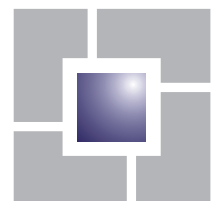


**Former BAE Site, Elettra Avenue  
Waterlooville**

*Transport Statement*



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1. This Statement is prepared on behalf of Hargreaves Properties Limited, in respect of their proposal to construct a vehicular route through the former BAE Systems Technology Park, Elettra Avenue, Waterlooville. The area is hereafter referred to as “the Park” to differentiate from the proposed road (“the Site”).
2. To inform the context of the proposed vehicular route, a Concept Masterplan has been prepared which provides illustrative details of future development aspirations of the Park. The Indicative Layout Plan is included as **Appendix A**.
3. The Park is located approximately 1km to the north-west of Waterlooville Town Centre. It is bounded by Elettra Avenue to the north and west, by Silverthorne Way to the south and B2150 Hambledon Road to the east. The B2150 in this location is a short section of dual carriageway.
4. The Park currently comprises one structure, known as E Block. The other former buildings were demolished in 2013. The Park as a whole comprises 5.15ha and formerly accommodated 19,498sqm of B1(C) research and development land use and an ancillary restaurant. The Park comprised an extensive parking area totalling 863 parking spaces.
5. The primary means of access to the Park is via a four arm roundabout to the north onto Elettra Avenue at its junction with Waterberry Drive. The Park also benefits from two additional access locations onto Silverthorne Way, in the south central and south east parts of the Park. These were gated for security purposes given the sensitivity of the BAE systems operation.
6. The wider highway network sits to the east. Hambledon Road forms a four arm roundabout in the north east corner of the Park from which all Park traffic using the Elettra Avenue/Waterberry Drive roundabout would use this route. To the south east corner of the Park, Hambledon Road forms a left in/left out access with Silverthorne Way.
7. The application site red line boundary encompasses 0.34ha and is illustrated at **Appendix A**. The site contains no buildings or structures and is generally flat.

8. The application represents a two way through route for vehicles within the eastern part of the Park. Some sections of footway are also included, but these would be supplemented by additional pedestrian routes at a later stage. The concept, but not the detail of this is indicated on the Indicative Layout Plan (**Appendix A**).
9. The road would not be offered for adoption, and hence would remain under private ownership and control. Beyond the red line to the north, the road links into the existing Park carriageway approach to the Elettra Avenue/Waterberry Drive roundabout.
10. This initial section runs in a north-south alignment. Broadly in the centre of the Park, a junction would be formed to provide separate access to the west of the Park and to the east of the Park.
11. The development on the western part of the Park will be considered following the eastern park. The eventual land use on this western part is liable to be employment at a similar quantum of floorspace to that permitted under a 2013 planning permission (i.e. approximately 8,593sqm). The relevant section of the site therefore remains as a stub. The detail of the consequential junction would be established at a later point, when the respective balance of traffic across the site is more clearly identified.
12. To the east of the Park, it is currently envisaged that development would comprise the following:

|               |   |                                                                                                                                                                                                    |
|---------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Block A       | - | a discount food retail unit (c. 1,894.5sqm);                                                                                                                                                       |
| Block B       | - | a drive through facility (Use Class A3/A5) of c. 325.5sqm;                                                                                                                                         |
| Block C and D | - | a hotel and/or units within Use Class A3 of c.516.9sqm floorspace (C) and c.328.3sqm floorspace (D);                                                                                               |
| Block E       | - | land use to be confirmed, but D2 (Leisure), or A1 (Non Food Retail) with floorspace of c.4,725.3sqm. It is likely that the building would be occupied by a number of occupiers or a range of uses. |

13. The road alignment includes north-south and east-west sections with a consistent width of 7m from the centre of the site. The specific plot and car park accesses are not part of the application, with details of such to be confirmed via separate planning applications for each in due course.

