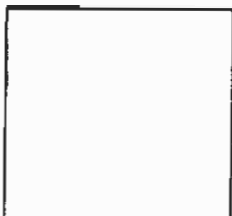


**Form for the Submission of a Representation to the Development Plan Document**



**Local Development Plan  
Representation Form  
(Plan Strategy)**

Ref:  
Date Received:  
(for official use only)

**Name of the Development Plan Document (DPD) to which this representation relates**

Lisburn and Castlereagh City Council Draft Plan Strategy

**Please complete separate form for each representation**

**SECTION A**

**1. Client Details**

**2. Agent Details (if applicable)**

Title	<input type="text"/>	<input type="text"/>
First Name	<input type="text"/>	<input type="text"/>
Last Name	<input type="text"/>	<input type="text"/>
Job Title (where relevant)	<input type="text"/>	Associate Director
Organisation (where relevant)	<input type="text"/>	Turley
Address Line 1	c/o agent <input type="text"/>	Hamilton House <input type="text"/>
Line 2	<input type="text"/>	3 Joy Street <input type="text"/>
Line 3	<input type="text"/>	Belfast <input type="text"/>
Line 4	<input type="text"/>	<input type="text"/>
Post Code	<input type="text"/>	<input type="text"/>
Telephone Number	c/o agent <input type="text"/>	028 9072 3900 <input type="text"/>
E-mail Address	<input type="text"/>	

**SECTION B**

**Your comments should be set out in full. This will help the Independent examiner understand the issues you raise. You will only be able to submit further additional information to the Independent Examination if the Independent Examiner invites you to do so.**

3. To which part of the DPD does your representation relate?

- (i) Paragraph \_\_\_\_\_
- (ii) Policy Plan period, SP08 Housing Allocation & Housing Distribution
- (iii) Proposals Map \_\_\_\_\_
- (iv) Site Location \_\_\_\_\_

4(a). Do you consider the development plan document (DPD) is:

Sound  Unsound

4(b). If you consider the DPD to be unsound, please identify which test(s) of soundness your representation relates, having regard to Development Plan Practice Note 6:

Soundness Test No.

5. Please give details of why you consider the DPD to be unsound having regard to the test(s) you have identified above. Please be as precise as possible.

If you consider the DPD to be sound and wish to support the DPD, please set out your comments below:

N/A

*(Continue on a separate sheet if necessary)*

6. If you consider the DPD to be unsound, please provide details of what change(s) you consider necessary to make the DPD sound.

Please note your representation should be submitted in full and cover succinctly all the information, evidence, and any supporting information necessary to support/justify your submission. **There will not be a subsequent opportunity to make a further submission based on your original representation.** After this stage, further submissions will only be at the request of the independent examiner, based on the matters and issues he/she identifies at independent examination.

See enclosed representation

(Continue on a separate sheet if necessary)

7. If you are seeking a change to the DPD, please indicate if you would like your representation to be dealt with by:

Written Representation  Oral Hearing

Please note that the Department will expect the independent examiner to give the same careful consideration to written representations as to those representations dealt with by oral hearing.

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Signature:



Date: 10 January 2020

# LCCC draft Plan Strategy Representation

January 2020



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**Our reference**  
GRAB3001

10 January 2020

## Executive Summary

1. This representation is submitted in response to consultation on the Lisburn & Castlereagh City Council (LCCC) draft Plan Strategy (dPS).
2. The following table summarises the draft policies which are unsound, for the reasons specified, with a reference in this representation:

### Schedule of key draft Policy Comments

Policy	Comment	Para ref.
Plan Period to 2032	The plan period to 2032 is too short. This is inconsistent with the SPPS requirement for a long term spatial strategy and Departmental Guidance on a 15 year framework which must logically be from adoption.  The plan is unsound as it fails Consistency Test C3.	2.2-2.10
SP08 Housing Allocation & Housing Distribution	We are generally supportive of objective A but insofar as Strategic Policy 08 Housing in Settlements is the policy which refers to the Strategic Housing Allocation (SHA), this draft Policy is unsound because the SHA set out in Table 3 is unsound for the following reasons: <ul style="list-style-type: none"> <li>• The SHA sets out plans for too few new homes over too short a period and under-allocates, with the potential to undermine the Spatial Strategy and Plan Objective A.</li> <li>• It does not take sufficient account of the RDS insofar as it is understood to direct a scale of growth to the main settlements and achieve a complementary urban/rural balance with reference to the Housing Evaluation Framework.</li> <li>• Neither does it sufficiently recognise and plan for cross-boundary connections in the context of the HMA or provide a framework sufficient to address the significant requirement for social/affordable homes within the plan area.</li> <li>• It over-estimates the potential contribution of various sources of housing supply including housing monitor sites and urban capacity sites. In particular, it over-relies upon the delivery of housing at West Lisburn/Blaris at a pace and scale which is unlikely, with limited consideration of alternative options.</li> </ul>	3.3-3.88 & 4.1-4.11

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Draft Policy SGS3 is, therefore, unsound as the policy, (and Strategic Housing Allocation) fails soundness tests Consistency Test C1, Consistency Test C4, Coherence & Effectiveness Test CE1, Coherence & Effectiveness Test CE2 and Coherence & Effectiveness Test CE4.

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3. We wish this representation to be dealt with by Oral Hearing.

# 1. Introduction

- 1.1 This representation is submitted in response to the consultation on the Lisburn & Castlereagh City Council (LCCC) draft Plan Strategy (dPS) and in respect to lands west of Moneyreagh Road and Church Road, Moneyreagh. A representation made in anticipation of the publication of the Preferred Options Paper (POP) is at **Appendix 1**.

## 2. Vision & Plan Objectives

### Vision

2.1 We support the LDP Vision.

**Plan Period: Need to get maximum value from process; so extend/plan for longer**

2.2 The plan horizon is to 2032, with the plan referring to a 15 year period from 2017 to 2032. On the basis of the Council's latest published timetable, the Local Policies Plan (LPP) part of the plan is not anticipated to be adopted until Q4 2024, well into the stated plan period.

2.3 Paragraph 5.1 states that meeting the timetable is dependent upon Member involvement, adequate resourcing and careful risk management, recognising that there are factors that could potentially impact upon the timescale for delivery of the LDP. Adequate resourcing must reasonably be taken to refer to the LDP team, consultees, the Independent Examiner and Dfl.

2.4 Whilst it is accepted that the timetable is indicative, subject to review and can be revised, taking into account the potential risks to the process it may be optimistic to suggest that the LPP part of the Plan would be adopted by the end of 2024. Comparisons with the pre-2015 plan making regime may be difficult to make given the changes but as a matter of fact, even if the Council's indicative timetable is achieved, it will have taken nine years to get to the point of adoption of the LPP.

2.5 The length of time it takes to prepare applications and secure planning permission on freshly zoned land (should it be required) is also an important consideration – a newly zoned site for housing or employment in 2024 of reasonable scale would not be likely to be able to be commenced and make any significant contribution until 2027, with substantive delivery likely to extend well into the next plan period on the basis of the current stated end date of the plan. This would suggest the importance of a strategic and long term view to ensure continuity of deliverable housing supply into the next plan period.

2.6 Whilst it is obviously understood that plans are material beyond their stated end date, given the time and resources being invested in the process by the Council, consultees and stakeholders, getting the most out of the plan making process is critical, particularly given the age of the statutory plans for Lisburn and Castlereagh.

2.7 Belfast City Council has taken a slightly longer term view and established a plan period to 2035. A longer plan period, to 2035 would make it more likely that the final plan could clearly and distinctively move the statutory plan for the Borough beyond the 'inherited' strategies, limits and zonings of the legacy plans. It would also bring the plan into line with the SPPS (para 5.7) reference that LDPs should provide a long term spatial strategy and the DPPN 01 reference (para 2.6) to a 15 year framework. Whilst a different jurisdiction, the NPPF (para 22) is clear that the 15 year period is post adoption of strategic policies.

- 2.8 The risk is that unless a longer term view is taken, when the LPP part of the plan is finally adopted, comparison with the previous plans could raise questions around what has actually changed. Given the relatively limited change from, for example, Lisburn Area Plan 2001 to BMAP, the concern would be that plans adopted nearly 40 years apart would not be that different. With the repatriation of planning to local government the expectation around the new Council's first plan is understandably high. The decision to identify Blaris/West Lisburn as a strategic focus for longer term growth would be consistent with a slightly longer plan period to 2035. There are also other strategic sites in the Plan area, such as Maze Long Kesh, which would benefit from a longer term view.
- 2.9 An alternative to selection of a longer plan period would be to identify additional reserves of land to bridge a gap which might emerge in the form of an over-allocation. This has been the practice in other plan-making exercises such as the Lisburn Area Plan 2001 and BMAP, in the form of flexibility allowances/land reserves.
- 2.10 In summary, the Plan should have a longer plan period in order to be consistent with policy and guidance issued by the Department and is presently unsound with reference to Consistency Test C3.

### 3. Strategic Policies & Spatial Strategy

#### **Spatial Strategy**

- 3.1 We are generally supportive of the Spatial Strategy but have concerns about how it will be delivered with reference to the Strategic Housing Allocation.

#### **Settlement Hierarchy**

- 3.2 We have no issues with the Settlement Hierarchy.

#### **Plan Objective A: A Quality Place – Strategic Housing Allocation**

- 3.3 We are generally supportive of this objective but insofar as Strategic Policy 08 Housing in Settlements is the policy which refers to the Strategic Housing Allocation (SHA), this draft Policy is unsound because the SHA set out in Table 3 is unsound for the following reasons:

- The SHA sets out plans for too few new homes over too short a period and under-allocates, with the potential to undermine the Spatial Strategy and Plan Objective A.
- It does not take sufficient account of the RDS insofar as it is understood to direct a scale of growth to the main settlements and achieve a complementary urban/rural balance with reference to the Housing Evaluation Framework.
- Neither does it sufficiently recognise and plan for cross-boundary connections in the context of the HMA or provide a framework sufficient to address the significant requirement for social/affordable homes within the plan area.
- It over-estimates the potential contribution of various sources of housing supply including housing monitor sites and urban capacity sites. In particular, it over-relies upon the delivery of housing at West Lisburn/Blaris at a pace and scale which is unlikely, with limited consideration of alternative options.

- 3.4 Draft Policy SGS3 is, therefore, unsound as the policy, (and Strategic Housing Allocation) fails soundness tests Consistency Test C1, Consistency Test C4, Coherence & Effectiveness Test CE1, Coherence & Effectiveness Test CE2 and Coherence & Effectiveness Test CE4. The analysis underpinning these conclusions is set out below.

#### **Issues with HGIs; recessionary trends & suppressed build rates**

- 3.5 DfI published 2016 based Housing Growth Indicators (HGIs) in September 2019 (Appendix 2). The HGI for Lisburn & Castlereagh was increased from 9,600 to 10,700. The publication also provided a useful reminder of the purpose and value of HGIs. The following statements in the Chief Planner's covering letter are important:

- *HGIs do not forecast exactly what will happen in the future.*
- *They are policy neutral estimates based on recent trends and best available data on households and housing stock.*

- *They assume that recent trends will continue into the future.*
- *They do not attempt to...predict the impact that...changing economic circumstances or other future events may have on housing requirements.*
- *For these reasons those preparing LDPs should not regard the HGIs as a cap on housing or a target to be met.*
- *Notwithstanding the above, as the HGIs are based on best available data, they are therefore an important starting point to guide the assessment of the overall housing requirement identified in the LDP.*
- *The SPPS identifies a range of other further considerations that, in addition to the HGI, should also inform this housing allocation.*
- *These include the RDS Housing Evaluation Framework; allowance for existing commitments; urban capacity studies; allowance for windfall housing; application of a sequential approach to site identification; Housing Needs Assessment/Housing Market Analysis and transport assessments.*

#### ***HGIs as Policy Neutral***

- 3.6 The HGIs as 'policy neutral' is a particularly important point to consider. If, as the evidence discussed below would suggest, this means that the disaggregation/distribution of HGIs calculated at regional level, to Council level has not had regard to policy such as the RDS' regional spatial strategy and is simply a projection of population and household trends which the RDS direction has yet to properly influence, this must reduce extent to which the Council should take account of it.
- 3.7 The table below compares the 2012 based HGIs to the recently published 2016 based HGIs, with the difference identified in the final column. It is clearly evident that Belfast's HGI has been significantly reduced by the refresh exercise undertaken by DfI (-46%), as has fellow Belfast Metropolitan Area (BMA) Councils Antrim & Newtownabbey (-42%) and Ards & North Down (-23%). The HGI for other Councils such as ABC has been significantly increased (+19%). These changes are at odds with the RDS policy objective of strengthening Belfast as the regional economic driver within a framework of balanced regional growth.



**Table 3.1: HGI Analysis**

Council	2012 HGI	2016 HGI	+/-	% Change
A&N	7200	4200	-3000	-42
A&ND	7100	5500	-1600	-23
ABC	14400	17200	2800	19
Belfast	13700	7400	-6300	-46
CCG	6700	5600	-1100	-16
DCS	5000	4100	-900	-18
FO	4500	4300	-200	-4
LC	9600	10700	1100	11
MEA	5400	5400	0	0
MU	9500	10300	800	8
NMD	10900	10000	-900	-8
	94000	84700	-9300	-10

Sources: 2012 & 2016 Based HGIs

- 3.8 The RDS itself confirms that the HGIs are not policy neutral nor are they based on past trends:

*The figures in Appendix B, Table B2 are not to be seen as a rigid framework but as guidelines for local planning. The distribution across council areas reflects what might be required to achieve the policy objectives of strengthening Belfast as the regional economic driver and Londonderry as the principal city of the North West. They are not based purely on past trends of population movement. (RDS p43)*

- 3.9 The extent to which the refreshed HGIs conflict with the policy objective of regional balance expressed as a 52%/48% split between the North, South and West of the region and the BMUA districts and hinterland is difficult to be precise about given the change in Council boundaries in 2015 but a crude comparison<sup>1</sup> would suggest that the split may be of the order of 61/39, so significantly shifting against the BMUA districts.
- 3.10 The fact that this change to HGIs has been made without consultation must make them difficult for local Councils to handle in the context of Plan-making. When the lineage of HGIs is reviewed it can be seen that they were subject to public consultation and independent examination in 1999 and 2005/6 (five year review) and consultation in 2011 (ten year review), however, there has been no public consultation or associated independent examination since then. If, as is suggested by the simple analysis set out here, the refreshed HGIs mark a shift away from RDS policy objectives they should be subject to consultation and independent examination. Such consultation and

<sup>1</sup> Antrim & Newtownabbey, Ards & North Down, Belfast, Lisburn & Castlereagh and Mid & East Antrim have a 39% share of the 2016 total HGI

examination could usefully reflect on the assumptions and evidence base which underpins the figures, including vacancy rates, second home ownership and stock replacement. The extent to which the household formation figures are influenced by the forward projection of recessionary household characteristics such as involuntary sharing arising from challenges securing mortgages could also have been considered. As it stands, these figures have been produced with no public or stakeholder scrutiny whatsoever.

- 3.11 As noted above, we welcome the fact that, unlike other Councils, LCCC has commissioned independent analysis of the HGI to test the asserted position of HGIs as 'best available evidence'. We can see that the Lichfields Growth Study has been used to establish an updated 2016-based number which has not been used as a ceiling, target or cap. Whilst this will be a consideration in determining the final strategic housing allocation and the Report itself refers to other considerations, we have concerns about the approach taken by the dPS to arrive at a final distributed housing allocation and there are other important considerations to be taken into account in arriving at a final position.
- 3.12 As noted by the Council in the dPS and Technical Supplements, paragraph 6.139 of the SPPS states that housing allocations should be informed by not only the RDS HGIs but also:
- the RDS housing evaluation framework (Table 3.2 on p42 of RDS 2035),
  - existing commitments,
  - urban capacity,
  - windfall,
  - a sequential approach,
  - housing needs assessment/housing market analysis and
  - transport assessments

***RDS Housing Evaluation Framework (HEF)***

- 3.13 The SPPS says that the RDS HEF should take account of the varying capacities of settlements and will assist councils in making judgements on the allocation of housing growth. This suggests that the capacity or potential for a settlement to grow will influence how much housing it is allocated, which must in turn influence the overall or aggregate Strategic Housing Allocation.
- 3.14 This approach is consistent with the comments of Commissioners T A Rue, G Scott and J B Martin at paragraph 2.12.75 of their 14 March 2008 report into Public Local Inquiry Into Objections To The Draft Ards And Down Area Plan 2015, which remain pertinent:

*It seems to us that housing land allocation is an iterative process, requiring examination of both strategic and site-specific factors and seeking the best fit between them. The strategic conclusions set out above have a bearing on our assessment of the housing-*

*related site-specific objections and the converse is also true. We return to this subject in the final chapter of our report.*

- 3.15 Appendix D of Part 1 of the dPS sets out an Evaluation of Settlement Characteristics, with each of the settlements classified in the Settlement Hierarchy, information on population, role and function, existing infrastructure provision and future potential. This analysis appears to have been informed by the information and analysis in Technical Supplement 6: Countryside Assessment, which at Part 4 sets out Settlement Appraisals for Lisburn, the three towns, 13 villages and 33 small settlements. The Settlement Appraisals provide an assessment of each settlement using RDS resource, environmental capacity, transport, economic development, urban & rural character, community services, social equity and development constraints tests.
- 3.16 The allocation of growth to different levels in the settlement hierarchy and to particular settlements is important to achieving Plan Objective A: a Quality Place – enabling sustainable communities and delivery of new homes; particularly sub-objectives A1, A2, A4. However, the dPS Housing Allocation does not appear to use draft Plan’s Settlement Appraisal evaluation to set a housing allocation for any tier of the settlement hierarchy or any individual settlement. Table 6 in Technical Supplement 1: Housing Growth Study sets out the Housing Allocation over the 2017-2032 Plan Period. This table reports the total potential housing units remaining from various sources of supply to arrive at a total housing allocation. By only reporting on supply and by aggregating the villages/small settlements tier, it suggests that the dPS housing strategy has been dictated by commitments rather than an evaluation of the growth potential of settlements as assessed in Settlement Appraisals using the HEF methodology.
- 3.17 The approach in the dPS appears to have been to identify the level of future housing required over the plan period (Lichfields Housing Growth Study), estimate deliverable supply (from Housing Monitor, Urban Capacity Study and windfall analysis) and add in the strategic requirement for housing in West Lisburn (West Lisburn Development Framework). Whilst the resulting focus on Lisburn is welcome and justified (subject to the further comments below) it has resulted in a dislocation with the Settlement Analysis/HEF to the extent that settlements with acknowledged capacity for growth beyond existing plans do not provided with a housing allocation which allows for such growth. The difficulty is that it will be too late at LPP stage to influence a settlement’s allocation within the Strategic Housing Allocation, which risks the plan-making process not facilitating this growth.
- 3.18 A comparison with other emerging dPS’ illustrates the point that the capacity for a settlement to grow, with reference to the RDS HEF, influences a final SHA. Antrim & Newtownabbey dPS sets out an overall housing allocation which is based on its assessment of the growth capacity of the settlements which is used to generate a share of the overall allocation (see Table 10 of Evidence Paper 6). Similarly, Mid & East Antrim’s housing allocation (see TS3 Tables 7.1 and 7.2) is established following a determination that the share of housing in the main towns should increase by 3.5% to enhance the critical mass of the main hubs and address the risk of a disproportionate share of growth in lower tier settlements.

- 3.19 The analysis set out below clearly shows the extent to which the critical mass and growth capacity of some settlements/parts of the plan area are under provided for in the housing allocation:

**Table 3.2: Analysis of SHA/Population Share**

	SHA Over Plan Period	%	Population	%
Lisburn City (including WLB)	6553	47.5	45410	31.8
Lisburn Greater Urban Area	406	2.9	4948	3.5
Castlereagh Greater Urban Area	2022	14.7	30717	21.5
<b>Metropolitan</b>	<b>8981</b>	<b>65.2</b>	<b>81075</b>	<b>56.8</b>
Carryduff	1612	11.7	6947	4.9
Hillsborough & Culcavy	512	3.7	3953	2.8
Moira	717	5.2	4584	3.2
<b>Towns</b>	<b>2841</b>	<b>20.6</b>	<b>15484</b>	<b>10.9</b>
Villages & Small Settlements	1231	8.9	17496	12.3
Countryside	729	5.3	28585	20.0
<b>Rural</b>	<b>1960</b>	<b>14.2</b>	<b>46081</b>	<b>32.3</b>
<b>TOTAL</b>	<b>13782</b>	<b>100.0</b>	<b>142640</b>	<b>100.0</b>

- 3.20 Again, to reiterate, the focus of growth in Lisburn City is welcome and reflects the direction of the RDS. It should not be reduced, indeed the focus in Lisburn (and elsewhere) should be on ensuring a deliverable supply of housing land, particularly towards the end of the Plan period (see paras 3.36 to 3.59 below). However, when the connection between the SHA and the HEF is restored, additional housing is required elsewhere in the City Council area – particularly in Castlereagh and the rural area – to achieve a better balance of planned development across the Council area.

#### **Castlereagh**

- 3.21 Whilst it is appreciated that the plan has been prepared for the entirety of the new Council area, it is prudent to review the consideration of Castlereagh as a component part of the BMA in the context of the Belfast Metropolitan Area Plan (BMAP) previous planning exercises. Paragraph 3.2.52 of the PAC's Strategic Report into objections to draft BMAP is relevant insofar as whilst the RDS has been updated in the interim, the essential characteristics of Castlereagh remain. Castlereagh is an attractive residential location with potential for growth along major public transport corridors with improved public transport. Taking account of environmental constraints the PAC concluded that mid-level or medium growth was appropriate for metropolitan Castlereagh in comparison to the high growth planned for Lisburn and Newtownabbey.

When considering the draft BMAP allocation, the PAC suggested that the proposed allocation for Castlereagh was too low and did not allow for sufficient growth to enable it to fulfil its complementary role as a suburban district.

- 3.22 The analysis set out in Table 3.2 above would suggest that the draft Plan Strategy again underestimates the potential of the Greater Castlereagh Urban Area to fulfil a complementary role to the high growth planned for Lisburn City, particularly in the context of a wider HMA view of the Belfast Metropolitan Area. This is also inconsistent with the draft Plan Strategy's own Plan Objective A1 (p54) which seeks to recognise Lisburn and Castlereagh as a growth area consistent with the RDS and reflective of its strategic location.
- 3.23 Recognising the opportunities for increased housing with the existing settlement limit, a very large additional allocation to facilitate the outward expansion of the Greater Castlereagh Urban Area is likely to be constrained by environmental factors, so a proportionately higher allocation to Carryduff and Moneyreagh would be appropriate to ensure balanced development. Carryduff's capacity to accommodate growth has been well established over successive strategic planning exercises<sup>2</sup> but the resulting housing allocations have yet to deliver housing for various reasons. Given the hiatus in housebuilding of scale in the town there is likely to be pent up demand which would suggest that a supplementary allocation of 350 units could be delivered towards the end of the plan period when the soon to commence existing zonings are likely to be moving towards completion. The increase would also help boost the town's critical mass and which would help renew its role as a local service centre by supporting the necessary regeneration of its town centre service offer.
- 3.24 Similarly a supplementary allocation of around 100-150 units could be made to Moneyreagh on the basis that it has the scale, services, capacity and connectivity to accommodate additional housing to accommodate demand arising in the east of the Council's rural area where it is the principal rural settlement providing education and community services for the small settlements of Ryan Park, Crossnacreevy and Ballyknockan. It also has a functional cluster arrangement with Ballygowan, a settlement which Ards & North Down Borough Council look likely to upgrade from village to small town classification in their new settlement hierarchy.

#### ***Rural Settlements***

- 3.25 Alongside its important metropolitan centres of population, Lisburn & Castlereagh has a relatively large number of rural settlements which provide important service centres for its geographically and demographically significant rural area.
- 3.26 Plan Objective A4 seeks to support towns, villages and small settlements as vibrant and attractive centres providing homes and services appropriate to their role in the

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<sup>2</sup> The 2001 RDS identified Carryduff (and Moira) as one of seven small towns for significant planned expansion to accommodate growth related to the Belfast Metropolitan Area (BMA). It must, therefore, have a higher capacity for growth than other towns not within this category. Whilst there is no equivalent provision in the latest version of the RDS, the essential characteristics of the settlement have not changed.

settlement hierarchy whilst protecting their identity from excessive development. This objective is consistent with the RDS' SFG13 which seeks to sustain rural communities.

- 3.27 It is acknowledged that it is important to guard against unsustainable development where settlements might be allowed to grow beyond their capacity, particularly where this would result in increased car-based travel to access services and physical sprawl beyond logical and defensible environmental limits that would impact upon urban form and compactness. The balance to be struck in a largely attractive and growing Council area is planning for a level of growth which is consistent with the role and function of a settlement with reference to the settlement hierarchy which will support and sustain services without resulting in these negative outcomes of excessive development.
- 3.28 Within this overall framework, to allow the Plan objectives to be met and, as the RDS (RG8, para 3.21) requires, achieve a complementary urban/rural balance, it is judged appropriate to effect a modest increase in the housing allocation to the towns of Moira and Hillsborough. Whilst not capable of the larger scale of growth judged to be permissible at Carryduff<sup>3</sup>, they are attractive long-established settlements of scale and character at the top of the rural settlement hierarchy that provide important concentrations of services for local communities, including valued town centres. There is a need to reflect their standing and ensure their services are sustained and protected by allocating additional housing to increase their share of the overall housing allocation.
- 3.29 Whilst Moira has generally had a higher level of acknowledged growth potential in strategic planning exercises than Hillsborough<sup>4</sup>, road traffic congestion in the town centre at peak hours would suggest that there should be an additional supplementary allocation in the order of around 100-150 units to each town. A change of this order would help improve urban/rural balance without undermining the settlement hierarchy and having regard to the acknowledged environmental constraints to lateral growth in some parts of each settlement.
- 3.30 Despite the relatively large number of villages and small settlements, and the size of the rural population, their overall share of the housing allocation is quite low (<9%). The evidence<sup>5</sup> in Lisburn & Castlereagh would suggest that the consequences of not sustaining centres is a withdrawal of public services, be they educational, community or transport and that this is more likely to be experienced at the village/small settlement level of the settlement hierarchy. It is, therefore, important to assess whether to meet the needs of the rural community, there should also be an increase in the allocation to villages and small settlements following a critical review the potential of some of these settlements to accommodate a proportionate share of additional housing. The Settlement Appraisals in the Countryside Assessment in Technical Supplement 6, which are summarised in Table 3.3 below, have identified the potential

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<sup>3</sup> The commentary at paragraphs 5.14 to 5.16 of Technical Supplement 6 would tend to support the view that from a landscape perspective, Carryduff can accommodate a greater scale of growth than Moira or Hillsborough.

<sup>4</sup> As already noted, Moira was one of the seven small towns around the BMA identified for expansion in the prior version of the RDS. Hillsborough was not.

<sup>5</sup> Primary schools have been closed in Crossnacreevy (2002), Drumbeg (2007), Drumbo (2007) and Hillhall (2007) in the relatively recent past. See School Analysis in Appendix 3.



for growth in certain settlements, including lands which could be rezoned from employment/mixed use<sup>6</sup> and non-excessive settlement limit expansions. The critical review may identify other villages where modest and proportionately scaled additions may be required to protect existing services by attracting new families.

3.31 At small settlement level there may be specific justifications for further limited growth which could allow for consolidation of built form without affecting the balance between different levels in the settlement hierarchy. A measure of growth at this lowest level of the settlement hierarchy would also be more sustainable than development in the open countryside. Whilst it is acknowledged that the latter is permissible in regional policy, Table 11 of Technical Supplement 1: Housing Growth Study confirms that at 810 the estimated level of growth in the open countryside is around two and a half times the planned level of growth of 324 in small settlements, indeed it is broadly comparable to the total village allocation (1,044). In effect the draft Plan Strategy outlines a scenario where a house is built in the open countryside for every two houses built in villages and small settlements.

**Table 3.3: Settlement Appraisal**

Village	2015 Population	Resource	Env Capacity	Transport	Ec Dev	Character	Comm Services	Equity	Dev Const	Remaining Housing Units
M'berry	2468	M	M	M	M	H	M	L	M	70
Glenavy	1791	H	L	M	M	M	H	M	M	269
Milltown	1499	L	H	M	L	H	M	M	H	89
M'reagh	1379	M	H	M	M	H	M	M	H	115
Annahilt	1045	L	M	M	L	H	L	M	M	136
Dromara	1006	M	H	M	L	M	M	M	M	99
L B'derry	912	L	H	M	M	H	M	M	H	72
Aghalee	863	M	M	M	L	H	M	L	M	44
Drumbeg	813	L	H	M	L	M	L	M	M	21
Ravernet	564	L	H	M	M	H	L	L	H	19
St'ford	605	L	H	M	M	H	L	M	H	80
Drumbo	375	L	H	L	L	H	M	L	M	8
U B'derry	226	L	H	M	M	H	L	M	H	22

*Analysis of Countryside Assessment Settlement Appraisal Information*

3.32 Technical Supplement 6: Countryside Assessment provides limited information on the methodology associated with the Settlement Appraisals at Appendix 2.0. The individual settlement appraisals provide a commentary against the RDS tests and a

<sup>6</sup> eg. Dromara & Glenavy

judgement against each using a High/Medium/Low classification. Further judgement is required on the relative importance of each of the individual tests in the context of the particular settlement and its role. The extent of the evaluative judgement involved is evident when the classifications are compared to the equivalent exercise undertaken by the Department for BMAP.<sup>7</sup> Set side by side there are significant differences. For example, on the important Environmental Capacity Test, the Council rate Milltown and Stoneyford as High, whereas the Department rated them as Low. Tests should not carry equal weight and there is overlap between certain tests and strong relationships between others, so these classifications should not be aggregated or used as a scoring system.

- 3.33 A targeted approach is necessary which considers the potential of individual settlements in the round, having regard to their scale (critical mass), location (within the Plan Area and in relation to other settlements), role (resources/services; individually and in a cluster of settlements), connectivity (transport) and environmental capacity (opportunities/constraints; urban form). This is essentially an overarching judgement about place, sustainable development and delivery of new homes – Plan Objective A. In considering these factors one would expect to find higher growth potential in the larger villages which have a clear service centre role, reasonable connectivity and the potential to accommodate modest growth in a compact way without harm to interests of acknowledged importance. At the other end of the spectrum one would expect to find lower levels of planned growth where large villages have already experienced significant growth beyond their natural limits and additional expansion would potentially risk undermining the settlement hierarchy or where services have been reduced and the settlement’s role has diminished.
- 3.34 Reviewing the plan villages, this would suggest that villages such as Glenavy, Moneyreagh, Dromara and Aghalee have greater potential for larger but still village scale growth. However, smaller villages like of Drumbeg, Drumbo and Upper Ballinderry should also be allocated a lower level of additional homes to support renewal and help sustain remaining services. The draft Plan Strategy (p52) notes that each village and small settlement has a unique role to play within the Council’s large rural hinterland. As noted in the Settlement Appraisals, there are potential opportunities for non-excessive, sustaining/consolidating growth in the villages which could be achieved by reviewing existing land use zonings or taking opportunities to bring development to defensible limits.
- 3.35 That these proposed adjustments should result in an increased SHA is not unacceptable since the HGI, or the Council’s proxy for it is not a ceiling or target and is only one factor in arriving at an overall allocation. As discussed further below, addressing issues around affordability in the context of the Housing Needs Assessment and recognising the relationship with Belfast in the context of Housing Market Analysis must should also influence the overall SHA.

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<sup>7</sup> Table 7: Revised Broad Evaluation Framework for the Metropolitan Rural Area on p34 of The Departmental Approach to the Distribution of Housing Growth Potential in the Belfast Metropolitan Area and Belfast Metropolitan Area Hinterland, June 2007



### **Existing Commitments, Urban Capacity Sites & Housing Trajectory**

- 3.36 The overall analysis of the dPS is that when the housing allocation is compared to the various different sources of housing land supply, aside from West Lisburn, there is no requirement for any additional zonings.
- 3.37 Whilst elsewhere the plan recognises that not all permissions may be built and the Council's assessment of housing potential is reduced by 10% due to the possibility of non-deliverability of sites over the plan-period (dPS p59) but this level of discounting is likely to be too low. There is no evidence to suggest that the Council has interrogated its Housing Monitor information and there are policy and other issues with some of the sites identified through the Urban Capacity Study. There is also a major reliance upon Blaris/West Lisburn to deliver homes in significant numbers, particularly towards the end of the stated plan period.

### ***Housing Monitor***

- 3.38 When reviewed on a site by site basis, the data shows that a significant number of the Housing Monitor sites are longstanding and have either not delivered any houses or stood still for a long period. Our comparison of Housing Monitor information from 2006-9 and 2016/17 for the main settlements is at Appendix 5. Whilst it is necessarily a snapshot in time and some movement should be expected, the number of housing monitor sites which have been static over this period of time is evidence which suggests that a 10% discounting of Housing Monitor sites for non-delivery is too low. The extent to which these sites are currently affected by NIW infrastructure issues is unknown.

### ***Urban Capacity Sites***

- 3.39 The policy objectives of delivering more housing within existing urban areas, achieving compact urban forms and regenerating City/town centres is not disputed. However, the extent to which the Plan is able to confidently rely upon the scale of urban capacity identified is unknown. Our commentary on the 41 Urban Capacity sites identified by ARUP is set out in Appendix 5. Again, it supports the proposition that the 10% discounting applied to UCS sites is too low.
- 3.40 We have undertaken a desktop assessment of each site and have considered, from a development management perspective, whether the sites can be delivered with limited planning risk (shaded green); the principle of development or proposed yield is may be challenging (shaded amber); or the site's delivery may be subject to significant planning risk (shaded red).
- 3.41 We support the principle of apartment and higher density development within Lisburn City Centre. However, in aggregate the proposed unit numbers are ambitious and should not be relied upon in full for development before 2032. This concern is based on the lack of recent apartment development within Lisburn City Centre and the relatively slow rate of comparable development within Belfast City Centre. A number of the sites were identified for development in the Lisburn City Centre Masterplan (Department for Social Development, August 2010) and remain undeveloped almost 10 years later. Several would appear to be in public ownership and the timing of their disposal is uncertain. Collectively they would also require a comprehensive review of

the City Centre car parking strategy given the potential impact of their loss to urban development.

3.42 A number of informal green spaces are also identified as UCS sites despite their protection under current (SPPS and PPS 8 Open Space, Sport & Outdoor Recreation) as well as draft LDP planning policies. The Local Development Plan 2032 Supplementary Planning Guidance (SPG) document defines open space as *“For the purposes of Operational Policies OS1 to OS6, open space is taken to mean all open space of public value, including not just land, but also inland bodies of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and outdoor recreation and can also act as a visual amenity.”* The definition includes *“amenity green space (most commonly, but not exclusively in housing areas) – including informal recreation spaces, communal green spaces in and around housing, and village greens.....natural and semi-natural urban green spaces – including woodlands, urban forestry.....”* (emphasis added). In this context, we question why the following sites have been identified for residential development and the likelihood of planning permission for residential development being granted on them –

- Mountview Drive, Lisburn (13 units)
- Manor Drive, Lisburn (21 units)
- Ballinderry Road, Lisburn (30 units)
- Richmond Court, Lisburn (12 units)
- Causeway End Road, Lisburn (25 units)
- Lough Brin Park, Carryduff (11 units)
- Beechill Road, Newtownbreda (13 units)

3.43 We have a long standing interest in the zoned residential development lands adjacent to Mealough Road, Carryduff. The adjacent lands identified for residential development by Council in the UCS are outwith the zoning and we would query how they can be safely accessed given their proximity to the Saintfield Road (designated Protected Route). Given that the lands are also within a mix of private and public ownerships we also question the deliverability of the units proposed for these sites within the Plan period.

3.44 Finally, we note that Council has identified the lands adjacent to the existing Cairnshill Park & Ride for the development of 36 no. units. This site is subject to a current planning application for an extension to the existing car park and as such there is significant doubt as to whether the identified potential for semi-detached houses will be realised.

#### **Housing Needs Assessment - Affordability**

3.45 Allocating more land for housing will also help address the requirement for affordable/social housing within the Plan area.

3.46 Part 1 of the draft Plan Strategy sets out the draft Strategic Policies proposed by the Council. Housing is considered under the title 'A quality Place' at Chapter 4 of Part 1. At the outset the Council has established a list of actions that it will seek to adopt in order to achieve the objective of creating sustainable communities. Action five is to:

*"provide appropriate opportunities for housing in settlements with a range of types and tenures, including affordable housing."*

3.47 This action is welcomed as the delivery of sustainable communities is a key objective of the SPPS.

3.48 Draft Strategic Policy 08 goes on to state:

*"The plan will support development proposals that:*

- a) Are in accordance with the Strategic Housing Allocation provided in Table 3;*
- b) Facilitate new residential development which respects the surrounding context and promotes high quality design within settlements;*
- c) Promote balanced local communities with a mixture of house types of different size and tenure including affordable and specialised housing;*
- d) Encourage compact urban forms and appropriate densities while protecting the quality of the urban environment."*

3.49 It is recognised within the 'justification and amplification' text that affordable and specialist accommodation provision should be met where need is identified. This approach is welcomed, however the Council has not published any evidence to indicate how need is identified. Reference is made in Technical Supplement 1 to a need for 2,490 affordable units which has been derived from the Northern Ireland Housing Executive Housing Market Analysis Update (HMA) dated April 2018, however this is not provided within the supporting papers. If the Council is to rely upon this evidence as justification for a policy-led approach to affordable housing then the relevant information should be provided in support in order to allow for a robust assessment to be undertaken by the Planning Appeals Commission (PAC).

3.50 In the absence of the original data set from NIHE the approach could be unsound under soundness test CE2.

3.51 The SPPS also sets out at Paragraph 6.139 that:

*"Housing Needs Assessment/Housing Market Analysis – provides an evidence base that must be taken in to consideration in the allocation, through the development plan, of land required to facilitate the right mix of housing tenures including open market and special housing needs such as affordable housing, social housing, supported housing and travellers accommodation. The HNA will influence how the LDPs facilitate a reasonable mix and balance of housing tenures and types. The Northern Ireland Housing Executive, or the relevant housing authority, will carry out the HNA/HMA."*

3.52 The SPPS is therefore clear that the HMA should inform the LDP. Whilst the Council has referenced the HMA, it is not specifically included within the supporting evidence base for the draft Plan Strategy and therefore it could not be demonstrated that the plan would comply with soundness test C3.

3.53 We also note that Housing Need Assessment/Housing Market Analysis is considered at Page 61 of dPS Part 1. Here it is stated:

*“The Northern Ireland Housing Executive (NIHE) are responsible for carrying out a Housing Needs Assessment (HNA) to assist the Council in the preparation of the Local Development Plan. The HNA seeks to provide a reasonable mix and balance of house types to cater for a range of housing needs. The total affordable housing requirement for the plan period is 6,240 units, of which 2,400 are social housing units. The deliverability of affordable housing and in particular the social housing element will largely depend on the zoned sites remaining to be developed and other sites lying outside these zonings (urban capacity and windfall).”*

3.54 We wish to highlight that the Council’s Technical Supplement 1 sets an affordable housing requirement for the plan period of 2,490 dwellings which would appear to conflict with the dPS figure of 6,240 units. Furthermore the Housing Growth Strategy , which forms Chapter 6 of Technical Supplement 1, identifies a social housing need of 2,490 new homes. This is only one element of affordable housing as currently defined in NI, however the study fails to consider the need for other forms. On this basis the plan would be unsound as it conflicts with the evidence and would therefore fail against soundness test CE2. There is also a lack of clarity within the papers and the dPS on the actual affordable housing need for the plan period.

3.55 Technical Supplement 1, Table 6 shows that remaining zoned land without planning permission could accommodate c1,099 units. Add to this the potential yield for the proposed Strategic Mixed Use site at West Lisburn identified in Table 6 and the potential yield could be c2,599 units. Given that the Council’s proposed policy for the provision of affordable housing could only be applied to future planning applications it is difficult to understand how an affordable need of 6,240 units could be met within zoned land which could only yield 2,599 units. We acknowledge that urban capacity sites and windfall sites could also contribute to the provision of affordable housing, however the Council’s own evidence provided in Technical Supplement 1 indicates that such sites could yield c.1,318 units. Even with a provision of 100% affordable housing the need identified at page 61 of dPS Part 1 could not be adequately met. As such the dPS would fail soundness tests CE1 and CE2.

3.56 In order to ensure that a that the dPS can meet the soundness tests, we recommend that the Council:

- Makes all relevant evidence/data available for consultation and for the PAC to inform their assessment of the Plan;
- Provides clarification on why evidence provided in Technical Supplement 1 shows a different affordable housing need than that presented in Part 1 of the dPS; and

- Ensures that there is sufficient land available for development within the plan period which would be able to support the delivery of the relevant affordable housing requirement and if necessary identify additional lands through the expansion of settlement limits at the Plan Strategy stage.

#### **Housing Market Assessment – Relationship with Belfast**

- 3.57 The dPS recognises how housing markets work across administrative boundaries, that Lisburn & Castlereagh is located within the Belfast Housing Market Area (HMA) and that housing policy needs to be developed in discussion with neighbouring Councils.<sup>8</sup> Section 3 of the Lichfields Housing Growth Study sets out a review of the Housing Market. It references (para 3.6) research which identifies Lisburn & Castlereagh as part of the Core Belfast Local HMA and remarks on the strength of the relationship between the two LGDs (paras 3.12, 3.13, 3.18, 3.21) taking into account commuting flow data (Figure 3.4) which shows how the majority (two thirds) of worker outflow is to Belfast.
- 3.58 An outcome sought by the dPS is to provide jobs within Lisburn & Castlereagh to enable future residents to live and work in the local area. This is obviously important from a sustainable development perspective. If, as the evidence would suggest, many Lisburn & Castlereagh residents commute to work in Belfast (and this trend is likely to continue) and it is intended to grow further grow the availability of local jobs, this will drive the Council's housing requirement even before any consideration of the implications of any unmet need from Belfast – a consideration beyond Lichfields' scope (para 3.15). As noted at paragraph 9.8 of the Lichfields Growth Study *'the level of growth proposed in Belfast could have a significant impact on the housing market dynamics across the Belfast Metropolitan HMA and this will need to be explored further.'*
- 3.59 Lisburn and Castlereagh is within the Belfast Metropolitan Urban Area (BMUA), the area defined in the RDS as the continuous built up area centred on Belfast with an arc from Jordanstown to Knocknagoney, including the city of Lisburn and towns of Bangor, Carrickfergus and Holywood. The RDS (para 3.36) recognises the BMUA as the major conurbation in Northern Ireland with a thriving retail, service, administration, cultural and educational centre in the City of Belfast. It is the Region's largest employment centre and is at the centre of the regional transport network and the major gateway for national and international trade. Whilst Lisburn & Castlereagh has a scale and critical mass of its own, it also has a physical and functional relationship within the BMUA. It makes an important contribution to meeting the housing needs of the wider conurbation. The Council recognises its part within the wider City-Region and is now one of the six partner Councils included in the Belfast Region City Deal (BRCD).
- 3.60 Strategic planning for this relationship is important because if Belfast City Council's ambitious plans to grow its economy, consistent with RDS SFG1, are to be realised, there will be a significant need for additional housing. In Regional Guidance 8 (RG8), the RDS (para 3.15) states that *'strategic planning places emphasis on the importance of the relationship between the location of housing, jobs, facilities, services and infrastructure'*. The evidential basis of the dPS is strong insofar as it recognises the well-established transboundary housing market. This is important, not least because

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<sup>8</sup> Technical Supplement 1: Housing Growth Study para 4.41.

Belfast City Council flag the possibility of neighbouring districts within the wider metropolitan area – specifically Lisburn & Castlereagh and Antrim & Newtownabbey – potentially identifying land to be used for housing to accommodate some of Belfast’s population growth.

- 3.61 If the City’s ambitious plans, founded on economic growth, are adopted but it cannot meet its own housing requirement, other options could be explored such as neighbouring authorities in the wider metropolitan area, such as Lisburn & Castlereagh, zoning land to accommodate some of Belfast’s population growth.
- 3.62 Belfast City Council Draft Plan Strategy Technical Supplement 2: Housing para 4.18 states that any such areas agreed would need to have excellent connectivity to Belfast, including public transport links such as BRT and rail, along key transport corridors. Lisburn and Castlereagh in its capacity as part of the BMUA would clearly satisfy the sustainable transport related criteria given its excellent public transport links to Belfast.
- 3.63 The functional relationship with Belfast is an important planning consideration which bears upon its housing allocation through the HEF process. There are, however, issues with how the dPS handles transportation planning.

**Transport Assessment – disconnect between land use & transportation planning**

- 3.64 As noted in the DfI’s covering letter in relation to the HGI’s, Transportation Assessments are a factor in arriving at a housing allocation. This is reflected in the integration between land use and transport planning sought by the RDS, New Approach to Regional Transportation and SPPS. The inclusion of the Transport Test in the HEF must be in support of the SPPS’ pursuit of the successful integration of transport and land use as fundamental to the objective of furthering sustainable development (SPPS 6.293). Taking this forward in the context of plan-making, paragraph 6.299 of the SPPS is as follows:

*The preparation of a LDP provides the opportunity to assess the transport needs, problems and opportunities within the plan area and to ensure that appropriate consideration is given to transportation issues in the allocation of land for future development, including appropriate integration between transport modes and land use. Preparation of a local transport study will assist in this process. Councils should seek early engagement with DRD, or the relevant transport authority, and take account of their ‘The New Approach to Regional Transportation’ document and any subsequent transport plans.*

- 3.65 So to achieve the integration sought, there is a clear emphasis on the LDP as an opportunity to assess transport needs, problems and opportunities. In this dPS, however, the indication is that a full analysis of the problems and opportunities at main hub level has been deferred to LPP stage. This postponement unfortunately fetters the ability of the plan to build in the fundamental integration between land use and transportation planning since it is clearly a factor which must bear upon arriving at a housing allocation for main hubs following application of the HEF.
- 3.66 Paragraph 2.39 of Technical Supplement 8: Local Transport Study states that the Department for Infrastructure (DfI) have confirmed through consultation with the



*Council that the Belfast Metropolitan Transport Plan (BMTP) will be reviewed as part of the next stage of the Local Development Plan process.*

- 3.67 The Introduction to the Local Transport Study for Lisburn & Castlereagh (DfI) at Section 5 contains the following note:

*Note: This Study is part of the Belfast Metropolitan Transport Plan Local Transport Study (BMTS). The BMTS has yet to be completed and therefore this study is provided in draft form. It will remain as a draft until the BMTS is finalised and until then it is subject to change. The Department has agreed that the Lisburn and Castlereagh City Council (LCCC) may use the Draft LCCC LTS as a technical supplement to the LCCC LDP Plan Strategy.*

- 3.68 Notwithstanding the attempt to inform the DPS through the Local Transport Study in advance of the BMTP, the difficulty is that the potential for developer-led road improvements which may provide local or potentially more strategic benefits, a factor in assessing a settlement's capacity for growth via the HEF, is deferred to a later stage in the plan-making process.
- 3.69 They must reasonably be regarded as an opportunity to address the transport needs, problems and opportunities within the town but the potential to achieve integration between transportation and land use planning is being frustrated by the deferral of the assessment of this opportunity until LPP stage by which time the obvious risk is that the housing allocation for the settlement will be too low to justify the scale of expansion necessary for a developer-led transport scheme like this.

### **Management of Housing Supply**

- 3.70 The LDP does not propose to introduce a managed release of housing land in settlements.
- 3.71 Given the preceding comments, it may be appropriate to consider identifying Phase 2 land to be held in reserve until Phase 1 land (live permissions/likely permissions/urban capacity sites/existing zonings) are developed.
- 3.72 The intent of this approach is summarised below:
- Create compact towns, through a sequential approach to the phasing of land, in order to avoid urban sprawl by, in the first instance, focusing the growth of the residential population within the existing urban footprint;
  - Holding Phase 2 lands, located within revised settlement development limits, as a land bank to meet future need (providing a vision for the long term expansion of the main settlements);
  - Phase 2 lands will not be released for housing development until its designation changes to phase 1 as a consequence of an LDP amendment following a Plan review;

- When releasing phase 2 land, account will be taken of the latest Housing Growth Indicators, the strategic housing allocation, current land availability, housing building rates and infrastructure capacity;
- To ensure a sequential approach to development, when determining which land should be released to phase 1, account will be taken of its accessibility to the town centre and core services and also the availability of infrastructure;
- During reviews of the LDP, consideration will be given to the level of commitment and investment made by landowners to release and progress delivery of phase 1 housing land. Where no demonstrable progress has been made, consideration will be given to re-designating the land at review stage;
- The release of phase 2 housing land may also be considered where it has been demonstrated that there is insufficient uncommitted phase 1 housing land to meet affordable housing needs. Such a need should be supported by NIHE and should be selected taking into account the sequential approach above.

3.73 The overall intent of this policy suggestion would provide a mechanism for review of the housing land supply which seeks to address over-reliance on sites which are not being brought forward for housing. It could support the Spatial Strategy commitments to:

- support the growth and regeneration of our city, towns and villages, sustaining a living and working countryside and protecting environmentally sensitive areas; and
- provide a settlement hierarchy, defining development limits and allocating land for housing growth in accordance with the sequential approach of the RDS, as well as,
- all of the Plan Objective A actions.



## 4. The Strategic Case for Moneyreagh

- 4.1 The strategic case for additional housing land in Moneyreagh is grounded in the context set out above. However, there are good planning reasons to challenge the dPS's assertions that housing allocation should be directed to Moneyreagh and that the subject lands should be considered favourably.
- 4.2 The site comprises circa 8 hectares of undeveloped agricultural land and the extent of the lands is formed by the Moneyreagh Road to the east, the mutual boundary with an Orange Hall to the north, partially by Church Road and the mutual boundary with existing dwellings at 4 – 34 Church Road to the west.
- 4.3 This land is specifically referenced within Technical Supplement 6: Countryside Assessment and within the Moneyreagh appraisal. The appraisal states: -
- 'In terms of development opportunities, there are 4 large fields east of the village which, if developed, would take the limit to Moneyreagh Road (a Protected Route).'* And at page 87.... *'Any potential development opportunities would be in the 4 large fields adjoining Moneyreagh to the east.'*
- 4.4 To the south the subject site shares a mutual boundary with lands developed for Moneyreagh Primary School and Moneyreagh Community Centre with associated children's play area, football pitch, walking route and car parking. The balance of the southern boundary is defined by the realigned Hillsborough Road and zoned housing lands (MCH 03/03) currently being developed under planning permission LA05/2015/0844/F.
- 4.5 A site location plan is attached at Appendix 7.
- 4.6 The site context has changed significantly since the commencement of development on zoning MCH 03/03 of dBMAP and the completion of the realigned Hillsborough Road. The subject lands are strongly defined on all boundaries by existing road infrastructure or built form. The development of the subject site would constitute a natural rounding off and in no way would result in urban sprawl or a marring of the settlement limit.
- 4.7 The Moneyreagh Road, Church Road and Hillsborough Road provide clearly defined physical boundaries which will contain the outward expansion of Moneyreagh Village to the north and east and consolidate the existing village form.
- 4.8 The land gently rises from south to north and benefits from extended road frontage to both Moneyreagh and Church Roads and is also serviced by an existing spur from Laurel Bank residential development to the south.
- 4.9 There is no history of planning permission on the land.

## **Moneyreagh Village**

- 4.10 The development of all zoned housing land within Moneyreagh is now committed and development is progressing on zonings MH03/01 and MH03/02 and an application approved on zoning MH04/01 for 10 dwellings in October 2018.
- 4.11 Moneyreagh Village is a highly attractive commuter location just 7 miles south east of Belfast City and this is reflected in the demand for new build housing in the area.
- 4.12 Moneyreagh is well served by existing infrastructure. The Hillsborough Road strategic road upgrade is now complete and the Moneyreagh Waste Water Treatment Works is due to be upgraded by NI Water by 2019. The village also benefits from a Primary School and Nursery, Community Centre, pitches and children's play park, local Churches, a local shop and a public house and restaurant. The village is also well served by public transport provision.
- 4.13 The development of Moneyreagh has been weighted towards land east and south east of Church Road which acts as a central spine through the settlement. Moneyreagh lacks a defined centre. A small local shop is located at the junction of Church Road and Hillmount Drive, the Village does however lack a defined centre.

## **Opportunities**

- 4.14 The allocation of housing growth numbers has unfortunately not taken account of the opportunity for new zoned land to deliver much needed localised improvements such as road infrastructure, community facilities and employment opportunities.
- 4.15 The subject site is strategically located to deliver: -
- Enhanced road infrastructure comprising the delivery of the second phase of Hillsborough Road strategic upgrade comprising a four arm roundabout;
  - Community facilities comprising an opportunity for extension of the local primary school and creation of local shopping facilities and services and a new centre for the Village;
  - Delivery of employment opportunities through the provision of small scale commercial units to attract local business and industry;
  - Alongside housing growth to meet the growth demand for family; and accommodation in Moneyreagh Village; and
  - Creation of a landscape buffer to soften views of the strategic road upgrade and ongoing development at Laurel Bank which are currently experienced.
- 4.16 The preferred option is presented at Appendix 8 to demonstrate how the development of Moneyreagh Village could evolve in conjunction with Lisburn & Castlereagh City Council, Department for Education, DfI Roads, Moneyreagh Community & District Association and the local community.

#### ***Housing Density & Layout***

- 4.17 The proposed scheme is designed with a density of circa 25 dwellings per hectare consistent with the Key Site Requirement attached to zoning MCH03/02. This will facilitate a mix of accommodation and tenures to support the sustainable growth of the village over the medium term.
- 4.18 The built form is arranged to create strong frontages onto existing road boundaries and at nodal points throughout the scheme. The built form will range from one to a maximum of three storeys in height.
- 4.19 Enhanced levels of private amenity space will be provided within the scheme with private rear gardens serving dwellings no smaller than 70 square metres in size and 20 square metres per apartment.
- 4.20 Parking is proposed in accordance with prevailing standards set out in the Creating Places guidance document.

#### ***Open Space***

- 4.21 Open Space has been designed within the scheme at a rate in excess of 15% of the total site area. The open space is proposed to be located centrally within the scheme and further provision to network with and enhance existing playfield fields and walk area.

#### ***Access***

- 4.22 A Site Access Appraisal prepared by Kevin McShane Ltd accompanies this submission and is attached at Appendix 9.
- 4.23 The proposed scheme could unlock the potential to deliver the second phase of the Hillsborough Road strategic road upgrade. In order to complete the realignment of the Hillsborough Road spine Comber bound, DfI Roads would need to acquire part of an existing agricultural field.
- 4.24 A new spine road will be created off the Hillsborough Road serving the employment element and residential cul-de-sacs and will terminate in a T-junction with access opportunities onto the Moneyreagh and Church Roads. This should serve to relieve pressure from the existing Church Road/Moneyreagh Road/Lisleen Road South junction.
- 4.25 There is sufficient road frontage to deliver a right turn pocket off the Moneyreagh Road into the proposed development in order to maintain traffic flow country bound.

#### ***Contaminated Land***

- 4.26 The site is previously undeveloped agricultural land. There is no historic of polluting uses on the land and we do not therefore envisage any contamination issues which would preclude development of this land for the uses proposed.

#### ***Drainage & Flood Risk***

- 4.27 The site is not affected by pluvial or fluvial flood risk or inundation by reservoir flows. A drainage assessment will be provided in support of any future planning application and any mitigation required will be agreed through the development management process.

***Ecology***

- 4.28 The site can be classified as species poor agricultural grassland and is therefore unlikely to hold any material ecological value. There are no site specific environmental designations attached to the land.

***Summary***

- 4.29 The development of this land or part thereof would form a natural rounding off to the settlement limit of Moneyreagh and restore balance to this side of the village.
- 4.30 Moneyreagh is a popular and attractive commuter village which has the prevailing infrastructure through which to sustainably grow across the plan period. We would therefore respectfully request that this land is considered in the formulation of the new Local Development Plan and further consideration is given to the proper allocation of zoned housing land to appropriate villages such as Moneyreagh and particularly where much needed infrastructure, community facilities and employment opportunities can be unlocked.

## **Appendix 1: POP Submission**

# Representation

## Lisburn & Castlereagh City Council Preferred Options

May 2017

### Turley Representation

1. In response to the invitation to respond to the Lisburn & Castlereagh Preferred Options Paper (POP), Turley on behalf of the [REDACTED] submits the following comments on Part A Enabling Sustainable Communities and Delivery of New Homes and in respect to their lands west of Moneyreagh Road and Church Road, Moneyreagh. Site location plan attached at **Appendix 1**.
2. For ease of reference this note follows the same structure as the POP. This response should be read in conjunction with the Turley strategic housing response attached at **Appendix 2** of this representation.

### Table 1: Key Issues and Themes from POP

Page(s) No	Subject & Policy Ref	Remarks & Recommendation
<b>Vision &amp; Strategic Objectives</b>		
22	Strategic Objective A	Agree with Plan Vision and Objective A and welcome the recognition of the Council's towns, villages and small settlements as vibrant and attractive service centres providing a level of homes appropriate to their role in the settlement hierarchy.
<b>Section 7 Part A: – Enabling Sustainable Communities and Delivery of New Homes</b>		

28 – 34	<p><b>Key Issue 1: The Settlement Hierarchy</b></p> <p>No objection to the settlement hierarchy which is consistent with the RDS and the continued designation of Moneyreagh as a village. There is, however, a significant variation in the growth capacity of the Lisburn &amp; Castlereagh Villages, which needs to be reflected in final housing allocations. It is noted that large scale expansion is reserved for cities and towns but that more modest expansion of villages is not precluded.</p>
35	<p><b>Option 1A – Preferred Option</b></p> <p>Agree with the preferred option and welcome the flexibility to amend settlement clarification as required.</p>
48 – 49	<p><b>Key Issue 2: Facilitating Future Housing Growth (Settlements)</b></p> <p>Welcome recognition of potential for housing growth in selected villages subject to population size, level of current services and relevant constraints. See comment on growth capacity above.</p>
50	<p><b>Option 2A – Preferred Option</b></p> <p>There is an unnecessary limitation on the growth ambition across all three options. The HGIs are not ceilings or targets. Council should be more ambitious in pursuit of its vision and growth aspirations than the HGIs. We broadly agree with the principle that future housing growth should focus on Lisburn. However, to significantly limit dispersal in the remaining hierarchy will impede sustainable balanced growth across the Council area for the duration of the plan period.</p> <p>The proposed allocation of housing to the villages and smaller settlements is welcomed; this number appears low when considering that there is only circa 25 hectares of zoned land remaining within the Council's villages where densities are conventionally lower than the finer urban grain of larger towns and cities.</p> <p>The development of all zoned housing land within Moneyreagh is now committed and development is progressing on zonings MH03/01 and MH04/02 and an application pending on zoning MH04/01 for 13 dwellings. Moneyreagh Village is a highly attractive commuter location just 7 miles south east of Belfast City and this is reflected in the demand for new build housing in the area.</p>

The development of Moneyreagh has been weighted towards land east and south east of Church Road which acts as a central spine through the settlement. Land to the west framed by Moneyreagh Road and north and south of the junction of Moneyreagh Road and Church Road have remained largely undeveloped, albeit development is now ongoing on zonings MH03/01 and MH04/02.

Moneyreagh is well served by existing infrastructure. Planning permission LA05/2015/0844/F includes a strategic road upgrade of the Hillsborough Road and junction with Moneyreagh Road and the Moneyreagh Waste Water Treatment Works is due to be upgraded by NI Water by 2019. The village also benefits from a Primary School and Nursery, Community Centre, local Churches, a local shop and a public house and restaurant. The village is also well served by public transport provision.

The Preferred Options Paper provides a unique opportunity for Moneyreagh to grow sustainably over the plan period through natural rounding off and to fulfil its potential as a key commuter village.

With this in mind the [redacted] own approximately 8 hectares of land east of Church Road and west of Moneyreagh Road (see site location plan at Appendix 1). The land is previously undeveloped with the exception of a small farm holding accessed from Moneyreagh Road. The land rises moderately from south to north and there are no site specific environmental designations which would affect the land's development potential for housing. The NI Flood Maps show that the land is not affected by any watercourses or fluvial/pluvial flooding.

The land is strategically located in close proximity to Moneyreagh Primary School and shares a mutual boundary with Moneyreagh Community Centre and associated playing fields/play park. Moneyreagh lacks a clear centre and there is an opportunity to deliver some community infrastructure and local shops in proximity to the existing Community Centre to support the sustainable growth of the village over the plan period. Planning permission LA05/2015/0844/F includes access to these lands. There is



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extended road frontage available to deliver a further vehicular access from Church Road as required.

The Moneyreagh Road and Church Road provide clearly defined physical boundaries which will contain the outward expansion of Moneyreagh Village to the north and east and consolidate the existing village form.

The context in respect to critical views of the land when travelling north and south bound on Moneyreagh Road is now changing with the construction of the new strategic road which is read in the same context as the existing development limit and associated built form. The development of this land in association with the ongoing construction of the strategic road realignment has the opportunity to improve on these critical views and deliver a quality landscaping scheme to the eastern boundary of the site.

The development of this land or part thereof would form a natural rounding off to the settlement limit of Moneyreagh and restore balance to this side of the village.

Moneyreagh is a popular and attractive commuter village which has the prevailing infrastructure through which to sustainably grow across the plan period. We would therefore respectfully request that this land is considered in the formulation of the new Local Development Plan and further consideration is given to the proper allocation of zoned housing land to appropriate villages.

---

## Appendix 1: Site Location Plan



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 Site boundary

Client	
-	
Project	
Moneyreagh & Lisbane	
Drawing	
Site location plan	
Project No	00
Version	00
Project No	GRAB3002
Drawing No	10
Project No	00
Version	00
Date	May 2017
Status	Final
Scale	1:2,500 @ A3
Client No	SM



**Appendix 2: Turley Strategic Response**

## Preferred Options Paper Response Form

Lisburn & Castlereagh City Council has commenced preparation of its first Local Development Plan (LDP). The LDP will be produced in two parts consisting firstly of a Plan Strategy followed by a Local Policies Plan:

- **The Plan Strategy** will set the aims, objectives, growth strategy and strategic policies applicable to the Plan area.
- **The Local Policies Plan** will provide site specific policies and proposals, including settlement limits, land use zonings and environmental designations.

Both documents will guide future growth and development and provide the policy context for the consideration of applications for planning permission.

The Council wants your views on the **Preferred Options Paper (POP)** - the first stage in the preparation of the LDP which will inform the Plan Strategy. All documentation for the POP can be viewed at [www.lisburncastlereagh.gov.uk/resident/planning/local-development-plan](http://www.lisburncastlereagh.gov.uk/resident/planning/local-development-plan)

The easiest and quickest way to comment is by using the online questionnaire which is available on the Council's website at [www.lisburncastlereagh.gov.uk/resident/planning/local-development-plan](http://www.lisburncastlereagh.gov.uk/resident/planning/local-development-plan)

Alternatively, please complete and return this questionnaire by email to [LDP@lisburncastlereagh.gov.uk](mailto:LDP@lisburncastlereagh.gov.uk) or download a copy of this form and post to: **Development Plan Team, Civic Headquarters, Lagan Valley Island, Lisburn, Co. Antrim, BT27 4RL**. Responses must be received no later than **5pm on Thursday 25<sup>th</sup> May 2017**.

Please note that in order for comments to be considered valid you must include your contact details. We will use these details to confirm receipt of comments and to seek clarification or request further information. ***Anonymous comments or comments which do not directly relate to the Preferred Options Paper will not be considered as part of the consultation process.***

Comments made on this consultation will be made public, which may include identifying details such as your name or organisation. Should you have any concerns regarding the holding of such information please contact [LDP@lisburncastlereagh.gov.uk](mailto:LDP@lisburncastlereagh.gov.uk)

<b>Name</b>	Turley
<b>Organisation (if applicable)</b>	
<b>Address</b>	Hamilton House 3 Joy Street Belfast
<b>Postcode</b>	BT2 8LE
<b>Email Address</b>	
<b>Telephone Number</b>	02890723900

Essential supporting documents such as maps or images may be submitted with this response form and sent to [LDP@lisburncastlereagh.gov.uk](mailto:LDP@lisburncastlereagh.gov.uk)

Please indicate whether you will be submitting supporting documents.

