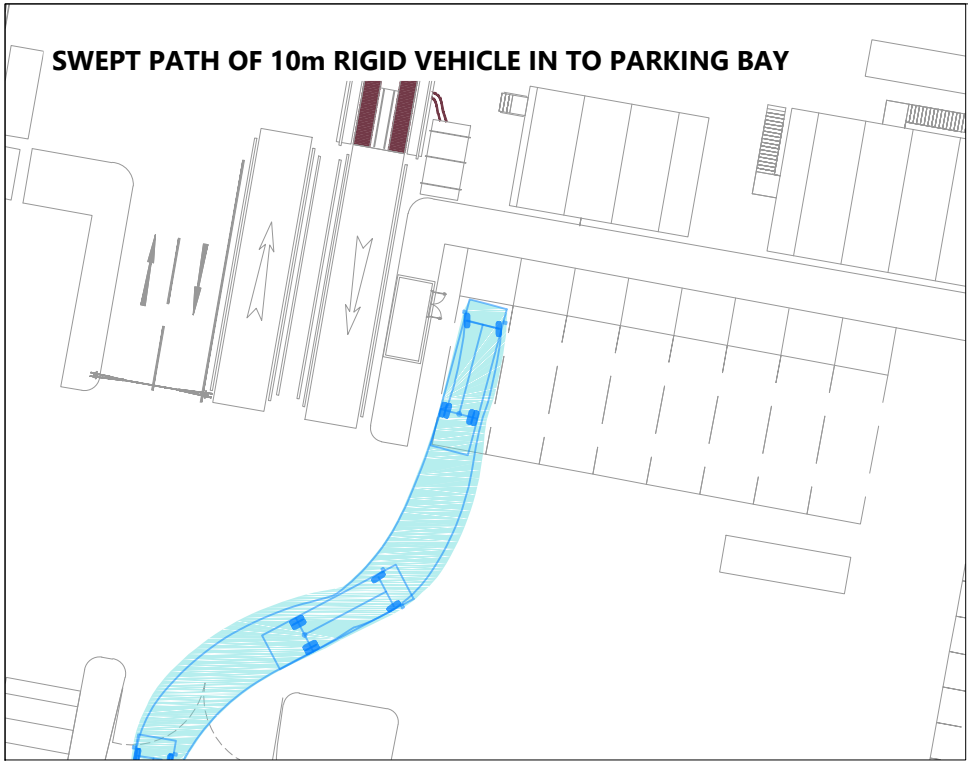
REPRODUCED FROM THE ORDNANCE SURVEY
MAP WITH THE PERMISSION OF THE
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FTA Design HG Rigid Vehicle (1998) - including wing mirror
Overall Length 10.000m
Overall Width 2.500m
Overall Body Height 3.645m
Min Body Ground Clearance 0.440m
Track Width 2.470m
Lock to lock time 3.00s
Kerb to Kerb Turning Radius 11.000m

