



BARRATT
HOMES

**Residential Development, Phase 1
East Overton Farm, Strathaven**

Transportation Statement

November 2014

Dougall Baillie Associates



civil. structural. transportation. water management

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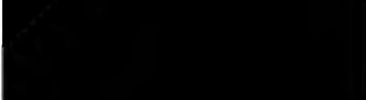
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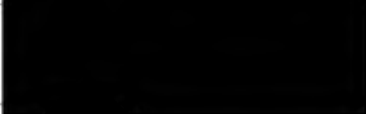
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APPENDICES

Appendix A - Network Flow Diagrams

Appendix B - Road Improvement Drawings

1 Introduction

- 1.1 Dougall Baillie Associates (DBA) were commissioned by Barratt Homes (West Scotland) Ltd to produce a Transportation Statement for a proposed residential development site at East Overton Farm, Strathaven.
- 1.2 The aim of the report is to examine the transport implications arising from Phase 1 of the development which will accommodate up to 138 residential units.
- 1.3 The development site is located to the east of Strathaven on Glassford Road, on land which was formally farmland. The development site location is highlighted in Diagram 1.1. An indicative development access plan is shown as Diagram 1.2.
- 1.4 An application for planning permission in principle was made in 2012 (Application Number EK/12/0003). As part of this application a Transport Assessment produced by SBA Limited was submitted which contained information on traffic flows, distribution and potential highway mitigation measures.
- 1.5 The SBA TA considered the transport implications of the full development, and based on the conclusions, South Lanarkshire Council issued a number of planning conditions for various transport infrastructure modifications.
- 1.6 This report will examine the planning conditions relating to transport and, where applicable, how the first phase of development would meet these conditions.
- 1.7 It is proposed that the development site would be accessed by way of a roundabout on Glassford Road. On the basis that private car travel is likely to account for a significant proportion of trips to and from the development, this assessment also considers the impact of development traffic on the operation of the surrounding road network.
- 1.8 The report also considers, in detail, the suitability and accessibility to local walking, cycling and public transport facilities.

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Scale 1:10000



Scale 1:25000

Client: BARRATT HOMES WEST SCOTLAND	Drawing Title: DIAGRAM 1.1 LOCATION PLAN
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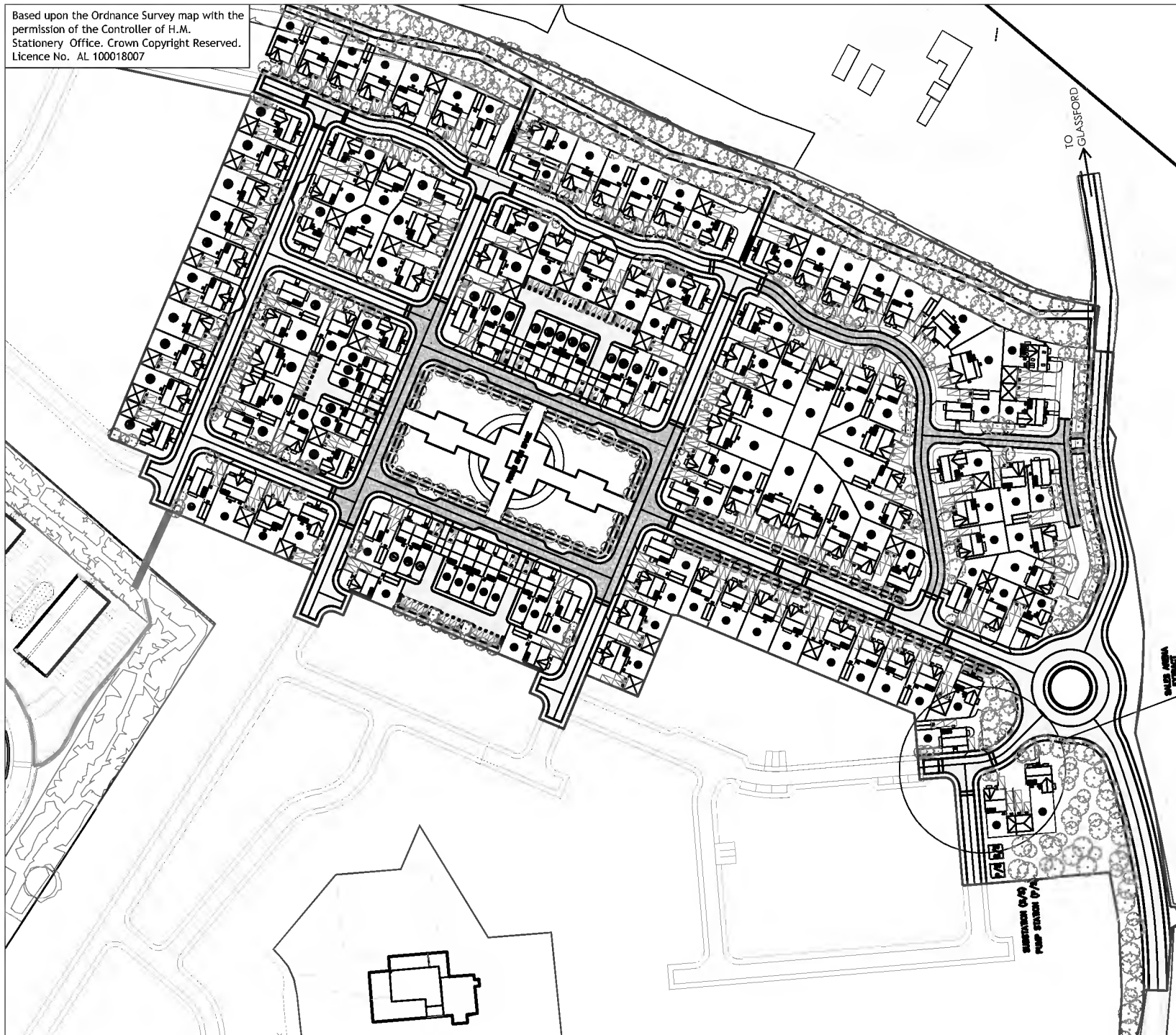


Diagram 1.2
Indicative Site Layout

Scale: NTS @ A4 Diag. Ref: 14117-DIAG1.2



2 National Policy Framework

Introduction

- 2.1 Scottish Planning Policy (SPP) is a statement which reflects the Scottish Ministers policies with regards to the planning system and the development of land and its use. The current SPP was published in June 2014.
- 2.2 Planning Advice Note (PAN) 75 accompanies the SPP on transport matters.

Scottish Planning Policy

- 2.3 The SPP was created in order to focus plan making, planning discussions and development design on the Scottish Governments Purpose. This purpose is the creation of a more successful country, with opportunities for all of Scotland to flourish through increasing sustainable economic growth.
- 2.4 Sustainable economic growth is described in the SPP Glossary as "Building a dynamic and growing economy that will provide prosperity and opportunities for all, while ensuring that future generations can enjoy a better quality of life too."
- 2.5 Paragraph 269 notes that "Planning can play an important role in improving connectivity and promoting more sustainable patterns of transport and travel as part of the transition to a low carbon economy."
- 2.6 Paragraph 270 states that the planning system should support patterns of development which;
 - optimise the use of existing infrastructure
 - provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport
 - enable the integration of transport modes
 - facilitate freight movement by rail or water
- 2.7 The SPP identifies the key transport issues which should be taken account of with regards to land use. These issues can be found in paragraph 272 and are as follows;
 - the capacity of the existing transport network
 - environmental or operational constraints
 - proposed or committed projects

- 2.8 Paragraph 279 notes that "Significant travel-generating uses should be sited at location which are well served by public transport, subject to parking restraint policies and are supported by measures to promote the availability of high quality public transport services." The SPP also indicates that Travel Plans may be required for these types of developments.
- 2.9 Paragraph 287 goes on to emphasise that planning permission should not be granted for significant travel generating uses in locations where;
- direct links to local facilities via walking and cycling networks are not or cannot be made available
 - access to local facilities via public transport would involve walking more than 400m
 - the transport assessment does not identify satisfactory ways of meeting sustainable transport requirements.
- 2.10 SPP paragraph 273 gives a hierarchy of personal travel modes to be prioritised in the following order;
- walking
 - cycling
 - public transport
 - cars
- 2.11 Paragraph 281 notes the SPPs policy on parking standards. National maximum parking standards are set in Annex B of the SPP however the SPP also states that local authorities have the ability to set more or less restrictive standards based on the level of public transport services which serve the development.