Yes

No

If you are sending supporting documents, please list the titles of those documents here:

Your comments are sought on the Preferred Options Paper and each of the identified Preferred Options. Please indicate whether you agree with the Council's Preferred Option or one of the alternative options.

These questions are ordered in accordance with the Preferred Options Paper. Please read each section before answering the question. Should you continue on a separate sheet, please number your response in accordance with the relevant Option.

**Preferred Options Paper**

**Sections 1-4:**

**Q1 Do you have any comments on the opening Sections 1-4 of the Preferred Options Paper that should be taken into account when preparing the Plan Strategy?**

Make a comment here:

**Section 5: Growth Strategy and Spatial Framework**

**Q2 Do you agree with the aims of the Council's Growth Strategy and Spatial Framework as outlined in Section 5 of the Preferred Options Paper?**

Yes  No

Make a comment here:

**Q3 Do you agree with the cross-cutting themes outlined in Section 5 of the Preferred Options Paper?**

Yes  No

Make a comment here:

**Section 6: Vision and Strategic Objectives**

**Q4 Do you agree with the Vision of the LDP (shared with the Community Plan) outlined in Section 6?**

Yes  No

Make a comment here:

Ambitious aspirations for population and economic growth are central to the successful delivery of the vision. The Council should plan ambitiously and be prepared to think long term and strategically about where it would like to accommodate physical growth.



**Q5** Do you agree with the Strategic objectives (A-F) of the LDP outlined in Section 6?

Yes  No

Make a comment here:

### **Section 7: Key Issues and Options**

**Q6** **Key Issue 1: The Settlement Hierarchy**

*(Please refer to Section 7A of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

**OPTION 1A – PREFERRED OPTION – Retain the existing Settlement Hierarchy with limited amendments**

**Option 1B– Retain the existing Settlement Hierarchy with no change**

The new classification of Lisburn Greater Urban Area is noted. This area has the equivalent population of the Towns but it occupies an equivalent position in the settlement hierarchy to the urban Castlereagh which has a much larger population. It is appreciated that Lisburn Greater Urban Area is physically separate from Lisburn City by virtue of the green wedge and that the area obviously has a separate identity but might there be an alternative way of referring to it? Clearly the BMAP nomenclature of 'Metropolitan Lisburn' has been set aside but what other options were considered to arrive at Lisburn Greater Urban Area?

In applying the settlement hierarchy to the allocation of future growth amongst the villages, there needs to be a recognition of the significant range of critical mass, service infrastructure and growth capacity. How do Figure 6 and Table 2 relate to one another? Where are the Settlement appraisals referred to on page 42?

Make a comment on your choice here:

## Q7 Key Issue 2: Facilitating Future Housing Growth (Settlements)

*(Please refer to Section 7A of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 2A – PREFERRED OPTION - Focus future Housing Growth in Lisburn City with limited dispersal in the remaining settlement hierarchy, taking into account any constraints**
- Option 2B – Focus future Housing Growth in Lisburn City**
- Option 2C – Protect Existing Housing Zonings**

There is an unnecessary limitation on growth ambition across all three options. The HGIs are not ceilings or targets. Council should be more ambitious in pursuit of its vision and growth aspirations than the HGIs. It is accepted that on its face there is a large supply of zoned land remaining (and efforts are being made to grant legacy planning applications here), however, the conclusion that there is a limited requirement to find additional supply seems to be founded on an un-evidenced assertion that every house in the Housing Monitor can be relied upon to be delivered within the Plan period. Whilst the SPPS and PPS12 are referred to, there is no evidence of a tracking of the contribution of monitored sites over time. The detail of the Urban Capacity Study referred to is not available so it is unclear whether it has been prepared according to latest Best Practice in respect of Housing and Economic Land Availability Assessment (HELAA), with a focus on 5 year land supply and deliverability. A longer term view would favour the identification of Strategic Land Reserves. Whilst the delivery of a housing component in West Lisburn is key to City growth, the approach to generate an overage above HGI to achieve this outcome appears contrived and the density assumption is plainly too low. The approach unnecessarily constrains the potential for sustainable, infrastructure led growth of other parts of Lisburn City (the M1 does not define the southern side) and Greater Urban Castlereagh, as well as in other settlements capable of growth.

Make a comment on your choice here:

**Q8 Key Issue 3: Facilitating Sustainable Housing in the Countryside**

*(Please refer to Section 7A of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 3A – PREFERRED OPTION - Retention of Existing Rural Policy-Led Approach**
- Option 3B – Retention of Existing Rural Policy-Led Approach plus identify “Special Countryside Areas”**

It is acknowledged that rural housing is challenging to deal with from a strategic perspective. Policy is set at a regional level yet every house built within the Council area contributes to the HGI. There is also the sustainability aspect insofar as the ‘proposed’ allocation of 1500 houses in the open countryside, if constructed, would accommodate the equivalent of a new town scale population (Hillsborough/Culcavy) within the Plan period. This has obvious consequences for facilitating growth in settlements, particularly in villages and small settlements. It would be preferable if this additional ‘allocation’ was directed to the settlements and single houses in the countryside were accounted for within a form of rural windfall allowance.

Make a comment on your choice here

**Q9 Key Issue 4: Facilitating Education, Health, Community & Cultural Facilities**

*(Please refer to Section 7A of the Preferred Option Paper for full details)*

**OPTION 4A - PREFERRED OPTION– Land identified for education, health, community or cultural uses by the relevant providers will be protected from development for alternative uses through the new Local Development Plan**

Do you agree with the Preferred Option?    Yes       No

Make a comment here:

**Q10 Key Issue 5: Safeguarding Existing Employment Land**

*(Please refer to Section 7B of the Preferred Option Paper for full details)*

Please choose **only one** of the following:

- OPTION 5A – PREFERRED OPTION - Maintain the current provision of land zoned for employment (with the exception of the West Lisburn/Blaris Major Employment Location)**
  
- Option 5B – Redesignate sites which are currently zoned as employment land for alternative uses**
  
- Option 5C – Increase current levels of zoned employment land**

Make a comment on your choice here:

**Q11 Key Issue 6: West Lisburn/Blaris Major Employment Location (MEL)**

*(Please refer to Section 7B of the Preferred Option Paper for full details)*

Please choose **only one** of the following:

- OPTION 6A – PREFERRED OPTION - Redesignate the Blaris Major Employment Zoning as a Mixed Use site**

**Option 6B – Redesignate the Blaris Major Employment Zoning as two separate zonings for housing and employment**

**Option 6C - Retain the existing Blaris Major Employment Zoning for employment purposes only**

Make a comment on your choice here:

**Q12 Key Issue 7: Purdysburn Mixed Use Site Major Employment Location (MEL)**

*(Please refer to Section 7B of the Preferred Option Paper for full details)*

**OPTION 7A – PREFERRED OPTION - Retain the existing Purdysburn Major Employment Location as a Mixed Use site**

Do you agree with the Preferred Option?    Yes     No

Make a comment here:

**Q13 Key Issue 8: The Maze Lands Strategic Land Reserve of Regional Importance**

*(Please refer to Section 7B of the Preferred Option Paper for full details)*

**OPTION 8A – PREFERRED OPTION - Retain designation of the Maze Lands as a Strategic Land Reserve of Regional Importance**

Do you agree with the Preferred Option?    Yes     No

Make a comment here:

**Q14 Key Issue 9: Facilitating Sustainable Rural Economic Development in the Countryside**

*(Please refer to Section 7B of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 9A – PREFERRED OPTION - Retention of the existing policy-led approach**
- Option 9B – Retention of the existing policy-led approach but in addition allow for the possible creation of 'Rural Business Development Zones' in a limited number of key/strategic locations**

Make a comment on your choice here:

**Q15 Key Issue 10: Mineral Safeguarding Zones and Areas of Mineral Constraint**

*(Please refer to Section 7B of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 10A - PREFERRED OPTION - Provide Mineral Safeguarding Zones and Areas of Mineral Constraint in addition to the existing policy-led approach in relation to Mineral Development**
- Option 10B - Retain the existing policy-led approach in relation to Mineral Development**

Make a comment on your choice here:

**Q16 Key Issue 11: Growing Lisburn City Centre**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 11A – PREFERRED OPTION - Extend the existing City Centre boundary**
- Option 11B - Retain the existing City Centre boundary**

Make a comment on your choice here:

**Q17 Key Issue 12: Strengthening Existing Town Centres**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 12A – PREFERRED OPTION - Retain the existing town centre of Carryduff and designate town centre boundaries in the historic towns of Hillsborough and Moira**
  
- Option 12B – Retain the existing town centre of Carryduff**

Make a comment on your choice here:

**Q18 Key Issue 13: Sprucefield Regional Shopping Centre**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 13A – PREFERRED OPTION - Retain and reinforce Sprucefield as a Regional Shopping Centre**
  
- Option 13B – Retain Sprucefield Regional Shopping Centre but extend uses to include recreation and leisure**



Make a comment on your choice here:

**Q19 Key Issue 14: Strengthening District & Local Centres**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

Please choose only one of the following:

- OPTION 14A – PREFERRED OPTION - Extend District and Local Centre Boundaries**
- Option 14B – Retain the existing boundaries at Forestside District Centre and Dundonald Local Centre**

Make a comment on your choice here:

**Q20 Key Issue 15: Growing the Night Time Economy**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

**OPTION 15A – PREFERRED OPTION - Grow the Night Time Economy**

Do you agree with the Preferred Option?    Yes       No

Make a comment here:

**Q21 Key Issue 16: Promoting Office Development within the City, Town, District and Local Centres**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

**OPTION 16A – PREFERRED OPTION - Promoting Office Development within the City, Town, District and Local Centres<sup>1</sup>**

Do you agree with the Preferred Option?    Yes     No

Make a comment here:

**Q22 Key Issue 17: City Centre Development Opportunity Sites**

*(Please refer to Section 7C of the Preferred Options Paper for full details)*

---

<sup>1</sup> Office development is also permitted within the Major Employment Locations (MELs) See Options 6 & 7

**OPTION 17A – PREFERRED OPTION - Identify potential Development Opportunity Sites within Lisburn City Centre**

Do you agree with the Preferred Option?    Yes       No  

Make a comment here:

**Q23    Key Issue 18: Promoting Hillsborough Castle as a Key Tourism Destination**

*(Please refer to Section 7D of the Preferred Options Paper for full details)*

**PREFERRED OPTION 18A – PREFERRED OPTION - Promote Hillsborough Castle as a Key Tourism Destination**

Do you agree with the Preferred Option?    Yes       No  

Make a comment here:

**Q24    Key Issue 19: Promoting the Lagan Navigation as a Key Tourism / Recreation Opportunity Area**

*(Please refer to Section 7D of the Preferred Options Paper for full details)*

**OPTION 19A– PREFERRED OPTION - Promote the implementation of the Lagan Navigation as a key Tourism / Recreation Opportunity Area**

Do you agree with the Preferred Option?    Yes       No  

Make a comment here:

**Q25    Key Issue 20: Protecting and Promoting the Lagan Valley Regional Park as a Key Tourism / Recreation Opportunity Area**

*(Please refer to Section 7D of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

**OPTION 20A – PREFERRED OPTION - Protect and Promote the Lagan Valley Regional Park as a rich natural asset, retaining and enhancing the Lagan Valley Regional Park Nodes**

**Option 20B – Protect and promote the Lagan Valley Regional Park as a rich natural asset, but in addition provide opportunity to identify a limited number of potential new nodes (where possible)**

Make a comment on your choice here:

**Q26    Key Issue 21: Protecting and Enhancing Open Space, Sport & Outdoor Recreation**

*(Please refer to Section 7D of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

**OPTION 21A - PREFERRED OPTION – Protect and enhance all areas of open space and provide opportunity to identify a limited number of potential new Community Greenways (where possible)**

**Option 21B – Protect and enhance all areas of open space**

Make a comment on your choice here:

**Q27 Key Issue 22: Retention of Key Transportation Infrastructure Schemes (Road and Rail)**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

**OPTION 22A - PREFERRED OPTION – Retain a number of key transportation infrastructure schemes to enhance accessibility within the area (Roads Option, Rail Option, Disused Rail and Connectivity)**

Do you agree with the Preferred Option?    Yes       No  

Make a comment here:

**Q28 Key Issue 23: Retention of Key Park & Ride Sites**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

**OPTION 23A - PREFERRED OPTION - Retain a number of key Park & Ride Sites with identification of potential new Park & Ride / Park & Share sites**

**Option 23B - Retain a number of key Park & Ride Sites**

Make a comment on your choice here:

**Q29 Key Issue 24: Promoting Active Travel (walking, cycling and public transport)**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

**OPTION 24A - PREFERRED OPTION - Promote Active Travel in all new development (within Urban Areas / Settlements) to demonstrate how the development integrates with existing public transport, walking and cycling.**

Do you agree with the Preferred Option?    Yes     No

Make a comment here:

**Q30 Key Issue 25: Connecting People and Places – Greenways**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

**OPTION 25A - PREFERRED OPTION - Protect and develop safe, shared and accessible Greenways connecting communities, promoting walking and cycling, recreational and social interaction and enhancing health and wellbeing.**

Do you agree with the Preferred Option?    Yes     No

Make a comment here:

**Q31    Key Issue 26: Renewable Energy**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 26A - PREFERRED OPTION - Introduce Areas of Constraint in relation to renewable development (wind turbines)**
- Option 26B - Retain the existing policy-led approach in relation to renewable development.**

Make a comment on your choice here:

**Q32    Key Issue 27: Telecommunications**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

**OPTION 27A - PREFERRED OPTION - Retain the existing policy-led approach in relation to telecommunications development.**

**Option 27B - Introduce Areas of Constraint in relation to telecommunications development.**

Make a comment on your choice here:

**Q33 Key Issue 28: Waste Management**

*(Please refer to Section 7E of the Preferred Options Paper for full details)*

**OPTION 28A - PREFERRED OPTION - Retain the existing policy-led approach in relation to waste management within the Council area.**

Do you agree with the Preferred Option?    Yes       No  

Make a comment here:

**Q34 Key Issue 29: Protecting and Enhancing Built Heritage Assets and Archaeological Remains**



*(Please refer to Section 7F of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 29A - PREFERRED OPTION - Retain the existing policy-led approach with regards to the protection and enhancement of Built Heritage Assets but in addition provide opportunity to identify potential new Conservation Areas, Areas of Townscape Character or Areas of Village Character throughout the Council area.**
- Option 29B - Retain the existing policy-led approach with regards to the protection and enhancement of Built Heritage Assets.**

Make a comment on your choice here:

**Q35 Key Issue 30: Protecting and Enhancing Natural Heritage Assets**

*(Please refer to Section 7F of the Preferred Options Paper for full details)*

Please choose **only one** of the following:

- OPTION 30A - PREFERRED OPTION - Retain the existing policy-led approach with regards to the protection and enhancement of Natural Heritage Assets but in addition provide opportunity to identify potential new environmental designations across the Council area.**
- Option 30B - Retain the existing policy-led approach with regards to the protection and enhancement of Natural Heritage Assets.**

Make a comment on your choice here:

## The Appendices

### Q36 Appendix B: Equality Impact Assessment

Do you have any comment to make on Appendix B?

Yes  No

### Q37 Appendix C: Policy Review (PPSs)

Do you have any comment to make on Appendix C?

Yes  No

### Q38 Appendix F: Annual Housing Need Assessment Publication (NIHE)

Do you have any comment to make on Appendix F?

Yes

No

**Q39 Do you have any comments on the remaining appendices?**

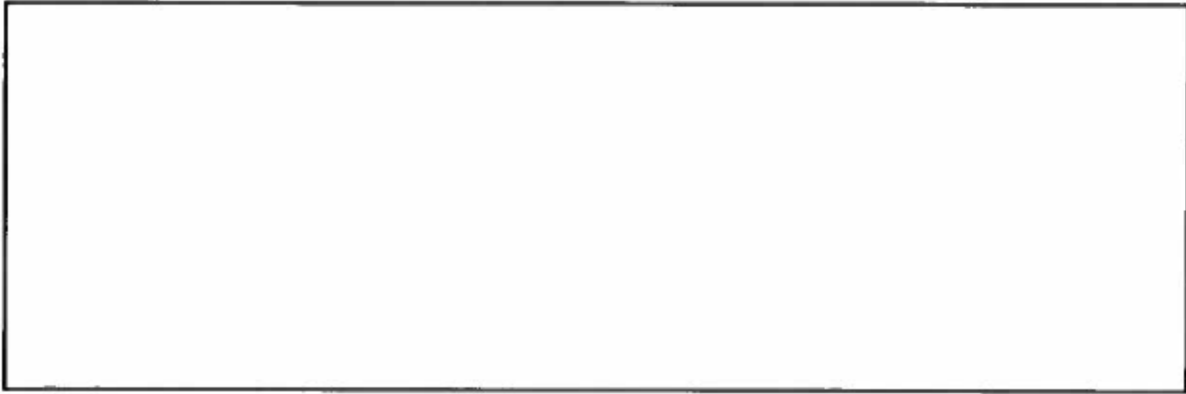
Yes

No

**Q40 Do you have any further comments about the Local Development Plan Preferred Options Paper?**

Yes

No



***Thank you for completing this questionnaire. Please ensure that all comments are submitted before the deadline of 5pm on Thursday 25<sup>th</sup> May 2017***

**Contact**  
Turley, Belfast  
028 9072 3900

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## Appendix 2: September 2019 HGIs 2016-2030

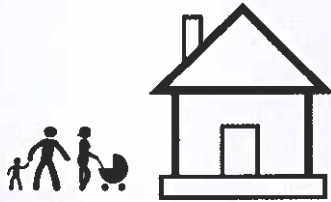
# Housing Growth Indicators

**2016-based**

# Housing Growth Indicators (HGIs)

2016 - 2030

## WHAT INFORMS THE HGIs?



**Household projections & current housing stock**



**Vacant stock, conversions, closures & demolitions**



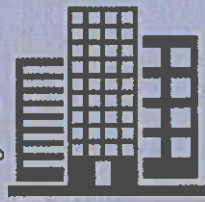
**Second homes**

### Background to the HGIs

Housing Growth Indicators (HGIs) provide an indication of future housing need in Northern Ireland.

The indicators have been updated at the request of Regional and Strategic Planning within the Department for Infrastructure and are produced to provide guidance for those preparing development plans.

Household projections produced by NISRA form the basis of the estimate. The estimates are based on current population & household formation trends with the assumption that these trends will continue into the future.



### Using the HGIs

These estimates are purely for guidance & should not be considered as a cap or a target on development, they present a robust starting point which can subsequently be adjusted taking account of the full range of factors that may influence housing requirements over the plan period. Various other factors will also have an influence on housing requirements over longer time periods.

They are intended to support the development process by giving an indication of where development is most likely to be needed given the current trends.



## NI STOCK REQUIREMENT ESTIMATE FOR 2030



2016 NI Housing Stock



Stock requirement estimate at 2030



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<b>5. Changes to data sources since 2012 based HGIs</b>	<b>13</b>
<b>6. Local Government District (LGD) level figures – 2016 based Housing Growth Indicators</b>	<b>15</b>

## ***Appendices***

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<b>2. Comparison of LGD level Housing Growth Indicators 2016-30 with recent new dwelling completion rates</b>	<b>19</b>
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## **1. Background to the HGIs**

- 1.1. Housing Growth Indicators (HGIs) provide an indication of future housing need in Northern Ireland. Household projections produced by NISRA form the basis of the estimate. The estimates are based on current population/household formation trends with the assumption that these trends will continue into the future.
- 1.2. As population and household formation projections are regularly updated and housing stock data presents the most up to date position annually, the HGIs should be used for guidance. The estimate does not take account of any future policy development or social factors and, as such, should not be considered a target or seen as a cap on housing development in the area.
- 1.3. Following a public consultation, an agreed methodology was established in 2005. This methodology has been replicated as closely as possible for all HGI updates since, including this latest 2016 based update. The variables that make up the HGI calculations have been updated using the most recently available information from robust sources. The 2012 based update of the HGIs contains more detailed information on the earlier applications of the methodology and can be found at <https://www.infrastructure-ni.gov.uk/publications/2012-based-housing-growth-indicators-hgis-and-methodology-paper>.
- 1.4. In addition to the household projections which are considered the main component of the HGIs, data on vacant housing stock, second homes and net conversions/closures/demolitions (net stock loss) are also used to produce the final estimates. As new, updated data was available for household projections, housing stock, vacant stock and second homes, updating the HGIs at this time is in line with the commitment to refresh estimates when updated household projections are published. This update ensures that any decision making or planning taken forward can be supported by the most robust, up-to-date information as evidence.
- 1.5. A number of updates of the HGIs have been produced, including being part of the first Regional Development Strategy which was published in 2001. Housing Growth Indicators were last published in May 2016 for the time period 2012-2025. The household projections used for these HGIs were based on 2012 data. The latest HGIs use 2016 based household projections and have been calculated for the time period 2016-2030 to align with the timeframe for the majority of Local Development Plans.
- 1.6. The HGIs have been calculated for Northern Ireland and also for each of the 11 Local Government Districts (LGDs). Further detail on how the HGIs are calculated, user information and methodology is presented throughout this document.

## **2. Uses of the HGIs**

- 2.1. The indicators have been updated at the request of the Department for Infrastructure Planning Group and in line with the commitment to refresh estimates when updated household projections are published. They are produced primarily to provide guidance for those preparing development plans. They are intended to support the development process by giving an indication of where development is

most likely to be needed given the current understanding of population, current data on the housing infrastructure and expected population growth. As mentioned above, these estimates are purely for guidance and should not be considered as a cap or a target on development and, as such, represent a robust starting point which can be considered while also taking account of the full range of factors that may influence housing requirements over the plan period in terms of how many houses are needed in any area.

### 3. Northern Ireland Housing Growth Indicators 2016-2030

- 3.1. Following a period of gathering the required data from a variety of sources (detailed on paragraph 3.7 and also section 4); examining the previous methodology; confirming with Planning representatives on a way forward for the 2016-based update; and engaging in various meetings and conversations with subject experts, Analysis, Statistics and Research Branch within the Department for Infrastructure took forward HGI calculations using the most recent available data.
- 3.2. Once the data analysis was complete, the updated HGI figures calculated for the period 2016-2030 show that the estimated new dwelling requirement in Northern Ireland for the period is:

**84,800**

- 3.3. As well as calculating an updated estimate for Northern Ireland, estimated dwelling requirements for the 11 Councils were also produced.

**Table 1: Estimate of total housing need in Northern Ireland by Council 2016-2030<sup>1</sup>**

<b>Council</b>	<b>2030 estimated dwelling requirement</b>
Antrim and Newtownabbey	4,200
Ards and North Down	5,500
Armagh City, Banbridge and Craigavon	17,200
Belfast	7,400
Causeway Coast and Glens	5,600
Derry City and Strabane	4,100
Fermanagh and Omagh	4,300
Lisburn and Castlereagh	10,700
Mid and East Antrim	5,400
Mid Ulster	10,300
Newry, Mourne and Down	10,000
<b>Northern Ireland</b>	<b>84,800</b>

<sup>1</sup> Estimates are rounded to the nearest hundred. Totals may not add due to rounding.

- 3.4. This report and its appendices provide further detail on the methodologies, data used and further insight into how these estimates have been produced. As mentioned previously, these estimates are an indication of likely need and should not be considered as a definitive target. The social and policy environment is likely to be subject to much change over the next decade and these estimates are modelled from currently available data. There has been no attempt to model future events into these estimates, so the data presented should be considered 'policy neutral'.
- 3.5. However, these should be considered as 'a best estimate' given the data available at this point in time. Data used has been obtained from professional, reliable sources and the updated HGIs have been developed by NISRA statisticians based on an agreed methodology, in consultation with subject experts. A number of

potential sources were considered and a sound, consistent rationale was employed to make the decisions that formed the final estimate calculations.

3.6. The variables informing the calculation of the Northern Ireland estimate are shown in Table 2 and this largely reflects the methodology that was used in the 2012 based HGIs.

**Table 2: Variables that comprise 2016-2030 HGIs<sup>1</sup>**

Variable		Year of data	Value	Notes
(A)	Number of households	2030	784,600	2016 based NISRA household projections (occupied stock)
(B)	Second homes	2030	8,700	1.11% of occupied housing stock. NISRA Central Survey Unit combined survey sample
(C)	Vacant stock	2030	57,000	6.70% of total housing stock. NISRA Central Survey Unit combined survey sample
(D)	Net conversions/ closures/ demolitions	2016 to 2030	11,100	Net stock loss estimated using LPS housing stock and new dwelling completions data. Based on 9 year average.
(E)	New stock requirement estimate at end of period	2030	861,400	Sum of (A), (B), (C), & (D)
(F)	Total stock at start of period	2016	776,500	LPS Northern Ireland Housing Stock data <a href="http://www.finance-ni.gov.uk/publications/annual-housing-stock-statistics">www.finance-ni.gov.uk/publications/annual-housing-stock-statistics</a> - stock at beginning of 2016/17
(G)	Projected new dwelling requirement	2016 to 2030	84,800	(E) minus (F)
(H)	Projected new annual dwelling requirement		5,700	

<sup>1</sup> Estimates are rounded to the nearest hundred. Totals may not add due to rounding.

3.7. Further information on the data sources used and changes compared to the previous 2012 based HGIs is available in 'User Information – data sources' (page 9) and 'Changes to data since 2012 HGIs' (page 11). However, at a basic level, the detail of each variable listed above is as follows.

Number of households 2030 (A)

The estimate of the number of households in 2030 of 784,600 comes from the 2016 based household projections produced by NISRA, available at [this link](#).

Second homes 2030 (B)

The term 'second home' used in this calculation relates to a dwelling, not permanently occupied, whose owner resides principally in another dwelling. This includes holiday homes and residences used for easy access to business, but excludes dwellings privately rented to other tenants. Following review of the previous potential sources for this update only one robust data source for second homes data was identified: the NISRA Central Survey Unit (CSU) combined survey sample 2016-17, which provides a factor of 1.11% (see 'Changes to data since

2012 HGIs' section (page 11)). Applying the CSU second homes factor (1.11%) to the data gives an estimated second homes figure of 8,700 in 2030.

Vacant stock 2030 (C)

Two possible data sources were identified for these data: the NI House Condition Survey 2016 (NIHCS) and the CSU combined survey sample 2016-17 (see 'User Information – data sources' (page 9)). In the NIHCS 2016, the proportion of vacant properties was 3.65%. In the CSU combined survey sample 2016-17, this proportion was 6.70%.

To maintain consistency with the data used for second homes, the NISRA CSU data was also used as the source for this variable and this results in an estimated vacant stock figure of 57,000 in 2030.

Net conversions/closures/demolitions 2016 to 2030 (D)

Estimates were produced, using housing stock numbers and new dwelling completions data from Land and Property Service (LPS) (see 'Calculation of estimates' section on page 12). These estimates suggest a figure of 741 stock loss per annum.

New stock requirement estimate 2030 (E)

This is calculated by adding the estimated number of second homes (B), vacant stock (C) and stock loss adjustment (D) to the estimated number of households (A). This results in a stock requirement estimate of 861,400 in 2030.

Total stock 2016 (F)

The LPS publication 'Northern Ireland Housing Stock' reports on data from the NI Valuation List (see 'User Information – data sources' on page 9). At April 2016, total NI housing stock was 776,500.

Projected new dwelling requirement 2016 to 2030 (G)

This is calculated by subtracting the 2016 total stock figure (F) from the 2030 total stock estimate (E).

- 3.8. Development of the updated HGIs based on the variables as outlined above results in a projected new dwelling requirement of 84,800 between 2016 and 2030 (approximately 5,700 per annum). While past trends are not necessarily an indicator of future trends and house building is not a linear, constant development, it is worth considering the projected annual requirement against recent numbers of new dwelling completions in Northern Ireland. In the past 9 years these are as follows (<https://www.finance-ni.gov.uk/publications/new-dwelling-statistics-report>):

2010-11	6,213
2011-12	5,719
2012-13	5,526
2013-14	5,315
2014-15	5,501
2015-16	5,771
2016-17	6,463
2017-18	7,096
2018-19	7,809

So a figure of around 5,700 per annum is a broadly central point amongst these nine annual figures and as such the updated HGI figure sits within the recent trend of completions over the past decade.



## **4. User Information – data sources**

4.1. This section describes the data sources that were used or considered as part of the development process for the latest 2016 based HGIs. The decision was made early on in this refresh process to replicate the agreed methodology that was used for the 2012 based HGIs and, as far as possible, this is the process that has been employed. However, due to data quality or data availability at the time of this refresh, it is important to note that some data sources may have changed since the previous 2012 based HGIs were derived. This is fully discussed in the section 'Changes to data sources since 2012 based HGIs' on page 11. Generally any changes are due to lack of availability of the original data source or considerations related to consistency of data use across HGI variables.

### ***4.1.1. NISRA household projections***

Household projections are formed using population projections and household formation trends. The projected population is assigned into household groups using the trends in household formation from one Census to the next. The 2016 based household projections are based on the most up-to-date trend data on household formation between the 2001 and 2011 Census. 2016 based household projections data have been calculated for the 11 new LGDs.

The 2016 based data were used as the starting point for the HGI calculations.

### ***4.1.2. NI Housing Executive House Condition Survey***

The NIHCS is conducted by the NI Housing Executive (NIHE). A detailed technical survey is carried out on the interior and exterior of properties and, in addition, a short interview is conducted with the householder or their partner. The data are weighted and grossed to ensure final figures reflect the actual housing stock. The achieved sample size in 2016 was 2,023.

Data from the NIHCS 2016 were considered as a potential source to estimate the proportion of second homes and proportion of vacant houses. Advice was also sought from the research team in NIHE in support of the development of these updated HGIs and the producers of this report are grateful for that support and expert advice. During the conversations with NIHE, the advice provided was that due to small sample sizes, NIHCS data on second homes was not robust enough to be used to inform the HGIs. Therefore NISRA CSU data was used for second homes estimates. In the interests of consistency across the calculations, this provided a rationale for also using the NISRA CSU data for vacant stock estimates.

### ***4.1.3. Land and Property Services (LPS) publications***

#### ***Building Control new dwelling completions data***

Figures are collected quarterly by LPS from Building Control offices in each council on the number of new dwellings that have been completed during that quarter. The date of a new dwelling completion is the date on which the building control completion inspection takes place. New dwellings include both houses and apartments.

New dwelling completions data were used in the calculations to estimate net stock loss.



#### *Housing stock data - NI Domestic Valuation List*

LPS publish housing stock figures based on their domestic valuation list. The data represents housing stock at a point in time usually in April. The download is taken on the first working day of the month. Housing stock data are available from 2008 to 2019 for the 11 LGDs.

Total housing stock data is one of the elements of the HGIs model. The data were also used in the calculations to estimate net stock loss.

#### **4.1.4. NISRA Central Survey Unit combined survey sample**

Central Survey Unit (CSU) has amalgamated samples from their main surveys which took place over each financial year from 2013-14. These are the complete samples that were selected from the LPS address database and so the data include properties that were found to be vacant or second homes when the interviewer went to visit. The combined sample for the year used in the HGI calculations (2016-17) includes 25,400 properties.

A sample size of 25,400 allows for data analysis at LGD level. Data on second homes and vacant properties have been used in the HGI calculations at LGD level and to confirm data used at Northern Ireland level. The data source is not an official estimate of data on second homes or vacant properties. It is a by-product of survey research and it is considered to be a representative sample of houses at Northern Ireland level and LGD level.

## 5. Changes to data sources since 2012 based HGIs

5.1. The changes outlined in this section include where a new data source has been used to calculate the HGIs and also if there have been any significant changes to a data source since the last HGIs were calculated. Looking at each of the 5 key elements in the Northern Ireland level HGI calculations:

### 5.1.1. Number of households

*Data source:* NISRA household projections (2016 based).

#### *Changes to data*

The latest household projections (2016 based) replaced the previous household projections (2012 based).

The 2016 based figures are lower than the 2012 based figures. As stated in NISRA's methodological paper, the main driving force behind the 2016-based projections being lower than the 2012 based projections is due to a lower population base. Similar findings are also found in household projections for countries in the rest of the UK and indeed for areas within Northern Ireland.

For further details of differences between the 2012 based household projections and 2016 based household projections, see [the methodology report](#) on the NISRA website ('Useful links' section on page 19).

### 5.1.2. Second homes/Vacant stock

*Data source:* NISRA CSU Combined Survey Sample 2016/17.

#### *Changes to data*

2016/17 figures from the NISRA CSU Combined Survey Sample replace the figures from the 2011 NIHCS. 2016/17 was considered the most relevant year for the 2016 based HGI update.

NIHE advice was that the NIHCS sample was considered too small to provide robust data for the second homes variable. Given that issue with regards to second homes and NIHCS data, it was considered that the preferred approach was to ensure consistency of data source across the calculations/relevant variables and as NISRA CSU data informed the second homes variable, the NISRA CSU data was also chosen to inform the vacant stock variable. Additionally, using vacant stock estimates provided by NIHCS and LPS lead to an overall gain in some LGDs, which would lead to an indicator suggesting no additional requirement of homes within these areas over the HGI estimate period. This issue also occurred in aspects of the 2012 based update and was a driver for variable decision making at that time. As this is a refresh of that 2012 method, the issue has been handled similarly.

### **5.1.3. Net conversions/closures/demolitions**

*Data source:* Estimates produced using published LPS data on new dwelling completions and housing stock.

#### *Changes to data*

NIHE advice obtained on net demolitions, conversions and closures across NIHE stock suggested a figure of 200 per annum. Advice was also sought from LPS on available data. The LPS figures that were available represent all Northern Ireland housing stock so the decision was taken to give precedence to these estimates. The latest net stock loss estimate based on the average of the time series available (9 years (2010-11 to 2018-19) is 741 per annum. This results in an estimated stock loss of 11,100 dwellings over the period to 2030. The previous 2012 based HGIs used a 2 year average and an annual estimated stock loss of 1,000 but this update has used the full time series available to provide a more robust average to smooth out any volatility across the period.

#### *Calculation of estimates*

Housing stock numbers and new dwelling completions data from LPS were used to give some guidance on approximating net stock loss data. Estimates were produced as follows:

- Take housing stock at the beginning of the year (LPS NI Housing Stock publication) and add in new dwellings completed during the year (LPS NI Building Control Starts and Completions publication). If no net stock loss, this figure would be the total housing stock at the end of the year.
- Compare this estimated 'housing stock if no loss' figure with the actual housing stock at the beginning of the next year (LPS NI Housing Stock publication). If the actual housing stock is less than the estimated 'housing stock if no loss', this would suggest that some stock has been lost during the year.
- Subtract actual housing stock at the beginning of the next year from estimated 'housing stock if no loss' to get an estimate for net stock loss during the year.

Due to the nature of the data and considering these figures are estimates, there can be wide variation from year to year. Therefore, averages have been taken over nine years to smooth the variations in the data and look at longer term trends.

### **5.1.4. Total stock**

*Data source:* LPS Northern Ireland Housing Stock publication

#### *Changes to data*

The LPS NI Housing Stock publication remains the source of housing stock statistics with the most recent statistics available up to 2019. This HGI update has used the relevant data available at the time of update.

## 6. Local Government District (LGD) level figures – 2016 based Housing Growth Indicators

### 6.1. Background to LGD level estimates

Each time the HGIs have been calculated, estimates at LGD level have been produced. These are produced by using existing data or estimating LGD level data for each of the key components of the HGIs detailed in Table 2: number of households, second homes, vacant stock, net conversions/closures/demolitions (net stock loss) and total housing stock for start year. The individual components are then combined to produce the HGIs at LGD level.

6.2. Data sources for each of the 5 key components are the same as those listed for the NI HGI figure (see 'User Information – data sources' on page 9) and more detail on the LGD calculations can be found in Appendix 1, page 15.

**Table 3: Estimate of total housing need in Northern Ireland by Council 2016-2030<sup>1</sup>**

<b>Council / Region</b>	<b>2030 estimated dwelling requirement</b>
Antrim and Newtownabbey	4,200
Ards and North Down	5,500
Armagh City, Banbridge and Craigavon	17,200
Belfast	7,400
Causeway Coast and Glens	5,600
Derry City and Strabane	4,100
Fermanagh and Omagh	4,300
Lisburn and Castlereagh	10,700
Mid and East Antrim	5,400
Mid Ulster	10,300
Newry, Mourne and Down	10,000

<sup>1</sup> Estimates are rounded to the nearest hundred.

6.3. These figures have been used as a starting point for allocating housing land as part of the Local Development Plan process. The figures presented here at LGD level are solely based on the data, are 'policy neutral' and use similar methodology to that used to produce the NI HGI estimate.

#### 6.3.1. Issues when producing LGD level data

There are fewer data sources available to calculate the HGIs at LGD level. Some data that are robust for Northern Ireland are not robust when broken down to LGD level. In addition, some data that were used in the past may no longer be available or not available at suitable quality levels (see 'User Information – data sources' on page 9).

## Appendix 1

### LGD level Northern Ireland Housing Growth Indicators 2016-2030 - estimating each of the 5 key components

Table A1: Estimate of housing need by Local Government District 2016-2030

District Council	Household projection 2030	Second Homes 2030	Vacant Stock 2030	Net Conversions and Demolitions 2016-2030	New Stock Estimate 2030	Housing Stock at April 2016	Projected New Dwelling Requirement 2016-2030
Antrim and Newtownabbey	59,200	400	3,200	-400	62,400	58,300	4,200
Ards and North Down	70,100	900	4,500	200	75,800	70,300	5,500
Armagh City, Banbridge and Craigavon	90,500	900	6,300	2,000	99,700	82,500	17,200
Belfast	148,200	1,500	13,000	900	163,500	156,100	7,400
Causeway Coast and Glens	58,300	2,700	5,200	2,400	68,600	62,900	5,600
Derry City and Strabane	60,000	200	4,300	100	64,600	60,500	4,100
Fermanagh and Omagh	46,200	500	4,300	1,300	52,400	48,000	4,300
Lisburn and Castlereagh	63,500	400	3,700	1,100	68,700	58,000	10,700
Mid and East Antrim	59,200	200	3,600	1,000	64,100	58,700	5,400
Mid Ulster	57,000	200	3,500	2,300	63,000	52,600	10,300
Newry, Mourne and Down	72,300	800	5,300	300	78,700	68,600	10,000
<b>Northern Ireland</b>	<b>784,600</b>	<b>8,700</b>	<b>57,000</b>	<b>11,100</b>	<b>861,300</b>	<b>776,500</b>	<b>84,800</b>

Cells are rounded to the nearest 100. Calculations have been worked out using unrounded data. Therefore summing individual figures in the table above may not add to total.

### ***Household projection 2030***

*Data source:* 2016 based household projections

*To produce LGD level data:* Household projections data have been calculated for the new 11 LGDs.

*Changes to data*

The latest household projections (2016 based) replaced the 2012 based household projections. The 2016 based figures are lower than the 2012 based figures (see 'Number of households' section on page 11 for some of the reasons why the figures are lower).

### ***Second homes 2030***

*Data source:* Central Survey Unit combined survey sample 2016-17

*To produce LGD level data:* As with the NI HGI calculation, the term 'second home' relates to a dwelling, not permanently occupied, whose owner resides principally in another dwelling. This includes holiday homes and residences used for easy access to business, but excludes dwellings privately rented to other tenants. Following review of the previous sources for this update only one robust data source for second homes data was identified: the NISRA CSU combined survey sample 2016-17. The overall NI second homes figure was apportioned across each of the 11 Councils to reflect the distribution present in the NISRA CSU combined survey sample data.

*Changes to data source*

No change

### ***Vacant stock 2030***

*Data source:* Central Survey Unit combined survey sample 2016-17

*To produce LGD level data:*

As with the NI HGI calculation, to maintain consistency with the data used for second homes, the NISRA CSU data was also used as the source for this variable. Again, similar to the second homes calculations, the overall NI vacant stock figure was apportioned across each of the 11 Councils to reflect the distribution present in the NISRA CSU combined survey sample data.

*Changes to data source*

For the 2012 based HGIs, NIHCS data was used. However, as detailed previously, for this 2016-based HGI update it was decided to maintain consistency across data used to ensure a more robust estimate using figures obtained from one source where possible and so, given only one suitable source was available for estimating second homes, that same source was used for vacant stock estimation. Therefore the source for vacant stock estimation has changed from NIHCS to NISRA CSU Combined Survey Sample.

### ***Net conversions/closures/demolitions 2016 to 2030***

*Data source:* Estimates produced using published LPS data on new dwelling completions and housing stock.

*To produce LGD level data:* Approximations were produced for each LGD as per the estimation of the NI level figure (see 'Calculation of estimates' section on page 12). These LGD level data have been used to apportion the NI level net conversions/closures/demolitions figure of 11,100.

*Change to data source*

No change

*Issues to note*

- *Using average over 9 years*  
As per the NI level figure, due to the nature of the data there can be wide variation from year to year. Therefore averages have been taken over a number of years to smooth the variations in the data and look at longer term trends.

Previously a 4 year average was used to calculate LGD level estimates. For this refresh, to produce a more robust estimate, the full data available covering the period 2010-11 to 2018-19 was used.

### ***New stock estimate 2030***

The new stock estimate for 2030 is calculated by adding the estimated number of second homes, vacant stock and stock loss adjustment to the estimated number of households for each Local Government District area.

### ***Total stock 2016***

*Data source:* LPS NI Housing Stock publication

*To produce LGD level data:* Data are available for the new 11 LGDs from this publication

### ***Projected new dwelling requirement by LGD for 2016 to 2030***

This is calculated by subtracting total stock estimate for 2016 from total stock estimate for 2030 for each LGD.

## Appendix 2

**Table A2: Comparison of LGD level Housing Growth Indicators 2016-2030 with recent new dwelling completion rates**

<b>Local Government District</b>	<b>Projected new dwelling requirement 2016-2030<sup>1</sup></b>	<b>Comparison 15 year figure using recent completion rates<sup>2</sup></b>
<b>Antrim and Newtownabbey</b>	4,200 dwellings	8,160 (544 x 15)
<b>Ards and North Down</b>	5,500 dwellings	10,275 (685 x 15)
<b>Armagh, Banbridge and Craigavon</b>	17,200 dwellings	13,755 (917 x 15)
<b>Belfast</b>	7,400 dwellings	10,065 (671 x 15)
<b>Causeway Coast and Glens</b>	5,600 dwellings	8,565 (571 x 15)
<b>Derry City and Strabane</b>	4,100 dwellings	7,680 (512 x 15)
<b>Fermanagh and Omagh</b>	4,300 dwellings	4,935 (329 x 15)
<b>Lisburn and Castlereagh</b>	10,700 dwellings	11,580 (772 x 15)
<b>Mid and East Antrim</b>	5,400 dwellings	6,405 (427 x 15)
<b>Mid Ulster</b>	10,300 dwellings	10,680 (712 x 15)
<b>Newry, Mourne and Down</b>	10,000 dwellings	9,690 (646 x 15)

<sup>1</sup> Estimate of housing need by Local Government District 2016-2030 (see Table 1 and Table 3 on pages 6 and 13 respectively) - derived by estimating each of the key components at LGD level and combining to form the HGI for each LGD.

<sup>2</sup> An approximate figure of new dwelling completions per annum (given in brackets) has been worked out using LPS new dwelling completions data over the time period 2015-16 to 2018-19 (the full time series available at 11 LGD level). 2016 to 2030 is a 15 year period so the calculated average figure has been multiplied by 15 to give a figure that can be compared with the projected new dwelling requirement 2016-2030.



## **Appendix 3**

### **Useful links**

2012 based Housing Growth Indicators and methodology paper are available on the DfI website at:

<https://www.infrastructure-ni.gov.uk/publications/2012-based-housing-growth-indicators-hgis-and-methodology-paper>

Details of the household projections data and methodology are available on the NISRA website at:

<https://www.nisra.gov.uk/sites/nisra.gov.uk/files/publications/HP16-bulletin.pdf>

RDS 2035 available on the DfI website at:

<https://www.infrastructure-ni.gov.uk/publications/regional-development-strategy-2035>

Details on the NI Housing Executive Northern Ireland House Condition Survey (including results from the survey) are available on the NIHE website:

<https://www.nihe.gov.uk/Working-With-Us/Research/House-Condition-Survey>

Land and Property Services NI Building Control Starts and Completions publication is available on the DoF website:

<https://www.finance-ni.gov.uk/publications/new-dwelling-statistics-report>

Land and Property Services NI Housing Stock publication is available on the DoF website:

<https://www.finance-ni.gov.uk/publications/annual-housing-stock-statistics>

## **Appendix 3: Primary School Analysis**

**Table 1.1: Lisburn & Castlereagh Primary School Enrolments**

School	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	15/16	16/17	17/18	18/19	Comment	Village/Small Settlement (Y/N)
Anahilt Primary School, Hillsborough	277	273	266	276	277	285	273	259	123	141	135	152	Enrolment -45.1%	Y
Ballinderry Primary School, Lower Ballinderry									204	226	251	251	Enrolment +23.0%	Y
Ballycarrickmaddy Primary School, Stonyford	122	127	126	133	150	148	152	165	178	180	189	186	Enrolment +52.5%	Y
Ballymacash Primary School, Lisburn	237	259	280	292	290	292	298	320	373	383	388	395	Enrolment +66.7%	N
Ballymacrickett Primary School, Glenavy	186	200	219	232	224	245	239	266	355	366	374	380	Enrolment +104.3%	Y
Ballymacward Primary School, Stonyford	97	112	114	95	101	102	107	110	64	66	70	80	Enrolment -17.5%	Y
Brooklands Primary School, Dundonald									473	478	482	504	Enrolment +6.6%	N
Brownlee Primary School, Lisburn	112	120	103	100	94	104	106	114	200	200	200	205	Enrolment +83.0%	N
Cairnshill Primary School, Cairnshill									476	492	548	545	Enrolment +14.5%	N
Carr Primary School, Carr	98	97	100	102	115	108	112	100	57	57	65	71	Enrolment -27.6%	Y

School	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	Comment	Village/Small Settlement (Y/N)	
Charley Memorial Primary School, Drumbeg	69	68	65	57	49	37	37	34																	Closed 2007	Y	
Carryduff Primary School, Carryduff																										Enrolment - 1.0%	N
Derrigahy Primary School, Milltown	106	91	86	79	82	76	63	58																		Closed 2011	Y
Downshire Primary School, Hillsborough																										Merged school - Enrolment +0.5%	Y
Dromara Primary School, Dromara	111	118	116	115	125	121	120	123	180	181	177	167														Enrolment +50.5%	Y
Drumbo Primary School, Drumbo	81	68	58	42	36	30	22	24																		Closed 2007	Y
Dundonald Primary School, Dundonald																										Enrolment +3.2%	N
Fort Hill Integrated Primary School, Lisburn	250	229	240	227	227	207	211	205	208	205	206	208														Enrolment -16.8%	N
Friend's School, Lisburn																										Enrolment -1.2%	N
Harmony Hill Primary School, Lisburn	728	712	710	707	698	668	654	642	581	582	603	614														Enrolment -15.7%	N
Hilden Integrated Primary School, Lisburn	0	0	0	0	62	73	65	68																		Closed 2008	N

School	95/9	96/9	97/9	98/9	99/0	00/0	01/0	02/0	15/1	16/1	17/1	18/19	Comment	Village/Small Settlement (Y/N)
	6	7	8	9	0	1	2	3	6	7	8			
Hillhall Primary School, Hillhall Hillsborough	51	47	50	51	53	56	53	49					Closed 2007	Y
Hillsborough Primary School, Hillsborough	332	353	348	356	368	378	371	385					Closed 2005 & merged to become Downshire PS	Y
Killowen Primary School, Lisburn	467	482	475	471	447	403	396	356	399	413	420	402	Enrolment -13.9%	N
Knockmore Primary School, Lisburn	152	155	144	150	173	171	212	167	174	192	188	230	Enrolment +51.3%	N
Lambeg Primary School, Lambeg	65	63	60	55	50	43	50	44					Closed 2007	Y
Largymore Primary School, Hillhall	343	339	337	309	280	253	227	212	168	176	189	192	Enrolment -44.0%	Y
Lisburn Central Primary School, Lisburn	228	232	238	260	255	259	251	253	187	194	191	189	Enrolment -17.1%	N
Maghaberry Primary School, Moira	199	204	204	212	216	214	223	218	214	223	238	245	Enrolment +23.1%	N
Maze Primary School, Long Kesh	85	89	89	90	93	91	91	87					Closed 2003	Y
McKinney Primary School, Dundrod	75	83	90	97	107	101	106	112	130	128	126	127	Enrolment +69.4%	Y
Meadow Bridge Primary School, Hillsborough									292	289	306	304	Enrolment +4.1%	Y

School	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	15/16	16/17	17/18	18/19	Comment	Village/Small Settlement (Y/N)
Moira Primary School, Moira	286	282	275	287	312	326	338	367	388	380	375	371	Enrolment +29.7%	N
Moneyrea Primary School, Moneyreagh									210	209	212	209	Enrolment -0.5%	Y
Newport Primary School, Hillsborough	100	90	81	74	72	74	61	58					Closed 2005	Y
Old Warren Primary School, Lisburn	178	173	146	133	143	137	131	126	115	133	130	135	Enrolment -24.2%	N
Pond Park Primary School, Lisburn	580	595	588	600	594	601	601	591	623	621	620	625	Enrolment +7.8%	N
Riverdale Primary School, Legacurry	0	0	0	0	0	167	177	183	208	206	208	208	Enrolment +19.7%	Y
Rowandale Integrated Primary School, Moira									216	243	256	265	Enrolment +22.7%	N
St Aloysius Primary School, Lisburn	322	325	319	302	302	303	293	273	401	418	443	444	Enrolment +37.9%	N
St Colman's Primary School, Lisburn									392	395	397	391	Enrolment -0.3%	N
St Colman's Primary School, Lambeg	403	435	419	426	444	438	412	360					Enrolment -10.7%	Y
St Colman's Primary School, Moira	80	72	70	61	53	45	39	30					Enrolment -62.5%	N

School	95/96	96/97	97/98	98/99	99/00	00/01	01/02	02/03	15/16	16/17	17/18	18/19	Comment	Village/Small Settlement (Y/N)
St James' Primary School, Kiltwarlin	72	87	93	105	112	116	120	123					Closed 2003	Y
St John's Primary School, Hillsborough	36	37	43	45	42	43	41	43					Closed 2003	Y
St Joseph's Primary School, Lisburn	300	265	251	231	204	181	189	177	388	385	378	386	Enrolment +28.7%	N
St Joseph's Primary School, Carryduff									411	423	430	456	Enrolment +10.9%	N
Tonagh Primary School, Lisburn	207	192	194	184	180	177	174	165	229	214	213	214	Enrolment +3.4%	N
Wallace High School, Lisburn									119	126	126	121	Enrolment +1.7%	N

Sources: Education Authority Annual Area Profiles Report November 2019 & Draft BMAP 2015 Technical Supplement 10 'Education, Health, Community and Cultural Facilities'

## **Appendix 4: Housing Monitor Analysis**



# Housing Monitor Review

**Table1: Review of Lisburn City Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
15249	69 & 71 Hillsborough Road	0	7	Not started (same as 2009 Monitor)
16442	Adj to 91 Causeway End Rd	0	1	Not started (same as 2009 Monitor)
16443	Adj to 51 Moira Rd	0	1	Not started (same as 2009 Monitor)
16524	Opposite Glenmore Terrace, Mill St	0	14	Not started (same as 2009 Monitor)
16528	132 Causeway End Rd	0	5	Not started (same as 2009 Monitor)
16541	Rear of 146 Hillsborough Rd	0	3	Not started (same as 2009 Monitor)
16542	Adj to 24 Beechdene Pk	0	2	Not started (same as 2009 Monitor)
16554	Sth North Lisburn Feeder	0	83	Not started
16548	Pond Pk Rd/Derriaghy Rd	70	4	'Ongoing' but same figures as 2009 Monitor
16623	Adj to 1 Prince William Rd	0	24	Not started (same as 2009 Monitor)
16626	Adj 64 Causeway End Rd	0	1	Not started (same as 2009 Monitor)
16627	Adj 81 Causeway End Rd	122	10	'Ongoing' but same figures as 2009 Monitor
16817	21-25 Seymour St	0	12	Not started (same as 2009 Monitor)
16819	115/117 Hillsborough Rd	0	10	Not started (same as 2009 Monitor)
16825	27 Pond Pk Rd	0	3	Not started (same as 2009 Monitor)
16826	2A Leamington Place/Grand Street	0	4	Not started (same as 2009 Monitor)
16833	Site 4 Esker Ridge, Antrim Rd	0	1	Not started (same as 2009 Monitor)
16904	Adj 196 Belsize Rd	0	3	Not started (same as 2009 Monitor)

16919	Opp 7-11 Ruskin Heights	0	4	Not started (same as 2009 Monitor)
17182	Adj 15 Harmony Hill	0	1	Not started (same as 2009 Monitor)
17186	Rear of 70C Causeway End Rd	0	1	Not started (same as 2009 Monitor)
17187	Adj 104 Pond Pk Rd	0	9	Not started (same as 2009 Monitor)
17188	63 Gregg St	0	1	Not started (same as 2009 Monitor)
17190	68 Woodland Pk	0	13	Not started (same as 2009 Monitor)
17198	Adj 56 Harmony Hill	0	1	Not started (same as 2009 Monitor)
17209	99 Ballynahinch Rd	1	26	1 house built since 2009
17210	43 Antrim Rd	0	2	Not started (same as 2009 Monitor)
18096	Adj 51 Moira Rd	0	20	Not started (same as 2009 Monitor)
18306	Ardfoyle Forthill	0	1	Not started (same as 2009 Monitor)
18310	Adj 14 Glenavy Gdns	0	1	Not started (same as 2009 Monitor)
18312	23 Benson St	0	2	Not started (same as 2009 Monitor)
18316	Side Garden 27 Laurehill Pk	0	1	Not started (same as 2009 Monitor)
18319	38 Pond Pk Rd	0	1	Not started (same as 2009 Monitor)
18323	3 & 5 Smithfield Sq	0	24	Not started (same as 2009 Monitor)
18328	149 Hillsborough Rd	0	14	Not started (same as 2009 Monitor)
18642	Garden of 2 Hillview Ave	0	1	Not started (same as 2009 Monitor)
18644	Side Garden of 1 Ferndell	0	1	Not started (same as 2009 Monitor)
18648	34-44 Grand St	0	5	Not started (same as 2009 Monitor)

18659	Rear of 22 Derryvolgie Pk, Lambeg	0	1	Not started (same as 2009 Monitor)
18679	169-171 Moira Rd	0	12	Not started (same as 2009 Monitor)
18680	Knockmore Business Centre Moira Rd	0	36	Not started (same as 2009 Monitor)
18692	99 Antrim Rd	0	3	Not started (same as 2009 Monitor)
18693	Adj 65 Antrim Rd	0	1	Not started (same as 2009 Monitor)
18696	17 Magheralave Rd	0	1	Not started (same as 2009 Monitor)
18698	Adj 23 Wyncroft Crescent	0	1	Not started (same as 2009 Monitor)
18712	46C Castle St	0	52	Not started (same as 2009 Monitor)
19465	96 Pond Pk Rd	0	7	Not started (same as 2009 Monitor)
19469	6 Rathvarna Close	0	1	Not started (same as 2009 Monitor)
19470	52 Mill St	0	14	Not started (same as 2009 Monitor)
19486	13 Plantation Drive	0	1	Not started (same as 2009 Monitor)
19494	99 Ballynahinch Rd	0	8	Not started (same as 2009 Monitor)
19508	Rear 76 Causeway End Rd	0	1	Not started (same as 2009 Monitor)
19509	Adj 24 Wyncroft Gdns	0	1	Not started (same as 2009 Monitor)
19515	19A Ballymacash Rd	0	4	Not started (same as 2009 Monitor)
19551	Adj 21 Greenburn Way	0	1	Not started (same as 2009 Monitor)
19552	74 Greenburn Way	0	1	Not started (same as 2009 Monitor)
19577	121-123 Old Hillsborough Rd	0	7	Not started (same as 2009 Monitor)
19928	Rear 61 Moss Rd	0	2	Not started (same as 2009 Monitor)

				Monitor)
19931	21 East Down View	0	6	Not started (same as 2009 Monitor)
19933	34A Belfast Rd	0	3	Not started (same as 2009 Monitor)
19934	Rear 34-38 Dalboyne Pk	0	1	Not started (same as 2009 Monitor)
19935	24 Magheralave Rd	0	8	Not started (same as 2009 Monitor)
19947	20 The Green	0	2	Not started (same as 2009 Monitor)
19948	Side 31 Innisfayle Rd	0	1	Not started (same as 2009 Monitor)
19949	18 Pond Pk Rd	0	5	Not started (same as 2009 Monitor)
20004	14 Warren Gdns	0	3	Not started (same as 2009 Monitor)
20033	108-110 Ballymacash Rd	0	6	Not started (same as 2009 Monitor)
20035	114-116 Ballymacash Rd	1	5	1 house built since 2009 Monitor
20037	Ballymacross Phase 5	0	8	Not started (same as 2009 Monitor)
20925	Glenavy Rd/Brokerstown Rd (LD1 North)	0	650	Not started (same as 2009 Monitor) Planning application under consideration
20471	Barbour Threads, Hilden	0	603	Not started Planning permission lapsed
<b>Total</b>			<b>1773</b>	

**Table 2: Review of Lisburn Greater Urban Area Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
18351	Rear of No. 4 5-7 Kilmakee Cottages, Willow Gardens	0	29	Not started (same as 2009 Monitor)
18661	65 Mosside Road, Derriaghy	0	5	Not started (not referenced in 2009 data)
18663	Rear of Kilmakee Cottages, Willow Gardens, Dunmurry	0	25	Not started (not referenced in 2009 data)
18664	283 & 285 Kingsway, Dunmurry	0	3	Not started (not referenced in 2009 data)
19456	64 Mosside Road, Derriaghy, Dunmurry	0	2	Not started (not referenced in 2009 data)
19458	Adjacent to 6 Larch Grove	0	1	Not started (not referenced in 2009 data)
<b>Total</b>			<b>65</b>	

**Table 3: Review of Greater Castlereagh Urban Area Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
553	77 Beechill Road	0	2	Not started (same as 2009 Monitor)
558	Beechill Road	0	37	Not started (same as 2009 Monitor)
12196	350 Saintfield Road	0	20	Not started (same as 2009 Monitor)
12302	Hanwood House 125 Old Dundonald Road	0	44	Not started (same as 2009 Monitor)
12680	86 Beechill Road	0	1	Not started (same as 2009 Monitor)
12929	Land adjacent to 2 Carrowreagh Gardens	0	1	Not started (same as 2009 Monitor)
12983	164 Newtownbreda Road	0	2	Not started (same as 2009 Monitor)
13284	Land adjacent to 16 Knockbracken Road	0	38	Not started (same as 2009 Monitor)
17284	To the rear of 310 Comber Road	0	1	Not started (same as 2009 Monitor)
18090	Forster Green Hospital Upper Knockbreda Road MCH 12 Mixed Use	0	30	Not started (same as 2009 Monitor)
18225	804 Upper Newtownards Road	0	4	Not started (same as 2009 Monitor)
18230	Rear of 17-23 Ferndene Park	0	6	Not started (same as 2009 Monitor)
18232	Quarry Corner, Upper Newtownards Road	0	41	Not started (same as 2009 Monitor)
18234	104-118 Comber Road	0	8	Not started (same as 2009 Monitor)
18235	274 Comber Road	0	1	Not started (same as 2009 Monitor)

18236	292 Comber Road	0	2	Not started (same as 2009 Monitor)
18813	1027 to 1035 Upper Newtownards Road	0	32	Not started (same as 2009 Monitor)
18848	14 Mount Michael Drive	0	1	Not started (same as 2009 Monitor)
18860	103 to 107 Saintfield Road	0	6	Not started (same as 2009 Monitor)
19622	133A Comber Road	0	3	Not started (same as 2009 Monitor)
19628	Rear of 180 Saintfield Road	0	1	Not started (same as 2009 Monitor)
19630	Side garden of 1 Brooklands Park	0	0	Not started (same as 2009 Monitor)
19631	28 Beechill Park South	0	1	Not started (same as 2009 Monitor)
19635	Land at Islay Gardens	0	8	Not started (same as 2009 Monitor)
19640	190 Newtownbreda Road	0	2	Not started (same as 2009 Monitor)
20045	70 Beechill Park West	0	1	Not started (same as 2009 Monitor)
20061	Rear garden 65 Old Dundonald Road	0	1	Not started (same as 2009 Monitor)
20064	66 Church Road	0	11	Not started (same as 2009 Monitor)
20065	33-37 Gransha Road	0	12	Not started (same as 2009 Monitor)
20066	42-52 Gransha Road	0	15	Not started (same as 2009 Monitor)
20068	99-107 Comber Road	0	45	Not started (same as 2009 Monitor)
20069	155 & 157 Comber Road	0	2	Not started (same as 2009 Monitor)

				Monitor)
20074	58 Old Dundonald Road	0	5	Not started (same as 2009 Monitor)
20847	Lands at and to the north of 360 Saintfield Road	0	80	Not started (not referenced in 2009 data but long standing site)
21526	East of Ballymaconaghy Road, Manse Road & Garland Hill	0	313	Not started (not referenced in 2009 data as identified through BMAP process)  Planning applications submitted & under consideration
<b>Total</b>			<b>717</b>	



**Table 4: Review of Carryduff Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
591	Adjacent to 22 Lough Moss Park	0	14	Not started (same as 2009 Monitor)
11437	Land to the southeast of Meadowvale Road CF 04/04	0	174	Not started (same as 2009 Monitor)
11981	Rear of 21 Holly gate Avenue	0	1	Not started (same as 2009 Monitor)
11988	26 Ballynahinch Road	0	2	Not started (same as 2009 Monitor)
12152	32-34 Ballynahinch Road	0	2	Not started (same as 2009 Monitor)
12262	Sunnyholme 11 Queensfort Road	0	3	Not started (same as 2009 Monitor)
12323	Between 7 & 9 Thorndale Road South	0	1	Not started (same as 2009 Monitor)
12591	20 Church Road	0	1	Not started (same as 2009 Monitor)
12976	Lands to east & south of Baronscourt & north of Edgar Road & Comber Road CF 4/06	2	378	Development on-going
12977	Lands to north of Marlborough Crescent, Blenheim Park & Queensfort Court, west of Saintfield Road and south of Mealough Road CF 03/05	0	349	Not started Planning permissions granted
13233	101 Ballynahinch Road CF 04/03	0	110	Not started (same as 2009 Monitor)
13274	6 Thorndale Road North	0	1	Not started (same as 2009 Monitor)
13279	30 Ballynahinch Road	0	2	Not started (same as 2009 Monitor)
18239	Rear of 1 Ballynahinch Road	0	1	Not started (same as 2009 Monitor)
18243	37 Church Road	0	6	Not started (same as 2009 Monitor)
18244	Adjacent to 694 Saintfield Road	0	30	Not started (same as 2009 Monitor)
18531	North of Thorndale Park	0	24	Not started (same as 2009 Monitor)

18827	31 Church Road	0	3	Not started (same as 2009 Monitor)
19657	16 Hillsborough Road	0	3	Not started (same as 2009 Monitor)
20077	70-72 Ballynahinch Road	0	33	Not started (same as 2009 Monitor)
20079	83 Ballynahinch Road	0	5	Not started  Potential yield identified as 1 unit in 2009 data
20080	Adjacent to 10 & 15 Baronscourt Lane	0	2	Not started (same as 2009 Monitor)
20081	Rear of 2 Thompsons Grange	0	1	Not started (same as 2009 Monitor)
20087	644 Saintfield Road	0	7	Not started (same as 2009 Monitor)
21292	Carryduff Shopping Centre, Church Road	0	150	Not started  Application received (LA05/2019/1270/F) for 2 no. retail units, 1 no. bar/restaurant unit, 1 no. off licence unit and 21 no. apartments with associated car parking and landscaping (amendment to planning approval under LA05/2018/0459/F)
21522	Lands at Comber Road CF 04/05	0	94	Not started  Application under consideration (LA05/2018/1221/RM) for 79 houses
<b>Total</b>			<b>1397</b>	

