transport planning
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Date:
08 July 2022
Reference: 220708 J326431 Letter to NH v1

## Dear Sir / Madam

## RU/22/0776 - Weybridge Business Park - Response to National Highways Transport Matters

We write to you with respect to the above and on behalf of the applicant and our client Bridge Industrial.
We welcome your feedback on the application, which we understand is limited to a standard National Highways Planning Response (NHPR 21-09) with National Highways reference 95050.

The National Highways response recommends that planning permission not be granted for a period of 56 days to enable further assessment to be undertaken. This is on the basis that National Highways does not agree with the approach surrounding trip generation presented in the submitted Transport Assessment, in terms of solely assessing this on the basis of the Industrial Estate TRICS category.

Further assessment has been undertaken by mode on behalf of the applicant. This is provided in this letter for your consideration. Moreover, this mirrors content provided by way of a separate Technical Note [220629 J326431 TN003 v1.2] prepared by us on behalf the applicant. This was prepared in response to a document prepared on behalf of a local residents' group. In the interests of consistency, relevant content is retained and repeated in this letter.

## Trip generation for B8 land use

Content already submitted in TN003 has been retained and is repeated as follows.

As a sensitivity assessment, a TRICS assessment of Commercial Warehousing covering the B8 land use and across the entirety of the site has now been undertaken, and compared with the Industrial Estate covering $E(\mathrm{~g})$ (ii), $\mathrm{E}(\mathrm{g})$ (iii) and $B 2$ land uses submitted in the TA.

The TRICS search parameters for the B8 Commercial Warehousing are as follows:

- Region - England excluding Greater London
- Gross Floor Area Range $-6,650 m^{2}$ to $50,000 m^{2}$
- Date Range - 01/01/10 to 03/04/19


## mode

transport planning

- Location - Edge of Town, Free Standing

The TRICS outputs for B8 Commercial Warehousing are enclosed for reference.

Furthermore, the trip generation sensitivity test has been converted into Passenger Car Units (PCU) with an HGV conversion factor of 2.5 PCUs. This is the worst-case PCU factor for HGVs as per the Department for Transport (DfT)'s WebTag modelling guidance and is the factor for motorways and all-purpose dualcarriageways. This is a worst-case where it should be noted that for all other road types, the factor is 2 for HGVs. This may be more applicable to Hamm Moor Lane, Addlestone Road and even Weybridge Road (where this is not a trunk road dual carriageway managed by National Highways), but the 2.5 factor has been adopted for additional robustness.

Converting to PCUs more accurately compares the existing and proposed land uses, by giving more weight to the HGV numbers which are more prevalent for the proposed land uses. In doing so, this provides for a significantly more robust net trip generation assessment in terms of ultimate impact on the surrounding highway network.

The total vehicular trip rates and associated PCU movements (as per factored HGVs) for the AM peak (08:0009:00) and the PM peak (17:00-18:00) periods are summarised in Tables 1 and 2, which compares the Industrial Estate trip rates submitted in the TA with the sensitivity test now undertaken for B8 Commercial Warehousing TRICS category.

Table 1 Industrial Estate PCU Trip Generation

| Industrial <br> Estate in <br> PCU (non <br> PCU) |  | AM Peak (08:00-09:00) |  |  | PM Peak (17:00-18:00) |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrivals | Departures | Two Way | Arrivals | Departures | Two Way |  |
| All Units - | Total Vehicular <br> Trip Rate | 0.379 | 0.143 | 0.522 | 0.168 | 0.426 | 0.594 |
| 17,820 sqm | PCUs <br> (vehicles) | $73(68)$ | $28(25)$ | $99(93)$ | $30(30)$ | $78(76)$ | $108(106)$ |
| Net | PCUs | -149 | -6 | -158 | 0 | -117 | -117 |