- 
14. Similarly, the level of parking for the individual land use plots is not part of this application. Car parking levels are appropriate to the use and quantum of plots that are promoted.
  15. During any interim period where Block E remains in its current operation, parking levels commensurate with the activity will be maintained.
  16. The access road will accommodate staff/visitor traffic to the respective units and service vehicles to the respective units.
  17. An overview of potential traffic generation for the respective future parts of the Park has been prepared. This utilises trip rates agreed with Hampshire CC as part of a previous application on the Park. Extracts from the TA are included at **Appendix B**.
  18. The vehicular trip assignment for light vehicles will be influenced by land use and hence catchment area. The assignment also varies depending upon each Block location. For the purposes of this appraisal a colour coded spreadsheet has been prepared and output from this is attached at **Appendix C**. For example, it is assumed that all traffic leaving Blocks A, B, E and the western part of the Park will route to the north onto Elettra Avenue. Entering traffic to A, B and E is split with those approaching from the south, potentially routing via Silverthorne Way.
  19. By contrast in terms of Block D, all exiting traffic is assumed to route via Silverthorne Way, with entering traffic split between the northern and southern approaches to the Park.
  20. Assumptions (including options for Block E) have been made regarding Block E and the western part of the Park and are available for scrutiny within **Appendix C**. Whilst it is appreciated that with potentially multiple car park access points, the total flows on different parts will frequently vary, in this appraisal, four sections are indicated:
    - i) the approach from the north;
    - ii) the initial section heading into the eastern half from the north;
    - iii) the section near Block C;
    - iv) the approach from the south.

- 
21. This assessment shows the highest two-way peak hourly link flow as 480 vehicles on section i). This section is characterised by a wider carriageway than the remainder of the access road. The flow on section ii) is the highest flow on the 7m section of the road at 379 two-way vehicles per hour.
  22. Highway link capacity guidance for an urban environment is set out in the Design Manual for Roads and Bridges TA79/99. This indicates a two-way capacity of 1,500 vehicles/hour on a 7m wide road. Whilst it is acknowledged that the operation of a series of car park accesses and low speed, multiple turning events will reduce this operational capacity, the comparison between forecast levels of 180-380 vehicle movements per hour compared with a link capacity of 1,500 demonstrates that there is sufficient headroom within the assumptions to have confidence that the road is suitably designed to cater for demand.
  23. Similarly servicing vehicles are demonstrated to be accommodated by the design. Swept path analysis for max legal articulated delivery vehicles are shown at **Appendix D**. Service vehicle entry and exit will, as with car traffic, be influenced by location of specific Blocks within the Park. The swept path analysis demonstrates that delivery vehicles can access and egress to and from the north and south. The Silverthorne Way access is improved both in terms of a widened carriageway but also by the inclusion of 10.5m radii on the junction to facilitate safe and efficient HGV manoeuvres.
  24. There is no requirement for enhanced design to the carriageway or junction to the north, with HGV access achievable within existing geometry.
  25. Sections of footway are included within the red line. These link with illustrative sections of footpath to provide safe and direct access to each of the units within the eastern part of the Park. Limited detail is provided to the western part of the Park, but the access road proposals as designed can be readily built upon to also deliver safe and convenient access to the western part of the Park.



- 
26. In terms of off-site impact, this will be considered in detail within Transport Statements /Assessments for the individual Blocks. However, the proposed road maximises the opportunity to efficiently distribute and design traffic onto the highway network.
27. In summary, the proposed road:
- i) provides a through vehicular route, utilising existing vehicular access locations, with localised improvements to the southern junction.
  - ii) facilitates safe and convenient pedestrian access;
  - iii) comfortably accommodates future levels of traffic demand;
  - iv) allows servicing of all future parts of the Park;
  - v) minimises impact on off-site junctions by delivering efficient access and egress options.

SKP/17144-01  
21<sup>st</sup> April 2015



## **Appendix A**

### Indicative Layout Plan





## **Appendix B**

Extracts from PBA Transport Assessment (Sept 2013)

### 5.3 Baseline Vehicle Trip Generation

- 5.3.1 A comprehensive review of the TRICS database has been undertaken to determine B1b and B1c land use trip generation rates from comparable donor sites; detailed analysis is provided within **PBA Technical Note 003 Rev A**, attached at **Appendix C**.
- 5.3.2 **Table 5.1** details the donor trip rates identified for the existing consented site B1b and B1c land uses, and **Table 5.2** sets out the resulting baseline equivalent site vehicular trip generation.