**Table 5: Review of Hillsborough Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
15325	Lisburn Road HH 03/02 & HH 03/03	0	119	Not started  Remaining potential identified as 150 units in 2009 data
16666	25 Lisburn Road	0	10	Not started (same as 2009 Monitor)
18336	Adjacent to the Old Mill Development Culcavy Road	0	1	Not started (same as 2009 Monitor)
18349	17 Dromore Road	0	1	Not started (same as 2009 Monitor)
18718	7 Abercorn Park	0	1	Not started (same as 2009 Monitor)
18739	45 Carnreagh	0	1	Not started (same as 2009 Monitor)
19242	16 Dromore Road	0	1	Not started (same as 2009 Monitor)
19245	10 Main Street	0	1	Not started (same as 2009 Monitor)
20184	1 Park Street	0	1	Not started (same as 2009 Monitor)
20186	Opposite 19-23 Dromore Road	0	7	Not started  Potential yield identified as 29 units in 2009 data
20195	1 Hillcourt	0	2	Not started (same as 2009 Monitor)
20201	Vacant site to rear 45-53 Old Mill Heights Culcavy Road	0	8	Not started (same as 2009 Monitor)
20205	30-32 Culcavy Road	0	16	Not started (same as 2009 Monitor)
20206	Maisemore 41 Lisburn Road	0	2	Not started (same as 2009 Monitor)
<b>Total</b>			<b>171</b>	

**Table 6: Review of Moira Housing Sites**

Site Ref	Site Name/Location	Units Complete	Remaining Potential	Development Status
15331	Old Kilmore Road, Fortwilliam MA 04/06	0	50	Not started (same as 2009 Monitor)
16505	Rear of 100 Main Street	0	1	Not started (same as 2009 Monitor)
16609	South of 23-25 St Johns Park	0	2	Not started (same as 2009 Monitor)
16940	Land to the rear of 35-37 Main Street	0	7	Not started (same as 2009 Monitor)
17173	8 Lurgan Road	0	14	Not started (same as 2009 Monitor)
17176	Adjacent to 33 Lurgan Road	0	5	Not started (same as 2009 Monitor)
18102	Land at 89-101 Main Street	0	10	Not started (same as 2009 Monitor)
18103	Land adjacent to 1A Hillsborough	0	20	Not started (same as 2009 Monitor)
18104	Land adjacent to 45 Lurgan Road MA 03/02 & MA 04/09	0	69	Not started (same as 2009 Monitor)
18756	4A Lurgan Road, Moira	0	50	Not started  Application under consideration (LA05/2019/0012/F) for proposed change of house types from extant planning permission (S/2008/0177) comprising the erection of 82 units
19117	Lands to the south-east of 45 Main Street	0	6	Not started (same as 2009 Monitor)
19119	Adjacent to 31 Lurgan Road	0	1	Not started (same as 2009 Monitor)
19121	Lands adjacent to and including Lurgan Road	0	24	Not started (same as 2009 Monitor)
20216	Lands north 10 Waringfield	0	1	Not started (same as 2009 Monitor)

	Park			Monitor)
20217	Rear 4 Waringmore	0	1	Not started (same as 2009 Monitor)
20219	Rear 18-20 Woodhall	0	1	Not started (same as 2009 Monitor)
20942	Land adjacent to 41 Old Kilmore Road MA 04/08	0	60	Not started No planning history
20944	Land west of Claremont Crescent MA 04/07	0	53	Not started Planning approval (LA05/2017/0428/F) for 53 no. dwellings
<b>Total</b>			<b>375</b>	



# HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

## STATUS OF ALL MONITORABLE SITES IN LISBURN AS OF 1 AUGUST 2009

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15144</b> 7158	KILOWEN GRANGE	01/08/2005	584	0	19.86	0.00	COMPLETE	01/08/2005
<b>15145</b> 7159	SAINT MARKS WOOD	01/08/1997	60	0	1.9	0.00	COMPLETE	01/08/1997
<b>15146</b> 7160	RATHVARNA AVENUE	01/08/1997	346	0	10.09	0.00	COMPLETE	01/08/1997
<b>15147</b> 7161	LIMETREE AVENUE	01/08/2009	523	77	27.8	4.10	DEVELOPMENT ON-GOING	
<b>15148</b> 7162	KNOCKMOREDRIVE	01/08/1997	132	0	6.2	0.00	COMPLETE	01/08/1997
<b>15149</b> 7163	THE OAKS ( NETTLEHILL ROAD)	01/08/1997	4	0	0.4	0.00	COMPLETE	01/08/1997
<b>15150</b> 7164	POND PARK MANOR	01/08/1997	345	0	25.38	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15151</b> 7165	MAGHERALAVE ROAD	01/08/1997	60	0	3.2	0.00	COMPLETE	01/08/1997
<b>15152</b> 7166	MAYSFIELD/KIRKWOOD PK	01/08/1999	110	0	4.83	0.00	COMPLETE	01/08/1999
<b>15153</b> 7167	RICHMOND COURT	01/08/1997	130	0	5.62	0.00	COMPLETE	01/08/1997
<b>15154</b> 7168	WEST PARK	01/08/1997	130	0	6.6	0.00	COMPLETE	01/08/1997
<b>15155</b> 7169	TONAGH AVENUE	01/08/1997	8	0	0.47	0.00	COMPLETE	01/08/1997
<b>15156</b> 7170	WARREN PARK	01/08/1997	58	0	1.78	0.00	COMPLETE	01/08/1997
<b>15157</b> 7171	BARBOUR GARDENS	01/08/1997	19	0	0.5	0.00	COMPLETE	01/08/1997
<b>15158</b> 7172	HILDEN COURT	01/08/1997	130	0	3.62	0.00	COMPLETE	01/08/1997
<b>15159</b> 7174	HARRYVILLE PARK	01/08/1997	10	0	0.68	0.00	COMPLETE	01/08/1997
<b>15160</b> 7175	HILLSBOROUGH ROAD	01/08/1997	3	0	0.16	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15161</b> 7176	HOLBURN HALL	01/08/1997	48	0	3.21	0.00	COMPLETE	01/08/1997
<b>15162</b> 7177	MERCER STREET	01/08/1998	2	0	0.1	0.00	COMPLETE	01/08/1998
<b>15163</b> 7178	PLANTATION MEWS	01/08/1997	15	0	0.52	0.00	COMPLETE	01/08/1997
<b>15164</b> 7179	RUSKIN PARK	01/08/1997	24	0	1.01	0.00	COMPLETE	01/08/1997
<b>15165</b> 7180	RYAN PARK	01/08/1997	8	0	0.35	0.00	COMPLETE	01/08/1997
<b>15166</b> 7181	SPRUCEFIELD COURT	01/08/1997	9	0	0.49	0.00	COMPLETE	01/08/1997
<b>15167</b> 7182	DOG KENNEL LANE	01/08/1999	20	0	0.66	0.00	COMPLETE	01/08/1999
<b>15168</b> 7183	BENAVON COURT	01/08/1997	19	0	0.66	0.00	COMPLETE	01/08/1997
<b>15169</b> 7184	ASHBOURNE PARK	01/08/1997	58	0	2.14	0.00	COMPLETE	01/08/1997
<b>15170</b> 7185	BELSIZE ROAD	01/08/1997	16	0	0.72	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15171</b> 7186	BRIDGE STREET	01/08/1997	2	0	0.7	0.00	COMPLETE	01/08/1997
<b>15172</b> 7187	BROOKVALE GRAND COURT	01/08/1997	31	0	0.32	0.00	COMPLETE	01/08/1997
<b>15173</b> 7188	CHERRY LANE	01/08/1997	10	0	0.29	0.00	COMPLETE	01/08/1997
<b>15174</b> 7189	GARVEY COURT	01/08/1997	40	0	0.77	0.00	COMPLETE	01/08/1997
<b>15175</b> 7190	GARVEY MANOR	01/08/1997	51	0	3.2	0.00	COMPLETE	01/08/1997
<b>15176</b> 7191	GLENMORE PARK	01/08/1997	20	0	0.8	0.00	COMPLETE	01/08/1997
<b>15177</b> 7192	GLENMORE WALK	01/08/1997	10	0	0.29	0.00	COMPLETE	01/08/1997
<b>15178</b> 7193	GRAND STREET	01/08/1997	3	0	1.07	0.00	COMPLETE	01/08/1997
<b>15179</b> 7194	LEWELLYN AVENUE	01/08/1997	4	0	0.02	0.00	COMPLETE	01/08/1997
<b>15180</b> 7195	QUEENSWAY	01/08/1997	2	0	0.1	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15182 7197	TUDOUR GRANGE	01/08/1997	29	0	0.18	0.00	COMPLETE	01/08/1997
15183 7198	WESLEY STREET	01/08/1997	1	0	0.4	0.00	COMPLETE	01/08/1997
15184 7200	RIVER COURT	01/08/1997	67	0	1.85	0.00	COMPLETE	01/08/1997
15185 7201	LARCH HILL	01/08/1997	22	0	0.69	0.00	COMPLETE	01/08/1997
15186 7202	EDEWALE MEADOWS	01/08/1997	22	0	0.98	0.00	COMPLETE	01/08/1997
15187 7203	GARNOCK HILL/ GLENDALE AV	01/08/1997	368	0	7.79	0.00	COMPLETE	01/08/1997
15188 7204	ARLINGTON DRIVE	01/08/1997	55	0	1.88	0.00	COMPLETE	01/08/1997
15189 7205	BIRCH GREEN	01/08/1997	10	0	0.21	0.00	COMPLETE	01/08/1997
15190 7206	COTLANDS GREEN	01/08/1997	7	0	0.29	0.00	COMPLETE	01/08/1997
15191 7207	GLENBURN COURT	01/08/1997	12	0	0.11	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15192</b> 7208	KINGSWAY	01/08/1997	10	0	0.25	0.00	COMPLETE	01/08/1997
<b>15193</b> 7209	GRANGE HILL	01/08/1997	4	0	0.05	0.00	COMPLETE	01/08/1997
<b>15194</b> 7210	ROYAL MEWS	01/08/1997	32	0	0.49	0.00	COMPLETE	01/08/1997
<b>15195</b> 7211	ASHLEY LODGE	01/08/1997	48	0	0.62	0.00	COMPLETE	01/08/1997
<b>15196</b> 7212	WILLOW GARDENS	01/08/1997	5	0	0.17	0.00	COMPLETE	01/08/1997
<b>15198</b> 7222	OAKHURST AVENUE	01/08/1997	147	0	13.36	0.00	COMPLETE	01/08/1997
<b>15199</b> 7228	ASHLEY PLACE	01/08/1997	3	0	0.15	0.00	COMPLETE	01/08/1997
<b>15200</b> 7229	RAVARNET WALK	01/08/1997	7	0	0.47	0.00	COMPLETE	01/08/1997
<b>15201</b> 7230	BELVFOR CRESCENT	01/08/1998	3	0	0.05	0.00	COMPLETE	01/08/1998
<b>15202</b> 7231	BLARIS WALK	01/08/1997	5	0	0.47	0.00	COMPLETE	01/08/1997

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15203</b> 7232	DRUMARD GRANGE	01/08/1997	22	0	0.87	0.00	COMPLETE	01/08/1997
<b>15204</b> 7233	DRUMBEG DRIVE	01/08/1997	5	0	0.1	0.00	COMPLETE	01/08/1997
<b>15205</b> 7234	ROSEVALE MEADOWS	01/08/1997	92	0	1.45	0.00	COMPLETE	01/08/1997
<b>15206</b> 7235	WARREN CLOSE	01/08/1997	9	0	0.14	0.00	COMPLETE	01/08/1997
<b>15207</b> 7236	WARREN GROVE	01/08/1997	10	0	0.17	0.00	COMPLETE	01/08/1997
<b>15208</b> 7237	EDGEWATER	01/08/1997	91	0	2	0.00	COMPLETE	01/08/1997
<b>15209</b> 7239	1A WARREN PARK DRIVE	01/08/1997	1	0	0.05	0.00	COMPLETE	01/08/1997
<b>15210</b> 7240	SEQUOLA PARK	01/08/1997	17	0	1.2	0.00	COMPLETE	01/08/1997
<b>15211</b> 7241	MOUNT ROYAL	01/08/1998	43	0	2.4	0.00	COMPLETE	01/08/1998
<b>15212</b> 7242	BLARIS ROAD	01/08/1997	4	0	0.33	0.00	COMPLETE	01/08/1997

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15213</b> 7243	ROSE PARK	01/08/1997	5	0	0.08	0.00	COMPLETE	01/08/1997
<b>15214</b> 7244	CHERRY VALE	01/08/1999	14	0	0.93	0.00	COMPLETE	01/08/1999
<b>15215</b> 7245	BEECH HOUSE KIRKWOODS ROAD	01/08/2009	0	46	0	2.09	DEVELOPMENT ON-GOING	
<b>15216</b> 7246	ADDISON PARK	01/08/2004	7	0	0.35	0.00	COMPLETE	01/08/2004
<b>15217</b> 7247	RICHMOND CRESCENT	01/08/1997	15	0	0.86	0.00	COMPLETE	01/08/1997
<b>15218</b> 7248	SEYMOUR STREET	01/08/1997	21	0	0.1	0.00	COMPLETE	01/08/1997
<b>15219</b> 7249	GLENBURN ROAD MAXWELL HALL	01/08/1997	3	0	0.05	0.00	COMPLETE	01/08/1997
<b>15220</b> 7250	MOSS SIDE MEWS	01/08/1997	11	0	0.51	0.00	COMPLETE	01/08/1997
<b>15221</b> 7252	AGHRIM COURT	01/08/1997	13	0	0.43	0.00	COMPLETE	01/08/1997
<b>15222</b> 7253	SEYMOUR HILL	01/08/1997	22	0	0.69	0.00	COMPLETE	01/08/1997

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<b>15223</b> 7254	ADJACENT TO ST COLUMBA'S CHURCH BELSIZE ROAD	01/08/2008	7	0	0.38	0.00	COMPLETE	01/08/2008
<b>15224</b> 7255	GLENBURN FORD	01/08/1997	22	0	0.38	0.00	COMPLETE	01/08/1997
<b>15225</b> 7256	KNOCKMORE ROAD	01/08/2001	8	0	0.42	0.00	COMPLETE	01/08/2001
<b>15234</b> 7265	INISHCARN PARK	01/08/2000	19	0	0.96	0.00	COMPLETE	01/08/2000
<b>15245</b> 7276	BELFAST ROAD	01/08/2000	2	0	0.07	0.00	COMPLETE	01/08/2000
<b>15247</b> 7278	LAUREL GROVE	01/08/1997	27	0	1.7	0.00	COMPLETE	01/08/1997
<b>15248</b> 7279	THORNLEIGH	01/08/1997	3	0	0.21	0.00	COMPLETE	01/08/1997
<b>15249</b> 7280	69 & 71 HILLSBOROUGH ROAD	01/08/2009	0	7	0	0.15	NOT STARTED	
<b>15250</b> 7281	KNOCKDARRAGH PARK	01/08/2000	86	0	3.4	0.00	COMPLETE	01/08/2000
<b>15251</b> 7282	NETTLEHILL ROAD	01/08/2005	18	0	0.58	0.00	COMPLETE	01/08/2005

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15252</b> 7283	LAURELHILL ROAD	01/08/2009	0	4	0	0.39	NOT STARTED	
<b>15253</b> 7287	BELSIZE COURT	01/08/1997	23	0	0.46	0.00	COMPLETE	01/08/1997
<b>15254</b> 7288	ROSE PARK BELZISE ROAD	01/08/1997	1	0	0.42	0.00	COMPLETE	01/08/1997
<b>15255</b> 7289	HARMONY MEWS	01/08/1997	16	0	0.41	0.00	COMPLETE	01/08/1997
<b>15256</b> 7290	GLENMORE MANOR	01/08/1997	15	0	1.76	0.00	COMPLETE	01/08/1997
<b>15257</b> 7292	KINGSWAY	01/08/1997	1	0	0.52	0.00	COMPLETE	01/08/1997
<b>15258</b> 7293	ADJACENT TO MAGHERALAVE GRANGE	01/08/1999	9	0	1.4	0.00	COMPLETE	01/08/1999
<b>15259</b> 7295	CAUSEWAY ROAD END (1)	01/08/2004	2	0	0.1	0.00	COMPLETE	01/08/2004
<b>15260</b> 7296	112 - 114 CAUSEWAY END ROAD	01/08/2009	2	21	0.03	0.27	DEVELOPMENT ON-GOING	
<b>15261</b> 7297	BENVISTEEN PARK	01/08/1998	2	0	0.2	0.00	COMPLETE	01/08/1998

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15262</b> 7298	OFF DORCHESTER PARK	01/08/1998	3	0	0.19	0.00	COMPLETE	01/08/1998
<b>15263</b> 7299	114 - 124 CAUSEWAY ROAD END	01/08/2009	10	7	0.15	0.13	DEVELOPMENT ON-GOING	
<b>15264</b> 7300	REAR OF 45 POND PARK AVE	01/08/2004	4	0	0.51	0.00	COMPLETE	01/08/2004
<b>15265</b> 7301	REAR OF BEATTIE TERRACE	01/08/2001	2	0	0.12	0.00	COMPLETE	01/08/2001
<b>15266</b> 7302	86-88 NETTLEHILL ROAD	01/08/1999	14	0	0.62	0.00	COMPLETE	01/08/1999
<b>15267</b> 7303	PRIMROSE GARDENS	01/08/1999	8	0	0.54	0.00	COMPLETE	01/08/1999
<b>15269</b> 7305	NETTLEHILL ROAD	01/08/1999	2	0	0.08	0.00	COMPLETE	01/08/1999
<b>15270</b> 7306	ADJACENT TO GLENMORE HOUSE	01/08/1999	54	0	0.75	0.00	COMPLETE	01/08/1999
<b>15271</b> 7308	MAGHERALAVE ROAD	01/08/1998	9	0	0.27	0.00	COMPLETE	01/08/1998
<b>15272</b> 7309	2 LLEWELLYN AVE	01/08/1999	2	0	0.03	0.00	COMPLETE	01/08/1999

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>15273</b> 7310	31 BALLINDERRY ROAD	01/08/1999	4	0	0.08	0.00	COMPLETE	01/08/1999
<b>15274</b> 7311	42/44 BELFAST ROAD	01/08/2001	12	0	0.17	0.00	COMPLETE	01/08/2001
<b>15275</b> 7312	LAMBEG ROAD	01/08/2003	9	0	0.13	0.00	COMPLETE	01/08/2003
<b>15276</b> 7314	BETWEEN 6 AND 8 BELSIZE ROAD	01/08/2005	2	0	0.08	0.00	COMPLETE	01/08/2005
<b>16432</b> 11257	REAR OF 28 NORTH CIRCULAR ROAD	01/08/2000	1	0	0.09	0.00	COMPLETE	01/08/2000
<b>16438</b> 11266	46 GRAND STREET, LISNAGARVY	01/08/2000	2	0	0.01	0.00	COMPLETE	01/08/2000
<b>16439</b> 11267	30-34 NORTH CIRCULAR ROAD	01/08/2008	18	0	0.29	0.00	COMPLETE	01/08/2008
<b>16440</b> 11269	20 RAILWAY STREET, DUNMURRAY	01/08/2001	1	0	0.01	0.00	COMPLETE	01/08/2001
<b>16441</b> 11271	SITE ADJACENT TO 81 CAUSEWAY END ROAD	01/08/2000	1	0	0.13	0.00	COMPLETE	01/08/2000
<b>16442</b> 11272	ADJACENT TO 91 CAUSEWAY END ROAD	01/08/2009	0	1	0	0.08	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16443</b> 11273	LAND ADJACENT TO 51 MOIRA ROAD	01/08/2009	0	1	0	0.03	NOT STARTED	
<b>16444</b> 11274	SITE 1 BETWEEN 105 AND 107 ANTRIM ROAD	01/08/2001	1	0	0.09	0.00	COMPLETE	01/08/2001
<b>16445</b> 11275	49 MOSS ROAD	01/08/2002	1	0	0.02	0.00	COMPLETE	01/08/2002
<b>16446</b> 11276	TO THE REAR OF 19 DUNMURRAY LANE	01/08/2001	1	0	0.06	0.00	COMPLETE	01/08/2001
<b>16448</b> 11278	SITE TO THE REAR OF 16 WOODLAND PARK	01/08/2001	1	0	0.05	0.00	COMPLETE	01/08/2001
<b>16449</b> 11279	ADJACENT TO 15 WAVERLY AVENUE	01/08/2009	0	1	0	0.05	NOT STARTED	
<b>16450</b> 11280	4 QUEENSWAY	01/08/2001	11	0	0.09	0.00	COMPLETE	01/08/2001
<b>16451</b> 11281	LAND TO THE EAST OF LISBURN NEW CEMETERY RIVERGATE LANE, BLARIS ROAD	01/08/2004	21	0	2.2	0.00	COMPLETE	01/08/2004
<b>16452</b> 11283	LAND TO THE REAR OF 124/126 GRAND STREET	01/08/2002	2	0	0.01	0.00	COMPLETE	01/08/2002
<b>16453</b> 11284	BETWEEN 19 ORANGE HALL LANE AND 40 THISLEMOUNT PARK	01/08/2002	2	0	0.09	0.00	COMPLETE	01/08/2002

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16454</b> 11285	TRINITY METHODIST CHURCH BALLYMACOSS AVENUE	01/08/2000	20	0	0.26	0.00	COMPLETE	01/08/2000
<b>16455</b> 11286	86 AND 88 CAUSEWAY END ROAD	01/08/2009	15	17	0.3	0.34	DEVELOPMENT ON-GOING	
<b>16456</b> 11288	LAND TO THE REAR OF 96/98 BELSIZE ROAD	01/08/2005	2	0	0.14	0.00	COMPLETE	01/08/2005
<b>16522</b> 11650	12A CASTLE STREET	01/08/2005	1	0	0.01	0.00	COMPLETE	01/08/2005
<b>16524</b> 11654	OPPOSITE TO GLENMORE TERRACE, MILL STREET	01/08/2009	0	14	0	0.16	NOT STARTED	
<b>16526</b> 11656	23 ANTRIM ROAD	01/08/2003	9	0	0.42	0.00	COMPLETE	01/08/2003
<b>16527</b> 11658	124 TIROWEN DRIVE AND ADJACENT LAND, KNOCKMORE ESTATE	01/08/2002	15	0	0.37	0.00	COMPLETE	01/08/2002
<b>16528</b> 11660	132 CAUSEWAY END ROAD	01/08/2009	0	5	0	0.24	NOT STARTED	
<b>16529</b> 11661	351 DERRYVOLLGIE PARK	01/08/2003	1	0	0.06	0.00	COMPLETE	01/08/2003
<b>16531</b> 11666	22 & 24 PLANTATION ROAD	01/08/2004	4	0	0.16	0.00	COMPLETE	01/08/2004

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16532</b> 11679	SITE ADJOINING 5 BALLYMACASH ROAD	01/08/2002	1	0	0.09	0.00	COMPLETE	01/08/2002
<b>16533</b> 11680	26A PLANTATION ROAD	01/08/2006	1	0	0.13	0.00	COMPLETE	01/08/2006
<b>16534</b> 11681	ADJACENT TO 67, & 71 TO 73 GRAND STREET	01/08/2001	6	0	0.15	0.00	COMPLETE	01/08/2001
<b>16535</b> 11682	NO. 47 & 49 BALLYMACASH ROAD	01/08/2008	8	0	0.38	0.00	COMPLETE	01/08/2008
<b>16536</b> 11683	16 MOSS SIDE ROAD	01/08/2003	1	0	0.05	0.00	COMPLETE	01/08/2003
<b>16537</b> 11684	24-32 SAINTFIELD ROAD	01/08/2002	16	0	0.11	0.00	COMPLETE	01/08/2002
<b>16538</b> 11685	21-23 CHAPEL HILL	01/08/2008	27	0	0.16	0.00	COMPLETE	01/08/2008
<b>16539</b> 11686	1 & 2 GREENAVON, BALLYNAHINCH ROAD	01/08/2003	8	0	0.2	0.00	COMPLETE	01/08/2003
<b>16540</b> 11687	ADJACENT TO 60 LOW ROAD	01/08/2003	1	0	0.03	0.00	COMPLETE	01/08/2003
<b>16541</b> 11688	TO THE REAR OF 146 HILLSBOROUGH ROAD (PROPOSED ACCESS ADJ TO 2 BLARIS ROAD)	01/08/2009	0	3	0	0.05	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16542</b> 11689	ADJACENT TO 24 BEECHDENE PARK	01/08/2009	0	2	0	0.07	NOT STARTED	
<b>16543</b> 11692	87 ANTRIM ROAD	01/08/2005	5	0	0.25	0.00	COMPLETE	01/08/2005
<b>16544</b> 11697	36A BELFAST ROAD	01/08/2002	4	0	0.06	0.00	COMPLETE	01/08/2002
<b>16545</b> 11699	LAND TO THE REAR OF 19 MAGHERALAVE PARK NORTH	01/08/2004	1	0	0.12	0.00	COMPLETE	01/08/2004
<b>16547</b> 11814	BALLINDERRY ROAD/BROKERSTOWN ROAD/GLENVAY ROAD	01/08/2009	107	1765	4.7	77.50	DEVELOPMENT ON-GOING	
<b>16548</b> 11815	POND PARK ROAD/DERRIAGHY ROAD	01/08/2009	70	4	3.8	0.49	DEVELOPMENT ON-GOING	
<b>16549</b> 11817	LAND TO REAR OF 21A-23 BALLINDERRY ROAD	01/08/2009	140	138	4.46	4.40	DEVELOPMENT ON-GOING	
<b>16550</b> 11818	BERKELY HALL, PLANTATION/SAINTFIELD ROAD	01/08/2009	132	18	5.7	0.81	DEVELOPMENT ON-GOING	
<b>16551</b> 11819	PLANTATION/HILLHALL ROAD	01/08/2009	20	560	0.67	18.86	DEVELOPMENT ON-GOING	
<b>16552</b> 11820	LANDS SOUTH OF THE PROPOSED NORTH LISBURN FEEDER ROAD	01/08/2009	4	296	0.16	12.07	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16553</b> 11821	LANDS SOUTH OF THE PROPOSED NORTH LISBURN FEEDER ROAD	01/08/2009	16	424	0.63	16.78	DEVELOPMENT ON-GOING	
<b>16554</b> 11822	LANDS SOUTH OF THE PROPOSED NORTH LISBURN FEEDER	01/08/2009	0	90	0	3.59	NOT STARTED	
<b>16555</b> 11823	AGHINAHOUGH	01/08/2009	184	1019	6.5	36.04	DEVELOPMENT ON-GOING	
<b>16556</b> 11824	GREEN PARK	01/08/2009	0	24	0	1.00	NOT STARTED	
<b>16616</b> 12070	REAR OF 101 BALLYMACASH ROAD	01/08/2006	9	0	0.28	0.00	COMPLETE	01/08/2006
<b>16617</b> 12071	REAR OF 14 BROKERSTOWN ROAD	01/08/2003	1	0	0.28	0.00	COMPLETE	01/08/2003
<b>16618</b> 12075	ADJACENT TO THE THISTLES, LAURELHILL HOUSE	01/08/2005	8	0	0.15	0.00	COMPLETE	01/08/2005
<b>16619</b> 12076	ADJACENT TO 47 OLD CHURCH PLACE, BALLYMACASH ROAD	01/08/2006	8	0	0.25	0.00	COMPLETE	01/08/2006
<b>16620</b> 12077	29A POND PARK ROAD	01/08/2002	1	0	0.06	0.00	COMPLETE	01/08/2002
<b>16621</b> 12079	BALLYMACASH ROAD	01/08/2009	14	3	0.47	0.14	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16622</b> 12083	37-39 ANTRIM ROAD	01/08/2002	10	0	0.41	0.00	COMPLETE	01/08/2002
<b>16623</b> 12084	ADJACENT TO 1 PRINCE WILLIAM ROAD	01/08/2009	0	19	0	0.77	NOT STARTED	
<b>16624</b> 12085	31 BENSON STREET	01/08/2006	3	0	0.06	0.00	COMPLETE	01/08/2006
<b>16625</b> 12086	ADJACENT TO 98 BENSON STREET	01/08/2004	1	0	0.04	0.00	COMPLETE	01/08/2004
<b>16626</b> 12087	ADJACENT 64 CAUSEWAY END ROAD	01/08/2009	0	1	0	0.03	NOT STARTED	
<b>16627</b> 12089	ADJACENT TO 81 CAUSEWAY END ROAD	01/08/2009	122	10	4.46	0.37	DEVELOPMENT ON-GOING	
<b>16628</b> 12092	ADJACENT TO 16 BEECHFIELD PARK	01/08/2005	13	0	0.22	0.00	COMPLETE	01/08/2005
<b>16629</b> 12095	REAR OF 10-22 TONAGH AVENUE	01/08/2009	26	0	0.91	0.00	COMPLETE	01/08/2009
<b>16630</b> 12099	5 BLARIS COURT	01/08/2003	1	0	0.04	0.00	COMPLETE	01/08/2003
<b>16631</b> 12100	REAR OF 135 HILLSBOROUGH ROAD	01/08/2009	0	1	0	0.09	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16632</b> 12103	BESIDE 2 FERNDALE AVENUE	01/08/2005	1	0	0.03	0.00	COMPLETE	01/08/2005
<b>16633</b> 12107	BESIDE 24 CLONEUIN PARK	01/08/2003	1	0	0.07	0.00	COMPLETE	01/08/2003
<b>16634</b> 12108	ADJACENT TO 2B SEPON PARK	01/08/2002	1	0	0.05	0.00	COMPLETE	01/08/2002
<b>16635</b> 12109	ADJACENT TO 2 SEPON PARK	01/08/2002	1	0	0.13	0.00	COMPLETE	01/08/2002
<b>16636</b> 12111	26 NORTH CIRCULAR ROAD	01/08/2005	3	0	0.43	0.00	COMPLETE	01/08/2005
<b>16637</b> 12112	82 BELSIZE ROAD	01/08/2005	4	0	0.52	0.00	COMPLETE	01/08/2005
<b>16638</b> 12113	BESIDE 86 BELSIZE ROAD	01/08/2003	1	0	0.03	0.00	COMPLETE	01/08/2003
<b>16639</b> 12116	24 HARMONY HILL	01/08/2003	1	0	0.11	0.00	COMPLETE	01/08/2003
<b>16640</b> 12120	CLANMORE MANOR, HARMONY HILL	01/08/2009	44	4	3	0.82	DEVELOPMENT ON-GOING	
<b>16641</b> 12121	98-100 QUEENSWAY	01/08/2006	6	0	0.17	0.00	COMPLETE	01/08/2006

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16642</b> 12124	163 MOSS ROAD	01/08/2003	1	0	0.08	0.00	COMPLETE	01/08/2003
<b>16643</b> 12126	KIRKWOODS ROAD	01/08/2009	0	208	0	7.25	NOT STARTED	
<b>16644</b> 12129	MOSSIDE ROAD	01/08/2002	28	0	1.29	0.00	COMPLETE	01/08/2002
<b>16645</b> 12130	LAND ADJOINING ASHLEY HOUSE	01/08/2005	7	0	0.39	0.00	COMPLETE	01/08/2005
<b>16815</b> 12744	55 WOODLAND PARK	01/08/2005	1	0	0.16	0.00	COMPLETE	01/08/2005
<b>16816</b> 12745	NOS. 36, 38 & 40 BACHELORS WALK	01/08/2003	5	0	0.08	0.00	COMPLETE	01/08/2003
<b>16817</b> 12746	21 - 25 SEYMOUR STREET	01/08/2009	0	12	0	0.11	NOT STARTED	
<b>16818</b> 12747	185 MOIRA ROAD	01/08/2009	20	18	0.9	0.80	DEVELOPMENT ON-GOING	
<b>16819</b> 12748	115 HILLSBOROUGH ROAD, OLD WARREN AND LANDS TO THE REAR OF NO. 117 HILLSBOROUGH ROAD	01/08/2009	0	17	0	0.27	NOT STARTED	
<b>16820</b> 12749	1 WOODLAND DRIVE	01/08/2009	0	1	0	0.79	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16821</b> 12750	9 THE CLOSE, HILLSBOROUGH OLD ROAD	01/08/2008	4	0	0.1	0.00	COMPLETE	01/08/2008
<b>16822</b> 12751	ADJACENT TO 31 PLANTATION AVENUE	01/08/2009	0	1	0	0.03	NOT STARTED	
<b>16823</b> 12752	40 NETTLEHILL MEWS, NETTLEHILL ROAD	01/08/2005	6	0	0.223	0.00	COMPLETE	01/08/2005
<b>16824</b> 12753	19-23 SMITHFIELD	01/08/2005	1	0	0.048	0.00	COMPLETE	01/08/2005
<b>16825</b> 12754	27 POND PARK ROAD	01/08/2009	0	3	0	0.10	NOT STARTED	
<b>16826</b> 12755	LANDS AT 2A LEAMINGTON PLACE, GRAND STREET	01/08/2009	0	4	0	0.03	NOT STARTED	
<b>16827</b> 12756	76 CAUSEWAY END ROAD	01/08/2006	1	0	0.0425	0.00	COMPLETE	01/08/2006
<b>16828</b> 12757	4 BLARIS ROAD	01/08/2005	5	0	0.17	0.00	COMPLETE	01/08/2005
<b>16830</b> 12759	82 BELFAST ROAD	01/08/2004	12	0	0.186	0.00	COMPLETE	01/08/2004
<b>16831</b> 12760	52 KILLEATON PLACE, QUEENSWAY	01/08/2006	33	0	1.05	0.00	COMPLETE	01/08/2006

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16832</b> 12761	REAR OF 20 WILSON STREET	01/08/2006	2	0	0.03	0.00	COMPLETE	01/08/2006
<b>16833</b> 12763	SITE 4 ESKER RIDGE, ANTRIM ROAD	01/08/2009	0	1	0	0.25	NOT STARTED	
<b>16834</b> 12764	SITE 3 ESKER RIDGE, ANTRIM ROAD	01/08/2007	1	0	0.17	0.00	COMPLETE	01/08/2006
<b>16843</b> 12794	96 KEIGHTY COURT, HILLSBOROUGH ROAD	01/08/2004	9	0	0.11	0.00	COMPLETE	01/08/2004
<b>16845</b> 12796	CASTLE STREET	01/08/2005	12	0	0.145	0.00	COMPLETE	01/08/2005
<b>16899</b> 12989	GARDEN TO NORTHERN SIDE OF THE MANSE 31 MAGHERALAVE ROAD	01/08/2009	0	1	0	0.12	NOT STARTED	
<b>16902</b> 12993	LANDS TO THE REAR OF 4 MOORLAND DR. AND TO THE FRONT OF THE PRESBYTERIAN CHURCH	01/08/2004	1	0	0.125	0.00	COMPLETE	01/08/2004
<b>16903</b> 12994	114 QUEENSWAY	01/08/2009	0	6	0	0.14	NOT STARTED	
<b>16904</b> 12996	LAND ADJOINING 196 BELSIZE ROAD	01/08/2009	0	3	0	0.17	NOT STARTED	
<b>16907</b> 13003	ADJACENT TO 116 SKYLINE DRIVE	01/08/2006	1	0	0.05	0.00	COMPLETE	01/08/2006

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>16909</b> 13005	LAND ADJACENT TO DUNMURRAY FREE PRESBYTERIAN CHURCH LARCH HILL	01/08/2005	15	0	0.4	0.00	COMPLETE	01/08/2005
<b>16911</b> 13008	KINGSWAY	01/08/2006	7	0	0.1783	0.00	COMPLETE	01/08/2006
<b>16917</b> 13015	80 GREENBURN WAY	01/08/2009	0	1	0	0.05	NOT STARTED	
<b>16918</b> 13017	31-33 BRIDGE STREET	01/08/2006	1	0	0.016	0.00	COMPLETE	01/08/2006
<b>16919</b> 13018	VACANT SITE OPPOSITE 7,9,11 RUSKIN HEIGHTS	01/08/2009	0	1	0	0.03	NOT STARTED	
<b>16920</b> 13019	TO THE REAR OF 165&167 HILLSBOROUGH OLD ROAD	01/08/2009	2	2	0.1	0.11	DEVELOPMENT ON-GOING	
<b>16935</b> 13045	57 MOSS ROAD	01/08/2006	1	0	0.08	0.00	COMPLETE	01/08/2006
<b>16956</b> 13086	23 ANTRIM ROAD	01/08/2005	10	0	0.42	0.00	COMPLETE	01/08/2006
<b>17161</b> 0	CAUSEWAY END ROAD	01/08/2006	7	0	0.432	0.00	COMPLETE	01/08/2006
<b>17181</b> 0	ADJACENT TO 1 ASHCROFT PARK	01/08/2009	2	0	0.066	0.00	COMPLETE	01/08/2009

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
17182 0	ADJACENT TO 15 HARMONY HILL	01/08/2009	0	1	0	0.08	NOT STARTED	
17183 0	ADJACENT TO 39 MANDEVILLE AVENUE	01/08/2007	1	0	0.047	0.00	COMPLETE	01/08/2007
17184 0	ADJACENT TO 5 PLANTATION ROAD	01/08/2005	1	0	0.049	0.00	COMPLETE	01/08/2006
17185 0	106 QUEENSWAY	01/08/2009	0	4	0	0.08	NOT STARTED	
17186 0	REAR OF 70C CAUSEWAY END ROAD	01/08/2009	0	1	0	0.12	NOT STARTED	
17187 0	ADJACENT TO 104 POND PARK	01/08/2009	0	9	0	0.31	NOT STARTED	
17188 0	63 GREGG STREET	01/08/2009	0	1	0	0.01	NOT STARTED	
17189 0	102 POND PARK ROAD	01/08/2009	8	17	0.22	0.47	DEVELOPMENT ON-GOING	
17190 0	68 WOODLAND PARK	01/08/2009	0	13	0	0.21	NOT STARTED	
17191 0	2 AND 4 GLENNAVY ROAD	01/08/2009	0	9	0	0.21	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
17192 0	101 MOIRA ROAD	01/08/2007	6	0	0.099	0.00	COMPLETE	01/08/2007
17193 0	34 PLANTATION AVENUE	01/08/2008	2	0	0.19	0.00	COMPLETE	01/08/2008
17194 0	96 CAUSEWAY END ROAD	01/08/2006	7	0	0.212	0.00	COMPLETE	01/08/2006
17195 0	LANDS ADJACENT TO HOLY TRINITY NURSERY SCHOOL TRINITY TERRACE	01/08/2009	15	0	0.168	0.00	COMPLETE	01/08/2009
17197 0	1 JUBILEE AVENUE	01/08/2006	2	0	0.055	0.00	COMPLETE	01/08/2006
17198 0	ADJACENT TO 56 HARMONY HILL	01/08/2009	0	1	0	0.12	NOT STARTED	
17201 0	135 BALLYNAHINCH ROAD	01/08/2006	6	0	0.404	0.00	COMPLETE	01/08/2006
17202 0	134 BALLYNAHINCH ROAD	01/08/2009	0	13	0	0.17	NOT STARTED	
17203 0	1C OLD WARREN	01/08/2006	1	0	0.011	0.00	COMPLETE	01/08/2006
17204 0	REAR OF 141 - 145 LONGSTONE STREET	01/08/2008	4	0	0.05	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
17205 0	ADJACENT TO 11 BROKERSTOWN ROAD	01/08/2005	1	0	0.113	0.00	COMPLETE	01/08/2005
17206 0	GOVERNMENT TRAINING CENTRE KNOCKMORE ROAD	01/08/2006	16	0	0.371	0.00	COMPLETE	01/08/2006
17209 0	99 BALLYNAHINCH ROAD	01/08/2009	0	23	0	0.60	NOT STARTED	
17210 0	43 ANTRIM ROAD	01/08/2009	0	2	0	0.07	NOT STARTED	
17214 0	40 MAGHERALAVE ROAD	01/08/2007	2	0	0.225	0.00	COMPLETE	01/08/2007
17226 0	61 ANTRIM ROAD	01/08/2009	0	1	0	0.07	NOT STARTED	
17226 0	61 ANTRIM ROAD	01/08/2006	1	0	0.067	0.00	COMPLETE	01/08/2006
17227 0	107 ANTRIM ROAD	01/08/2009	0	4	0	0.18	NOT STARTED	
17228 0	40 BELFAST ROAD	01/08/2009	1	0	0.157	0.00	COMPLETE	01/08/2009
18095 0	31-35 SLOAN STREET	01/08/2009	0	8	0	0.10	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18096 0	LAND ADJACENT TO 51 MOIRA ROAD	01/08/2009	0	8	0	0.18	NOT STARTED	
18097 0	21-27 KILLANEY AVENUE	01/08/2009	0	15	0	0.42	NOT STARTED	
18098 0	LAND AT 70-78 TIROWEN DRIVE	01/08/2008	20	0	0.43	0.00	COMPLETE	01/08/2008
18099 0	MOD PLAYING FIELDS KIRKWOODS ROAD	01/08/2009	0	110	0	3.55	NOT STARTED	
18306 0	ARDFOYLE FORTHILL	01/08/2009	0	1	0	0.02	NOT STARTED	
18308 0	LAND BETWEEN AVONMORE PARK AND WARREN GARDENS	01/08/2008	12	0	0.38	0.00	COMPLETE	01/08/2008
18309 0	135 WARREN GARDENS	01/08/2009	0	15	0	0.08	NOT STARTED	
18310 0	ADJACENT TO 14 GLENNAVY GARDENS	01/08/2009	0	1	0	0.01	NOT STARTED	
18311 0	2 THORNLEIGH DRIVE	01/08/2008	7	0	0.176	0.00	COMPLETE	01/08/2008
18312 0	23 BENSON STREET	01/08/2009	0	2	0	0.05	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18316 0	SIDE GARDEN 27 LAURELHILL PARK	01/08/2009	0	1	0	0.03	NOT STARTED	
18317 0	LAND ADJACENT TO AND INCLUDING 10/12 GLENVAY ROAD	01/08/2009	7	14	0.75	0.38	DEVELOPMENT ON-GOING	
18319 0	38 POND PARK ROAD	01/08/2009	0	1	0	0.13	NOT STARTED	
18320 0	REAR OF THOMPSON HOUSE HOSPITAL MAGHERALAVE ROAD	01/08/2009	5	31	0.17	1.07	DEVELOPMENT ON-GOING	
18321 0	ADJACENT TO 2 WHITLA ROAD	01/08/2007	4	0	0.06	0.00	COMPLETE	01/08/2007
18322 0	14 LONGSTONE STREET	01/08/2008	20	0	0.15	0.00	COMPLETE	01/08/2008
18323 0	3 AND 5 SMITHFIELD SQUARE	01/08/2009	0	24	0	0.16	NOT STARTED	
18328 0	149 HILLSBOROUGH ROAD	01/08/2009	0	14	0	0.24	NOT STARTED	
18329 0	5 SANDOWN PARK	01/08/2009	0	1	0	0.02	NOT STARTED	
18330 0	166 MOIRA ROAD	01/08/2009	0	14	0	0.31	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18331 0	1A-F, 3A-F, 5A-F, 7 A-F DRUMBEG DRIVE	01/08/2006	12	0	0.343	0.00	COMPLETE	01/08/2006
18333 0	29-33 LONGSTONE ROAD	01/08/2009	14	0	0.083	0.00	COMPLETE	01/08/2009
18334 0	21A BALLINDERRY ROAD	01/08/2009	0	2	0	0.08	DEVELOPMENT ON-GOING	
18335 0	1A MANDEVILLE AVENUE	01/08/2008	6	0	0.14	0.00	COMPLETE	01/08/2008
18564 0	ADJACENT TO 3 BARSCOURT	01/08/2009	0	1	0	0.03	NOT STARTED	
18640 0	OPPOSITE HILDEN PRIMARY SCHOOL 4 BRIDGE STREET	01/08/2009	0	3	0	0.07	NOT STARTED	
18642 0	GARDEN OF 2 HILLVIEW AVENUE	01/08/2009	0	1	0	0.01	NOT STARTED	
18644 0	SIDE GARDEN OF 1 FERINDELL	01/08/2009	0	1	0	0.04	NOT STARTED	
18648 0	34-44 GRAND STREET	01/08/2009	0	8	0	0.07	NOT STARTED	
18650 0	LAND ADJACENT TO MILL STREET	01/08/2009	3	27	0.06	0.56	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18655 0	ADJACENT TO 31 BLARIS ROAD	01/08/2009	0	1	0	0.14	NOT STARTED	
18659 0	LAND TO REAR OF 22 DERRYVOLGIE PARK, LAMBEG	01/08/2009	0	1	0	0.05	NOT STARTED	
18666 0	115 QUEENSWAY, DUNMURRY	01/08/2009	0	5	0	0.12	DEVELOPMENT ON-GOING	
18677 0	ADJACENT TO 1 WOODVALE, NETTLEHILL ROAD	01/08/2008	1	0	0.06	0.00	COMPLETE	01/08/2008
18678 0	ADJACENT TO 6 PORTULLA DRIVE	01/08/2009	1	0	0.07	0.00	COMPLETE	01/08/2009
18679 0	169-171 MOIRA ROAD	01/08/2009	0	12	0	0.20	NOT STARTED	
18680 0	KNOCKMORE BUSINESS CENTRE MOIRA ROAD	01/08/2009	0	36	0	0.43	NOT STARTED	
18688 0	ADJACENT TO 2 CLONEVIN PARK	01/08/2009	0	2	0	0.16	NOT STARTED	
18690 0	ADJACENT TO 12 MONAVILLE GARDENS	01/08/2008	1	0	0.039	0.00	COMPLETE	01/08/2008
18692 0	99 ANTRIM ROAD	01/08/2009	0	3	0	0.10	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
<b>18693</b> 0	ADJACENT TO 65 ANTRIM ROAD	01/08/2009	0	1	0	0.06	NOT STARTED	
<b>18694</b> 0	210 OLD HILLSBOROUGH ROAD	01/08/2009	3	2	0.15	0.12	DEVELOPMENT ON-GOING	
<b>18696</b> 0	17 MAGHERALAVE ROAD	01/08/2009	0	1	0	0.14	NOT STARTED	
<b>18698</b> 0	ADJACENT TO 23 WYNCROFT CRESCENT	01/08/2009	0	1	0	0.03	NOT STARTED	
<b>18699</b> 0	ADJACENT TO 2 SEYMOR STREET	01/08/2009	0	48	0	0.24	DEVELOPMENT ON-GOING	
<b>18710</b> 0	ADJACENT TO 32 WALLACE AVENUE	01/08/2009	0	14	0	0.14	NOT STARTED	
<b>18711</b> 0	BETWEEN 2&2A WALLACE AVENUE	01/08/2009	0	2	0	0.04	NOT STARTED	
<b>18712</b> 0	46C CASTLE STREET	01/08/2009	0	42	0	0.56	NOT STARTED	
<b>19047</b> 0	165 WARREN GARDENS	01/08/2009	0	7	0	0.09	DEVELOPMENT ON-GOING	
<b>19410</b> 0	ADJACENT TO 184 BELSIZE ROAD,	01/08/2008	1	0	0.23	0.00	COMPLETE	01/08/2008

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19465 0	96 POND PARK ROAD	01/08/2009	0	7	0	0.11	NOT STARTED	
19466 0	96 BALLYMACASH ROAD	01/08/2009	2	0	0.01	0.00	COMPLETE	01/08/2009
19467	LANDS FRONTING WINDERMERE ROAD, NORTH OF AND ADJACENT TO 101 - 0105 KNOCKMORE ROAD	01/08/2009	0	4	0	0.09	NOT STARTED	
19468 0	52 NETTLE HILL ROAD	01/08/2008	1	0	0.09	0.00	COMPLETE	01/08/2008
19469 0	6 RATHVARNA CLOSE	01/08/2009	0	1	0	0.01	NOT STARTED	
19470 0	52 MILL STREET	01/08/2009	0	14	0	0.15	NOT STARTED	
19471 0	LANDS ADJACENT TO 1 LAWMOUNT CRESCENT	01/08/2009	1	0	0.03	0.00	COMPLETE	01/08/2009
19472 0	SITE ADJACENT 18 DELACHEROIS AVENUE	01/08/2009	0	1	0	0.05	DEVELOPMENT ON-GOING	
19473 0	SITE ADJACENT TO 15 GRAND STREET	01/08/2009	0	1	0	0.03	DEVELOPMENT ON-GOING	
19474 0	98 GRAND STREET	01/08/2009	0	1	0	0.01	DEVELOPMENT ON-GOING	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19486 0	13 PLANTATION DRIVE	01/08/2009	0	1	0	0.02	NOT STARTED	
19488 0	FORMERLY 8 CROMWELLS CLOSE AND 10-16 HILLHALL ROAD	01/08/2009	7	0	0.16	0.00	COMPLETE	01/08/2009
19494 0	99 BALLYNAHINCH ROAD	01/08/2009	0	8	0	0.23	NOT STARTED	
19497 0	134A BALLYNAHINCH ROAD	01/08/2009	0	5	0	0.14	NOT STARTED	
19500 0	4 THE CLOSE, HILLSBOROUGH OLD ROAD	01/08/2009	0	1	0	0.02	DEVELOPMENT ON-GOING	
19506 0	TO SIDE OF 42 BROOKVALE RISE	01/08/2008	1	0	0.03	0.00	COMPLETE	01/08/2008
19507 0	23 BALLINDERRY ROAD	01/08/2009	0	3	0	0.17	NOT STARTED	
19508 0	REAR OF 76 CAUSEWAY END ROAD	01/08/2009	0	1	0	0.06	NOT STARTED	
19509 0	ADJACENT TO 24 WYNCROFT GARDENS, TONAGH	01/08/2009	0	1	0	0.02	NOT STARTED	
19515 0	19A BALLYMACASH ROAD	01/08/2009	0	4	0	0.03	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19518 0	10 ABERCORN, ANTRIM ROAD	01/08/2009	0	9	0	0.18	NOT STARTED	
19523 0	10 FORTHILL, MAGHERALEVE ROAD	01/08/2009	0	2	0	0.04	DEVELOPMENT ON-GOING	
19537 0	10 KENNEDY DRIVE	01/08/2009	0	1	0	0.02	NOT STARTED	
19551 0	SITE ADJACENT TO 21 GREENBURN WAY	01/08/2009	0	1	0	0.03	NOT STARTED	
19552 0	74 GREENBURN WAY	01/08/2009	0	1	0	0.04	NOT STARTED	
19570 0	94/96 WOODLAND PARK	01/08/2009	8	6	0.17	0.12	DEVELOPMENT ON-GOING	
19572 0	193 & 195 HILLSBOROUGH OLD ROAD	01/08/2009	0	6	0	0.66	NOT STARTED	
19576 0	122 HILLSBOROUGH OLD ROAD	01/08/2008	5	0	0.07	0.00	COMPLETE	01/08/2008
19577 0	121 - 123 OLD HILLSBOROUGH ROAD	01/08/2009	0	7	0	0.15	NOT STARTED	
19702 0	RATHVARNA AVENUE	01/08/2009	0	150	0	4.83	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19928 0	REAR GARDEN 61 MOSS ROAD	01/08/2009	0	4	0	0.13	NOT STARTED	
19929 0	ADJACENT 18 ABERDELGHY GARDENS	01/08/2009	0	1	0	0.02	DEVELOPMENT ON-GOING	
19931 0	21 EAST DOWN VIEW	01/08/2009	0	5	0	0.04	NOT STARTED	
19933 0	34A BELFAST ROAD	01/08/2009	0	3	0	0.08	NOT STARTED	
19934 0	LAND TO REAR OF 34 - 38 DALBOYNE PARK	01/08/2009	0	1	0	0.14	NOT STARTED	
19935 0	24 MAGHERALAVE ROAD	01/08/2009	0	18	0	0.28	NOT STARTED	
19942 0	12 AND 14 CASTLE STREET	01/08/2009	0	4	0	0.01	DEVELOPMENT ON-GOING	
19944 0	6 RICHMOND DRIVE	01/08/2009	0	10	0	0.23	NOT STARTED	
19947 0	20 THE GREEN TONAGH DRIVE	01/08/2009	0	2	0	0.02	NOT STARTED	
19948 0	SIDE GARDEN 31 INNISFAYLE ROAD	01/08/2009	0	1	0	0.03	NOT STARTED	

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19949 0	18 POND PARK ROAD	01/08/2009	0	5	0	0.05	NOT STARTED	
19983 0	LAND EAST KNOCKMORE ROAD	01/08/2009	0	45	0	3.31	NOT STARTED	
20003 0	LANDS BETWEEN 29 7 37 GLENVY GARDENS	01/08/2009	0	4	0	0.07	NOT STARTED	
20004 0	14 WARREN GARDENS	01/08/2009	0	3	0	0.04	NOT STARTED	
20031 0	28 FULMAR AVENUE	01/08/2009	0	2	0	0.11	NOT STARTED	
20032 0	1 WOODVALE NETTLEHILL ROAD	01/08/2009	0	1	0	0.09	DEVELOPMENT ON-GOING	
20033 0	108 - 110 BALLYMACASH ROAD	01/08/2009	0	8	0	0.27	NOT STARTED	
20034 0	13 RATHVARNA DRIVE	01/08/2009	0	1	0	0.01	NOT STARTED	
20035 0	114 - 116 BALLYMACASH ROAD	01/08/2009	0	6	0	0.30	NOT STARTED	
20036 0	18 - 24 BROKERSTOWN ROAD	01/08/2009	0	16	0	0.46	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
20037 0	BALLYMACROSS PHASE 5	01/08/2009	0	8	0	1.12	NOT STARTED	
20038 0	110 BALLYNAHINCH ROAD	01/08/2009	0	5	0	0.09	NOT STARTED	
<b>SETTLEMENT TOTALS</b>			<b>6277</b>	<b>5830</b>	<b>255.51</b>	<b>219.17</b>		

This report excludes Phase 2 Development Land



HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

STATUS OF ALL MONITORABLE SITES IN BUA - LISBURN AS OF 1 AUGUST 2009

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
7158	LAGMORE AVENUE / LAGMORE ROAD LAGMORE	01/08/2008	227	0	11.4	0.00	COMPLETE	01/08/2008
7159	KESTRAL GRANGE, LAGMORE SPRINGBANK	01/08/1999	9	0	0.4	0.00	COMPLETE	01/08/1999
7160	LANDS NORTH OF LAGMORE AVENUE, LAGMORE LAGMORE	01/08/1999	204	0	6.7	0.00	COMPLETE	01/08/1999
7161	LAND AT GLENDOWEN PARK LAGMORE	01/08/1999	50	0	1.8	0.00	COMPLETE	01/08/1999
7162	LAND SOUTH OF LAGMORE AVENUE LAGMORE	01/08/1997	79	0	3.8	0.00	COMPLETE	01/08/1997
7163	LAND AT LAGMORE DRIVE LAGMORE	01/08/2000	205	0	9.5	0.00	COMPLETE	01/08/2000
7164	LAND AT STEWARTSTOWN ROAD OPPOSITE JUNCTION WITH TWINBROOK ROAD LAGMORE	01/08/2005	71	0	3.04	0.00	COMPLETE	01/08/2005

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
7165	LAND AT LAGMORE MEADOWS LAGMORE	01/08/1999	120	0	3.8	0.00	COMPLETE	01/08/1999
7166	MAYSFIELD / KIRKWOOD PARK BUA	01/08/1999	110	0	4.83	0.00	COMPLETE	01/08/1999
7167	LAND AT OLD STEWARTSTOWN ROAD BUA	01/08/1999	41	0	0.17	0.00	COMPLETE	01/08/1999
7168	ADLON BUA	01/08/1997	130	0	6.6	0.00	COMPLETE	01/08/1997
7170	179 STEWARTSTOWN ROAD BUA	01/08/2001	8	0	0.2	0.00	COMPLETE	01/08/2001
7171	LAND AT LAGMORE (PHASE 4) LAGMORE	01/08/1997	196	0	4.5	0.00	COMPLETE	01/08/1997
7172	LAND AT ARDCAOIN PARK HILLVIEW	01/08/2000	214	0	11.7	0.00	COMPLETE	01/08/2000
7174	LAND AT LAGMORE ROAD AND BARNFIELD ROAD BUA	01/08/2009	444	176	39.5	15.70	DEVELOPMENT ON-GOING	
7176	LAND AT LAGMORE DALE, STEWARTSTOWN ROAD BUA	01/08/2009	260	133	16.7	8.60	DEVELOPMENT ON-GOING	
7213	FOREST PARK BUA	01/08/1997	28	0	2.07	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
7214	LANDS TO THE SOUTH OF CORRINA PARK BUA	01/08/1997	38	0	1.56	0.00	COMPLETE	01/08/1997
7215	BROOKLANDS BUA	01/08/1997	52	0	3.81	0.00	COMPLETE	01/08/1997
7216	MARGARITE PARK / COURT BUA	01/08/1997	66	0	1.84	0.00	COMPLETE	01/08/1997
7217	MERRION PARK BUA	01/08/1997	116	0	3.05	0.00	COMPLETE	01/08/1997
7218	SPRINGBANK BUA	01/08/1997	92	0	2.63	0.00	COMPLETE	01/08/1997
7219	POLEGLASS BUA	01/08/1997	917	0	54.7	0.00	COMPLETE	01/08/1997
7220	LAGMORE NORTH BUA	01/08/1997	237	0	15.12	0.00	COMPLETE	01/08/1997
7223	GLENGOLAND PARADE BUA	01/08/1997	38	0	1.69	0.00	COMPLETE	01/08/1997
7224	GLENGOLAND PARK BUA	01/08/1997	3	0	0.77	0.00	COMPLETE	01/08/1997
7225	PEMBROOKE LOOP ROAD BUA	01/08/1997	5	0	0.09	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
7226	SUFFOLK HOUSE BUA	01/08/1997	1	0	0.31	0.00	COMPLETE	01/08/1997
7238	PEMBROOKE LODGE BUA	01/08/1997	49	0	1.3	0.00	COMPLETE	01/08/1997
7291	COLIN ROAD BUA	01/08/1998	4	0	0.2	0.00	COMPLETE	01/08/1998
7307	LAGMORE AVENUE BUA	01/08/1998	74	0	2.6	0.00	COMPLETE	01/08/1998
11408	BETWEEN PEMBROOKE LOOP ROAD & GOOD SHEPHERD ROAD BUA	01/08/2002	17	0	0.22	0.00	COMPLETE	01/08/2002
11517	LAND AT MARGARETTA PARK BUA	01/08/2002	103	0	2.08	0.00	COMPLETE	01/08/2002
11527	LAND AT BRIANSWELL AND BELLSTEEL ROAD WRIGHTS VIEW	01/08/1997	274	0	9.14	0.00	COMPLETE	01/08/1997
11529	LAND AT PEMBROKE LOOP ROAD BUA	01/08/2002	27	0	0.6	0.00	COMPLETE	01/08/2002
12282	LAGMORE PHASE 5 LAGMORE	01/08/2004	99	0	3.2	0.00	COMPLETE	01/08/2004
12295	HAZELWOOD SPRINGBANK	01/08/1997	140	0	4	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Divulged	Area Remaining	Development Status	Completion Date
12557	LAND AT THE JUNCTION OF SUMMERHILL DRIVE & SUMMERHILL ROAD BUA	01/08/2003	16	0	0.6	0.00	COMPLETE	01/08/2003
12558	UNITS C & D 208 STEWARTSTOWN ROAD BUA	01/08/2009	0	2	0	0.03	NOT STARTED	
12559	LAND ADJACENT TO ST KIERANS NURSERY SCHOOL BELL STEEL ROAD BUA	01/08/2006	17	0	0.5	0.00	COMPLETE	01/08/2006
12560	SITE OPPOSITE 200 PEMBROOKE LOOP ROAD BUA	01/08/2005	4	0	0.16	0.00	COMPLETE	01/08/2005
12561	2 THE PARK, UPPER DUNMURRY LANE BUA	01/08/2002	9	0	0.2	0.00	COMPLETE	01/08/2002
12562	126 UPPER DUNMURRY LANE BUA	01/08/2006	5	0	0.1	0.00	COMPLETE	01/08/2006
12563	ADJACENT TO 24 CREDENHILL PARK, DUNMURRY BUA	01/08/2002	1	0	0.05	0.00	COMPLETE	01/08/2002
12564	142 UPPER DUNMURRY LANE BUA	01/08/2004	13	0	0.23	0.00	COMPLETE	01/08/2004
12565	LANDS BETWEEN 142-154 UPPER DUNMURRY LANE BUA	01/08/2009	0	50	0	1.70	NOT STARTED	
12566	VACANT LAND AT KILWEE UPPER DUNMURRY LANE BUA	01/08/2009	0	60	0	2.93	NOT STARTED	

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12567	FORMER BOILER SITE SUMMERHILL ROAD, TWINBROOK BUA	01/08/2002	12	0	0.3	0.00	COMPLETE	01/08/2002
12781	SUMMERHILL DRIVE BUA	01/08/2004	17	0	1.72	0.00	COMPLETE	01/08/2004
12783	33 OLD COLIN ROAD BUA	01/08/2003	12	0	0.25	0.00	COMPLETE	01/08/2003
12784	152 UPPER DUNMURRY LANE BUA	01/08/2004	6	0	0.12	0.00	COMPLETE	01/08/2004
12906	CHERRY ROAD BUA	01/08/2004	15	0	0.68	0.00	COMPLETE	01/08/2004
12907	ADJACENT TO CLOONA HOUSE COLINGLEN ROAD BUA	01/08/2006	86	0	2.03	0.00	COMPLETE	01/08/2006
12908	SITE TO NORTH OF 19-15 LAGMORE GROVE BUA	01/08/2009	23	0	0.41	0.00	COMPLETE	01/08/2009
15268 7304	GLENBURN ROAD BUA	01/08/2009	33	4	0.8	0.06	DEVELOPMENT ON-GOING	
16447 11277	LANDS TO REAR AND WEST OF NO. 36 THE CUTTS BUA	01/08/2009	1	0	0.06	0.00	COMPLETE	01/08/2009
16523 11651	SEYMOUR HILL INDUSTRIAL ESTATE SEYMOUR HILL MEWS BUA	01/08/2009	0	10	0	0.70	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16525 11655	FORTE POSTHOUSE, THE CONWAY 300 RED WOODS, KINGSWAY BUA	01/08/2009	235	251	6	2.09	DEVELOPMENT ON-GOING	
16530 11664	12 - 14 GLEBE ROAD BUA	01/08/2009	0	5	0	0.08	NOT STARTED	
16557 11825	EDENVALE PARK BUA	01/08/2009	41	0	3.2	0.00	COMPLETE	01/08/2009
16646 12132	24 BARBOUR GARDENS BUA	01/08/2009	0	36	0	0.30	NOT STARTED	
16829 12758	LAND ADJACENT TO 16 ASHLEY PARK BUA	01/08/2009	0	4	0	0.28	NOT STARTED	
16898 12987	SITE TO THE REAR OF AUBURN PLACE 4-16 GLENBURN ROAD BUA	01/08/2009	93	0	1.86	0.00	COMPLETE	01/08/2009
16942 13052	STATION VIEW BUA	01/08/2009	12	0	0.12	0.00	COMPLETE	01/08/2009
16943 13053	AREEMA COURT BUA	01/08/2008	5	0	0.1	0.00	COMPLETE	01/08/2008
16944 13054	11 GLEBE ROAD BUA	01/08/2007	1	0	0.01	0.00	COMPLETE	01/08/2007
17158 0	GLENDALE HOUSE THE MANOR BUA	01/08/2009	0	14	0	0.63	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
17177 0	ADJACENT TO 41 GLENHEAD AVENUE	01/08/2008	1	0	0.02	0.00	COMPLETE	01/08/2008
17178 0	ADJACENT TO 12 THE GREEN	01/08/2009	0	1	0	0.12	NOT STARTED	
17179 0	150 - 158 KINGSWAY 11 DUNMURRY LANE	01/08/2009	0	57	0	0.38	NOT STARTED	
17234 0	47 AND 49 GARDENMORE ROAD	01/08/2007	11	0	0.195	0.00	COMPLETE	01/08/2007
17235 0	BLOCK 1 JUNIPER SQUARE	01/08/2006	5	0	0.056	0.00	COMPLETE	01/08/2006
17236 0	TO THE REAR OF 84 GLENGOLAND PARK	01/08/2005	1	0	0.085	0.00	COMPLETE	01/08/2005
17237 0	LAND TO THE REAR OF 54 AND 56 BROOM PARK BUA	01/08/2009	0	11	0	0.35	NOT STARTED	
18100 0	LAND ON GLENBURN ROAD	01/08/2009	0	8	0	0.21	NOT STARTED	
18101 0	FORMER STEWARTS SITE QUEENSWAY	01/08/2009	50	56	1.46	1.64	DEVELOPMENT ON-GOING	
18351 0	REAR OF NO.4 5-7 KILMAKEE COTTAGES, WILLOW GARDENS	01/08/2009	0	79	0	0.70	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18354 0	265-267 KINGSWAY	01/08/2009	0	18	0	0.24	NOT STARTED	
18357 0	227 KINGSWAY	01/08/2009	0	1	0	0.02	NOT STARTED	
18358 0	REAR OF 86 SUNNYHILL PARK	01/08/2009	0	1	0	0.05	NOT STARTED	
18374 0	REAR OF 220 STEWARTSTOWN ROAD	01/08/2008	18	0	0.21	0.00	COMPLETE	01/08/2008
18658 0	28 STATION ROAD BUA	01/08/2007	4	0	0.07	0.00	COMPLETE	01/08/2007
18660 0	ADJACENT TO 6 BURN ROAD BUA	01/08/2007	1	0	0.716	0.00	COMPLETE	01/08/2007
18661 0	65 MOSSIDE ROAD, DERRIAGHY BUA	01/08/2009	0	5	0	0.13	NOT STARTED	
18662 0	ADJACENT TO 52A QUARTERLANDS ROAD, DRUMBEG BUA	01/08/2007	1	0	0.08	0.00	COMPLETE	01/08/2007
18663 0	REAR OF 3 KILMAKEE COTTAGES, WILLOW GARDENS, DUNMURRY BUA	01/08/2009	0	6	0	0.21	NOT STARTED	
18664 0	283 & 285 KINGSWAY, DUNMURRY BUA	01/08/2009	0	3	0	0.16	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18665 0	145-153 KINGSWAY, DUNMURRY BUA	01/08/2008	19	0	0.12	0.00	COMPLETE	01/08/2008
18667 0	254 KINGSWAY, DUNMURRY BUA	01/08/2009	0	48	0	0.65	NOT STARTED	
18670 0	248-250 KINGSWAY, DUNMURRY BUA	01/08/2009	0	8	0	0.11	NOT STARTED	
18671 0	169A KINGSWAY, DUNMURRY BUA	01/08/2009	0	1	0	0.01	NOT STARTED	
18672 0	ADJACENT TO 1 OAKHURST AVENUE BUA	01/08/2009	0	1	0	0.05	NOT STARTED	
18673 0	ADJACENT TO 19 CLOONA CRESCENT BUA	01/08/2007	2	0	0.02	0.00	COMPLETE	01/08/2007
18674 0	NORTH OF 80 CLOONA PARK BUA	01/08/2009	0	2	0	0.05	NOT STARTED	
18675 0	1 THE GREEN BUA	01/08/2009	0	4	0	0.20	DEVELOPMENT ON-GOING	
18676 0	ADJACENT TO 3 THE MANOR, DUNMURRY BUA	01/08/2009	6	12	0.13	0.27	DEVELOPMENT ON-GOING	
18685 0	53 HALFPENNY GATE ROAD BUA	01/08/2007	2	0	0.112	0.00	COMPLETE	01/08/2007