Table 2 Commercial Warehousing PCU Trip Generation Sensitivity

| Commercial <br> Warehousing in <br> PCU (non PCU) |  | AM Peak (08:00-09:00) |  |  |  | PM Peak (17:00-18:00) |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrivals | Departures | Two Way | Arrivals | Departures | Two Way |  |
| All Units - | Trip Rate | 0.11 | 0.034 | 0.144 | 0.012 | 0.068 | 0.08 |
| 17,820 sqm | PCUs <br> (vehicles) | $29(20)$ | $12(6)$ | $43(26)$ | $4(2)$ | $15(12)$ | $19(14)$ |
| Net | PCUs | -193 | -22 | -214 | -26 | -180 | -206 |

Tables 1 and 2 demonstrate that regardless of adopting Industrial Estate or B8 Commercial Warehousing trip rates, there would not be a net increase in PCUs as a result of the development proposals. In terms of ongoing congestion on the surrounding road network, a reduction in PCUs means that congestion would be expected to be lessened. To reiterate, this is on the basis of factoring up HGV trips by a worst-case 2.5 PCU factor.

In terms of the Commercial Warehousing scenario, which again represents a worst-case in terms of HGV trip generation, the HGV trip rates and trip generation in isolation are summarised in Table 3.

Table 3 Commercial Warehousing HGV Trip Rates and Trip Generation

|  | AM Peak (08:00-09:00) |  |  | PM Peak (17:00-18:00) |  |  | Daily |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Arrivals | Departures | Two Way | Arrivals | Departures | Two Way | Arrivals | Departure | Two Way |
| Trip <br> Rate | 0.034 | 0.025 | 0.059 | 0.006 | 0.011 | 0.017 | 0.281 | 0.274 | 0.555 |
| Trips | 6 | 4 | 10 | 1 | 2 | 3 | 50 | 49 | 99 |

The HGV values in Table 3 very much represent a worst-case on the basis of all units being occupied by B8 occupiers.

We trust the above suitably and sufficiently responds to the request for further assessment work being undertaken. In doing so, we trust that all transport matters of interest to National Highways are now resolved, although we welcome any final outstanding queries you may have.

Yours sincerely,


Enc.
TRICS Outputs for B8 Commercial Warehousing

## TRIP RATE CALCULATI ON SELECTI ON PARAMETERS:

| Land Use : 02-EMPLOYMENT <br> Category : F-WAREHOUSING (COMMERCIAL) <br> MULTI-MODAL TOTAL VEHICLES |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Selected regions and areas: |  |  |  |
| 02 SOUTH EAST |  |  |  |
|  | EX | ESSEX | 1 days |
| 03 | SO | H WEST |  |
|  | DV | DEVON | 1 days |
| 05 | EAS | MI DLANDS |  |
|  | LN | LINCOLNSHIRE | 1 days |

This section displays the number of survey days per TRICS $\circledR^{\circledR}$ 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: | 6560 to 50000 (units: sqm) |
| Range Selected by User: | 3824 to 80066 (units: sqm) |
| Parking Spaces Range: | All Surveys Included |

Public Transport Provision:
Selection by: Include all surveys
Date Range: $\quad 01 / 01 / 10$ to 03/04/19
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 |
| :--- | :--- |
| Wednesday | 1 days |
| Friday | 1 days |

This data displays the number of selected surveys by day of the week.
Selected survey types:
Manual count 3 days
Directional ATC Count 0 days
This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:
Edge of Town 2
Free Standing (PPS6 Out of Town) 1
This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:
Industrial Zone 1
Out of Town 1
No Sub Category 1

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

## Secondary Filtering selection:

| Use Class: |  |
| :--- | :--- |
| n/a | 1 days |
| B8 | 2 days |

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

Filter by Site Operations Breakdown:
All Surveys Included
Population within 500m Range:
All Surveys Included
Population within 1 mile:

| 1,000 or Less | 1 days |
| :--- | :--- |
| 10,001 to 15,000 | 2 days |

This data displays the number of selected surveys within stated 1-mile radii of population.
Population within 5 miles:

| 25,001 to 50,000 | 1 days |
| :--- | :--- |
| 125,001 to 250,000 | 2 days |

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

| Car ownership within 5 miles: |  |
| :--- | :--- |
| 0.6 to 1.0 | 1 days |
| 1.1 to 1.5 | 2 days |

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

Travel Plan:

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

$$
3 \text { days }
$$

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

LIST OF SITES relevant to selection parameters


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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL VEHICLES
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.52

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. <br> GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.024 | 1 | 50000 | 0.020 | 1 | 50000 | 0.044 |
| 06:00-07:00 | 1 | 50000 | 0.046 | 1 | 50000 | 0.030 | 1 | 50000 | 0.076 |
| 07:00-08:00 | 3 | 29620 | 0.074 | 3 | 29620 | 0.019 | 3 | 29620 | 0.093 |
| 08:00-09:00 | 3 | 29620 | 0.110 | 3 | 29620 | 0.034 | 3 | 29620 | 0.144 |
| 09:00-10:00 | 3 | 29620 | 0.101 | 3 | 29620 | 0.050 | 3 | 29620 | 0.151 |
| 10:00-11:00 | 3 | 29620 | 0.043 | 3 | 29620 | 0.035 | 3 | 29620 | 0.078 |
| 11:00-12:00 | 3 | 29620 | 0.046 | 3 | 29620 | 0.057 | 3 | 29620 | 0.103 |
| 12:00-13:00 | 3 | 29620 | 0.050 | 3 | 29620 | 0.064 | 3 | 29620 | 0.114 |
| 13:00-14:00 | 3 | 29620 | 0.102 | 3 | 29620 | 0.077 | 3 | 29620 | 0.179 |
| 14:00-15:00 | 3 | 29620 | 0.028 | 3 | 29620 | 0.077 | 3 | 29620 | 0.105 |
| 15:00-16:00 | 3 | 29620 | 0.028 | 3 | 29620 | 0.051 | 3 | 29620 | 0.079 |
| 16:00-17:00 | 3 | 29620 | 0.035 | 3 | 29620 | 0.066 | 3 | 29620 | 0.101 |
| 17:00-18:00 | 3 | 29620 | 0.012 | 3 | 29620 | 0.068 | 3 | 29620 | 0.080 |
| 18:00-19:00 | 3 | 29620 | 0.014 | 3 | 29620 | 0.070 | 3 | 29620 | 0.084 |
| 19:00-20:00 | 1 | 50000 | 0.014 | 1 | 50000 | 0.014 | 1 | 50000 | 0.028 |
| 20:00-21:00 | 1 | 50000 | 0.028 | 1 | 50000 | 0.022 | 1 | 50000 | 0.050 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.755 |  |  | 0.754 |  |  | 1.509 |

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:
Survey date date range:
Number of weekdays (Monday-Friday):
Number of Saturdays:
Number of Sundays:
Surveys automatically removed from selection:
Surveys manually removed from selection:

6560-50000 (units: sqm)
01/01/10-03/04/19
3
0
0
0
0

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

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI -MODAL OGVS
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.016 | 1 | 50000 | 0.014 | 1 | 50000 | 0.030 |
| 06:00-07:00 | 1 | 50000 | 0.034 | 1 | 50000 | 0.018 | 1 | 50000 | 0.052 |
| 07:00-08:00 | 3 | 29620 | 0.026 | 3 | 29620 | 0.016 | 3 | 29620 | 0.042 |
| 08:00-09:00 | 3 | 29620 | 0.034 | 3 | 29620 | 0.025 | 3 | 29620 | 0.059 |
| 09:00-10:00 | 3 | 29620 | 0.042 | 3 | 29620 | 0.025 | 3 | 29620 | 0.067 |
| 10:00-11:00 | 3 | 29620 | 0.029 | 3 | 29620 | 0.021 | 3 | 29620 | 0.050 |
| 11:00-12:00 | 3 | 29620 | 0.016 | 3 | 29620 | 0.034 | 3 | 29620 | 0.050 |
| 12:00-13:00 | 3 | 29620 | 0.015 | 3 | 29620 | 0.033 | 3 | 29620 | 0.048 |
| 13:00-14:00 | 3 | 29620 | 0.011 | 3 | 29620 | 0.023 | 3 | 29620 | 0.034 |
| 14:00-15:00 | 3 | 29620 | 0.003 | 3 | 29620 | 0.009 | 3 | 29620 | 0.012 |
| 15:00-16:00 | 3 | 29620 | 0.016 | 3 | 29620 | 0.007 | 3 | 29620 | 0.023 |
| 16:00-17:00 | 3 | 29620 | 0.012 | 3 | 29620 | 0.008 | 3 | 29620 | 0.020 |
| 17:00-18:00 | 3 | 29620 | 0.006 | 3 | 29620 | 0.011 | 3 | 29620 | 0.017 |
| 18:00-19:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.012 | 3 | 29620 | 0.013 |
| 19:00-20:00 | 1 | 50000 | 0.008 | 1 | 50000 | 0.010 | 1 | 50000 | 0.018 |
| 20:00-21:00 | 1 | 50000 | 0.012 | 1 | 50000 | 0.008 | 1 | 50000 | 0.020 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.281 |  |  | 0.274 |  |  | 0.555 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL CYCLISTS
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. <br> GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 06:00-07:00 | 1 | 50000 | 0.002 | 1 | 50000 | 0.002 | 1 | 50000 | 0.004 |
| 07:00-08:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 08:00-09:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 |
| 09:00-10:00 | 3 | 29620 | 0.002 | 3 | 29620 | 0.000 | 3 | 29620 | 0.002 |
| 10:00-11:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 11:00-12:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 |
| 12:00-13:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 |
| 13:00-14:00 | 3 | 29620 | 0.006 | 3 | 29620 | 0.005 | 3 | 29620 | 0.011 |
| 14:00-15:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.003 | 3 | 29620 | 0.003 |
| 15:00-16:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 16:00-17:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 17:00-18:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 |
| 18:00-19:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.002 | 3 | 29620 | 0.002 |
| 19:00-20:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 20:00-21:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.012 |  |  | 0.015 |  |  | 0.027 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL VEHICLE OCCUPANTS
Calculation factor: $\mathbf{1 0 0}$ sqm
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.032 | 1 | 50000 | 0.024 | 1 | 50000 | 0.056 |
| 06:00-07:00 | 1 | 50000 | 0.078 | 1 | 50000 | 0.036 | 1 | 50000 | 0.114 |
| 07:00-08:00 | 3 | 29620 | 0.113 | 3 | 29620 | 0.027 | 3 | 29620 | 0.140 |
| 08:00-09:00 | 3 | 29620 | 0.155 | 3 | 29620 | 0.043 | 3 | 29620 | 0.198 |
| 09:00-10:00 | 3 | 29620 | 0.142 | 3 | 29620 | 0.077 | 3 | 29620 | 0.219 |
| 10:00-11:00 | 3 | 29620 | 0.059 | 3 | 29620 | 0.041 | 3 | 29620 | 0.100 |
| 11:00-12:00 | 3 | 29620 | 0.061 | 3 | 29620 | 0.081 | 3 | 29620 | 0.142 |
| 12:00-13:00 | 3 | 29620 | 0.062 | 3 | 29620 | 0.095 | 3 | 29620 | 0.157 |
| 13:00-14:00 | 3 | 29620 | 0.138 | 3 | 29620 | 0.123 | 3 | 29620 | 0.261 |
| 14:00-15:00 | 3 | 29620 | 0.035 | 3 | 29620 | 0.100 | 3 | 29620 | 0.135 |
| 15:00-16:00 | 3 | 29620 | 0.033 | 3 | 29620 | 0.068 | 3 | 29620 | 0.101 |
| 16:00-17:00 | 3 | 29620 | 0.053 | 3 | 29620 | 0.092 | 3 | 29620 | 0.145 |
| 17:00-18:00 | 3 | 29620 | 0.018 | 3 | 29620 | 0.098 | 3 | 29620 | 0.116 |
| 18:00-19:00 | 3 | 29620 | 0.017 | 3 | 29620 | 0.096 | 3 | 29620 | 0.113 |
| 19:00-20:00 | 1 | 50000 | 0.014 | 1 | 50000 | 0.020 | 1 | 50000 | 0.034 |
| 20:00-21:00 | 1 | 50000 | 0.036 | 1 | 50000 | 0.032 | 1 | 50000 | 0.068 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 1.046 |  |  | 1.053 |  |  | 2.099 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI - MODAL PEDESTRIANS
