Transport Assessment Addendum

Beaches Yard,
Horton Road,
West Drayton

Prepared for
Harvest Land Management

By

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March 2023

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SMA Ref: 6969/TAA

Issue Status: 04

DOCUMENT CONTROL			
Project	**Beaches Yard, Horton Road, West Drayton**		
Job No.	**6969**		
Document Title	**Transport Assessment Addendum**		
File Location	\\Smadata\data2\Admin Project\6900 to 6999\6969 - Warehouse near Heathrow\Reports		
Prepared by	Rhys Donoghue	**Date**	20/02/2023
Reviewed by	Rhys Donoghue	**Date**	21/02/2023
Approved by	Dave Wiseman	**Date**	21/02/2023
Document Issue	**Description / Changes**	**Revised by**	**Date**
01	Issued for Client Review	RD	21/02/2023
02	Revised as per Client Comments	RD	24/02/2023
03	Minor Revisions to Report	RD	24/02/2023
04	Layout updated	RD	15/03/2023

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1.0 INTRODUCTION

1.1 Stuart Michael Associates (SMA) has prepared this Transport Assessment Addendum (TAA) to support a Planning Application for the redevelopment of mixed-use storage and residential site into a warehouse development on land at Horton Road, West Drayton, on behalf of Harvest Land Management (the 'Applicant'). The plans showing the proposed site layout is attached as **Appendix A**.

1.2 A number of documents have been prepared by SMA to support the Application. The most recent versions of these documents were submitted for review by TFL and Hillingdon Council (HC) in January 2023. Further comments from the HC Highways Officer have been received (dated: 06/02/2023) and have requested clarifications on a number of points, revised information and improved safety measures for access. A copy of the Officer's comments are attached as **Appendix B**.

1.3 This TAA has been prepared to address HC's comments, a summary of the points covered is provided below:

- Information regarding the basement car park:
- Further clarification of the development generated trip rates and anticipated daily HGV movements;
- Further measures to ensure the safety of pedestrians at the site access and on the private road and adjoining footways; *and*
- Further information regarding the proposed HGV turntable.

2.0 PROPOSED DEVELOPMENT

2.1 Copies of the proposed site layout are attached as **Appendix A**. The development proposes the redevelopment of the site to create a single commercial warehouse building with a GIA of 6847.3m^2.

2.2 The site will provide a basement car parking area, with 45 car parking spaces accessed via a ramp from the private access road. The plans of the proposed car park including cycle parking and provisions of EVs and disabled spaces is attached as **Appendix A**.

Anticipated Trip Generation

2.3 At this time no occupant for the site has been confirmed, as such assumptions on the likely trip generation for the site have had to be made. It has been deemed prudent that the industry standard TRICS database is used to assess the possible impact of the development in terms of vehicle trips on the local highways network.

2.4 Operating hours and shift patterns cannot be confirmed at this time (as the occupant has yet to be confirmed) it has therefore been necessary to assume that the trip generation for the site will follow similar patterns to the sites included in the TRICs database.

2.5 However due to the nature of the site the occupant, once appointed, will be limited to 4 OGV deliveries/ collections at any one time, as only 4 loading bays are to be provided within the site. This will be managed by the scheduling of deliveries/ collections to ensure that HGVS can drive straight into the site and not have to wait on the access road or nearby highway network.

2.6 At this time it has also been necessary to assume that the all OGVs will be articulated HGVs to assume a worst case scenario. It is possible however that deliveries/ collections from the site will be made by a range of large vehicle types, such as rigid HGVs.

2.7 The proposed Trip Generation for the site has previously been set out in the TA. Sites with similar characteristics to the development proposals have been selected from the TRICS database. The TRICs outputs are displayed in **Appendix C** and the anticipated multimodal trip rates for the development in the AM and PM Commuter Peak Periods, along with the total trips for period between 07:00 - 21:00 are summarised in **Table 2.1**.