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18691 0	ADJACENT TO 2 WYNCROFT GARDENS BUA	01/08/2007	1	0	0.027	0.00	COMPLETE	01/08/2007
18766 0	LAUREL WOOD, AGHALEE ROAD, LOWER BALLINDERRY BUA	01/08/2007	1	0	0.023	0.00	COMPLETE	01/08/2007
19454	LANDS AT 9 THE PARK AND INCORPORATING NO.6 FOREST PARK, UPPER DUNMURRY LANE BUA	01/08/2009	18	0	0.6	0.00	COMPLETE	01/08/2009
19456 0	64 MOSSIDE ROAD, DERRYVAGHY, DUNMURRY BUA	01/08/2009	0	2	0	0.08	NOT STARTED	
19458 0	ADJACENT TO 6 LARCH GROVE BUA	01/08/2009	0	1	0	0.03	NOT STARTED	
19459 0	REAR OF 6 GLENARIFF DRIVE BUA	01/08/2009	0	1	0	0.05	NOT STARTED	
20283 0	REAR OF 4 GLENGOLAND GARDENS	01/08/2009	0	1	0	0.09	NOT STARTED	
20284 0	28 GLENGOLAND PARADE	01/08/2009	0	3	0	0.08	NOT STARTED	
20285 0	PART OF GROUNDS OF ASHLEY LODGE AND 21 ASHLEY PARK	01/08/2009	0	7	0	0.16	NOT STARTED	
	SETTLEMENT TOTALS		5546	1082	259.04	39.12		

This report excludes Phase 2 Development Land



HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

STATUS OF ALL MONITORABLE SITES IN BUA - CASTLEREAGH AS OF 1 AUGUST 2009

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
178	59 GILNAHIRK ROAD BUA	01/08/2000	4	0	0.11	0.00	COMPLETE	01/08/2000
539	16 ROBBS ROAD, DUNDONALD BUA	01/08/1997	3	0	0.1	0.00	COMPLETE	01/08/1997
541	465 UPPER NEWTOWARDS ROAD BEECHILL	01/08/1997	100	0	7.7	0.00	COMPLETE	01/08/1997
542	ADJACENT TO 140 UPPER KNOCKBRED A ROAD BUA	01/08/1997	13	0	1.72	0.00	COMPLETE	01/08/1997
543	3 GRAND PRIX PARK, DUNDONALD BUA	01/08/1999	6	0	0.4	0.00	COMPLETE	01/08/1999
544	GARLAND GREEN, ADJACENT TO GARLAND HILL GLENCREGAGH	01/08/1997	10	0	0.65	0.00	COMPLETE	01/08/1997
545	BETWEEN CHURCH ROAD / BALLYGOWAN ROAD ROSEMOUNT	01/08/1999	103	0	7.8	0.00	COMPLETE	01/08/1999

This report excludes Phase 2 Development Land





Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
546	SAINTFIELD ROAD, NEWTOWNBREDA CAIRNSHILL	01/08/1997	271	0	11.33	0.00	COMPLETE	01/08/1997
547	GARLAND HILL, MANSE ROAD GLENCREGAGH	01/08/1997	34	0	2.02	0.00	COMPLETE	01/08/1997
548	BALLYORAN, REAR OF QUARRY INN BALLYORAN	01/08/1997	289	0	15.4	0.00	COMPLETE	01/08/1997
550	PHASE 6 GREER PARK BEECHILL	01/08/1997	32	0	1.17	0.00	COMPLETE	01/08/1997
551	REAR OF 10 UPPER KNOCKBREDA ROAD BUA	01/08/1997	3	0	0.18	0.00	COMPLETE	01/08/1997
553	77 BEECHILL ROAD BUA	01/08/2009	0	2	0	0.16	NOT STARTED	
554	SITES 69-71 & 124-133 GREENWOOD GLEN BEECHILL	01/08/1997	49	0	2.4	0.00	COMPLETE	01/08/1997
556	GARLAND HILL, MANSE ROAD GLENCREGAGH	01/08/1997	80	0	6.5	0.00	COMPLETE	01/08/1997
557	BALLYMACONAGHY ROAD CAIRNSHILL	01/08/2009	196	0	10.1	0.00	COMPLETE	01/08/2009
558	BEECHILL ROAD BUA	01/08/2009	0	44	0	1.73	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
560	CASAELDONA DRIVE BUA	01/08/1997	5	0	0.2	0.00	COMPLETE	01/08/1997
561	LANDS N W OF KNOCKBRAKEN HOUSE BALLYMACONAGHY ROAD CAIRNSHILL	01/08/1999	99	0	4.9	0.00	COMPLETE	01/08/1999
562	ADJACENT TO 8 BEECHILL ROAD BUA	01/08/1999	1	0	0.15	0.00	COMPLETE	01/08/1999
565	BALLYREGAN ROAD, DUNDONALD BALLYREGAN	01/08/1997	284	0	14	0.00	COMPLETE	01/08/1997
567	GILNAHIRK ROAD BUA	01/08/1997	7	0	0.57	0.00	COMPLETE	01/08/1997
568	THE PINES, BEECHILL, PURDYSBURN ROAD BEECHILL	01/08/1997	82	0	8.2	0.00	COMPLETE	01/08/1997
570	DUNLADY ROAD, DUNDONALD BALLYREGAN	01/08/2005	180	0	5.74	0.00	COMPLETE	01/08/2005
574	PHASE 2 GREER PARK BEECHILL	01/08/1997	13	0	0.77	0.00	COMPLETE	01/08/1997
576	PHASE 4 GREER PARK BEECHILL	01/08/1997	36	0	0.75	0.00	COMPLETE	01/08/1997
577	LAMBERT COURT, DUNLADY ROAD BALLYREGAN	01/08/1997	112	0	7.8	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
578	DRUMADOON PARK, BALLYBEEN BUA	01/08/2009	0	15	0	0.52	NOT STARTED	
588	1 KINGSWAY DRIVE BUA	01/08/2009	0	5	0	0.18	NOT STARTED	
589	LAND OFF PURDYSBURN ROAD BEECHILL	01/08/2000	115	0	5.35	0.00	COMPLETE	01/08/2000
592	BETWEEN 3 & 5 DOWNSHIRE ROAD BUA	01/08/2000	1	0	0.05	0.00	COMPLETE	01/08/2000
593	REAR OF 122-124 UPPER KNOCKBREDIA ROAD BUA	01/08/2004	2	0	0.31	0.00	COMPLETE	01/08/2004
595	160 GILNAHIRK ROAD BUA	01/08/1999	15	0	0.29	0.00	COMPLETE	01/08/1999
596	1 GALWAY PARK BUA	01/08/2000	20	0	0.23	0.00	COMPLETE	01/08/2000
597	REAR OF 70-90 MOUNT MICHAEL PARK GLENCREGAGH	01/08/1999	22	0	1.01	0.00	COMPLETE	01/08/1999
598	REAR OF 20 CAIRNSHILL ROAD BUA	01/08/2001	1	0	0.2	0.00	COMPLETE	01/08/2001
599	981 UPPER NEWTOWNARDS ROAD BUA	01/08/2001	17	0	0.15	0.00	COMPLETE	01/08/2001

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
600	6 CAIRNSHILL ROAD BUA	01/08/1999	2	0	0.07	0.00	COMPLETE	01/08/1999
603	1A HAMEL DRIVE BUA	01/08/2001	4	0	0.03	0.00	COMPLETE	01/08/2001
604	ADJACENT TO 27 BREDA GARDENS BUA	01/08/2002	2	0	0.03	0.00	COMPLETE	01/08/2002
606	LANDS ADJACENT TO DUNDONALD ELIM PENTECOSTAL CHURCH EAST LINK ROAD BUA	01/08/2001	5	0	0.12	0.00	COMPLETE	01/08/2001
609	BARCLAY SITE, MILLTOWN HILL, SHAWS BRIDGE BUA	01/08/2001	48	0	1.06	0.00	COMPLETE	01/08/2001
610	BRANIEL SQUARE, BRANIEL ESTATE BUA	01/08/2001	12	0	0.32	0.00	COMPLETE	01/08/2001
611	PHASE 7 GREER PARK BEECHILL	01/08/1997	22	0	1.24	0.00	COMPLETE	01/08/1997
612	53 OLD DUNDONALD ROAD BUA	01/08/2003	7	0	0.2	0.00	COMPLETE	01/08/2003
613	REAR OF 142 UPPER KNOCKBREDA ROAD BUA	01/08/2009	3	1	0.2	0.08	DEVELOPMENT ON-GOING	
614	34 BREDA GARDENS BUA	01/08/1997	2	0	0.03	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
615	ADJACENT TO 2 BEECHILL ROAD BUA	01/08/1999	2	0	0.31	0.00	COMPLETE	01/08/1999
617	180 NEWTOWNBRED A ROAD BUA	01/08/2001	63	0	1.2	0.00	COMPLETE	01/08/2001
618	PHASE 3 ROYAL LODGE, PURDYSBURN ROAD, BEECHILL	01/08/1997	21	0	1.71	0.00	COMPLETE	01/08/1997
622	4 GRAHAM'S BRIDGE ROAD BUA	01/08/1997	2	0	0.2	0.00	COMPLETE	01/08/1997
624	PHASE 3 GREENWOOD GLEN BEECHILL	01/08/1998	46	0	1.78	0.00	COMPLETE	01/08/1998
625	REAR OF 54-70 MOUNT MICHAEL PARK GLENCREGAGH	01/08/2000	22	0	1.2	0.00	COMPLETE	01/08/2000
626	PHASE 8 GREER PARK, NEWTOWNBRED A ROAD BEECHILL	01/08/1997	16	0	1	0.00	COMPLETE	01/08/1997
628	69 NEWTOWNBRED A ROAD BUA	01/08/1998	8	0	0.25	0.00	COMPLETE	01/08/1998
631	10 GRANSHA ROAD BUA	01/08/2000	4	0	0.25	0.00	COMPLETE	01/08/2000
633	98 COMBER ROAD BUA	01/08/2003	4	0	0.15	0.00	COMPLETE	01/08/2003

This report excludes Phase 2 Development Land

04 February 2010

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
634	PHASE 9 GREER PARK BEECHILL	01/08/1998	22	0	1.35	0.00	COMPLETE	01/08/1998
635	46 DOWNSHIRE ROAD BUA	01/08/1997	2	0	0.05	0.00	COMPLETE	01/08/1997
637	LANDS ADJACENT TO 59 ROCHESTER ROAD BUA	01/08/2001	5	0	0.18	0.00	COMPLETE	01/08/2001
639	366-369 GRANGEWOOD MANOR BALLYREGAN	01/08/1998	4	0	0.24	0.00	COMPLETE	01/08/1998
640	67 BALLYGOWAN ROAD BUA	01/08/2001	5	0	0.6	0.00	COMPLETE	01/08/2001
11425	CROFT HILL CASTLEREAGH	01/08/2005	14	0	0.65	0.00	COMPLETE	01/08/2005
11433	1 CUMBERLAND DRIVE BUA	01/08/1999	3	0	0.09	0.00	COMPLETE	01/08/1999
11464	LAND AT MILL MOUNT ROAD BUA	01/08/2000	20	0	1.2	0.00	COMPLETE	01/08/2000
11465	LANDS ADJACENT TO 76 BALLYGOWAN ROAD ROSEMOUNT	01/08/2004	29	0	1.3	0.00	COMPLETE	01/08/2004
11468	LAND AT DUNDONALD	01/08/2009	111	1104	6.5	69.60	DEVELOPMENT ON-GOING	

This report excludes Phase 2 Development Land

04 February 2010

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
11470	LAND AT KNOCKBRACKEN RD & BALLYMACONAGHY RD BUA	01/08/2009	131	329	10.3	25.83	DEVELOPMENT ON-GOING	
11735	22 BALLYHANWOOD ROAD OFF BALLYHANWOOD ROAD	01/08/2000	1	0	0.5	0.00	COMPLETE	01/08/2000
11942	201-211 & 213-259 ORBY DRIVE BUA	01/08/2002	24	0	1.1	0.00	COMPLETE	01/08/2002
11959	83A GILNAHIRK ROAD BUA	01/08/2009	8	2	0.264	0.07	DEVELOPMENT ON-GOING	
11960	38 KINGSWAY PARK BUA	01/08/2001	4	0	0.08	0.00	COMPLETE	01/08/2001
11961	9 SPERRIN DRIVE BUA	01/08/2001	1	0	0.03	0.00	COMPLETE	01/08/2001
11962	SITE ADJACENT TO 246 CREAGHA ROAD BUA	01/08/2000	3	0	0.03	0.00	COMPLETE	01/08/2000
11963	73 BALLYGOWAN ROAD BUA	01/08/2001	26	0	0.5	0.00	COMPLETE	01/08/2001
11965	SITE ADJACENT TO 2 MC CAUGHAN PARK BUA	01/08/2000	1	0	0.09	0.00	COMPLETE	01/08/2000
11966	LAND AT CORNER OF DUNSEVERICK AVENUE BUA	01/08/2005	12	0	0.38	0.00	COMPLETE	01/08/2005

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
11968	2 BEECHILL PARK EAST BUA	01/08/2003	4	0	0.19	0.00	COMPLETE	01/08/2003
11969	LAND TO THE REAR OF 2-8 NEWTOWN PARK BUA	01/08/2002	1	0	0.02	0.00	COMPLETE	01/08/2002
11970	LAND TO THE REAR OF 28-30 NEWTOWNBREDA ROAD BUA	01/08/2000	1	0	0.08	0.00	COMPLETE	01/08/2000
11971	LAND TO THE NORTH OF 9 BALLYMACONAGHY ROAD CAIRNSHILL	01/08/2003	1	0	0.15	0.00	COMPLETE	01/08/2003
11973	79-81 OLD MILL TOWN ROAD BUA	01/08/2004	12	0	0.12	0.00	COMPLETE	01/08/2004
11977	129A COMBER ROAD BUA	01/08/2004	1	0	0.04	0.00	COMPLETE	01/08/2004
11978	125-127 COMBER ROAD BUA	01/08/2002	16	0	0.4	0.00	COMPLETE	01/08/2002
11982	PLOTS 1-28 & 38-40 STRONE PARK BUA	01/08/2001	36	0	0.9	0.00	COMPLETE	01/08/2001
11987	LAND TO THE REAR OF 92 COMBER ROAD BUA	01/08/2004	1	0	0.04	0.00	COMPLETE	01/08/2004
12099	23-25 SAINTFIELD ROAD BUA	01/08/2001	5	0	0.11	0.00	COMPLETE	01/08/2001

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12100	SITE ADJACENT TO 8 MOUNT MICHAEL GROVE GLENCREGAGH	01/08/2008	2	0	0.05	0.00	COMPLETE	01/08/2008
12102	176 UPPER KNOCKBREDA ROAD BUA	01/08/2004	4	0	0.42	0.00	COMPLETE	01/08/2004
12103	1 LEADHILL BUA	01/08/2004	5	0	0.107	0.00	COMPLETE	01/08/2004
12104	LANDS ADJACENT TO AND INCLUDING 70 BALLYGOWAN ROAD BUA	01/08/2002	38	0	0.912	0.00	COMPLETE	01/08/2002
12105	70 GALWAY PARK BUA	01/08/2001	2	0	0.086	0.00	COMPLETE	01/08/2001
12106	10 ROBB'S ROAD BUA	01/08/2003	2	0	0.04	0.00	COMPLETE	01/08/2003
12107	131 COMBER ROAD BUA	01/08/2001	1	0	0.1	0.00	COMPLETE	01/08/2001
12122	156A UPPER KNOCKBREDA ROAD BUA	01/08/2002	1	0	0.29	0.00	COMPLETE	01/08/2002
12140	ADJACENT TO WEST SIDE OF 8 MILLMOUNT ROAD BUA	01/08/2005	8	0	0.4	0.00	COMPLETE	01/08/2005
12145	LANDS AT COLESHILL GARDENS BUA	01/08/2009	0	12	0	0.17	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12149	2-4 CREGAGH PARK BUA	01/08/2007	9	0	0.16	0.00	COMPLETE	01/08/2007
12153	4 MYRTLEDENE DRIVE BUA	01/08/2006	1	0	0.059	0.00	COMPLETE	01/08/2006
12155	PLAYING FIELDS EAST LINK ROAD BUA	01/08/2005	91	0	2.3	0.00	COMPLETE	01/08/2005
12193	11 CLIVEDEN CRESCENT BUA	01/08/2004	1	0	0.03	0.00	COMPLETE	01/08/2004
12194	1 QUARRY COTTAGES QUARRY LANE BUA	01/08/2006	1	0	0.014	0.00	COMPLETE	01/08/2006
12196	350 SAINTFIELD ROAD BUA	01/08/2009	0	20	0	0.72	NOT STARTED	
12243	76 BALLYGOWAN ROAD ROSEMOUNT	01/08/2003	1	0	0.1	0.00	COMPLETE	01/08/2003
12266	REAR OF BEECHILL INDUSTRIAL ESTATE CEDARHURST ROAD BUA	01/08/2005	5	0	0.3	0.00	COMPLETE	01/08/2005
12297	CAIRNHILL CAIRNHILL	01/08/1997	240	0	9.9	0.00	COMPLETE	01/08/1997
12301	ADJACENT TO 132 RAVENSWOOD PARK BUA	01/08/2009	0	1	0	0.04	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12302	HANWOOD HOUSE 125 OLD DUNDONALD ROAD BUA	01/08/2009	0	44	0	0.82	NOT STARTED	
12303	167 LOWER BRANIEL ROAD BUA	01/08/2003	1	0	0.04	0.00	COMPLETE	01/08/2003
12304	BETWEEN 10 AND 16 GRANSHA ROAD BUA	01/08/2002	2	0	0.06	0.00	COMPLETE	01/08/2002
12306	159 COMBER ROAD BUA	01/08/2003	2	0	0.04	0.00	COMPLETE	01/08/2003
12307	15 GALWAY PARK BUA	01/08/2009	0	12	0	0.15	NOT STARTED	
12308	5 BALLYREGAN ROAD BUA	01/08/2004	6	0	0.464	0.00	COMPLETE	01/08/2004
12309	SIDE GARDEN OF 10 DUNLADY ROAD BUA	01/08/2002	5	0	0.09	0.00	COMPLETE	01/08/2002
12310	14 BRISTOW DRIVE BUA	01/08/2009	0	8	0	0.30	NOT STARTED	
12311	ADJACENT TO JUNCTION WITH CASTLEMORE AVENUE / CASTLEMORE PARK BUA	01/08/2002	2	0	0.05	0.00	COMPLETE	01/08/2002
12312	2 BEECHILL ROAD BUA	01/08/2002	8	0	0.16	0.00	COMPLETE	01/08/2002

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12313	SOUTH OF 9 BALLYMACONAGHY ROAD BUA	01/08/2004	2	0	0.18	0.00	COMPLETE	01/08/2004
12319	1 & 2 SANDYMOUNT, CUMBERLAND ROAD BUA	01/08/2003	6	0	0.13	0.00	COMPLETE	01/08/2003
12321	ADJACENT TO 3 & 2-23 MYRTLEDENE DRIVE / MYRTLEDENE ROAD BUA	01/08/2006	7	0	0.43	0.00	COMPLETE	01/08/2006
12324	39 UPPER KNOCKBREDA ROAD BUA	01/08/2009	0	1	0	0.06	NOT STARTED	
12325	168 COMBER ROAD BUA	01/08/2002	16	0	0.17	0.00	COMPLETE	01/08/2002
12431	ADJACENT TO 2 MEROK CRESCENT BUA	01/08/2005	2	0	0.029	0.00	COMPLETE	01/08/2005
12447	ADJACENT TO JUNCTION OF NEW LINK ROAD , BEECHILL ROAD AND SAINTFIELD ROAD BUA	01/08/2009	0	70	0	2.20	NOT STARTED	
12448	LAND TO THE NORTH OF 15 OLD SAINTFIELD ROAD BUA	01/08/2004	1	0	0.06	0.00	COMPLETE	01/08/2004
12517	LAND ADJACENT TO 26 - 29 ELSMERE PARK BUA	01/08/2002	3	0	0.29	0.00	COMPLETE	01/08/2002
12597	SIDE GARDEN OF 72 NORTH SPERRIN DUNDONALD	01/08/2006	2	0	0.08	0.00	COMPLETE	01/08/2006

This report excludes Phase 2 Development Land

Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12668	210-216 LOWER BRANIEL ROAD BUA	01/08/2009	0	3	0	0.23	DEVELOPMENT ON-GOING	
12678	32 & 34 OLD DUNDONALD ROAD BUA	01/08/2009	0	13	0	0.29	NOT STARTED	
12679	REAR GARDEN AT NO. 32 NEWTOWNBRED A ROAD BUA	01/08/2004	1	0	0.05	0.00	COMPLETE	01/08/2004
12680	86 BEECHILL ROAD BUA	01/08/2009	0	1	0	0.50	NOT STARTED	
12689	7 KINGS LINK BUA	01/08/2003	4	0	0.09	0.00	COMPLETE	01/08/2003
12693	1 REAVILLE PARK BUA	01/08/2003	2	0	0.06	0.00	COMPLETE	01/08/2003
12757	186A UPPER KNOCKBRED A ROAD BUA	01/08/2009	1	0	0.14	0.00	DEVELOPMENT ON-GOING	
12758	279-281 LOWER BRANIEL ROAD BUA	01/08/2003	2	0	0.1	0.00	COMPLETE	01/08/2003
12769	LANDS AT DUNLADY ROAD BETWEEN JUNCTION OF NEWTOWNARDS ROAD AND CANNERRA PARK BUA	01/08/2009	0	1	0	0.10	NOT STARTED	
12770	8-10 GRAHAMSBRIDGE ROAD BUA	01/08/2008	13	0	0.4	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12771	LANDS TO THE REAR OF NO 57 OLD DUNDONALD ROAD BUA	01/08/2005	4	0	0.4	0.00	COMPLETE	01/08/2005
12779	LAND ADJACENT TO 76 BALLYGOWAN ROAD (SITE 2 BUSBY'S FARMYARD) ROSEMOUNT	01/08/2005	1	0	0.16	0.00	COMPLETE	01/08/2005
12787	LAND OFF ELSMERE PARK BUA	01/08/2005	9	0	0.96	0.00	COMPLETE	01/08/2005
12802	36 CHURCH ROAD BUA	01/08/2006	4	0	0.1	0.00	COMPLETE	01/08/2006
12810	6 MILLTOWN HILL MILLTOWN	01/08/2006	10	0	0.216	0.00	COMPLETE	01/08/2006
12929	LAND ADJACENT TO 2 CARROWREAGH GARDENS	01/08/2009	0	1	0	0.05	NOT STARTED	
12968	298 & 300 CREGAGH ROAD E	01/08/2006	2	0	0.08	0.00	COMPLETE	01/08/2006
12969	LAND ADJACENT TO AND IN FRONT OF 2 THIEPVAL AVENUE BUA	01/08/2009	0	1	0	0.03	NOT STARTED	
12970	LAND ADJACENT TO 4 OLD DUNDONALD ROAD BUA	01/08/2007	1	0	0.05	0.00	COMPLETE	01/08/2007
12971	LANDS TO REAR OF 63 DUNDONALD ROAD BUA	01/08/2005	3	0	0.18	0.00	COMPLETE	01/08/2005

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12972	111-113 KINGS ROAD BUA	01/08/2009	0	3	0	0.06	NOT STARTED	
12980	188 NEWTOWNBREDA ROAD BUA	01/08/2006	3	0	0.12	0.00	COMPLETE	01/08/2006
12981	30 GLENVIEW PARK BUA	01/08/2009	0	1	0	0.02	NOT STARTED	
12982	GARDEN TO SIDE OF 67 NEWTON PARK BUA	01/08/2009	1	0	0.29	0.00	COMPLETE	01/08/2009
12983	164 NEWTOWNBREDA ROAD BUA	01/08/2009	0	2	0	0.07	NOT STARTED	
13011	53 CHURCH ROAD NEWTOWNBREDA	01/08/2006	11	0	0.186	0.00	COMPLETE	01/08/2006
13202	7 BALLYREGAN ROAD DUNDONALD	01/08/2008	4	0	0.045	0.00	COMPLETE	01/08/2008
13203	49 & 51 SAINTFIELD ROAD NEWTOWNBREDA	01/08/2009	3	5	0.15	0.24	DEVELOPMENT ON-GOING	
13221	294A SAINTFIELD ROAD CASTLEREAGH	01/08/2005	2	0	0.012	0.00	COMPLETE	01/08/2005
13240	57 LENAGHAN PARK BUA	01/08/2009	2	0	0.09	0.00	COMPLETE	01/08/2009

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Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
13246	ELIM PENTECOSTAL CHURCH YOUTH HALL GRAND PRIX PARK DUNDONALD	01/08/2005	6	0	0.17	0.00	COMPLETE	01/08/2005
13249	29 FERNDENE PARK DUNDONALD	01/08/2008	4	0	0.285	0.00	COMPLETE	01/08/2008
13250	5-7 OLD SAINTFIELD ROAD CASTLEREAGH	01/08/2005	1	0	0.011	0.00	COMPLETE	01/08/2005
13252	40 & 42 KINGSWAY PARK CASTLEREAGH	01/08/2006	6	0	0.126	0.00	COMPLETE	01/08/2006
13256	LAND ADJACENT TO 76 BALLYGOWAN ROAD BUA	01/08/2005	1	0	0.116	0.00	COMPLETE	01/08/2005
13260	LAND ADJACENT TO 2 MINNOWBURN GARDENS BUA	01/08/2007	2	0	0.027	0.00	COMPLETE	01/08/2007
13264	LANDS SOUTH OF CASTLEREAGH COLLEGE MONTGOMERY ROAD BUA	01/08/2008	67	0	1.428	0.00	COMPLETE	01/08/2008
13272	SITE ADJACENT TO 39 OLD DUNDONALD ROAD BUA	01/08/2005	1	0	0.034	0.00	COMPLETE	01/08/2005
13276	SITE ADJACENT TO 43 BALLYREGAN ROAD DUNDONALD	01/08/2009	0	3	0	0.16	NOT STARTED	
13277	12 GRAHAMSBRIDGE ROAD BUA	01/08/2009	0	6	0	0.20	NOT STARTED	

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Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
13278	70 CHURCH ROAD BUA	01/08/2008	13	0	0.355	0.00	COMPLETE	01/08/2008
13284	LAND ADJACENT TO 16 KNOCKBRACKEN ROAD BUA	01/08/2009	0	1	0	0.08	NOT STARTED	
17283	16-20 GRAHAMSBRIDGE ROAD BUA	01/08/2009	0	32	0	0.66	DEVELOPMENT ON-GOING	
17284	TO THE REAR OF 310 COMBER ROAD BUA	01/08/2009	0	1	0	0.11	NOT STARTED	
17285	72-80 DRUMADOON DRIVE AND 1-5 BALLYBEEN PARK BUA	01/08/2008	6	0	0.66	0.00	COMPLETE	01/08/2008
17286	GARDEN TO THE REAR OF 34 NEWTOWNBREA ROAD BUA	01/08/2005	4	0	0.07	0.00	COMPLETE	01/08/2005
18084	LAND ADJACENT TO 111 LOWER BRANIEL ROAD BUA	01/08/2009	0	12	0	0.19	NOT STARTED	
18085	LAND TO REAR OF 106-118 KNOCKBREA ROAD BUA	01/08/2009	0	5	0	0.34	NOT STARTED	
18086	LAND TO REAR OF 6-10 GLENVIEW PARK, BALLYGOWAN ROAD BUA	01/08/2009	0	8	0	0.46	NOT STARTED	
18087	JUNCTION OF CRAIGLEITH DRIVE AND DRUMADOON DRIVE BUA	01/08/2009	0	17	0	0.69	NOT STARTED	

This report excludes Phase 2 Development Land

Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18088 0	FORMER ROADS SERVICE DEPOT NEWTOWNBREA ROAD BUA	01/08/2008	39	0	1.26	0.00	COMPLETE	01/08/2008
18089 0BUA	LADAS DRIVE BETWEEN BELLS BRIDGE ROUNDOABOUT AND ALEXANDER ROAD	01/08/2009	0	47	0	1.55	NOT STARTED	
18090 0	FORSTER GREEN HOSPITAL UPPER KNOCKBREA ROAD BUA	01/08/2009	0	104	0	4.35	NOT STARTED	
18217 0	WEST OF CAPPAGH GARDENS AND NORTH OF SOUTH BANK	01/08/2008	8	0	0.376	0.00	COMPLETE	01/08/2008
18218 0	1 WILLOWBANK CRESCENT	01/08/2008	9	0	0.177	0.00	COMPLETE	01/08/2008
18219 0	BETWEEN 14 & 16 LANCEDEAN ROAD BELFAST	01/08/2009	0	2	0	0.03	NOT STARTED	
18221 0	22 GILNAHIRK WALK	01/08/2008	1	0	0.149	0.00	COMPLETE	01/08/2008
18222 0	REAR OF 18 GILNAHIRK CRESCENT	01/08/2009	0	1	0	0.07	NOT STARTED	
18223 0	232 LOWER BRANIEL ROAD	01/08/2007	3	0	0	0.15	COMPLETE	01/08/2007
18224 0	REAR GARDENS OF 41-57 GRANSHA ROAD	01/08/2009	0	38	0	0.81	NOT STARTED	

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Site No	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18225 0	804 UPPER NEWTOWARDS ROAD	01/08/2009	0	4	0	0.10	NOT STARTED	
18226 0	67 GRANSHA ROAD	01/08/2009	1	0	0.174	0.00	COMPLETE	01/08/2009
18227 0	39 & 41 OLD DUNDONALD ROAD	01/08/2006	1	0	0.083	0.00	COMPLETE	01/08/2006
18228 0	18 OLD DUNDONALD ROAD	01/08/2009	0	23	0	0.90	DEVELOPMENT ON-GOING	
18229 0	REAR OF 39 & 41 OLD DUNDONALD ROAD	01/08/2006	5	0	0.142	0.00	COMPLETE	01/08/2006
18230 0	REAR OF 17 - 23 FERDENE PARK	01/08/2009	0	6	0	0.24	NOT STARTED	
18232 0	QUARRY CORNER UPPER NEWTOWARDS ROAD	01/08/2009	0	110	0	1.71	NOT STARTED	
18233 0	12A COMBER ROAD	01/08/2008	3	0	0.063	0.00	COMPLETE	01/08/2008
18234 0	104, 106, 108 COMBER ROAD	01/08/2009	0	6	0	0.21	NOT STARTED	
18235 0	274 COMBER ROAD	01/08/2009	0	1	0	0.07	NOT STARTED	

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Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18236 0	292 COMBER ROAD	01/08/2009	0	2	0	0.20	NOT STARTED	
18240 0	183 SAINTFIELD ROAD	01/08/2008	4	0	0.195	0.00	COMPLETE	01/08/2008
18241 0	182 SAINTFIELD ROAD	01/08/2006	3	0	0.071	0.00	COMPLETE	01/08/2006
18245 0	43 CAIRNSHILL ROAD	01/08/2006	2	0	0.07	0.16	COMPLETE	01/08/2006
18370 0	55 BREDA PARK	01/08/2007	1	0	0.02	0.00	COMPLETE	01/08/2007
18527 0	1 GILBOURNE COURT	01/08/2009	0	14	0	0.28	DEVELOPMENT ON-GOING	
18528 0	BELVOIR PARK HOSPITAL ROAD	01/08/2009	0	230	0	9.58	NOT STARTED	
18529 0	LAND AT STONEY ROAD	01/08/2009	0	174	0	14.50	NOT STARTED	
18813 0	1027 TO 1035 UPPER NEWTOWARDS ROAD	01/08/2009	0	32	0	0.29	NOT STARTED	
18814 0	GARDEN OF 3 GLENSHARRAGH GARDENS	01/08/2009	0	1	0	0.01	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18815 0	1 FOURWINDS AVENUE	01/08/2009	0	5	0	0.08	NOT STARTED	
18817 0	REAR OF 228 LOWER BRANIEL ROAD	01/08/2009	1	0	0.031	0.00	COMPLETE	01/08/2009
18818 0	2 CARNBRAE AVENUE	01/08/2009	0	1	0	0.02	DEVELOPMENT ON-GOING	
18819 0	37A OLD SAINTFIELD ROAD	01/08/2009	0	1	0	0.04	NOT STARTED	
18821 0	29 GLENVIEW PARK	01/08/2008	29	0	0.391	0.00	COMPLETE	01/08/2008
18822 0	4 WINDRUSH AVENUE	01/08/2009	1	0	0.026	0.00	COMPLETE	01/08/2009
18829 0	REAR OF 19 BREDAS PARK	01/08/2009	0	1	0	0.02	NOT STARTED	
18830 0	SITE AT BRENNAN PARK ARDNOE AVENUE	01/08/2007	11	0	0.914	0.00	COMPLETE	01/08/2007
18831 0	REAR OF 94 COMBER ROAD	01/08/2009	0	4	0	0.09	NOT STARTED	
18834 0	219 AND 221 SAINTFIELD ROAD	01/08/2009	0	21	0	0.29	DEVELOPMENT ON-GOING	

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Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18835 0	67 CHURCH ROAD SOUTH	01/08/2009	4	0	0.109	0.00	COMPLETE	01/08/2009
18842 0	7 TO 37 ARDNOE AVENUE BALLYBEEN	01/08/2008	12	0	0.404	0.00	COMPLETE	01/08/2008
18843 0	22 TO 24 COMBER ROAD CHURCH QUARTER	01/08/2009	0	13	0	0.13	NOT STARTED	
18844 0	40 GILNAHIRK CRESCENT	01/08/2009	0	4	0	0.15	NOT STARTED	
18846 0	9 GALWAY DRIVE	01/08/2009	0	12	0	0.22	NOT STARTED	
18847 0	40 GLENHOLM PARK	01/08/2009	0	1	0	0.05	NOT STARTED	
18848 0	14 MOUNT MICHAEL DRIVE	01/08/2009	0	1	0	0.08	NOT STARTED	
18850 0	129 COMBER ROAD	01/08/2008	10	0	0.211	0.00	COMPLETE	01/08/2008
18860 0	103 TO 107 SAINTFIELD ROAD	01/08/2009	0	6	0	0.09	NOT STARTED	
18861 0	REAR OF NO.5 632 AND 634 SAINTFIELD ROAD	01/08/2009	0	5	0	0.17	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18862 0	20 KINGSWAY PARK	01/08/2008	1	0	0.023	0.00	COMPLETE	01/08/2008
18898 0	REAR OF 37 & 39 ROSETTA ROAD	01/08/2009	0	2	0	0.40	NOT STARTED	
19035 0	16 MANSE ROAD CARRYDUFF	01/08/2008	4	0	0.34	0.00	COMPLETE	01/08/2008
19038 0	130A UPPER KNOCKBREDIA ROAD	01/08/2008	13	0	0.334	0.00	COMPLETE	01/08/2008
19608 0	ADJACENT TO 264 BELVOIR DRIVE	01/08/2009	1	0	0.06	0.00	COMPLETE	01/08/2009
19610 0	2 RODDENS PARK	01/08/2009	0	4	0	0.06	NOT STARTED	
19611 0	38-46 OLD DUNDONALD ROAD	01/08/2009	0	19	0	0.49	NOT STARTED	
19615 0	ADJACENT TO 12 MONTGOMERY ROAD	01/08/2009	0	1	0	0.02	NOT STARTED	
19616 0	WEST OF MCLAUGHLIN PARK, KNOCK DUAL CARRIAGEWAY	01/08/2009	0	1	0	0.56	NOT STARTED	
19617 0	ADJACENT TO 9 ALTNACREEVA CLOSE	01/08/2008	1	0	0.01	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19622 0	133A COMBER ROAD	01/08/2009	0	3	0	0.26	NOT STARTED	
19624 0	ADJACENT TO 53 CHURCH ROAD	01/08/2009	0	6	0	0.13	DEVELOPMENT ON-GOING	
19625 0	GRANTON HEIGHTS, KINGS ROAD	01/08/2009	0	93	0	0.61	NOT STARTED	
19628 0	REAR OF 180 SAINTFIELD ROAD	01/08/2009	0	1	0	0.02	NOT STARTED	
19629 0	116 CUMBERLAND ROAD	01/08/2009	0	12	0	0.21	NOT STARTED	
19630 0	SIDE GARDEN OF 1 BROOKLANDS PARK	01/08/2009	0	1	0	0.04	NOT STARTED	
19631 0	28 BEECHILL PARK SOUTH	01/08/2009	0	1	0	0.04	NOT STARTED	
19632 0	FORMER RETAIL UNITS AT 9-16 GLENSHARRAGH PARK	01/08/2009	0	9	0	0.12	NOT STARTED	
19634 0	18 COTSWOLD AVENUE PLUS PART GARDEN AT 1 CHARTWELL PARK	01/08/2009	3	0	0.08	0.00	COMPLETE	01/08/2009
19635 0	LAND AT ISLAY GARDENS	01/08/2009	0	8	0	0.15	NOT STARTED	

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potentials	Area Developed	Area Remaining	Development Status	Completion Date
19636 0	98 GILNAHIRK ROAD	01/08/2009	0	1	0	0.08	NOT STARTED	
19638 0	ADJACENT AND TO THE WEST OF 73 ROYAL LODGE ROAD	01/08/2009	0	1	0	0.04	NOT STARTED	
19640 0	190 NEWTOWARDS ROAD	01/08/2009	0	2	0	0.13	NOT STARTED	
19642 0	26-28 GLENEAGLES GARDENS	01/08/2009	12	0	0.35	0.00	COMPLETE	01/08/2009
19688 0	ADJACENT TO 30 ROSSDALE HEIGHTS	01/08/2009	0	1	0	0.01	NOT STARTED	
19695 0	156A UPPER KNOCKBREDA ROAD	01/08/2009	0	1	0	0.05	NOT STARTED	
20028 0	1 CLONDUFF DRIVE	01/08/2009	0	1	0	0.04	NOT STARTED	
20030 0	6-12 BREDA PARK	01/08/2009	0	34	0	0.60	NOT STARTED	
20044 0	BEECHILL INDUSTRIAL ESTATE CEDARHURST ROAD	01/08/2009	0	51	1.75	0.00	NOT STARTED	
20045 0	70 BEECHILL PARK WEST	01/08/2009	0	1	0	0.07	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
20046 0	KNOCKBRACKEN HEALTHCARE PARK SAINTFIELD ROAD	01/08/2009	22	0	0.77	0.00	COMPLETE	01/08/2009
20047 0	LANDS OPPOSITE 1-6 LAUREL GROVE MANOR	01/08/2009	0	6	0	0.24	NOT STARTED	
20048 0	19 CAIRNSHILL AVENUE	01/08/2009	0	1	0	0.17	NOT STARTED	
20049 0	ST. ANDREWS & KNOCKBRED A CHURCH ROSETTA ROAD	01/08/2009	0	10	0	0.38	NOT STARTED	
20050 0	ADJACENT TO 6 CARNAMENA GARDENS	01/08/2009	0	1	0	0.03	NOT STARTED	
20051 0	ADJACENT TO 168 MOUNT MERRION AVENUE	01/08/2009	0	4	0	0.03	NOT STARTED	
20054 0	20 ALBERT DRIVE	01/08/2009	1	0	0.05	0.00	COMPLETE	01/08/2009
20055 0	143 & 154 KINGS ROAD	01/08/2009	0	5	0	0.07	NOT STARTED	
20056 0	ADJACENT TO 36 LEVEN PARK	01/08/2009	0	1	0	0.01	NOT STARTED	
20057 0	SITE TO THE NORTH OF UPPER NEWTOWARDS ROAD AND ADJACENT TO DUNLADY ROAD	01/08/2009	0	165	0	2.39	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
20058 0	SITE ADJACENT TO 2 CUMNOCK WALK	01/08/2009	1	0	0.01	0.00	COMPLETE	01/08/2009
20061 0	REAR GARDEN 65 OLD DUNDONALD ROAD	01/08/2009	0	1	0	0.11	NOT STARTED	
20062 0	32 GRAND PRIX PARK	01/08/2009	0	2	0	0.11	NOT STARTED	
20064 0	66 CHURCH ROAD	01/08/2009	0	11	0	0.26	NOT STARTED	
20065 0	33-37 GRANSHA ROAD	01/08/2009	0	55	0	0.73	NOT STARTED	
20066 0	42-52 GRANSHA ROAD	01/08/2009	0	15	0	0.89	NOT STARTED	
20067 0	31 & 33 OLD DUNDONALD ROAD	01/08/2009	0	5	0	0.13	NOT STARTED	
20068 0	99-107 COMBER ROAD	01/08/2009	0	45	0	0.43	NOT STARTED	
20069 0	155 & 157 COMBER ROAD	01/08/2009	0	2	0	0.08	NOT STARTED	
20070 0	LANDS TO THE SIDE OF 22 ORBY CLOSE & ORBY DRIVE	01/08/2009	0	25	0	1.02	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
20071 0	LAND TO THE FRONT OF 115 LOWER BRANIEL ROAD	01/08/2009	0	1	0	0.08	NOT STARTED	
20074 0	58 OLD DUNDONALD ROAD	01/08/2009	0	5	0	0.16	NOT STARTED	
SETTLEMENT TOTALS			3882	3270	190.43	155.20		

This report excludes Phase 2 Development Land



HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

STATUS OF ALL MONITORABLE SITES IN CARRYDUFF AS OF 1 AUGUST 2009

Site No	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
536	56 HILLSBOROUGH ROAD CARRYDUFF	01/08/1998	34	0	2.6	0.00	COMPLETE	01/08/1998
549	MUSKETT AVENUE CARRYDUFF	01/08/1997	8	0	0.4	0.00	COMPLETE	01/08/1997
587	REAR OF 14 QUEENSFORT PARK SOUTH CARRYDUFF	01/08/2005	1	0	0.05	0.00	COMPLETE	01/08/2005
591	ADJACENT TO 22 LOUGH MOSS PARK CARRYDUFF	01/08/2009	0	16	0	0.60	NOT STARTED	
594	14 HILLSBOROUGH ROAD CARRYDUFF	01/08/1999	3	0	0.1	0.00	COMPLETE	01/08/1999
601	24-25A HILLSBOROUGH ROAD CARRYDUFF	01/08/2000	14	0	0.15	0.00	COMPLETE	01/08/2000
605	ADJACENT TO 57 HILLSBOROUGH ROAD BUA	01/08/2001	4	0	0.4	0.00	COMPLETE	01/08/2001

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
623	EDGAR AVENUE / SAINTFIELD ROAD BUA	01/08/1997	2	0	0.11	0.00	COMPLETE	01/08/1997
11376	ADJACENT TO 33 MANSE ROAD CARRYDUFF	01/08/1999	1	0	0.19	0.00	COMPLETE	01/08/1999
11426	ADJACENT TO 80 BALLYNAHINCH ROAD CARRYDUFF	01/08/1999	1	0	0.12	0.00	COMPLETE	01/08/1999
11427	LAND TO THE REAR OF 2 BLENHEIM PARK CARRYDUFF	01/08/2001	1	0	0.18	0.00	COMPLETE	01/08/2001
11434	33 MANSE ROAD CARRYDUFF	01/08/1999	1	0	0.3	0.00	COMPLETE	01/08/1999
11435	LANDS AT "OLD QUARRY" HILLSBOROUGH ROAD CARRYDUFF	01/08/2009	122	53	2.24	0.99	DEVELOPMENT ON-GOING	
11437	LAND TO THE SOUTHEAST OF MEADOWVALE ROAD CARRYDUFF	01/08/2009	0	174	0	4.97	NOT STARTED	
11463	LANDS AT 115-117 BALLYNAHINCH ROAD CARRYDUFF	01/08/2009	10	0	0.77	0.00	COMPLETE	01/08/2009
11954	23 LOUGH MOSS PARK CARRYDUFF	01/08/2007	1	0	0.12	0.00	COMPLETE	01/08/2007
11979	MANSE GARDENS CARRYDUFF	01/08/2002	6	0	0.46	0.00	COMPLETE	01/08/2002

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
11980	3 BALLYNAHINCH ROAD CARRYDUFF	01/08/2001	6	0	0.09	0.00	COMPLETE	01/08/2001
11981	REAR OF 21 HOLLYGATE AVENUE CARRYDUFF	01/08/2007	1	0	0.1	0.00	COMPLETE	01/08/2007
11983	LAND ADJOINING THE WEST OF AND 200M SOUTH OF MUSKET MEWS AND MUSKET COURT CARRYDUFF	01/08/2000	53	0	3.38	0.00	COMPLETE	01/08/2000
11988	26 BALLYNAHINCH ROAD CARRYDUFF	01/08/2009	0	2	0	0.12	NOT STARTED	
12098	ADJACENT TO 24 MUSKETT GARDENS CARRYDUFF	01/08/2002	4	0	0.04	0.00	COMPLETE	01/08/2002
12143	ADJACENT TO 56 THOMPSON'S GRANGE CARRYDUFF	01/08/2009	1	0	0.09	0.00	COMPLETE	01/08/2009
12152	32-34 BALLYNAHINCH ROAD CARRYDUFF	01/08/2009	0	3	0	1.20	NOT STARTED	
12160	LAND TO THE SOUTH EAST OF 655 SAINTFIELD ROAD CARRYDUFF	01/08/2002	1	0	0.05	0.00	COMPLETE	01/08/2002
12262	SUNNYHOLME 11 QUEENSFORT ROAD BUA	01/08/2009	0	3	0	0.05	NOT STARTED	
12285	OAKWOOD HEIGHTS / OAKWOOD AVENUE CARRYDUFF	01/08/1997	42	0	2.44	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12286	SOUTH OF OAKWOOD AVENUE CARRYDUFF	01/08/1997	20	0	1.04	0.00	COMPLETE	01/08/1997
12314	89-91 BALLYNAHINCH ROAD CARRYDUFF	01/08/2006	8	0	0.13	0.00	COMPLETE	01/08/2006
12315	ADJACENT TO 47 HILLSBOROUGH ROAD CARRYDUFF	01/08/2003	1	0	0.25	0.00	COMPLETE	01/08/2003
12322	642 SAINTFIELD ROAD CARRYDUFF	01/08/2005	13	0	0.173	0.00	COMPLETE	01/08/2005
12323	BETWEEN 7 & 9 THORNDALE ROAD SOUTH CARRYDUFF	01/08/2009	0	1	0	0.05	NOT STARTED	
12591	20 CHURCH ROAD CARRYDUFF	01/08/2009	0	1	0	0.02	NOT STARTED	
12754	SITE ADJACENT TO 2,3 AND 4 MEADOWVALE CLOSE CARRYDUFF	01/08/2004	4	0	0.17	0.00	COMPLETE	01/08/2004
12756	648 SAINTFIELD ROAD CARRYDUFF	01/08/2009	26	19	0.86	0.66	DEVELOPMENT ON-GOING	
12973	8 ANNAVALE AVENUE CARRYDUFF	01/08/2005	1	0	1	0.00	COMPLETE	01/08/2005
12974	37 QUEENSFORT PARK SOUTH CARRYDUFF	01/08/2008	13	0	0.5	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
12975	9-11 WINCHESTER GARDENS CARRYDUFF	01/08/2004	1	0	0.06	0.00	COMPLETE	01/08/2004
12976	LANDS TO E & S OF BARONSCOURT & TO N OF EDGAR ROAD & COMBER ROAD CARRYDUFF	01/08/2009	0	400	0	17.79	NOT STARTED	
12977	LANDS TO N OF MARLBOROUGH CRESCENT, BLENHEIM PARK & QUEENSFORT COURT, W OF SAINTFIELD ROAD AND S OF MEALOUGH ROAD CARRYDUFF	01/08/2009	0	349	0	19.21	NOT STARTED	
13205	33 - 35 HILLSBOROUGH ROAD CARRYDUFF	01/08/2009	1	3	0.06	0.30	DEVELOPMENT ON-GOING	
13230	ADJACENT TO 123 BALLYNAHINCH ROAD CARRYDUFF	01/08/2005	1	0	0.029	0.00	COMPLETE	01/08/2005
13233	101 BALLYNAHINCH ROAD CARRYDUFF	01/08/2009	0	110	0	4.06	NOT STARTED	
13274	6 THORNDALE ROAD NORTH CASTLEREAGH	01/08/2009	0	1	0	0.16	NOT STARTED	
13279	30 BALLYNAHINCH ROAD CARRYDUFF	01/08/2009	0	2	0	0.08	NOT STARTED	
17281 0	26 MANSE ROAD	01/08/2005	3	0	0.463	0.00	COMPLETE	01/08/2005

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18239 0	REAR OF 1 BALLYNAHINCH ROAD	01/08/2009	0	1	0	0.06	NOT STARTED	
18242 0	8 HILLSBOROUGH ROAD	01/08/2008	14	0	0.238	0.00	COMPLETE	01/08/2008
18243 0	37 CHURCH ROAD	01/08/2009	0	6	0	0.09	NOT STARTED	
18244 0	ADJACENT TO 694 SAINTFIELD ROAD	01/08/2009	0	30	0	1.10	NOT STARTED	
18530 0	SOUTH OF KILLYNURE CLOSE	01/08/2009	0	45	0	1.93	NOT STARTED	
18531 0	NORTH OF THORNDAL PARK	01/08/2009	0	24	0	0.98	NOT STARTED	
18827 0	31 CHURCH ROAD	01/08/2009	0	3	0	0.05	NOT STARTED	
18836 0	16 MANSE ROAD	01/08/2008	4	0	0.362	0.00	COMPLETE	01/08/2008
18845 0	93 BALLYNAHINCH ROAD	01/08/2009	0	4	0	0.16	NOT STARTED	
19657 0	16 HILLSBOROUGH ROAD	01/08/2009	0	3	0	0.05	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19661 0	15 THORNDALE ROAD SOUTH	01/08/2009	0	1	0	0.16	NOT STARTED	
20077 0	70-72 BALLYNAHINCH ROAD	01/08/2009	0	31	0	0.80	NOT STARTED	
20078 0	ADJACENT TO 4 MUSKETT GLEN	01/08/2009	0	2	0	0.04	DEVELOPMENT ON-GOING	
20079 0	83 BALLYNAHINCH ROAD	01/08/2009	0	1	0	0.11	NOT STARTED	
20080 0	ADJACENT TO 10 & 15 BARONSCOURT LANE	01/08/2009	0	2	0	0.14	NOT STARTED	
20081 0	REAR OF 2 THOMPSONS GRANGE	01/08/2009	0	1	0	0.07	NOT STARTED	
20082 0	ADJACENT TO 1 GLENNOR CRESCENT WEST	01/08/2009	0	2	0	0.04	NOT STARTED	
20083 0	REAR OF 60 LOUGH MOSS PARK	01/08/2009	1	0	0.09	0.00	COMPLETE	01/08/2009
20087 0	644 SAINTFIELD ROAD	01/08/2009	0	7	0	0.39	NOT STARTED	
	SETTLEMENT TOTALS		428	1300	19.81	56.45		

This report excludes Phase 2 Development Land



HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

STATUS OF ALL MONITORABLE SITES IN HILLSBOROUGH AS OF 1 AUGUST 2009

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15313 7351	CARNREAGH ESTATE	01/08/2003	363	0	23.08	0.00	COMPLETE	01/08/2003
15314 7352	THE PINES	01/08/1997	23	0	0.79	0.00	COMPLETE	01/08/1997
15315 7353	OGLES GROVE	01/08/1997	24	0	2.49	0.00	COMPLETE	01/08/1997
15316 7354	EGLANTINE PARK	01/08/1997	67	0	6.93	0.00	COMPLETE	01/08/1997
15317 7355	AUGHNATRISK ROAD	01/08/1997	191	0	3.03	0.00	COMPLETE	01/08/1997
15318 7356	HAMILTON HARTY COURT	01/08/1997	13	0	0.33	0.00	COMPLETE	01/08/1997
15319 7357	COACHMANS WAY	01/08/1997	14	0	0.97	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

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Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15320 7358	MILLVALE COURT	01/08/1997	10	0	0.17	0.00	COMPLETE	01/08/1997
15321 7359	SANDRINGHAM	01/08/1997	6	0	1.84	0.00	COMPLETE	01/08/1997
15322 7360	BLUNDELL HILL	01/08/2009	0	6	0	0.68	NOT STARTED	
15323 7361	CULCAVY ROAD	01/08/1997	4	0	0.57	0.00	COMPLETE	01/08/1997
15324 7362	DROMORE ROAD	01/08/2005	16	0	1.18	0.00	COMPLETE	01/08/2005
15325 7363	LISBURN ROAD	01/08/2009	0	150	0	6.00	NOT STARTED	
15327 7365	8-10 CULCAVY ROAD	01/08/1998	7	0	0.12	0.00	COMPLETE	01/08/1998
15328 7366	MILLSIDE TERRACE	01/08/1998	17	0	0.53	0.00	COMPLETE	01/08/1998
15329 7367	6 CULCAVEY ROAD	01/08/2001	4	0	0.07	0.00	COMPLETE	01/08/2001
16463 11298	REAR OF 18 LISBURN STREET	01/08/2006	1	0	0.03	0.00	COMPLETE	01/08/2006

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16464 11299	REAR OF 16 MAIN STREET	01/08/2006	8	0	0.25	0.00	COMPLETE	01/08/2006
16465 11300	TO THE REAR OF 1 AND 3 BALLYNAHINCH STREET	01/08/2002	6	0	0.1	0.00	COMPLETE	01/08/2002
16514 11635	ADJACENT TO 25 LISBURN ROAD	01/08/2003	1	0	0.11	0.00	COMPLETE	01/08/2003
16515 11636	REAR OF 47 LISBURN STREET	01/08/2009	0	5	0	0.03	NOT STARTED	
16516 11638	27 BALLYNAHINCH STREET	01/08/2004	1	0	0.1	0.00	COMPLETE	01/08/2004
16517 11639	WAPPING LANE BALLYNAHINCH STREET	01/08/2006	2	0	0.02	0.00	COMPLETE	01/08/2006
16518 11640	LAND OFF WAPPING LANE, BALLYNAHINCH STREET	01/08/2006	20	0	0.34	0.00	COMPLETE	01/08/2006
16519 11641	SITE TO THE REAR OF 27A LISBURN RD	01/08/2002	1	0	0.12	0.00	COMPLETE	01/08/2002
16520 11642	29/31 LISBURN STREET	01/08/2003	2	0	0.02	0.00	COMPLETE	01/08/2003
16521 11644	38 CULCAVY ROAD	01/08/2008	5	0	0.42	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16558 11826	GOVERNORS GATE CARNREAGH	01/08/2009	110	200	5.5	9.50	DEVELOPMENT ON-GOING	
16559 11827	WHITEGABLES DROMORE ROAD	01/08/2009	0	40	0	3.37	NOT STARTED	
16663 12171	11 MAIN STREET	01/08/2002	1	0	0.07	0.00	COMPLETE	01/08/2002
16664 12172	25 MILLVALE ROAD	01/08/2002	1	0	0.12	0.00	COMPLETE	01/08/2002
16665 12174	18 MILLVALE WOOD, MILLVALE ROAD	01/08/2004	6	0	0.88	0.00	COMPLETE	01/08/2004
16666 12175	25 LISBURN ROAD	01/08/2009	0	10	0	0.32	NOT STARTED	
16667 12176	20 BLACKBERRY LANE, CULCAVY ROAD	01/08/2005	9	0	0.73	0.00	COMPLETE	01/08/2005
16668 12177	15 CULCAVY ROAD	01/08/2008	4	0	0.15	0.00	COMPLETE	01/08/2008
16669 12178	ADJACENT TO 25 CULCAVY ROAD	01/08/2006	1	0	0.37	0.00	COMPLETE	01/08/2006
16670 12180	48 WALKERS FARM, CULCAVY ROAD	01/08/2008	11	0	0.73	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16671 12181	CULCARY ROAD	01/08/2004	62	0	1.91	0.00	COMPLETE	01/08/2004
16672 12182	CARNREAGH ROAD	01/08/2002	1	0	0.06	0.00	COMPLETE	01/08/2002
16673 12184	43A CARNREAGH	01/08/2005	1	0	0.32	0.00	COMPLETE	01/08/2005
16674 12185	43 CARNREAGH	01/08/2003	2	0	0.37	0.00	COMPLETE	01/08/2003
16675 12186	49 CARNREAGH	01/08/2002	1	0	0.18	0.00	COMPLETE	01/08/2002
16837 12773	MAIN FORMER BOROUGH COUNCIL OFFICES BUILDING THE SQUARE	01/08/2009	27	6	0.7	0.23	DEVELOPMENT ON-GOING	
16838 12774	20 CARNREAGH ROAD	01/08/2004	4	0	0.26	0.00	COMPLETE	01/08/2004
16848 12799	LAND BETWEEN HARRY'S ROAD & EGLANTINE PARK	01/08/2008	11	0	0.59	0.00	COMPLETE	01/08/2008
16910 13007	LANDS TO THE REAR OF NO. 32 LISBURN STREET	01/08/2005	1	0	0.1	0.00	COMPLETE	01/08/2005
16914 13012	5 MOIRA ROAD	01/08/2006	5	0	0.09	0.00	COMPLETE	01/08/2006

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16927 13031	WAPPING LANE BALLYNAHINCH STREET	01/08/2006	2	0	0.0222	0.00	COMPLETE	01/08/2006
17212 0	3 BALLYNAHINCH ROAD	01/08/2009	0	6	0	0.13	NOT STARTED	
17213 0	19 MILLVALE HILLSBOROUGH	01/08/2008	2	0	0.18	0.00	COMPLETE	01/08/2008
17217 0	16 LISBURN STREET	01/08/2008	1	0	0.036	0.00	COMPLETE	01/08/2008
17218 0	TO THE REAR OF CHURCH HALLS MEETING STREET	01/08/2008	5	0	0.124	0.00	COMPLETE	01/08/2008
18336 0	ADJACENT TO THE OLD MILL DEVELOPMENT CULCAVY ROAD	01/08/2009	0	1	0	0.33	NOT STARTED	
18338 0	SITE 2 OPPOSITE 49 LISBURN ROAD	01/08/2009	0	1	0	0.09	NOT STARTED	
18339 0	MILLSTREAM 25 CULCAVY ROAD	01/08/2009	8	0	0.63	0.00	COMPLETE	01/08/2009
18340 0	OPPOSITE 51 LISBURN ROAD	01/08/2009	0	1	0	0.06	NOT STARTED	
18349 0	17 DROMORE ROAD	01/08/2009	0	1	0	0.42	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
18532 0	ADJACENT TO KILWARLIN HOUSE 22 LISBURN ROAD	01/08/2008	4	0	0.41	0.00	COMPLETE	01/08/2008
18718 0	7 ABERCORN PARK	01/08/2009	0	2	0	0.14	NOT STARTED	
18731 0	29 MILLVALE ROAD, HILLSBOROUGH	01/08/2008	1	0	0.099	0.00	COMPLETE	01/08/2008
18733 0	ADJACENT TO 15 DROMORE ROAD, HILLSBOROUGH	01/08/2009	1	0	0.094	0.00	COMPLETE	01/08/2009
18738 0	OPPOSITE 25-29 DROMORE ROAD, HILLSBOROUGH	01/08/2009	0	15	0	0.95	NOT STARTED	
18739 0	45 CARNREAGH, HILLSBOROUGH	01/08/2009	0	1	0	0.20	NOT STARTED	
18740 0	REAR OF 4-14 LISBURN STREET, HILLSBOROUGH	01/08/2009	0	10	0	0.35	NOT STARTED	
19242 0	16 DROMORE ROAD	01/08/2009	0	15	0	0.27	NOT STARTED	
19243 0	WAPPING LANE BALLYNAHINCH ST	01/08/2009	2	0	0.023	0.00	COMPLETE	01/08/2009
19245 0	10 MAIN STREET	01/08/2009	0	2	0	0.11	NOT STARTED	

This report excludes Phase 2 Development Land

Site No.	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
20184 0	1 PARK STREET	01/08/2009	0	1	0	0.17	NOT STARTED	
20186 0	OPPOSITE 19 - 23 DROMORE ROAD	01/08/2009	0	29	0	0.98	NOT STARTED	
20195 0	7 HILLCOURT	01/08/2009	0	2	0	0.24	NOT STARTED	
20201 0	VACANT SITE TO REAR 45 - 53 OLD MILL HEIGHTS CULCAVY ROAD	01/08/2009	0	8	0	0.37	NOT STARTED	
20205 0	30 - 32 CULCAVY ROAD	01/08/2009	0	16	0	0.75	NOT STARTED	
20206 0	MAISEMORE 41 LISBURN ROAD	01/08/2009	0	2	0	0.22	NOT STARTED	
SETTLEMENT TOTALS			1090	530	58.36	25.91		