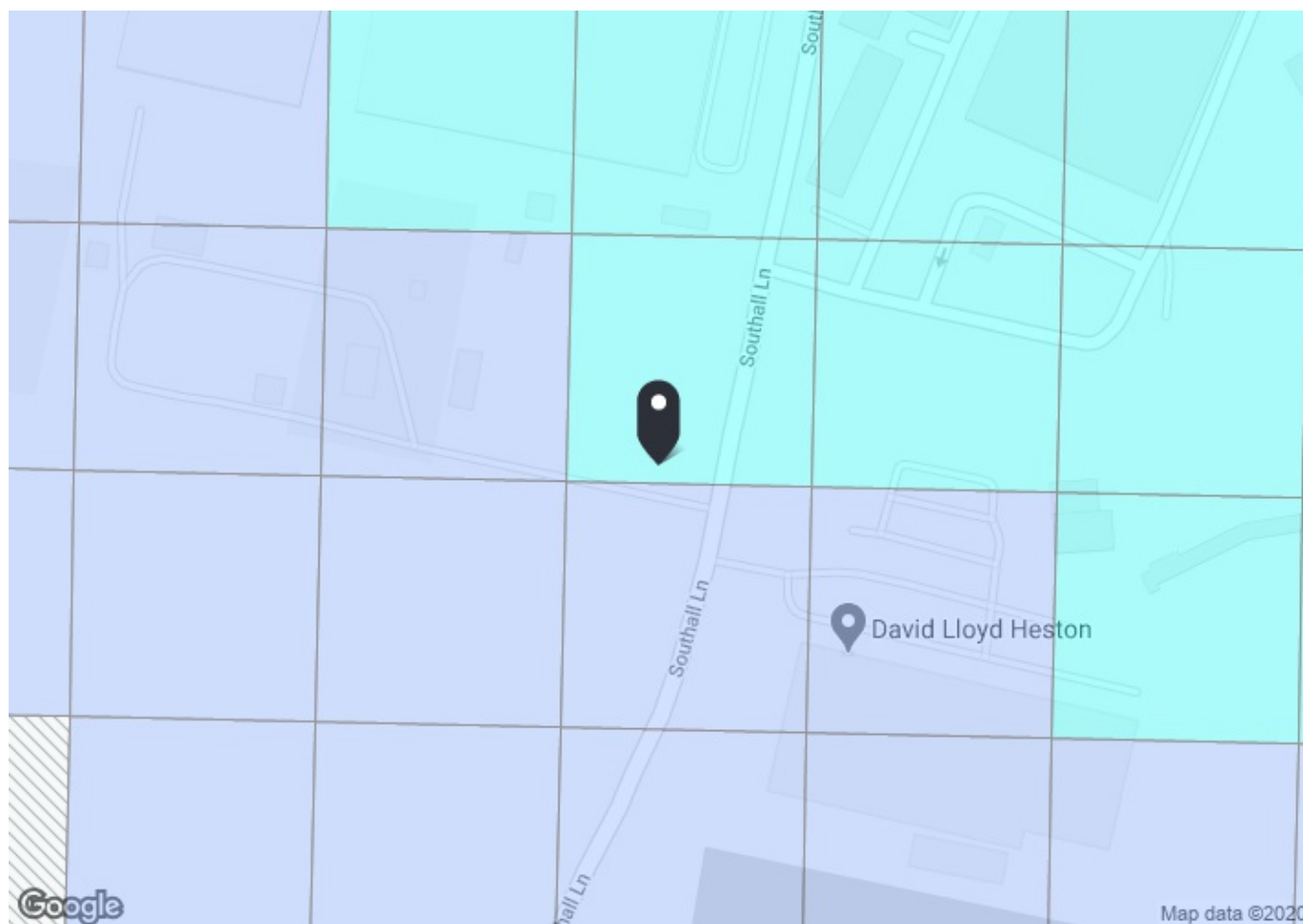
 85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215 www.i-transport.co.uk							TITLE: SWEPT PATH ANALYSIS - 10m RIGID VEHICLE 1 OF 2		DRAWN: JB	CHECKED: MD	APPROVED: NM	
	REV	DATE	BY	DESCRIPTION			CHK	APD	PROJECT No: ITL11348	SCALE @ A3: 1:250	DATE: 18.03.20	
	STATUS: FOR INFORMATION						PROJECT: SOUTHALL LANE, HAYES			CLIENT: QUATRRO LTD		
										DRAWING No: ITL11348-GA-005		REV: -



FTA Design HG Rigid Vehicle (1998) - including wing mirror
Overall Length 10.000m
Overall Width 2.500m
Overall Body Height 3.645m
Min Body Ground Clearance 0.440m
Track Width 2.470m
Lock to lock time 3.000m
Kerb to Kerb Turning Radius 11.000m

 85 Gresham Street, London, EC2V 7NQ Tel: 020 3705 9215 www.i-transport.co.uk							TITLE: SWEPT PATH ANALYSIS - 10m RIGID VEHICLE 2 OF 2		DRAWN: JB		CHECKED: MD		APPROVED: NM					
	REV	DATE	BY	DESCRIPTION			CHK	APD	PROJECT: SOUTHALL LANE, HAYES		CLIENT: QUATRRO LTD		PROJECT No: ITL11348		SCALE @ A3: 1:250		DATE: 18.03.20	
	STATUS: FOR INFORMATION																	

APPENDIX A. PTAL Report



PTAL output for Base Year 2

Southall Ln, Hounslow Southall UB2 5XG, UK
Easting: 511034, Northing: 178501

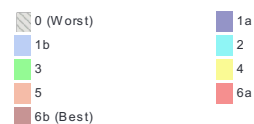
Grid Cell: 70846

Report generated: 27/02/2020

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Map key - PTAL



Map layers

PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	WESTERN ROAD CONVENT WAY	195	378.76	5	4.73	8	12.73	2.36	0.5	1.18
Bus	CONVENT WAY WENTWORTH RD	482	577.63	3	7.22	12	19.22	1.56	0.5	0.78
Bus	CONVENT WAY WENTWORTH RD	H32	577.63	6	7.22	7	14.22	2.11	0.5	1.05
Bus	SOUTHALL LANE HAYES ROAD	105	230.91	6	2.89	7	9.89	3.03	1	3.03
Bus	SOUTHALL LANE HAYES ROAD	H28	230.91	3	2.89	12	14.89	2.02	0.5	1.01
Total Grid Cell AI:										7.06

