

# The Hollins Murray Group

Proposed Industrial Development Aber Road, Flint

May 2023

VN222298

Transport Statement

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### Report control

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### **Plans**

| VN222298 - G100 | <ul> <li>Site Location (Local Context)</li> </ul> |
|-----------------|---|
| VN222298 - G101 | <ul> <li>Site Location (Wider Context)</li> </ul> |
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## **Appendices**

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### 1 Introduction

### **Background**

- 1.1 Vectos has been commissioned by The Hollins Murray Group to provide highways and transportation advice in relation to a proposed industrial development at Aber Road in Flint.
- 1.2 The proposed development site is located approximately 400 metres northwest of Flint town centre. As such, it falls under the jurisdiction of Flintshire County Council (FCC) who are both the Highways and Planning Authority. The site location is shown by a red star in a wider context in **Figure 1.1.**



Figure 1.1: Site Location

- 1.3 The development proposals comprise the redevelopment of the existing site into 2,228sqm of small industrial unit floorspace with associated service space, car and cycle parking spaces and access from Aber Road.
- 1.4 The floorspace will be split between two buildings and subdivided into six individual units to accommodate a range of local business uses. The proposed site layout plan will be shown **Appendix A.**



### **Scope of Report**

- 1.5 This Transport Statement has been prepared with reference to industry best practice and guidance. Following this introduction, the report provides the following information:
  - Section 2: Baseline Conditions discusses the existing site location, the surrounding highway network and reviews the accident record on the immediate highway network;
  - Section 3: Accessibility by Sustainable Modes of Travel describes the accessibility of the site by foot, cycle, bus and rail;
  - Section 4: Development Proposals and Trip Impact sets out the development proposals, and the preferred access strategy for the proposed development, as well as outlining the trip generation of the proposed development; and
  - Section 5: Summary and Conclusions summarises the findings of the Transport Statement and provides the report conclusions.



### 2 Baseline Conditions

### **Development Site and Location**

- 2.1 The site sits to the east of the A5119 Aber Road which is located approximately 400 metres northwest of Flint town centre and 1.8km east of Bedol. The site is shown in **Plan VN22298-G100** and Plan **VN22298-G101** for a wider and local context.
- 2.2 The existing site is currently an established hand car wash business, but the location has previously had a historic use in commercial industrial storage that was demolished around two decades ago.
- 2.3 The surrounding area is bounded mainly by industrial and retail developments to the east, south and west. To the north of the site past the A548 is an area of the Flint Marsh and a further cluster of industrial businesses. **Figure 2.1** provides an aerial view of the site, including an indicative site location.



Figure 2.1: Site Local Context

2.4 The existing access point to the site located on Aber Road has previously accommodated movements associated with the former commercial industrial storage unit and car wash.

### **Local Highway Network**

2.5 Vehicle access to the site is achieved from Aber Road via a priority-controlled junction arrangement.



- 2.6 Aber Road is a single carriageway road which is subject to a 30mph speed limit. It provides access to the A548 to the north and to Flint town centre to the southeast.
- 2.7 Parking restrictions are present within the vicinity of the site access in the form of double yellow lines. Further west on Aber Road, there are no parking restrictions, however, observations suggest that parking does not occur in this location.
- 2.8 Pedestrian street lit footways are provided on both sides of the carriageway with dropped kerbs and tactile paving at junctions.
- 2.9 To the north of the site, connected by a signalised controlled junction, is the A548. The A548 is a dual carriageway road subject to a 40mph speed limit. This road runs along the Dee Estuary which provides connection to a wide range of local destinations such as Holywell, Prestatyn and Connah's Quay.
- 2.10 Heading southeast of the site, Aber Road forms part of a four-armed signalised junction with the A5119 and Heol-Yr- Eglwys. The A5119 and Heol-Yr- Eglwys follows a single carriageway road design, subject to the speed limit of 30mph. It provides connection to Flint town centre to the east and to the residential areas of Mount Pleasant to the west.
- 2.11 Pedestrian street lit footways are provided on both sides of the carriageway and surrounding streets. There is also a segregated cycle lane present along the length of Heol-Yr-Eglwys.

### **Accident Data Record**

2.12 Accident data has been reviewed for the most recent five-year period between 2017 to 2021. **Figure 2.2** shows the Crashmap search results for the highway network in the immediate vicinity of the site.



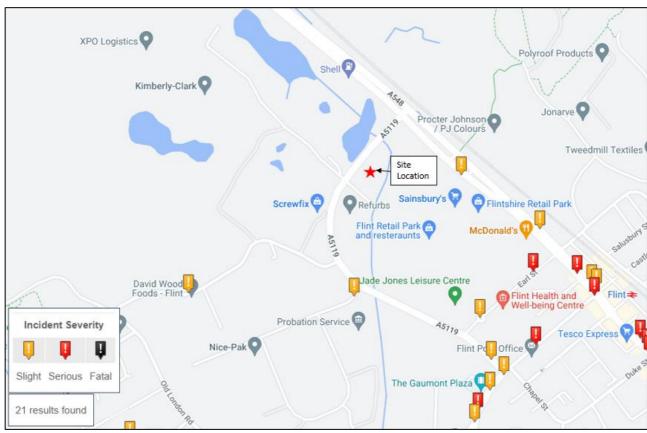


Figure 2.2: Accident Data

2.13 **Figure 2.2** illustrates that there are no recorded incidents within the immediate vicinity of the site. It is considered that there are no known blackspots of highway design features that might contribute to the occurrence of accidents on the local highway network.



### 3 Accessibility by Sustainable Travel Modes

### **Active Travel Accessibility**

### **Walking**

- 3.1 An analysis of the pedestrian routes in the area has been completed to identity areas situated within a 1km and 2km catchment, equivalent to a 10 minutes and 24 minutes walk, respectively. The pedestrian walking catchments are illustrated in **Plan VN222298-G102**.
- 3.2 This plan illustrates that the main high street in Flint town centre and other nearby industrial sites can be reached in a 1km walk of the site. There is also a variety of bus stops and the main rail station reached within 1km walk. The main residential areas are located further to the east and south, which can be reached in a 2km distance.
- 3.3 Pedestrian journeys to / from the site within the 1km catchment can be accommodated along Aber Road using the existing footways on both sides of the carriageway separated with a verge of grass.
- 3.4 The presence of street lighting and the 30mph speed restriction will allow walking to be considered as a sustainable mode to and from the site, alongside the availability in pedestrian crossings as the road reaches the town centre and residential areas.