This report excludes Phase 2 Development Land

04 February 2010



HOUSING SITES NORTHERN IRELAND LAND USE DATABASE DEVELOPMENT

STATUS OF ALL MONITORABLE SITES IN MOIRA AS OF 1 AUGUST 2009

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15330 7368	HILLSBOROUGH ROAD	01/08/1997	38	0	3.63	0.00	COMPLETE	01/08/1997
15331 7369	OLD KILMORE ROAD, FOTHWILLIAM	01/08/2009	0	50	0	2.02	NOT STARTED	
15332 7370	OLD KILMORE ROAD ( BEECHWOOD COURT)	01/08/1997	10	0	0.72	0.00	COMPLETE	01/08/1997
15333 7371	OLD FORT	01/08/1997	172	0	9.01	0.00	COMPLETE	01/08/1997
15334 7372	KILMORE PARK	01/08/1997	34	0	1.82	0.00	COMPLETE	01/08/1997
15335 7373	KINGSFORT LODGE	01/08/1997	31	0	3.31	0.00	COMPLETE	01/08/1997
15336 7374	EARLSFORT	01/08/1997	9	0	0.82	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15337 7375	DANESFORT	01/08/1997	46	0	3.17	0.00	COMPLETE	01/08/1997
15338 7376	CLAREMONT AV, PK, DR, CRT	01/08/1997	112	0	3.71	0.00	COMPLETE	01/08/1997
15339 7377	RECTORY FIELDS	01/08/2009	63	117	2.47	4.60	NOT STARTED	
15340 7378	LAGANVALE, LURGAN ROAD	01/08/2001	171	0	12.26	0.00	COMPLETE	01/08/2001
15341 7379	LAGANVALE MANOR	01/08/1997	58	0	1.99	0.00	COMPLETE	01/08/1997
15342 7380	CASTLE AVENUE	01/08/1997	57	0	2.81	0.00	COMPLETE	01/08/1997
15343 7381	CASTLEVIEW	01/08/1997	28	0	0.99	0.00	COMPLETE	01/08/1997
15344 7382	TANNERS COURT	01/08/1997	16	0	0.45	0.00	COMPLETE	01/08/1997
15345 7383	DEMENSE GROVE	01/08/1997	22	0	0.86	0.00	COMPLETE	01/08/1997
15346 7384	HENRY COURT	01/08/1997	31	0	0.92	0.00	COMPLETE	01/08/1997

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
15347 7385	BERWICK VIEW	01/08/2000	38	0	3.7	0.00	COMPLETE	01/08/2000
15348 7386	CLAREMONT CRESCENT	01/08/1997	29	0	0.92	0.00	COMPLETE	01/08/1997
15349 7387	18-26 LURGAN ROAD	01/08/1997	4	0	0.15	0.00	COMPLETE	01/08/1997
15350 7388	ADJACENT TO DEMENSE GROVE	01/08/1998	19	0	0.39	0.00	COMPLETE	01/08/1998
15351 7389	EARLSFORT	01/08/2005	51	0	6.5	0.00	COMPLETE	01/08/2005
15352 7390	1-3 MEETING STREET	01/08/2003	25	0	0.3	0.00	COMPLETE	01/08/2003
16504 11612	REAR OF RAWDON COURT 76-80 MAIN STREET	01/08/2003	12	0	0.46	0.00	COMPLETE	01/08/2003
16505 11614	REAR OF 100 MAIN STREET	01/08/2009	0	1	0	0.06	NOT STARTED	
16506 11615	ADJACENT TO 29 OLD KILMORE RD	01/08/2007	1	0	0.1	0.00	COMPLETE	01/08/2007
16560 11828	AUGHINAFOSKER	01/08/2008	105	0	5.25	0.00	COMPLETE	01/08/2008

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Complete	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
16561 11829	CLAREHILL	01/08/2009	34	20	3.5	2.66	DEVELOPMENT ON-GOING	
16562 11830	WYNFORT LODGE, BACKWOOD ROAD/OLD KILMORE ROAD	01/08/2009	77	103	3.12	4.18	DEVELOPMENT ON-GOING	
16609 12059	SOUTH OF 23-25 ST JOHNS PARK	01/08/2009	0	1	0	0.17	NOT STARTED	
16610 12062	ADJACENT TO BERWICK VIEW	01/08/2003	12	0	1.64	0.00	COMPLETE	01/08/2003
16611 12063	1-3 OLD KILMORE ROAD	01/08/2003	12	0	0.31	0.00	COMPLETE	01/08/2003
16835 12767	ADJACENT TO BERWICK HEIGHTS & BERWICK VIEW	01/08/2009	4	6	0.39	0.55	DEVELOPMENT ON-GOING	
16940 13050	LAND TO THE REAR OF 35 - 37 MAIN STREET	01/08/2009	0	9	0	0.21	NOT STARTED	
16953 13083	ADJACENT TO 28 ST JOHN'S PARK	01/08/2007	1	0	0.09	0.00	COMPLETE	01/08/2007
17171 0	ADJACENT TO 2 WARINGMORE	01/08/2008	1	0	0.23	0.00	COMPLETE	01/08/2008
17173 0	8 LURGAN ROAD	01/08/2009	0	6	0	0.41	NOT STARTED	

This report excludes Phase 2 Development Land



Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
17174 0	LANDS TO THE REAR OF 62-74 MAIN STREET	01/08/2008	24	0	0.444	0.00	COMPLETE	01/08/2008
17175 0	REAR OF 84 MAIN STREET	01/08/2005	6	0	0.118	0.00	COMPLETE	01/08/2005
17176 0	ADJACENT TO 33 LURGAN ROAD	01/08/2009	0	5	0	0.31	NOT STARTED	
18102 0	LAND AT 89-101 MAIN STREET	01/08/2009	0	10	0	0.24	NOT STARTED	
18103 0	LAND ADJACENT TO 1A HILLSBOROUGH ROAD	01/08/2009	0	19	0	0.80	NOT STARTED	
18104 0	LAND ADJACENT TO 45 LURGAN ROAD	01/08/2009	0	67	0	2.78	NOT STARTED	
18353 0	113 MAIN STREET	01/08/2009	0	4	0	0.19	NOT STARTED	
18366 0	17 LURGAN ROAD	01/08/2009	4	2	0.1	0.05	DEVELOPMENT ON-GOING	
18372 0	REAR OF 8 BACKWOOD ROAD	01/08/2008	2	0	0.107	0.00	COMPLETE	01/08/2008
18756 0	4A LURGAN ROAD, MOIRA	01/08/2009	0	1	0	0.06	NOT STARTED	

This report excludes Phase 2 Development Land

Site Ref	Site Name	Date of Survey	Units Completed	Remaining Potential	Area Developed	Area Remaining	Development Status	Completion Date
19117 0	LANDS TO SOUTH-EAST OF 45 MAIN STREET	01/08/2009	0	6	0	0.24	NOT STARTED	
19118 0	35 - 37 MAIN STREET	01/08/2009	0	3	0	0.01	NOT STARTED	
19119 0	ADJACENT TO 31 LURGAN ROAD	01/08/2009	0	1	0	0.06	NOT STARTED	
19121 0	LANDS ADJACENT TO AND INCLUDING LURGAN ROAD	01/08/2009	0	47	0	23.40	NOT STARTED	
20216 0	LANDS NORTH 10 WARINGFIELD PARK	01/08/2009	0	1	0	1.00	DEVELOPMENT ON-GOING	
20217 0	REAR 4 WARINGMORE	01/08/2009	0	1	0	0.17	NOT STARTED	
20219 0	REAR 18 - 20 WOODHALL	01/08/2009	0	1	0	0.02	NOT STARTED	
	SETTLEMENT TOTALS		1359	481	76.76	44.20		

This report excludes Phase 2 Development Land

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## Appendix 5: Urban Capacity Study Analysis

## Lisburn & Castlereagh City Council LDP Technical Supplement 2: Urban Capacity Study - Assessment of Identified Sites by Turley (January 2020)

### Lisburn City Centre

	Unique ID	Source ID	Address	Yield	Comment by Turley	Status in Lisburn City Centre Masterplan 2019-2023	Status in Lisburn City Centre Masterplan 2010
1	75	120	Level car park fronting Lisburn Health Centre	102 Apartments	The limited amount of recent apartment development in Lisburn city centre may point to a potential lack of demand. There is uncertainty around the timing of any potential disposal. Turley question whether the proposed 102 units will be delivered during the Plan period.	Site D14. Identified for residential or mixed use development.	Site 6A. Identified for Commercial, Residential and Parking. Approximate number of dwellings - 65.
2	76	121	Site and associated surface level car park of Lisburn Health Centre	60 Apartments	The limited amount of recent apartment development in Lisburn city centre may point to a potential lack of demand. There is uncertainty around the timing of any potential disposal. Turley question whether the proposed 60 units will be delivered during the Plan period.	Site D16. Identified for reuse of all or part of building as flexible workspace for small businesses and co-working with associated supporting facilities. Potential longer term redevelopment of site for mixed-use development.	Sites 6E & 6F. 6E identified for Retail and Commercial use. Approximate Number of Dwellings - 55; 6F identified for Retail and Commercial use.
3	77	122	Royal Mail Depot. Linenhall Street.	72 Apartments	The limited amount of recent apartment development in Lisburn city centre may point to a potential lack of demand. There is uncertainty around the timing of any potential disposal. Turley question whether the proposed 72 units will be delivered during the Plan period.	Site D15. Identified for large scale residential or mixed use development replacing existing building.	Site 38. Identified for commercial development
4	80	125	Surface level car park bounding Smithfield Street.	26 Apartments	The limited amount of recent apartment development in Lisburn city centre may point to a potential lack of demand. There is uncertainty around the timing of any potential disposal. Turley question whether the proposed 26 units will be delivered during the Plan period.	Car Park is not identified as a Development Opportunity Site. The 'Projects Framework: Public Realm Enhancement' states that the car park use should be retained most of the time.	Site 28 & 2C. 2B identified for Retail and Residential development. Approximate Number of Dwellings - 4; 2C identified for Retail and Residential development. Approximate Number of Dwellings - 12
5	82	127	Surface level car park at Barrack Street.	8 Townhouses	The scale of the development suggests it may be deliverable within the Plan period.	Site E19. Identified for residential development.	Site not identified
6	84	130	Units fronting Bachelor's walk with rear car park bounding McKeown St.	21 Apartments	Given the lack of recent apartment development in Lisburn city centre, the potential lack of demand and the site's private ownership, Turley question whether the proposed 21 units will be delivered during the Plan period.	Site B5. Identified for mixed use development including retail	Identified as an extension to the existing car park
7	85	133	Graham Gardens	45 Apartments	Given the lack of recent apartment development in Lisburn city centre, the potential lack of demand and the site's private ownership, Turley question whether the proposed 45 units will be delivered during the Plan period.	Site B6 identified for refurbishment of vacant sites and poor quality buildings, potential for residential or mixed use development.	Identified as part of Sites 8B and 8C. The sites are identified for retail development

8	87	135	Antrim Rd surface level car park	45 Apartments	Given the lack of recent apartment development in Lisburn city centre, the potential lack of demand and the site's private ownership, Turley quest on whether the proposed 45 units will be delivered during the Plan period.	Site A2. Identified as having potential to form part of Bow Street Mall site or stand alone mixed-use development / extension of existing mall.	Identified as Sites 1A & 1B. Site 1A identified for Retail & Car parking. Site 1B identified for retail
9	88	136	Site north of 42 Castle Street	24 Apartments	Given the lack of recent apartment development in Lisburn city centre, the potential lack of demand and the site's private ownership, Turley question whether the proposed 24 units will be delivered during the Plan period.	Site 13. Identified as a small infill site needed to repair dereliction and townscape. No use identified.	Identified within the wider 7C area. Approximate Number of Dwellings - 21
10	109	0	Sloan Street	21 Apartments	Planning application LA05/2017/0537/F for the demolition of existing buildings and erection of 21 new affordable apartments and associated car parking is currently PENDING. DFI Roads are currently objecting to the planning application due to the lack of car parking spaces proposed and this may impact on the ability to deliver the suggested 21 no. units.	Site D18. Identified for residential car development	Within the wider Site 4C. Identified as Commercial, Residential and Multi-Storey Car Park development. Approximate number of dwellings - 55
11	110	0	Vacant units fronting Market Square and rear at Wardsborough Road.	28 Apartments	Planning Application LA05/2017/0907/F GRANTED planning permission for Demolition of The Fire Place showrooms & associated workshops. Demolition of the corrugated iron hall, the rear return of 23 Railway Street & partial demolition of the rear return of 25-27 Railway St. Partial demolition of the existing Smyth Patterson Department Store. Construction of 28 two-bed apartments for social housing. Alterations to existing three-storey elevation to create new frontage & internal alterations to the first floor of the Smyth Patterson Department Store & two new storage buildings. Amalgamation of 23-27 Railway St into one retail unit, changes to elevation & alterations to shop front. Associated access, parking & servicing arrangements (Amended Proposal).	Within Area B but not identified as a Development Opportunity Site.	Not identified
12	111	0	Site at Graham Gardens adjacent to new housing scheme.	6 apartments	The scale of the development may be deliverable within the Plan period.	Within Area B but not identified as a Development Opportunity Site.	Not identified
13	112	0	Small infill site on Antrim Street opposite Jordan's Mill	3 apartments	The scale of the development may be deliverable within the Plan period.	Site A2. Identified as having potential to form part of Bow Street Mall site or stand alone mixed use development/extension of existing mall.	Not identified

Site A2. Identified as having potential to form part of Bow Street Mall site or stand alone mixed use development / extension of existing mall.

Site D16. Identified for reuse of all or part of building as flexible workspace for small businesses and co-working with associated supporting facilities. Potential longer term redevelopment of site for mixed-use development.

Within Sites 6E. Site identified for Retail and Commercial use. Approximate Number of Dwellings - 55 (counted previously above)

The scale of the development may be deliverable within the Plan period.

Planning application S/2014/0797/F GRANTED permission for Demolition of existing buildings and construction of a new mixed use development incorporating 3 No Retail Units and 6 No Apartments.

Bow Lane, car park to the rear of bank.

8 apartments

0

116

14

Site on Bridge Street adjacent to Health Centre Car Park

6 apartments

0

118

15

**Lisburn**

Unique ID Source ID Address Yield Comment by Turley

16 29 54 111 Mountview Dr, Lisburn BT27 4JL 13 Semi-detached Site is undesignated public open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Turley question whether this site should have been identified as a potential residential development site.

17 36 64 146 Hillisborough Old Rd, Lisburn BT27 7 detached The location and scale of the development should be deliverable within the Plan period.

18 47 75 10 Manor Dr, Lisburn BT28 1JH 21 apartments Site is designated as a Local Landscape Policy Area (LC47) and a future planning application would currently be assessed against Policy ENV 1 Local Landscape Policy Areas. The site is undesignated public open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Given the existing planting on the site and the proximity to a designated archaeological site Turley question whether this site should have been identified as a potential residential development site.

19 48 76 20 Ballinderry Rd, Lisburn BT28 1UF 30 Townhouses Site is designated as a Site of Local Nature Conservation Importance (LC20/06) and a future planning application would be assessed against PPS 2 Natural Heritage Policy NH 4 - Sites of Nature Conservation Importance and draft LDP Policy NH4 Sites of Nature Conservation Importance - Local. The site is undesignated public open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Given the existing planting on the site Turley question whether this site should have been identified as a potential residential development site.

20	49	77	Land at Moira Road	13 Townhouses	The location and scale of the development should be deliverable within the Plan period.
21	91	57	69 Richmond Ct, Lisburn BT27 4QX	12 Semi-detached	Site is undesignated wooded open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Turley question whether this site should have been identified as a potential residential development site.
22	138	105	56 Saintfield Rd, Lisburn BT27 5SE	13 Detached	Planning application LA05/2015/0559/F GRANTED permission for the Erection of 3 No. detached and 4 No. pairs of semi-detached dwellings with single storey garages, car parking, landscaping, associated site works and access arrangements from Ballynahinch Road, Lisburn ( 11 No. residential units in total ) (amended address). Turley note that planning permission has been granted for 11 no. units rather than the 13 no. units identified by the Urban Capacity Study.
23	204	NA	Between Belmont Drive & Haddingtonhill Derrinagh Rd	7 Semi-detached	Planning application LA05/2018/1102/F for Proposed construction of 8 no dwellings 6no garages with associated parking and landscaping (Additional information received) is currently PENDING. The location and scale of the development should be deliverable within the Plan period.
24	205	NA	Former Filling Station adj 151Moira Road	10 Townhouses	The site's historic use as a petrol filling station may have caused localised ground contamination that may have implications for the redevelopment of site. The southern part of the site is within the floodplain and this may reduce the size of the developable area and the aspiration to deliver 10 no. townhouses.
25	206	NA	134 Causeway End Road	25 Semi-Detached	Site is undesignated wooded open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Turley question whether this site should have been identified as a potential residential development site.

Planning application LA05/2015/0466/F for the Demolition of residential premises and the erection of 26 nr semi-detached dwellings and 1 nr detached dwelling (27 nr dwellings in total) site access works, development roads, associated site works and landscaping was REFUSED. The decision has been appealed to the Planning Appeals Commission. Turley note that permission is sought for 27 no. houses across the wider site rather than the 20. no. houses and 29 no. apartments identified by LCCC.

26 208 NA Adj to Dobbies Garden Centre  
Saintfield Road

27 226 NA

Planning application LA05/2015/0466/F for the Demolition of residential premises and the erection of 26 nr semi-detached dwellings and 1 nr detached dwelling (27 nr dwellings in total) site access works, development roads, associated site works and landscaping was REFUSED. The decision has been appealed to the Planning Appeals Commission. Turley note that permission is sought for 27 no. houses across the wider site rather than the 20. no. houses and 29 no. apartments identified by LCCC.

27 226 NA Adj to Dobbies Garden Centre  
Saintfield Road

28 1

**Moira**

Unique ID Source ID Address

28 1 20 Meeting Street, Moira,  
Craigavon, BT67

Yield

24 Semi-detached

Comment by Turley

The location and scale of the development should be deliverable within the Plan period.

**Hillsborough**

Unique ID Source ID Address

29 7 11 Blundell Hill, Hillsborough,  
BT26 6LD

Yield

15 detached

Comment by Turley

The location and scale of the development should be deliverable within the Plan period. However, the proposed yield may be high given character of surrounding area.

30 120 5

62 Lisburn St, Hillsborough,  
BT26 6LL

Yield

13 Townhouses

Planning application LA05/2017/0218/O GRANTED planning permission for Proposed demolition of existing two storey detached dwelling and erection of thirteen dwellings and associated site works

**Carryduff**

Unique ID Source ID Address

31 13 29 6 Lough Brin Park, Carryduff,  
BT8 8PL

Yield

11 Semi-detached

Comment by Turley

Site is undesignated public open space but is afforded protection under PPS 8 Policy OS 1 Protection of Open Space and draft LDP Policy OS1 Protection of Open Space. Turley question whether this site should have been identified as a potential residential development site.



Site is designated as a Local Landscape Policy Area (CF14) and a future planning application would currently be assessed against Policy ENV 1 Local Landscape Policy Areas. Turley question whether this site should have been identified as a potential residential development site. The site is in joint public and private ownership and this may impact on its deliverability. It is also unclear how the site could be safely accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access.

610 Saintfield Road, Carryduff,  
BT8 8BL

19

123

32

Site is designated as a Local Landscape Policy Area (CF14) and a future planning application would currently be assessed against Policy ENV 1 Local Landscape Policy Areas. Turley question whether this site should have been identified as a potential residential development site. The site is in joint public and private ownership and this may impact on its deliverability. It is also unclear how the site could be safely accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access.

634 Saintfield Road, Carryduff,  
BT8 8BT

20

124

33

Site is designated as a Local Landscape Policy Area (CF14) and a future planning application would currently be assessed against Policy ENV 1 Local Landscape Policy Areas. Turley question whether this site should have been identified as a potential residential development site. The Carryduff River runs through the site and this may have implications for the site's development. It is also unclear how the site could be safely accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access.

646-644 Saintfield Road,  
Carryduff,BT8

24

125

34

It is unclear how the site can be accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access to Protected Routes.

53 Alveston Park, Carryduff,  
BT8 8RP

34

128

35

It is unclear how the site can be accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access. It is also unclear how the site could be safely accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access.

It is unclear how the site can be accessed. Saintfield Road is a 'Protected Route' and a future planning application would be assessed against PPS 3 Access Movement & Parking Policy AMP 3: Access to Protected Routes and draft LDP Policy TRA3 Access to Protected Routes. Turley note that DFI Roads currently considers planning application LA05/2018/1069/F for *Proposed residential development of 18 No. dwellings comprised of 16 No. semi-detached dwellings and 2 No. detached dwellings access via the approved development to the west and north from Mealough Road together with all ancillary development to be unacceptable.* The southern & western sections of the site are within the floodplain. The application will be assessed against PPS 15 Planning & Flood Risk Policy FLD 1 Development in Fluvial (River) and Coastal Flood Plains and draft LDP Policy FLD1 Development in Fluvial (River) Flood Plains. The lands are under multiple private ownership and this may impact on the deliverability of the site.

Planning application LA05/2016/0504/F GRANTED planning permission for *D1 community and cultural use and associated offices (Amended site address) in the southern portion of the subject lands.* If implemented this permission would preclude residential development on this part of the site

Comment by Turley

The lands are zoned in draft BMAP for a 'Park & Ride' car park; Planning application for *The development is for a asphalt surfaced car park, which shall be an extension to the existing DFI Park and Ride site. The extension shall provide 359 additional parking spaces. The scheme shall include new concrete kerbs and boundary fencing. Additional street lighting shall be provided for the extension (additional info - Environmental Assessment Report, Transport Assessment, Drainage info, amended plan 06A and additional plan 09 is currently PENDING.* If approved and implemented this application would preclude residential development at the site.

36 209 NA Adj junction of Mealough and Saintfield 38 Detached

37 210 NA Adj to 615 Saintfield Road 22 Detached

38 211 NA Land to the rear of 25 Baronscourt Road 13 Detached

Purdysburn  
Unique ID Source ID Address Yield

39 212 NA Rear of 279 Saintfield Road adjacent 36 Semi-detached

**Newtownbreda**

Unique ID	Source ID	Address	Yield	Comment by Turley
-----------	-----------	---------	-------	-------------------

40	216	NA	Lands opposite Beechill Business Park	13 Semi-detached	The identified lands may be required for a road proposal identified in draft BMAP; A future application would be assessed against PPS 3 Policy AMP 4; Protection for New Transport Schemes and draft LDP Policy TRA4 Protection of New Transport Schemes. The lands may also be considered as 'open space' and would therefore be afforded protection by PPS 8 and draft LDP Policy OS1.
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**Milimount / Dundonald**

Unique ID	Source ID	Address	Yield	Comment by Turley
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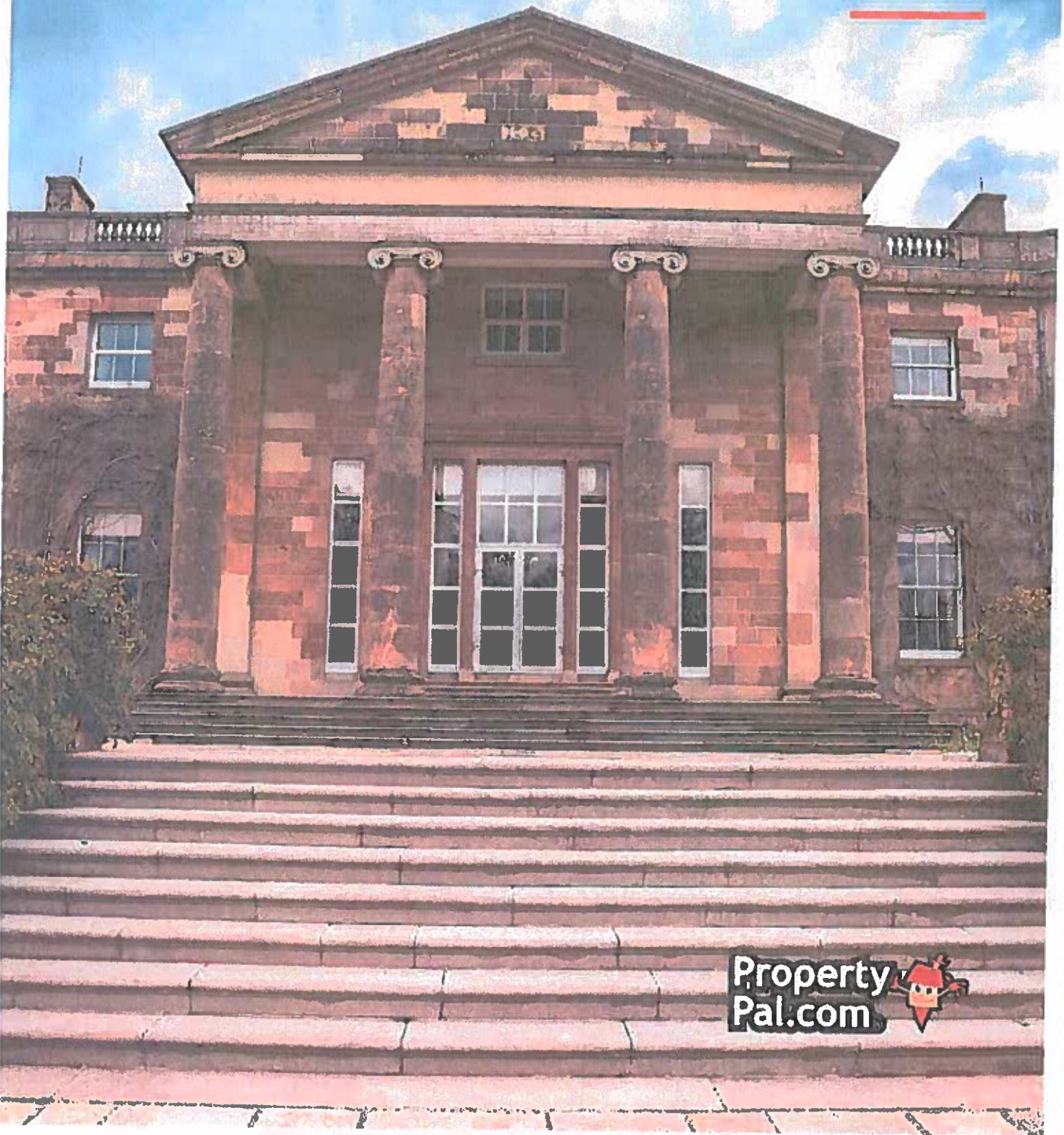
41	223	NA	Rear of 25 Millar's Forge	66 Semi-detached	The extent of the Eiler River's floodplain and the need to maintain a buffer for a link relief road through the site will reduce the developable area and may preclude the development of all of the 66 semi-detached houses.
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## Appendix 6: Property Pal Analysis



LOCAL PROPERTY REVIEW:  
Lisburn & Castlereagh

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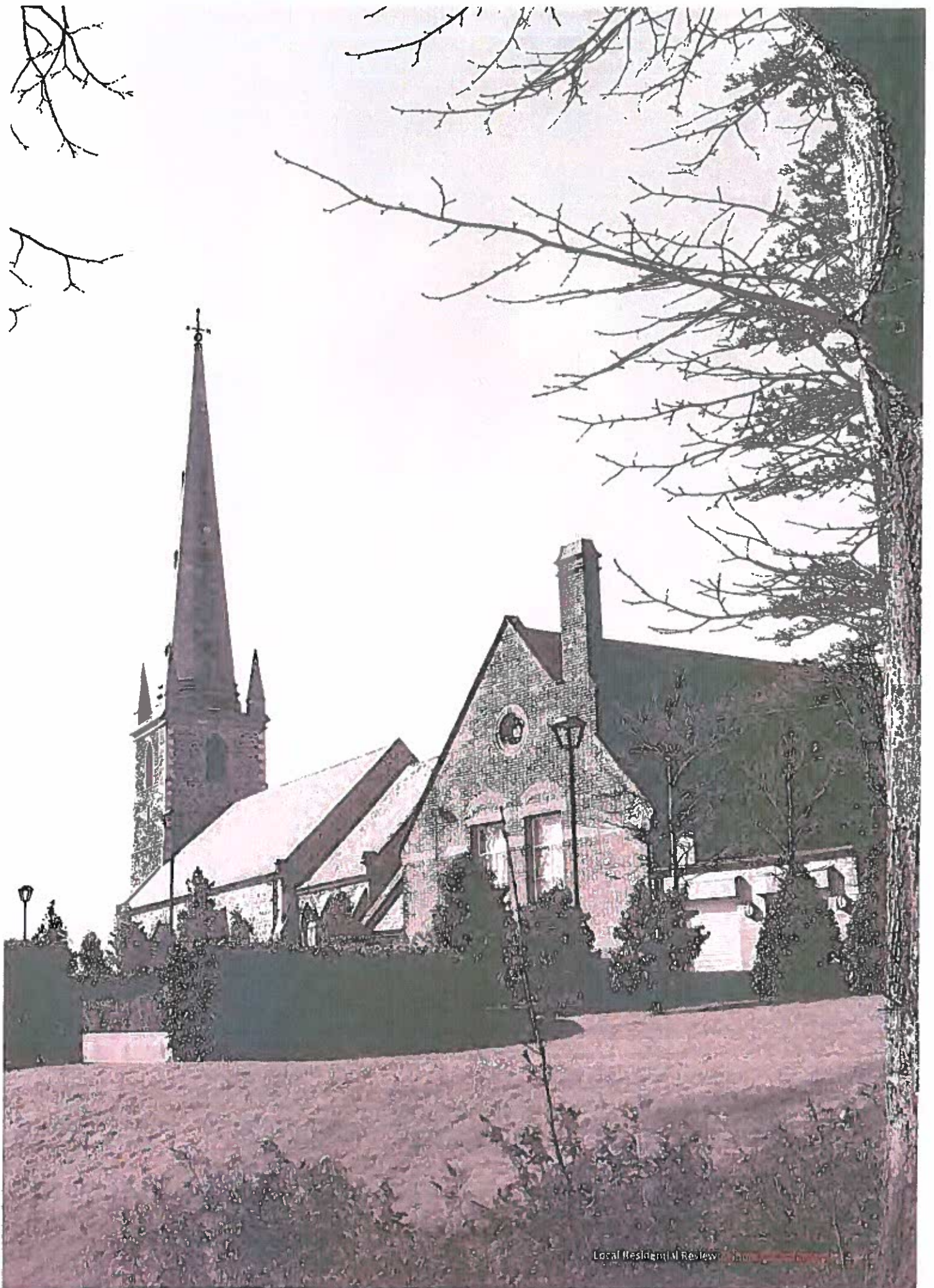
Property  
Pal.com 

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## Introduction to PropertyPal's Local Residential Review

*PropertyPal's Local Residential Review series offers data driven economic analysis on the residential property market in Northern Ireland. At PropertyPal we recognise that buying, selling, moving or renting a home is one of the biggest decisions of a lifetime. We aim to provide informative insights on current market trends as well as providing forecasts and outlooks on the future performance of the N.Ireland residential property market.*

The official sales and house price information is a fascinating insight into local economic performance. However, one of the challenges with the N.Ireland data is the inability to understand market performance at more disaggregated geography levels, particularly as headline statistics can disguise significant underlying variations.

At PropertyPal we have been researching the housing market activity at a truly granular level. In conjunction with the N.Ireland Statistics and Research Agency, we have subdivided N.Ireland's 11 council areas into almost 500 smaller 'micro-areas', equivalent to an average of 1,700 homes per micro-area. This is then further split to include analysis by property type within each micro-area.

PropertyPal is delighted to provide a comprehensive overview of the residential property market with a truly local dimension. The report can help inform all stakeholders with an interest in the local property market including: estate agents, developers, government policy makers, property professionals, the media and the general public.

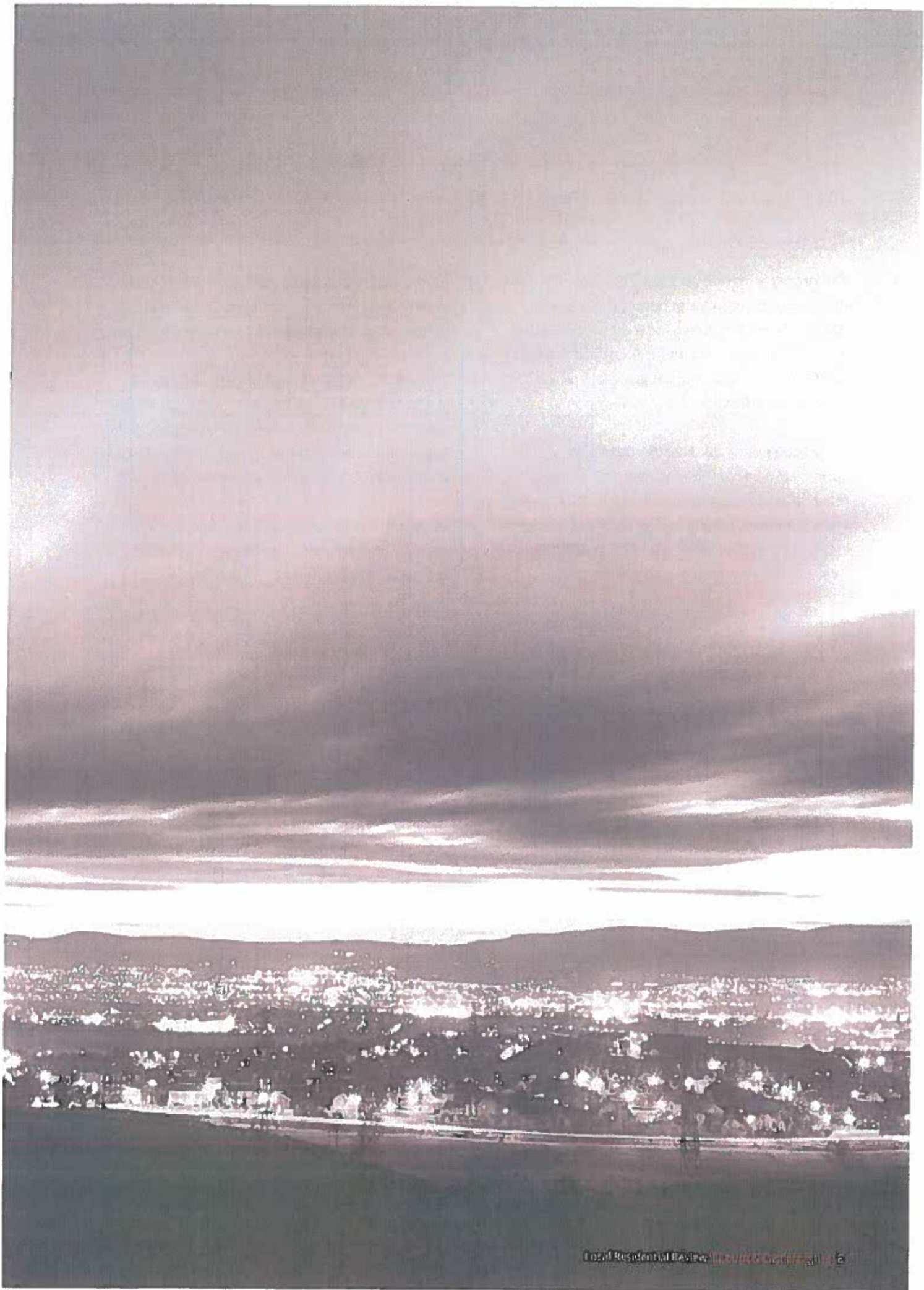
At PropertyPal we aim to give our users the best experience in their home searching journey and we hope this addition of market analysis is a useful gauge of developments in the property market.



## Number of homes sold and house prices by property type in Lisburn & Castlereagh

Number of homes sold and median prices by property type in Lisburn & Castlereagh Areas 2014								
Electoral Area	Subdivision	No. of houses sold	Avg house price	Avg house price	Detached	Semi-detached	Apartment	Other
CASTLEREAGH EAST	Ballyharwood	40	£162,500	£181,200	£200,000	£149,000	£110,300	£104,400
	Carrowraagh	179	£180,000	£181,600	£200,300	£170,000	£115,000	£156,800
	Dundonald	52	£124,800	£139,700	£167,600	£130,300	£97,200	£80,200
	Enter	30	£82,800	£92,300	£111,200	£80,800	£52,900	£83,500
	Graham's Bridge	50	£126,800	£141,400	£237,500	£125,000	£81,000	£115,000
	Monkswaagh	41	£225,000	£272,500	£248,300	£225,000	£143,800	£177,600
CASTLEREAGH SOUTH	Beechill	15	£182,000	£203,000	£305,000	£176,300	£116,300	£117,000
	Canalhill	11	£190,000	£211,300	£250,000	£175,800	£121,400	£122,100
	Carryduff East	55	£174,000	£191,100	£214,500	£152,500	£111,200	£111,900
	Carryduff West	72	£139,000	£226,800	£213,000	£146,000	£101,600	£120,000
	Galinsty	57	£176,000	£188,600	£238,200	£177,300	£113,800	£114,400
	Knockbraicken	45	£183,000	£200,800	£235,000	£164,300	£115,000	£115,700
	Newtownbreda	65	£115,000	£161,800	£230,000	£145,000	£92,700	£93,200
DOWNSHIRE EAST	Ballymachbrannan	18	£169,000	£168,500	£166,000	£165,000	£108,000	£108,600
	Dromara	33	£139,000	£155,100	£192,000	£134,300	£88,800	£89,400
	Drumbo	45	£232,000	£258,800	£280,200	£226,500	£148,300	£149,100
	Hillhall	56	£201,500	£260,000	£257,500	£192,900	£128,800	£85,300
	Ravenmet	29	£255,000	£284,500	£276,000	£249,000	£163,000	£163,900
DOWNSHIRE WEST	Blans	76	£135,000	£162,500	£276,600	£162,500	£79,900	£92,500
	Hillborough	43	£225,000	£316,700	£295,000	£287,300	£156,600	£177,500
	Lagan	10	£166,000	£170,000	£258,300	£161,000	£106,100	£106,700
	Avoca	44	£167,000	£186,300	£213,500	£146,300	£108,700	£107,400
	Moor	67	£172,500	£176,000	£226,000	£170,000	£110,300	£134,000
MILLTUGH	Ballinacry	47	£150,000	£146,500	£190,000	£128,000	£95,900	£96,400
	Glenavy	52	£157,800	£166,300	£175,000	£134,800	£100,800	£101,400
	Magherberry	63	£161,100	£166,000	£178,000	£140,000	£102,900	£135,900
	Stonyford	17	£147,000	£141,100	£176,000	£88,300	£94,000	£94,500
	White Mountain	105	£148,000	£170,000	£231,000	£145,000	£106,700	£147,300
LISBURN NORTH	Derryagh	81	£130,000	£175,000	£181,000	£170,800	£92,300	£92,000
	Lansdown Hill	12	£177,000	£197,100	£225,000	£139,800	£113,100	£113,800
	Hilldon	45	£81,000	£90,400	£108,800	£79,100	£65,000	£85,000
	Lambeg	70	£110,000	£130,000	£117,300	£70,300	£70,900	£93,800
	Magheralave	75	£167,600	£172,000	£185,800	£167,900	£107,100	£152,300
	Wallace Park	33	£205,000	£228,700	£270,000	£179,600	£131,000	£131,800
LISBURN SOUTH	Ballymacash	31	£162,500	£161,300	£178,500	£125,000	£103,900	£104,500
	Ballymacross	96	£127,300	£142,000	£171,100	£124,300	£81,400	£81,800
	Knockmore	54	£120,000	£134,000	£175,000	£137,000	£75,000	£98,000
	Lagan Valley	30	£91,500	£102,100	£122,900	£124,500	£58,500	£85,500
	Lisnagarvey	30	£130,300	£145,300	£230,700	£125,000	£83,200	£83,700
	Old Warren	33	£85,000	£94,800	£114,100	£113,300	£54,300	£78,200
<b>LISBURN &amp; CASTLEREAGH</b>		<b>2,028,000</b>	<b>£172,000</b>	<b>£211,100</b>	<b>£254,000</b>	<b>£140,900</b>	<b>£108,000</b>	

Source: PropertyHub



# Overview of Lisburn & Castlereagh's housing market performance

The property market continues to recover in both prices and the number of homes being sold. House prices have grown for 6 consecutive years with typical homes in Lisburn & Castlereagh (LCC) experiencing similar rates of growth in prices compared to the wider N.Ireland economy.

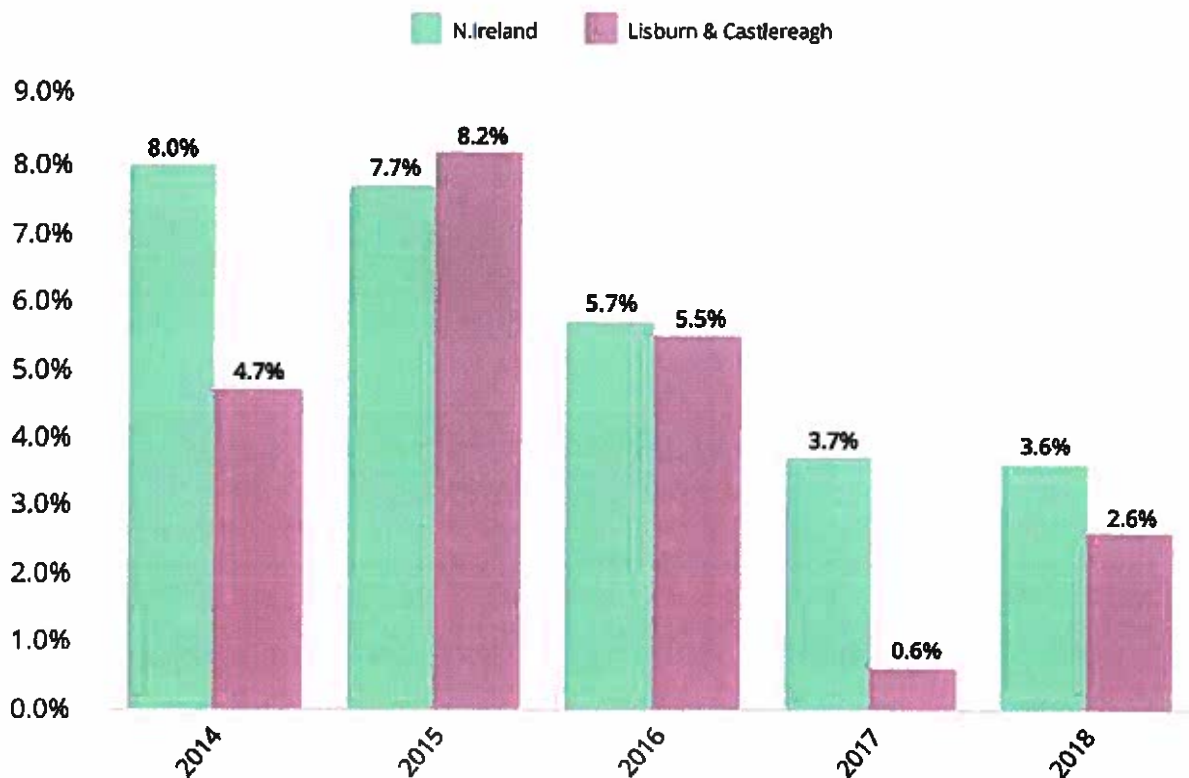
During the period 2013-2016 house prices in LCC appreciated by over 6% each year on average, reflecting the return of confidence in the housing market following a long period of price contraction in the aftermath of the credit crisis in 2007-08. Over the last few years house prices have

moderated to a more sustainable 1.8% annual growth and closer aligned to wages which has helped support affordability pressures in the area.

To date, the median house price in LCC stands at approximately £158,000, the most expensive council area across all of N.Ireland. Despite recent appreciation, house prices remain 31% below peak levels in 2007 when typical prices were £230,000.

In total, house prices in LCC have increased in value by over £30,000 since low points in 2013, equivalent to 23% cumulative growth.

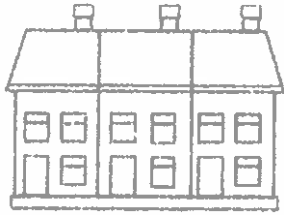
Figure 1: House price growth in Lisburn & Castlereagh vs. N. Ireland; 2014-2018



Source: PropertyPal, NISRA  
Note: Using median property prices

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**House prices have increased/remained stable across all home types compared to last year with the exception of detached properties**



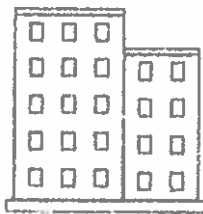
**TERRACE HOMES**

increased by  
**5.0%** to **£105,000**,  
an increase in value of  
**£5,000**



**SEMI-DETACHED HOMES**

increased by  
**2.7%** to **£154,000**,  
an increase in value of  
**£4,000**



**APARTMENTS**

**remained stable**  
with growth of **0.0%**  
and typical prices of **£100,000**



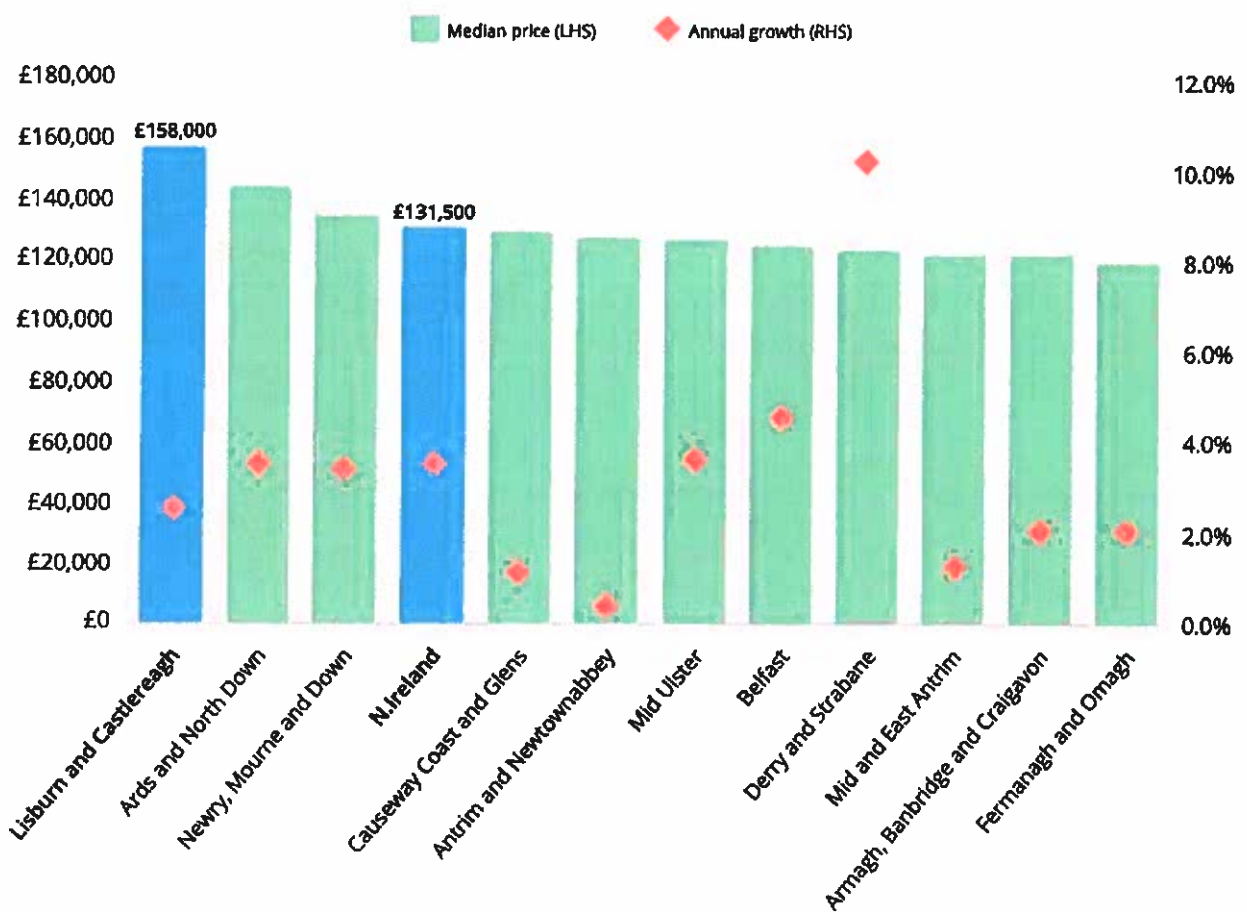
**DETACHED HOMES**

increased by  
**-0.6%** to **£211,200**,  
an increase in value of  
**£1,300**



Source: PropertyPal, NISRA

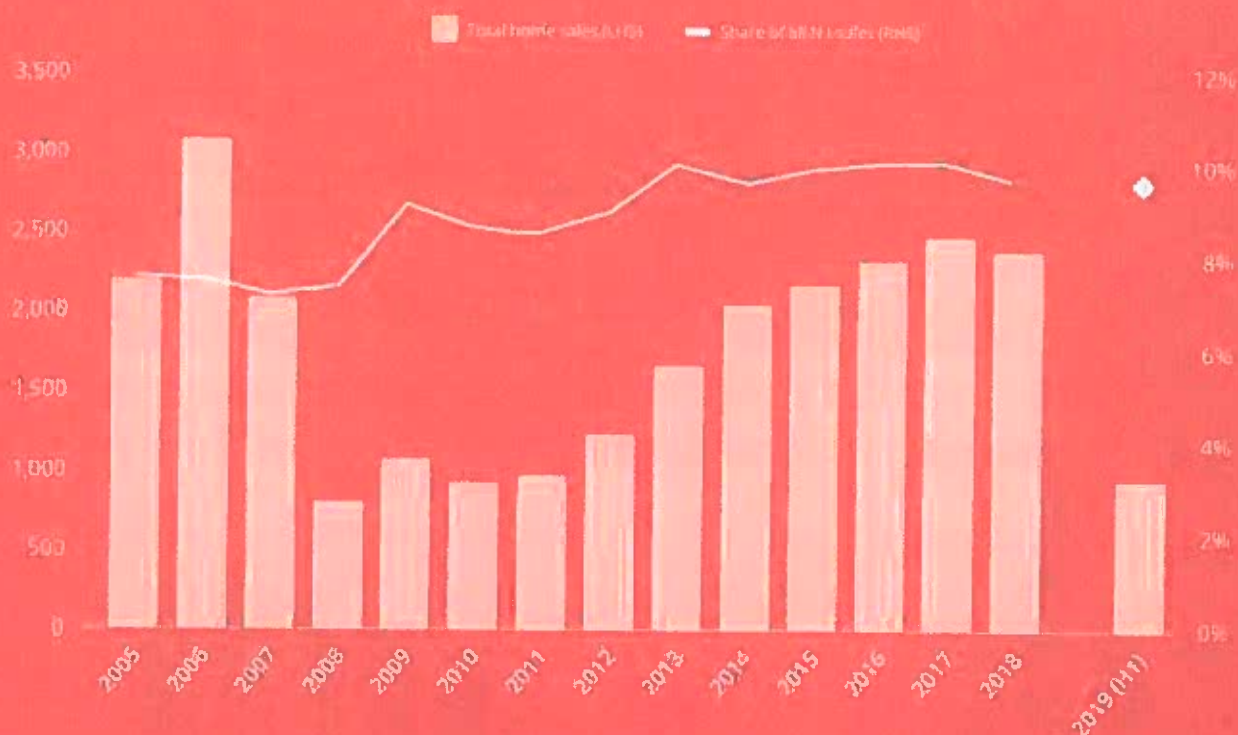
**Figure 2: House prices across N. Ireland council areas; 2018**



Source: PropertyPal, NISRA, LPS  
 Note: Based on median property prices.



Figure 3: Home sales in Lisburn & Castlereagh; 2005-2019



Source: NIRA, ERS, historical analysis

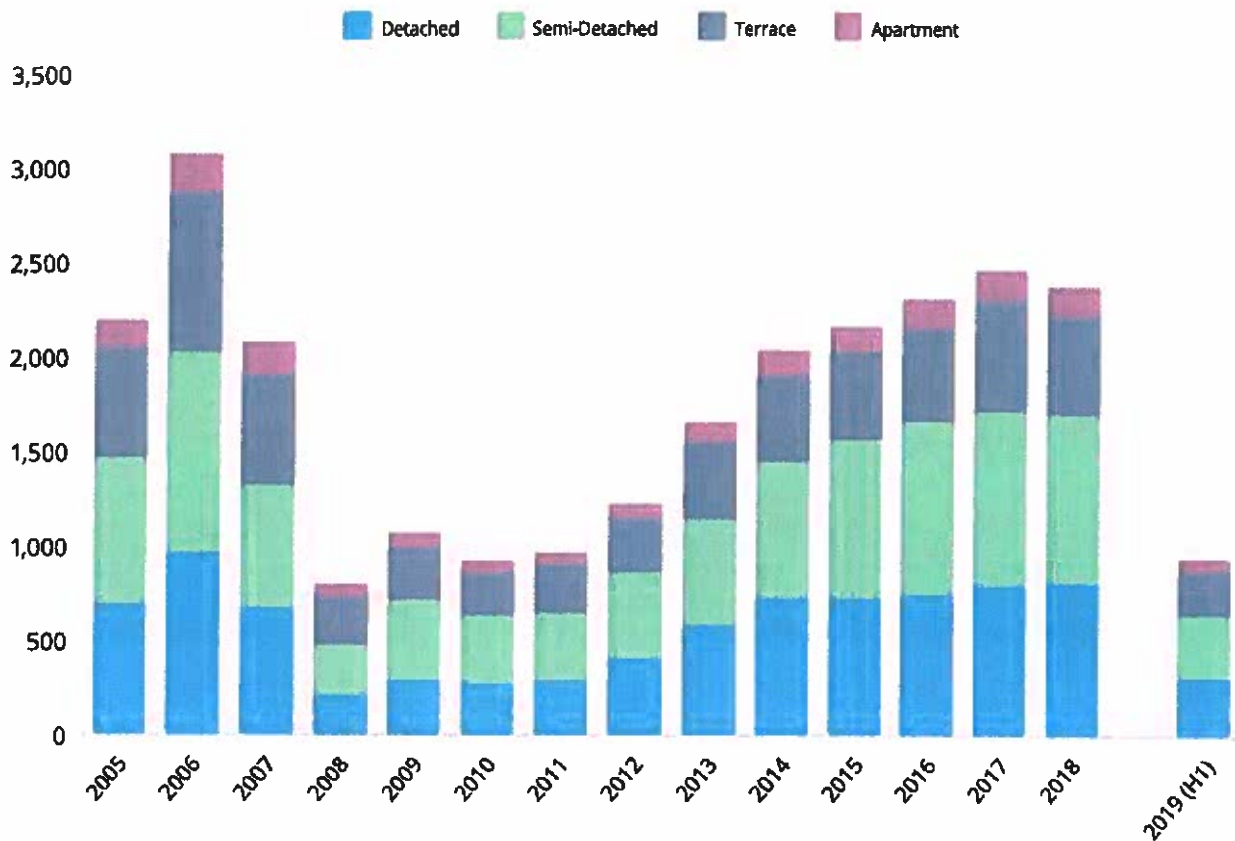
Home sales in LCC have accounted for 7-10% of all homes sales in N.Ireland over the last 15 years. During the boom era in the mid 2000's there were almost 3,100 recorded home sales in LCC in a single year. This was followed by 4-year period of depressed activity with an average of fewer than 1,000 recorded sales each year.

Since 2014, the property market has been in recovery mode with approximately 2,300 homes sold each year in LCC, equivalent to a sustainable halfway point between pre-recessionary highs and post-recessionary lows.

In first half of 2019 there have been approximately 950 homes sold in Lisburn & Castlereagh, equivalent to 10% of all sales across N.Ireland and broadly matching the upper end of recent trends over the previous 5 years.

Semi-detached properties are the most popular style of home, accounting for 38% of all homes sold whilst detached properties are slightly lower (34%). Terrace properties share of total sales has fallen from 27% in 2005 to 22% in 2018 and apartments are consistently the least popular choice making up fewer than 1 in every 10 homes sold.

**Figure 4: Home sales in Lisburn & Castlereagh by type of home; 2005-2019**



Source: NISRA, LPS, PropertyPal analysis

## Analysis by micro-area in Lisburn & Castlereagh

Council level trends are useful to give a barometer of local housing market activity. However, there are approximately 60,000 homes across the whole LCC boundary. As such, there can be significant variation in home prices within more specific areas. Furthermore, in absence of more granular information there is a gap in understanding which areas within councils are most popular for home purchase and underlying trends in price movements by different property types.

At PropertyPal we have analysed the underlying performance at the more disaggregated geographical range. In total, LCC has been split into 40 micro-areas, each with an average of approximately 1,500 homes. Each micro-area is then subdivided into property types to

enable further understanding of the most in demand areas for both home purchase and price movements of different property styles. All analysis of house price data used within this report is based on **median prices**.

*In 2018 typical property prices in LCC were £158,000. However, house prices ranged from £81,000 in the most affordable area to £255,000 in the most expensive.*

In 2018 typical property prices in LCC were £158,000. However, house prices ranged from £81,000 in the most affordable area to £255,000 in the most expensive, reflecting the underlying differences within the wider council boundary.

[Methodology: The micro-areas are not mix adjusted but use annual transactional data from Land Registry to better reflect the actual mix of properties sold. This is particularly useful when identifying the change in prices for properties sold in a given period and area but is not designed to represent the overall dwelling stock. The micro-areas report median price paid and the methodology is in line with that used for the Office for National Statistics for reporting on small area house prices. Full methodology is available on [propertypal.com/insights](https://www.propertypal.com/insights)]

The three most expensive micro-areas were:

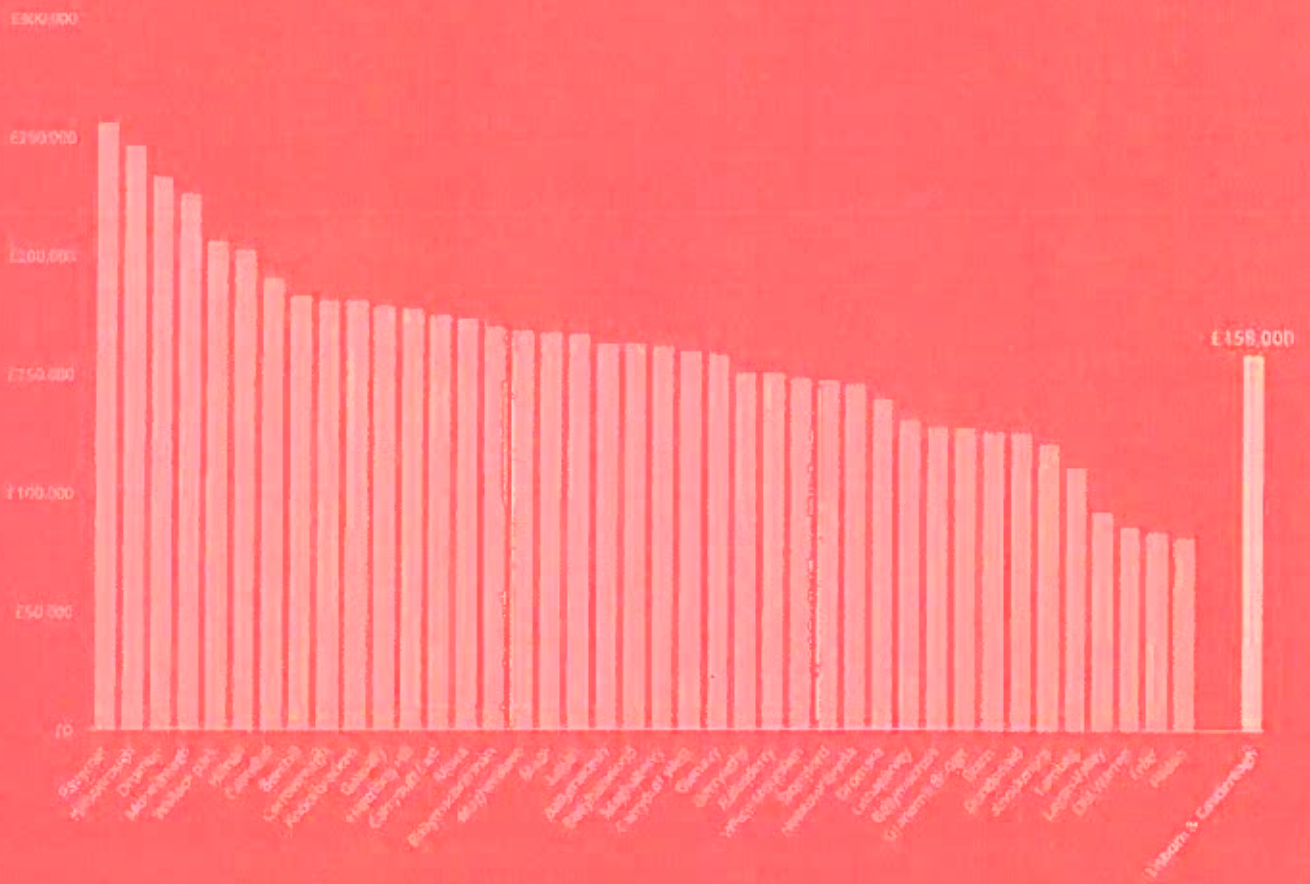
**RAVERNET**  
Property prices of:  
**£255,000**

**HILLSBOROUGH**  
Property prices of:  
**£245,000**

**DRUMBO**  
Property prices of:  
**£232,000**



Figure 5: House prices by micro-area in Lisburn & Castlereagh



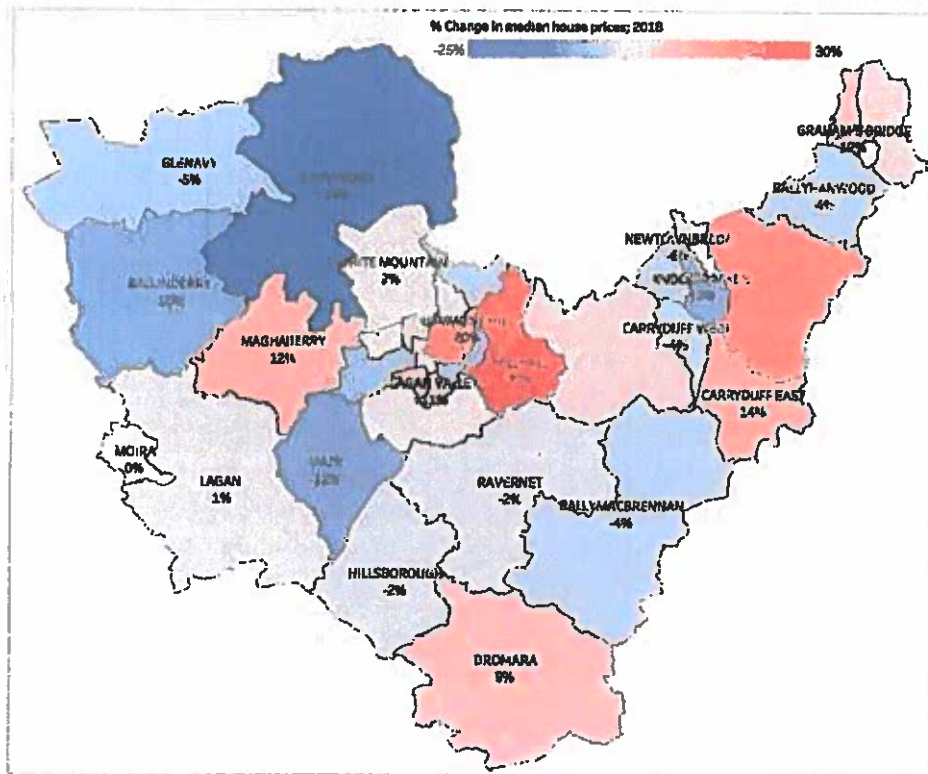
Source: PwC/MyHome

Of the 40 recorded micro-areas in LCC, 23 experienced growth in house prices over the last year, with 10 areas showing double digit levels of growth.



The 7 other micro-areas experiencing double digit levels of house price growth included; Moneyreagh, Harmony Hill, East Carryduff, Old Warren, Maghaberry, Graham's Bridge and Lagan Valley. In contrast, house prices fell at the fastest rate in Stonyford (-24%), Maze (-12%) and Ballinderry (-10%).