Planning Advice Note 75 (PAN 75)

- 2.12 PAN 75 accompanies the SPP providing advice on good practice. Paragraph 6 notes that 'one focus of SPP 17 (now superseded by the SPP on Transport) is to achieve better and earlier integration between transport and land use planning at national, regional and local level.'
- 2.13 It continues that '*Integration can reduce the need to travel and offer more sustainable travel choices. To achieve sustainable development the objectives of the SPP must be considered in the context of other planning policy and guidance*'.

Local Transport Strategy

- 2.14 Local Transport Strategies (LTS) are intended to set out a local authority's objectives, strategies and implementation plans for the development of an integrated transport system. The LTS should flow from and in turn be incorporated into the relevant development plan.

- 2.15 South Lanarkshire Council's LTS document 2013-2023 consultative draft has been referred to in the preparation of this report. Through discussions and analysis of local problems, SLC have identified objectives as noted below:
- *Improve quality and safety for all by maintaining and improving road and footway infrastructure*
 - *Alleviate the impacts of traffic, congestion, traffic growth throughout South Lanarkshire which adversely affect the economy and environment*
 - *Ensure that transport supports and facilitates economic recovery, regeneration and sustainable development*
 - *Improve health and wellbeing by facilitating and encouraging active travel through the development of attractive, safe and convenient walking and cycling networks*
 - *Promote accessibility to key services, job opportunities and community facilities through the development and influencing public transport improvements*
 - *Migrate, adapt and manage the effects of climate change, including flooding, on transport infrastructure and communities*
- 2.16 The LTS also notes that in the case of new developments, they should be accessible by the full range of transport modes and that they should consider the principles of designing streets.

Regional Transport Strategy for the West of Scotland (SPT)

- 2.17 A Catalyst for Change is the title of Strathclyde Passenger Transport's (SPT) Regional Transport Strategy for the West of Scotland 2008-21.
- 2.18 The 'Vision' of this document is to provide 'A world-class sustainable transport system that acts as a catalyst for an improved quality of life for all'.
- 2.19 The report sets out 'Shared Goals' to allow it to achieve this vision. These 'Shared Goals' are to:
- *develop the economy: through improving connectivity for business and freight, making transport more effective and efficient, providing access to employment, education, shopping and leisure, by improving transport integration.*
 - *promote social inclusion and equality: by providing a transport system that is safe, accessible, and affordable to all sections of the community; and*
 - **improve health and protect the environment:** by minimising emissions and consumption of resources and energy by promoting active travel, quality public transport and modal shift.

2.20 The strategic objectives stated for this Transport Strategy are:

1. **Safety & Security** - To improve safety and personal security on the transport system.
2. **Modal Shift** - To increase the proportion of trips undertaken by walking, cycling and public transport.
3. **Excellent Transport System** - To enhance the attractiveness, reliability and integration of the transport network.
4. **Effectiveness & Efficiency** - To ensure the provision of effective and efficient transport infrastructure and services to improve connectivity for people and freight.
5. **Access for All** - To promote and facilitate access that recognises the transport requirements of all.
6. **Environment & Health** - To improve health and protect the environment by minimising emissions and consumption of resources and energy by the transport system.
7. **Economy, Transport & Land Planning** - To support land-use planning strategies, regeneration and development by integrating transport provision.

3 Sustainable Transport Accessibility

- 3.1 This assessment of Sustainable Transport Accessibility considers in detail the elements of the public transport network that serve the area in which the proposed development is located. Separate sections are included for pedestrian facilities, cycling facilities, bus services and train services.
- 3.2 The bus and train sections deal with the routes, quantity and availability of all relevant services. The current infrastructure for these modes has been examined, along with the potential to maximise access to the site for all travel modes.
- 3.3 This part of the assessment is based on published service data for bus and train services. This data is often subject to revision and the data used will become outdated in the future, however it is considered to represent a reasonable basis on which to carry out the type of desktop study summarised in this section of the report.
- 3.4 Scottish Planning Policy (SPP) - Planning for Transport, emphasises that development should be located in areas that are capable of being integrated into effective networks for all forms of transport, including walking cycling and public transport. SPP also clearly identifies a hierarchy of priority that should be given to different transport modes in terms of measures to accommodate their access to a development. This hierarchy is walking, cycling, public transport and lastly private car.

Walking Accessibility

- 3.5 The term 'pedestrian' covers able-bodied people, disabled people, with or without the use of wheelchairs, the infirm, the elderly and parents with children in pushchairs or buggies. Due to the range of mobility exhibited by pedestrians it is important to ensure that the requirements of those with restricted mobility are considered.
- 3.6 Designing Streets policy guidance outlines the importance of pedestrian accessibility to and from new developments. This accessibility is achieved by connecting new street layouts to the existing street network and so encouraging walking and cycling while also making navigation throughout the network easier.
- 3.7 The most popular pedestrian routes serving the development are anticipated to be those leading to public transport facilities, surrounding residential areas or local amenities.
- 3.8 It is anticipated that the development will incorporate pedestrian connections onto Glassford Road and Hamilton Road. As the connections onto Hamilton Road will pass through later stages of the development, there may be times when construction work affects the links to Hamilton Road.
- 3.9 Diagram 3.1 identifies the location of local amenities relative to the proposed

development site. Walking times to these amenities are listed below based on an assumed pedestrian walking speed of 1.3m/s.

- i. **Sainsbury's Store** - is located approximately 1.6km away from the development. An approximate walking time of around 20 minutes.
- ii. **Petrol Station and Shop** - is located approximately 400m away from the development on Hamilton Road. An approximate walking time of around 5 minutes.
- iii. **Local Retail Facilities** - Other shops and local facilities are located in the retail centre of Strathaven in the areas close to Green Street and Common Green. Facilities include chemists, banks and bakeries and are around 1.3km from the site. This is an approximate walking time of 17 minutes. This satisfies the PAN 75 requirement for local shops to be within 1.6km of a new development.
- iv. **Strathaven Library** - is located around 1.3km from the development site. This is an approximate walking time of 17 minutes.
- v. **Parks and Recreation** - Both the George Allan Park and the John Hastie Park are around 1400m away from the development. This is an approximate walking time of 18 minutes.
- vi. **Wester Overton Primary School** - is the closest non-denominational primary school and is located approximately 750m from the development site. This equates to an approximate walking time of under 10 minutes.
- vii. **St. Patrick's Primary School** - is the closest denominational primary school and is located approximately 900m from the development site. This is an approximate walking time of 11 minutes.
- viii. **Strathaven Academy** - is the closest denominational primary school and is located approximately 900m from the development site. This is an approximate walking time of 11 minutes.

Cycle

- 3.10 Cycling provision is dependent on the anticipated number of cyclists, speed and volume of motor vehicles, the function of the route and the physical opportunities present.
- 3.11 Considerations regarding possible cycle routes and whether the carriageway can accommodate cyclists and other vehicles simultaneously should be addressed.
- 3.12 The nearest dedicated cycle routes are the circular cycle routes which run on minor unclassified roads between East Kilbride and Strathaven. The cycle route begins on Letheme Road around 1.5km from the development, equivalent to a 7 minute cycle.
- 3.13 This cycle route also connects in with a dedicated off-road path which runs

through the Whitelee Windfarm area. This connects with the cycle routes to Kilmarnock, Eaglesham and Newton Mearns.

- 3.14 Whilst there are no defined cycle routes on the road network surrounding the development site, it is however noted that many of the roads provide advantageous conditions for cyclists.

