



Local Plan allocation H66 'Land West of Market Street, Edenfield' Highways Consideration of Masterplan

Introduction

- 1.1 Local Plan allocation H66 'Land West of Market Street, Edenfield' of Rossendale's Local Plan supports the development of the site for approximately 400 houses. As part of the allocation, there is a requirement to demonstrate the comprehensive development of the entire site through a masterplan.
- 1.2 The following provides transport analysis to support the masterplan.

Local Highway Network

- 1.3 The Rossendale Local Plan 2019-2036 was adopted in December 2021. Policy HS2 lists allocated housing development sites. Land west of Market Street is included as allocation H66 which is covered by a site specific Policy.
- 1.4 Market Street runs in a broadly northerly-southerly direction. At its southern end, Market Street forms the northern arm of a three-arms mini-roundabout, with the A680 Rochdale Road forming the south-eastern arm and Bury Road forming the southern arm. Market Street forms the major arm of a junction with Exchange Street around 30m north of the mini-roundabout and a zebra crossing is provided between the two junctions.
- 1.5 From its junction with Market Street, Rochdale Road extends south-eastwards through Norden and on towards Rochdale. Similarly, Bury Road extends southwards from the mini-roundabout and, after circa 200m, it forms the major arm of a priority junction with Bolton Road N. From here, it continues southwards, meeting the A56 after a further 500m before it then continues southwards as the A56.
- 1.6 After around 3.5km, the A56 forms Junction 1 of the M66, which provides eastbound on and westbound off slip roads. The A56 then continues southwards towards Bury.



- 1.7 From its junction with Bury Road, Bolton Road N extends in a south-westerly direction towards Ramsbottom and forming the north-eastern and south-western arms of the Edenfield roundabout en route; the Edenfield roundabout provides northbound on and southbound off access to the A56. From here, the A56 extends northwards as far as the M65.
- 1.8 At its northern end, Market Street forms the southern arm of a signalised junction with Burnley Road and the B6527 Blackburn Road. From here, Burnley Road extends in a north-easterly direction towards Rawtenstall. Similarly, the B6527 extends broadly northwards, forming a junction with the A56 after around 2.5km.

Baseline Transport Data

- 1.9 To inform the Masterplan, it was agreed with LCC that surveys would be carried out at the following junctions:
- Market Street/Burnley Road/B6527 signalised junction;
 - Market Street/Exchange Street priority junction;
 - Market Street/A680 Rochdale Road/Bury Road mini roundabout;
 - Bury Road/The Drive priority junction;
 - Bury Road/Bolton Road N priority junction; and
 - Bolton Road N/Eden Avenue priority junction.
- 1.10 In order to establish current levels of traffic, full turning count surveys were undertaken at the following junctions on Wednesday 19 April, Thursday 20 April and Friday 21 April.
- 1.11 Analysis of the traffic survey data indicates that the weekday AM peak occurred between 0745 and 0845 hours and the weekday PM peak occurred between 1645 and 1745 hours on Wednesday 19 April.
- 1.12 Importantly, the surveys reveal that traffic levels have reduced compared to pre-pandemic levels, and which formed the evidence base at the time of the preparation of the Local Plan.



1.13 **Figures 1 and 2** provide the 2023 surveyed traffic flows, in light and heavy vehicles, for the weekday AM peak and weekday PM peak periods respectively. Similarly, **Figures 3 and 4** show the 2022 surveyed flows converted into passenger car units (PCUs), the unit of analysis, for the weekday AM and weekday PM peak periods respectively.

1.14 It is acknowledged that on-street parking occurs along Market Street, which can reduce the carriageway width available to vehicles travelling along it. Therefore, in addition to turning counts, the traffic surveys also included parking surveys to establish the levels of on-street parking that occur along Market Street and Exchange Street.

Growthed Traffic Flows

1.15 It is anticipated that the allocation will be completed by 2030.

1.16 The future year traffic flow factors have been derived TEMPro version 8.0. The Core scenario has been adopted and growth factors derived by averaging the origin and destination values. The application site falls within the Middle Super Output Area (MSOA) Rossendale 008.

1.17 The resulting growth factors are as follows:

- 2023 to 2030 AM Peak - 1.046; and
- 2023 to 2030 PM Peak - 1.04615.

1.18 The resultant 2030 growthed traffic flows are shown in Figures 5 and 6 for the weekday AM and PM peak periods respectively.

Committed Development

1.19 Eddisons is not aware of any committed development area that requires explicit consideration, though the growth factors will, in any case, account for planned growth in the area.



Market Street Corridor Improvements

1.20 As part of the Masterplan proposals, improvements will be provided along Market Street and Exchange Street. Whilst further detailed work will be done with LCC Highways at the detailed application stage to determine the full extent of the works, these will include, but not be limited to, the following measures or similar:

- 'Gateway features' at the entrance to the core areas of Edenfield Village (design details to be agreed);
- Provision of coloured chippings/ aggregate within surface across Market Street at the entrance to the core areas of Edenfield Village (extent to be agreed);
- Provision of off-street parking areas at the western extent of Exchange Street, off Market Street towards the centre of the H66 allocation, and to the east of Burnley Road at the northern extent of the village (details to be confirmed through subsequent planning applications);
- Proposed uncontrolled pedestrian crossing adjacent to Edenfield Primary School and adjacent to central land parcel of H66 allocation;
- Parking restrictions along Market Street for the benefit of traffic flows;
- Provision of 'Slow' markings on Market Street at the approach to the pinch-point adjacent to properties 58 and 74, and removal of centreline markings along this section;
- Provision of central hatching along Market Street (adjacent to properties 20 to 40);
- Relocation of bus stop opposite to property 88 (location to be agreed);
- Introduction of one-way (westbound) operation along Exchange Street; and
- Provision of a traffic calming feature along Exchange Street (details to be agreed).

1.21 The implementation of the above will result in some minor reassignment of traffic from Exchange Street to The Drive. The growthed flows have been amended to reflect this and the resulting flows are shown in **Figures 7 and 8**.

Proposed Development

1.22 A planning application for 238 dwellings has been submitted by TW on land that forms part of the local plan allocation H66, though for the purpose of the analysis 240 dwellings is assumed.



- 1.23 It is assumed that the land to the north of the application site, and that Northstone has an interest in, could accommodate circa 65 units.
- 1.24 It is also assumed that the land to the south of the application site, and that Anwyl has an interest in, could accommodate circa 95 units. Access would be gained via Exchange Street.
- 1.25 In order to predict the likely levels of traffic that would occur as a result of the proposed residential element, the highways officers at LCC have requested that the trip rates as per those used for North-West Preston should be adopted.
- 1.26 A summary of these trip rates and the likely level of trips that would occur as a result of the proposed development is included in Table 1, below.

| Mode | Period | Trip Rate | | Trips | |
|------------|--------------|-----------|-------|-------|-----|
| | | Arr | Dep | Arr | Dep |
| TW | AM Peak Hour | 0.140 | 0.445 | 34 | 107 |
| | PM Peak Hour | 0.437 | 0.226 | 105 | 54 |
| Anwyl | AM Peak Hour | 0.140 | 0.445 | 13 | 42 |
| | PM Peak Hour | 0.437 | 0.226 | 42 | 21 |
| Northstone | AM Peak Hour | 0.140 | 0.445 | 9 | 29 |
| | PM Peak Hour | 0.437 | 0.226 | 28 | 15 |

Table 1 H66 Allocation Trip Rates and Trips

- 1.27 As can be seen from the above table, the allocation is predicted to result in 234 two-way vehicular trips during the weekday AM peak and 265 two-way trips during the weekday PM peak.



Trip Distribution

- 1.28 In order to assign the traffic vehicles from the site to the wider network, reference has been made to 2011 census journey to work data for the middle super output area (MSOA) Rossendale 008.
- 1.29 The routes vehicles are likely to take from the application site to the various destinations has then been predicted by reference to route planning software.
- 1.30 **Figure 9** shows the distribution of trips to the wider area.
- 1.31 It should be noted that the route planning software indicates that, for the TW and Northstone sites, development traffic travelling to/from destinations to the north via the A56 would access the A56 by travelling north along the B6527 to the A56/A680 junction rather than via the Edenfield roundabout.
- 1.32 Access to the Anwyl site would be gained via Exchange Street, however, as this provides a connection to Highfield Road and Eden Avenue, traffic wishing to travel to/from destinations to the north via the A56 would access the A56 via the A56/Bolton Road N roundabout.
- 1.33 The resulting trips are shown in **Figures 10** and **11** for the TW site, **Figures 12** and **13** for the Anwyl site, and **Figures 14** and **15** for the Northstone site.
- 1.34 The various allocation trips have been added to the reassigned growth flows to produce 'with allocation' flows. The 2030 'With Allocation' Flows are shown in **Figures 16** and **17** for the weekday AM and PM peaks respectively.

Capacity Assessments

- 1.35 Based on the predicted changes in traffic, capacity assessments have been undertaken for the following junctions:



- Market Street/TW Site Access priority junction;
- Blackburn Road/Northstone Access priority junction;
- Market Street/Burnley Road/B6527 signalised junction;
- Market Street/A680 Rochdale Road/Bury Road mini roundabout; and
- Bury Road/Bolton Road N priority junction.

1.36 As access to the Anwyl land will simply be gained via an extension of Exchange Street, there is no junction to assess.

1.37 A summary of the capacity assessment for each of the above junctions for the 2030 base and 'with allocation' scenarios are set out in the following paragraphs.

Market Street/TW Site Access Junction

1.38 Capacity assessments of the proposed Market Street/TW Site Access priority junction have been undertaken using the PICADY module of the Junctions9 program.

1.39 The results of the analysis are summarised within Table 2, below.

| Movement | 2030 'With Allocation' Flows | | | |
|---------------------------------|------------------------------|-----------|------------|-----------|
| | Weekday AM | | Weekday PM | |
| | Max RFC | Max Queue | Max RFC | Max Queue |
| TW Site Access | 0.27 | 0 | 0.15 | 0 |
| Market Street right turn | 0.03 | 0 | 0.11 | 0 |

Table 2 Summary of PICADY Output for the Market Street/TW Site Access Junction

1.40 As can be seen, the results show that the Market Street/TW Site Access junction will operate with substantial levels of spare capacity during the 2030 'with allocation' scenarios.