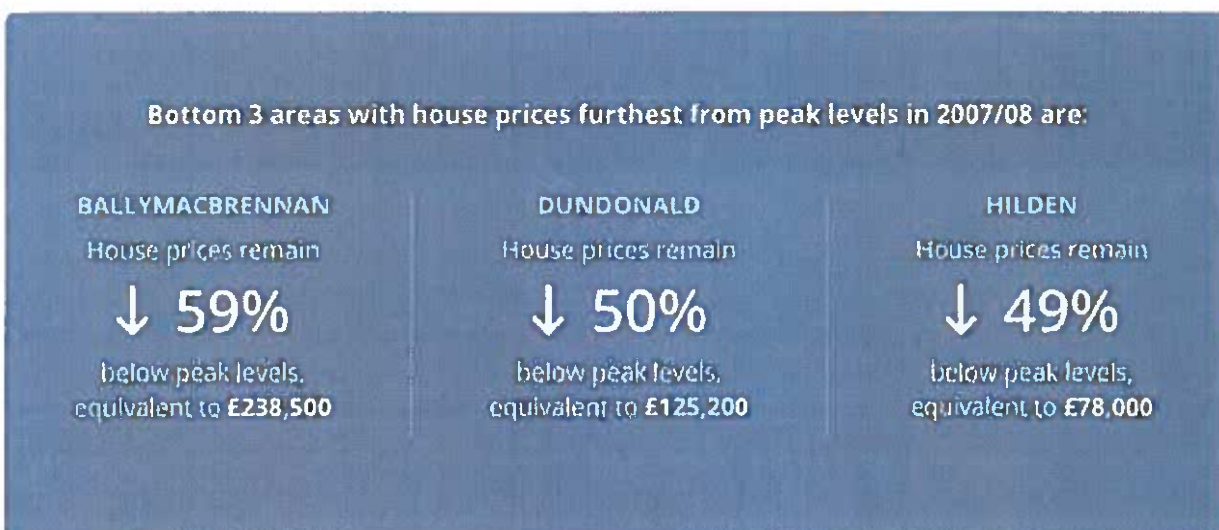
**Figure 6: House price growth by micro-area in Lisburn & Castlereagh; 2018**



Source: PropertyPal

Compared to peak levels in 2007, median house prices across all of N.Ireland remain approximately 29% below peak and equivalent levels in LCC.

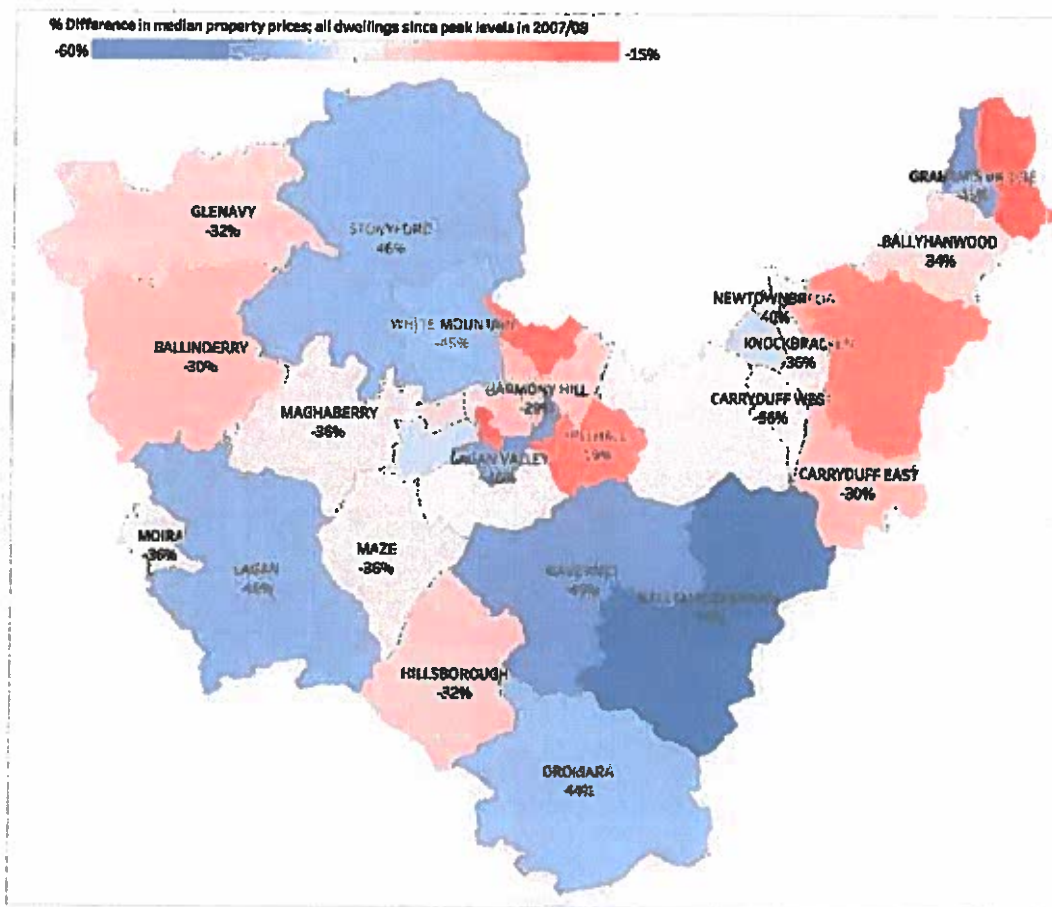
Given the nature of the property crash in 2007/08, all micro-areas with the exception of one in Mid & East Antrim has property prices lower than peak levels. As such, it is most likely that any homebuyer in mid-2007 period is likely to be in negative equity. Across all of LCC, house prices have recovered the most value in Carrowreagh whereas they remain most negatively impacted in the Ballymacbrennan area.



Source: PropertyPal



**Figure 7: % change in house prices since peak levels before financial crash; 2007/08-2018**



Source: PropertyPal

## House prices by property type

The micro-areas can be aggregated to match the wider Electoral Area (EA) boundaries to enable comparisons by type of home within the overall council boundary. Each EA is comprised of approximately 5 micro-areas with an average total of 8,500 homes.

Areas which are comprised of a higher proportion of detached homes tend to have higher property prices compared to areas with a larger makeup of terraced properties or apartments.

From a household structural perspective, the Downshire East EA is comprised of 66% detached homes, whilst semi-detached are most common in the South Castlereagh EA (48%). South Lisburn EA has the highest proportion of terrace homes (40%) and the largest share of apartments are in the North Lisburn (19%).

Figure 8: Breakdown of electoral areas in Lisburn & Castlereagh by property type: 2018



Source: Best & Property Services, NORA, PropertyData.ie

### DETACHED HOMES

Detached homes range in price from £255,500 in the South Castlereagh EA, to £165,000 in South Lisburn EA. However, of all micro-areas, detached properties are the most expensive in Knockbracken (£325,000) and most affordable in Hilden (£108,800).

### SEMI-DETACHED HOMES

Semi-detached homes range from £194,000 in the East Downshire EA to £125,000 in South Lisburn EA. However, of all micro-areas, semi-detached properties are the most expensive in Hillsborough (£287,900) and most affordable in Hilden (£79,100).

### TERRACE PROPERTIES

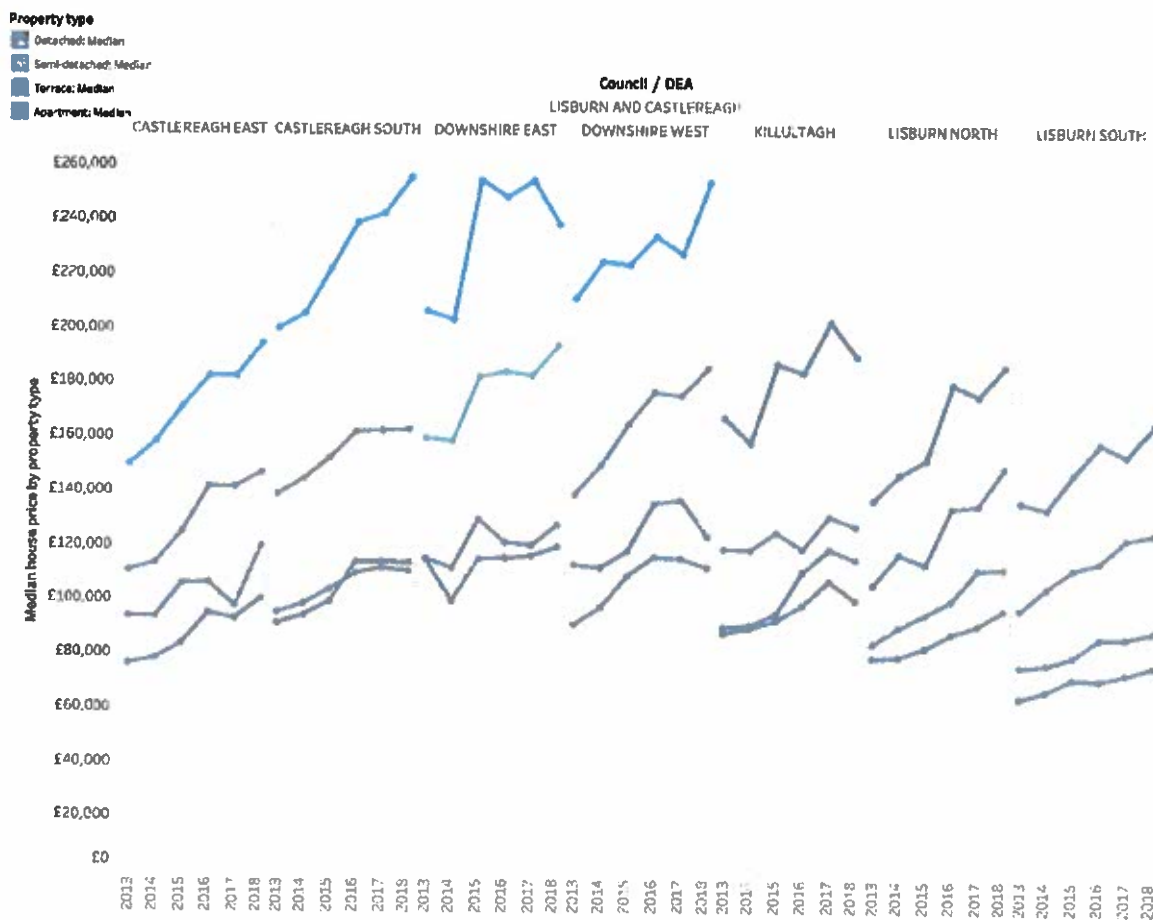
Terrace properties range from £123,000 in the West Downshire EA to £89,000 in South Lisburn EA. However, of all micro-areas, terrace properties are the most expensive in Moneyreagh (£177,600) and most affordable in Old Warren (£78,200).

### APARTMENTS

Apartments range from £127,000 in the East Downshire EA to £76,000 in South Lisburn EA. However, of all micro-areas, apartments are the most expensive in Ravernet (£163,000) and most affordable in Enler (£52,900).

(note; the full breakdown of house prices by type of home, across all micro-areas is provided in the table overview at the beginning of the report).

**Figure 9: House prices by property type in Lisburn & Castlereagh electoral areas; 2013-2018**



Source: PropertyPal









# Home sales activity in Lisburn & Castlereagh

Lisburn & Castlereagh was the 4th most popular council for home purchase in N.Ireland with approximately 2,400 properties sold last year.

## The most popular locations for home purchase:

CARROWREAGH

**179 sales**

with a median price of  
£180,000

WHITE MOUNTAIN

**105 sales**

with a median price of  
£148,000

BALLYMACROSS

**96 sales**

with a median price of  
£127,300

DERRYAGHY

**81 sales**

with a median price of  
£150,000

BLARIS

**76 sales**

with a median price of  
£125,000

## The least popular locations for home purchase:

STONYFORD

**17 sales**

with a median price of  
£147,000

BALLYMACBRENNAN

**18 sales**

with a median price of  
£169,000

RAVERNET

**29 sales**

With a median price of  
£255,000

ENLER

**30 sales**

with a median price of  
£85,800

LISNAGARVEY

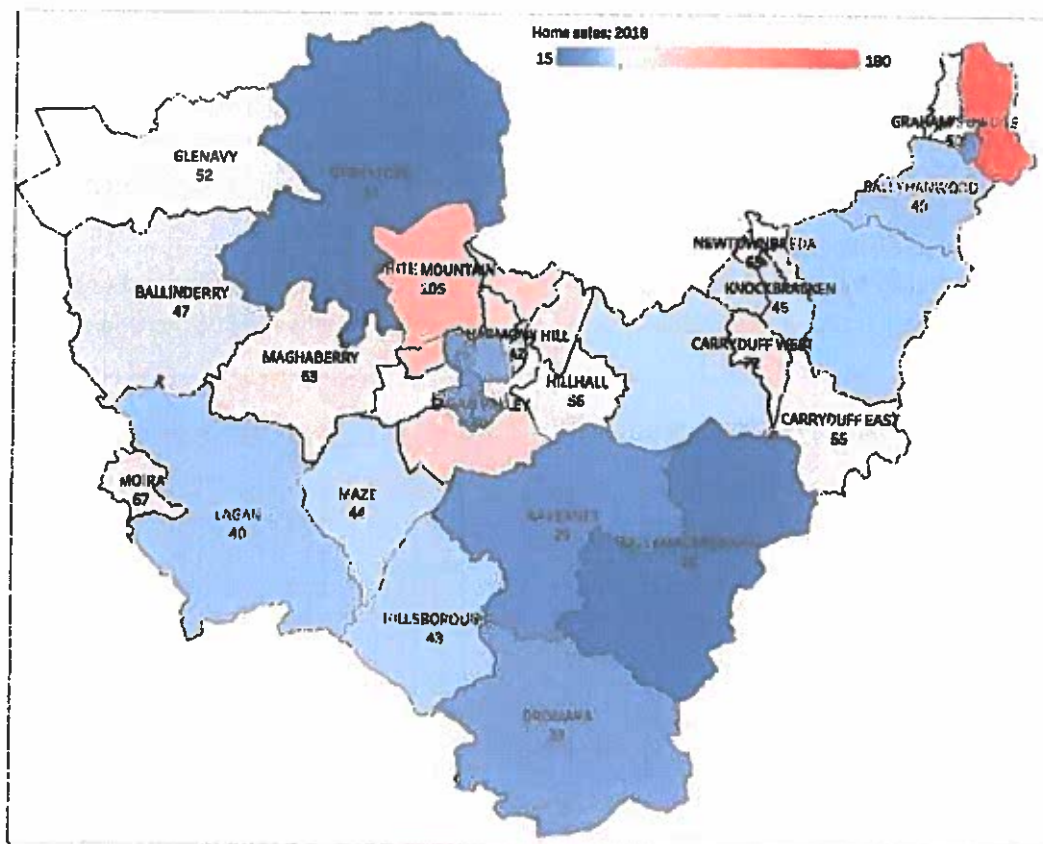
**30 sales**

with a median price of  
£130,300

Source: PropertyPal, NISRA

(note: the full breakdown of sales activity, across all 40 micro-areas is provided in the overview at the beginning of the report).

**Figure 11: Home sales by micro-area in Lisburn & Castlereagh; 2018**



Source: NISRA, PropertyPal

## Hotspot analysis

Carrowreagh was the most popular area to buy a home in Lisburn & Castlereagh and across all of N.Ireland last year. Taking a longer-term view, it is the second most popular location to buy a home since 2014. Indeed, there has been approximately 160 homes sold each year, almost three times the typical micro-area sales volumes in the LCC council area.

Interestingly Carrowreagh has only emerged as a hotspot for new buyers during the housing market recovery period. A decade ago it ranked in a mid range 200th position of all micro-areas.

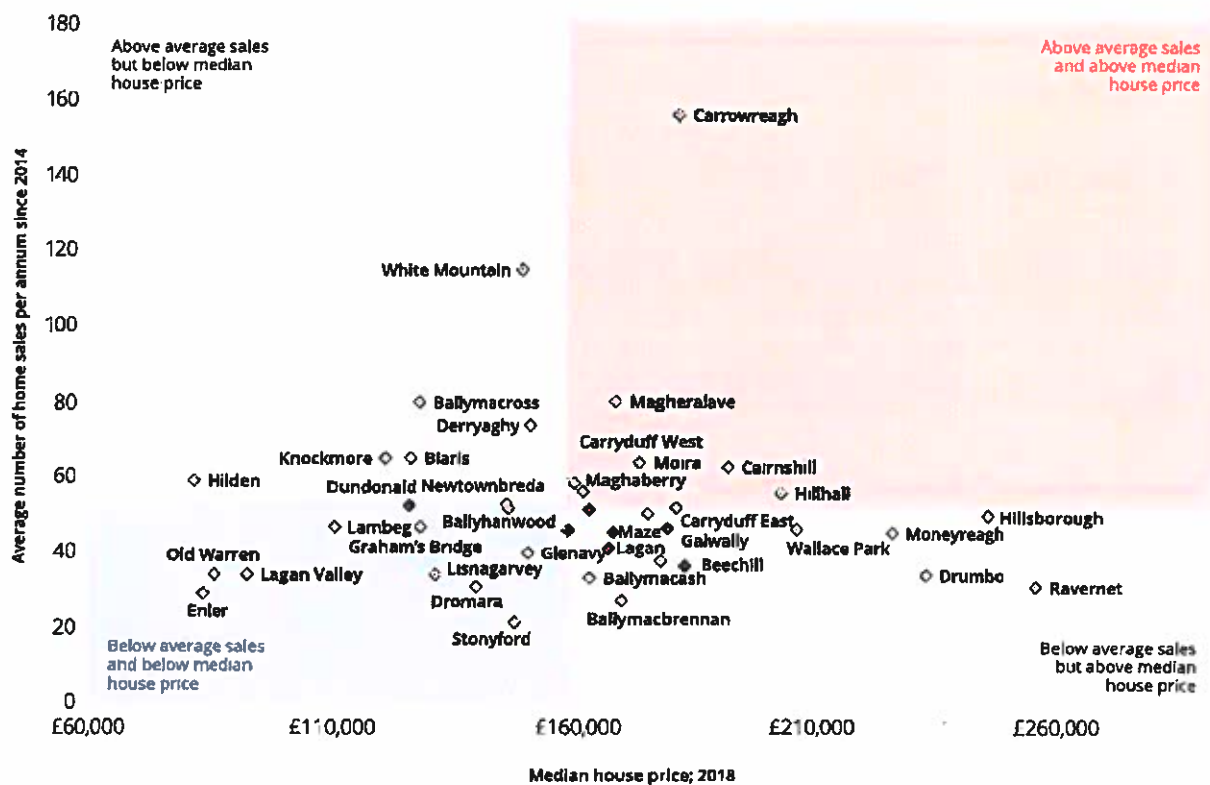
White Mountain was the next most popular area with approximately 115 sales per year, more than double the typical sales levels compared to neighbouring micro-areas. Similarly this

represented a jump in the country wide rank by 110 places compared to pre-crash activity. Magheralave was the third most popular area, driven by the emergence of a significant volume of new build activity, largely comprised of a range of 3-4 bedroom semi-detached /detached homes. Magheralave is particularly noteworthy as it has experienced the biggest improvement in ranked position of anywhere in the country, improving by 339 places.

In contrast, the lowest volume of sales were recorded in Stonyford and Ballymacbrennan micro-areas, typically selling between 15-20 homes per year.

The majority of the 'mid range' priced areas have typically sold between 40-60 properties each year.

Figure 12: Home sales (avg since 2014) vs. house prices; Lisburn & Castlereagh



Source: PropertyPal  
Note: Intersecting lines set at average sales and median price of all micro-areas

During the 2005-2007 period the property market was experiencing strong growth in prices driven by high demand for homes. However, whilst the market is in a significantly more sustainable position compared to pre-crash levels, there has been a noticeable shift in the most popular places to buy a home. By ranking all 40 micro-areas in LCC by their volume of sales during the two periods, 2005-2007 and 2014-2018, the emerging 'hotspots' can be identified relative to the previous point in time. For example, if area X,

was the top ranked micro-area for number of homes sold in the 2005-2007 period, but fell to the 10th ranked micro-area for sales in the 2014-2018 period, then it will have decreased by 10 ranked positions and reduced its popularity as a lower demand area to buy a home. In contrast, if area Y, was 10th ranked in 2005-2007 but 1st ranked in the period 2014-2018 it will have improved by 10 ranked positions and increased its popularity as a high demand area to buy a home.

#### The top 3 most Improved micro-areas in LCC are:

MAGHERALAVE

Improved by

↑ 34

ranked positions.

BLARIS

Improved by

↑ 16

ranked positions.

MAGHABERRY

Improved by

↑ 15

ranked positions.

#### The top 3 worst performing micro-areas in LCC are:

OLD WARREN

Decreased by

↓ 20

ranked positions.

BALLINDERRY

Decreased by

↓ 18

ranked positions.

GRAHAM'S BRIDGE

Decreased by

↓ 15

ranked positions.

Source: PropertyPal





# Affordability and incomes for homes in Lisburn & Castlereagh

There are two key elements when considering buying a property: the deposit contribution and how much you're eligible to borrow relative to your income.

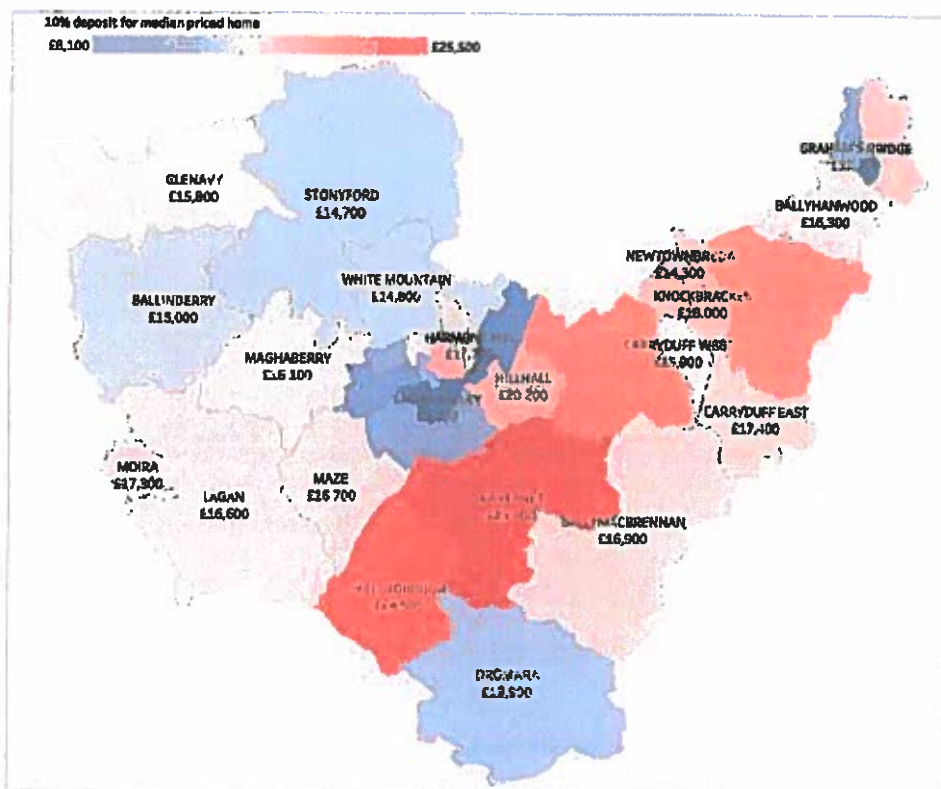
## The deposit contribution

The deposit contribution towards a home purchase is worked out as a percentage of the total value of the house. The recommended deposit is typically between 10% and 20% but some lenders offer mortgages with only a 5% deposit. It is beneficial to put down a larger deposit because the mortgage borrowings would be lower and subsequent monthly repayments. A larger deposit also lowers the loan to value

ratio of the property which can mean a lower rate of interest on the mortgage balance and lower monthly repayments.

In Lisburn & Castlereagh a 10% deposit for a median priced home is approximately £15,800. However, given the variation in home prices at the micro-area level this can vary from £25,500 in Ravernet compared to £8,100 in Hilden.

Figure 13: 10% deposit contribution for a median priced home in Lisburn & Castlereagh micro-areas



Source: PropertyPal

## The required salary/household income for home purchase

Following the financial crash in 2008, banks have adopted tighter lending practices aimed at protecting the financial system. These lending rules typically permit mortgages of around 3.5-4.0x applicants' income. For example; an individual earning £30,000 could borrow between £105,000-£120,000. Equally if two applicants each had a salary of £15,000, the combined household income would be £30,000 and meet the eligibility criteria for the same respective mortgage offer.

(Note: each lender conducts a detailed affordability assessment based on outgoings and total income. Some lenders offer mortgages using a higher income; loan ratio but using the most common 4x ratio is useful to give a gauge of affordability of properties in different areas.)

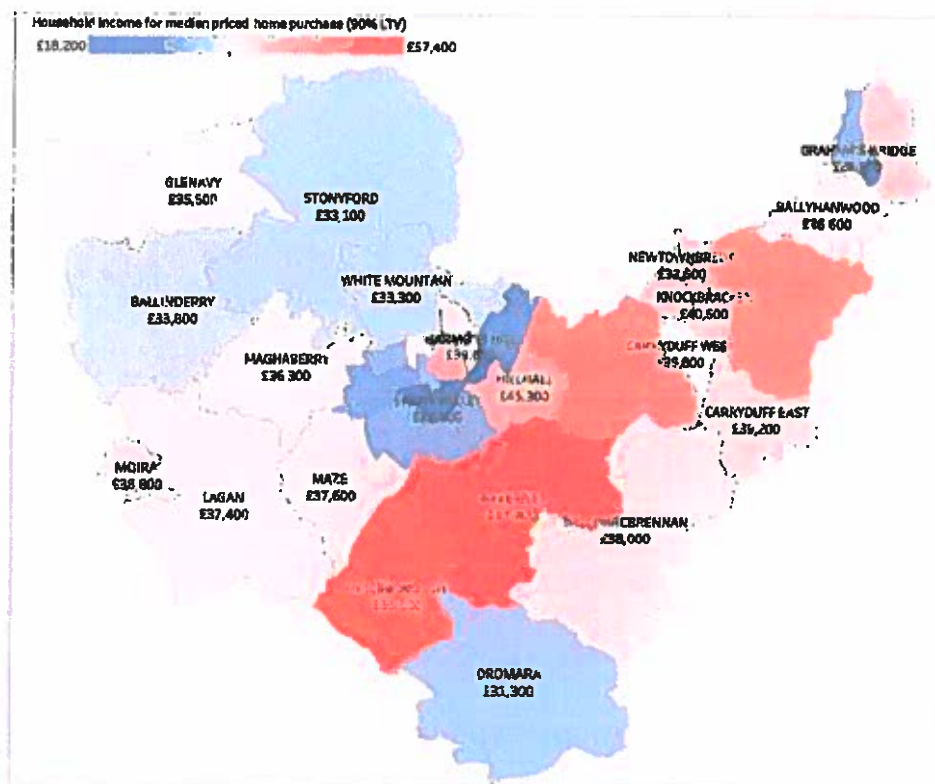
Using these lending rules and by deducting the deposit contribution from the property price,

the required salary (or combined joint salary if multiple applicants) to meet the eligibility criteria can be derived. Across all of Lisburn & Castlereagh a prospective homeowner would require a household income of approximately **£35,600** (based on a 4x lending multiple and a 10% deposit contribution).

In the most expensive areas; Ravernet, Hillsborough and Drumbo, the typical household income required would reach **£57,400**, **£55,100** and **£52,200** respectively.

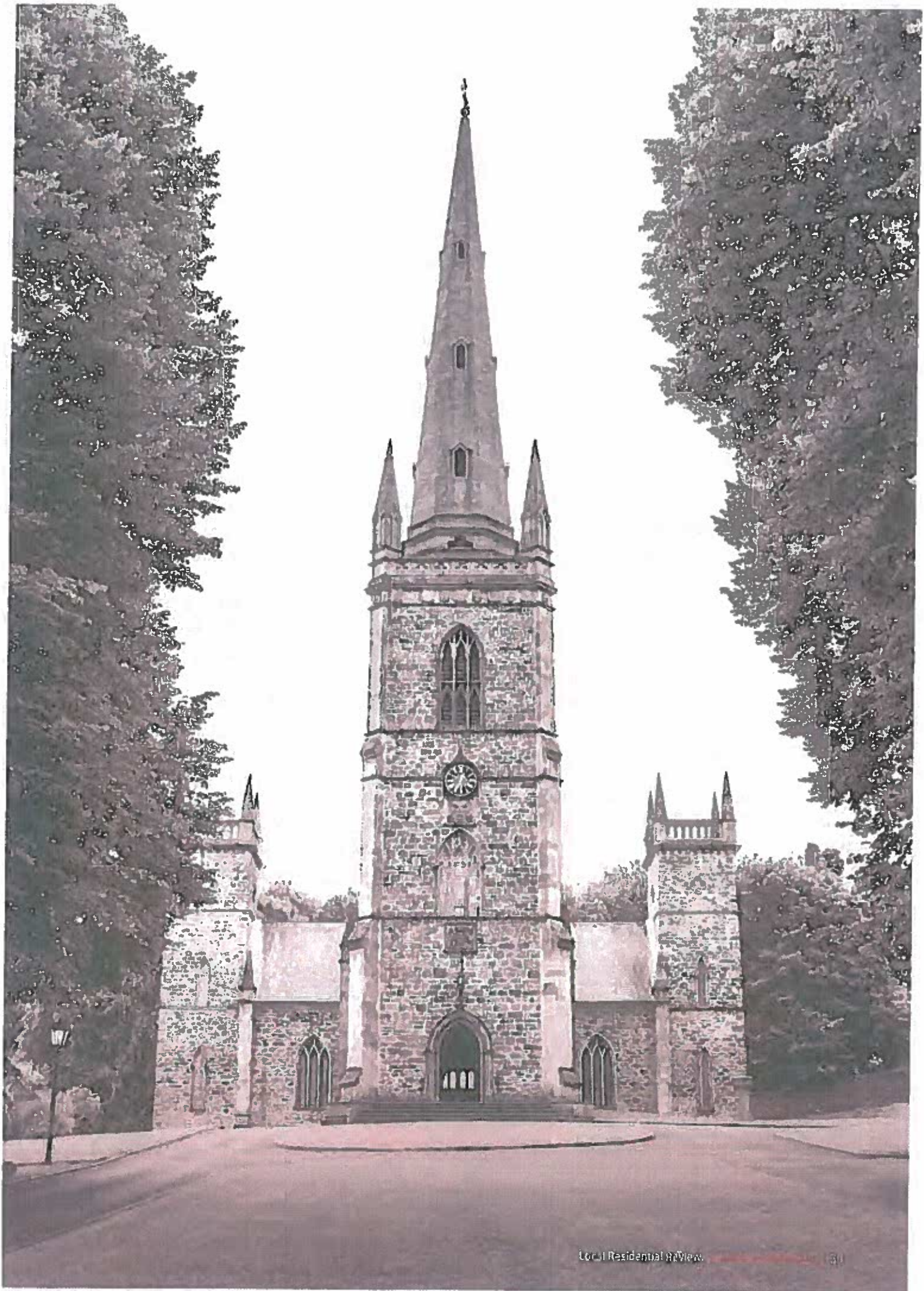
In contrast, the most affordable including; Hilden, Enler and Old Warren, would require a more modest household income ranging from **£18,200-£19,100**.

**Figure 14: Household income required for mortgage; Lisburn & Castlereagh micro-areas**



Source: PropertyPa  
Note: Based on mortgage balance of 90% of median home value by micro-area







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## The outlook for house prices

House price and sales information are an important barometer of consumer confidence and wider economic performance. House prices and market activity should continue to be determined by the economics, but sentiment cannot be overlooked.

The latest Royal Institute of Chartered Surveyors (RICS) UK Residential Survey suggest a largely downbeat picture of the wider UK housing market amid heightened economic uncertainty due to Brexit. The survey stated there is *“little departure from the subdued picture evident across the sales market for several months now. Forward-looking indicators suggest this lack of momentum is likely to continue for a while longer, although perceptions on the 12-month outlook are a little more sanguine.”*

Until a Brexit deal is secured, economic and political uncertainty will restrain buyer sentiment. The UK wide housing market will remain price sensitive and beyond that, depending on what deal is agreed, will have an impact on the path of interest rates and wage growth. Once interest rates begin to rise they will act as a drag on house price growth and increased mortgage regulation in the aftermath of the financial crash has restrained peoples ability to take on more debt relative to their household income.

Fortunately, from a N.Ireland perspective, there is a case for much higher levels of optimism. At face value the data shows that people in N.Ireland benefit from a more competitive market than

most other parts of the UK. The problem is the journey it took to get this point with thousands of homeowners forced to endure financial distress. Nonetheless, housing costs represent a large proportion of people’s outgoings and cheaper local housing is a genuine selling factor to appeal to retain graduates or returning workers who want to get on the housing ladder.

Looking forward, despite an increasingly uncertain economic environment, it is likely N.Ireland will continue to experience growth in house prices. Indeed, the RICS survey highlighted N.Ireland as being one of the only UK regions with the majority of respondents expecting continued growth.

The fundamental drivers remain encouraging. Ongoing affordability, pent up demand, a low

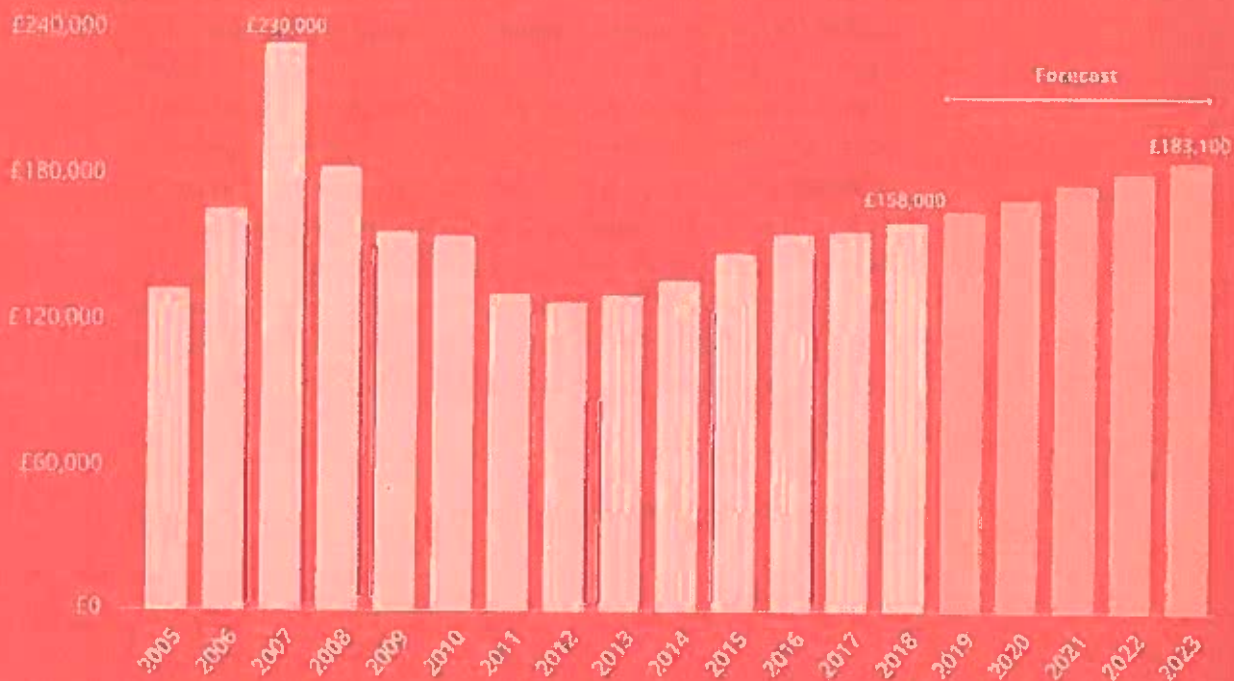
interest rate environment and an increasingly tight labour market with real wage growth should support house price growth in the coming years. Assuming a No Deal Brexit is avoided, the local housing market should continue in the upwards stage of the recovery.

At PropertyPal we forecast house price growth in Lisburn & Castlereagh of 2.7% this year, and prices to appreciate on average by 3.1% per annum until 2023. Under this forecast, property prices will increase by £25,100 with typical properties valued at over £183,000 by the end of the forecast period.

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***At PropertyPal we forecast house price growth in Lisburn & Castlereagh of 2.7% this year, and prices to appreciate on average by 3.1% per annum until 2023.***

Figure 15: PropertyPal's house price forecast for Lisburn & Castlereagh 2005-2023



Source: PropertyPal research and Economic Justice, August 2019  
 (Data: Revised residential property prices)

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## Contact details



Jordan Buchanan

### Chief Economist

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Jordan Buchanan is the Chief Economist at PropertyPal, acting as the spokesperson for the company and a trusted subject matter expert on all UK and Northern Ireland economic and housing matters.

Jordan is an experienced economist and research professional and has published extensive analytical research on key issues affecting the UK and NI economies. His recent work includes research on Brexit and other macro-economic risks, the labour market and the housing sector. Jordan is skilled in economic modelling and alongside colleagues in the University of Cambridge, has developed a macro-economic forecasting model of the UK economy and a gravity trade model to estimate the economic impact of Brexit. Jordan has also developed economic forecasting models to understand future growth patterns in Northern Ireland. Jordan lectured in Economics in the Ulster Business School and is a regular commentator across a range of media outlets.

### Contact Jordan

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## PropertyPal

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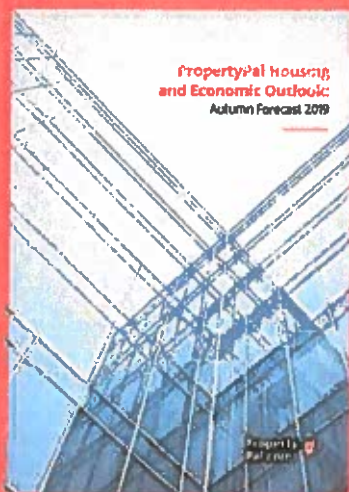
### Acknowledgements

The statistics are based on property sales recorded by HMRC. Under statute all property transactions must be notified to HMRC for Stamp Duty purposes, excepting a small number of transfers which are exempt from duty (e.g. property transfer due to probate, divorce etc). All micro-area local data is compiled using median property price information in conjunction with NISRA and PropertyPal analysis and research. PropertyPal wish to extend their gratitude to staff in NISRA for their support.



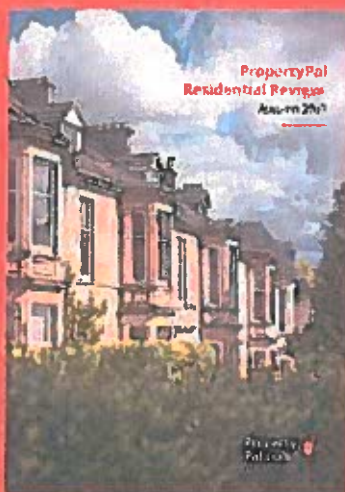
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## Other publications in this series



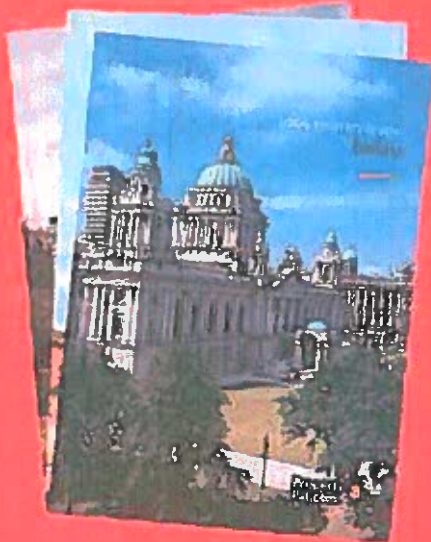
### **PropertyPal Housing and Economic Outlook: Autumn Forecast 2019**

PropertyPal's Housing and Economic Outlook offers economic analysis and informative guidance to some of the biggest issues facing the global, national and local economies. Our suite of economic models for both the United Kingdom and N.Ireland provide forecasts of key economic indicators including GDP, sectoral employment, wages and house prices. The macro-model of the UK economy is regularly updated and equipped to operate scenario analysis based on different macro-economic arrangements.



### **PropertyPal Residential Review: Autumn 2019**

PropertyPal's Residential Review offers data-driven economic analysis on the current performance of N.Ireland's residential property market, as well as detailed forecasts and outlooks on its future from our suite of economic forecasting models. This is the first report of its kind in Northern Ireland and, by having a comprehensive, local dimension, this not only adds significant value to the general public, but will help inform all stakeholders with an interest in the local property market including: estate agents, developers, property professionals, lenders, insurers, policy makers/researchers and the media.



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Following on from the Residential Review, PropertyPal have developed bespoke overviews of the residential property market for each of the 11 council boundaries in N.Ireland.

These include detailed, localised analysis of house prices by property styles, transactions activity, affordability and the outlook for prices in the area.

- Antrim & Newtownabbey
- Ards & North Down
- Armagh, Banbridge & Craigavon
- Belfast
- Causeway Coast & Glens
- Derry & Strabane
- Fermanagh & Omagh
- Lishurn & Castlereagh
- Mid & East Antrim
- Mid Ulster
- Newry, Mourne & Down

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## Appendix 7: Site Location Plan



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 Site Boundary



**PROJECT**

Moneyreagh

**DRAWING**

Site location plan

PROJECT NO. STATUS  
 GRAB3002 Final

DRAWING NO. SCALE  
 10\_ 1:2,500 @ A3

REVISION DATE CHECKED BY  
 01 January 2020 BF





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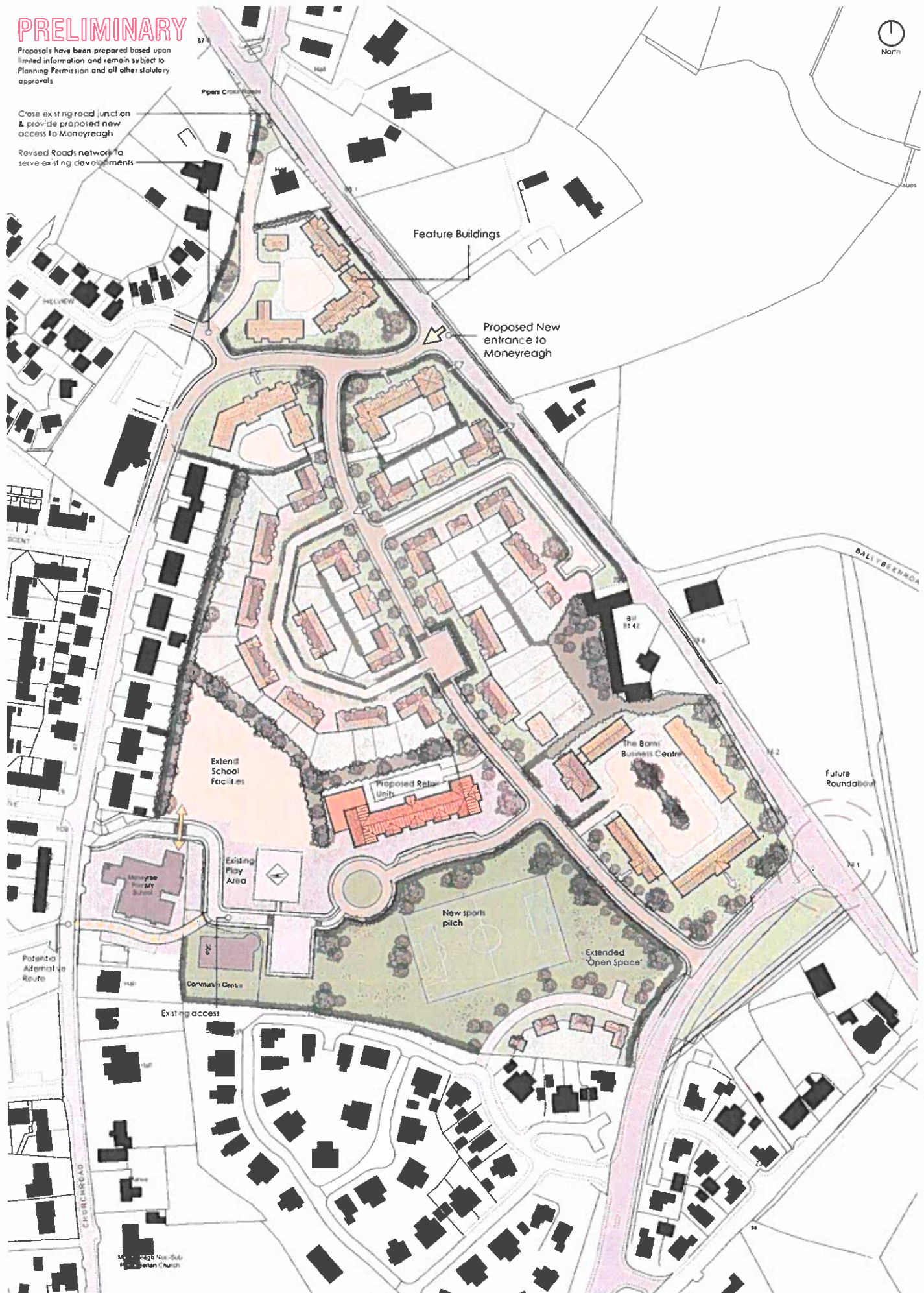
## Appendix 8: Concept Layout Plan

# PRELIMINARY

Proposals have been prepared based upon limited information and remain subject to Planning Permission and all other statutory approvals

Close existing road junction & provide proposed new access to Moneyreagh

Revised Roads network to serve existing developments



## LANDS AT HILLSBOROUGH ROAD, MONEYREAGH

## ILLUSTRATIVE CONCEPT LAYOUT

John Patterson Design LLP  
www.jpd.co.uk

Drawn: BS  
Date: Jan 2020  
Scale: 1:1250  
Ref: 3052-050-03-001

---

## Appendix 9: Site Access Appraisal

# Technical Note 01

Project: Hillsborough Road, Moneyreagh

Job No: 19-198

Subject: Site Access Appraisal

Prep:

Date: 11/12/2019

Checked by:

Date: 16/12/2019

Approved by:

Date: 08/01/2020

## Introduction

Kevin McShane Ltd has been commissioned to provide transport consultancy services in relation to the potential development of lands located off Hillsborough Road, Moneyreagh. The site location is shown in Figure 1.

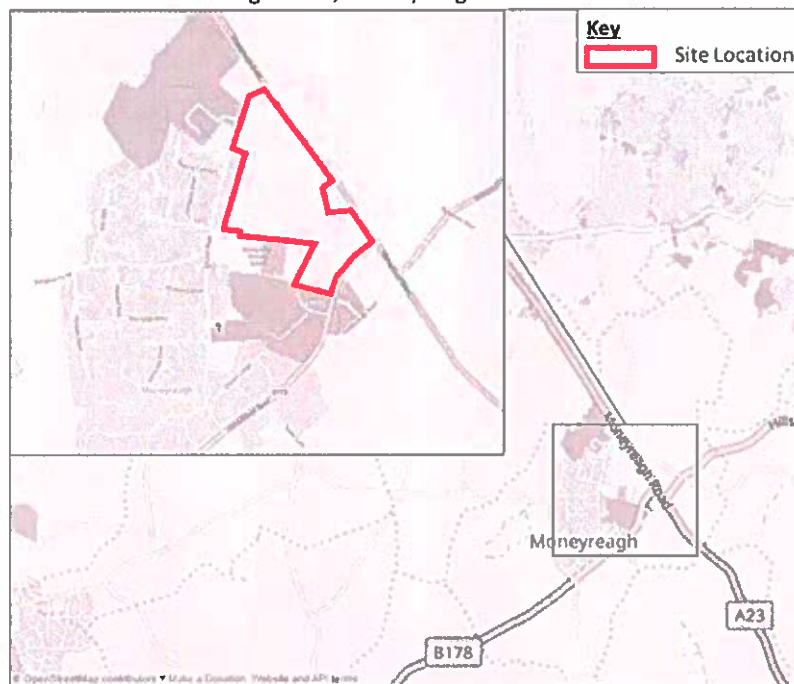


Figure 1 - Site Location

The draft development proposals will seek to provide a mixed-use development to provide approximately 120 residential dwellings and approximately 2,500m<sup>2</sup> GFA business units and community/ retail facilities. An indicative layout of the site concept masterplan is provided at **Appendix A**.

## Contents of this Technical Note

This Note presents a review of visibility splay requirements and the operational performance of the proposed site accesses. To facilitate this assessment, the visibility splay requirements have been considered in line with Development Control Advice Note (DCAN) 15 – Vehicle Access Standards and JUNCTIONS 8 PICADY models have been constructed to assess the site accesses operational performance under various scenarios. The remainder of this Technical Note (TN) presents the following information:

- Proposed Access Overview;
- Review of Visibility Requirements;
- Junction Capacity Assessments; and
- Junction Design Considerations.

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# Technical Note 01

## Proposed Access Overview

### Proposed Site

The development proposes to access the site at three locations:

1. Proposed right-turn lane junction via A23 Moneyreagh Road;
2. New site through road via realigned Church Road;
3. Proposed one-way entrance access junction via Church Road; and
4. Proposed right-turn lane junction via B178 Hillsborough Road.

The proposed access locations are highlighted in Figure 2. Please note this layout is still at the concept design stage and exact junction locations are to be confirmed.

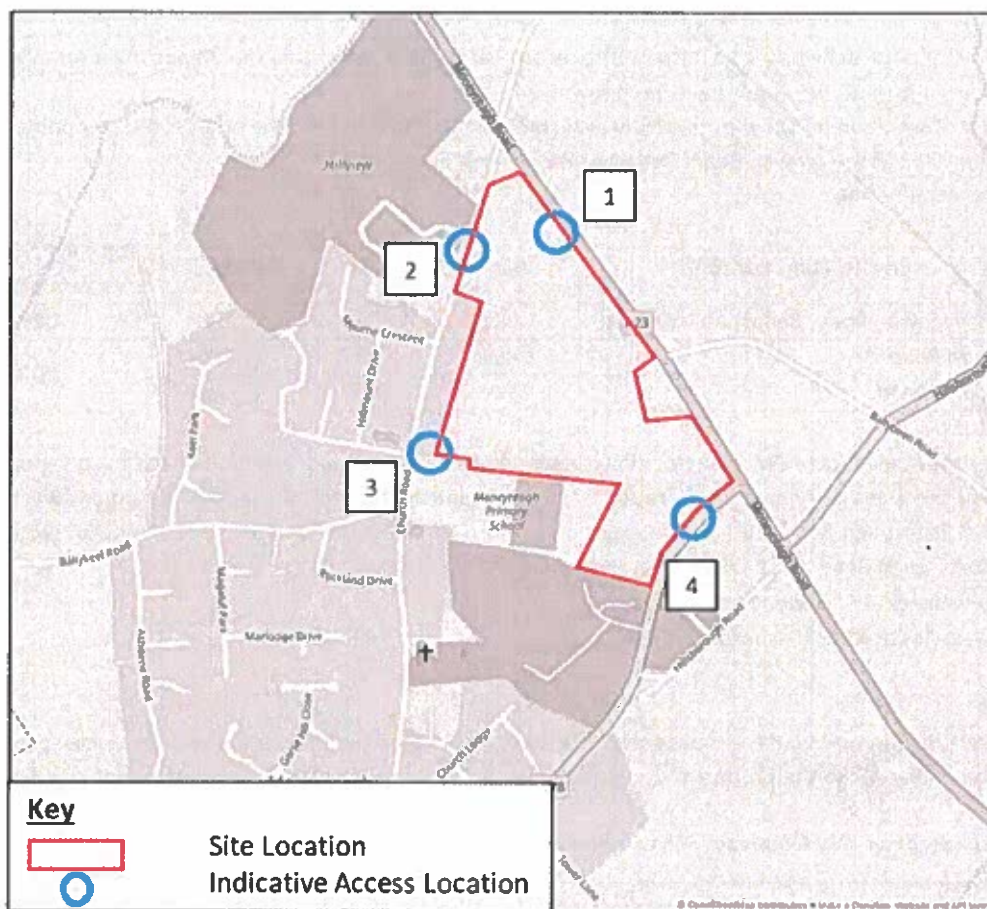


Figure 2 - Indicative Access Locations

### Existing Traffic

To understand the existing daily traffic flows in the vicinity of the site accesses road traffic surveys were undertaken at the following locations:

- A23 Moneyreagh Road/ Church Road/ Lisleen Road South;
- A23 Moneyreagh Road/ B178 Hillsborough Road (South); and
- A23 Moneyreagh Road/ B178 Hillsborough Road (North).

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## Technical Note 01

To inform a review of the proposed site accesses from A23 Moneyreagh Road and B178 Hillsborough Road, the visibility splay requirements and operational performance of the junctions has been assessed.

The junction turning count survey results of the A23 Moneyreagh Road and B178 Hillsborough Road for the AM and PM peak hour at each junction are shown in Table 1.

Table 1 - AM and PM Peak Hour Traffic Flows

Link	AM Peak	PM Peak
A23 Moneyreagh Road (Eastbound)	329	1,172
A23 Moneyreagh Road (Westbound)	1,135	315
<b>A23 Moneyreagh Road Two-Way Flow</b>	<b>1,464</b>	<b>1,487</b>
B178 Hillsborough Road (Northbound)	274	236
B178 Hillsborough Road (Southbound)	396	321
<b>B178 Hillsborough Road Two-Way Flow</b>	<b>670</b>	<b>557</b>

In order to understand the daily traffic flow the traffic census points provided within the 'Department for Infrastructure – Traffic and Travel Information Report' have been reviewed.

The census point information for the most recently available time period (2015) of the nearest counter point site to the development site [CP:218 Ballygowan Road, Belfast at Roselawn] is presented in Table 2.

Table 2 - Review of Census Points

2015 CP No.	Census Point Location	AM	PM	AADT	Total AM/ PM Peak as a % of AADT
218	Ballygowan Road, Belfast at Roselawn	1,080	1,220	11,490	20%
<i>A23 Moneyreagh Road</i>		<i>1,464</i>	<i>1,487</i>	<i>14,755</i>	20%
<i>B178 Hillsborough Road</i>		<i>670</i>	<i>557</i>	<i>6,135</i>	

Table 2 indicates that the AM and PM peak hour flows experienced at the nearest census point to the development site equate to 20% of the Average Annual Daily Traffic (AADT). It is anticipated that the traffic flows on A23 Moneyreagh Road and B178 Hillsborough Road are likely to experience a similar traffic profile, therefore the daily two-way traffic flow on A23 Moneyreagh Road and B178 Hillsborough Road are anticipated to be approximately:

- 14,755 vehicles at A23 Moneyreagh Road; and
- 6,135 vehicles at B178 Hillsborough Road.

### Existing Speeds

In addition to the junction turn count, a radar speedometer was also used to obtain free flowing vehicle speeds on A23 Moneyreagh Road adjacent to the proposed site access. The 85<sup>th</sup> percentile speeds in each direction are presented in Table 3.

Table 3 - Recorded Speeds on A23 Moneyreagh Road, adjacent to proposed site access

Scenario	Traffic Speed (NB) kph	Traffic Speed (SB) kph
85 <sup>th</sup> Percentile Speed (kph)	76	80

Table 3 shows the 85<sup>th</sup> percentile road speeds on A23 Moneyreagh Road adjacent to the site access were:

- 76kph Northbound; and
- 80kph Southbound.

A full breakdown of the speed survey results is provided at **Appendix B**.

Due to the proximity of the proposed site access on B178 Hillsborough Road to the B178 Hillsborough Road/ A23 Moneyreagh Road junction traffic may slow on approach to the junction. Therefore, in order to provide a robust assessment of the visibility requirements the design speed of the road (National Speed Limit 40mph/ 64kph) will be assessed.

## Technical Note 01

### Review of Site Access Visibility Splays

#### Visibility Requirement (DCAN 15)

We have considered the visibility requirements of the site access as recommended in the Development Control Advice Note (DCAN15) – Vehicle Access Standards.

Planning Policy Statement 3 'Development Control Roads Considerations' policy AMP 2 states that DCAN15 sets out the Department for Infrastructure Roads (DfI Roads) current standards for sightlines, radii, gradient etc. that will be applied to both new access and intensified use of and existing vehicle access onto existing public roads. DCAN15 also includes guidance/ advice to developers on the specification of access arrangements into new developments joining the public road.

#### DCAN15 Visibility Splays

The visibility splays required for priority junctions consist of two components; a 'X' and a 'Y' parameter as shown in Figure 3, further details on which are specified in DCAN15.

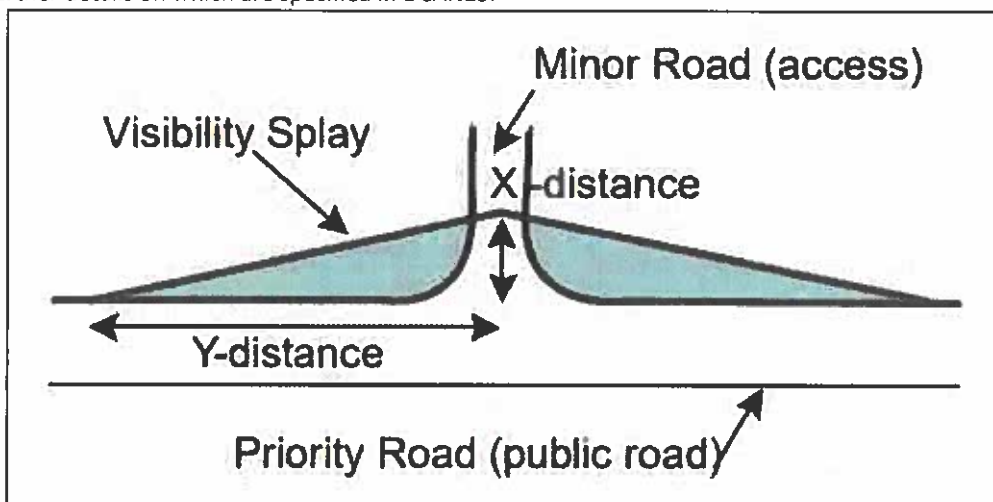


Figure 3 - DCAN15 Access Visibility Standards

The specification of these parameters is influenced by the volumes of traffic that utilise the access junction (minor arm) and the speed/ volume of vehicles on the priority road (major arm).

#### X-Distance

The TRICS database has been interrogated to establish the anticipated volume of trips expected to access the site when operational for the AM and PM peak hours. Based on the proposed development mix of 120 private residential dwelling and 2,500m<sup>2</sup> Gross Floor Area (GFA) Business Park, the proposed site anticipated AM and PM peak hour vehicle trips are provided in Table 4.

Table 4 - Proposed Development AM and PM Peak Hour Vehicle Trips

Land Use	Peak	No. of Units/ GFA	Arrivals	Departures
Residential	AM	120	17	90
	PM		71	32
Business Park/ Retail/ Community	AM	2,500	47	7
	PM		5	52
<b>Whole Site</b>			<b>63</b>	<b>97</b>
			<b>77</b>	<b>84</b>

## Technical Note 01

Table 4 illustrates that the proposed development layout has the potential to generate 160 two-way vehicle trips (63 arrivals and 97 departures) during the AM peak hour and 161 two-way vehicle trips (77 arrivals and 84 departures) during the PM peak hour.

In order to demonstrate a robust assessment of the proposed development site access arrangements the visibility splays for the accesses have been assessed as though each access will serve 50% of the traffic generated by the whole development.

Accordingly, the X-Distance criteria of a visibility splay is outlined in 'DCAN15 Table A', as reproduced in Figure 4.

Type of Access	X-distance
Access with traffic flow up to 60vpd	The minimum x-distance is normally 2.4m. Where traffic speeds on the priority road are below 60 kph (37 mph), the minimum x- distance is 2.0m. On other roads the x-distance may be reduced to 2.0m only where danger is unlikely to be caused
Access with traffic flow between 60 & 1000 vpd	The minimum x-distance is normally 4.5m. It may be reduced to 2.4m, but only if traffic speeds on the priority road are below 60 kph (37mph) and danger is unlikely to be caused.
Access with traffic flow over 1000 vpd	The desirable minimum x-distance is 6.0m. It may be reduced to 4.5m, but only where danger is unlikely to be caused. In this case developers may be required to demonstrate the adequacy of the access capacity using junction analysis techniques

Figure 4 - DCAN15 Table A - 'X' Distance

Figure 4 illustrates the representative X-distance for each scenario. With reference to Table 4 the site access is anticipated to generate between 60 and 1000 vehicles per day (vpd) at each access. Therefore, the required minimum X-distance is normally 4.5m, this may be reduced to 2.4m where vehicle speeds are below 60kph.

As previously discussed, the traffic speeds on B178 Hillsborough Road and A23 Moneyreagh Road have been determined using vehicle speed surveys and road design speeds.

Therefore, the minimum required 'X' distance for both proposed site accesses is 4.5m.

### Y-Distance

To determine the 'Y' distance applicable to the site access the following characteristics are considered:

1. Minor arm access flows = between 60 & 1000 vpd;
2. Priority road daily flow =
  - a. 14,755 vehicles at A23 Moneyreagh Road; and
  - b. 6,135 vehicles at B178 Hillsborough Road.
3. Priority road vehicle speeds =
  - a. 76kph Northbound;
  - b. 80kph Southbound A23 Moneyreagh Road; and
  - c. 64kph at B178 Hillsborough Road.

Th Y-distance criteria is set out in DCAN 15 Table B, as illustrated in Figure 5.



## Technical Note 01

Type of Access	Traffic Speed on the Priority Road kph (mph)							
	120 (75)	100 (62)	85 (53)	70 (44)	60 (37)	50 (31)	40 (25)	30 (19)
Access other than those listed below	295 [215]	215 [160]	160 [120]	120 [90]	90 [70]	70 [45]	45 [33]	33
Access flow up to 60 vpd onto priority road > 3000 vpd	215	160	120	90	70	60	45	33
Access flow up to 60 vpd onto priority road < 3000 vpd	215 [160]	160 [120]	120 [90]	90 [70]	70 [45]	60 [33]	45 [33]	33

Figure 5 - DCAN15 Table B - 'Y' Distance

Figure 5 shows that using the vehicle speeds and the existing traffic information of the road network and proposed development trip generations it can be determined that:

- The proposed A23 Moneyreagh Road site access will be required to provide visibility 'Y' distances between 120 and 160 metres; and
- The proposed B178 Hillsborough Road site access will be required to provide visibility 'Y' distances between 90 and 120 metres.

### Required Visibility Splays

Based on the assessment and visibility parameters set out above, the following visibilities are required:

- 4.5m x 136.0m at A23 Moneyreagh Road proposed access to the south (for Northbound traffic);
- 4.5m x 146.7m at A23 Moneyreagh Road proposed access to the north (for Southbound traffic); and
- 4.5m x 102.0m at B178 Hillsborough Road proposed access.

## Technical Note 01

### Junction Capacity Review

This note also presents the junction capacity analysis of the proposed site access junctions to understand the performance of the junctions once the development is in place. The junction modelling assessment has been undertaken in accordance with the Transport Assessment Guidelines and WebTAG.

This section of the note will set out the following information:

- Traffic Data;
- Base Model Validation;
- Proposed Development Trips;
- Junction Capacity Assessment; and
- Conclusions

#### Traffic Data

Junction turn count surveys were undertaken during the AM peak period (07:30-09:30) and PM peak period (16:30-18:30) on Thursday 12<sup>th</sup> December 2019. The following junctions were surveyed:

- A23 Moneyreagh Road/ Church Road/ Lisleen Road South;
- A23 Moneyreagh Road/ B178 Hillsborough Road (South); and
- A23 Moneyreagh Road/ B178 Hillsborough Road (North).

In order to establish the peak hour periods, the total traffic flows through the junctions are summed over every 15-minute period, before then being expressed as total traffic flows on the network over hourly periods.

The results of the junction turn count surveys for the AM and PM peak hours is presented in Table 5.

*Table 5 - AM and PM Peak Hour Traffic Flows (PCU)*

Location	A23 Moneyreagh Road/ Church Road/ Lisleen Road (S)	A23 Moneyreagh Road/ B178 Hillsborough Road (S)	A23 Moneyreagh Road/ B178 Hillsborough Road (N)	Total
Surveyor	Kevin McShane Ltd			
Date	12/12/2019			
07:30	409	457	393	1259
07:45	477	491	414	1382
08:00	452	443	384	1279
08:15	363	421	371	1155
16:45	402	388	337	1127
17:00	422	372	328	1122
17:15	451	405	340	1196
17:30	431	380	344	1155

As shown in Table 5, the following Peak Hours were identified:

- AM Peak Hour – 07:30 to 08:30; and
- PM Peak Hour – 16:45 to 17:45.

A traffic flow diagram showing the existing traffic flows for the AM and PM Peak Hours are included within **Appendix C**.

#### PCU Conversion

The operational assessments for the proposed junctions have been carried out using the junction modelling application JUNCTIONS 8 (PICADY module). JUNCTIONS 8 requires traffic flow data to be coded into the model as PCUs (Passenger Carrying Units), therefore the traffic counts from the surveys have been converted from vehicles to PCUs.

## Technical Note 01

Table 6 provides details on the PCU conversion factors which were used for this assessment in accordance with WebTAG Unit M3.1.