Bus Services

- 3.15 Reference to current public transport information indicates that there is a regular bus service which runs past the development frontage on Glassford Road.
- 3.16 The operator of the service past the site is Whitelaws, and details of service 13/256 are shown in Table 3.1.

Service	Route Description	Weekday Daytime Frequency	Weekday Evening Frequency	Saturday Daytime Frequency	Sunday Daytime Frequency	Operator
13/256	East Kilbride, Chapelton, Strathaven, Glassford, Quarter, Hamilton	60 mins	60 mins	60 mins	60 mins	Whitelaws

Table 3.1 - Bus Services

- 3.17 This service provides an hourly bus link to Hamilton and East Kilbride, which would be suitable to serve the demand arising from this development.

Rail Network

- 3.18 The nearest railway station to the development is Larkhall which is 9km from the development. These stations are located out with comfortable walking distance from the site.
- 3.19 Larkhall has a station car park which has 214 car parking spaces (with 13 disabled spaces). It is possible that residents may drive to use this station to access rail services.
- 3.20 Larkhall station has a frequent half-hourly service to Glasgow Central, Partick and Hamilton. On Sundays there is one train per hours.
- 3.21 It is possible that residents would use the park and ride facilities at Larkhall as part of a multi-modal trip to commute into Glasgow.

4 Vehicle Trip Generation

Traffic Surveys

- 4.1 In discussions with South Lanarkshire Council it was agreed that the surveys conducted as part of the previous Transport Assessment in 2011 would still be valid for use in this report.
- 4.2 Traffic flows are commonly projected forward to the year of opening of the development. In this instance the traffic flows have therefore been projected forward to the year 2017, which represents a robust assessment.
- 4.3 The traffic flows were projected using the “Low” growth prediction from the National Road Traffic Forecasts as shown in Table 4.1

Year	Index	Factor
2017	1.250	1.068
2011	1.170	

Table 4.1 - NRTF Low Traffic Growth Rates

- 4.4 Base traffic flows can be seen in Diagram 1a/b and projected 2017 traffic flows as Diagram 2a/b of Appendix A.

Traffic Distribution

- 4.5 As part of the planning permission in principal application, a Transport Assessment for the development was produced by SBA Limited. This contained a gravity model which was used to distribute traffic onto the local road network.
- 4.6 This distributed trips in the following directions-
- 28.5% to A726
 - 29.4% to A723
 - 12.5% to A71 (E)
 - 29.6% to Town Centre
- 4.7 It is proposed for the purposes of this assessment to retain the distribution used in the TA submitted for the planning permission in principle application.
- 4.8 The distribution can be seen in Diagram 3a/b in Appendix A.

Trip Generation

4.9 The trip rates shown below in Table 4.2 are taken from the SBA assessment and thus were agreed with South Lanarkshire Council.

	Arrivals	Departures
AM	0.179	0.615
PM	0.359	0.282

Table 4.2 - Residential Trip Rates from SBA Transport Assessment

4.10 DBA have adopted these agreed Trip Rates shown in Table 4.2 for the Phase 1 development.

4.11 Applying the trip rates indicated in Table 4.2 to the proposed 138 units in Phase 1 would result in the vehicle trip generation summarised in Table 4.3 during the morning and evening peak hours.

	Arrivals	Departures
AM	25	84
PM	49	39

Table 4.3 -Residential Trip

4.12 The development trips can be seen in Diagrams 4a/b whilst the 2017 flows with development flows are shown in Diagram 5a/b of Appendix A.

5 Junction and Network Analysis

- 5.1 Traffic flows for the peak periods were obtained by the methods described in Section 4.
- 5.2 Detailed analysis undertaken as part of the SBA TA submitted for the whole development showed that only one junction, the Hamilton Road / Glassford Road junction would require mitigation works.
- 5.3 As such the analysis within this Transportation Statement has been limited to the site access roundabout, the Hamilton Road / Glassford Road junction.
- 5.4 The junction of Berebriggs Road / Glassford Road which is in between the two junctions has also been analysed.
- 5.5 The assessments were undertaken using industry standard analysis software. For priority and roundabout junctions, TRL programmes PICADY V4.1 and ARCADY V5 were used respectively.
- 5.6 The generally accepted performance indicator with regard to traffic capacity at junctions is the Ratio of Flow to Capacity (RFC). From input data on junction geometry and design year flows, a ratio of traffic demand to junction capacity is calculated for each movement or approach.
- 5.7 A given movement reaches its capacity when the RFC value reaches 1.000; however a figure of 0.850 is commonly adopted as a limiting RFC value in the design of new junctions, to allow for variations in daily traffic demand and site-specific model variations. Lower RFC's represent less delay and spare capacity, indicating efficient operation.

Site Access Roundabout

- 5.8 The proposed access to the development is by a compact 4 arm roundabout on Glassford Road.
- 5.9 The indicative junction layout is shown in DBA Drawing Number 14117-SK-01 in Appendix B.
- 5.10 Two arms provide access to the development. For Phase 1 the north western arm provides access to only 3 units whilst the north eastern arm provides access to the remaining units. Both arms will provide access to future phases of development.
- 5.11 For the purposes of this assessment, all 138 units in Phase 1 have been assumed to leave from the north eastern arm to give a robust assessment.
- 5.12 The analysis indicates the revised junction layout will operate well within capacity with the traffic generation from Phase 1 in 2017. Full analysis results can be seen in Table 5.1.

Glassford Road / Berebriggs Road

- 5.13 This is a priority junction which is located between the Hamilton Road and the site access junctions.
- 5.14 Some 32% of the traffic from the development is assumed to turn from Berebriggs Road to Glassford Road.
- 5.15 As such an analysis of the junction was undertaken in PICADY. This indicated that the junction will operate within capacity with development traffic. Full analysis results can be seen in Table 5.2.

Glassford Road / Hamilton Road Junction

- 5.16 As previously indicated, within the SBA TA this was the only assessed junction that showed capacity issues when analysed with the full development traffic.
- 5.17 The SBA TA indicated that it was possible to mitigate the impact by amending the junction priorities. This would mean that Glassford Road gave way to traffic making the Commercial Road - Hamilton Road movement.
- 5.18 The development is conditioned to provide this improvement before the occupation of the first unit.
- 5.19 DBA has analysed the revised junction layout, shown in DBA drawing 14117-SK-02 in Appendix B.
- 5.20 The analysis indicates the revised junction layout will operate efficiently with the traffic generation from Phase 1 in 2017. Full analysis results can be seen in Table 5.3.

Table 5.1 - ARCADY 5 Results
Site Access Roundabout

	Glassford Road West			Site Access North West			Site Access North East			Glassford Road East		
	RFC	Queue Veh	Delay mins/veh	RFC	Queue Veh	Delay mins/veh	RFC	Queue Veh	Delay mins/veh	RFC	Queue Veh	Delay mins/veh
Weekday AM Peak												
2017 + Generation	0.067	0.1	0.05	0.000	0.0	0.00	0.094	0.1	0.07	0.063	0.1	0.07
Weekday PM Peak												
2017 + Generation	0.105	0.1	0.06	0.000	0.0	0.00	0.044	0.0	0.06	0.065	0.1	0.07

Notes:

- RFC represent Ratio of Flow to Capacity
- queue lengths are maximum values expressed in numbers of vehicles
- vehicle delays are stated as average delays in minutes per vehicle



Table 5.2 - PICADY 4 Results

Glassford Road / Berebriggs Road

	Berebriggs Road			Glassford Road West		
	RFC	Queue Veh	Delay mins/veh	RFC	Queue Veh	Delay mins/veh
Weekday AM Peak						
2017 + Generation	0.202	0.3	0.15	0.090	0.1	0.13
Weekday PM Peak						
2017 + Generation	0.169	0.2	0.15	0.115	0.2	0.13

Notes:

- RFC represent Ratio of Flow to Capacity
- queue lengths are maximum values expressed in numbers of vehicle
- vehicle delays are stated as average delays in minutes per vehicle



Table 5.3 - PICADY 4 Results

Glassford Road / Hamilton Road - New Layout

	Glassford Road			Commercial Road		
	RFC	Queue Veh	Delay mins/veh	RFC	Queue Veh	Delay mins/veh
Weekday AM Peak						
2017 + Generation	0.609	1.5	0.25	0.174	0.4	0.17
Weekday PM Peak						
2017 + Generation	0.404	0.7	0.22	0.369	0.9	0.20

Notes:

- RFC represent Ratio of Flow to Capacity
- queue lengths are maximum values expressed in numbers of vehicle
- vehicle delays are stated as average delays in minutes per vehicle



6 Infrastructure Improvements

6.1 As this is a development on the edge of Strathaven, infrastructure improvements are required to link the development effectively with the existing urban area.

