

Technical Note No. 1

Project: Land Adjacent to H-pack, Davy Way, Llay, Wrexham

Title: **PA: 2023/0500– Parking Accumulation Assessment**

Date: 30 November 2023

1.0 Introduction

- 1.1 Following receipt of the highway comments to planning application 2023/0500; Cameron Rose Associates have reviewed the comments and provide the additional information requested below.
- 1.2 The project would see the erection of a storage and distribution building (Class B8) with circa 14,865 Sqm (160,000 Sqft) footprint including ancillary (integral) offices over two floors, creation of a service yard and dedicated parking areas for cars, with associated access and servicing including new vehicle access points from Rackery Lane (for cars only) and modified vehicle access work to Davy Way (for HGVs only), new landscaping and other works.
- 1.3 The proposed warehouse is classified as a 'dark warehouse'. A dark warehouse is defined as a fully automated warehouse that operates without the use of human labour; you can simply turn the lights out and operation will continue to run. The employee trip attraction associated with the proposed warehouse will therefore be limited.
- 1.4 The operator has confirmed that there will be a total of 150 staff employed on-site; split over two 8-hour shifts. Shift patterns will be 06:00 – 14:00 and 14:00 – 22:00. Shift changes therefore do not coincide with the highway peaks. There will however be trips associated with the distribution of products and the arrival of materials. Based on mode split data obtained from the operator for the existing warehouse, it is estimated that approximated 20% of employees will travel by private car and 80% will travel via sustainable modes; resulting in a two-way daily trip generation associated with staff of approximately 60 vehicles.

2.0 Trip Attraction of the Development Proposals

- 2.1 In order to present a robust assessment, the trip attraction of the proposed Warehouse has been based on standards B8 Warehouses contained within the TRICS database, as per the Transport Assessment. The land use category '02 Employment F – Warehousing (Commercial)' has been selected to reflect the development proposals.

3.0 Parking Accumulation Assessment

Existing Car Park

- 3.1 There are currently a total of 168 car parking spaces in association with H-Pack. These are split over two areas, with 140 car parking spaces provided within the western car park and 28 car parking spaces provided within the eastern car park.
- 3.2 The development proposals will see amendments to the western car park, reducing the overall car parking provision to 135 spaces. The eastern car park will remain unchanged.
- 3.3 Parking accumulation surveys were undertaken by PCC Traffic Information Consultancy Limited to assess the existing car park demand and to predict the future demand, associated with the development proposals. Surveys were undertaken for the week commencing 20th November 2023. The results of the survey are detailed in below:
- Western Car Park (140 spaces):
 - o Maximum accumulation on Monday: 8 (6%)
 - o Maximum accumulation on Tuesday: 14 (10%)
 - o Maximum accumulation on Wednesday: 10 (5%)
 - o Maximum accumulation on Thursday: 8 (6%)
 - o Maximum accumulation on Friday: 6 (4%)
 - Eastern Car Park (28 spaces):

- o Maximum accumulation on Monday: 28 (100%)
 - o Maximum accumulation on Tuesday: 28 (100%)
 - o Maximum accumulation on Wednesday: 24 (86%)
 - o Maximum accumulation on Thursday: 24 (86%)
 - o Maximum accumulation on Friday: 22 (79%)
- 3.4 The results of the survey demonstrate that the eastern car park is favoured by employees, with the western car park being used for overspill car parking. There is ample parking provided on site to accommodate current demand.

