

**TCP/11/16(398)**

**Planning Application – 15/01354/IPL – Erection of two units (class 1) and associated works (in principle), including full details of one retail unit, car parking, landscaping and associated works, land 50 metres east of Duchlage Farm, Duchlage Road, Crieff**

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**PAPERS SUBMITTED  
BY THE  
APPLICANT**



# NOTICE OF REVIEW

Under Section 43A(8) Of the Town and Country Planning (SCOTLAND) ACT 1997 (As amended) In Respect of Decisions on Local Developments

The Town and Country Planning (Schemes of Delegation and Local Review Procedure) (SCOTLAND) Regulations 2013

The Town and Country Planning (Appeals) (SCOTLAND) Regulations 2013

**IMPORTANT: Please read and follow the guidance notes provided when completing this form. Failure to supply all the relevant information could invalidate your notice of review.**

**PLEASE NOTE IT IS FASTER AND SIMPLER TO SUBMIT PLANNING APPLICATIONS ELECTRONICALLY VIA <https://www.eplanning.scot>**

1. Applicant's Details		2. Agent's Details (if any)	
Title	<input type="text"/>	Ref No.	<input type="text"/>
Forename	<input type="text"/>	Forename	<input type="text"/>
Surname	<input type="text"/>	Surname	<input type="text"/>
Company Name	ALDI Stores Ltd.	Company Name	GVA James Barr
Building No./Name	<input type="text"/>	Building No./Name	Quayside House
Address Line 1	Pottishaw Road, J4M8	Address Line 1	127 Fountainbridge
Address Line 2	<input type="text"/>	Address Line 2	<input type="text"/>
Town/City	Bathgate	Town/City	Edinburgh
Postcode	Eh48 2FB	Postcode	EH3 9QG
Telephone	<input type="text"/>	Telephone	01314696019
Mobile	<input type="text"/>	Mobile	<input type="text"/>
Fax	<input type="text"/>	Fax	01314696001
Email	<input type="text"/>	Email	robert.newton@gvajb.co.uk
<b>3. Application Details</b>			
Planning authority		Perth and Kinross Council	
Planning authority's application reference number		15/01354/IPL	
Site address			
Land 50m East of Duchlage Farm, Duchlage Road, Crieff			
Description of proposed development			
Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works			

Date of application	14/08/2016	Date of decision (if any)	8/12/15
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**Note.** This notice must be served on the planning authority within three months of the date of decision notice or from the date of expiry of the period allowed for determining the application.

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**4. Nature of Application**

Application for planning permission (including householder application)	<input type="checkbox"/>
Application for planning permission in principle	<input checked="" type="checkbox"/>
Further application (including development that has not yet commenced and where a time limit has been imposed; renewal of planning permission and/or modification, variation or removal of a planning condition)	<input type="checkbox"/>
Application for approval of matters specified in conditions	<input type="checkbox"/>

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**5. Reasons for seeking review**

Refusal of application by appointed officer	<input checked="" type="checkbox"/>
Failure by appointed officer to determine the application within the period allowed for determination of the application	<input type="checkbox"/>
Conditions imposed on consent by appointed officer	<input type="checkbox"/>

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**6. Review procedure**

The Local Review Body will decide on the procedure to be used to determine your review and may at any time during the review process require that further information or representations be made to enable them to determine the review. Further information may be required by one or a combination of procedures, such as: written submissions; the holding of one or more hearing sessions and/or inspecting the land which is the subject of the review case.

Please indicate what procedure (or combination of procedures) you think is most appropriate for the handling of your review. You may tick more than one box if you wish the review to be conducted by a combination of procedures.

Further written submissions	<input type="checkbox"/>
One or more hearing sessions	<input checked="" type="checkbox"/>
Site inspection	<input type="checkbox"/>
Assessment of review documents only, with no further procedure	<input type="checkbox"/>

If you have marked either of the first 2 options, please explain here which of the matters (as set out in your statement below) you believe ought to be subject of that procedure, and why you consider further submissions or a hearing necessary.

Given the complexity of the assessment against retail policy that will be necessary

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**7. Site inspection**

In the event that the Local Review Body decides to inspect the review site, in your opinion:

Can the site be viewed entirely from public land?	<input checked="" type="checkbox"/>
Is it possible for the site to be accessed safely, and without barriers to entry?	<input type="checkbox"/>

If there are reasons why you think the Local Review Body would be unable to undertake an unaccompanied site inspection, please explain here:

## 8. Statement

You must state, in full, why you are seeking a review on your application. Your statement must set out all matters you consider require to be taken into account in determining your review. Note: you may not have a further opportunity to add to your statement of review at a later date. It is therefore essential that you submit with your notice of review, all necessary information and evidence that you rely on and wish the Local Review Body to consider as part of your review.

If the Local Review Body issues a notice requesting further information from any other person or body, you will have a period of 14 days in which to comment on any additional matter which has been raised by that person or body.

State here the reasons for your notice of review and all matters you wish to raise. If necessary, this can be continued or provided in full in a separate document. You may also submit additional documentation with this form.

Please refer to enclosed Review Statement

Have you raised any matters which were not before the appointed officer at the time your application was determined?

Yes ☐ No ☒

If yes, please explain below a) why your are raising new material b) why it was not raised with the appointed officer before your application was determined and c) why you believe it should now be considered with your review.

### 9. List of Documents and Evidence

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review

Please refer to the enclosed documents list.

Note. The planning authority will make a copy of the notice of review, the review documents and any notice of the procedure of the review available for inspection at an office of the planning authority until such time as the review is determined. It may also be available on the planning authority website.

### 10. Checklist

Please mark the appropriate boxes to confirm that you have provided all supporting documents and evidence relevant to your review:

Full completion of all parts of this form



Statement of your reasons for requesting a review



All documents, materials and evidence which you intend to rely on (e.g. plans and drawings or other documents) which are now the subject of this review.



Note. Where the review relates to a further application e.g. renewal of planning permission or modification, variation or removal of a planning condition or where it relates to an application for approval of matters specified in conditions, it is advisable to provide the application reference number, approved plans and decision notice from that earlier consent.

### DECLARATION

I, the applicant/agent hereby serve notice on the planning authority to review the application as set out on this form and in the supporting documents. I hereby confirm that the information given in this form is true and accurate to the best of my knowledge.

Signature:



Name:

GVA Grimley

Date:

7 March 2016

Any personal data that you have been asked to provide on this form will be held and processed in accordance with the requirements of the 1998 Data Protection Act.



## Review

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# **Town and Country Planning (Scotland) Act 1997 (as amended) – section 43A (8)**

**Application to review refusal of planning  
application 15/01354/IPL – Land 50m East of  
Duchlage Farm, Duchlage Road, Crieff**  
On behalf of ALDI Stores Ltd

March 2016

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Prepared By: Robert Newton  
 Status: Draft  
 Date: March 2016

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**For and on behalf of GVA Grimley Limited**



## Executive Summary

A need for a significant improvement to shopping provision in Crieff has been recognised for many years. This has been clear from Council retail studies and discussions with the local community.

The site itself is allocated for development as part of the southern expansion of the town in the Perth and Kinross Local Development Plan.

Support for redevelopment is also found in the Council's Development Brief for the site, which recognised the site had potential for retail use.

Aldi Stores Ltd have now been working with the landowner for over a year, to deliver a new Aldi store at the site and complement the wider development in the local area.

Whilst the site is allocated for employment use within the adopted LDP, there is a significant oversupply of land available within the local area and therefore its loss can be accommodated. Furthermore, the Reporter to the LDP raised concerns about the Council's calculations of employment land need, with these figures viewed as being dated and importantly, collated before the financial recession. Given this and the over-provision of employment land at an adjacent site recently granted planning permission, the site's use for retailing and associated job creation provide sufficient justification to offset this policy.

Support can also be found in Scottish Planning Policy (SPP), which introduces a presumption in favour of development that contributes to sustainable development.

This is a 'principal policy' of the Government in SPP and is there to support its primary objective of delivering sustainable economic growth across Scotland.

It means that planning decisions (including this review) should be guided by a number of principles. Of particular relevance to this review, these include:

### **1 "Giving due weight to economic benefits and responding to economic issues and challenges"**

The Aldi proposals would deliver up to 35 new direct jobs for Crieff, including store managers and store deputies, as well as store assistants, in addition to construction related work and indirect job generation through the supply side of the facilities. They also operate a market-leading graduate and apprenticeship scheme. This level of new jobs could also be potentially doubled once the second retail unit is factored in.

Aldi has a preference to recruit locally and pays all staff at least £8.40 an hour, being well above the National Living Wage and above even the Living Wage Foundation recommended level.

They also support employment growth elsewhere through Aldi's commitment to the Scottish food and beverage industry, with a number of suppliers across Scotland and including the Perth area.

## **2 “Making efficient use of existing capacities of land, including supporting town centre and regeneration priorities”**

As set out above, the review proposals are located on land identified for development and are brownfield, currently being occupied by farm outbuildings. Development of the site is also supported through the site specific brief from 2006.

## **3 “Supporting delivery of accessible retail development”**

The site is highly accessible by a choice of means of transport and offers the opportunity for genuine linked trips with other shops and services in Crieff town centre.

## **4 “Supporting good design”**

Efforts have been made to respect the adjacent listed farmhouse, through the proposed site layout and building scale. The report of handling concludes that the design is acceptable.

In short, support for the review proposals can be found in each of these SPP principles. As a statement of Scottish Ministers' priorities, the content of SPP is a material consideration that carries significant weight in the determination of this review.

The reasons for refusal in the report of handling refer to the absence of retail capacity, quantitative deficiency and qualitative deficiency, the sequential test, as well as the proposals having a significant adverse impact on Crieff town centre.

Of matters concerning retail capacity (and qualitative/quantitative deficiency), Aldi has taken a business decision to invest in Crieff, based on their own extensive in-house research, which strongly suggests that the local residents would like to shop at Aldi, or at least have the ability to do so. Indeed, this was the overwhelming feedback to their public consultation event.

Assessments of retail capacity in the manner set out in the report of handling can offer useful insight into shopping patterns and corresponding deficiencies in provision, however such findings should not then be used as a barrier to new entrants to the market. In our view, such a stance is anti-competitive and finds no support within Scottish Planning Policy.

It is acknowledged that planning permission exists on the land formerly owned by Tesco and we understand that a non-material variation was approved to amend this proposal from a single store to two retail units. Aldi have no interest in occupying this site, believing it to be unsuitable and unable to meet their standard business requirements in terms of visibility and convenient parking. Furthermore, the lack of choice for Crieff's residents is so great that we

believe a case can be to accommodate both developments and importantly, in a manner that will not impact adversely on the town centre. With similar 'edge of centre' locational characteristics for generating linked trips with the town centre, the market will ultimately determine the delivery of development at either site.

The key issue, as SPP states, is the corresponding implications for the vitality and viability of Crieff town centre and we move onto this further below.

Our assessment of retail impact shows that any trade diversions will be limited to the single (existing) foodstore operator in Crieff and principally, diversions from locations such as Perth and Stirling, where the majority of the community are currently forced to shop. This is based on the long established principle that 'like trades with like'. Furthermore, any such impact would not threaten the viability of any of these stores and as such, would not have a direct detrimental impact on the vitality and viability of the town centre. Finally, we expect that any such impact should be considered alongside the anticipated positive impact for Crieff town centre, which would arise if the community has the ability to shop more locally for their food and non-food goods.

To conclude, we believe that support can be found for the proposals in the development plan, the development brief from 2006 and SPP. We have duly made our case in light of relevant retail policy considerations also and believe they have all been satisfactorily addressed.

Accordingly, the review should be supported on its merits and we ask that the Local Review Body grants planning permission in principle in due course.

# 1. Introduction

## Background

- 1.1 This is an application to review a refusal of a planning application under Section 43A(8) of the Town and Country Planning (Scotland) Act 1997 (as amended). It has been prepared by GVA James Barr on behalf of ALDI Stores Ltd (hereafter “the applicant”).
- 1.2 This statement sets out the grounds of the review against the refusal under delegated powers by officers of Perth and Kinross Council (“PKC”) to grant planning permission in principle for the erection of two retail units and associated works, with full details of one retail unit, car parking, landscaping and associated works at land 50m east of Duchlage Farm, Duchlage Road, Crieff (hereafter “the site”). The proposed food store will be operated by Aldi, with discussions on tenants for the second unit commencing post a decision by the Local Review Body.
- 1.3 The application (ref: 15/01354/IPL) was refused by PKC on 8 December 2015. The reasons for refusal are given on the decision notice (**Document 1**) as follows:
1. The applicant has not demonstrated satisfactorily the proposal for retail use on an allocated employment site (E27) will be an acceptable departure from the Development Plan and will contravene TAYplan Policy 3 and LDP Policy ED1 because it does not support the principle of retail use (unless ancillary) on allocated employment sites should be retained for employment use.
  2. The applicant has not demonstrated satisfactorily there is sufficient quantitative and qualitative capacity for the proposed scale of retail uses and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (a) (c) (d) (g).
  3. The applicant has not demonstrated satisfactorily this is sequentially the most preferable site and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (b).
  4. The development does not contribute positively to the vitality and viability of Crieff town centre and its cumulative impact will result in a significant adverse impact on the town centre and is therefore contrary to policy RC4 of the Perth and Kinross Local Development Plan 2014
- 1.4 The application was refused under delegated powers. A copy of the report of handling is **Document 2**.
- 1.5 This statement sets out further detail regarding the proposal and the grounds of review.

## Grounds of Review

- 1.6 Scottish Government confirmed in a letter to all Heads of Planning in Scotland (in 2011) that Local Reviews should be conducted by means of a full consideration of the application

afresh. This is known as the 'de novo' approach and is similar for appeals to Scottish Ministers. See **Document 3** for a copy of this letter.

1.7 This in effect means that the Local Review Body is entitled to consider the merits of the planning proposal afresh, bearing in mind the development plan and all material considerations and are also entitled to reach different views on the weight to be attached to key matters within the application.

1.8 As such, the grounds of review are as follows:

- This review falls to be determined in line with Section 25 of the Town and Country Planning (Scotland) Act 1997 – *'in making any determination under the Planning Acts regard is to be had for the development plan, the determination shall be made in accordance with the plan unless material considerations indicate otherwise'*.
- The application accords with the development plan and furthermore, there are a number of significant material considerations of significant weight which indicate that the proposals should be approved.
- The proposals would deliver at the minimum up to 35 new jobs for Crieff within the Aldi store, with this likely to well exceed that number given the potential for additional positions to be generated by the additional retail unit.
- They would support delivery of accessible retail development, by providing better and high quality local choice for the Crieff community, thereby meeting sustainability objectives and reducing expenditure leakage to locations such as Perth. SPP makes clear that planning decisions should be guided by these principles, all of which form part of the presumption in favour of development that contributes to sustainable development. As such, the Scottish Government is clear (in SPP) that significant weight should be attached to these material considerations in decision making and therefore, the handling of this review.
- This site offers opportunities to promote further linked trips and drive footfall, given its proximity to Crieff town centre. This also affords an opportunity to retain greater consumer expenditure locally.
- There is a strong desire within the community for enhanced shopping choice within the town and specifically for the Aldi brand, as confirmed by support at the public consultation exercise and resulting letters in support of the application from Community Councils and the wider community within the area.
- The catchment area has a significant level of quantitative and qualitative deficiency given the paucity of existing shopping provision, compared to population level, which the development can assist to address.

- This is the only suitable and available site within the town that can accommodate a new Aldi store, based on their business model and standard location requirements and the development therefore meets the sequential test.
- In terms of allocated employment land, it is clear that there is currently an oversupply of land within the area and that the loss of the site can be accommodated without impacting on the requirement to maintain a 5 year land supply. Furthermore, recent approved developments to the south of the site have over-provided in terms of their original development plan allocation, further supporting this view.
- The refusal decision incorrectly makes assumptions about associated retail impact on the town centre, without adequate evidence to reach such conclusions. Indeed, the supporting retail impact assessment and healthchecks produced to support the original planning application demonstrate that the town centre is performing well compared with national average levels. Furthermore, the retail assessment found that the catchment lacked sufficient floorspace for both convenience (food) and comparison (non-food) to meet the needs of its resident population, in comparison with other towns across the Perth and Kinross area and that given the significant levels of existing expenditure leakage, the proposals could be accommodated without significant detriment to the vitality and viability of the town centre. This retail assessment considered cumulative impact matters too, associated with the development of the former Tesco site adjacent and found that the catchment could support both schemes, even in light of the uncertainty surrounding those proposals.

## Structure of Submission

1.9 In setting out the case for the applicant, this statement comprises the following sections:

- Section 2: Site and Surroundings
- Section 3: The Proposals
- Section 4: The Development Plan and Other Material Considerations
- Section 5: The Key Issues
- Section 6: Issue 1- Employment Land Allocation
- Section 7: Issue 2 – Retail deficiency
- Section 8: Issue 3 – Sequential Test
- Section 9: Issue 4 - Retail impact
- Section 10: Issue 5 – Economic Benefits and the presumption in favour of sustainable development
- Section 11: Issue 6 - Other issues

- Section 12: Conclusions
- Section 13: Documents

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## 2. Site and Surroundings

- 2.1 The review site (extending to 0.1.8 hectares) lies off Broich Road, to the south of the main Crieff settlement. It is currently occupied by the Duchlage farm buildings, comprising a range of sheds and associated agricultural land.
- 2.2 This part of the town is allocated within the adopted development plan for a major expansion, including development of new educational facilities, in the form of a secondary and primary school, and significant levels of new housing units and employment land. It is therefore clear that the character of the area has, with the completion of both schools, and will continue to, evolve considerably in future years increasing the requirement for associated infrastructure and supporting facilities to meet the needs of this expanding population.
- 2.3 The site is bordered to the west by the Duchlage farmhouse, an attractive category B listed building dating from early to mid 19<sup>th</sup> century. As a result of this listing and the benefits construed to the agricultural sheds from being within its curtilage and construction pre-1948, these structures are also considered to be listed. A separate listed building consent application was submitted with this proposal and will be covered in more detail in latter sections of this report.
- 2.4 Further west of the site lies the former Tesco development land, now owned by London and Scottish Investments (LSI) which benefits from an extant planning permission for retail use. This will be described as the 'former Tesco site'. This will be considered more fully in latter sections of this Statement.
- 2.5 In terms of other adjacent land uses, a residential street named Duchlage Court sits to the north and provides a convenient link to the town centre. On the other side of Broich Road, to the south, lie a number of cottages and a dairy farm. Planning permission in principle has also been recently granted (December 2015), under reference 15/01237/IPM, for the phased development of 335 new housing units and 6ha of employment space, to help deliver the town's expansion outlined earlier.
- 2.6 A plan has been prepared to indicate these specific areas. Please see **Document 4** for a larger version of this.



### 3. The Proposals

- 3.1 As outlined in section 1, the application seeks planning permission in principle for the erection of a Class 1 retail foodstore and additional retail unit. Detail matters have been brought forward within this submission for the foodstore development, alongside ancillary works relating to car parking, access and landscaping. It is intended that the Aldi foodstore would form the first phase of development at the site, with the second retail unit coming forward as a latter phase once a deal has been agreed with an occupier.
- 3.2 It is the intention that the foodstore will be occupied by Aldi Stores Ltd, a business who have been seeking to find a suitable site within Crieff for a number of years. The review site offers the most sequentially preferable opportunity to accommodate this.
- 3.3 The scale of retail use proposed would comprise a gross floor area of 1,803sqm, of which the sales area will comprise 1,254sqm. The retail sales mix will comprise 1,003sqm convenience (food) sales and 251sqm comparison (non-food) sales.
- 3.4 The second retail unit would have a gross floorspace of 1,022sqm, with 817sqm dedicated to sales.
- 3.5 Overall, the development would provide spaces for 183 vehicles, comprising 162 standard bays, 10 parent and child and 11 accessible spaces to serve both units.
- 3.6 The development proposals also incorporate a number of convenient and accessible walking routes, to ensure easy movement between the two units and to connect with Broich Road to the south and a new link to the town centre through Duchlage Court in the northern part of the scheme. Finally, the application also proposed the widening of pavements on Broich Road to tie in with adjacent developments and further improve the safety for walkers within this part of Crieff.
- 3.7 As noted earlier, it is intended that the proposals would be delivered in a phased manner with the Aldi element forming the first phase. The application was therefore submitted for approval with full details of:
- The design, layout and appearance of the Aldi foodstore;
  - Site layout including car parking areas, soft and hard landscaping and the dedicated service yard; and
  - Vehicular and pedestrian accesses through the site including the link to Duchlage Court.
- 3.8 As a planning permission in principle submission, consideration should therefore be given to the detailed elements applied for and if approved, this would mean a later application for the second retail unit under a Matters Specified in Conditions (MSC) submission would be brought forward for the remaining elements. It is worth noting however, that it is within the power of the Local Review Body to support the principle of the development but only approve those

detailed matters that they are content with. Therefore, if there are outstanding concerns on particular issues, for example the design or layout of the scheme, the application could still be supported, with those details to return as MSCs for latter consideration.

- 3.9 In respect to the site layout, the development proposal was prepared with due cognisance of site constraints such as a sewer main that crosses the area's southern section and to respect the setting of the adjacent B listed main farmhouse. The proposals therefore locate both buildings in the northern section of the site. This ensures that they complement rather than compete with the attractive listed building. Their location and position, however, does still benefit from good profile from Broich Road, with the Aldi foodstore building deliberately positioned with its glazed active frontage addressing the main road. Please refer to below for images of the Aldi proposal, sitting adjacent the listed farmhouse.



*View looking North*



*View looking East*

- 3.10 We note that whilst the report of handling does make comment on the design and layout of the site, the main issues raised by the officer relate only to the setting of the listed farmhouse and sequential matters. As both of these particular points will be considered later in this report, it is concluded that in general officers were content with the design aspects of the Aldi store.
- 3.11 To assist with informing a robust handling of the planning application, it was originally supported by the following documents:
- Design and Access Statement
  - Planning and Retail Assessment
  - Report of Pre-application Consultation
  - Drainage Statement (incorporating Flood Risk Assessment)
  - Ecology Survey

- 
- Transport Assessment

## Listed Building Consent

- 3.12 In addition to the above, it is also worth noting that the planning application was submitted concurrently with an application for a listed building consent (ref. 15/01721/LBC) to demolish the farm buildings on site and facilitate the realisation of the site's development potential, given its development plan allocation. This application was however refused on the 8<sup>th</sup> December. Nevertheless, we are confident that if the Review Body supports the planning application that a further application for listed building consent, to address the concerns of the Council and demonstrate compliance with the SHEP tests would be successful. This will be covered in more detail in latter sections of this report.

## 4. The Development Plan and Other Material Considerations

- 4.1 As outlined previously in section 1, Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended) requires the determination of planning applications to be made in accordance with the development plan unless material considerations indicate otherwise.
- 4.2 The Development Plan and material considerations which are of relevance to this review are outlined and appraised below.
- 4.3 It is the position of the applicant that on a proper interpretation and application of the Development Plan, the proposed development is compliant and accordingly satisfies the requirements of Section 25 of the Town and Country Planning (Scotland) Act 1997. Planning permission in principle should therefore be granted. Furthermore it is the position of the applicant that the material considerations also support a decision to allow the review. Conversely there are no material considerations which militate against approval.

### The Development Plan

- 4.4 The statutory development plan for the site comprises TAYPlan, approved in June 2012, and the Perth and Kinross Local Development Plan (LDP), as adopted in February 2014.

### TAYplan

- 4.5 The Strategic Development Plan ('SDP') identifies Crieff as a Tier 2 settlement, where it is expected to accommodate new development that can contribute to regional economic growth.
- 4.6 The plan includes a central vision for the TAYplan region,
- 'By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where more people choose to live, work, study and visit, and where businesses choose to invest and create jobs.'*
- 4.7 To achieve this vision, TAYplan identifies the following objectives which are relevant in the context of these proposals. These are to:
- "Ensure that new development makes best use of existing networks of infrastructure, movement corridors and ecosystems;"*
- "Promote and enhance places and landscapes as economic drivers and tourist destinations; and, support the region's town centres as accessible business and service locations;"*
- 4.8 Furthermore, Policy: Location Priorities also states that as a Tier 2 settlement Crieff is expected to make a major contribution to the regional economy.

## Perth & Kinross Council Local Development Plan

- 4.9 The Perth and Kinross LDP was adopted in February 2014 and sets out the Council's objectives and policy framework for new development over the lifetime of the Plan. The Vision Statement notes that:

*"The majority of that growth focuses on Perth City and its Core area. This will build upon its key role as the hub of the area. It will ensure that the growth in employment opportunities keeps pace with population growth thereby creating the critical mass to deliver improved retail, leisure and cultural facilities to serve the City and its hinterland. This will be complemented by development focused on the burghs of Kinross, Aberfeldy, Pitlochry, **Crieff**, Auchterarder and Blairgowrie with increased prosperity in the smaller towns, villages and rural communities."(GVA underlining)*

### Site Specific Policy

- 4.10 The application site is designated for development within the LDP and allocated for Business/Employment use under reference E27. This states that proposals must be compatible with neighbouring uses, particularly in respect of visual and noise impacts.
- 4.11 In this first regard, it is noteworthy that these adjacent uses include a primary school, residential areas to the north and south and a proposed supermarket development. It is therefore clear that only limited types of employment use with minimal amenity impacts would be suitable at such a location given these neighbouring constraints.
- 4.12 Further specific requirements for this site are the implementation of the approved development brief and for the access road to be delivered in conjunction with adjacent supermarket development. The development brief is enclosed at **Document 5**. The principal comments from the Brief that relate to the application proposals are the following:
- This brief recognises that the wider Duchlage Farm site (including the Tesco land) could be a suitable location to accommodate new retail development for the town, subject to robust testing on impact considerations.
  - Improved links with the town centre are important.
  - The setting of the farmhouse should be preserved, with the building itself maintained, if possible.
  - The other farm buildings are not referenced within the Brief. It can therefore only be concluded that their fate was not considered sufficiently important for comment in the document.

- The brief clarifies that any retail development would need to demonstrate that additional floorspace would not damage the vitality or viability of the town centre.
- Finally, the brief also encourages the development of an attractive landscape framework to minimise the appearance of the hard landscaping areas within the car park.

4.13 Given its age and the change in circumstances since its approval, it is clear that only limited weight can be attached to the brief for development management purposes, nevertheless, the main findings listed above are considered to be relevant to this Review case.

## Employment Land

4.14 Turning back to the LDP and given the site's allocation for employment use, policy E1 has relevance and states that:

*"Areas identified for employment uses should be retained for such uses. Within these areas any proposed development must be compatible with surrounding land uses. In addition all the following criteria will be applied to development proposals in these areas (individual sites may also have specific requirements):*

*(a) Proposals should not detract from the amenity of adjoining, especially residential, areas.*

*(b) The local road network should be suitable for the traffic generated by the proposals.*

*(c) There should be good walking, cycling and public transport links to new employment generating uses.*

*(d) Proposals for retail uses in employment areas will not generally be acceptable unless they are ancillary to an acceptable use on the site.*

*(e) Proposals for waste management facilities can be considered to be acceptable subject to detailed site specific considerations.*

*(f) Proposals should not result in adverse impacts, either individually or in combination, on the integrity of any European designated site."*

4.15 The supporting policy text continues to stress the importance of economic development activity and its wider benefits for delivering growth in the economy. The Plan notes that the Council promotes an environment that is supportive of business and accordingly a flexible framework is applied to maximise opportunities with this policy for wealth creation.

4.16 As the development proposal undoubtedly will create employment and given the oversupply of employment land in the local area compared with take-up levels, it is considered that this policy has been addressed. Fuller consideration of this policy will be given within later sections of this report.

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## Retail Policy

- 4.17 Given the nature of the proposed development, policies relating to retail land uses are of relevance. This principally includes policy RC4: Retail and Commercial Leisure Proposals, which states that:

*"Proposals in edge of town centre, other commercial centre or out of centre locations will only be acceptable where:*

- (a) It can be demonstrated that a proposal helps meet quantitative and qualitative deficiencies in existing provision.*
- (b) It is supported by a favourable sequential assessment.*
- (c) It is of an appropriate scale.*
- (d) It provides improved distribution and accessibility of shopping provision.*
- (e) It provides for accessibility to public transport and non-car modes of transport.*
- (f) Any detrimental effects identified in the transport assessment are mitigated.*
- (g) It has been demonstrated that there will be no significant impact (individual or cumulative) on any of the centres within the network of centres.*

*For all proposals outwith town centres the Council will consider the need for restrictions to be imposed on the installation of mezzanine floors and, in the case of convenience shopping developments, on the amount of comparison goods floorspace allowed."*

- 4.18 It is considered that this policy was fully addressed within the supporting information submitted with the original planning application. A copy of this is enclosed as **Document 6**. These matters will be considered in fully within the later sections of this report.
- 4.19 In addition to the above, general policies covering a range of issues from design to transport also need to be considered in the determination of the planning application. These are set out below.

## Design

- 4.20 Policy PM1: Placemaking requires all new developments to contribute positively to their immediate environments and take account of climate change. The policy continues that design, density and siting of development should respect the character of an area and should seek to create and improve links beyond the site to enhance the sustainability of proposals.
- 4.21 In this regard it is considered that the proposals do comply with policy PM1 and that the development will make a positive contribution in terms of its design, scale and materials to the evolving character of this expansion area of the town.
- 4.22 Policy PM1B states that:

*"All proposals should meet all the following placemaking criteria:*



- (a) *Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings.*
- (b) *Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.*
- (c) *The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.*
- (d) *Respect an existing building line where appropriate, or establish one where none exists. Access, uses, and orientation of principal elevations should reinforce the street or open space.*
- (e) *All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.*
- (f) *Buildings and spaces should be designed with future adaptability in mind wherever possible.*
- (g) *Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.*
- (h) *Incorporate green infrastructure into new developments and make connections where possible to green networks."*

4.23 Policy PM2 also states that for sites over 0.5ha, a design statement is typically required to support the planning application. In response, a Design and Access Statement was prepared by the project architects to fully consider these matters and this should be referred to for further detail.

### **Listed Buildings**

4.24 Finally, in respect to listed building considerations, policy HE2: Listed Buildings states that:

*"There is a presumption in favour of the retention and sympathetic restoration, correct maintenance and sensitive management of listed buildings to enable them to remain in active use, and any proposed alterations or adaptations to help sustain or enhance a building's beneficial use should not adversely affect its special interest.*

*Encouragement will be given to proposals to improve the energy efficiency of listed buildings within Perth and Kinross, providing such improvements do not impact detrimentally on the special interest of the building.*

*Enabling development may be acceptable where it can be shown to be the only means of retaining a listed building. The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the building's character, appearance and setting."*



- 4.25 As noted earlier, the approved Development Brief for the site, which is specifically referenced for guidance on development of the land, focuses only on efforts to preserve the B listed farmhouse and its setting. It is notable that this makes no specific reference of the need to maintain the wider buildings in the curtilage, except to note that their retention and conversion to offices might be an appropriate solution to deliver a suitable setting for the farmhouse.
- 4.26 Further consideration of the proposals against this policy is provided in the later sections of this report.

### **Residential Amenity**

- 4.27 Policy EP8 relates to amenity matters specifically focusing on the potential for noise pollution from new developments to affect levels of amenity.
- 4.28 The policy states that there will be a presumption against new development that will generate high levels of noise close to existing or proposed noise sensitive developments.
- 4.29 A generic noise statement was submitted with the application to demonstrate the typical noise levels associated with car parking, plant and servicing at a standard Aldi store.
- 4.30 It is noted that the environmental health officer raised concerns over the potential noise from night time deliveries to the Aldi store and also cumulative impacts if the former Tesco site to the west was also developed.
- 4.31 In response, Aldi's noise consultant has confirmed that the noise rating levels required at the site would be achievable via the introduction of an acoustic fence on the northern boundary of the service yard. Aldi would be amenable to this and would also accept a planning condition in this regard to further assess cumulative noise issues and agree mitigation and appropriate servicing times to fully address the concerns.
- 4.32 It is therefore clear that these matters can be addressed and are not sufficient to not support the development proposals. Furthermore, we note that these were not a specific reason for refusal of the application and therefore conclude that the determining officer was also satisfied that these issues could be resolved.

### **Access**

- 4.33 Policies TA1A and TA1B relate to ensuring that new development sites have sufficient access and can be reached via a variety of transport means.
- 4.34 In this regard, it is noted the transport officers have no objections to the proposals and that infrastructure improvements would be required on Broich Road if the development were to be supported.

- 4.35 Aldi are happy to enter into such discussions to agree an appropriate contribution via a s.69 or s.75 agreement based on their impact on the local area, in accordance with the relevant Developer Obligations circular 3/2012.

## **Other Material Policy Considerations**

### **Scottish Planning Policy**

- 4.36 Scottish Planning Policy (SPP) sets out national planning policies which reflect Scottish Ministers' priorities for the operation of the planning system and for the development and use of land. The SPP is a material consideration that carries significant weight.
- 4.37 SPP advises that planning should take a positive approach to enabling high quality development and making efficient use of land to deliver long-term public benefits while protecting and enhancing natural and cultural resources.
- 4.38 SPP sets out Principal Policies (page 9 onwards), the first being 'sustainability'. The 'policy principles' that underpin this principal policy introduces a presumption in favour of development that contributes to sustainable development (page 9).
- 4.39 Paragraph 29 explains how this means that decisions (on planning applications) should be guided by a number of principles, a number of which are relevant to the assessment of review the review proposals. They include:
1. Giving due weight to net economic benefits;
  2. Responding to economic issues, challenges and opportunities;
  3. Supporting good design;
  4. Making efficient use of land; and,
  5. Supporting delivery of accessible retail development.
- 4.40 Further consideration of these issues in the context of the review are provided within Issue 5 of this statement.

### **Duchlage Farm Area Development Brief**

- 4.41 A further material consideration for the determination of these application proposals is the non-statutory brief that was produced by Perth and Kinross Council in April 2006.
- 4.42 Commentary on this has been provided above.

### **TAYplan 2 – Proposed Plan**

- 4.43 TAYplan 2 represents the second Strategic Development Plan for the area to be prepared and will replace the first iteration when finalised. TAYplan 2 will shortly be submitted for Examination by Reporters having been out for consultation on the Proposed Plan in mid 2015.

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- 4.44 Given its stage of preparation its content has some relevance to the determination of this Review.
- 4.45 The Vision for TAYplan 2 is:
- “By 2036, the TAYplan are will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where more people choose to live, work, study and visit and where businesses choose to invest and create jobs.”
- 4.46 As part of this document, the focus on Crieff as a Tier 2 settlement remains recognising its ability to contribute to regional economic growth.
- 4.47 Other policies relating to sustainable economic growth and retail proposals are consistent with the approved TAYplan and will not be repeated here.

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## 5. The Key Issues

5.1 The subsequent sections of this report focus on the key issues relevant to the review. These are:

1. **Employment land;**
2. **Retail capacity and deficiency;**
3. **Sequential test;**
4. **Retail impact;**
5. **Economic benefits and the presumption in favour of sustainable development;**
6. **Other issues.**

5.2 Each of these key issues has been taken in turn within the following sections of this statement.

## 6. Issue 1 – Employment Land

6.1 The first reason for refusal relates to the employment land status of the site and states that:

*“The applicant has not demonstrated satisfactorily the proposal for retail use on an allocated employment site (E27) will be an acceptable departure from the Development Plan and will contravene TAYplan Policy 3 and LDP Policy ED1 because it does not support the principle of retail use (unless ancillary) on allocated employment sites should be retained for employment use.”*

6.2 Policy ED1 is the relevant planning policy that covers employment sites, as referenced earlier. This policy states that these areas should be retained for traditional employment uses and any such development will need to ensure it is compatible with other neighbouring uses, both existing and proposed.

6.3 Whilst the policy does state that retail uses on these allocations will be resisted it does acknowledge that the Council will be pragmatic and employ flexibility to deliver economic growth.

6.4 The original Planning and Retail Statement submitted with the application addressed this policy fully by considering the economic land supply within the area, the development proposal's own credentials to generate employment and sustainable economic growth and the challenge for delivering typical employment uses on the site given adjacent neighbouring uses. The full arguments will not be repeated here and the original Statement **Document 6** should be consulted. A summary of that case is provided below.

### Loss of Employment Land

- The area clearly has more than sufficient employment land to meet the needs in the local vicinity.
- The site is allocated as E27 and 1.6ha in size. This is only 7% of the total potential employment space across the entire Strathearn region within the LDP. Across Crieff, 3 sites, totalling 9.6ha of land, are allocated.
- The Council's LDP states that a 20ha land supply is necessary up to 2024. The LDP therefore required to allocate only 14.4ha of land, nevertheless, 22.6ha was allocated, as per the table under paragraph 8.1.8 of the LDP. This represents a significant over-provision.
- Notwithstanding the above, the Reporter for the LDP raised concerns over the reliability of the data used to justify the scale of the 20ha land requirement, noting this information was from 2008/09-10 and given the recent economic climate seeing a reduction in employment space growth, the figures used would significantly overestimate needs. See **Document 7**.

- Based on the above over-supply and concerns over the need for 20ha of land, it is clear that the loss of the site, being only 1.6ha, would still leave more than sufficient employment land within the Strathearn area to meet land requirements.
- In addition to this, it is notable that the planning application (15/01237/IPM), recently approved to the immediate south of the site, was granted in principle in December 2015 with 6ha of employment space proposed. This level exceeded the requirement set out within the LDP by 1ha, as per the allocation MU27 of the LDP. See **Document 8**. With this in mind it is clear that the loss of this site is already nearly completely offset by the provision on the land to the south.
- In the context of the 9ha total land allocated for Crieff, it is clear that this 0.6ha loss can be accommodated, particularly given the economic gains from the proposals.

## Economic Benefit of Proposals

- 6.5 The development proposals will deliver a number of significant economic benefits that we consider should offset concerns over this loss. Increasingly, the importance of retailing as a key employment sector has been highlighted by Scottish Government and is an essential part of the job mix within the national and local economy.
- 6.6 The specific economic benefits that the proposals would provide include:
- 30 FTE employment positions within the Aldi foodstore;
  - Potentially a further 43 FTE jobs within the Class 1 retail unit (dependent on operator);
  - In terms of indirect employment, such as jobs for Aldi's supply chain, with businesses such as Rannoch Smokery, Mackies and Tower Bakery in Perth potentially benefiting, the proposals will generate a further 14 FTE positions;
  - High quality and award-winning apprenticeship and training programs;
  - A construction project value of around £3.2m, resulting in the creation of 48 job years of work, which is the equivalent of 4 FTE construction positions.
  - A total direct and indirect Gross Value Added from construction delivering a further £2.4m to the local economy.
- 6.7 In light of the above, it is clear that the development proposals would generate substantial employment and other economic benefits for the local Crieff area. As such, it is considered that these more than address the policy requirement to generate economic growth from the land.

## Complementary Development

- 6.8 Finally, a key requirement of the LDP allocation of the site for employment uses is ensuring any such development is compatible with adjacent land uses and will not impact on amenity.

Given the adjacent land uses at the site, which comprise residential uses to the north and south, both existing and proposed, and a primary school to the east, it is clear that many forms of traditional employment use could have a significant challenge in delivering development that does not impact on these adjacent uses, particularly in respect to preserving residential amenity and ensuring the safety of schoolchildren. We note anecdotally that these concerns were raised by the school within the public exhibition held prior to the submission of the planning application.

6.9 In our opinion, it is clear that the development proposals would be a more appropriate complementary use for the site and a better neighbour for nearby sensitive uses. In this regard, we note that the development proposals to the south of Broich Road have had similar concerns and deliberately addressed these by locating their employment space some distance from their proposed dwellings and also away from the two new schools. See **Document 8**.

6.10 It is considered therefore that the proposals represent a more sympathetic and compatible land use with those adjacent and this should therefore also favour a departure from the development plan in this instance.

## Summary

6.11 In summary it is therefore concluded that:

- The proposals will deliver a range of significant economic benefits to the local area that more than offset the loss of this employment land allocation.
- There has been no interest shown from any commercial business to developing the land for employment space, given the recent economic climate.
- The current LDP has, in our opinion, and supported by the views of the LDP Reporter, overestimated requirements for employment land in the Strathearn area and therefore this site is not required to provide a viable level of supply to comply with TAYplan policy.
- Given the wider allocation of space across Strathearn and in light of the additional provision of employment space on land to the south (an extra 1ha over LDP requirement), the loss of this 1.6ha site can be accommodated without negative impact.
- Finally, the proposals would represent a far more natural neighbour to a primary school and adjacent residential areas, given the likely amenity impacts associated with other potential employment uses on the site.

## 7. Issue 2 – Retail capacity and deficiency

7.1 The reason for refusal relates to retail capacity and deficiency, and states:

*"The applicant has not demonstrated satisfactorily there is sufficient quantitative and qualitative capacity for the proposed scale of retail uses and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (a) (c) (d) (g)"*

7.2 On a point of clarification, as retail impact, policy criterion (g) is repeated under reason 4 for the refusal, it will therefore be considered separately within Section 9 of this submission. This section will instead focus on matters of capacity, deficiency, scale and accessibility; these being the criteria of policy RC4 that the application proposals were considered not to adequately satisfy. We note that policy 7 of TAYplan references similar policies both being based on the tests within SPP and will therefore be addressed as part of this section.

### Retail Capacity and Deficiency

7.3 As part of the application submission, a Retail Assessment was prepared to support the development proposals. A copy of this report is enclosed as **Document 6** of this submission and there is no intention to recap the entirety of that report.

7.4 The main findings, in consistency with the originally submitted tables, were that:

- There is an existing significant quantitative deficiency within the catchment for both convenience (food) and comparison (non-food) goods. This totals **£22.7m** or **71%** of total expenditure for convenience items in 2018. For comparison items, this is **£37.7m**, or **80%** of the available expenditure. This level of deficiency is significant and is well known in Crieff, as per the comments from the community in the public consultation event that was held and shown in the Council's own retail study.
- The retail assessment tested a scenario where the Tesco development to the west of the site moved forward alongside the application proposals, given that this was an implemented permission. This therefore presented a worst case scenario in terms of testing capacity and also retail impact, given the uncertainty at that time of it coming forward.
- Based on average sales density turnover rates for Tesco, which are high compared to most food operators, it was found that even with that development trading a significant level of deficiency still remained, with **£12m** worth of convenience expenditure (**38% of total available**) and **£35m** of comparison expenditure (**75% of total**), continuing to leak from the catchment. A clear quantitative deficiency is therefore evident in the Crieff area.
- Given that Tesco are now not proceeding with that development and we understand from the report of handling that the proposed store will be split into two units (although no occupier has been referenced) it is clear that whatever form this comes forward in, the



turnover of that development will reduce based on average sales density levels for other potential operators, particularly if one unit is occupied by a convenience retailer and the other by a comparison. Therefore, our retail assessment, by testing a Tesco development that will now not happen, demonstrated that even in a worst case scenario there was room to accommodate both.

- Given the uncertainty over the operator of the second unit within the development proposal, two options were considered, assuming firstly that the unit was occupied by another food retailer (worst case) and the second that it was occupied by a non-food retailer. The turnover of the development under each scenario is shown in the table below.

Unit	Sales Floorspace (Conv / Comp)	Convenience (Food) Turnover from catchment (£m)	Comparison (Non- Food) Turnover from Catchment (£m)
ALDI Foodstore	1,003sqm / 251 sqm	£7.86m	£1.46m
Unit 1 (100% food sales)	817sqm	£7.4m	£0m
Unit 1 (100% non-food sales)	817sqm	£0m	£1.7m
<b>TOTAL</b>		£15.26m	£3.1m

- Whilst the level of deficiency identified above is lower than the projected turnover of the total proposals, if both are operated by foodstores, levels of trade diversion from competing operators in the area, including the former Tesco site would be sufficient to support the development. In effect, these operators would trade at less than company average levels, but still remain viable. Various retail studies prepared for local authorities across Scotland in recent years, including the Perth and Kinross Retail Study 2014 have recognised that this form of trade diversion can be acceptable so long as it does not challenge the vitality and viability of town centres. Examples of these are provided in **Document 9**.
- As it would not be possible for Unit 1 above to be operated at 100% food and 100% non-food at the same time, the above turnovers therefore present an undeliverable outcome. They were however prepared within the assessment to demonstrate that under each scenario the level of turnover could be accommodated due to trade diversions that in principle were acceptable. These diversions and related impacts are covered in later sections of this Statement.

- 7.5 Based on the above turnovers, the viability of all of the businesses within the town centre will be preserved. Retailers trade below national average levels in many towns across the UK and it is unreasonable and protectionist to assume that there can be no competition to challenge this status quo position. It is therefore clear, in our view, that at these levels, the proposals can be supported.
- 7.6 In essence, the decision to refuse the application was based largely on retail capacity grounds and this was informed by the findings of a Council retail study for the entire Perth and Kinross region. We note that this was commissioned to inform the Local Development Plan and help forecast potential opportunities to plan for new floorspace development, arising from population and expenditure growth, across the lifetime of the plan.
- 7.7 This study calculated capacity on the basis of existing turnover and existing levels of outflow, at table 7.6, where it assumes that the wider Strathearn area, including Crieff, will continue to lose 80% of the available expenditure in the future. The assessment for capacity does not therefore assume a scenario where Crieff would become a more self-contained catchment and stop current levels of leakage to Perth. It only considers a status quo position in terms of retailing patterns and no opportunities for change.
- 7.8 In our view, the proposals would therefore support these ambitions and ensure that the community can access a good range of food and non-food shops more locally.
- 7.9 It is therefore questionable if capacity provides sufficient reason alone, given the findings of the supporting Retail Assessment submitted with the planning application, to refuse the development.
- 7.10 To put matters simply, retail capacity is a basic calculation of turnover of existing provision, often based on forecasted national average operator levels, compared with consumer expenditure available within a catchment area. It was recognised, however, in the report 'Town Centres and Retailing Methodologies (December 2007)', commissioned by the Scottish Government, at paragraph 3.45 that *"even modest changes in assumptions can have disproportionate impacts on the results of a capacity calculation"*. See **Document 10**.
- 7.11 Further industry commentary over the use of capacity assessments was also pointed out within paragraph 3.15 of the same report, where it recognises that such assessments can ignore market realities, being based on company average figures rather than actual turnovers.
- 7.12 The report of handling specifically notes that *"there is actually no quantitative capacity for the proposed retail development...There is therefore limited spare financial capacity for both the former Tesco site and the proposed site without significant trade diversion"*. This therefore assumes that no competition is welcome in Crieff.
- 7.13 Given the clear position within the supporting application retail tables for comparison goods, we assume that this point relates to the scenario where both units would be operated by

convenience retailers and not where the second unit could be operated by a comparison retailer. The report of handling makes no reference to quantitative deficiency for comparison (non-food) goods, where clearly there is capacity given the limited provision currently available and this further finds support from the Council's own retail study under table 10.3 (page 60) relating to the Strathearn area. Again, this conclusion is based solely on the retention of existing outflow levels (93%) and does not consider a scenario where a greater level of expenditure retention can be achieved. We consider this to be unsustainable and contrary to the objectives of national planning policy, in SPP.

- 7.14 It is therefore clear that officers made a determination that due to a lack of available convenience spend within the area (based on existing levels of outflow), negating any potential for acceptable levels of trade diversion and the allowance for competition, that there is no ability for Crieff to accommodate further retail development. This runs contrary to the provisions within SPP and is anti-competitive.
- 7.15 The Town Centres and Retailing Methodologies report examines the concept of capacity and deficiency in some detail. This considered the differences between 'need', the term used in the English planning system at that time and deficiency, the term used in Scotland. The two considerations shared many similarities and discreet differences, at least until the 'need' test was abandoned in England.
- 7.16 This policy decision largely arose from the Competition Commission's Investigation into Grocery Market published in 2009. This report considered the entirety of the UK grocery market and so its findings are equally relevant to Scotland. Relevant extracts of this report are provided in **Document 11**.
- 7.17 Given its simplistic approach to forecasted future needs and capacity for retail development, the Commission's findings were that the 'need' test (and equally applicable to quantitative deficiency), could become a barrier in the future to new entrants into local markets and is in principle, anti-competitive. This can be the case where capacity is already absorbed by existing development and this therefore limits consumer choice, protects existing foodstore operators from new competition and leads to higher prices for goods in stores, which overall is a major disadvantage for the consumer. The planning system is after all, not to discourage competition in the market, particularly in circumstances like this review, where this can provide genuine benefits for the public.
- 7.18 We respectfully suggest that a lack of forecast spare capacity (in the manner arrived at in the Perth and Kinross retail study) does not therefore carry as much weight as the decision by such a successful retailer like Aldi, who wish to invest in Crieff.
- 7.19 Furthermore, we note that Crieff is projected to see an increase of 420 housing units over the period of the LDP. Based on a typical convenience expenditure per household level of

£5,661, provided by Experian, this would generate an additional £2.3m worth of food spend in the near future.

- 7.20 It is therefore clear that as demand increases with a growing population in Crieff, so will the demand for improving choice and consumers increasingly expect Aldi to form part of this choice.

## Scale

- 7.21 The handling report for the application concluded that the scale of development was inappropriate as it was similar to the size of development approved on the site adjacent. The report continues that based on the submitted retail assessment and Council retail study that there is no capacity to accommodate this scale. Capacity matters have already been considered above, and we respectfully assert that they take a very basic view on capacity, given the findings of our own assessment and based on findings of a Council Retail Study that assumes the status quo position only and fails to recognise the existing limited nature of the shopping offer in Crieff and the need for this to improve. This is clear if the existing provision tables are considered from the Council's retail study, specifically Table 7.10 and Table 9.10 and this point is considered further at paragraph 7.27, below. See **Document 12**.
- 7.22 The submitted retail assessment, as discussed above, presented an absolute worst case scenario for provision, testing a very unlikely outcome of 100% convenience use across the former Tesco site and the ALDI proposals. It is clear if viewed rationally that it is unlikely this would occur, based on market interest to date, similar locations elsewhere in Scotland, the lack of occupiers coming forward at the neighbouring site and most importantly, common sense.
- 7.23 Unfortunately, the report of handling does not go on then to acknowledge the unlikelihood of such an eventuality occurring or that the impacts presented were 'worst case'. Instead it assumes this to be the reality and fails to assess the more likely outcome of comparison retailers also occupying some of the space within both developments, thereby reducing turnover and trade diversions but enhancing the quality of shopping provision within the town.
- 7.24 The report of handling then moves to suggest a correlation between a lack of capacity and resulting adverse trade impacts on the town centre, despite the worst case cumulative assessment considering such an eventuality and found in all cases that impacts would be minimal and not significantly adverse, as per the test within national policy. Please, however, refer to Section 9 of this Statement for a further consideration of impact matters.

## Distribution and Accessibility

- 7.25 Finally, we note that the reason for refusal also references criterion d of the policy, which requires new development proposals to demonstrate that proposals will improve the distribution and accessibility of shopping provision.

- 7.26 Given that there is a deficiency in retail provision within the catchment, even when factoring in the former Tesco site, it is clear that more choice is needed within the local area. This would help to reduce significant levels of expenditure leakage and provide a more self-contained shopping offer for the Crieff community, reducing the need to travel to Perth. In light of this, it is therefore clear that, in our opinion, the proposals undoubtedly comply with this policy consideration and will improve the choice for the local community.
- 7.27 The limited nature of the retail offer currently present in Crieff is clear when an analysis is completed comparing floorspace levels, per population within a town, with the two other largest locations within the authority area. This demonstrates that Crieff lacks sufficient retail space and choice to meet the needs of its local population, compared with its other towns across Perth and Kinross. This is demonstrated as below.

Town	Population (Census 2011)	Total Gross Retail Floorspace (sqm)	Floorspace per population
Perth	46970	136,319	2.9 sqm per person
Blairgowrie	8954	16,040	1.79 sqm per person
Crieff	7368	8,640	1.17 sqm per person
Crieff (plus commitments and Aldi proposals)	7368	14,619	1.98 sqm per person

**Notes.** Figures informed by Tables 7.10 and 9.10 of Perth and Kinross Retail Study 2014 and supporting plans for non-material variation approval at former Tesco site.

Population level for Crieff based only on resident population and does not factor in wider catchment that is served. If this is included, the population at 2015 is 12,185 and corresponding figure for floorspace per population would decrease to **0.7sqm per person** before the proposals are considered and **1.19 sqm per person**, once both the units on the Aldi site and former Tesco land are factored in.

- 7.28 This also remains the position when the development of the former Tesco site is considered and only becomes more typical of average levels, once the review proposals are also factored in.
- 7.29 This position is even more clear based on the findings of the Council's retail study, where 93% of non-food expenditure is currently spent outwith the Strathearn catchment area and for food, this figure is 80%. See [Document 12](#).
- 7.30 The proposals will therefore make a significant contribution towards reducing the current imbalance in floorspace provision available and help to better meet the needs of the local community living within Crieff.

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## Summary

7.31 In summary, it is therefore concluded that:

- The Retail Assessment submitted with the planning application demonstrated that there was scope within the Crieff catchment to accommodate an Aldi foodstore and supporting retail unit. A quantitative deficiency is present and the development would help to reduce expenditure leakage and improve retail choice, with potential to boost the fortunes of the town given its ability to generate linked trips with the town centre.
- Consideration of capacity alone fails to appreciate the realities of the retail market and the changing nature of consumer shopping patterns. At its core such a decision, in our view, is anti-competitive.
- A comparison of existing retail provision with other sizeable towns across Perth demonstrates that whilst their populations are very similar, other locations boast significantly more food and non-food retail floorspace provision. Why shouldn't Crieff's residents benefit from a more proportionate amount of shopping choice, which includes Aldi as part of that mix?
- The limitations of the retail capacity, need and the deficiency test for decision making are clear if considered in the context of the Competition Commission's conclusions on the UK grocery market, where it can act as a significant barrier for new entrants into the market, to the disadvantage of the local consumer. Furthermore, consumer demand in Crieff is forecast to increase with £2.3m additional spend on food shopping.
- By improving the range and quality of retail offer within the town, qualitative benefits can also be realised for the local community, making this more accessible and reducing the need to travel further.
- Lastly, even if the Local Review Body does conclude that matters of retail deficiency have not been satisfactorily addressed, we believe that other material considerations still indicate that the review should be allowed. These considerations can be found in other sections of this statement and in particular, the executive summary and grounds of review in section 1.

## 8. Issue 3 – Sequential Test

- 8.1 Reason 3 for the refusal of the planning application related to the officer's view that the proposals failed to address the sequential test. This reason is set out below:

*"The applicant has not demonstrated satisfactorily this is sequentially the most preferable site and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (b)."*

- 8.2 For clarification, the reason above again repeats reference to adverse impact on the town centre although only notes the failure to comply with criteria b of the policy, which focuses on the sequential test. Impact matters will be considered within the following section of this Statement, with this chapter considering the sequential test specifically.

### The Sequential Test

- 8.3 A sequential site assessment was submitted with the original planning application and **Document 6** should be consulted for consideration of this. We note the report of handling found no fault with the conclusions reached for the sites that were reviewed in the appendix and so it is therefore assumed that they were satisfactory.

- 8.4 In respect to the report of handling, it is noted that the main concern for officers in respect to the sequential test was the failure to consider the former Tesco site. In officer's views that location is considered to be sequentially preferable as it benefits from planning permission for retail use, is allocated within the development plan and is closer to the town centre.

- 8.5 It is important to note that in sequential terms though, previous consideration of that site, within its Committee report, identified the location as 'out of centre', in similarity to the Review site.

- 8.6 The report of handling states that the former Tesco site "is considered to be much higher in the retail hierarchy", although we can identify no reference within either the LDP or SPP to assessing other 'out of centre' sites. Indeed, SPP states at paragraph 73 that:

*"Out-of-centre locations should only be considered for uses which generate significant footfall where:*

- All town centre, edge of town centre and other commercial centre options have been assessed and discounted as unsuitable and unavailable"*

- 8.7 SPP is therefore quite clear that 'out of centre' developments must only demonstrate they cannot be accommodated in the locations listed above and Ministers do not expect the assessment to extend to all other potential 'out of centre' locations, as this wouldn't meet their objectives for promoting town centres and other locations that have policy protection. It could also lead to assessing hundreds of sites in out of centre locations.

- 8.8 Notwithstanding the above position, we have completed an assessment of the former Tesco site to address the concern within the refusal report. This analysis has however concluded that this site would not be able to satisfy the sequential test as it is considered to be unsuitable for our client. The proposed layout of the proposals, approved by non-material variation recently, are considered to have been poorly conceived, with the site layout previously designed to accommodate only one retailer. As a result, by dividing the unit in two, the resulting layout provides insufficient retail profile from Broich Road for Aldi and would not satisfy their standard requirements for adjacent car parking. These are important requirements for our client and necessary for the business model to operate successfully.
- 8.9 Whilst the site is not suitable for Aldi, it may meet the needs of other retail operators. The proposals that are subject of Review were prepared on the basis that both developments could happen. The retail impact assessment and transport assessment in support of the application were therefore prepared to factor that development in and ensure both proposals would meet planning policy requirements. It is therefore our client's position that both retail schemes could be progressed, with no significant impact either on town centre vitality and viability or traffic flow.
- 8.10 A final point, in respect to sequential matters, relates to comments within the report of handling, under 'Design and Layout', where comment is made that the proposed layout was unacceptable as it locates the Aldi store further from the town centre and it would have been preferential for the units to be swapped. A thorough site analysis was prepared by the architects to select the most appropriate layout of the development given site constraints and Aldi's typical business requirements. This concluded that the proposed layout offered the most suitable site configuration and would provide the level of prominence to Broich Road that is needed.
- 8.11 Moreover, we respectfully disagree that the location of the two buildings and their failure to be swapped, given the minimal distances involved, would significantly affect the connectivity of the development with the town centre. The sequential test must be carried out comparing the whole of the proposal site and connectivity is typically measured based on the site itself, rather than the position of individual retail units within this.

## Summary

- 8.12 In conclusion, we consider the following:
- The sequential test has been adequately addressed within the original application.
  - National policy set out within SPP is clear that out of centre retail developments only need to consider locations within town centre, edge of town centre or commercial centre locations. It is not therefore a requirement of policy to assess other 'out of centre' locations, given that this would not address the key policy aim to protect town centres.



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The planning system does not exist to protect existing competitors, indeed competition is encouraged where it can benefit the consumer.

- Both the Aldi site and former Tesco site are located 'out of centre' and are sequentially equal. Both lie over a 5 minute walk from the town centre, with the Aldi site located a further minute's distance. This is not considered to offer a tangible difference in terms of the likelihood of shoppers choosing to walk to one site but not the other.
- The former Tesco site is not suitable in any case, given its poorly conceived retail layout, with limited profile to Broich Road and an inadequate parking layout. Aldi would not be able to operate a store from this location.
- The Review site therefore offers the only suitable, available and viable opportunity to accommodate an Aldi store within the town.
- Finally, it is considered that the town could accommodate both developments and the officer's view that the sequential test has not been satisfied is not sufficient grounds to withhold approval of this Review case.

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## 9. Issue 4 - Retail impact

- 9.1 The final reason for refusal relates to concerns over retail impact and states:

*"The development does not contribute positively to the vitality and viability of Crieff town centre and its cumulative impact will result in a significant adverse impact on the town centre and is therefore contrary to policy RC4 of the Perth and Kinross Local Development Plan 2014"*

- 9.2 Retail impact matters are therefore fully considered within this section of the Statement. As part of this, we consider the nature of the development proposal, the level of trade diversions forecasted, the vitality and viability of Crieff town centre and the potential for positive impact.

### The Development Proposal

- 9.3 It is important to firstly consider the nature of the retail development proposed. This is explained fully within the supporting Retail Statement that was submitted with the planning application and briefly summarised here.
- 9.4 The development proposal comprises a foodstore of 1,804sqm gross and 1,254sqm net and an additional retail unit measuring 1,022sqm gross, 817sqm net.
- 9.5 As there was uncertainty over the final operator of the second retail unit, two scenarios were investigated within the retail assessment, including one where the unit was occupied 100% for food sales, the other 100% for comparison sales. In reality, all foodstore retailers operate their store with a food and non-food sales mix, typically being 80% of sales floorspace. Therefore by testing this at 100% assumed a very worst case scenario that was unlikely to arise, it was however considered to be a robust and comprehensive approach to considering matters of deficiency and retail impact. This point is important when looking at the figures within the Retail Statement and below.

9.6 The turnover figures for both developments are shown below.

Unit	Sales Floorspace (Conv / Comp)	Convenience (Food) Turnover from catchment (£m)	Comparison (Non- Food) Turnover from Catchment (£m)
ALDI Foodstore	1,003sqm / 251 sqm	£7.86m	£1.46m
Unit 1 (100% food sales)	817sqm	£7.4m	£0m
Unit 1 (100% non-food sales)	817sqm	£0m	£1.7m
<b>TOTAL</b>		£15.26m	£3.1m

9.7 In terms of forecast trade diversions, the Retail Assessment factored in the former Tesco site, to also test cumulative impact, and as described earlier examined this as if it would continue to be operated by them. This therefore used a high sales density, which far exceeds the levels anticipated from the units now that Tesco are no longer pursuing the development.

9.8 The final trade diversions, assuming Tesco was operational, are therefore reflected in the summary below.

CONVENIENCE (FOOD) DIVERSIONS					
Unit	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact
Local Shops	£2.87m	0%	£0m	£2.87m	0%
Co-op	£8.01m	3%	£0.46m	£7.55m	6%
Town Centre Total	£10.88m	3%	£0.46m	£10.42m	4%
Tesco proposal (now LSI)	£15.87m	50%	£7.63m	£8.42m	48%

COMPARISON (NON-FOOD) DIVERSIONS					
Unit	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact
Town Centre Total	£10.7m	5%	£0.15m	£10.54m	1%
Tesco proposal (now LSI)	£3.86m	16%	£0.5m	£3.36m	13%

9.9 These conclusions were based on Aldi's trading characteristics elsewhere in the UK, the anecdotal evidence from national market share changes in recent years and also based on the well-established retail principle that "like competes with like". In basic terms, this means that when customers are deciding where to shop, these are most likely to visit a similar form and nature of offer, i.e. one of the 'big 4', or Lidl.

9.10 This approach is backed up by recommendations within the *Town Centre and Retailing Methodologies* report and studies prepared by GVA for the Department of Communities and Local Government in England in respect to retail impact studies. This latter report is referenced, as there are clear similarities between the Scottish and English systems in respect to the concept of retail impact assessments. See **Document 13**.

9.11 This accepted retail concept is evident in extracts from this report. In short, this study concluded that to calculate trade diversions, the following should be completed:

*"Having established the likely catchment area, market position and turnover potential of the proposal, the key factors affecting judgements about where it will draw its trade from will be determined by:*

- The intended market sector/role, on the basis that 'like affects like'; so the centres (stores) currently serving the intended catchment population will experience the greatest impact; and*
- Distance, on the basis that consumers will generally use the nearest centre/facility which meets their needs in terms of quality/convenience etc."*

9.12 On this basis the forecast diversions above are considered to be entirely robust.

9.13 Furthermore, at these levels it is clear that the viability of the town centre would not be threatened. Indeed, a number of local authority studies have utilised this approach in recent

years, to identify capacity for additional convenience floorspace. Within these reports, an impact level of up to 20% has been considered acceptable, without impacting significantly on vitality and viability. Please see **Document 9** for examples of this.

- 9.14 In light of this, it is clear that the impact levels forecasted on the town centre would in no way be 'significantly adverse', as is the test within SPP (paragraph 73), for either occupier scenario.
- 9.15 Instead, it is clear that the levels of trade diversion would be quite modest and could be accommodated without threatening the vitality or viability of Crieff town centre. Furthermore, this is before you consider 'positive' impacts, which we cover further on.

## **The Vitality and Viability of Crieff town centre**

- 9.16 It is notable that the reason for refusal also states that the impact associated with the review proposal would unacceptably affect the vitality and viability of the town centre.
- 9.17 In this regard, we refer to the original Retail Assessment submitted with the application, which included a town centre healthcheck utilising the vitality and viability indicators set out within SPP. This concluded that Crieff town centre was performing well, with much lower than national average vacancy levels and other signs of vitality, comprising a decent mix of national multiples and independents, the presence of seasonal country markets and a good quality pedestrian shopping environment.
- 9.18 What the report of handling fails to acknowledge, in our opinion, is the positive impact of delivering a new retail offer at this location, which shares many similar characteristics with the former Tesco site and is a similar distance from the town centre. Indeed, it is considered that the introduction of an operator such as Aldi a short walk from the town centre would have significant benefits for the town, by retaining more expenditure locally, given that the majority of residents already travel to Perth and Stirling to shop. This could generate additional linked trips with consequent benefits for other local shops and services. We turn to the positive impact considerations below.
- 9.19 In summary, it is clear that the town centre is performing well and given where trade impacts are most likely to be derived, the centre will not be negatively impacted by improving the range of shopping offer for the local community.

## **Positive Impact**

- 9.20 As set out within the supporting Retail Statement, it is considered that the development proposals at the Duchlage Farm site, could bring a number of positive benefits to Crieff town centre and its vitality and viability. This will be achieved by retaining more shopping expenditure locally within the town, with potential for shoppers to link these trips with the town centre more regularly than at present. The Council's own retail study indicates that 80% of

convenience (food) expenditure within the Strathearn area is currently spent elsewhere. For non –food items this increases to 93% of total consumer spend.

9.21 Given the short walk between the site and town centre, a new Aldi store could benefit the other shops and services in the town centre. Indeed, the Council's own development brief for the site from April 2006 noted the importance of improved links through the site and to ensure connectivity via the introduction of new paths to link with the town centre.

9.22 To summarise, we therefore consider the following:

- The review proposals can be accommodated within the catchment and will not lead to a significant adverse impact on Crieff town centre. Given the findings of the retail assessment and the report of handling's lack of evidence to support this claim, it is clear that this is not the case for this development. This assumption also fails to consider the well-established retailing trend that 'like competes with like' and that there is limited provision within the town centre at present, that is sufficiently similar to suffer from competition.
- The forecast trade diversions are modest, based on an absolute worst case scenario for robustness and demonstrate that they will not threaten the vitality and viability of the town centre overall.
- Town Centre healthchecks that have been produced to support the application proposals have found that vacancy levels within the town centre are below national average levels and that other signs of vitality indicate that the centre is performing well. Any minor impact could therefore be accommodated if not offset, by the positive benefits highlighted above.

## 10. Issue 5 – Economic benefits and presumption in favour of sustainable development

10.1 National policy set out within SPP, 2014, clearly establishes:

*"a presumption in favour of development that contributes to sustainable development."*

10.2 This is a principal policy to guide the planning system, in accordance with the Scottish Government's primary objective, of delivering sustainable economic growth, which is seen as critical if the whole of the country is to prosper.

10.3 This policy continues that the planning system should support economically, environmentally and socially sustainable places, which means that planning decisions should be guided by a number of Principles. These include:

- Giving due weight to net economic benefit;
- Responding to economic issues, challenges and opportunities;
- Supporting good design and the six qualities of successful places;
- Making efficient use of existing capacities of land, buildings, infrastructure including supporting town centre and regeneration priorities;
- Supporting delivery of accessible housing, business, retailing and leisure development"

10.4 Many of these Principles, in our view, indicate that the proposals can be supported, particularly in light of the substantial economic benefits that include:

- Generation of 35 high quality new local ALDI jobs, that pay above the National Living wage;
- Potential for a further 43 jobs within the additional retail unit;
- Significant capital investment into an area of Crieff that is transforming itself to meet its growth ambitions;
- Retention of more convenience and comparison expenditure locally with potential spin off benefits for the town centre through generating linked trip opportunities;
- Benefits for the Aldi supply chain, which includes a product range of at least 30% Scottish sourced products. This includes suppliers such as Mackies, Scarlett, Rannoch Smokery and Tower Bakery.

10.5 As noted above, we believe that a case has been made already, to suggest that relevant site specific and retail planning policy considerations of the LDP have been substantially addressed.

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- 10.6 However, should the Local Review Body conclude that matters of the employment land, retail capacity, retail impact and sequential test, have not been addressed, then we respectfully suggest that sufficient weight can be found in these Planning Policy Principals alone to outweigh the stated reasons for refusal, as they stand.



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## 11. Issue 6 - Other issues

- 11.1 The report of handling confirms that whilst certain matters were not reasons for refusal, some matters still required to be addressed. This included those relating to the setting of the listed building and noise/amenity considerations. These will be addressed in turn.
- 11.2 As no other significant points are raised we consider these can no doubt be handled through conditions, if necessary.

### Listed Buildings

- 11.3 As noted earlier, in order to fully implement the development, listed building consent is necessary to demolish the ancillary farm buildings that sit behind the B listed farmhouse. Comments were also received from the Council's Conservation section in respect to the potential impact from the development on the setting of the B listed farmhouse. These two points will be addressed separately.
- 11.4 Having reviewed the reasons for refusal for the listed building consent, we believe that a refreshed case can be advanced which positively addresses these reasons and the SHEP tests. Without prejudice to the consideration of any application for listed building consent, our intention is that such a refreshed case would swiftly follow any grant of planning permission, if the LRB ultimately decides to allow this application for review of the original decision to refuse permission.
- 11.5 In terms of the setting of the B listed farmhouse, we note that the report of handling states that the conservation officer felt that the proposals for parking in the area of land formerly occupied by the curtilage steadings would have a '*severely detrimental impact on the setting of Duchlage House*'.
- 11.6 In response to these initial comments, revised proposals were tabled that, following agreement from the occupier of the farmhouse, introduced an amended boundary treatment within that area. This included a reduction in the height of the proposed boundary fence and re-positioning further from the farmhouse. It also proposed additional landscaping.
- 11.7 These proposals were consistent with the solution approved for the former Tesco site, on the western boundary of the listed farmhouse, which involved soft landscaping and the introduction of a hedge to soften views of the service yard access road.
- 11.8 The concessions submitted in October 2015 were considered to significantly improve the setting of the building by opening this area up, given that this would replace an existing bulky farm building adjacent, which interferes with both the attractiveness and space around the principal farmhouse, interfering with views.
- 11.9 Finally, additional hedges and trees were also proposed around the perimeter to further soften the transition between the farmhouse and the commercial development. Please refer to

**Document 14** for copies of these revised plans. Unfortunately no comment was received from officers in respect to these revised proposals before a decision was taken to refuse the planning application.

- 11.10 As the preservation of these curtilage buildings was never noted within the Council's development brief for the site and given its allocation for employment development within the LDP, their importance to the setting of the farmhouse is therefore questioned.
- 11.11 It instead seems clear there are strong aspirations to see the site redeveloped as identified by various Council documents and that such a scheme was not considered to necessarily require the preservation of these curtilage ancillary outbuildings. It must therefore be recognised that it was always the Council's expectation that those buildings would be demolished at some point in order to facilitate redevelopment of the wider area.
- 11.12 It is also considered that as a proposal is only for planning permission in principle, if concerns remained over the layout of the development, the Review Body could approve the development only in principle and reserve the layout as a detailed matter, subject to a further Matters Specified in Conditions (MSC) application, for consideration and approval. This would afford an opportunity to revisit matters of setting for the farmhouse and the demolition of the curtilage outbuildings.

## **Residential Amenity**

- 11.13 As noted under the policy section earlier, the concerns raised about potential impacts on residential amenity from the development could easily be addressed through the provision of an acoustic fence on the northern boundary of the service yard. This has been confirmed by Aldi's specialist noise consultant.
- 11.14 Furthermore, if more analysis is required of potential cumulative noise issues, this could satisfactorily be addressed via a planning condition and it is not considered to be a sufficient reason to not support the development proposals.

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## 12. Conclusions

12.1 This review is supported by the development plan and other material considerations. A case has been made that relevant development plan policies, specifically those set out in the reasons for refusal, can be satisfactorily addressed. Furthermore, material considerations further indicate that the review proposals can be supported. In summary,

- The site forms part of a significant expansion area for Crieff, with it specifically allocated for employment generating uses.
- Our assessment of the proposals against the development plan's retail policies and SPP indicate that the review proposals can be supported.
- Firstly, Aldi's decision to invest and operate a new store in Crieff is a clear sign of a deficiency. This was reinforced by the positive feedback to Aldi's public consultation event held before the planning application was lodged. Even with the existence of the former Tesco site, there is still room for additional floorspace, given the town's comparatively limited offer for both food and non-food shopping when other locations within Perth and Kinross are considered.
- Our assessment of retail impact shows that any trade diversions will largely come from locations outwith the area such as Perth and Stirling and other out of centre retail locations, based on the long established principle that 'like trades with like'. Furthermore, any such impact would not threaten the vitality and viability of the town centre. To be clear, any impact will not come from independent shops or traders in the town centre, as Aldi happily trade side-by-side with this type of offer at other locations in Scotland, without resulting in any detrimental impact. To look at this a slightly different way, Aldi's gains in popularity and market share could only have come about as a result of their ability to compete more effectively with the 'big 4' foodstore operators.
- Our assessment of retail impact also highlights the positive impacts of developing locations which have potential to generate linked trips between the Aldi store and other shops/services in the town centre would have a positive impact on vitality and viability.
- The area benefits from a significant over-supply of employment land and given the further over-provision of additional business space at proposed developments within the vicinity, the site's loss can be accommodated as an exception to policy. Furthermore, the development itself will generate significant levels of employment, thereby satisfying, in part, the aspirations of the allocation.
- Finally, Scottish Planning Policy introduces a presumption in favour of sustainable development. This is a 'principal policy' of the Government, in support of its primary objective of delivering sustainable economic growth. It means that planning decisions (including this review) should be guided by a number of principles covering issues such as

giving due weight to economic benefits and responding to economic challenges, making efficient use of previously development land, and supporting delivery of accessible retail development and good design.

- In short, support for the review proposals can be found in each of these principles.
- Aldi would create up to 35 new direct jobs, including store managers and store deputies, as well as store assistants, in addition to construction related work and in-direct generation through the supply side of the facilities. They also operate a market-leading graduate and apprenticeship scheme.
- Furthermore, Aldi has a preference to recruit locally and from February 2016 will pay all staff at least £8.40 an hour, being well above the National Living Wage and above even the Living Wage Foundation recommended level.
- Further jobs would also be generated by the second retail unit, with potential for a similar number of positions created there.
- The Aldi business support employment growth elsewhere through their commitment to the Scottish food and beverage industry, with suppliers such as Tower Bakery, Mackies, Rannoch Smokery and Scarlett Scotland potentially benefitting from their growth.
- In summary, as these facts all support statements of Scottish Ministers' priorities set out in SPP, they should be afforded significant weight in the determination of this review.

12.2 Accordingly, the review should be supported on its merits and we ask that the Local Review Body grants planning permission in principle.

## 13. Documents List

13.1 The documents submitted with the review are listed below:

Document	Description
1	Decision Notice 15/01354/IPL
2	Report of Handling 15/01354/IPL
3	Letter from Chief Planner to Heads of Planning
4	Town Centre Plan
5	Site Development Brief Extracts
6	Retail Statement for 15/01354/IPL by GVA James Barr
7	Reporter's Comments on LDP regarding employment land supply
8	Documents relating to application to the south (15/01237/IPM)
9	Retail study examples extracts
10	Town Centres & Retailing Methodology Report Extracts
11	Competition Commission report Extracts
12	Perth Retail Study 2014 Extracts
13	DCLG: Planning for Town Centres, Practice Guidance
14	Revised Plans for 15/01354/IPL submitted October 2015





Application to review  
refusal of planning  
application  
15/01354/IPL – Land  
50m East of Duchlage  
Farm, Duchlage  
Road, Crieff

On behalf of ALDI  
Stores Ltd

Documents  
1-14



Document 1  
Decision  
Notice  
15/01354/IPL



# PERTH AND KINROSS COUNCIL

Aldi Stores Ltd  
c/o GVA Grimley  
Steven Robb  
Quayside House  
127 Fountainbridge  
Edinburgh  
EH3 9QG

Pullar House  
35 Kinnoull Street  
PERTH  
PH1 5GD

Date 08.12.2015

## TOWN AND COUNTRY PLANNING (SCOTLAND) ACT

Application Number: **15/01354/IPL**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to refuse your application registered on 14th August 2015 for permission for **Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff** for the reasons undernoted.

### Development Quality Manager

#### Reasons for Refusal

1. The applicant has not demonstrated satisfactorily the proposal for retail use on an allocated employment site (E27) will be an acceptable departure from the Development Plan and will contravene TAYplan Policy 3 and LDP Policy ED1 because it does not support the principle of retail use (unless ancillary) on allocated employment sites should be retained for employment use.
2. The applicant has not demonstrated satisfactorily there is sufficient quantitative and qualitative capacity for the proposed scale of retail uses and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (a) (c) (d) (g).

3. The applicant has not demonstrated satisfactorily this is sequentially the most preferable site and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (b).
4. The development does not contribute positively to the vitality and viability of Crieff town centre and its cumulative impact will result in a significant adverse impact on the town centre and is therefore contrary to policy RC4 of the Perth and Kinross Local Development Plan 2014

## **Justification**

The proposal is not considered to comply with the Development Plan and there are no other material considerations that would justify a departure there from.

## **Notes**

The plans relating to this decision are listed below and are displayed on Perth and Kinross Council's website at [www.pkc.gov.uk](http://www.pkc.gov.uk) "Online Planning Applications" page

## **Plan Reference**

15/01354/1	15/01354/12
15/01354/2	15/01354/13
15/01354/4	15/01354/14
15/01354/5	15/01354/15
15/01354/6	15/01354/16
15/01354/8	15/01354/17
15/01354/10	15/01354/18
15/01354/11	15/01354/19



Document 2  
Report of  
Handling  
15/01354/IPL



# REPORT OF HANDLING

## DELEGATED REPORT

Ref No	15/01354/IPL	
Ward No	N6- Strathearn	
Due Determination Date	13.10.2015	
Case Officer	Steve Callan	
Report Issued by		Date
Countersigned by		Date

**PROPOSAL:** Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works

**LOCATION:** Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff

### SUMMARY:

This report recommends **refusal** of the application as the development is considered to be contrary to the relevant provisions of the Development Plan and there are no material considerations apparent which justify setting aside the Development Plan.

**DATE OF SITE VISIT:** 31 August 2015

### SITE PHOTOGRAPHS



### BACKGROUND AND DESCRIPTION OF PROPOSAL

The application site is a 1.6 hectare area of fairly level land at the southern edge of the settlement of Crieff in between Broich Road and Duchlage Court. The site is allocated in the Local Development Plan (LDP) for employment use (E27) and contains a number of agricultural buildings and hardstanding formerly used in connection with the operations of Duchlage Farm.

Immediately north of the site is the residential area of Duchlage Court which includes a sheltered housing development. East of the site is an area of open ground and just beyond this is the recently completed Crieff Primary School.

Current entrance to the site is from the south along Broich Road and is the entrance to the B Listed Duchlage Farmhouse. Across the road is a large area of agricultural land also part of Duchlage Farm and is allocated in the LDP (MU7) for a Mixed Use development (residential and employment). An 'In Principle' planning application is currently under consideration for development of 300+ houses and 6 hectares of employment land. Also across the road from the application site are some light industrial buildings all currently in use.

Immediately west of the application site is the B Listed Duchlage Farmhouse and associated traditional outbuildings/stables. Just beyond the farmhouse is an area of land that used to form part of Duchlage Farm. It is allocated in the LDP for retail use and has detailed planning permission (08/01955/FLM) in place for a foodstore. This planning permission is extant by virtue of demolition of buildings on the site.

In Principle planning permission is sought for the erection of two single storey retail units (Class 1) and associated works with the application site. The application includes full details of one retail unit, car parking, landscaping and associated works and is proposed to be occupied by Aldi Stores Ltd. The other retail unit is of unknown operator at this stage.

The gross external area of the proposed Aldi store is 1,804 sqm with a sale area of 1,254 sqm. The additional retail unit measures 1,056 sqm gross and 844 sqm net. 183 car parking spaces are proposed including 11 disabled spaces and 11 parent and child spaces. Cycle stands are proposed near the entrance to the Aldi store. Both customer and service access to the proposed units will be via Broich Road at the same location as the approved access to the allocated retail site to the west of Duchlage Farmhouse. Pedestrian access will be available from both Broich Road and Duchlage Court

Landscaping proposals include both soft and hard landscaping features across the site with dense low level planting along the Broich Road elevation in particular. A line of trees is also proposed to provide some privacy of the farm house.

The proposed Aldi store will be clad primarily in white render with glazing along the frontage. A canopy is also proposed along the front and side elevations of the store to protect the customer entrance and trolley bays. No exterior details of the second store have been provide at this stage but are expected will be of similar design and standard.

## **SITE HISTORY**

**15/01721/LBC:** Demolition of outbuildings associated with B Listed Duchlage Farmhouse. Currently under consideration in conjunction with 15/01354/IPL application.

## **PRE-APPLICATION CONSULTATION**

Pre-applications meetings took place between Development Management, Development Plans and the applicant (Aldi) and their planning consultants (GVA Barr). The applicant and agent were advised that whilst it is widely acknowledged that Crieff needs an additional foodstore to meet the retail needs of the area they were on the wrong site and were encouraged to investigate development of the adjacent site which is allocated for retail use and has extant planning consent for a foodstore and was on the market following Tesco's decision to not build out its approval (08/01955/FLM). The applicant and agent were also clearly advised that development of E27 for retail use would be classed as a significant departure from the LDP and support for retail use was unlikely.

## **NATIONAL POLICY AND GUIDANCE**

The Scottish Government expresses its planning policies through The National Planning Framework, the Scottish Planning Policy (SPP), Planning Advice Notes (PAN), Creating Places, Designing Streets, National Roads Development Guide and a series of Circulars.

## **DEVELOPMENT PLAN**

The Development Plan for the area comprises the TAYplan Strategic Development Plan 2012-2032 and the Perth and Kinross Local Development Plan 2014.

### **TAYplan Strategic Development Plan 2012 – 2032 - Approved June 2012**

The overall vision of the TAYplan should be noted as it states *“By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice, where more people choose to live, work and visit and where businesses choose to invest and create jobs.”*

The policies directly relevant to this proposal are in summary:

#### **Policy 3 - Managing TAYplan's Assets**

Land should be identified and safeguarded for at least 5 years of employment land within principal settlements to support the growth of the economy and a diverse range of industrial requirements in particular Class 4 office type uses.

### **Policy 7 - Town Centres**

Planning decisions should be justified combining the retail hierarchy contained in TAYplan and the sequential approach in Scottish Planning Policy (SPP).

### **Perth and Kinross Local Development Plan 2014 – Adopted February 2014**

The Local Development Plan is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are, in summary:

#### **Policy PM1A - Placemaking**

Development must contribute positively to the quality of the surrounding built and natural environment, respecting the character and amenity of the place. All development should be planned and designed with reference to climate change mitigation and adaption.

#### **Policy PM1B - Placemaking**

All proposals should meet all eight of the placemaking criteria.

#### **Policy PM2 - Design Statements**

Design Statements should normally accompany a planning application if the development comprises 5 or more dwellings, is a non-residential use which exceeds 0.5 ha or if the development affects the character or appearance of a Conservation Area, Historic Garden, Designed Landscape or the setting of a Listed Building or Scheduled Monument.

#### **Policy PM4 - Settlement Boundaries**

For settlements which are defined by a settlement boundary in the Plan, development will not be permitted, except within the defined settlement boundary.

#### **Policy ED1A - Employment and Mixed Use Areas**

Areas identified for employment uses should be retained for such uses and any proposed development must be compatible with surrounding land uses and all six of the policy criteria, in particular retailing is not generally acceptable unless ancillary to the main use.

#### **Policy RC1 - Town and Neighbourhood Centres**

Class 1 (retail) uses will be supported in identified town and neighbourhood centres commensurate with the role of the centre within the established retail hierarchy. Use Classes 2 & 3, leisure, entertainment, recreation, cultural and community facilities will also be encouraged in ground floor units provided they contribute to the character, vitality and viability of the retail core and satisfy the criteria set out. Use of pavement areas for restaurant/cafes/bars is acceptable in the prime retail area. Housing and other complementary uses are encouraged on the upper floors.