6.2 This includes provision of footway links and public transport facilities.

Bus Stops and Speed Limit

6.3 The development is conditioned to provide bus stops on Glassford Road which will serve the development. These bus stops will include the provision of bus shelters.

6.4 The indicative position of bus stops is shown in DBA Drawing Number 14117-SK-03.

6.5 The development is conditioned to extend the urban 30mph speed limit.

6.6 Drawing 14117-SK-03 indicates the proposed extent of 30mph speed limit extension. This position will be confirmed in discussions with South Lanarkshire Council.

Footway Extension and Traffic Calming

6.7 The development is conditioned to provide a 2m wide footway along the frontage of the site on Glassford Road which should connect to the existing path.

6.8 The development is also conditioned to provide a traffic calming scheme in accordance with SBA drawing A072399/SK007A, however no timescale for these works was conditioned.

6.9 DBA drawing 14117-SK-04 Rev A shows a 2m footway between the development and the existing footway network in Strathaven.

6.10 A 2m footway has been provided on the north side of Glassford Road adjacent to the development frontage. Out with the development frontage, a 2m footway is provided on the south side of Glassford Road, which connects with the wider footway network in Strathaven.

6.11 The footway is provided mainly within the road verge, however a portion of the verge on the south side of the road is supported by gabion baskets. As such it was desirable to ensure that any footway avoids this area.

6.12 Therefore a build-out traffic calming feature was provided to allow the footway to avoid an impact on the gabion baskets. This will also mitigate traffic speeds and minimise the distance for pedestrians crossing between the two footways.

- 6.13 The footway is close to the hedge line on the south side of the road. The hedge on the south side of Glassford Road may constitute a minor restriction of the footway width in some areas.
- 6.14 Diagram 14117-SK-04 Rev A also shows the indicative road widths. This indicates that a road width of at least 5.5m is maintained on the two-way sections of road.
- 6.15 Speed cushions are also provided along Glassford Road to further mitigate traffic speeds.

Berebriggs Road Improvements

- 6.16 Berebriggs Road is a narrow single track road which links Glassford Road with the A71.
- 6.17 Currently flows on Berebriggs Road are low. The traffic survey in 2011 indicated two way flows of 118 in the AM peak and 112 in the PM peak.
- 6.18 As noted previously in Section 5, the trip distribution from the TA by SBA indicates that 32% of development traffic will use this route.
- 6.19 The development is conditioned to improve Berebriggs Road as per the SBA drawing number A072399/SK08.
- 6.20 A detailed design of improvements to Berebriggs Road, with reference to the SBA drawing, should be undertaken in discussion with South Lanarkshire Council.

7 Planning Conditions

7.1 As previously noted a number of transportation based planning conditions were attached to the approval granted for the planning permission in principle application for the whole development site.

7.2 A summary of the conditions and how the development will aim to address the conditions is noted below.

Condition 10

7.3 *Roundabout Safety Audit to be submitted prior to occupation of first unit.*

7.4 As part of the detailed design process for the roundabout, a Stage 2 roundabout safety audit will be undertaken along with the detailed design.

Condition 11

7.5 *Detailed Design of modification to Glassford Road / Hamilton Road Junction in accordance with DRG No A072399/SK003 to be submitted and approved prior to occupation of first unit.*

7.6 As noted in the analysis section, this improvement is required for capacity reasons, thus a detailed design would be prepared and submitted to South Lanarkshire Council to satisfy this condition.

Condition 12

7.7 *Details of measures to upgrade Hamilton Road Industrial Estate roads to be submitted and approved. These measures to be implemented prior to the occupation of the leisure or business units.*

7.8 This Transportation Statement considers the transport implications of the first phase of the development (138 residential units). This condition therefore is not applicable for this stage of development.

Condition 13

7.9 *Prior to occupation of first unit two new bus stops to be constructed on Glassford Road including shelters etc.*

7.10 Details on the proposed position and location of bus stops is included in Section 6 of this report. This is subject to agreement with South Lanarkshire Council.

Condition 14

7.11 *Prior to occupation of first unit a new footpath connection between Phase 1 of the development and Hamilton road to be provided.*

7.12 Footpath links to Hamilton Road are included as part of the Phase 1 works.

Discussions with South Lanarkshire Council regarding the timing of this condition are ongoing given that the links could pass through the Phase 2 site during its construction.

Condition 16

- 7.13 *Prior to occupation of first unit, a 2 metre footway along the entire frontage of the site to connect to existing.*
- 7.14 Details on works to satisfy this condition are provided in Section 6 of this report.

Condition 17

- 7.15 *Prior to occupation of first unit, a Puffin crossing to be introduced on Hamilton Road.*
- 7.16 A puffin crossing will be provided on Hamilton Road, at a location to be agreed in discussions with South Lanarkshire Council during the detailed design of the crossing.

Condition 18

- 7.17 *A traffic calming scheme on Glassford Road in accordance with Drg A072399/SK007A. (Note no timescale for works given)*
- 7.18 Details on works to satisfy this condition are provided in Section 6 of this report.

Condition 20

- 7.19 *Developer to fund the cost of introducing a TRO to extend the 30 mph speed limit.*
- 7.20 Details on works to satisfy this condition are provided in Section 6 of this report. It is not anticipated that a TRO is required if the street lighting is extended. This will be confirmed in discussions with South Lanarkshire Council.

Condition 21

- 7.21 *The internal road layout shall be designed in accordance with Designing Streets, and to the Council's Interim Road Development Guidelines.*
- 7.22 Details on the internal road layout will have to be discussed with the council and confirmed as part of the RCC process.

Condition 22

- 7.23 *That all new residents within the approved site shall be issued by the applicant with a Residential Travel Pack*
- 7.24 A residential travel pack will be issued to all new residents of the development.

8 Car Parking and Servicing Requirements

Car Parking Provision

- 8.1 The parking requirements for the residential development would be in line with the Council’s interim guidance for development roads. The provision is shown in Table 7.1 for the development content.

Land Use	Parking Provision	
	Allocated	Unallocated
Residential		
1 - 4 bedrooms	2 per unit	0 per unit
5 or more Bedrooms	3 per unit	0 per unit

Table 7.1 - Development Parking Requirements

- 8.2 Parking provision would be distributed throughout the development site, and integrated into the internal layout to ensure that appropriate parking facilities were available in all areas of the development.

Servicing

- 8.3 The layout for the development will comply with the Council’s development roads guidelines and will be sufficient to accommodate normal service and refuse vehicle manoeuvres within the site.

9 Conclusion

- 9.1 The proposed development is in accordance with current Government policy, as set out in Scottish Planning Policy (SPP), with regard to the ability to integrate the development into existing and planned networks for pedestrians, cyclists and public transport.
- 9.2 The development layout will be designed in accordance with the Designing Streets policy.
- 9.3 This assessment confirms that existing public transport networks are available within the area of the development. Existing public transport services would provide the opportunity for those travelling to and from the development to choose modes other than the private car.
- 9.4 The impact of development traffic generation has been established through detailed analysis of the local road network using industry standard software. This analysis indicates that the predicted traffic impact on the local road network would be minor, and capable of being mitigated by the measures indicated in sections 5 and 6.
- 9.5 Car parking provision has been assessed in accordance with the Council's Parking Standards and would be distributed throughout the development as appropriate to serve demand from residents and visitors. Service vehicles would be accommodated within the final design of the development road layout.