*Table 6 - Vehicle to PCU Conversion*

Vehicle Type	PCU Factor
Light Vehicle	1.0
Heavy Vehicle	2.0

### Proposed Junction Geometry

The proposed site access junctions have been assessed using the modelling programme JUNCTIONS 8 PICADY module. The main inputs for PICADY are set out below:

- Geometric Data; and
- Traffic Flows.

The geometric data required for the PICADY module has been determined to reflect a robust assessment of the proposed site accesses. Therefore, the junction geometries of the A23 Moneyreagh Road and B178 Hillsborough Road proposed site accesses are based on fully compliant design standards.

Table 7 and Table 8 illustrate the geometries applied in the junction assessments.

*Table 7 - JUNCTIONS 8 PICADY Geometric Design Data - A23 Moneyreagh Road Access*

Major Arm Geometries – A23 Moneyreagh road	Units	Input
Width of Carriageway	m	6.00
Width of Kerbed Central reserve	m	N/A
Visibility along A for C-B traffic	m	130.00
C-B traffic blocks C-A traffic	Y/N	Y
Width of right-turn lane/bay	m	3.00
Max. No. of right turners queuing before blocking occurs	PCU	6.00
Minor Arm Geometries – Site Access	Units	Input
Visibility to the left	m	80.00
Visibility to the right	m	250.00
Minor Arm Type	1 lane + Flare	
Lane width at Give-way	m	10.00
Lane width at 5m	m	4.50
Lane width at 10m	m	3.00
Lane width at 15m	m	3.00
Lane width at 20m	m	3.00
Used estimated flare length	Y/N	Y
Flare Length	PCU	N/A

## Technical Note 01

Table 8 - JUNCTIONS 8 PICADY Geometric Design Data – B178 Hillsborough Road Access

<b>Major Arm Geometries – B178 Hillsborough road</b>		<b>Units</b>	<b>Input</b>
Width of Carriageway		m	6.00
Width of Kerbed Central reserve		m	N/A
Visibility along A for C-B traffic		m	116.00
C-B traffic blocks C-A traffic		Y/N	Y
Width of right-turn lane/bay		m	3.00
Max. No. of right turners queuing before blocking occurs		PCU	5.00
<b>Minor Arm Geometries – Site Access</b>		<b>Units</b>	<b>Input</b>
Visibility to the left		m	67.00
Visibility to the right		m	200.00
Minor Arm Type	1 lane + Flare		
Lane width at Give-way		m	10.00
Lane width at 5m		m	4.50
Lane width at 10m		m	3.00
Lane width at 15m		m	3.00
Lane width at 20m		m	3.00
Used estimated flare length		Y/N	Y
Flare Length		PCU	N/A

### Proposed Development Trips

The latest version of the TRICS database has been interrogated to derive representative peak hour trip rates for the land uses associated with the development proposals.

The TRICS outputs are summarised in Table 9.

Table 9 - Proposed Development Trips

Land Use	Peak	No. of Units/ GFA	Trip Rate		Generated Trips	
			Arrivals	Departures	Arrivals	Departures
Residential	AM	120	0.138	0.754	17	90
	PM		0.595	0.266	71	32
Business Park/ Retail/ Community	AM	2,500	1.867	0.267	47	7
	PM		0.205	2.091	5	52
<b>Whole Site</b>					<b>63</b>	<b>97</b>
					<b>77</b>	<b>84</b>

As shown in Table 9, the proposed development has the potential to generate:

- 160 two-way vehicle trips (63 arrivals and 97 departures) during the AM peak hour; and
- 161 two-way vehicle trips (77 arrivals and 84 departures) during the PM peak hour.

### Trip Distribution

The proposed development trips have been distributed through the proposed site accesses on A23 Moneyreagh Road and B178 Hillsborough Road using a robust assumption of a 50/50 split of development flows.

The development trips have then been distributed through the local road network on the basis that 70% of traffic at the site will travel to/ from Belfast and 30% will travel to/ from Ballygowan/ Moneyreagh.

### Junction Capacity Assessment

Surveyed traffic data has been forecasted to an anticipated opening year 2022 and a future year of 2037 using NRTF high growth. High growth is considered to represent a robust assessment of the proposed site access arrangements.

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## Technical Note 01

The following assessment scenarios have then been considered, as outlined in Table 10.

*Table 10 - Modelled Assessment Scenarios*

Scenario	Traffic Flow
2022 Base +Development	Surveyed Traffic Flows X NRTF High Growth Factors + Proposed Development Traffic
2037 Base +Development	Surveyed Traffic Flows X NRTF High Growth Factors + Proposed Development Traffic

Traffic flow diagrams for the opening and future year with development traffic for the AM and PM peak periods are provided at **Appendix C**.

When assessing junction performance Ratio of Flow to Capacity (RFC) values generally donate the following:

- RFC below 0.85 are considered to be operating below capacity;
- RFC between 0.85 and 1.0 demonstrate that the junction is operating at capacity; and
- RFC values above 1.0 indicate that the junction is operating over capacity.

The operational junction capacity results for the proposed site accesses via A23 Moneyreagh Road and B178 Hillsborough Road are summarised in Tables 11,12,13 and 14

*Table 11 - Summary A23 Moneyreagh Road/ Site Access Junction - AM Peak Model Outputs*

Junction Approach	Weekday AM Peak			
	Max RFC		MAX Queue	
	2022 B+D	2037 B+D	2022 B+D	2037 B+D
Stream B-C	0.09	0.11	0.11	0.14
Stream B-A	0.09	0.15	0.11	0.19
Stream C-AB	0.07	0.08	0.08	0.10

Stream B-C – Left Turn out from site to A23 Moneyreagh Road

Stream B-A – Right turn out from site to A23 Moneyreagh Road

Stream C-AB – Right turn in from A23 Moneyreagh Road to site

*Table 12 - Summary A23 Moneyreagh Road/ Site Access Junction - PM Peak Model Outputs*

Junction Approach	Weekday PM Peak			
	Max RFC		MAX Queue	
	2022 B+D	2037 B+D	2022 B+D	2037 B+D
Stream B-C	0.05	0.05	0.05	0.05
Stream B-A	0.05	0.06	0.06	0.08
Stream C-AB	0.05	0.05	0.06	0.06

*Table 13 - Summary B178 Hillsborough Road/ Site Access Junction - AM Peak Model Outputs*

Junction Approach	Weekday AM Peak			
	Max RFC		MAX Queue	
	2022 B+D	2037 B+D	2022 B+D	2037 B+D
Stream B-C	0.06	0.06	0.06	0.07
Stream B-A	0.04	0.04	0.04	0.05
Stream C-AB	0.04	0.04	0.05	0.05

Stream B-C – Left Turn out from site to B178 Hillsborough Road

Stream B-A – Right turn out from site to B178 Hillsborough Road

Stream C-AB – Right turn in from B178 Hillsborough Road to site

## Technical Note 01

Table 14 - Summary B178 Hillsborough Road/ Site Access Junction - PM Peak Model Outputs

Junction Approach	Weekday PM Peak			
	Max RFC		MAX Queue	
	2022 B+D	2037 B+D	2022 B+D	2037 B+D
Stream B-C	0.05	0.05	0.05	0.05
Stream B-A	0.03	0.03	0.04	0.04
Stream C-AB	0.05	0.05	0.06	0.06

In terms of junction operation, the tables demonstrate that the proposed site access junctions will operate well within acceptable capacity thresholds during both peak periods for the anticipated opening year and future year.

A complete copy of the JUNCTIONS 8 PICADY module outputs are provided at **Appendix D**.

### Sensitivity Test

In order to demonstrate the available junction capacity of the proposed site accesses we have also undertaken a further sensitivity test scenario of the busiest proposed site access junction (A23 Moneyreagh Road).

To inform this sensitivity test we have assumed that 100% of the proposed development traffic will access/ egress the site via one junction location at the A23 Moneyreagh Road/ Proposed site access junction.

The operational capacity results of this additional test scenario are summarised in Table 15.

Table 15 - Summary A23 Moneyreagh Road/ Site Access Junction - AM Peak Model Outputs

Junction Approach	Sensitivity Scenario (100% Development Traffic)			
	Max RFC		MAX Queue	
	2037 B+D AM	2037 B+D PM	2037 B+D AM	2037 B+D PM
Stream B-C	0.25	0.10	0.36	0.12
Stream B-A	0.33	0.13	0.51	0.17
Stream C-AB	0.17	0.10	0.22	0.12

Stream B-C – Left Turn out from site to A23 Moneyreagh Road

Stream B-A – Right turn out from site to A23 Moneyreagh Road

Stream C-AB – Right turn in from A23 Moneyreagh Road to site

Table 15 has demonstrated that under sensitivity conditions the proposed site access junction will continue to operate well within acceptable capacity thresholds to a future year scenario.

## Technical Note 01

### Junction Design Considerations

When considering the development of a proposed site access it is necessary to take cognisance of the relevant local and national design guidelines.

Any proposed access design should be provided in accordance with Development Control Advice Note (DCAN15) – Vehicle Access Standards and the Design Manual for Roads and Bridges (DMRB) – CD123 Geometric Design of at-grade priority and signal-controlled junctions.

#### DCAN 15

The previous sections of this note have discussed the visibility requirements of junctions in accordance with DCAN15. DCAN15 also discusses when a right-turn lane junction should be provided.

“Factors which the Department will take into account include:

- volume of right turning traffic-requires particular consideration when total flow on the minor road exceeds 500 vehicles per day (i.e. serving more than 50 dwellings) or when right-turns into the development are the dominant movement, having regard to the relative location of the town centre or other major traffic attractor);
- speed and volume of priority road traffic;
- forward sight distance (proximity to crest or bend);
- junction spacing;
- accident history / potential;
- character / status of the priority road;
- advice in TD 42/95[replaced with CD123], DMRB4 - Volume 6; and
- relevant traffic model output.”

Furthermore, in accordance with DCAN15 the spacing distance of proposed accesses should not normally join a priority road within the Y-distance of a junction. However, this may be relaxed to 2/3 of the Y-distance on Urban Roads subject to 30mph or 40mph speed limits.

#### DMRB – CD123

The CD123 design document outlines the minimum requirements for the design of at-grade priority-controlled junctions. Figure 6 shows a typical design of a right-turn lane junction.

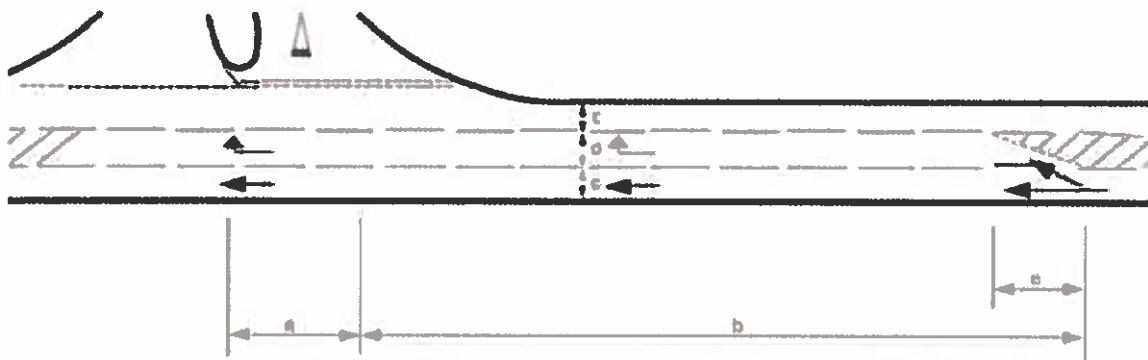


Figure 6 - Major/ Minor priority junction with ghost island

The document sets out that right-turn lane junctions should be designed to the following standards:

- A = Turning Length – 10m
- B = Deceleration length – dependent on Major Road design speed and gradient
- C = Through Lane Width – no greater than 3.65m, but no less than 3.0m
- D = Ghost Islands – 3.50m but 3.0m is permissible
- E = Direct Taper Length – dependent on Major Road design speed

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## Technical Note 01

### Summary and Conclusions

#### Summary

Kevin McShane Ltd has been commissioned to provide transport consultancy services in relation to the potential development of lands located off Hillsborough Road, Moneyreagh.

We have undertaken a review of the proposed development site accesses to understand:

- The proposed junction visibility requirements;
- The proposed junction operation capacity; and
- The design requirements of the proposed accesses.

#### Junction Visibility Requirements

A review of the proposed site access arrangement in accordance with the DMRB and DCAN15 Vehicle Access Standards has identified the minimum visibility splay requirements of:

- 4.5m x 136.0m at A23 Moneyreagh Road proposed access to the south (for Northbound traffic);
- 4.5m x 146.7m at A23 Moneyreagh Road proposed access to the north (for Southbound traffic); and
- 4.5m x 102.0m at B178 Hillsborough Road proposed access.

#### Junction Capacity Review

Based on the information provided within this technical note, it is considered that the proposed site access junctions will operate well within acceptable capacity thresholds during the AM and PM peak periods during all future year scenarios.

Additionally, the A23 Moneyreagh Road site access junction is predicted to operate within capacity during a sensitivity test of 100% development traffic applied.

#### Conclusions

The proposed site access junctions should be designed in accordance with the relevant design guidelines and designed in such a way to accommodate the minimum visibility requirements.

The proposed access junction arrangements have sufficient junction capacity to accommodate the potential vehicle demand associated with the development proposals.



## Appendix A

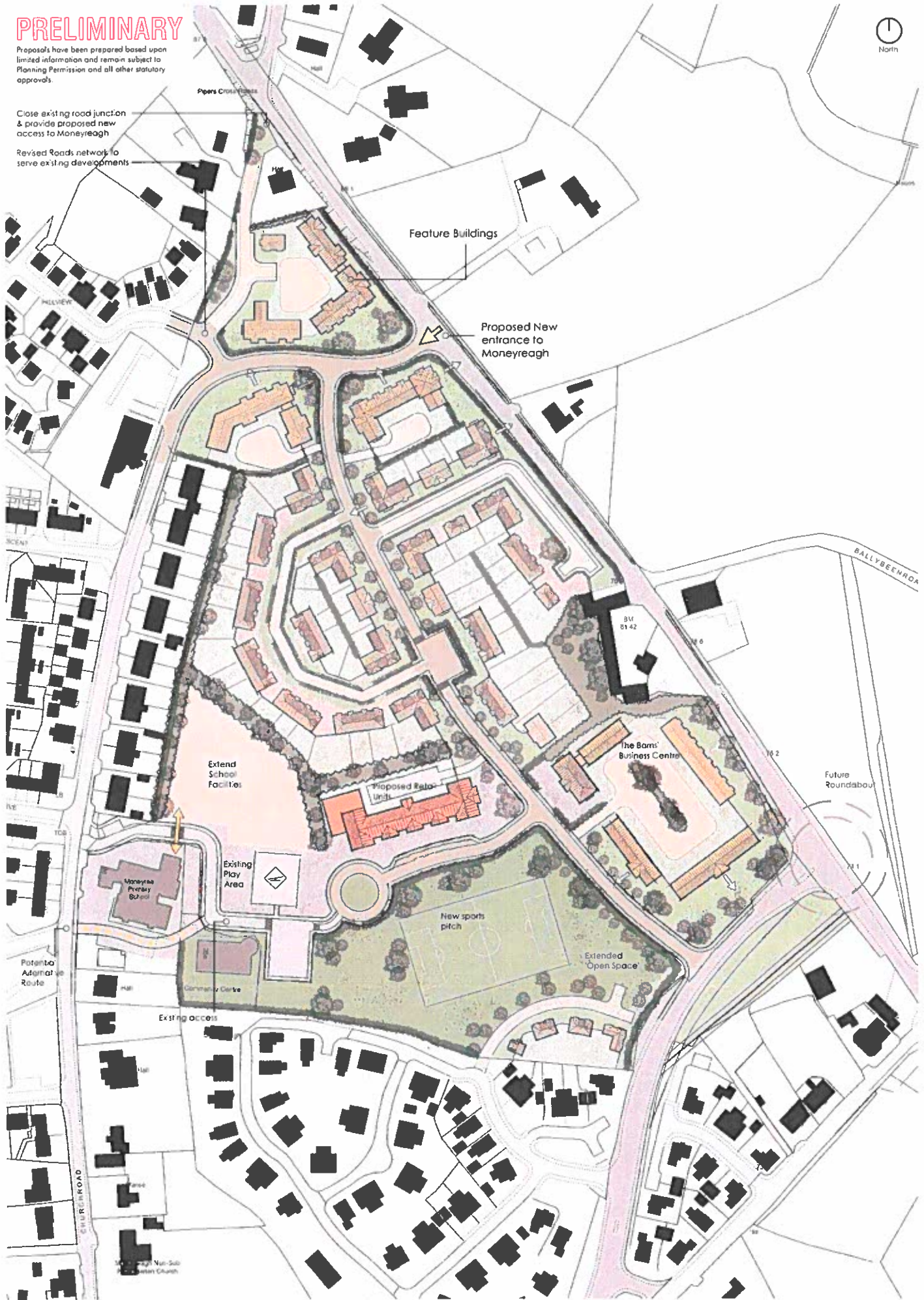
### *Indicative Masterplan Layout*

# PRELIMINARY

Proposals have been prepared based upon limited information and remain subject to Planning Permission and all other statutory approvals.

Close existing road junction & provide proposed new access to Moneyreagh

Revised Roads network to serve existing developments



LANDS AT  
**HILLSBOROUGH ROAD, MONEYREAGH**

ILLUSTRATIVE CONCEPT LAYOUT



Drawn: [blank]  
Date: Jan 2020  
Scale: 1:1250  
Ref: 2652-056-03-01-001

## Appendix B

### *Speed Survey Results*

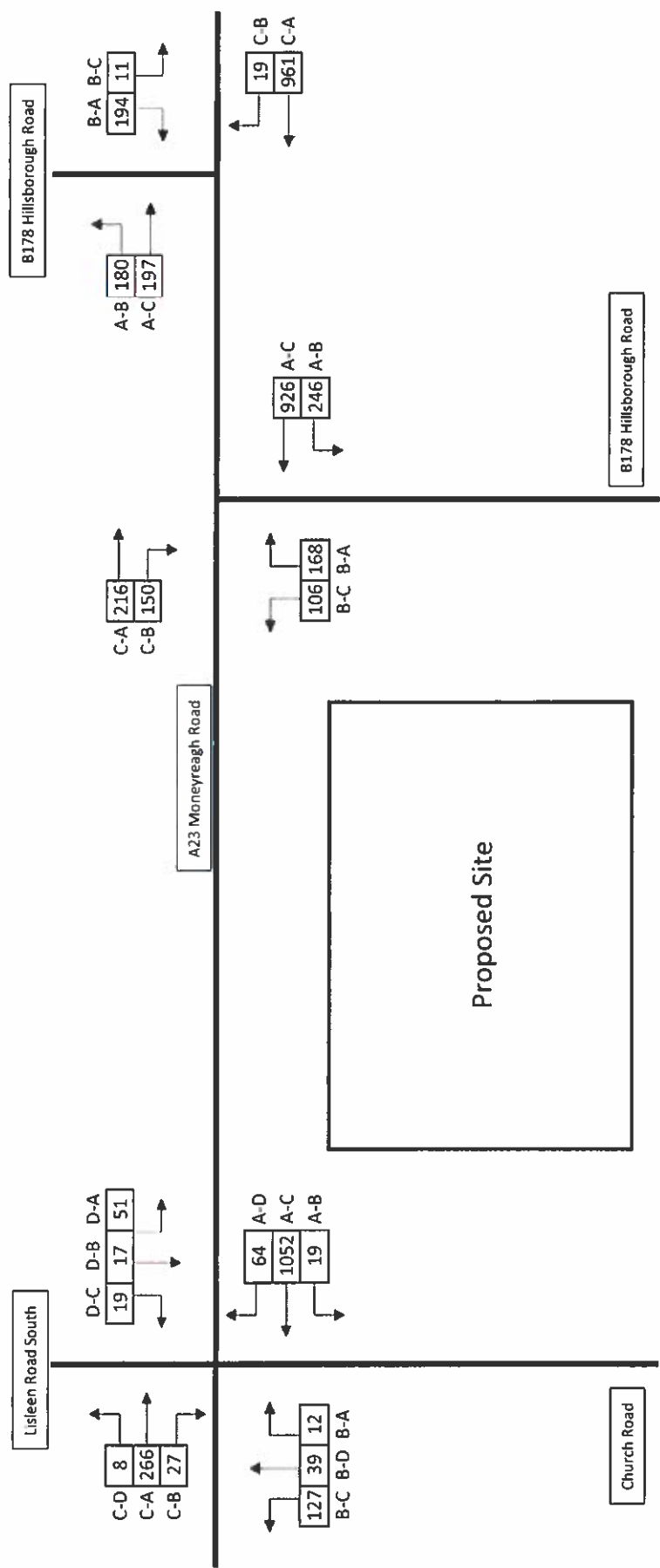
MPH	NB - Towards Belfast	SB- Towards Ballygowan
1	29	26
2	30	33
3	31	35
4	33	36
5	33	37
6	35	37
7	35	38
8	35	38
9	35	38
10	35	38
11	35	38
12	35	39
13	36	39
14	36	39
15	37	40
16	37	40
17	37	40
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87	47	51
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89	48	52
90	49	53
91	49	53
92	49	54
93	50	55
94	50	63
95	51	63
96	51	64
97	52	
98	52	
99	53	
100	54	

KPH	NB - Towards Belfast	SB- Towards Ballygowan
1	47	42
2	48	53
3	50	56
4	53	58
5	53	60
6	56	60
7	56	61
8	56	61
9	56	61
10	56	61
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96	82	103
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99	85	
100	87	

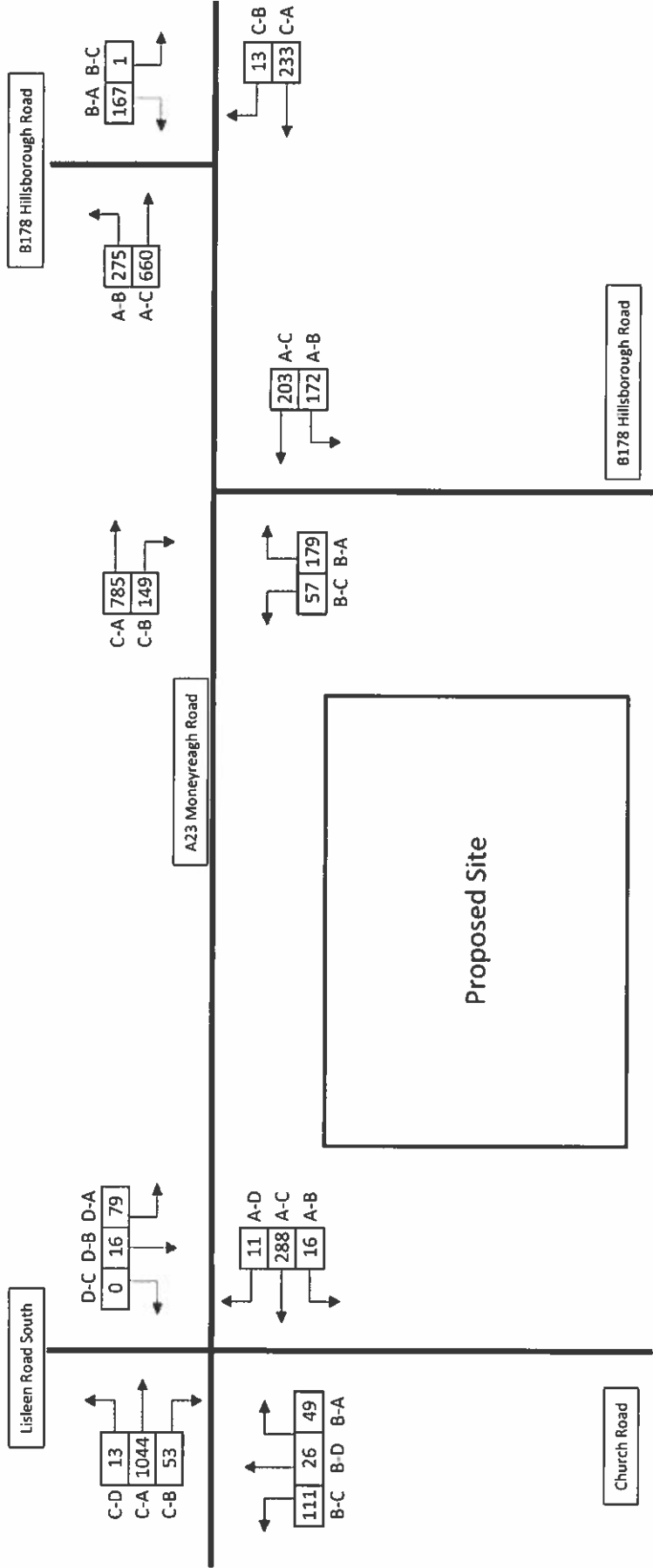
## Appendix C

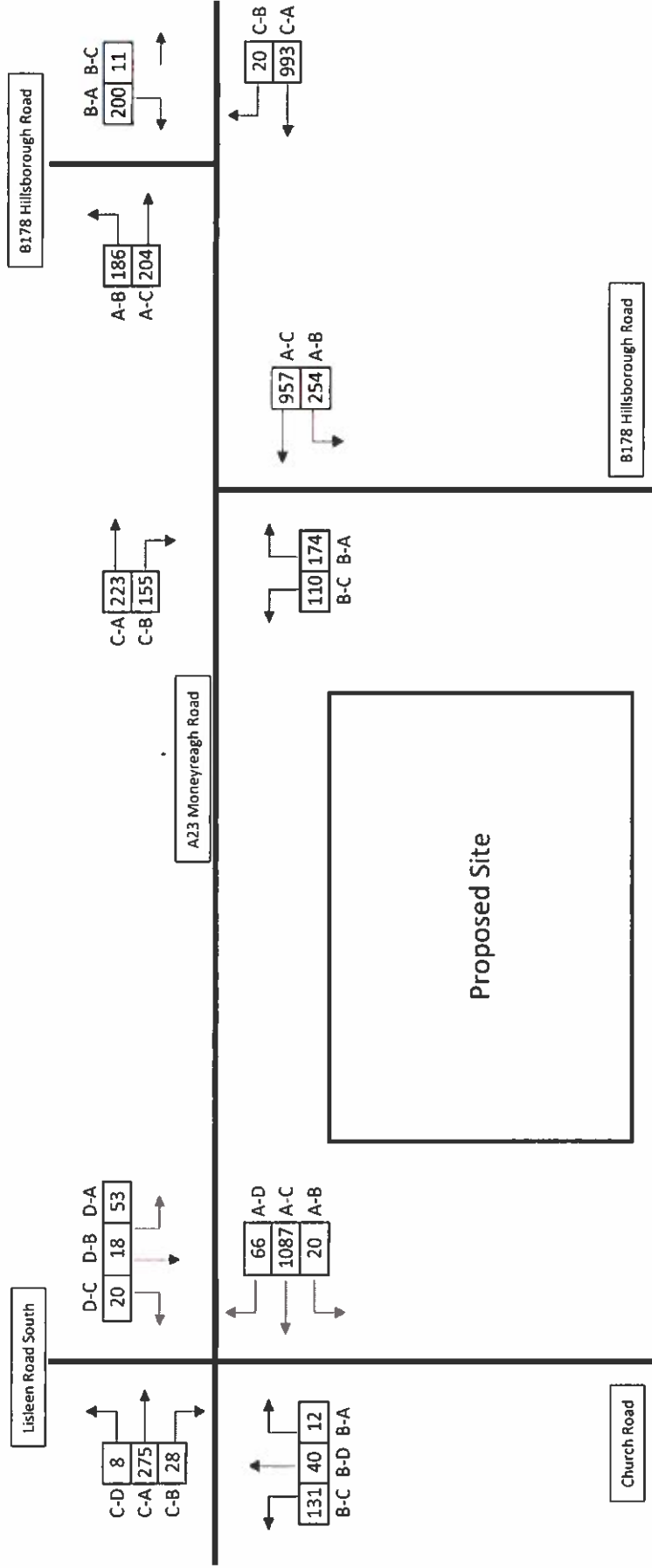
### *Traffic Flow Diagrams*

2019 Existing AM (PCU)  
07:30-08:30

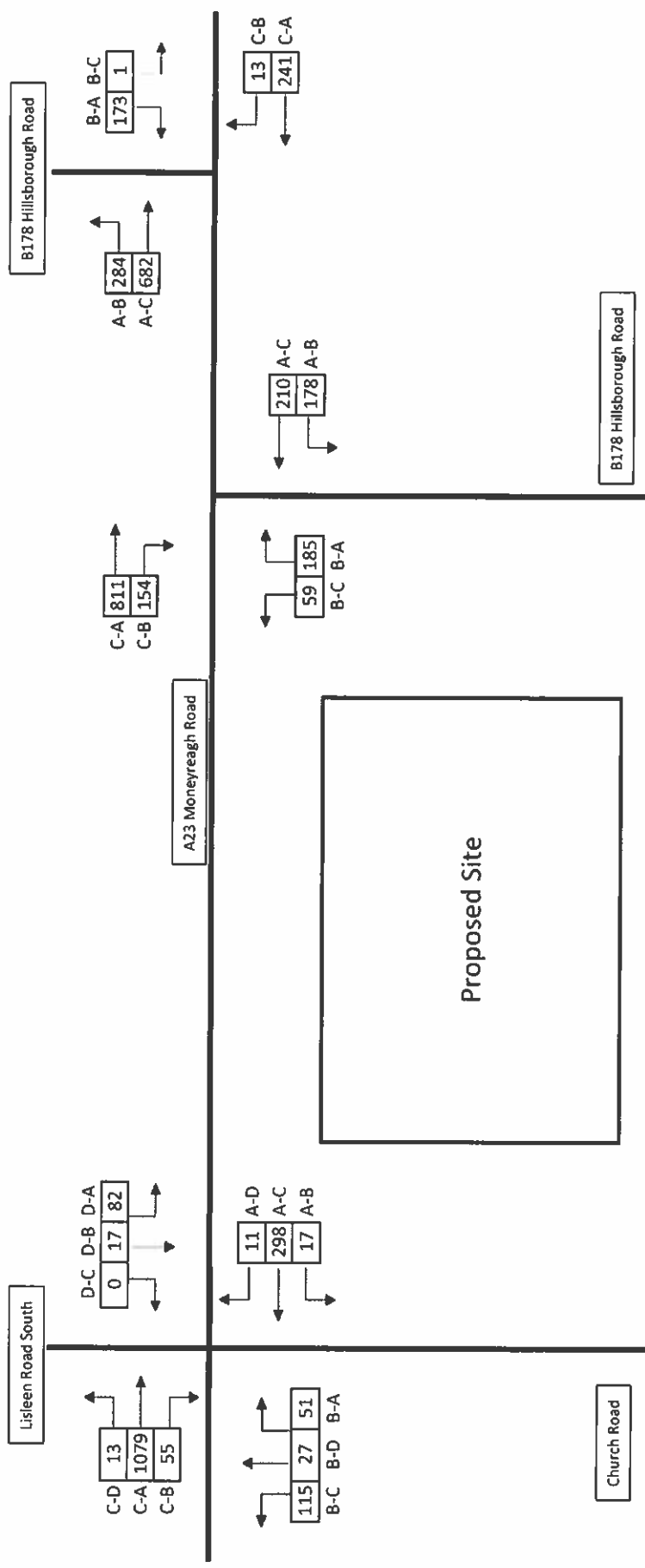


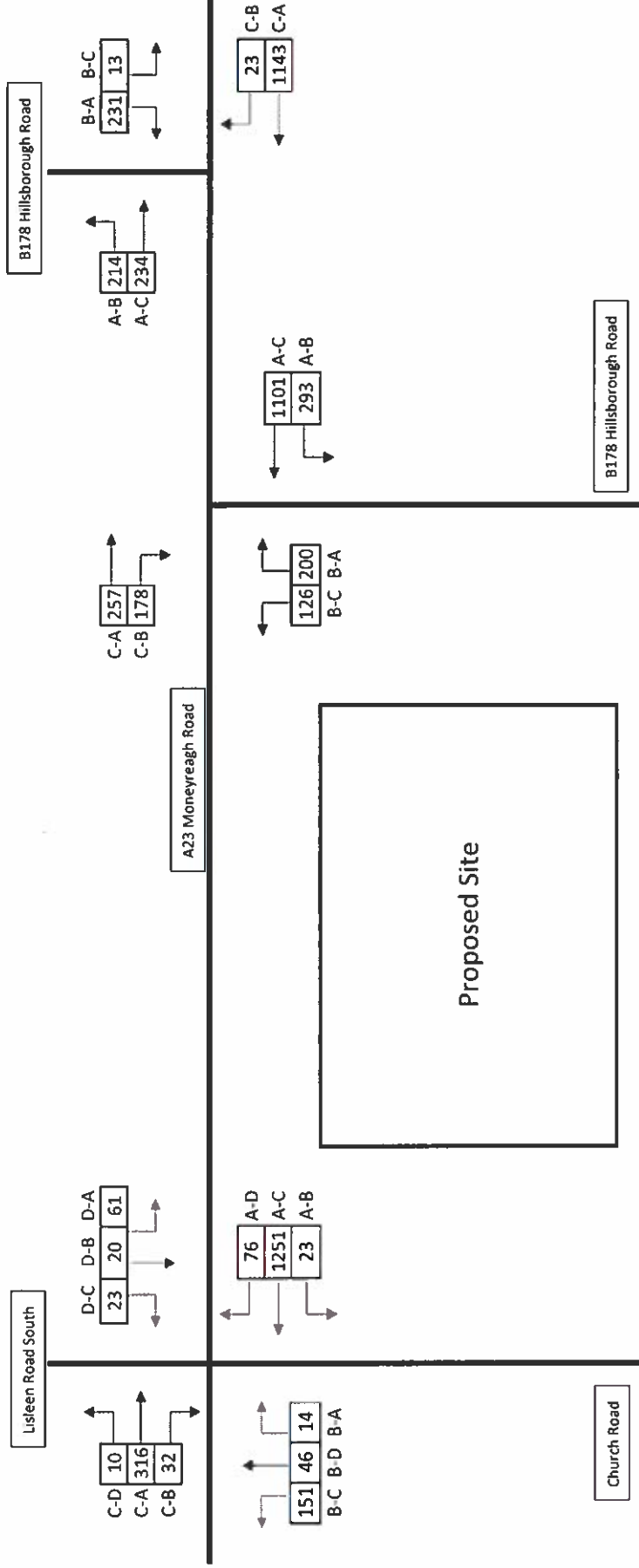
2019 Existing PM (PCU)  
16:30-17:30

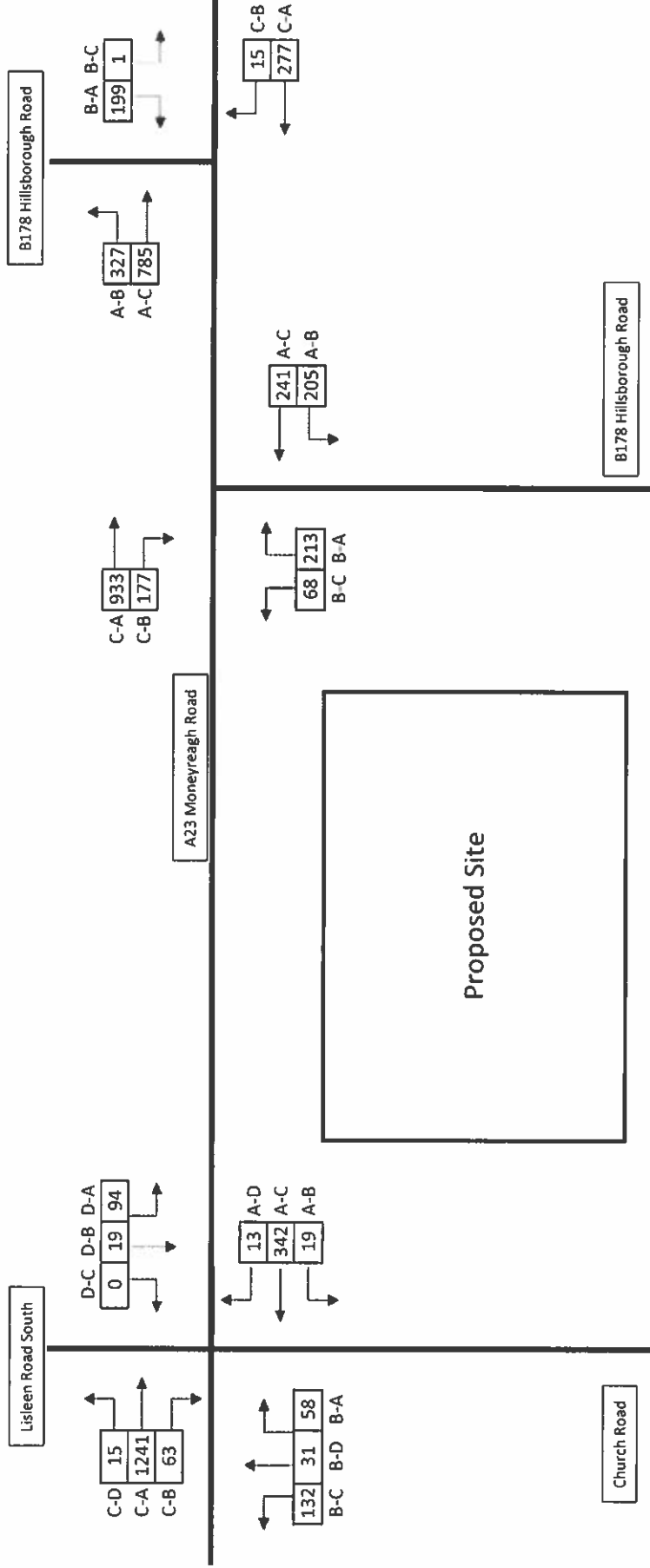




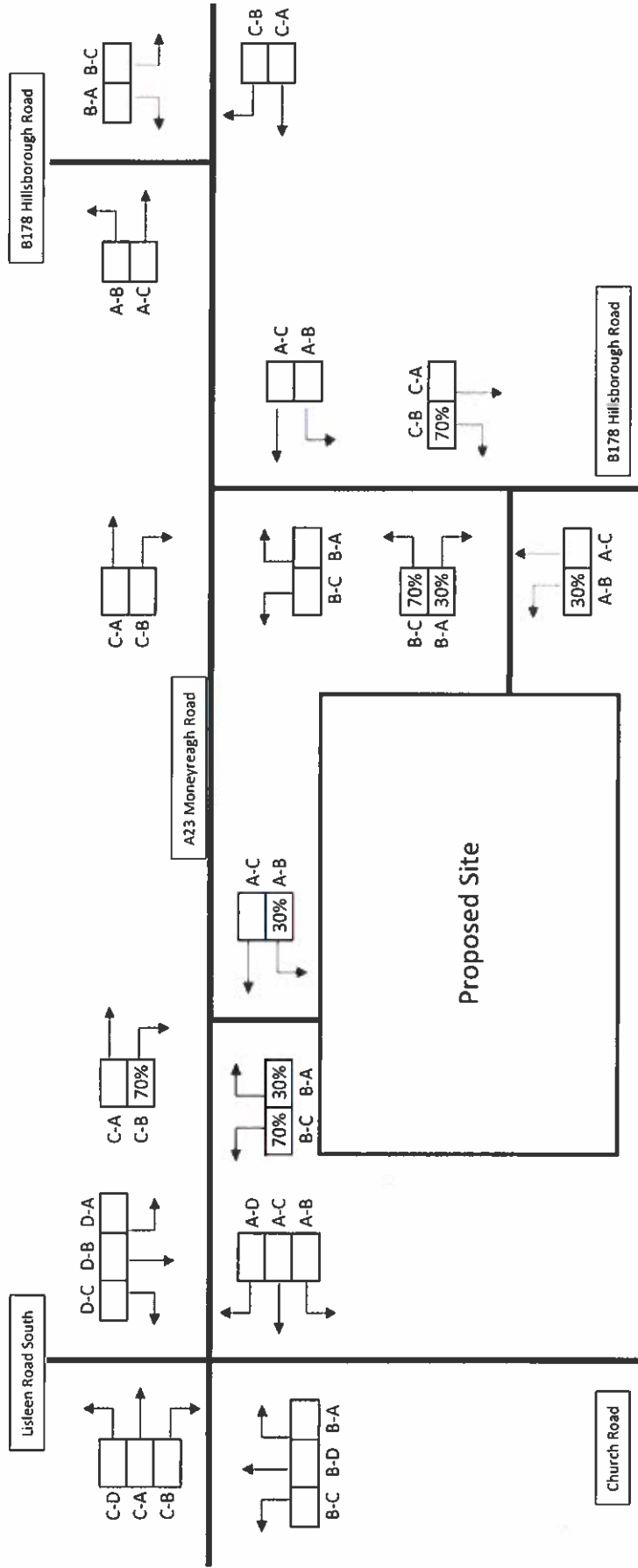






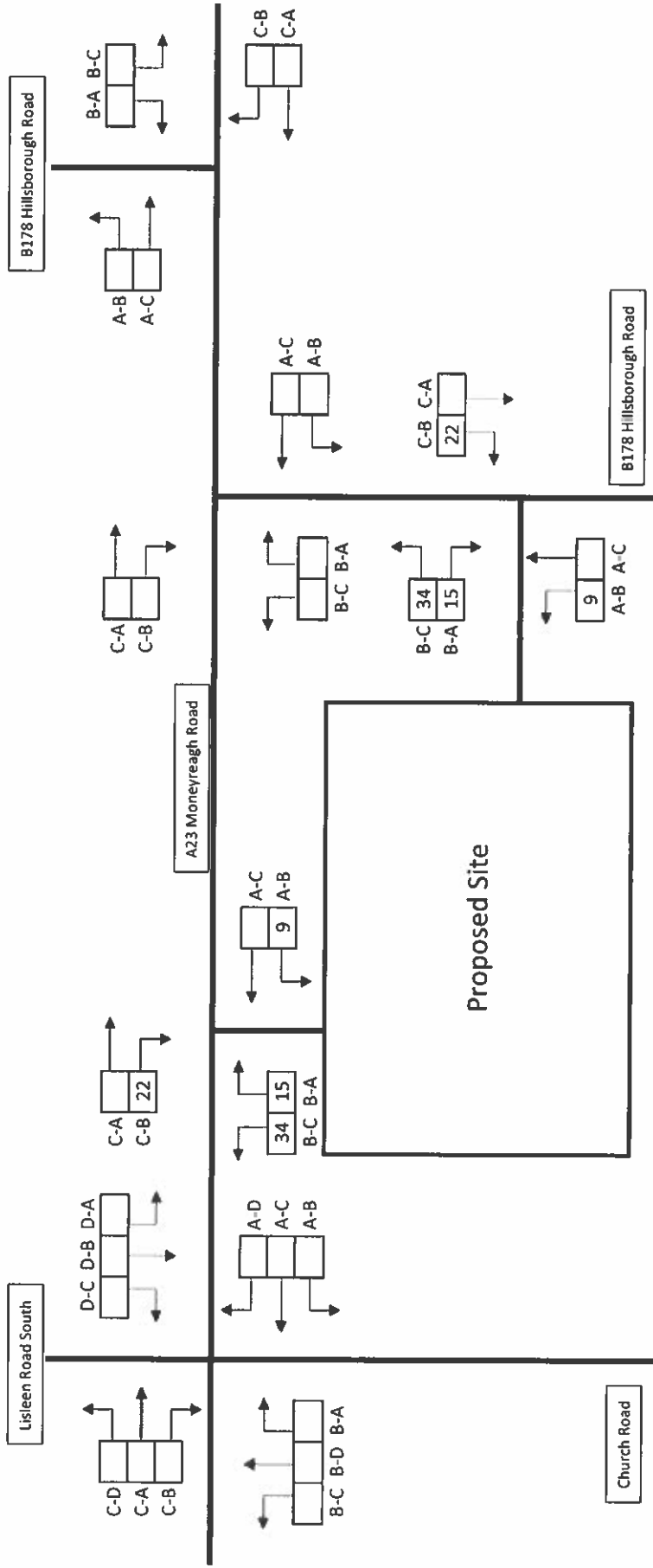


Distribution (%)



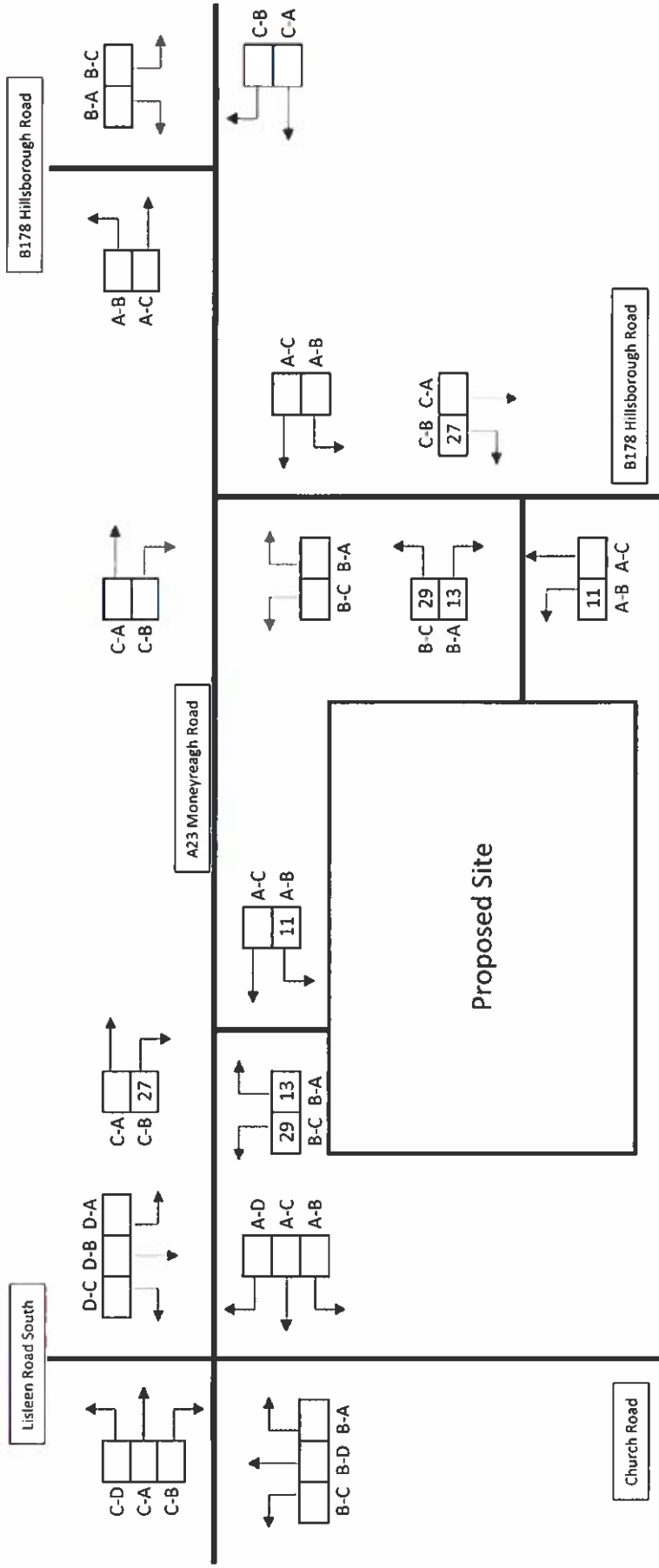
Development  
07:30-08:30

	Arr	Dep
AM	63	97
PM	77	84



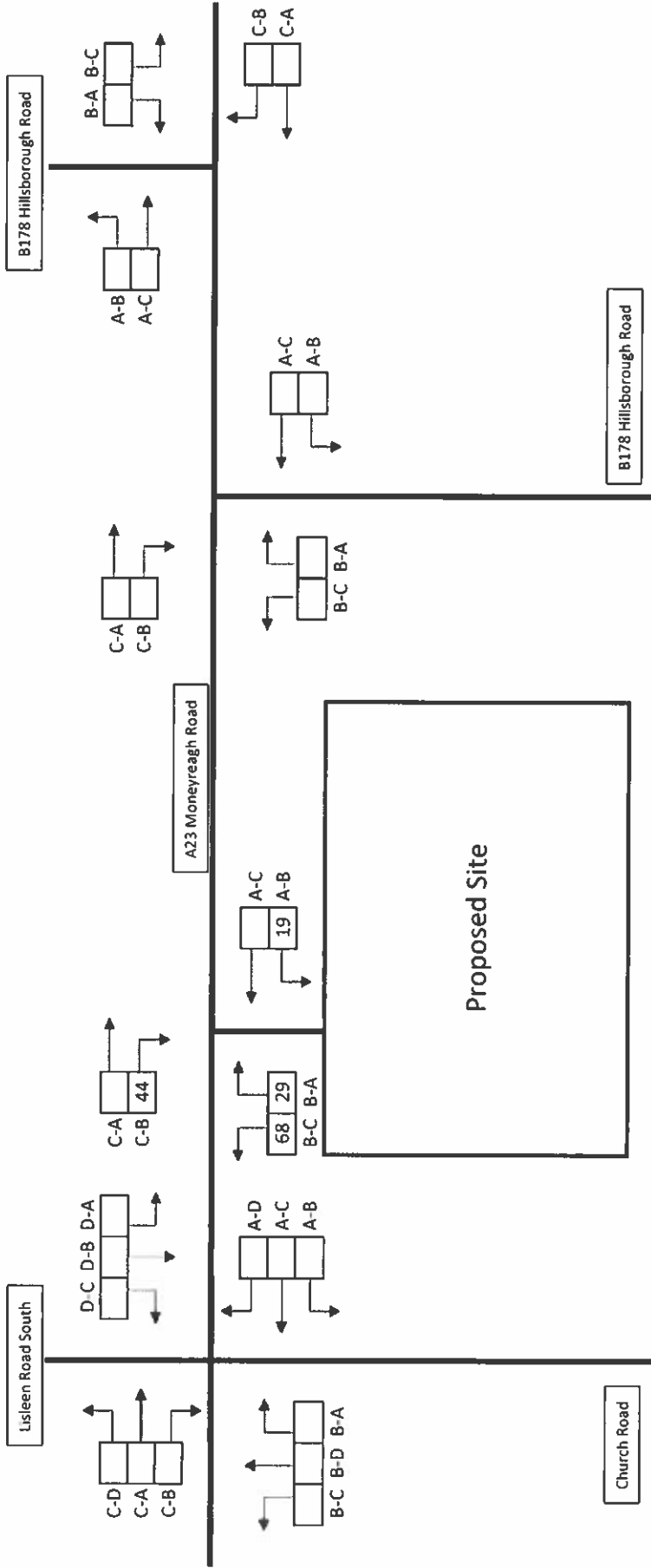
Development  
16:30-17:30

	Arr	Dep
AM	63	97
PM	77	84



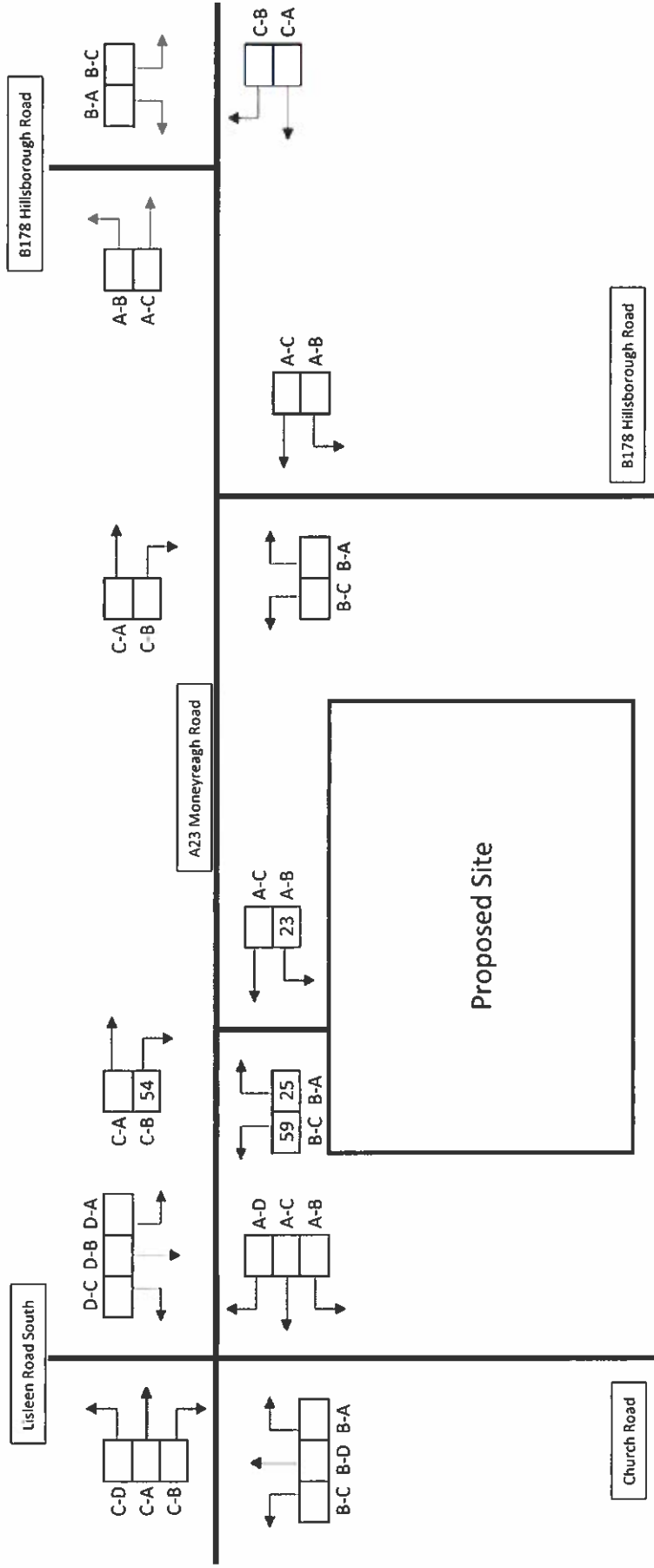
Development (Sens Test 1)  
07:30-08:30

	Arr	Dep
AM	63	97
PM	77	84

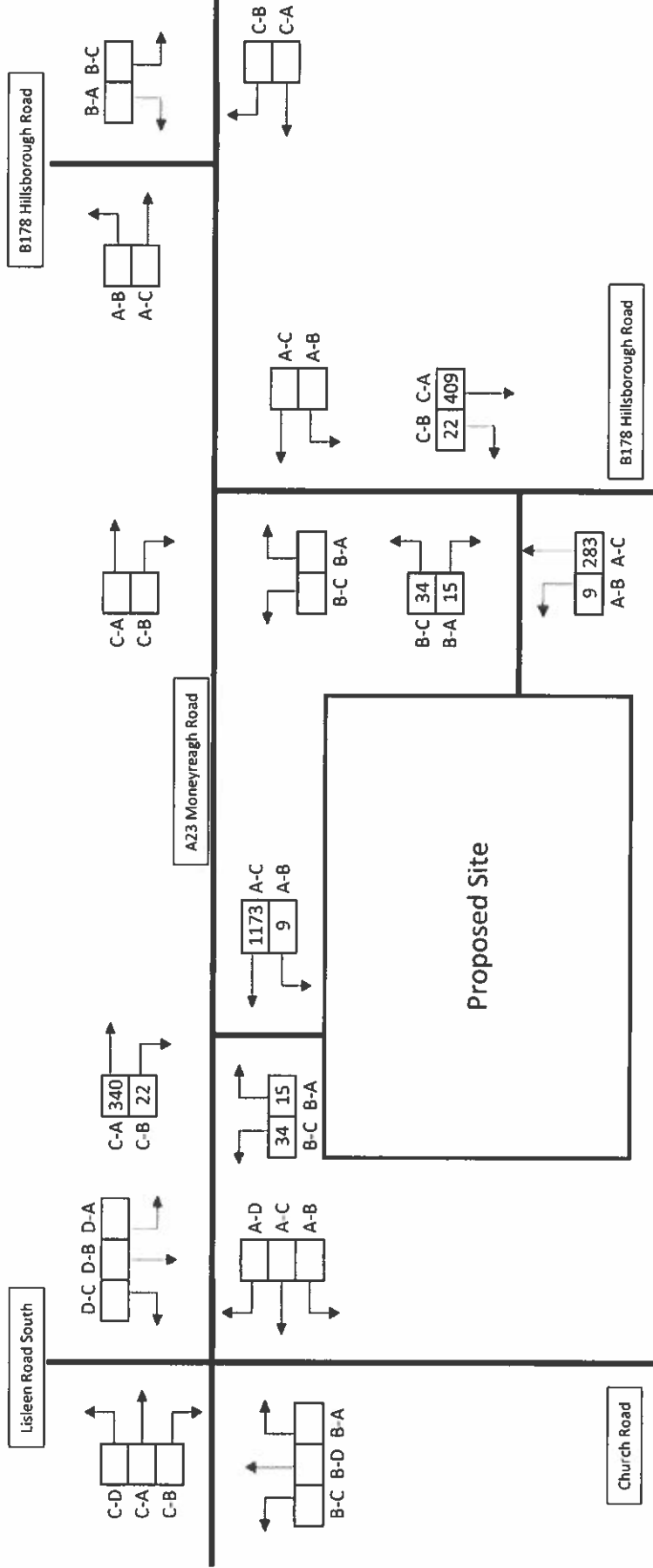


	Arr	Dep
AM	63	97
PM	77	84

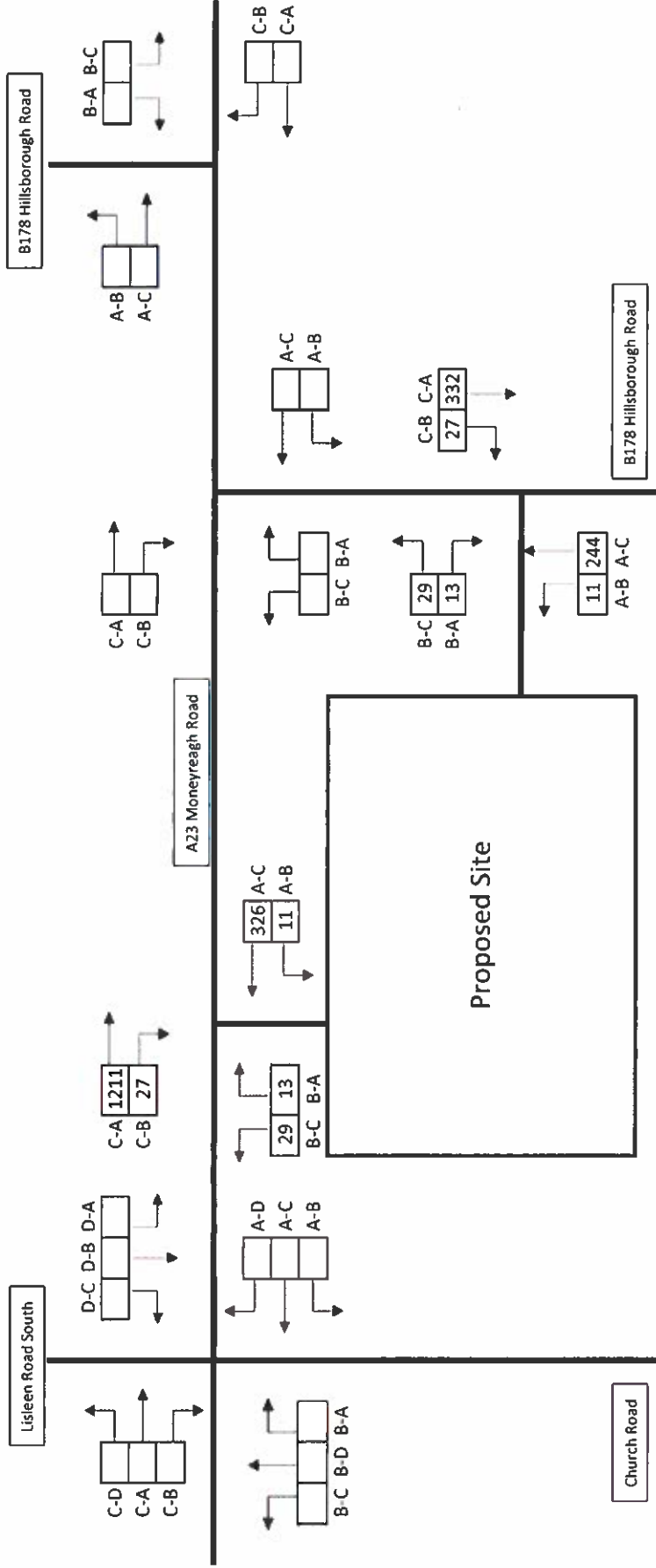
Development (Sens Test 1)  
16:30-17:30



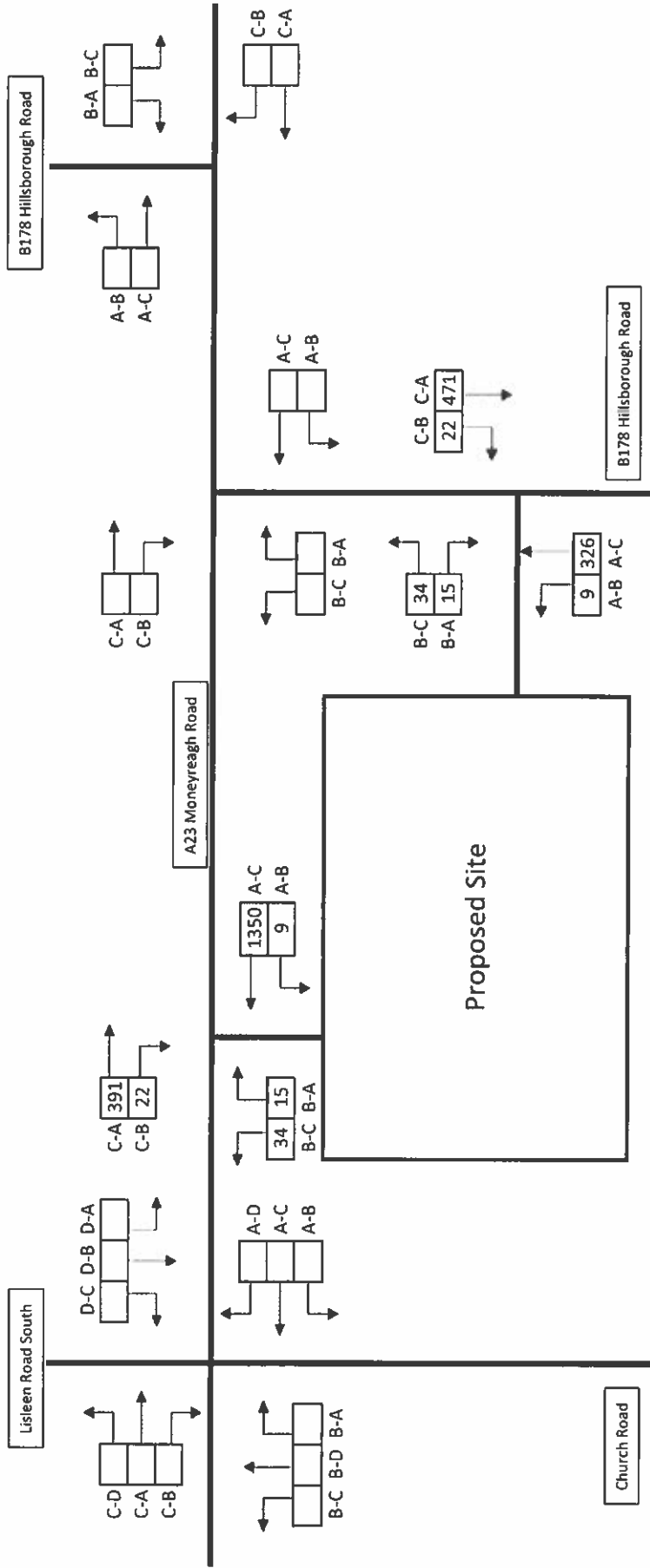




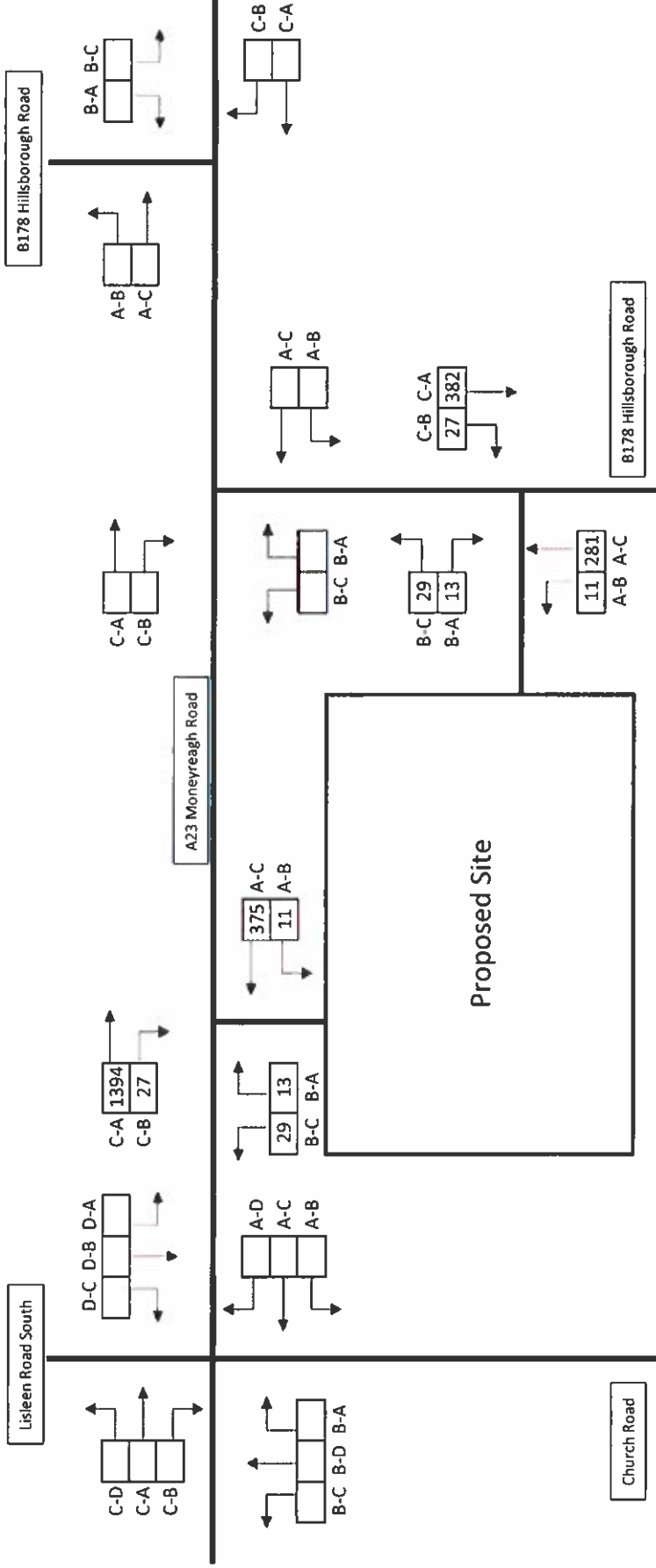
2022 Base + Development PM  
16:30-17:30