Market Street/Northstone Site Access Junction

- 1.41 Capacity assessments of the proposed Market Street/Northstone Site Access priority junction have been undertaken using the PICADY module of the Junctions9 program.
- 1.42 The results of the analysis are summarised within Table 3, below.

| Movement | 2030 'With Allocation' Flows | | | |
|--------------------------|------------------------------|-----------|------------|-----------|
| | Weekday AM | | Weekday PM | |
| | Max RFC | Max Queue | Max RFC | Max Queue |
| Northstone Site Access | 0.08 | 0 | 0.04 | 0 |
| Market Street right turn | 0.01 | 0 | 0.02 | 0 |

Table 3 Summary of PICADY Output for the Market Street/Northstone Site Access Junction

- 1.43 As can be seen, the results show that the Market Street/Northstone Site Access junction will operate with substantial levels of spare capacity during the 2030 'with allocation' scenarios.

Market Street/Blackburn Road/Burnley Road Signalised Junction

- 1.44 To assess the Market Street/Blackburn Road/Burnley Road signalised junction, reference has been made to the LINSIG computer program. The analysis has been carried out using the 2030 Growthed Flows, i.e. base flows, and 2030 'With Allocation' flows.
- 1.45 The results for the 2030 flow scenario are contained within Table 4, below.



| Approach | 2030 Base Flows | | | | 2030 'With Allocation' Flows | | | |
|---|-----------------|-----|------------|-----|------------------------------|-----|------------|-----|
| | Weekday AM | | Weekday PM | | Weekday AM | | Weekday PM | |
| | DoS | MMQ | DoS | MMQ | DoS | MMQ | DoS | MMQ |
| Burnley Road Left/ahead/U-turn | 49.9% | 7 | 38.5% | 5 | 54.0% | 7 | 43.5% | 5 |
| Guide Court Right/left | 3.1% | 0 | 2.5% | 0 | 4.4% | 0 | 2.5% | 0 |
| Blackburn Road (S) Ahead/right | 26.4% | 2 | 45.2% | 5 | 31.3% | 3 | 48.9% | 5 |
| Blackburn Road (N) U-turn/left/ahead | 51.0% | 6 | 44.1% | 5 | 52.4% | 6 | 49.9% | 6 |

**Table 4 Summary of LINSIG Output for the
Market Street/Blackburn Road/Burnley Road Signalised Junction**

1.46 As can be seen from the above table, the Market Street/Blackburn Road/Burnley Road signalised junction is forecast to operate within capacity in the 2030 base and 'with allocation' flow scenarios.

Market Street/A680 Rochdale Road/Bury Road Mini Roundabout

1.47 In order to assess the operation of the Market Street/A680 Rochdale Road/Bury Road mini roundabout, reference has been made to the ARCADY module of the Junctions9 computer program.

1.48 Whilst it is likely that future year traffic flows at the junction will display a broadly 'flat' arrival profile, for the purpose of the analysis the 'One-Hour' synthesised profile has nevertheless been adopted, which will provide a robust consideration of the future operation of the junction.

1.49 The results for the 2030 flow scenarios are contained within Table 5, below.



| Arm | 2030 Base Flows | | | | 2030 'With Allocation' Flows | | | |
|----------------------|-----------------|-----------|------------|-----------|------------------------------|-----------|------------|-----------|
| | Weekday AM | | Weekday PM | | Weekday AM | | Weekday PM | |
| | Max RFC | Max Queue | Max RFC | Max Queue | Max RFC | Max Queue | Max RFC | Max Queue |
| Market Street | 0.51 | 1 | 0.40 | 1 | 0.59 | 1 | 0.43 | 1 |
| Rochdale Road | 0.72 | 3 | 0.64 | 2 | 0.77 | 3 | 0.67 | 2 |
| Bury Road (S) | 0.60 | 2 | 0.74 | 3 | 0.67 | 2 | 0.86 | 6 |

Table 5 Summary of ARCADY Output for the Market Street/A680 Rochdale Road/Bury Road Mini Roundabout

1.50 As can be seen, the Market Street/A680 Rochdale Road/Bury Road Mini Roundabout is forecast to operate within capacity during the 2030 the base scenario. The addition of allocation trips will result in only modest increases in queuing.

1.51 As such, it can be concluded that no capacity improvements are necessary at the junction.

Bury Road/Bolton Road N Priority Junction

1.52 Capacity assessments of the Bury Road/Bolton Road N priority junction have been undertaken using the PICADY module of the JUNCTIONS9 program.

1.53 The results of the analysis are summarised within Table 6, below.



| Arm | 2030 Base Flows | | | | 2030 'With Allocation' Flows | | | |
|---------------------------------|-----------------|-----------|------------|-----------|------------------------------|-----------|------------|-----------|
| | Weekday AM | | Weekday PM | | Weekday AM | | Weekday PM | |
| | Max RFC | Max Queue | Max RFC | Max Queue | Max RFC | Max Queue | Max RFC | Max Queue |
| Bolton Road Left/right | 0.51 | 1 | 0.64 | 2 | 0.52 | 1 | 0.69 | 2 |
| Bury Road (N) Right turn | 0.59 | 2 | 0.48 | 1 | 0.62 | 2 | 0.51 | 1 |

Table 6 Summary of PICADY Output for the Bury Road/Bolton Road N Priority Junction

1.54 As can be seen, the results show that the Bury Road/Bolton Road N priority junction will operate with substantial levels of spare capacity during both the base and 'with development' scenarios at 2030.

Summary

1.55 In summary, the above has considered the transport implications of Local Plan allocation H66 'Land West of Market Street, Edenfield' on the highway network.

1.56 A detailed consideration of existing conditions confirms that traffic flows have generally reduced since the preparation of the evidence base that supported the Local Plan. Capacity assessments confirm that junctions in the vicinity of the site will operate within capacity following the completion of the allocation development.

1.57 Notwithstanding this, a corridor improvement scheme is proposed that will improve transport movements along Market Street.

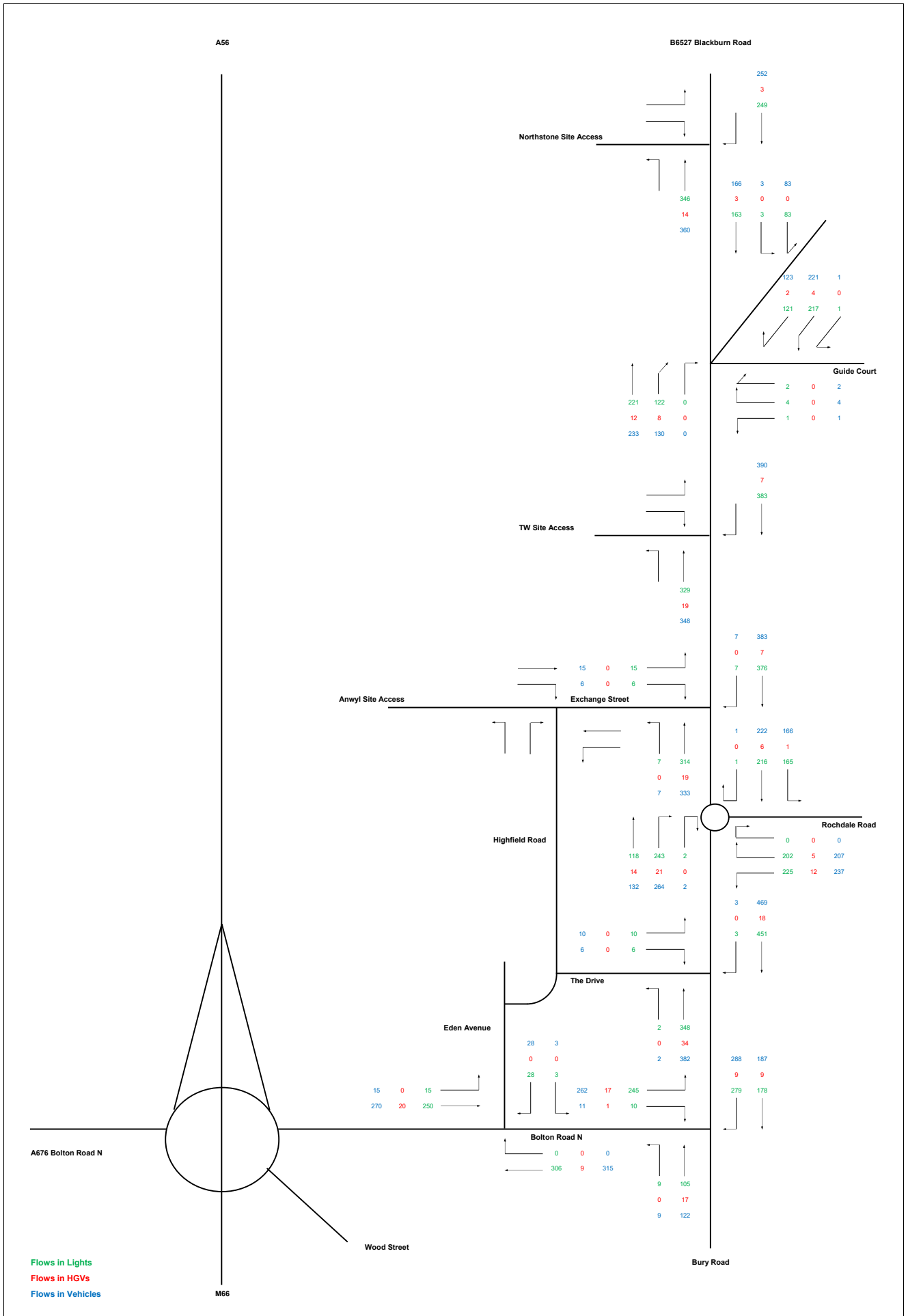


Figure 1 2023 Surveyed Flows - Weekday AM Peak (0745-0845)