### Cycling

- 3.5 To demonstrate that cycling can be promoted for a range of users of varying ability, an initial 5km catchment is presented in **Plan VN222298-G103**. This encompasses the residential areas of Flint, Mount Pleasant, and other local residential locations such as Bagillt, Walwen and Greenfield.
- 3.6 The National Cycle Network Route 5 (NCN 5) runs from Chester to Holyhead providing a traffic-free route along a former converted railway. It is located approximately 100m to the north of the site and runs along the A548.
- 3.7 Additional local cycle facilities are provided within the town including a signed cycle route provided for the length of Heol-Yr-Eglwys which is the main high street section of Flint town centre, providing a route for cyclists travelling towards Flint rail station or travelling towards the surrounding residential areas.
- 3.8 It is noted that the Council have an aspiration to create new and improved links for active travel along Aber Road in the vicinity of the site.

### **Shared Travel Accessibility**

### Bus

3.9 The nearest bus stops are located on the A548, which is approximately 130 metres northeast of the site access. The northbound and southbound bus stops both provide a flagpole only design. A summary of bus services that operate on the A548 are displayed below in **Table 3.1**.



**Table 3.1: Summary Bus Service Frequency** 

|                   |                   | Frequency per Hour |         |         |         |   |   |  |
|-------------------|-------------------|--------------------|---------|---------|---------|---|---|--|
| Service<br>Number | Route             |                    | Sat     | Sun     |         |   |   |  |
|                   |                   | AM Peak            | Daytime | PM Peak | Evening |   |   |  |
| 11 / 11C          | Rhyl -<br>Chester | 2                  | 2       | 2       | 2       | 2 | - |  |

- 3.10 **Table 3.1** confirms that the A548 bus stops serves the No. 11 / 11C service. The No. 11 / 11C operates with a headway of 30 minutes Monday to Friday and Saturdays, serving destinations which include Chester, Broughton, Kelsterton, Flint and Holywell. The headway on Sundays is every 2 hours between 09:55am and 21:45pm.
- 3.11 In addition, the bus stops are also used by the No. 18 and 19 service which both route between Flint and Rhyl. The No. 18 operates a service every two hours between the hours of 10:48am to 15:23pm and the No. 19 operates an hourly service between the hours of 08:48am till 13:48pm, Monday to Fridays and Saturdays.

### Rail

- 3.12 Flint Railway Station is located approximately 770 metres east of the site. This equates to around a 10 minute walk. The station is managed by Transport for Wales and provides the facility of eight sheltered bicycle parking spaces. The No. 11 bus service also routes next to the railway station on Chester Street which provides an opportunity for inter-modal trips to and from the site.
- 3.13 The station offers services that operate at a frequency of between 5 to 20 minutes, providing access to locations such as Llandudno, Cardiff, Crewe, Manchester, Holyhead, and Birmingham.



### 4 Development Proposals

### **Development Scale**

- 4.1 The development proposals seek to provide up to 2,228sqm of small industrial unit floorspace. The proposed floorspace will be split between two buildings that are subdivided further into six different individual units. The individual floorspaces are as follows:
  - Building A Unit 1: 197sqm floorspace;
  - Building A Unit 2: 197sqm floorspace;
  - Building B: Unit 3: 472sqm floorspace;
  - Building B: Unit 4: 469sqm floorspace;
  - Building B: Unit 5: 469sqm floorspace; and
  - Building B: Unit 6: 424sqm floorspace;
- 4.2 **Appendix A** illustrates the proposed site layout.

### **Site Access and Parking**

- 4.3 The main access to the site is proposed via the existing access onto Aber Road.
- 4.4 The existing access provides a width in excess of 7.5 metres and is to be formalised with the provision of give way and centre line markings.
- 4.5 A visibility splay of 43 metres is achievable with the existing access, but it should be noted that sightlines of approximately 90 metres can be achieved for vehicles approaching the existing access on Aber Road. The visibility splay is shown in **Appendix B.**
- 4.6 The footways currently present at the site access will be extended to provide a link into the site.
- 4.7 The internal road network will continue to provide a carriageway width of approximately 7.3 metres with access provided to dedicated servicing areas, and car parking, in the vicinity of each unit.
- 4.8 A secondary vehicle exit only is provided to the south of the site, for occasional use.
- 4.9 The proposed development will provide a total of 29 car parking spaces, including 6 disabled parking spaces and provision for electric vehicle charging.
- 4.10 A total of eight cycle parking spaces are provided in accordance with the minimum standards outlined by the FCC in the same 'Supplementary Planning Guidance' document.



### Servicing

4.11 A swept path analysis of a range of likely HGVs has been used in a tracking exercise for both Building A and Building B. The larger units could accommodate articulated vehicles with the smaller units accommodating smaller vans and 10 metres length rigid HGVs. This tracking assessment is presented in **Appendix C** and **Appendix D**.

### **Trip Generation and Distribution**

- 4.12 In order to assess the potential impacts of the development site, the vehicle trip rates and resultant number of trips for the proposed small industrial unit's development has been derived from the TRICS database using the following parameters:
  - Main Land Use, 02 Employment, Sub Land Use, C Industrial Unit;
  - Sites in Ireland and Greater London were excluded;
  - Surveys conducted during Covid-19 were excluded; and
  - Surveys that are not representative of the proposed development.
- 4.13 A summary of the trip rates is provided in **Table 4.1** with the full TRICS output file is included in **Appendix E.**

Table 4.1: Predicted Vehicular Trip Rates and Vehicular Trips

<sup>\*</sup> Numbers rounded to the nearest integer

|                           | Trip Rates (per 100 sqm) |            |         | Number of Trips * (2,228 sqm) |            |         |  |
|---------------------------|--------------------------|------------|---------|-------------------------------|------------|---------|--|
| Time Period Arrivals      |                          | Departures | Two-way | Arrivals                      | Departures | Two-way |  |
| 08:00 - 09:00             | 0.594                    | 0.156      | 0.750   | 13                            | 3          | 17      |  |
| 17:00 – 18:00 0.059 0.393 |                          | 0.452      | 1       | 9                             | 10         |         |  |

- 4.14 **Table 4.1** indicates that the development has the potential to generate 17 two-way vehicle trips during the AM period and 10 two-way vehicle trips during the PM peak period. This equates to one vehicle movement every 4-6 minutes. The vehicular trips calculated has not included any historic use from the former industrial site and the existing car wash business.
- 4.15 Based on the layout of the network in the vicinity of the site, the main distribution of the vehicular trips could reasonably be equally split between the A548 and the A5119 in both directions. Both roads continue onto the wider highway network through the A55, A494 and A550, which provides vehicular journeys to access locations such as Ellesmere Port, Liverpool, Llandudno, Bangor, and Chester.
- 4.16 Overall, based on the low increase in development trip movements and the distribution of trips over the road network in the vicinity, it is considered that the trip movements associated with the development proposals will not change the characteristics of the local highway network in the vicinity of the site.