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 06:00-07:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 07:00-08:00 | 3 | 29620 | 0.003 | 3 | 29620 | 0.000 | 3 | 29620 | 0.003 |
| 08:00-09:00 | 3 | 29620 | 0.007 | 3 | 29620 | 0.000 | 3 | 29620 | 0.007 |
| 09:00-10:00 | 3 | 29620 | 0.014 | 3 | 29620 | 0.000 | 3 | 29620 | 0.014 |
| 10:00-11:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 11:00-12:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 12:00-13:00 | 3 | 29620 | 0.007 | 3 | 29620 | 0.002 | 3 | 29620 | 0.009 |
| 13:00-14:00 | 3 | 29620 | 0.015 | 3 | 29620 | 0.005 | 3 | 29620 | 0.020 |
| 14:00-15:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.008 | 3 | 29620 | 0.008 |
| 15:00-16:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.003 | 3 | 29620 | 0.003 |
| 16:00-17:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.007 | 3 | 29620 | 0.008 |
| 17:00-18:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.005 | 3 | 29620 | 0.005 |
| 18:00-19:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.009 | 3 | 29620 | 0.010 |
| 19:00-20:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.002 | 1 | 50000 | 0.002 |
| 20:00-21:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.048 |  |  | 0.041 |  |  | 0.089 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL BUS/ TRAM PASSENGERS
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. <br> GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.002 | 1 | 50000 | 0.000 | 1 | 50000 | 0.002 |
| 06:00-07:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 07:00-08:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 |
| 08:00-09:00 | 3 | 29620 | 0.006 | 3 | 29620 | 0.000 | 3 | 29620 | 0.006 |
| 09:00-10:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 |
| 10:00-11:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 |
| 11:00-12:00 | 3 | 29620 | 0.002 | 3 | 29620 | 0.000 | 3 | 29620 | 0.002 |
| 12:00-13:00 | 3 | 29620 | 0.005 | 3 | 29620 | 0.003 | 3 | 29620 | 0.008 |
| 13:00-14:00 | 3 | 29620 | 0.003 | 3 | 29620 | 0.005 | 3 | 29620 | 0.008 |
| 14:00-15:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 |
| 15:00-16:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 |
| 16:00-17:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 | 3 | 29620 | 0.000 |
| 17:00-18:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.007 | 3 | 29620 | 0.007 |
| 18:00-19:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 |
| 19:00-20:00 | 1 | 50000 | 0.004 | 1 | 50000 | 0.002 | 1 | 50000 | 0.006 |
| 20:00-21:00 | 1 | 50000 | 0.004 | 1 | 50000 | 0.000 | 1 | 50000 | 0.004 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.031 |  |  | 0.021 |  |  | 0.052 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL PUBLIC TRANSPORT USERS
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.002 | 1 | 50000 | 0.000 | 1 | 50000 | 0.002 |
| 06:00-07:00 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 | 1 | 50000 | 0.000 |
| 07:00-08:00 | 3 | 29620 | 0.005 | 3 | 29620 | 0.000 | 3 | 29620 | 0.005 |
| 08:00-09:00 | 3 | 29620 | 0.007 | 3 | 29620 | 0.000 | 3 | 29620 | 0.007 |
| 09:00-10:00 | 3 | 29620 | 0.003 | 3 | 29620 | 0.001 | 3 | 29620 | 0.004 |
| 10:00-11:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 |
| 11:00-12:00 | 3 | 29620 | 0.002 | 3 | 29620 | 0.000 | 3 | 29620 | 0.002 |
| 12:00-13:00 | 3 | 29620 | 0.008 | 3 | 29620 | 0.003 | 3 | 29620 | 0.011 |
| 13:00-14:00 | 3 | 29620 | 0.005 | 3 | 29620 | 0.006 | 3 | 29620 | 0.011 |
| 14:00-15:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.003 | 3 | 29620 | 0.003 |
| 15:00-16:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.002 | 3 | 29620 | 0.003 |
| 16:00-17:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.005 | 3 | 29620 | 0.005 |
| 17:00-18:00 | 3 | 29620 | 0.000 | 3 | 29620 | 0.007 | 3 | 29620 | 0.007 |
| 18:00-19:00 | 3 | 29620 | 0.001 | 3 | 29620 | 0.005 | 3 | 29620 | 0.006 |
| 19:00-20:00 | 1 | 50000 | 0.004 | 1 | 50000 | 0.002 | 1 | 50000 | 0.006 |
| 20:00-21:00 | 1 | 50000 | 0.004 | 1 | 50000 | 0.000 | 1 | 50000 | 0.004 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 0.043 |  |  | 0.035 |  |  | 0.078 |