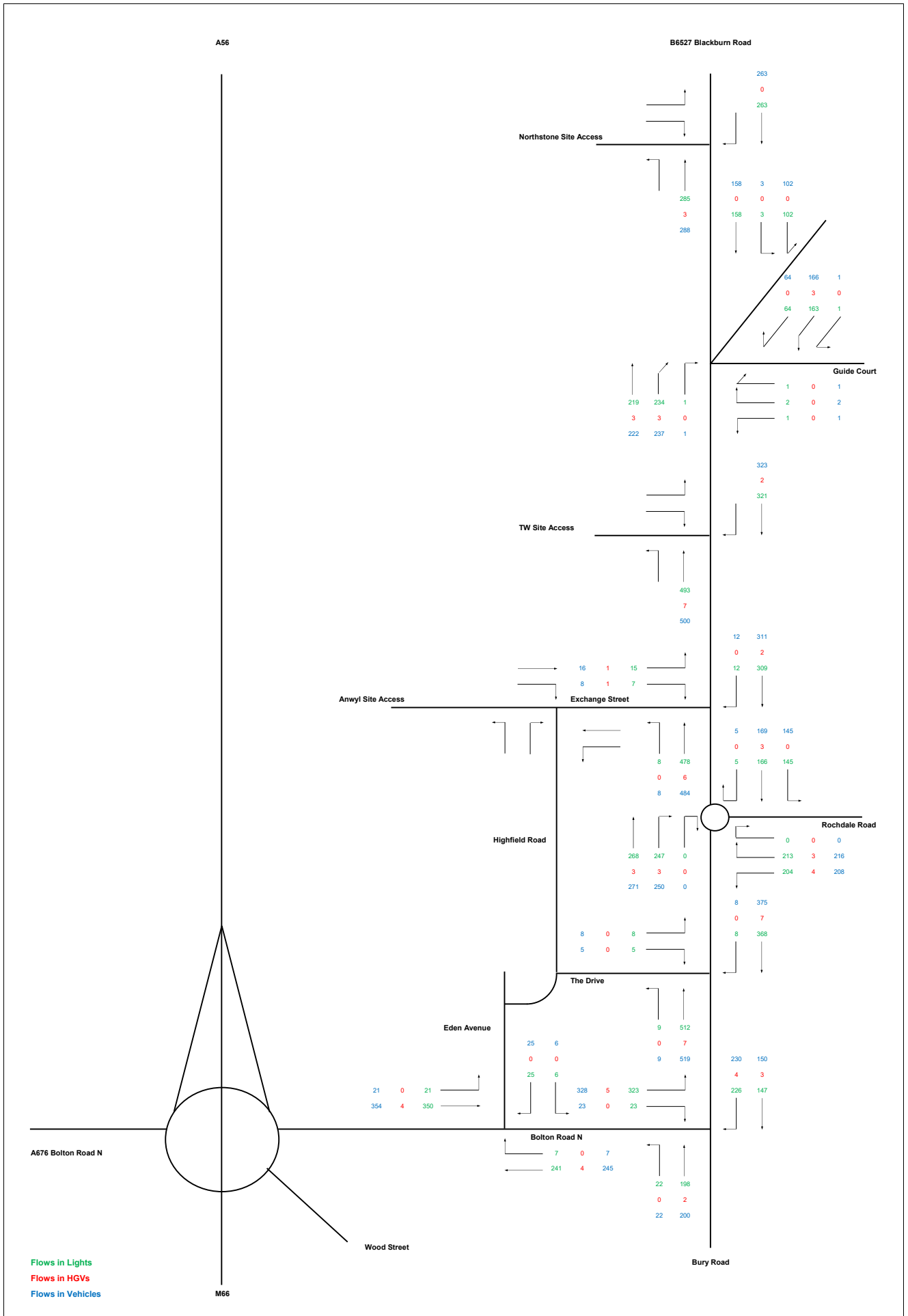


Figure 2 2023 Surveyed Flows - Weekday PM Peak (1645-1745)