Table 2.1 – Trip Rates – Commercial Warehousing

Mode of Travel	08:00-09:00			17:00-18:00			Daily – 07:00 - 21:00		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	0.038	0.012	0.050	0.014	0.046	0.060	0.248	0.256	0.504
Cycle	0.010	0.000	0.010	0.004	0.011	0.015	0.066	0.062	0.128
Public Transport	0.092	0.005	0.097	0.052	0.092	0.144	0.391	0.384	0.775
Car	0.265	0.026	0.291	0.096	0.373	0.469	1.358	1.520	2.878
OGVs	0.031	0.037	0.068	0.030	0.037	0.067	0.511	0.503	1.014

2.8 The site has a GIA of 6847.3m^2 as such anticipated trip generation for the development has been calculated based on this area. The anticipated multi-modal trip generation for the site is summarised for the AM and PM peak periods and the 07:00 – 21:00 period, in **Table 2.2**.

Table 2.2 – Trip Generation – Proposed Development

Mode of Travel	08:00-09:00			17:00-18:00			Daily – 07:00 - 21:00		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	3	1	3	1	3	4	17	18	35
Cycle	1	0	1	0	1	1	5	4	9
Public Transport	6	0	7	4	6	10	27	26	53
Car	18	2	20	7	26	32	93	104	197
OGVs	2	3	5	2	3	5	35	34	69

2.9 The TRICS Database does not include any surveys that cover an entire 24hr period, although the sites that have been selected are operational outside of the surveyed period. As such it has been necessary to calculate trip rates for the 21:00 - 07:00 period. To assess this possible trip generation for the hours not covered in the TRICS data, the trip rates for the time period 07:00-07:30 have been used to generate anticipated trip rates. The potential trip generation for 21:00 - 07:00 is summarised in **Table 2.3**.

Table 2.3 – Trip Generation – 21:00-07:00

Mode of Travel	07:00-07:30 Trip Rates			21:00-07:00 Calculated Trip Rates (07:00-07:30 Trip Rates x 20 half hour periods)			21:00-07:00 Trip Generation		
	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way	Arrivals	Departures	Two-way
Walk	0.002	0.002	0.004	0.04	0.04	0.08	3	3	6
Cycle	0.002	0.002	0.004	0.04	0.04	0.08	3	3	5
Public Transport	0.009	0.009	0.018	0.18	0.18	0.36	12	12	24
Car	0.042	0.021	0.063	0.84	0.42	1.26	58	29	86
OGVs	0.012	0.021	0.033	0.24	0.42	0.66	16	29	45

2.10 Based on the assumed 21:00-07:00 Trip generation it is possible to calculate the anticapred 24hr trip generation for the site this is summarised in **Table 2.4** below.

Table 2.4 – 24 Hour Trip Generation

Mode of Travel	**24 Hour Trip Generation** (Table 2.2 + Table 2.3)		
	Arrivals	Departures	Two-way
Walk	20	21	41
Cycle	8	7	15
Public Transport	39	38	77
Car	151	133	284
OGVs	51	63	114

2.11 To understand the likely impact of the development on the local highway network throughout a typical week day the following tables summarise the anticipated Car and OGV vehicle movements for each hour.