Appendix A

Network Flow Diagrams

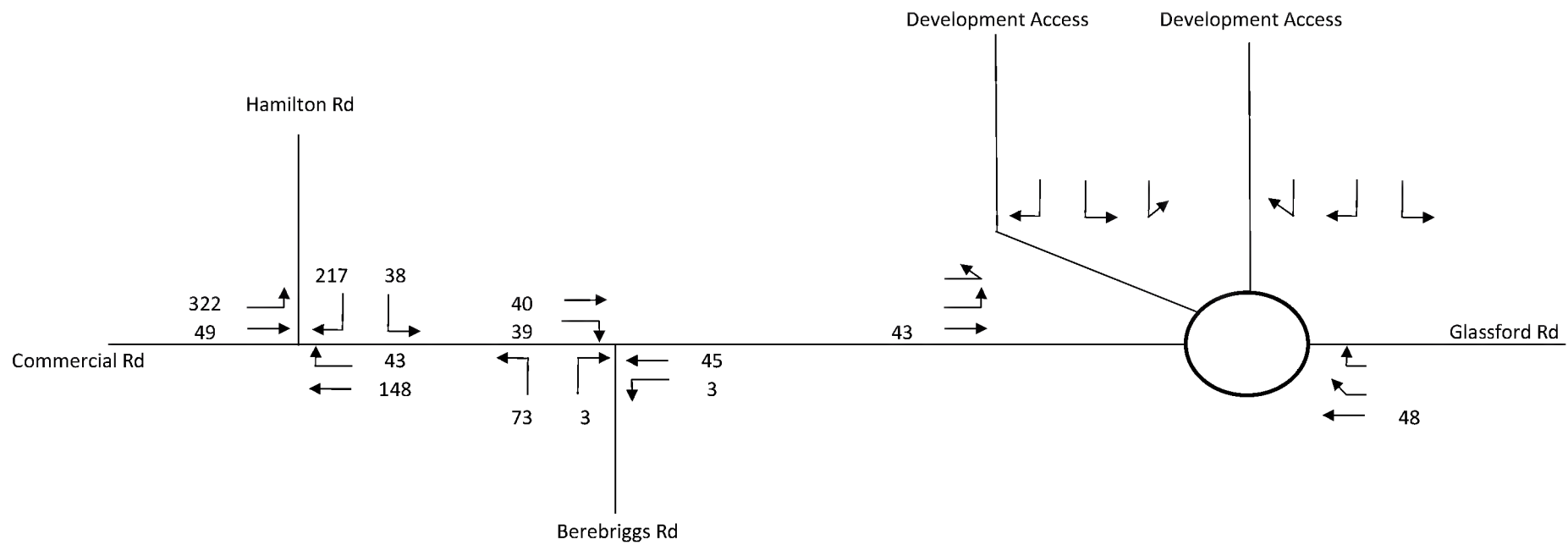


Diagram 1a
 2011 AM Base
 Dougall Baillie Associates
DBA

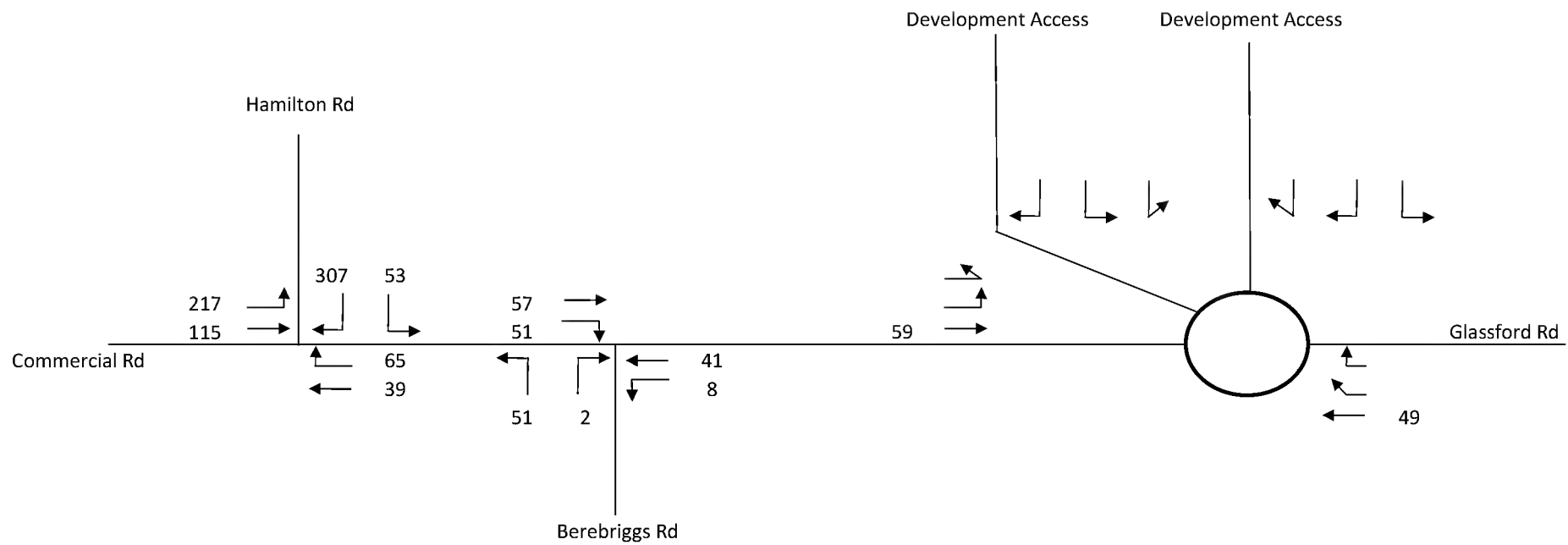


Diagram 1b
 2011 PM Base
 Dougall Baillie Associates
DBA

$$\frac{2017}{2011} = \frac{1.25}{1.17} = 1.068$$

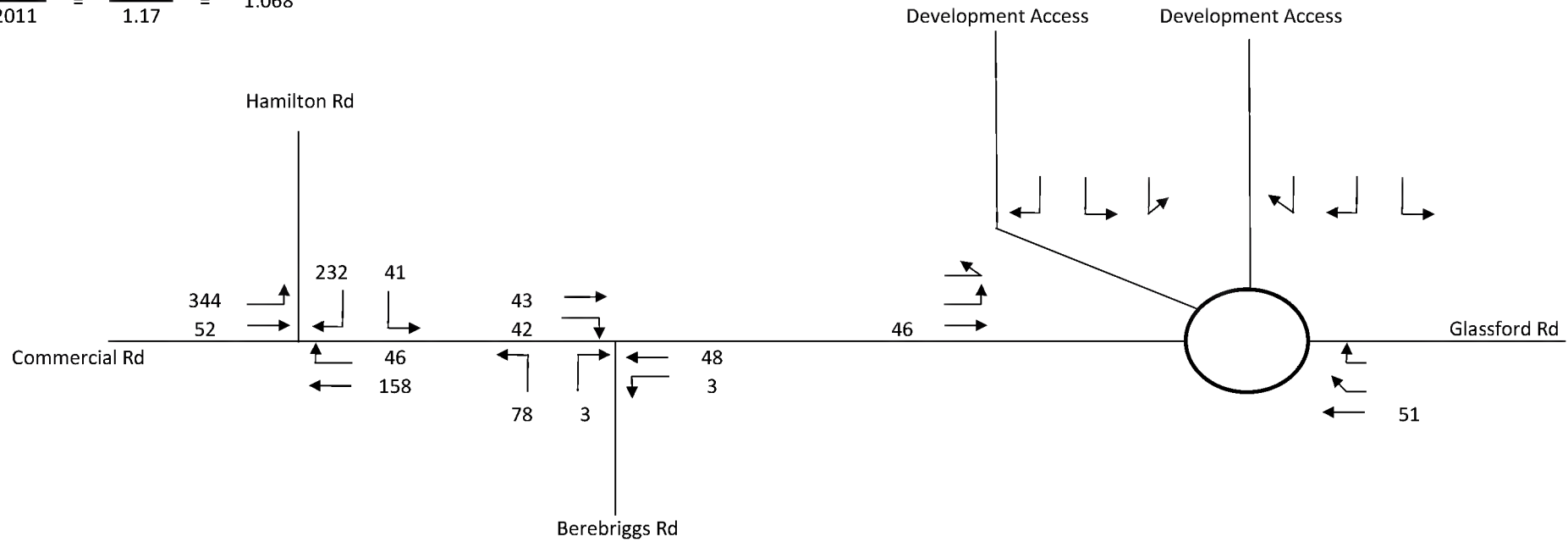