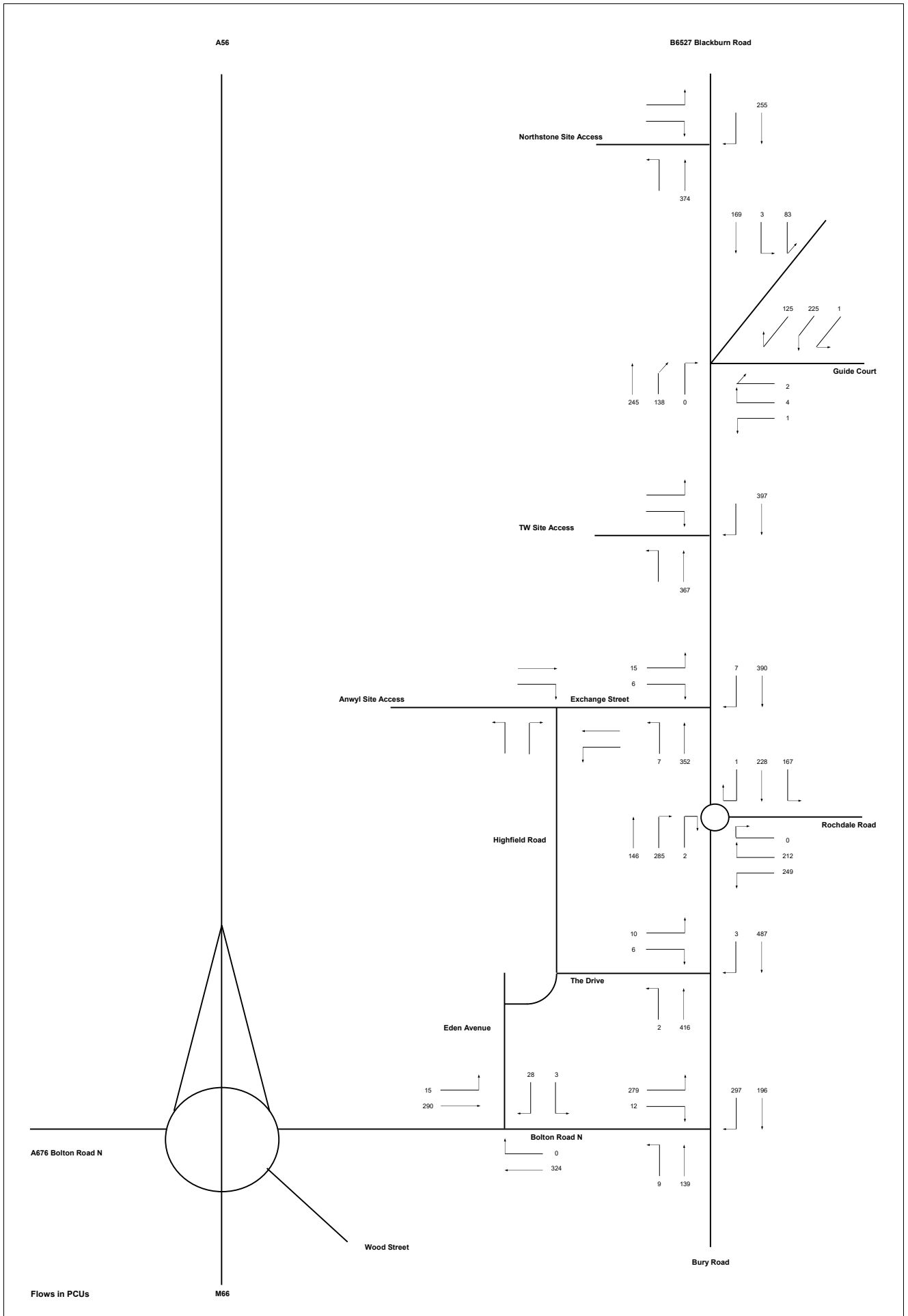


Figure 3 2023 Surveyed Flows - Weekday AM Peak

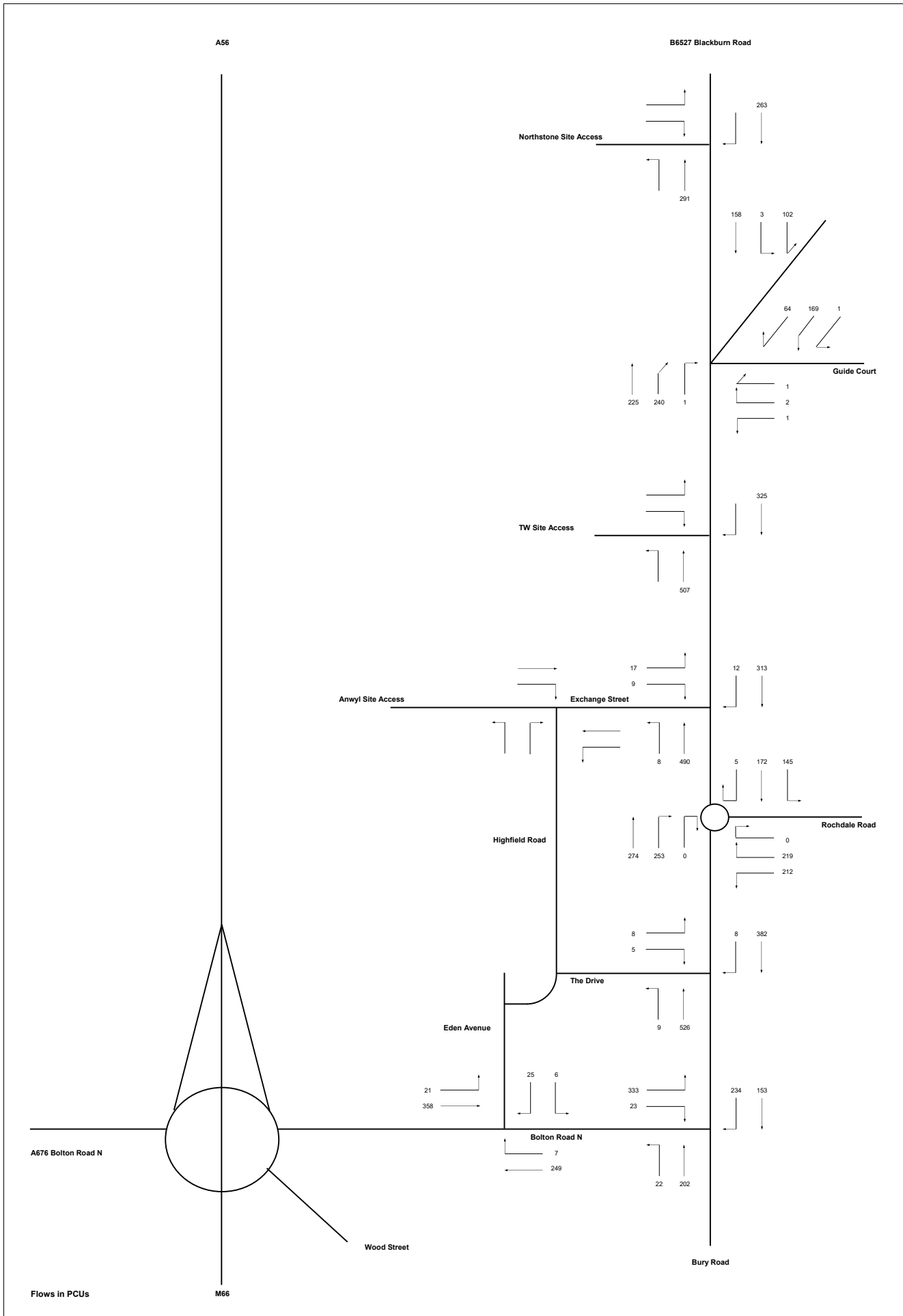


Figure 4 2023 Surveyed Flows - Weekday PM Peak

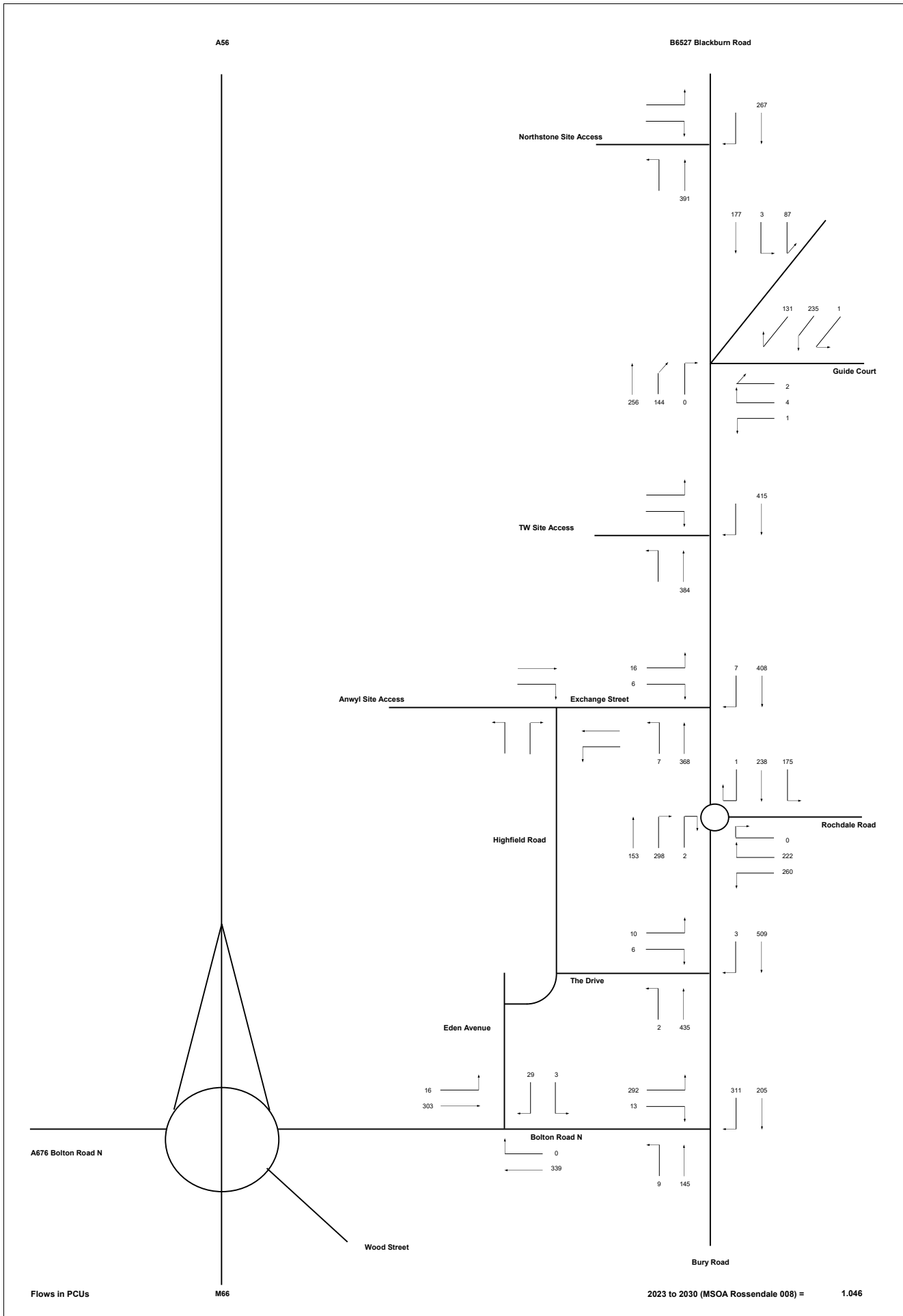


Figure 5 2030 Growthed Flows - Weekday AM Peak

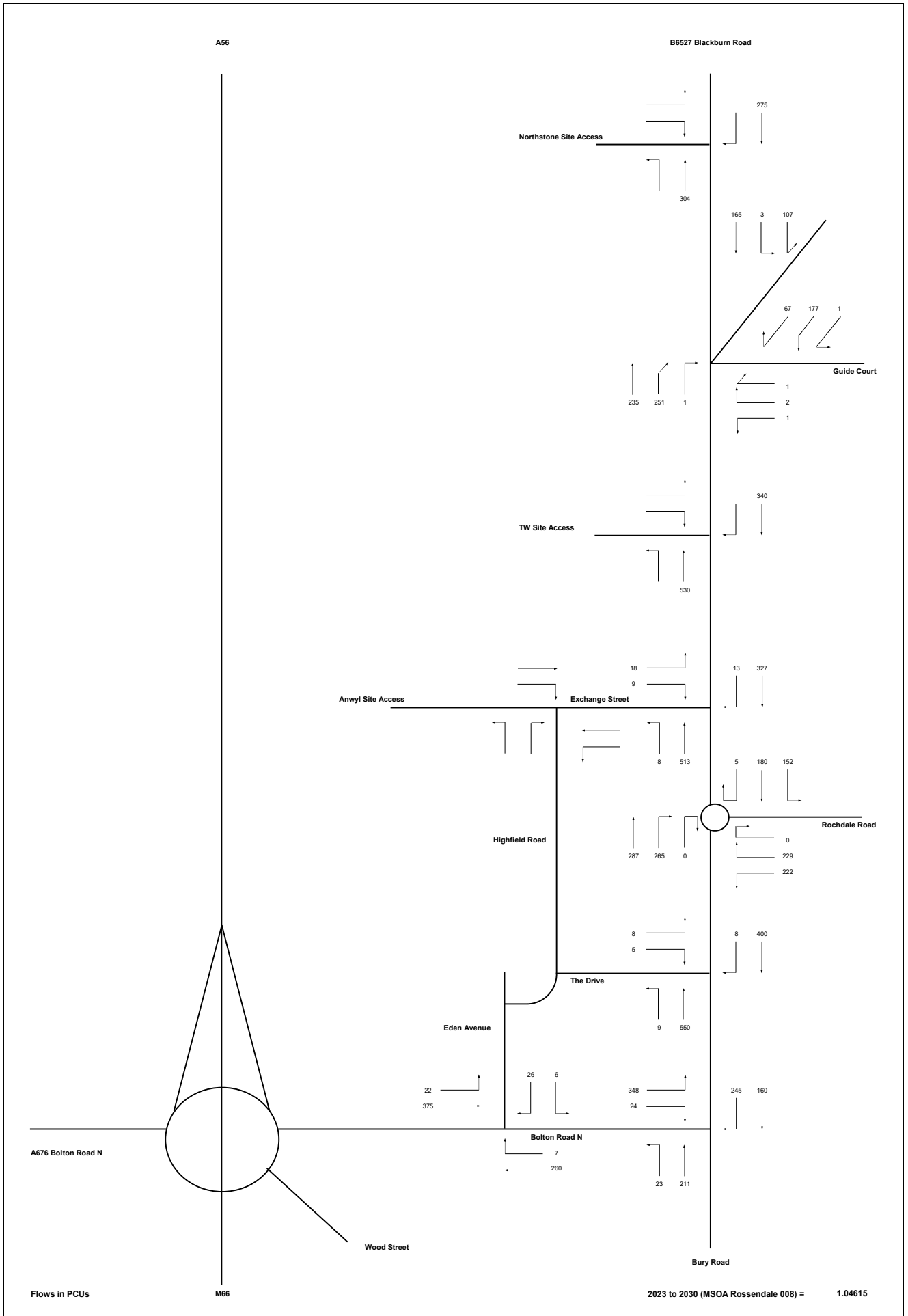