**Policy RC4 - Retail and Commercial Leisure Proposals**

The location of new retail and commercial leisure facilities should follow a sequential approach. Proposals of more than 1,500 sqm (or smaller at the discretion of the Council) outwith a defined town centre and not in accordance with the development plan will require a transport, retail or leisure impact assessment. Proposals that are on the edge of a centre, out of centre or in other commercial centres will only be acceptable where they satisfy the criteria set out.

**Policy RD1 - Residential Areas**

In identified areas, residential amenity will be protected and, where possible, improved. Small areas of private and public open space will be retained where of recreational or amenity value. Changes of use away from ancillary uses such as local shops will be resisted unless supported by market evidence that the existing use is non-viable. Proposals will be encouraged where they satisfy the criteria set out and are compatible with the amenity and character of an area.

**Policy TA1A - Transport Standards and Accessibility Requirements**

Encouragement will be given to the retention and improvement of transport infrastructure identified in the Plan.

**Policy TA1B - Transport Standards and Accessibility Requirements**

Development proposals that involve significant travel generation should be well served by all modes of transport (in particular walking, cycling and public transport), provide safe access and appropriate car parking. Supplementary Guidance will set out when a travel plan and transport assessment is required.

**Policy HE1B - Scheduled Monuments and Non Designated Archaeology**

Areas or sites of known archaeological interest and their settings will be protected and there will be a strong presumption in favour of preservation in situ. If not possible provision will be required for survey, excavation, recording and analysis.

**Policy HE2 - Listed Buildings**

There is a presumption in favour of the retention and sympathetic restoration, correct maintenance and sensitive management of listed buildings to enable them to remain in active use. The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the building's character, appearance and setting.

**Policy EP8 - Noise Pollution**

There is a presumption against the siting of proposals which will generate high levels of noise in the locality of noise sensitive uses, and the location of noise sensitive uses near to sources of noise generation.

**Policy EP11 - Air Quality Management Areas**

Development proposals within or adjacent to designated Air Quality Management Areas which would adversely affect air quality may not be permitted.

### **Policy EP12 - Contaminated Land**

The creation of new contamination will be prevented. Consideration will be given to proposals for the development of contaminated land where it can be demonstrated that remediation measures will ensure the site / land is suitable for the proposed use.

### **OTHER POLICIES**

#### **Perth and Kinross Retail Study and City and Town Centre Review (2014):**

This study updates the Perth and Kinross Retail Review of 2011. It was carried out by Roderick McLean Associates in association with Ryden and was commissioned by Perth and Kinross Council to look at spare retail capacity for the whole Council area together with health checks of certain town centres including Crieff. The former Tesco site is identified as a consented and committed scheme and is taken into account in terms of future capacity for the Crieff catchment.

**Duchlage Farm Area Development Brief (2006):** Identifies this area of Broich Road area could be suitable for a supermarket provided it does not damage the vitality of Crieff town centre and other businesses. It should be noted that this Development Brief has been overtaken by the current LDP

**Crieff Retail Study (2005):** The Crieff Retail Study 2005 was carried out by Grimleys on behalf of Perth and Kinross Council to fully assess the retail situation in Crieff. Quantitative analysis found that there was a leakage of 60% of available convenience expenditure outwith the catchment area of Crieff. The provision of additional convenience retail floorspace would significant help reduce the outflow and would also provide for more sustainable shopping patterns with the improved distribution and accessibility.

### **CONSULTATION RESPONSES**

#### External

**Scottish Water:** No response received

**Crieff Community Council:** Support the proposal because of the social and economic benefit to Crieff providing much need retail expansion.

**East Strathearn Community Council:** Support the proposal as it will provide more retail choice, reduce the need to travel to Perth or Stirling and encourage greater spending in Crieff.

**St Fillans Community Council:** Support the proposal as it will provide more choice and reduce the need to travel to Perth or Stirling. It will also provide additional employment in the area.

**Perth and Kinross Heritage Trust:** There site has potential for subsurface archaeological deposits. Given the significant results in the immediate vicinity,

there is a requirement to assess the presence / absence, significance and condition of any archaeological deposits within the development site. Conditional control is recommended.

### Internal

**Transport Planning:** No objections raised but recognised that transport infrastructure improvements were required for Broich Road. Recommends that applicant enters into negotiations with the Council to provide up-front finance to allow the Council to provide the necessary improvements following consultation with the Community Council.

**Conservation Planning:** Consider the layout proposed is likely to have a severely detrimental impact on the setting of Duchlage House. The impact on the listed building group does not appear to have been fully considered as part of the development of the current proposal. In addition the large mature sycamore to the south of the farmhouse has significant amenity value, and its protection should be incorporated into consideration of any future development within or adjacent to the site.

**Environmental Health:** Insufficient information has been provided to demonstrate that in terms of Noise and Air Quality this is a suitable location for the proposed development. Concerned about the potential implications for residents of Duchlage Court especially with the applicant stating they prefer unrestricted deliver time periods. This could result in overnight deliveries and disturbance of properties within 15 metres of the site. A further noise assessment is recommended.

**Contaminated Land:** There could be potential contaminants associated with agricultural use of the site and recommend a condition requiring a Contaminated Land Assessment to be submitted and assessed by the Planning Authority.

**Development Planning:** The LDP allocates the site (E27) for employment uses, which excludes retail use, and the application if approved would represent a significant departure from the LDP. During the assessment of the LDP by the Scottish Ministers they recommended that the application site remain allocated for employment uses because it was important that there be a choice of location for small-scale businesses that would be compatible with the neighbouring retail, residential and school uses; and he considered it important to protect this allocation from further retail or commercial uses.

**Biodiversity:** The proposal requires the demolition of existing farm buildings, some of which may provide suitable roost sites for bats and nest sites for birds. It is therefore essential that consideration is given to the protection of birds and bats. A further ecological survey of the buildings has been provided to allow an assessment of the ecological impact of the proposals.

## REPRESENTATIONS

In total 33 letters of representation were submitted. Two objected to the application and there were 31 letters of support. A further 18 letters of support were submitted after the public consultation period closed. It is important to point out that whilst some of the letters of support raised planning and economic merits of the proposal, the majority were simply supportive of the named operator coming to Crieff. The operator of a foodstore is not a material consideration in the assessment of a planning application for retail use.

## ADDITIONAL STATEMENTS RECEIVED:

Environment Statement	Not Required
Screening Opinion	Not Required
Environmental Impact Assessment	Not Required
Appropriate Assessment	Not Required
Design Statement or Design and Access Statement	Submitted
Report on Impact or Potential Impact	Planning and Retail Statement, Transport Assessment, Pre-application Consultation Report

## APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan for the area comprises the approved TAYplan 2012 and the adopted Perth and Kinross Local Development Plan 2014.

The determining issues in this case are whether; the proposal complies with development plan policy; or if there are any other material considerations which justify a departure from policy.

### Policy Appraisal

Consideration requires to be given as to whether the proposed development accords with National Planning Policy and Development Plan policies. In particular whether the capacity exists to accommodate the proposal and whether its development can be accommodated without overall detriment to Crieff town centre, whether the proposals are acceptable in terms of sequential assessment and whether its design, siting, landscaping is acceptable and whether satisfactory access, parking, servicing and related infrastructure can be achieved.

In accordance with national policy, the aim of the both TAYplan and the LDP is to direct new retail investment towards existing town centres as this offers

the best opportunity to provide for the whole community as well as offering the potential to reduce car journeys. It is accepted that town centre locations are not always available and recommend that the sequential approach should be applied which defines a range from 'town centre' to 'out of centre' and that reasonableness and flexibility should be exercised by all parties in the selection process.

The proposed site is classed as 'out of centre' and on land allocated for employment use in the LDP so any proposal must meet current planning policy criteria in particular retail and employment policies.

## **Principle**

LDP Policy ED1 (Employment and Mixed Use) clearly stipulates that site allocated for employment use should be retained for such uses and must be compatible with surrounding land uses. Development Plans have confirmed that the development of the site for two retail units is considered to be a significant departure from the LDP. Policy ED1 also clearly states that retail use of employment sites will not generally be acceptable unless they provide an ancillary function on the site. Retail whilst it does provide employment it is a use class of its own and its development will have a different impact to that of Class 4 and 5 uses normally associated with employment sites.

The applicants Planning and Retail Statement argues that the loss of E27 in favour of retail use is acceptable due to an oversupply of employment land and the loss of 1.6 hectares will not be significant. It is considered that the loss of an employment site in such a sustainable location within two years of the LDP being adopted is premature. When being assessed for allocation in the current LDP the Scottish Ministers recommended that the application site remain allocated for employment uses because it was important that there be a choice of location for small-scale businesses that would be compatible with the neighbouring retail, residential and school uses; and he considered it important to protect this allocation from further retail or commercial uses.

The Council is required to provide a choice of effective employment sites and LDP Policy ED1 seeks to protect such sites from other uses such as retail in particular unless it is ancillary. The application seeks the complete loss of employment from the site and therefore is not considered to be an acceptable departure from the LDP and does not comply with LDP Policy ED1. As a result the principle of the proposed development cannot be supported.

## **Retail Capacity and Impact**

### Quantitative Capacity and Impact

The submitted Planning and Retail Statement highlights there is over £29million of convenience capacity for the Crieff market area in 2015. Based on the estimated existing sales densities of £11.45million for convenience goods operators in Crieff the estimated remaining capacity is therefore £17.55million. The extant permission for the former Tesco site must be taken into account and based on company average sales density figures its

predicted convenience turnover is £15.87million in the applicants Planning and Retail Assessment and £15.4million in the Perth and Kinross Council Retail Study and thereby leaving less than £2million in spare capacity. The convenience turnover from within the Crieff catchment area is shown to be £11.1million and as a result the spare capacity can assumed to be just over £6.3 million.

The Planning and Retail Assessment predicts that the convenience turnover for the proposed Aldi store to be £9.82 (£7.86m within catchment) million. The additional retail unit is predicted to provide a turnover of £9.4 (£7.4m within catchment) million. Therefore the predicted total turnover for both units will be £19.2million with £15.26million from within the Crieff catchment. If the extant permission for the former Tesco site did not exist or come forward then there would be quantitative capacity for the proposal. However the consented Tesco permission cannot be ignored as it is extant and can be built out without further permissions. It therefore must be taken in into consideration and this means there is actually no quantitative capacity for the proposed retail development. As is discussed later in this report the former Tesco site is under new ownership and they have confirmed their intention to build out the consented store and split it into two units for convenience retail use. There is therefore very limited spare financial capacity for both the former Tesco site and the proposed site without significant trade diversion and as a result I cannot support the findings of the Planning and Retail Statement.

#### Qualitative Capacity and Impact

It is widely accepted that Crieff needs an additional foodstore to meet the convenience shopping needs of Crieff and the surrounding area. The main foodstore in Crieff is a Co-op Store which struggles to provide the weekly shopping needs of the area. Many residents have to travel to Perth or Stirling for their shopping needs whilst a certain percentage will shop online and have it delivered.

If as mentioned above the extant permission for the former Tesco site did not exist and new owners were not looking to provide convenience retail on it there would be qualitative capacity for the current proposal. If the applicant had looked to deliver their proposal on the former Tesco site then there would be no qualitative capacity issue. There is no qualitative capacity for potentially four convenience retail units in Crieff and all along Broich Road in particular. It is considered that the impact of two retail development with four convenience units at this location will result in a retail destination being created which are not linked up with each other and will cause a significant adverse impact on Crieff town centre. There will potentially be less reason for customers to perform linked trips and use the town centre if all their retail needs are being met in two out of centre locations.

It is considered that the proposal will not comply with LDP Policy RD4 as it has not been demonstrated the proposal meets the quantitative and qualitative deficiencies and the adverse impact on Crieff town centre will be too significant to sustain.

## **Sequential Assessment**

A sequential assessment has been carried out by the applicant and to see if there are any town centre or edge of centre sites that could accommodate the proposed scale for development. As expected there were no sites of suitable size located within the town centre or at edge of centre. The applicant was advised at pre-application stage to sequentially assess the former Tesco site as it is allocated for retail with extant planning permission for a foodstore and is located closer to the town centre than the proposed site.

The applicant contends that because the former Tesco site is also 'out of centre' then under national and regional planning policies they do not need to sequentially assess the former Tesco site. Because of the former Tesco sites status in relation to the LDP and extant planning permission for a foodstore, it is considered to be much higher in the retail hierarchy than the applicant suggests in their Retail and Planning Assessment. Scottish Planning Policy (SPP) 2014, TAYplan nor the LDP states other 'out of centre' sites should be discounted and indeed they make specific reference to easily accessible 'out of centre' sites. Because there is a lack of sequential assessment of a site located closer to the town centre; allocated for retail use with extant planning permission for a foodstore and has been available to develop then the sequential assessment is considered to be fundamentally flawed and does not comply with TAYplan Policy 7 or LDP Policy RC4.

## **Scale**

The proposed scale of the two units (2,100 sqm sales floorspace) is similar to the scale of the approved Tesco foodstore of 2,000 sqm sale floorspace). However based on the applicants Planning and Retail Statement and the Perth and Kinross retail Study 2014 there is little capacity for an additional 2,000+ sqm of retail floorspace for the Crieff market without having significant adverse impact on the town centre. Therefore there are concerns regarding the cumulative impact of the proposed scale of floorspace along with the already approved site. Over 4,000 sqm of retail floorspace at this location is considered likely to adversely impact the vitality and viability of Crieff town centre and does not comply with TAYplan Policy 7 or LDP Policy RC4.

## **Material Consideration - Former Tesco Site 08/01955/FLM**

It should be noted that during pre-application discussions all parties were aware that Tesco had announced they were not going to build out their planning permission for a foodstore of 3,425 sqm gross. The site has been on the market since early 2015 and according to the sale particulars offers from other foodstore operators would be considered as the site is allocated for retail use within the LDP and has live planning permission for a foodstore. The applicant was advised during pre-application discussion that this was the Councils preferred site for future retail development and efforts should be made to secure development on this site. Evidence of efforts made to secure this site have been requested but no evidence has been provided by the

applicant to show any negotiations have taken place. The selling agent has confirmed that no approach had ever been made from Aldi or their agents.

The site along with another 18 former Tesco sites has now been purchased and the new owners have made it very clear of their intention to develop the site out for retail foodstore purposes as per the consented scheme. A request for a Non-Material Variation has been submitted and approved to split the consented foodstore into two units of similar scale as the current application bay Aldi. Splitting the approved store into two units does not pose any planning issues provided the floorspace and use restrictions associated with the 08/01955/FLM permission remains.

The situation regarding the former Tesco site has therefore moved on over the past few months and there is now greater certainty that Crieff will get the foodstore(s) it needs to meet the retail demand of the local population. As stated already the former Tesco site is allocated for retail use with live planning permission and is sequentially better located nearer the town centre than the Aldi proposal. Because of its planning position it is higher in the retail hierarchy and the Planning Authority should seek to protect and promote it. It is therefore considered to be a significant material consideration in the determination of the current planning application.

### **Design and Layout**

Whilst the principle of the application cannot be supported I would also note that the proposed layout of the site is not considered to be acceptable. Notwithstanding my above concerns I consider that the proposed store locations should be swapped over as the Aldi store is sequentially worse than the second unit. I have concerns that increasing the distance even further from the town centre will reduce the connectivity of the site with the town centre especially with an additional unit that may or may not happen.

### **Landscape and Trees**

I have no issue regarding the proposed landscaping and is considered acceptable for the type of development proposed as retail operators also need to be visible for commercial purposes.

There is a large mature sycamore to the south of the farmhouse that has significant amenity value, and its protection should be incorporated into consideration of any future development within or adjacent to the site.

### **Residential Amenity**

There is a residential area (Duchlage Court) immediately north of the application site and this contains an element of sheltered housing. The Councils Environmental Health Officer has expressed concern regarding noise and air quality impact. He is concerned about the cumulative impact of the noise plant if the former Tesco site is also built out. He is especially concerned about noise from deliveries as the applicant has proposed



unrestricted deliver time periods. This could result in overnight deliveries within 15 metres of Duchlage Court and potentially unacceptable noise levels. Environmental Health does not support the proposal at this stage and therefore does not comply with EP8 – Noise Pollution.

### **Visual Amenity**

The proposed retail units will be single storey and therefore low level. With a mixture of uses and architectural styles along Broich Road it is considered that the visual impact of the proposal will not be significant.

### **Cultural Heritage**

#### Listed Building

Duchlage House is a category B listed farmhouse and there are associated agricultural buildings to the north and east of the farmhouse, and a u-plan steading range to the immediate north east. Although dilapidated, it is a good quality rubble-built steading with original arched openings to the east range. It has been heavily altered over time but it retains a significant degree of historic character and interest. As it is within the curtilage of the farmhouse, the steading range is also protected by the Category B listing.

There is an associated Listed Building Consent (LBC) application (15/01721/LBC) for the demolition of the steading range of buildings to form part of the car parking for the erection of the two retail units. The Council's Conservation Planner has objected to the proposed demolition and development of car parking in its place. She considers that when assessed against current Scottish Historic Environment Policy (SHEP) the application is likely to result in a severely detrimental impact on the setting of Duchlage House and contravene LDP Policy HE2 – Listed Buildings. It is worth noting that Historic Environment Scotland have also objected to the LBC application to demolish the steading buildings.

#### Archaeology

Perth and Kinross Heritage Trust have confirmed the area is archaeologically sensitive as the surrounding area has been a focus for prehistoric ceremonial and funerary activity.

Whilst it is recognised that much of the development site is currently occupied by 19th and 20th century farm buildings and associated infrastructure, there are areas that do have potential for subsurface archaeological deposits. Given the significant results in its vicinity, there is a need to assess the presence / absence, significance and condition of any archaeological deposits within the development site. If planning permission is granted it is recommended that condition for a programme of archaeological works be attached.

### **Roads and Access**

No objection from Transport Planning and if the application is approved has requested the applicant enters into discussions with the Council and sign a

Section 69 Agreement to agree a financial contribution towards road infrastructure improvements including public transport along Broich Road. This work would then be carried out by the Council.

### **Drainage and Flooding**

No issues raised regarding flood risk or drainage at this stage.

### **Contaminated Land**

A previous land use that has led to the contamination of a site is generally identifiable from historical records. However consideration needs to be given to situations where this is not so apparent and there is the potential for contamination to cause a constraint in the redevelopment of specific sites. A good example of this is where there is a proposed use change from agricultural to residential.

Potentially there are a range of contaminants that could be present in the farmyard which contains a variety of buildings that have been put to a number of uses. Aside from the likely presence of made ground any number of chemicals could have been used and potentially leaked or been spilled. The risks associated with this remain difficult to quantify until there has been some form of sampling and chemical analysis of the soils contained within the development area. This will help determine the suitability of the site for the proposed development and whether any measures are needed to mitigate against any risks that have been identified. Should planning permission be granted a pre-commencement condition is recommended.

### **Ecology**

The Councils Biodiversity Officer has confirmed the farm buildings that are proposed to be demolished may provide suitable roost sites for bats and nest sites for birds. It is therefore essential that consideration is given to the protection of birds and bats. Should planning permission be granted an ecological survey of buildings to be demolished must be provided to allow an assessment of the ecological impact of the proposals.

An ecological assessment of the LBC application has been submitted and this application involves the demolition of the farm buildings forms part of the assessment of that application.

### **Community Support**

31 letters of support and 18 late letters of support have been submitted in respect of the application. It is considered that despite the level of publicity for this application that the level of support has been lower than envisaged. It is worth noting that much of the support relates mainly to the prospect of the named operator coming to Crieff and very little mention of the planning and land use merits of a foodstore at the proposed location. The operator of a

foodstore is not a material consideration when assessing a planning application for retail use.

It is acknowledged that the population of Crieff has been let down by previous proposals on Broich Road and I understand their need for a foodstore. The recent purchase of the former Tesco site and discussions with the new owners has given the Council confidence that the former Tesco site will now come forward with foodstore(s) that will meet the convenience retail needs of Crieff and surrounding settlements. The planning and economic development merits of development of the former Tesco site are much stronger and therefore supported.

### **Developer Contributions**

The Developer Contributions Guidance is not applicable to this application but should planning permission be granted on an appeal the applicant will be required to enter into negotiations with the Council and agree a Section 69 Agreement (Local Government Act 1973) to secure a financial contribution towards road infrastructure improvements including public transport which the Council will carry out to mitigate the cumulative impact of current and existing proposals on Broich Road.

### **Economic Impact**

The economic impact of the proposed development is likely to be significant as it will provide job opportunities and retain expenditure within Crieff. However the cumulative impact of two retail developments and its adverse impact on Crieff town centre is considered to outweigh the economic impact of the current proposal in isolation.

### **Conclusion**

In conclusion, the application must be determined in accordance with the adopted Development Plan unless material considerations indicate otherwise. In this respect, it is recognised that Crieff needs another foodstore to meet the convenience retail needs of Crieff but the proposed site proposed is simply the wrong one and the development of retail use would represent a significant departure from the LDPs allocation (E27) for employment use. Support for the application cannot be offered as it clearly contravenes LDP Policy ED1 – Employment and Mixed Use Areas.

Having examined the supporting information including the Planning and Retail assessment I find no evidence that would lead us to considering this departure from the LDP as being acceptable. Therefore the principle of the application cannot be supported.

From the outset the applicant has always been recommended to look at developing the former Tesco site west of the application site as it is allocated for retail use, has live planning permission for a foodstore, is sequentially preferable and higher in the retail hierarchy than this proposal. The planning

and economic development merits of development of the former Tesco site are much stronger and therefore a material consideration in the consideration of this planning application. It is considered another two retail units at this location will create a retail destination that will have a significant detrimental impact on Crieff town centre and contravene numerous criteria contained within LDP Policy RC4 – Retail and Commercial Leisure Proposals.

In addition there are other issues that have arisen following the consultation process and whilst they may be able to be mitigated but because the principle of the application cannot be supported I am reluctant to request further information is submitted to address the outstanding issues.

On that basis the application of the above it is recommended that the application is refused.

### **APPLICATION PROCESSING TIME**

The recommendation for this application has been made outwith the statutory determination period.

### **LEGAL AGREEMENTS**

None required.

### **DIRECTION BY SCOTTISH MINISTERS**

None applicable to this proposal.

### **RECOMMENDATION**

**Refuse the application for the reasons following**

#### **Reasons for Recommendation**

1. The applicant has not demonstrated satisfactorily the proposal for retail use on an allocated employment site (E27) will be an acceptable departure from the Development Plan and will contravene TAYplan Policy 3 and LDP Policy ED1 because it does not support the principle of retail use (unless ancillary) on allocated employment sites should be retained for employment use.
2. The applicant has not demonstrated satisfactorily there is sufficient quantitative and qualitative capacity for the proposed scale of retail uses and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (a) (c) (d) (g).

3. The applicant has not demonstrated satisfactorily this is sequentially the most preferable site and that it will have an adverse impact on the vitality and viability of Crieff town centre and therefore is contrary to TAYplan Policy 7 and LDP Policy RC4 (b).
4. The development does not contribute positively to the vitality and viability of Crieff town centre and its cumulative impact will result in a significant adverse impact on the town centre and is therefore contrary to policy RC4 of the Perth and Kinross Local Development Plan 2014.

### **Justification**

The proposal is not considered to comply with the Development Plan and there are no other material considerations that would justify a departure there from.

### **Informatives**

None

### **Procedural Notes**

Not Applicable.

### **PLANS AND DOCUMENTS RELATING TO THIS DECISION**

15/01354/1

15/01354/2

15/01354/4

15/01354/5

15/01354/6

15/01354/8

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**Date of Report 2.12.2015**



Document 3  
Letter from  
Chief Planner  
to Heads of  
Planning





Heads of Planning

29 July 2011

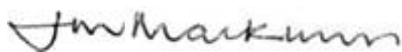
Dear Colleagues

### **Local Review Procedures**

The issue of whether, or not, reviews by Local Review Bodies (LRBs) should be conducted by means of a full consideration of the application afresh (De Novo), or whether they are solely a review of the appointed officer's decision has been raised regularly by delegates of the Local Review Body forum.

By way of clarification and in the interests of consistency, Annex A sets out the Scottish Government's position on this matter and confirms that the 'de novo' approach should be adopted in determining cases brought before LRBs.

I hope this information is helpful in setting out the Scottish Government's position on this particular matter.



**Jim Mackinnon**  
**Chief Planner**

## **Background**

1. The Local Review Body Forum has discussed the decision making role of the local review body (LRB). Some planning authorities believe that the LRB is required to review the delegated decision which was taken by an officer of the authority whilst others believe that the LRB must consider the merits of the planning proposal afresh, bearing in mind the development plan and all material considerations (the 'de novo' approach). This was also raised at the various stakeholder events that contributed to the Scottish Government's one year review of planning modernisation<sup>1</sup>.

## **Consideration**

2. Although termed a 'review' the decision of the planning authority when acting as the local review body is still the decision of the authority on a planning application and the same considerations would apply to the factors that require to be taken into account when making a decision as they would in the case of a first determination.
3. Section 37(2)2 requires the planning authority to have regard to the provisions of the development plan and other material considerations. Section 43A (5) makes it clear that requirements to have regard to the development plan and any other material consideration remain in place. In addition section 43B (2) makes it clear that the requirement to have regard to the provisions of the development plan and other material considerations is unaffected.
4. Section 43A does not contain the same wording as section 48(1) - which sets out that Scottish Ministers (when dealing with an appeal) may deal with the application as if it had been made to them in the first instance - but it is the Scottish Government view that it is not necessary to state this because the application was made to, and is being determined by, the planning authority.
5. The planning authority have powers under section 43A (15) to reverse, vary or uphold a determination made by a planning officer. These mirror the powers of Scottish Ministers on appeal.

## **Conclusion**

6. The consideration of an application by an LRB is in effect consideration of an application by the planning authority and should be treated accordingly. The Scottish Government therefore considers that, based on the above argument, the 'de novo' approach should be adopted in determining cases brought before LRBs.
7. This approach is also consistent with the approach to appeals adopted by DPEA. Consistency of handling of cases regardless of whether they are determined by LRB or DPEA would, in our view, promote confidence in the planning process.

Scottish Government  
29 July 2011

<sup>1</sup> <http://www.scotland.gov.uk/Topics/Built-Environment/planning/modernising/progress/DMReview>

<sup>2</sup> References to sections refer to sections of the Town and Country Planning (Scotland) Act 1997 as amended by the Planning etc (Scotland) Act 2006.



Document 4  
Town Centre  
Plan









Document 5  
Site  
Development  
Brief Extracts





**Perth and Kinross Council**

**Development Brief**

**Duchlage Farm Area, Crieff**

**April 2006**

### Introduction and background

1. The Enterprise and Infrastructure Committee on 24 August 2005 agreed that the Duchlage Farm area be identified as the preferred location for a new supermarket in Crieff as part of a planned approach to the development of the area between Market Park and the site of the new Crieff secondary school. It was further agreed at the Enterprise and Infrastructure Committee on 30 November that this be taken forward by means of a Development Brief. This Brief was approved by the Council as supplementary planning guidance on 26 April 2006.

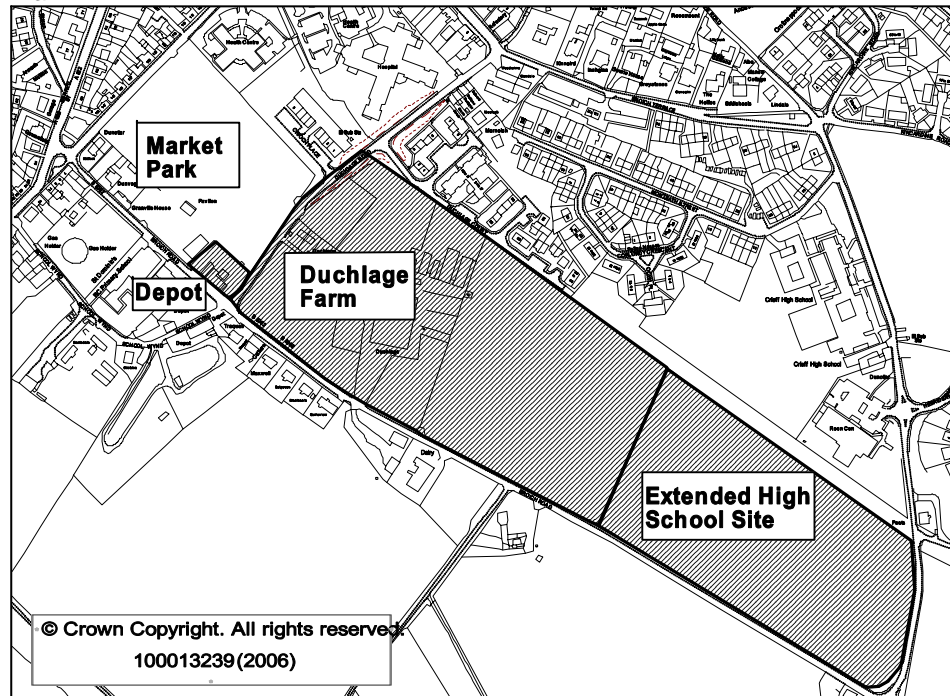
### Objectives

2. The objective of this Brief is to achieve a co-ordinated and integrated approach to the future development of the area between Market Park and the site of the new school.

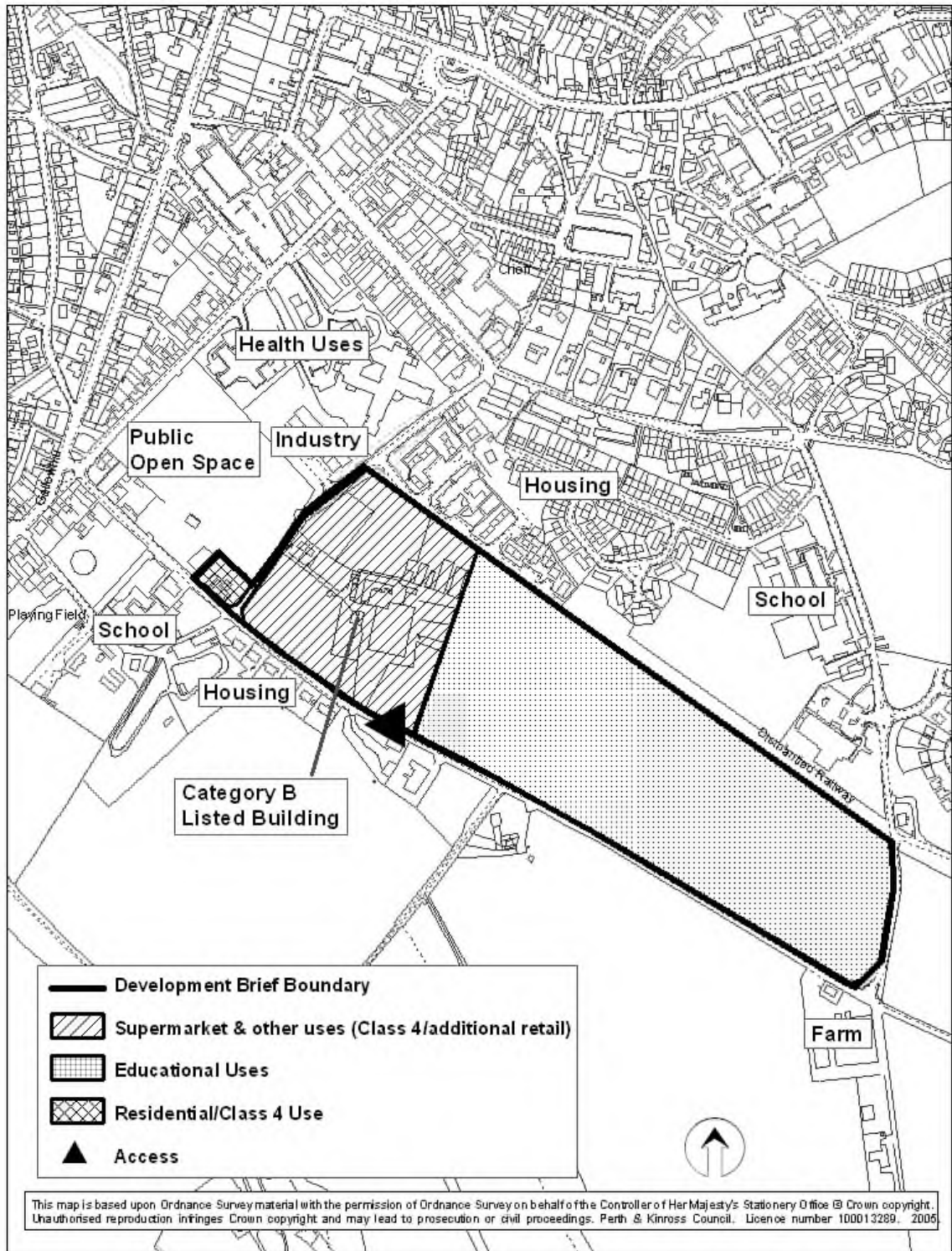
### Area covered by Brief

3. The area covered by this Brief is on the southern boundary of Crieff and extends from the depot in the south east corner of Market Park to the site of the new secondary school at Pittenzie Road (see Plan 1 below). It also makes comments about surrounding areas as they relate to the Brief area.

Plan 1



Plan 2



### Proposed land uses

#### ***Supermarket and Associated Uses***

11. The total net convenience floorspace of the new supermarket shall be 1,600 square metres. The total net floorspace has yet to be determined and will depend on the extent of comparison floorspace permitted.
12. The extent of the comparison element will require to be justified by a detailed impact assessment of the likely effects on trading in the town centre. The brief for such an assessment will require to be agreed with the Council. Depending on the outcome of this assessment the Council may seek to exclude certain product types from the comparison floorspace if their inclusion is likely to have an unacceptable impact on the town centre.
13. In terms of convenience floorspace, the Council's retail consultants concluded that 1,600 square metres would be appropriate to meet current needs. However it is acknowledged that needs may change over time and the site layout should therefore allow for future expansion of the supermarket should a need for additional floorspace be identified at a later date. In reserving land for potential future expansion an allowance should be made for any additional car parking requirements.
14. In terms of site layout, in order to maximise the potential for linked trips the supermarket should be located towards the north western corner of the site.
15. If a petrol filling station is to be included as part of the supermarket proposal this should be located within the supermarket site with access taken off the main supermarket access. Careful consideration should be given as to the most appropriate location within the site so as to minimise disturbance and loss of amenity for nearby residents, and protect the setting of the Listed Building.
16. Additional uses may be acceptable as part of the supermarket site; these could include uses under Class 4 or other uses such as a vet or dentist surgery. Additional retail / bulky goods units may also be acceptable should a need for these be demonstrated at a future date, subject to a detailed impact assessment indicating no unacceptable impact on the town centre. Again, the potential for additional car parking requirements should be taken into account. Any application for a supermarket should include indicative plans of how such additional uses would be incorporated.

#### ***Depot Site***

17. The site of the existing depot on Broich Road should be developed for a suitable alternative use which would be compatible with the surrounding land uses. This is likely to be residential or Class 4 Business use.

within or close to the town centre and will be asked to contribute towards the cost of this provision.

### **Path Links**

25. It is essential that pedestrian and cycle routes are created to enhance the linkages between the supermarket and the town centre, although it is recognised that the topography of Crieff is something of a barrier. Plan 3 shows three indicative routes between Duchlage Road and King Street linking to the town centre which should be investigated with the relevant landowners.
26. All weather paths will be required to provide pedestrian and cycle links through the area covered by the Brief. These should be established alongside structure planting to connect successive phases of development and avoid a piecemeal approach. Paths should connect from the Brief area to the existing recreational facilities at Market Park, Crieff town centre, housing to the east of the settlement at Monteath Street, Corlundy Crescent and new development at Pittenzie Road. The potential for providing Safe Routes to Schools should also be taken into account in determining the location for the new paths. Footpaths adjoining roads should be incorporated behind the relevant wall or hedge boundary treatment. Improvements are also required to the footways at the north eastern end of Duchlage Road at the junction of Broich Terrace as mentioned above.

### **Listed Building**

27. National Planning policy and the Memorandum of Guidance on Listed Buildings and Conservation Areas makes clear that Government policy with regard to the demolition of Listed Buildings is that *"no worthwhile building should be lost to our environment unless it is demonstrated beyond reasonable doubt that every effort has been exerted by all concerned to find practical ways of keeping it"*.
28. Any development in this area will potentially have an impact on the Category B Listed farmhouse. Options for the long term use and retention of the building, including the retention of an appropriate setting, should be considered in close consultation with Historic Scotland. Options for maintaining an appropriate setting could include the retention of the traditional L-shaped steadings to the rear of the farmhouse and conversion of these, for example to offices. Only if it can be demonstrated to the satisfaction of the Planning Authority in consultation with Historic Scotland that an alternative use for the Listed farmhouse cannot be found will consideration be given to the removal of the building.

### **Archaeological significance**

29. The Brief area is within an archaeologically sensitive area, particularly in relation to the proximity to the prehistoric Scheduled Ancient Monument site which lies South of Broich Road. As such a desk based assessment will be required with 5% trial-trenching evaluation prior to development. The Area Archaeologist at Perth and Kinross Heritage





Document 6  
Retail  
Statement for  
15/01354/IPL  
by GVA James  
Barr





**Document 1:** Planning and Retail Statement



**Planning application by Aldi Stores Ltd. for proposed foodstore and additional Class 1 retail development at Broich Road, Crieff.**

**GVA** James Barr



## Report

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# **Proposed Class 1 retail units at Broich Road, Crieff**

## **Planning Policy & Retail Statement**

July 2015



[gva.co.uk](http://gva.co.uk)

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## Appendices

Appendix I Site Location Plan

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Appendix IV Catchment Plan

Prepared By: Robert Newton

Status: Draft Final

Draft Date: July 2015

-----Portrait Report.Docx

**For and on behalf of GVA Grimley Ltd**

# 1. Introduction

- 1.1 This Planning Policy and Retail Statement has been prepared by GVA James Barr on behalf of Aldi Stores Ltd ("Aldi") in respect of its proposal for a new foodstore and complementary retail unit off Broich Road in Crieff.
- 1.2 The full description of development is as follows:
- "Planning permission in principle application for demolition of existing buildings and erection of a Class 1 retail foodstore, an additional Class 1 retail development and associated works, with detailed matters brought forward for the Class 1 foodstore, car parking, access, landscaping and other works"
- 1.3 This Statement forms part of a comprehensive suite of planning documentation, the scope of which has been discussed and agreed in pre-application discussions with Perth and Kinross Council and which comprises:
- [Transport Assessment, prepared by Grontmij](#)
  - [Design and Access Statement, prepared by Projekt Architects](#)
  - [Ecology Survey, prepared by Waterman](#)
  - [Pre-application Consultation Report, prepared by James Harbison & Co.](#)
  - [Drainage Statement \(incorporating Flood Risk Assessment\), prepared by 3E](#)
- 1.4 As the planning application is submitted with the intention that the Class 1 retail foodstore will be occupied by a new Aldi, this report includes background information on the retailer, to help to understand the specific format of the proposed development.
- 1.5 The background on Aldi as a retailer is considered to be particularly relevant to assessing the proposals against relevant planning policy and in informing the detailed retail impact assessment discussed within this report.
- 1.6 The Statement has been set out within the following sections:
- [Section 2: Aldi Stores Ltd](#)
  - [Section 3: Site Description & Surroundings](#)
  - [Section 4: The Proposals](#)
  - [Section 5: The Development Plan and Other Material Considerations](#)
  - [Section 6: Employment Land Considerations](#)
  - [Section 7: Retail Policy: Deficient, Impact and Scale](#)
  - [Section 8: Retail Policy: Sequential Considerations](#)
  - [Section 9: Retail Policy: Town Centre Healthchecks](#)
  - [Section 10: Economic Development](#)
  - [Section 11: Conclusions](#)

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## Summary planning credentials

- 1.7 The description of development is provided above and outlines the two main elements to the proposal. The first is the erection of an Aldi foodstore with a gross floor area of 1,804sqm, of which 1,254 sqm is to be used for sales.
- 1.8 The second component is a complementary Class 1 retail unit with a gross floor area of 1,022 sqm and net sales of 817sqm. Although the identity of the operator for this unit is not yet confirmed, Aldi are speaking to a range of interested parties. A deal with an operator would most likely be concluded in the event that planning permission in principle is formally granted.
- 1.9 The development proposal includes the delivery of 183 car parking spaces in total to serve both units, including appropriate parent and child and accessible bays, pedestrian walking routes through the site, and attractive soft and hard landscaping boundary treatments.
- 1.10 Both retail developments will help to address a recognised quantitative and qualitative deficiency within the local area, introducing a retail offer that is materially different to the existing provision. Proportionately, Crieff has not benefitted from new shopping facilities compared with other destinations in Perth & Kinross and these application proposals would help redress this, as indeed a number of attendees at our public consultation event confirmed.
- 1.11 More specifically, the proposals will help deliver the following:

### Economic Benefits;

- Significant levels of new investment into Crieff;
- An attractive new high quality development, that will deliver jobs and economic benefit to the local area;
- 30 direct jobs at the Aldi store with a further 43 positions generated from the extra retail unit, resulting in over 70 new jobs in total. This is on top of construction related work and indirect employment generation through the supply side of the facilities.

### Retail developments

- A new Aldi foodstore, the first discount retailer within the local area;
- Improved consumer choice and genuine qualitative improvements to retail provision in the area to meet customer demands as confirmed by the public consultation carried out during the pre-application period;
- A nature and scale of retail development that will serve only a limited local catchment;
- A complementary second retail unit to meet the demand for better retail facilities within the area;
- Creation of new job opportunities and help support employment growth elsewhere through Aldi's commitment to the Scottish food and beverage industry.

### Sustainable development

- The development of complementary facilities in an expanding part of the town, offering the potential for walk-in trade from surrounding neighbourhoods and greater retention of retail expenditure within the local community for the benefit of the area;

- Sustainable modern buildings that meet, and exceed where possible, current building standards in terms of energy efficiency and carbon emissions;
- An accessible development with public transport facilities conveniently located nearby; and
- The opportunity for one trip to serve several purposes and boost linked trips with the town centre, by giving shoppers more reasons to shop in Crieff.

## 2. Aldi Stores Ltd

### About Aldi

- 2.1 Since opening its doors to its first store in 1913, Aldi has established itself as one of the most reputable retailers worldwide.
- 2.2 Today, the Aldi name is synonymous with high quality and exceptional value.
- 2.3 Aldi's trading objective is to provide customers with the products they buy regularly and ensure that those products are of the highest possible quality, at guaranteed fair prices.
- 2.4 Aldi's core philosophy is to offer shoppers brand quality products at every day, exceptionally low prices.
- 2.5 With over 500 UK stores, Aldi is already a familiar and welcome presence in cities and towns. A new Aldi store makes positive contributions to local communities, complementing the existing retailer landscape and providing a variety of benefits for the local area:
  - Creating local jobs with unrivalled staff training and career opportunities;
  - Supporting construction related employment; and,
  - Enhancing links with local suppliers.
- 2.6 The shopping experience at Aldi is rooted in value, convenience, quality and efficiency. This has been acknowledged by the grocery industry through awarding Aldi the Which? Best Supermarket of the Year Award 2013, for the second year in a row, and Grocer of the Year 2013.
- 2.7 Aldi does not have any internal specialist concessions or deli-counters and does not offer:
  - A butchery or fishmonger service;
  - Cigarettes, tobacco products or lottery tickets;
  - Pharmaceutical products; or,
  - Most durable goods.
- 2.8 The deliberate intention is to restrict the range of goods to approximately 1,300 products in the interests of the consumer and operational efficiencies, and pass these savings onto the customer. The restricted range ensures a high volume and turnover of each individual item, resulting in a favourable cash flow with products effectively sold through the checkouts before they have been purchased centrally.
- 2.9 As such, Aldi are complementary to the existing pattern of trade both in terms of small independent shops and larger superstores, with Aldi customers using these other facilities to supplement the Aldi foodstore.

### Aldi in Scotland

- 2.10 Aldi operates 60 stores within Scotland and is committed to showcasing the best food and drink that Scotland has to offer, by sourcing as much as possible from within the country.
- 2.11 Not only does this pledge reduce food miles and widen the availability of quality Scottish produce, it also supports farmers, producers and manufacturers, helping to grow the value of

Scotland's food and drink industry. The planning application proposals would obviously help strengthen these links and legacy.

2.12 Aldi is proud to be supporting Scotland's local producers by:

- Stocking more than 280 Scottish products;
- Working with over 70 independent Scottish food and drink businesses; and,
- Boasting a product range which is at least 30% Scottish.

### **The Aldi 'business model'**

2.13 Aldi adopts a different approach to food retailing than other food retailers. Their philosophy is based on simplicity and maximum efficiency at every stage of the business, from supplier to customer, enabling Aldi to sell high quality products from a limited range of exclusive own labels at competitive prices.

2.14 The layout of an Aldi store reflects this philosophy of offering unrivalled value for money, through cost effective management as follows:

- Merchandise is displayed in specially designed customer-friendly cases to eliminate wasted stocking time and to allow for easy and efficient re-stocking;
- Merchandise is displayed in the same way in every store, allowing for consistency both in terms of replenishing stock (logistics) and customer usage;
- Aldi adopts a unique store servicing operation, with its own transport dedicated fleet. This allows delivery vehicles to be kept to an absolute minimum. Stores have a dedicated internal storage area, delivery ramp and dock levelling system allowing goods to be unloaded by drivers without any external activity. Storage depots are also set out internally like a store, to minimum stock handling and stocking time in stores;
- The general store layout is eminently practical. Its design reflects the company philosophy of offering unrivalled value for money through cost effective servicing and the internal fit out of stores.
- The internal layout and operation is explicitly designed for efficiency and practicality, for use by staff and customers alike. Features include long till conveyors that hold a customer's full shop so as to allow goods to be unloaded, scanned and packed in a timely manner. All stores afford at-grade access, with automatic entrance doors, wide aisles and checkouts for efficient operation. Parking is located in close proximity to the store, with dedicated disabled and parent and child spaces for ease of use.

2.15 Aldi's policy of acquiring sites on a freehold basis is essential to its ability to provide quality goods at competitive discount prices. This type of acquisition allows:

- Control over the quality of the shop environment;
- Adequate investment in external landscaping to ensure an attractive environment;
- Adequate car parking and access arrangements to be provided;
- Cost effective management given the absence of outside influences; and,
- Control over the building of their stores.



- 2.16 Combined, the competing factors set out above are consistent to every store that Aldi operates. Collectively, they help understand the Aldi 'business model' and how they are therefore essential to the viability of the overall operation and suitability of sites they acquire.

### **Aldi in the community**

- 2.17 The proposed Aldi store would provide new employment opportunities and where possible, these positions will be filled from people within the local area.
- 2.18 In addition, the construction period will generate employment through engaging services of local trades people and contractors.
- 2.19 Combined, the competing factors set out above are consistent to every store that Aldi operates. Collectively, they help understand the Aldi 'business model' and how they are therefore essential to the viability of the overall operation and suitability of sites they acquire.

### **Sustainability**

- 2.20 Aldi has developed a range of sustainability policies for the design, construction and operation of their stores.
- 2.21 This includes:
- A local sourcing policy that reduces the environmental pollution of long distance transportation;
  - Carrier bags that can be easily recycled;
  - The control of packaging on products so as to minimise waste; and,
  - The use of returnable or reusable crates/pallets.
- 2.22 Where possible, the materials used in the construction and fit out of stores seek to maximise the use of recycled materials. Proposals also conform to building regulation requirements to minimise heat loss/gain by creating airtight insulated buildings with controllable natural ventilation.

### 3. Site Description & Surroundings

#### The Site

- 3.1 The application site extends to approximately 1.8 hectares. A site location plan is included at appendix 1 of this report and an aerial photo is also provided below to help identify the site.

#### Site Location Map



- 3.2 The site lies off Broich Road, which is located to the south of the main Crieff settlement. This is currently occupied by a range of agricultural sheds and arable land associated with the Duchlage Farm, with the buildings being demolished as part of the proposals. The site is allocated for redevelopment as part of the latest Local Development Plan.
- 3.3 The site and the wider area form part of a large zone designated for an extension to the town. This has resulted in the development of a new Secondary School known as the Strathearn Community Campus, a new Primary School, which is expected to open after the summer, and also the designation of significant levels of new housing and additional employment space to substantially expand the town.
- 3.4 The immediate area around the site is evolving from its traditional rural character and with the implementation of the sites allocated within the Plan, will be transformed in its future appearance and the built-up nature of this part of the town.
- 3.5 In terms of land uses nearby, the site is bordered to the west by the Duchlage Farmhouse, which is a Category B listed property, with the site formerly earmarked for a Tesco superstore development beyond this. As a result of this listing and the benefits construed to the agricultural sheds from being within its curtilage and construction pre-1948 these are also considered to be listed and a separate listed building consent application is submitted with this planning application for their demolition.

- 3.6 In respect to other adjacent uses, the residential street, Duchlage Court, is positioned to the north, with land associated with the new primary school on the east.
- 3.7 Finally, to the south of the site lies Broich Road, where vehicular access is proposed to be taken from, with cottages and a dairy farm located beyond this.

### **Planning History**

- 3.8 The site itself has no recent planning history of relevance, however, there is some background to adjacent sites that we address below.

#### **08/01955/FLM**

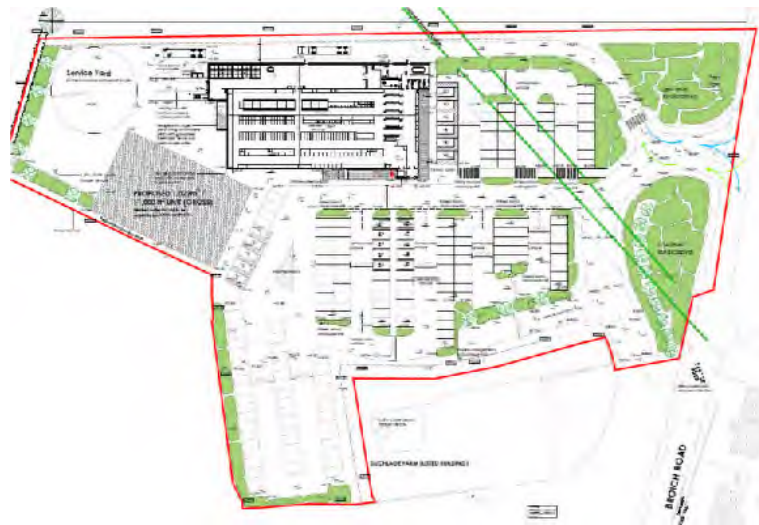
- 3.9 As noted earlier, the land to the west of the site has an extant planning permission, which we understand has been implemented. This permission 08/01955/FLM granted consent for the erection of a new convenience superstore of 3,425sqm gross and 1,600sqm net floorspace. This permission was implemented before its expiry last year although we are aware from recent press coverage that the company no longer intend to progress with the development and will be marketing it as such in the near future.

#### **13/02026/FLM**

- 3.10 To the east of the site lies a new primary school which is due for completion later this summer. This application was approved in February last year.

## 4. The Proposals

- 4.1 Aldi are in the process of investing significantly across Scotland to meet growing customer demands for the brand. This development programme relates to both the extension of existing stores and the construction of new stores focused mainly in locations where they currently have little presence.
- 4.2 Aldi have been looking for sites within the Strathearn area for a number of years and are pleased to be bringing forward this planning application for the site at Broich Road, Crieff to complement their existing presence in Perth.
- 4.3 The description of development is:
- 4.4 "Planning permission in principle application for demolition of existing buildings and erection of a Class 1 retail foodstore, an additional Class 1 retail development and associated works, with detailed matters brought forward for the Class 1 foodstore, car parking, access, landscaping and other works"
- 4.5 The development content of the proposal comprises:
- Aldi Class 1 retail foodstore measuring 1,804 sqm gross, with a 1,254sqm sales area;
  - Class 1 retail development measuring 1,022sqm gross, 817sqm net sales;
  - Car parking for 183 bays, including 162 standard, 10 parent and child and 11 accessible spaces to serve both developments;
  - Convenient and accessible pedestrian routes to link the two uses and connect the site with walking facilities available on Broich Road and a new link to the town centre through Duchlage Court; and
  - Cycle racks to encourage sustainable travel.
- 4.6 As set out within the description of the development, a hybrid planning application is proposed with the proposals to be brought forward in two phases. The first phase relates the Aldi element of the proposal and would deliver the following:
- The design, layout and appearance of the foodstore;
  - Site layout including car parking areas, soft and hard landscaping and the dedicated service yard; and
  - Vehicular and pedestrian accesses through the site including the link to Duchlage Court.
- 4.7 The planning application therefore includes the full detail for all of the elements above and upon the issue of the permission, it is intended that this part of the development would be implemented.
- 4.8 The second phase of development would be the complementary Class 1 retail unit. At the PPP stage, only the principle to develop a unit of 1,022sqm is being sought and more detailed proposals would follow at the AMSC stages, covering the likes of design, materials etc.
- 4.9 The proposed layout of the proposal is shown below.



- 4.10 A parallel application for listed building consent has been submitted for demolition of the farm buildings forming part of the curtilage to the adjacent B listed farmhouse.

## Design

- 4.11 Given the nature of the planning application submitted, this part of the report will only focus upon the Aldi foodstore element of the PPP.
- 4.12 The Aldi foodstore will comprise a single storey building of contemporary design.
- 4.13 The main entrance area to the Aldi store will be treated with high level glazing and a canopy to deliver an attractive façade and an inviting draw for customers. This has been deliberately located to maximise its active frontage to the main road.
- 4.14 Its single storey scale will integrate well with the adjacent primary school development whilst also helping to preserve views northwards to the wider countryside. This is clear from the streetscape elevations that are submitted.
- 4.15 The high quality elevations of the Aldi proposal are shown below:



- 4.16 An enhanced delivery area for the store will be created through the development of a separate service yard and installation of a service pod and docking area at the northern elevation of the building. This location minimises its visibility from the main viewpoints around the site and also limits interaction with the customer car park.



- 4.17 Please refer to the submitted Design and Access Statement for further information in this regard.

## Landscaping

- 4.18 A robust landscape framework is provided for the development in respect of both the perimeter and within the site. This has been designed to soften the development's impact on the rural setting and ensure that an appropriate setting is retained for the neighbouring B listed farmhouse.

## Accessibility

- 4.19 Vehicular access This road alignment accords with the proposal approved as part of the adjacent Tesco store development and will therefore ensure that this site can still come forward in future for a variety of uses.
- 4.20 Pedestrian access to the site will also be available off Broich Road, where the pavement will be widened to tie in with the proposals next door. This will help link with adjacent school developments to the east and the new residential neighbourhoods allocated with the Council's Local Development Plan. An additional pedestrian access is also proposed to link the site directly with Duchlage Court to the north, to help provide easier access for local residents and to boost linked trips with Crieff town centre.
- 4.21 In terms of parking, 183 spaces will be provided comprising a mix of:
- 162 standard bays;
  - 10 parents and child bays; and
  - 11 accessible bays.
- 4.22 There are a number of public transport facilities within the local area, with a bus network available to support trips to the store via this mode of travel.
- 4.23 It is therefore clear that the site is highly accessible and will lead to a number of improvements at the site and for the wider area as a result of the pavement widening and enhancement of pedestrian routes through the site.

## Servicing

- 4.24 As per all of Aldi's stores, servicing is unlikely to exceed two HGV deliveries a day, normally only one, reducing impacts upon local traffic flows and potential amenity issues.
- 4.25 Aldi's unique delivery system is worth noting, whereby stores are constructed with a dedicated internal storage area, delivery ramp, sheltered canopy and dock leveller system. This enables drivers to unload without any external activity and is essential to Aldi's efficiency savings, which can then be passed onto the consumer. It also reduces potential noise and other impacts on amenity.
- 4.26 A separate service yard is proposed to the north of the Aldi store for this purposed. This area can also service the additional retail unit and has been deliberately located here to reduce its visibility from the public viewpoints both within and outwith the site.

## Pre-Application Discussions

- 4.27 The proposals have been informed by pre-application discussions with a number of officers of Perth and Kinross Council, including Steve Callan.

- 4.28 These discussions have therefore shaped the scope and form of the planning application submitted, including all supporting material.
- 4.29 Aldi welcomes this pragmatic approach in “front-loading” the application process.



## 5. The Development Plan and Other Material Considerations

- 5.1 This section provides a review of the relevant planning policies that must be considered for the proposals, covering the statutory development plan and other material considerations.
- 5.2 The statutory development plan for the site comprises TAYPlan and the Perth & Kinross Local Development Plan ("LDP").

### TAYPlan Strategic Development Plan

- 5.3 The Strategic Development Plan ('SDP') identifies Crieff as a Tier 2 settlement, where it is expected to accommodate new development that can contribute to regional economic growth.
- 5.4 The plan includes a central vision for the TAYplan region,
- 'By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where more people choose to live, work, study and visit, and where businesses choose to invest and create jobs.'*
- 5.5 To achieve this vision, TAYplan identifies the following objectives which are relevant in the context of these proposals. These are to:
- "Ensure that new development makes best use of existing networks of infrastructure, movement corridors and ecosystems;"*
- "Promote and enhance places and landscapes as economic drivers and tourist destinations; and, support the region's town centres as accessible business and service locations;"*

### Perth & Kinross Council Local Development Plan

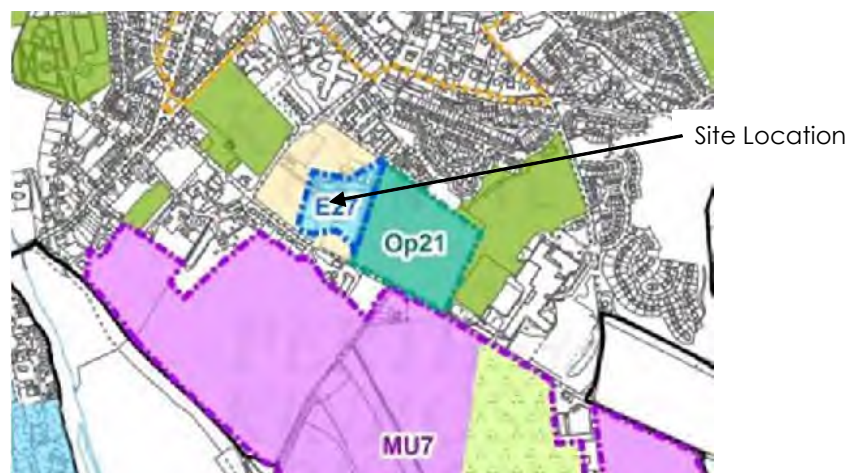
- 5.6 The Perth and Kinross LDP was adopted in February 2014. The Council's Vision Statement notes:
- "The majority of that growth focuses on Perth City and its Core area. This will build upon its key role as the hub of the area. It will ensure that the growth in employment opportunities keeps pace with population growth thereby creating the critical mass to deliver improved retail, leisure and cultural facilities to serve the City and its hinterland. This will be complemented by development focused on the burghs of Kinross, Aberfeldy, Pitlochry, Crieff, Auchterarder and Blairgowrie with increased prosperity in the smaller towns, villages and rural communities."(GVA underlining)*

### Site Specific Policy

- 5.7 As illustrated on Figure 1 below taken from the Proposals Map, the application site is designated for Business/Employment under allocation E27.
- 5.8 This designation notes that development proposals must be compatible with neighbouring uses, particularly in respect of visual and noise impacts. It is notable that these are a primary school and supermarket development.



- 5.9 The specific requirements for this site are the implementation of the approved development brief and for the access road to be delivered in conjunction with adjacent supermarket development.
- 5.10 Policy E1 states that:
- "Areas identified for employment uses should be retained for such uses. Within these areas any proposed development must be compatible with surrounding land uses. In addition all the following criteria will be applied to development proposals in these areas (individual sites may also have specific requirements):*
- (a) Proposals should not detract from the amenity of adjoining, especially residential, areas.*
  - (b) The local road network should be suitable for the traffic generated by the proposals.*
  - (c) There should be good walking, cycling and public transport links to new employment generating uses.*
  - (d) Proposals for retail uses in employment areas will not generally be acceptable unless they are ancillary to an acceptable use on the site.*
  - (e) Proposals for waste management facilities can be considered to be acceptable subject to detailed site specific considerations.*
  - (f) Proposals should not result in adverse impacts, either individually or in combination, on the integrity of any European designated site."*
- 5.11 The supporting policy text continues to stress the importance of economic development activity and its wider benefits for delivering growth in the economy. The Plan notes that it promotes an environment that is supportive of business and accordingly a flexible framework is applied to maximise opportunities with this policy for wealth creation.



**Figure 1:** Local Development Plan Proposals Map extract

- 5.12 Beyond the site specific policies, it is also necessary to assess the proposals against relevant general development policies.

- 5.13 Given the nature of the proposed development, policies relating to retail land uses are of relevance. This principally includes policy RC4: Retail and Commercial Leisure Proposals, which states that:

"Proposals in edge of town centre, other commercial centre or out of centre locations will only be acceptable where:

- (a) *It can be demonstrated that a proposal helps meet quantitative and qualitative deficiencies in existing provision.*
- (b) *It is supported by a favourable sequential assessment.*
- (c) *It is of an appropriate scale.*
- (d) *It provides improved distribution and accessibility of shopping provision.*
- (e) *It provides for accessibility to public transport and non-car modes of transport.*
- (f) *Any detrimental effects identified in the transport assessment are mitigated.*
- (g) *It has been demonstrated that there will be no significant impact (individual or cumulative) on any of the centres within the network of centres.*

*For all proposals outwith town centres the Council will consider the need for restrictions to be imposed on the installation of mezzanine floors and, in the case of convenience shopping developments, on the amount of comparison goods floorspace allowed."*

- 5.14 This policy will be considered in fuller detail in latter parts of this report.
- 5.15 In addition to the above, general policies covering a range of issues from design to transport also need to be considered in the determination of the planning application.
- 5.16 Policy PM1: Placemaking requires all new developments to contribute positively to their immediate environments, with proposals designed to consider the effects of climate change and ensure potential for mitigation and adaptation. The policy continues that design, density and siting of development should respect the character of an area and should seek to create and improve links beyond the site to enhance the sustainability of proposals.
- 5.17 Policy PM1B states that:

*"All proposals should meet all the following placemaking criteria:*

- (a) *Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings.*
- (b) *Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.*
- (c) *The design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.*
- (d) *Respect an existing building line where appropriate, or establish one where none exists. Access, uses, and orientation of principal elevations should reinforce the street or open space.*

- (e) *All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.*
  - (f) *Buildings and spaces should be designed with future adaptability in mind wherever possible.*
  - (g) *Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.*
  - (h) *Incorporate green infrastructure into new developments and make connections where possible to green networks."*
- 5.18 Policy PM2 notes that for sites over 0.5ha, a design statement is typically required to support the planning application.
- 5.19 A comprehensive Design and Access Statement has been prepared to accompany the planning application which considers all of these matters in fuller detail.
- 5.20 In short, the detailed design process for this application has taken on board the various criteria set out above, with a scale and design of proposal that is considered appropriate for the local context, and respects of the setting of the adjacent listed building.
- 5.21 Policy TA1B: New Development Proposals relates to the transportation aspects of the development. These matters are considered mainly within the supporting Transport Assessment that supports this application. Please refer here for fuller consideration of these points.
- 5.22 Finally, in respect to listed building considerations, policy HE2: Listed Buildings states that:
- "There is a presumption in favour of the retention and sympathetic restoration, correct maintenance and sensitive management of listed buildings to enable them to remain in active use, and any proposed alterations or adaptations to help sustain or enhance a building's beneficial use should not adversely affect its special interest.*
- Encouragement will be given to proposals to improve the energy efficiency of listed buildings within Perth and Kinross, providing such improvements do not impact detrimentally on the special interest of the building.*
- Enabling development may be acceptable where it can be shown to be the only means of retaining a listed building. The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the building's character, appearance and setting."*

## Other Material Policy Considerations

### Scottish Planning Policy

- 5.23 A revised Scottish Planning Policy (SPP) was published in June 2014 and sets out the Scottish Government's position in respect of key land use development issues.
- 5.24 It is noteworthy that the SPP introduces a new presumption of support in favour of development that contributes to sustainable development and encourages consideration of the net economic benefits that would arise from proposals.

- 5.25 In terms of retail development, SPP states that these must demonstrate that there will be no significant adverse impact on protected centres, that there is either a quantitative or qualitative deficiency that the proposals will address and that the scale, design or character is appropriate to the catchment it will be serving.
- 5.26 The SPP also requires that proposals adhere to the sequential approach to site selection.

#### **Duchlage Farm Area Development Brief**

- 5.27 A further material consideration for the determination of these application proposals is a non-statutory brief that was produced by Perth and Kinross Council in April 2006.
- 5.28 This brief recognises that the wider Duchlage Farm site (including the Tesco land) could be a suitable location to accommodate new retail development for the town, subject to robust testing on impact considerations.
- 5.29 The brief also highlights the importance of ensuring any development improved links with the town centre, that the proposals are mindful of the setting of the listed building and that additional retail on site may be acceptable in future subject to a detailed retail impact assessment. The brief clarifies that this would need to demonstrate that any additional floorspace would not damage the vitality or viability of the town centre.
- 5.30 Finally the brief also encourages the development of an attractive landscape framework to be delivered on site to minimise the appearance of the hard landscaping areas within the car park.
- 5.31 As a result, the brief has helped guide the preparation of the development proposals for the site, in terms of the layout, linkages and soft/hard landscaping proposed.
- 5.32 Please refer to the Design and Access Statement for more information in this regard.
- 5.33 Given its age and the change in circumstances since its approval, it is clear that only limited weight can be attached to the brief for development management purposes.

## 6. Employment Land Considerations

- 6.1 The planning policy review in the above section of this report demonstrates that the proposal site is allocated as business/employment land within the adopted LDP. Consideration of these policies will therefore be an important element in the determination of the proposal.
- 6.2 This section of the report will examine the policy further and then reflect on the overall economic and employment benefits that would be delivered by these alternative proposed uses.

### Planning Policy

- 6.3 To recap, the relevant planning policy for the site includes policy ED1. This states that such areas should be retained for such uses and will need to be compatible and complement existing and proposed development in the area.
- 6.4 Whilst the policy states that retail uses will not generally be acceptable, the supporting text of the Plan encourages the use of pragmatism and flexibility to achieve the Council's aspirations to deliver new economic growth in smaller towns such as Crieff.
- 6.5 In order to justify an exception to policy, this section of the report will consider the current employment land supply within the area, the need for the retention of this site as part of the supply, the development's economic credentials and also the compatibility with surrounding land uses.

### Employment Land Supply

- 6.6 The site itself is allocated as E27 and is 1.6ha in size. This represents a small element (7%) of the 22.6ha of potential employment space allocated within the current LDP for the Strathearn area. E27 is one of three sites totalling 9.6ha of land within the Crieff settlement designated for future employment development.
- 6.7 In terms of identifying supply requirements, the LDP states at paragraph 8.1.5 that for a 14 year period, a 20ha of land supply is necessary. Based on these figures a 5 year land supply requirement would be 7.14ha. Given that the LDP allocates 22.6ha of land, it is clear that there is more than sufficient land within the Strathearn area to accommodate future needs if the application site was to be utilised for alternative employment generating uses. We note that this is also backed up by other information in respect of the local area's employment land supply.
- 6.8 The Council's latest Employment Land Audit was published in 2014. This also confirms that the Strathearn area requires a supply of 20ha but does not clarify if this is necessary to comply with TAYPlan's five year land requirement. As a result of the above it is clear that there is a current over-supply of employment land allocated within the LDP for this part of the Council area.
- 6.9 Furthermore, it is also clear, based on the Reporter's Examination of the recent LDP that there is significant uncertainty surrounding the need for a 20ha supply in the first place.
- 6.10 These conclusions were reached by the Reporter in their Report on the LDP given the age of the data concerning take-up levels that have been used, which we understand was derived from figures dating from the period 2008/09-10. Given the recent economic climate, it is clear that this data concerning employment land demand could be considered unreliable and

may significantly overestimate requirements. This is therefore a further consideration in terms of assessing the loss of this small area of land from the allocated supply.

- 6.11 Based on the information above, it is clear that the loss of the application site from the overall supply within the Strathearn and wider Perth area, could be accommodated with minor impact on the overall figures. Indeed, the economic benefits associated with the planning application proposals are considered so substantial that these would go some way to further offset this loss and provide an alternative form of job creating use in line with the aspirations of the development plan for the site.

## Economic Benefits

- 6.12 In order to assess the economic benefits of the proposals, an impact assessment has been completed to cover the particular benefits that would result from both the Aldi foodstore and additional retail unit development. This is covered within Chapter 10 of this report.
- 6.13 In summary this concluded that the proposals will deliver:
- The Aldi store will generate 30 additional FTE positions;
  - Potentially a further 43 FTE jobs could be generated by the Class 1 retail unit;
  - In respect to indirect employment, including benefits for the supply chain, the development is anticipated to create an additional 14 FTE jobs;
  - Aldi values its employees very highly and offers extensive training, with the business boasting two award-winning apprenticeship programs;
  - Aldi works actively with local job centres to recruit their staff locally;
  - The construction value of the project would be approximately £3.2m, resulting in the creation of a further 48 job years of work, which is the equivalent of a further 4 FTE construction positions; and
  - The total direct and indirect GVA from construction would deliver a further £2.4m to the economy.
- 6.14 In light of the above information, it is clear that the development proposals would provide significant economic benefits to Crieff through direct, indirect and construction employment and to the GVA contribution to the greater economy.

## Complementary Development

- 6.15 Finally, we note that within both the LDP and the site specific development brief that there is strong recognition of the site's local context and emerging neighbouring land uses. This includes the development of the new local Primary School, which is due to open after the summer. In light of this, it is clear that certain development forms of a traditional employment nature could have a significant detrimental effect on the amenity of the adjacent school and the safety of schoolchildren. These concerns were backed up by the local school when discussed anecdotally at the public consultation event associated with the application proposals.
- 6.16 We therefore respectfully suggest that the development of retail uses in the form of the Aldi foodstore and further small scale complementary unit would be a more appropriate

neighbour for the school and provide children with convenient access to shopping facilities within the immediate area.

## Summary

- 6.17 Overall, it is apparent that whilst the site is allocated for more traditional forms of employment use, the development proposals would deliver significant economic benefits in terms of job creation and investment that would more than outweigh the site's loss from the available supply in the area. This is particularly apparent given the over-supply of employment land identified above, even in light of the highlighted concerns over the robustness of the figures for necessary land requirements.
- 6.18 It is therefore our contention that the application proposals are a suitable alternative mix of land uses that can effectively complement the character of this emerging development area within Crieff, whilst generating significant economic benefits for the local economy that would outweigh its loss for more typical forms of employment space.
- 6.19 Indeed, the development proposals offer a range of planning benefits, including investment, regeneration and improvements to the range and quality of shopping facilities in the area, which together with the benefits for the economy, are clear reasons for the planning application to be supported in due course.

## 7. Retail Policy: Deficiency, Impact and Accessibility

- 7.1 In light of the policy review in Chapter 5, it is clear that there are a number of policies relating to the retail land use proposed that must be considered. These are set out under RC4 of the LDP and national policy within SPP.
- 7.2 The principal elements of these policies relate to the sequential test, impact considerations upon protected retail centres, deficiency and matters of scale. These will each be addressed in turn. Section 8 focuses on deficiency and impact considerations which relate to criteria a, c, d and g of the policy, section 9 examines sequential issues to address criterion b and section 10, the town centre healthchecks to also consider criterion g relating to impact.

### Quantitative Deficiency

- 7.3 To address the requirements of policy, a comprehensive retail impact assessment has been undertaken in support of this application. This section should be read alongside the supporting tables attached at appendix 4.
- 7.4 This retail impact assessment has been fully scoped out with officers of Perth and Kinross Council during the pre-application stages. Their assistance in this process was much appreciated.

### Data Sources and Assumptions

- 7.5 The various assumptions and data sources relied upon in undertaking the quantitative assessment can be summarised as follows:
- Price year – 2013;
  - Catchment area – This covers the postcode sectors PH7 3, PH7 4, PH5 2 and PH6 2 and is roughly based on a 10-15 minute drivetime, given the largely rural catchment. This covers the town of Crieff and smaller settlements of Comrie and Muthill. This accords with Aldi's own CACI assumptions for the area. This is a typical approach for a new Aldi store, with these stores typically requiring a smaller catchment to remain viable than other larger foodstore operators.
  - Test year – 2018. Selected to allow sufficient time for the securing of planning permission, demolition of buildings and construction of the new foodstore and approximately 12 months to allow trading patterns to settle;
  - Existing population and projected 2018 population – Source: Experian population projections for area;
  - Per capita expenditure – Source: Experian Area Profile Report (April 2015)
  - Expenditure growth – For convenience expenditure -0.9% per annum between 2013 and 2014 and 0.6% per annum between 2015 and 2018. For comparison expenditure, 5.1% between 2013-14 and 3.3% between 2015-18 Source: Experian (Retail Planner Briefing Note, October 2014);
  - Net Sales Floorspace – Sources: IGD Database, GVA site visits and Perth and Kinross Retail Review 2014;



- Percentage of floorspace dedicated to convenience sales – Verdict Grocery Retailers 2012 and Perth and Kinross Retail Review 2014; and
- Sales densities – Source: Verdict Grocery Retailers 2012, Perth and Kinross Retail Review and Mintel Retail Rankings 2014. Convenience Sales Density Figures grown at -0.06% per annum. Comparison Sales Density Figures grown at 5.6% per annum based on Experian Retail Planner Briefing Note Oct 2014.

### Table 1: Population Projections

- 7.6 Using the aforementioned assumptions, the population of the catchment area at the base and test years was estimated as 12,185 increasing to 13,168 respectively. This is consistent with the typical size of an Aldi catchment area.

### Table 2: Expenditure Forecasts

- 7.7 Convenience and Comparison expenditure per head of population for the catchment area was sourced from Experian. This was multiplied by the population present in the area from Table 1 providing a total available convenience expenditure at 2015 of £29.8m. This shows an increase to £32.7m in 2018. Once Special Forms of Trading (SFT) reductions are incorporated, this falls to £29.1m in 2015 and £32m in 2018.
- 7.8 In terms of comparison expenditure, the same method for calculation is deployed, resulting in a total comparison expenditure of £47.7m in 2015 and £56.9m in 2018. Once SFT is considered, this reduces the total expenditure available to £40.2m in 2015 and £47.1m in 2018. These figures are summarised in the table below.

	Convenience		Comparison	
	2015	2018	2015	2018
<b>Total Expenditure Available (£m)</b>	29.8	32.7	47.7	56.9
<b>Total Expenditure Available (minus SFT) (£m)</b>	29.1	32	40.2	47.1

### Table 3A and 3B: Existing Floorspace and Company Average Turnover

- 7.9 Table 3 provides details of existing convenience retailing locations within the catchment area. As can be seen, calculations of existing turnover include not only national multiples and nearby superstores, but also independent traders and shops lying within protected centres in the catchment area.
- 7.10 The figures used for floorspace dedicated to convenience sales and also sales densities have been sourced from the Perth and Kinross Retail Review 2014.
- 7.11 As the sales density figures from Verdict are from 2012, these were re-based to a 2013 price year and then grown to the base (2015) and test years (2018).
- 7.12 The list of convenience retailers includes the Co-op store and additional retail space within Crieff town centre. For comparison floorspace, this only includes the shops within the town centre.

- 7.13 To calculate individual turnovers the sales densities have been multiplied by net convenience and comparison floorspace. Convenience turnovers have subsequently been grown at a rate of -0.06% per annum between the 2015 base year and 2018 test year and comparison turnover is grown at 5.6% per annum for the same period.
- 7.14 Table 3A concludes that the total turnover of convenience floorspace within the catchment, based upon company average levels of sales density being achieved, is some £11.45m at the 2015 base year, falling to £11.43m at the 2018 test year. As this is based only on national average figures, it is clear that the figures enclosed under-represent the likely actual trading figures for stores such as the Co-op which we are aware significantly overtrades.
- 7.15 In terms of comparison floorspace, the total turnover in 2015 is £9.41m, increasing to £11.09m in 2018. From our observations and surveys of Crieff town centre, we very much doubt that comparison turnover in Crieff is at these levels, nevertheless, for consistency we have adopted the figures used within the latest capacity study.

#### **Tables 4A and 4B & 5A and 5B: Trade Patterns and Markets Shares 2015 and 2018**

- 7.16 Existing trade patterns for both forms of retailing have been estimated for both the base and test years and are summarised in tables 4A, 4B and 5A and 5B.
- 7.17 These tables utilise the lists of existing provision and estimates the level of turnover drawn from the catchment area. This ranges from 85% to 80% for provision that sits centrally in the catchment but also serves a transient tourist market, as acknowledged in the Council's latest capacity study.
- 7.18 From this analysis it is possible to estimate the likely market share for each of the retailers within the catchment area. In terms of the convenience market, the Co-op currently has the highest market share at 23%, with other shops within the town centre having 9%. This results in a leakage level of £19.8m, which is 68% of the available expenditure. We suspect it is even higher than this.
- 7.19 For the comparison retail market, there is limited provision within the local area beyond the town centre. Based on its projected turnover from the latest Perth and Kinross Retail Review, this provides the town centre with a 28% market share in 2015. It is therefore apparent that there is a significant leakage from the catchment of £32.2m, which is some 80% of available expenditure.
- 7.20 This exercise was also completed for the test year 2018. At this time the anticipated market shares are expected to be broadly similar. The convenience expenditure outflow at the test year is expected to increase to £22.7m, which is 71% of the catchment's expenditure. Comparison expenditure leakage is also projected to grow to £37.7m.

#### **Table 6: Turnover of the Tesco, Duchlage Farm Proposals**

- 7.21 The next three tables of the assessment consider the retail commitments within the catchment area to ensure that issues of cumulative impact can be assessed. From discussions with officers of Perth and Kinross Council it was made clear this should include the Tesco store permission on the adjacent land, application ref. 08/01955/FLM, even though they have publicly confirmed it is not a new store they will be delivering.

- 7.22 Table 6 therefore considers the potential turnover of that development. These figures have been taken directly from the Perth and Kinross Retail Review to calculate convenience turnover, with Verdict data used to calculate the store's projected comparison turnover.
- 7.23 As the Perth and Kinross Retail Review uses a price year of 2012, this has been updated to 2013 and grown to 2018, the test year. Based on the convenience sales density for those proposals of £9,622 per sqm, and having changed this to a 2013 price year and grown to 2018, it is anticipated that the sales density would be £9,916 per sqm. This results in a convenience turnover of £15.87m.
- 7.24 Given the rural nature of the catchment, utilising national average figures which are more typically drawn from urban spots, will provide a higher than likely turnover figure for this store. This will also stand true for the sales density associated with the application proposals. This must therefore be borne in mind as matters of deficiency and impact are assessed.
- 7.25 In light of the scale of this proposal, its wider attraction for the wider Strathearn region and the town's attraction for tourists, it is anticipated that only 70% of its trade would be drawn from the catchment. As such, this amounts to a £11.1m convenience turnover from the proposed Aldi catchment.
- 7.26 For comparison expenditure, the store will only have a net floorspace of 400sqm for these goods. Figures from Verdict have been used given that these were not available within the Perth and Kinross Review. A figure of £13,785 per sqm for the sales density, results in a comparison turnover of £5.51m in 2018. As above only 75% of the turnover is anticipated to be drawn from the Aldi catchment and so this reduces to £3.86m.
- 7.27 This latter figure seems unusually high given the smaller sales density for convenience goods and is likely a result of the age of the Verdict figures, which do not reflect recent changes to the performance of Tesco as an operator. As a result, it is likely that the figures above present a worst case scenario for the comparison turnover of this commitment.

#### **Table 7A and 7B: Trade Diversions for the Tesco Proposals**

- 7.28 Trade diversions for this commitment are considered within Tables 7A and B of the assessment.
- 7.29 For both, Column 3 details the percentage diversion that is envisaged from a specific location as a proportion of the proposal's turnover from the catchment. Column 4 then expresses this percentage as a monetary value. This allows the impact of the trade diversion on the various locations to be calculated as a percentage of each location's total existing turnover.
- 7.30 Given the under provision of both convenience and comparison floorspace in the catchment and very high levels of expenditure leakage, it is clear that the majority of the diversions will be from locations out with the catchment. This is backed up by the anecdotal evidence at the public consultation exercises held during the pre-application process that confirmed the majority of Crieff residents leave the area to complete their main shopping trips.

- 7.31 The principal trade diversions are summarised in the table below:

Convenience Trade Diversions: Tesco proposals			
Location	Diversion (%)	Diversion (£m)	Impact (%)
Co-op	4	0.44	5
Local Shops (Crieff TC)	1	0.11	4
Locations outwith catchment	95	10.55	N/A
Comparison Trade Diversions: Tesco proposals			
Location	Diversion (%)	Diversion (£m)	Impact (%)
Crieff Town Centre	10	0.39	3
Locations outwith catchment	90	3.47	N/A

**Table 8A and 8B: Market Shares – Plus the Tesco Proposals**

- 7.32 Tables 8A and 8B displays market shares after allowing for the Tesco commitment, indicating that it would achieve a 35% share of convenience expenditure within the catchment. In terms of comparison expenditure, the Tesco would have an 8% market share.
- 7.33 With the Tesco in operation, it is anticipated that Crieff town centre would largely retain pre-existing levels of market share, owing to the limited offering, with 28% for convenience goods and 28% for comparison goods.
- 7.34 Importantly, the catchment would still have a continuing quantitative deficiency for both convenience and comparison goods, being £12.01m or 38% of convenience expenditure, and £35.34m or 75% of comparison expenditure. This is therefore the starting position for assessing issues of quantitative deficiency and impact for the new Aldi foodstore and complementary retail unit.

**Table 9: Turnover of the Proposals**

- 7.35 Table 9 introduces the proposed development and calculates the foodstore turnover in accordance with Aldi's national average levels. It confirms the proposed sales floorspace of the supermarket as 1,254sqm. The floorspace split between convenience and comparison goods equates to 80/20, resulting in 1,003sqm in respect of the former and 251 sqm for the latter.
- 7.36 The sales density used within the analysis is sourced from Aldi Stores Ltd directly. This therefore provides a sales density figure of £9,790 per sqm for convenience goods, the figure for comparison items is slightly lower at £6,969 per sqm.
- 7.37 The proposed floorspace would therefore generate a turnover of £9.82m for convenience sales and £1.75m for comparison sales. It is expected that 80% of this turnover will be as a result of expenditure generated by the catchment area, the remainder coming from outside. As such, convenience turnover generated from the catchment area is estimated as £7.86m, with a comparison turnover from the catchment of £1.4m.
- 7.38 It is notable that these figures are lower than the other major foodstore operators, indicating Aldi's much smaller, localised scale of proposal than their typical competitors.

- 7.39 In terms of the complementary Class 1 retail unit, as the identity of this operator is still unknown, we have tested both a comparison and convenience sales scenario. This presents a worst case scenario.
- 7.40 The gross floorspace for this unit is 1,022sqm. An 80% gross to net ratio has been applied to calculate a likely scale of sales floorspace. This presents a worst case scenario, if you compare with the Aldi gross to net ratio or indeed the Tesco commitment. The sales floorspace for this unit is therefore 817sqm.
- 7.41 Given its speculative nature, the sales densities for either a convenience or comparison operator have been calculated using an average for potential occupiers. For the convenience floorspace, this was sourced directly from the Council's latest retail capacity study (Table 7.11), rebased to a 2013 price year and grown to 2018. A figure of £11,321 per sqm is therefore used.
- 7.42 In order to calculate the potential turnover of a comparison operator, an average sales density for a range of potential occupiers was sourced from Mintel Retail Rankings 2014. This has provided a sales density of £2,599 per sqm.
- 7.43 Applying these sales densities, the potential maximum turnover of the additional retail unit would therefore be either £9.25m for a convenience occupier or £2.12m for a comparison occupier. Given that only 80% of trade is anticipated to come from the catchment area, this results in a turnover of £7.4m in convenience sales or £1.7m in comparison. These figures are set out in the table below.