Table 5.1: B1b and B1c Donor Trip Rates

| Land use | AM Peak  |            |         | PM Peak  |            |         |
|----------|----------|------------|---------|----------|------------|---------|
|          | Arrivals | Departures | Two-way | Arrivals | Departures | Two-way |
| B1b      | 1.191    | 0.078      | 1.269   | 0.086    | 0.914      | 1.0     |
| B1c      | 1.3      | 0.35       | 1.65    | 0.2      | 0.983      | 1.183   |

Table 5.2: BAE Site Baseline Vehicular Trip Generation

|               | AM Peak  |            |         | PM Peak  |            |         |
|---------------|----------|------------|---------|----------|------------|---------|
|               | Arrivals | Departures | Two-way | Arrivals | Departures | Two-way |
| Main Building | 232      | 15         | 247     | 17       | 178        | 195     |
| E Block       | 87       | 24         | 111     | 13       | 66         | 80      |
| Beam Plot     | 12       | 3          | 15      | 2        | 9          | 11      |
| Total         | 332      | 42         | 374     | 32       | 253        | 286     |

- 5.3.3 As agreed during scoping discussions with HCC in 2012, the baseline should represent the total trip generation predicted to arise from the existing consented uses based on full occupation of the site; accordingly the vehicular trip generation detailed in **Table 5.2** defines the site traffic baseline. It is against this traffic baseline that the development proposals should be assessed.
- 5.3.4 For comparative purposes only, the AM and PM peak hour trips currently generated by the existing activities at the (significantly under occupied) site, as recorded by manual traffic count surveys on 19<sup>th</sup> April 2012, are summarised in **Table 5.3**.

Table 5.3: Existing BAE Site Vehicular Trip Generation

| Time Period         | Arrivals | Departures | Two-way |
|---------------------|----------|------------|---------|
| AM Peak (0800-0900) | 45       | 2          | 47      |
| PM Peak (1645-1745) | 1        | 41         | 42      |

- 5.3.5 **Table 5.3** indicates that observed traffic generation (two-way) associated with the current under-utilised site is approximately 13% and 15% of the site baseline traffic in the AM and PM peaks respectively.

### 5.4 Development Trip Generation

- 5.4.1 The proposed development comprises of a mixture of retail and leisure uses as detailed in **Section 4** of this TAR.

- 5.4.2 The TRICS database has been reviewed to determine peak hour vehicular trip rates for each land use as summarised in **Table 5.4**; a copy of the associated TRICS outputs are provided in **Appendix D**.

Table 5.4: Proposed Development Vehicular Trip Rates

|                    | AM Peak      |              |              | PM Peak      |               |               |
|--------------------|--------------|--------------|--------------|--------------|---------------|---------------|
|                    | Arrivals     | Departures   | Two Way      | Arrivals     | Departures    | Two Way       |
| Discount Foodstore | 1.06         | 0.674        | 1.734        | 3.355        | 4.041         | 7.396         |
| 20 Lane Bowling    | 0.00         | 0.00         | 0.00         | 0.997        | 1.026         | 2.023         |
| Gym                | 0.397        | 1.126        | 1.523        | 3.477        | 2.649         | 6.126         |
| 8 Screen Cinema    | 0.00         | 0.00         | 0.00         | 1.373        | 0.918         | 2.291         |
| Drive Thru         | 5.94         | 4.409        | 10.349       | 10.78        | 10.486        | 21.266        |
| Restaurant (x4)    | 0.00         | 0.00         | 0.00         | 3.451        | 2.271         | 5.722         |
| Public House       | 0.00         | 0.00         | 0.00         | 3.732        | 2.449         | 6.181         |
| 60 Bed Hotel       | 0.097        | 0.227        | 0.324        | 0.205        | 0.078         | 0.283         |
| <b>Total</b>       | <b>7.494</b> | <b>6.436</b> | <b>13.93</b> | <b>27.37</b> | <b>23.918</b> | <b>51.288</b> |

- 5.4.3 The resulting development vehicular trip generation predicted to arise from the development proposals is presented in **Table 5.5**; for completeness the traffic generation from the retained Beam plot is also presented.

Table 5.5: Proposed Development Vehicular Traffic Generation

| Land Use           | AM Peak   |            |            | PM Peak    |            |            |
|--------------------|-----------|------------|------------|------------|------------|------------|
|                    | Arrivals  | Departures | Two Way    | Arrivals   | Departures | Two Way    |
| Discount Foodstore | 16        | 10         | 26         | 51         | 62         | 113        |
| 20 Lane Bowling    | 0         | 0          | 0          | 23         | 24         | 47         |
| Gym                | 7         | 19         | 26         | 60         | 46         | 106        |
| 8 Screen Cinema    | 0         | 0          | 0          | 45         | 30         | 75         |
| Drive Thru         | 20        | 15         | 35         | 36         | 35         | 71         |
| Restaurant (x4)    | 0         | 0          | 0          | 51         | 34         | 85         |
| Public House       | 0         | 0          | 0          | 21         | 14         | 35         |
| 60 Bed Hotel       | 6         | 14         | 20         | 12         | 5          | 17         |
| <b>Total</b>       | <b>49</b> | <b>58</b>  | <b>107</b> | <b>299</b> | <b>250</b> | <b>549</b> |
| Beam Plot          | 12        | 3          | 15         | 2          | 9          | 11         |
| <b>Total</b>       | <b>61</b> | <b>61</b>  | <b>122</b> | <b>301</b> | <b>259</b> | <b>560</b> |