Figure 6 2030 Growthed Flows - Weekday PM Peak

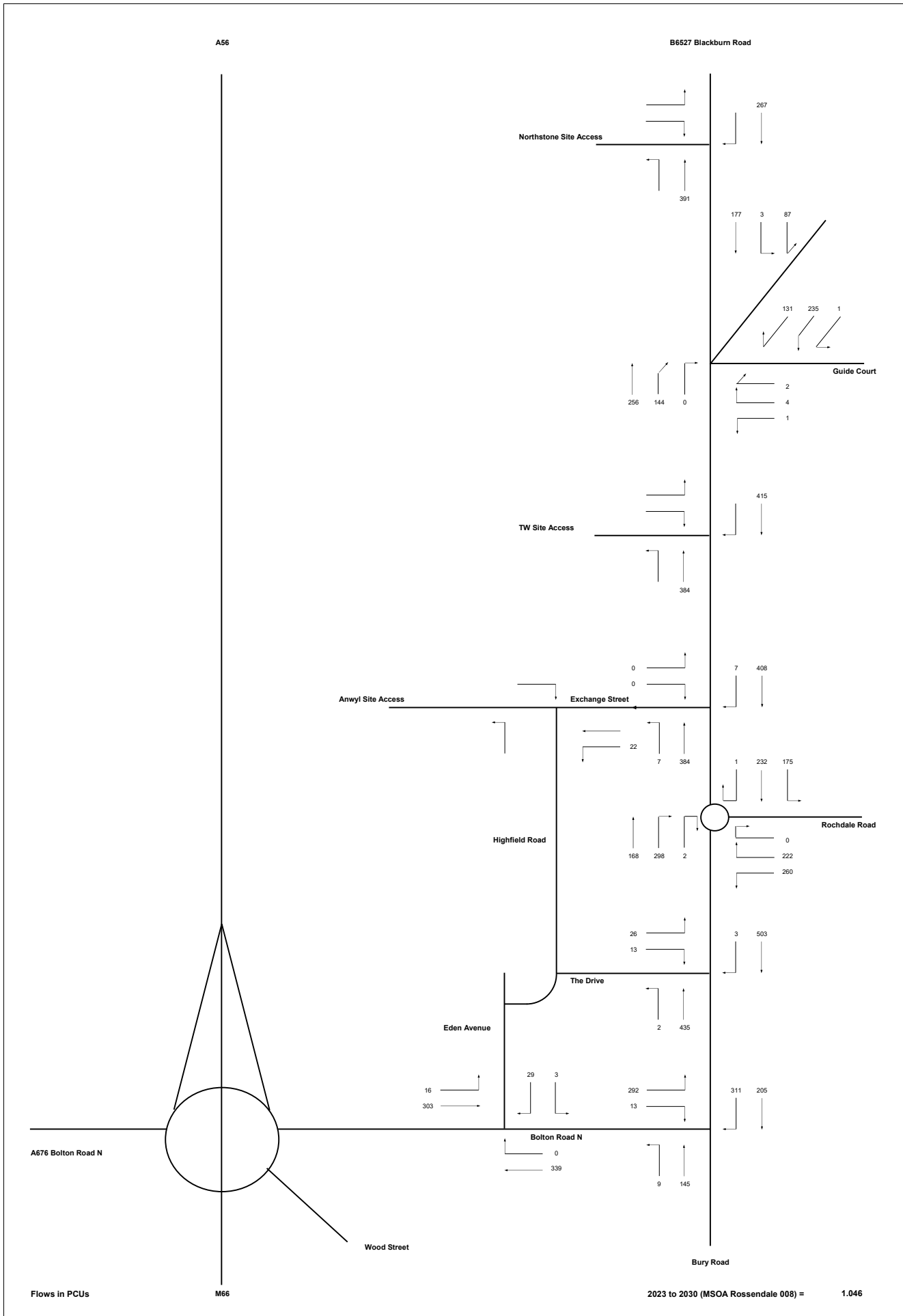


Figure 7 2030 Reassigned Growthed Flows - Weekday AM Peak

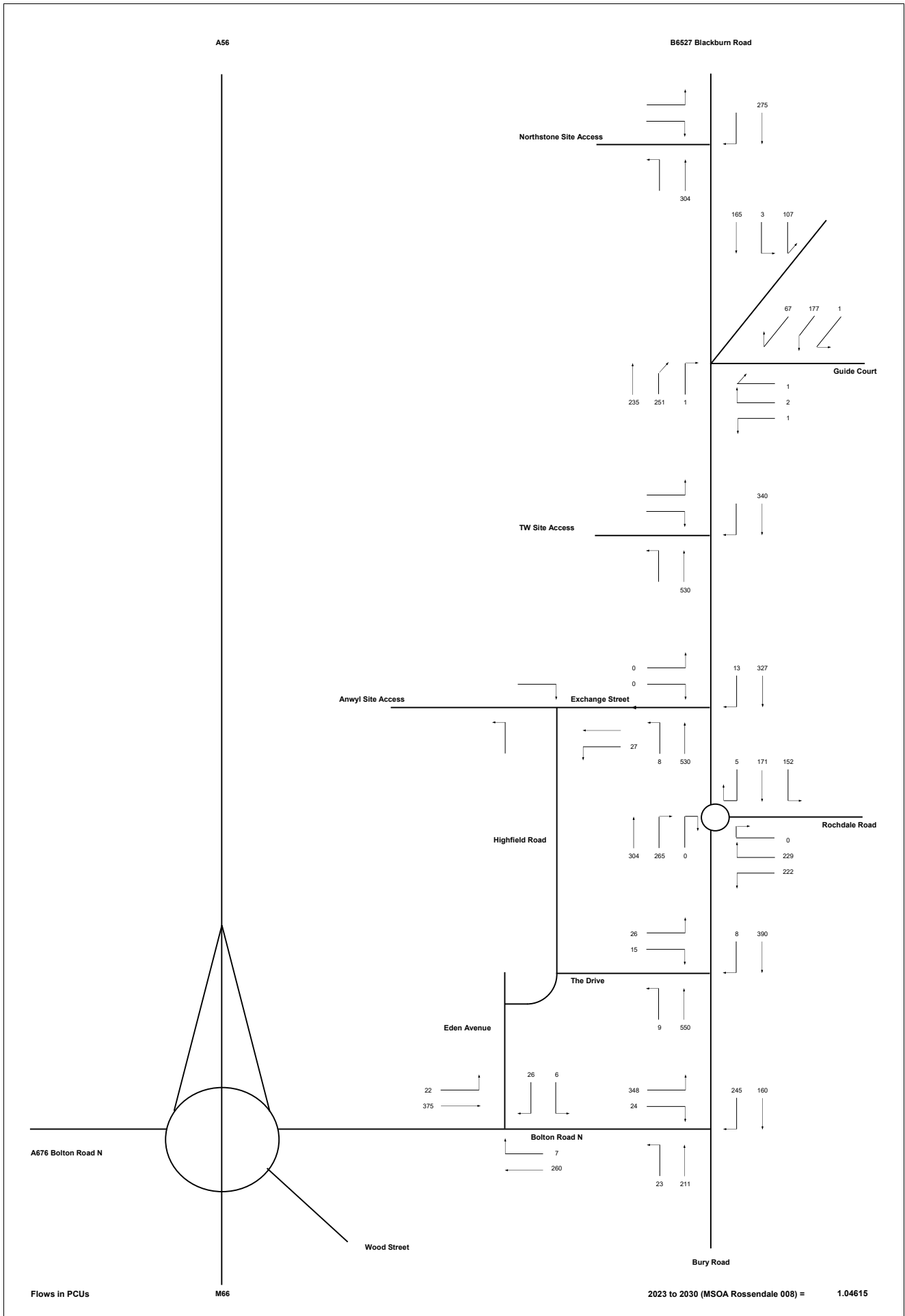


Figure 8 2030 Reassigned Growthed Flows - Weekday PM Peak

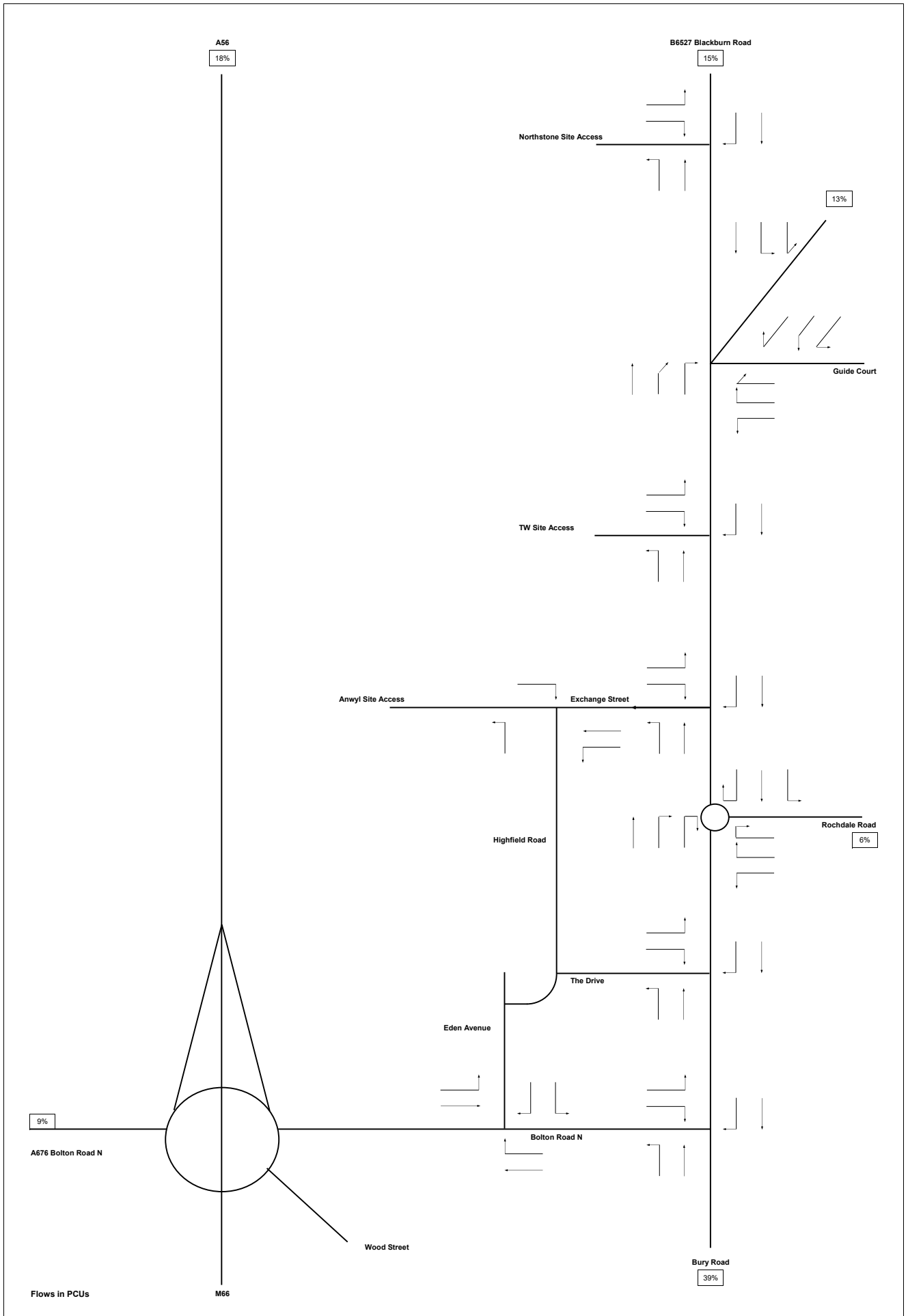