	Convenience Turnover from catchment (£m)	Comparison Turnover from catchment (£m)
Aldi Foodstore	7.86	1.4
Class 1 Retail Unit	7.4	1.7
Total Turnover	15.26	3.1

- 7.44 To reiterate, the figures above present a very much worst case scenario for turnover given that it would not be possible for the Class 1 Retail Unit to simultaneously generate a turnover of this scale for both convenience and comparison products. It is merely shown to indicate the maximum sales for either that could be achieved and to allow us to test each within the latter tables.
- 7.45 It is also worthwhile noting that the estimated figures for sales density used above reflect an average across the whole of the UK and due to the site's rural location, it is unlikely that the turnover of the units would reach the figures indicated. These are provided as a worst case example of turnover potential of each unit.

## Retail Impact Considerations

### Table 10A and 10B: Trade Diversions, Aldi foodstore and Class 1 retail unit

- 7.46 Trade diversions for the Aldi store and Class 1 retail unit are assessed within Table 10A and 10B.
- 7.47 As before, the percentage diversion that is envisaged from a specific location is detailed in column 3 as a proportion of the proposed store's turnover from the catchment. Column 4

then displays this percentage as a monetary value. The impact of the trade diversion on the various locations can therefore be calculated as a percentage of each location's total existing turnover.

- 7.48 In order to determine where trade is anticipated to be derived for the potential convenience sales, particularly in respect to the Aldi foodstore, it is firstly important to appreciate the nature of the food shopping retail market and also the type of retailers Aldi competes most actively with. It is therefore relevant to recognise the well-established characteristics of convenience shopping, whereby 'like competes with like' and accordingly, that the proposed store will compete directly with other major grocery store operators. This is consistent with gains in market share that Aldi is achieving, as widely reported throughout national press coverage in recent years.

- 7.49 The principal convenience trade diversions are therefore summarised in the table below:

Convenience Trade Diversions			
Location	Diversion (%)	Diversion (£m)	Impact (%)
Tesco, Duchlage Farm	50	7.17	48
Co-op, Crieff	3	0.46	6
Total Crieff Town Centre	3	0.46	4
Locations outwith catchment	47	7.17	N/A

Comparison Trade Diversions			
Location	Diversion (%)	Diversion (£m)	Impact (%)
Tesco, Duchlage Farm	16	0.5	13
Total Crieff Town Centre	5	0.15	1
Locations outwith catchment	79	2.45	N/A

- 7.50 In terms of convenience spend, the table indicates that the majority of trade diversion will come from greater retention of spend within the area, given the presence of an Aldi store, an additional retail unit and the Tesco commitment. This is backed up by the findings of the public consultation exercise completed recently, where many attendees confirm that they currently shop at the Aldi stores in Perth, and other supermarkets. The introduction of a new Aldi and extra retail unit would mean that shoppers no longer need to continue making unsustainable shopping trips to more distant locations and could instead shop far more locally.
- 7.51 As required, we have assumed a level of diversion from the proposed 'out of centre' Tesco store, commensurate with the principle that 'like competes with like' and its status as a commitment. However, we are also aware of press coverage that Tesco will not be implementing the consent, insofar as it relates to building and operating a Tesco superstore. Given the current uncertainty surrounding the 'big 4' supermarket operators and their expansion plans, it would be inappropriate to speculate what might come of the Tesco consent, never mind attempt to reflect this within the retail impact assessment above. All we

can conclude at the present time, is that the Tesco commitment should be treated with caution, in the context of assessing Aldi's proposals against retail planning considerations.

- 7.52 Of course, were the Tesco proposals not to proceed (as reported in press coverage), it is reasonable to conclude that deficiencies in the convenience goods offer within the catchment area would be far greater, whilst leakage of convenience goods expenditure would also most likely increase, as some shoppers would still be compelled to visit other stores in Perth (and elsewhere), as well as those in Crieff (including the Aldi proposals).
- 7.53 A small trade diversion is also anticipated from the Co-op store in the town centre, resulting in an impact of 6%. As noted earlier, it is recognised that this store heavily overtrades and therefore this level of impact is likely to significantly over-predict any loss of trade that might result from that store.
- 7.54 It should be noted that the trade diversion values proposed for the town centre are only minor in scale and would in no way compromise the operations of these stores and as a result, it is not anticipated that there will be any overall detrimental impact on the vitality and viability of these areas. This is backed up by the findings of the town centre healthcheck.

#### **Table 11A and 11B: Market Shares – Post Application Proposals**

- 7.55 Finally, tables 11A and B present the market shares within the catchment at the test year, post the development of the application proposals.
- 7.56 At 2018, it is estimated that the proposals will secure a market share of 48% of the convenience trade within the catchment area. This is divided between the Aldi store and Class 1 retail unit, with 25% and 23% shares respectively.
- 7.57 In terms of comparison market shares, the town centre would continue to boast the majority of the trade within the catchment with 28%. The Tesco commitment would have 7% of the market, with the application proposals boast an overall 10% share, again divided between the Aldi foodstore and Class 1 retail unit.
- 7.58 Although the proposals have assisted in reducing the overall expenditure outflow from the catchment by recapturing a significant level of trade, a small convenience deficiency will continue beyond the test year amounting to approximately £2.46m. In terms of comparison deficiency levels, this would remain at £32.52m, which is 69% of available expenditure indicating that significant volumes of customers would still visit Perth and Stirling to access these facilities post the development.

#### **Summary**

- 7.59 The quantitative element of the retail impact assessment has demonstrated that: (i) sufficient capacity exists within the catchment area, to accommodate the proposed development (even after allowing for the 'committed' Tesco proposals); and (ii) the impact of the proposed development on locations afforded policy protection is insignificant.
- 7.60 As such, the proposed development is considered to meet an existing quantitative deficiency within the area and is therefore consistent with relevant planning policies.

## Qualitative Deficiency

- 7.61 In addition to the above quantitative deficiency, it is considered that the planning application proposals will equally help address qualitative deficiencies, consistent with the requirements of the development plan and SPP.
- 7.62 As noted within the earlier sections of this report, there is a growing trend within the UK for shoppers to expect a range of supermarkets/foodstores to meet their weekly food shopping requirements. This has been reflected in anecdotal evidence within national press over recent years but also operator performance, which indicates that shoppers are increasingly seeking a broader shopping offer to meet expectations for quality and value for money.
- 7.63 There are notable qualitative differences between discount retailers and the big 4 supermarket brands, which were fully recognised by the Competition Commission within their report 'The Supply of Groceries in the UK Market Investigation' published in 2008. This noted that retailers like Aldi and Lidl, as Limited Assortment Discount (LAD) retailers, provide an offer that is materially different to the mainstream operators in the convenience shopping market and therefore can effectively complement and enhance provision within existing areas through their introduction.
- 7.64 It has been recognised for some time that foodstore provision within Crieff is very limited and insufficient to meet the population's requirements, this is particularly the case once the expansion of the town is considered. Whilst the Tesco proposals would have undoubtedly helped redress some of these problems, as was clear from earlier tables, the catchment would still suffer from high levels of leakage to both Crieff and Stirling, which suggests a better range of provision is required.
- 7.65 The proposals will assist to improve consumer choice, meet gaps in local provision and complement the offer already available nearby, whilst being at a scale that is considered appropriate for its location. This will not only enhance the variety of convenience retailers in the local area but also help improve the retention of expenditure within the local area with potential for generated new linked trips with the wider town centre, to further enhance its overall vitality and viability. It will also help reduce unsustainable leakage of expenditure to more remote shopping locations.
- 7.66 As a result, it is considered that the proposals will assist to address the qualitative deficiency within Crieff and accordingly, the proposal complies with relevant planning policy provisions.

## Accessibility

- 7.67 The site occupies a highly accessible location, in close proximity to both the existing and emerging residential population within the area. The site lies within easy walking distance from residential neighbourhoods nearby, with the proposals also including improvements to existing walking facilities along their site frontage and new links with Duchlage Court to the north to increase the accessibility of the site.
- 7.68 In respect to other forms of transport, the site lies near existing public transport facilities, with bus stops positioned close by to the west.
- 7.69 Please refer to the supporting Transport document for further information in this regard.



## Summary

7.70 In light of the above comments, we conclude the following:

- Given the absence of a discount retailer within the Crieff area and limited choice in the area, it is clear the catchment would benefit from additional provision to improve the range and choice of retailers serving the town.
- It can be concluded that the community would benefit from additional provision at a scale that could serve localised needs.
- The retail impact assessment has proven that there is capacity within the area to accommodate additional retail floorspace over and above the Tesco commitment, particularly a discounter that can provide high quality goods at low prices and a different form of retail offer.
- Both developments can be accommodated within the Crieff area to meet well-established retail deficiencies, without significantly affecting the vitality or viability of the town centre.

## 8. Retail Policy: Sequential Considerations

- 8.1 A sequential assessment has been completed, based on the catchment area adopted for other sections of the Retail Assessment.
- 8.2 This accords with the policies set out within the development plan and national guidance. In particular, we are mindful of SPP at paragraph 69 where it states that, "Planning authorities, developers, owners and occupiers should be flexible and realistic in applying the sequential approach, to ensure that different uses are developed in the most appropriate locations".
- 8.3 In this regard, we are also mindful of the recent Supreme Court decision in the case of Tesco Stores Limited vs. Dundee City Council, which stated that the sequential approach must be used flexibly and realistically by both developers and planning authorities. It is therefore essential for a clear understanding to be had for the specifics of the proposal and minimum requirements to ensure that a business can operate viably.
- 8.4 Importantly the case also noted that the sequential approach is "designed for use in the real world in which developers wish to operate, not some artificial world in which they have no interest doing so" and that "the question remains... whether an alternative site is suitable for the proposed development, not whether the proposed development can be altered or reduced so that it can be made to fit an alternative site".
- 8.5 In view of this and the Aldi "Business Model" (outlined at Section 2), satisfying a number of competing factors are essential to ensure that any opportunity is suitable and viable to Aldi. This is consistent with every store Aldi operates within the UK and therefore, applies equally to completing a sequential assessment exercise. As such, we feel it is a fair and reasonable approach that sequentially preferable sites are assessed against their ability to fulfil the following key requirements:
- A site area that can accommodate the two retail units;
  - A dedicated service area to accommodate their unique and highly efficient delivery system;
  - Over 160 dedicated car parking spaces; and
  - A strong profile and visibility.
- 8.6 In assessing sequential sites, we have taken cognisance of three key considerations, as set out in SPP, namely:-
- Availability – whether the site is available in a reasonable period of time, taking into account the realities of property development and delivery.
  - Suitability – whether a site/property is suitable in view of its location, configuration, profile, size, accessibility, servicing and other physical/amenity considerations.
  - Viability – the extent to which a site /property offers a genuine and viable opportunity for Aldi. Viability can be considered in view of matters associated with financial considerations associated with development of a site, or conversion of an existing unit, or its ability to offer a genuine and viable trading opportunity for Aldi.

- 
- 8.7 In addition, our retail assessment has already confirmed sufficient quantitative and qualitative deficiency to support the scale of Class 1 retail floorspace proposed. In our view, this is valid consideration when assessing whether sites are suitable or viable.
- 8.8 As the site occupies an "out of centre" location, sequential sites, within and on the edge of town and neighbourhood centres in the catchment area require to be assessed. This includes Crieff town centre.
- 8.9 This sequential analysis has been completed following a visit on foot of each area to look for opportunities. Where necessary, it has also been informed by informal discussion with the agents and relevant searches of available opportunities on property search engines, such as Estates Gazette and The Scottish Property Network.
- 8.10 Our assessment of these sites is set out at Appendix 5. Please refer here for fuller detail.
- 8.11 For reasons of clarity, we also wish to point out that the Tesco site adjacent has been recognised in the past as occupying an 'out of centre' location in terms of the sequential test. This much is clear from the Committee report for that planning application.
- 8.12 Neither national nor local planning policy requires an assessment of other 'out of centre' sites as part of the sequential test and therefore our assessment at Appendix 5 does not involve this location. Instead, our analysis focuses only on locations that occupy sites higher up the defined retail hierarchy (i.e. edge of centre/town centre), within established planning policy.
- 8.13 In conclusion, our assessment has not identified any sequentially preferable opportunities, in accordance with the sequential approach set out in the development plan and SPP. As such, the planning application satisfies the requirements of planning policy.

## 9. Retail Policy: Town Centre Healthchecks

- 9.1 Finally, in order to ensure that the development proposals will not undermine the vitality and viability of protected retail centres within the catchment, town centre health checks were completed to review the network centres. This approach is advocated by Scottish Planning Policy.
- 9.2 The centres that fall within the catchment are:
- Crieff Town Centre
- 9.3 National policy set out within SPP sets out the key indicators that are to be used when determining the vitality and viability of a centre. This includes:
- Pedestrian flow;
  - Prime rental values;
  - Space in use for different town centre functions and how it has changed;
  - Retailer representation and intentions (national multiples and independents);
  - Commercial yield;
  - Vacancy rates;
  - Physical structure of the centre including opportunities and constraints, and its accessibility;
  - Periodic surveys of customers; and
  - Crime levels.
- Surveys of each centre were completed in May 2015. Details of the finding of the health check is set out below:

### Crieff Town Centre

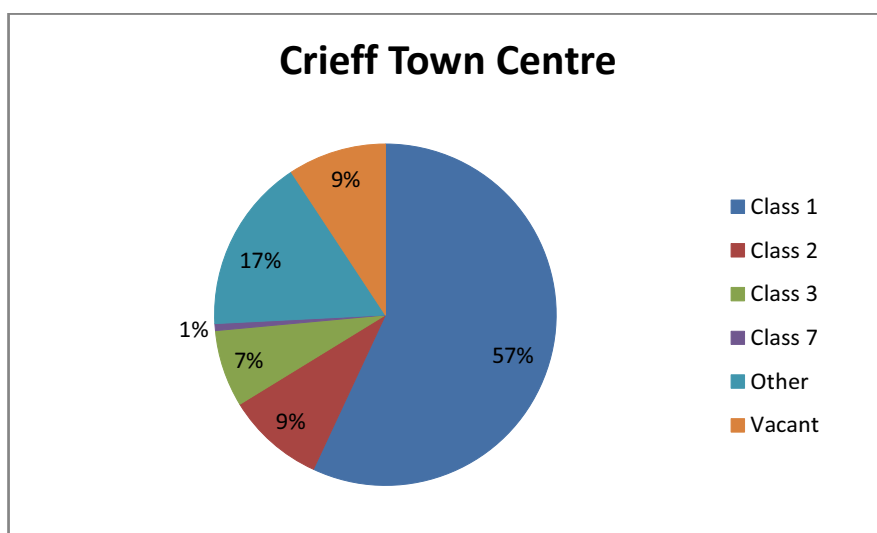
#### Town Profile

- 9.4 Crieff Town Centre is principally clustered around James Square, comprising the High street running east-west from there and south along King Street, incorporating the Co-op store. The town sits approximately a 20 minute drive to the west of Perth and is a significant tourist hub within the Strathearn Area, with the Hydro in particular a strong attraction.
- 9.5 In terms of the demographics, the town has a high level of commuter population that work in the larger urban centres of Perth, Stirling and even Edinburgh. It is however regarded as an affluent area, which is indicated by the range and quality of small scale retail provision in the settlement.
- 9.6 An extract of the Local Plan outlines the extent of the town centre boundary below.



### Existing Retail Facilities and Mix of Uses

- 9.7 The healthcheck found that there are 151 units within the town centre boundary as defined by the Local Plan. Retail uses (Class 1) dominate with 57% of the available units used for shopping purposes. The survey also found that Class 2 uses (financial/professional) were well represented at 9% as well as other uses, such as Class 3 uses at 7% operating as a café or restaurant. Nevertheless, there is a good mix of uses present within the town. It is clear that a number of these are designed to serve the tourist market with concentrations of gift shops and those tailored to visitors to the town.
- 9.8 Food shopping is supported principally by the Co-op store to the south of the town centre and a range of independent occupiers.
- 9.9 Other facilities within the Centre include a Church, Council offices and an attractive public square, which is located at the core of the town centre.



### Retailer Mix

- 9.10 An indication of the health of a centre is the scale and mix of occupiers present. The town centre consists of a variety of both independent traders and a small number of national multiples.
- 9.11 Independent traders include café and restaurant operators, clothes shops and butchers.

- 9.12 National multiples present in the town centre include Co-op, Boots Pharmacy and Edinburgh Woollen Mill.



### Vacancy Levels

- 9.13 The healthcheck found that the vacancy level in Crieff is 9%, which is lower than the UK national average figure. It is noteworthy though that a large percentage of this vacant space comes from vacant former hotels (some of which appeared to be under repair), and clustered around the eastern part of the High Street.
- 9.14 The national average which currently stands at 11.8% as of February 2015 (Local Data Company).
- 9.15 The low vacancy rate in the town centre reflects the vitality and vibrancy of the town centre.

### Accessibility

- 9.16 In relation to accessibility, the town centre is highly accessible by public transport with various bus stops and routes leading to and from the town centre allowing access to Perth and surrounding towns.
- 9.17 Parking is readily available at James Square and off Galvelmore Street, which can cater for 68 vehicles.



### Environmental Quality

- 9.18 It was noted that on the day of the healthcheck that despite inclement weather there was a good level of pedestrian footfall within the core of the centre, with a good mix of demographics, indicating the accessibility and appeal of the centre to a mix of age groups.
- 9.19 The environment across the town centre is pleasant, particularly focused around the attractive James Square, where there is seating available as well as public toilet facilities, together with attractive planting.

### Summary

- 9.20 Overall the town centre healthcheck found that Crieff town centre is performing well with a wide mix of uses present including some attractive independent occupiers, gift shops for the tourist market and a below national average level of vacancy.
- 9.21 The good quality pedestrian environment within Crieff town centre, as well as the large amount of car parking and public transport accessibility further supports the view that the centre has good vitality and vibrancy credentials.
- 9.22 As such, the small levels of trade diversions envisaged from the proposals could be accommodated without significant harm to the health of the town and indeed, by helping establish more local expenditure patterns could boost linked trips with the wider centre and enhance performance overall.

## 10. Economic Development

- 10.1 As set out within earlier stages of this report, the development proposals would help deliver a range of economic benefits for the Crieff area in terms of investment, jobs and Gross Value Added (GVA) to the local economy. These benefits will be discussed in further detail below.
- 10.2 Prior to considering the particular benefits that would arise from the development, we will firstly consider the policy position in respect to such matters at both a national and local level.

### National Policy

- 10.3 The overarching purpose of the Scottish Government is to make Scotland a more successful country, with the economy being critical to the delivery of these outcomes. This is clearly established within the Government's recently published Economic Strategy, from March 2015.
- 10.4 This document sets out 4 Priorities that the Government considers are important for fostering an enhanced economic performance. These are:
- Investing in our people and our infrastructure in a sustainable way
  - Fostering a culture of innovation and research and development
  - Promoting inclusive growth and creating opportunity through a fair and inclusive jobs market and regional cohesion
  - Promoting Scotland on the international stage to boost our trade and investment, influence and networks.
- 10.5 The delivery of sustainable economic growth is considered critical to realising these objectives, with the planning system viewed as an essential tool which cross-cuts across a number of the themes set out above. The planning system through various policy documents at national level, and development plans at localised levels, can help considerably towards delivering these outcomes. Scottish Planning Policy (SPP) and the National Planning Framework 3 (NPF3), published only last year, therefore have these objectives at their core.
- 10.6 This vision set out for the planning system is:
- "We live in a Scotland with a growing, low-carbon economy with progressively narrowing disparities in well-being and opportunity. It is growth that can be achieved whilst reducing emissions and which respects the quality of environment, place and life which makes our country so special. It is growth which increases solidarity – reducing inequalities between our regions. We live in sustainable, well-designed places and homes which meet our needs. We enjoy excellent transport and digital connections, internally and with the rest of the world."*
- 10.7 Sustainability is one of two Principal Policies set out by SPP, with the document also establishing a new presumption in favour of development that contributes to sustainable development. This encourages local authorities to balance the costs and benefits of proposals over the longer term to help deliver the right developments in the right locations.
- 10.8 Decisions should therefore ensure that they give due weight to net economic benefit and also respond to particular localised economic issues, when considering the merits of application proposals.



## Local Policy

- 10.9 At a local level, the Council's latest Economic Strategy covers the period from 2009 to 2014. This publication follows the economic themes set by the Scottish Government in 2007, with five strategic objectives designed to deliver sustainable growth.
- 10.10 Based on these delivery themes, the Council's own strategic ambitions focus on:
- Connections and Development Infrastructure
  - Lifelong Learning at the Heart of the Economy
  - Encouraging a Culture of Entrepreneurship
  - Supporting and Developing Business
  - Supporting Key Industry Sectors
  - Supporting People Through Employability.
- 10.11 Given these aims it is clear that the development proposals by Aldi at the Broich Road site would make a significant contribution to help deliver a number of these, including improved access to better quality retail facilities, generating new jobs and high quality training opportunities, whilst also encouraging new businesses into the Strathearn area of Perth and Kinross.
- 10.12 The Council's Local Development Plan reflects a number of these main objectives in its spatial framework for the future development of the authority area.
- 10.13 The vision for the LDP is:
- "Our area – highly valued for the beauty of its natural and built environment – is a great place to live, work and visit, and should be developed in a way that does not detract from its attractiveness nor place an unsustainable burden on future generations"*
- 10.14 In respect to the economy, the LDP aims to:
- "Provide the framework to increase economic sustainability of Perth and Kinross by maintaining and providing locally accessible employment opportunities."*
- "Provide a flexible policy framework to respond to changing economic circumstances and developing technology"*

## Policy Summary

- 10.15 It is clear from reviewing the policy objectives outlined above that the delivery of an improved economic performance at both a national and local level is considered critical to delivering the Government's ambitions for making Scotland a more successful place with consequent spin off benefits for society and the wider environment.
- 10.16 The planning system has a clear role in helping to ensure this growth is sustainable, in terms of its short and longer term economic benefits, whilst helping to underpin the development of new successful communities.
- 10.17 It is considered that the planning application by Aldi will assist to meet a number of these policy objectives.

## Economic Impact of the Proposals

- 10.18 There are clear economic benefits arising from the proposed development. This section will provide a high level consideration of these, to examine anticipated job creation, both direct and in-direct, alongside the Gross Value Added (GVA) from the proposals.
- 10.19 The economic impact modelling is based upon the following key assumptions, forming the development proposal:
- Aldi discount foodstore development of 1,804sqm gross;
  - Additional Open Class 1 retail unit of 1,022sqm gross; and
  - Associated car parking, infrastructure and landscaping works.
- 10.20 As the identity of the discount foodstore is known it is possible to set out the direct employment that will be created from the use and the value of the construction project (£m). For the additional retail unit, this will be based on comparable estimates to appreciate the economic value of this part of the scheme.
- 10.21 This section will also evaluate, with the use of approved Scottish Government sources, the wider capital and employment benefits for the local economy that would result.

Table 1 – Direct Jobs				
Proposed Development	Gross Floorspace (sqm)	Net Floorspace (sqm)	Area per Full Time Equivalent (sqm)	Total direct FTE jobs supported
Discount Foodstore	1804sqm	1254sqm	N/A	30
Class 1 Retail Unit	1022sqm	817sqm	19	43
<b>TOTAL</b>				<b>73</b>

(Source: Aldi Stores Ltd and for calculation of employment densities and to measure employment using Area per Full Time Equivalent sqm multiplier): Employment Densities Guide, 2nd Edition 2010, Homes and Communities Agency / Drivers Jonas Deloitte)

- 10.22 In terms of direct jobs that would be created, the Aldi foodstore would provide at minimum 30 Full- Time Equivalent (FTE) positions.
- 10.23 The Class 1 retail unit is anticipated to create a similar level of new employment, potentially up to 43 based on the multipliers set out above.
- 10.24 Overall the proposal will therefore directly create 73 FTE positions.

Table 2 – Total Jobs (Direct and Indirect)	
Proposed Development	Total direct and indirect jobs supported
Discount Foodstore	36
Class 1 Retail Unit	51

(Source: For retail employment multiplier, Scottish Government July 2014, Multipliers page of User Guide (page 34 of PDF), Type 1, output, income, employment and GVA multipliers Scotland 1998-2001)

- 10.25 In addition to the direct FTE jobs to be created as set out within Table 1, the proposals will also create a number of indirect employment benefits arising from additional expenditure in the local economy and through Aldi's supply chain.
- 10.26 These can be calculated using the Scottish Government's multipliers, generated by the Office of the Chief Economic Advisor.
- 10.27 This confirms that the Aldi foodstore is anticipated to generate an additional further 6 FTE positions as a result of their development in addition to the 8 additional indirect positions supported through the Class 1 retail unit.

Table 3 – Gross Value Added (GVA)		
Proposed Development	GVA rate	Gross Value Added (2014 prices)
Discount Foodstore	£32,800	£1.02m
Class 1 Retail Unit	£32,800	£1.67m
<b>TOTAL</b>		<b>£2.69m</b>

(Source: Scottish Government Economics Team Internal Figures)

- 10.28 The Gross Value Added to the economy can also be calculated utilising the Scottish Government's economic multipliers. This analysis concludes that based on the foodstore alone, that an additional £1.02m would be added to the economy, with the additional retail unit contributing a further £1.67m. In total, the development would therefore add £2.69m.
- 10.29 With regards to the construction side of the development, it is anticipated that the overall value would be £3.2m for both elements of the proposal. This includes the development of the buildings, infrastructure etc. The Aldi store construction value is £2.6m covering the store and car parking areas.
- 10.30 At this value the overall development could be expected to support approximately 48 person years of direct employment. The total number of jobs, based on construction value, is linked to the duration of the construction. The HM Treasury considers that one permanent full time equivalent (FTE) construction job is equivalent to 10 person years of direct employment. Therefore, the creation of 48 person years of employment could be equivalent to the creation of approximately 4, nearly 5, permanent construction jobs.
- 10.31 As with employment numbers associated with the running of commercial aspects of the development, it has also been possible to generate the Gross Value Added (GVA) contribution figure, generated by construction. Based on the value of the Aldi development, the resultant GVA is anticipated to be an additional £2.4m to the economy.
- 10.32 This economic appraisal is intended to provide a high level assessment of the likely potential economic benefits of the proposals. The impacts shown represent GROSS impacts and do not take into consideration factors such as leakage and relocation/displacement.

- 10.33 It is however considered that the development will contribute towards little displacement, given that its scale is designed to complement existing provision and that a good percentage of trade is anticipated to be derived from locations outwith the catchment area.
- 10.34 For these reasons, the figures included are considered to provide a sound approach to demonstrate potential levels of economic impact.
- 10.35 From the above, the following can be summarised:
- The overall development will generate 73 FTE positions;
  - In respect to indirect employment, including benefits for the supply chain, the development of the Aldi foodstore alone is anticipated to create an additional 6 jobs with a further 8 generated by the retail unit;
  - Aldi value their employees very highly and offer extensive training and boast two award-winning apprenticeship programs to deliver active learning and potential for career development.;
  - Aldi work actively with local job centres to recruit their staff locally;
  - The proposals will help contribute a GVA value of £2.72m to the economy based on the FTE jobs that will be created;
  - In regards to construction, the value of the project is anticipated to be in the order of £3.2m;
  - Based on the employment that would be generated both directly and indirectly, this would create 48 job years of work which is the equivalent to 4 further FTE construction positions; and
  - The total direct and indirect GVA from the construction side would be an additional £2.4m to the economy.

## 11. Conclusions

11.1 The following conclusions can be drawn in support of the planning application proposals:

- The development proposals represent a significant investment into the Strathearn area.
- The proposals provide an exciting opportunity to enhance the choice and facilities available within Crieff, to both satisfy planning policy aspirations for the area, whilst bringing substantial benefits for local residents.
- The public consultation exercise indicated strong support amongst the local community for the proposed uses.
- The Statement has demonstrated that the proposals meet the requirements of the development plan and other material considerations.
- The retail proposals will help to address both quantitative and qualitative deficiencies in provision within the local area, in a location that satisfies the sequential test and are of a scale that can be accommodated without detriment to the vitality and viability of Crieff town centre.
- Even with the committed development of the Tesco proposal on land adjacent, it is considered that the proposals could be supported. However, in the likely event their proposals will not be implemented, the case in favour of Aldi's proposals becomes even more compelling and is also strongly supported by public feedback at our consultation event.
- The land uses proposed will deliver significant economic benefits for the local area, providing both direct and indirect new employment that can more than satisfy the site specific planning policy requirements for employment use of the site.
- In addition, the development proposals will also deliver significant levels of Gross Value Added to the economy, through investment and benefits associated with the construction works.
- In view of these conclusions, Perth and Kinross Council is therefore respectfully requested to recommend the application proposals for approval in due course.



**GVA** James Barr

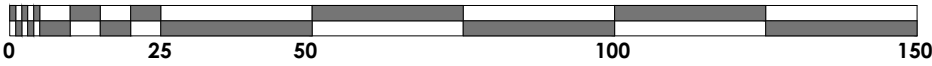
## Appendix I Site Location Plan



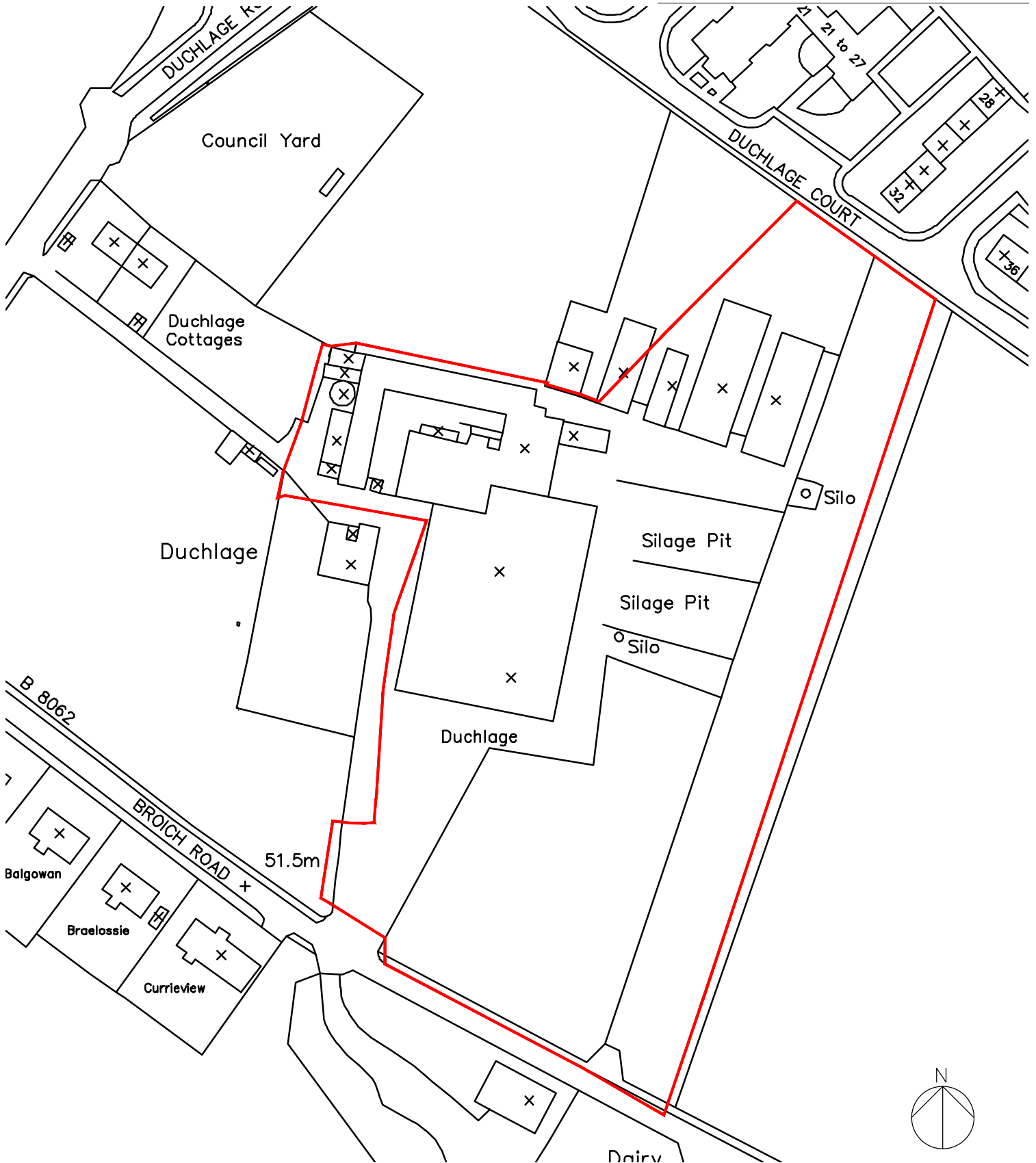
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Client  
ALDI Stores Ltd.

Project Address  
Broich Road,  
Crieff, PH7 3SD

Drawn LB  
Date 24.04.2015

Checked by NM  
Scale 1:1250@A4



Project  
Aldi Crieff

Drawing Title  
Existing Site Location Plan  
[PLANNING]

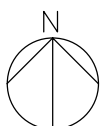
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Appendix II  
Retail Impact  
Assessment  
Tables





<b>ALDI Stores Ltd.</b> <b>BROICH ROAD, CRIEFF</b> <b>JULY 2015</b> <b>TABLE 1 - POPULATION PROJECTIONS</b>		
<b>Catchment Area</b>	<b>Current Date</b>	<b>Test Date</b>
	<b>2015</b>	<b>2018</b>
Postcode Sectors (PH7 3, PH7 4, PH5 2, PH6 2)	12,185	13,168
Notes: Sourced from Experian Micromarketer commissioned report (April 2015)		

<b>ALDI Stores Ltd.</b> <b>BROICH ROAD, CRIEFF</b> <b>JULY 2015</b>						
<b>TABLE 2 - EXPENDITURE FORECASTS</b> <b>Convenience Expenditure Adjustments:</b>						
			<b>Comparison Expenditure Adjustments:</b>			
	<b>2013</b>	<b>2015</b>	<b>2018</b>	<b>2013</b>	<b>2015</b>	<b>2018</b>
<b>Catchment Area</b>	2,487	2,443	2,487	Catchment Area	3,917	4,318
			<b>Comparison Expenditure Forecasts:</b>			
	<b>2015 (£m)</b>	<b>2018 (£m)</b>		<b>2015 (£m)</b>	<b>2018 (£m)</b>	
<b>Catchment Total</b>	29.8	32.7	<b>Catchment Total</b>	47.7	56.9	
			<b>Comparison Expenditure Forecasts minus SFT:</b>			
	<b>2015 (£m)</b>	<b>2018 (£m)</b>		<b>2015 (£m)</b>	<b>2018 (£m)</b>	
<b>Catchment Total</b>	29.1	32.0	<b>Catchment Total</b>	40.2	47.1	
<b>Notes:</b> Expenditure per capita figures sourced from Experian Area Profile Report (April 2015) Convenience Expenditure Grown at -0.9% per annum between 2013 and 2014 and at 0.6% per annum from 2015 to 2018. Comparison Expenditure Grown at 5.1% per annum between 2013 and 2014 and at 3.3% per annum from 2015 to 2018. Growth rates sourced from Experian Retail Planner Briefing Note Oct 2014 Convenience SFT taken from Table 7.1 of Perth and Kinross Retail Study. 2015 figure is 2.3% and 2018 figure is a 2.4% reduction. Comparison SFT taken from Table 9.1 of Perth and Kinross Retail Study with 15.8% deduction from 2015 and a 17.1% deduction from 2018 2013 price year						

TABLE 3A: EXISTING CONVENIENCE FLOORSACE AND COMPANY AVERAGE TURNOVER

Location	Net Sales Floorspace* (sq m)	Net Convenience Sales Floorspace* (sq m)	Company Average Sales Density** (\$ per sq m)	Total Turnover 2015 (\$m)**	Total Turnover 2018 (\$m)**	Location	Net Sales Floorspace*** (sq m)	Net Convenience Sales Floorspace*** (sq m)	Company Average Sales Density*** (\$ per sq m)	Total Turnover 2015 (\$m)****	Total Turnover 2018 (\$m)****
<b>Catchment Area</b>											
<b>Crieff Town Centre</b>						<b>Crieff Town Centre</b>					
Local Shops	1470	956	3122	2.98	2.98	Local Shops		3718	2532	9.41	11.09
Co-op	1450	943	8979	8.47	8.45						
<b>TOTAL</b>	<b>2920</b>	<b>1899</b>		<b>11.45</b>	<b>11.43</b>						
<b>CATCHMENT AREA TOTAL</b>				<b>11.45</b>	<b>11.43</b>	<b>CATCHMENT AREA TOTAL</b>				<b>9.41</b>	<b>11.09</b>

NOTES:

\* Floorspace figures sourced from Perth and Kinross Retail Capacity Study 2014 and GVA site visits. Sales densities based on Perth and Kinross prices years updated and grown to 2015.

\*\* Convenience turnover grown at 0.06% per annum. sourced from Experian Retail Planner Briefing Note October 2014

\*\*\* Floorspace figures sourced from Perth and Kinross Retail Capacity Study 2014 and GVA site visits. Sales densities based on Perth and Kinross Retail Capacity Study 2014, with prices years updated and grown to 2015.

\*\*\*\* Comparison turnover grown at 5.6% per annum in accordance with Figure 1a of Experian Retail Planner Briefing Note Oct 2014

2013 price year

TABLE 4A - COVENIENCE MARKET SHARES 2015

	Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)		Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)
<b>Catchment Area</b>						<b>Catchment Area</b>					
<b>Crieff Town Centre</b>						<b>Crieff Town Centre</b>					
Local Shops	TC	2.98	85%	2.54	9	Local Shops	TC	9.41	85%	8.00	28
Co-op	TC	8.47	80%	6.77	23						
<b>TOTAL</b>	TC	11.45		9.31	32						
<b>Catchment Turnover</b>		<b>11.45</b>		<b>9.3</b>	<b>32</b>	<b>Catchment Turnover</b>		<b>9.41</b>		<b>8.0</b>	<b>20</b>
<b>Outflow from Catchment Area</b>				<b>19.8</b>	<b>48</b>	<b>Outflow from Catchment Area</b>				<b>32.2</b>	<b>80</b>
<b>Total Expenditure</b>				<b>29.1</b>	<b>100</b>	<b>Total Expenditure</b>				<b>40.2</b>	<b>100</b>
<b>Notes</b>											
* Estimates based on GVA site visits and retail planning experience.											
Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre											

TABLE 4B - COMPARISON MARKET SHARES 2015

	Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)		Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)
<b>Catchment Area</b>						<b>Catchment Area</b>					
<b>Crieff Town Centre</b>						<b>Crieff Town Centre</b>					
Local Shops	TC	9.41	85%	8.00	28	Local Shops	TC	9.41	85%	8.00	28
<b>TOTAL</b>		<b>9.41</b>		<b>8.0</b>	<b>20</b>	<b>TOTAL</b>		<b>9.41</b>		<b>32.2</b>	<b>80</b>
<b>Catchment Turnover</b>		<b>9.41</b>		<b>8.0</b>	<b>20</b>	<b>Catchment Turnover</b>		<b>9.41</b>		<b>32.2</b>	<b>80</b>
<b>Outflow from Catchment Area</b>				<b>32.2</b>	<b>80</b>	<b>Outflow from Catchment Area</b>				<b>40.2</b>	<b>100</b>
<b>Total Expenditure</b>				<b>40.2</b>	<b>100</b>	<b>Total Expenditure</b>				<b>40.2</b>	<b>100</b>
<b>Notes</b>											
* Estimates based on GVA site visits and retail planning experience.											
Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre											



TABLE 5A - CONVENIENCE MARKET SHARES 2018

	Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)		Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)
<b>Catchment Area</b>						<b>Catchment Area</b>					
<b>Crieff Town Centre</b>	TC	2.98	85%	2.53	8	<b>Crieff Town Centre</b>	TC	11.09	85%	9.42	29
Local Shops	TC	8.45	80%	6.76	21	Local Shops					
Co-op	TC	11.43		9.29	29						
<b>TOTAL</b>											
<b>Catchment Turnover</b>		<b>11.43</b>		<b>9.29</b>	<b>29</b>	<b>Catchment Turnover</b>		<b>11.09</b>		<b>9.4</b>	<b>20</b>
<b>Outflow from Catchment Area</b>				<b>22.7</b>	<b>71</b>	<b>Outflow from Catchment Area</b>				<b>37.7</b>	<b>80</b>
<b>Total Expenditure</b>				<b>32.0</b>	<b>100</b>	<b>Total Expenditure</b>				<b>47.1</b>	<b>100</b>
<b>Notes</b>	* Estimates based on GVA site visits and retail planning experience. Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre					<b>Notes</b>	* Estimates based on GVA site visits and retail planning experience. Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre				

<b>ALDI Stores Ltd.</b> <b>BROICH ROAD, CRIEFF</b> <b>JULY 2015</b>		
<b>TABLE 6 - TURNOVER OF TESCO, DUCHLAGE FARM PROPOSALS 2018</b>		
<b>Scale of Proposals:</b>		(sq m)
Convenience Goods Sales Area (sq m)		1,600
Comparison Goods Sales Area (sqm)		400
<b>Sales Density Figures:</b>		
Sales Density for convenience goods (£ per sq m)		9.916
Sales Density for comparison goods (£ per sq m)		13.785
<b>Total Turnover of Store:</b>		
Convenience Goods Sales (£m)		15.87
Comparison Goods Sales (£m)		5.51
<b>Turnover from Catchment Area:</b>		
Convenience Goods Sales (£m)		11.11
Comparison Goods Sales (£m)		3.86
<b>Notes:</b> Assumes that 70% of trade will be drawn from the catchment area Figures taken from Perth and Kinross Retail Study 2014 and Verdict Sales Density Convenience sales density of £9,622 per sqm taken from Table 7.11 of Perth and Kinross Retail Study. Sales density grown to 2018 at -0.26 % per annum based on Comparison sales density of £11716 per sqm taken from Verdict Grocery Retailers. Sales density grown to 2018 at 4.15 % per annum based on Experian Retail Planner Briefing (Experian Retail Planner Briefing Note 12.1 Oct 2014)		

TABLE 7A - CONVENIENCE TRADE DIVERSIONS - TESCO, DUCHLAGE FARM PROPOSALS

	Location	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact (%)
Catchment Area						
Crieff Town Centre	TC	2.98	1	0.11	2.87	4
Local Shops	TC	8.45	4	0.44	8.01	5
Co-op						
Other (locations outwith catchment area)			95	10.55		
Diversion (%)			100	11.11		
Total turnover (£m)				11.11		

Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre

TABLE 7B - COMPARISON TRADE DIVERSIONS - TESCO, DUCHLAGE FARM PROPOSALS

	Location	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact (%)
Catchment Area						
Crieff Town Centre	TC	11.09	10	0.39	10.70	3
Local Shops						
Other (locations outwith catchment area)			90	3.47		
Diversion (%)			100	3.86		
Total turnover (£m)				3.86		

Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre

AJD Stores Ltd.

BROICH ROAD, CRIEFF

JULY 2015

TABLE 8A - CONVENIENCE MARKET SHARES 2018 POST THE TESCO PROPOSALS

TABLE 8B - COMPARISON MARKET SHARES 2018 POST THE TESCO PROPOSALS

	Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)		Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)
Catchment Area						Catchment Area					
Crieff Town Centre	TC	2.87	85%	2.44	8	Crieff Town Centre	TC	10.70	85%	9.09	28
Local Shops	TC	8.01	80%	6.41	20	Local Shops					
Co-op	TC	10.88		8.84	28						
TOTAL						TESCO PROPOSALS	OOC	3.86	70%	2.70	8
TESCO PROPOSALS	OOC	15.87	70%	11.11	35						
Catchment Turnover		26.74		20.0	62	Catchment Turnover		14.56		11.8	25
Outflow from Catchment Area				12.01	38	Outflow from Catchment Area				35.34	75
Total Expenditure				32.0	100	Total Expenditure				47.1	100
Notes					Notes						
* Estimates based on GVA site visits and retail planning experience					* Estimates based on GVA site visits and retail planning experience						
Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre					Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre						

ALDI Stores Ltd. BROICH ROAD, CRIEFF JULY 2015				
TABLE 9 - TURNOVER OF PROPOSALS 2018				
ALDI Foodstore		Open Class 1 Retail Unit		
Scale of Proposals:		Scale of Proposals:		(sq m)
Gross External Floorspace		Gross External Floorspace		1,022
Net Sales Area		Net Sales Area***		817
Convenience Goods Sales Area (sq m)**		Convenience Goods Sales Area (sq m)**		817
Comparison Goods Sales Area (sq m)**		Comparison Goods Sales Area (sq m)**		817
Sales Density Figures:		Sales Density Figures:		
Sales Density for convenience goods (£ per sq m)		Sales Density for convenience goods (£ per sq m)****		11,321
Sales Density for comparison goods (£ per sq m)		Sales Density for comparison goods (£ per sq m)****		2,599
Total Turnover of Store:		Total Turnover of Store:		
Convenience Goods Sales (£m)		Convenience Goods Sales (£m)		9.25
Comparison Goods Sales (£m)		Comparison Goods Sales (£m)		2.12
Turnover from Catchment Area:		Turnover from Catchment Area:		
Convenience Goods Sales (£m)*		Convenience Goods Sales (£m)*		7.40
Comparison Goods Sales (£m)*		Comparison Goods Sales (£m)*		1.70
TOTAL POTENTIAL TURNOVER FROM CATCHMENT AREA*****		TOTAL POTENTIAL TURNOVER FROM CATCHMENT AREA*****		
Convenience Goods Sales (£m)		Convenience Goods Sales (£m)		15.26
Comparison Goods Sales (£m)		Comparison Goods Sales (£m)		3.10
Notes:				
* Assumes that 20% of trade will be drawn from outwith the catchment area				
** Aldi Sales Convenience / Comparison split based on 80% / 20%, Retail Unit assumes 100% convenience or comparison sales. It is important to note that most retailers operate with a floorspace mix and so the figures indicated are an absolute worst case scenario. It is also worthwhile noting that it would not be possible for the floorspace to be operated at the same time as 100% dedicated to convenience or 100% dedicated to comparison sales.				
*** Gross to Net Floorspace ratio used is 80%. This is considered to be a worst case position based on the Aldi and Tesco commitment ratios.				
**** Convenience sales density taken from Table 7.11 of Perth and Kinross Retail Study 2014 and grown to 2018. Comparison sales density of £2599 per sqm is taken from Mintel Retail Rankings to provide an average turnover of potential operators.				

TABLE 10A - CONVENIENCE TRADE DIVERSIONS - PROPOSALS

	Location	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact (%)
<b>Catchment Area</b>						
<b>Crieff Town Centre</b>						
Local Shops	TC	2.87	0	0.00	2.87	0
Co-op	TC	8.01	3	0.46	7.55	6
<b>TOTAL</b>	TC	10.88	3	0.46	10.42	4
Tesco, Duchlagie Farm	OOC	15.87	50	7.63	8.24	48
<b>Other (locations outwith catchment area)</b>			47	7.17		
<b>Diversion (%)</b>			<b>100</b>	15.26		
<b>Total Turnover (£m)</b>				<b>15.26</b>		

Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre

TABLE 10B - COMPARISON TRADE DIVERSIONS - PROPOSALS

	Location	Turnover (£m)	Diversion (%)	Diversion (£m)	Post Proposal's Turnover (£m)	Impact (%)
<b>Catchment Area</b>						
<b>Crieff Town Centre</b>						
Local Shops	TC	10.70	5	0.15	10.54	1
Tesco, Duchlagie Farm	OOC	3.86	16	0.50	3.36	13
<b>Other (locations outwith catchment area)</b>			79	2.45		
<b>Diversion (%)</b>			<b>100</b>	3.10		
<b>Total Turnover (£m)</b>				<b>3.10</b>		

Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre

Aldi Stores Ltd.

BROICH ROAD, CRIEFF

JULY 2015

TABLE 11A – CONVENIENCE MARKET SHARES 2018 PLUS PROPOSALS

	Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)		Location	Company Average Turnover (£m)	% Estimated Turnover from Catchment*	Turnover from Catchment (£m)	Market Share (%)
<b>Catchment Area</b>						<b>Catchment Area</b>					
<b>Crieff Town Centre</b>	TC	2.87	85%	2.44	8	<b>Crieff Town Centre</b>	TC	10.54	85%	8.96	28
Local Shops	TC	7.55	80%	6.04	19	Local Shops					
Co-op	TC	10.42		8.48	27						
<b>TOTAL</b>											
Tesco, Duchlagie Farm	OOC	8.24	70%	5.77	18	Tesco, Duchlagie Farm	OOC	3.36	70%	2.36	7
Aldi Foodstore	OOC	9.82	80%	7.86	25	Aldi Foodstore	OOC	1.75	85%	1.49	5
Class 1 Retail Unit	OOC	9.25	80%	7.40	23	Class 1 Retail Unit	OOC	2.12	85%	1.80	6
<b>THE PROPOSALS</b>		19.07		15.26	48	<b>THE PROPOSALS</b>		3.87		3.29	10
<b>Catchment Turnover</b>		<b>37.73</b>		<b>29.5</b>	<b>92</b>	<b>Catchment Turnover</b>		<b>21.65</b>		<b>14.6</b>	<b>31</b>
<b>Outflow from Catchment Area</b>				<b>2.46</b>	<b>8</b>	<b>Outflow from Catchment Area</b>				<b>32.52</b>	<b>69</b>
<b>Total Expenditure</b>				<b>32.0</b>	<b>100</b>	<b>Total Expenditure</b>				<b>47.1</b>	<b>100</b>
<b>Notes</b>						<b>Notes</b>					
* Estimates based on GVA site visits and retail planning experience						* Estimates based on GVA site visits and retail planning experience					
Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre						Abbreviations: TC = Town Centre, CC = Commercial Centre, OOC = Out of Centre					

TABLE 11B - COMPARISON MARKET SHARES 2018 PLUS PROPOSALS





Appendix III  
Sequential  
Assessment





## Appendix 3

### Sequential Assessment

No	Site, Property	Local Plan policy	Site / Area Floorspace	Availability	Suitability and Viability
1	The Penny Lane Arcade, Crieff	Under the Perth and Kinross Local Development Plan (2014), the site is within the Conservation Area and the settlement boundary of Crieff. There is no site specific policy allocation for the site. The site could be classed as occupying an edge of centre location.	0.7 ha/ 1.8 acres	The site is the former Penny Lane Arcade which now lies vacant.  Former tenants include Co-op and most recently, Haldanes.	<p>The size of the site is approximately 1.8 acres, which is too small to accommodate an Aldi foodstore with the associated 80 dedicated car parking spaces and service area for the unique and highly efficient delivery system.</p> <p>When the site is considered alongside the additional retail as is proposed, it is even clearer that this is too small to be sequentially preferable.</p> <p>The site is therefore considered unsuitable.</p> <p>Based on this assessment, the site is considered unsuitable, unavailable and unviable to accommodate the development.</p>





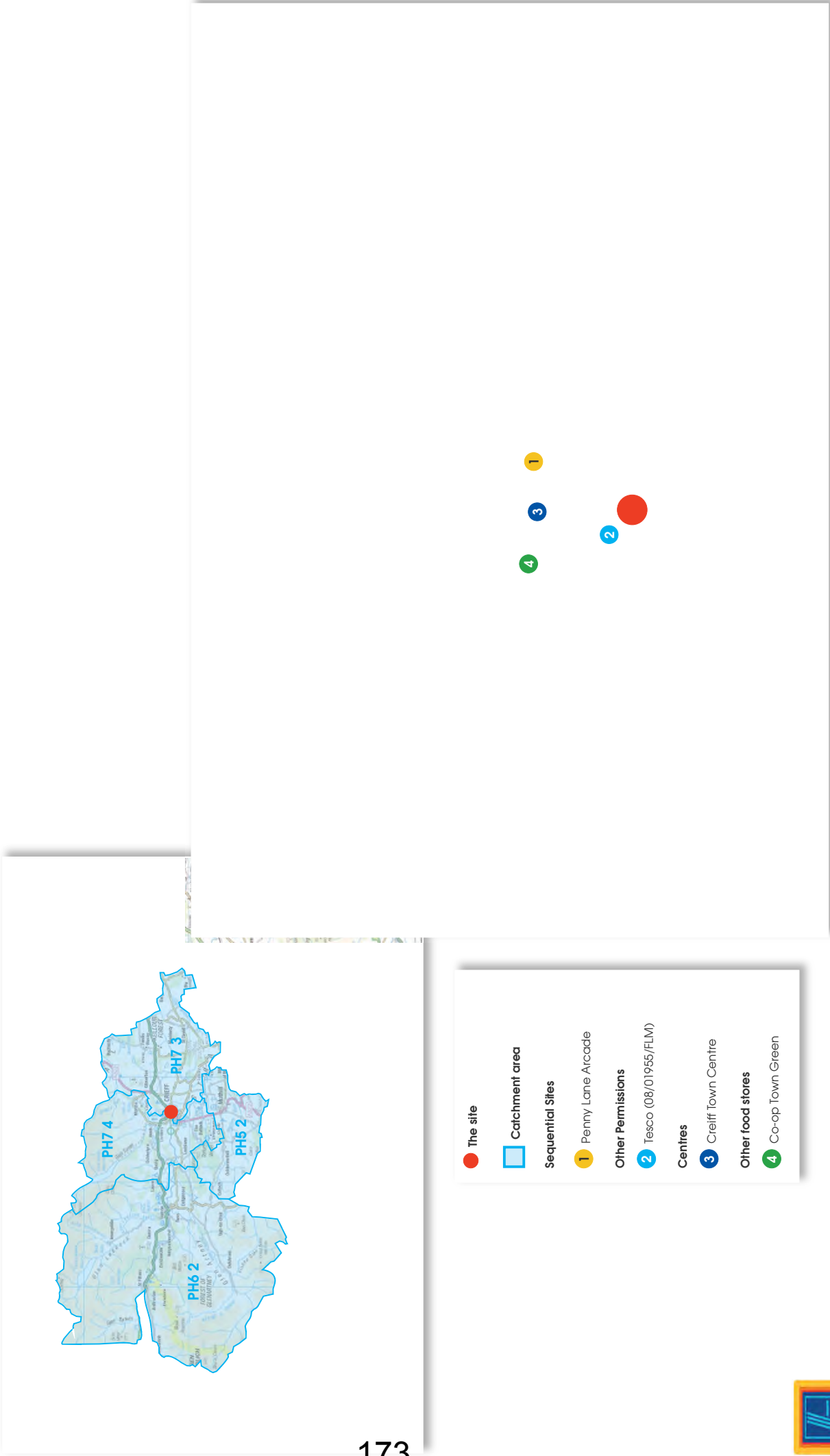
**GVA** James Barr

## Appendix IV Catchment Plan



**[gva.co.uk](http://gva.co.uk)**











Document 7  
Reporter's  
Comments on  
LDP regarding  
employment  
land supply



flooding issues.

No modification is proposed to the Plan.

### Reporter's conclusions:

#### Spatial Strategy

1. Section 3.3 of the Proposed Plan is concerned with Economic Development. Scottish Planning Policy (SPP) at paragraphs 45 to 48 sets out the Government's policy on this subject and TAYplan Policy 1: Location Priorities provides the strategic guidance with which strategies, plans, programmes and development proposals in Perth and Kinross must comply. Within that context, the council has presented its spatial strategy for the provision of employment land at paragraphs 4.3.2 to 4.3.4 of the Proposed Plan. Detail is provided by way of allocations within each of the five Local Development Plan (LDP) Areas which are identified in the Map on page 14 of the Plan.

2. Difficulties for users of the Proposed Plan have arisen as a consequence of the minimalist style which the council has adopted in the presentation of the tables within this and, indeed, other sections of the plan. In some cases, brevity has been at the expense of clarity. Furthermore, users of the plan are required to read it as a whole if they are to understand "*the framework against which planning applications are assessed*" (paragraph 1.1.2). Accordingly, it would be good practice to provide cross references in this Chapter of the Proposed Plan and elsewhere where these would assist readers to navigate their way through the document. Furthermore, the council appears to consider that the terms "*economic development land*" and "*employment land*" mean one and the same thing (e.g. paragraphs 4.3.2 and 4.3.4). If that is so, then one or other should be used throughout the text of the Proposed Plan in order that users can be in no doubt what the council has in mind. While no recommendations are made on these difficulties, they are matters to which the council may wish to give some attention.

3. SPP at paragraph 45 requires that: "*Authorities should respond to the diverse needs and locational requirements of different sectors and sizes of businesses and take a flexible approach to ensure that changing circumstances can be accommodated and new economic opportunities realised.*" It goes on at paragraph 46 to state that: "*Planning authorities should ensure that there is a range and choice of marketable sites and locations for businesses allocated in development plans.*" The needs of employment generating businesses are various and sometimes specialised. Identification of all employment land for mixed use would run contrary to these requirements and, accordingly, there is no need to make a modification to that effect.

4. Forecasting future demand for employment land is not an exact science; and the council is correct in pointing out that there has been no advice issued by Government for calculating the employment land requirements for an area. However, that does not absolve the council from devising and then applying, using professional judgment, a systematic procedure appropriate to the circumstances of Perth and Kinross which enables a robust forecast of additional land requirements to be made for each of its LDP Areas and, hence, Perth and Kinross as a whole. Despite the request for further information it is not clear that the council has such a procedure in place.

5. In response to a request for further information on that matter, it appears that the council has based its estimates of future demand on the evidence of past trends in the uptake of land. The council states that it has relied upon four documents in reaching its

conclusions. These include the Perth and Kinross Structure Plan (2003) and an Industrial and Business Land and Property Market Appraisal by consultants dated 2008. A topic paper on Sustainable Growth and an Employment Land Audit provides figures only for 2009/10. These documents are of such a vintage and limited content that they must be of limited current value as far as establishing past trends and the present situation are concerned and then looking five years into the future and beyond.

6. Turning to the supply side, in response to the request for further information the council has calculated that *“151 hectares of land are considered to be effective (i.e. deliverable within 2 years) for employment use. The remainder of the allocated sites are all expected to be deliverable within 5 years and there are a number of large strategic sites whose development is expected to continue beyond the life of the Plan”*.

7. Drawing these matters together, the council's Employment Land Strategy appears to conform with the main thrust of the requirements of SPP and the requirements of TAYplan. However, the concern that the Proposed Plan has not identified sufficient land in appropriate places to ensure the provision of a five year land supply in each of the five LDP Areas can only be dealt with by way of an annual monitoring process using the most up to date information available. That will enable an informed assessment on whether the allocations of employment land in the Perth Area, the Highland Area and Kinross Area are adequate, exceed or fall below what is required. The merits of concerns raised by respondents relating to particular areas and sites, including those in the Carse of Gowrie and Pitlochry, are considered on their merits elsewhere in the report.

#### Perth Area

8. Within the context set by national and strategic policies the council is committed to a policy of promoting sustainable economic growth. In addition to the allocation of sufficient in the way of employment land to facilitate expansion of existing businesses, enable new starts and encourage inward investment, the provision of employment land of the right type in the right place at the right time is one part of the numerous arrangements which are integral to achieving that objective.

9. The council has adopted a uniform approach to the manner in which it has provided headings for its tables. However, it is very unusual for the reader of a plan to have to turn to the previous paragraph of text for confirmation of what is set out in any particular table. Related to that, it is understandable that there has been difficulty in comparing the statement of the five year employment land supply which is provided by LDP Area at paragraph 4.3.4 with the content of paragraph 5.1.7 which deals with the Perth Area in different terms. On the other hand the response by the council to the respondent is admirably clear and the text of the Proposed Plan would benefit from that clarification.

#### **Reporter's recommendation:**

1. Delete the text of paragraph 5.1.8 and replace with the following:

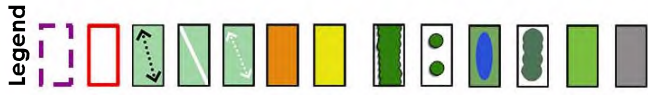
*“5.1. 8 The total 5 year employment land supply for which sites have been identified in the Perth area to 2024 is 70 hectares and this is considered to be more than adequate. The table at paragraph 5.1.7 identifies sites which will meet that requirement. It also includes land, such as that at Oudenarde, which will contribute towards the effective land supply towards the end of that period and beyond. Some sites, including the James Hutton Institute at Invergowrie, are identified for specialist employment.”*



Document 8  
Documents  
relating to  
application to  
the south  
(15/01237/IPM)





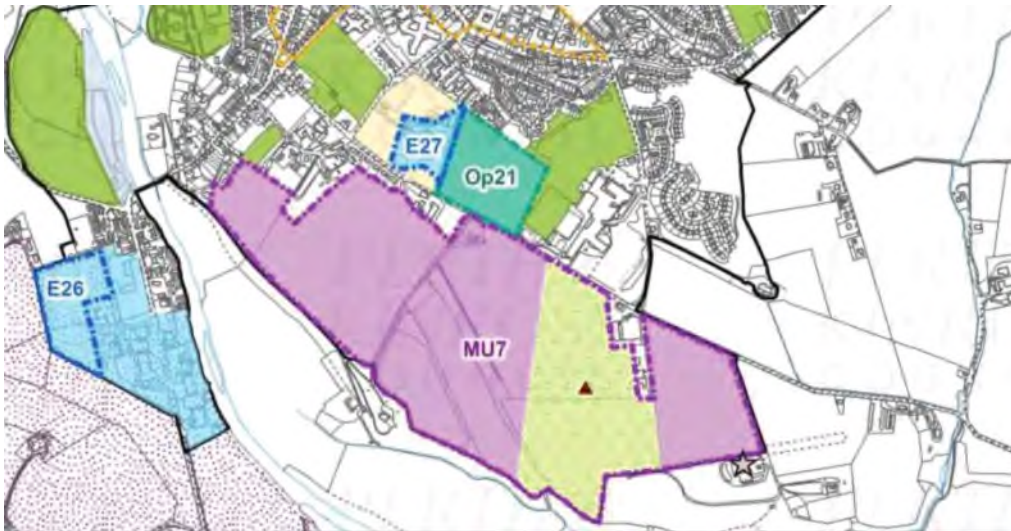


site: Braich Road, Crieff	client: Robert Simpson
drawing title: Indicative Development Framework (Rev F)	
scale: 1:5,000 @ A3	date: 01 / 04 / 2015
drawing number: Figure 2.4	
drawn by: G Barcroft	checked by: J Clarkson
axwel house east mains industrial estate broxburn west lothian EH52 5AU t: 01504 858 757 f: 01504 855 635 www.brindleyassociates.co.uk © Brindley Associates Ltd.	
 brindley ASSOCIATES <small>environmental &amp; planning</small> design   assessment   ecology	





## Supporting Planning Statement



**Proposed mixed use development including residential development; compatible employment uses; area of open space and amenity landscaping; new access roads, footpaths and cycleways; SUDS and associated drainage works; and ancillary facilities (part of Local Development Plan Proposal: MU7)**

**Land South of Broich Road, Crieff**

**Proposal of Application Notice Ref: 14/00005/PAN**

**On behalf of: Robert Simpson & Son**

**JOHN HANDLEY ASSOCIATES LTD**

Chartered Town Planning Consultants  
1 St Colme Street  
Edinburgh  
EH3 6AA

**July 2015**

**Mixed Use Sites**

Ref	Location	Size	Uses
MU7	Broich Road	47 ha	Residential Approximately 300 with minimum of 5 ha serviced employment land
<p>The capacity of this site to deliver 300+ residential units within the Plan period is a matter for the masterplan. Not all the land will be needed for residential development, with areas of open space and amenity landscaping. Land at the western part of the site could also be suitable for compatible employment use. Development should avoid impact on the existing waste management facility at North Forr.</p> <p>There are archaeological features in and around the site.</p> <p><b>Site Specific Developer Requirements</b></p> <ul style="list-style-type: none"> <li>⇒ Masterplan required with phasing plan due to scale of site.</li> <li>⇒ Mix of housing types and sizes including low cost housing.</li> <li>⇒ Transport Assessment.</li> <li>⇒ Public access, extension of core path network to south of Crieff.</li> <li>⇒ Existing woodland framework to be retained, existing hedge lines and woodland corridors within and around perimeter of site to be extended.</li> <li>⇒ Enhancement of biodiversity and protection of habitats.</li> <li>⇒ At the eastern part of the site there is a Scheduled Monument, which development should avoid. The Plan shows this area should be reserved for landscaped open space or left undeveloped.</li> <li>⇒ Archaeological investigation will be required.</li> </ul>			

**Figure 7: Extract from Adopted LDP**

3.4 As noted above, the LDP sets out the following site specific developer requirements for the Broich Road site:

- Masterplan required with phasing plan due to scale of site.
- Mix of housing types and sizes including low cost housing.
- Transport Assessment.
- Public access, extension of core path network to south of Crieff.
- Existing woodland framework to be retained, existing hedge lines and woodland corridors within and around perimeter of site to be extended.
- Enhancement of biodiversity and protection of habitats.
- At the eastern part of the site there is a Scheduled Monument, which development should avoid. The Plan shows this area should be reserved for landscaped open space or left undeveloped.
- Archaeological investigation will be required.

**Indicative Masterplan**

3.5 The Indicative Masterplan which is submitted with the application accords with the requirements of the LDP and demonstrates that the application site can provide around 335 new homes, 6.0 hectares of new employment land as well as the other specific local development plan requirements for the site.

- 3.6 The proposed development on the 36.7 hectares application site will therefore be driven by a residential-led mixed-use masterplan comprising:
- 19.9 hectares for a mix of housing types and sizes, with a proportion of low cost housing to be determined in consultation with Perth and Kinross Council;
  - 6 hectares for employment uses;
  - 10.8 hectares of land reserved and protected for the setting of a Scheduled Monument;
  - Land to accommodate a new south-north path link through the site being promoted by the Muthill Development Trust;
  - Structural and amenity landscaping; and
  - Formation of two new site accesses from Broich Road.
- 3.7 As noted earlier, the wider site (which takes in the MU7 allocation in its entirety) may have longer-term capacity for further development, and the accompanying EIA and indicative masterplan has surveyed a wider site boundary of 46.7 hectares incorporating this potential future development land. This land is not however the subject of the current application for planning permission in principle, and any proposals for such future development would be the subject of separate planning applications at the appropriate time. The current application site is proposed for around 335 units in line with the current Perth and Kinross Local Development Plan (LDP), equating approximately to 30 to 35 units per annum over the 10 year plan period to 2024. Future phases may be developed in line with strategic housing land requirements at the appropriate time.
- 3.8 The Indicative Masterplan submitted in support of the planning application provides a conceptual framework for the proposed development of the application site. It has been prepared to reflect best practice in the planning and design of new development. This is a holistic approach that integrates urban design, land use, housing, employment land, transportation, ecology, landscape, conservation and energy efficiency.
- 3.9 The accompanying Design & Access Statement confirms that the site can provide a high quality development that is distinctive, safe and pleasant, welcoming, adaptable, resource efficient, and easy to move around and beyond.
- 3.10 A key benefit of releasing the entire site at Broich Road is the ability to provide a high quality, sustainable development which is planned, phased and developed in a coordinated and integrated manner. The indicative masterplan shows how the site can maximise opportunities to integrate the new development with recent housing areas and the remainder of the town; establish a strong sense of place; and set out a landscape and open space framework which will enhance the setting of Crieff.





Document 9  
Retail study  
examples  
extracts



**Roderick MacLean Associates Ltd**  
Planning & Development Consultancy  
*In association with Ryden*

## Perth & Kinross Retail Study and City & Town Centre Review 2014

June 2014

## 8 Spare convenience capacity to 2024

### 8.1 Introduction

8.1.1 This section provides estimates of the spare convenience retail expenditure capacity that could service new retail floorspace in Perth & Kinross, including each of the five sub areas. The forecasts of spare capacity are for the period 2014-19 and for the ten year period 2014-24, after allowing for the existing planning commitments.

### 8.2 Definition

8.2.1 The planning context for defining spare capacity is the level of new retail development that can be accommodated without threatening the vitality and viability of established town centres. Spare retail capacity can exist in the following forms:

- Any current over-trading
- Growth in retained expenditure (turnover)
- Potential to claw back expenditure leakage
- Potential to attract new trade into the area
- 'Acceptable' levels of impact

8.2.2 A range of spare capacity can be prepared from these components, showing a low and high estimate, *after deducting planning commitments*. The **low estimate** includes any over-trading and the forecast growth in expenditure in the sub areas over the target periods. The **high estimate** also includes the potential to claw back leakage and attract new trade into the sub areas. Provision of a range of spare capacity normally reduces the need for sensitivity tests. However, the high estimate is really only relevant to Perth, as explained in the following paragraphs.

8.2.3 'Acceptable' levels of retail impact refer to the situation where new developments would not threaten the vitality and viability of established centres. By convention, this aspect is not usually embraced into capacity studies, because it is normally addressed by retail impact assessments in support of specific retail planning applications. The Council would then assess whether the retail impacts are 'acceptable' in terms of their effects on the vitality and viability of town centres.

8.2.4 It should be noted that Perth, with its substantial provision of out of centre supermarkets and superstores, offers most potential for servicing another supermarket, substantially by trade diversion from these stores. However, diversion from the city centre would be subject to scrutiny to avoid potential adverse effects.

### 8.3 Spare convenience expenditure capacity

8.3.1 **Low estimates-** Tables 8.1 to 8.6 show the forecast spare convenience expenditure for each of the five sub areas and for the Council area in total, at the low end of the range.

8.3.2 Assuming the current consents are developed, there is predicted negative capacity in Kinross, Strathearn and Strathmore & The Glens, which indicates under-trading at below average levels after the commitments, with limited ability to accommodate further convenience retail development.

8.3.3 In the Highland sub area, there is a predicted low level of spare capacity after development of the Sainsbury's consent in Pitlochry. This could support small unit developments, or store extensions, for example.

8.3.4 In Perth, under the low estimate, there is negative capacity over the next five years and minimal capacity over the next ten years. It is a consequence of the effect of the current planning consents, assuming they are implemented.

8.3.5 **High estimate-** For estimates at the high end of the range to apply, there would have to be potential to accommodate a large supermarket or superstore which would be capable of reducing leakage and attracting new trade. A large store development would also generate significant additional trade diversion locally.

8.3.6 Apart from Perth, none of the sub areas have sufficient capacity for the high forecast to be relevant after trade diversion to the commitments.





DUMFRIES AND  
GALLOWAY COUNCIL

# Local Development Plan

Technical Paper

SEPTEMBER 2014



## *Retail Capacity Study*

[www.dumgal.gov.uk](http://www.dumgal.gov.uk)

Dumfries  
& Galloway



**Roderick MacLean Associates Ltd**  
Planning & Development Consultancy  
in association with Ryden

## **Dumfries & Galloway Retail Capacity Study**

**October 2012**

## 6 Spare convenience capacity to 2017 and 2022

### 6.1 Definition

6.1.1 Spare expenditure capacity can exist in the following ways:

- Over-trading above average company levels, where it exists;
- Projected expenditure growth retained in the area;
- Potential to recapture a proportion of the expenditure outflows;
- Potential to attract new trade into the area, and
- 'Acceptable' levels of retail impact.

6.1.2 The last element on the list recognises that new stores, especially supermarkets, are often substantially serviced by trade diversion from other stores within their catchments. This gives rise to the issue of 'acceptable impact'.

6.1.3 Acceptable levels of impact refer to the situation where a proposed new store would drive the turnover of existing stores/established centres, down below average levels, but not threaten them. The impact is normally expressed as the percentage below average levels. There is no set standard for what level of impact is acceptable, but this author would normally consider that impacts of 20% or more would potentially threaten the viability of stores or established centres- as broad brush guidance.

6.1.4 By convention, most retail capacity studies for local authorities do not take account of retail impact as a form of spare capacity; leaving the issue to be addressed by retail impact assessments for individual proposals. However, allowance for this factor probably improves guidance on the capacity to accommodate future opportunities.

6.1.5 Retail capacity studies commonly express the forecasts of spare capacity, after deducting planning consents. So the turnover of the recent supermarket consent at Gretna (relating to Dumfries & Galloway) needs to be deducted.

### 6.2 Capacity overview

6.2.1 There is little over-trading in the Dumfries catchment, but more significant under-trading in the Stranraer catchment. The

projected growth in convenience expenditure is low, so the retained expenditure growth (turnover) in Table 5.3 doesn't promise much future capacity either (around £4 million by 2022 for Dumfries and about £1 million for Stranraer).

6.2.2 While there is potential to capture a proportion of convenience expenditure leakage from the two catchment areas, the levels of leakage are quite small in terms of servicing new supermarket floorspace. Assuming that 50% of the leakage could be recaptured, it amounts to less than £5 million for Dumfries by 2022 and just over £2 million for Stranraer.

6.2.3 The potential to draw significant new convenience trade into Dumfries & Galloway (increase inflows), is probably minimal because of the geography in relation to other populated areas. This not true for the supermarket consent at Gretna, where the part of the turnover has been apportioned to the Dumfries catchment in Table 6.1.

6.2.4 If an allowance for acceptable impact equivalent to 10% of the turnover of the mainstream <sup>5</sup>supermarkets, food discounters and Co-ops at average levels in every town is included, this will add to the capacity. It will be geographic by town, so the total could not be available to just Dumfries, for example. For the Dumfries catchment, the total would add some £18 million, for rough guidance. For the Stranraer catchment, there would be no addition, because of the level of existing under-trading.

### 6.3 Forecast range of spare expenditure capacity

6.3.1 A range of forecast spare convenience capacity for the two main retail catchment areas is illustrated in Tables 6.1 and 6.2.

6.3.2 The **low estimate** includes over/under-trading, forecast expenditure growth retained in each area (turnover), plus the

<sup>5</sup> Tesco, Morrisons, Sainsbury's, Aldi and Lidl and Co-ops





Document 10  
Town Centres  
& Retailing  
Methodology  
Report Extracts



PLANNING

# **Town Centre and Retailing Methodologies**

*Final Report*

December 2007



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scotland  
SCOTTISH GOVERNMENT

concerning retail capacity assessment and other strategic retail models and, to a more limited degree qualitative retail capacity techniques. In all cases the extent of existing literature was limited although it should be noted that retail capacity techniques have attracted significant attention in the past decade.

3.15 The principal findings from the literature research in relation to RCA techniques were as follows:

- No guidance has been published on good practice for retail capacity techniques in Scotland or England. However some guidance is provided in Ireland and Northern Ireland<sup>19</sup>.
- Retail capacity is primarily concerned with quantifying retail “need” or “deficiency”. There is a different legal and national policy context between Scotland and other parts of the UK with the former concerned with identifying retail *deficiencies* and the latter retail *need*. Insofar as there is a policy requirement to address these issues retail capacity assessment techniques seek to quantify the scale of retail need or deficiency.
- The general concept underpinning retail capacity is, in essence, a comparison of demand for retail (expressed through available expenditure for a study area) and supply (i.e. turnover of existing/committed retail floorspace). Capacity is calculated by comparing the two figures. There are some variations in approach in terms of the treatment of expenditure leakage and whether capacity should be expressed in terms of potential turnover or retail floorspace equivalent.
- Criticisms of retail capacity have identified difficulties with the general approach both in terms of conceptual issues (e.g. it is simplistic and does not relate to market realities) and in practical issues (e.g. results are sensitive to small changes in data assumptions such as turnover rates). Reflecting these there are some that consider that these limit the value of the technique as a retail planning tool.

#### *Surveys of Practitioners in Scotland*

3.16 A number of planning professionals, particularly those that specialise in retail planning, contributed to the research study through completing the questionnaires and/or attending at the discussion groups/seminars. The principal findings from these aspects of the research were as follows:

- There was a general view that RCA can provide a rational basis for assessing the relationship between demand and supply for retail floorspace and, as such, it provides supporting analysis for policy formulation.

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<sup>19</sup> Only outline guidance attached to draft PPS5 in Northern Ireland at the time of the literature research in 2007.



business operation will vary between different locations and planners are not privy to this type of information.

- RCA bears little relationship to the realities of the market place. Although planning is not about serving market needs it is evident that planning policies that are in fundamental conflict with the market will achieve little. RCA's typically conclude that small towns have potential for new comparison floorspace but that there is no demand from operators to occupy this space.

#### *Practical Criticisms*

3.42 A key issue that RCA needs to address is that the results are highly sensitive to the data inputs. This reflects the fact that the calculation of capacity is based on a subtraction. The closer the expenditure and turnover figures are the greater will be the susceptibility of the result to changes in assumptions. Morley<sup>37</sup> comments *"relatively small changes to either future expenditure or average turnover of existing floorspace will result in disproportionately large changes to the capacity figure. It is essential that accurate baseline figures are calculated and realistic forecasts made as to how these are likely to change"*.

3.43 As a result of this Morley identifies a number of key sets of assumptions that need to be examined carefully as part of a capacity assessment calculation. These relate to the sales densities used (and the extent to which assumptions should be made for these to grow in the future), expenditure growth rates to be used and the role of the growth of internet sales. He considers that there are now more proactive data and information providers available to retail planners but despite this *"quantitative retail capacity assessment is much more challenging than it was a few years ago"*.

3.44 Stock has commented on the problems created by having different data providers. He noted that there were (in 2003) three primary sources available for the estimate of available expenditure (MapInfo, Experian Business Strategies and CACI). However this created more problems rather than solved them. He comments:

*"Illustrating the problems that this situation can create, the parties at one recent call-in inquiry in Stoke-on-Trent were unable to agree the choice of data source. As a result much debate centred upon the appropriateness and reliability of one data source over another. As the Inspector observed at the end of the Inquiry this situation is unhelpful to the decision maker...."It is difficult to foresee a situation in which the Government ...could direct or even advise on the most appropriate data source" and "finding consensus on the detail behind the figures will become increasingly difficult"*<sup>38</sup>

3.45 These problems may seem academic but the very nature of the retail capacity calculation means that differences in assumptions have profound

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<sup>37</sup> S Morley, 2004, "Working on the shop floors" in Planning 23 April 2004 p16

<sup>38</sup> G Stock, 2003, "Need is key in retail controls" in Planning, 12<sup>th</sup> Sept 2003 p19

effects on the results of the assessment and the conclusion as to whether there is, or is not, a quantitative capacity for a proposed development. It has been demonstrated that even modest changes in assumptions can have disproportionate impacts on the results of a capacity calculation.<sup>39</sup>

- 3.46 Reflecting the above problems it is not, therefore, surprising that the general view of practitioners in Scotland responding to the questionnaire was that the reliability of RCA in terms of potential floorspace is limited. This suggested that RCA is best considered as a strategic and indicative planning tool rather than be used for predicting actual amounts of potential new floorspace.

#### *Response to Criticisms*

- 3.47 The criticisms and weaknesses of RCA identified above are widely recognised by practitioners in Scotland. Nonetheless there is a general view that RCA can provide some assistance in understanding some of the dynamics of the retail system. For RCA to be more effective regard should be had to each of the following in establishing good practice in its use as a retail planning technique:

- Improving data availability for both the demand and supply sides of the assessment will reduce error in the calculation of capacity. This will include: giving priority to the use of high quality surveys for establishing expenditure patterns from household and other types of survey and ensuring that these are up-to-date; improving information of existing floorspace; and utilising the potential from national statistics for actual turnover estimates.
- The use of *sensitivity* analysis is essential to identify the potential degree of error associated with RCA.
- Utilisation of *actual* turnover rates as far as possible rather than making judgements based on perceptions of under- or over-trading. Attention should be given to estimating actual turnover from survey sources rather than reliance on national average data.
- RCA should be used *in combination* with information provided from other retail planning techniques including market assessment, town centre health checks, and retail impact assessment.
- Planners should be fully aware of the *limitations* of RCA as a technique, that the results are *indicative* only (which it self questions the value of converting surplus/deficit expenditure to floorspace equivalent) and that the technique is best treated as a strategic planning tool.

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<sup>39</sup> Hargest (2003) illustrates the effects of altering different assumptions for a simplified retail capacity calculation. The example given shows a situation in which a set of assumptions relating to the principal variables are altered and the effect that this has on the results of the capacity calculation. The principal variables considered are: available expenditure; level of leakage; average turnover rate for existing and proposed floorspace; committed retail floorspace; and assumptions about net to gross floorspace ratios.

a locality; physical improvements to infrastructure around a proposed store; and other investment by retailers responding to increased competition.

#### *Linked Trips*

- 6.269 There is evidence of the role of linked trips benefiting some centres as a result of edge-of-centre development. The Hillier Parker study<sup>204</sup> observed a significant level of walking between a new edge-of-centre store in Warminster and the town centre and they also found that between 25% and 65% of people visited an out-of-centre foodstore and the town centre during the same trip. Despite this they concluded that *“the introduction of a new out-of-centre store does not appear to have a significant effect on the propensity to link visits to the foodstore and the town centre during the same trip...there is no evidence of any significant increase in the use of centres for non-food shopping”*<sup>205</sup>.
- 6.270 Evidence at a recent inquiry in Huntly in 2006<sup>206</sup> has provided some limited data on the value of linked trips between an out-of-centre store and a town centre linked to an initiative by one supermarket operator to try and support town centre trade. This showed (for quite limited time series data) that the scale of benefit to a town centre is likely to be modest even when there is a financial incentive to undertake some linked trips.

#### *Competitive Response*

- 6.271 The ability of a retailer to respond to new competition will depend upon a range of factors including the financial resources available to the retailer. Responses can include extending the range of goods sold, price responses, increase in the services available to shoppers and altering hours of opening. Brown comments that *“a competitive reaction by existing retailers...should ensure that the loss is less than the full amount [than would be indicated in conventional RIA methods]”*<sup>207</sup>.

#### *Conclusions*

- 6.272 Secondary impacts, particularly in terms of linked trips and competitive response to competition appear to be real although the evidence for the scale of these and the extent to which they can mitigate adverse impact is uncertain. Although the majority of practitioners in Scotland consulted in this study consider that these issues should be addressed in RIA no methodologies have been put forward that are able to reliably quantify these issues. As a result although consideration of secondary impacts is to be encouraged in RIAs limited weight should be given to any quantification of impacts at the current time.

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<sup>204</sup> ibid DETR, 1998

<sup>205</sup> ibid DETR 1998 Exec Sum para 48

<sup>206</sup> Appeal reference P/PPA/110/583, 2006

<sup>207</sup> Reported in ibid Scottish Office, 1992 p80





Document 11  
Competition  
Commission  
Report  
extracts



a requirement that no suitable location in the primary shopping area is available (the sequential test),<sup>1</sup> there is a demonstrated 'need' for the development (the need test), and the development is of an appropriate scale and will not have an undue impact on existing retail centres (the retail impact assessment). In May 2007, the Government announced that it would replace the need and impact tests with a new test that will have a strong focus on its town-centre-first policy, and which will promote competition and improve consumer choice, avoiding the unintended effects of the current need test.<sup>2</sup> Appendix 7.2 sets out further details on the planning system as it relates to grocery retailing.

- 7.37 An inevitable consequence of a plan-led system that seeks to meet the broad range of objectives set out in paragraph 7.35 is that grocery retailers may not always be able to open a new larger grocery store in the location of their choice. That is, the planning system will, quite deliberately and appropriately for the purposes of meeting its objectives, act—to some extent—as a barrier to entry and/or expansion.
- 7.38 The planning regime acts as a barrier to entry or expansion primarily for larger grocery stores. This is because, in general, it is easier to secure suitable sites for mid-sized grocery stores or convenience stores in those areas where planning consent is already in place or where planning requirements are significantly less onerous, in particular in town centres.
- 7.39 A number of grocery retailers told us that the increased town-centre focus since 1996 had led them to focus on developing smaller stores in town centres and edge-of-centre locations. Tesco told us that it had increased the range and variety of store formats to gain access to a greater number of potential sites. Sainsbury's told us that 'since the 1996 change to retail policy in PPG6,<sup>3</sup> retailers prepared to accept the policy focus of retailing on centre and edge-of-town centre sites of an appropriate scale have not been unduly constrained by the planning system'. To the extent that the planning regime has encouraged convenience and mid-sized stores rather than larger grocery stores through impacting on the development strategy of grocery retailers, this is a further indicator that the planning regime represents a barrier to entry for larger grocery stores.
- 7.40 In practice, a number of retailers see the need test, rather than any of the other tests set out in paragraph 7.36, as the key barrier to the development of new larger grocery stores. Sainsbury's cited the town of Braintree in Essex where the local development plan states that there is 'no capacity for additional convenience goods floorspace up to 2021'. Sainsbury's also suggested that a similar situation might arise in south-west Bradford in Yorkshire if planning permission was given to Tesco for one new and one replacement store. Asda considered that the need test directly restricted competition and had the unintended consequence of favouring incumbents in local markets. Tesco, however, stated that it knew of no case where a planning application had failed solely because of the lack of identifiable need.
- 7.41 Our own survey of LPAs indicates that 62 per cent had quantified a need<sup>4</sup> for additional floorspace for the retailing of convenience goods (ie consumer goods purchased on a regular basis, including food, toiletries and cleaning products) in their

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<sup>1</sup>The primary shopping area is defined in PPS6 as the area where retail development is concentrated. It is closely related to (and in practice used interchangeably with) the town centre classification, which PPS6 states is a defined area, including the primary shopping area and areas of predominantly leisure, business and other main town centre uses within or adjacent to the primary shopping area.