### **Parking Review**

4.17 Using the same TRICS data, an indicative parking accumulation exercise has been conducted. This is shown in **Table 4.2**.

**Table 4.2: Indicative Parking Accumulation** 

|             | Weekday  |            |              |  |  |  |  |
|-------------|----------|------------|--------------|--|--|--|--|
| Time        | Arrivals | Departures | Accumulation |  |  |  |  |
| 07:00-08:00 | 4        | 0          | 5            |  |  |  |  |
| 08:00-09:00 | 13       | 3          | 15           |  |  |  |  |
| 09:00-10:00 | 13       | 3          | 24           |  |  |  |  |
| 10:00-11:00 | 8        | 5          | 27           |  |  |  |  |
| 11:00-12:00 | 5        | 5          | 27           |  |  |  |  |
| 12:00-13:00 | 4        | 4          | 28           |  |  |  |  |
| 13:00-14:00 | 6        | 6          | 28           |  |  |  |  |
| 14:00-15:00 | 6        | 7          | 27           |  |  |  |  |
| 15:00-16:00 | 3        | 4          | 26           |  |  |  |  |
| 16:00-17:00 | 2        | 6          | 22           |  |  |  |  |
| 17:00-18:00 | 2        | 9          | 15           |  |  |  |  |
| 18:00-19:00 | 1        | 9          | 8            |  |  |  |  |

- 4.18 **Table 4.2** confirms that the proposed development could experience a maximum parking demand of 28 spaces during the week.
- 4.19 It should be noted that the indicative accumulation exercise includes all vehicle movements, some of which may be servicing or delivery trips. As such, given the servicing and delivery trips will use the dedicated servicing areas and not the proposed parking provision, it is considered that the proposed parking provision is sufficient for the development demands.