Table 2.5 – Anticipated OGV Movements

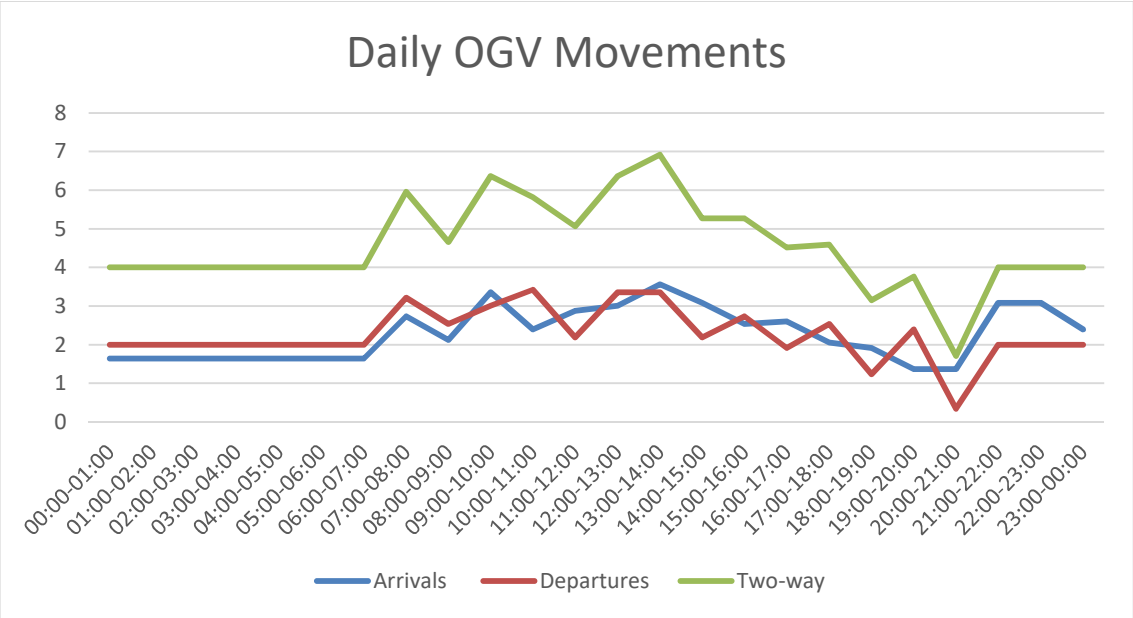


Table 2.6 – Anticipated Car Movements

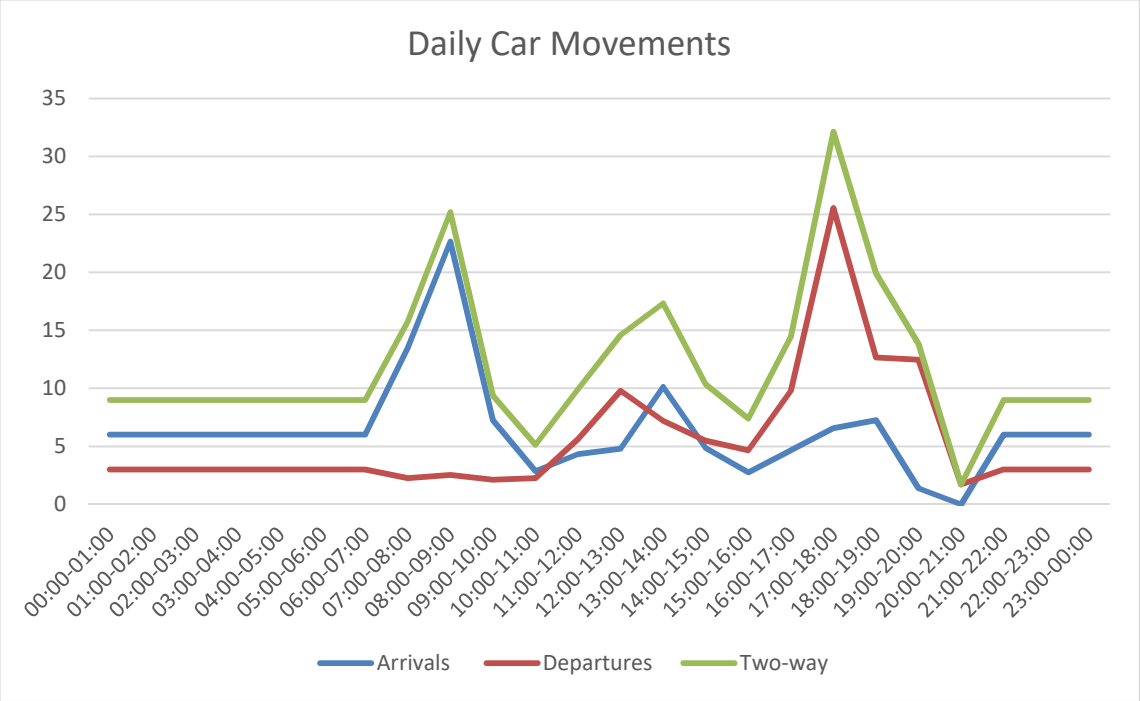
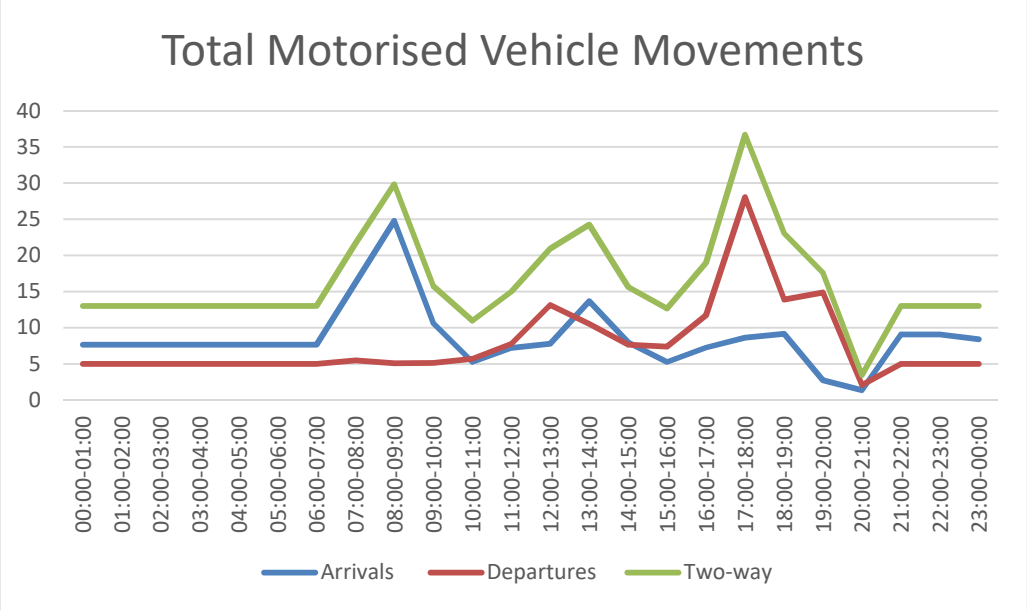