<sup>2</sup>*Planning for a Sustainable Future*: White Paper, 21 May 2007.

<sup>3</sup>PPG6 was the precursor of PPS6.

<sup>4</sup>In accordance with the method advised in PPS6, the principal focus is upon quantitative, rather than qualitative, assessments of need (see PPS6, paragraph 2.33).

LPA. Second, and in Asda's view more importantly, incumbents understood that on-going expansion including using extensions in local areas (irrespective of any immediate threat of entry) tended to reduce the prospect of future competitive entry as a result of the need test mechanism. Asda told us that the planning regime facilitated this behaviour because extensions passed the need test more easily than new stores and they were also more likely to pass the retail impact assessment. This is consistent with our finding in paragraph 7.8 that a large proportion of stores have been extended in recent years.

- 7.62 More specifically, Asda told us of planning applications for new stores in Chesterfield in Derbyshire, Salisbury in Wiltshire and Worthing in West Sussex that were rejected following proposals by competing retailers to extend their stores.<sup>1</sup> Having reviewed these cases, however, we found that other considerations, besides that of whether a new build or extension was preferable, formed part of the planning decision. Further, Morrisons and Tesco both told us that the timescales involved in preparing and submitting an application were such that it was not realistic to submit an application for an extension in response to a competitor application.
- 7.63 Nevertheless, [X] told us that in [X], in response to encouragement by the relevant LPAs, it had submitted applications to extend two stores in response to the possibility of out-of-town superstore developments. Further, one-third of respondents to our LPA survey indicated that they were aware, or had reason to believe, that competitors submitted planning applications in response to a planning application made by a competitor.
- 7.64 In conclusion, objecting to competitors' planning applications does not appear to be particularly widespread or a significant matter of concern in terms of barriers to entry or expansion. However, the relative ease of gaining planning permission for store extensions, as evidenced by the number of store extensions that we observe, combined with the need test, is likely to provide incumbent retailers with an advantage over new entrants in providing new grocery retailing floorspace in a local market.

### ***Conclusion on the planning regime as a barrier to entry and expansion***

- 7.65 In conclusion, the planning system, in pursuing the broad-based objectives for which it is intended, necessarily constrains new entry by larger grocery stores. It also has the effect of increasing the time for new larger grocery store entry to take place due to the need to assemble sites likely to be granted planning permission as well as the time required by LPAs to consider planning applications.
- 7.66 The costs associated with site assembly and submitting a planning application, and the risk of planning permission not being granted, mean that the existing large grocery retailers with substantial experience of the planning system are in a better position to mitigate or absorb these costs and risks than regional grocery retailers and new entrants to the industry, such as international operators without a UK presence.
- 7.67 The planning regime places more limited constraints on the extension of existing stores by grocery retailers compared with new larger grocery store entry. An

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<sup>1</sup>Asda told us that in Chesterfield, Sainsbury's and Tesco both submitted planning applications to extend their existing stores shortly after Asda's application for a new store, but that Sainsbury's later withdrew its application, while Tesco's application was approved and Asda's application for a new store was rejected. Asda told us that in Salisbury and Worthing, Tesco submitted planning applications to extend its existing stores shortly after Asda had submitted a planning application for a new store, and in both cases, Tesco's application was approved and Asda's application was rejected.



consequences arising from changes made to benefit competition. We are also aware that the Government already proposes to change the planning system in England, recognizing that the need test may not be functioning as was intended. Following the recommendations of the Barker Report,<sup>1</sup> the Planning White Paper<sup>2</sup> proposed replacing the need test and the impact test<sup>3</sup> with a new test which has a strong focus on the town centre first policy, promotes competition and improves consumer choice, avoiding the unintended effects of the current need test.

11.134 We do not envisage the competition test being a replacement for the need test. We consider that the competition test would be necessary to address the AEC that we have found whether or not the current need test were retained because (as noted in paragraph 11.24) the need test is applied on an 'identity-blind' basis whereas a key point of the competition test would be to control the identity of the occupant. In assessing need, LPAs have no ability to consider whether, even if there is need for a new development, the consequences of allowing that need to be fulfilled by a particular retailer would have anti-competitive effects.

11.135 We recommend that LPAs take greater account of competition in their development plans. We decided not to recommend any specific changes to the planning system (beyond the competition test). We are concerned that there is a risk of unintended consequences that could arise from interfering more than is necessary with an area of policy that has specific and well-defined social objectives and which is itself subject to a process of public consultation and reform. It is important to note that in choosing and designing our remedies in relation to the planning regime, we have taken account of the reforms proposed in Planning White Paper. Our remedies are additional to those reforms and do not preclude any of the reforms proposed in the Planning White Paper in any way.

### ***Controlled landsites***

11.136 We next set out our decisions on remedies in relation to existing and future controlled landsites. We consider, in particular:

- restrictive covenants (see paragraphs 11.137 to 11.182);
- exclusivity arrangements (see paragraphs 11.183 to 11.230);
- land bank sites (see paragraphs 11.232 to 11.243); and
- leases to third parties (see paragraphs 11.244 to 11.249).

### ***Restrictive covenants***

11.137 We consider below remedies designed to address restrictive covenants. In paragraph 7.88 we explained that a restrictive covenant is a restriction typically imposed on the sale of freehold land that limits the future use of the land. It is imposed on the sale of the freehold. Our remedies to address restrictive covenants are therefore aimed at restrictions imposed on the sale of freehold property. We also considered whether it is necessary to prevent grocery retailers from imposing contractual restrictions with the same effect, eg in leases (see paragraph 7.87).

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<sup>1</sup>The Barker Review of Land Use Planning, Final Report—Recommendations, Kate Barker, December 2006.

<sup>2</sup>Planning for a Sustainable Future: White Paper, 21 May 2007.

<sup>3</sup>In the case of a retail development, this is the retail impact assessment.

## The planning framework and grocery retailing

### Introduction

1. This appendix provides an overview of the law and policy primarily relating to retail planning in England. Differences between the English regime and the regimes of Scotland, Wales and Northern Ireland are set out in paragraphs 14 to 19.

### Features of the planning framework

2. The principal framework through which planning policies are delivered in England is the Town and Country Planning Act 1990 as modified by the Planning and Compulsory Purchase Act 2004. The key features of this framework are the following:
  - (a) There is a hierarchical structure of guidance and plans at national, regional and local level against which planning applications are assessed. These include Planning Policy Statements (PPS) at the national level, Regional Spatial Strategies (RSS) developed by regional planning bodies,<sup>1</sup> and Local Development Frameworks (LDF) developed by LPAs.
  - (b) Decisions on planning applications, which in the majority of cases are taken by the relevant LPA, should be made in accordance with the LDF unless other 'material considerations' are sufficient to override the plan.
  - (c) The outcome of a planning decision may take one of three forms:
    - (i) unconditional permission;
    - (ii) permission subject to conditions; or
    - (iii) refusal.
  - (d) A planning decision may be overturned on appeal to the Secretary of State for Communities and Local Government (the Secretary of State).
3. The Secretary of State sets planning policy and influences local planning decisions through a variety of means. PPSs and other guidance notes issued by the Secretary of State set the overall framework for regional and local development plans. The Secretary of State can also make representations to regional and local bodies regarding draft development plans and, if necessary, can require modifications to be made. A small number of planning applications are 'recovered' (called-in) each year by the Secretary of State for his own determination.<sup>2</sup> These applications are generally the most complex and controversial<sup>3</sup> and are generally considered at a public inquiry. The Secretary of State takes a decision, following any inquiry and after consideration of the report and the recommendations of a planning inspector.

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<sup>1</sup>In all regions outside London the regional planning body is the Regional Assembly.

<sup>2</sup>Section 77, Town and Country Planning Act 1990. For retail planning, schemes with gross retail floorspace over 2,500 sq metres normally require referral to the Secretary of State under the terms of the Town and Country Planning (Shopping Development) (England and Wales) (No 2) Direction 1993.

<sup>3</sup>For reasons such as: a proposal may conflict with national policies or have wider implications.

4. Under the Greater London Authority Act 2007, the London Mayor has been given increased powers to intervene in the London boroughs' Local Development Schemes and in planning applications of 'potential strategic importance'. The Town and Country Planning (Mayor of London) Order 2008 sets out a number of such categories of planning application. These categories are referable to the London Mayor.
5. When planning permission is granted subject to conditions, those conditions can only be varied by the seeking of a fresh planning permission. Such conditions are related to the use of land or the purpose to which occupation of the land will be put, not the identity of the occupier or user of the land.
6. In some cases, the granting of planning permission could cause unacceptable consequences to result, such as pressure on local amenities or infrastructure. In those circumstances, before planning permission can be granted, the applicant may be required to enter into an agreement with the LPA under section 106 of the Town and Country Planning Act 1990 (as amended). Such agreements may require the applicant to provide appropriate facilities to address the unacceptable aspects of the application. In relation specifically to transport, an order for this purpose would be made under section 278 of the Highways Act 1980.
7. PPS6, 'Planning for Town Centres', is the most relevant of the PPSs issued to grocery retailing.<sup>4</sup> Paragraphs 5 to 13 provide an overview of the key features of PPS6, namely its objectives, the town centre first approach to retail development, the 'need test', the requirement for developments of an appropriate scale, and the need to consider the impact of new developments on existing retail centres.

### **Planning Policy Statement 6—objectives**

8. The key objective of PPS6 is the promotion of 'vital and viable' town centres through:
  - (a) planning for the growth and development of existing centres; and
  - (b) promoting and enhancing existing centres, by focusing development in such centres and encouraging a wide range of services in a good environment, accessible to all.
9. PPS6 also refers to 'other objectives' which need to be taken into account in the context of the key objective set out in paragraph 8:
  - enhancing consumer choice by making provision for a range of shopping, leisure and local services, which allow genuine choice to meet the needs of the entire community, and particularly socially-excluded groups;
  - supporting efficient, competitive and innovative retail, leisure, tourism and other sectors, with improving productivity; and

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<sup>4</sup>Other PPSs that are also particularly relevant to grocery retailing include PPS1 *Delivering Sustainable Development*, which sets out the Government's overarching planning policies on the delivery of sustainable development through the planning system, PPS12 *Local Development Frameworks* which sets out the Government's policy on the preparation of local development documents, and PPS4, presently in the form of a consultation document, which sets out how planning bodies should, in the wider context of delivering sustainable development, positively plan for sustainable economic growth and respond to the challenges of the global economy, in their plan policies and planning decisions.

- improving accessibility by ensuring that existing or new development is, or will be, accessible and well served by a choice of means of transport.<sup>5,6</sup>
10. The first two objectives set out in paragraph 9 indicate that choice and competition are factors that should be considered in assessing planning applications. However, planning authorities do not interpret choice and competition as meaning that they should consider the identity of an applicant in terms of how any new retail development will compete with existing retailers and ensure improved market outcomes for consumers in terms of factors such as price, quality or service. CLG has emphasized to us that the planning system has, to date, not easily enabled decision makers to take into account the occupier of a building.<sup>7</sup> Planning conditions on permissions restricting a building's occupancy are generally only possible in special circumstances.<sup>8</sup> Rather, these 'other objectives' generally appear to be interpreted in terms of, first, providing for different types of retail development, which for consumers may be complements rather than substitutes, and second, providing for the development of retail centres that can compete with other retail centres for shoppers through providing an attractive destination with a good range of shops.

### **Town centre first or sequential approach**

11. Under PPS6, applicants wishing to develop a retail site outside the primary shopping area,<sup>9</sup> which has not been allocated to retailing in an up-to-date development plan, are required to demonstrate that there are no other centrally-located sites suitable for the development. The sequential approach was introduced in 1996 and is intended to protect the vitality and viability of town centres.<sup>10</sup> This approach contrasts to a more relaxed retail planning policy in the 1980s that had led to the rapid development of numerous out-of-town<sup>11</sup> shopping sites (see Section 3 of the main report).

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<sup>5</sup>There are a number of statutory consultees that form part of the planning process. The role of statutory consultees is specified by the Town and Country Planning (General Development Procedure) Order (GDPO), which provides for statutory consultees to be consulted. The GDPO requires an LPA to consult with a range of statutory authorities and other regulatory bodies prior to granting planning permission for specified descriptions of development. The LPA is required, in determining the application, to take into account any representations received from such a consultee. With regard to transport, the Highways Agency is a statutory consultee in the planning system and can, through the Secretary of State, direct a local planning authority to restrict the grant of planning permission, either indefinitely or for a specified period. The Highways Agency can also ask the Secretary of State to call-in applications.

<sup>6</sup>PPS6 also refers to wider policy objectives including promotion of social inclusion, regeneration of deprived areas, promotion of economic growth, delivering more sustainable patterns of development, and promotion of good design.

<sup>7</sup>All the devolved planning administrations have also expressed similar views.

<sup>8</sup>The Consultation Paper on PPS4 makes some reference to competition in a generic sense. However, it does not address the possible development of local areas of concentration and does not focus upon the identity of the operator at a particular retail facility.

<sup>9</sup>The Primary Shopping Area is the defined area where retail development is concentrated. It is closely related to the town centre classification, which PPS6 states is a defined area, including the primary shopping area and areas of predominantly leisure, business and other main town centre uses within or adjacent to the primary shopping area.

<sup>10</sup>The sequential approach seeks to direct retail development to sites in the primary shopping area. Off-centre locations are either 'edge of centre' or 'out of centre'. If no sites are available in the primary shopping area developments are directed to an edge of town centre or district centre and then (if no more edge-of-centre sites were available) developments are directed to out-of-centre locations. PPS6 states that for retail purposes, an edge-of-centre location is one that is well connected to and within easy walking distance (ie up to 300 metres) of the primary shopping area. In determining whether a site falls within the definition of edge of centre, account is required to be taken of local circumstances. For example, local topography will affect pedestrians' perceptions of easy walking distance from the centre. Other considerations include barriers, such as crossing major roads and car parks, the attractiveness and perceived safety of the route and the strength of attraction and size of the town centre. A site will not be well connected to a centre where it is physically separated from it by a barrier such as a major road, railway line or river and there is no existing or proposed pedestrian route which provides safe and convenient access to the centre. An out-of-centre site is defined under PPS6 as a location which is not in or on the edge of a centre but not necessarily outside the urban area.

<sup>11</sup>An out-of-town development is one that is outside the existing urban area.

## Requirement to demonstrate 'need' (the need test)

12. Applicants wishing to develop a retail site outside the primary shopping area, which has not been allocated to retailing in an up-to-date development plan, are also required to demonstrate the 'need' for that development.
13. Need is assessed in both qualitative and quantitative terms. PPS6 states that in assessing need, LPAs should place greater weight on quantitative assessments, while still taking qualitative considerations into account. Quantitative assessments of need seek to assess whether there is an excess of demand for retail floorspace within the broad categories of 'comparison' and 'convenience' goods. Such assessments will take into account factors such as existing and forecast population levels, expenditure on convenience and comparison goods in the catchment area, and existing levels of floorspace in the relevant category.<sup>12</sup>
14. The Barker Report<sup>13</sup> expressed support for the 'town centre first' policy and the impact and sequential tests that underpin it, but recommended removing the need test.<sup>14</sup> The Government, in responding to the Barker Report, has said in its Planning White Paper that it will improve the effectiveness of the town centre planning policy by replacing the need and impact tests with a new test, which has a strong focus on the town centre first policy, promotes competition and improves consumer choice, while avoiding the unintended effects of the need test.<sup>15</sup> A consultation paper on a revised version of PPS6 is due to be published by the government shortly.

## Scale of development

15. PPS6 requires that proposed retail developments be of a scale appropriate to the catchment area that the proposed development will serve (ie regional provision in regional centres and local provision in local centres).

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<sup>12</sup>Groceries are considered to be a 'convenience' good.

<sup>13</sup>The Government announced in the 2005 Pre-Budget Report that Kate Barker had been asked to lead an independent review of land use planning, focusing on the link between planning and economic growth. The final report for the review was published on 5 December 2006.

<sup>14</sup>The Barker Report states that:

the current system of needs tests in town centre first policy also can have perverse effects: it protects incumbents and gives preference to operators that have lower sales densities. These incumbents may be operating in out-of-town shopping centres, leading to the effect that if need is demonstrated and there is no impact on the town centre, an existing out-of-town shopping centre could expand while there is no application for a sequentially preferable site in the town centre. Furthermore, incumbents may find it easier to expand incrementally while prospective local entrants fail at any one time to demonstrate sufficient need for a one-off increase of space. The needs test should therefore be removed.

Barker Report *Barker Review of Land Use Planning, Final Report—Recommendations*, December 2006, paragraph 1.33.

<sup>15</sup>The White Paper states that:

we recognise that there are issues around the practical effect of the current policy requirement on applicants to demonstrate the need for proposals outside town centres, where these are not supported by an up-to-date development plan. This 'need test' has proved in some respects a blunt instrument, and can have the unintended effect of restricting competition and limiting consumer choice. For example, it is possible under current policy for a new retail development on the edge of the town centre to be refused because there is an existing or proposed out-of-town development which meets the identified 'need' even though the new retail development would bring wider benefits and help support the town centre. In addressing this issue, we have two clear objectives. First, we must support current and prospective town centre investment, which contributes to economic prosperity, and to our social and environmental goals. Simply to remove the 'needs test' could put this at risk. Second, we must ensure that planning promotes competition and consumer choice and does not unduly or disproportionately constrain the market. We therefore intend to review the current approach in PPS6 to assessing the impact of proposals outside town centres. We will replace the need and impact tests with a new test which has a strong focus on our town centre first policy, and which promotes competition and improves consumer choice avoiding the unintended effects of the current need test.

*Planning for a Sustainable Future*, White Paper, 21 May 2007, paragraphs 7.53 to 7.55.





Document 12  
Perth Retail  
Study 2014  
Extracts





**Roderick MacLean Associates Ltd**  
Planning & Development Consultancy  
*In association with Ryden*

## Perth & Kinross Retail Study and City & Town Centre Review 2014

June 2014

Table 7.4 Perth catchment ( Zone1 ): convenience expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		175.5	179.1	187.6
Add: inflows from rest of Perth & Kinross	21%	37.0	37.7	39.5
inflows from outside Perth & Kinross	8%	14.0	14.2	14.9
Less: outflows	-15%	-26.1	-26.6	-27.9
Retained expenditure (turnover)		200.4	204.5	214.1
Note				
Inflow s and outflow s from Appendix 5				

Table 7.5 Kinross catchment ( Zone 2 ): convenience expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		25.0	25.5	26.7
Add: inflows from rest of Perth & Kinross	7%	1.9	1.9	2.0
inflows from outside Perth & Kinross	1%	0.4	0.4	0.4
Less: outflows	-55%	-13.7	-14.0	-14.6
Retained expenditure (turnover)		13.6	13.8	14.5
Note				
Inflow s and outflow s from Appendix 5				

Table 7.6 Strathearn catchment ( Zone3 ): convenience expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		42.4	43.3	45.3
Add: inflows from rest of Perth & Kinross	3%	1.1	1.2	1.2
inflows from outside Perth & Kinross	13%	5.4	5.6	5.8
Less: outflows	-80%	-33.7	-34.4	-36.1
Retained expenditure (turnover)		15.2	15.5	16.3
Note				
Inflow s and outflow s from Appendix 5				

Table 7.7 Highland catchment ( Zone4 ): convenience expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		24.1	24.6	25.8
Add: inflows from rest of Perth & Kinross	8%	2.0	2.0	2.1
inflows from outside Perth & Kinross	31%	7.4	7.5	7.9
Less: outflows	-57%	-13.8	-14.0	-14.7
Retained expenditure (turnover)		19.8	20.2	21.1
Note				
Inflow s and outflow s from Appendix 5				

Table 7.10 Perth & Kinross: convenience floorspace and turnover, 2014 (in 2012 prices)				
	Floorspace sqm		Turnover ratio £/sq m	Turnover at average level £million
	gross	net		
<b>PERTH</b>				
(1) <b>Perth City Centre total</b>	<b>8,357</b>	<b>5,564</b>		<b>41.6</b>
Tesco Metro, South Street	1,990	1,393	9,622	13.4
Marks & Spencer foodhall	1,077	700	9,536	6.7
Sainsbury's Local	330	248	15,375	3.8
Rest of City Centre	4,960	3,224	5,500	17.7
(2) <b>Perth out of centre stores- total</b>	<b>24,590</b>	<b>14,705</b>		<b>131.8</b>
ASDA (7,833 sq m gross)-60% conv	4,700	2,820	11,495	32.4
Morrison (4,965 sq m gross)-90% conv	4,469	2,234	11,900	26.6
Tesco, Edinburgh Rd (5,300 sq m gross)-75% conv	3,975	2,385	9,622	22.9
Tesco, Crieff Rd (7,863 sq m gross)-65% conv	5,111	3,067	9,622	29.5
Lidl, Riggs Road total 1,407 sq m gross- 85% conv	1,196	897	4,070	3.7
Aldi, Glasgow Rd total 1,160 sq m gross- 85% conv	986	740	4,070	3.0
M&S Simply Food, Inveralmond-unit 7b ( 2,393 sq m total - 989 sq m (7a)	1,404	913	9,536	8.7
(3) <b>Other Perth</b>	<b>2,750</b>	<b>1,650</b>	<b>3,000</b>	<b>5.0</b>
Total at average levels	32,947	20,269		173.4
Over-trading			16%	27.0
Total from survey (actual levels)				200.4
<b>KINROSS</b>				
(1) Sainsbury's (out of centre) 2,900 sq m gross- 90% conv	2,610	1,566	10,024	15.7
(1) Other shops	950	618	3,000	1.9
Total at average levels	3,850	2,184		17.6
Under-trading			-23%	-4.0
Total from survey (actual levels)				13.6
<b>STRATHEARN</b>				
(1) <b>Crieff</b>				
Co-op	1,450	943	8,628	8.1
Other shops	1,470	956	3,000	2.9
(4) <b>Auchterarder</b>				
Co-op	780	468	6,000	2.8
Other Auchterarder shops	683	410	3,000	1.2
Blackford & Dunning	303	182		
Total at average levels	4,686	2,958		15.0
Over-trading			1%	0.2
Total from survey (actual levels)				15.2
<b>HIGHLAND</b>				
(5) <b>Aberfeldy</b> 10 units	1,500	900	3,000	2.7
(1) <b>Pitlochry</b>				
Co-op	1,150	748	8,628	6.4
Other Pitlochry shops	1,180	767	3,000	2.3
(6) <b>Dunkeld</b>	400	240	3,000	0.7
Total at average levels	4,230	2,655		12.2
Over-trading			62%	7.6
Total from survey (actual levels)				19.8
<b>STRATHMORE &amp; THE GLENS</b>				
(1) <b>Blairgowrie</b>				
Tesco total 4,480 sq m gross- 85% conv	3,808	2,285	9,622	22.0
Co-op	1,060	689	8,628	5.9
Other shops	1,450	943	3,000	2.8
(5) <b>Alyth</b> 9 units	1,350	810	3,000	2.4
(7) <b>Coupar Angus</b> 4 units	600	360	3,000	1.1
Co-op -out of centre	500	300	6,000	1.8
Total at average levels	8,768	5,386		36.1
Under-trading			-20%	-7.1
Total from survey (actual levels)				28.9
Total Perth & Kinross at average levels	54,481	33,451		254.2
Overtrading			9%	23.7
Total Perth & Kinross at actual levels (from survey)				277.9
Note: Estimated net/ gross floorspace ratios vary between store types, Goad data and other sources, as indicated. Average supermarket turnover ratios based on the Retail Ranking 2014, adjusted to remove petrol sales and incl. VAT (1) Goad 2013 for town centres, except for M&S Foodhall in Perth (estimate) (2) Council based gross floorspace from previous retail studies, except for 'Other Perth' (3) Estimate based on 11 neighbourhood Co-ops and Spars identified in Perth/ Scone/ Errol/ Stanley. (4) Records based on the Assessor in the catchment, Auchterarder Retail Study 2013 (5) Council street survey 2013 for TAYplan research. Estimated convenience floorspace. (6) Co-op 198 sq m - Assessor, plus 3 others- estimated total (7) Street survey for TAYplan research 2013 by CA Regeneration Trust- 4 convenience units. Estimated total floorspace				

Table 9.4 Perth catchment ( Zone1 ): comparison expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		232.2	269.4	320.6
Add: inflows from rest of Perth & Kinross	36%	84.1	97.6	116.2
inflows from outside Perth & Kinross	16%	36.5	42.4	50.4
Less: outflows	-27%	-63.6	-73.8	-87.8
Retained expenditure (turnover)		289.3	335.6	399.4
Note				
Inflow s and outflow s from Appendix 7				

Table 9.5 Kinross catchment ( Zone 2 ): comparison expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		33.1	38.4	45.7
Add: inflows from rest of Perth & Kinross	0%	0.0	0.0	0.0
inflows from outside Perth & Kinross	2%	0.6	0.7	0.9
Less: outflows	-96%	-31.8	-36.9	-43.9
Retained expenditure (turnover)		1.9	2.2	2.6
Note				
Inflow s and outflow s from Appendix 7				

Table 9.6 Strathearn catchment ( Zone3 ): comparison expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		56.1	65.1	77.4
Add: inflows from rest of Perth & Kinross	1%	0.3	0.3	0.4
inflows from outside Perth & Kinross	17%	9.5	11.1	13.2
Less: outflows	-93%	-52.2	-60.6	-72.1
Retained expenditure (turnover)		13.7	15.9	18.9
Note				
Inflow s and outflow s from Appendix 7				

Table 9.7 Highland catchment ( Zone4 ): comparison expenditure and turnover (in 2012 prices)				
	%	2014 £million	2019 £million	2024 £million
Main catchment residents' expenditure potential		31.9	37.0	44.1
Add: inflows from rest of Perth & Kinross	2%	0.7	0.8	1.0
inflows from outside Perth & Kinross	39%	12.6	14.6	17.4
Less: outflows	-88%	-28.0	-32.5	-38.7
Retained expenditure (turnover)		17.2	19.9	23.7
Note				
Inflow s and outflow s from Appendix 7				

**Table 9.10****Perth & Kinross comparison retail floorspace and turnover 2014 (in 2012 prices)**

	Floorspace sq m		Turnover £ per sq m	Turnover levels £million
	Gross	Net		
<b>PERTH</b>				
City Centre	62,420	40,573	4,842	196.5
St Catherine's Retail Park	20,000	16,000	2,757	44.1
*Comparison floorspace in o/c supermarkets	8,092	4,863		32.0
B&Q Crieff Road	5,806	4,645	1,753	8.1
** Other Perth out of centre	5,040	3,528	2,421	8.5
<b>Total</b>	<b>101,358</b>	<b>69,609</b>		<b>289.3</b>
<b>KINROSS</b>				
Sainsbury's total 2,900 sq m gross, 10% comp	290	174	2,475	1.9
Town Centre shops	1,190	774		
<b>Total</b>	<b>1,480</b>	<b>948</b>	<b>2,020</b>	<b>1.9</b>
<b>STRATHEARN</b>				
Crieff	5,720	3,718		
Auchterarder (Assessor)	1,675	1,005		
Other Auchterarder (Gleneagles Furniture)- Assessor	633	506		
Eaglesgate (Pavers Shoes & Leading Lables)	600	480		
<b>Total</b>	<b>8,628</b>	<b>5,709</b>	<b>2,400</b>	<b>13.7</b>
<b>HIGHLAND</b>				
Pitlochry	5,430	3,530		
Aberfeldy 18 units	1,800	1,080		
House of Bruar total 5,723 sq m gross-70% comp	4,006	2,804		
Dunkeld 6 units	600	360		
<b>Total</b>	<b>11,836</b>	<b>7,774</b>	<b>2,211</b>	<b>17.2</b>
<b>STRATHMORE &amp; THE GLENS</b>				
Blairgowrie	9,050	5,883		
Tesco total 4,480 sq m gross- 15% comp	672	403		
Coupar Angus 8 units	800	480		
Alyth 7 units	700	420		
<b>Total</b>	<b>11,222</b>	<b>7,186</b>	<b>1,352</b>	<b>9.7</b>
<b>Total Perth &amp; Kinross</b>	<b>134,524</b>	<b>91,226</b>		<b>331.8</b>
Note				
Retail floorspace derives from the same sources as convenience retailing (mostly Goad)				
* this refers to the comparison floorspace in the Perth supermarkets- see calculations below (65% of the av in 2014 Retail Rankings)				
ASDA, Dunkeld Road (7,833 sq m gross)-40% comp	3,133	1,880	7,471	14.0
Morrison, St C R Park (4,965 sq m gross)-10% comp	497	248	7,735	1.9
Tesco, Edinburgh Road (5,300 sq m gross)-25% comp	1,325	795	6,255	5.0
Tesco, Crieff Road (7,863 sq m gross)-35% comp	2,752	1,651	6,255	10.3
Lidl, Riggs Road total 1,407 sq m gross- 85% conv	211	158	2,645	0.4
Aldi, Glasgow Rd total 1,160 sq m gross- 85% conv	174	131	2,645	0.3
<b>Total</b>	<b>8,092</b>	<b>4,863</b>		<b>32.0</b>
** Other out of centre includes Highland Gateway Retail Park unit 1 (Tiso- 1,437 sq m) and unit 4 (Nevada Bobs- 603 sq m) and Christian Bookshop, Riggs Road 1,350 sq m gross				
Plus nominal allowance for other comparison floorspace in Perth, outside the city centre (3,000 sq m gross)				





Document 13  
DCLG:  
Planning for  
Town Centres,  
Practice  
Guidance







Planning shapes the places where people live and work and the country we live in. It plays a key role in supporting the Government's wider social, environmental and economic objectives and for sustainable communities.



# PLANNING

## Planning for Town Centres

Practice guidance on need, impact and the sequential approach

- 7.27 Where new development within an existing centre is proposed, which will be likely to prejudice an out of centre allocation, the LPA should consider what weight to give this factor in light of the overarching objective of national policy to focus new development within existing centres wherever possible. Where competing proposals come forward on other edge or out of centre sites, the effects of both will need to be assessed and a judgement made as to which offer the most overall benefit in policy terms. Where there is a real potential for several proposals to come forward as above, their cumulative impact on town centres will need to be considered as part of any assessment.

*(iv) Impact on turnover/trade*

- 7.28 It is inevitable that new retail or leisure development will have some impact on the turnover of existing facilities within the catchment area. The approach outlined in Appendix D sets out a framework for making judgements about the likely extent of trade diversion. These will be informed by experience drawn from case studies, having regard to the nature of the proposals.

**How to: assess impact on turnover/trade**

The starting point for the assessment is a realistic assessment of current consumer spending and shopping patterns, based on modelling supported by survey evidence. Against this 'baseline' position, it will be necessary to assess likely changes at the 'design year' arising from ongoing trends, other 'committed' developments, and the effects of the proposals.

This task inevitably involves subjective judgements about the likely turnover, and trading pattern of the development, and the centres most likely to be affected. If there are details about the type of development proposed and its market position etc. this may assist in such judgements, but unless the proposal is to be conditioned accordingly, it may be necessary to test the sensitivity of different forms of development.

Having established the likely catchment area, market position and turnover potential of the proposal, the key factors affecting judgements about where it will draw its trade from will be determined by:

- The intended market sector/role, on the basis that 'like affects like'; so the centres currently serving the intended catchment population will experience the greatest impact; and
- Distance, on the basis that consumers will generally use the nearest centre/facility which meets their needs in terms of quality/convenience etc.

All assessment of trade diversion rely on judgement, having regard to these factors. However, they should clearly explain the basis of the judgements reached, and enable these to be tested.



Document 14  
Revised Plans  
for  
15/01354/IPL  
submitted  
October 2015



## PLANTING SCH DUL

[illegible]

NOT :  
Topsoil to be supplied strictly in accordance with the specification  
Areas of ex-situ landscaping to be sprayed with systemic weed killer  
2-3 weeks prior to planting. Levels to be made up with topsoil and  
plants planted in locally excavated holes with minimum  
disturbance to the tree roots of existing trees.

Hatch denotes area of ground to receive selective and mixed planting from the approved list

75mm Bark Chipping Mulch



RG LITH F INST IN UG TIL S  
TO STOR NTRANC



1.0m TIMB R PICK TF NC



R. R. R.



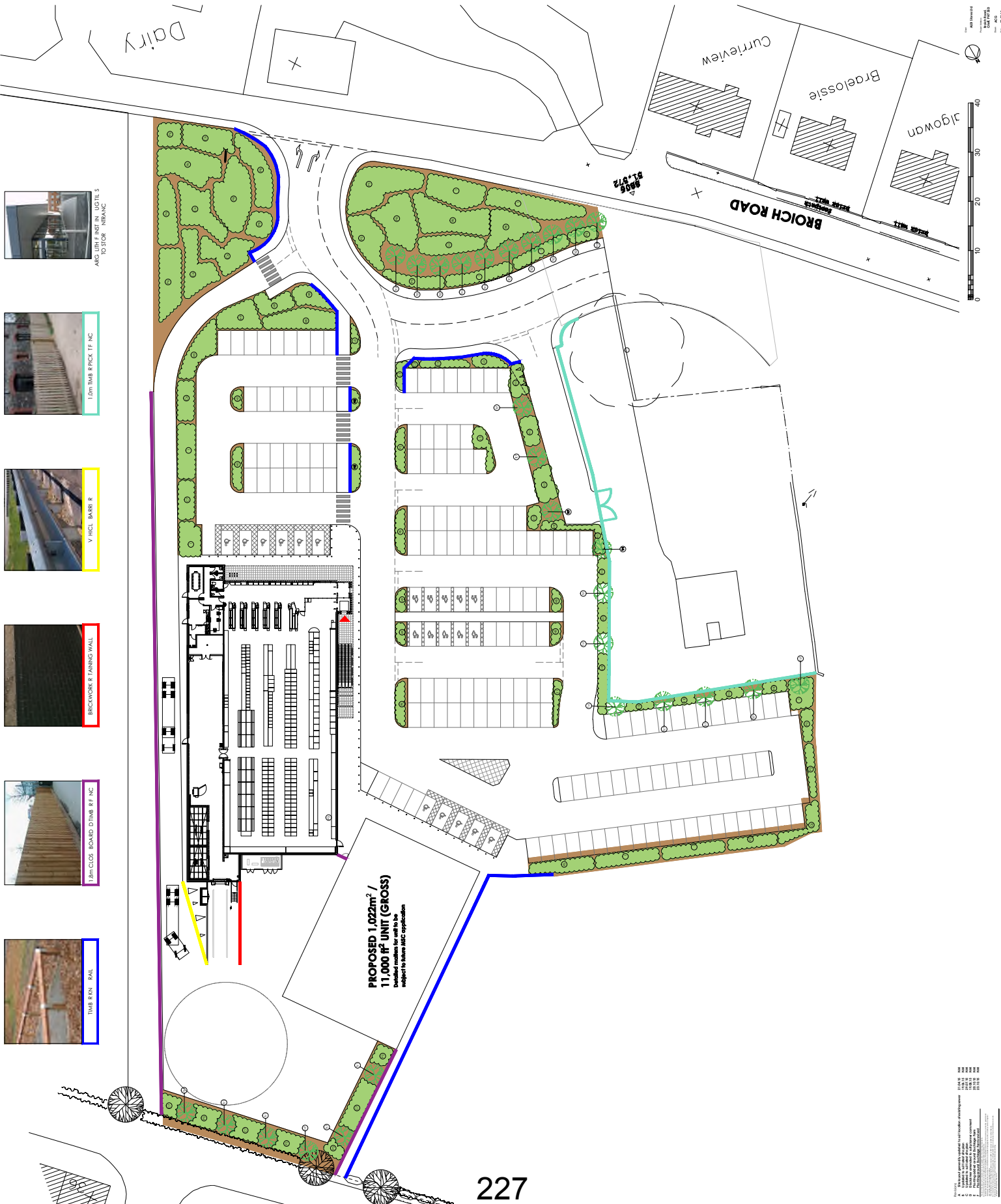
BRICKWORK R TAINING WALL



CLOS BOARD DTIMB RF NC

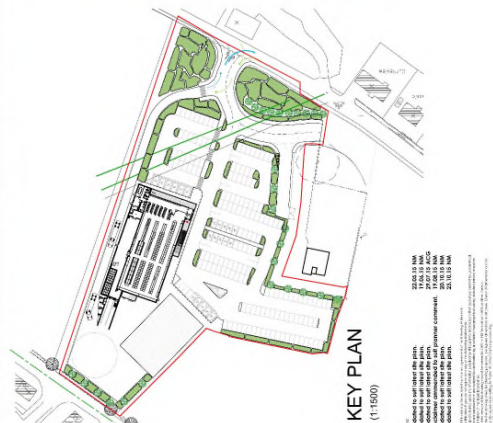
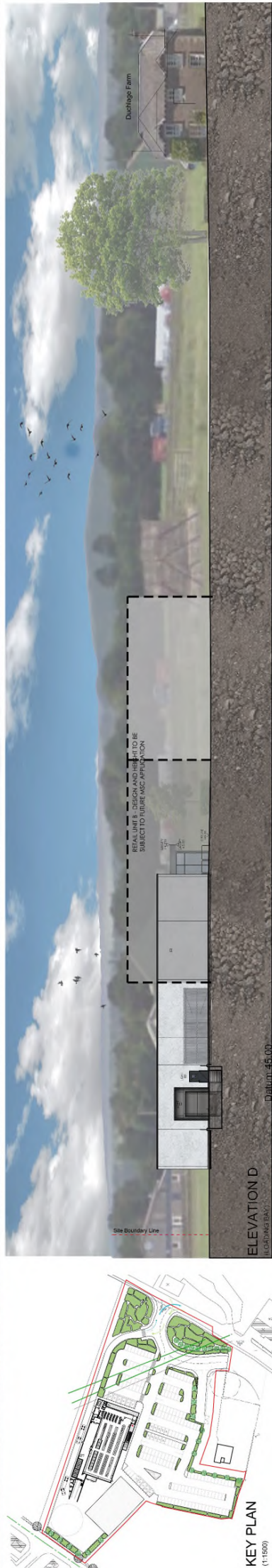
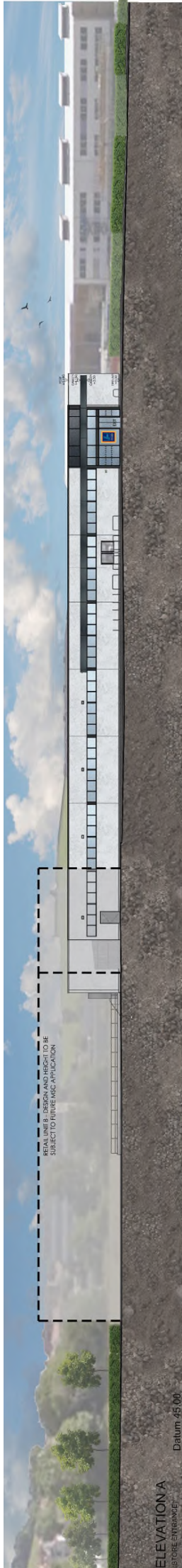


TIMB R KN RAIL









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Client  
ADP Stores Ltd.  
Project Name  
Retail Unit B - Design and Height to be Subject to Future MSC Application  
Project Number  
0135-PL208  
Date  
28/07/2015  
Scale  
1:200 (A1)

Project Manager  
Rogers Architects  
Project Engineer  
Rogers Architects  
Project Designer  
Rogers Architects  
Project Drafter  
Rogers Architects  
Project Checker  
Rogers Architects  
Project Approver  
Rogers Architects

Project Location  
Newcastle, NSW  
Project Status  
Approved  
Project Date  
28/07/2015  
Project Scale  
1:200 (A1)

Project Title  
Retail Unit B - Design and Height to be Subject to Future MSC Application  
Project Number  
0135-PL208  
Date  
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Scale  
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Project Location  
Newcastle, NSW  
Project Status  
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Project Scale  
1:200 (A1)

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Project Number  
0135-PL208  
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Scale  
1:200 (A1)

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Scale  
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Project Location  
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Project Status  
Approved  
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28/07/2015  
Project Scale  
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Project Title  
Retail Unit B - Design and Height to be Subject to Future MSC Application  
Project Number  
0135-PL208  
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28/07/2015  
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1:200 (A1)

Project Name  
Retail Unit B - Design and Height to be Subject to Future MSC Application  
Project Number  
0135-PL208  
Date  
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Scale  
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Project Location  
Newcastle, NSW  
Project Status  
Approved  
Project Date  
28/07/2015  
Project Scale  
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**TCP/11/16(398)**

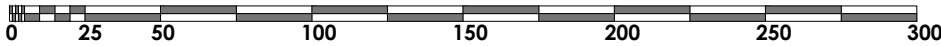
**Planning Application – 15/01354/IPL – Erection of two units (class 1) and associated works (in principle), including full details of one retail unit, car parking, landscaping and associated works, land 50 metres east of Duchlage Farm, Duchlage Road, Crieff**

**PLANNING DECISION NOTICE** *(included in applicant's submission, see pages 65-64)*

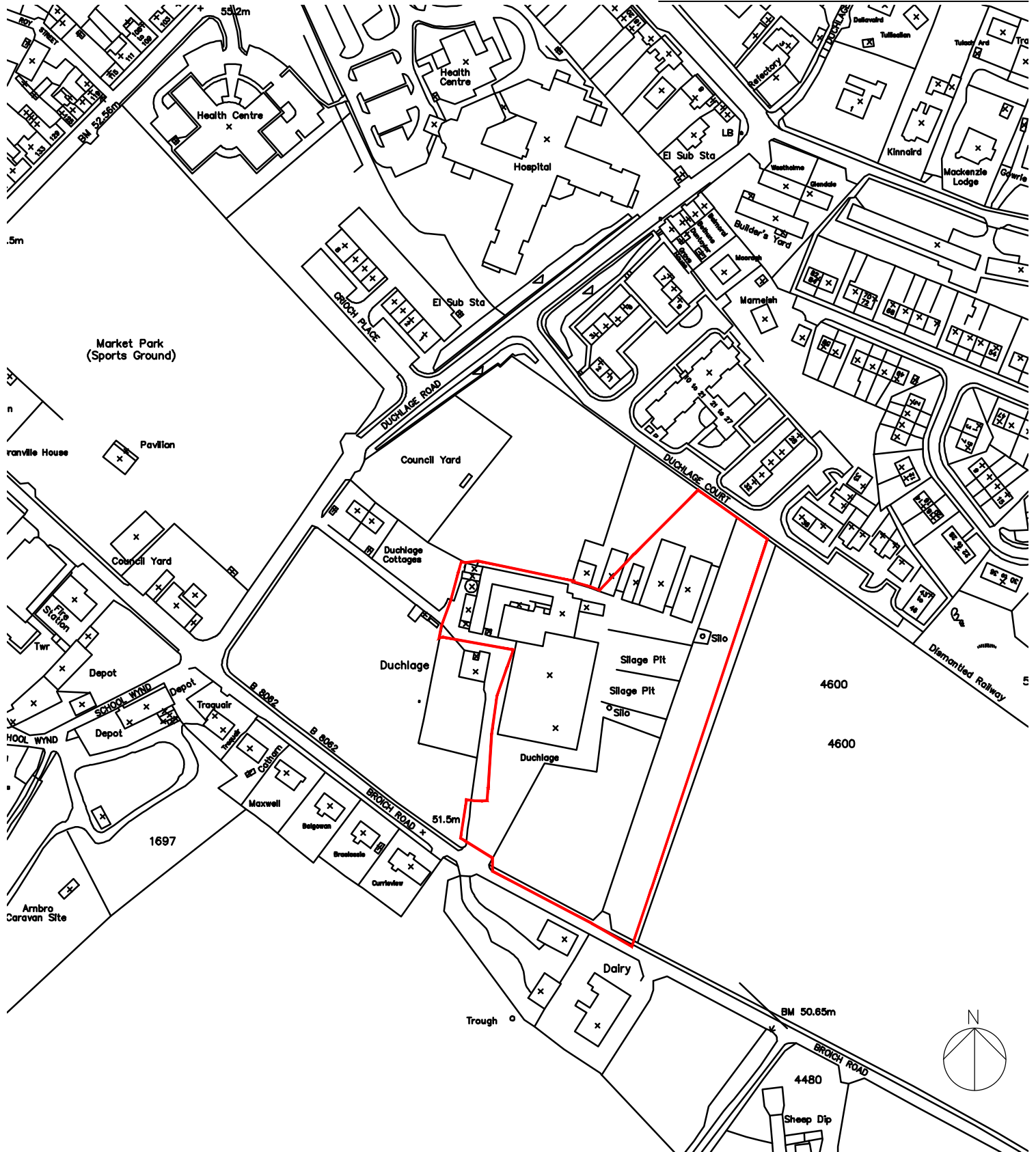
**REPORT OF HANDLING** *(included in applicant's submission, see pages 67-84)*

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Client

**ALDI Stores Ltd.**

Project Address

**Broich Road,  
Crieff, PH7 3SD**

Drawn **LB**

Date **24.04.2015**

Checked by **NM**

Scale **1:2500@A4**



Project

**Aldi Crieff**

Drawing Title

**Existing Site Location Plan  
[PLANNING]**

Drawing Number

**0135-PL201**

Revision

**B**

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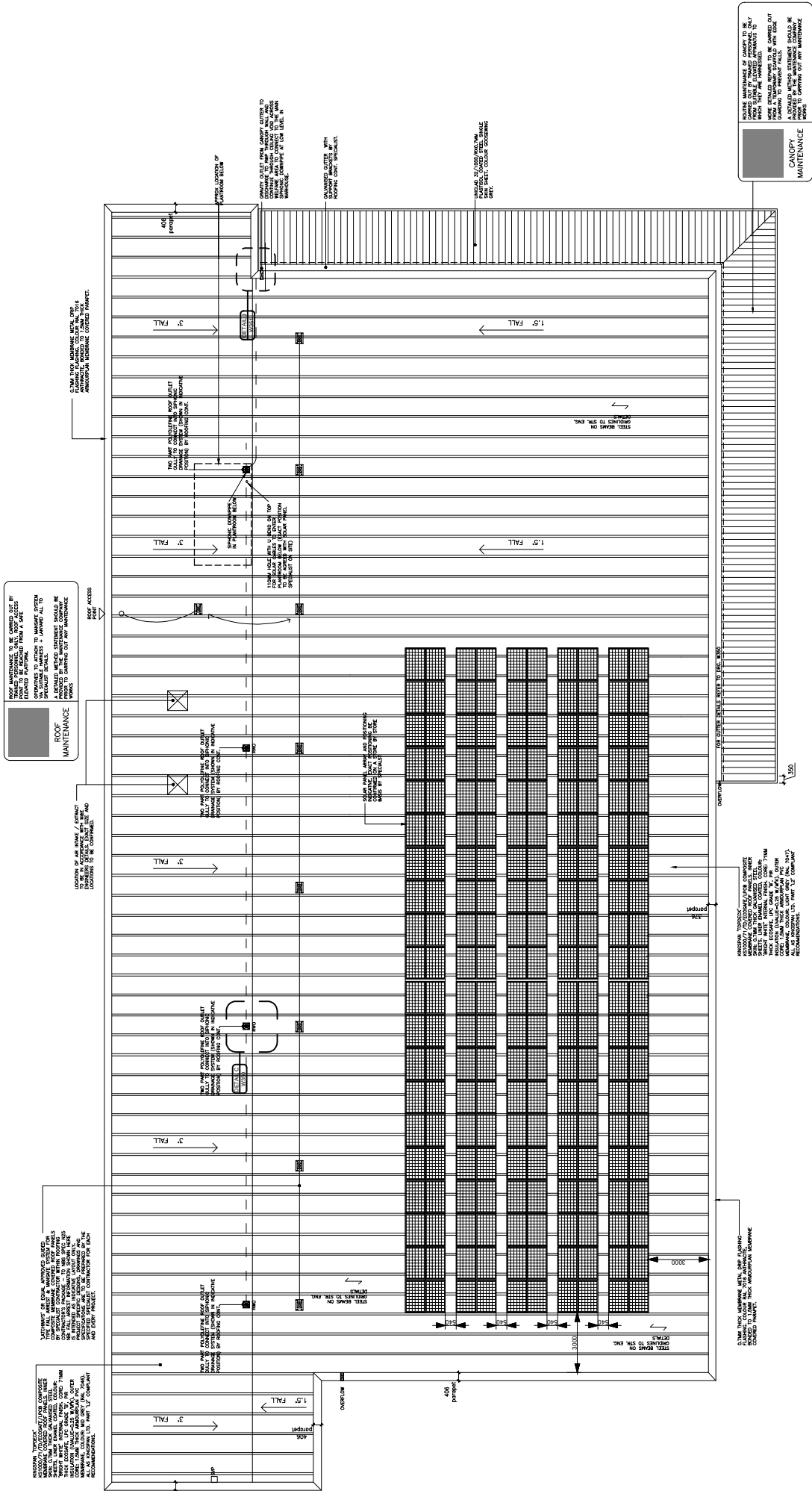
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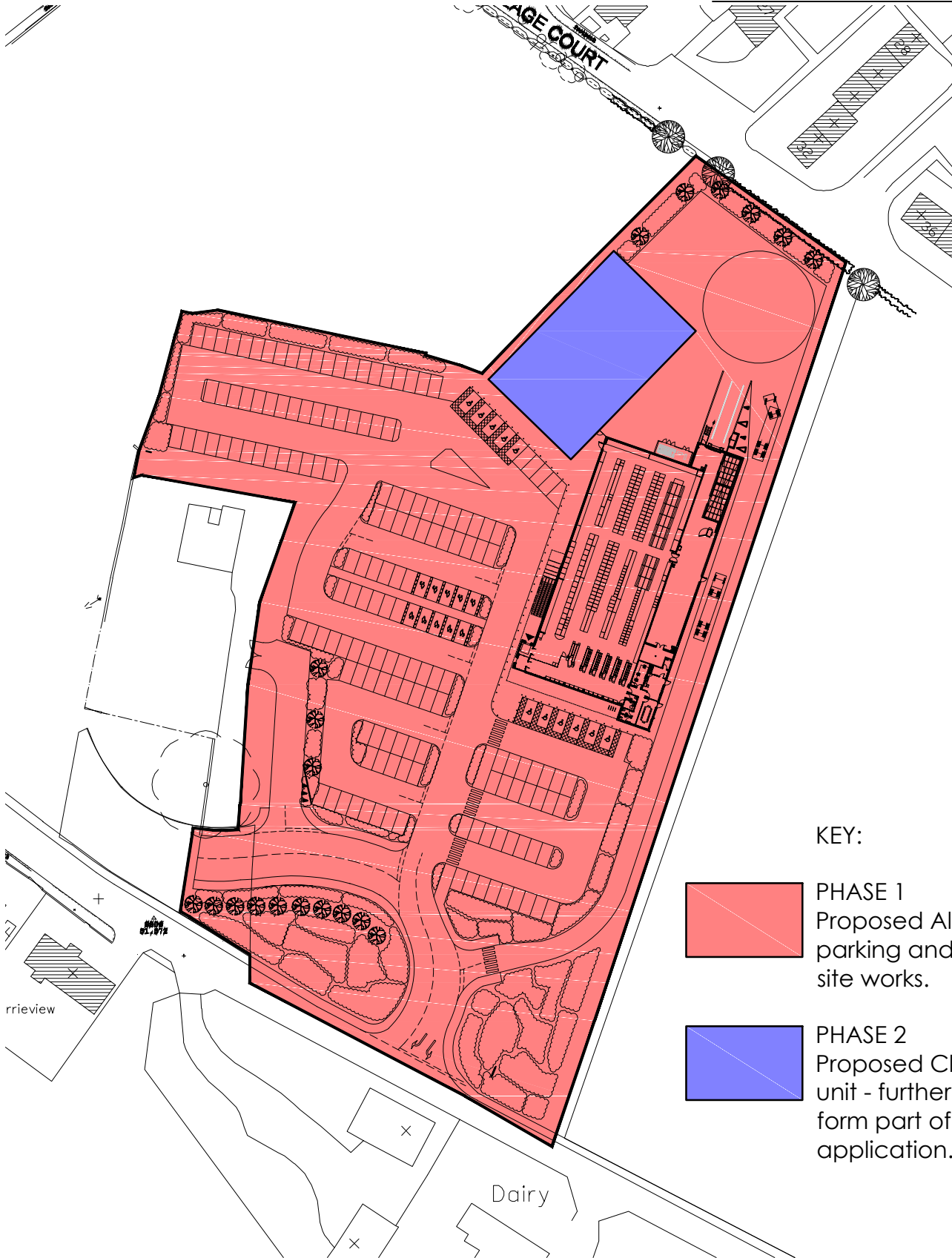








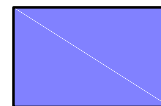
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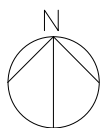
#### KEY:



**PHASE 1**  
Proposed Aldi, car parking and associated site works.



**PHASE 2**  
Proposed Class 1 retail unit - further details to form part of future MSC application.



Client  
**ALDI Stores Ltd.**

Project Address  
**Broich Road,  
Crieff, PH7 3SD**

Drawn **NM**  
Date **14.08.15**

Checked by -  
Scale **1:1250@A4**



Project  
**Aldi Crieff**

Drawing Title  
**Proposed Phasing Plan  
[PLANNING]**

Drawing Number  
**0135-PL209**

Revision  
-

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**Document 7:** Site Investigation Report



**Planning application by Aldi Stores Ltd. for proposed foodstore and additional Class 1 retail development at Broich Road, Crieff.**

**Broich Road, Crieff**  
**Geo-Environmental Assessment**  
**For**  
**Aldi Stores Ltd**

Report Ref	Issue	Prepared by	Date	Reviewed by	Date
14601/SI	2	C Brewster	29/7/2015	A Coverdale	29/7/2015

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## Broich Road, Crieff Geo-Environmental Assessment

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Appendix A	Proposed Development Plans
Appendix B	Historical OS Maps
Appendix C	Envirocheck Report
Appendix D	Exploratory Hole Records
Appendix E	Gas and Groundwater Monitoring Results
Appendix F	Laboratory Chemical Test Results

## Executive Summary

Site Investigation	<p>The investigation involved:</p> <ul style="list-style-type: none"> <li>• Inspection of the desk study information.</li> <li>• 3 cable percussion boreholes to a maximum depth of 4m.</li> <li>• 16 trial pits to a maximum depth of 3.3m.</li> <li>• 9 mini-percussive boreholes to a maximum depth of 1.95m.</li> <li>• Installation of ground gas monitoring wells.</li> <li>• Geotechnical and contamination related testing.</li> <li>• Ground gas and groundwater monitoring.</li> </ul>
Site History	<p>Early site history records the site as undeveloped land (possibly agricultural), bisected by a stream (orientated in the N-S direction). By 1866, the stream was no longer shown on the plans and several buildings (recorded as Duchlage) were constructed on the site. The site has undergone periods of construction to the present day with several silage pits and silos also located on the site.</p>
Current Use	<p>The site is presently utilised as farm land with associated sheds and outbuildings with the farm currently in use.</p>
Environmental Setting	<ul style="list-style-type: none"> <li>• Geological information indicates the site to be underlain by River Terrace Deposits. Given the presence of a watercourse historically on the site, localised alluvial deposits may be present along the route of these features. The River Terrace Deposits are underlain by the Arbuthnott-Garvock Group and Strathmore Group.</li> <li>• The site is considered to be stable with respect to mining.</li> <li>• No landfills or waste management facilities present within 250m.</li> <li>• No watercourses are recorded within 250m although it may be possible that the watercourses historically on the site have been culverted.</li> <li>• Underlying strata classed as a major or highly permeable aquifer.</li> <li>• Superficial soils are unclassified in Envirocheck however are likely to have a high leaching potential.</li> <li>• No licensed groundwater abstractions or discharge consents within 1km.</li> <li>• Radon protection measures are not required for future developments.</li> <li>• No Local Authority Pollution and Prevention Controls within 250m.</li> <li>• No pollution incidents within 250m.</li> </ul>
Ground Conditions	<p>Within grassed areas topsoil was generally recorded as silty/clayey sandy gravelly loam. No made ground was recorded below the loamy deposits. Within areas investigated adjacent former/current buildings, made ground was generally recorded as being granular in nature. Within trial pit TP15 the made ground was recorded as black gravelly sand with ash and timber sleepers and slight hydrocarbon odour.</p> <p>Within exploratory hole WS2, concrete surfacing was recorded at a thickness of 0.17m, overlying made ground comprising of slightly clayey sandy gravel to a depth of 0.5m bgl. Made ground within WS1 and WS3 were generally granular in nature recorded to depths of 0.5m and 1.1m bgl.</p> <p>The made ground was underlain by very dense very sandy gravel and cobbles of mixed lithology. Lenses of silty sand were occasionally noted within some of the exploratory holes.</p>
Groundwater	<p>No groundwater was encountered within any of the exploratory holes during the site works. In addition, groundwater monitoring of the installation wells did not encounter any standing groundwater.</p>

Gas Monitoring	It is considered basic gas protection measures in accordance with CIRIA C665 Characteristic Situation 2 will be required for the developments.
Contamination	The only visual and olfactory evidence of significant contamination was hydrocarbon impacted materials within trial pit TP15. In addition, ashy made ground was encountered WS1, WS6 and TP15 to a maximum depth of 0.5m bgl. Laboratory test results recorded elevated levels of several PAHs within TP15. The results also indicate that two samples tested positive for Chrysotile. Further to this, a quantitative assessment was carried out the two samples which tested positive for asbestos.
Appraisal	<p>Remediation - It is recommended that any visibly PAH-contaminated soils are removed from the area of trial pit TP15</p> <p>With respect to asbestos contamination, the following is recommended:</p> <ul style="list-style-type: none"> <li>• No specific remediation is considered necessary where made ground lies beneath buildings or hardstanding.</li> <li>• All services corridors should be provided with clean backfill to mitigate any risk to maintenance workers.</li> <li>• All soft landscaping areas will require a suitable capping system. This should comprise of 600mm of clean imported topsoil, subject to regulatory approval.</li> </ul> <p>Offsite Disposal of Materials – A preliminary assessment suggests that the made ground materials are likely to be classed as non-hazardous, however, where the made ground and natural soil materials are impacted by hydrocarbon contamination (in the vicinity of trial pit TP15) they will require disposal to a landfill licensed to accept hazardous waste.</p> <p>Water Supply Pipes – The laboratory test results show all pipe materials within table 3.1 of UKWIR 'Guidance for the Selection of Water Supply pipes to be Used in Brownfield Sites' would be considered acceptable for the site, however it is recommended that PV/PVC pipes are used in the development.</p> <p>Mining – The site is considered to be stable with respect to mining.</p> <p>Foundations and Floor Slabs – It is considered that conventional shallow strip or pad foundations will be suitable, extending below the made ground deposits and any existing foundations to terminate within the natural very dense sandy gravel deposits subject to an allowable bearing capacity of 125KN/m<sup>2</sup>. Within the area of the proposed Aldi store footprint, little to no made ground was recorded during the ground investigation and therefore it is considered a ground bearing floor slab will be suitable for the development subject to re-engineering of any made ground.</p> <p>Gas precautions – Gas protection in accordance with CIRIA C655 Characteristic Situation 2.</p> <p>Sulphate attack on buried concrete - Buried concrete should be designed to BRE Special Digest 1:2005 Design Sulphate Class DS-1 with an ACEC site classification AC-3z.</p>

## 1 INTRODUCTION

1.1 3e Consulting Engineers Ltd (3e) were commissioned by Aldi Stores Ltd to carry out a geo-environmental assessment for the proposed redevelopment of land within Duchlage Farm located off Broich Road in Crieff. Development plans include an Aldi Store and an unnamed unit located within the central western and northern parts of the site respectively. The remainder of the site will be utilised as areas of car parking, soft landscaping and infrastructure. A proposed site layout plan is provided in **Appendix A**.

1.2 The objectives of this assessment were:

- To carry out a review of environmental, geological and historical information pertaining to the site.
- To investigate near surface soil and groundwater conditions.
- To determine the potential risks posed by any ground or groundwater contamination and provide recommendations on remedial measures to manage such risks.
- To assess the risk posed by hazardous ground gas.
- To provide advice relating to geotechnical issues associated with the site.
- To provide foundation recommendations.

1.3 Fieldwork was undertaken on the 5<sup>th</sup> and 6<sup>th</sup> August 2014 and which comprised nine mini-percussive boreholes, three cable-percussive boreholes and sixteen trial pits with associated sampling and testing.

1.4 This report presents the factual information available during this appraisal, interpretation of the data obtained and recommendations relevant to the scope of works outlined above. It has been assumed in the production of this report that the site is to be redeveloped for a commercial end use.

1.5 The comments and opinions presented in this report are based on the findings of the intrusive investigation carried out by 3e and the results of laboratory analysis. Responsibility cannot be accepted for any conditions not revealed by this investigation and which have not been taken into account by this report. Any diagram or opinion relating to site geology, contamination or other spatially variable features between or beyond investigation positions is conjectural and provided for guidance only. Confirmation of ground conditions between

exploratory holes should be undertaken if deemed necessary. Evaluation of ground gas and groundwater is based on observations made at the time of the investigation and any monitoring visits, but it should be noted that levels may vary due to seasonal and other effects.

1.6 This report has been prepared for the sole use of Aldi Stores Ltd. No other third party may rely upon or reproduce the contents of this report without the written approval of 3e. If any unauthorised third party comes into possession of this report, they rely on it entirely at their own risk and 3e do not owe them any Duty of Care or Skill.

## 2 THE SITE

### Location and Description

2.1 The site, centred on National Grid Reference 286350, 721010, is located approximately 0.5km south of Crieff town centre. The site occupies an area of 2.44Ha, is irregular in shape and lies at an elevation of approximately 52m AOD.

2.2 The site is presently utilised as farm land with associated sheds and outbuildings with the farm currently in use.

2.3 The boundaries of the site are made up dry stone walls in the west and south with a hedgerow to the north and open fields to the east. Overall, the site falls gently from the highest point in the north at 51.7m AOD to the lowest point in the south east at 50.3m AOD.

2.4 Land uses in the vicinity of the site are summarised below:

- **North:** Duchlage Court leading to residential properties.
- **East:** Agricultural farmland.
- **South:** Broich Road leading to several properties and agricultural farmland.
- **West:** Agricultural land leading to Duchlage Road.

2.5 The site location is shown on **Figure 1**.



### 3 SITE HISTORY

3.1 An online search was undertaken which identified earlier historical maps were available for the development area. These plans were obtained from [www.maps.nls.uk](http://www.maps.nls.uk) with plans dated from 1822 and 1882 being available. These have been utilised as part of the site historical overview.

3.2 In addition, historical maps were also obtained through the procurement of an Envirocheck Report with copies of the historical maps dated from 1866 to 2014 provided in **Appendix B**. It is not the intention of this report to describe in detail all of the changes that have occurred on or adjacent to the site, only those pertinent to the proposed development.

Dates	On-Site Features	Relevant Off-Site Features
1822 (Web plan)	A watercourse is shown to enter the N of the site in an N – S direction. The remainder of the site is undeveloped, possible agricultural land.	None recorded; the surrounding site is predominantly agricultural land.
1855 (Web plan)	Several buildings have been constructed on site which is known as Duchlage. The watercourse is still recorded as well as a second which runs parallel to the W boundary and which cuts across the SW boundary of the site.	A railway line runs parallel to the NE corner of the site with associated sidings and buildings recorded 125m NW. A Saw Mill is also recorded 75m NW. A Gas Works with two Gasometers are recorded 225m W.
1866 - 1965	Generally as 1855 with periods of construction adding to the existing buildings on site. However, the watercourse shown to enter the N of the site is unrecorded, possibly infilled or culverted.	The land to the N and NW has seen Crieff expand with the majority of the surrounding land remaining undeveloped. By 1901, the Saw Mill (NW) is unrecorded although another has been constructed 80m N. Further Railway Sidings, Engine Sheds, Tanks, a Timber Yard and Crieff Train Station have now been recorded to the N.  By 1965, the Gas Works is now recorded as a Works, although a Gasometer is still recorded on site. An additional Works is recorded 135m to the W.
1971	Generally as 1866 – 1965.	The land to the N has been cleared with the Railway Line, Sidings, Train Station; Tanks etc all unrecorded.

Dates	On-Site Features	Relevant Off-Site Features
1974 - 2014	Further buildings have been constructed across the central and western portion of the site. By 1988, several Silage Pits and Silos are recorded in the centre of the site.	A Council Yard is adjacent to the NW boundary with another recorded in place of the Works present to the W.

3.3 In summary, early site history records the site as undeveloped land (possibly agricultural), bisected by a stream (orientated in the N-S direction). By 1866, the stream was no longer shown on the plans and several buildings (recorded as Duchlage) were constructed on the site. The site has underwent periods of construction to the present day with several silage pits and silos also located on the site. Surrounding land use of significant interest includes a railway line and siding (immediately NE), gas works (225m W), timber yard (N) and a council yard (immediately NW).

## 4 ENVIRONMENTAL SETTING

4.1 This section is based principally upon a search of information available on public registers through an Envirocheck search (Reference 56627545\_1\_1) included as **Appendix C**, together with other sources as indicated.

### Geology and Mining

4.2 A summary of the site geology, based on available published information, is provided below.

<b>Sources of Information</b>	<p>British Geological Survey (BGS) Sheet 47, Crieff, 1:63,630 scale, Solid and Drift Edition.</p> <p>BGS GeoIndex online database.</p>
<b>Made Ground</b>	<p>None recorded on published maps. Although the site has had relatively limited development across large areas of the site, there is anticipated to be made ground across the site associated with the existing buildings as well as possible infilled watercourses or the areas surrounding the possibly culverted watercourses.</p> <p>BGS boreholes located 300m SW and 400m SE have recorded topsoil to depths of 0.20m up to 0.62m. These materials may be encountered across areas of the site which have not been historically developed (i.e. eastern and southern portion of the site).</p>
<b>Superficial Deposits (drift)</b>	<p>The site is recorded to be underlain by River Terrace Deposits likely to comprise gravel, sand and silt. In addition, taking into account the presence of the watercourses which have historically been present on site, localised alluvial deposits may be present along the route of these features.</p> <p>The surrounding deposits have been identified to comprise medium dense to very dense brown fine to coarse sand and angular to subrounded fine to coarse gravels. Cobbles and/or boulders were also noted.</p> <p>To the SE, red/brown sandy clay with gravel and boulders was noted at a depth of 5.60m and recorded to a depth of 10.50m.</p>
<b>Solid Geology</b>	<p>Geological plans have identified that the site is underlain by Lower Old Red Sandstone although these deposits have been reclassified and are more commonly known as Arbuthnott-Garvock Group and Strathmore Group which comprises interbedded Sandstone, Siltstone and Mudstone.</p> <p>Within one of the BGS records (NN82SE11), rotary coring has been completed which recovered moderately strong to strong thin to medium bedded red Siltstone. Between 12.60m to 13.50m, laminations of grey fine Sandstone were noted.</p>
<b>Mining</b>	<p>The site is located in an area where coal seams are absent and therefore the site is deemed to be stable in respect to mining.</p>
<b>Quarrying</b>	<p>None recorded on or immediately adjacent to the site.</p>

## Hydrology and Hydrogeology

4.3 A summary of available information pertaining to hydrology, hydrogeology, flood risk potential, water abstractions, discharge consents and pollution incidents to controlled waters is provided below.

<b>Watercourses</b>	No surface watercourses are recorded within 250m although it may be possible that the watercourses historically on site may have been culverted.
<b>Flood Risk</b>	The site does not lie within a fluvial flood plain considered to be at risk of flooding.
<b>Groundwater Classification</b>	Drift Deposits: Not recorded in Envirocheck although likely to have a high leaching potential.  Solid Geology: Major or Highly Permeable Aquifer.
<b>Source Protection Zones</b>	NR within 1km.
<b>Springs</b>	NR within 250m.
<b>Wells</b>	NR within 250m.
<b>Licensed Surface Water Abstractions</b>	NR within 1km.
<b>Licensed Groundwater Abstractions</b>	NR within 1km.
<b>Discharge Consents</b>	NR within 250m.
<b>Pollution Incidents</b>	NR within 250m.

NR – None Recorded

## Landfill Sites and Waste Management

4.4 A summary of information regarding landfill sites (historical or current) and waste management facilities is provided below.

<b>Local Authority Recorded Landfills</b>	NR within 250m.
<b>Historical Landfills</b>	NR within 250m.
<b>Other Waste Management Facilities</b>	NR within 250m.

NR – None Recorded

## Pollution Controls and Industrial Land Use

4.5 A summary of Pollution Control records and potentially polluting activities (fuel stations) is provided below.

<b>Integrated Pollution Controls (IPC)</b>	NR within 250m.
<b>Integrated Pollution Prevention and Control (IPPC)</b>	NR within 250m.
<b>Pollution Prevention and Controls (PPC)</b>	NR within 250m.
<b>Petrol Filling Stations</b>	NR within 250m.

NR – None Recorded

## Radon

4.6 Inspection of the Indicative Atlas of Radon in Scotland (HPA-CRCE-023, dated July 2011) and BRE publication BR376 (1999), "Radon: Guidance on protective measures for new buildings in Scotland" indicates that the site lies in an area where radon protection measures are not required.

## Other

4.7 There are no other sensitive land uses or potentially contaminative activities within 250m of the site.

## 5 CONCEPTUAL SITE MODEL

5.1 Based on the available desk study information, a conceptual site model (CSM) has been developed for the proposed future land use which at this stage is to comprise of commercial developments. In view of this, it is considered the 'best fit' end use category for the proposed developments would be Commercial. This summarises the understanding of the existing site and its historical development, the site geology, the potential contaminant sources, transport pathways and receptors in order to assess potential pollutant linkages. In assessing the potential contaminants present at the site, reference has also been made to the relevant sections of CLR 8, the Department of the Environment Industry Profile reports and any other relevant supporting documentation.

5.2 A summary of the potential sources, pathways and receptors is presented below.

5.3 At this stage, it is proposed to construct an Aldi store and an unnamed unit on the site with associated areas of car parking, soft landscaping and infrastructure, details of which are provided on the plan included in **Appendix A**.

### Sources of Contamination

- Contamination associated with current and historic activities – made ground from construction and demolition of buildings on site as well as any made ground associated with either the infilling or culverted drains recorded on site. In addition, as the site as primarily been utilised as a farm there is the potential for pesticides and bulk fuel storage.
- Off site sources of contamination from adjacent commercial and industrial areas which has historically included railway lines / sidings, Timber Yard, Gas Works and the presence of Above ground Storage Tanks (AST's).
- Hazardous gas from made ground on site, possible hydrocarbons and natural alluvial deposits along the route of the historically recorded watercourses on site. In addition, although considered low risk; the offsite industrial activities to the north and southwest and which have been discussed above may represent a potential source of ground gas due to the possibility of hydrocarbons in the ground and which may potentially represent a risk to the site.

## Potential Pollution Pathways

- Humans – direct contact, soil ingestion and dust inhalation. For residential areas, vegetable uptake is an added pathway.
- Major or Highly Permeable Aquifer – leaching and vertical migration of contamination.
- Lateral migration of contaminants onto site from nearby industrial activities.
- Vertical and lateral migration of ground gas into buildings and service entries (manholes).
- Direct contact of aggressive soils with building foundations and floor slabs.

## Receptors

- Site end users (humans).
- Construction workers (humans).
- Underlying Highly Permeable Aquifer.
- Building foundations and floor slabs (concrete).

## Pollutant Linkage Assessment

5.4 A qualitative risk assessment has been made of the likelihood of any pollutant linkage operating and its potential significance, as summarised in the table below:

Contamination Source	Pathway	Hazard	Potential Receptors	Linkage Complete
Contaminants associated with made ground on site and possible hydrocarbons	Direct contact, ingestion, dust inhalation	Human health risk	Site construction workers	Yes, can be removed by the use of appropriate PPE and limited exposure
	Direct contact, ingestion, dust inhalation (vegetable uptake in residential areas)	Human health risk	Site end users	Com: Yes, can be mitigated by the use of hard cover in the development
	Lateral and vertical migration	Pollution of controlled waters	Major or Highly Permeable Aquifer	Yes
Contaminants associated with off site sources	Lateral migration	Human health risk	Site end users	Yes
Ground Gas	Vertical migration into buildings or confined spaces	Human health risk. Fire risk	Human health and property	Yes, however can be mitigated by the use of appropriate gas protection measures

5.5 At this stage, given the site has predominantly been used as farm land throughout its history, significant contamination is not anticipated.



## 6 ENVIRONMENTAL RISK ASSESSMENT

6.1 The potential environmental risk has been assessed based on the 'source-pathway-target' pollutant linkages identified in the Conceptual Site Model, which requires that for a liability to arise each stage of the pollutant linkage must be present. References to risk classifications are made according to the following definitions:

- **Low risk** – it is unlikely that an issue will arise with respect to causing significant harm to human health or controlled waters.
- **Moderate risk** – it is possible that an issue could arise with respect to causing significant harm to human health or controlled waters.
- **High risk** – it is likely that an issue will arise with respect to causing significant harm to human health or controlled waters.

6.2 Having evaluated the information gathered during this study and described in the previous sections the following risk assessment has been produced.

ENVIRONMENTAL RISK ASSESSMENT		
	Risk Rating	Reason
<b>Contamination potential for:</b>		
On-site contamination	Medium	The site has largely been utilised as farm land throughout its history.
Contaminants migrating off site	Low to medium	Possible hydrocarbon contamination migrating off site from bulk fuel storage facilities.
Contaminants migrating onto site	Low to medium	Possible migration of contamination onto site from nearby commercial and industrial areas which historically included railway lines/sidings, timber yard and a gas works.
Other environmental issues giving rise to concern	N/A	None identified.
<b>OVERALL RISK</b>	<b>Medium</b>	

## Ground Gas Risk Assessment

6.3 Based on the above information gained through the Envirocheck report, the risk of ground gas is summarised in the table below:

Potential Gas Source	Hazard	Risk Rating	Justification
Made ground and alluvium (CH <sub>4</sub> , CO <sub>2</sub> )	Humans: health risk Buildings: explosion	Medium	Possible hydrocarbon contamination and natural alluvium which may generate ground gases.
Coal and historical mining	Humans: health risk Buildings: explosion	N/A	The site lies within an area where coal seams are absent.
Radon	Humans: health risk	N/A	No precautions required.
<b>Overall Risk</b>		<b>Medium</b>	

## 7 METHOD OF INVESTIGATION

### Fieldwork

7.1 All depths recorded are taken from below existing ground level and all of the exploratory holes were located across the site as a whole to provide a general coverage whilst also making allowance for buried utilities. A summary of the intrusive works carried out on the site are as follows:

7.2 Sixteen mechanically excavated trial pits (maximum depth of 3.3m), nine mini-percussive boreholes (maximum depth of 1.95m) and three cable percussive borehole sunk to a depth of 4.0m.

7.3 A copy of the exploratory hole records have been included as **Appendix D** with their locations shown on **Figure 2** (Exploratory Hole Location Plan).

7.4 The boreholes were sunk in order to determine the soil profile and to allow ground gas and groundwater monitoring wells to be installed. Disturbed samples were recovered as appropriate for soil descriptions and laboratory testing. Standard penetration tests (SPT) were carried out to provide an assessment of the density of the made ground and natural deposits present below the site.

7.5 The gas/groundwater monitoring wells, comprising slotted 50mm diameter HDPE pipe set within a granular filter, were installed in three boreholes (BH2, BH3, WS2 and WS7). The wells were sealed at the base and at the surface using bentonite and a lockable cover was fitted at the surface. The wells were monitored on six occasions between 18<sup>th</sup> August and 27<sup>th</sup> October 2014 for methane, carbon dioxide and oxygen using a portable infra-red gas monitor. The rate of gas flow from the boreholes was also recorded using a portable flow meter and the groundwater levels were recorded using a portable dip meter. The results of the ground gas monitoring are presented in **Appendix E**.

7.6 Fieldwork and soil descriptions were carried out in general accordance with BS5930:1999, "Code of Practice for Site Investigations".

## Laboratory Chemical Testing

7.7 In order to provide a preliminary assessment of contamination, 18 samples of made ground were screened for the following determinands:

- Arsenic
- Cadmium
- Chromium
- Lead
- Mercury
- Nickel
- Selenium
- Copper
- Zinc
- Boron (water soluble)
- Total Organic Carbon (TOC)
- Speciated polyaromatic hydrocarbons (PAH)

7.8 In addition, 15 samples of made ground were scheduled for the presence of Asbestos fibres and two samples were screened for BTEX and Total Petroleum Hydrocarbons (TPH).

7.9 Twenty six samples were scheduled for water soluble sulphate and pH determinations on samples of made ground and natural deposits to assess the potential for sulphate attack on buried concrete.

7.10 The analyses were carried out at an MCERTS registered and UKAS accredited laboratory.

## 8 RESULTS OF THE INVESTIGATION

### Soil Profile

8.1 Detailed descriptions of the materials encountered together with observations of groundwater behaviour, the results of insitu testing and sampling information are given on the exploratory hole records included as **Appendix D**.

8.2 A summary of the general ground conditions encountered on the site are provided in the table below:

Strata	From (m bgl)	To (m bgl)	Thickness Range (m)
<b>Made Ground:</b> Within grassed areas topsoil was generally recorded as silty/clayey sandy gravelly loam. No made ground was recorded below the loamy deposits. Within areas investigated adjacent former/current buildings, made ground was generally recorded as being granular in nature. Within trial pit TP15 the made ground was recorded as black gravelly sand with ash and timber sleepers and slight hydrocarbon odour. Within exploratory hole WS2, concrete surfacing was recorded at a thickness of 0.17m, overlying made ground comprising of slightly clayey sandy gravel to a depth of 0.5m bgl. Made ground within WS1 and WS3 were generally granular in nature recorded to depths of 0.5m and 1.1m bgl.	GL	0.1 – 1.1	0.1 – 1.1
<b>Natural Superficial Deposits:</b> Very dense very sandy gravel and cobbles of mixed lithology. Lenses of silty sand were occasionally noted within some of the exploratory holes.	0.1 – 1.1	>4.0m (full depth not proven)	>4.0m (full depth not proven)

### *Relict Foundations and Obstructions*

8.3 Although no relict foundations were encountered during the ground investigation, foundations are likely to be present below buildings which have recently been demolished on the site and any buildings currently standing.

### *Insitu Test Results*

8.4 The results of the SPT 'N' values undertaken within the underlying superficial deposits are summarised in the table below.

Strata	No. of Tests	Depths Below Ground Level	SPT N Range	SPT N Average
<b><i>Superficial Deposits: Granular Soil</i></b>	9	1.0m	43 – 50*	-
	6	1.1 to 2.0m	50*	50*
	4	>2.0	50*	50*

\* - Limited penetration recorded

8.5 All tests completed within the superficial granular deposits recorded N values greater than 43, with the majority recording limited penetration which is typical due to the gravel and cobble content of these materials.

### **Groundwater**

8.6 No groundwater was encountered within any of the exploratory holes during the ground investigation.

8.7 During the groundwater monitoring of the wells installed in the boreholes WS1, WS7, BH2 and BH3, no standing groundwater was recorded within either of the wells. The results of the groundwater monitoring are presented in **Appendix E**.

8.8 It should be noted that groundwater levels vary seasonally and that a higher water table than recorded could occur.

## Physical Evidence of Contamination

### *Made Ground*

8.9 The only visual and olfactory evidence of significant contamination was hydrocarbon impacted materials within trial pit TP15. In addition, parts of the made ground were noted to be ashy within WS1, WS6 and TP15 to a maximum depth of 0.5m.

8.10 The hydrocarbon contamination encountered in trial pit TP15 included a slight hydrocarbon coating of the made ground materials and a slight hydrocarbon odour in an area where timber sleepers were recorded.

### *Superficial Drift Deposits*

8.11 Within trial pit TP15 only, visual and olfactory evidence of hydrocarbon contamination was recorded within the natural granular soil to a depth of 1.6m.

## Geotechnical Related Testing

### *Sulphate and pH Determinations*

8.12 Within the made ground water soluble sulphate concentrations ranged between 13mg/l and 166mg/l with pH values between 4.4 and 8.0. This indicates a BRE Special Digest 1:2005 Design Sulphate Class DS1 with an ACEC site classification AC-3z. Within the natural soils water soluble sulphate concentrations ranged between <10mg/l and 21mg/l with pH values between 6.1 and 7.0. This indicates a BRE Special Digest 1:2005 Design Sulphate Class DS-1 with an ACEC site classification AC-1.

## Gas Monitoring

8.13 The results of the ground gas monitoring carried out between the 18<sup>th</sup> August and 27<sup>th</sup> October 2014 are summarised in the following table:

Location	CH <sub>4</sub> (% v/v)	CO <sub>2</sub> (% v/v)	O <sub>2</sub> (% v/v)	Flow (l/hr)	Barometric Pressure (mb)	Maximum GSV*	
						CO <sub>2</sub>	CH <sub>4</sub>
WS02	0.0 – 0.1	0.1 – 2.6	15.9 – 20.1	0.0	1000 - 1022	<0.07	<0.07
WS07	0.0 – 0.1	0.5 – 2.7	17.8 – 19.8	0.0	1000 – 1022	<0.07	<0.07
BH2	0.0	1.3 – 9.2	12.9 – 18.9	0.0	1000 – 1022	<0.07	<0.07
BH3	0.0 – 0.1	0.8 – 5.7	13.8 - 19.16	0.0	1000 - 1022	<0.07	<0.07

\* CIRIA 665 Gas Screening Value

8.14 In summary, the results of the gas monitoring carried out to date recorded no Methane gas as low levels (maximum concentration of 0.1%v/v) and Carbon Dioxide at a maximum concentration of 9.2%v/v. No flow was detected during the gas monitoring period, giving a CIRIA Gas Screening Value (GSV) of <0.07 for both Carbon Dioxide and Methane. Given the maximum concentration of Carbon Dioxide was recorded at levels greater than 5%v/v, gas protection measures in accordance with CIRIA C665 Characteristic Situation 2.

### Contamination Related Testing

8.15 The results of the contamination related testing undertaken on four samples of made ground are included as **Appendix F**. Generally, the results have been assessed using the LQM/CIEH Suitable for Use Levels (S4ULs) for Human Health Risk Assessment (Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3170; All rights reserved).

8.16 Where no S4UL is available, reference is made to published CLEA Soil Guidelines Values (SGVs) for standard land uses, or generic levels derived using the CLEA model (v1.06). For the purpose of this report, all S4ULs or SGVs will be referred to as Generic Assessment Criteria (GAC).

8.17 With respect to the assessment for the site, the most appropriate values are considered to be the GACs for a Commercial/Industrial end use.



8.18 Given the levels of TOC are likely to have been highly influenced by the presence of natural organic matter within the made ground; a conservative approach has been used in this assessment by utilising an SOM of 1%.