Diagram 2a
 2017 AM Base
 Dougall Baillie Associates
DBA

$$\frac{2017}{2011} = \frac{1.25}{1.17} = 1.068$$

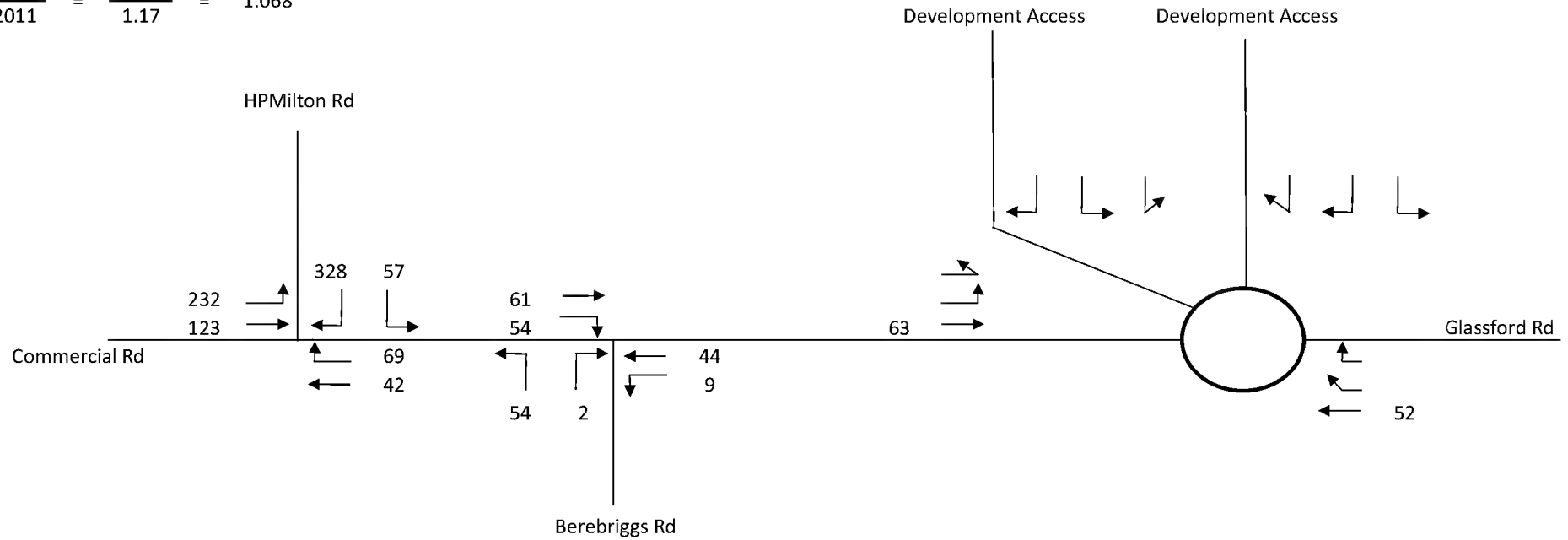


Diagram 2b
 2017 PM Base
 Dougall Baillie Associates
DBA

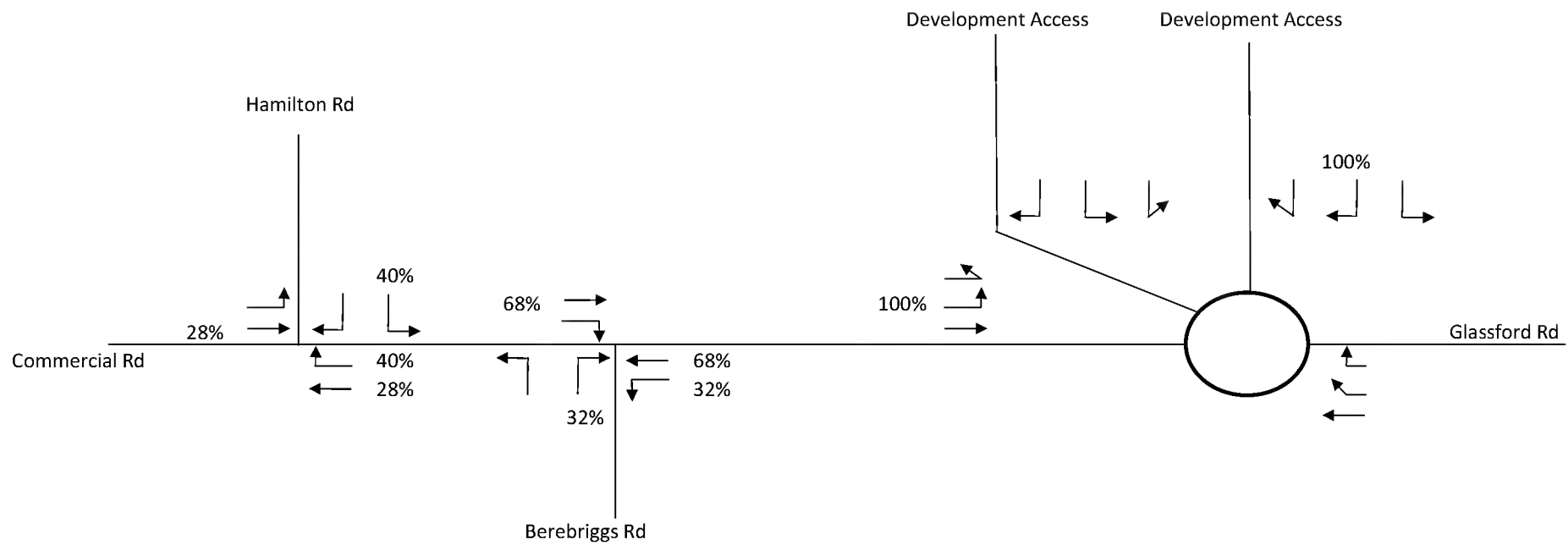
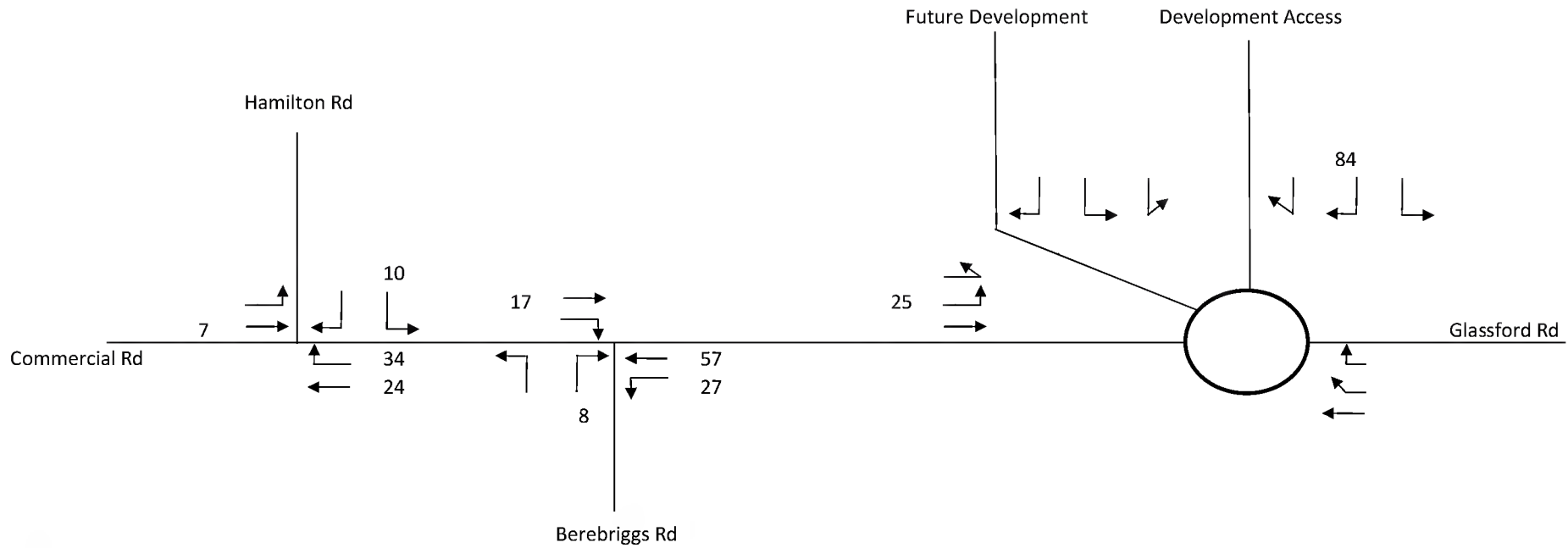