- 5.4.4 **Table 5.5** indicates the proposed development vehicular trip generation; however, the mixed use nature of the proposals creates significant potential for cross visitation or linked trips between various land uses. These are now considered in turn and a rationale set out for adjusting the level of traffic generation identified in **Table 5.5**.

### Discount Foodstore

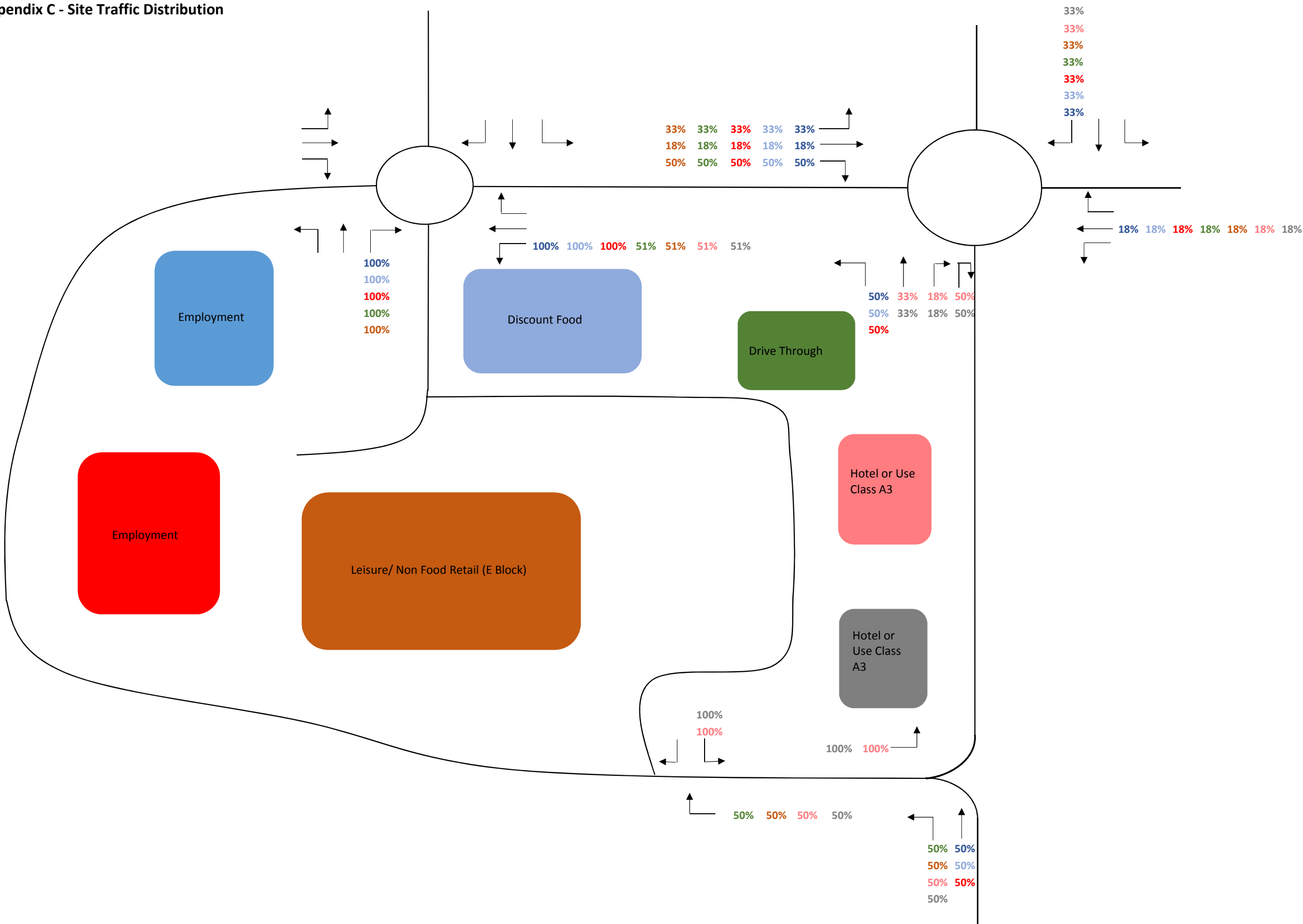
- 5.4.5 Research has shown (for example, the '*Before and After Study of New Superstores*' by A. MacIver and K.W. Dickinson of the Transportation Engineering Research Unit (TERU) and