8.19 A summary of the contamination related testing for the two areas are presented below.

<b>MADE GROUND</b>					
Determinand	Maximum conc. mg/kg	Minimum conc. mg/kg	No of Samples Tested	Generic Assessment Criteria (GAC) <sup>(1)</sup> mg/kg	No of Samples Exceeding GAC
Arsenic	35	3.2	18	640	0
Boron	1.0	<0.5	18	240000	0
Cadmium	0.4	<0.2	18	190	0
Chromium	109	31	18	8600	0
Copper	118	20	18	68000	0
Lead	261	8.4	18	2330 <sup>(2)</sup>	0
Mercury	0.6	<0.5	18	1100	0
Nickel	49	20	18	980	0
Selenium	1.6	0.6	18	12000	0
Zinc	174	61	18	730000	0
<b>PAH compounds</b>					
Naphthalene	0.20	<0.01	18	190	0
Acenaphthylene	0.81	<0.01	18	84000	0
Acenaphthene	0.31	<0.01	18	83000	0
Fluorene	0.11	<0.01	18	63000	0
Phenanthrene	2.05	<0.01	18	22000	0
Anthracene	1.66	<0.01	18	520000	0
Fluoranthene	36.01	0.01	18	23000	0
Pyrene	51.61	0.02	18	54000	0
Benzo(a)anthracene	8.13	<0.01	18	170	0
Chrysene	5.88	<0.01	18	350	0
Benzo(b)fluoranthene	10.09	0.02	18	44	0
Benzo(k)fluoranthene	3.90	<0.01	18	1200	0
Benzo(a)pyrene	7.81	0.02	18	35	0
Indeno(123cd)pyrene	2.07	0.01	18	500	0
Dibenz(ah)anthracene	0.53	<0.01	18	3.5	0
Benzo(ghi)perylene	2.12	0.01	18	3900	0
<b>BTEX</b>					
Benzene	<0.01	<0.01	2	27	0
Toluene	<0.01	<0.01	2	56000	0
Ethylbenzene	<0.01	<0.01	2	5700	0
Xylenes (total)	<0.01	<0.01	2	5900	0
<b>Aromatic</b>					
TPH C <sub>5</sub> -C <sub>7</sub>	<0.01	<0.01	2	26000	0
TPH C <sub>7</sub> -C <sub>8</sub>	<0.01	<0.01	2	56000	0
TPH C <sub>8</sub> -C <sub>10</sub>	<0.01	<0.01	2	3500	0
TPH C <sub>10</sub> -C <sub>12</sub>	<1	<1	2	16000	0
TPH C <sub>12</sub> -C <sub>16</sub>	1	<1	2	36000	0
TPH C <sub>16</sub> -C <sub>21</sub>	90	19	2	28000	0
TPH C <sub>21</sub> -C <sub>35</sub>	38	17	2	28000	0
TPH C <sub>35</sub> -C <sub>44</sub>	2	2	2	28000	0
<b>Aliphatic</b>					
TPH C <sub>5</sub> -C <sub>6</sub>	<0.1	<0.1	2	3200	0
TPH C <sub>6</sub> -C <sub>8</sub>	<0.1	<0.1	2	7800	0
TPH C <sub>8</sub> -C <sub>10</sub>	1.2	1.0	2	2000	0
TPH C <sub>10</sub> -C <sub>12</sub>	2	<1	2	9700	0
TPH C <sub>12</sub> -C <sub>16</sub>	506	71	2	59000	0
TPH C <sub>16</sub> -C <sub>35</sub>	2314	1375	2	1600000	0
TPH C <sub>35</sub> -C <sub>44</sub>	298	210	2	1600000	0

Notes

(1) LQM/CIEH S4UL for a commercial/industrial end use.

(2) DEFRA, SP1010: Category 4 Screening Levels

8.20 The results of the laboratory chemical screening indicate that all analytes tested are below the specified levels for the proposed Commercial end use.

### **Asbestos**

8.21 Fifteen samples of made ground were also screened for asbestos fibres. The results indicate that two samples tested positive for Chrysotile. Further to this, a quantitative assessment was carried out on the two samples which tested positive for asbestos. The assessment indicates a maximum percentage of 0.002%w/w for asbestos, below the threshold limit for hazardous waste disposal.

8.22 It should be noted that there was no visual evidence of asbestos encountered during the investigation.

### ***Waste Classification***

8.23 Waste classification testing has not been carried out, however, the results of the chemical analyses allow an initial assessment and suggest that generally, the made ground is suitable for disposal to a non-hazardous landfill. The exception would be the materials in the vicinity of borehole TP15 which are impacted by hydrocarbon contamination and these materials are likely to require disposal to landfill licensed to accept hazardous waste.

### ***UKWIR Testing***

8.24 No specific testing has been carried out for the residual plot, however, for the Aldi area two samples of made ground were recovered from exploratory holes TP2 and WS5 for UKWIR analysis to determine the a suitable material for the proposed water supply pipes.

8.25 The exploratory hole logs and exploratory hole location plan pertinent to this investigation can be found within **Appendix D** and **Figure 2** respectively.

8.26 Based on the laboratory chemical test results for the site, the table below has been produced summarising the acceptable pipe materials in accordance with Table 3.1 of UKWIR 'Guidance for the Selection of Water Supply pipes to be Used in Brownfield Sites'. Chemical test results can be found within **Appendix F**.

		Acceptable Pipe Material based on Chemical Test Results					
	Parameter Group	PE	PVC	Barrier Pipe (PE-Al-PE)	Wrapped Steel	Wrapped Ductile Iron	Copper
1	Extended VOC with TIC	Yes	Yes	Pass	Pass	Pass	Pass
1a	BTEX and MTBE	Yes	Yes	Pass	Pass	Pass	Pass
2	SVOC with TIC	Yes	Yes	Pass	Pass	Pass	Pass
2e	Phenols	Yes	Yes	Pass	Pass	Pass	Pass
2f	Cresols and Chlorinated phenols	Yes	Yes	Pass	Pass	Pass	Pass
3	Mineral Oil (C11-C20)	Yes	Pass	Pass	Pass	Pass	Pass
4	Mineral Oil (C21-C40)	Yes	Pass	Pass	Pass	Pass	Pass
5	Corrosive (Conductivity, Redox and pH)	Pass	Pass	Pass	Yes	Yes	Yes
2a	Ethers	Yes	Yes	Pass	Pass	Pass	Pass
2b	Nitrobenzene	Yes	Yes	Pass	Pass	Pass	Pass
2c	Ketones	Yes	Yes	Pass	Pass	Pass	Pass
2d	Aldehydes	Yes	Yes	Pass	Pass	Pass	Pass
6	Amines	Yes	Pass	Pass	Pass	Pass	Pass
Pipes that pass chemical thresholds		Pass	Pass	Pass	Pass	Pass	Pass
Preferred Selection		✓	✓				

Notes

Yes - Determinand(s) level acceptable for pipe material

No - Determinand(s) level not acceptable for pipe material

8.27 The laboratory test results show that all the above pipe materials are acceptable for this site. It is recommended that PE or PVC pipes are used in the development.

## Modified Site Conceptual Model

8.28 Based on the findings from the ground investigation, the following potential sources, pathways and receptors are identified:

### *Sources of Contamination*

8.29 The results of the laboratory testing recorded asbestos fibres located sporadically across areas of the made ground. All other contaminants were identified at levels below the specified assessment values for a commercial development.

8.30 There was also visual hydrocarbon contamination encountered within trial pit TP15 which recorded both a visual and olfactory evidence of hydrocarbon contamination during the site works, however the levels of the contaminants are below the human health threshold values for a Commercial end use.

8.31 Hazardous gasses associated with both on-site and off-site sources. The gas monitoring results have recorded elevated levels of Carbon Dioxide.

### *Pathways*

- Humans – direct contact, soil ingestion and dust inhalation.
- Major or Highly Permeable Aquifer – leaching and vertical migration of contamination.
- Vertical and lateral migration of ground gas into buildings and service entries (manholes).
- Direct contact of aggressive soils with building foundations and floor slabs.

### *Receptors*

- Site end users (humans).
- Construction workers (humans).
- Underlying Highly Permeable Aquifer.
- Building foundations and floor slabs (concrete).

## Pollutant Linkage Assessment

8.32 On the basis of the above, an assessment of potential pollutant linkages at the site has been made as follows:

Contamination Source	Pathway	Hazard	Potential Receptors	Linkage Complete
Contaminants associated with asbestos fibres and hydrocarbon contamination.	Dust inhalation	Human health risk	Site construction workers	Yes, can be removed by the use of appropriate PPE and limited exposure
	Dust inhalation	Human health risk	Site end users	Yes.
	Lateral and vertical migration	Pollution of controlled waters	Major or Highly Permeable Aquifer	Possible.
Ground Gas	Vertical migration into buildings or confined spaces	Human health risk. Fire risk	Human health and property	Yes, however can be mitigated by the use of appropriate gas protection measures.

8.33 Based on the assessment of the chemical test results, it is considered the most significant potential pollutant linkage is via dust inhalation to site end users.

## 9 DISCUSSION

9.1 This investigation was carried out primarily to provide geotechnical information with respect to foundations for the proposed development(s). In addition contamination related testing has been carried to provide an assessment of the potential constraints on the development(s).

### Contamination Assessment

9.2 Fifteen samples of made ground were screened for asbestos fibres. The results indicate that two samples tested positive for Chrysotile. Further to this, a quantitative assessment was carried out the two samples which tested positive for asbestos. The assessment indicates a maximum percentage of 0.002%w/w for asbestos, below the threshold limit for hazardous waste disposal.

### Remediation

9.3 It is recommended that any visibly PAH-contaminated soils are removed from the area of trial pit TP15. Following removal, the area will require validation of the sides and base of the excavation to confirm that all contamination has been removed. This validation must be carried out by an appropriately qualified geo-environmental engineer.

9.4 With respect to asbestos contamination, the following is recommended:

- No specific remediation is considered necessary where made ground lies beneath buildings or hardstanding.
- All services corridors should be provided with clean backfill to mitigate any risk to maintenance workers.
- All areas of soft landscaping will require a suitable capping system. This should comprise a minimum of 600mm of clean imported topsoil which will require the approval of the regulators.

### Disposal of Materials

9.5 Based on a preliminary assessment of the contamination related testing, made ground materials at the site may be classified as non-hazardous, however, where the made ground

materials are impacted by hydrocarbon contamination (within the vicinity of TP15), they will require disposal to a landfill licensed to accept hazardous waste. It would be more appropriate to classify the waste materials once they have been generated, however, in order to provide a preliminary assessment of disposal costs, the results of the investigation should be made available to the waste carriers and receivers.

### **Water Supply Pipes**

9.6 The laboratory test results show that all pipe materials within table 3.1 of UKWIR 'Guidance for the Selection of Water Supply pipes to be Used in Brownfield Sites' are acceptable for this site. It is recommended that PE or PVC pipes are used in the development.

### **Mining Assessment**

9.7 The Coal Authority does not record the site to lie within a coal mining area and therefore it is considered that the site is stable with respect to mining.

### **Foundations and Floor Slabs**

9.8 The ground investigation identified variable thicknesses of made ground recorded to a maximum thickness of 1.1m bgl overlying natural deposits of very dense sandy gravel with many cobbles. Made ground is considered unsuitable as a bearing stratum due to its potential for excessive total and differential settlement. It is considered conventional shallow strip or pad footings will be suitable founding within the very dense sandy gravel deposits subject to an allowable bearing capacity of 125KN/m<sup>2</sup> and extending below the made ground and any existing foundations.

9.9 It is considered that a ground bearing floor slab will be suitable subject to re-engineering of made ground where present.

### **Gas Protection Measures**

9.10 The results of the ground gas monitoring indicate gas protection measures in accordance with CIRIA C655 Characteristic Situation 2.

9.11 Radon protection measures are not required for the proposed development.



## **Excavations and Dewatering**

9.12 If man entry is proposed into excavations the use of support to excavation sides is recommended, in line with health and safety guidelines.

9.13 Significant groundwater ingress into excavations is not anticipated, any that does occur, or within deeper excavations, should be controlled adequately by localised pumping from sumps within excavations.

## **Sulphate Attack on Buried Concrete**

9.14 Within the natural soils water soluble sulphate concentrations ranged between <10mg/l and 21mg/l with pH values between 6.1 and 7.0. This indicates a BRE Special Digest 1:2005 Design Sulphate Class DS-1 with an ACEC site classification AC-1.

9.15 Within the made ground water soluble sulphate concentrations ranged between 13mg/l and 166mg/l with pH values between 4.4 and 8.0. This indicates a BRE Special Digest 1:2005 Design Sulphate Class DS1 with an ACEC site classification AC-3z.




# Figures





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Date	Revision	Checked	Rev.



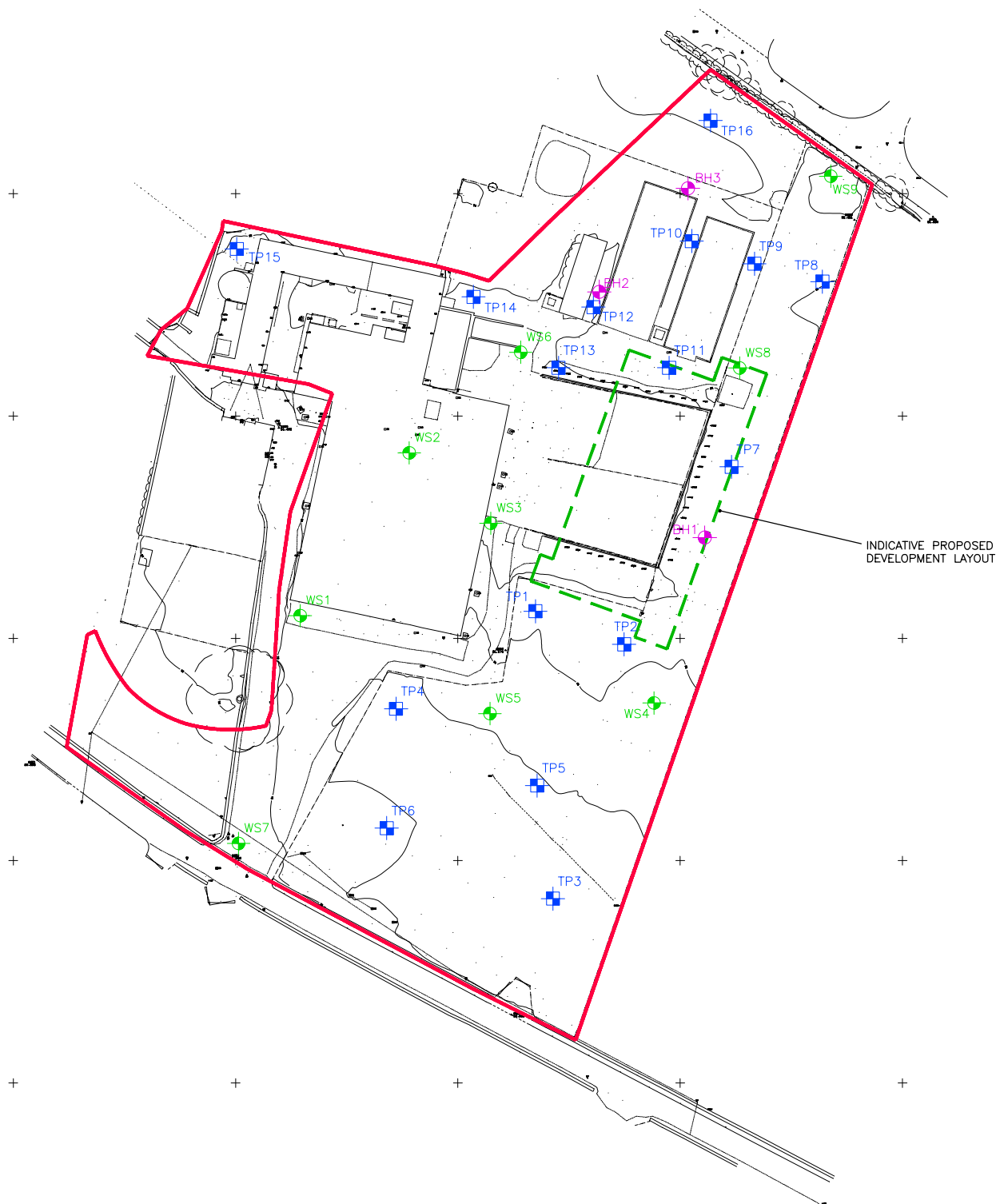
**1st Floor, Block C**  
**Holland Park**  
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**NE2 4LD**

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fax: 0191 230 3677

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Project	Broich Road, Crieff		
	Aldi Stores Ltd		
Title	Site Location Plan		
Scale	1:25,000 at A4	Drawn	CB
		Checked	AC
Date	July '15		
Job No.	14601	Drawing No.	Figure 1
		Rev	0





Key:

- Trial Pit Location
- Aldi Site Area Boundary
- Mini Percussive Borehole Location
- Cable Percussive Borehole Location

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Project	Brioch Road, Crieff Aldi Stores Ltd		
Title	Exploratory Hole Location Plan		
Scale	1:1000	Drawn NJW	Checked CB
			Date July '15
Job No.	14601	Drawing No.	Figure 2
			Rev 1

# **Appendix A**

## Proposed Development Plans



# **Appendix B**

## Historical OS maps





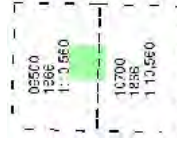
Perthshire

Published 1866

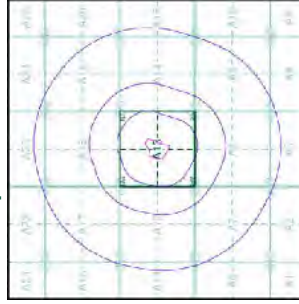
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the adopted for England, Wales and Scotland in the 1840's. In 1864 the 2500 scale was adopted for mapping the area. These maps were then updated to 1:10,560 scale in 1906. The maps were often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

### Site Details

Duchlaga Farm, Duchlaga Road, Crieff, PH7 3SD



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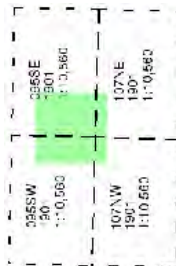


## Published 1901

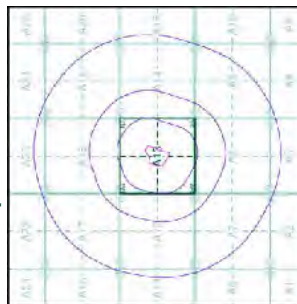
## Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for Wales and Scotland in the 1840's. In 1854, when the 1:25,000 scale was adopted for mapping urban areas, these maps were replaced by the Ordnance Survey's *County Series*. The *Public Works Series* was introduced to update the latter in 1859, and the *Public Buildings Series* in 1863. These maps were based on the Cassin Projection, with Independent surveys of a single county or group of counties, giving rise to significant inaccuracies in culling the data. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished, with many military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first edition of the *General Reference Series* was published, with 1:10,560 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



## Order Details

Order Details

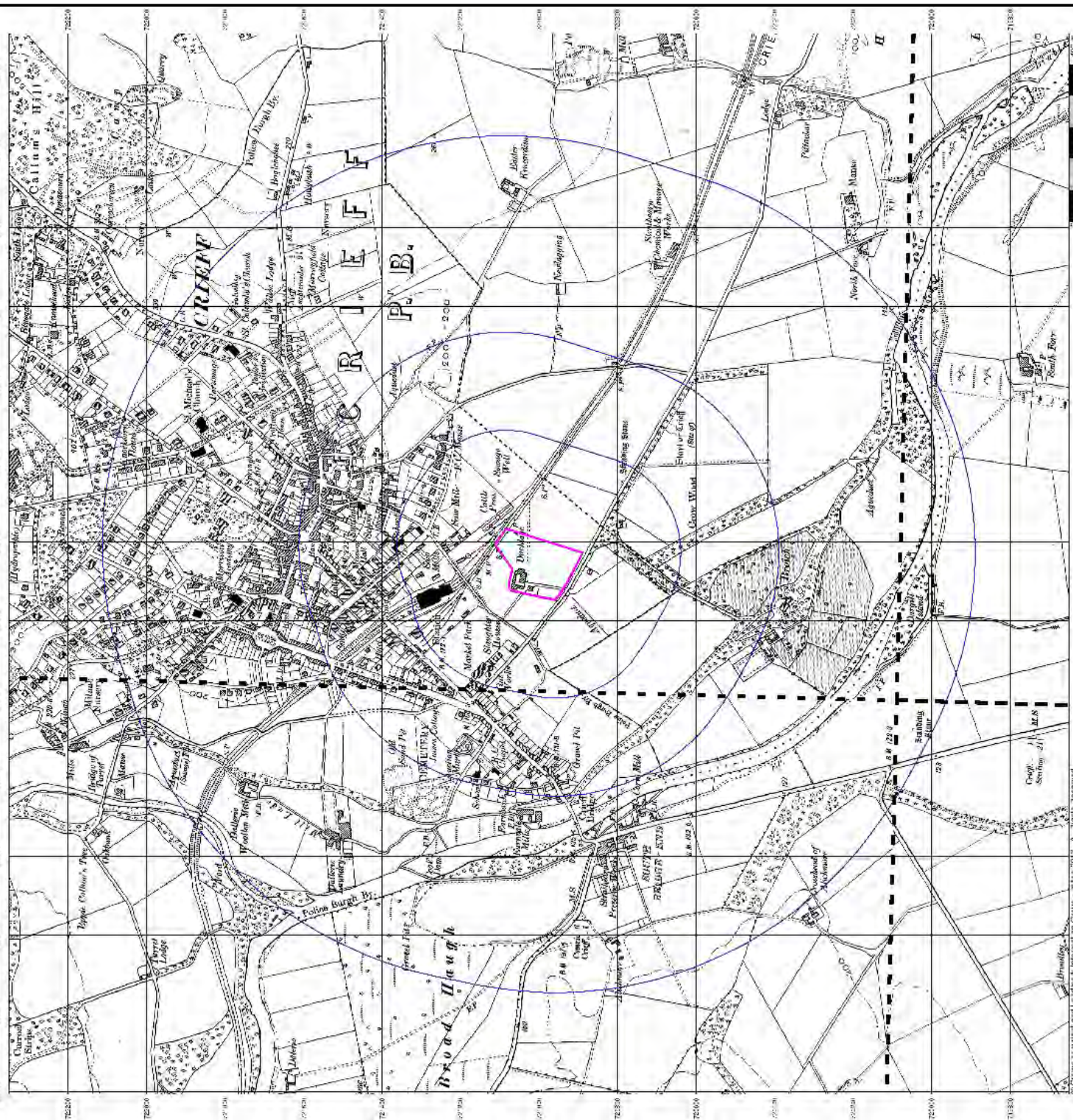
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Customer Ref:	14601
National Grid Reference:	286350, 721070
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

## Site Details

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD



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**Web:** [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



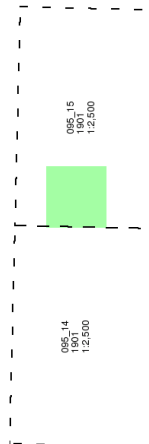


## Published 1901

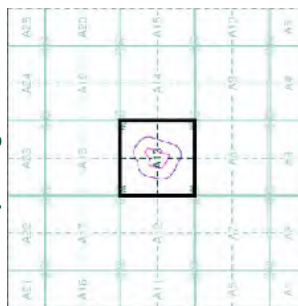
## Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held in the TSCC archive for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

## Map Name(s) and Date(s)



### Historical Map - Segment A13



## Order Details

Order Details

Order Number: 56627545 1 1

Order Number: 566273  
Customer Ref: 14601

Customer Ref: 14601  
National Grid Reference: 286350. 721010

Slice: A

Site Area (Ha): 2.44

Site Area (Ha): 2.44

## Site Details

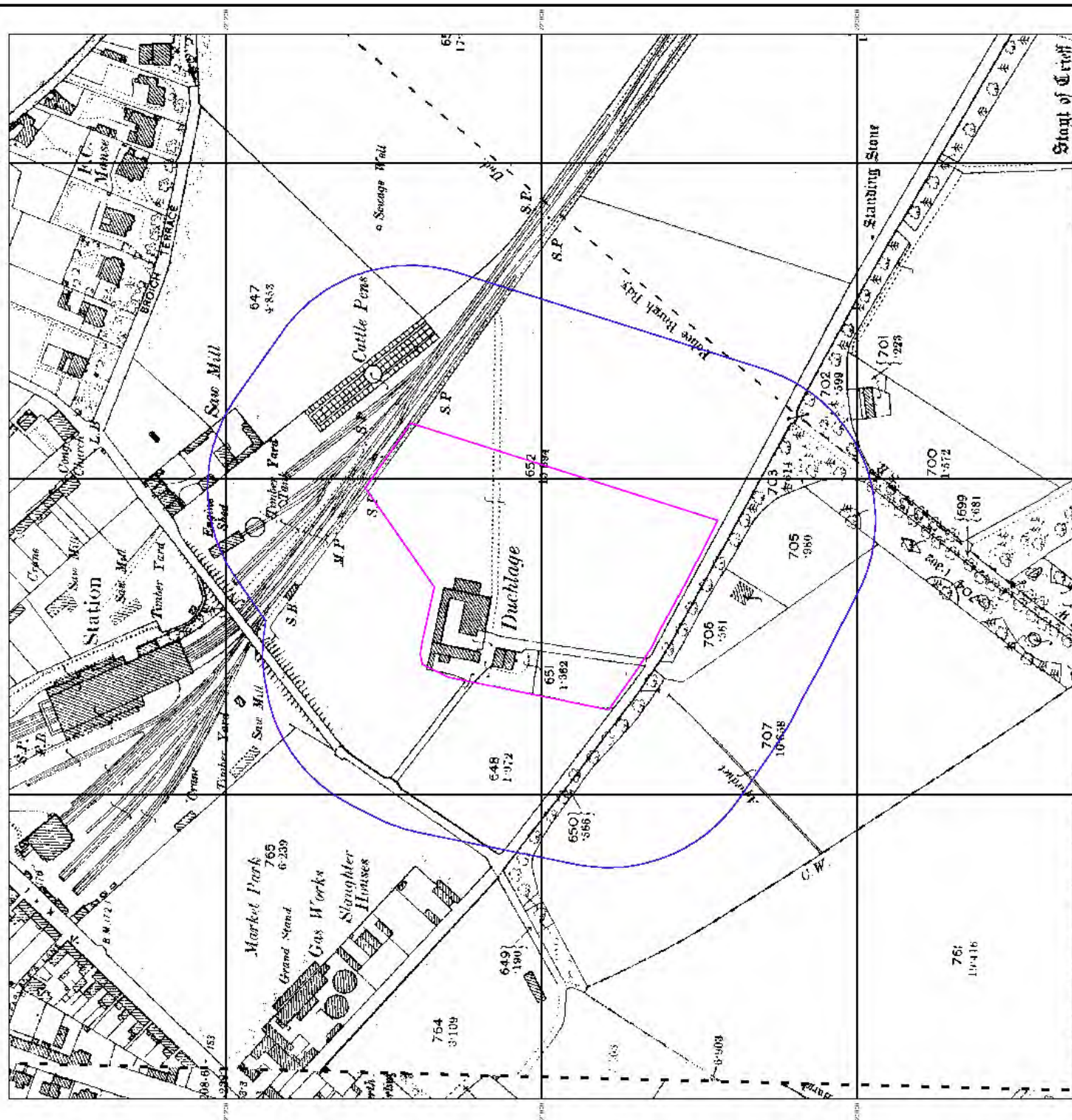
### Site Details

Duchlage Farm, Duchlage Road, Crieff, PH7 3SD



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**Fax:** 0844 844 9951  
**Web:** [www.envirocheck.co.uk](http://www.envirocheck.co.uk)

A Landmark Information Group Service v47.0 27-May-2014 Page 3 of 11



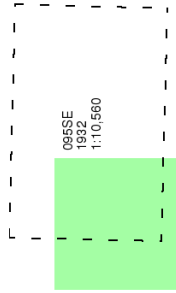


## Published 1932

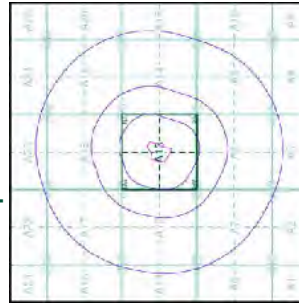
**Source map scale - 1:10,560**

The historical maps shown were produced from maps predominantly held at the Ordnance Survey, and were used for a number of purposes. The maps were first adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:25,000 maps were produced, and in 1861 the 1:50,000 maps. The 1:50,000 maps were often some years later than the surveyed data. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in culling data. In the late 1940's a Provisional Edition was produced, which updated the 1:50,000 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## Historical Map - Slice A



## Order Details

**Order Details**

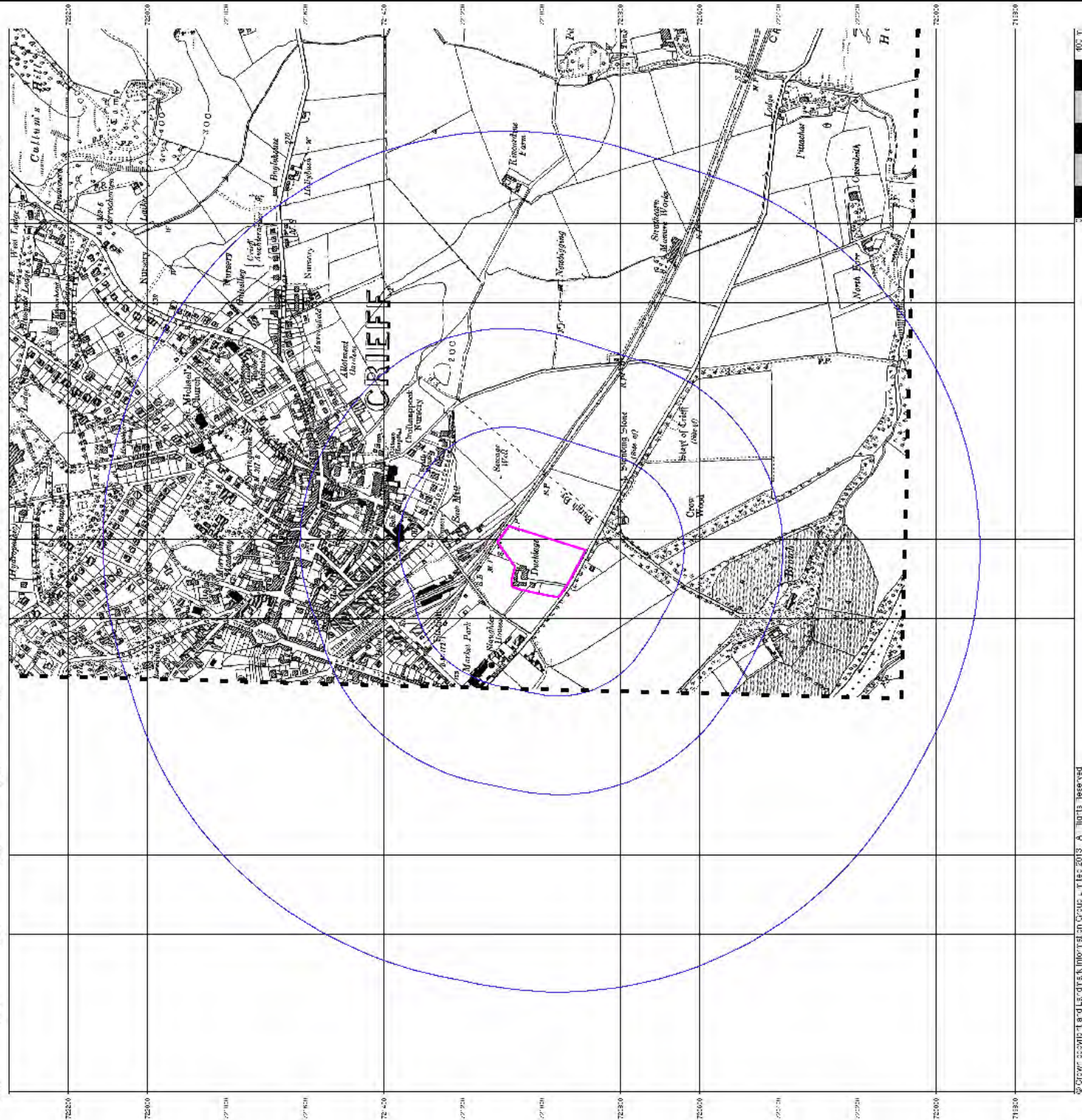
Order Number:	56627545_1_1
Customer Ref:	14601
National Grid Reference:	286350, 721010
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

## Site Details

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD



**Tel:** 0844 844 9952  
**Fax:** 0844 844 9951  
**Web:** [www.envirocheck.co.uk](http://www.envirocheck.co.uk)







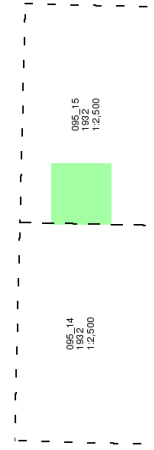
Perthshire

Published 1932

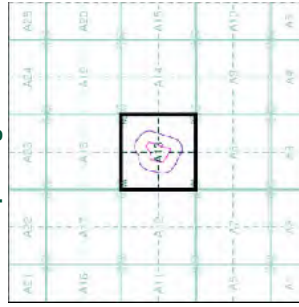
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the time adopted for England, Wales and Scotland in the 1840s. In 1864 the 2,500 scale was applied for mapping to the Ordnance Survey of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

### Map Name(s) and Date(s)



### Historical Map - Segment A13



### Order Details

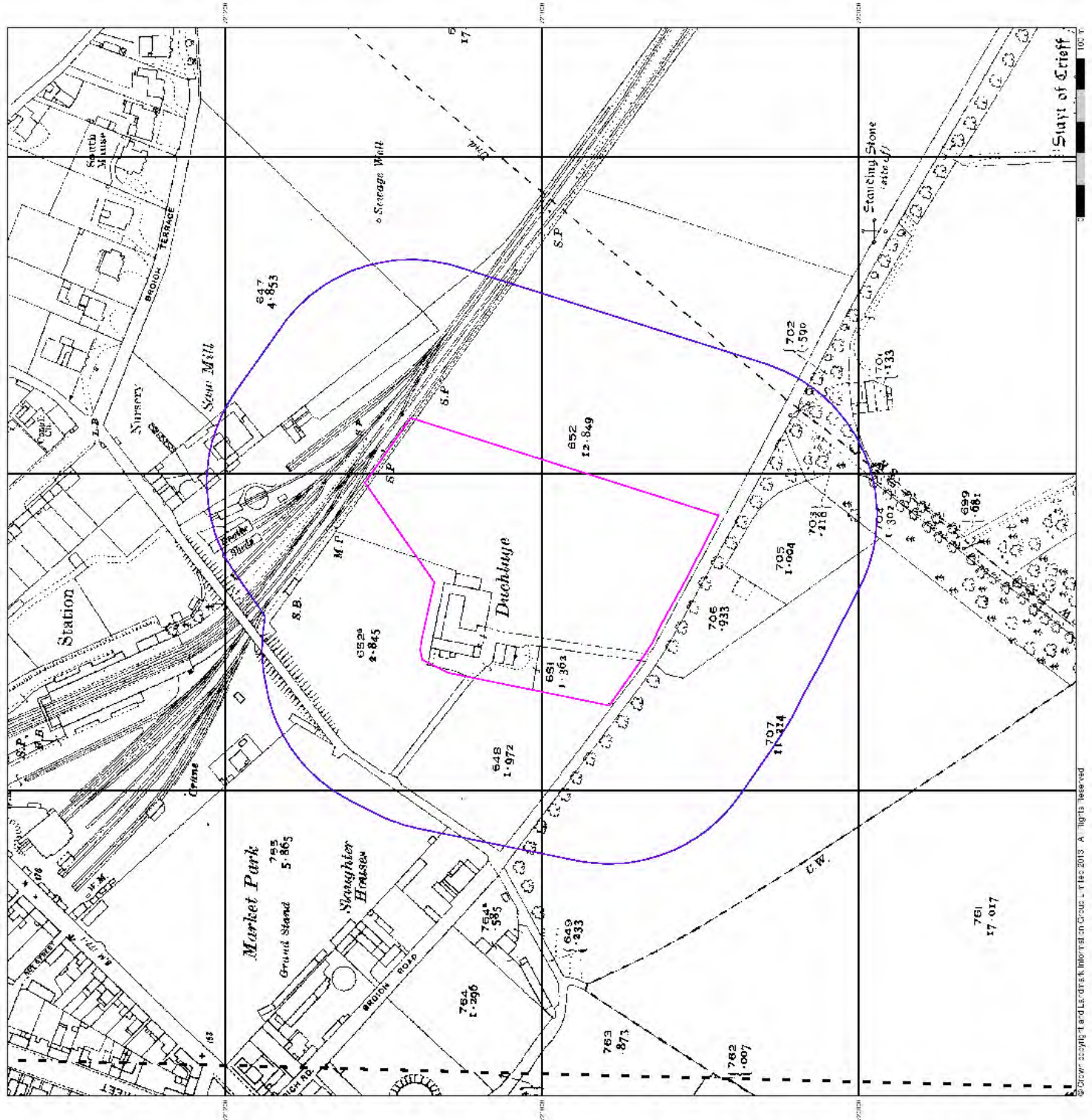
Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 100

### Site Details

Duchlague Farm, Duchlague Road, Crieff, PH7 3SD



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Perthshire

Published 1938

Source map scale - 1:10,560

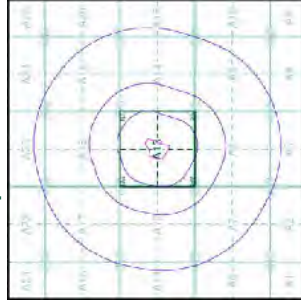
The historical maps shown were reproduced from maps predominantly held at the Ordnance Survey, which were applied for mapping in 1864. The 1:10,560 scale maps were often some years later than the surveyed data. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in adjoining areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

095SW  
1938  
1:10,560

095SE  
1938  
1:10,560

### Historical Map - Slice A



### Order Details

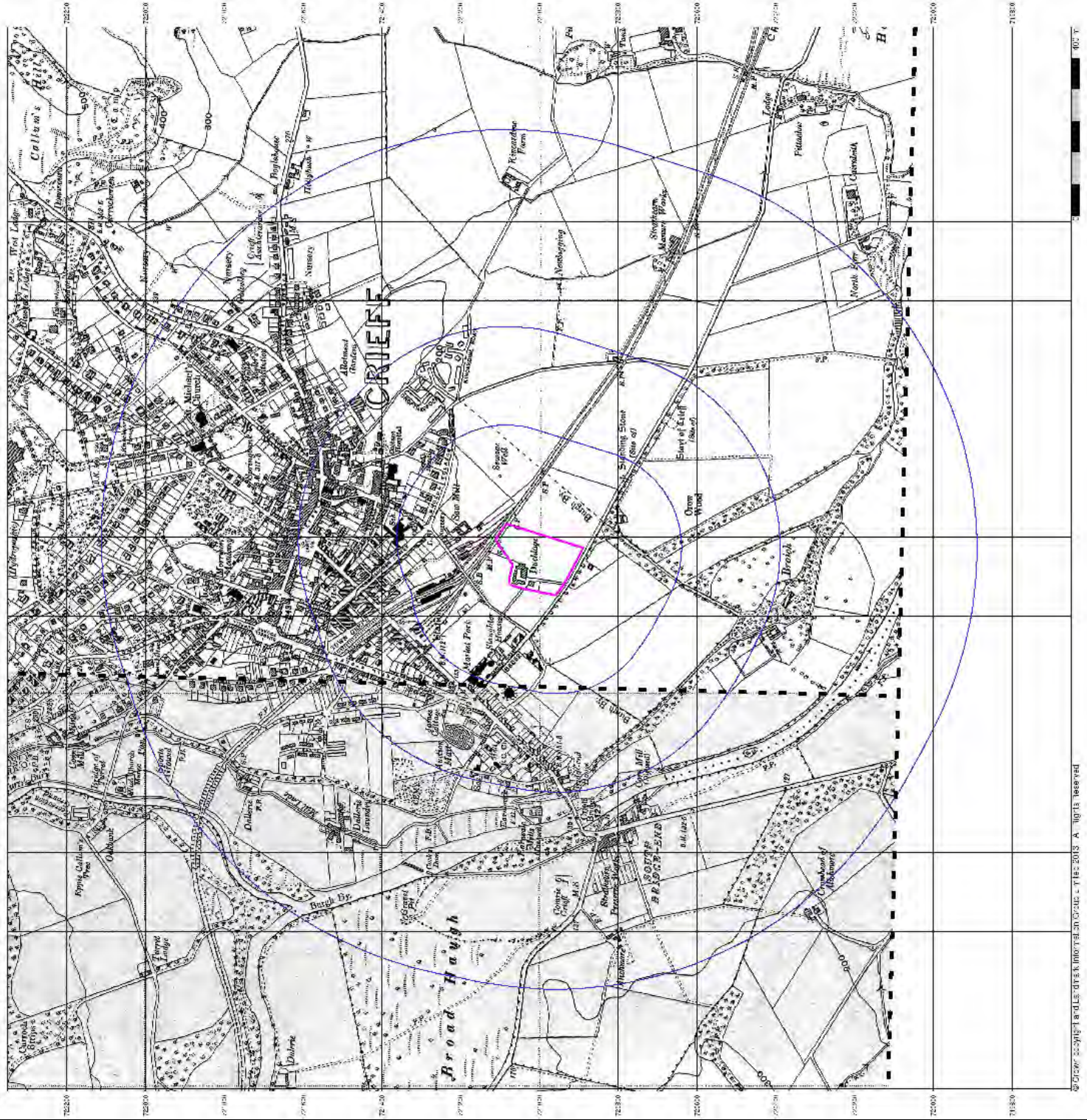
Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

### Site Details

Duchlague Farm, Duchlague Road, Crieff, PH7 3SD



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Fax: 0844 844 9951  
Web: www.envirocheck.co.uk







## Ordinance Survey Plan

Published 1958 - 1959

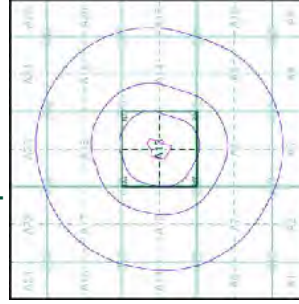
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the Ordnance Survey, which were adopted for England, Wales and Scotland in the 1840's. In 1864 the 2500 scale was adopted for mapping urban areas, these maps were then updated to 1:10,000 scale in 1906. The maps shown are often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys in outlying county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,000 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)

1:10,000 SW	1:10,000 E
1958	1959
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000
1:10,000	1:10,000

### Historical Map - Slice A



### Order Details

Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

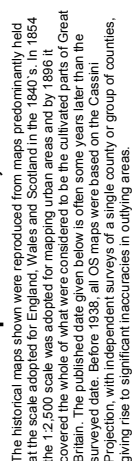
### Site Details

Duchliffe Farm, Duchliffe Road, Crief, PH7 3SD



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk



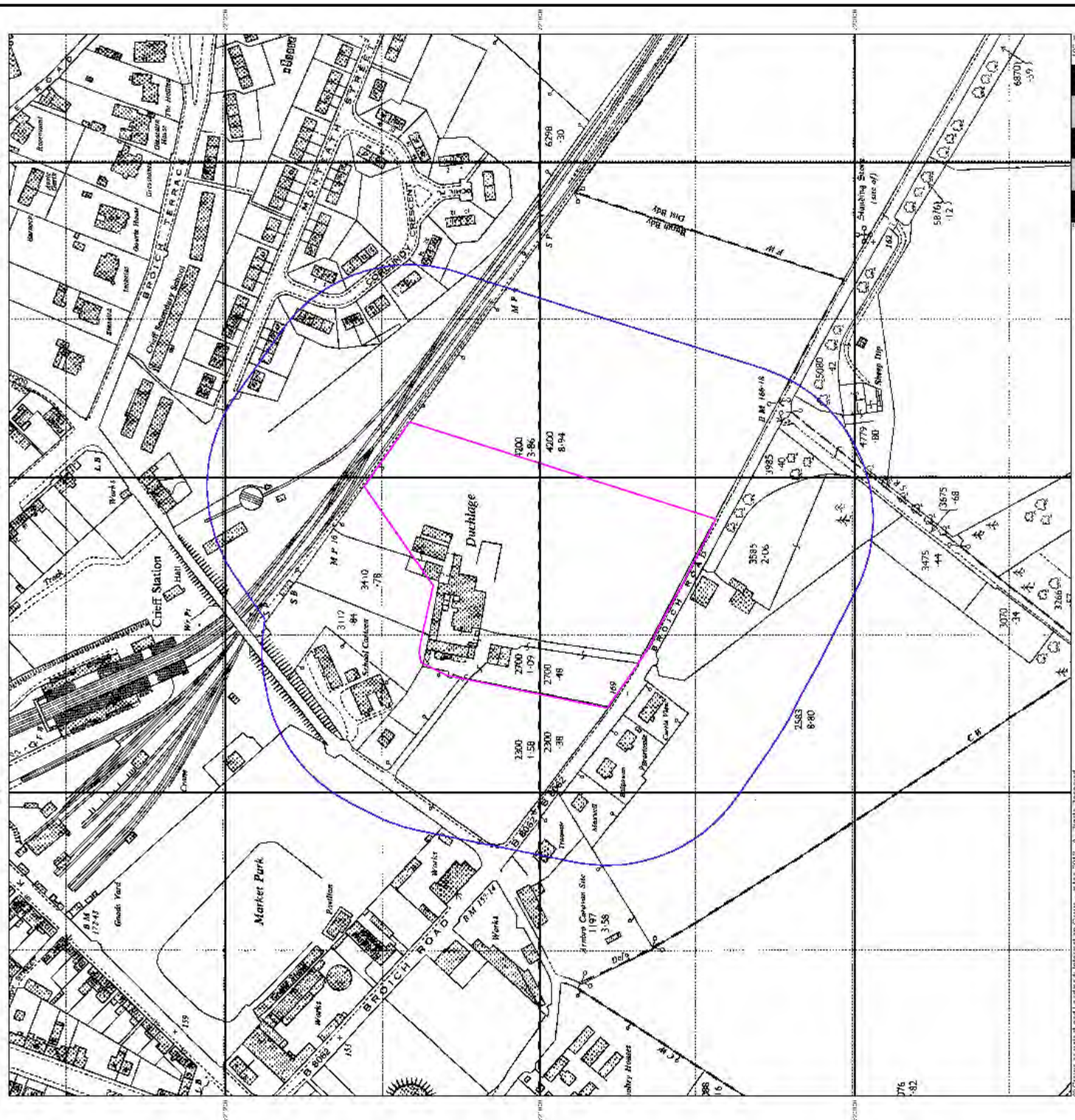


NR 862	1967	1-2-503
NR 8620	1965	1-2-503

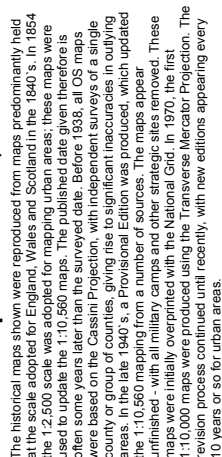
A 10x10 grid of points labeled A1 through A100. The points are arranged in a regular grid. A 3x3 subgrid of points is highlighted with a thick black border. This subgrid consists of the points A18, A19, A20 in the first row; A27, A28, A29 in the second row; and A36, A37, A38 in the third row. Within this 3x3 subgrid, the point A28 is circled in purple.

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
A  
Slice: 2.44  
Site Area (Ha): 100  
Search Buffer (m):

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD



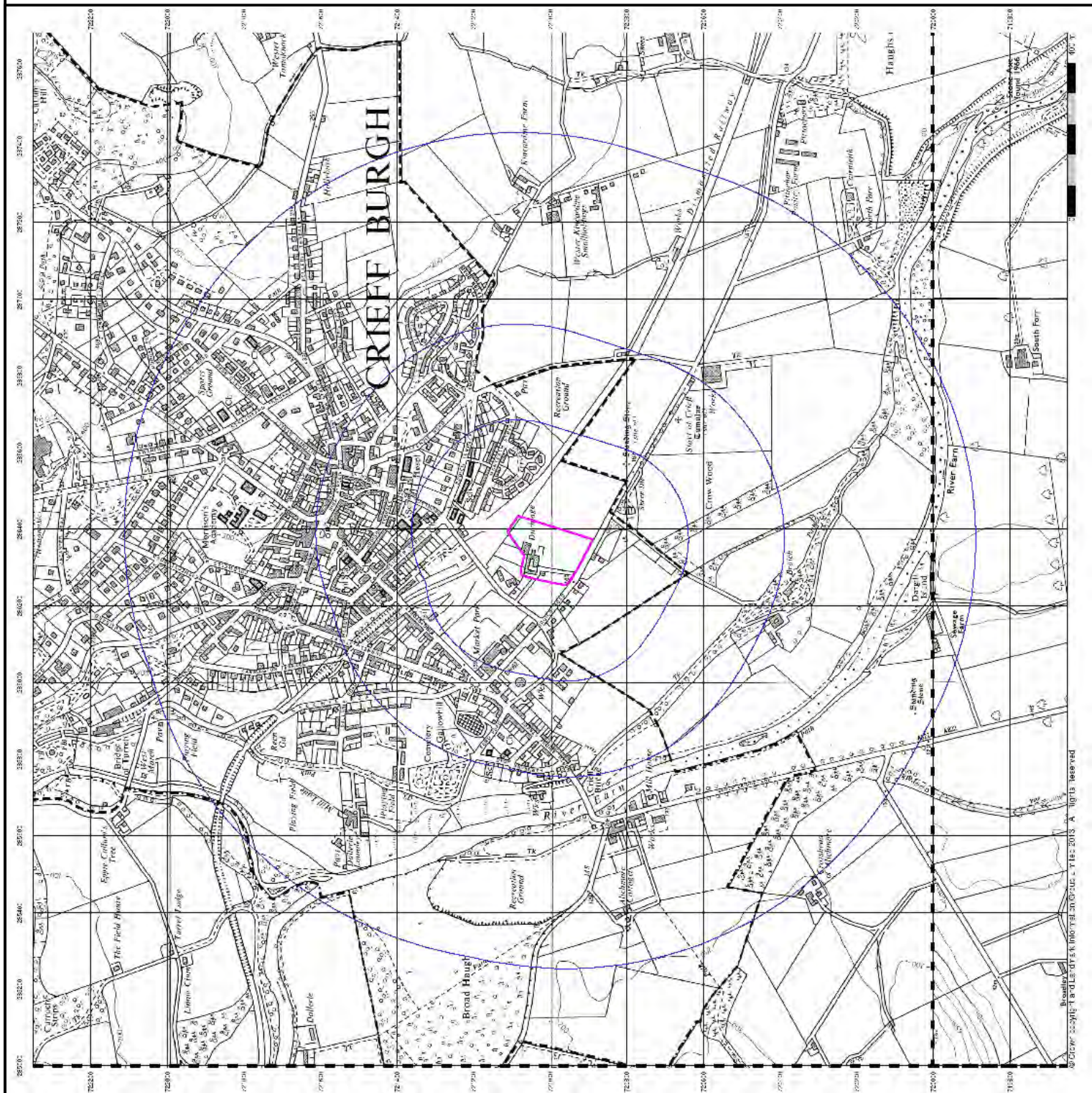




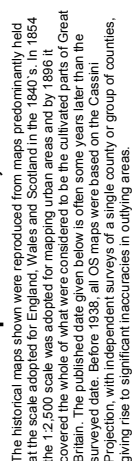
NAGSSE	NAGSSE
1975	1975
10000	10000
10000	10000

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
A  
Slice: 2.44  
Site Area (Ha): 1000  
Search Buffer (m):

## Duchlage Farm, Duchlage Road, Crieff, PH7 3SD



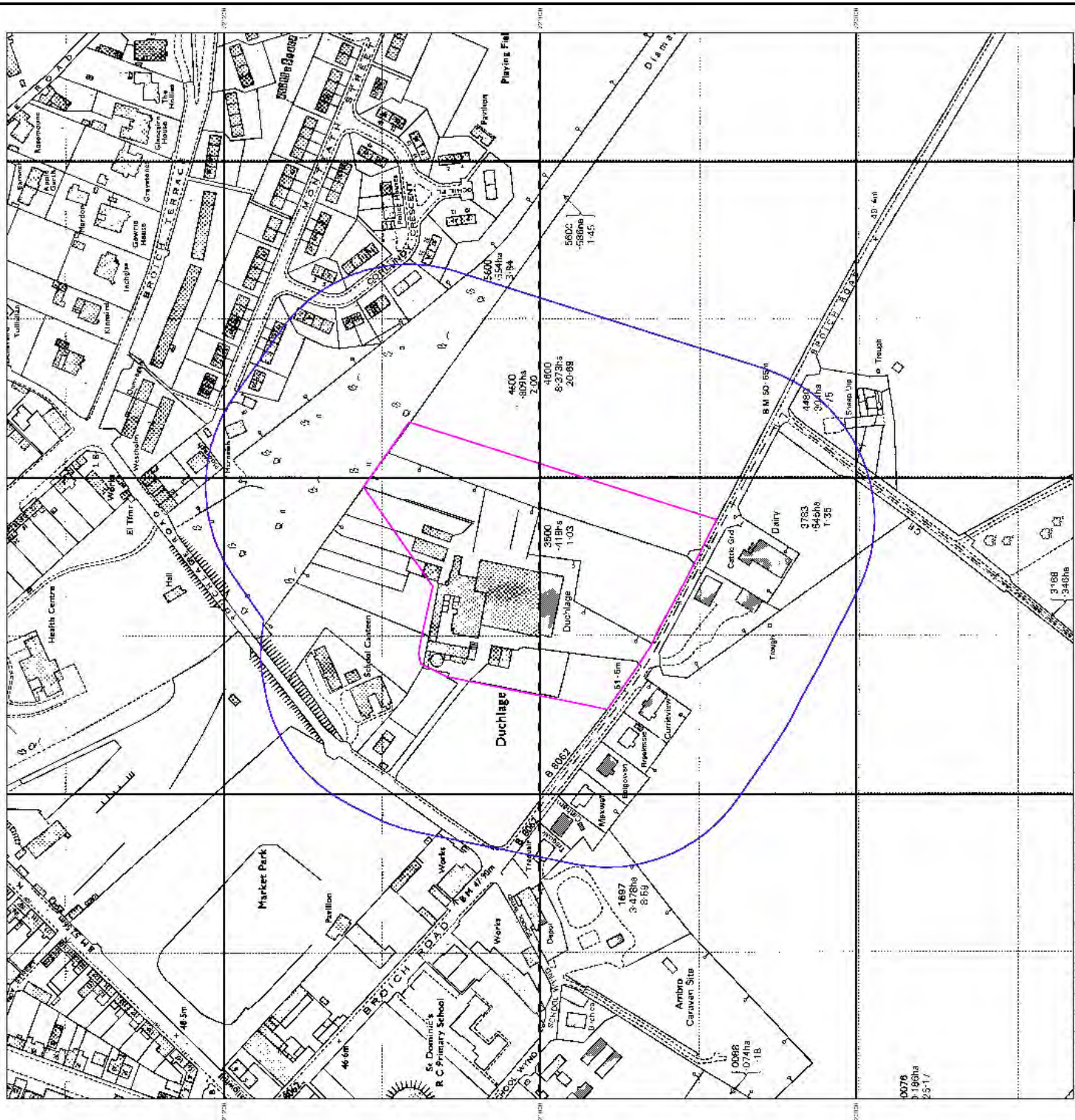




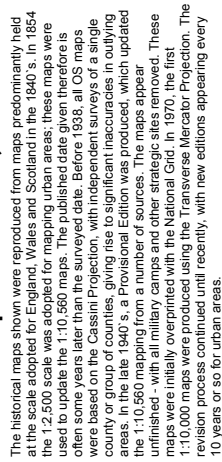
1962	1967
12.500	12.500

A 10x10 grid of points labeled A1 through A100. The grid is divided into four 5x5 quadrants by dashed lines. A 3x3 subgrid is highlighted with a thick black border, and a 5x5 subgrid within it is highlighted with a purple border. The 5x5 subgrid is centered at A50.

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







NN82SE  
 1986  
 1:10,000

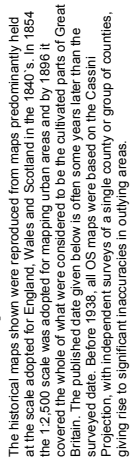
**Order Details**

Order Number:	56627545_1_1
Customer Ref:	14601
National Grid Reference:	286350, 721010
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	1000

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







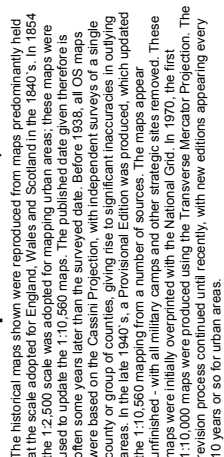
NN8621  
 1988  
 1:2,500

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 100

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







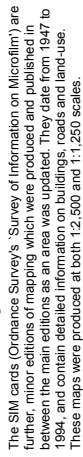
NN82SE  
 1991  
 1:10,000

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







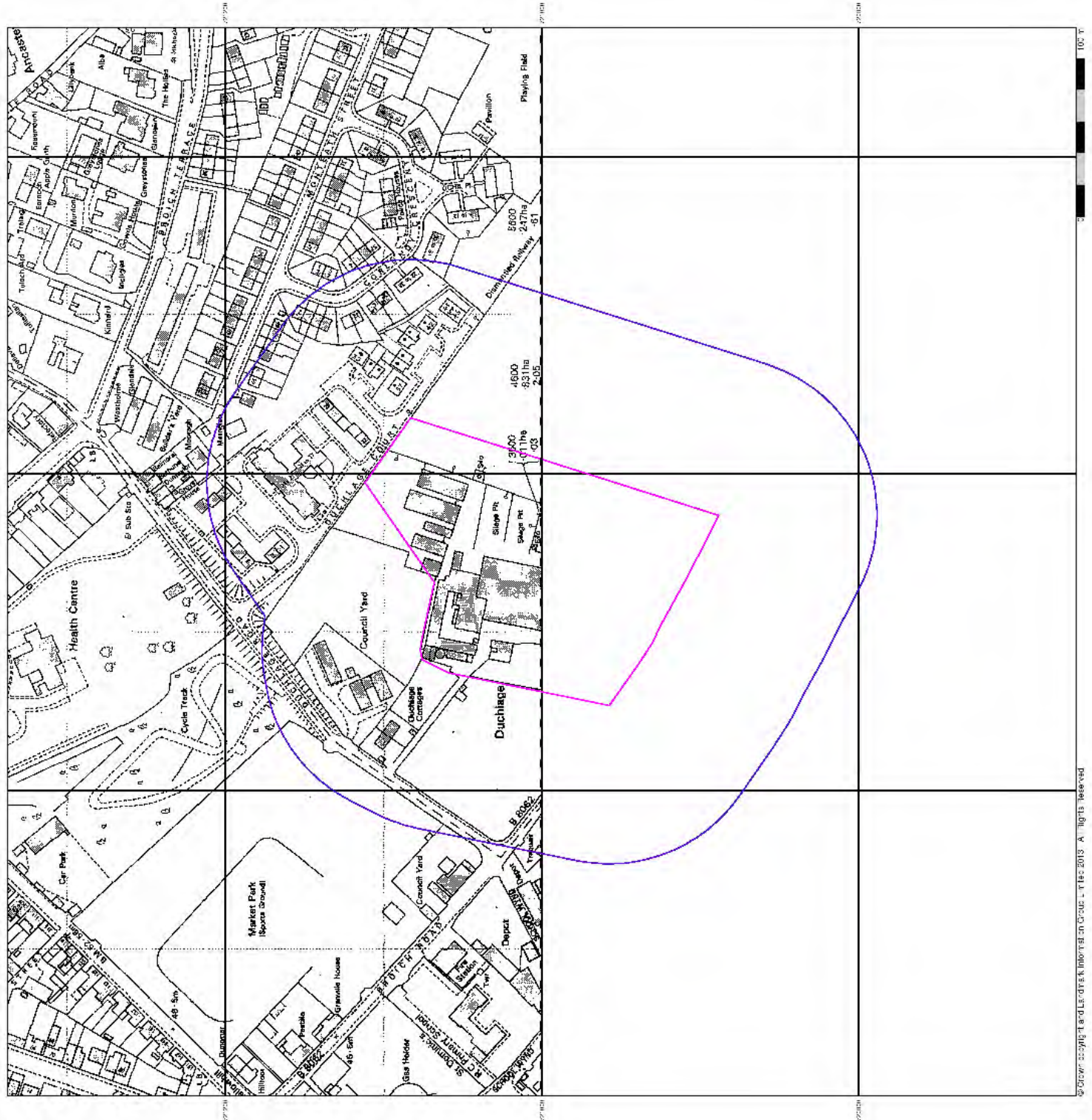
NN8621  
 1994  
 1:2,500

The figure shows a 10x10 grid of points labeled A1 through A100. The grid is divided into four quadrants by dashed lines. A central 2x2 area of points (A45, A46, A47, A48) is highlighted with a thick black border. A purple line connects points A45 and A46, and a blue line connects points A46 and A47.

**Order Details**

Order Number:	56627545_1_1
Customer Ref:	14601
National Grid Reference:	286350, 721010
Slice:	A
Site Area (Ha):	2.44
Search Buffer (m):	100

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







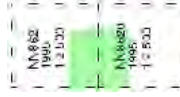
## Large-Scale National Grid Data

Published 1995

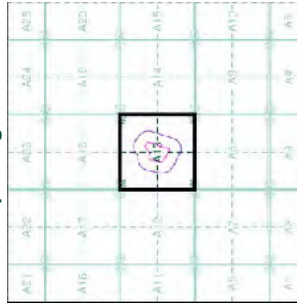
Source map scale - 1:2,500

Large Scale National Grid Data superceded SIM cards (Ordnance Survey's 'Sun' information on Microfilm) in 1992, and continued to be produced until 1999. These maps were the first series of digital mapping and so provide details of features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

### Map Name(s) and Date(s)



### Historical Map - Segment A13



### Order Details

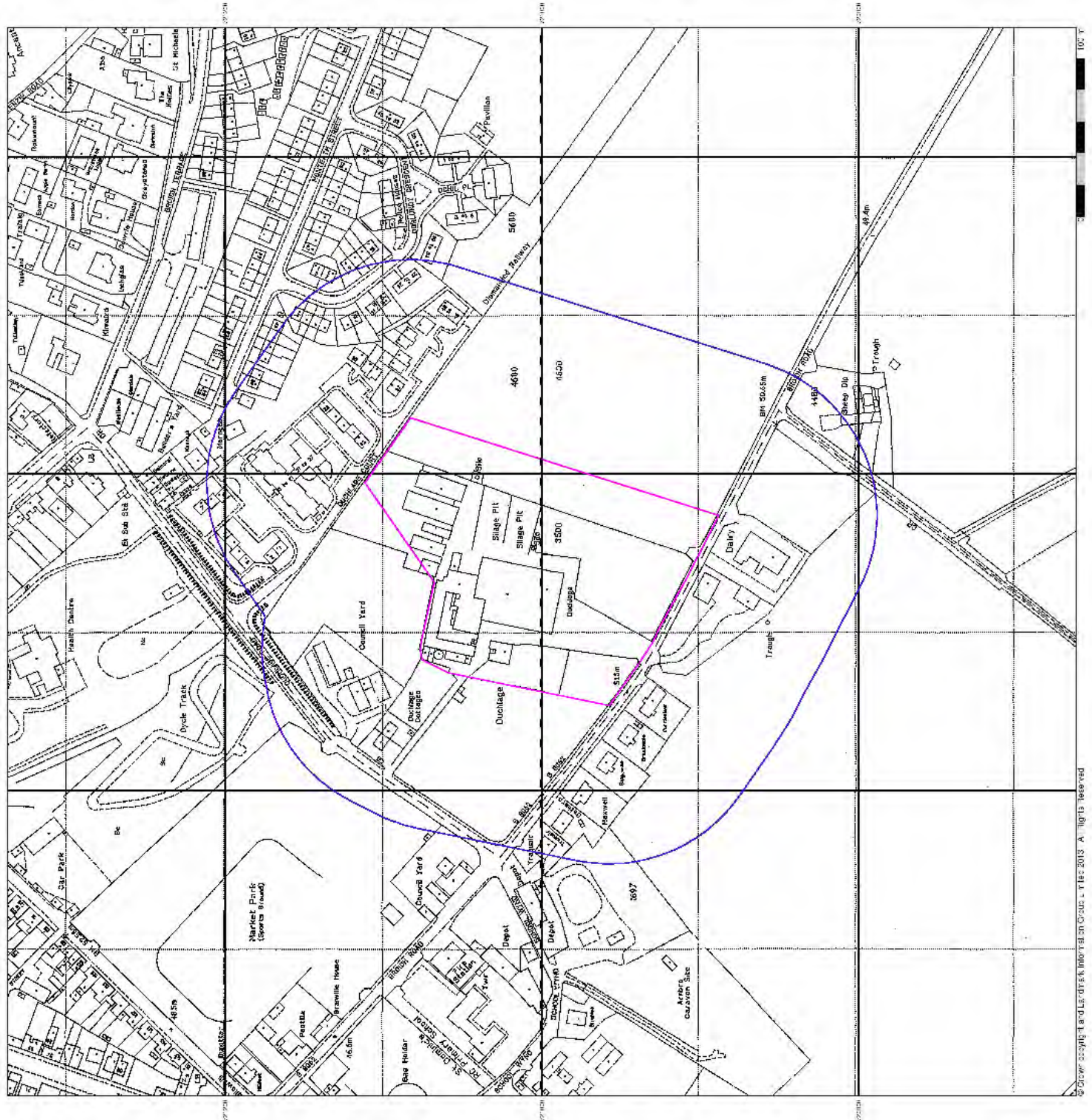
Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Site: A  
Site Area (Ha): 2.44  
Search Buffer (m): 100

### Site Details

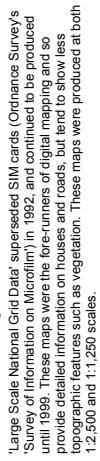
Duchlage Farm, Duchlage Road, Crief, PH7 3SD



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Fax: 0844 844 9951  
Web: www.envirocheck.co.uk



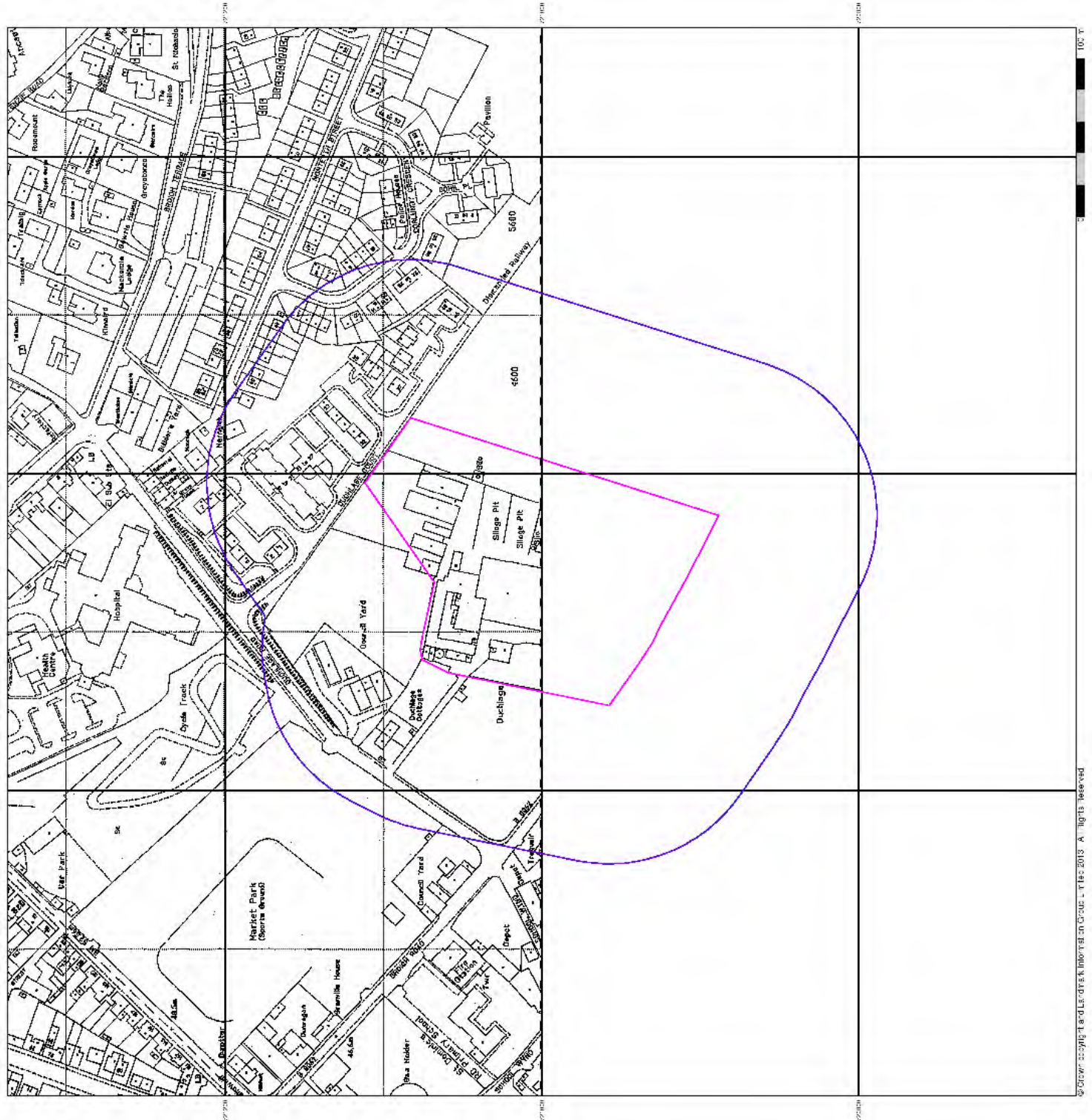




NN8621  
 1996  
 1:2,500

The figure shows a 10x10 grid of points labeled A1 through A100. The grid is divided into four quadrants by dashed lines. A central 2x2 area of points (A45, A46, A47, A48) is highlighted with a thick black border. A purple line connects points A45 and A46, and a blue line connects points A46 and A47.

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD







## 10k Raster Mapping

Published 2006

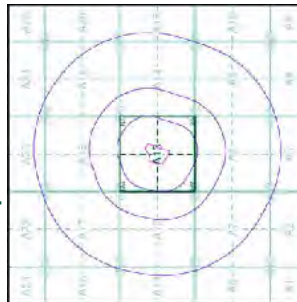
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Ordnance Survey's 1:10,000 maps originally published prior to 1970. The data is high detailed showing buildings, roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depicted includes county, unitary authority, district, civil parish and constituency.

### Map Name(s) and Date(s)

1	AN52SW	1	AN52SE
1	2003	1	2003
1	1:10,000	1	1:10,000
1	AN51NW	1	AN51NE
1	2006	1	2006
1	1:10,000	1	1:10,000

### Historical Map - Slice A



### Order Details

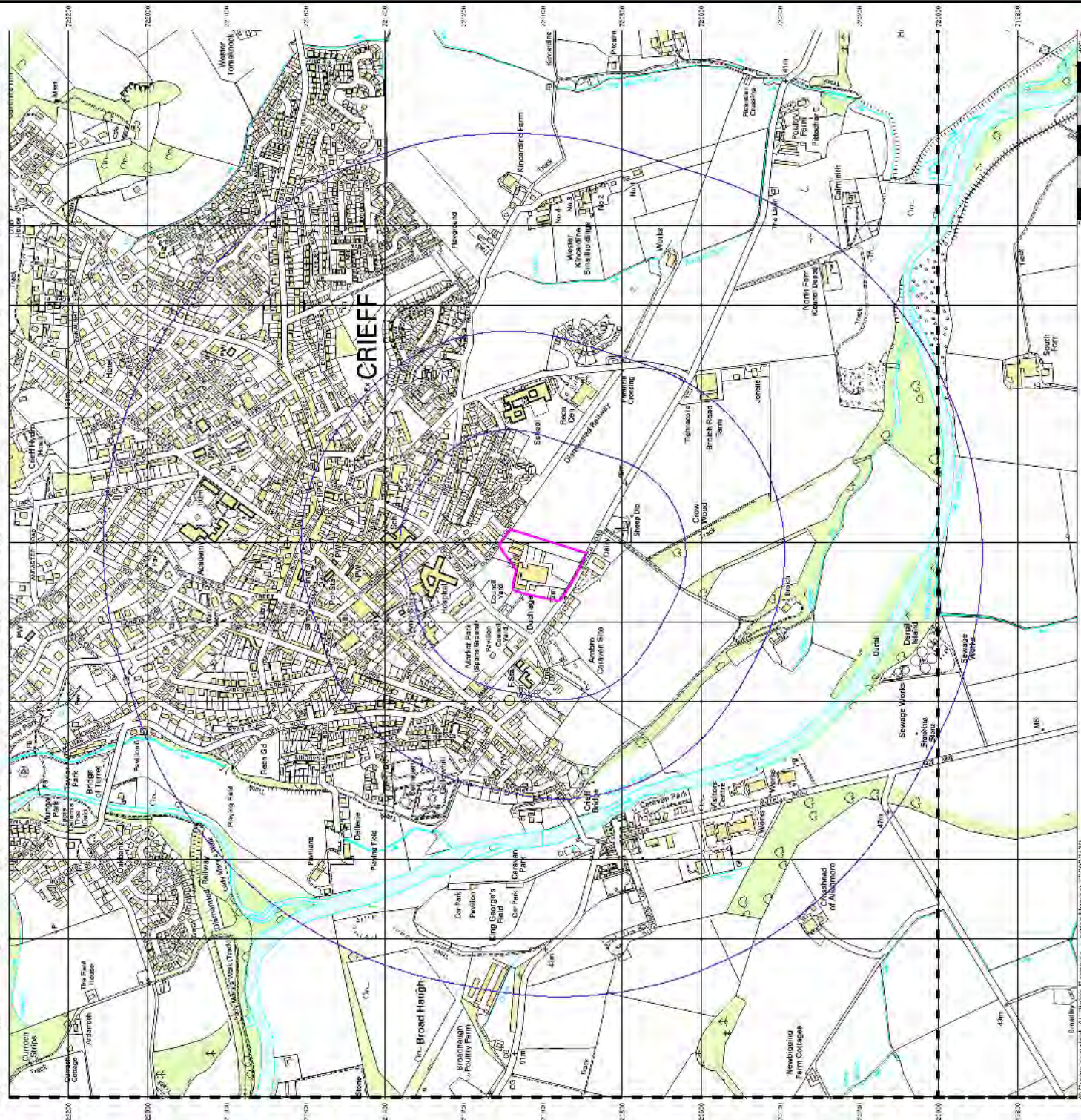
Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

### Site Details

Duchlague Farm, Duchlague Road, Crief, PH7 3SD



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

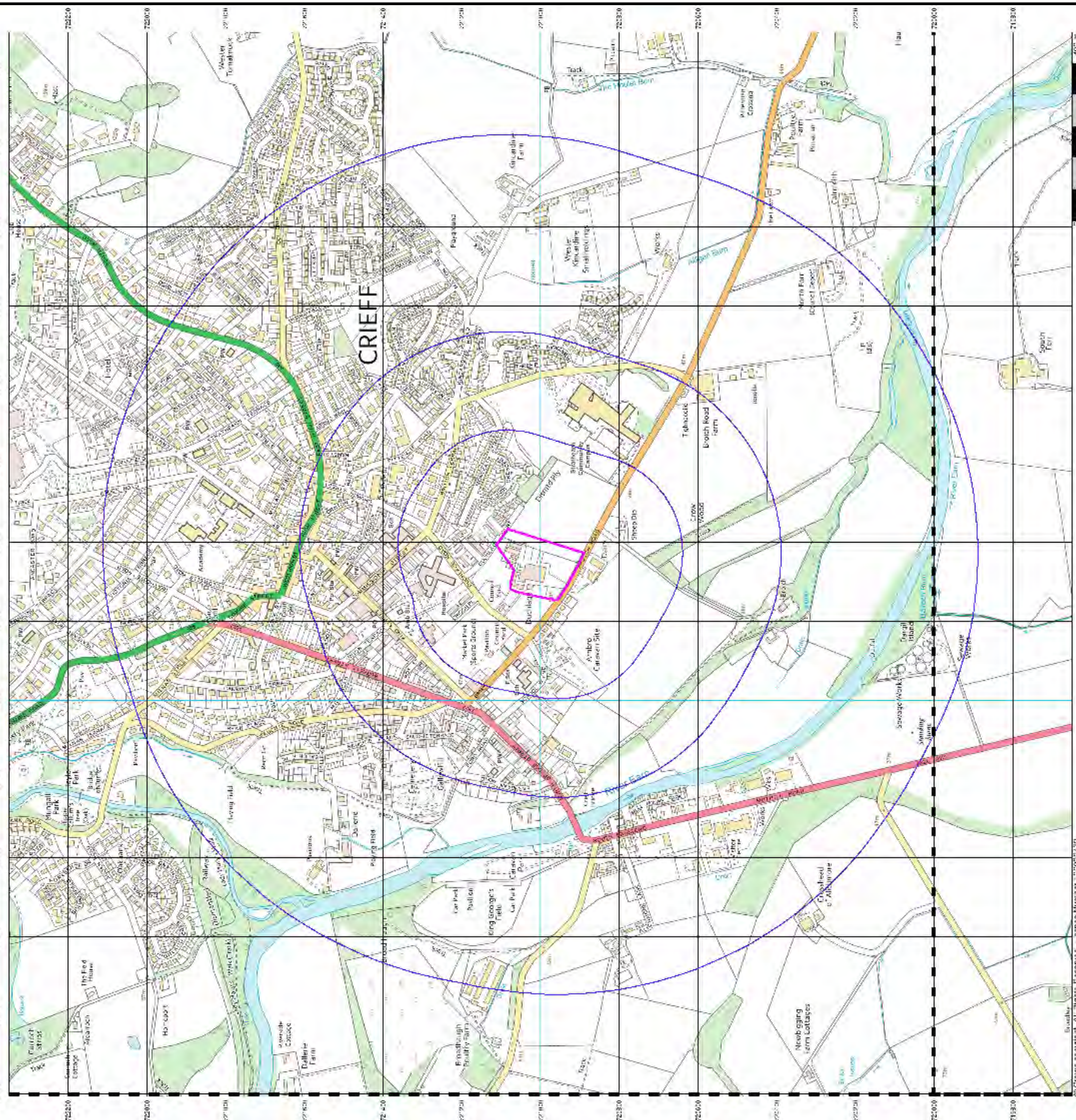
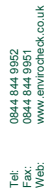




N22SE 20° Variat c	N22SE 201° Variat c
N31NW 20° Variat c	N31NW 214° Variat c

Order Number: 56267545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

Duchlage Farm, Duchlage Road, Crieff, PH7 3SD





# Historical Mapping Legends

## Ordnance Survey County Series 1:10,560


## Ordnance Survey Plan 1:10,000

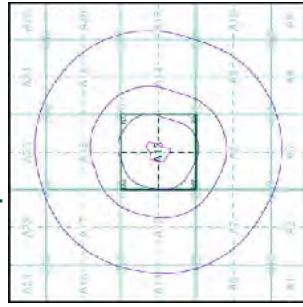

## 1:10,000 Raster Mapping




## Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Pertshire	1:10,560	1866	2
Pertshire	1:10,560	1901	3
Pertshire	1:10,560	1930	4
Pertshire	1:10,560	1932	5
Pertshire	1:10,560	1938	6
Ordnance Survey Plan	1:10,000	1958 - 1959	7
Ordnance Survey Plan	1:10,000	1971 - 1978	8
Ordnance Survey Plan	1:10,000	1978	9
Ordnance Survey Plan	1:10,000	1986	10
Ordnance Survey Plan	1:10,000	1991	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2014	13

## Historical Map - Slice A



## Order Details

Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

## Site Details

Duchlache Farm, Duchlache Road, Orreiff, PH7 3SD



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 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

# Historical Mapping Legends

## Ordnance Survey County Series and Ordnance Survey Plan 1:2,500


# **Appendix C**

## Envirocheck Report





## Groundwater Vulnerability

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

### Agency and Hydrological

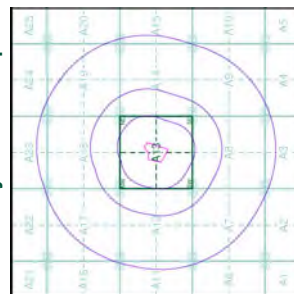
#### Geological Classes

- Highly Permeable
- Moderately Permeable
- Weakly Permeable
- Water or Sea
- Drift Deposit

#### Soil Classes

- High
- Intermediate
- Low

### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Site: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

### Site Details

Duchage Farm, Duchlage Road, Crief, PH7 3SD



Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk








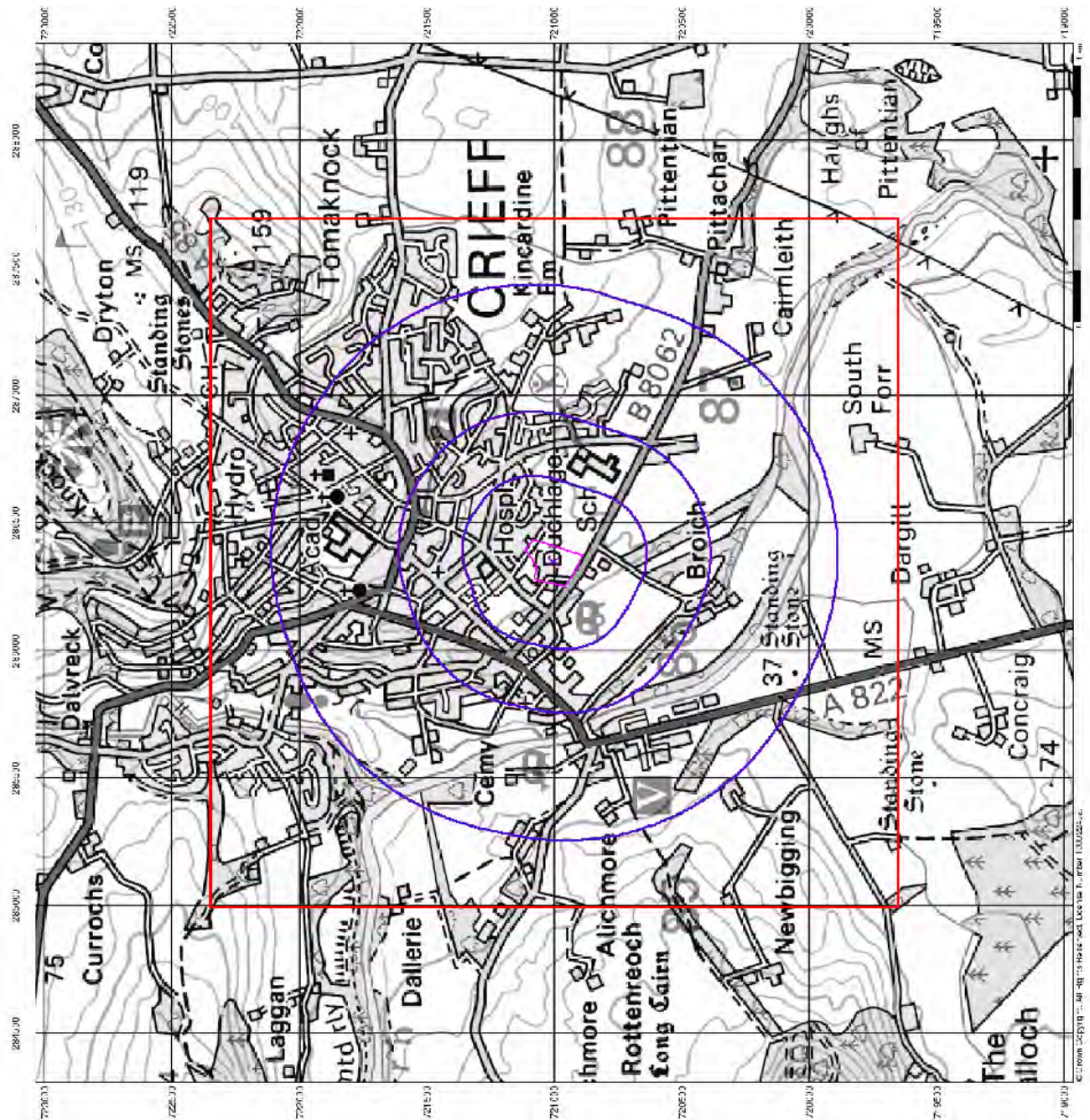
## Source Protection Zones

### General

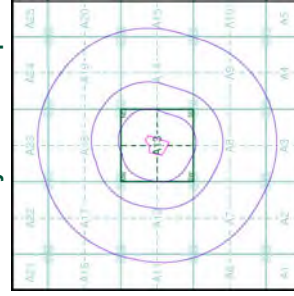
-  Specified Site
-  Specified Buffer(s)
-  Map ID
-  Bearing Reference Point