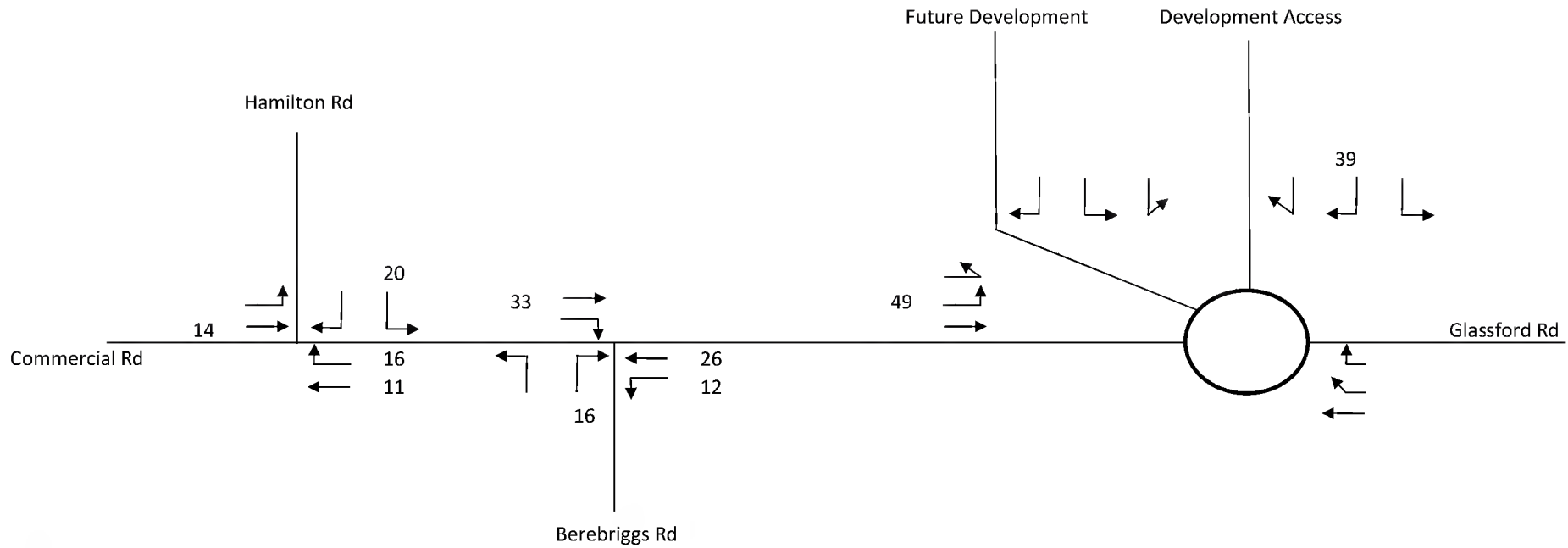
Diagram 3a/b
Residential Trip Distributin

Dougall Baillie Associates





138 Units	Trip Rate		Trips	
	IN	OUT	IN	OUT
AM	0.179	0.615	25	84
PM	0.359	0.282	49	39



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	IN	OUT	IN	OUT
AM	0.179	0.615	25	84
PM	0.359	0.282	49	39