Figure 9 Proposed Trip Distribution

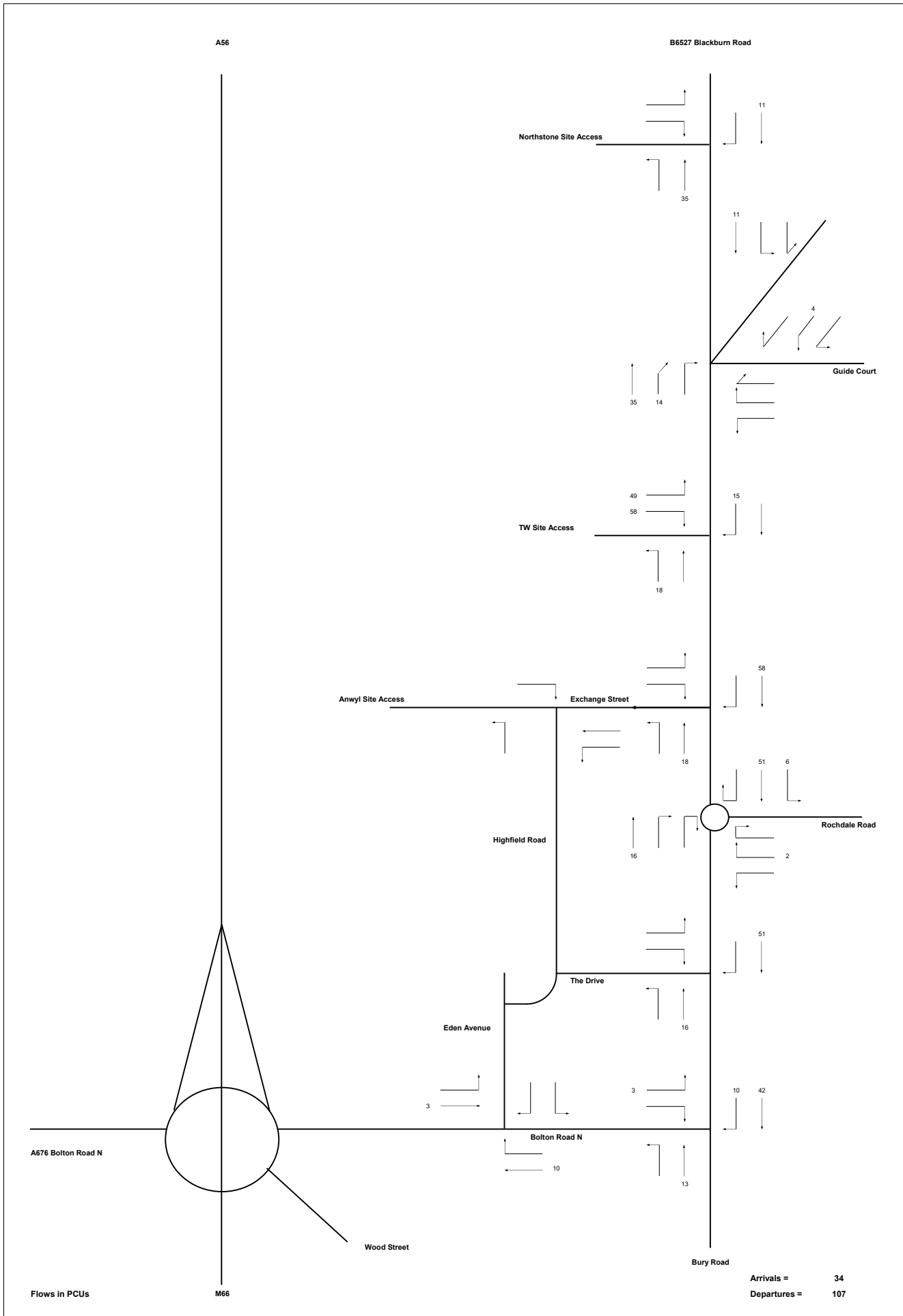


Figure 10 Proposed TW Development Trips - Weekday AM Peak

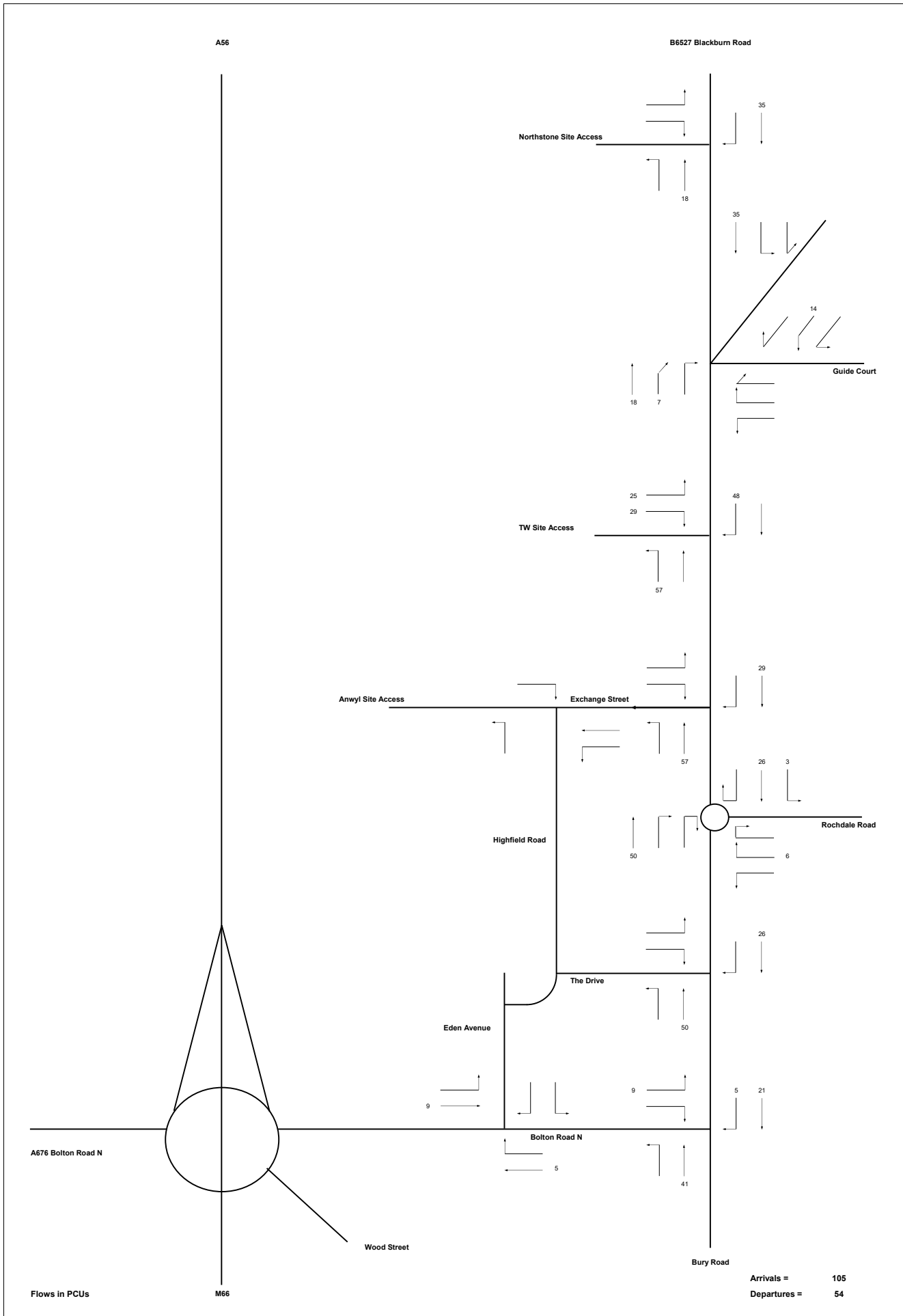


Figure 11 Proposed TW Development Trips - Weekday PM Peak

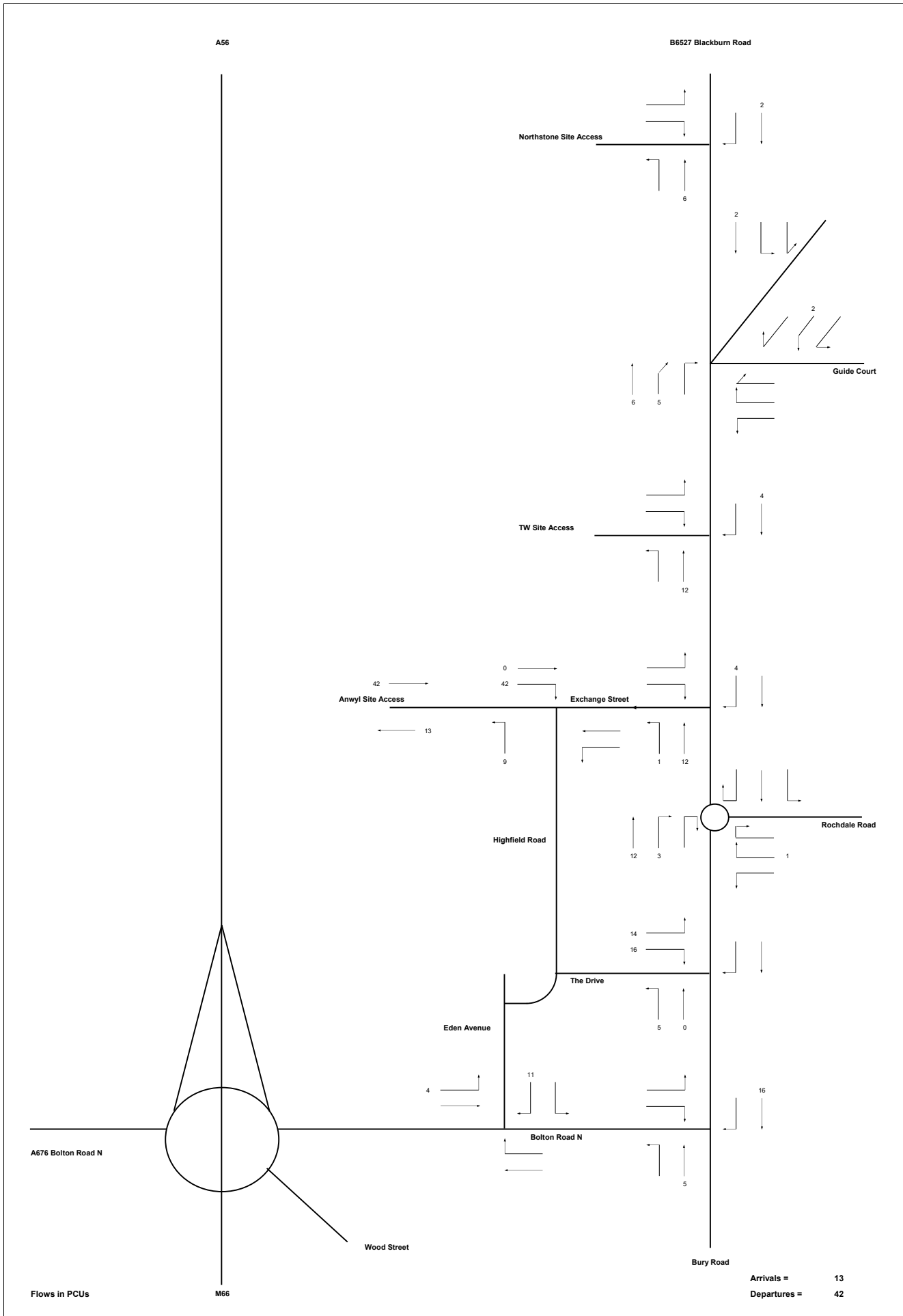