Proposed Car Park

- 3.5 As stated previously, the proposed warehouse is classified as a 'dark warehouse'. The employee trip attraction associated with the proposed warehouse will therefore be limited.
- 3.6 In order to present a robust assessment during the highway peaks, the trip attraction of the Warehouse has been based on standards B8 Warehouses contained within the TRICS database. The land use category '02 Employment F – Warehousing (Commercial)' has been selected to reflect the development proposals.
- 3.7 There are currently a total of 168 car parking spaces in association with H-Pack. These are split over two areas, with 140 car parking spaces provided within the western car park and 28 car parking spaces provided within the eastern car park.
- 3.8 The raw data assessments are included in **Appendix B**. The results of the assessment demonstrate that the maximum accumulation within the car park, in association with the proposed warehouse, will occur between 1330 – 1400 of 122 vehicles parked. Combined with the existing demand for car parking, the total demand for car parking on the site would be 162 spaces. It can therefore be concluded that the provision of 163 car parking spaces on-site is sufficient to accommodate demand.

4.0 Summary and Conclusions

- 4.1 The information provided in this note, addresses the comments made by Wrexham Council, in relation to the above application.
- 4.2 The parking provision proposed on-site, complies with policy requirements and is sufficient to meet the demand for parking associated with the robust assessment undertaken.
- 4.3 It is concluded that there are no overriding reasons preventing the Local Planning Authority from recognising that the proposal is acceptable with regard to the local highway network.



APPENDICES



APPENDIX A

EXISTING SITE PARKING ACCUMULATION

Access 1

	Inbound							Outbound								
TIME	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
00:00 - 00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15 - 00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30 - 00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45 - 01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 - 01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 - 01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 - 01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 - 02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 - 02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 - 02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 - 02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 - 03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 - 03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 - 03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 - 03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 - 04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 - 04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 - 04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 - 04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 - 05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 - 05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 - 05:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 - 05:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 - 06:00	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
Hourly Total	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
06:00 - 06:15	0	0	0	0	0	0	5	0	0	0	2	0	0	0	0	2
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 - 07:00	0	0	0	0	0	0	3	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	3
07:00 - 07:15	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 - 08:00	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	2
Hourly Total	0	1	3	0	0	1	0	5	0	0	0	0	0	2	0	2
08:00 - 08:15	0	0	3	0	0	0	0	3	0	0	0	0	0	1	0	1
08:15 - 08:30	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	8	0	0	0	2	0	10	0	1	0	0	0	0	1
Hourly Total	0	0	16	0	0	2	0	18	0	0	1	0	0	1	0	2
09:00 - 09:15	0	0	7	0	0	1	0	8	0	0	1	0	0	0	0	1
09:15 - 09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	1	1	0	1	0	3	0	0	1	0	0	0	0	1
09:45 - 10:00	0	0	2	1	0	0	0	2	0	0	2	0	0	0	0	2
Hourly Total	0	0	10	1	0	2	0	13	0	0	3	1	0	0	0	4
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
10:15 - 10:30	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	0	2	0	0	0	2	0	0	2	0	0	0	0	2
10:45 - 11:00	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
Hourly Total	0	0	0	3	0	1	0	4	0	0	0	3	0	1	0	4
11:00 - 11:15	0	0	2	0	0	0	0	2	0	0	0	0	0	1	0	1
11:15 - 11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:30 - 11:45	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	3	0	0	0	0	3	0	0	0	0	0	3	0	3
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00 - 13:15	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30 - 13:45	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	3	0	0	0	0	3	0	0	1	0	0	0	0	1
Hourly Total	0	0	7	0	0	0	0	7	0	0	2	0	0	0	0	2
14:00 - 14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15 - 14:30	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1
14:45 - 15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	2	0	2	0	0	2	0	0	0	0	2
15:00 - 15:15	0	0	0	0	0	1	0	1	0	0	2	0	0	1	0	3
15:15 - 15:30	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
15:30 - 15:45	0	0	0	1	0	1	0	2	0	0	1	0	0	0	0	1
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	1	0	4	0	5	0	0	3	1	0	2	0	6
16:00 - 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	1	0	2	0	0	1	0	0	0	0	2
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	4
17:30 - 17:45	0	0	1	0	0	0	0	1	0	0	13	0	0	0	0	13
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Hourly Total	0	0	1	0	0	0	0	1	0	0	21	0	0	4	4	26
18:00 - 18:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15 - 18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
18:45 - 19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
19:00 - 19:15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
19:15 - 19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:30 - 19:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:45 - 20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
20:00 - 20:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:15 - 20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30 - 20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45 - 21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00 - 21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15 - 2																