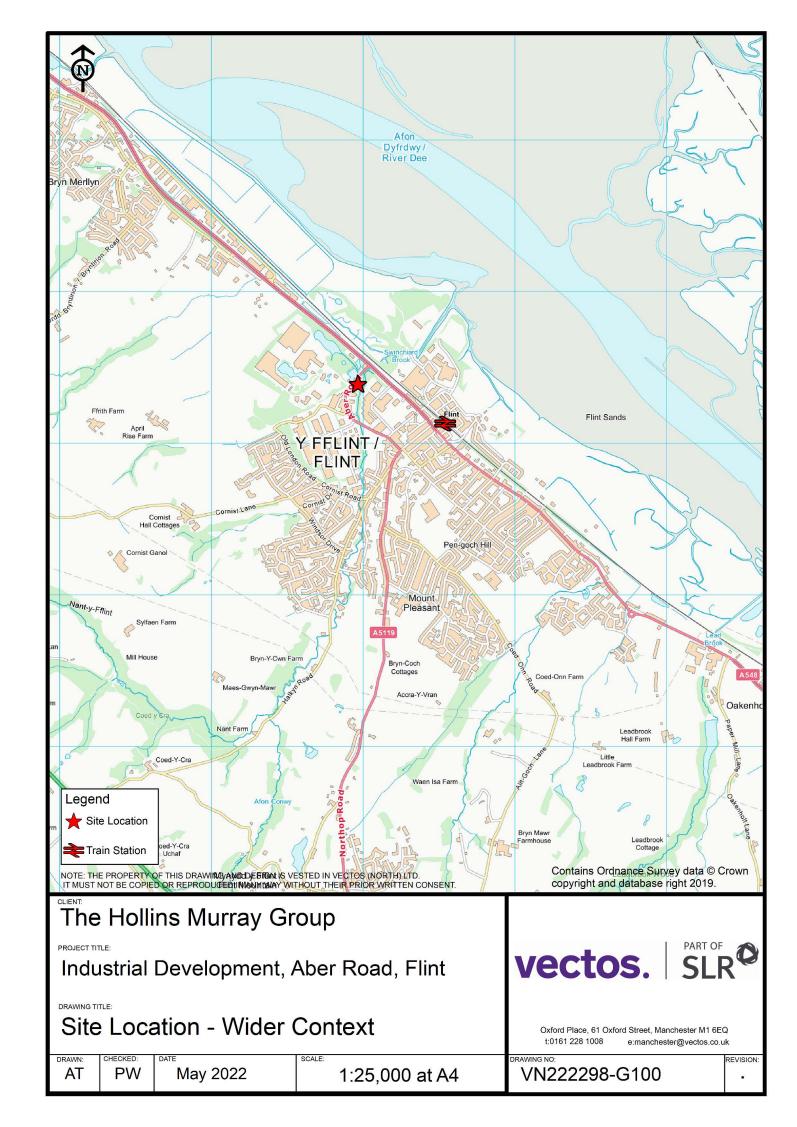


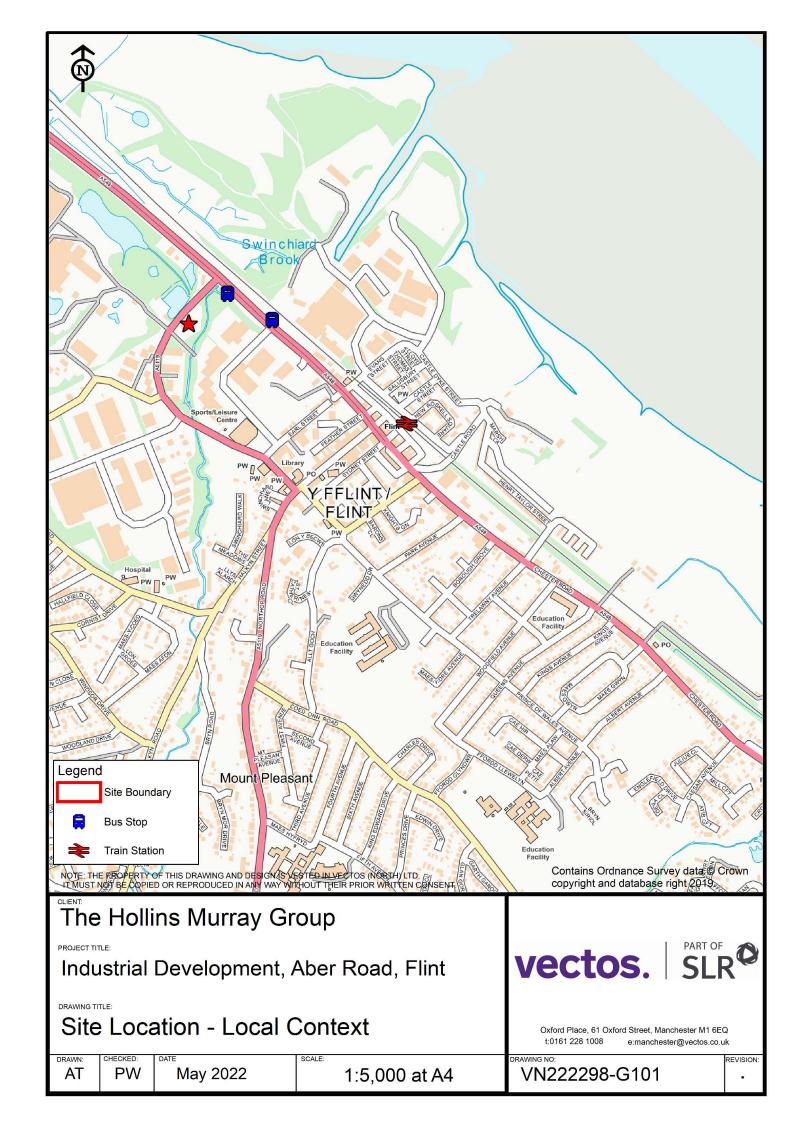
### **5** Summary and Conclusions

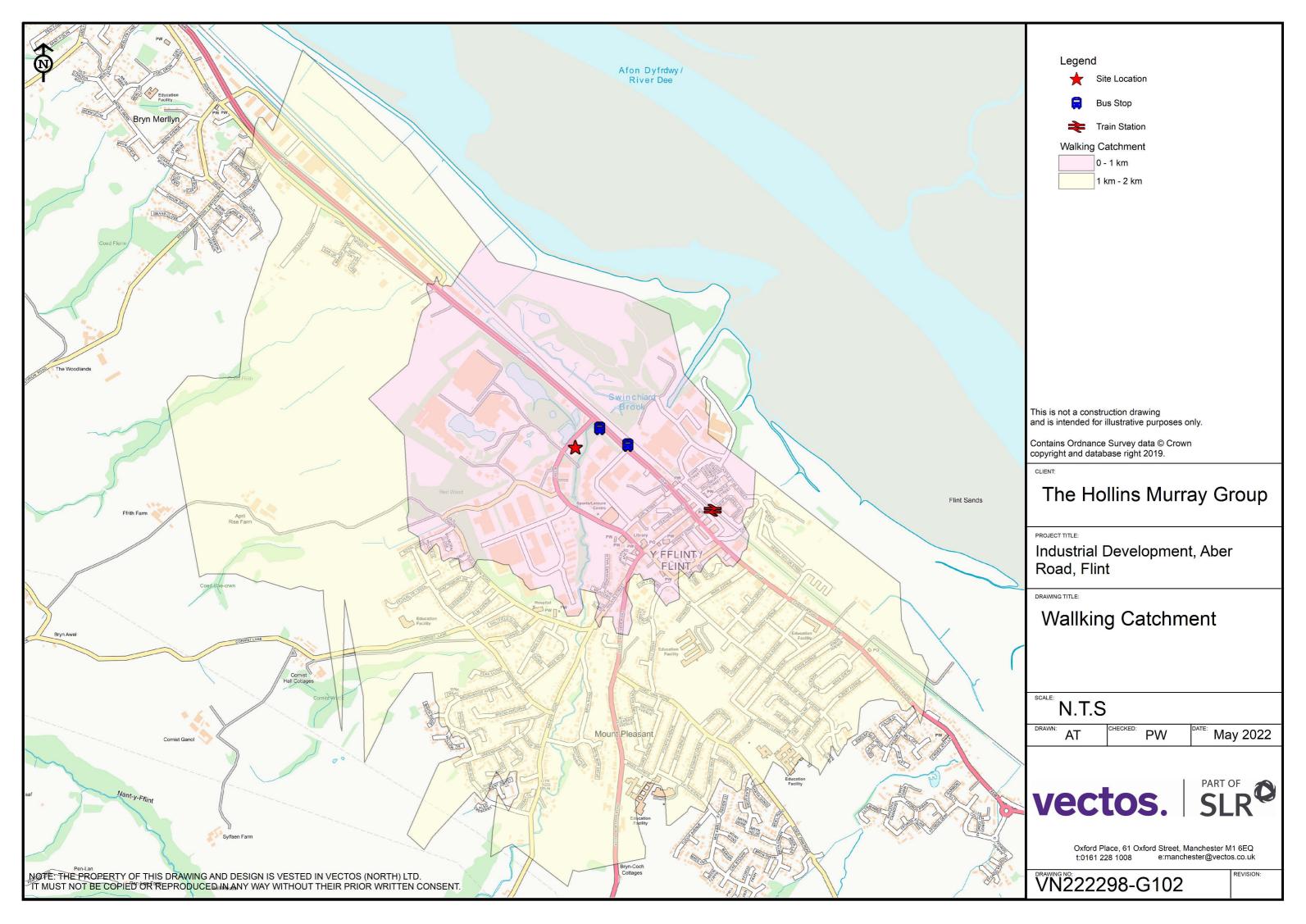
- 5.1 Vectos have been commissioned by The Hollins Murray Group to advise on the potential transport matters associated with a proposed industrial development on Aber Road in Flint.
- 5.2 The development proposals comprise the change of an existing car wash business to 2,228 sqm of small industrial unit floorspace.
- 5.3 The following conclusions can be drawn from this Transport Statement:
  - The site has previously accommodated regular vehicle movements associated with a car wash and historical industrial activity;
  - There are no known accident blackspots on the highway network in the vicinity of the site;
  - The proposed development is considered to be accessible for pedestrians, cyclists and public transport users;
  - The site layout, access, and servicing arrangements are appropriate and suitable;
  - The parking spaces provided will be sufficient for the use of the development; and
  - The development will experience a low trip generation, and as such will not have an adverse impact upon the safe or efficient operation of the local highway network.
- Overall, the information presented leads to the judgement that the proposed development would not result in a severe residual impact on the local highway network and there would be no additional road safety concerns given that the trip generating potential is likely to be less than was previously accommodated at the site.