Figure 12 Proposed Anwyl Development Trips - Weekday AM Peak

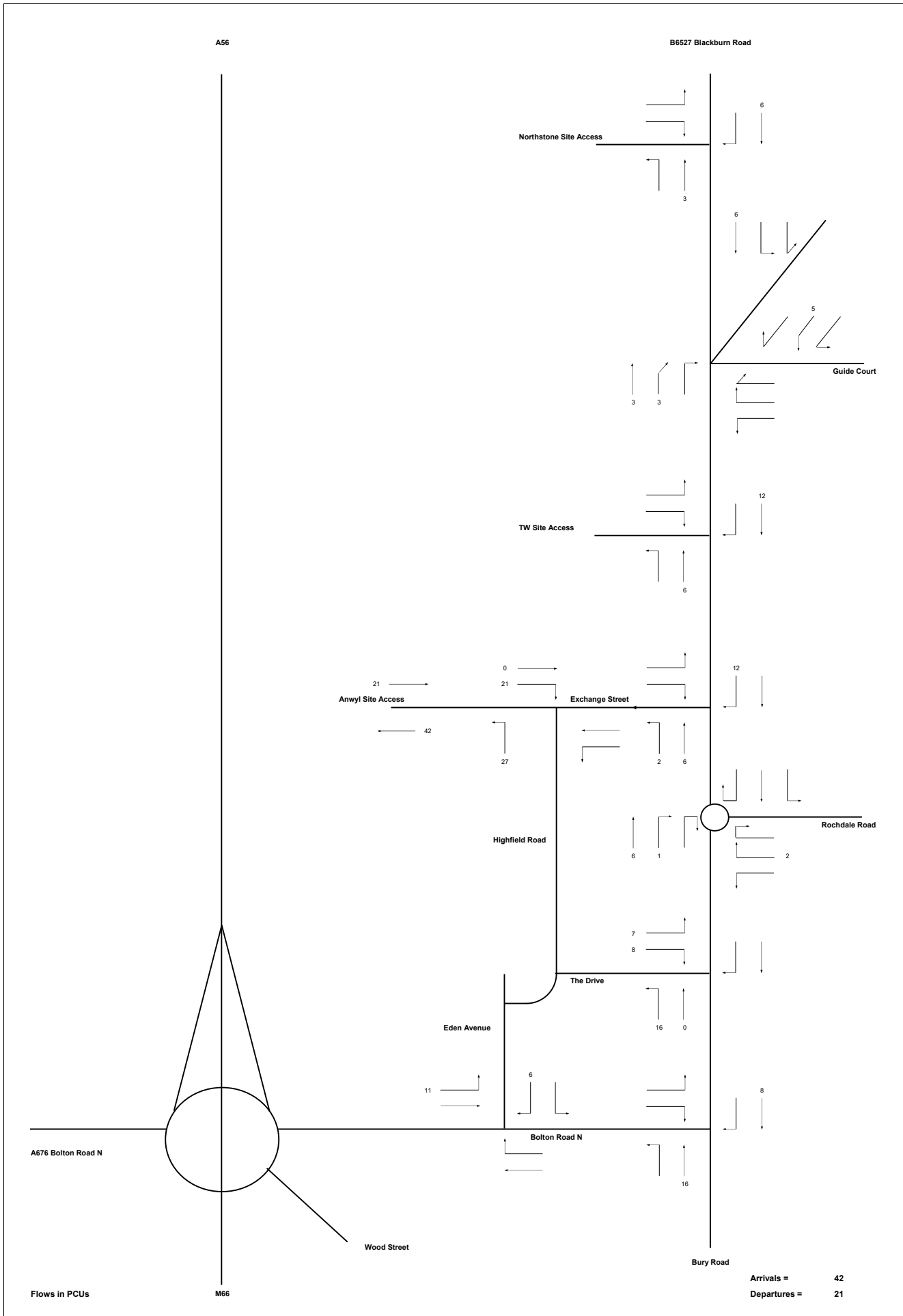


Figure 13 Proposed Anwyl Development Trips - Weekday PM Peak

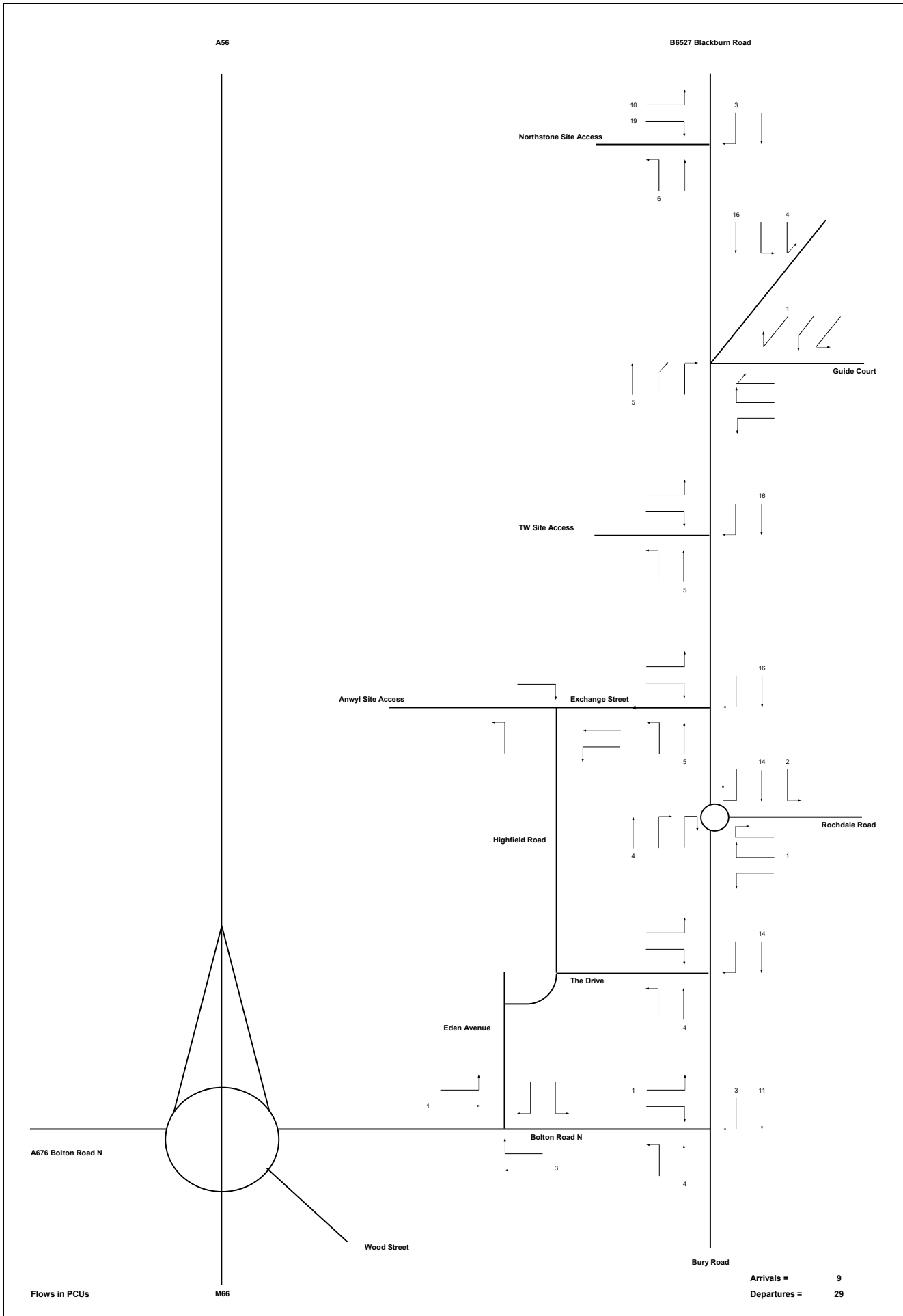


Figure 14 Proposed Northstone Development Trips - Weekday AM Peak