Access 2

[illegible]

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	0	0	0	1	0	1

[illegible]

0	0	1	0	1	0	0	2
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
In at End							

TOTAL	0	1	69	3	1	12	0	86	0	1	63	3	2	11	0	80
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Access 2

0	1	48	3	25	11	0	88	0	1	54	3	25	12	0	95
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Accumulation							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL

CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
In at End							

Access 2

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	1	0	0	0	0	1

0	0	1	0	0	0	0	1
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL

In at End

Access 1

	Inbound								Outbound							
TIME	CYCLE	M/CYCLE	CAR	LGW	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGW	OGV1	OGV2	BUS	TOTAL
00:00 - 00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15 - 00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30 - 00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45 - 01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 - 01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 - 01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 - 01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 - 02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 - 02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 - 02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 - 02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 - 03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 - 03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 - 03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 - 03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 - 04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 - 04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 - 04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 - 04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 - 05:00	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
Hourly Total	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
05:00 - 05:15	0	0	1	1	0	0	0	2	0	0	1	0	0	0	1	2
05:15 - 05:30	0	0	1	1	0	0	0	2	0	0	1	0	0	0	1	2
05:30 - 05:45	0	0	1	1	0	0	0	2	0	0	2	0	0	0	0	2
05:45 - 06:00	0	0	2	0	0	0	0	2	0	0	2	0	0	0	0	2
06:00 - 06:15	0	0	4	0	0	0	0	4	0	0	4	0	0	0	0	4
06:15 - 06:30	0	0	2	0	0	0	0	2	0	0	2	0	0	0	0	2
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 - 07:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	2	2	0	0	0	2	0	0	2	0	0	0	0	2
07:00 - 07:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	1
07:45 - 08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	3	0	0	1	0	4	0	0	2	0	0	0	0	2
08:00 - 08:15	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	1
08:15 - 08:30	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	8	1	0	0	0	9	0	0	0	0	0	0	0	0
Hourly Total	0	0	14	1	0	2	0	17	0	0	1	0	0	0	0	1
09:00 - 09:15	0	1	7	1	0	2	0	11	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	2
09:30 - 09:45	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3
09:45 - 10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Hourly Total	0	1	8	1	0	2	0	12	0	0	2	0	0	4	0	6
10:00 - 10:15	0	0	1	0	0	0	0	1	0	0	2	0	0	1	0	3
10:15 - 10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 - 10:45	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0
Hourly Total	0	0	4	0	0	1	0	6	0	0	2	0	0	1	0	3
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 - 11:30	0	0	0	2	0	0	0	2	0	0	0	1	0	0	0	1
11:30 - 11:45	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	1
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	3	0	0	0	4	0	0	0	1	0	1	0	2
12:00 - 12:15	0	0	1	0	0	0	0	1	0	0	0	1	0	0	0	1
12:15 - 12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	2
13:00 - 13:15	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	2
13:15 - 13:30	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	1
13:30 - 13:45	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	1
13:45 - 14:00	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	2
Hourly Total	0	0	4	0	0	2	0	6	0	0	4	0	0	2	0	6
14:00 - 14:15	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30 - 14:45	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1
14:45 - 15:00	0	0	3	0	0	0	0	3	0	0	2	0	0	0	0	2
Hourly Total	0	0	4	0	0	0	0	4	0	0	4	0	0	0	0	4
15:00 - 15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15 - 15:30	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45 - 16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2
16:00 - 16:15	0	0	0	1	0	0	0	1	0	0	0	1	0	0	0	1
16:15 - 16:30	0	0	1	0	0	1	0	2	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	1	0	1	0	0	2	0	0	0	1	3
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	1	0	3	0	5	0	0	3	1	0	2	0	6
17:00 - 17:15	0	0	1	0	0	0	0	1	0	0	5	0	0	0	0	6
17:15 - 17:30	0	0	1	0	0	0	0	1	0	1	4	0	0	0	0	6
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Hourly Total	0	0	2	0	0	0	0	2	0	1	20	0	0	1	0	22
18:00 - 18:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
18:15 - 18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
18:45 - 19:00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6
19:00 - 19:15	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
19:15 - 19:30	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
19:30 - 19:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Hourly Total	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	1
20:00 - 20:15	0	0	4	0	0	0	0	4	0	0	4	0	0	0	0	4
20:15 - 20:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:30 - 20:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:45 - 21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
21:00 - 21:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:15 - 21:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:30 - 21:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Access 2