### Agency and Hydrological

-  Source Protection Zone I
-  Source Protection Zone II
-  Source Protection Zone III
-  Zone of Special Interest
-  Source Protection Zone Borehole



### Site Sensitivity Context Map - Slice A



### Order Details

Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

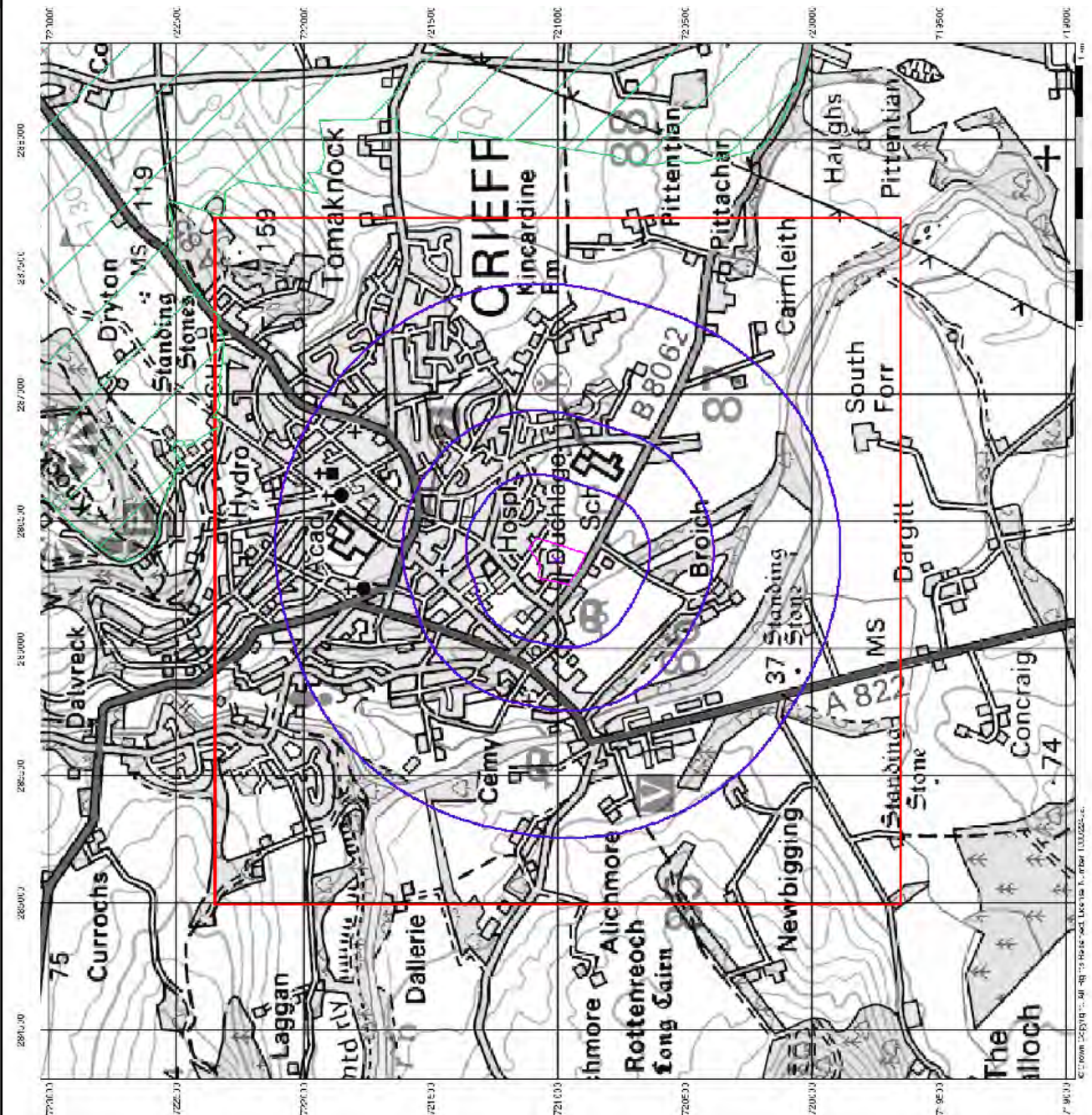
### Site Details

Duchage Farm, Duchlage Road, Crieff, PH7 3SD

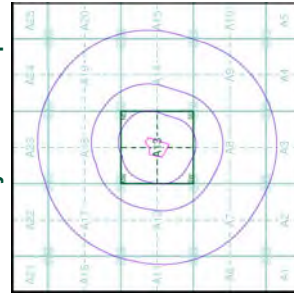


## Sensitive Land Uses

- General**
- Specified Site
  - Specified Buffer(s)
  - Map ID
  - Bearing Reference Point
- Sensitive Land Uses**
- Area of Adopted Green Belt
  - Area of Unadopted Green Belt
  - Environmentally Sensitive Area
  - Forest Park
  - Local Nature Reserve
  - Marine Nature Reserve
  - National Nature Reserve
  - National Park
  - National Scenic Area
  - Nitrate Sensitive Area
  - Nitrate Vulnerable Zone
  - Ramsar Site
  - Site of Special Scientific Interest
  - Special Area of Conservation
  - Special Protection Area



## Site Sensitivity Context Map - Slice A



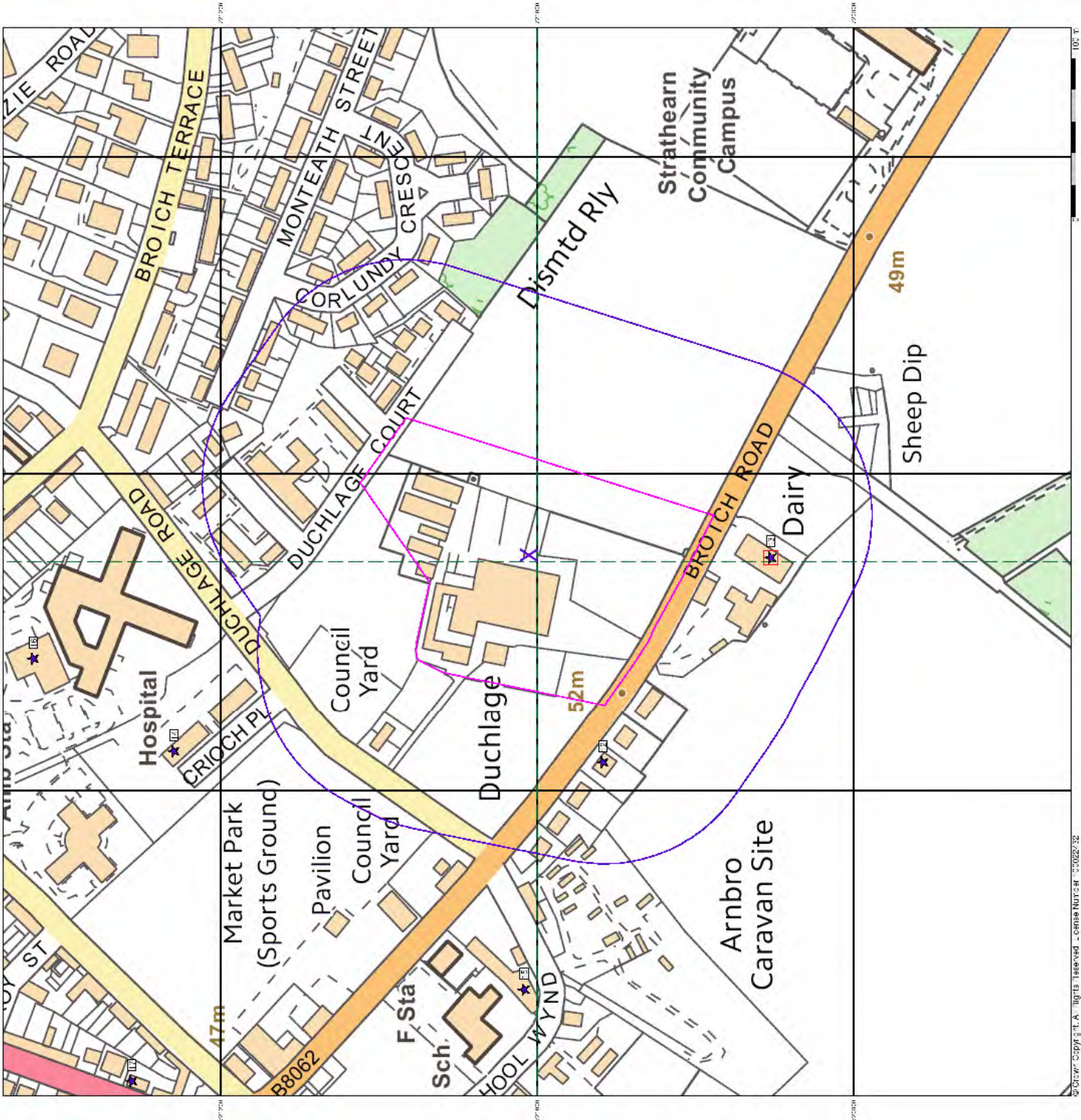
## Order Details

Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

## Site Details

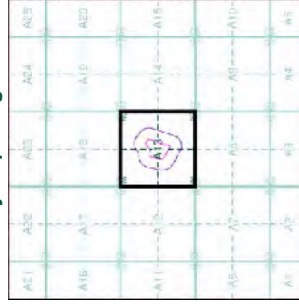
Duchlag Farm, Duchlag Road, Crieff, PH7 3SD





- General**
- Specified Site
  - Several of Type at Location
  - Bearing Reference Point
  - Map ID
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice
  - Discharge Consent
  - Enforcement or Prohibition Notice
  - Integrated Pollution Control
  - Integrated Pollution Prevention and Control
  - Local Authority Pollution Prevention and Control
  - Pollution Incident to Controlled Waters
  - Prosecution Relating to Authorised Processes
  - Prosecution Relating to Controlled Waters
  - Registration of Radioactive Substances
  - River Network or Water Feature
  - Substantiated Pollution Incident Register
  - Water Abstraction
  - Water Industry Act Referral
- Waste**
- BSS Recorded Landfill Site (Location)
  - BSS Recorded Landfill Site
  - Integrated Pollution Control Registered Waste Site
  - Local Authority Recorded Landfill Site (Location)
  - Local Authority Recorded Landfill Site
  - Registered Landfill Site (Location)
  - Registered Landfill Site (Not Suffered to 10m)
  - Registered Landfill Site (Not Suffered to 20m)
  - Registered Waste Transfer Site (Location)
  - Registered Waste Treatment or Disposal Site (Location)
  - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
  - Explosive Site
  - NIHSC Site
  - Planning Hazardous Substance Consent
  - Planning Hazardous Substance Enforcement
- Geological**
- BSS Recorded Mineral Site
- Industrial Land Use**
- Contemporary Trade Directory Entry
  - Fuel Station Entry

Site Sensitivity Map - Segment A13



Order Details

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44

Site Details

Duchlague Farm, Duchlague Road, Crief, PH7 3SD








Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk





**X** Bearing Reference Point **8** Map ID

## Waste

 BGS Recorded Landfill Site (Location)  
 BGS Recorded Landfill Site  
 Integrated Pollution Control Registered Waste Site  
 Local Authority Recorded Landfill Site  
 Local Authority Recorded Landfill Site

[► Registere](#)

 Registered Landfill Site (Point Buffered to 100m)  
 Registered Landfill Site (Point Buffered to 250m)  
 Registered Waste Transfer Site (Location)  
 Registered Waste Transfer Site  
 Registered Waste Treatment or Disposal Site (Location)  
 Registered Waste Treatment or Disposal Site

## Hazard

COMAH Site  
Explosive Site  
NIHS Site  
Planning Hazard  
Planning Hazard

**X** Planning I

**✖ Planning Hazardous Substance Enforcement**

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
A  
Slice: 2.44  
Site Area (Ha): 1000  
Search Buffer (m):

**Site Details**  
Duchlage Farm, Duchlage Road, Crieff, PH7 3SD





### General

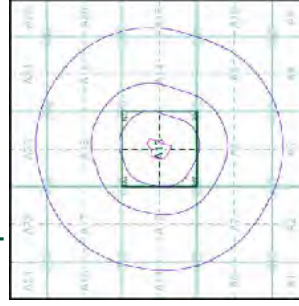
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

### Agency and Hydrological (Flood)

- 0 - 1m estimated 100yr flood depth
- 1 - 2m estimated 100yr flood depth
- Over 2m estimated 100yr flood depth

The flooded areas have been generated using a simplifying technique and should not, by themselves, be used to infer that specific areas are or are not at risk of inundation. Flood risk at any specific location may be influenced by local factors - not least flood defence - that have not been taken into account.

### Flood Map - Slice A



### Order Details

Order Number: 56627545\_1\_1  
Customer Ref: 14601  
National Grid Reference: 286350, 721010  
Slice: A  
Site Area (Ha): 2.44  
Search Buffer (m): 1000

### Site Details

Duchlage Farm, Duchlage Road, Crief, PH7 3SD



Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk

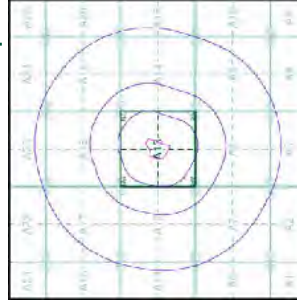








## EA Detailed River Network Map - Slice A



## Order Details

Order Number: 56627545\_1\_1  
 Customer Ref: 14601  
 National Grid Reference: 286350, 721010  
 Slice: A  
 Site Area (Ha): 2.44  
 Search Buffer (m): 1000

## Site Details

Duchlag Farm, Duchlag Road, Crieff, PH7 3SD



Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: www.envirocheck.co.uk

# Envirocheck<sup>®</sup> Report:

## Datasheet

### Order Details:

**Order Number:**

56627545\_1\_1

**Customer Reference:**

14601

**National Grid Reference:**

286350, 721010

**Slice:**

A

**Site Area (Ha):**

2.44

**Search Buffer (m):**

1000

### Site Details:

Duchlage Farm, Duchlage Road  
Crieff  
PH7 3SD

### Client Details:

Mr A Coverdale  
3e Consulting Engineers Ltd  
1st Floor, Block C  
Holland Park  
Holland Drive  
Newcastle upon Tyne  
NE2 4LD



Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	3
Hazardous Substances	-
Geological	6
Industrial Land Use	18
Sensitive Land Use	-
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## Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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## Report Version v47.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Agency &amp; Hydrological</b>					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			1	3
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 1				3
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2				Yes
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 2		3		
Substantiated Pollution Incident Register					
Water Abstractions					
Water Industry Act Referrals					
Groundwater Vulnerability	pg 2	Yes	n/a	n/a	n/a
Source Protection Zones					
River Flood Data (Scotland)				n/a	n/a
Detailed River Network Lines					n/a
Detailed River Network Offline Drainage					n/a
<b>Waste</b>					
BGS Recorded Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Recorded Landfill Sites					
Registered Landfill Sites	pg 3			1	3
Registered Waste Transfer Sites	pg 5				1
Registered Waste Treatment or Disposal Sites	pg 5				1
<b>Hazardous Substances</b>					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Geological</b>					
BGS 1:625,000 Solid Geology	pg 6	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 6	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 16	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 16		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 16	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards				n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
<b>Industrial Land Use</b>					
Contemporary Trade Directory Entries	pg 18		6	23	26
Fuel Station Entries	pg 22			1	1

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
<b>Sensitive Land Use</b>					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
National Scenic Areas					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<b>Discharge Consents</b> Operator: Nsw Property Type: Not Supplied Location: North Bridge Storm Overflow Crieff Authority: Scottish Environment Protection Agency, East Region Catchment Area: Earn Reference: Wpc/E/10342 Permit Version: 1 Effective Date: Not Supplied Issued Date: 24th June 1983 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Not Supplied Environment: Receiving Water: Not Supplied <b>Status: Not Supplied</b> Positional Accuracy: Located by supplier to within 100m	A12SE (W)	481	1	285800 720800
2	<b>Discharge Consents</b> Operator: Crieff Holiday... Property Type: Not Supplied Location: Crieff Holiday Village Stw Crieff Authority: Scottish Environment Protection Agency, East Region Catchment Area: Earn Reference: Wpc/E/10010 Permit Version: 1 Effective Date: Not Supplied Issued Date: 11th January 1978 Revocation Date: Not Supplied Discharge Type: Non Water Company (Private) Sewage: Secondary (Biological Filters) Discharge: Not Supplied Environment: Receiving Water: Not Supplied <b>Status: Not Supplied</b> Positional Accuracy: Located by supplier to within 100m	A12NW (W)	606	1	285650 721000
3	<b>Discharge Consents</b> Operator: Nsw Property Type: Not Supplied Location: Crieff Stw Authority: Scottish Environment Protection Agency, East Region Catchment Area: Earn Reference: Wpc/E/10032 Permit Version: 1 Effective Date: Not Supplied Issued Date: 3rd November 1981 Revocation Date: Not Supplied Discharge Type: Public Sewage: Secondary (Biological Filters) Discharge: Not Supplied Environment: Receiving Water: Not Supplied <b>Status: Not Supplied</b> Positional Accuracy: Located by supplier to within 100m	A8SW (S)	891	1	286301 720001
3	<b>Discharge Consents</b> Operator: Nsw Property Type: Not Supplied Location: Crieff Stw Authority: Scottish Environment Protection Agency, East Region Catchment Area: Earn Reference: Wpc/E/10032 Permit Version: 2 Effective Date: Not Supplied Issued Date: 3rd November 1981 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Not Supplied Environment: Receiving Water: Not Supplied <b>Status: Not Supplied</b> Positional Accuracy: Located by supplier to within 10m	A8SW (S)	892	1	286300 720000
4	<b>Local Authority Pollution Prevention and Controls</b> Name: Crieff Garage Location: East High Street, 75 Crieff, Crieff Authority: Scottish Environment Protection Agency, East Region Permit Reference: Apc/E/20242 Dated: 12th February 1999 Process Type: Air Pollution Controls (Part B Processes) Description: PG1/14 Petrol filling station <b>Status: Not Supplied</b> Positional Accuracy: Manually positioned to the address or location	A19SW (NE)	594	1	286751 721586

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	<b>Local Authority Pollution Prevention and Controls</b> Name: Gordon Motors Location: West End Garage, Comrie Road, Crieff, Ph74bw Authority: Scottish Environment Protection Agency, East Region Permit Reference: Apc/E/546 Dated: 25th November 1992 Process Type: Local Authority Air Pollution Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input <b>Status: Not Supplied</b> Positional Accuracy: Manually positioned to the address or location	A18NW (N)	764	1	286179 721844
5	<b>Local Authority Pollution Prevention and Controls</b> Name: Gordon Motors Location: Comrie Road, CRIEFF, Perthshire, PH7 4BQ Authority: Scottish Environment Protection Agency, East Region Permit Reference: WOB/1 Dated: 12th October 1992 Process Type: Local Authority Air Pollution Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input <b>Status: Authorised</b> Positional Accuracy: Automatically positioned to the address	A18NW (N)	769	1	286179 721849
	<b>Nearest Surface Water Feature</b>	A12SE (SW)	517	-	285774 720766
	<b>River Quality</b> Name: Not Supplied GQA Grade: River Quality A Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1990	A13NW (W)	45	2	286223 721042
	<b>River Quality</b> Name: Not Supplied GQA Grade: River Quality A Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1990	A13SW (SW)	238	2	286136 720749
	<b>River Quality</b> Name: Not Supplied GQA Grade: River Quality A Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1990	A13SW (SW)	238	2	286136 720749
	<b>Groundwater Vulnerability</b> Geological Classification: Major or Highly Permeable Aquifer - Highly permeable strata usually with a known or probable presence of significant fracturing Soil Classification: Soils of High Leaching Potential - Soils with little ability to attenuate diffuse source pollutants and in which non-absorbed diffuse source pollutants and liquid discharges will percolate rapidly Map Sheet: Map of Scotland Scale: 1:625,000	A13NE (W)	0	2	286349 721005
	<b>Drift Deposits</b> None				
	<b>River Flood Data (Scotland)</b> None				
	<b>Detailed River Network Lines</b> None				
	<b>Detailed River Network Offline Drainage</b> None				



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Local Authority Landfill Coverage</b> Name: Perth And Kinross Council - Has no landfill data to supply		0	8	286349 721005
6	<b>Registered Landfill Sites</b> Licence Holder: M Warrack Licence Reference: WDL/ 1/85 Site Location: Old Railway Cutting At King Street, Crieff, Perthshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: 12 Rutland Square, Edinburgh, Lothian Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Landfill - Railway cutting Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st June 1985 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Moderate Authorised Waste: Waste Ex Demol'N Of Nearby Building Prohibited Waste: Combustible Material	A18SW (N)	329	4	286197 721393
7	<b>Registered Landfill Sites</b> Licence Holder: Perth & Kinross Council Licence Reference: WML/E/20059 Site Location: North Forr Landfill, Crieff, Perthshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: Contract Services, Friarton Road Depot, PERTH, Perthshire, PH2 8DF Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 20th June 1997 Preceded By: WD/PKDC/16 Licence: Superseded By: Wml/E/20059 Mod 2 Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good Authorised Waste: Cat A Waste 'Inert' Max.Waste Permitted By Licence Road Sweepings Prohibited Waste: Household Waste Industrial Wastes (S75 Epa'90) Liquid Wastes List I Substances In Eec Dir. 80/68 Poisonous, Noxious, Polluting Wastes Sludge Wastes Waste N.O.S.	A8SE (S)	699	4	286616 720233

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	<b>Registered Landfill Sites</b> Licence Holder: Perth & Kinross Council Licence Reference: Wml/E/20059 Mod 3 Site Location: Crieff Landfill & C.A.Site, North Forr, Crieff, Perthshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: Pullar House, 35 Kinoull Street, Perth, Perthshire, Ph1 5gd Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Landfill - with transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Operational as far as is knownOperational Dated: 12th January 2006 Preceded By: Wml/E/20059 Mod 2 Licence: Superseded By: Not Given Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good Authorised Waste: Acid In Lead/Acid Batteries From Householders Annual Maximum Waste To C.A.Site Annual Maximum Waste To Landfill Commercial Waste - To C.A.Site Household Waste - To C.A.Site Household/Garden Chemicals From Householders Industrial Waste - To C.A.Site Inert Wast - For Landfill Paint / Varnish From Householders Waste Oil From Householders Prohibited Waste: Liquid Waste - Other Than :- Other Waste / Waste Not Otherwise Specified Special Waste - Other Than From Householders Waste Containing Pcb/Pcts	A9SW (SE)	743	4	286747 720247
9	<b>Registered Landfill Sites</b> Licence Holder: Perth & Kinross D.C. Licence Reference: WD/PKDC/16 Site Location: Crieff Refuse Tip, North Forr, Crieff, Perthshire Licence Easting: Not Supplied Licence Northing: Not Supplied Operator Location: Council Chambers, 3 High Street, Perth, Perthshire Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st June 1979 Preceded By: Not Given Licence: Superseded By: WML/E/20059 Licence: Positional Accuracy: Positioned by the supplier Boundary Accuracy: Good Authorised Waste: Construction Ind. Wastes House.& Com. Waste Non-Haz. Ind. Waste Scrap Vehicles/Machinery Etc	A9SW (SE)	999	4	286998 720109

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	<b>Registered Waste Transfer Sites</b> Licence Holder: Perth & Kinross Council Licence Reference: Wml/E/20057 Mod 3 Site Location: Crieff C.A.Site, North Forr, Crieff, Perthshire Operator Location: Pullar House, 35 Kinoull Street, Perth, Perthshire, Ph1 5gd Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Civic Amenity Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 27th March 1997 Preceded By: Not Given Licence: Superseded By: Wml/E/20059 Mod 3 Licence: Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate Authorised Waste: Acid In Lead/Acid Batteries From Householde Commercial Waste Household / Garden Chemicals From Householde Household Waste Max.Waste Permitted By Licence Paint Varnish Waste From Householde Waste Oil From Householde Prohibited Waste: Liquid Waste - Other Than Special Waste-Other Than From Householders Waste N.O.S.	A9SE (SE)	910	4	287056 720288
11	<b>Registered Waste Treatment or Disposal Sites</b> Licence Holder: Perth & Kinross Council Licence Reference: Wml/E/20059 Mod 2 Site Location: Crieff Refuse Tip (Treatment Area), North Forr, Crieff, Perthshire Operator Location: Pullar House, 35 Kinoull Street, Perth, Perthshire, Ph1 5gd Authority: Scottish Environment Protection Agency - East Region, Perth Office Site Category: Landfill - with treatment Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Record supersededSuperseded Dated: 10th July 2003 Preceded By: Wml/E/20059 Licence: Superseded By: Wml/E/20059 Mod 3 Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: H'Hold/Com./Ind. Waste Comprising Road Sweepings Inert Waste - For Landfilling Prohibited Waste: Waste Contaminated With Pcbs/Pcts	A9SE (SE)	959	4	287080 720240

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS 1:625,000 Solid Geology</b> Description: Lower Old Red Sandstone, including Downtonian	A13NE (W)	0	5	286349 721005
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (S)	0	6	286349 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (W)	0	6	286349 721005
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	29	6	286244 720924
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (W)	66	6	286195 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (NE)	109	6	286534 721129
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic Concentration: <15 mg/kg Cadmium Concentration: no data Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (W)	222	6	286033 720935

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (W)	254	6	286000 720973
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	255	6	286000 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (W)	258	6	286000 720915
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	258	6	286000 721005
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	265	6	286104 721270
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	267	6	286079 721247

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	281	6	285977 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	282	6	286000 720834
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	282	6	286000 720835
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (W)	287	6	285977 720881
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	297	6	286000 721172
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (NE)	312	6	286556 721378



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SE (SW)	333	6	286000 720743
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	338	6	285919 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	342	6	286224 721412
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	366	6	285907 721084
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	381	6	285887 721066
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	412	6	286311 721514

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (NW)	428	6	286055 721438
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	436	6	285848 721147
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (W)	438	6	285818 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17SE (NW)	497	6	286000 721484
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	565	6	287000 721005
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	567	6	287000 721120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	567	6	287000 721131
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (E)	571	6	287000 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SW)	641	6	285733 720585
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17SE (NW)	689	6	285768 721533
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	704	6	287134 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (SW)	736	6	285741 720430

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	751	6	285536 720737
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	767	6	286000 721789
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	806	6	287237 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (SW)	809	6	286000 720171
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	826	6	285473 720690
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SW (SE)	844	6	287000 720323

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	850	6	285933 721850
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12SW (W)	863	6	285390 720958
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (W)	868	6	285387 721006
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (W)	868	6	285388 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	873	6	285608 720370
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NE (N)	889	6	286349 722000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	889	6	286349 720000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	904	6	286207 720000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (W)	922	6	285392 720630
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (SW)	930	6	285503 720409
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (NW)	934	6	285867 721911
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 90 - 120 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19NW (N)	935	6	286686 722000



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NE (W)	950	6	285310 721056
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NE (W)	950	6	285309 721049
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NE (W)	953	6	285302 721000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (S)	956	6	286000 720009
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (S)	963	6	286004 720000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (S)	964	6	286000 720000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (N)	967	6	286000 722000
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (W)	971	6	285291 720839
	<b>BGS Estimated Soil Chemistry</b> Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sed Arsenic <15 mg/kg Concentration: Cadmium no data Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (N)	977	6	285969 722000
	<b>BGS Measured Urban Soil Chemistry</b> No data available				
	<b>BGS Urban Soil Chemistry Averages</b> No data available				
	<b>Coal Mining Affected Areas</b> In an area that might not be affected by coal mining				
	<b>Non Coal Mining Areas of Great Britain</b> Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Potential for Collapsible Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Potential for Compressible Ground Stability Hazards</b> Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	222	5	286034 720932
	<b>Potential for Ground Dissolution Stability Hazards</b> No Hazard				
	<b>Potential for Landslide Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Potential for Running Sand Ground Stability Hazards</b> Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005
	<b>Radon Potential - Radon Protection Measures</b> Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<b>Radon Potential - Radon Affected Areas</b> Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A13NE (W)	0	5	286349 721005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<b>Contemporary Trade Directory Entries</b> Name: John Menzies Location: Broich Rd, Crieff, Perthshire, PH7 3SE Classification: Coal Companies <b>Status: Active</b> Positional Accuracy: Manually positioned within the geographical locality	A13SW (W)	36	-	286218 720958
13	<b>Contemporary Trade Directory Entries</b> Name: D & D Location: Broich Road, Crieff, Perthshire, PH7 3SG Classification: Dairies <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A13SE (S)	45	-	286347 720852
13	<b>Contemporary Trade Directory Entries</b> Name: Wiltshire Farm Foods Location: Broich Road, Crieff, Perthshire, PH7 3SG Classification: Frozen Food Processors & Distributors <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A13SE (S)	45	-	286347 720852
14	<b>Contemporary Trade Directory Entries</b> Name: Rainbow International Location: 8, Crioich Place, Crieff, Perthshire, PH7 3BW Classification: Carpet, Curtain & Upholstery Cleaners <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A13NW (NW)	165	-	286225 721229
15	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Tyres Location: School Wynd, Crieff, Perthshire, PH7 3SF Classification: Tyre Dealers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A13NW (W)	186	-	286075 721008
16	<b>Contemporary Trade Directory Entries</b> Name: Crieff Hospital Location: King Street, Crieff, Perthshire, PH7 3HR Classification: Hospitals <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A13NW (N)	235	-	286284 721318
17	<b>Contemporary Trade Directory Entries</b> Name: J McWilliam Location: 82, Burrell Street, Crieff, Perthshire, PH7 4DG Classification: Domestic Appliances - Servicing, Repairs & Parts <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A13NW (NW)	322	-	286017 721256
18	<b>Contemporary Trade Directory Entries</b> Name: Victor Marsh Cars Ltd Location: King St, Crieff, Perthshire, PH7 3HB Classification: Car Dealers - Used <b>Status: Inactive</b> Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	336	-	286216 721404
19	<b>Contemporary Trade Directory Entries</b> Name: The Turret Location: Burrell Street, Crieff, Perthshire, PH7 4DG Classification: Tyre Dealers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A12NE (NW)	350	-	285970 721232
19	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Tyres Location: Burrell Street, Crieff, Perthshire, PH7 4DG Classification: Tyre Dealers <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A12NE (NW)	350	-	285970 721232
19	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Tyres Ltd Location: Burrell Street, Crieff, Perthshire, PH7 4DG Classification: Tyre Dealers <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A12NE (NW)	350	-	285970 721232
20	<b>Contemporary Trade Directory Entries</b> Name: Meadow Garage Location: Union Terrace, Crieff, Perthshire, PH7 4DE Classification: Garage Services <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A18SW (NW)	361	-	286137 721406

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	<b>Contemporary Trade Directory Entries</b> Name: Crieff Motorcare Location: Union Terr, Crieff, Perthshire, PH7 4DE Classification: Garage Services <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	398	-	286139 721446
21	<b>Contemporary Trade Directory Entries</b> Name: Crieff Paint Shop Location: 55, Commissioner Street, Crieff, Perthshire, PH7 3AY Classification: Painting & Decorating Supplies <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	390	-	286280 721485
21	<b>Contemporary Trade Directory Entries</b> Name: P K Process International Ltd Location: 55, Commissioner Street, Crieff, Perthshire, PH7 3AY Classification: Engineers - General <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	390	-	286280 721485
21	<b>Contemporary Trade Directory Entries</b> Name: Box Of Scents Location: 53, King Street, Crieff, Perthshire, PH7 3AX Classification: Candle Manufacturers & Suppliers <b>Status:</b> Inactive Positional Accuracy: Manually positioned to the address or location	A18SW (N)	390	-	286280 721485
22	<b>Contemporary Trade Directory Entries</b> Name: Burrell Street Filling Station Location: 65, Burrell Street, Crieff, Perthshire, PH7 4DG Classification: Petrol Filling Stations <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	397	-	286023 721375
23	<b>Contemporary Trade Directory Entries</b> Name: Crieff Spray Shop Location: Church Street, Crieff, Perthshire, PH7 3AE Classification: Car Body Repairs <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A18SE (N)	401	-	286519 721492
24	<b>Contemporary Trade Directory Entries</b> Name: R S Graham Location: Park House Dairy, 30-32, North Bridge Street, Crieff, Perthshire, PH7 3HJ Classification: Dairies <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A12NE (W)	405	-	285853 721014
25	<b>Contemporary Trade Directory Entries</b> Name: Wrought Iron Designs Location: Bank St, Crieff, Perthshire, PH7 3JQ Classification: Wrought Ironwork <b>Status:</b> Active Positional Accuracy: Manually positioned to the road within the address or location	A18SE (NE)	425	-	286597 721485
25	<b>Contemporary Trade Directory Entries</b> Name: Jade Contractors Location: Ramsay St, Crieff, Perthshire, PH7 3JF Classification: Cleaning Services - Domestic <b>Status:</b> Active Positional Accuracy: Manually positioned to the road within the address or location	A18SE (NE)	446	-	286622 721494
25	<b>Contemporary Trade Directory Entries</b> Name: Chem Dry Location: Ramsay St, Crieff, Perthshire, PH7 3JF Classification: Carpet, Curtain & Upholstery Cleaners <b>Status:</b> Active Positional Accuracy: Manually positioned within the geographical locality	A18SE (NE)	452	-	286632 721495
26	<b>Contemporary Trade Directory Entries</b> Name: Alligan Road Motor Services Location: Alligan Road, Crieff, Perthshire, PH7 3JR Classification: Garage Services <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	461	-	286758 721410
27	<b>Contemporary Trade Directory Entries</b> Name: Chem-Dry Of Strathearn Location: 22, Galvelmore Street, Crieff, Perthshire, PH7 4BY Classification: Carpet, Curtain & Upholstery Cleaners <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	463	-	286239 721547

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	<b>Contemporary Trade Directory Entries</b> Name: W Tracey Location: 14, Bank Place, Crieff, Perthshire, PH7 4BZ Classification: Slate & Slate Products <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A18SW (N)	480	-	286259 721572
28	<b>Contemporary Trade Directory Entries</b> Name: Frank Thomson (Crieff) Ltd Location: 9, East High Street, Crieff, Perthshire, PH7 3AF Classification: Hardware <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A18SE (NE)	467	-	286582 721539
28	<b>Contemporary Trade Directory Entries</b> Name: Thistle Mobility Location: The Cross, Crieff, Perthshire, PH7 3BT Classification: Disability Equipment - Manufacturers & Suppliers <b>Status: Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A18SE (N)	470	-	286555 721553
28	<b>Contemporary Trade Directory Entries</b> Name: Anna Visscher Location: 25, East High Street, Crieff, Perthshire, PH7 3AF Classification: Glass Engravers & Decorators <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A18SE (NE)	483	-	286601 721547
29	<b>Contemporary Trade Directory Entries</b> Name: Country Mile Location: Alligan Rd, Crieff, Perthshire, PH7 3JR Classification: Garage Services <b>Status: Active</b> Positional Accuracy: Manually positioned within the geographical locality	A19SW (NE)	486	-	286826 721371
30	<b>Contemporary Trade Directory Entries</b> Name: Scottish Hydro Electric Plc Location: 7, Hill Street, Crieff, Perthshire, PH7 3BU Classification: Electrical Goods Sales, Manufacturers & Wholesalers <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A18SE (N)	508	-	286441 721617
30	<b>Contemporary Trade Directory Entries</b> Name: Craft Precision Engineering Location: 21, Hill Street, Crieff, Perthshire, PH7 3BU Classification: Precision Engineers <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A18SE (N)	542	-	286447 721651
30	<b>Contemporary Trade Directory Entries</b> Name: Wood & You Location: 21, Hill Street, Crieff, Perthshire, PH7 3BU Classification: Antiques - Repairing & Restoring <b>Status: Inactive</b> Positional Accuracy: Automatically positioned to the address	A18SE (N)	542	-	286447 721651
31	<b>Contemporary Trade Directory Entries</b> Name: Robert Hobbs Location: 3, Galvelmore Street, Crieff, Perthshire, PH7 4DN Classification: Cleaning Services - Domestic <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A18SW (N)	561	-	286243 721651
32	<b>Contemporary Trade Directory Entries</b> Name: R L Motors Location: Alligan Rd, Crieff, Perthshire, PH7 3JS Classification: Garage Services <b>Status: Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A14NW (NE)	569	-	286964 721291
33	<b>Contemporary Trade Directory Entries</b> Name: Brogan Fuels Location: South Bridgend, Crieff, Perthshire, PH7 4DH Classification: Oil Fuel Distributors <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A12SE (W)	591	-	285705 720741
34	<b>Contemporary Trade Directory Entries</b> Name: Crieff Garage Location: 75, East High Street, Crieff, Perthshire, PH7 3JA Classification: Garage Services <b>Status: Active</b> Positional Accuracy: Automatically positioned to the address	A19SW (NE)	595	-	286750 721588



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	<b>Contemporary Trade Directory Entries</b> Name: Spa Clean Location: 15, Comrie Street, Crieff, Perthshire, PH7 4AX Classification: Dry Cleaners Status: <b>Active</b> Positional Accuracy: Automatically positioned to the address	A18NW (N)	606	-	286276 721705
35	<b>Contemporary Trade Directory Entries</b> Name: David Philips Location: 16-22, Comrie Street, Crieff, Perthshire, PH7 4AY Classification: Printers Status: <b>Active</b> Positional Accuracy: Automatically positioned to the address	A18NW (N)	620	-	286243 721713
36	<b>Contemporary Trade Directory Entries</b> Name: Autospark Garage Services Location: Bridgend Garage, South Bridgend, Crieff, Perthshire, PH7 4DJ Classification: Garage Services Status: <b>Inactive</b> Positional Accuracy: Automatically positioned to the address	A12SW (W)	661	-	285626 720753
36	<b>Contemporary Trade Directory Entries</b> Name: J & R Auto Services Location: Bridgend Garage, South Bridgend, Crieff, Perthshire, PH7 4DJ Classification: Garage Services Status: <b>Active</b> Positional Accuracy: Automatically positioned to the address	A12SW (W)	661	-	285626 720753
37	<b>Contemporary Trade Directory Entries</b> Name: Buchans Pottery Location: Muthill Rd, Crieff, Perthshire, PH7 4HQ Classification: Ceramic Manufacturers, Supplies & Services Status: <b>Inactive</b> Positional Accuracy: Manually positioned to the road within the address or location	A7NE (SW)	670	-	285720 720553
38	<b>Contemporary Trade Directory Entries</b> Name: Buchan Thistle Pottery Location: Unit 3, Muthill Road, Crieff, Perthshire, PH7 4HQ Classification: Potteries Equipment & Supplies Status: <b>Active</b> Positional Accuracy: Automatically positioned to the address	A7NE (SW)	725	-	285679 720516
39	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Pest Control Location: Cramond, Rectory Close, Crieff, Perthshire, PH7 3EA Classification: Pest & Vermin Control Status: <b>Inactive</b> Positional Accuracy: Automatically positioned to the address	A19NW (NE)	759	-	286813 721745
39	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Pest Control Location: Cramond, Rectory Close, Crieff, Perthshire, PH7 3EA Classification: Pest & Vermin Control Status: <b>Inactive</b> Positional Accuracy: Automatically positioned to the address	A19NW (NE)	759	-	286813 721745
39	<b>Contemporary Trade Directory Entries</b> Name: Strathearn Pest Control Location: Rectory Close, Crieff, Perthshire, PH7 3EA Classification: Pest & Vermin Control Status: <b>Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A19NW (NE)	760	-	286813 721745
39	<b>Contemporary Trade Directory Entries</b> Name: P M C D Location: 1 Crioch Pl, Crieff, Perthshire, PH7 3BW Classification: Glass Products - Manufacturers Status: <b>Inactive</b> Positional Accuracy: Manually positioned within the geographical locality	A19NW (NE)	764	-	286790 721764
40	<b>Contemporary Trade Directory Entries</b> Name: Tornado Wire Ltd Location: Muthill Road, Crieff, Perthshire, PH7 4HQ Classification: Wire Products - Manufacturers Status: <b>Inactive</b> Positional Accuracy: Automatically positioned to the address	A7NW (SW)	761	-	285582 720601
41	<b>Contemporary Trade Directory Entries</b> Name: Gordon Motors Location: Comrie Road, Crieff, Perthshire, PH7 4BQ Classification: Car Dealers Status: <b>Active</b> Positional Accuracy: Automatically positioned to the address	A18NW (N)	769	-	286179 721849

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	<b>Contemporary Trade Directory Entries</b> Name: Scott Continental Ltd Location: 8, Ryan Place, Crieff, Perthshire, PH7 4EW Classification: Road Haulage Services <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	825	-	285961 721835
43	<b>Contemporary Trade Directory Entries</b> Name: James Tainsh & Sons Location: Crieff, Perthshire, PH7 3RP Classification: Agricultural Merchants <b>Status:</b> Inactive Positional Accuracy: Manually positioned within the geographical locality	A14NE (E)	843	-	287277 721058
44	<b>Contemporary Trade Directory Entries</b> Name: Dog'S Head Graphics Location: Crosslea, Perth Road, Crieff, Perthshire, PH7 3EQ Classification: Picture & Picture Frame Renovating & Restoring <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	930	-	286956 721853
45	<b>Contemporary Trade Directory Entries</b> Name: Smart Alloy Location: Cavanmore, Sauchie Road, Crieff, Perthshire, PH7 4EF Classification: Alloys <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A17NE (NW)	952	-	285903 721948
46	<b>Contemporary Trade Directory Entries</b> Name: Mustang Oil Ltd Location: Balnieden, 16, Drummond Terrace, CRIEFF, Perthshire, PH7 4AF Classification: Oil & Gas Exploration Supplies & Services <b>Status:</b> Active Positional Accuracy: Automatically positioned to the address	A23SE (N)	970	-	286429 722080
47	<b>Contemporary Trade Directory Entries</b> Name: Complete Weed Control Location: 58, Dolerie Terrace, Crieff, Perthshire, PH7 3EG Classification: Chemicals & Allied Products <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	973	-	287226 721650
48	<b>Contemporary Trade Directory Entries</b> Name: Data-Scan Location: 29, Turleum Road, Crieff, Perthshire, PH7 3QF Classification: Cash Registers & Check-Out Equipment <b>Status:</b> Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	986	-	287342 721469
49	<b>Fuel Station Entries</b> Name: Turret Service Station Location: Burrell Street, CRIEFF, Perthshire, PH7 4DG Brand: Uk Premises Type: Not Applicable <b>Status:</b> Obsolete Positional Accuracy: Automatically positioned to the address	A12NE (NW)	350	-	285970 721232
50	<b>Fuel Station Entries</b> Name: Crieff Garage Location: 75, East High Street, Crieff, Perthshire, PH7 3JA Brand: Gulf Premises Type: Petrol Station <b>Status:</b> Open Positional Accuracy: Automatically positioned to the address	A19SW (NE)	594	-	286749 721588

Agency & Hydrological	Version	Update Cycle
<b>Contaminated Land Register Entries and Notices</b> Perth And Kinross Council	March 2014	Annual Rolling Update
<b>Discharge Consents</b> Scottish Environment Protection Agency - East Region	June 2001	Variable
<b>Enforcement and Prohibition Notices</b> Scottish Environment Protection Agency - East Region	January 2012	Not Applicable
<b>Integrated Pollution Controls</b> Scottish Environment Protection Agency - Head Office Scottish Environment Protection Agency - East Region	February 1998 March 2002	Variable Variable
<b>Local Authority Pollution Prevention and Controls</b> Scottish Environment Protection Agency - East Region	March 2002	Variable
<b>Nearest Surface Water Feature</b> Ordnance Survey	July 2012	Quarterly
<b>Prosecutions Relating to Authorised Processes</b> Scottish Environment Protection Agency - East Region	March 2007	Not Applicable
<b>Prosecutions Relating to Controlled Waters</b> Scottish Environment Protection Agency - East Region	March 2007	Not Applicable
<b>Registered Radioactive Substances</b> Scottish Environment Protection Agency - East Region Scottish Environment Protection Agency - Head Office	April 1996 January 1998	Variable Variable
<b>River Quality</b> Scottish Environment Protection Agency - Head Office	December 1990	Not Applicable
<b>Water Abstractions</b> Scottish Executive - Agriculture, Environment and Fisheries Department	December 1997	Not Applicable
<b>Water Industry Act Referrals</b> Scottish Environment Protection Agency - East Region	April 1996	Variable
<b>Groundwater Vulnerability</b> Scottish Environment Protection Agency - Head Office	December 1995	Not Applicable
<b>Drift Deposits</b> Scottish Environment Protection Agency - Head Office	December 1995	Not Applicable
<b>River Flood Data (Scotland)</b> Centre for Ecology and Hydrology	September 1999	Not Applicable
<b>Detailed River Network Lines</b> Environment Agency - Head Office	March 2012	Annually
<b>Detailed River Network Offline Drainage</b> Environment Agency - Head Office	March 2012	Annually






Waste	Version	Update Cycle
<b>BGS Recorded Landfill Sites</b> British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
<b>Integrated Pollution Control Registered Waste Sites</b> Scottish Environment Protection Agency - Head Office Scottish Environment Protection Agency - East Region	January 1998 March 2002	Variable Variable
<b>Licensed Waste Management Facilities (Landfill Boundaries)</b> Environment Agency - South East Region - Kent & South London Area Environment Agency - South East Region - North East Thames Area Environment Agency - South East Region - Solent & South Downs Area Environment Agency - South East Region - West Thames Area	February 2014 February 2014 February 2014 February 2014	Quarterly Quarterly Quarterly Quarterly
<b>Local Authority Landfill Coverage</b> Perth And Kinross Council	May 2000	Not Applicable
<b>Local Authority Recorded Landfill Sites</b> Perth And Kinross Council	May 2000	Not Applicable
<b>Registered Landfill Sites</b> Scottish Environment Protection Agency - East Region Scottish Environment Protection Agency - East Region - Perth Office	December 2005 December 2005	Not Applicable Not Applicable
<b>Registered Waste Transfer Sites</b> Scottish Environment Protection Agency - East Region Scottish Environment Protection Agency - East Region - Perth Office	December 2005 December 2005	Not Applicable Not Applicable
<b>Registered Waste Treatment or Disposal Sites</b> Scottish Environment Protection Agency - East Region Scottish Environment Protection Agency - East Region - Perth Office	December 2005 December 2005	Not Applicable Not Applicable
Hazardous Substances	Version	Update Cycle
<b>Control of Major Accident Hazards Sites (COMAH)</b> Health and Safety Executive	March 2014	Bi-Annually
<b>Explosive Sites</b> Health and Safety Executive	November 2013	Bi-Annually
<b>Notification of Installations Handling Hazardous Substances (NIHHS)</b> Health and Safety Executive	November 2000	Not Applicable
<b>Planning Hazardous Substance Enforcements</b> Perth And Kinross Council - Planning and Development Services	December 2012	Annual Rolling Update
<b>Planning Hazardous Substance Consents</b> Perth And Kinross Council - Planning and Development Services	December 2012	Annual Rolling Update

Geological	Version	Update Cycle
<b>BGS 1:625,000 Solid Geology</b> British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
<b>BGS Estimated Soil Chemistry</b> British Geological Survey - National Geoscience Information Service	January 2010	Variable
<b>BGS Recorded Mineral Sites</b> British Geological Survey - National Geoscience Information Service	April 2014	Bi-Annually
<b>Coal Mining Affected Areas</b> The Coal Authority - Mining Report Service	December 2013	As notified
<b>Mining Instability</b> Ove Arup & Partners	October 2000	Not Applicable
<b>Non Coal Mining Areas of Great Britain</b> British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
<b>Potential for Collapsible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Potential for Compressible Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Potential for Ground Dissolution Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Potential for Landslide Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Potential for Running Sand Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b> British Geological Survey - National Geoscience Information Service	October 2013	As notified
<b>Radon Potential - Radon Affected Areas</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified
<b>Radon Potential - Radon Protection Measures</b> British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
<b>Contemporary Trade Directory Entries</b> Thomson Directories	February 2014	Quarterly
<b>Fuel Station Entries</b> Catalist Ltd - Experian	March 2014	Quarterly

Sensitive Land Use	Version	Update Cycle
<b>Areas of Unadopted Green Belt</b> Perth And Kinross Council	May 2014	As notified
<b>Environmentally Sensitive Areas</b> Scottish Executive - Geographic Information Service	August 2013	Annually
<b>Forest Parks</b> Forestry Commission	April 1997	Not Applicable
<b>Local Nature Reserves</b> Perth And Kinross Council	May 2013	Bi-Annually
<b>Marine Nature Reserves</b> Scottish Natural Heritage	February 2012	Bi-Annually
<b>National Nature Reserves</b> Scottish Natural Heritage	January 2014	Bi-Annually
<b>Nitrate Vulnerable Zones</b> Scottish Executive - Geographic Information Service	March 2014	Annually
<b>Ramsar Sites</b> Scottish Natural Heritage	May 2013	Bi-Annually
<b>Sites of Special Scientific Interest</b> Scottish Natural Heritage	May 2013	Bi-Annually
<b>Special Areas of Conservation</b> Scottish Natural Heritage	May 2013	Bi-Annually
<b>Special Protection Areas</b> Scottish Natural Heritage	May 2013	Bi-Annually



A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Countryside Council for Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
1	<b>Scottish Environment Protection Agency - East Region</b> Clearwater House, Heriot Watt Research Park, Avenue North, Riccarton, Edinburgh, Midlothian, EH14 4AP	Telephone: 0131 449 7296 Fax: 0131 449 7277
2	<b>Scottish Environment Protection Agency - Head Office</b> Erskine Court, The Castle Business Park, Stirling, Stirlingshire, FK9 4TR	Telephone: 01786 457700 Fax: 01786 446885
3	<b>Centre for Ecology and Hydrology</b> Maclean Building, Crowmarsh Gifford, WALLINGFORD, Oxfordshire, OX10 8BB	Telephone: 01491 838800 Fax: 01491 692424
4	<b>Scottish Environment Protection Agency - East Region - Perth Office</b> 1 South Street, Perth, Perthshire, PH2 8NJ	Telephone: 01738 627989 Fax: 01738 630997
5	<b>British Geological Survey - Enquiry Service</b> British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
6	<b>Landmark Information Group Limited</b> Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk
7	<b>Scottish Executive - Geographic Information Service</b> Area 1J88, Victoria Quay, Edinburgh, EH6 6QQ	Telephone: 0131 5568400 Fax: 0131 2448240 Email: ceu@scotland.gov.uk Website: www.scotland.gov.uk
8	<b>Perth And Kinross Council</b> Pullar House, 35 Kinnoul Street, Perth, Perthshire, PH1 5GD	Telephone: 01738 475000 Fax: 01738 635225 Website: www.pkc.gov.uk
-	<b>Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b> Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	<b>Landmark Information Group Limited</b> Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.

## **Appendix D**

### Exploratory Hole Records



First Floor, Block C  
Holland Park  
Holland Drive  
Newcastle Upon Tyne  
NE2 4LD

Tel. 0191 2302993

# Mini-Percussive Log

## WS01

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)

S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 05/08/2014

Logged By: NJW

### Samples/Tests

### Strata Details

### Well

Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.05-0.35	J	N50/165mm (13/12/17/29/4/-)  N50/105mm (22/3/31/19/-/-)	(0.35)	MADE GROUND - Grey and brown very sandy GRAVEL, with quartzite, granite and occasional cobbles.	1.0				
0.35-0.50	J		0.35						
0.50-1.00	D		(0.15)	MADE GROUND - Dark brown very sandy loamy GRAVEL, with sandstone, quartzite and occasional ash.					
			0.50						
1.00-1.30	D		(0.99)	Very dense brown very sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.00	S								
1.30	S		1.49						
				End of Exploratory Hole at 1.485m					

### Groundwater Observations

### Window Sample Run

### General Remarks

No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.



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Tel. 0191 2302993

# Mini-Percussive Log

## WS02

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)


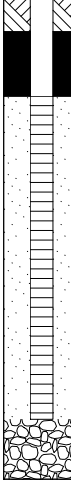
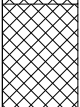
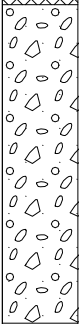
S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 05/08/2014

Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.17-0.50	J	N50/100mm (14/11/31/19/-/-)	(0.17) 0.17	MADE GROUND - Concrete surfacing (no rebar noted).	1.0				
0.50-1.00	D		(0.33) 0.50	MADE GROUND - Dark brown slightly clayey sandy GRAVEL, with sandstone, quartzite, brick and many cobbles.					
1.00	S		(0.99) 1.49	Very dense brown very sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
				End of Exploratory Hole at 1.485m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	Borehole terminated due to refusal of sampling equipment.
		No Groundwater Encountered					



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# Mini-Percussive Log

## WS03

Site Name: Broich Road, Crieff  
Client: Aldi Stores Ltd  
Project No: 14601

Ground Level:  
Easting:  
Northing:

Contractor:

Key:

↓ = Water Strike Depth & No.  
↓ = Resting Water Depth & No.  
D = Small Disturbed Sample  
B = Large Disturbed Sample

ES = Environmental Sample  
W = Water Sample  
HSV = Hand Shear Vane (kPa)  
S / C = Split Spoon / Cone  
N = SPT N Value

Plant: Mini-Percussive Rig  
Date: 05/08/2014  
Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.05-0.36	J	N43 (2/3/8/8/12/15)	(0.36)	MADE GROUND - Grass over dark brown slightly clayey very sandy LOAM, with rootlets, sandstone, quartzite, granite and occasional concrete.	1.0				
0.40-0.80	D		0.36 (0.44)	MADE GROUND - Brown very sandy GRAVEL, with granite, sandstone, quartzite and granite cobbles.					
0.80-1.00	J		0.80 (0.30)	MADE GROUND - Brown clayey sandy GRAVEL, with sandstone, quartzite, granite, occasional tile and cobbles.					
1.00	S	N55 (12/10/12/12/15/16)	1.10	Very dense brown sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.50-1.95	D		(0.85)						
1.50	S		1.95	End of Exploratory Hole at 1.95m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.





First Floor, Block C  
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# Mini-Percussive Log

## WS04

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)

S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 06/08/2014

Logged By: NJW

Samples/Tests			Strata Details				Well		
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.00-0.20	J		(0.20) 0.20	MADE GROUND - Grass over dark brown slightly clayey sandy LOAM, with rootlets, sandstone, quartzite and occasional glass.					
0.40-1.00	D		(1.24)	Very dense brown sandy GRAVEL, with cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.00	S	N50/265mm (12/13/14/14/14/8)			1.0				
1.41	S	N75/30mm (25/50/-/-/-/-)	1.44						
				End of Exploratory Hole at 1.44m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.



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# Mini-Percussive Log

## WS05

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)

S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 06/08/2014

Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.00-0.25	J	N75/40mm (25/50/-/-/-)	(0.25) 0.25	Grass over dark brown sandy gravelly TOPSOIL, with rootlets. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite.	1.0				
0.50-1.00	D		(0.80)	Very dense brown sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.00	S		1.05	End of Exploratory Hole at 1.05m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.



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# Mini-Percussive Log

## WS06

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

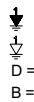
Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.  
= Resting Water Depth & No.  
D = Small Disturbed Sample  
B = Large Disturbed Sample

ES = Environmental Sample  
W = Water Sample  
HSV = Hand Shear Vane (kPa)  
S / C = Split Spoon / Cone  
N = SPT N Value

Plant: Mini-Percussive Rig

Date: 05/08/2014

Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.00-0.16	J		(0.16)	MADE GROUND - Grey very sandy GRAVEL, with concrete, ash, granite and sandstone.					
0.16-0.46	J		0.16						
			(0.30)	MADE GROUND - Dark brown sandy very clayey GRAVEL, with granite, sandstone, quartzite and occasional bone fragments.					
0.50-1.00	D	N50/215mm (13/12/15/17/18/-)	0.46	Very dense brown slightly clayey very sandy GRAVEL, with cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.	1.0				
1.00	S		(1.18)						
1.34-1.64	D								
1.34	S	N50/150mm (15/10/21/29/-/-)	1.64						
				End of Exploratory Hole at 1.635m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.



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# Mini-Percussive Log

## WS07

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)

S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 06/08/2014

Logged By: NJW

Samples/Tests			Strata Details				Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike Log
0.00-0.20	J	N62 (9/11/14/14/13/21)	(0.20) 0.20	MADE GROUND - Grass over dark brown slightly clayey sandy LOAM, with rootlets and occasional brick.	1.0			
0.20-0.50	D		(0.30) 0.50	Dark brown slightly clayey very sandy GRAVEL, with cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are granite and quartzite.				
0.50-1.00	D		(0.95) 1.45	Very dense brown sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.				
1.00	S			End of Exploratory Hole at 1.45m				

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	
		No Groundwater Encountered					Borehole terminated due to refusal of sampling equipment.



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# Mini-Percussive Log

## WS08

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)





S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 06/08/2014

Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.00-0.20	J	N49 (8/8/8/10/13/18)	(0.20) 0.20	MADE GROUND - Grass over dark brown sandy GRAVEL, with sandstone, granite, quartzite and occasional glass.	1.0				
0.20-0.40	D		(0.20) 0.40	Dark brown slightly clayey sandy gravelly SUBSOIL, with rootlets. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite.					
0.50-1.00	D		(1.05)	Very dense brown sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.00-1.40	D								
1.00	S								
		1.45	End of Exploratory Hole at 1.45m						

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	Borehole terminated due to refusal of sampling equipment.
		No Groundwater Encountered					



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# Mini-Percussive Log

## WS09

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

HSV = Hand Shear Vane (kPa)

S / C = Split Spoon / Cone

N = SPT N Value

Plant: Mini-Percussive Rig

Date: 06/08/2014

Logged By: NJW

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
0.00-0.20	J		(0.20)	MADE GROUND - Unmanaged vegetation over dark brown sandy gravelly LOAM, with rootlets, sandstone, quartzite, granite and occasional glass.	1.0				
0.20-0.70	D		0.20						
			(0.50)	Dark brown slightly clayey sandy GRAVEL, with rootlets and occasional cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
0.70-1.00	D	N50/280mm (11/14/14/14/14/8)	0.70						
1.00	S		(1.17)	Very dense brown sandy GRAVEL, with many cobbles. Gravel is fine to coarse sub-angular to sub-rounded quartzite, sandstone and granite. Cobbles are sub-rounded quartzite and granite.					
1.50	S	N100/225mm (10/9/17/15/18/50)	1.87						
				End of Exploratory Hole at 1.875m					

Groundwater Observations			Window Sample Run				General Remarks
No.	Struck (m)	Remarks	From (m)	To (m)	Dia. (mm)	Recovery (%)	Borehole terminated due to refusal of sampling equipment.
		No Groundwater Encountered					





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# Trial Pit Log

## TP01

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.20	D				(0.30) 0.30	Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology.			
					(2.70)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0 2.0		
2.30	B								
2.90	D				3.00		3.0		
						End of Exploratory Hole at 3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP02

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.10	D				(0.30) 0.30	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional plastic.			
1.00	D				(3.00) 3.30	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0 2.0 3.0		
						End of Exploratory Hole at 3.3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP03

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
					(0.60) 0.60	Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology.			
					(2.40) 3.00	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0 2.0 3.0		
						End of Exploratory Hole at 3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP04

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

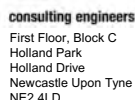
Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.30	D				(0.80)	Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology.			
					0.80				
					(1.30)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
1.90	D				2.10		2.0		
					(0.90)	Brown gravelly SAND. Gravel is fine to coarse angular to rounded mixed lithology.			
2.70	D				3.00		3.0		
						End of Exploratory Hole at 3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



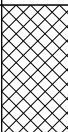

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# TP05

Project No: 14601

Northing:

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.10	D				(0.50)	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occassional pottery.			
0.90	D				0.50	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occassional boulders of sub-rounded mixed lithology.	1.0		
					(2.40)		2.0		
2.20	D				2.90		3.0		
						End of Exploratory Hole at 3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks		
		No Groundwater Encountered	Stability: Side walls unstable in sands and gravels.  Length:  Width:  Orientation:	



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# Trial Pit Log

## TP06

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.20	D				(0.60)	Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology.			
					0.60				
1.60	B				(2.50)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
							2.0		
2.30	D						3.0		
					3.10				
						End of Exploratory Hole at 3.1m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		





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# Trial Pit Log

## TP07

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

### Key:

B = Large Disturbed Sample    HSV = Hand Shear Vane  
D = Small Disturbed Sample    CBR = Mexecon  
W = Water Sample    ES = Environmental Sample

Plant: JCB

Date: 05/08/2014

Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.25	D				(0.30)	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional glass.			
					0.30				
2.20	D				(2.60)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
					2.90		2.0		
						End of Exploratory Hole at 2.9m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP08

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 05/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.60	D				(0.50)	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional glass.			
					0.50				
					(0.60)	Dark brown slightly clayey silty gravelly SAND. Gravel is fine to coarse angular to rounded mixed lithology.	1.0		
					1.10				
					(0.40)	Brown sandy fine to coarse angular to rounded GRAVEL of mixed lithology. Occasional cobbles of angular to rounded mixed lithology.			
					1.50				
2.20	D				(1.40)	Grey sandy fine to coarse angular to sub-rounded GRAVEL and COBBLES of mixed lithology.	2.0		
2.70	D				2.90				
						End of Exploratory Hole at 2.9m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: and gravels.	
		No Groundwater Encountered	Length:	
			Width:	
			Orientation:	



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# Trial Pit Log

## TP09

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601



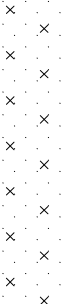


Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details					
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	
0.30	D				0.10	MADE GROUND: Brown silty sandy gravelly LOAM. Gravel is fine to coarse angular to rounded mixed lithology. Many rootlets.				
					(0.30)					
					0.40					
1.40	B				(1.20)	Brown sandy fine to coarse angular GRAVEL of mixed lithology. Occassional rootlets.  Brown clayey silty SAND.	1.0			
2.00	D				1.60	Brown sandy fine to coarse angular to sub-rounded GRAVEL and COBBLES of mixed lithology. Occassional boulders of sub-rounded mixed lithology.	2.0			
					(1.60)					
					3.20	End of Exploratory Hole at 3.2m				

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP10

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.10	D				(0.90)	MADE GROUND: Rough grass over silty sandy gravelly LOAM. Gravel is fine to coarse angular to sub-rounded mixed lithology.			
					0.90				
					(0.60)	Brown gravelly SAND. Gravel is fine to coarse angular to rounded mixed lithology.	1.0		
					1.50				
1.90	D				(1.50)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed litholgy. Occassional boulders of sub-rounded mixed lithology.	2.0		
					3.00				
						End of Exploratory Hole at 3m	3.0		

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP11

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
					0.05	MADE GROUND: Dark brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional plastic.			
1.10	D					Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
1.80	B				(2.95)		2.0		
					3.00		3.0		
						End of Exploratory Hole at 3m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP12

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.10	D					Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional plastic.			
0.40	B				(0.70)				
					0.70				
						Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
1.40	D				(1.90)				
							2.0		
					2.60				
2.80	D				(0.60)	Yellow silty SAND.	3.0		
					3.20				
						End of Exploratory Hole at 3.2m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels.	
		No Groundwater Encountered	Length:	
			Width:	
			Orientation:	





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# Trial Pit Log

## TP13

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

### Key:

B = Large Disturbed Sample

HSV = Hand Shear Vane

D = Small Disturbed Sample

CBR = Mexecon

W = Water Sample

ES = Environmental Sample

Plant: JCB

Date: 06/08/2014

Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.90	D				0.05 (2.85) 2.90	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology.  Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0 2.0		
2.70	D					End of Exploratory Hole at 2.9m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP14

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.05	D				0.10	MADE GROUND: Black sandy fine to coarse angular to sub-rounded GRAVEL of mixed lithology and ash.			
					(0.50)	Brown clayey silty gravelly SAND. Gravel is fine to coarse angular to rounded mixed lithology.			
					0.60				
					(2.30)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
2.20	D				2.90		2.0		
						End of Exploratory Hole at 2.9m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Trial Pit Log

## TP15

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

### Key:

B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB

Date: 06/08/2014

Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.10	D				(0.20) 0.20	MADE GROUND: Black silty slightly gravelly SAND. Gravel is fine to coarse angular to sub-rounded mixed lithology, ash, clinker and timber sleepers. Slight hydrocarbon odour and oily sheen.			
0.90	D				(2.30)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Slight hydrocarbon odour and oily sheen to 1.6m.	1.0		
2.50	D				2.50	End of Exploratory Hole at 2.5m	2.0		

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels.	
		No Groundwater Encountered	Length:	
			Width:	
			Orientation:	



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# Trial Pit Log

## TP16

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

**Key:** B = Large Disturbed Sample HSV = Hand Shear Vane  
D = Small Disturbed Sample CBR = Mexecon  
W = Water Sample ES = Environmental Sample

Plant: JCB  
Date: 06/08/2014  
Logged By: CB

Samples		Tests			Strata Details				
Depth (m)	Type	Depth (m)	HSV (kPa)	CBR (%)	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend
0.15	D				(0.60)	MADE GROUND: Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional plastic.			
					0.60				
						Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0		
1.50	B				(2.50)				
							2.0		
					3.10				
						End of Exploratory Hole at 2.9m			

Groundwater Observations			Stability / Dimensions	General Remarks
No.	Struck (m)	Remarks	Stability: Side walls unstable in sands and gravels. Length: Width: Orientation:	
		No Groundwater Encountered		



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# Cable Percussion Log

## BH1

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

U100 = Undisturbed U100 Sample

S/C = SPT (split spoon/cone)

N = SPT N Value

Plant: Cable Percussion Rig

Dates: 06/08/2014

Logged By: Driller

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
			0.20	Grass over sandy TOPSOIL. (Drillers description).					
			(1.30)	Very dense brown sandy GRAVEL and COBBLES. (Drillers description).	1.0				
			1.50	End of Exploratory Hole at 1.5m					

Groundwater Observations				Chiselling			General Remarks
No.	Struck (m)	20min Level (m)	Remarks	From (m)	To (m)	Hours	
			No Groundwater Encountered	1.5		0.50	



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# Cable Percussion Log

## BH2

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:

↓ = Water Strike Depth & No.  
↓ = Resting Water Depth & No.  
D = Small Disturbed Sample  
B = Large Disturbed Sample

ES = Environmental Sample  
W = Water Sample  
U100 = Undisturbed U100 Sample  
S/C = SPT (split spoon/cone)  
N = SPT N Value

Plant: Cable Percussion Rig

Dates: 06/08/2014

Logged By: Driller

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
			(0.70)	Grass over brown silty sandy gravelly LOAM with many rootlets. Gravel is fine to coarse angular to rounded mixed lithology. Occasional plastic.					
			0.70						
			(1.90)	Brown sandy fine to coarse angular to rounded GRAVEL and COBBLES of mixed lithology. Occasional boulders of sub-rounded mixed lithology.	1.0				
			2.60		2.0				
			(0.60)	Yellow silty SAND.	3.0				
			3.20						
			(0.80)	Very dense brown sandy GRAVEL and COBBLES. (Drillers Description).	4.0				
			4.00						
				End of Exploratory Hole at 4m					

Groundwater Observations				Chiselling			General Remarks
No.	Struck (m)	20min Level (m)	Remarks	From (m)	To (m)	Hours	
			No Groundwater Encountered	3.8	4.0	1.00	



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# Cable Percussion Log

## BH3

Site Name: Broich Road, Crieff

Client: Aldi Stores Ltd

Project No: 14601

Ground Level:

Easting:

Northing:

Contractor:

Key:



= Water Strike Depth & No.



= Resting Water Depth & No.



D = Small Disturbed Sample



B = Large Disturbed Sample

ES = Environmental Sample

W = Water Sample

U100 = Undisturbed U100 Sample

S/C = SPT (split spoon/cone)

N = SPT N Value

Plant: Cable Percussion Rig

Dates: 06/08/2014

Logged By: Driller

Samples/Tests			Strata Details					Well	
Depth (m)	Type	Results	Depth (m) (Thickness)	Strata Description	Depth (m)	Level (AOD)	Legend	Strike	Log
			0.10	Brown sandy TOPSOIL. (Drillers description).					
				Very dense brown sandy sandy GRAVEL and COBBLES. (Drillers Description).					
1.50		N50/0mm	(2.90)						
2.50		N125/0mm							
3.00		N90/0mm	3.00						
				End of Exploratory Hole at 3m					

Groundwater Observations				Chiselling			General Remarks
No.	Struck (m)	20min Level (m)	Remarks	From (m)	To (m)	Hours	
			No Groundwater Encountered	2.5	3.0	2.00	



## **Appendix E**

### Gas and Groundwater Monitoring Results

**Gas monitoring record**

3e Consulting Engineers Ltd  
1st Floor, Block C  
Holland Drive  
Holland Park  
Newcastle Upon Tyne  
NE2 4LD

**Job no:** 14601  
**Site:** Brioch Road, Crieff  
**Date:** 18-Aug-14  
**Weather:** Overcast and Drizzle  
**Pressure Trend:** Steady

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.0	2.0	16.7	1004	0.0	Dry	
WS07	0.0	0.4	19.7	1004	0.0	Dry	
BH3	0.0	2.9	17.2	1004	0.0	Damp	Damp at Base (2.90m)
BH2	0.0	8.6	13.9	1004	0.0	Damp	Damp at Base (3.77m)

**Date:** 21-Aug-14  
**Weather:** Rain Showers  
**Pressure Trend:** Falling

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.0	2.6	15.9	1000	0.0	Dry	
WS07	0.0	2.1	18.2	1000	0.0	Dry	
BH3	0.0	3.8	16.0	1000	0.0	Damp	Damp at Base (2.90m)
BH2	0.0	9.2	12.9	1000	0.0	Damp	Damp at Base (3.77m)

**Date:** 05-Sep-14  
**Weather:** Raining  
**Pressure Trend:** Falling

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.0	0.6	19.3	1012	0.0	Dry	
WS07	0.0	0.6	19.8	1012	0.0	Dry	
BH3	0.0	1.2	19.1	1012	0.0	Dry	
BH2	0.0	1.3	18.9	1012	0.0	Dry	

**Date:** 24-Sep-14

**Weather:** Slightly Cloudy and Dry

**Pressure Trend:** Rising

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.1	0.8	18.8	1007	0.0	Dry	
WS07	0.1	0.5	19.6	1007	0.0	Dry	
BH3	0.1	5.7	13.8	1007	0.0	Damp	Damp at Base
BH2	0.0	2.1	18.0	1007	0.0	Damp	Damp at Base

**Date:** 02-Oct-14

**Weather:** Sunny

**Pressure Trend:** Falling

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.0	0.5	19.8	1022	<0.1	Dry	
WS07	0.0	0.6	19.3	1022	<0.1	Dry	
BH3	0.0	0.8	19.6	1022	<0.1	Dry	
BH2	0.0	2.0	18.6	1022	<0.1	Dry	

**Date:** 27-Oct-14

**Weather:** Overcast

**Pressure Trend:** Falling

BH No	Methane (%v/v)	Carbon dioxide (%v/v)	Oxygen (%v/v)	Barometric Pressure (mb)	Flow (l/hr)	Water level (m bgl)	Remarks
WS02	0.0	0.1	20.1	1001	<0.1	Dry	
WS07	0.0	2.7	17.8	1001	<0.1	Dry	
BH3	0.0	2.4	18.3	1001	<0.1	2.97	
BH2	0.0	7.1	15.1	1001	<0.1	Damp	Damp at Base

## **Appendix F**

### Laboratory Chemical Test Results



## ANALYTICAL TEST REPORT

**Contract no:** 52332(1)  
**Contract name:** Broich Road, Crieff  
**Client reference:** 14601  
**Clients name:** 3E Consulting Engineers Ltd  
**Clients address:** 1st Floor, Block C  
Holland Park, Holland Drive  
Newcastle Upon Tyne  
NE2 4LD

**Samples received:** 07 August 2014  
**Analysis started:** 07 August 2014  
**Analysis completed** 03 September 2014  
**Report issued:** 03 September 2014

This is a supplementary report to report number 52332 issued 14 August 2014.

**Notes:** Opinions and interpretations expressed herein are outside the UKAS accreditation scope. Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling. Methods, procedures and performance data are available on request. Results reported herein relate only to the material supplied to the laboratory. BTEX compounds are identified by retention time only and may include interference from co-eluting compounds. This report shall not be reproduced except in full, without prior written approval. Samples will be disposed of 6 weeks from initial receipt unless otherwise instructed.

**Key:** U UKAS accredited test  
M MCERTS & UKAS accredited test  
\$ Test carried out by an approved subcontractor  
I/S Insufficient sample to carry out test  
N/S Sample not suitable for testing  
NAD No Asbestos Detected

**Approved by:**

Karan Campbell  
Director

John Campbell  
Director

Dave Bowerbank  
Customer Services Co-ordinator

# Chemtech Environmental Limited

## SAMPLE INFORMATION

### MCERTS (Soils):

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

All results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.

Analytical results are inclusive of stones.

Lab ref	Sample id	Depth (m)	Sample description	Material removed	% Removed	% Moisture
52332-1	TP 07	0.25	Sandy Clay with Stones, Gravel and Roots	-	-	15.1
52332-2	TP 10	0.10	Sandy Clay with Stones, Gravel and Roots	-	-	21.3
52332-3	TP 11	1.80	Sandy Clay with Stones and Gravel	-	-	4.4
52332-4	TP 12	0.10	Sandy Clay with Stones, Gravel and Roots	-	-	16.4
52332-5	TP 13	0.90	Sandy Clay with Stones, Gravel and Roots	-	-	8.3
52332-6	TP 14	0.05	Sandy Clay with Stones and Gravel	-	-	6.5
52332-7	TP 14	2.20	Clay with Stones and Gravel	-	-	6.5
52332-8	TP 15	0.10	Sandy Clay with Stones and Gravel	-	-	21.5
52332-9	TP 15	0.90	Sandy Clay with Stones and Gravel	-	-	10.5
52332-10	TP 15	2.50	Sandy Clay with Stones and Gravel	-	-	5.0
52332-11	TP 16	0.15	Sandy Clay with Stones, Gravel and Roots	-	-	18.3
52332-12	WS 06	0.00-0.16	Sandy Clay with Stones and Gravel	-	-	6.0
52332-13	WS 08	0.00-0.20	Sandy Clay with Stones and Gravel	-	-	5.8
52332-14	WS 09	0.00-0.20	Sandy Clay with Stones and Gravel	-	-	20.5

# Chemtech Environmental Limited

## SOILS

Lab number			52332-1	52332-2	52332-3	52332-4	52332-5	52332-6
Sample id			TP 07	TP 10	TP 11	TP 12	TP 13	TP 14
Depth (m)			0.25	0.10	1.80	0.10	0.90	0.05
Date sampled			06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014
Test	Method	Units						
Arsenic (total)	CE127 <sup>M</sup>	mg/kg As	18	11	-	13	-	13
Boron (water soluble)	CE063	mg/kg B	0.5	0.8	-	<0.5	-	<0.5
Cadmium (total)	CE127 <sup>M</sup>	mg/kg Cd	<0.2	<0.2	-	<0.2	-	<0.2
Chromium (total)	CE127 <sup>M</sup>	mg/kg Cr	76	97	-	71	-	75
Copper (total)	CE127 <sup>M</sup>	mg/kg Cu	39	39	-	50	-	28
Lead (total)	CE127 <sup>M</sup>	mg/kg Pb	85	50	-	58	-	16
Mercury (total)	CE127 <sup>M</sup>	mg/kg Hg	<0.5	<0.5	-	<0.5	-	<0.5
Nickel (total)	CE127 <sup>M</sup>	mg/kg Ni	25	24	-	32	-	31
Selenium (total)	CE127 <sup>M</sup>	mg/kg Se	1.2	0.9	-	1.0	-	0.9
Zinc (total)	CE127 <sup>M</sup>	mg/kg Zn	81	110	-	127	-	64
pH	CE004 <sup>M</sup>	units	6.7	5.2	6.9	4.4	7.0	7.9
Sulphate (2:1 water soluble)	CE061 <sup>M</sup>	mg/l SO <sub>4</sub>	40	32	12	18	17	76
Total Organic Carbon (TOC)	CE072 <sup>M</sup>	% w/w C	4.39	3.99	-	2.01	-	1.35
Estimate of OMC (calculated from TOC)	CE072	% w/w	7.57	6.88	-	3.47	-	2.33
<b>PAH</b>								
Naphthalene	CE087	mg/kg	<0.01	<0.01	-	<0.01	-	<0.01
Acenaphthylene	CE087	mg/kg	<0.01	<0.01	-	<0.01	-	<0.01
Acenaphthene	CE087	mg/kg	0.01	<0.01	-	<0.01	-	<0.01
Fluorene	CE087	mg/kg	0.01	<0.01	-	<0.01	-	<0.01
Phenanthrene	CE087	mg/kg	0.26	0.06	-	0.12	-	0.03
Anthracene	CE087	mg/kg	0.10	<0.01	-	0.04	-	0.02
Fluoranthene	CE087	mg/kg	1.00	0.14	-	0.30	-	0.12
Pyrene	CE087	mg/kg	0.88	0.13	-	0.23	-	0.12
Benzo(a)anthracene	CE087	mg/kg	0.39	0.05	-	0.08	-	0.04
Chrysene	CE087	mg/kg	0.34	0.06	-	0.09	-	0.06
Benzo(b)fluoranthene	CE087	mg/kg	0.69	0.11	-	0.20	-	0.13
Benzo(k)fluoranthene	CE087	mg/kg	0.27	0.03	-	0.07	-	0.04
Benzo(a)pyrene	CE087	mg/kg	0.53	0.07	-	0.09	-	0.07
Indeno(123cd)pyrene	CE087	mg/kg	0.36	0.06	-	0.07	-	0.07
Dibenz(ah)anthracene	CE087	mg/kg	0.08	<0.01	-	0.01	-	<0.01
Benzo(ghi)perylene	CE087	mg/kg	0.40	0.06	-	0.07	-	0.10
PAH (total of USEPA 16)	CE087	mg/kg	5.33	0.77	-	1.37	-	0.79
<b>BTEX &amp; TPH</b>								
MTBE	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
Benzene	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
Toluene	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
Ethylbenzene	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
m & p-Xylene	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
o-Xylene	CE057 <sup>U</sup>	mg/kg	-	-	-	-	-	-
TPH Aromatic EC5-EC7	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC7-EC8	CE068	mg/kg	-	-	-	-	-	-



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## SOILS

<b>Lab number</b>			52332-1	52332-2	52332-3	52332-4	52332-5	52332-6
<b>Sample id</b>			TP 07	TP 10	TP 11	TP 12	TP 13	TP 14
<b>Depth (m)</b>			0.25	0.10	1.80	0.10	0.90	0.05
<b>Date sampled</b>			06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014
<b>Test</b>	<b>Method</b>	<b>Units</b>						
TPH Aromatic EC8-EC10	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC10-EC12	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC12-EC16	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC16-EC21	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC21-EC35	CE068	mg/kg	-	-	-	-	-	-
TPH Aromatic EC35-EC44	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC5-EC6	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC6-EC8	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC8-EC10	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC10-EC12	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC12-EC16	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC16-EC35	CE068	mg/kg	-	-	-	-	-	-
TPH Aliphatic EC35-EC44	CE068	mg/kg	-	-	-	-	-	-
<b>Subcontracted analysis</b>								
Asbestos	\$	-	NAD	Chrysotile	-	NAD	-	Chrysotile
Asbestos (quantitative)	\$	% w/w	-	0.002	-	-	-	0.001

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## SOILS

Lab number Sample id Depth (m) Date sampled			52332-7 TP 14 2.20 06/08/2014	52332-8 TP 15 0.10 06/08/2014	52332-9 TP 15 0.90 06/08/2014	52332-10 TP 15 2.50 06/08/2014	52332-11 TP 16 0.15 06/08/2014	52332-12 WS 06 0.00-0.16 06/08/2014
Test	Method	Units						
Arsenic (total)	CE127 <sup>M</sup>	mg/kg As	-	35	9.6	-	17	3.2
Boron (water soluble)	CE063	mg/kg B	-	<0.5	<0.5	-	<0.5	<0.5
Cadmium (total)	CE127 <sup>M</sup>	mg/kg Cd	-	0.4	<0.2	-	0.2	<0.2
Chromium (total)	CE127 <sup>M</sup>	mg/kg Cr	-	31	92	-	94	63
Copper (total)	CE127 <sup>M</sup>	mg/kg Cu	-	118	31	-	48	27
Lead (total)	CE127 <sup>M</sup>	mg/kg Pb	-	261	35	-	108	8.4
Mercury (total)	CE127 <sup>M</sup>	mg/kg Hg	-	<0.5	<0.5	-	<0.5	<0.5
Nickel (total)	CE127 <sup>M</sup>	mg/kg Ni	-	49	28	-	29	19
Selenium (total)	CE127 <sup>M</sup>	mg/kg Se	-	1.6	0.7	-	1.1	1.2
Zinc (total)	CE127 <sup>M</sup>	mg/kg Zn	-	174	62	-	99	91
pH	CE004 <sup>M</sup>	units	6.6	7.0	5.7	6.1	5.1	8.0
Sulphate (2:1 water soluble)	CE061 <sup>M</sup>	mg/l SO <sub>4</sub>	21	16	16	14	18	45
Total Organic Carbon (TOC)	CE072 <sup>M</sup>	% w/w C	-	13.12	1.32	-	4.48	2.35
Estimate of OMC (calculated from TOC)	CE072	% w/w	-	22.62	2.28	-	7.72	4.05
<b>PAH</b>								
Naphthalene	CE087	mg/kg	-	0.20	0.08	-	<0.01	0.07
Acenaphthylene	CE087	mg/kg	-	0.33	0.81	-	<0.01	<0.01
Acenaphthene	CE087	mg/kg	-	0.02	0.31	-	<0.01	0.19
Fluorene	CE087	mg/kg	-	0.11	<0.01	-	<0.01	0.12
Phenanthrene	CE087	mg/kg	-	2.05	0.19	-	0.07	1.19
Anthracene	CE087	mg/kg	-	0.88	1.66	-	0.02	0.42
Fluoranthene	CE087	mg/kg	-	6.25	36.01	-	0.13	2.28
Pyrene	CE087	mg/kg	-	9.59	51.68	-	0.12	2.06
Benzo(a)anthracene	CE087	mg/kg	-	3.60	8.13	-	0.06	1.36
Chrysene	CE087	mg/kg	-	2.80	5.88	-	0.05	1.10
Benzo(b)fluoranthene	CE087	mg/kg	-	3.26	10.09	-	0.11	2.79
Benzo(k)fluoranthene	CE087	mg/kg	-	1.28	3.90	-	0.03	1.01
Benzo(a)pyrene	CE087	mg/kg	-	3.66	7.81	-	0.07	3.13
Indeno(123cd)pyrene	CE087	mg/kg	-	1.64	2.07	-	0.04	2.03
Dibenz(ah)anthracene	CE087	mg/kg	-	0.53	0.53	-	<0.01	0.52
Benzo(ghi)perylene	CE087	mg/kg	-	2.12	1.50	-	0.05	2.01
PAH (total of USEPA 16)	CE087	mg/kg	-	38.3	131	-	0.76	20.3
<b>BTEX &amp; TPH</b>								
MTBE	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
Benzene	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
Toluene	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
Ethylbenzene	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
m & p-Xylene	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
o-Xylene	CE057 <sup>U</sup>	mg/kg	-	<0.01	<0.01	-	-	-
TPH Aromatic EC5-EC7	CE068	mg/kg	-	<0.01	<0.01	-	-	-
TPH Aromatic EC7-EC8	CE068	mg/kg	-	<0.01	<0.01	-	-	-

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## SOILS

<b>Lab number</b>			52332-7	52332-8	52332-9	52332-10	52332-11	52332-12
<b>Sample id</b>			TP 14	TP 15	TP 15	TP 15	TP 16	WS 06
<b>Depth (m)</b>			2.20	0.10	0.90	2.50	0.15	0.00-0.16
<b>Date sampled</b>			06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014	06/08/2014
<b>Test</b>	<b>Method</b>	<b>Units</b>						
TPH Aromatic EC8-EC10	CE068	mg/kg	-	<0.01	<0.01	-	-	-
TPH Aromatic EC10-EC12	CE068	mg/kg	-	<1	<1	-	-	-
TPH Aromatic EC12-EC16	CE068	mg/kg	-	<1	1	-	-	-
TPH Aromatic EC16-EC21	CE068	mg/kg	-	19	90	-	-	-
TPH Aromatic EC21-EC35	CE068	mg/kg	-	17	38	-	-	-
TPH Aromatic EC35-EC44	CE068	mg/kg	-	2	2	-	-	-
TPH Aliphatic EC5-EC6	CE068	mg/kg	-	<0.1	<0.1	-	-	-
TPH Aliphatic EC6-EC8	CE068	mg/kg	-	<0.1	<0.1	-	-	-
TPH Aliphatic EC8-EC10	CE068	mg/kg	-	1.2	1.0	-	-	-
TPH Aliphatic EC10-EC12	CE068	mg/kg	-	2	<1	-	-	-
TPH Aliphatic EC12-EC16	CE068	mg/kg	-	71	506	-	-	-
TPH Aliphatic EC16-EC35	CE068	mg/kg	-	1375	2314	-	-	-
TPH Aliphatic EC35-EC44	CE068	mg/kg	-	210	298	-	-	-
<b>Subcontracted analysis</b>								
Asbestos	\$	-	-	NAD	-	-	NAD	NAD
Asbestos (quantitative)	\$	% w/w	-	-	-	-	-	-

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## SOILS

<b>Lab number</b>			52332-13	52332-14
<b>Sample id</b>			WS 08	WS 09
<b>Depth (m)</b>			0.00-0.20	0.00-0.20
<b>Date sampled</b>			06/08/2014	06/08/2014
<b>Test</b>	<b>Method</b>	<b>Units</b>		
Arsenic (total)	CE127 <sup>M</sup>	mg/kg As	15	12
Boron (water soluble)	CE063	mg/kg B	0.6	0.6
Cadmium (total)	CE127 <sup>M</sup>	mg/kg Cd	0.2	<0.2
Chromium (total)	CE127 <sup>M</sup>	mg/kg Cr	96	87
Copper (total)	CE127 <sup>M</sup>	mg/kg Cu	42	37
Lead (total)	CE127 <sup>M</sup>	mg/kg Pb	74	53
Mercury (total)	CE127 <sup>M</sup>	mg/kg Hg	<0.5	<0.5
Nickel (total)	CE127 <sup>M</sup>	mg/kg Ni	33	32
Selenium (total)	CE127 <sup>M</sup>	mg/kg Se	1.1	1.2
Zinc (total)	CE127 <sup>M</sup>	mg/kg Zn	96	111
pH	CE004 <sup>M</sup>	units	7.5	6.5
Sulphate (2:1 water soluble)	CE061 <sup>M</sup>	mg/l SO <sub>4</sub>	21	29
Total Organic Carbon (TOC)	CE072 <sup>M</sup>	% w/w C	3.35	4.82
Estimate of OMC (calculated from TOC)	CE072	% w/w	5.78	8.31
<b>PAH</b>				
Naphthalene	CE087	mg/kg	0.02	<0.01
Acenaphthylene	CE087	mg/kg	0.01	<0.01
Acenaphthene	CE087	mg/kg	0.09	<0.01
Fluorene	CE087	mg/kg	0.07	<0.01
Phenanthrene	CE087	mg/kg	0.67	0.07
Anthracene	CE087	mg/kg	0.31	0.02
Fluoranthene	CE087	mg/kg	1.62	0.18
Pyrene	CE087	mg/kg	1.96	0.19
Benzo(a)anthracene	CE087	mg/kg	1.19	0.15
Chrysene	CE087	mg/kg	1.01	0.12
Benzo(b)fluoranthene	CE087	mg/kg	1.88	0.15
Benzo(k)fluoranthene	CE087	mg/kg	0.66	0.05
Benzo(a)pyrene	CE087	mg/kg	2.08	0.15
Indeno(123cd)pyrene	CE087	mg/kg	1.22	0.08
Dibenz(ah)anthracene	CE087	mg/kg	0.32	<0.01
Benzo(ghi)perylene	CE087	mg/kg	1.20	0.09
PAH (total of USEPA 16)	CE087	mg/kg	14.3	1.26
<b>BTEX &amp; TPH</b>				
MTBE	CE057 <sup>U</sup>	mg/kg	-	-
Benzene	CE057 <sup>U</sup>	mg/kg	-	-
Toluene	CE057 <sup>U</sup>	mg/kg	-	-
Ethylbenzene	CE057 <sup>U</sup>	mg/kg	-	-
m & p-Xylene	CE057 <sup>U</sup>	mg/kg	-	-
o-Xylene	CE057 <sup>U</sup>	mg/kg	-	-
TPH Aromatic EC5-EC7	CE068	mg/kg	-	-
TPH Aromatic EC7-EC8	CE068	mg/kg	-	-

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## SOILS

<b>Lab number</b>			52332-13	52332-14
<b>Sample id</b>			WS 08	WS 09
<b>Depth (m)</b>			0.00-0.20	0.00-0.20
<b>Date sampled</b>			06/08/2014	06/08/2014
<b>Test</b>	<b>Method</b>	<b>Units</b>		
TPH Aromatic EC8-EC10	CE068	mg/kg	-	-
TPH Aromatic EC10-EC12	CE068	mg/kg	-	-
TPH Aromatic EC12-EC16	CE068	mg/kg	-	-
TPH Aromatic EC16-EC21	CE068	mg/kg	-	-
TPH Aromatic EC21-EC35	CE068	mg/kg	-	-
TPH Aromatic EC35-EC44	CE068	mg/kg	-	-
TPH Aliphatic EC5-EC6	CE068	mg/kg	-	-
TPH Aliphatic EC6-EC8	CE068	mg/kg	-	-
TPH Aliphatic EC8-EC10	CE068	mg/kg	-	-
TPH Aliphatic EC10-EC12	CE068	mg/kg	-	-
TPH Aliphatic EC12-EC16	CE068	mg/kg	-	-
TPH Aliphatic EC16-EC35	CE068	mg/kg	-	-
TPH Aliphatic EC35-EC44	CE068	mg/kg	-	-
<b>Subcontracted analysis</b>				
Asbestos	\$	-	NAD	NAD
Asbestos (quantitative)	\$	% w/w	-	-

# Chemtech Environmental Limited

## METHOD DETAILS

METHOD	SOILS	METHOD SUMMARY	SAMPLE	STATUS	LOD	UNITS
CE127	Arsenic (total)	Aqua regia digest, ICP-MS	Dry	M	1	mg/kg As
CE063	Boron (water soluble)	Hot water extract, ICP-OES	Dry		0.5	mg/kg B
CE127	Cadmium (total)	Aqua regia digest, ICP-MS	Dry	M	0.2	mg/kg Cd
CE127	Chromium (total)	Aqua regia digest, ICP-MS	Dry	M	1	mg/kg Cr
CE127	Copper (total)	Aqua regia digest, ICP-MS	Dry	M	1	mg/kg Cu
CE127	Lead (total)	Aqua regia digest, ICP-MS	Dry	M	1	mg/kg Pb
CE127	Mercury (total)	Aqua regia digest, ICP-MS	Dry	M	0.5	mg/kg Hg
CE127	Nickel (total)	Aqua regia digest, ICP-MS	Dry	M	1	mg/kg Ni
CE127	Selenium (total)	Aqua regia digest, ICP-MS	Dry	M	0.3	mg/kg Se
CE127	Zinc (total)	Aqua regia digest, ICP-MS	Dry	M	5	mg/kg Zn
CE004	pH	Based on BS 1377, pH Meter	Wet	M	-	units
CE061	Sulphate (2:1 water soluble)	Aqueous extraction, ICP-OES	Dry	M	10	mg/l SO <sub>4</sub>
CE072	Total Organic Carbon (TOC)	Removal of IC by acidification, Carbon Analyser	Dry	M	0.1	% w/w C
CE072	Estimate of OMC (calculated from TOC)	Calculation from Total Organic Carbon	Dry		0.1	% w/w
CE087	PAH (speciated)	Solvent extraction, GC-MS	Wet		0.01	mg/kg
CE057	BTEX & MTBE	Headspace GC-FID	Wet	U	0.01	mg/kg
CE068	TPH Aliphatic/Aromatic fractions (C5-C10)	Headspace GC-FID	Wet		0.01-0.1	mg/kg
CE068	TPH Aliphatic/Aromatic fractions (C10-C44)	Solvent extraction, GC-FID	Wet		1	mg/kg
\$	Asbestos (qualitative)	HSG 248, Microscopy	Dry	U	-	-
\$	Asbestos (quantitative)	HSG 248, Microscopy & Gravimetry	Dry		0.001	% w/w

# Chemtech Environmental Limited

## DEVIATING SAMPLE INFORMATION

### Comments

Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.