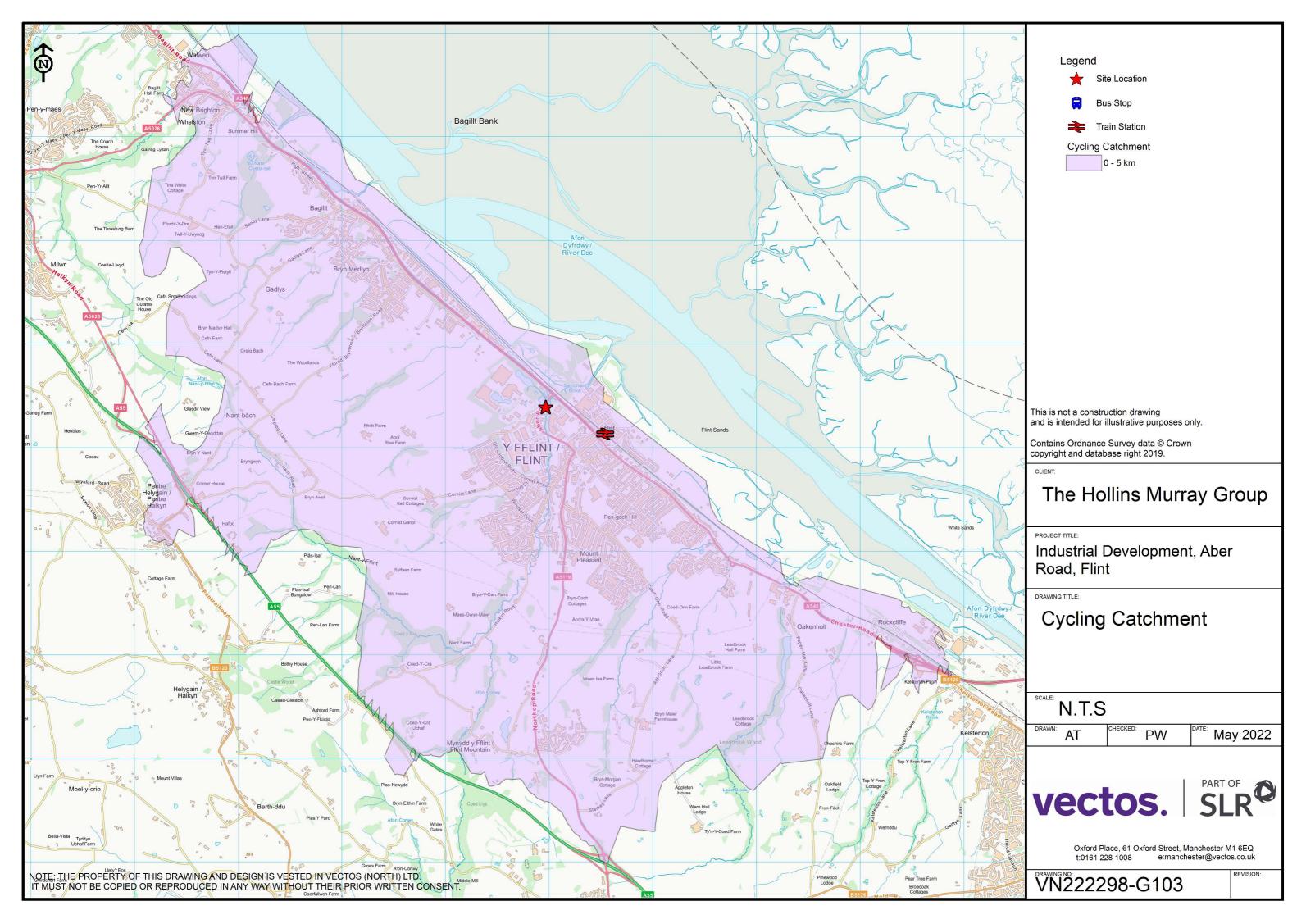


# **Plans**











# Appendix A

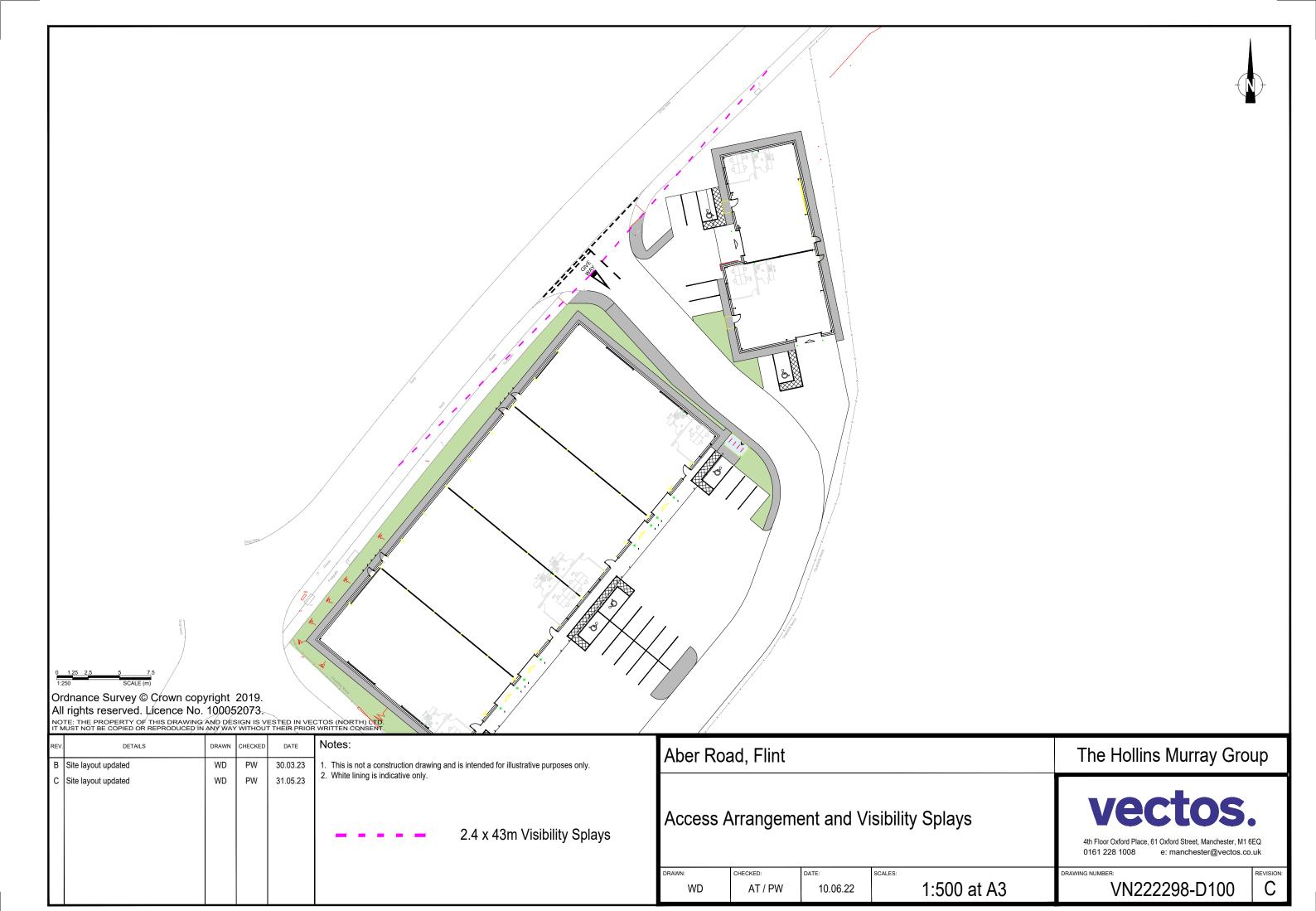
Proposed Site Layout





# Appendix B

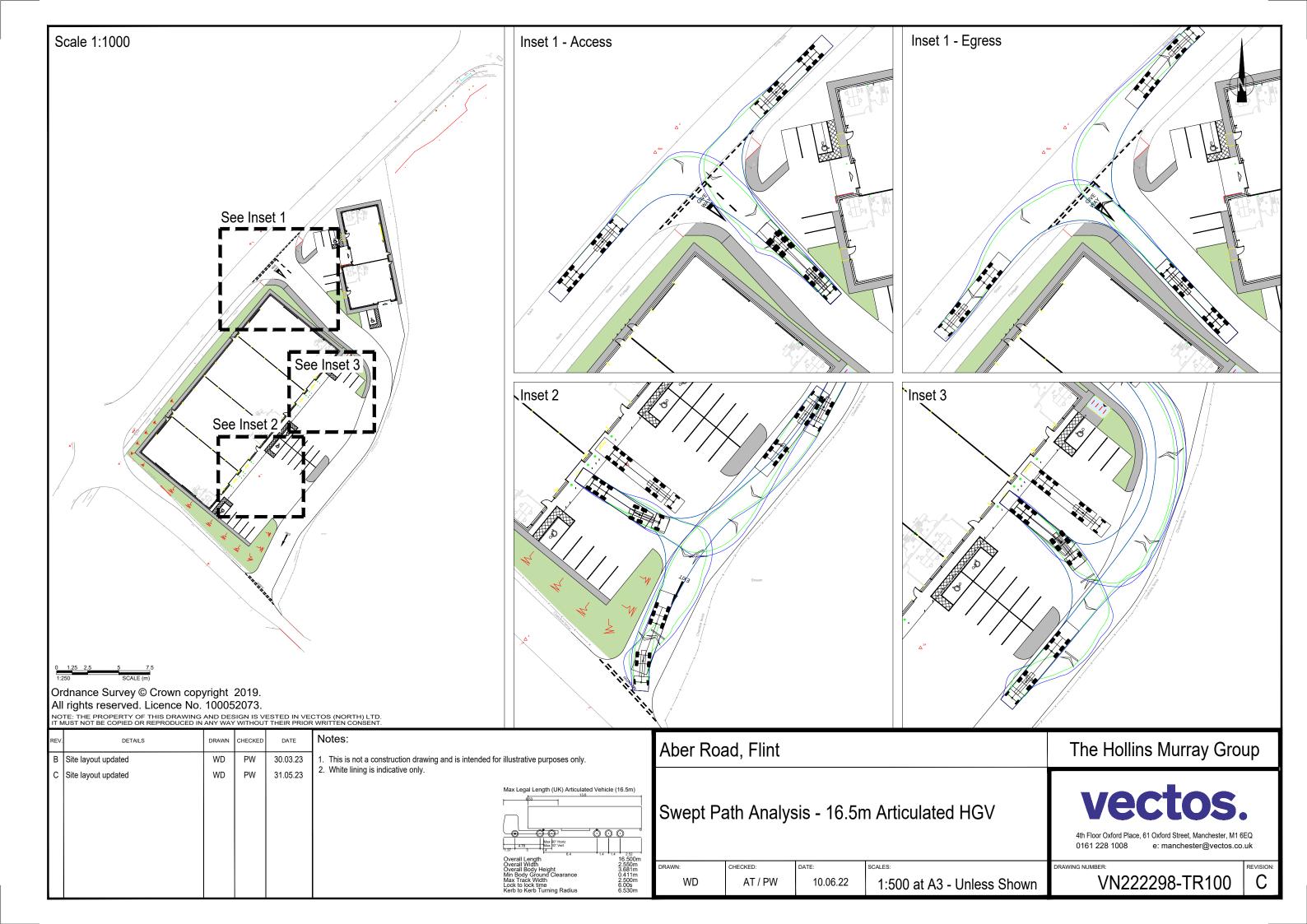
Access Arrangement and Visibility Splays





# Appendix C

Swept Path Analysis – 16.5m Articulated HGV





# Appendix D

Swept Path Analysis – 10m Rigid HGV





# Appendix E

TRICS Output Report – Proposed Land Use

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Thursday 09/06/22 Page 1

Calculation Reference: AUDIT-715001-220609-0637

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TRIP RATE CALCULATION SELECTION PARAMETERS:

: 02 - EMPLOYMENT Land Use : C - INDUSTRIAL UNIT

Category TOTAL VEHICLES

Selected regions and areas:

SOUTH EAST HC HAMPSHIRE 1 days

SOUTH WEST 03 DEVON DV 1 days

04 EAST ANGLIA

NF NORFOLK 2 days

09 NORTH

> **CUMBRIA** CB 2 days

11 **SCOTLAND** SR **STIRLING** 1 days

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

### Primary Filtering selection:

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

Parameter: Gross floor area

Actual Range: 260 to 3513 (units: sqm) 150 to 5000 (units: sqm) Range Selected by User:

Parking Spaces Range: All Surveys Included

#### Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 22/11/21

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

### Selected survey days:

Monday 1 days Tuesday 1 days 4 days Thursday Friday 1 days

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

### Selected survey types:

Manual count 7 days Directional ATC Count 0 days

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

### Selected Locations:

2 Suburban Area (PPS6 Out of Centre) 5 Edge of Town

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

### Selected Location Sub Categories:

Industrial Zone

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

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Secondary Filtering selection:

Use Class:

Not Known 7 days

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

#### Filter by Site Operations Breakdown:

All Surveys Included

#### Population within 500m Range:

All Surveys Included

Population within 1 mile:

| 1,001 to 5,000   | 1 days |
|------------------|--------|
| 5,001 to 10,000  | 2 days |
| 15,001 to 20,000 | 1 days |
| 20,001 to 25,000 | 2 days |
| 25,001 to 50,000 | 1 days |
|                  |        |

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

### Population within 5 miles:

| 5,001 to 25,000    | 1 days |
|--------------------|--------|
| 75,001 to 100,000  | 2 days |
| 100,001 to 125,000 | 1 days |
| 125,001 to 250,000 | 3 days |
| 123,001 to 230,000 | 5 ut   |

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

#### Car ownership within 5 miles:

| 0.6 to 1.0 | 3 days |
|------------|--------|
| 1.1 to 1.5 | 4 days |

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

Travel Plan:

No 7 days

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

PTAL Rating:

No PTAL Present 7 days

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

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LIST OF SITES relevant to selection parameters

1 CB-02-C-01 DOMINO'S PIZZA CUMBRIA

COWPER ROAD

PENRITH

GILWILLY IND. ESTATE

Edge of Town Industrial Zone

Total Gross floor area: 2950 sqm

Survey date: TUESDAY 10/06/14 Survey Type: MANUAL

CB-02-C-02 STEEL FABRICATION CUMBRIA

BLACKDYKE ROAD

**CARLISLE** 

KINGSTOWN IND. ESTATE

Edge of Town Industrial Zone

Total Gross floor area: 715 sqm

Survey date: FRIDAY 15/10/21 Survey Type: MANUAL

3 DV-02-C-02 ENERGY RECOVERY FACILITY DEVON

GRACE ROAD SOUTH

**EXETER** 

MARSH BARTON TRAD. EST.

Suburban Area (PPS6 Out of Centre)

Industrial Zone

Total Gross floor area: 3513 sqm

Survey date: THURSDAY 06/07/17 Survey Type: MANUAL

4 HC-02-C-01 ENGINEERING COMPANY HAMPSHIRE

JAYS CLOSE BASINGSTOKE

Edge of Town Industrial Zone

Total Gross floor area: 3000 sqm

Survey date: THURSDAY 16/06/16 Survey Type: MANUAL

NF-02-C-03 SHEET METAL CONTRACTOR NORFOLK

ELVIN WAY NORWICH HELLESDON Edge of Town Industrial Zone

Total Gross floor area: 260 sqm

Survey date: THURSDAY 07/11/19 Survey Type: MANUAL

5 NF-02-C-04 EXHIBITION DESIGN & MANUF. NORFOLK

FLETCHER WAY NORWICH

UPPER HELLESDON

Suburban Area (PPS6 Out of Centre)

Industrial Zone

Total Gross floor area: 690 sqm

Survey date: THURSDAY 14/11/19 Survey Type: MANUAL

7 SR-02-C-01 SPECIALIST MODEL MAKING STIRLING

BORROWMEADOW ROAD

STIRLING

Edge of Town Industrial Zone

Total Gross floor area: 2350 sqm

Survey date: MONDAY 16/06/14 Survey Type: MANUAL

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

### MANUALLY DESELECTED SITES

| Site Ref   | Reason for Deselection                     |  |  |  |  |  |
|------------|--|--|--|--|--|--|
| BD-02-C-01 | Survey undertaken during covid-19          |  |  |  |  |  |
| CH-02-C-04 | Survey undertaken during covid-19          |  |  |  |  |  |
| GS-02-C-02 | Survey undertaken during covid-19          |  |  |  |  |  |
| LC-02-C-03 | Not representative of proposed development |  |  |  |  |  |
| LC-02-C-04 | Not representative of proposed development |  |  |  |  |  |
| LC-02-C-05 | Survey undertaken during covid-19          |  |  |  |  |  |
| NR-02-C-02 | Survey undertaken during covid-19          |  |  |  |  |  |

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MANUALLY DESELECTED SITES (Cont.)

| Site Ref   | Reason for Deselection            |
|------------|-----------------------------------|
| TV-02-C-02 | Survey undertaken during covid-19 |
| TV-02-C-02 | Survey undertaken in covid-19     |