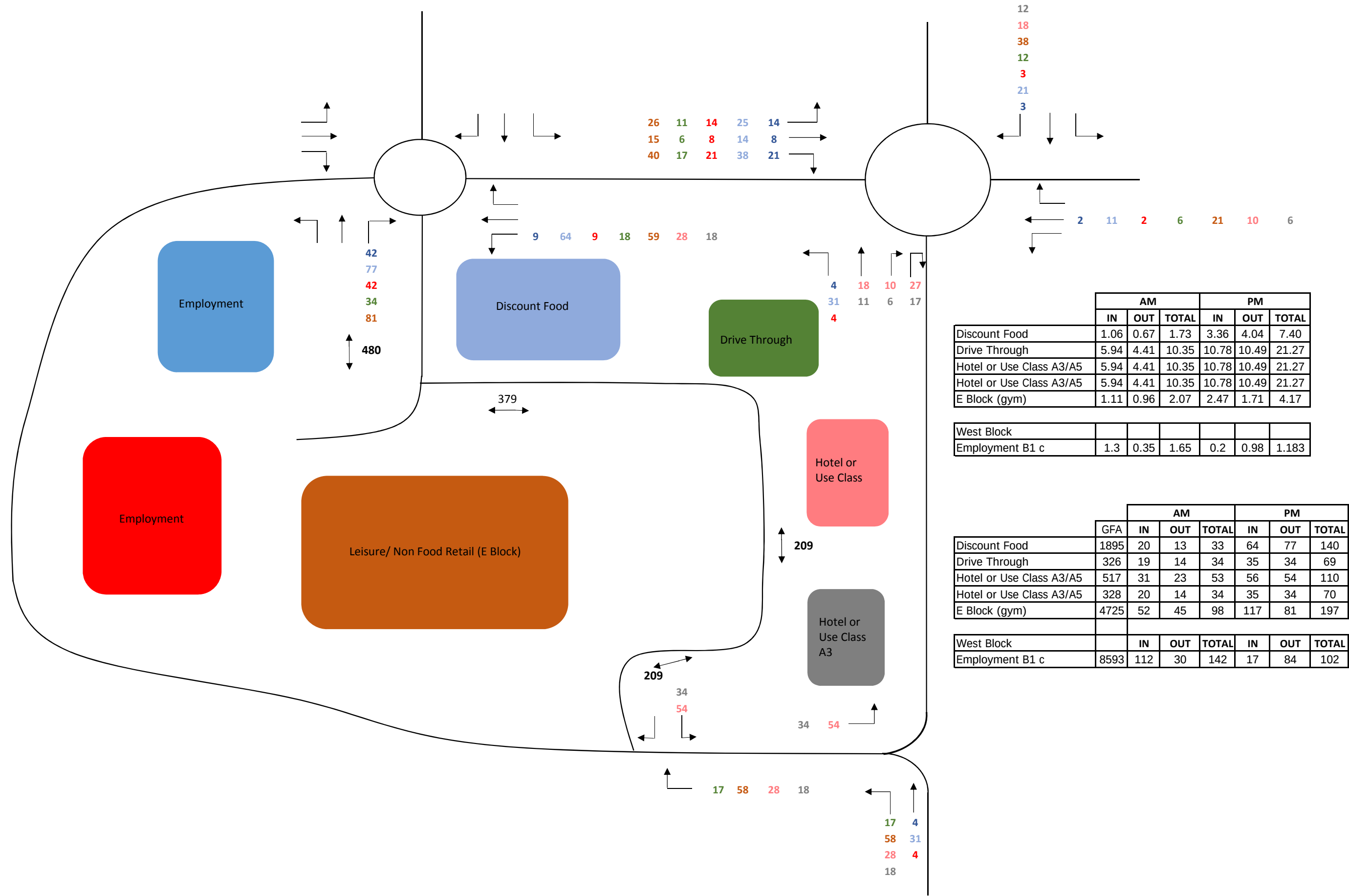
## **Appendix C**

### Trip Generation, Distribution and Assignment Summary

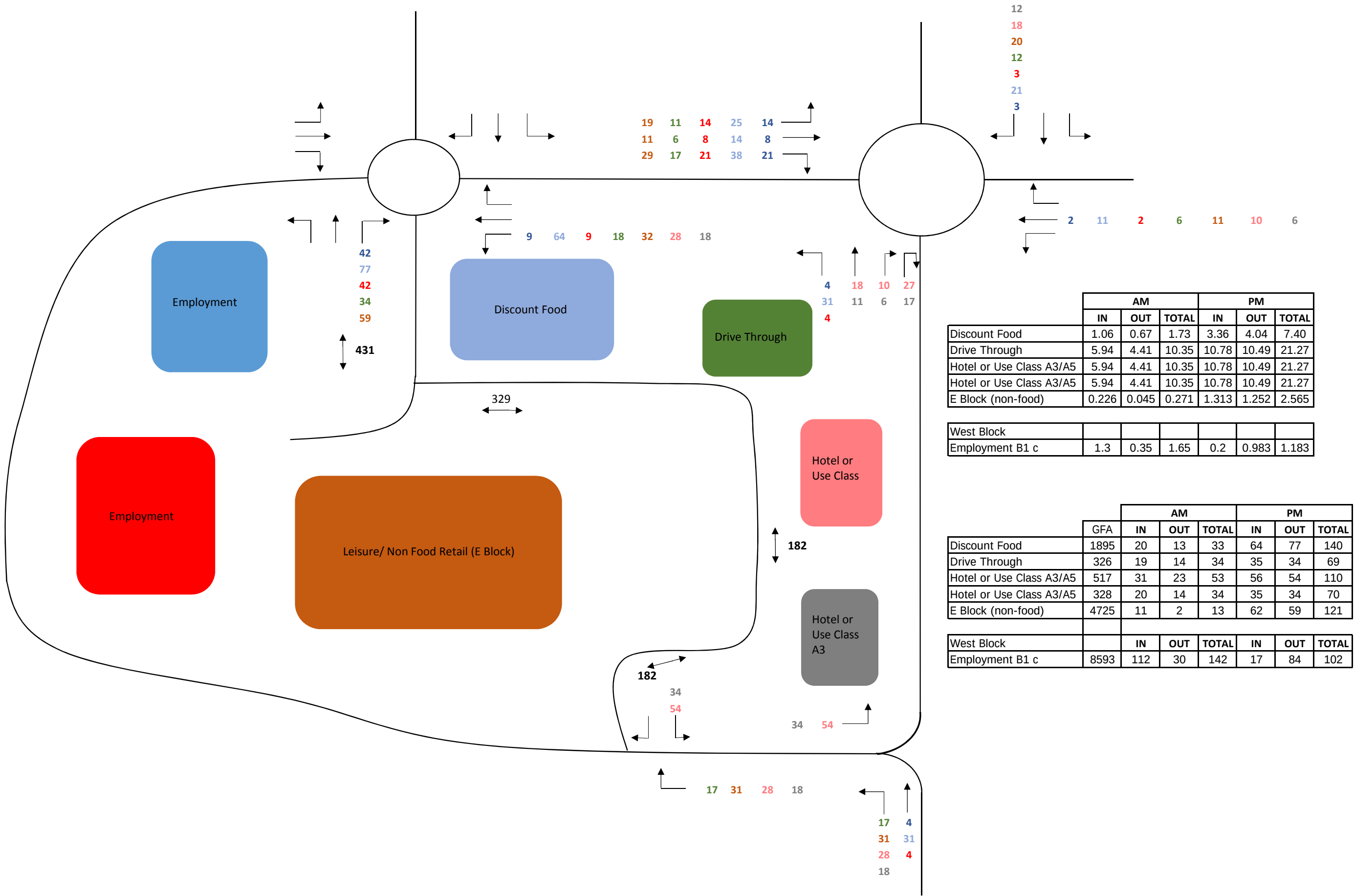
Appendix C - Site Traffic Distribution



Appendix C - Site Traffic Generation (assuming Leisure use in E Block)



Appendix C - Site Traffic Generation (assuming Non Food Retail in E Block)





## **Appendix D**

### Max Legal Artic Swept Path Plan





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