For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.

Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

### Key

N	No (not deviating sample)
Y	Yes (deviating sample)
A	Sampling date not provided
B	Sampling time not provided (waters only)
C	Sample exceeded holding time(s)
D	Sample not received in appropriate containers
E	Headspace present in sample container
F	Sample not chemically fixed (where appropriate)
G	Sample not cooled
H	Other (specify)

Lab ref	Sample id	Depth (m)	Deviating	Tests (Reason for deviation)
52332-1	TP 07	0.25	N	
52332-2	TP 10	0.10	N	
52332-3	TP 11	1.80	N	
52332-4	TP 12	0.10	N	
52332-5	TP 13	0.90	N	
52332-6	TP 14	0.05	N	
52332-7	TP 14	2.20	N	
52332-8	TP 15	0.10	N	
52332-9	TP 15	0.90	N	
52332-10	TP 15	2.50	N	
52332-11	TP 16	0.15	N	
52332-12	WS 06	0.00-0.16	N	
52332-13	WS 08	0.00-0.20	N	
52332-14	WS 09	0.00-0.20	N	



**Document 5:** Drainage Statement  
(incorporating Flood Risk Assessment)



**Planning application by Aldi Stores Ltd. for  
proposed foodstore and additional Class 1  
retail development at Broich Road, Crieff.**

**Drainage Statement  
(Incorporating Flood Risk Assessment)**

**Proposed Aldi Store  
Broich Road  
Crieff**

**For**

**Aldi Stores Limited**

## Contents

- 1.00** Introduction
- 2.00** Site Location and Topography
- 3.00** Flood Risk
- 4.00** Drainage Impact Assessment
- 5.00** Conclusions and Recommendations

- Appendix A** Location Plan
- Appendix B** Topographical Survey
- Appendix C** Proposed Development
- Appendix D** Drainage Layout Plan
- Appendix E** Scottish Water Correspondance
- Appendix F** Calculations
- Appendix G** Assessment Compliance Certification and Insurance

Report ref	Issue	Prepared by	Date	Reviewed by	Date
14601	1	M.Pearse	July 2015	S.Watson	July 2015

## **1.0 Introduction**

1.01 This report is commissioned by Aldi Stores Limited to examine the drainage impact and flood risk associated with the proposed redevelopment of land at Broich Road, Crieff. This Assessment is reviewed in accordance with the current Scottish planning Policy (SPP) and Perth and Kinross Council's 'Developer Guidance Note on Flood and Drainage'.

1.02 Aldi Stores Limited plans to redevelop the site to provide a new store and associated car parking and delivery areas. It is also proposed for an additional retail unit to be located in the northern area of the site adjacent to the proposed Aldi Store. See Appendix D for the Development Layout.

1.03 This report is based on information received from Scottish Water together with a review of the online SEPA flood maps.

1.04 An existing drainage survey has been undertaken. A full Geo Environmental Appraisal has also been undertaken and this has been reviewed to understand possible ground conditions in relation to drainage. A site visit was undertaken in August 2014

1.05 Section 2.00 of this report describes the site location and topography. Section 3.00 identifies the flood risks. Section 4.00 assess the drainage impact in relation to surface water and foul drainage. Section 5.00 provides conclusions and recommendations.

## **2.0 Site Location and Topography**

2.01 The site is centred at National Grid Reference 286350, 721010 and is located approximately 0.5km south of Crieff town centre.

2.02 The site is currently utilised as farm land with associated sheds and outbuilding. The farm is still in use. Duchlage farm building is to the west of the site boundary and is to be retained.

2.03 To the north of the site is Duchlage Court leading to residential properties. To the east and west is agricultural farm land. To the south is Broich Road.

2.04 The site occupies a total area of approximately 1.8 hectares and generally falls in a southerly direction down to Broich Road, from a level on the northern boundary of 51.7mAOD down to a level of 50.3mAOD on the southern boundary.

2.05 The site is accessed off Broich Road to the south. Broich Road falls in an easterly direction from a level of 51.63mAOD in the west to 50.38mAOD in the east.

2.06 Aldi Stores Limited plans to redevelop the site to provide a new store, associated car parking and delivery areas. An additional retail unit is also proposed in the northern

area of the site adjacent to the proposed Aldi Store. See Appendix C for the Site Layout Plan.

### **3.0 Flood Risk**

3.01 As required by Scottish Planning Policy, all potential sources of flooding need to be considered; Fluvial (watercourse and rivers), Coastal (Sea), Pluvial (Urban or rural flooding), Groundwater (rise in water table), Sewers (As result of surcharge or failure) and Artificial Sources (reservoirs and canals etc.)

#### **Fluvial Flooding**

3.02 The River Earn is located approximately 650m south west of the site. On line flood maps, provided by the Scottish Environmental Protection Agency (SEPA), have been checked and these indicate that River Earn has a high to medium risk of flooding. The proposed development is shown to lie outside of the area at risk of flooding from the River and therefore poses no risk to the development.

3.03 Consultation has been made with Perth and Kinross Council Structures and Flooding Team and they have confirmed that there are no watercourses in the close vicinity of the site and also no historic records of any watercourses which could have since been culverted.

3.04 It is therefore considered that there is little or no risk of flooding to the site from Fluvial Flooding.

#### **Coastal Flooding**

3.05 The site is not at risk of coastal flooding.

#### **Pluvial Flooding**

3.06 The SEPA 'Surface Water Flood Risk Maps' have been reviewed online. These maps show areas at potential risk of flooding from surface water flows running across land which cannot enter the ground or drainage systems. These online maps show that the site is not at risk of surface water flooding.

3.07 Flooding can also occur to properties due to overland surface water runoff from adjacent land as a result of overland surface water flows. The development site is at a lower elevation than the land to the north. Should any overland flows enter the site, from the north, these will discharge into the car park and service yard and will be collected by the new surface water drainage system or flow over the external surfaces away from the proposed store and unit.

3.08 It is considered that the site is at low risk of flooding from Pluvial flooding.

### **Ground Water Flooding**

3.09 Another potential risk of flooding to be considered is from rising groundwater within the underlying strata. A full Geo Environmental Appraisal has been undertaken on the site. No groundwater ingress to the pits were encountered during the investigation.

3.10 It is therefore considered that the site is not at risk of flooding from Ground water.

### **Sewer Flooding**

3.11 An existing 450mm and 525mm diameter public combined sewer cross the southern area of the site with manholes located within the site. The sewers will be located within the proposed car park to the south of the store. Should flooding occur to these sewers due to infrastructure failure flood waters would enter the new car park. Flood waters would flow in a southerly direction into the new access road where the water would be stored until such times as flooding recedes.

3.12 The surface water drainage system will be designed to accommodate a 1 in 100 year storm event within the drainage network below ground. Any flooding occurring from a storm event in excess of this up to a 1 in 200 year event will be retained where possible within the car park at the surface with no flooding occurring to any of the proposed buildings.

3.13 It is therefore considered that the site is at low risk of flooding from Sewer flooding.

### **Artificial Sources**

3.14 The site is not at risk of flooding from reservoirs, canals or flood defences. Sewer failure has been discussed above.

3.15 The proposed drainage layout plan is attached in appendix D and this shows the potential areas of surface water attenuation and potential flood flow routes through the site.

## **4.0 Drainage Impact Assessment**

### **Surface water**

4.01 The existing site is currently used as farm land with associated sheds and outbuildings. The site has an existing impermeable area of approximately 1.0 hectares. A drainage survey has been undertaken which confirms the site currently discharges surface water to the public combined sewer crossing the site at the site entrance via a 150mm diameter pipe.

4.02 The proposed development will increase the impermeable area to 1.37 hectares.

4.03 In line with Scottish Planning Policy, the implementation of SUDS to restrict flows and improve water quality has been considered. Due to the dense nature of the proposed development it is proposed to utilise porous paving within the parking bays on the scheme to provide 2 levels of treatment. This will be done with the use of a porous surface and granular stone sub base under the parking bays.

4.04 A Geo Environmental site investigation has been undertaken by 3e Consulting Engineers. This confirms that the natural superficial deposits consist of very dense sandy gravel and cobbles of mixed lithology. Lenses of silty sand were occasionally noted within some of the exploratory holes. The geotechnical engineers consider that due to the very dense nature of the natural deposits these are unlikely to be suitable for the use of infiltration techniques.

4.05 The nearest watercourse to the site to which surface water flows could be directed is The River Earn 600m south of the site. This would result in a substantial surface water outfall to the river through third party land. This has therefore been discounted as an option for disposal of surface water.

4.06 It is therefore proposed to discharge surface water flows to the existing public combined sewers crossing the site utilising existing connections where possible. A pre development enquiry has been submitted to Scottish Water and their initial response was that no surface water could discharge to the combined sewer.

4.07 In light of the above further consultation has been made to Scottish Water for consideration of a green field discharge rate to the combined sewer as this will be a reduction to the existing connection flow rate. As yet no response has been received.

4.08 Calculations have been undertaken using IoH124 to determine the pre development green field rate for the site. The calculations have been undertaken based on a site area of 50 hectares which has then been reduced pro-rata down to the impermeable area of 1.37ha. The calculations included in Appendix F confirm that the 1 in 1 year greenfield flow rate is 6.3 l/s and the 1 in 100 year greenfield flow rate is 18.37 l/s

4.09 The attenuation required to accommodate a 1 in 100 year storm event is in the order of 810m<sup>3</sup>. This is to be provided within the proposed drainage system, the stone



sub base of the parking bays and within low depression areas within the landscaped areas.

4.10 The surface water drainage system will be designed to accommodate a 1 in 100 year storm event within the drainage network below ground. Any flooding occurring from a storm event in excess of this up to a 1 in 200 year event plus climate change will be retained within the car park and low lying landscaped areas at the surface with no flooding occurring to any of the proposed buildings.

4.11 A copy of the drainage layout plan is shown in Appendix D.

4.12 Copies of the surface water calculations are included in Appendix F.

### **Foul Drainage**

4.13 A 450mm and a 525mm diameter public combined sewer cross the southern area of the site. A predevelopment enquiry has been submitted to Scottish Water and their response dated 26<sup>th</sup> June 2015 confirms that there is sufficient capacity in the Crieff Waste Water Treatment Works to service the demands from the development.

4.14 It is considered that foul water flows will be directed to these existing public sewers utilising exiting connections where possible.

4.15 A copy of the drainage layout is shown in Appendix D.

## **5.0 Conclusions and Recommendations**

5.01 The risk of flooding to the development site can be deemed as 'low' having considered all potential sources.

5.02 The proposed development will not exacerbate flooding elsewhere.

5.03 The use of infiltration techniques has been discounted due to the underlying strata.

5.04 There are no watercourses in the vicinity of the site to which surface water flows could be discharged.

5.05 Surface water flows are to be directed to the existing public combined sewer at a restricted rate of 6.3 l/s. Attenuation will be provided within the site within the stone sub base under the porous paving and within surface storage areas in extreme events.

5.06 Surface water run-off from the car park will receive two levels of treatment.

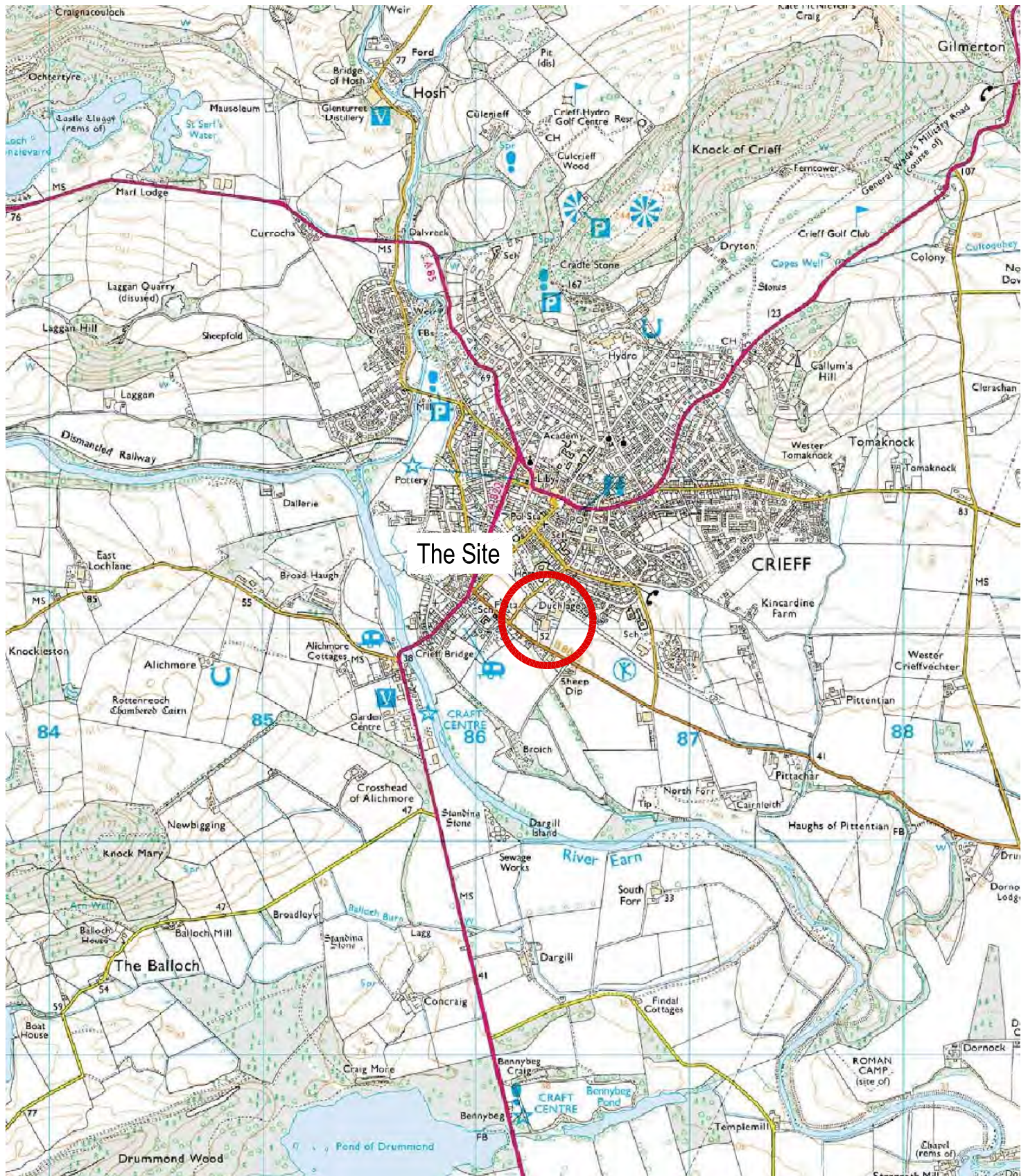
5.07 Foul water is to discharge to the existing public combined sewers crossing the site.

5.08 A copy of the signed Assessment Compliance Certificate and insurance certificate are included in Appendix G along with a copy the proposed maintenance requirements.

## **Appendix A**

### **Location Plan**





Ordnance Survey © Crown copyright  
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Date	Revision	Checked	Rev.

Project	Broich Road, Crieff Aldi Stores Ltd		
Title	Site Location Plan		
Scale	1:25,000 at A4	Drawn CB	Checked AC
Date	Sep '14		
Job No.	14601	Drawing No.	Figure 1
			Rev 0



consulting engineers

1st Floor, Block C  
Holland Park  
Holland Drive  
Newcastle upon Tyne  
NE2 4LD

tel: 0191 230 2993  
fax: 0191 230 3677

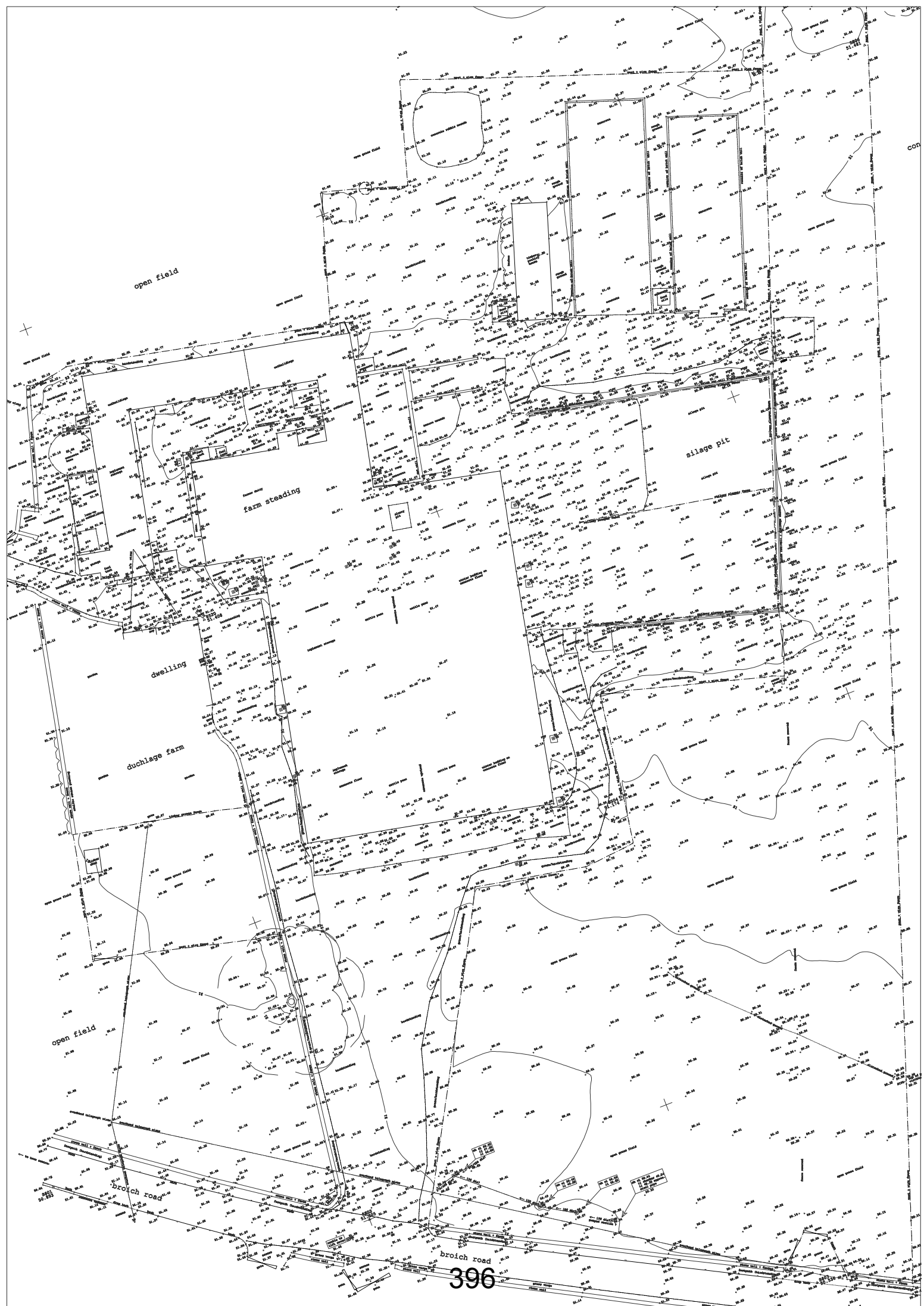
www.3econsult.com

394



## **Appendix B**

### **Topographical Survey**



## **Appendix C**

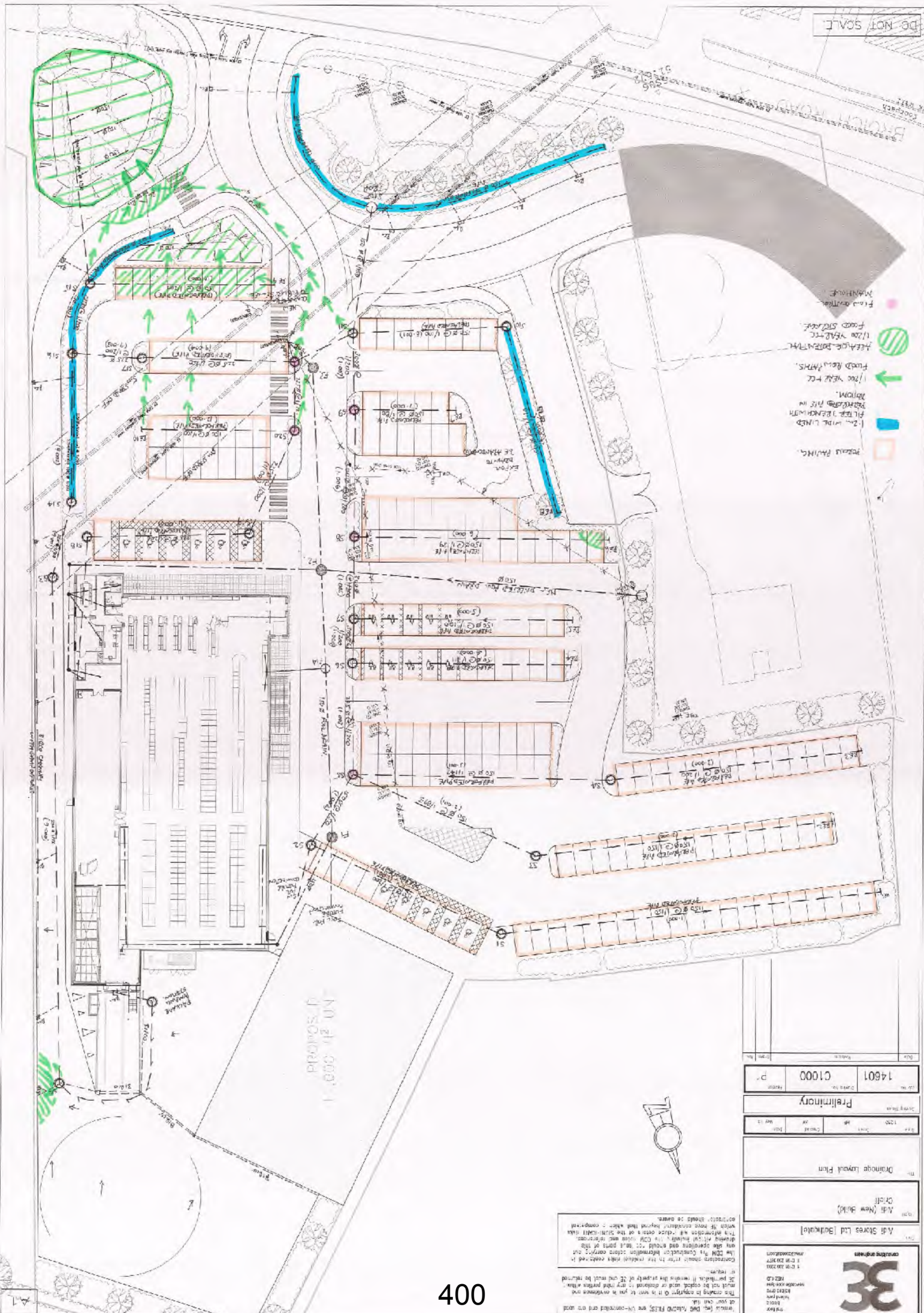
### **Proposed Development Plan**





**Appendix D**  
**Drainage**  
**Layout Plan**





400

**Appendix E**  
**Scottish Water**  
**Correspondance**





26<sup>th</sup> June 2015

FAO: O Cairns  
First Floor, Block C Holland Park  
Holland Drive  
Newcastle Upon Tyne  
NE2 4LD

**SCOTTISH WATER**

Customer Connections  
The Bridge  
Buchanan Gate Business Park  
Cumbernauld Road  
Stepps  
Glasgow  
G33 6FB

Customer Connections  
Free Phone Number - 0800 3890379  
E-Mail - [CustomerConnections@scottishwater.co.uk](mailto:CustomerConnections@scottishwater.co.uk)  
[www.scottishwater.co.uk](http://www.scottishwater.co.uk)

Dear Owen Cairns

**Crieff Brioch Road Aldi Crieff  
Development Enquiry Application  
Our Ref: 716288**

**Please quote our reference in all future correspondence**

Thank you for your PDE Form regarding the above proposed development.

Following an assessment of our assets I can now confirm that at this time:

**Water:** There is currently sufficient capacity in the Turret Water Treatment Works to service the demands from your development.

However, a flow and pressure test is required to ensure that the network can supply adequate flow and pressure to your proposed development and our existing properties in the area.

A dual connection to the 100mm Ductile Iron on Duchlage Road and the 4" PVC main on Brioch Rd could potentially supply this development. This will be confirmed from the Flow & Pressure test.

**Wastewater:** There is sufficient capacity in the Crieff Waste Water Treatment Works to service the demands from your development for foul connection only.

**Surface water:** Please note this will not be permitted to discharge to Scottish Water's Infrastructure. This should discharge to the nearest watercourse approximately 600m from the proposed development.

Please note all the usual caveats apply and Point of Connection will need to be agreed.

All foul and surface water is to be separated within the development and no build overs will be allowed. We may require our Service Relocation Team involved and they can be

contacted via [service.relocation@scottishwater.co.uk](mailto:service.relocation@scottishwater.co.uk). This must all be in accordance with Sewers for Scotland 2nd Ed and all relevant Scottish Water specifications.

Scottish Water is committed to assisting development in Scotland and has funding under our current investment period to upgrade our water and waste water treatment works however our regulations from the Scottish Executive for our current investment programme (2006-2014) state that should your development require Scottish Water networks to be upgraded this cost will have to be met by the developer.

If you wish Scottish Water to undertake a Flow & Pressure test, a quotation for these works can be provided on request.

It is important to note that Scottish Water is unable to reserve capacity and connections to the water & wastewater networks can only be granted on a first come first served basis. For this reason we may have to review our ability to serve the development on receipt of an application to connect.

I trust that the above is acceptable. If you have any questions, please do not hesitate to contact me directly to discuss.\_

Yours sincerely

**Carole McLaughlin**

Customer Connections Administrator

Tel: 0141 414 7208


[Carole.McLaughlin@scottishwater.co.uk](mailto:Carole.McLaughlin@scottishwater.co.uk)





## **Appendix F**

### **Calculations**

3e Consulting Engineers		Page 1
1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD	Broich Road Crieff	
Date 27/05/2015 12:34 File	Designed by M Pearse Checked by	
Micro Drainage Source Control 2015.1		

IH 124 Mean Annual Flood

Input

Return Period (years)	100	Soil	0.400
Area (ha)	50.000	Urban	0.000
SAAR (mm)	1040	Region Number	Region 1

**Results      l/s**

QBAR Rural	270.3	
QBAR Urban	270.3	
Q100 years	670.4	
Q1 year	229.8	229.8/50ha x 1.37ha = 6.30 l/s
Q2 years	245.7	
Q5 years	324.4	
Q10 years	390.6	
Q20 years	461.9	
Q25 years	488.8	
Q30 years	510.8	510.8/50ha x 1.37ha = 14.00 l/s
Q50 years	574.2	
Q100 years	670.4	670.4/50ha x 1.37ha = 18.37 l/s
Q200 years	759.6	
Q250 years	789.4	
Q1000 years	981.3	

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3e Consulting Engineers

1st Floor Block C  
Holland Park  
Newcastle Upon Tyne NE2 4LD

Date July 2015  
File 14601 Surface 15-07-27m...


Micro Drainage

Aldi - Crieff  
Proposed Drainage

Designed by MP  
Checked by

Network 2015.1

Page 1



STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - Scotland and Ireland

Return Period (years)

1

Add Flow / Climate Change (%)

0

M5-60 (mm)

15.300

Minimum Backdrop Height (m)

0.000

Ratio R

0.231

Maximum Backdrop Height (m)

0.000

Maximum Rainfall (mm/hr)

100

Min Design Depth for Optimisation (m)

1.200

Maximum Time of Concentration (mins)

30

Min Vel for Auto Design only (m/s)

1.00

Foul Sewage (l/s/ha)

0.000

Min Slope for Optimisation (1:X)

500

Volumetric Runoff Coeff.

0.750

Designed with Level Soffits

Time Area Diagram for Storm





Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.670	4-8	0.638	8-12	0.002

Total Area Contributing (ha) = 1.310

Total Pipe Volume (m³) = 22.299

Network Design Table for Storm






































« - Indicates pipe capacity < flow












































PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
1.000	59.500	0.397	149.9	0.028	5.00	0.0	0.600	o	150	
1.001	32.600	0.163	200.0	0.040	0.00	0.0	0.600	o	150	
1.002	13.000	0.260	50.0	0.120	0.00	0.0	0.600	o	150	
2.000	47.000	0.235	200.0	0.067	5.00	0.0	0.600	o	150	


Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	31.78	6.21	50.500	0.028	0.0	0.0	0.0	0.82	14.5	2.4
1.001	30.42	6.98	50.103	0.068	0.0	0.0	0.0	0.71	12.5	5.6
1.002	30.16	7.13	49.940	0.188	0.0	0.0	0.0	1.43	25.2	15.4
2.000	31.98	6.11	50.268	0.067	0.0	0.0	0.0	0.71	12.5	5.8

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3e Consulting Engineers										Page 2																																																																																																																																																																																																																																																																																															
1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD					Aldi - Crieff Proposed Drainage																																																																																																																																																																																																																																																																																																				
Date July 2015 File 14601 Surface 15-07-27m...					Designed by MP Checked by																																																																																																																																																																																																																																																																																																				
Micro Drainage					Network 2015.1																																																																																																																																																																																																																																																																																																				
<p style="text-align: center;"><u>Network Design Table for Storm</u></p> <table><tr><th>PN</th><th>Length (m)</th><th>Fall (m)</th><th>Slope (1:X)</th><th>I.Area (ha)</th><th>T.E. (mins)</th><th>Base Flow (l/s)</th><th>k (mm)</th><th>HYD SECT</th><th>DIA (mm)</th><th>Auto Design</th></tr><tr><td>2.001</td><td>31.500</td><td>0.353</td><td>89.2</td><td>0.037</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>3.000</td><td>39.500</td><td>0.198</td><td>199.5</td><td>0.044</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>3.001</td><td>40.000</td><td>0.272</td><td>147.1</td><td>0.080</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.003</td><td>17.000</td><td>0.085</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>4.000</td><td>34.000</td><td>0.305</td><td>111.5</td><td>0.066</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.004</td><td>7.000</td><td>0.035</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td></td></tr><tr><td>5.000</td><td>34.000</td><td>0.340</td><td>100.0</td><td>0.032</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.005</td><td>12.500</td><td>0.063</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td></td></tr><tr><td>6.000</td><td>40.000</td><td>0.287</td><td>139.4</td><td>0.075</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.006</td><td>19.500</td><td>0.098</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td></td></tr><tr><td>7.000</td><td>16.000</td><td>0.200</td><td>80.0</td><td>0.055</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.007</td><td>12.000</td><td>0.060</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td></td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain (mm/hr)</th><th>T.C. (mins)</th><th>US/IL (m)</th><th>Σ I.Area (ha)</th><th>Σ Base Flow (l/s)</th><th>Foul (l/s)</th><th>Add Flow (l/s)</th><th>Vel (m/s)</th><th>Cap (l/s)</th><th>Flow (l/s)</th></tr><tr><td>2.001</td><td>31.06</td><td>6.60</td><td>50.033</td><td>0.104</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.06</td><td>18.8</td><td>8.7</td></tr><tr><td>3.000</td><td>32.33</td><td>5.93</td><td>50.150</td><td>0.044</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.71</td><td>12.5</td><td>3.9</td></tr><tr><td>3.001</td><td>30.83</td><td>6.74</td><td>49.952</td><td>0.124</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.83</td><td>14.6</td><td>10.4</td></tr><tr><td>1.003</td><td>29.67</td><td>7.44</td><td>49.605</td><td>0.416</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>33.4</td></tr><tr><td>4.000</td><td>33.02</td><td>5.60</td><td>49.900</td><td>0.066</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.95</td><td>16.8</td><td>5.9</td></tr><tr><td>1.004</td><td>29.51</td><td>7.54</td><td>49.445</td><td>0.482</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.11</td><td>78.3</td><td>38.5</td></tr><tr><td>5.000</td><td>33.09</td><td>5.56</td><td>49.900</td><td>0.032</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.00</td><td>17.8</td><td>2.9</td></tr><tr><td>1.005</td><td>29.23</td><td>7.73</td><td>49.410</td><td>0.514</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.11</td><td>78.3</td><td>40.7</td></tr><tr><td>6.000</td><td>32.63</td><td>5.78</td><td>49.785</td><td>0.075</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.85</td><td>15.0</td><td>6.6</td></tr><tr><td>1.006</td><td>28.79</td><td>8.03</td><td>49.348</td><td>0.589</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.11</td><td>78.3</td><td>45.9</td></tr><tr><td>7.000</td><td>33.81</td><td>5.24</td><td>49.250</td><td>0.055</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.12</td><td>19.9</td><td>5.0</td></tr><tr><td>1.007</td><td>28.54</td><td>8.21</td><td>48.900</td><td>0.644</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.11</td><td>78.3</td><td>49.8</td></tr></table>												PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design	2.001	31.500	0.353	89.2	0.037	0.00	0.0	0.600	o	150		3.000	39.500	0.198	199.5	0.044	5.00	0.0	0.600	o	150		3.001	40.000	0.272	147.1	0.080	0.00	0.0	0.600	o	150		1.003	17.000	0.085	200.0	0.000	0.00	0.0	0.600	o	225		4.000	34.000	0.305	111.5	0.066	5.00	0.0	0.600	o	150		1.004	7.000	0.035	200.0	0.000	0.00	0.0	0.600	o	300		5.000	34.000	0.340	100.0	0.032	5.00	0.0	0.600	o	150		1.005	12.500	0.063	200.0	0.000	0.00	0.0	0.600	o	300		6.000	40.000	0.287	139.4	0.075	5.00	0.0	0.600	o	150		1.006	19.500	0.098	200.0	0.000	0.00	0.0	0.600	o	300		7.000	16.000	0.200	80.0	0.055	5.00	0.0	0.600	o	150		1.007	12.000	0.060	200.0	0.000	0.00	0.0	0.600	o	300		PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	2.001	31.06	6.60	50.033	0.104	0.0	0.0	0.0	1.06	18.8	8.7	3.000	32.33	5.93	50.150	0.044	0.0	0.0	0.0	0.71	12.5	3.9	3.001	30.83	6.74	49.952	0.124	0.0	0.0	0.0	0.83	14.6	10.4	1.003	29.67	7.44	49.605	0.416	0.0	0.0	0.0	0.92	36.6	33.4	4.000	33.02	5.60	49.900	0.066	0.0	0.0	0.0	0.95	16.8	5.9	1.004	29.51	7.54	49.445	0.482	0.0	0.0	0.0	1.11	78.3	38.5	5.000	33.09	5.56	49.900	0.032	0.0	0.0	0.0	1.00	17.8	2.9	1.005	29.23	7.73	49.410	0.514	0.0	0.0	0.0	1.11	78.3	40.7	6.000	32.63	5.78	49.785	0.075	0.0	0.0	0.0	0.85	15.0	6.6	1.006	28.79	8.03	49.348	0.589	0.0	0.0	0.0	1.11	78.3	45.9	7.000	33.81	5.24	49.250	0.055	0.0	0.0	0.0	1.12	19.9	5.0	1.007	28.54	8.21	48.900	0.644	0.0	0.0	0.0	1.11	78.3	49.8
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design																																																																																																																																																																																																																																																																																															
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1.005	12.500	0.063	200.0	0.000	0.00	0.0	0.600	o	300																																																																																																																																																																																																																																																																																																
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1.006	19.500	0.098	200.0	0.000	0.00	0.0	0.600	o	300																																																																																																																																																																																																																																																																																																
7.000	16.000	0.200	80.0	0.055	5.00	0.0	0.600	o	150																																																																																																																																																																																																																																																																																																
1.007	12.000	0.060	200.0	0.000	0.00	0.0	0.600	o	300																																																																																																																																																																																																																																																																																																
PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)																																																																																																																																																																																																																																																																																															
2.001	31.06	6.60	50.033	0.104	0.0	0.0	0.0	1.06	18.8	8.7																																																																																																																																																																																																																																																																																															
3.000	32.33	5.93	50.150	0.044	0.0	0.0	0.0	0.71	12.5	3.9																																																																																																																																																																																																																																																																																															
3.001	30.83	6.74	49.952	0.124	0.0	0.0	0.0	0.83	14.6	10.4																																																																																																																																																																																																																																																																																															
1.003	29.67	7.44	49.605	0.416	0.0	0.0	0.0	0.92	36.6	33.4																																																																																																																																																																																																																																																																																															
4.000	33.02	5.60	49.900	0.066	0.0	0.0	0.0	0.95	16.8	5.9																																																																																																																																																																																																																																																																																															
1.004	29.51	7.54	49.445	0.482	0.0	0.0	0.0	1.11	78.3	38.5																																																																																																																																																																																																																																																																																															
5.000	33.09	5.56	49.900	0.032	0.0	0.0	0.0	1.00	17.8	2.9																																																																																																																																																																																																																																																																																															
1.005	29.23	7.73	49.410	0.514	0.0	0.0	0.0	1.11	78.3	40.7																																																																																																																																																																																																																																																																																															
6.000	32.63	5.78	49.785	0.075	0.0	0.0	0.0	0.85	15.0	6.6																																																																																																																																																																																																																																																																																															
1.006	28.79	8.03	49.348	0.589	0.0	0.0	0.0	1.11	78.3	45.9																																																																																																																																																																																																																																																																																															
7.000	33.81	5.24	49.250	0.055	0.0	0.0	0.0	1.12	19.9	5.0																																																																																																																																																																																																																																																																																															
1.007	28.54	8.21	48.900	0.644	0.0	0.0	0.0	1.11	78.3	49.8																																																																																																																																																																																																																																																																																															
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3e Consulting Engineers										Page 3																																																																																																																																																																																																																																																																																																																																											
1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD					Aldi - Crieff Proposed Drainage																																																																																																																																																																																																																																																																																																																																																
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Micro Drainage					Network 2015.1																																																																																																																																																																																																																																																																																																																																																
<p style="text-align: center;"><u>Network Design Table for Storm</u></p> <table><tr><th>PN</th><th>Length (m)</th><th>Fall (m)</th><th>Slope (1:X)</th><th>I.Area (ha)</th><th>T.E. (mins)</th><th>Base Flow (l/s)</th><th>k (mm)</th><th>HYD SECT</th><th>DIA (mm)</th><th>Auto Design</th></tr><tr><td>8.000</td><td>30.000</td><td>0.250</td><td>120.0</td><td>0.026</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>8.001</td><td>24.000</td><td>0.260</td><td>92.3</td><td>0.036</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>1.008</td><td>10.000</td><td>0.196</td><td>51.0</td><td>0.020</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>300</td><td></td></tr><tr><td>9.000</td><td>78.500</td><td>0.393</td><td>200.0</td><td>0.210</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>9.001</td><td>12.500</td><td>0.063</td><td>198.4</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>9.002</td><td>23.000</td><td>0.115</td><td>200.0</td><td>0.016</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>10.000</td><td>29.000</td><td>0.145</td><td>200.0</td><td>0.035</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>10.001</td><td>11.000</td><td>0.055</td><td>200.0</td><td>0.015</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>9.003</td><td>11.000</td><td>0.055</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>9.004</td><td>24.000</td><td>0.120</td><td>200.0</td><td>0.036</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>11.000</td><td>25.500</td><td>0.128</td><td>200.0</td><td>0.217</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>11.001</td><td>17.500</td><td>0.088</td><td>200.0</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr><tr><td>12.000</td><td>24.000</td><td>0.120</td><td>200.0</td><td>0.055</td><td>5.00</td><td>0.0</td><td>0.600</td><td>o</td><td>150</td><td></td></tr><tr><td>11.002</td><td>11.000</td><td>0.910</td><td>12.1</td><td>0.000</td><td>0.00</td><td>0.0</td><td>0.600</td><td>o</td><td>225</td><td></td></tr></table> <p style="text-align: center;"><u>Network Results Table</u></p> <table><tr><th>PN</th><th>Rain (mm/hr)</th><th>T.C. (mins)</th><th>US/IL (m)</th><th>Σ I.Area (ha)</th><th>Σ Base Flow (l/s)</th><th>Foul (l/s)</th><th>Add Flow (l/s)</th><th>Vel (m/s)</th><th>Cap (l/s)</th><th>Flow (l/s)</th></tr><tr><td>8.000</td><td>33.13</td><td>5.55</td><td>49.950</td><td>0.026</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>16.2</td><td>2.3</td></tr><tr><td>8.001</td><td>32.34</td><td>5.93</td><td>49.250</td><td>0.062</td><td>0.0</td><td>0.0</td><td>0.0</td><td>1.05</td><td>18.5</td><td>5.4</td></tr><tr><td>1.008</td><td>28.43</td><td>8.28</td><td>48.840</td><td>0.726</td><td>0.0</td><td>0.0</td><td>0.0</td><td>2.21</td><td>156.0</td><td>55.9</td></tr><tr><td>9.000</td><td>31.39</td><td>6.42</td><td>49.475</td><td>0.210</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>17.9</td></tr><tr><td>9.001</td><td>30.99</td><td>6.65</td><td>49.083</td><td>0.210</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.8</td><td>17.9</td></tr><tr><td>9.002</td><td>30.28</td><td>7.06</td><td>49.020</td><td>0.226</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>18.5</td></tr><tr><td>10.000</td><td>32.84</td><td>5.68</td><td>49.169</td><td>0.035</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.71</td><td>12.5</td><td>3.1</td></tr><tr><td>10.001</td><td>32.43</td><td>5.88</td><td>48.949</td><td>0.050</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>4.4</td></tr><tr><td>9.003</td><td>29.96</td><td>7.26</td><td>48.894</td><td>0.276</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>22.4</td></tr><tr><td>9.004</td><td>29.28</td><td>7.70</td><td>48.839</td><td>0.312</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>24.7</td></tr><tr><td>11.000</td><td>33.31</td><td>5.46</td><td>49.950</td><td>0.217</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>19.6</td></tr><tr><td>11.001</td><td>32.64</td><td>5.78</td><td>49.823</td><td>0.217</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.92</td><td>36.6</td><td>19.6</td></tr><tr><td>12.000</td><td>33.09</td><td>5.57</td><td>49.629</td><td>0.055</td><td>0.0</td><td>0.0</td><td>0.0</td><td>0.71</td><td>12.5</td><td>4.9</td></tr><tr><td>11.002</td><td>32.54</td><td>5.83</td><td>49.434</td><td>0.272</td><td>0.0</td><td>0.0</td><td>0.0</td><td>3.78</td><td>150.5</td><td>24.0</td></tr></table>												PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design	8.000	30.000	0.250	120.0	0.026	5.00	0.0	0.600	o	150		8.001	24.000	0.260	92.3	0.036	0.00	0.0	0.600	o	150		1.008	10.000	0.196	51.0	0.020	0.00	0.0	0.600	o	300		9.000	78.500	0.393	200.0	0.210	5.00	0.0	0.600	o	225		9.001	12.500	0.063	198.4	0.000	0.00	0.0	0.600	o	225		9.002	23.000	0.115	200.0	0.016	0.00	0.0	0.600	o	225		10.000	29.000	0.145	200.0	0.035	5.00	0.0	0.600	o	150		10.001	11.000	0.055	200.0	0.015	0.00	0.0	0.600	o	225		9.003	11.000	0.055	200.0	0.000	0.00	0.0	0.600	o	225		9.004	24.000	0.120	200.0	0.036	0.00	0.0	0.600	o	225		11.000	25.500	0.128	200.0	0.217	5.00	0.0	0.600	o	225		11.001	17.500	0.088	200.0	0.000	0.00	0.0	0.600	o	225		12.000	24.000	0.120	200.0	0.055	5.00	0.0	0.600	o	150		11.002	11.000	0.910	12.1	0.000	0.00	0.0	0.600	o	225		PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	8.000	33.13	5.55	49.950	0.026	0.0	0.0	0.0	0.92	16.2	2.3	8.001	32.34	5.93	49.250	0.062	0.0	0.0	0.0	1.05	18.5	5.4	1.008	28.43	8.28	48.840	0.726	0.0	0.0	0.0	2.21	156.0	55.9	9.000	31.39	6.42	49.475	0.210	0.0	0.0	0.0	0.92	36.6	17.9	9.001	30.99	6.65	49.083	0.210	0.0	0.0	0.0	0.92	36.8	17.9	9.002	30.28	7.06	49.020	0.226	0.0	0.0	0.0	0.92	36.6	18.5	10.000	32.84	5.68	49.169	0.035	0.0	0.0	0.0	0.71	12.5	3.1	10.001	32.43	5.88	48.949	0.050	0.0	0.0	0.0	0.92	36.6	4.4	9.003	29.96	7.26	48.894	0.276	0.0	0.0	0.0	0.92	36.6	22.4	9.004	29.28	7.70	48.839	0.312	0.0	0.0	0.0	0.92	36.6	24.7	11.000	33.31	5.46	49.950	0.217	0.0	0.0	0.0	0.92	36.6	19.6	11.001	32.64	5.78	49.823	0.217	0.0	0.0	0.0	0.92	36.6	19.6	12.000	33.09	5.57	49.629	0.055	0.0	0.0	0.0	0.71	12.5	4.9	11.002	32.54	5.83	49.434	0.272	0.0	0.0	0.0	3.78	150.5	24.0
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design																																																																																																																																																																																																																																																																																																																																											
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8.001	24.000	0.260	92.3	0.036	0.00	0.0	0.600	o	150																																																																																																																																																																																																																																																																																																																																												
1.008	10.000	0.196	51.0	0.020	0.00	0.0	0.600	o	300																																																																																																																																																																																																																																																																																																																																												
9.000	78.500	0.393	200.0	0.210	5.00	0.0	0.600	o	225																																																																																																																																																																																																																																																																																																																																												
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9.002	23.000	0.115	200.0	0.016	0.00	0.0	0.600	o	225																																																																																																																																																																																																																																																																																																																																												
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PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)																																																																																																																																																																																																																																																																																																																																											
8.000	33.13	5.55	49.950	0.026	0.0	0.0	0.0	0.92	16.2	2.3																																																																																																																																																																																																																																																																																																																																											
8.001	32.34	5.93	49.250	0.062	0.0	0.0	0.0	1.05	18.5	5.4																																																																																																																																																																																																																																																																																																																																											
1.008	28.43	8.28	48.840	0.726	0.0	0.0	0.0	2.21	156.0	55.9																																																																																																																																																																																																																																																																																																																																											
9.000	31.39	6.42	49.475	0.210	0.0	0.0	0.0	0.92	36.6	17.9																																																																																																																																																																																																																																																																																																																																											
9.001	30.99	6.65	49.083	0.210	0.0	0.0	0.0	0.92	36.8	17.9																																																																																																																																																																																																																																																																																																																																											
9.002	30.28	7.06	49.020	0.226	0.0	0.0	0.0	0.92	36.6	18.5																																																																																																																																																																																																																																																																																																																																											
10.000	32.84	5.68	49.169	0.035	0.0	0.0	0.0	0.71	12.5	3.1																																																																																																																																																																																																																																																																																																																																											
10.001	32.43	5.88	48.949	0.050	0.0	0.0	0.0	0.92	36.6	4.4																																																																																																																																																																																																																																																																																																																																											
9.003	29.96	7.26	48.894	0.276	0.0	0.0	0.0	0.92	36.6	22.4																																																																																																																																																																																																																																																																																																																																											
9.004	29.28	7.70	48.839	0.312	0.0	0.0	0.0	0.92	36.6	24.7																																																																																																																																																																																																																																																																																																																																											
11.000	33.31	5.46	49.950	0.217	0.0	0.0	0.0	0.92	36.6	19.6																																																																																																																																																																																																																																																																																																																																											
11.001	32.64	5.78	49.823	0.217	0.0	0.0	0.0	0.92	36.6	19.6																																																																																																																																																																																																																																																																																																																																											
12.000	33.09	5.57	49.629	0.055	0.0	0.0	0.0	0.71	12.5	4.9																																																																																																																																																																																																																																																																																																																																											
11.002	32.54	5.83	49.434	0.272	0.0	0.0	0.0	3.78	150.5	24.0																																																																																																																																																																																																																																																																																																																																											
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Micro Drainage Network 2015.1		

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Auto Design
1.009	4.000	0.027	148.1	0.000	0.00	0.0	0.600	o	150	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	E I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.009	28.32	8.36	48.374	1.310	0.0	0.0	0.0	0.82	14.6«	100.5

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.009		50.800	48.347	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	16
Number of Online Controls	5	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0


  

Synthetic Rainfall Details


Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	Scotland and Ireland	Cv (Winter)	0.840
M5-60 (mm)	15.300	Storm Duration (mins)	30
Ratio R	0.231		


  


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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD	Aldi - Crieff Proposed Drainage																																																																									
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<div>Online Controls for Storm</div>																																																																										
<div>Hydro-Brake Optimum® Manhole: 5, DS/PN: 1.003, Volume (m³): 3.2</div>																																																																										
<div><div>Unit Reference MD-SHE-0141-1000-1300-1000</div><div>Design Head (m)1.300</div><div>Design Flow (l/s)10.0</div><div>Flush-Flo™Calculated</div><div>ObjectiveMinimise upstream storage</div><div>Diameter (mm)141</div><div>Invert Level (m)49.605</div><div>Minimum Outlet Pipe Diameter (mm)225</div><div>Suggested Manhole Diameter (mm)1200</div></div>																																																																										
<div><div>Control Points</div><div>Head (m)Flow (l/s)</div><div>Design Point (Calculated)1.30010.0</div><div>Flush-Flo™0.3849.9</div><div>Kick-Flo®0.8288.1</div><div>Mean Flow over Head Range-8.6</div></div>																																																																										
<div>The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated</div>																																																																										
<div><table><tr><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td></tr><tr><td>0.100</td><td>5.1</td><td>1.200</td><td>9.6</td><td>3.000</td><td>14.8</td><td>7.000</td><td>22.2</td></tr><tr><td>0.200</td><td>9.3</td><td>1.400</td><td>10.3</td><td>3.500</td><td>15.9</td><td>7.500</td><td>22.9</td></tr><tr><td>0.300</td><td>9.8</td><td>1.600</td><td>11.0</td><td>4.000</td><td>17.0</td><td>8.000</td><td>23.7</td></tr><tr><td>0.400</td><td>9.9</td><td>1.800</td><td>11.6</td><td>4.500</td><td>18.0</td><td>8.500</td><td>24.4</td></tr><tr><td>0.500</td><td>9.8</td><td>2.000</td><td>12.2</td><td>5.000</td><td>18.9</td><td>9.000</td><td>25.0</td></tr><tr><td>0.600</td><td>9.6</td><td>2.200</td><td>12.8</td><td>5.500</td><td>19.8</td><td>9.500</td><td>25.7</td></tr><tr><td>0.800</td><td>8.4</td><td>2.400</td><td>13.3</td><td>6.000</td><td>20.6</td><td></td><td></td></tr><tr><td>1.000</td><td>8.8</td><td>2.600</td><td>13.8</td><td>6.500</td><td>21.4</td><td></td><td></td></tr></table></div>			Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	5.1	1.200	9.6	3.000	14.8	7.000	22.2	0.200	9.3	1.400	10.3	3.500	15.9	7.500	22.9	0.300	9.8	1.600	11.0	4.000	17.0	8.000	23.7	0.400	9.9	1.800	11.6	4.500	18.0	8.500	24.4	0.500	9.8	2.000	12.2	5.000	18.9	9.000	25.0	0.600	9.6	2.200	12.8	5.500	19.8	9.500	25.7	0.800	8.4	2.400	13.3	6.000	20.6			1.000	8.8	2.600	13.8	6.500	21.4		
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1.000	8.8	2.600	13.8	6.500	21.4																																																																					
<div>Hydro-Brake® Manhole: 8, DS/PN: 1.006, Volume (m³): 3.5</div>																																																																										
<div><div>Design Head (m)1.600</div><div>Hydro-Brake® Type Md4</div><div>Invert Level (m)49.347</div><div>Design Flow (l/s)10.0</div><div>Diameter (mm)100</div></div>																																																																										
<div><table><tr><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td></tr><tr><td>0.100</td><td>3.0</td><td>1.200</td><td>8.5</td><td>3.000</td><td>13.5</td><td>7.000</td><td>20.6</td></tr><tr><td>0.200</td><td>6.3</td><td>1.400</td><td>9.2</td><td>3.500</td><td>14.6</td><td>7.500</td><td>21.3</td></tr><tr><td>0.300</td><td>5.5</td><td>1.600</td><td>9.9</td><td>4.000</td><td>15.6</td><td>8.000</td><td>22.0</td></tr><tr><td>0.400</td><td>5.2</td><td>1.800</td><td>10.5</td><td>4.500</td><td>16.5</td><td>8.500</td><td>22.7</td></tr><tr><td>0.500</td><td>5.6</td><td>2.000</td><td>11.0</td><td>5.000</td><td>17.4</td><td>9.000</td><td>23.4</td></tr><tr><td>0.600</td><td>6.0</td><td>2.200</td><td>11.6</td><td>5.500</td><td>18.3</td><td>9.500</td><td>24.0</td></tr><tr><td>0.800</td><td>7.0</td><td>2.400</td><td>12.1</td><td>6.000</td><td>19.1</td><td></td><td></td></tr><tr><td>1.000</td><td>7.8</td><td>2.600</td><td>12.6</td><td>6.500</td><td>19.9</td><td></td><td></td></tr></table></div>			Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	3.0	1.200	8.5	3.000	13.5	7.000	20.6	0.200	6.3	1.400	9.2	3.500	14.6	7.500	21.3	0.300	5.5	1.600	9.9	4.000	15.6	8.000	22.0	0.400	5.2	1.800	10.5	4.500	16.5	8.500	22.7	0.500	5.6	2.000	11.0	5.000	17.4	9.000	23.4	0.600	6.0	2.200	11.6	5.500	18.3	9.500	24.0	0.800	7.0	2.400	12.1	6.000	19.1			1.000	7.8	2.600	12.6	6.500	19.9		
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<p><u>Hydro-Brake Optimum® Manhole: 9, DS/PN: 1.007, Volume (m³): 3.6</u></p> <div><div>Unit Reference MD-SHE-0136-1000-1600-1000</div><div>Design Head (m)1.600</div><div>Design Flow (l/s)10.0</div><div>Flush-Flo™Calculated</div><div>ObjectiveMinimise upstream storage</div><div>Diameter (mm)136</div><div>Invert Level (m)48.900</div><div>Minimum Outlet Pipe Diameter (mm)150</div><div>Suggested Manhole Diameter (mm)1200</div></div> <table><tr><th>Control Points</th><th>Head (m)</th><th>Flow (l/s)</th></tr><tr><td>Design Point (Calculated)</td><td>1.600</td><td>9.8</td></tr><tr><td>Flush-Flo™</td><td>0.465</td><td>9.8</td></tr><tr><td>Kick-Flo®</td><td>0.979</td><td>7.8</td></tr><tr><td>Mean Flow over Head Range</td><td>-</td><td>8.6</td></tr></table> <p>The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated</p> <table><tr><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th><th>Depth (m)</th><th>Flow (l/s)</th></tr><tr><td>0.100</td><td>4.9</td><td>1.200</td><td>8.6</td><td>3.000</td><td>13.3</td><td>7.000</td><td>19.9</td></tr><tr><td>0.200</td><td>8.7</td><td>1.400</td><td>9.2</td><td>3.500</td><td>14.3</td><td>7.500</td><td>20.5</td></tr><tr><td>0.300</td><td>9.5</td><td>1.600</td><td>9.8</td><td>4.000</td><td>15.2</td><td>8.000</td><td>21.2</td></tr><tr><td>0.400</td><td>9.8</td><td>1.800</td><td>10.4</td><td>4.500</td><td>16.1</td><td>8.500</td><td>21.8</td></tr><tr><td>0.500</td><td>9.8</td><td>2.000</td><td>10.9</td><td>5.000</td><td>16.9</td><td>9.000</td><td>22.4</td></tr><tr><td>0.600</td><td>9.7</td><td>2.200</td><td>11.4</td><td>5.500</td><td>17.7</td><td>9.500</td><td>23.0</td></tr><tr><td>0.800</td><td>9.2</td><td>2.400</td><td>11.9</td><td>6.000</td><td>18.5</td><td></td><td></td></tr><tr><td>1.000</td><td>7.9</td><td>2.600</td><td>12.4</td><td>6.500</td><td>19.2</td><td></td><td></td></tr></table> <p><u>Hydro-Brake Optimum® Manhole: 20, DS/PN: 11.002, Volume (m³): 2.8</u></p> <div><div>Unit Reference MD-SHE-0101-5000-1300-5000</div><div>Design Head (m)1.300</div><div>Design Flow (l/s)5.0</div><div>Flush-Flo™Calculated</div><div>ObjectiveMinimise upstream storage</div><div>Diameter (mm)101</div><div>Invert Level (m)49.434</div><div>Minimum Outlet Pipe Diameter (mm)150</div><div>Suggested Manhole Diameter (mm)1200</div></div> <table><tr><th>Control Points</th><th>Head (m)</th><th>Flow (l/s)</th></tr><tr><td>Design Point (Calculated)</td><td>1.300</td><td>5.0</td></tr><tr><td>Flush-Flo™</td><td>0.382</td><td>5.0</td></tr><tr><td>Kick-Flo®</td><td>0.797</td><td>4.0</td></tr><tr><td>Mean Flow over Head Range</td><td>-</td><td>4.4</td></tr></table> <p>The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a</p> <div>©1982-2015 XP Solutions</div>			Control Points	Head (m)	Flow (l/s)	Design Point (Calculated)	1.600	9.8	Flush-Flo™	0.465	9.8	Kick-Flo®	0.979	7.8	Mean Flow over Head Range	-	8.6	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	4.9	1.200	8.6	3.000	13.3	7.000	19.9	0.200	8.7	1.400	9.2	3.500	14.3	7.500	20.5	0.300	9.5	1.600	9.8	4.000	15.2	8.000	21.2	0.400	9.8	1.800	10.4	4.500	16.1	8.500	21.8	0.500	9.8	2.000	10.9	5.000	16.9	9.000	22.4	0.600	9.7	2.200	11.4	5.500	17.7	9.500	23.0	0.800	9.2	2.400	11.9	6.000	18.5			1.000	7.9	2.600	12.4	6.500	19.2			Control Points	Head (m)	Flow (l/s)	Design Point (Calculated)	1.300	5.0	Flush-Flo™	0.382	5.0	Kick-Flo®	0.797	4.0	Mean Flow over Head Range	-	4.4
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<u>Hydro-Brake Optimum® Manhole: 20, DS/PN: 11.002, Volume (m³): 2.8</u>							
Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated							
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.3	1.200	4.8	3.000	7.4	7.000	11.0
0.200	4.6	1.400	5.2	3.500	7.9	7.500	11.4
0.300	4.9	1.600	5.5	4.000	8.4	8.000	11.7
0.400	5.0	1.800	5.8	4.500	8.9	8.500	12.1
0.500	4.9	2.000	6.1	5.000	9.4	9.000	12.4
0.600	4.8	2.200	6.4	5.500	9.8	9.500	12.7
0.800	4.0	2.400	6.6	6.000	10.2		
1.000	4.4	2.600	6.9	6.500	10.6		
<u>Hydro-Brake Optimum® Manhole: 21, DS/PN: 1.009, Volume (m³): 4.7</u>							
Unit Reference MD-SHE-0103-6300-2000-6300							
Design Head (m) 2.000							
Design Flow (l/s) 6.3							
Flush-Flo™ Calculated							
Objective Minimise upstream storage							
Diameter (mm) 103							
Invert Level (m) 48.374							
Minimum Outlet Pipe Diameter (mm) 150							
Suggested Manhole Diameter (mm) 1200							
Control Points Head (m) Flow (l/s)							
Design Point (Calculated) 2.000 6.3							
Flush-Flo™ 0.448 5.5							
Kick-Flo® 0.920 4.4							
Mean Flow over Head Range - 5.1							
The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated							
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.5	1.200	5.0	3.000	7.6	7.000	11.4
0.200	5.0	1.400	5.3	3.500	8.2	7.500	11.8
0.300	5.4	1.600	5.7	4.000	8.7	8.000	12.1
0.400	5.5	1.800	6.0	4.500	9.2	8.500	12.5
0.500	5.5	2.000	6.3	5.000	9.7	9.000	12.8
0.600	5.4	2.200	6.6	5.500	10.1	9.500	13.2
0.800	5.0	2.400	6.9	6.000	10.6		
1.000	4.6	2.600	7.1	6.500	11.0		
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Micro Drainage	Network 2015.1	
<div>Storage Structures for Storm</div> <div>Porous Car Park Manhole: 1, DS/PN: 1.001</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Width (m) 5.0 Membrane Percolation (mm/hr) 1000Length (m) 56.5 Max Percolation (l/s) 78.5Slope (1:X) 200.0 Safety Factor 2.0Depression Storage (mm) 5 Porosity 0.30Evaporation (mm/day) 3 Invert Level (m) 50.637Cap Volume Depth (m) 0.000</div> <div>Porous Car Park Manhole: 2, DS/PN: 1.002</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Width (m) 5.0 Membrane Percolation (mm/hr) 1000Length (m) 29.0 Max Percolation (l/s) 40.3Slope (1:X) 200.0 Safety Factor 2.0Depression Storage (mm) 5 Porosity 0.30Evaporation (mm/day) 3 Invert Level (m) 50.476Cap Volume Depth (m) 0.000</div> <div>Porous Car Park Manhole: 3, DS/PN: 2.001</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Width (m) 5.0 Membrane Percolation (mm/hr) 1000Length (m) 43.0 Max Percolation (l/s) 59.7Slope (1:X) 200.0 Safety Factor 2.0Depression Storage (mm) 5 Porosity 0.30Evaporation (mm/day) 3 Invert Level (m) 50.860Cap Volume Depth (m) 0.000</div> <div>Porous Car Park Manhole: 4, DS/PN: 3.001</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Width (m) 5.0 Membrane Percolation (mm/hr) 1000Length (m) 38.0 Max Percolation (l/s) 52.8Slope (1:X) 200.0 Safety Factor 2.0Depression Storage (mm) 5 Porosity 0.30Evaporation (mm/day) 3 Invert Level (m) 50.875Cap Volume Depth (m) 0.000</div> <div>Porous Car Park Manhole: 5, DS/PN: 1.003</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Width (m) 10.0 Membrane Percolation (mm/hr) 1000Length (m) 30.0 Max Percolation (l/s) 83.3Slope (1:X) 200.0 Safety Factor 2.0Depression Storage (mm) 5 Porosity 0.30Evaporation (mm/day) 3 Invert Level (m) 50.320Cap Volume Depth (m) 0.000</div> <div>Porous Car Park Manhole: 6, DS/PN: 1.004</div> <div>Infiltration Coefficient Base (m/hr) 0.00000Max Percolation (l/s) 43.8 Membrane Percolation (mm/hr) 1000Safety Factor 2.0</div>		
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD	Aldi - Crieff Proposed Drainage																																																																																																																																	
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Micro Drainage	Network 2015.1																																																																																																																																	
<p><u>Porous Car Park Manhole: 6, DS/PN: 1.004</u></p> <table><tr><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Invert Level (m)</td><td>50.500</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Width (m)</td><td>5.0</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Length (m)</td><td>31.5</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 7, DS/PN: 1.005</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>5.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>31.5</td></tr><tr><td>Max Percolation (l/s)</td><td>43.8</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>50.520</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 8, DS/PN: 1.006</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>10.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>32.0</td></tr><tr><td>Max Percolation (l/s)</td><td>88.9</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>50.285</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 9, DS/PN: 1.007</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>10.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>15.0</td></tr><tr><td>Max Percolation (l/s)</td><td>41.7</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>49.950</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Filter Drain Manhole: 10, DS/PN: 8.001</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Trench Length (m)</td><td>30.0</td></tr><tr><td>Infiltration Coefficient Side (m/hr)</td><td>0.00000</td><td>Pipe Diameter (m)</td><td>0.150</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Pipe Depth above Invert (m)</td><td>0.000</td></tr><tr><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>120.0</td></tr><tr><td>Invert Level (m)</td><td>49.700</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr><tr><td>Trench Width (m)</td><td>1.2</td><td>Cap Infiltration Depth (m)</td><td>0.000</td></tr></table> <p><u>Complex Manhole: 11, DS/PN: 1.008</u></p> <p><u>Porous Car Park</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Porosity</td><td>0.30</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Invert Level (m)</td><td>49.725</td></tr><tr><td>Max Percolation (l/s)</td><td>30.6</td><td>Width (m)</td><td>5.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Length (m)</td><td>22.0</td></tr></table>			Porosity	0.30	Slope (1:X)	200.0	Invert Level (m)	50.500	Depression Storage (mm)	5	Width (m)	5.0	Evaporation (mm/day)	3	Length (m)	31.5	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0	Membrane Percolation (mm/hr)	1000	Length (m)	31.5	Max Percolation (l/s)	43.8	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	50.520	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0	Membrane Percolation (mm/hr)	1000	Length (m)	32.0	Max Percolation (l/s)	88.9	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	50.285	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0	Membrane Percolation (mm/hr)	1000	Length (m)	15.0	Max Percolation (l/s)	41.7	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	49.950	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	30.0	Infiltration Coefficient Side (m/hr)	0.00000	Pipe Diameter (m)	0.150	Safety Factor	2.0	Pipe Depth above Invert (m)	0.000	Porosity	0.30	Slope (1:X)	120.0	Invert Level (m)	49.700	Cap Volume Depth (m)	0.000	Trench Width (m)	1.2	Cap Infiltration Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Membrane Percolation (mm/hr)	1000	Invert Level (m)	49.725	Max Percolation (l/s)	30.6	Width (m)	5.0	Safety Factor	2.0	Length (m)	22.0
Porosity	0.30	Slope (1:X)	200.0																																																																																																																															
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Safety Factor	2.0	Depression Storage (mm)	5																																																																																																																															
Porosity	0.30	Evaporation (mm/day)	3																																																																																																																															
Invert Level (m)	49.950	Cap Volume Depth (m)	0.000																																																																																																																															
Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	30.0																																																																																																																															
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Diameter (m)	0.150																																																																																																																															
Safety Factor	2.0	Pipe Depth above Invert (m)	0.000																																																																																																																															
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Micro Drainage Network 2015.1		

Porous Car Park

Slope (1:X) 200.0    Evaporation (mm/day) 3  
Depression Storage (mm) 5    Cap Volume Depth (m) 0.000

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	54.0
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Diameter (m)	0.150
Safety Factor	2.0	Pipe Depth above Invert (m)	0.000
Porosity	0.30	Slope (1:X)	200.0
Invert Level (m)	48.840	Cap Volume Depth (m)	0.000
Trench Width (m)	1.2	Cap Infiltration Depth (m)	0.000

Complex Manhole: 15, DS/PN: 10.001

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	15.0
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Diameter (m)	0.150
Safety Factor	2.0	Pipe Depth above Invert (m)	0.000
Porosity	0.30	Slope (1:X)	150.0
Invert Level (m)	49.024	Cap Volume Depth (m)	0.000
Trench Width (m)	1.2	Cap Infiltration Depth (m)	0.000

Tank or Pond

Invert Level (m) 49.500

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	225.0	0.750	425.0

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0
Membrane Percolation (mm/hr)	1000	Length (m)	24.0
Max Percolation (l/s)	33.3	Slope (1:X)	200.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	49.769	Cap Volume Depth (m)	0.000


Tank or Pond


Invert Level (m) 49.900

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	16.0	0.500	90.0


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Micro Drainage	Network 2015.1																																																																																																	
<p><u>Filter Drain Manhole: 16, DS/PN: 9.003</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Trench Length (m)</td><td>24.0</td></tr><tr><td>Infiltration Coefficient Side (m/hr)</td><td>0.00000</td><td>Pipe Diameter (m)</td><td>0.225</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Pipe Depth above Invert (m)</td><td>0.000</td></tr><tr><td>Porosity</td><td>0.30</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Invert Level (m)</td><td>48.894</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr><tr><td>Trench Width (m)</td><td>1.2</td><td>Cap Infiltration Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 19, DS/PN: 11.001</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>5.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>26.0</td></tr><tr><td>Max Percolation (l/s)</td><td>36.1</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>50.559</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 20, DS/PN: 11.002</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>10.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>19.0</td></tr><tr><td>Max Percolation (l/s)</td><td>52.8</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>50.220</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table> <p><u>Porous Car Park Manhole: 21, DS/PN: 1.009</u></p> <table><tr><td>Infiltration Coefficient Base (m/hr)</td><td>0.00000</td><td>Width (m)</td><td>5.0</td></tr><tr><td>Membrane Percolation (mm/hr)</td><td>1000</td><td>Length (m)</td><td>19.0</td></tr><tr><td>Max Percolation (l/s)</td><td>26.4</td><td>Slope (1:X)</td><td>200.0</td></tr><tr><td>Safety Factor</td><td>2.0</td><td>Depression Storage (mm)</td><td>5</td></tr><tr><td>Porosity</td><td>0.30</td><td>Evaporation (mm/day)</td><td>3</td></tr><tr><td>Invert Level (m)</td><td>49.999</td><td>Cap Volume Depth (m)</td><td>0.000</td></tr></table>			Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	24.0	Infiltration Coefficient Side (m/hr)	0.00000	Pipe Diameter (m)	0.225	Safety Factor	2.0	Pipe Depth above Invert (m)	0.000	Porosity	0.30	Slope (1:X)	200.0	Invert Level (m)	48.894	Cap Volume Depth (m)	0.000	Trench Width (m)	1.2	Cap Infiltration Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0	Membrane Percolation (mm/hr)	1000	Length (m)	26.0	Max Percolation (l/s)	36.1	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	50.559	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0	Membrane Percolation (mm/hr)	1000	Length (m)	19.0	Max Percolation (l/s)	52.8	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	50.220	Cap Volume Depth (m)	0.000	Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0	Membrane Percolation (mm/hr)	1000	Length (m)	19.0	Max Percolation (l/s)	26.4	Slope (1:X)	200.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	49.999	Cap Volume Depth (m)	0.000
Infiltration Coefficient Base (m/hr)	0.00000	Trench Length (m)	24.0																																																																																															
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Membrane Percolation (mm/hr)	1000	Length (m)	26.0																																																																																															
Max Percolation (l/s)	36.1	Slope (1:X)	200.0																																																																																															
Safety Factor	2.0	Depression Storage (mm)	5																																																																																															
Porosity	0.30	Evaporation (mm/day)	3																																																																																															
Invert Level (m)	50.559	Cap Volume Depth (m)	0.000																																																																																															
Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0																																																																																															
Membrane Percolation (mm/hr)	1000	Length (m)	19.0																																																																																															
Max Percolation (l/s)	52.8	Slope (1:X)	200.0																																																																																															
Safety Factor	2.0	Depression Storage (mm)	5																																																																																															
Porosity	0.30	Evaporation (mm/day)	3																																																																																															
Invert Level (m)	50.220	Cap Volume Depth (m)	0.000																																																																																															
Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.0																																																																																															
Membrane Percolation (mm/hr)	1000	Length (m)	19.0																																																																																															
Max Percolation (l/s)	26.4	Slope (1:X)	200.0																																																																																															
Safety Factor	2.0	Depression Storage (mm)	5																																																																																															
Porosity	0.30	Evaporation (mm/day)	3																																																																																															
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Micro Drainage			Network 2015.1		
Volume Summary (Static)					
Length Calculations based on Centre-Centre					
Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	RE1	1.527	1.051	0.000	2.578
1.001	1	1.565	0.576	60.067	62.208
1.002	2	1.651	0.230	37.040	38.921
2.000	RE2	1.597	0.831	0.000	2.427
2.001	3	1.863	0.557	45.956	48.376
3.000	RE3	1.527	0.698	0.000	2.225
3.001	4	1.751	0.707	30.210	32.668
1.003	5	1.770	0.676	69.750	72.196
4.000	RE4	1.527	0.601	0.000	2.128
1.004	6	2.098	0.495	34.079	36.672
5.000	RE5	1.583	0.601	0.000	2.184
1.005	7	2.171	0.884	34.552	37.607
6.000	RE6	1.544	0.707	0.000	2.251
1.006	8	1.982	1.378	70.560	73.920
7.000	RE7	1.753	0.283	0.000	2.036
1.007	9	2.092	0.848	34.312	37.253
8.000	RE8	1.018	0.530	0.000	1.548
8.001	10	1.527	0.424	8.741	10.692
1.008	11	1.934	0.707	56.696	59.337
9.000	12	1.612	3.121	0.000	4.733
9.001	13	2.395	0.497	0.000	2.892
9.002	14	2.466	0.914	0.000	3.381
10.000	RE9	1.517	0.512	0.000	2.029
10.001	15	1.641	0.437	355.451	357.530
9.003	16	1.986	0.437	15.321	17.745
9.004	17	2.161	0.954	0.000	3.116
11.000	18	1.640	1.014	0.000	2.654
11.001	19	1.784	0.696	30.264	32.744
12.000	RE10	1.527	0.424	0.000	1.951
11.002	20	1.771	0.437	41.753	43.961
1.009	21	2.800	0.071	22.900	25.771
Total		55.780	22.299	947.652	1025.731