[illegible]

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	1	0	0	0	0	1

[illegible]

Car Park 1

Access 1

TIME	Inbound							Outbound								
	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL	CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
00:00 - 00:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:15 - 00:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:30 - 00:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00:45 - 01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 - 01:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 - 01:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 - 01:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 - 02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 - 02:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 - 02:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 - 02:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 - 03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 - 03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 - 03:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 - 03:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 - 04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 - 04:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 - 04:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 - 04:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 - 05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 - 05:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 - 05:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
05:30 - 05:45	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1
05:45 - 06:00	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	1
Hourly Total	0	0	2	0	0	1	0	3	0	0	2	0	0	0	0	2
06:00 - 06:15	0	0	3	0	0	0	0	3	0	0	3	0	0	0	0	3
06:15 - 06:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
06:30 - 06:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
06:45 - 07:00	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	2
Hourly Total	0	0	3	0	0	0	0	3	0	0	3	0	0	0	0	3
07:00 - 07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
07:15 - 07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 - 07:45	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
07:45 - 08:00	0	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0
Hourly Total	0	0	4	0	0	0	0	4	0	0	1	0	0	1	0	2
08:00 - 08:15	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
08:15 - 08:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
08:30 - 08:45	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0
08:45 - 09:00	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0
Hourly Total	0	0	11	0	0	0	0	11	0	0	0	0	0	0	0	0
09:00 - 09:15	0	0	6	0	0	0	0	6	0	0	0	0	0	0	0	0
09:15 - 09:30	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0
09:30 - 09:45	0	0	2	0	0	1	0	3	0	0	2	0	0	0	0	2
09:45 - 10:00	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	0	11	1	0	1	0	13	0	0	2	0	0	0	0	2
10:00 - 10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 - 10:30	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
10:30 - 10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 - 11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
11:00 - 11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
11:15 - 11:30	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Hourly Total	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
12:00 - 12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 - 12:30	0	0	1	1	0	0	0	2	0	0	1	0	0	0	0	1
12:30 - 12:45	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
12:45 - 13:00	0	0	1	1	0	0	0	2	0	0	1	1	0	0	0	2
Hourly Total	0	0	3	2	0	1	0	6	0	0	4	1	0	0	0	5
13:00 - 13:15	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
13:15 - 13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
13:30 - 13:45	0	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0
13:45 - 14:00	0	0	1	0	0	1	0	2	0	0	0	0	0	2	0	2
Hourly Total	0	0	2	1	0	2	0	5	0	0	1	0	0	3	0	4
14:00 - 14:15	0	0	1	1	0	0	0	2	0	0	1	0	0	0	0	1
14:15 - 14:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
14:30 - 14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45 - 15:00	0	0	0	0	0	2	0	2	0	0	1	0	0	0	0	1
Hourly Total	0	0	1	1	0	2	0	4	0	0	4	0	0	0	0	5
15:00 - 15:15	0	0	1	0	0	0	0	1	0	0	2	1	0	0	0	3
15:15 - 15:30	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	3
15:30 - 15:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
15:45 - 16:00	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1
Hourly Total	0	0	1	1	0	2	0	4	0	0	2	4	2	2	0	9
16:00 - 16:15	0	0	0	0	0	2	0	2	0	0	1	0	0	0	0	1
16:15 - 16:30	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	1
16:30 - 16:45	0	0	1	0	0	0	0	1	0	0	2	0	0	0	0	2
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Total	0	0	2	0	0	3	0	5	0	0	5	0	0	1	0	6
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	4
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	1	2	0	0	1	4
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	5
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3
Hourly Total	0	0	0	0	0	0	0	0	0	0	1	13	0	0	2	16
18:00 - 18:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
18:15 - 18:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:30 - 18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:45 - 19:00	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Total	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	3
19:00 - 19:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:15 - 19:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0</	