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.

TRIP RATE for Land Use 02 - EMPLOYMENT/F - WAREHOUSING (COMMERCIAL)
MULTI-MODAL TOTAL PEOPLE
Calculation factor: $\mathbf{1 0 0} \mathbf{~ s q m}$
BOLD print indicates peak (busiest) period
Total People to Total Vehicles ratio (all time periods and directions): 1.52

| Time Range | ARRIVALS |  |  | DEPARTURES |  |  | TOTALS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00-01:00 |  |  |  |  |  |  |  |  |  |
| 01:00-02:00 |  |  |  |  |  |  |  |  |  |
| 02:00-03:00 |  |  |  |  |  |  |  |  |  |
| 03:00-04:00 |  |  |  |  |  |  |  |  |  |
| 04:00-05:00 |  |  |  |  |  |  |  |  |  |
| 05:00-06:00 | 1 | 50000 | 0.034 | 1 | 50000 | 0.024 | 1 | 50000 | 0.058 |
| 06:00-07:00 | 1 | 50000 | 0.080 | 1 | 50000 | 0.038 | 1 | 50000 | 0.118 |
| 07:00-08:00 | 3 | 29620 | 0.120 | 3 | 29620 | 0.027 | 3 | 29620 | 0.147 |
| 08:00-09:00 | 3 | 29620 | 0.170 | 3 | 29620 | 0.044 | 3 | 29620 | 0.214 |
| 09:00-10:00 | 3 | 29620 | 0.161 | 3 | 29620 | 0.078 | 3 | 29620 | 0.239 |
| 10:00-11:00 | 3 | 29620 | 0.060 | 3 | 29620 | 0.042 | 3 | 29620 | 0.102 |
| 11:00-12:00 | 3 | 29620 | 0.063 | 3 | 29620 | 0.082 | 3 | 29620 | 0.145 |
| 12:00-13:00 | 3 | 29620 | 0.078 | 3 | 29620 | 0.100 | 3 | 29620 | 0.178 |
| 13:00-14:00 | 3 | 29620 | 0.163 | 3 | 29620 | 0.137 | 3 | 29620 | 0.300 |
| 14:00-15:00 | 3 | 29620 | 0.035 | 3 | 29620 | 0.115 | 3 | 29620 | 0.150 |
| 15:00-16:00 | 3 | 29620 | 0.034 | 3 | 29620 | 0.073 | 3 | 29620 | 0.107 |
| 16:00-17:00 | 3 | 29620 | 0.054 | 3 | 29620 | 0.104 | 3 | 29620 | 0.158 |
| 17:00-18:00 | 3 | 29620 | 0.018 | 3 | 29620 | 0.110 | 3 | 29620 | 0.128 |
| 18:00-19:00 | 3 | 29620 | 0.019 | 3 | 29620 | 0.111 | 3 | 29620 | 0.130 |
| 19:00-20:00 | 1 | 50000 | 0.018 | 1 | 50000 | 0.024 | 1 | 50000 | 0.042 |
| 20:00-21:00 | 1 | 50000 | 0.040 | 1 | 50000 | 0.032 | 1 | 50000 | 0.072 |
| 21:00-22:00 |  |  |  |  |  |  |  |  |  |
| 22:00-23:00 |  |  |  |  |  |  |  |  |  |
| 23:00-24:00 |  |  |  |  |  |  |  |  |  |
| Total Rates: |  |  | 1.147 |  |  | 1.141 |  |  | 2.288 |

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.