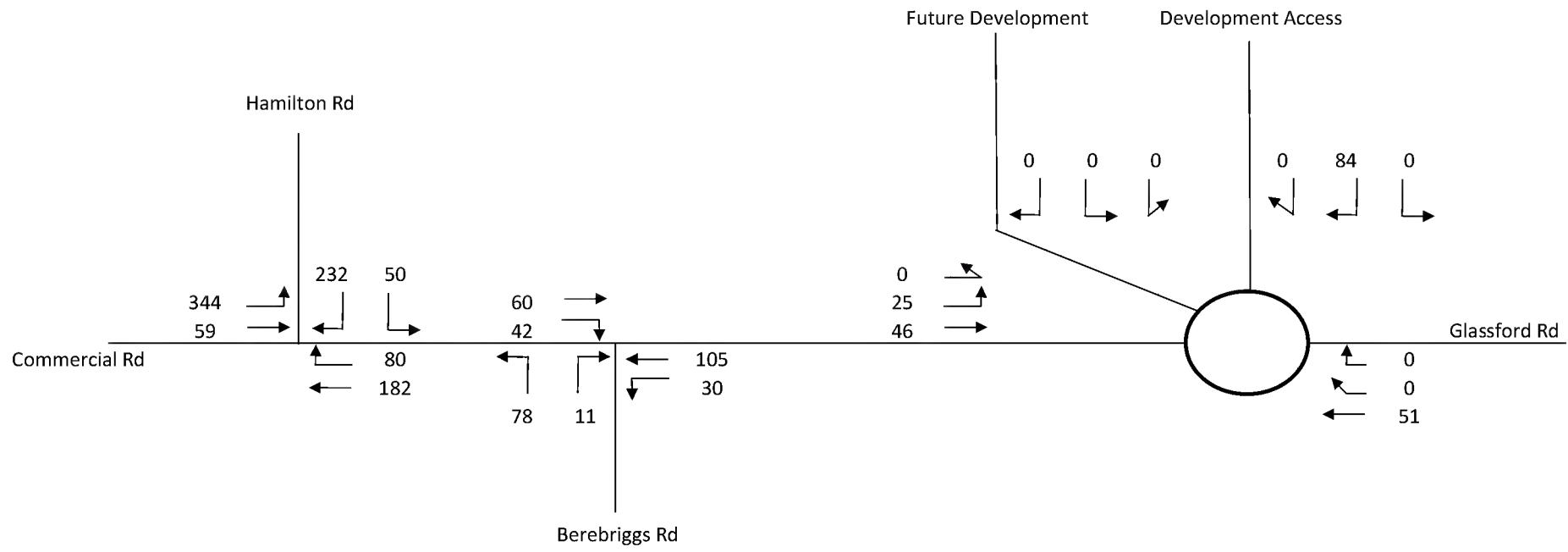


Diagram 5a
 2017 AM + Gen
 Dougall Baillie Associates
DBA

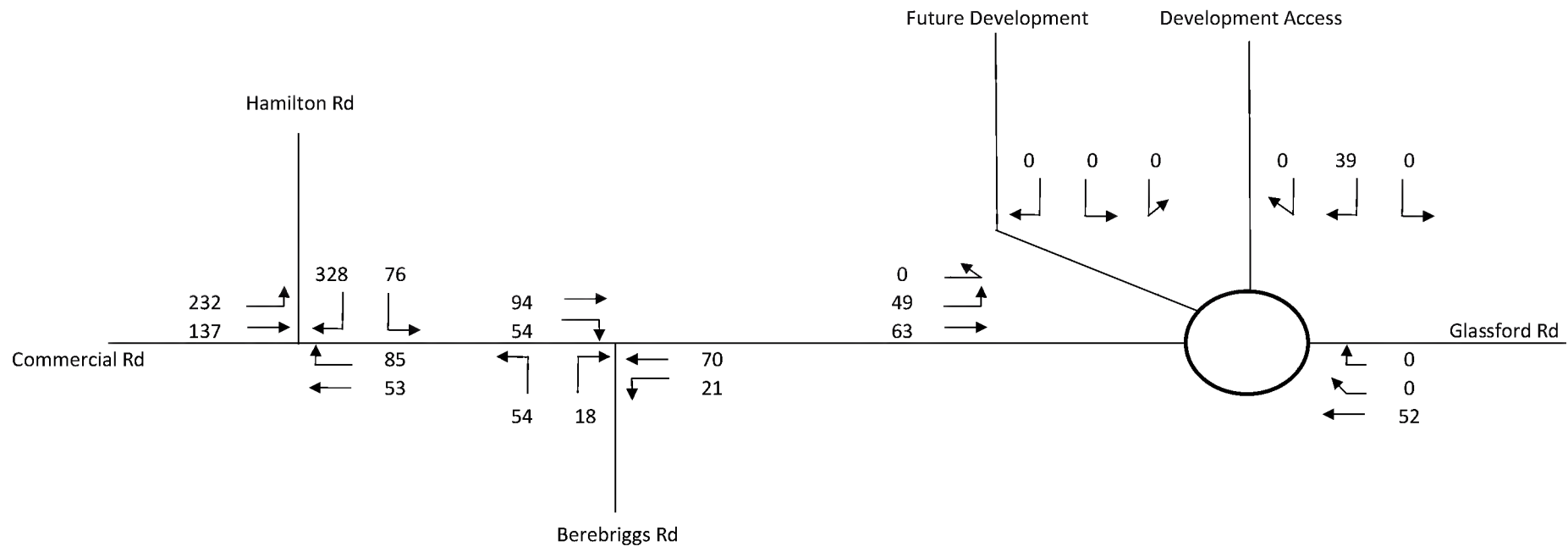


Diagram 5b
 2017 PM + Gen
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DBA

Appendix B

Road Improvement Drawings



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Notes:

Rev	Revision details:	By:	Checked:
		Date:	Date:

Client: BARRATT WEST SCOTLAND

Drawing Title: HAMILTON RD / GLASSFORD RD
 JUNCTION MODIFICATIONS

Project: EAST OVERTON FARM
 STRATHAVEN

Drawn: CW	Checked: RD
Date: 11.07.2014	Date: 11.07.2014
Scale: 1:500	Dwg. No: 14117-SK-01
Dwg Status: DRAFT	Print: COLOUR

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Notes:

Client: BARRATT WEST SCOTLAND

Drawing Title: PROPOSED ROUNDABOUT
 SITE ACCESS

Project: EAST OVERTON FARM
 STRATHAVEN

Drawn: CW	Checked: RD
Date: 11.07.2014	Date: 11.07.2014
Scale: 1:500	Dwg. No: 14117-SK-03
Dwg Status: DRAFT	Print: COLOUR

Rev.	Revision details:	By:	Checked:
		Date:	Date:

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Rev.	Revision details:	By:	Checked:
		Date:	Date:

Client: BARRATT WEST SCOTLAND

Drawing Title:
INDICATIVE BUS STOPS
AND SPEED LIMIT LOCATIONS

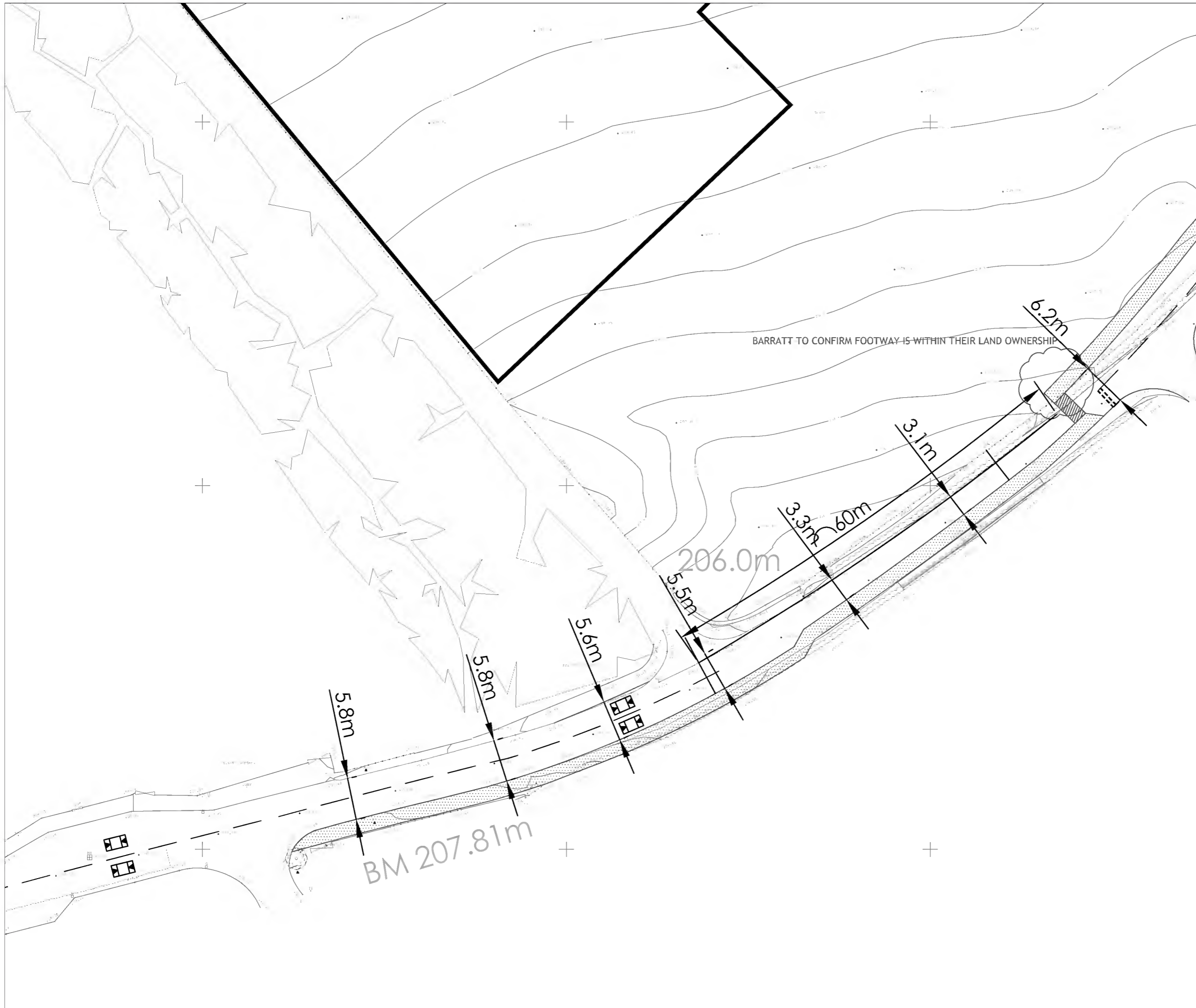
Project: EAST OVERTON FARM
STRATHAVEN

Drawn: CW	Checked: RD
Date: 25.11.2014	Date: 25.11.2014
Scale: 1:1000 @A4	Dwg. No: 14117-SK-03
Dwg Status: DRAFT	Print: COLOUR

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Notes:

A	REVISED LENGTH OF FOOTWAY	CW	RD
Rev.	Revision details:	By:	Checked:
		Date:	Date:

Client:
 BARRATT WEST SCOTLAND

Project:
 EAST OVERTON FARM,
 STRATHAVEN

Drawing Title:
 FOOTWAY AND TRAFFIC CALMING

Drawn:	CW	Checked:	RD
Date:	14.07.2014	Date:	14.07.2014
Scale:	1:500	Dwg. No:	14117-SK-04
Dwg Status:	DRAFT		Print: COLOUR

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