19:00 - 19:15	3	1	3	1	2
19:15 - 19:30	3	2	3	2	2
19:30 - 19:45	1	1	1	1	2
19:45 - 20:00	2	1	1	1	2
20:00 - 20:15	2	0	1	1	2
20:15 - 20:30	2	0	1	1	2
20:30 - 20:45	1	0	1	1	2
20:45 - 21:00	1	0	1	1	2
21:00 - 21:15	1	0	1	1	2
21:15 - 21:30	1	0	1	1	2
21:30 - 21:45	1	1	1	1	3
21:45 - 22:00	3	3	3	4	4
22:00 - 22:15	3	3	3	4	4
22:15 - 22:30	3	3	3	4	4
22:30 - 22:45	2	1	1	2	4
22:45 - 23:00	2	1	1	2	2
23:00 - 23:15	2	1	1	2	2
23:15 - 23:30	2	1	1	2	2
23:30 - 23:45	2	1	1	2	2
23:45 - 00:00	2	1	1	2	2

Max	8	14	10	8	6
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2.1%	0.7%	2.1%	0.7%	1.4%
2.1%	1.4%	2.1%	1.4%	1.4%
0.7%	0.7%	0.7%	0.7%	1.4%
1.4%	0.7%	0.7%	0.7%	1.4%
1.4%	0.0%	0.7%	0.7%	1.4%
1.4%	0.0%	0.7%	0.7%	1.4%
0.7%	0.0%	0.7%	0.7%	1.4%
0.7%	0.0%	0.7%	0.7%	1.4%
0.7%	0.0%	0.7%	0.7%	1.4%
0.7%	0.0%	0.7%	0.7%	1.4%
0.7%	0.7%	0.7%	0.7%	2.1%
2.1%	2.1%	2.1%	2.9%	2.9%
2.1%	2.1%	2.1%	2.9%	2.9%
2.1%	2.1%	2.1%	2.9%	2.9%
1.4%	0.7%	0.7%	1.4%	2.9%
1.4%	0.7%	0.7%	1.4%	1.4%
1.4%	0.7%	0.7%	1.4%	1.4%
1.4%	0.7%	0.7%	1.4%	1.4%
1.4%	0.7%	0.7%	1.4%	1.4%

5.7%	10.0%	7.1%	5.7%	4.3%
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Access 1

[illegible]

Access 2

[illegible]

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	0	1	0	0	0	1

[illegible]

Access 2

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	2	0	0	0	0	2

[illegible]

0	0	0	0	0	0	0	0
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL

In at End

Access 2

[illegible][illegible]

Access 2

In at Start							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
0	0	0	0	0	0	0	0

[illegible]

TOTAL	0	0	3	0	0	0	0	3	0	0	2	0	0	0	0	2
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Access 2

0	1	29	2	0	0	0	32	0	1	30	2	0	0	0	33
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Accumulation							
CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL