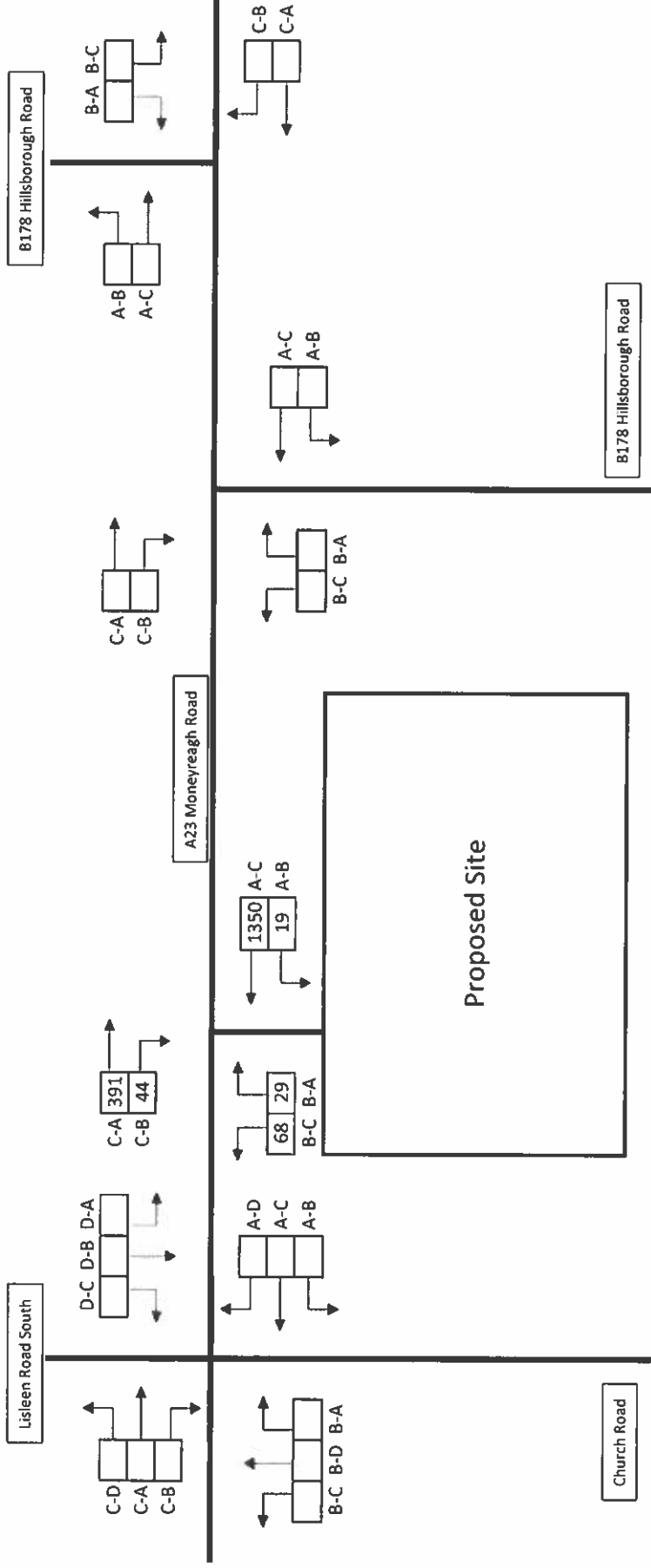
2037 Base + Development AM  
07:30-08:30



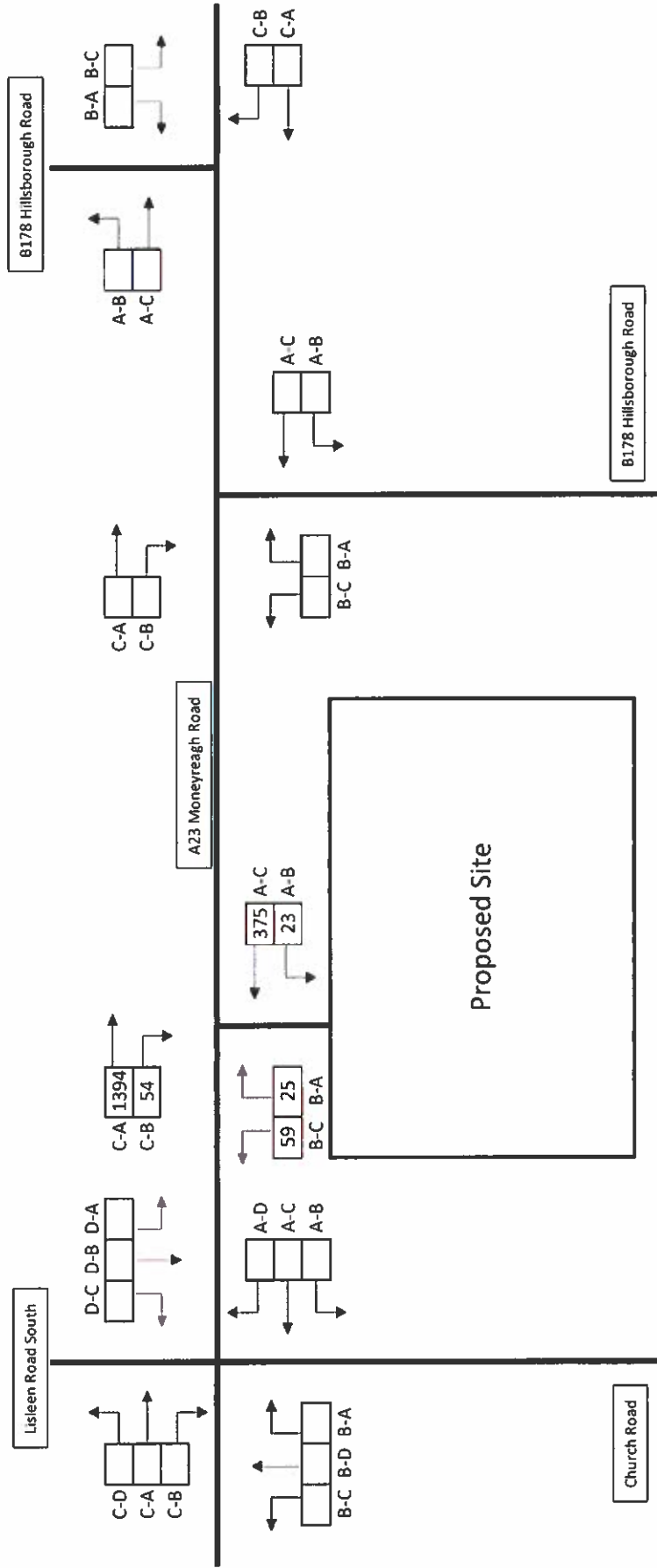
2037 Base + Development PM  
16:30-17:30



2037 Base + Development (S1) AM  
07:30-08:30



2037 Base + Development (S1) PM  
16:30-17:30



## Appendix D

### *Junctions 8 Model Outputs*

<b>Junctions 8</b>
<b>PICADY 8 - Priority Intersection Module</b>
Version: 8.0.6.541 [19821,26/11/2015] © Copyright TRL Limited, 2020
For sales and distribution information, program advice and maintenance, contact TRL: Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk
The users of this computer program for the solution of an engineering problem are in no way relieved of their responsibility for the correctness of the solution

**Filename:** 19-198 B178 Hillsborough Road Access.arc8  
**Path:** X:\KevinMcShaneLtd\2019\19-198 Tender Moneyreagh DPS\Traffic\Modelling  
**Report generation date:** 08/01/2020 16:29:23

- » (Default Analysis Set) - 2022 B+D, AM
- » (Default Analysis Set) - 2022 B+D, PM
- » (Default Analysis Set) - 2037 B+D, AM
- » (Default Analysis Set) - 2037 B+D, PM

### Summary of junction performance

	AM					PM						
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
<b>A1 - 2022 B+D</b>												
Stream B-C	0.06	6.17	0.06	A	7.06	A	0.05	5.99	0.05	A	6.82	A
Stream B-A	0.04	9.51	0.04	A			0.04	8.93	0.03	A		
Stream C-AB	0.05	6.76	0.04	A			0.06	6.69	0.05	A		
Stream C-A	-	-	-	-			-	-	-	-		
Stream A-B	-	-	-	-			-	-	-	-		
Stream A-C	-	-	-	-			-	-	-	-		
<b>A1 - 2037 B+D</b>												
Stream B-C	0.07	6.31	0.06	A	7.30	A	0.05	6.10	0.05	A	7.00	A
Stream B-A	0.05	10.13	0.04	B			0.04	9.38	0.03	A		
Stream C-AB	0.05	6.91	0.04	A			0.06	6.82	0.05	A		
Stream C-A	-	-	-	-			-	-	-	-		
Stream A-B	-	-	-	-			-	-	-	-		
Stream A-C	-	-	-	-			-	-	-	-		

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

\*D1 - 2022 B+D, AM \* model duration: 08:00 - 09:30  
 \*D2 - 2022 B+D, PM\* model duration: 17:00 - 18:30  
 \*D3 - 2037 B+D, AM\* model duration: 08:00 - 09:30  
 \*D4 - 2037 B+D, PM\* model duration: 17:00 - 18:30

Run using Junctions 8.0.6.541 at 08/01/2020 16:29:20



## File summary

<b>Title</b>	(untitled)
<b>Location</b>	
<b>Site Number</b>	
<b>Date</b>	03/01/2020
<b>Version</b>	
<b>Status</b>	(new file)
<b>Identifier</b>	
<b>Client</b>	
<b>Jobnumber</b>	
<b>Enumerator</b>	KMcS
<b>Description</b>	

## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - 2022 B+D, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 B+D, AM	2022 B+D	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		7.06	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B178 Hillsborough Road (S)		Major
B	B	Site Access		Minor
C	C	B178 Hillsborough Road (N)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	116.00	✓	5.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	67	200

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	610.982	0.111	0.281	0.177	0.402
1	B-C	781.710	0.120	0.303	-	-
1	C-B	696.962	0.270	0.270	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	292.00	100.000
B	ONE HOUR	✓	49.00	100.000
C	ONE HOUR	✓	431.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	9.000	283.000
	B	15.000	0.000	34.000
	C	409.000	22.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.31	0.00	0.69
	C	0.95	0.05	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.06	6.17	0.06	A	31.20	46.80	4.63	5.94	0.05	4.63	5.94
B-A	0.04	9.51	0.04	A	13.76	20.65	3.04	8.84	0.03	3.04	8.84
C-AB	0.04	6.76	0.05	A	20.19	30.28	3.31	6.57	0.04	3.31	6.57
C-A	-	-	-	-	375.31	562.96	-	-	-	-	-
A-B	-	-	-	-	8.26	12.39	-	-	-	-	-
A-C	-	-	-	-	259.69	389.53	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.43	0.00	712.22	0.036	0.00	0.04	5.764	A
B-A	11.29	2.82	11.19	0.00	489.13	0.023	0.00	0.03	8.283	A
C-AB	16.56	4.14	16.45	0.00	637.60	0.026	0.00	0.03	6.375	A
C-A	307.92	76.98	307.92	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	213.06	53.26	213.06	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.53	0.00	698.49	0.044	0.04	0.05	5.928	A
B-A	13.48	3.37	13.46	0.00	465.46	0.029	0.03	0.03	8.761	A
C-AB	19.78	4.94	19.75	0.00	626.08	0.032	0.03	0.04	6.530	A
C-A	367.68	91.92	367.68	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	254.41	63.60	254.41	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.38	0.00	679.45	0.055	0.05	0.06	6.167	A
B-A	16.52	4.13	16.47	0.00	432.71	0.038	0.03	0.04	9.512	A
C-AB	24.22	6.06	24.18	0.00	610.15	0.040	0.04	0.05	6.757	A
C-A	450.32	112.58	450.32	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	311.59	77.90	311.59	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.43	0.00	679.42	0.055	0.06	0.06	6.167	A
B-A	16.52	4.13	16.51	0.00	432.72	0.038	0.04	0.04	9.514	A
C-AB	24.22	6.06	24.22	0.00	610.15	0.040	0.05	0.05	6.757	A
C-A	450.32	112.58	450.32	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	311.59	77.90	311.59	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.62	0.00	698.43	0.044	0.06	0.05	5.931	A
B-A	13.48	3.37	13.53	0.00	465.48	0.029	0.04	0.03	8.764	A
C-AB	19.78	4.94	19.81	0.00	626.08	0.032	0.05	0.04	6.531	A
C-A	367.68	91.92	367.68	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	254.41	63.60	254.41	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.63	0.00	712.12	0.036	0.05	0.04	5.770	A
B-A	11.29	2.82	11.32	0.00	489.15	0.023	0.03	0.03	8.289	A
C-AB	16.56	4.14	16.59	0.00	637.60	0.026	0.04	0.03	6.378	A
C-A	307.92	76.98	307.92	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	213.06	53.26	213.06	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.59	0.04	5.764	A	A
B-A	0.37	0.02	8.283	A	A
C-AB	0.43	0.03	6.375	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.74	0.05	5.928	A	A
B-A	0.48	0.03	8.761	A	A
C-AB	0.54	0.04	6.530	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.94	0.06	6.167	A	A
B-A	0.63	0.04	9.512	A	A
C-AB	0.68	0.05	6.757	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.96	0.06	6.167	A	A
B-A	0.65	0.04	9.514	A	A
C-AB	0.68	0.05	6.757	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.77	0.05	5.931	A	A
B-A	0.51	0.03	8.764	A	A
C-AB	0.54	0.04	6.531	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.63	0.04	5.770	A	A
B-A	0.40	0.03	8.289	A	A
C-AB	0.44	0.03	6.378	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2022 B+D, PM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

**Analysis Set Details**

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 B+D, FM	2022 B+D	FM		ONE HOUR	17:00	18:30	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		6.82	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B178 Hillsborough Road (S)		Major
B	B	Site Access		Minor
C	C	B178 Hillsborough Road (N)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	116.00	✓	5.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	67	200

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	611.441	0.111	0.281	0.177	0.402
1	B-C	781.481	0.120	0.303	-	-
1	C-B	696.962	0.270	0.270	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only. they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	255.00	100.000
B	ONE HOUR	✓	42.00	100.000
C	ONE HOUR	✓	359.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	11.000	244.000
	B	13.000	0.000	29.000
	C	332.000	27.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.31	0.00	0.69
	C	0.92	0.08	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100



**Heavy Vehicle Percentages - Junction 1 (for whole period)**

From	To			
	A	B	C	
	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
C	10.0	10.0	10.0	

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.05	5.99	0.05	A	26.61	39.92	3.86	5.80	0.04	3.86	5.80
B-A	0.03	8.93	0.04	A	11.93	17.89	2.50	8.40	0.03	2.50	8.40
C-AB	0.05	6.69	0.06	A	24.78	37.16	4.04	6.51	0.04	4.04	6.51
C-A	-	-	-	-	304.65	456.97	-	-	-	-	-
A-B	-	-	-	-	10.09	15.14	-	-	-	-	-
A-C	-	-	-	-	223.90	335.85	-	-	-	-	-

**Main Results for each time segment**
**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.70	0.00	721.35	0.030	0.00	0.03	5.660	A
B-A	9.79	2.45	9.70	0.00	506.35	0.019	0.00	0.02	7.972	A
C-AB	20.33	5.08	20.18	0.00	645.12	0.032	0.00	0.04	6.334	A
C-A	249.95	62.49	249.95	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	183.70	45.92	183.70	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.04	0.00	709.51	0.037	0.03	0.04	5.793	A
B-A	11.69	2.92	11.67	0.00	485.94	0.024	0.02	0.03	8.349	A
C-AB	24.27	6.07	24.24	0.00	635.06	0.038	0.04	0.04	6.482	A
C-A	298.46	74.62	298.46	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	219.35	54.84	219.35	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.89	0.00	693.11	0.046	0.04	0.05	5.988	A
B-A	14.31	3.58	14.28	0.00	457.70	0.031	0.03	0.04	8.930	A
C-AB	29.73	7.43	29.68	0.00	621.15	0.048	0.04	0.05	6.694	A
C-A	365.54	91.38	365.54	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	268.65	67.16	268.65	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.93	0.00	693.09	0.046	0.05	0.05	5.988	A
B-A	14.31	3.58	14.31	0.00	457.70	0.031	0.04	0.04	8.930	A
C-AB	29.73	7.43	29.73	0.00	621.15	0.048	0.05	0.06	6.694	A
C-A	365.54	91.38	365.54	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	268.65	67.16	268.65	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.11	0.00	709.46	0.037	0.05	0.04	5.794	A
B-A	11.69	2.92	11.72	0.00	485.95	0.024	0.04	0.03	8.350	A
C-AB	24.27	6.07	24.32	0.00	635.06	0.038	0.06	0.04	6.483	A
C-A	298.46	74.62	298.46	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	219.35	54.84	219.35	0.00	-	-	-	-	-	-

**Main results: (18:15-18:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.86	0.00	721.27	0.030	0.04	0.03	5.661	A
B-A	9.79	2.45	9.81	0.00	506.36	0.019	0.03	0.02	7.975	A
C-AB	20.33	5.08	20.36	0.00	645.12	0.032	0.04	0.04	6.338	A
C-A	249.95	62.49	249.95	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	183.70	45.92	183.70	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.50	0.03	5.660	A	A
B-A	0.31	0.02	7.972	A	A
C-AB	0.53	0.04	6.334	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	5.793	A	A
B-A	0.39	0.03	8.349	A	A
C-AB	0.65	0.04	6.482	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.78	0.05	5.988	A	A
B-A	0.52	0.03	8.930	A	A
C-AB	0.82	0.05	6.694	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.79	0.05	5.988	A	A
B-A	0.53	0.04	8.930	A	A
C-AB	0.83	0.06	6.694	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.64	0.04	5.794	A	A
B-A	0.42	0.03	8.350	A	A
C-AB	0.66	0.04	6.483	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:15-18:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.53	0.04	5.661	A	A
B-A	0.34	0.02	7.975	A	A
C-AB	0.54	0.04	6.338	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2037 B+D, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 B+D, AM	2037 B+D	AM		ONE HOUR	08:00	09:30	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		7.30	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B178 Hillsborough Road (S)		Major
B	B	Site Access		Minor
C	C	B178 Hillsborough Road (N)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	116.00	✓	5.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.



## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	67	200

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	610.982	0.111	0.281	0.177	0.402
1	B-C	781.710	0.120	0.303	-	-
1	C-B	696.962	0.270	0.270	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	335.00	100.000
B	ONE HOUR	✓	49.00	100.000
C	ONE HOUR	✓	493.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	9.000	326.000
	B	15.000	0.000	34.000
	C	471.000	22.000	0.000

**Turning Proportions (PCU) - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.31	0.00	0.69
	C	0.96	0.04	0.00

## Vehicle Mix

**Average PCU Per Vehicle - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

**Heavy Vehicle Percentages - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.06	6.31	0.07	A	31.20	46.80	4.72	6.05	0.05	4.72	6.05
B-A	0.04	10.13	0.05	B	13.76	20.65	3.20	9.30	0.04	3.20	9.30
C-AB	0.04	6.91	0.05	A	20.19	30.28	3.38	6.69	0.04	3.38	6.69
C-A	-	-	-	-	432.20	648.30	-	-	-	-	-
A-B	-	-	-	-	8.26	12.39	-	-	-	-	-
A-C	-	-	-	-	299.14	448.71	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.43	0.00	702.32	0.036	0.00	0.04	5.848	A
B-A	11.29	2.82	11.19	0.00	471.76	0.024	0.00	0.03	8.596	A
C-AB	16.56	4.14	16.44	0.00	628.86	0.026	0.00	0.03	6.466	A
C-A	354.59	88.65	354.59	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	245.43	61.36	245.43	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.53	0.00	686.62	0.045	0.04	0.05	6.035	A
B-A	13.48	3.37	13.46	0.00	444.73	0.030	0.03	0.03	9.182	A
C-AB	19.78	4.94	19.75	0.00	615.64	0.032	0.03	0.04	6.645	A
C-A	423.42	105.85	423.42	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	293.07	73.27	293.07	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.38	0.00	664.83	0.056	0.05	0.07	6.311	A
B-A	16.52	4.13	16.47	0.00	407.32	0.041	0.03	0.05	10.130	B
C-AB	24.22	6.06	24.18	0.00	597.36	0.041	0.04	0.05	6.908	A
C-A	518.58	129.65	518.58	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	358.93	89.73	358.93	0.00	-	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.43	0.00	664.79	0.056	0.07	0.07	6.311	A
B-A	16.52	4.13	16.51	0.00	407.33	0.041	0.05	0.05	10.132	B
C-AB	24.22	6.06	24.22	0.00	597.36	0.041	0.05	0.05	6.908	A
C-A	518.58	129.65	518.58	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	358.93	89.73	358.93	0.00	-	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.62	0.00	686.56	0.045	0.07	0.05	6.037	A
B-A	13.48	3.37	13.53	0.00	444.75	0.030	0.05	0.03	9.183	A
C-AB	19.78	4.94	19.82	0.00	615.64	0.032	0.05	0.04	6.645	A
C-A	423.42	105.85	423.42	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	293.07	73.27	293.07	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.64	0.00	702.21	0.036	0.05	0.04	5.855	A
B-A	11.29	2.82	11.32	0.00	471.79	0.024	0.03	0.03	8.600	A
C-AB	16.56	4.14	16.59	0.00	628.86	0.026	0.04	0.03	6.467	A
C-A	354.59	88.65	354.59	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	245.43	61.36	245.43	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.60	0.04	5.848	A	A
B-A	0.39	0.03	8.596	A	A
C-AB	0.44	0.03	6.466	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.75	0.05	6.035	A	A
B-A	0.50	0.03	9.182	A	A
C-AB	0.55	0.04	6.645	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.96	0.06	6.311	A	A
B-A	0.67	0.04	10.130	B	B
C-AB	0.69	0.05	6.908	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.98	0.07	6.311	A	A
B-A	0.69	0.05	10.132	B	B
C-AB	0.70	0.05	6.908	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.79	0.05	6.037	A	A
B-A	0.53	0.04	9.183	A	A
C-AB	0.55	0.04	6.645	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.64	0.04	5.855	A	A
B-A	0.42	0.03	8.600	A	A
C-AB	0.45	0.03	6.467	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2037 B+D, PM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

**Analysis Set Details**

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

**Demand Set Details**

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 B+D, PM	2037 B+D	PM		ONE HOUR	17:00	18:30	90	15				✓		

## Junction Network

**Junctions**

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		7.00	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	B178 Hillsborough Road (S)		Major
B	B	Site Access		Minor
C	C	B178 Hillsborough Road (N)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	116.00	✓	5.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	67	200

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	611.441	0.111	0.281	0.177	0.402
1	B-C	781.481	0.120	0.303	-	-
1	C-B	696.962	0.270	0.270	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	292.00	100.000
B	ONE HOUR	✓	42.00	100.000
C	ONE HOUR	✓	409.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	11.000	281.000
	B	13.000	0.000	29.000
	C	382.000	27.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.31	0.00	0.69
	C	0.93	0.07	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.05	6.10	0.05	A	26.61	39.92	3.92	5.89	0.04	3.92	5.89
B-A	0.03	9.38	0.04	A	11.93	17.89	2.61	8.74	0.03	2.61	8.74
C-AB	0.05	6.82	0.06	A	24.78	37.16	4.10	6.62	0.05	4.10	6.62
C-A	-	-	-	-	350.53	525.79	-	-	-	-	-
A-B	-	-	-	-	10.09	15.14	-	-	-	-	-
A-C	-	-	-	-	257.85	386.78	-	-	-	-	-

## Main Results for each time segment

### Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.69	0.00	712.86	0.031	0.00	0.03	5.727	A
B-A	9.79	2.45	9.70	0.00	491.85	0.020	0.00	0.02	8.212	A
C-AB	20.33	5.08	20.18	0.00	637.60	0.032	0.00	0.04	6.412	A
C-A	287.59	71.90	287.59	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	211.55	52.89	211.55	0.00	-	-	-	-	-	-

### Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.04	0.00	699.34	0.037	0.03	0.04	5.881	A
B-A	11.69	2.92	11.66	0.00	468.62	0.025	0.02	0.03	8.666	A
C-AB	24.27	6.07	24.24	0.00	626.08	0.039	0.04	0.04	6.579	A
C-A	343.41	85.85	343.41	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	252.61	63.15	252.61	0.00	-	-	-	-	-	-

### Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.88	0.00	680.60	0.047	0.04	0.05	6.104	A
B-A	14.31	3.58	14.28	0.00	436.49	0.033	0.03	0.04	9.379	A
C-AB	29.73	7.43	29.68	0.00	610.15	0.049	0.04	0.06	6.821	A
C-A	420.59	105.15	420.59	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	309.39	77.35	309.39	0.00	-	-	-	-	-	-



**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.93	0.00	680.57	0.047	0.05	0.05	6.104	A
B-A	14.31	3.58	14.31	0.00	436.49	0.033	0.04	0.04	9.379	A
C-AB	29.73	7.43	29.73	0.00	610.15	0.049	0.06	0.06	6.821	A
C-A	420.59	105.15	420.59	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	309.39	77.35	309.39	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.11	0.00	699.29	0.037	0.05	0.04	5.882	A
B-A	11.69	2.92	11.72	0.00	468.63	0.025	0.04	0.03	8.668	A
C-AB	24.27	6.07	24.32	0.00	626.08	0.039	0.06	0.04	6.580	A
C-A	343.41	85.85	343.41	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	252.61	63.15	252.61	0.00	-	-	-	-	-	-

**Main results: (18:15-18:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.86	0.00	712.77	0.031	0.04	0.03	5.731	A
B-A	9.79	2.45	9.81	0.00	491.86	0.020	0.03	0.02	8.215	A
C-AB	20.33	5.08	20.36	0.00	637.60	0.032	0.04	0.04	6.417	A
C-A	287.59	71.90	287.59	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	211.55	52.89	211.55	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.50	0.03	5.727	A	A
B-A	0.32	0.02	8.212	A	A
C-AB	0.54	0.04	6.412	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	5.881	A	A
B-A	0.41	0.03	8.666	A	A
C-AB	0.66	0.04	6.579	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.79	0.05	6.104	A	A
B-A	0.54	0.04	9.379	A	A
C-AB	0.84	0.06	6.821	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.81	0.05	6.104	A	A
B-A	0.56	0.04	9.379	A	A
C-AB	0.84	0.06	6.821	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.65	0.04	5.882	A	A
B-A	0.44	0.03	8.668	A	A
C-AB	0.67	0.04	6.580	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:15-18:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.53	0.04	5.731	A	A
B-A	0.35	0.02	8.215	A	A
C-AB	0.55	0.04	6.417	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

<  >

# Junctions 8

## PICADY 8 - Priority Intersection Module

Version: 8.0.6.541 [19821,26/11/2015]  
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**Filename:** 19-198 A23 Moneyreagh Road Access.arc8

**Path:** X:\KevinMcShaneLtd\2019\19-198 Tender Moneyreagh DPS\Traffic\Modelling

**Report generation date:** 08/01/2020 16:21:28

- » (Default Analysis Set) - 2022 B+D, AM
- » (Default Analysis Set) - 2022 B+D, PM
- » (Default Analysis Set) - 2037 B+D, AM
- » (Default Analysis Set) - 2037 B+D, PM
- » (Default Analysis Set) - 2037 S1 B+D, AM
- » (Default Analysis Set) - 2037 S1 B+D, PM

## Summary of junction performance

	AM						PM					
	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Queue (PCU)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS
<b>A1 - 2022 B+D</b>												
Stream B-C	0.11	11.06	0.09	B	14.21	B	0.05	6.02	0.05	A	8.10	A
Stream B-A	0.11	24.37	0.09	C			0.06	15.24	0.05	C		
Stream C-AB	0.08	12.16	0.07	B			0.06	6.89	0.05	A		
Stream C-A	-	-	-	-			-	-	-	-		
Stream A-B	-	-	-	-			-	-	-	-		
Stream A-C	-	-	-	-			-	-	-	-		
<b>A1 - 2037 B+D</b>												
Stream B-C	0.14	13.57	0.11	B	19.86	C	0.05	6.20	0.05	A	8.99	A
Stream B-A	0.19	41.91	0.15	E			0.08	19.18	0.06	C		
Stream C-AB	0.10	14.54	0.08	B			0.06	7.07	0.05	A		
Stream C-A	-	-	-	-			-	-	-	-		
Stream A-B	-	-	-	-			-	-	-	-		
Stream A-C	-	-	-	-			-	-	-	-		
<b>A1 - 2037 S1 B+D</b>												
Stream B-C	0.36	17.62	0.25	C	25.98	D	0.12	6.70	0.10	A	9.83	A
Stream B-A	0.51	60.50	0.33	F			0.17	22.23	0.13	C		
Stream C-AB	0.22	16.15	0.17	C			0.12	7.52	0.10	A		
Stream C-A	-	-	-	-			-	-	-	-		
Stream A-B	-	-	-	-			-	-	-	-		
Stream A-C	-	-	-	-			-	-	-	-		

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages.

\*D1 - 2022 B+D, AM \* model duration: 08:00 - 09:30

\*D2 - 2022 B+D, PM\* model duration: 17:00 - 18:30

\*D3 - 2037 B+D, AM\* model duration: 08:00 - 09:30

\*D4 - 2037 B+D, PM\* model duration: 17:00 - 18:30

\*D5 - 2037 S1 B+D, AM\* model duration: 08:00 - 09:30

\*D6 - 2037 S1 B+D, PM\* model duration: 17:00 - 18:30

Run using Junctions 8.0.6.541 at 08/01/2020 16:21:24

## File summary

Title	(untitled)
Location	
Site Number	
Date	03/01/2020
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	KMcS
Description	



## Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

## Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

# (Default Analysis Set) - 2022 B+D, AM

## Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

## Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 B+D, AM	2022 B+D	AM		ONE HOUR	08:00	09:30	90	15				✓		

# Junction Network

## Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		14.21	B

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

# Arms

## Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

## Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	641.855	0.117	0.295	0.186	0.422
1	B-C	814.525	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1182.00	100.000
B	ONE HOUR	✓	49.00	100.000
C	ONE HOUR	✓	362.00	100.000

# Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	9.000	1173.000
	B	15.000	0.000	34.000
	C	340.000	22.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.31	0.00	0.69
	C	0.94	0.06	0.00

# Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

# Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queueing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.09	11.06	0.11	B	31.20	46.80	7.30	9.36	0.08	7.30	9.36
B-A	0.09	24.37	0.11	C	13.76	20.65	6.15	17.87	0.07	6.15	17.87
C-AB	0.07	12.16	0.08	B	20.19	30.28	5.31	10.52	0.06	5.31	10.52
C-A	-	-	-	-	311.99	467.98	-	-	-	-	-
A-B	-	-	-	-	8.26	12.39	-	-	-	-	-
A-C	-	-	-	-	1076.37	1614.55	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.38	0.00	530.30	0.048	0.00	0.06	7.839	A
B-A	11.29	2.82	11.14	0.00	325.49	0.035	0.00	0.04	12.590	B
C-AB	16.56	4.14	16.40	0.00	462.44	0.036	0.00	0.04	8.875	A
C-A	255.97	63.99	255.97	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	883.10	220.77	883.10	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.49	0.00	474.37	0.064	0.06	0.07	8.920	A
B-A	13.48	3.37	13.41	0.00	264.03	0.051	0.04	0.06	15.795	C
C-AB	19.78	4.94	19.72	0.00	415.20	0.048	0.04	0.05	10.012	B
C-A	305.65	76.41	305.65	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	1054.50	263.63	1054.50	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.28	0.00	395.71	0.095	0.07	0.11	11.043	B
B-A	16.52	4.13	16.31	0.00	178.99	0.092	0.06	0.11	24.312	C
C-AB	24.22	6.06	24.12	0.00	349.90	0.069	0.05	0.08	12.151	B
C-A	374.35	93.59	374.35	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	1291.50	322.87	1291.50	0.00	-	-	-	-	-	-

### Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.43	0.00	395.52	0.095	0.11	0.11	11.058	B
B-A	16.52	4.13	16.51	0.00	179.01	0.092	0.11	0.11	24.366	C
C-AB	24.22	6.06	24.22	0.00	349.90	0.069	0.08	0.08	12.158	B
C-A	374.35	93.59	374.35	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	1291.50	322.87	1291.50	0.00	-	-	-	-	-	-

### Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.72	0.00	474.12	0.064	0.11	0.08	8.933	A
B-A	13.48	3.37	13.68	0.00	264.12	0.051	0.11	0.06	15.825	C
C-AB	19.78	4.94	19.88	0.00	415.20	0.048	0.08	0.06	10.021	B
C-A	305.65	76.41	305.65	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	1054.50	263.63	1054.50	0.00	-	-	-	-	-	-



**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.68	0.00	530.11	0.048	0.08	0.06	7.852	A
B-A	11.29	2.82	11.37	0.00	325.54	0.035	0.06	0.04	12.607	B
C-AB	16.56	4.14	16.62	0.00	462.44	0.036	0.06	0.04	8.883	A
C-A	255.97	63.99	255.97	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	883.10	220.77	883.10	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.80	0.05	7.839	A	A
B-A	0.56	0.04	12.590	B	B
C-AB	0.60	0.04	8.875	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.10	0.07	8.920	A	A
B-A	0.84	0.06	15.795	C	B
C-AB	0.82	0.05	10.012	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.65	0.11	11.043	B	B
B-A	1.54	0.10	24.312	C	C
C-AB	1.21	0.08	12.151	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.71	0.11	11.058	B	B
B-A	1.64	0.11	24.366	C	C
C-AB	1.23	0.08	12.158	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.18	0.08	8.933	A	A
B-A	0.95	0.06	15.825	C	B
C-AB	0.84	0.06	10.021	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.87	0.06	7.852	A	A
B-A	0.62	0.04	12.607	B	B
C-AB	0.62	0.04	8.883	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2022 B+D, PM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

**Analysis Set Details**

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

**Demand Set Details**

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2022 B+D, RM	2022 B+D	RM		ONE HOUR	17:00	18:30	90	15				✓		

## Junction Network

**Junctions**

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		8.10	A

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	642.338	0.117	0.296	0.186	0.422
1	B-C	814.285	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	337.00	100.000
B	ONE HOUR	✓	42.00	100.000
C	ONE HOUR	✓	1238.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	11.000	326.000
	B	13.000	0.000	29.000
	C	1211.000	27.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.31	0.00	0.69
	C	0.98	0.02	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.05	6.02	0.05	A	26.61	39.92	3.84	5.77	0.04	3.84	5.77
B-A	0.05	15.24	0.06	C	11.93	17.89	3.77	12.65	0.04	3.77	12.65
C-AB	0.05	6.89	0.06	A	24.78	37.16	4.13	6.66	0.05	4.13	6.66
C-A	-	-	-	-	1111.23	1666.85	-	-	-	-	-
A-B	-	-	-	-	10.09	15.14	-	-	-	-	-
A-C	-	-	-	-	299.14	448.71	-	-	-	-	-

## Main Results for each time segment

### Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.70	0.00	731.19	0.030	0.00	0.03	5.581	A
B-A	9.79	2.45	9.68	0.00	390.58	0.025	0.00	0.03	10.394	B
C-AB	20.33	5.08	20.18	0.00	636.40	0.032	0.00	0.04	6.424	A
C-A	911.70	227.93	911.70	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	245.43	61.36	245.43	0.00	-	-	-	-	-	-

### Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.04	0.00	714.26	0.037	0.03	0.04	5.753	A
B-A	11.69	2.92	11.64	0.00	341.71	0.034	0.03	0.04	11.996	B
C-AB	24.27	6.07	24.24	0.00	622.93	0.039	0.04	0.04	6.614	A
C-A	1088.66	272.17	1088.66	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	293.07	73.27	293.07	0.00	-	-	-	-	-	-

### Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.88	0.00	690.09	0.046	0.04	0.05	6.016	A
B-A	14.31	3.58	14.23	0.00	274.12	0.052	0.04	0.06	15.232	C
C-AB	29.73	7.43	29.68	0.00	604.31	0.049	0.04	0.06	6.891	A
C-A	1333.34	333.33	1333.34	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	358.93	89.73	358.93	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.93	0.00	689.98	0.046	0.05	0.05	6.017	A
B-A	14.31	3.58	14.31	0.00	274.16	0.052	0.06	0.06	15.239	C
C-AB	29.73	7.43	29.73	0.00	604.31	0.049	0.06	0.06	6.891	A
C-A	1333.34	333.33	1333.34	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	358.93	89.73	358.93	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.12	0.00	714.09	0.037	0.05	0.04	5.758	A
B-A	11.69	2.92	11.77	0.00	341.80	0.034	0.06	0.04	12.003	B
C-AB	24.27	6.07	24.32	0.00	622.93	0.039	0.06	0.04	6.615	A
C-A	1088.66	272.17	1088.66	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	293.07	73.27	293.07	0.00	-	-	-	-	-	-

**Main results: (18:15-18:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.86	0.00	731.00	0.030	0.04	0.03	5.583	A
B-A	9.79	2.45	9.83	0.00	390.65	0.025	0.04	0.03	10.401	B
C-AB	20.33	5.08	20.36	0.00	636.40	0.032	0.04	0.04	6.430	A
C-A	911.70	227.93	911.70	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	245.43	61.36	245.43	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.49	0.03	5.581	A	A
B-A	0.40	0.03	10.394	B	B
C-AB	0.54	0.04	6.424	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.61	0.04	5.753	A	A
B-A	0.56	0.04	11.996	B	B
C-AB	0.67	0.04	6.614	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.78	0.05	6.016	A	A
B-A	0.86	0.06	15.232	C	B
C-AB	0.85	0.06	6.891	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.80	0.05	6.017	A	A
B-A	0.90	0.06	15.239	C	B
C-AB	0.85	0.06	6.891	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.64	0.04	5.758	A	A
B-A	0.61	0.04	12.003	B	B
C-AB	0.67	0.04	6.615	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:15-18:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.52	0.03	5.583	A	A
B-A	0.44	0.03	10.401	B	B
C-AB	0.55	0.04	6.430	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2037 B+D, AM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 B+D AM	2037 B+D	AM		ONE HOUR	08:00	09:30	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		19.86	C

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	641.855	0.117	0.295	0.186	0.422
1	B-C	814.525	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.



Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1359.00	100.000
B	ONE HOUR	✓	49.00	100.000
C	ONE HOUR	✓	413.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	9.000	1350.000
	B	15.000	0.000	34.000
	C	391.000	22.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.31	0.00	0.69
	C	0.95	0.05	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

**Heavy Vehicle Percentages - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queueing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queueing Delay (PCU-min/min)	Inclusive Total Queueing Delay (PCU-min)	Inclusive Average Queueing Delay (s)
B-C	0.11	13.57	0.14	B	31.20	46.80	8.49	10.89	0.09	8.49	10.89
B-A	0.15	41.91	0.19	E	13.76	20.65	8.98	26.10	0.10	8.98	26.10
C-AB	0.08	14.54	0.10	B	20.19	30.28	6.10	12.08	0.07	6.10	12.08
C-A	-	-	-	-	358.79	538.18	-	-	-	-	-
A-B	-	-	-	-	8.26	12.39	-	-	-	-	-
A-C	-	-	-	-	1238.78	1858.18	-	-	-	-	-

**Main Results for each time segment**
**Main results: (08:00-08:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.36	0.00	487.88	0.052	0.00	0.06	8.557	A
B-A	11.29	2.82	11.11	0.00	278.97	0.040	0.00	0.05	14.775	B
C-AB	16.56	4.14	16.39	0.00	426.00	0.039	0.00	0.04	9.663	A
C-A	294.37	73.59	294.37	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	1016.35	254.09	1016.35	0.00	-	-	-	-	-	-

**Main results: (08:15-08:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.47	0.00	423.22	0.072	0.06	0.08	10.080	B
B-A	13.48	3.37	13.37	0.00	208.47	0.065	0.05	0.07	20.285	C
C-AB	19.78	4.94	19.71	0.00	371.69	0.053	0.04	0.06	11.246	B
C-A	351.50	87.88	351.50	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	1213.62	303.41	1213.62	0.00	-	-	-	-	-	-

**Main results: (08:30-08:45)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.22	0.00	329.72	0.114	0.08	0.14	13.528	B
B-A	16.52	4.13	16.08	0.00	110.90	0.149	0.07	0.18	41.581	E
C-AB	24.22	6.06	24.08	0.00	296.61	0.082	0.06	0.10	14.523	B
C-A	430.50	107.62	430.50	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	1486.38	371.59	1486.38	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	37.43	9.36	37.43	0.00	329.18	0.114	0.14	0.14	13.572	B
B-A	16.52	4.13	16.50	0.00	110.93	0.149	0.18	0.19	41.910	E
C-AB	24.22	6.06	24.22	0.00	296.61	0.082	0.10	0.10	14.537	B
C-A	430.50	107.62	430.50	0.00	-	-	-	-	-	-
A-B	9.91	2.48	9.91	0.00	-	-	-	-	-	-
A-C	1486.38	371.59	1486.38	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	30.57	7.64	30.78	0.00	422.68	0.072	0.14	0.09	10.111	B
B-A	13.48	3.37	13.92	0.00	208.67	0.065	0.19	0.08	20.376	C
C-AB	19.78	4.94	19.91	0.00	371.69	0.053	0.10	0.06	11.260	B
C-A	351.50	87.88	351.50	0.00	-	-	-	-	-	-
A-B	8.09	2.02	8.09	0.00	-	-	-	-	-	-
A-C	1213.62	303.41	1213.62	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	25.60	6.40	25.70	0.00	487.62	0.052	0.09	0.06	8.574	A
B-A	11.29	2.82	11.42	0.00	279.04	0.040	0.08	0.05	14.805	B
C-AB	16.56	4.14	16.63	0.00	426.00	0.039	0.06	0.04	9.676	A
C-A	294.37	73.59	294.37	0.00	-	-	-	-	-	-
A-B	6.78	1.69	6.78	0.00	-	-	-	-	-	-
A-C	1016.35	254.09	1016.35	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (08:00-08:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.87	0.06	8.557	A	A
B-A	0.65	0.04	14.775	B	B
C-AB	0.65	0.04	9.663	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:15-08:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.23	0.08	10.080	B	B
B-A	1.06	0.07	20.285	C	C
C-AB	0.92	0.06	11.246	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.00	0.13	13.528	B	B
B-A	2.50	0.17	41.581	E	D
C-AB	1.44	0.10	14.523	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.09	0.14	13.572	B	B
B-A	2.78	0.19	41.910	E	D
C-AB	1.47	0.10	14.537	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.35	0.09	10.111	B	B
B-A	1.25	0.08	20.376	C	C
C-AB	0.94	0.06	11.260	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.95	0.06	8.574	A	A
B-A	0.74	0.05	14.805	B	B
C-AB	0.68	0.05	9.676	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-



## (Default Analysis Set) - 2037 B+D, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

### Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 B+D, PM	2037 B+D	PM		ONE HOUR	17:00	18:30	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		8.99	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

## Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	642.338	0.117	0.296	0.186	0.422
1	B-C	814.285	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	386.00	100.000
B	ONE HOUR	✓	42.00	100.000
C	ONE HOUR	✓	1421.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	11.000	375.000
	B	13.000	0.000	29.000
	C	1394.000	27.000	0.000

**Turning Proportions (PCU) - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.31	0.00	0.69
	C	0.98	0.02	0.00

## Vehicle Mix

**Average PCU Per Vehicle - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

**Heavy Vehicle Percentages - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.05	6.20	0.05	A	26.61	39.92	3.93	5.91	0.04	3.93	5.91
B-A	0.06	19.18	0.08	C	11.93	17.89	4.48	15.03	0.05	4.48	15.03
C-AB	0.05	7.07	0.06	A	24.78	37.16	4.22	6.81	0.05	4.22	6.81
C-A	-	-	-	-	1279.16	1918.74	-	-	-	-	-
A-B	-	-	-	-	10.09	15.14	-	-	-	-	-
A-C	-	-	-	-	344.11	516.16	-	-	-	-	-

## Main Results for each time segment

### Main results: (17:00-17:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.70	0.00	719.15	0.030	0.00	0.03	5.678	A
B-A	9.79	2.45	9.66	0.00	354.04	0.028	0.00	0.03	11.495	B
C-AB	20.33	5.08	20.18	0.00	626.31	0.032	0.00	0.04	6.531	A
C-A	1049.48	262.37	1049.48	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	282.32	70.58	282.32	0.00	-	-	-	-	-	-

### Main results: (17:15-17:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.04	0.00	699.56	0.037	0.03	0.04	5.879	A
B-A	11.69	2.92	11.63	0.00	298.08	0.039	0.03	0.04	13.824	B
C-AB	24.27	6.07	24.24	0.00	610.89	0.040	0.04	0.05	6.749	A
C-A	1253.18	313.29	1253.18	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	337.12	84.28	337.12	0.00	-	-	-	-	-	-

### Main results: (17:30-17:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.88	0.00	670.97	0.048	0.04	0.05	6.196	A
B-A	14.31	3.58	14.19	0.00	220.68	0.065	0.04	0.07	19.163	C
C-AB	29.73	7.43	29.68	0.00	589.56	0.050	0.05	0.06	7.072	A
C-A	1534.82	383.71	1534.82	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	412.88	103.22	412.88	0.00	-	-	-	-	-	-

### Main results: (17:45-18:00)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	31.93	7.98	31.93	0.00	670.79	0.048	0.05	0.05	6.197	A
B-A	14.31	3.58	14.31	0.00	220.73	0.065	0.07	0.08	19.183	C
C-AB	29.73	7.43	29.73	0.00	589.56	0.050	0.06	0.06	7.072	A
C-A	1534.82	383.71	1534.82	0.00	-	-	-	-	-	-
A-B	12.11	3.03	12.11	0.00	-	-	-	-	-	-
A-C	412.88	103.22	412.88	0.00	-	-	-	-	-	-

### Main results: (18:00-18:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	26.07	6.52	26.12	0.00	699.30	0.037	0.05	0.04	5.882	A
B-A	11.69	2.92	11.81	0.00	298.21	0.039	0.08	0.05	13.833	B
C-AB	24.27	6.07	24.32	0.00	610.89	0.040	0.06	0.05	6.750	A
C-A	1253.18	313.29	1253.18	0.00	-	-	-	-	-	-
A-B	9.89	2.47	9.89	0.00	-	-	-	-	-	-
A-C	337.12	84.28	337.12	0.00	-	-	-	-	-	-



**Main results: (18:15-18:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	21.83	5.46	21.87	0.00	718.92	0.030	0.04	0.03	5.682	A
B-A	9.79	2.45	9.84	0.00	354.14	0.028	0.05	0.03	11.503	B
C-AB	20.33	5.08	20.36	0.00	626.31	0.032	0.05	0.04	6.537	A
C-A	1049.48	262.37	1049.48	0.00	-	-	-	-	-	-
A-B	8.28	2.07	8.28	0.00	-	-	-	-	-	-
A-C	282.32	70.58	282.32	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.50	0.03	5.678	A	A
B-A	0.44	0.03	11.495	B	B
C-AB	0.55	0.04	6.531	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.62	0.04	5.879	A	A
B-A	0.64	0.04	13.824	B	B
C-AB	0.68	0.05	6.749	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.80	0.05	6.196	A	A
B-A	1.07	0.07	19.163	C	B
C-AB	0.87	0.06	7.072	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.82	0.05	6.197	A	A
B-A	1.13	0.08	19.183	C	B
C-AB	0.88	0.06	7.072	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.66	0.04	5.882	A	A
B-A	0.71	0.05	13.833	B	B
C-AB	0.69	0.05	6.750	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:15-18:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	0.53	0.04	5.682	A	A
B-A	0.49	0.03	11.503	B	B
C-AB	0.56	0.04	6.537	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2037 S1 B+D, AM

**Data Errors and Warnings**

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

**Analysis Set Details**

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

**Demand Set Details**

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 S1 B+D, AM	2037 S1 B+D	AM		ONE HOUR	08:00	09:30	90	15				✓		

## Junction Network

**Junctions**

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		25.98	D

## Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

*Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.*

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	640.840	0.117	0.295	0.186	0.421
1	B-C	815.028	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-

*The slopes and intercepts shown above do NOT include any corrections or adjustments.*

*Streams may be combined, in which case capacity will be adjusted.*

*Values are shown for the first time segment only; they may differ for subsequent time segments.*

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

# Entry Flows

## General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	1369.00	100.000
B	ONE HOUR	✓	97.00	100.000
C	ONE HOUR	✓	435.00	100.000

# Turning Proportions

## Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	19.000	1350.000
	B	29.000	0.000	68.000
	C	391.000	44.000	0.000

## Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.01	0.99
	B	0.30	0.00	0.70
	C	0.90	0.10	0.00

# Vehicle Mix

## Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

## Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0



# Results

## Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.25	17.62	0.36	C	62.40	93.60	20.07	12.87	0.22	20.08	12.87
B-A	0.33	60.50	0.51	F	26.61	39.92	22.04	33.13	0.24	22.04	33.14
C-AB	0.17	16.15	0.22	C	40.38	60.56	13.20	13.08	0.15	13.20	13.08
C-A	-	-	-	-	358.79	538.18	-	-	-	-	-
A-B	-	-	-	-	17.43	26.15	-	-	-	-	-
A-C	-	-	-	-	1238.78	1858.18	-	-	-	-	-

## Main Results for each time segment

### Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	51.19	12.80	50.68	0.00	481.93	0.106	0.00	0.13	9.171	A
B-A	21.83	5.46	21.45	0.00	270.31	0.081	0.00	0.09	15.889	C
C-AB	33.13	8.28	32.76	0.00	423.94	0.078	0.00	0.09	10.114	B
C-A	294.37	73.59	294.37	0.00	-	-	-	-	-	-
A-B	14.30	3.58	14.30	0.00	-	-	-	-	-	-
A-C	1016.35	254.09	1016.35	0.00	-	-	-	-	-	-

### Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	61.13	15.28	60.90	0.00	413.86	0.148	0.13	0.19	11.213	B
B-A	26.07	6.52	25.80	0.00	197.93	0.132	0.09	0.16	22.969	C
C-AB	39.56	9.89	39.40	0.00	369.24	0.107	0.09	0.13	12.001	B
C-A	351.50	87.88	351.50	0.00	-	-	-	-	-	-
A-B	17.08	4.27	17.08	0.00	-	-	-	-	-	-
A-C	1213.62	303.41	1213.62	0.00	-	-	-	-	-	-

### Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	74.87	18.72	74.21	0.00	302.25	0.248	0.19	0.35	17.315	C
B-A	31.93	7.98	30.61	0.00	97.19	0.329	0.16	0.49	58.425	F
C-AB	48.45	12.11	48.12	0.00	293.62	0.165	0.13	0.21	16.111	C
C-A	430.50	107.62	430.50	0.00	-	-	-	-	-	-
A-B	20.92	5.23	20.92	0.00	-	-	-	-	-	-
A-C	1486.38	371.59	1486.38	0.00	-	-	-	-	-	-

**Main results: (08:45-09:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	74.87	18.72	74.84	0.00	299.58	0.250	0.35	0.36	17.615	C
B-A	31.93	7.98	31.84	0.00	97.07	0.329	0.49	0.51	60.499	F
C-AB	48.45	12.11	48.44	0.00	293.62	0.165	0.21	0.22	16.150	C
C-A	430.50	107.62	430.50	0.00	-	-	-	-	-	-
A-B	20.92	5.23	20.92	0.00	-	-	-	-	-	-
A-C	1486.38	371.59	1486.38	0.00	-	-	-	-	-	-

**Main results: (09:00-09:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	61.13	15.28	61.80	0.00	412.38	0.148	0.36	0.19	11.318	B
B-A	26.07	6.52	27.44	0.00	198.09	0.132	0.51	0.17	23.378	C
C-AB	39.56	9.89	39.88	0.00	369.24	0.107	0.22	0.13	12.036	B
C-A	351.50	87.88	351.50	0.00	-	-	-	-	-	-
A-B	17.08	4.27	17.08	0.00	-	-	-	-	-	-
A-C	1213.62	303.41	1213.62	0.00	-	-	-	-	-	-

**Main results: (09:15-09:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	51.19	12.80	51.44	0.00	481.44	0.106	0.19	0.13	9.215	A
B-A	21.83	5.46	22.12	0.00	270.27	0.081	0.17	0.10	15.976	C
C-AB	33.13	8.28	33.28	0.00	423.94	0.078	0.13	0.09	10.142	B
C-A	294.37	73.59	294.37	0.00	-	-	-	-	-	-
A-B	14.30	3.58	14.30	0.00	-	-	-	-	-	-
A-C	1016.35	254.09	1016.35	0.00	-	-	-	-	-	-

**Queuing Delay Results for each time segment**
**Queuing Delay results: (08:00-08:15)**

Stream	Queuing Total Delay (PCU-min)	Queuing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.86	0.12	9.171	A	A
B-A	1.34	0.09	15.889	C	B
C-AB	1.37	0.09	10.114	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queuing Delay results: (08:15-08:30)**

Stream	Queuing Total Delay (PCU-min)	Queuing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.73	0.18	11.213	B	B
B-A	2.30	0.15	22.969	C	C
C-AB	1.95	0.13	12.001	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:30-08:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	5.02	0.33	17.315	C	B
B-A	6.44	0.43	58.425	F	E
C-AB	3.18	0.21	16.111	C	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (08:45-09:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	5.37	0.36	17.615	C	B
B-A	7.58	0.51	60.499	F	E
C-AB	3.26	0.22	16.150	C	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:00-09:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	3.04	0.20	11.318	B	B
B-A	2.83	0.19	23.378	C	C
C-AB	2.02	0.13	12.036	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (09:15-09:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	2.05	0.14	9.215	A	A
B-A	1.55	0.10	15.976	C	B
C-AB	1.42	0.09	10.142	B	B
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

## (Default Analysis Set) - 2037 S1 B+D, PM

### Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm flare	Arm B - Minor Arm Geometry	Is flare very short? Estimated flare length is zero but has been increased to 1 because a zero flare length is not allowed.

### Analysis Set Details

Name	Roundabout Capacity Model	Description	Include In Report	Use Specific Demand Set(s)	Specific Demand Set (s)	Locked	Network Flow Scaling Factor (%)	Network Capacity Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	N/A		✓				100.000	100.000	

## Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Results For Central Hour Only	Single Time Segment Only	Locked	Run Automatically	Use Relationship	Relationship
2037 S1 B+D, FM	2037 S1 B+D	FM		ONE HOUR	17:00	18:30	90	15				✓		

## Junction Network

### Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Do Geometric Delay	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C		9.83	A

### Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

## Arms

### Arms

Arm	Arm	Name	Description	Arm Type
A	A	A23 Moneyreagh Road (E)		Major
B	B	Site Access		Minor
C	C	A23 Moneyreagh Road (W)		Major

### Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00	✓	3.00	130.00	✓	6.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

### Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane plus flare				10.00	4.50	3.00	3.00	3.00	✓	1.00	80	250

## Slope / Intercept / Capacity

### Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	640.648	0.117	0.295	0.186	0.421
1	B-C	815.123	0.125	0.316	-	-
1	C-B	705.776	0.273	0.273	-	-



The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only, they may differ for subsequent time segments.

## Traffic Flows

### Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

## Entry Flows

### General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	ONE HOUR	✓	398.00	100.000
B	ONE HOUR	✓	84.00	100.000
C	ONE HOUR	✓	1448.00	100.000

## Turning Proportions

### Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	23.000	375.000
	B	25.000	0.000	59.000
	C	1394.000	54.000	0.000

### Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.30	0.00	0.70
	C	0.96	0.04	0.00

## Vehicle Mix

### Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		A	B	C
From	A	1.100	1.100	1.100
	B	1.100	1.100	1.100
	C	1.100	1.100	1.100

**Heavy Vehicle Percentages - Junction 1 (for whole period)**

		To		
		A	B	C
From	A	10.0	10.0	10.0
	B	10.0	10.0	10.0
	C	10.0	10.0	10.0

## Results

**Results Summary for whole modelled period**

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)	Total Queuing Delay (PCU-min)	Average Queuing Delay (s)	Rate Of Queuing Delay (PCU-min/min)	Inclusive Total Queuing Delay (PCU-min)	Inclusive Average Queuing Delay (s)
B-C	0.10	6.70	0.12	A	54.14	81.21	8.49	6.27	0.09	8.49	6.27
B-A	0.13	22.23	0.17	C	22.94	34.41	9.59	16.72	0.11	9.59	16.72
C-AB	0.10	7.52	0.12	A	49.55	74.33	8.87	7.16	0.10	8.87	7.16
C-A	-	-	-	-	1279.16	1918.74	-	-	-	-	-
A-B	-	-	-	-	21.11	31.66	-	-	-	-	-
A-C	-	-	-	-	344.11	516.16	-	-	-	-	-

**Main Results for each time segment**
**Main results: (17:00-17:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	44.42	11.10	44.13	0.00	713.69	0.062	0.00	0.07	5.911	A
B-A	18.82	4.71	18.57	0.00	343.39	0.055	0.00	0.06	12.183	B
C-AB	40.65	10.16	40.35	0.00	623.84	0.065	0.00	0.08	6.784	A
C-A	1049.48	262.37	1049.48	0.00	-	-	-	-	-	-
A-B	17.32	4.33	17.32	0.00	-	-	-	-	-	-
A-C	282.32	70.58	282.32	0.00	-	-	-	-	-	-

**Main results: (17:15-17:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	53.04	13.26	52.97	0.00	691.46	0.077	0.07	0.09	6.202	A
B-A	22.47	5.62	22.36	0.00	285.58	0.079	0.06	0.09	15.038	C
C-AB	48.54	12.14	48.47	0.00	607.94	0.080	0.08	0.09	7.078	A
C-A	1253.18	313.29	1253.18	0.00	-	-	-	-	-	-
A-B	20.68	5.17	20.68	0.00	-	-	-	-	-	-
A-C	337.12	84.28	337.12	0.00	-	-	-	-	-	-

**Main results: (17:30-17:45)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	64.96	16.24	64.84	0.00	656.38	0.099	0.09	0.12	6.692	A
B-A	27.53	6.88	27.23	0.00	205.65	0.134	0.09	0.17	22.159	C
C-AB	59.46	14.86	59.34	0.00	585.95	0.101	0.09	0.12	7.517	A
C-A	1534.82	383.71	1534.82	0.00	-	-	-	-	-	-
A-B	25.32	6.33	25.32	0.00	-	-	-	-	-	-
A-C	412.88	103.22	412.88	0.00	-	-	-	-	-	-

**Main results: (17:45-18:00)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	64.96	16.24	64.96	0.00	655.98	0.099	0.12	0.12	6.699	A
B-A	27.53	6.88	27.52	0.00	205.68	0.134	0.17	0.17	22.226	C
C-AB	59.46	14.86	59.45	0.00	585.95	0.101	0.12	0.12	7.520	A
C-A	1534.82	383.71	1534.82	0.00	-	-	-	-	-	-
A-B	25.32	6.33	25.32	0.00	-	-	-	-	-	-
A-C	412.88	103.22	412.88	0.00	-	-	-	-	-	-

**Main results: (18:00-18:15)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	53.04	13.26	53.15	0.00	691.00	0.077	0.12	0.09	6.208	A
B-A	22.47	5.62	22.76	0.00	285.69	0.079	0.17	0.10	15.076	C
C-AB	48.54	12.14	48.65	0.00	607.94	0.080	0.12	0.10	7.083	A
C-A	1253.18	313.29	1253.18	0.00	-	-	-	-	-	-
A-B	20.68	5.17	20.68	0.00	-	-	-	-	-	-
A-C	337.12	84.28	337.12	0.00	-	-	-	-	-	-

**Main results: (18:15-18:30)**

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	Start Queue (PCU)	End Queue (PCU)	Delay (s)	LOS
B-C	44.42	11.10	44.49	0.00	713.33	0.062	0.09	0.07	5.923	A
B-A	18.82	4.71	18.94	0.00	343.41	0.055	0.10	0.06	12.211	B
C-AB	40.65	10.16	40.73	0.00	623.84	0.065	0.10	0.08	6.791	A
C-A	1049.48	262.37	1049.48	0.00	-	-	-	-	-	-
A-B	17.32	4.33	17.32	0.00	-	-	-	-	-	-
A-C	282.32	70.58	282.32	0.00	-	-	-	-	-	-

**Queueing Delay Results for each time segment**
**Queueing Delay results: (17:00-17:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.06	0.07	5.911	A	A
B-A	0.90	0.06	12.183	B	B
C-AB	1.13	0.08	6.784	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:15-17:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.34	0.09	6.202	A	A
B-A	1.33	0.09	15.038	C	B
C-AB	1.42	0.09	7.078	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:30-17:45)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.76	0.12	6.692	A	A
B-A	2.34	0.16	22.159	C	C
C-AB	1.85	0.12	7.517	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (17:45-18:00)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.80	0.12	6.699	A	A
B-A	2.50	0.17	22.226	C	C
C-AB	1.86	0.12	7.520	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:00-18:15)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.41	0.09	6.208	A	A
B-A	1.51	0.10	15.076	C	B
C-AB	1.44	0.10	7.083	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

**Queueing Delay results: (18:15-18:30)**

Stream	Queueing Total Delay (PCU-min)	Queueing Rate Of Delay (PCU-min/min)	Average Delay Per Arriving Vehicle (s)	Unsignalised Level Of Service	Signalised Level Of Service
B-C	1.12	0.07	5.923	A	A
B-A	1.01	0.07	12.211	B	B
C-AB	1.16	0.08	6.791	A	A
C-A	-	-	-	-	-
A-B	-	-	-	-	-
A-C	-	-	-	-	-

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