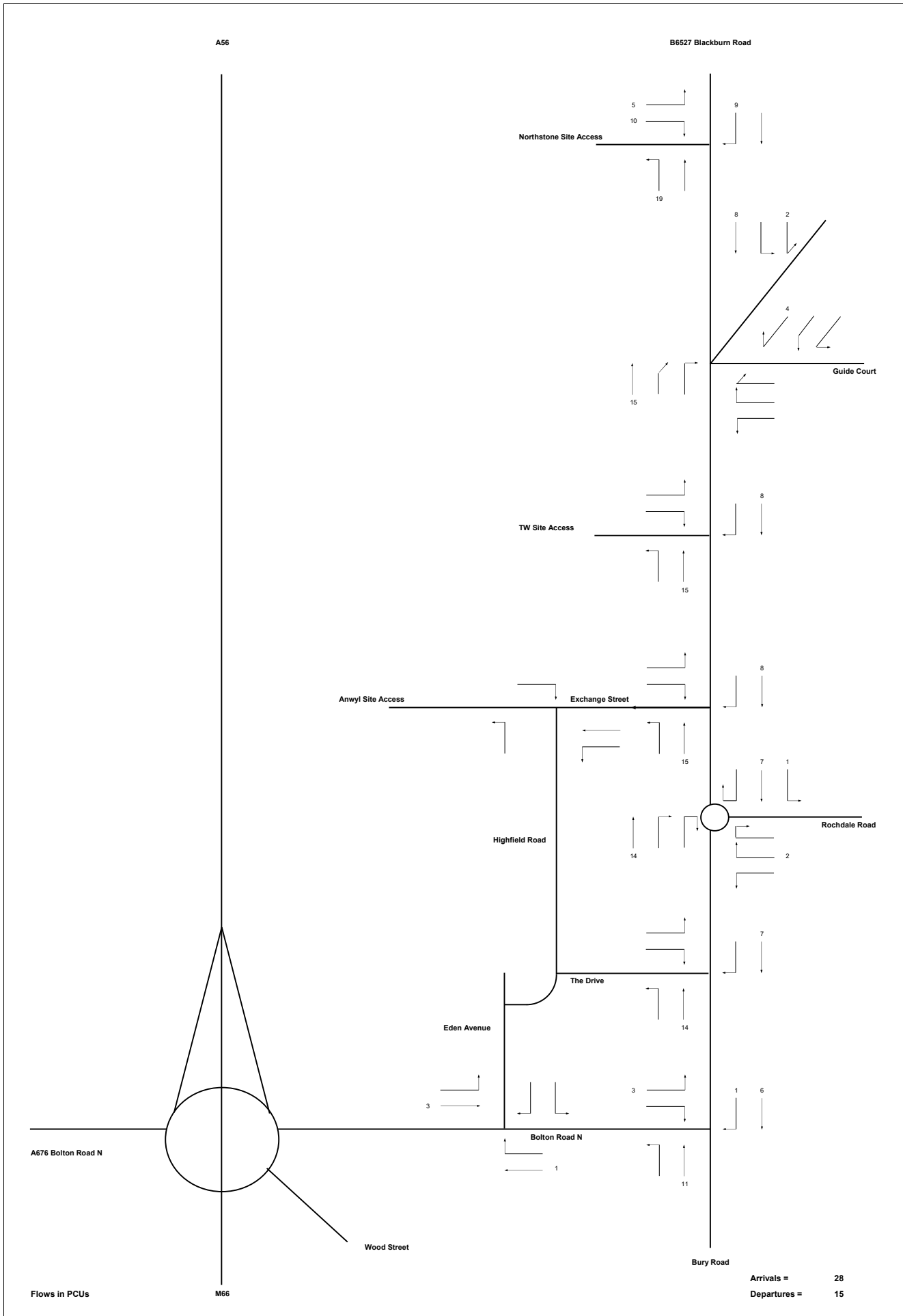


Figure 15 Proposed Northstone Development Trips - Weekday PM Peak

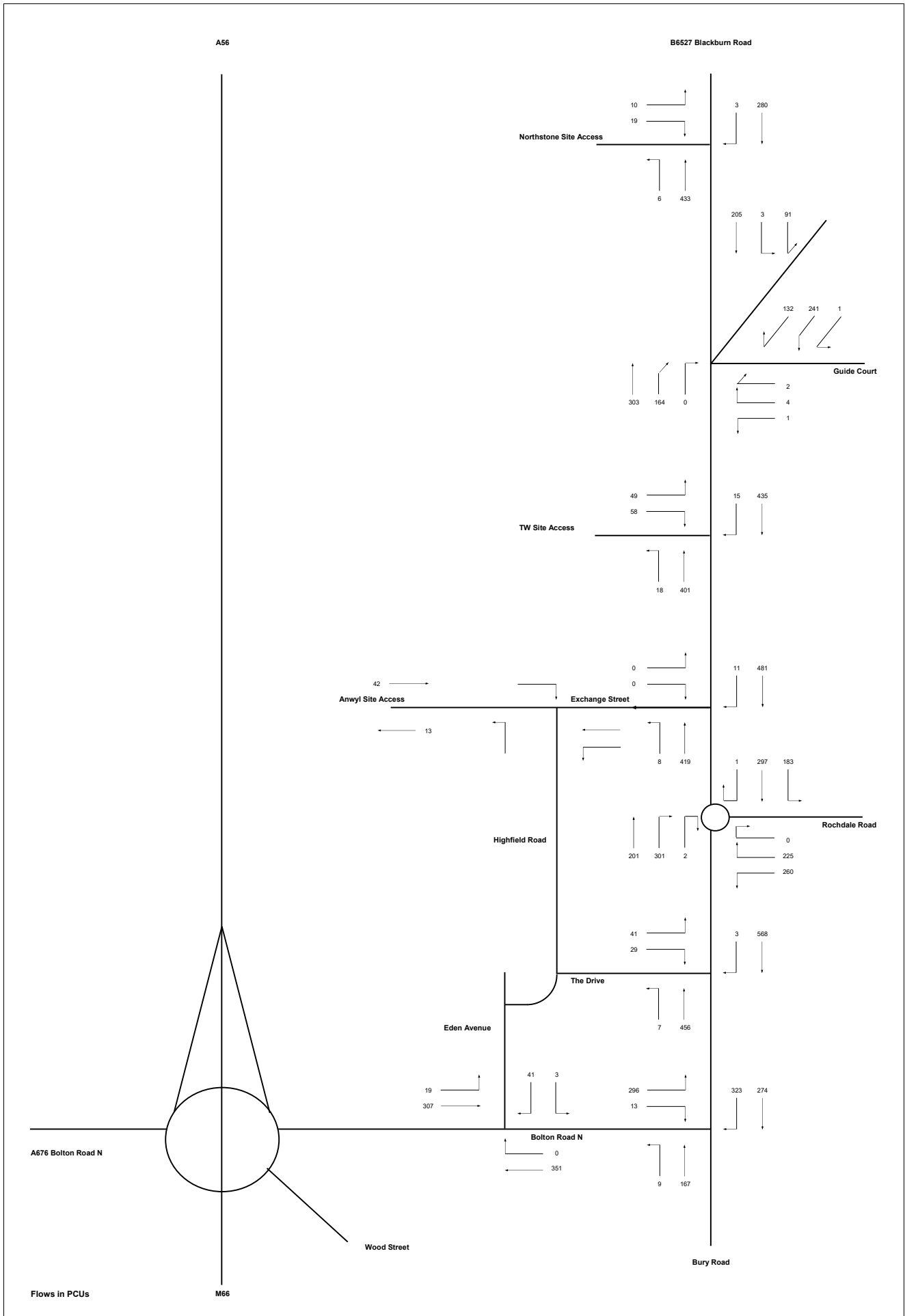


Figure 16 2030 'With Allocation' Flows - Weekday AM Peak

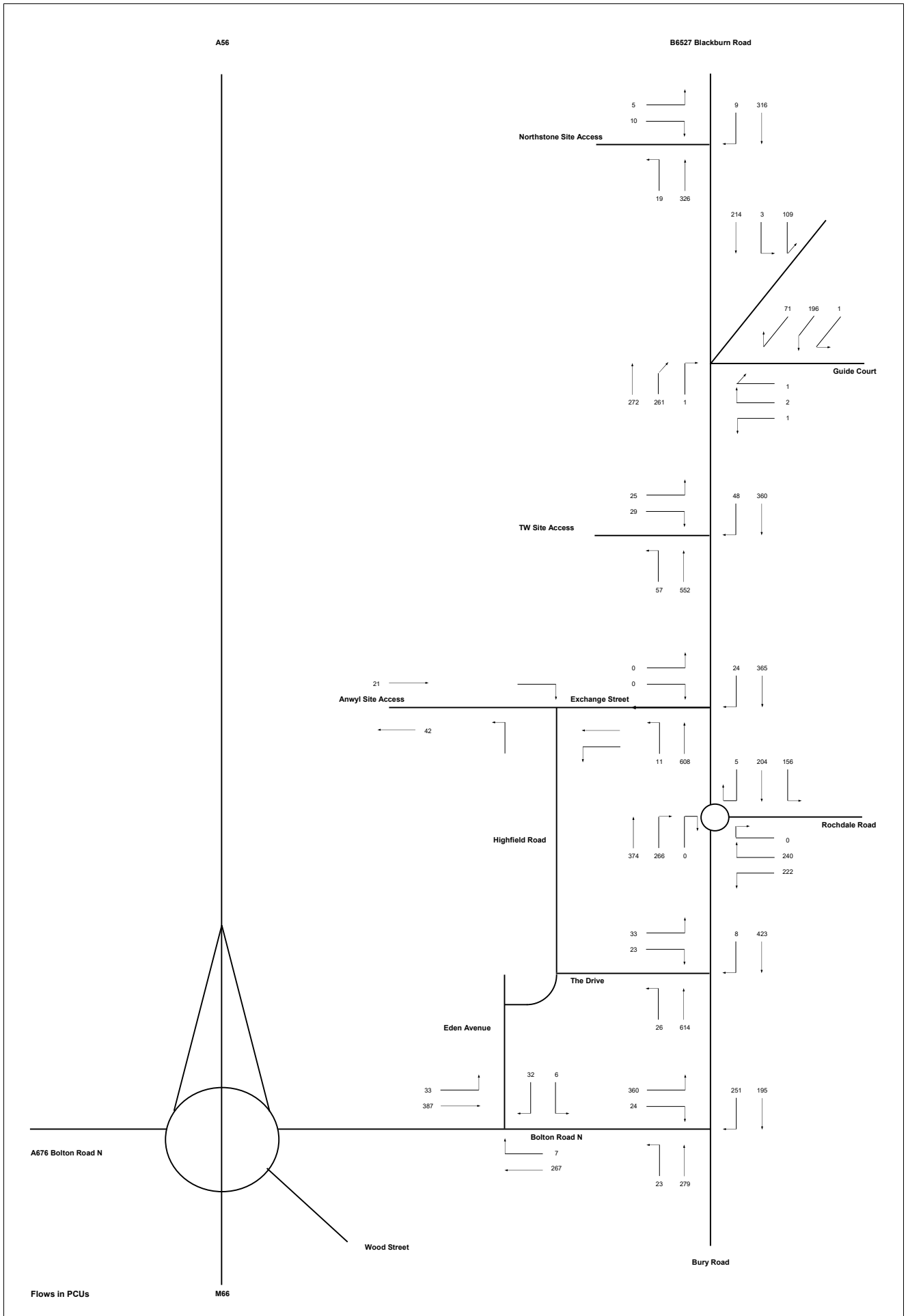


Figure 17 2030 'With Allocation' Flows - Weekday PM Peak