CYCLE	M/CYCLE	CAR	LGV	OGV1	OGV2	BUS	TOTAL
In at End							

19:00 - 19:15	2	1	0	1	1
19:15 - 19:30	2	1	0	0	0
19:30 - 19:45	2	0	0	0	0
19:45 - 20:00	2	0	0	0	0
20:00 - 20:15	2	0	0	0	0
20:15 - 20:30	2	0	0	0	0
20:30 - 20:45	2	0	0	0	0
20:45 - 21:00	2	0	0	0	0
21:00 - 21:15	2	0	0	0	0
21:15 - 21:30	2	0	0	0	0
21:30 - 21:45	2	0	0	0	0
21:45 - 22:00	2	0	0	0	0
22:00 - 22:15	2	0	0	0	0
22:15 - 22:30	2	0	0	0	0
22:30 - 22:45	2	0	0	0	0
22:45 - 23:00	2	0	0	0	0
23:00 - 23:15	2	0	0	0	0
23:15 - 23:30	2	0	0	0	0
23:30 - 23:45	2	0	0	0	0
23:45 - 00:00	2	0	0	0	0

Max	28	28	24	24	22
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7.1%	3.6%	0.0%	3.6%	3.6%
7.1%	3.6%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%
7.1%	0.0%	0.0%	0.0%	0.0%

100.0%	100.0%	85.7%	85.7%	78.6%
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APPENDIX B

PROPOSED SITE CAR PARKING ACCUMULATION

Parking Accumulation

Warehouse 14,865 sqm GFA

Time Range	Doctors				
	Average Trip Rate		Average Trip Generation		Parking Accumulation
	Arrivals	Departures	Arrivals	Departures	
00:00-00:30	0.000	0.000	0	0	0
00:30-01:00	0.000	0.000	0	0	0
01:00-01:30	0.000	0.000	0	0	0
01:30-02:00	0.000	0.000	0	0	0
02:00-02:30	0.000	0.000	0	0	0
02:30-03:00	0.000	0.000	0	0	0
03:00-03:30	0.000	0.000	0	0	0
03:30-04:00	0.000	0.000	0	0	0
04:00-04:30	0.000	0.000	0	0	0
04:30-05:00	0.000	0.000	0	0	0
05:00-05:30	0.093	0.043	14	6	7
05:30-06:00	0.229	0.093	34	14	28
06:00-06:30	0.158	0.136	23	20	31
06:30-07:00	0.316	0.079	47	12	66
07:00-07:30	0.148	0.103	22	15	73
07:30-08:00	0.165	0.090	25	13	84
08:00-08:30	0.116	0.107	17	16	85
08:30-09:00	0.163	0.077	24	11	98
09:00-09:30	0.126	0.064	19	10	107
09:30-10:00	0.103	0.064	15	10	113
10:00-10:30	0.077	0.088	11	13	111
10:30-11:00	0.101	0.079	15	12	115
11:00-11:30	0.083	0.105	12	16	111
11:30-12:00	0.094	0.086	14	13	113
12:00-12:30	0.096	0.086	14	13	114
12:30-13:00	0.092	0.060	14	9	119
13:00-13:30	0.086	0.103	13	15	116
13:30-14:00	0.116	0.079	17	12	122
14:00-14:30	0.083	0.122	12	18	116
14:30-15:00	0.103	0.107	15	16	116
15:00-15:30	0.105	0.163	16	24	107
15:30-16:00	0.088	0.118	13	18	102
16:00-16:30	0.113	0.167	17	25	94
16:30-17:00	0.075	0.143	11	21	84
17:00-17:30	0.098	0.205	15	30	68
17:30-18:00	0.066	0.135	10	20	58
18:00-18:30	0.039	0.126	6	19	45
18:30-19:00	0.039	0.073	6	11	40
19:00-19:30	0.043	0.143	6	21	25
19:30-20:00	0.029	0.050	4	7	22
20:00-20:30	0.014	0.036	2	5	19
20:30-21:00	0.065	0.029	10	4	24
21:00-21:30	0.000	0.000	0	0	24
21:30-22:00	0.000	0.000	0	0	24
22:00-22:30	0.000	0.000	0	0	24
22:30-23:00	0.000	0.000	0	0	24
23:00-23:30	0.000	0.000	0	0	24
23:30-24:00	0.000	0.000	0	0	24
				Maximum	122