Table 2.7 – Anticipated Total Motorised Vehicle Movements



2.12 As **Table 2.5** confirms no more than 7 total two-way OGV movements are anticipated within an hour period; it is therefore considered that this amount of vehicle movements would be absorbed into the daily fluctuations on the highway network.

2.13 **Table 2.6** indicated that's the car movements will typically coincide with beginning and ending of shifts. However a development of the proposed size will not generate more than 32 movements in any one hour period.

2.14 **Table 2.7** summarises the anticipated total vehicle movements to the site in an hour period. The table confirms that no more than 37 motorised vehicle trips are anticipated in any hour this equates to a movement every 97 seconds which cannot be considered to cause a detrimental impact on the highway network.

HGV Turntable

2.15 To maximise operational space within the site it is proposed that a HGV turntable facility is provided. The development proposes that an Ø15m 44 tonne capacity turntable will be installed. An area of Ø18m is required to safely rotate the vehicles and not have any trapping hazards.

2.16 HGV turntables are an increasingly frequent measure provided in commercial facilities as the value of land increases. An example of a nearby turntable is the Waitrose in Gerrards Cross, which has been operational since May 2012, with no known operational issues.

2.1 Further examples of turntables in the UK are summarised at https://truckturntables.co.uk/press-case-studies/. These include examples in London and the south east as well as further afield.

2.2 It can be considered that HGVs are a modern solution to the rising scarcity of space and the implications this has on the design of commercial properties. By providing a turntable in the development, space is saved that would otherwise have to be reserved for HGVs to reverse. Also the turntables will increase the safety of operatives as large vehicles will not be required to reverse great lengths.