Licence No: 715001

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

|               | ARRIVALS |      | [     | DEPARTURES |      |       | TOTALS |      |       |
|---------------|----------|------|-------|------------|------|-------|--------|------|-------|
|               | No.      | Ave. | Trip  | No.        | Ave. | Trip  | No.    | Ave. | Trip  |
| Time Range    | Days     | GFA  | Rate  | Days       | GFA  | Rate  | Days   | GFA  | Rate  |
| 00:00 - 01:00 |          |      |       |            |      |       |        |      |       |
| 01:00 - 02:00 |          |      |       |            |      |       |        |      |       |
| 02:00 - 03:00 |          |      |       |            |      |       |        |      |       |
| 03:00 - 04:00 |          |      |       |            |      |       |        |      |       |
| 04:00 - 05:00 |          |      |       |            |      |       |        |      |       |
| 05:00 - 06:00 | 1        | 2950 | 0.102 | 1          | 2950 | 0.000 | 1      | 2950 | 0.102 |
| 06:00 - 07:00 | 2        | 2650 | 0.189 | 2          | 2650 | 0.019 | 2      | 2650 | 0.208 |
| 07:00 - 08:00 | 7        | 1925 | 0.564 | 7          | 1925 | 0.119 | 7      | 1925 | 0.683 |
| 08:00 - 09:00 | 7        | 1925 | 0.594 | 7          | 1925 | 0.156 | 7      | 1925 | 0.750 |
| 09:00 - 10:00 | 7        | 1925 | 0.349 | 7          | 1925 | 0.208 | 7      | 1925 | 0.557 |
| 10:00 - 11:00 | 7        | 1925 | 0.223 | 7          | 1925 | 0.230 | 7      | 1925 | 0.453 |
| 11:00 - 12:00 | 7        | 1925 | 0.193 | 7          | 1925 | 0.163 | 7      | 1925 | 0.356 |
| 12:00 - 13:00 | 7        | 1925 | 0.267 | 7          | 1925 | 0.252 | 7      | 1925 | 0.519 |
| 13:00 - 14:00 | 7        | 1925 | 0.282 | 7          | 1925 | 0.326 | 7      | 1925 | 0.608 |
| 14:00 - 15:00 | 7        | 1925 | 0.141 | 7          | 1925 | 0.193 | 7      | 1925 | 0.334 |
| 15:00 - 16:00 | 7        | 1925 | 0.089 | 7          | 1925 | 0.267 | 7      | 1925 | 0.356 |
| 16:00 - 17:00 | 7        | 1925 | 0.089 | 7          | 1925 | 0.401 | 7      | 1925 | 0.490 |
| 17:00 - 18:00 | 7        | 1925 | 0.059 | 7          | 1925 | 0.393 | 7      | 1925 | 0.452 |
| 18:00 - 19:00 | 7        | 1925 | 0.052 | 7          | 1925 | 0.245 | 7      | 1925 | 0.297 |
| 19:00 - 20:00 | 1        | 2950 | 0.203 | 1          | 2950 | 0.203 | 1      | 2950 | 0.406 |
| 20:00 - 21:00 | 1        | 2950 | 0.102 | 1          | 2950 | 0.136 | 1      | 2950 | 0.238 |
| 21:00 - 22:00 |          |      |       | ·          |      |       |        |      | ·     |
| 22:00 - 23:00 |          |      |       |            |      |       |        |      |       |
| 23:00 - 24:00 |          |      |       |            |      |       |        |      | ·     |
| Total Rates:  |          |      | 3.498 |            |      | 3.311 |        |      | 6.809 |

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

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

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#### Parameter summary

Trip rate parameter range selected: 260 - 3513 (units: sqm) Survey date date range: 01/01/14 - 22/11/21

Number of weekdays (Monday-Friday): 7
Number of Saturdays: 0
Number of Sundays: 0
Surveys automatically removed from selection: 0
Surveys manually removed from selection: 9

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

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TRIP RATE for Land Use 02 - EMPLOYMENT/C - INDUSTRIAL UNIT

**OGVS** 

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

|                          | ARRIVALS |      |       | DEPARTURES |      |       | TOTALS |      |       |
|--------------------------|----------|------|-------|------------|------|-------|--------|------|-------|
|                          | No.      | Ave. | Trip  | No.        | Ave. | Trip  | No.    | Ave. | Trip  |
| Time Range               | Days     | GFA  | Rate  | Days       | GFA  | Rate  | Days   | GFA  | Rate  |
| 00:00 - 01:00            |          |      |       |            |      |       |        |      |       |
| 01:00 - 02:00            |          |      |       |            |      |       |        |      |       |
| 02:00 - 03:00            |          |      |       |            |      |       |        |      |       |
| 03:00 - 04:00            |          |      |       |            |      |       |        |      |       |
| 04:00 - 05:00            |          |      |       |            |      |       |        |      |       |
| 05:00 - 06:00            | 1        | 2950 | 0.000 | 1          | 2950 | 0.000 | 1      | 2950 | 0.000 |
| 06:00 - 07:00            | 2        | 2650 | 0.038 | 2          | 2650 | 0.000 | 2      | 2650 | 0.038 |
| 07:00 - 08:00            | 7        | 1925 | 0.059 | 7          | 1925 | 0.052 | 7      | 1925 | 0.111 |
| 08:00 - 09:00            | 7        | 1925 | 0.119 | 7          | 1925 | 0.059 | 7      | 1925 | 0.178 |
| 09:00 - 10:00            | 7        | 1925 | 0.096 | 7          | 1925 | 0.104 | 7      | 1925 | 0.200 |
| 10:00 - 11:00            | 7        | 1925 | 0.067 | 7          | 1925 | 0.067 | 7      | 1925 | 0.134 |
| 11:00 - 12:00            | 7        | 1925 | 0.089 | 7          | 1925 | 0.074 | 7      | 1925 | 0.163 |
| 12:00 - 13:00            | 7        | 1925 | 0.126 | 7          | 1925 | 0.148 | 7      | 1925 | 0.274 |
| 13:00 - 14:00            | 7        | 1925 | 0.089 | 7          | 1925 | 0.067 | 7      | 1925 | 0.156 |
| 14:00 - 15:00            | 7        | 1925 | 0.022 | 7          | 1925 | 0.030 | 7      | 1925 | 0.052 |
| 15:00 - 16:00            | 7        | 1925 | 0.045 | 7          | 1925 | 0.052 | 7      | 1925 | 0.097 |
| 16:00 - 17:00            | 7        | 1925 | 0.030 | 7          | 1925 | 0.037 | 7      | 1925 | 0.067 |
| 17:00 - 18:00            | 7        | 1925 | 0.015 | 7          | 1925 | 0.015 | 7      | 1925 | 0.030 |
| 18:00 - 19:00            | 7        | 1925 | 0.000 | 7          | 1925 | 0.007 | 7      | 1925 | 0.007 |
| 19:00 - 20:00            | 1        | 2950 | 0.000 | 1          | 2950 | 0.203 | 1      | 2950 | 0.203 |
| 20:00 - 21:00            | 1        | 2950 | 0.000 | 1          | 2950 | 0.102 | 1      | 2950 | 0.102 |
| 21:00 - 22:00            |          |      |       |            |      |       |        |      |       |
| 22:00 - 23:00            |          |      |       |            |      |       |        |      |       |
| 23:00 - 24:00            |          |      |       |            |      |       | •      |      |       |
| Total Rates: 0.795 1.017 |          |      |       |            |      |       |        |      |       |

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

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