2.3 The use of the turntable will overseen by trained operatives and all HGVs will be made aware that a turntable will be used before arriving at the site. It is therefore considered that there are no safety implications from using a turntable at this development.

2.4 The Applicant has undertaken some initial discussions with a turntable manufacture to understand suitability for the site. Basic information regarding these discussions is provided below, however due to commercial confidentiality no drawings or operational information is provided in this report.

2.5 It is proposed that two drive units for the turntable will be provided both capable of moving the turntable on their own. Having 2 will ensure that neither drive is close to being used at full capacity in normal operation. However in the event of one drive failing it will be possible to isolate one unit and run the other ensuring the turntable remains operational.

2.6 In the event of a turntable or power failure with a vehicle stuck in a position from which it cannot exit the turntable it will be possible to rotate the turntable to recover the vehicle using either man power or batteries. As such no HGV will ever have to reverse in or out of the site.

2.7 The turntable will be located indoors as to prevent exposure to the elements and to prevent standing water entering in the pit. These measures will ensure optimal operational conditions for turntable.

2.8 To ensure that the turntable is operational at all times a management plan will be in place. This management plan will include but not be limited to the following measures:

- Regular maintenance from the manufacturer – approximately 6 times per year;
- Full training for all staff who will operate the turntable;
- Regular checks by on site staff to ensure any damage to the turntable is recorded and fixed promptly; *and*
- Good housekeeping to prevent items and liquids etc. being left on or around the turntable.

2.9 As such the design of the turntable and the proposed measures that will be implemented will ensure that the turntable is continually operational and will not result in HGVs having to reverse in or out of the site.

Access Measures

2.10 To ensure the safety of all users of the site and those members of the public on the local access road the following safety measures are proposed at the Car and HGV accesses.

2.11 A black and yellow rubber speed ramp will be provided on exit of the vehicle ramp, to slow cars leaving the car park. Additional STOP road marking will also be provided to stop cars encouraging onto the footway. Bollards will also be provided to ensure that cars do not mount the kerb.

2.12 The HGV access will have STOP markings on exit of the site. Bollards will be provided to ensure HGVs stay within the access area.

2.13 The proposed measures are shown on **Drawing 6969.001G**. The indivisibility between cars and HGVs entering/ exiting the site is shown on **Drawing 6969.012A**.

2.14 Access to the car park for pedestrians is internally via the main access. Access to the cycle parking area will be via the ramp from the private access road, access to cycle parking will not be possible from the car park.

Improvements for Pedestrian Safety

2.15 To ensure the safety of pedestrians on Horton Road and those crossing the junction with the access road, it is proposed that access road is widened and the road markings are realigned to better suit the widened access. The proposed widening and line markings are shown on **Drawing 6969.001G**. Autotrack Swept Paths for a range of vehicles at this junction are shown on **Drawing 6969.002G** and **6969.003F**.

Management of Access Road

2.16 The development proposes the provision of double yellow lines on the private access road. Currently vehicles park on this section of road, but SMA understands they are vehicles owned by the current land owner.

2.17 Once the site is operational it is proposed a private management company will tow any vehicles who park illegally on the double yellow lines. The appropriate signage will be provided to ensure that members of the public no that towing is enforced in this area.

3.0 SUMMARY AND CONCLUSION

Summary

3.1 This Transport Assessment Addendum (TAA) has been prepared by Stuart Michael Associates, consulting engineers, on behalf of Harvest Land Management (the 'Applicant') in support of a Planning Application for the construction of proposed warehouse development in the form of a warehouse on land off Horton Road, West Drayton. The proposed site layout is shown in **Appendix A**.

3.2 This TAA has been prepared to address comments raised by the Hillingdon Council Highways Officer (**Appendix B**), including car parking, measures to improve pedestrian safety, the anticipated trip generation for the site and measures to ensure the HGV turntable will be fully operational.

3.3 This TAA has confirmed that from a Transport and Highway perspective there are no issues that should prevent the granting of planning for the proposed development.