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Date July 2015 File 14601 Surface 15-07-27m...			Designed by MP Checked by		
Micro Drainage			Network 2015.1		
Volume Summary (Static)					
Length Calculations based on True Length					
Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	RE1	1.527	1.030	0.000	2.557
1.001	1	1.565	0.555	60.067	62.187
1.002	2	1.651	0.209	37.040	38.900
2.000	RE2	1.597	0.809	0.000	2.406
2.001	3	1.863	0.535	45.956	48.354
3.000	RE3	1.527	0.677	0.000	2.204
3.001	4	1.751	0.686	30.210	32.646
1.003	5	1.770	0.628	69.750	72.148
4.000	RE4	1.527	0.580	0.000	2.106
1.004	6	2.098	0.410	34.079	36.587
5.000	RE5	1.583	0.580	0.000	2.163
1.005	7	2.171	0.799	34.552	37.522
6.000	RE6	1.544	0.686	0.000	2.229
1.006	8	1.982	1.294	70.560	73.836
7.000	RE7	1.753	0.262	0.000	2.015
1.007	9	2.092	0.763	34.312	37.168
8.000	RE8	1.018	0.509	0.000	1.527
8.001	10	1.527	0.403	8.741	10.671
1.008	11	1.934	0.622	56.696	59.252
9.000	12	1.612	3.074	0.000	4.685
9.001	13	2.395	0.449	0.000	2.844
9.002	14	2.466	0.867	0.000	3.333
10.000	RE9	1.517	0.491	0.000	2.008
10.001	15	1.641	0.390	355.451	357.482
9.003	16	1.986	0.390	15.321	17.697
9.004	17	2.161	0.907	0.000	3.068
11.000	18	1.640	0.966	0.000	2.606
11.001	19	1.784	0.648	30.264	32.696
12.000	RE10	1.527	0.403	0.000	1.930
11.002	20	1.771	0.390	41.753	43.913
1.009	21	2.800	0.060	22.900	25.760
Total		55.780	21.069	947.652	1024.501
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD		Aldi - Crieff Proposed Drainage						
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Micro Drainage		Network 2015.1						
<u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u> <u>for Storm</u>								
Simulation Criteria								
Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000								
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000								
Hot Start Level (mm) 0 Inlet Coefficient 0.800								
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000								
Foul Sewage per hectare (l/s) 0.000								
Number of Input Hydrographs 0 Number of Storage Structures 16								
Number of Online Controls 5 Number of Time/Area Diagrams 0								
Number of Offline Controls 0 Number of Real Time Controls 0								
Synthetic Rainfall Details								
Rainfall Model FSR Ratio R 0.230								
Region Scotland and Ireland Cv (Summer) 0.750								
M5-60 (mm) 15.400 Cv (Winter) 0.840								
Margin for Flood Risk Warning (mm) 300.0								
Analysis Timestep 2.5 Second Increment (Extended)								
DTS Status ON								
DVD Status ON								
Inertia Status OFF								
Profile(s) Summer and Winter								
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440, 2160								
Return Period(s) (years) 1, 30, 100, 200								
Climate Change (%) 0, 0, 0, 20								
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	RE1	15 Winter	1	+0%	30/15 Summer			
1.001	1	240 Winter	1	+0%	1/15 Summer			
1.002	2	240 Winter	1	+0%	1/15 Summer			
2.000	RE2	240 Winter	1	+0%	1/30 Winter			
2.001	3	240 Winter	1	+0%	1/15 Summer			
3.000	RE3	240 Winter	1	+0%	1/15 Winter			
3.001	4	240 Winter	1	+0%	1/15 Summer			
1.003	5	240 Winter	1	+0%	1/15 Summer			
4.000	RE4	240 Winter	1	+0%	1/15 Summer			
1.004	6	240 Winter	1	+0%	1/15 Summer			
5.000	RE5	240 Winter	1	+0%	1/15 Summer			
1.005	7	240 Winter	1	+0%	1/15 Summer			
6.000	RE6	240 Winter	1	+0%	1/15 Summer	200/30 Summer		
1.006	8	240 Winter	1	+0%	1/15 Summer			
7.000	RE7	480 Winter	1	+0%	1/15 Summer			
1.007	9	480 Winter	1	+0%	1/15 Summer			
8.000	RE8	15 Winter	1	+0%	30/480 Winter			
8.001	10	960 Winter	1	+0%	1/15 Summer			
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage				
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by				
Micro Drainage				Network 2015.1				
<u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u> <u>for Storm</u>								
		Water	Surcharged	Flooded		Pipe		
	US/MH	Level	Depth	Volume	Flow /	Overflow	Flow	Level
PN	Name	(m)	(m)	(m³)	Cap.	(l/s)	(l/s)	Exceeded
1.000	RE1	50.545	-0.105	0.000	0.18		2.6	OK
1.001	1	50.514	0.261	0.000	0.14		1.6	SURCHARGED
1.002	2	50.509	0.419	0.000	0.19		4.3	SURCHARGED
2.000	RE2	50.514	0.096	0.000	0.15		1.8	SURCHARGED
2.001	3	50.508	0.325	0.000	0.13		2.4	SURCHARGED
3.000	RE3	50.515	0.215	0.000	0.09		1.1	SURCHARGED
3.001	4	50.511	0.409	0.000	0.21		2.9	SURCHARGED
1.003	5	50.500	0.670	0.000	0.19		6.3	SURCHARGED
4.000	RE4	50.415	0.365	0.000	0.10		1.6	SURCHARGED
1.004	6	50.411	0.666	0.000	0.11		6.3	SURCHARGED
5.000	RE5	50.410	0.360	0.000	0.04		0.7	SURCHARGED
1.005	7	50.408	0.698	0.000	0.10		6.4	SURCHARGED
6.000	RE6	50.409	0.474	0.000	0.13		1.8	SURCHARGED
1.006	8	50.404	0.757	0.000	0.09		6.2	SURCHARGED
7.000	RE7	49.963	0.563	0.000	0.05		1.0	SURCHARGED
1.007	9	49.963	0.763	0.000	0.11		7.0	SURCHARGED
8.000	RE8	49.991	-0.109	0.000	0.16		2.6	OK
8.001	10	49.839	0.439	0.000	0.04		0.7	SURCHARGED
2								
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage					
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by					
Micro Drainage				Network 2015.1					
<u>1 year Return Period Summary of Critical Results by Maximum Level (Rank 1)</u> <u>for Storm</u>									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow Overflow Act.		
1.008	11 960	Winter	1	+0%	1/15 Summer	200/960 Winter			
9.000	12 960	Winter	1	+0%	1/240 Summer	200/15 Winter			
9.001	13 960	Winter	1	+0%	1/15 Summer				
9.002	14 960	Winter	1	+0%	1/15 Summer				
10.000	RE9 960	Winter	1	+0%	1/15 Summer	200/960 Winter			
10.001	15 960	Winter	1	+0%	1/15 Summer	200/480 Winter			
9.003	16 960	Winter	1	+0%	1/15 Summer				
9.004	17 960	Winter	1	+0%	1/15 Summer				
11.000	18 60	Winter	1	+0%	1/15 Summer				
11.001	19 60	Winter	1	+0%	1/15 Summer				
12.000	RE10 60	Winter	1	+0%	1/15 Summer	200/60 Summer			
11.002	20 60	Winter	1	+0%	1/15 Summer	200/60 Winter			
1.009	21 960	Winter	1	+0%	1/15 Summer				
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.008	11 49.839		0.699	0.000	0.07		7.8	SURCHARGED	3
9.000	12 49.837		0.137	0.000	0.07		2.5	SURCHARGED	4
9.001	13 49.835		0.527	0.000	0.08		2.4	SURCHARGED	
9.002	14 49.834		0.589	0.000	0.08		2.6	SURCHARGED	
10.000	RE9 49.831		0.512	0.000	0.03		0.4	SURCHARGED	3
10.001	15 49.830		0.656	0.000	0.13		4.2	SURCHARGED	7
9.003	16 49.833		0.714	0.000	0.14		4.4	SURCHARGED	
9.004	17 49.852		0.788	0.000	0.13		4.4	SURCHARGED	
11.000	18 50.370		0.195	0.000	0.33		11.1	SURCHARGED	
11.001	19 50.359		0.312	0.000	0.33		10.8	SURCHARGED	
12.000	RE10 50.357		0.578	0.000	0.22		2.6	SURCHARGED	12
11.002	20 50.352		0.693	0.000	0.04		5.0	SURCHARGED	9
1.009	21 49.864		1.340	0.000	0.51		5.5	SURCHARGED	
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD		Aldi - Crieff Proposed Drainage						
Date July 2015 File 14601 Surface 15-07-27m...		Designed by MP Checked by						
Micro Drainage		Network 2015.1						
30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm								
Simulation Criteria								
Areal Reduction Factor		1.000	Additional Flow - % of Total Flow 0.000					
Hot Start (mins)		0	MADD Factor * 10m³/ha Storage 2.000					
Hot Start Level (mm)		0	Inlet Coefficient 0.800					
Manhole Headloss Coeff (Global)		0.500	Flow per Person per Day (l/per/day) 0.000					
Foul Sewage per hectare (l/s)		0.000						
Number of Input Hydrographs		0	Number of Storage Structures 16					
Number of Online Controls		5	Number of Time/Area Diagrams 0					
Number of Offline Controls		0	Number of Real Time Controls 0					
Synthetic Rainfall Details								
Rainfall Model		FSR	Ratio R 0.230					
Region		Scotland and Ireland		Cv (Summer) 0.750				
M5-60 (mm)		15.400	Cv (Winter) 0.840					
Margin for Flood Risk Warning (mm)		300.0						
Analysis Timestep		2.5 Second Increment (Extended)						
DTS Status		ON						
DVD Status		ON						
Inertia Status		OFF						
Profile(s)		Summer and Winter						
Duration(s) (mins)		15, 30, 60, 120, 240, 360, 480, 960, 1440, 2160						
Return Period(s) (years)		1, 30, 100, 200						
Climate Change (%)		0, 0, 0, 20						
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	RE1	360 Winter	30	+0%	30/15 Summer			
1.001	1	360 Winter	30	+0%	1/15 Summer			
1.002	2	360 Winter	30	+0%	1/15 Summer			
2.000	RE2	30 Winter	30	+0%	1/30 Winter			
2.001	3	360 Winter	30	+0%	1/15 Summer			
3.000	RE3	30 Winter	30	+0%	1/15 Winter			
3.001	4	30 Winter	30	+0%	1/15 Summer			
1.003	5	360 Winter	30	+0%	1/15 Summer			
4.000	RE4	480 Winter	30	+0%	1/15 Summer			
1.004	6	480 Winter	30	+0%	1/15 Summer			
5.000	RE5	480 Winter	30	+0%	1/15 Summer			
1.005	7	480 Winter	30	+0%	1/15 Summer			
6.000	RE6	480 Winter	30	+0%	1/15 Summer	200/30 Summer		
1.006	8	480 Winter	30	+0%	1/15 Summer			
7.000	RE7	1440 Winter	30	+0%	1/15 Summer			
1.007	9	1440 Winter	30	+0%	1/15 Summer			
8.000	RE8	2160 Winter	30	+0%	30/480 Winter			
8.001	10	2160 Winter	30	+0%	1/15 Summer			
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage					
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Micro Drainage				Network 2015.1					
30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm									
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap.	Pipe Flow (l/s)	Overflow (l/s)	Status	Level Exceeded
1.000	RE1	50.815	0.165	0.000	0.08	1.1		SURCHARGED	
1.001	1	50.811	0.558	0.000	0.23	2.7		SURCHARGED	
1.002	2	50.805	0.715	0.000	0.25	5.9		SURCHARGED	
2.000	RE2	50.904	0.486	0.000	0.80	9.7		SURCHARGED	
2.001	3	50.805	0.622	0.000	0.24	4.3		SURCHARGED	
3.000	RE3	50.956	0.656	0.000	0.52	6.4		SURCHARGED	
3.001	4	50.898	0.796	0.000	1.17	16.6		SURCHARGED	
1.003	5	50.795	0.965	0.000	0.20	6.6		SURCHARGED	
4.000	RE4	50.695	0.645	0.000	0.14	2.3		SURCHARGED	
1.004	6	50.691	0.946	0.000	0.14	7.9		SURCHARGED	
5.000	RE5	50.690	0.640	0.000	0.06	1.1		SURCHARGED	
1.005	7	50.689	0.979	0.000	0.14	8.9		SURCHARGED	
6.000	RE6	50.689	0.754	0.000	0.18	2.7		SURCHARGED	2
1.006	8	50.685	1.037	0.000	0.09	6.3		SURCHARGED	
7.000	RE7	50.344	0.944	0.000	0.05	1.0		SURCHARGED	
1.007	9	50.343	1.143	0.000	0.11	6.9		SURCHARGED	
8.000	RE8	50.214	0.114	0.000	0.02	0.4		SURCHARGED	
8.001	10	50.214	0.814	0.000	0.04	0.7		SURCHARGED	
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage					
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by					
Micro Drainage				Network 2015.1					
30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	
1.008	11	2160 Winter	30	+0%	1/15 Summer	200/960 Winter			
9.000	12	2160 Winter	30	+0%	1/240 Summer	200/15 Winter			
9.001	13	2160 Winter	30	+0%	1/15 Summer				
9.002	14	2160 Winter	30	+0%	1/15 Summer				
10.000	RE9	2160 Winter	30	+0%	1/15 Summer	200/960 Winter			
10.001	15	2160 Winter	30	+0%	1/15 Summer	200/480 Winter			
9.003	16	2160 Winter	30	+0%	1/15 Summer				
9.004	17	2160 Winter	30	+0%	1/15 Summer				
11.000	18	120 Winter	30	+0%	1/15 Summer				
11.001	19	120 Winter	30	+0%	1/15 Summer				
12.000	RE10	120 Winter	30	+0%	1/15 Summer	200/60 Summer			
11.002	20	120 Winter	30	+0%	1/15 Summer	200/60 Winter			
1.009	21	2160 Winter	30	+0%	1/15 Summer				
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.008	11	50.213	1.073	0.000	0.07		7.3	SURCHARGED	3
9.000	12	50.218	0.518	0.000	0.08		2.9	SURCHARGED	4
9.001	13	50.215	0.907	0.000	0.09		2.9	SURCHARGED	
9.002	14	50.214	0.969	0.000	0.09		3.1	SURCHARGED	
10.000	RE9	50.213	0.894	0.000	0.04		0.5	FLOOD RISK	3
10.001	15	50.212	1.038	0.000	0.15		4.5	FLOOD RISK	7
9.003	16	50.212	1.093	0.000	0.16		4.9	SURCHARGED	
9.004	17	50.211	1.147	0.000	0.14		4.6	SURCHARGED	
11.000	18	50.738	0.563	0.000	0.53		17.9	SURCHARGED	
11.001	19	50.730	0.682	0.000	0.54		17.6	SURCHARGED	
12.000	RE10	50.727	0.948	0.000	0.36		4.3	FLOOD RISK	12
11.002	20	50.723	1.064	0.000	0.04		5.0	FLOOD RISK	9
1.009	21	50.210	1.686	0.000	0.56		6.0	SURCHARGED	
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Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by				
Micro Drainage				Network 2015.1				
<u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>								
Simulation Criteria								
Areal Reduction Factor		1.000		Additional Flow - % of Total Flow		0.000		
Hot Start (mins)		0		MADD Factor * 10m³/ha Storage		2.000		
Hot Start Level (mm)		0		Inlet Coefficient		0.800		
Manhole Headloss Coeff (Global)		0.500		Flow per Person per Day (l/per/day)		0.000		
Foul Sewage per hectare (l/s)		0.000						
Number of Input Hydrographs		0		Number of Storage Structures		16		
Number of Online Controls		5		Number of Time/Area Diagrams		0		
Number of Offline Controls		0		Number of Real Time Controls		0		
Synthetic Rainfall Details								
Rainfall Model		FSR		Ratio R		0.230		
Region Scotland and Ireland		Cv (Summer)		0.750				
M5-60 (mm)		15.400		Cv (Winter)		0.840		
Margin for Flood Risk Warning (mm)						300.0		
Analysis Timestep		2.5		Second Increment (Extended)				
DTS Status						ON		
DVD Status						ON		
Inertia Status						OFF		
Profile(s)						Summer and Winter		
Duration(s) (mins)		15, 30, 60, 120, 240, 360, 480, 960, 1440, 2160						
Return Period(s) (years)		1, 30, 100, 200						
Climate Change (%)		0, 0, 0, 20						
US/MH								
PN	Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	RE1	360 Winter	100	+0%	30/15 Summer			
1.001	1	360 Winter	100	+0%	1/15 Summer			
1.002	2	360 Winter	100	+0%	1/15 Summer			
2.000	RE2	30 Summer	100	+0%	1/30 Winter			
2.001	3	360 Winter	100	+0%	1/15 Summer			
3.000	RE3	30 Summer	100	+0%	1/15 Winter			
3.001	4	30 Winter	100	+0%	1/15 Summer			
1.003	5	480 Winter	100	+0%	1/15 Summer			
4.000	RE4	480 Winter	100	+0%	1/15 Summer			
1.004	6	480 Winter	100	+0%	1/15 Summer			
5.000	RE5	480 Winter	100	+0%	1/15 Summer			
1.005	7	480 Winter	100	+0%	1/15 Summer			
6.000	RE6	480 Winter	100	+0%	1/15 Summer	200/30 Summer		
1.006	8	480 Winter	100	+0%	1/15 Summer			
7.000	RE7	1440 Winter	100	+0%	1/15 Summer			
1.007	9	1440 Winter	100	+0%	1/15 Summer			
8.000	RE8	2160 Winter	100	+0%	30/480 Winter			
8.001	10	2160 Winter	100	+0%	1/15 Summer			
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage				
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by				
Micro Drainage				Network 2015.1				
<u>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>								
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	RE1	50.937	0.287	0.000	0.10	1.5	SURCHARGED	
1.001	1	50.933	0.680	0.000	0.25	3.1	SURCHARGED	
1.002	2	50.927	0.837	0.000	0.26	6.0	SURCHARGED	
2.000	RE2	51.200	0.782	0.000	1.09	13.2	SURCHARGED	
2.001	3	50.927	0.744	0.000	0.31	5.6	SURCHARGED	
3.000	RE3	51.106	0.806	0.000	0.79	9.6	SURCHARGED	
3.001	4	50.995	0.893	0.000	1.26	17.8	SURCHARGED	
1.003	5	50.917	1.087	0.000	0.23	7.4	FLOOD RISK	
4.000	RE4	50.821	0.771	0.000	0.18	3.0	SURCHARGED	
1.004	6	50.817	1.072	0.000	0.15	8.3	SURCHARGED	
5.000	RE5	50.816	0.766	0.000	0.08	1.4	SURCHARGED	
1.005	7	50.815	1.105	0.000	0.15	9.4	SURCHARGED	
6.000	RE6	50.815	0.880	0.000	0.23	3.4	SURCHARGED	2
1.006	8	50.811	1.163	0.000	0.09	6.3	FLOOD RISK	
7.000	RE7	50.482	1.082	0.000	0.06	1.2	SURCHARGED	
1.007	9	50.481	1.281	0.000	0.11	6.9	FLOOD RISK	
8.000	RE8	50.359	0.259	0.000	0.03	0.4	SURCHARGED	
8.001	10	50.359	0.959	0.000	0.04	0.8	FLOOD RISK	
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage					
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by					
Micro Drainage				Network 2015.1					
<div>100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</div>									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	
1.008	11	2160 Winter	100	+0%	1/15 Summer	200/960 Winter			
9.000	12	30 Winter	100	+0%	1/240 Summer	200/15 Winter			
9.001	13	2160 Winter	100	+0%	1/15 Summer				
9.002	14	2160 Winter	100	+0%	1/15 Summer				
10.000	RE9	2160 Winter	100	+0%	1/15 Summer	200/960 Winter			
10.001	15	2160 Winter	100	+0%	1/15 Summer	200/480 Winter			
9.003	16	2160 Winter	100	+0%	1/15 Summer				
9.004	17	2160 Winter	100	+0%	1/15 Summer				
11.000	18	240 Winter	100	+0%	1/15 Summer				
11.001	19	240 Winter	100	+0%	1/15 Summer				
12.000	RE10	240 Winter	100	+0%	1/15 Summer	200/60 Summer			
11.002	20	240 Winter	100	+0%	1/15 Summer	200/60 Winter			
1.009	21	2160 Winter	100	+0%	1/15 Summer				
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.008	11	50.357	1.217	0.000	0.07		7.5	FLOOD RISK	3
9.000	12	50.406	0.706	0.000	1.09		38.7	SURCHARGED	4
9.001	13	50.360	1.052	0.000	0.11		3.5	SURCHARGED	
9.002	14	50.358	1.114	0.000	0.11		3.8	SURCHARGED	
10.000	RE9	50.357	1.038	0.000	0.05		0.6	FLOOD RISK	3
10.001	15	50.357	1.183	0.000	0.15		4.7	FLOOD RISK	7
9.003	16	50.357	1.238	0.000	0.17		5.3	FLOOD RISK	
9.004	17	50.356	1.292	0.000	0.14		4.6	SURCHARGED	
11.000	18	50.920	0.745	0.000	0.45		15.3	SURCHARGED	
11.001	19	50.911	0.864	0.000	0.44		14.3	SURCHARGED	
12.000	RE10	50.909	1.130	0.000	0.31		3.7	FLOOD RISK	12
11.002	20	50.904	1.245	0.000	0.04		5.0	FLOOD RISK	9
1.009	21	50.354	1.830	0.000	0.58		6.3	SURCHARGED	
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD			Aldi - Crieff Proposed Drainage																																																																																																																																																																																
Date July 2015 File 14601 Surface 15-07-27m...			Designed by MP Checked by																																																																																																																																																																																
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<u>200 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>																																																																																																																																																																																			
Simulation Criteria																																																																																																																																																																																			
Areal Reduction Factor 1.000			Additional Flow - % of Total Flow 0.000																																																																																																																																																																																
Hot Start (mins) 0			MADD Factor * 10m³/ha Storage 2.000																																																																																																																																																																																
Hot Start Level (mm) 0			Inlet Coefficient 0.800																																																																																																																																																																																
Manhole Headloss Coeff (Global) 0.500			Flow per Person per Day (l/per/day) 0.000																																																																																																																																																																																
Foul Sewage per hectare (l/s) 0.000																																																																																																																																																																																			
Number of Input Hydrographs 0			Number of Storage Structures 16																																																																																																																																																																																
Number of Online Controls 5			Number of Time/Area Diagrams 0																																																																																																																																																																																
Number of Offline Controls 0			Number of Real Time Controls 0																																																																																																																																																																																
<u>Synthetic Rainfall Details</u>																																																																																																																																																																																			
Rainfall Model			FSR			Ratio R 0.230																																																																																																																																																																													
Region Scotland and Ireland			Cv (Summer) 0.750																																																																																																																																																																																
M5-60 (mm)			15.400			Cv (Winter) 0.840																																																																																																																																																																													
Margin for Flood Risk Warning (mm)						300.0																																																																																																																																																																													
Analysis Timestep 2.5			Second Increment (Extended)																																																																																																																																																																																
DTS Status						ON																																																																																																																																																																													
DVD Status						ON																																																																																																																																																																													
Inertia Status						OFF																																																																																																																																																																													
Profile(s)						Summer and Winter																																																																																																																																																																													
Duration(s) (mins)			15, 30, 60, 120, 240, 360, 480, 960, 1440, 2160																																																																																																																																																																																
Return Period(s) (years)			1, 30, 100, 200																																																																																																																																																																																
Climate Change (%)			0, 0, 0, 20																																																																																																																																																																																
<table><tr><th>PN</th><th>US/MH Name</th><th>Storm</th><th>Return Period</th><th>Climate Change</th><th>First (X) Surge</th><th>First (Y) Flood</th><th>First (Z) Overflow</th><th>Overflow Act.</th></tr><tr><td>1.000</td><td>RE1</td><td>480 Winter</td><td>200</td><td>+20%</td><td>30/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.001</td><td>1</td><td>480 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.002</td><td>2</td><td>480 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>2.000</td><td>RE2</td><td>30 Summer</td><td>200</td><td>+20%</td><td>1/30 Winter</td><td></td><td></td><td></td></tr><tr><td>2.001</td><td>3</td><td>480 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>3.000</td><td>RE3</td><td>30 Summer</td><td>200</td><td>+20%</td><td>1/15 Winter</td><td></td><td></td><td></td></tr><tr><td>3.001</td><td>4</td><td>480 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.003</td><td>5</td><td>480 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>4.000</td><td>RE4</td><td>30 Summer</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.004</td><td>6</td><td>960 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>5.000</td><td>RE5</td><td>960 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.005</td><td>7</td><td>960 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>6.000</td><td>RE6</td><td>30 Summer</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td>200/30 Summer</td><td></td><td></td></tr><tr><td>1.006</td><td>8</td><td>960 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>7.000</td><td>RE7</td><td>1440 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>1.007</td><td>9</td><td>1440 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr><tr><td>8.000</td><td>RE8</td><td>2160 Winter</td><td>200</td><td>+20%</td><td>30/480 Winter</td><td></td><td></td><td></td></tr><tr><td>8.001</td><td>10</td><td>2160 Winter</td><td>200</td><td>+20%</td><td>1/15 Summer</td><td></td><td></td><td></td></tr></table>									PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	1.000	RE1	480 Winter	200	+20%	30/15 Summer				1.001	1	480 Winter	200	+20%	1/15 Summer				1.002	2	480 Winter	200	+20%	1/15 Summer				2.000	RE2	30 Summer	200	+20%	1/30 Winter				2.001	3	480 Winter	200	+20%	1/15 Summer				3.000	RE3	30 Summer	200	+20%	1/15 Winter				3.001	4	480 Winter	200	+20%	1/15 Summer				1.003	5	480 Winter	200	+20%	1/15 Summer				4.000	RE4	30 Summer	200	+20%	1/15 Summer				1.004	6	960 Winter	200	+20%	1/15 Summer				5.000	RE5	960 Winter	200	+20%	1/15 Summer				1.005	7	960 Winter	200	+20%	1/15 Summer				6.000	RE6	30 Summer	200	+20%	1/15 Summer	200/30 Summer			1.006	8	960 Winter	200	+20%	1/15 Summer				7.000	RE7	1440 Winter	200	+20%	1/15 Summer				1.007	9	1440 Winter	200	+20%	1/15 Summer				8.000	RE8	2160 Winter	200	+20%	30/480 Winter				8.001	10	2160 Winter	200	+20%	1/15 Summer			
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.																																																																																																																																																																											
1.000	RE1	480 Winter	200	+20%	30/15 Summer																																																																																																																																																																														
1.001	1	480 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
1.002	2	480 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
2.000	RE2	30 Summer	200	+20%	1/30 Winter																																																																																																																																																																														
2.001	3	480 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
3.000	RE3	30 Summer	200	+20%	1/15 Winter																																																																																																																																																																														
3.001	4	480 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
1.003	5	480 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
4.000	RE4	30 Summer	200	+20%	1/15 Summer																																																																																																																																																																														
1.004	6	960 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
5.000	RE5	960 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
1.005	7	960 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
6.000	RE6	30 Summer	200	+20%	1/15 Summer	200/30 Summer																																																																																																																																																																													
1.006	8	960 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
7.000	RE7	1440 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
1.007	9	1440 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
8.000	RE8	2160 Winter	200	+20%	30/480 Winter																																																																																																																																																																														
8.001	10	2160 Winter	200	+20%	1/15 Summer																																																																																																																																																																														
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage				
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Micro Drainage				Network 2015.1				
<u>200 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>								
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Overflow Cap. (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	RE1	51.125	0.475	0.000	0.12	1.7	SURCHARGED	
1.001	1	51.121	0.868	0.000	0.23	2.8	SURCHARGED	
1.002	2	51.116	1.026	0.000	0.23	5.2	FLOOD RISK	
2.000	RE2	51.634	1.216	0.000	1.61	19.5	FLOOD RISK	
2.001	3	51.115	0.932	0.000	0.34	6.1	SURCHARGED	
3.000	RE3	51.331	1.031	0.000	1.15	14.0	FLOOD RISK	
3.001	4	51.119	1.017	0.000	0.51	7.2	SURCHARGED	
1.003	5	51.107	1.277	0.000	0.26	8.4	FLOOD RISK	
4.000	RE4	51.076	1.026	0.000	1.29	20.8	FLOOD RISK	
1.004	6	51.023	1.278	0.000	0.13	7.5	FLOOD RISK	
5.000	RE5	51.023	0.973	0.000	0.07	1.2	FLOOD RISK	
1.005	7	51.021	1.311	0.000	0.13	7.9	SURCHARGED	
6.000	RE6	51.150	1.215	0.215	1.54	22.4	FLOOD	2
1.006	8	51.017	1.369	0.000	0.09	6.3	FLOOD RISK	
7.000	RE7	50.713	1.313	0.000	0.09	1.6	FLOOD RISK	
1.007	9	50.712	1.512	0.000	0.11	6.9	FLOOD RISK	
8.000	RE8	50.572	0.472	0.000	0.04	0.6	FLOOD RISK	
8.001	10	50.571	1.171	0.000	0.06	1.1	FLOOD RISK	
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1st Floor Block C Holland Park Newcastle Upon Tyne NE2 4LD				Aldi - Crieff Proposed Drainage					
Date July 2015 File 14601 Surface 15-07-27m...				Designed by MP Checked by					
Micro Drainage				Network 2015.1					
200 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	
1.008	11	2160 Winter	200	+20%	1/15 Summer	200/960 Winter			
9.000	12	30 Winter	200	+20%	1/240 Summer	200/15 Winter			
9.001	13	2160 Winter	200	+20%	1/15 Summer				
9.002	14	2160 Winter	200	+20%	1/15 Summer				
10.000	RE9	2160 Winter	200	+20%	1/15 Summer	200/960 Winter			
10.001	15	2160 Winter	200	+20%	1/15 Summer	200/480 Winter			
9.003	16	2160 Winter	200	+20%	1/15 Summer				
9.004	17	2160 Winter	200	+20%	1/15 Summer				
11.000	18	15 Winter	200	+20%	1/15 Summer				
11.001	19	120 Winter	200	+20%	1/15 Summer				
12.000	RE10	360 Winter	200	+20%	1/15 Summer	200/60 Summer			
11.002	20	240 Winter	200	+20%	1/15 Summer	200/60 Winter			
1.009	21	2160 Winter	200	+20%	1/15 Summer				
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.008	11	50.570	1.430	20.012	0.07		7.7	FLOOD	3
9.000	12	50.902	1.202	2.297	1.37		49.0	FLOOD	4
9.001	13	50.569	1.261	0.000	0.15		4.8	SURCHARGED	
9.002	14	50.567	1.323	0.000	0.15		5.1	SURCHARGED	
10.000	RE9	50.560	1.241	50.418	0.22		2.6	FLOOD	3
10.001	15	50.563	1.389	84.173	0.15		4.6	FLOOD	7
9.003	16	50.565	1.446	0.000	0.17		5.3	FLOOD RISK	
9.004	17	50.566	1.502	0.000	0.14		4.6	FLOOD RISK	
11.000	18	51.317	1.142	0.000	2.18		73.8	FLOOD RISK	
11.001	19	51.057	1.010	0.000	0.67		21.9	SURCHARGED	
12.000	RE10	51.002	1.223	23.202	0.37		4.4	FLOOD	12
11.002	20	51.012	1.353	12.396	0.04		5.0	FLOOD	9
1.009	21	50.566	2.042	0.000	0.61		6.6	FLOOD RISK	
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# CALCULATIONS/SKETCHES

PROJECT <b>ALDI - CRIEFF</b>		
JOB No. <b>14601</b>	PREPARED BY <b>MP</b>	SHEET No. <b>1</b>
DATE <b>JULY 15</b>	CHECKED BY	REV



REF	OUTPUT
	<p><u>CALCULATION OF TREATMENT VOLUME.</u></p> <p>(REFERENCE CIRIA 697)</p> <p>SITE AREA 1.8ha.</p> <p>IMP AREAS 1.37ha.</p> <p>FROM BOX 4.12 CIRIA 697</p> $V_t (\text{m}^3/\text{ha}) = 9 \times D \times \left[ \frac{\text{SOIL}}{2} + (1 - \frac{\text{SOIL}}{2}) \times I \right]$ <p><math>D = \text{M5-60 RAINFALL} = 15.3 \text{ mm.}</math></p> <p><math>\text{SOIL} = 0.23.</math></p> <p><math>I = \text{FRACTION OF AREA } (1.37\text{ha}/1.8\text{ha}) = 0.76</math></p> $V_t (\text{m}^3/\text{ha}) = 9 \times 15.3 \times \left[ \frac{0.23}{2} + (1 - \frac{0.23}{2}) \times 0.76 \right]$ $V_t = 108 \text{ m}^3/\text{ha} \times 1.8 \text{ ha} = 195 \text{ m}^3$ <p style="text-align: right;">TREATMENT VOLUME.</p>



**Appendix G**  
**Assessment Compliance**  
**Certification**



## APPENDIX B - ASSESSMENT COMPLIANCE CERTIFICATION & INSURANCE

### Assessment Compliance Certification

I certify that all reasonable skill, care and attention has been exercised in undertaking the attached Flood Risk Assessment / Drainage Impact Assessment / ~~Surface Water Drainage Design~~\* (delete as appropriate). The documentation has been prepared for the below noted development in accordance with the PKC Developers Guidance Note on Flooding and Drainage.

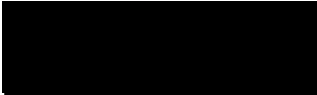
Name of Development ..... ALDI - BROICH ROAD - CRIEFF .....

Address of Development ..... BROICH ROAD .....  
..... CRIEFF .....  
.....

Name of Developer ..... ALDI STORES LTD. .....

Planning Application No .....

Name and Address of ..... SE CONSULTING ENGINEERS. .....  
Organisation preparing this ..... 1ST FLOOR, BLOCK C, HOWARD PARK, HOWARD .....  
Assessment ..... DRIVE, NEWCASTLE UPON TYNE, NE2 4LD. .....

Signed .....  .....

Name ..... STEVE WATSON. .....

Position Held ..... DIRECTOR. .....

Engineering Qualification ..... C. ENG. .....<sup>(1)</sup>

Date ..... 16/7/2015 .....

### INSURANCE

**Please attach a copy of your professional indemnity insurance policy to this document.**

<sup>(1)</sup> Chartered Engineer or equivalent from an appropriate Engineering Institution.

Date: 25<sup>th</sup> September 2014  
Ref: 55466

Commercial  
4-6 Ripon Road  
Harrogate  
HG1 2HH  
t 01423 522 431  
f 01423 523 467  
bluefingroup.co.uk

**TO WHOM IT MAY CONCERN**

**Professional Indemnity Insurance**

**Our Client:** 3E Consulting Engineers Ltd

**Business Description:** Civil, Structural and Geo-Environmental Consultants

We are Insurance Brokers to the above named client and confirm that we arrange Professional Indemnity Insurance on their behalf as follows: -

Policy Number: 11EA761289  
Insurer: CNA Insurance Company Ltd  
Period of Insurance: 12 months from 10<sup>th</sup> October 2014  
Limit of Indemnity: £ 2,000,000 any one claim

**Excess Professional Indemnity Insurance (First Layer)**

Policy Number: 373664/01/12/PI  
Insurer: Axis Insurance Ltd  
Period of Insurance: 12 months from 10<sup>th</sup> October 2014  
Limit of Indemnity: £ 3,000,000 any one claim (over £2,000,000)

The above policies are subject to the insurer's policy terms, conditions, exclusions and warranties.

We trust that this information is sufficient for your requirements and request that it is treated as strictly private and confidential. Please contact us if any further details are required.

Yours sincerely

  
Louise Homer  
Corporate Broker

Direct Tel No: 01423 700721  
E-mail: [louise.homer@bluefingroup.co.uk](mailto:louise.homer@bluefingroup.co.uk)

### **General Maintenance & Inspection Recommendations For Below Ground Gravity Drainage.**

1. No work shall be carried out on the drainage system without permission from a nominated person, who has access to information/ a working knowledge of the system.
2. Maintenance/ inspection work shall be carried out in a safe/ planned manner.
3. All work is to be carried out by competent persons suitably trained and equipped in accordance with current statutory safe working policies.
4. Entry into confined spaces shall be kept to a minimum and be restricted to suitably qualified/ equipped persons working in accordance with current statutory safe working policies.
5. High levels of hygiene shall be maintained at all times, with adequate welfare facilities being provided for the personnel.
6. Drainage systems shall be inspected at least every 6 months. Any debris/ defects discovered shall be recorded and a programme of cleaning/ repair initiated. Urgent repairs/ cleaning shall be actioned as soon as practicable.
7. The maintenance/ cleaning of Bypass Type Interceptors shall be carried out in accordance with the specific manufacturer's instructions.
8. Permeable surfaces should be brushed periodically to remove any detritus from the joints.
9. The following operations should be carried out annually.
  - i) Clean joints in permeable surfaces and remove any detritus material. Apply 6.3-2mm single size grit to joints, using a stiff brush to sweep the material into the joints ensuring all joints are filled.
  - ii) Covers of inspection chambers and manholes shall be removed and the sides, benching and channels cleared.
  - iii) Accumulated deposits of silt in catch pit manholes, drainage channels, gullies etc. shall be removed. Any traps shall then be plunged and thoroughly flushed out with clean water
  - iv) Main and branch drains shall be cleared as required and afterwards be flushed with clean water. Any obstructions found shall be removed and not flushed down the system.
  - v) Covers of inspection chambers, manholes, gullies etc. shall be replaced, bedded in suitable grease or other sealing material as required and bolted/locked down as appropriate. Missing bolts and broken items shall be replaced in accordance with the manufacturer's details.

10. During prolonged periods of dry weather, traps shall be checked and replenished as necessary in order to maintain the seal, preventing the escape of odours.
11. Clearing of the underground drainage system can be achieved by a number of methods depending on the nature of the work.
  - i) Rodding – Manual/ Mechanical with flexible rods.
  - ii) Jetting – High pressure water jetting. (Not to be used under permeable surfaces)
  - iii) Plunging.

## Document 2: Design and Access Statement



Planning application by Aldi Stores Ltd  
for proposed retail foodstore and  
additional Class 1 retail at Broich  
Road, Crieff.







## Design & Access Statement

Proposed Aldi Food Store:  
Broich Road, Crieff

July 2015



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## SECTION 1: INTRODUCTION

This Design and Access Statement has been prepared to accompany a planning permission in principle application for:

*“demolition of existing buildings and erection of a Class 1 retail foodstore, an additional Class 1 retail development and associated works, with detailed matters brought forward for the Class 1 foodstore, car parking, access, landscaping and other works”*

The proposal comprises detailed approval for:

- Demolition of the existing structures on site;
- Layout of the site;
- Design of the discount foodstore unit;
- A new access from Broich Road to serve the development;
- Associated parking facilities, comprising 183 spaces, including 11 designated disabled spaces and 10 parent and child spaces; and
- Structured landscaping.

The application comprises in principle approval for:

- The additional Class 1 retail unit with a further MSC application to be submitted in respect to the height, design, massing and materials of this unit.

The requirement for a Design and Access Statement has arisen in response to the need to promote better quality and more sustainable design in development – an objective encouraged by the Scottish Government through its guidance, ‘Designing Places’ and Scottish Planning Policy (SPP).

The purpose of this Statement is to examine the character and structure of the development in accordance with the requirements set out within ‘Designing Places’. This Statement should be considered and read in conjunction with the accompanying reports and plans submitted as part of this application. A brief overview of the Design and Access Statement is as follows:

### Section 2: Assessment

A brief discussion of the background to the proposal and context.

### Section 3: Planning Policy Context

A brief identification of national and local planning policy and their impact on the proposed development.

### Section 4: Evaluation

The identification of the opportunities the site presents and also the constraints that need to be addressed.

### Section 5: Design Proposals

Presentation of the design proposals, including the uses proposed, the amount, layout and scale of development, landscaping and appearance, access, and sustainability.

### Section 6: Summary

Provides an overview of the merits of the development.

### Section 7: Drawings

Presentation of images to highlight the design proposals.



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## SECTION 2: ASSESSMENT

The site is located between Broich Road and Duchlage Court, to the south of Crieff. The site is occupied by former agriculture buildings associated with Duchlage Farm, that are listed by virtue of being within the curtilage of the B listed Duchlage Farmhouse. The farmhouse itself however remains outwith the site boundary. The site's topography is relatively flat, rising gently approximately 1m from Broich Road.

The site is currently occupied by agriculture buildings associated with Duchlage Farm, a mixture of single storey sheds with pitch roof, clad in a mixture of stone, brick, timber and profiled metal. A separate listed building consent application will be lodged for the demolition of these buildings.

Surrounding the site to the north and west are residential developments. To the east is the new Crieff Primary School, with the Strathearn Community Campus beyond. To the south are a number of pitched roof bungalows with fields beyond, along with light industrial commercial units including a dairy. These fields are identified as a mixed-use site in the Local Development Plan (LDP) for large scale housing and employment development.

The site is located within the area of the Duchlage Farm Development Brief (April 2006) between the area of Market Park and that highlighted for the extended high school site (the recently completed Strathearn Community Campus). The larger site was identified as the preferred location for a new supermarket in Crieff,

with acknowledgement that this application site could have potential for retail development in the future. The Development Brief lists a number of design points which will be addressed throughout this document



Existing site looking north west from Broich Road



Existing site looking east from Broich Road, with Strathearn Community Campus in the background





**Existing Site Plan**







## SECTION 3: PLANNING POLICY CONTEXT

The Development Plan for the site is the Tayplan (2012) and the adopted Perth and Kinross Local Development Plan (2014).

### Statutory Development Plan

As few policies within Tayplan relate to matters of design, we have focused instead on related policies within the adopted Local Development Plan.

The current Local Development Plan is the adopted Perth and Kinross Local Development Plan which was adopted on 3 February 2014.

Chapter PM1: Placemaking is of particular relevance in terms of design considerations. Policy PM1A within this chapter states that development must contribute positively to the quality of the surrounding built and natural environment. All development must be planned and designed with reference to climate change, mitigation and adaption. The design, density and siting of development should respect the character and amenity of the place, and should create and improve links within and, where practical, beyond the site. Proposals should also incorporate new landscape and planting works appropriate to the local context and the scale and nature of the development.

As well as the above, Policy PM1B states that all proposals should meet all of the following placemaking criteria:

- (a) Create a sense of identity by developing a coherent structure of streets, spaces, and buildings, safely accessible from its surroundings.
- (b) Consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.
- (c) The design and density should complement its surrounding in terms of appearance, height, scale, massing, materials, finishes and colours.
- (d) Respect an existing building line where appropriate, or establish one where none exists. Access, use and orientation of principle elevations should reinforce the street or open space.
- (e) All buildings, streets, and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport.
- (f) Buildings and spaces should be designed with future adaptability in mind wherever possible.
- (g) Existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals.
- (h) Incorporate green infrastructure into new developments and make connections where possible to green networks.





The Placemaking Guide for Perth and Kinross forms the basis of Supplementary Guidance. This is an online guide and contains details on the following visions for developers:

- Vision for placemaking – Improve quality of place and create a strong identity of place.
- Vision for buildings and new development – Encourage innovation and sustainable design.
- Visions for roads, streets and civic spaces – Creating safe, attractive environments.
- Vision for greenspaces – Potential to increase value for biodiversity and use by people.
- Vision for rivers, burns and lochs – Reduce flood risk by design.

### **Vision for My Space – Creating more attractive places in which to live and work.** **Material considerations**

Material considerations of note also include national policy set out within Scottish Planning Policy (SPP) (2014), Creating Places, and PAN68: Design Statements. Collectively these documents make clear the Scottish Government's expectations that all development proposals will achieve high levels of design quality.

SPP states that developments should create successful and sustainable places which support sustainable economic growth and regeneration, and the creation of well-designed, sustainable places.

Creating Places is Scotland's new policy statement on architecture and place which sets out the comprehensive value good design can deliver. Such value includes physical, functional, social and environmental value as well as viability.

PAN 68 was published in 2003 to assist in the delivery of the better outcomes set out within Designing Places. PAN 68 provides detailed guidance on the value of Design Statements within the overall design process providing clear advice on their preparation.

These policies have therefore been duly considered as part of this urban analysis and have played a key part in guiding the final proposed solution for the site.



## SECTION 4: EVALUATION

In order to provide an appropriate design solution for the site, an analysis has been completed to assess the strengths, constraints and opportunities for the development. These are set out below.

### Opportunities:

- The opportunity to provide a, modern, high quality retail development to serve the needs of and offer an improved shopping choice for Crieff.
- The opportunity to provide a complementary land use that integrates well into the Duchlage Farm Development Brief.
- The opportunity to provide employment opportunities for local people and local investment that supports the future growth of the town.
- The opportunity to enhance the sustainability of food shopping journeys within the local area.
- The opportunity to help form a new arrival experience to southern Crieff, and providing a vista from Broich Road.
- The opportunity to improve general accessibility within the local area, and linking the Market Park area with the new educational establishments to the east.

### Constraints:

- The need to ensure that the development is of a scale, massing and density appropriate for the immediate area.
- The need to ensure sufficient and secure parking is achieved for both the Aldi store and the second retail unit.
- The need to ensure that safe and appropriate access into the site is provided.
- The need to provide prominence for the retail development while preserving the amenity of the residential units to the north.
- The need to respect the setting of the B listed farmhouse.
- The need to adjust site levels to that of the existing access, while being sensitive to the overall setting.
- The need to avoid the existing mains sewer and associated wayleave.
- The need to link Broich Road with Duchlage Court, and provide pedestrian links to Crieff centre to the north.



## SECTION 5: DESIGN PROPOSALS

### Use

The development proposes the introduction of two new retail units, comprising of a single storey discount foodstore unit for Aldi and the in principle approval of an additional retail unit. The proposal also involves associated car parking, servicing and landscaping which will occupy the whole of the site.

As the planning application is for planning permission in principle certain details in respect of the additional retail unit are reserved. These include the design, massing and heights of the additional retail unit.

### Scale

The gross external area of the Aldi proposal is 1,804m<sup>2</sup> with a sales area of 1,254m<sup>2</sup>. The additional retail unit measures 1,056sqm gross, 844sqm net.

The site will be served by 183 parking spaces of which 11 spaces would be accessible along with 10 parent and child spaces. Cycle stands will also be installed at the store entrance area for use by cyclists.

The proposed opening hours of the Aldi store are between 8am and 10pm, Monday to Saturday and 9am to 7pm on Sundays. It is currently unknown what hours the second unit would operate.

The proposed development is of modest scale to serve a limited catchment from Crieff and surrounding towns. Aldi's customers often use other shops and services in the area to fulfil their shopping needs, given that the Aldi store does not sell cigarettes and other convenience items, and does not have a deli counter, in-store bakery, butchers counter, in-store concessionary counters or a café.

It is envisaged that the overall proposals will create over 60 new jobs for the neighbourhood as well as additional employment during the construction process.

It is considered that this level of development is of an appropriate scale and use, having regard to the proposed use and the nature of the surrounding area, as well as fulfilling a retail need.



*Proposed south elevation – the site as seen from Broich Road*



## Layout and Access

As the primary proposed use of the site is for a retail development the layout of the site is driven by these main points:

- The need to provide an efficient and user-friendly retail environment with obvious route in and through the building.
- The need to provide safe and unobstructed access for large delivery vehicles, if possible avoiding crossover with public vehicles.
- The need to provide level, untiered access across both the building and its associated car parking, to make access available to all as well as avoiding trolleys rolling across the car park.
- The need to provide a minimum of 160 total parking spaces.

Though other aspects may be a factor in how the site is developed, these key points drive how a site can be developed for a discount food retailer and an additional retail unit.

To provide an efficient and user friendly retail environment, the proposed Aldi foodstore must adhere to a fairly rigid footprint of relatively fixed dimensions that makes a distinction between its accommodation uses: sales area, warehouse (storage) and amenity (staff and public welfare).

In order to present the most efficient and effective user environment, the sales area has critical dimension requirements to achieve the maximum shelf space without compromising on access to each shelf. This drives the overall building footprint, as the size of the warehouse and amenity sections are directly proportional to the size of the sales area.

The warehouse must have direct access to the loading dock and should ideally be oblong in shape so that no potential storage space is wasted. It therefore must sit behind the sales area, and allows the building to present a distinct "rear", distinguishing between public and private space.

The amenity space incorporates all the office, WC, meeting and plant space and though more flexible than the sales or warehouse spaces, often acts as a link between the two, and because it is private in nature, it usually pushes in line with the warehouse so that there is a distinct public/private dividing line.

The foodstore and its car parking should, for all intents and purposes, be treated as one entity as one cannot exist without the other. The building cannot be treated in isolation for it requires the car park to function in the manner in which it is designed.

## Site Constraints

Because of the restriction of the existing mains sewer running across the south east corner of the site, the response to the site is therefore to locate the foodstore along the eastern boundary with parking to the south west. The residual unit then runs along the north west boundary so that it links with both the proposed Aldi and new pedestrian access from Duchlage Court. The Aldi and residual unit cannot be swapped due to the required dimensions of the Aldi unit and the space available at that end of the site.

To enable safe and efficient customer access, a new access road from Broich Road will be formed, broadly in line with the previously



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approved Tesco proposal. This will be used to serve the farmhouse independently, and a separate service spur will take deliveries up the eastern boundary so that these are kept separate from customer traffic. This access road will lead to a service yard behind both retail units, presenting a distinct rear to the development. A loading ramp for delivery vehicles to deliver at ground floor level is provided to the Aldi unit to avoid the need for lifting equipment and external movement, and ensures an efficient operation.

In order to accommodate suitable parking provision for the retail units, the main site access serves as a spine, with aisles of parking accessed off this at regular intervals. In the section of site north of the farmhouse the parking is angled in line with the site boundary, but maintains the circulation aisles. Disabled parking is located as close as possible to each of the retail unit entrances, and a block of parent and child spaces faces the trolley bays of the Aldi store so that they can be monitored.

The foodstore is laid out so that the sales floor runs north to south, with the main shopfront facing Broich Road, giving this the prominence and material quality required to the main elevation. The warehouse and amenity block are then behind the sales area to service it. The amenity block provides a bookend on the south elevation, giving a prominent massing facing on to Broich Road and adding elevational interest.

Structured landscaping will provide the site boundary definitions, as well as providing screening and visual interest across the site. In line

with the Duchlage Farm Development Brief, 5m landscaped boundaries are proposed to each of the main boundaries of the site, with the exception of the east. In order to accommodate the service road to separate customer and delivery traffic, and to maintain a suitable parking provision for the two retail units, there is not enough space for a fully landscaped strip. A 1.8m close-boarded timber fence is proposed instead to screen the adjacent site from delivery vehicles while providing a defined site boundary.

A pedestrian access will be provided from Broich Road, bringing pedestrian traffic directly through to the Aldi entrance via a series of white painted crossings. A new pedestrian access will also be brought into the site from Duchlage Court, running along the north west boundary and to the front of the second retail unit. This then links up with the access from Broich Road, providing permeability across the site and allowing it to link with the town centre further to the north, an important consideration within the Duchlage Farm Development Brief.

The site will accommodate 183 parking spaces to the south and west of the retail units. Covered cycle parking will be provided at the store front as part of Aldi's commitment to encourage the use of sustainable modes of travel.





**Proposed site plan**



## Landscaping

The soft landscaping across the site is brought forward as a matter of detail within the PPP submission.

The proposed scheme includes a mixture of both soft and hard landscaping features across the site. These are proposed to provide open views of the store whilst creating an aesthetically appealing frontage to the site, and integrate the store into its setting.

The frontage on to Broich Road will feature dense, structured, low level planting along the boundary to provide a soft definition while giving the site exposure. This will follow the sweep of the new access road from Broich Road, and include a line of trees to provide some privacy to the farmhouse.

The service yard to Duchlage Court will feature higher dense planting and trees to screen the activities of delivery vehicles from the Duchlage Court residences, tying in with the existing planting that defines this boundary.

The frontage of the foodstore itself will be a high quality paving tile to create an aesthetically pleasing entrance to the building to reflect the modern ambitions of the site. Further structured landscaping is proposed around the parking aisles to provide an attractive parking environment, as well as root the building into its rural setting.

The proposed parking will be laid out with a stone mastic asphalt, and with brushed concrete finish to the service areas. A high quality paving tile finish will be applied to the foodstore shop front, with

tarmacadam pedestrian routes through, marked with crossings where appropriate.

The western boundary will feature a timber kickrail to avoid a claustrophobic feel to the pedestrian access path while maintaining an open vista to the west. A 1.8m high close-boarded timber fence to the north and eastern boundaries of the farmhouse will grant this further privacy from the retail development while remaining in keeping with the rural setting.

New landscaping will enhance the appearance of the area and create an attractive and welcoming environment for customers as well as improving the surrounding streetscape.



*Typical low-level planting*



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## Scale and Appearance

Given that the second retail unit is only applied for in principle within the planning application this section will focus only on the proposed Aldi foodstore, which is submitted in detail as part of the PPP.

The proposed Aldi store is a single storey building for operational efficiency. This has been proposed to keep the scale and massing of the building appropriate for the local context, while maintaining a suitable visual presence from Broich Road. This will deliver a high-quality, attractive and modern development that serves as part of the redevelopment of the Duchlage Farm area.

The aim of the development is to provide a high quality, attractive new food store which will enhance the local area and provide a modern shopping environment. To achieve this, the shop front will be largely glazed, along with high level ribbon windows running along the west elevation to allow natural light into the store. An over sailing canopy will also be provided along the south and west elevations to protect the customer entrance and trolley area. Structured landscaping will also shape the site and inform suitable pathways to the store entrance as previously noted.

The building will be clad primarily in white render to provide a contemporary retail unit appropriate to the neighbouring school buildings, in keeping with their palette of materials and architectural vernacular. This also gives a clean, crisp appearance to give some prominence from Broich Road.

The second retail unit design and appearance is to be determined as part of a future Matters Specified in Conditions application, but it is envisaged to be of a similar vernacular and detailing to provide a consistent design across the site.



*View from the south – the main glazed shopfront and white rendered amenity block nib*



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## Sustainability

Aldi are committed to developing sustainable buildings and operating as efficiently as possible.

Aldi's approach includes the minimisation of waste and the generation of renewable energy. Further detail on these various elements are set out below:

**Minimise Energy Use:** the objective is to minimise energy needs in development by following the Government's Energy Hierarchy approach to minimising energy use. This includes the innovative "arctic circle" technology which removes 100% of a store's requirement for heating equipment by recycling heat from the refrigeration units. Aldi also install solar panels on the roofs of their newest stores generating up to 50kW of power to help generate renewable energy and minimise their impact on the environment.

**Sustainable Building Materials:** this theme covers a range of sustainability impacts including, minimising the energy required for producing and transporting building materials, using recycled material from local sources as far as possible by choosing materials with a low embodied energy.

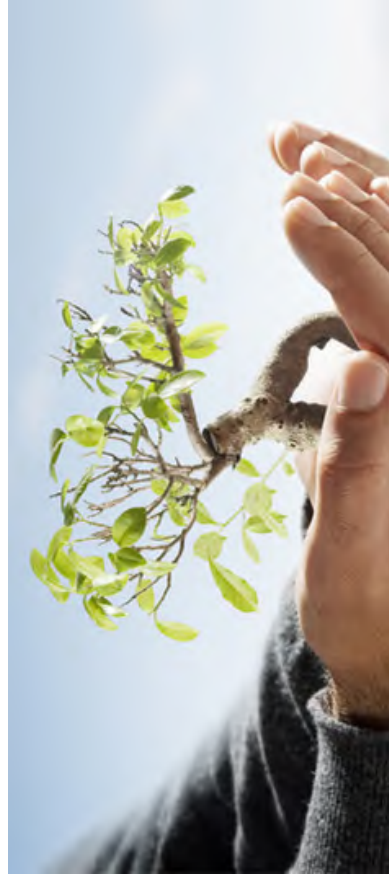
**Sustainable Construction:** This theme covers the methods used during the construction phase to reduce disturbance and the impacts on the surrounding environment.

**Sustainable Transport and Accessibility:** the objective is to minimise car usage and to encourage walking, cycling and the use of public transport.

**Waste Management:** the amount of waste generated in the construction process is to be minimised following the national waste strategy: reduce, reuse, and recycle.

**Site Management:** the objective is to ensure that the site is managed effectively to ensure that sustainability measures are implemented effectively.

Aldi are continually reviewing sustainable technologies and are committed to achieving sustainable development as part of its operations which includes designing sustainable initiatives within their new buildings.



## Servicing

The information below is presented to demonstrate the site can be serviced in a safe manner and does not result in any detriment to residential amenity. The delivery regime for Aldi stores generally involves the following:

There are usually one to two HGV deliveries (16.5m vehicles) and a smaller milk delivery (small rigid truck) each day.

The delivery arrangements for an Aldi store are unique. All goods are delivered in a dedicated Aldi goods vehicle other than bread and milk. The HGV vehicles carry frozen, chilled and ambient goods to the store which have been pre-packed at the Aldi distribution depot at Bathgate.

The proposed store is designed with a service ramp which enables the back of the HGV trailer to be level with the finished floor level of the warehouse area.

The store is designed to enable the movement of the goods vehicles to be undertaken on site.

The goods vehicle will drive forwards into the site, reverse into the service ramp and then exit the site in forward gear.

Goods are moved directly into the storage area without the need for lifting equipment or the external movement of goods. The goods are stacked on wooden pallets rather than in metal cages.

The unloading is undertaken by the driver and the whole operation takes approximately 20 minutes.

The reverse beepers of the delivery vehicle can be turned off during delivery times when members of the public are not on site.

The delivery vehicle engine and radio will be switched off once the vehicle is docked at the delivery bay. In addition, the delivery vehicle refrigeration system will be turned off once in position for unloading.

The docking bay includes a rubber dock shelter to further mitigate any noise issues.



## SECTION 6: SUMMARY

This statement has been provided to demonstrate how the proposals have been developed, having regard to the design parameters of the local area, those of the particular site and the opportunities these present.

We consider that a fresh, contemporary retail development will provide the area with an improved choice for shopping, which can complement the new facilities in the local area, with the potential to bolster trade as well as create jobs for the community.

The modern design and scale of the foodstore building has been carefully chosen to contribute positively to the rural setting, and complement the existing building form in the area.

The high quality and welcoming design of the foodstore building will be an attractive addition to the southern expansion area of Crieff by providing a modern and appropriately sensitive frontage to Broich Road. The development will bring valuable investment and activity to this site.

This Design and Access Statement accords with the requirements identified within national and local policy, and accordingly, the proposals accord fully with the relevant design policies of the Duchlague Farm Development Brief.



Proposed south elevation – the site as seen from Broich Road



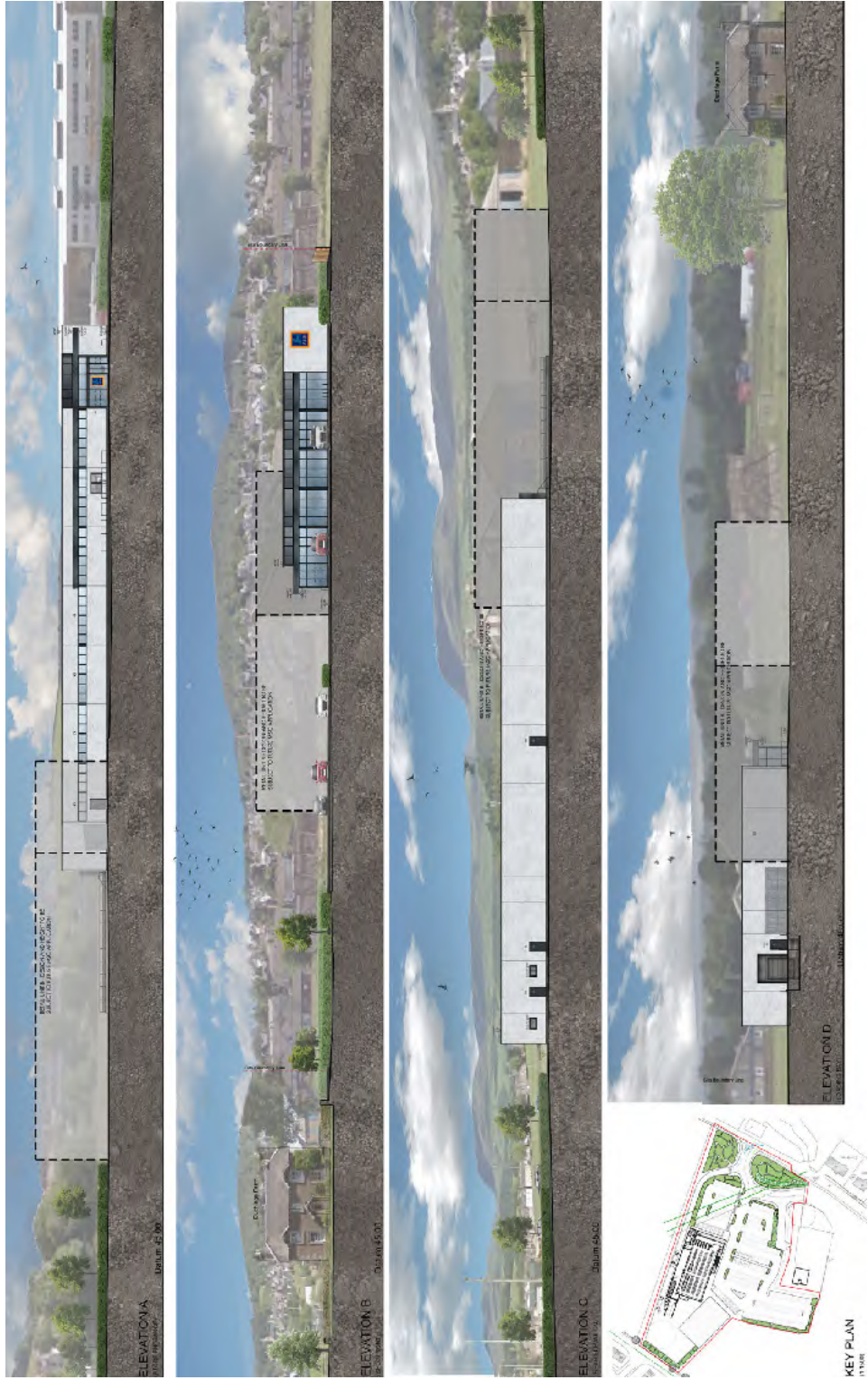
Proposed west elevation – the site as seen from the proposed car park





# SECTION 7: DRAWINGS

Coloured streetscape elevations





Proposed view from the south, the site as seen from Broich Road





Proposed view from the west – the site as seen from the proposed car park





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**Document 4:** Transport Assessment



**Planning application by Aldi Stores Ltd. for proposed foodstore and additional Class 1 retail development at Broich Road, Crieff.**

# Transport Assessment - Broich Road, Crieff

Proposed Aldi foodstore - and  
additional Class 1 retail

115758/RP/150422  
Revision 0



Issue	Date	Reason for Issue	Prepared		Checked		Approved	
1	06/08/15	Planning Application	RP		GK		GK	

Transport Assessment - Broich Road, Crieff  
115758/RP/150422  
Revision 0

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value beyond engineering

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## 1. Introduction

### 1.1 Background

Grontmij was commissioned by Aldi Stores Ltd to prepare a Transport Assessment (TA) in support of a planning application for a proposed Aldi foodstore and an additional Class 1 retail unit development on Broich Road (B8062), Crieff.

The TA takes account of the policies within SPP, with an assessment of the accessibility of the site by non-car modes including walking, cycling and public transport. The TA also provides the framework for a staff Travel Plan (TP) for the proposed development, which has been designed to encourage travel by sustainable modes. The TA also assesses the impact of traffic associated with the proposed development on the surrounding road network.

The scope of this TA and all technical parameters were agreed in writing with Perth and Kinross Council (PKC). A copy of the scoping correspondence is provided in Appendix A.

### 1.2 Aldi Stores Ltd – Trading Philosophy

The following provides a brief description of Aldi stores and their trading characteristics and how they differ from larger supermarket operators.

Although predominantly a convenience retail store, an Aldi Store also provides a limited range of comparison goods. These goods vary from week to week and include special prices on items such as computers, garden equipment and electrical goods.

The total range of products sold in Aldi stores is limited to approximately 1,600 lines in comparison to other grocery stores and superstores which are likely to stock between 2,500 and 20,000 product lines. Aldi stores do not sell lottery tickets, cigarettes or offer butchery, fishmonger, greengrocery services or other concessions as are frequently found in larger stores. As a result, Aldi do not compete directly with specialist food shops, newsagents or durable goods outlets.

Aldi stores are modest scale supermarkets fulfilling a local shopping role. Aldi's customers generally use other shops and stores as well as Aldi in order to fulfil their grocery shopping needs. Aldi is, therefore, complementary to the existing pattern of trading in towns.

### 1.3 Report Structure

Chapter 2 of this report describes the development proposals for the site. Chapter 3 reviews the current national and local transport policy context against which the planning application will be assessed, while Chapter 4 presents a review of existing transport links. Chapter 5 describes the mode share assessment and predicted trip generation associated with the development proposals. Chapter 6 sets out a framework for a travel plan for the site. Chapter 7 provides an assessment of the development proposals on the local road network. A summary and the conclusions of the TA are presented in Chapter 8.



## 2. Development Proposals

### 2.1 Introduction

The site is located to the south of Crieff town centre and is currently part of Duchlage Farm, accessed via Broich Road which forms part of the B8062 between Crieff and Auchterarder. This road forms the southern boundary of the site, whilst the new Crieff Primary School is to the east. Existing housing occupies the land to the north, while the area to the west, currently farmland, has planning consent for a 3,425m<sup>2</sup> supermarket development. No construction has taken place in conjunction with this consent to date.

The development proposals include the construction of a 1,796m<sup>2</sup> GFA Aldi foodstore and a 1,022m<sup>2</sup> food retail (class one) unit for another user. In addition to the two retail units, associated access roads, parking, landscaping and pedestrian facilities will be provided.

### 2.2 Indicative Site Layout

The location of the site within the context of the surrounding road network is provided in Figure 2.1, with an indicative site layout provided by Projekt Architects in Appendix B. Figure 2.1 also shows the site in relation to other adjacent developments (Tesco and LDP site reference MV7) and Crieff Primary School, which is expected to open in August 2015.



Figure 2.1 – Site Location (© OpenStreetMap contributors)

Figure 2.2 shows the position of the site relative to the town of Crieff and the facilities available in the surrounding community.

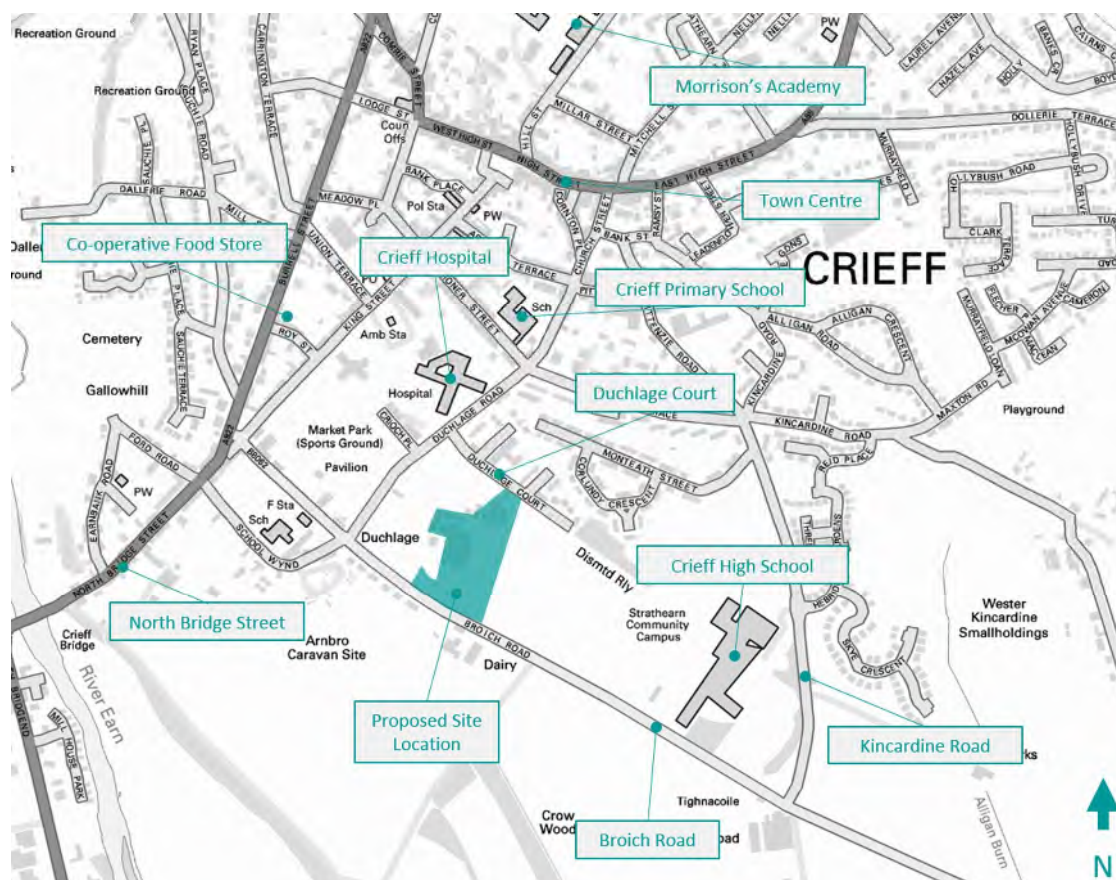


Figure 2.2 – Site in Relation to other uses and facilities (© OpenStreetMap contributors)

### 2.3

## Parking

It is proposed that 162 standard (unallocated) parking spaces will be provided for both retail units. In addition, 11 spaces designated for use by blue badge holders and 10 parent and child spaces will be provided close to the entrances of both retail units.

In order to assess the necessary parking provision for the site, reference was made to the maximum parking standards set out in the SCOTS National Roads Development Guide, as required by PKC. These parking requirements are shown in Table 2.1 for the combined GFA of both retail units (2,818m<sup>2</sup>) based on the assumption that the 'food superstore' category applies to both units.

Type of Development	Maximum Standards	Maximum Provision
Retail (food) 2,000m <sup>2</sup> to 8,000 m <sup>2</sup>	7 spaces per 100 m <sup>2</sup>	197

Table 2.1 - Parking Requirements



This demonstrates that the total of 183 (162 standard / 11 disabled / 10 parent and child) spaces is within the maximum allowable provision identified within the SCOTS National Roads Development Guide.

In addition, the SCOTS National Roads Development Guide requires, for car parks of up to 200 spaces, that the greater of 3 spaces or 6% of the total number of spaces should be provided for disabled users. These spaces are in addition to the standard spaces. The proposal meets the requirement of 11 disabled spaces. Parking spaces for eight bicycles are also provided at the Aldi store. Additional cycle parking will be delivered adjacent to the second unit, the detail of which will be included in a future detailed application.

### 2.4 Servicing

It is expected that the proposals will be served by approximately two HGV deliveries per day (one for each unit), via the service access to the east of the Aldi store as shown in Appendix B. The position of the loading bay for deliveries for the additional class one unit will be determined by the user's requirement. A swept path assessment for delivery vehicles was undertaken and is presented in Figure 2.3 and Figure 2.4 in Appendix B.



### 3. Policy Context

#### 3.1 Introduction

In order to demonstrate that the proposed development complies with current national and local transport planning policy, a review of the following documents was undertaken:

- Scottish Planning Policy
- National Transport Strategy 2006, Scottish Government;
- Planning Advice Note (PAN) 75 – Planning for Transport;
- Transport Assessment Guide;
- Perth and Kinross Local Development Plan; and
- TACTRAN Regional Transport Strategy.

A summary of each of the documents is provided below, along with an assessment of how the development relates to the relevant policies.

#### 3.2 Scottish Planning Policy

The Scottish Government's planning policies are set out in a number of documents including Scottish Planning Policy (SPP), Designing Places, Designing Streets and Circulars.

With regards to patterns of development, and in particular relation to transport, Paragraph 270 of SPP states that the decisions on the location of new developments should:

- optimise the use of existing infrastructure;
- reduce the need to travel;
- provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport;
- enable the integration of transport modes; and
- facilitate freight movement by rail or water.

Paragraph 23, part of 'Outcome 4: A more connected place', of SPP states;

*"By aligning development more closely with transport and digital infrastructure, planning can improve sustainability and connectivity. Improved connections facilitate accessibility within and between places...and support economic growth and an inclusive society."*

Paragraph 287 of SPP stresses the importance of sustainable travel and states that planning permission should not be granted for significant travel generating uses in locations which would encourage reliance on the private car and where:

- Direct links to walking and cycling networks are not available or cannot be made available;
- Access to public transport networks would involve walking more than 400 metres; and

- The Transport Assessment does not identify satisfactory mechanisms for meeting sustainable transport requirements.

### 3.3 National Transport Strategy, 2006, Scottish Government

Building on the Scottish Government's National Strategic Objectives: a wealthier, fairer, healthier, safer & stronger, smarter and greener Scotland, the National Transport Strategy aims to deliver the following strategic outcomes:

- Improve journey times and connections between our cities and towns and our global markets to tackle congestion and provide access to key markets;
- Reduce emissions to tackle climate change; and
- Improve quality, accessibility and affordability of transport, to give people the choice of public transport and real alternatives to the car.

The Strategy also promotes the development and implementation of Travel Plans to encourage more sustainable travel.

### 3.4 Planning Advice Note (PAN) 75 – Planning for Transport

Planning Advice Note (PAN) 75 accompanies SPP and acts as a good practice guide on measures that planning authorities, developers and others should carry out in their policy development, proposal assessment and project delivery.

Paragraph 24 states that:

*"development plan policy should encourage development of significant travel generating proposals at locations which are key nodes on the public transport network", and "locations should encourage modal shift of people and freight by providing good linkages to rail, walking and cycling networks".*

PAN 75 provides guidance on accessibility thresholds and walking distances as follows:

- Walking distances from new developments should be no greater than 400 metres to bus stops and 800 metres to rail stations; and
- The maximum acceptable walking distance to local facilities is 1,600 metres.

### 3.5 Transport Assessment Guidance

This document takes cognisance of SPP and sets out requirements for transport assessment which is proportionate to the scale of the proposed development. It provides a general guide to TA's along with some detailed information on the criteria which should be considered. In particular, the documents states that:

- Journey times of 20-30 minutes are appropriate for walking and 30-40 minutes for cycling;
- Public transport journey times can be calculated by a combination of analysis of timetables and maps. This should be complemented by observation of walking times to actual (or potential) bus stops. A 30 minute door to door travel time is an appropriate



choice of time-band by public transport although it may also be helpful to consider a 45 minute door to door travel time; and

- For developments of national or regional importance, public transport journey times of 1 hour may be appropriate.

The above guidelines have been followed during the preparation of this TA.

## 3.6

### Perth and Kinross Local Development Plan

The LDP shows which land is being allocated to meet the area's development needs to 2024 and beyond and sets out the planning policies applied in promoting the sustainable growth of the area.

The LDP contains the following specific policy relating to transport:

#### *Policy TA1B: New Development Proposals*

- All development proposals that involve significant travel generation should be well served by, and easily accessible to, all modes of transport. In particular the sustainable modes of walking, cycling and public transport should be considered, in addition to cars. The aim of all development should be to reduce travel demand by car and ensure a realistic choice of access and travel modes is available.
- Development proposals should:
  - Be designed for the safety and convenience of all potential users;
  - Incorporate appropriate mitigation on site and/or off site, provided through developer contributions where appropriate, which might include some improvements and enhancements to the walking and cycling network and public transport services;
  - Incorporate appropriate levels of parking provision to the maximum parking standards laid out in SPP;
  - Fit with the strategic aims of the Regional Transport Strategy (RTS); and
  - Apply maximum on-site parking standards to help encourage and promote a shift to the more sustainable modes of walking, cycling and public transport.
- Development for significant travel generating uses in locations which would encourage reliance on the private car will only be supported where:
  - Direct links to the core paths network are or can be made available;
  - Access to local bus routes with an appropriate frequency of service which involve walking no more than 400m are available;
  - It would not have a detrimental effect on the capacity or safety of the strategic road and/or rail network; and
  - The Transport Assessment identifies satisfactory mechanisms for meeting sustainable transport requirement.

- Development proposals which take into account and promote cycling and walking will be supported
- In rural areas where public transport is infrequent, less restrictive on-site parking standards may be applied.

### 3.7 TACTRAN Regional Transport Strategy

The TACTRAN vision is for 'a transport system, shaped by engagement with its citizens, which helps delivery prosperity and connects communities across the region and beyond, which is socially inclusive and environmentally sustainable and which promotes the health and well-being of all'.

The Regional Transport Strategy contains a number of objectives – the objectives relevant to this proposed development are:

- Ensure that transport infrastructure and services in the region help deliver economic growth, particularly in key business and employment sectors;
- Improve the efficiency, reliability and integration of the movement of goods and people;
- Improve access to employment;
- Improve access to retail, recreation and leisure facilities;
- Improve the accessibility and inclusivity of the transport system;
- Promote a shift towards more sustainable modes [of transport]; and
- Promote a culture of healthy and active travel.

The Strategy also develops a number of policies around the strategic themes of 'Delivering Economic Prosperity', 'Connecting Communities and Bring Socially Inclusive' and 'Environmental Sustainability and Promoting Health and Well-being'. Relevant policies include:

- Managing growing demands on our road system in a more sustainable way;
- Improve the quality and integration of public transport;
- Ensure that improvements in the movement of passengers and goods are sustainable, including maximising the use of public transport and rail and water-borne freight;
- Ensure that development proposals include Travel Plans that maximise the potential for walking, cycling, public transport and other sustainable travel choices.

### 3.8 Assessment of Development against Planning Policy

The development complies well with the relevant criteria set out within SPP as it is located near existing public transport facilities and takes account of the capacity of existing road infrastructure. Opportunities for direct links to be provided for pedestrians and cyclists from the development to existing infrastructure are also created. Furthermore, the development aims to prioritise sustainable travel where possible complying with the criteria set out in Paragraph 287 of SPP in relation to the location of development.





The nearest bus route, Crieff Town Service, operates around 300 metres from the store entrance, which falls within the 400m walking distance set out in PAN 75. Travel Plans will be promoted where appropriate, to encourage travel by more sustainable modes and in line with the requirements of Paragraph 42 of PAN 75, the TACTRAN Regional Transport Strategy and the Perth and Kinross LDP.

The TA has been prepared in accordance with the Scottish Government's document 'Transport Assessment Guide'. In particular, the guidance on walking and cycling journey times has been followed during the preparation of this TA.

The development complies with the Perth and Kinross LDP as the active travel will be encouraged by the efficient access for pedestrians and cyclists and be supported by the Travel Plan. These are direct links to adjacent to existing adjacent networks. This transport assessment considers the effects on the existing road network to ensure that no detrimental impacts occur.

The development is also in line with the TACTRAN Regional Transport Strategy as it will contribute to economic growth whilst, by providing opportunities for active travel, encourage a shift towards more sustainable modes of transport. The development will also improve access to employment and retail.



## 4. Accessibility Review

### 4.1 Introduction

A baseline accessibility assessment was undertaken to establish existing transport provision relevant to the development site. The assessment considers travel by all relevant modes of transport and provides details of available infrastructure and service provision.

The following paragraphs describe the existing walking, cycling and public transport provision and existing road network in the vicinity of the site.

### 4.2 Walking

The site lies to the south of Crieff town centre, with a mainly residential area to the immediate north.

The walking route to the site from the north (High Street) will encompass King Street, Commissioner Street, Duchlage Road and Duchlage Court as shown in Figure 4.1.

On King Street and Commissioner Street the footways vary in width and are in good condition with a good surface and uncontrolled dropped kerb crossing points provided at various locations. Both streets also benefit from existing street lighting.

Duchlage Road is similar to King Street, with some sections providing footways on only one side of the carriageway, which is typical given the historic nature of the town. Uncontrolled dropped kerb crossing are provided at various points along this route, including the junction between Duchlage Road and Commissioner Street. Duchlage Court is accessed via Duchlage Road and has a footway on the northern side to provide connectivity with the existing residential development it serves. The road is a culs-de-sac with low traffic flows, which should allow all pedestrians to cross easily to reach the proposed development. A pedestrian access has also recently been constructed to serve the new primary school from the south side of Duchlage Court.

An illustration of the existing footways on Duchlage Court is shown in Figure 4.1.



Figure 4.1 – Example of existing footways on Duchlage Court

From the west, the development would be accessed via Burrell Street then Broich Road. The footways on Burrell Street are relatively wide, and are in good condition. Crossing points are provided on Burrell Street via dropped kerbs, these crossing points are provided at various locations, for example at Union Terrace and Burrell Square junctions.

From the south, the pedestrian route will incorporate North Bridge Street, which has a good quality footway of varying width on the eastern side and an intermittent footway on the west. Dropped kerbs are provided at some crossing points on the eastern footway which will be the route used by pedestrian walking to the development.

While the existing footways on Broich Road are of mixed width, the footways on the northern side have recently been resurfaced, along with the provision on new street lighting as shown in Figure 4.2.



Figure 4.2 – Resurfaced footway on north side of Broich Road

On the north side of Broich Road, west of Duchlage Road a new footway (see Figure 4.3) is currently being implemented by PKC along with dropped kerbs at the junction between Broich Road and Duchlage Court.





Figure 4.3 – New footway under construction west of Duchlage Road

PKC are also currently installing a new midblock signalised pedestrian crossing over Broich Road to the west of Duchlage Court. These improvements are to be in place prior to the primary school opening in August 2015.

The proposed development will provide a pedestrian link to Duchlage Court (as shown in the Indicative Site Layout in Appendix B) – this will provide the most direct route for pedestrians approaching from the north of the site and the town centre.

Another pedestrian access will be provided linking towards the footways on Broich Road. As part of the proposals, the footway along the southern site boundary on Broich Road will be widened to 2m.

Figure 4.4 highlights the pedestrian catchments for the site. A walk time of 20 minutes (1600 metres) is specified within national policy as a reasonable journey time for pedestrians. A walk time of five minutes from the nearest bus stop is also stated as a reasonable journey time. As can be seen in Figure 4.4, the majority of of Crieff is located within a 20 minute walk of the proposed development.

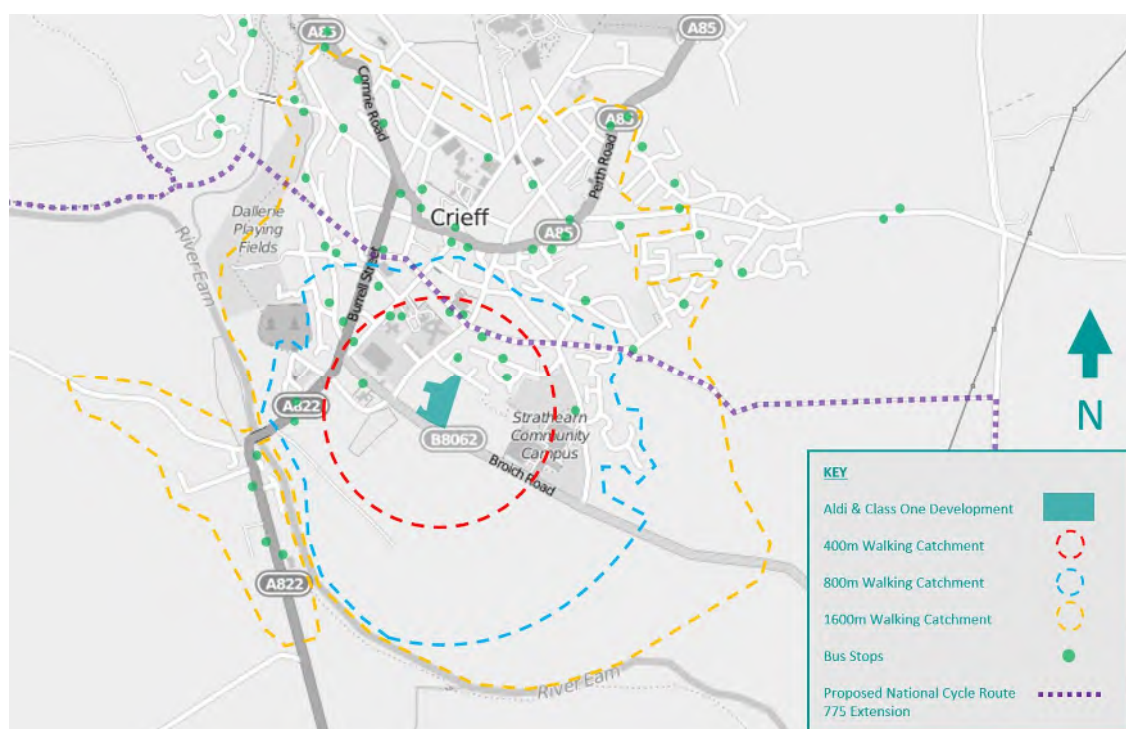


Figure 4.4 - Pedestrian Catchment (© OpenStreetMap contributors)

## 4.3 Cycling

The streets surrounding the proposed development are relatively lightly trafficked and are, therefore, suitable for cycling. There are no dedicated off-road cycle routes within the town. Routes to the west (Comrie) and the east (Fowlis) have are generally either off-road or on lightly trafficked roads.

Cyclists approaching from the north will also benefit from the link to Duchlage Court as this lightly trafficked street will provide direct access into the development

Figure 4.5 illustrates the area within an approximate 30 minute cycle (8 kilometres) of the development. This criterion is identified within 'Transport Assessment Guidance' as a reasonable cycle time for a local trip. There is a proposal for the National Cycle Route 775 to be extended. The plans of the extension run directly through the centre of Crieff and to the north of the development as shown in Figure 4.5. The nearest access point to the new store would be approximately 300m away.



Figure 4.5 - Cycling Catchment (© OpenStreetMap Contributors)

Cycle parking will be provided at both the Aldi store and the class one retail development in line with PKC guidelines.

#### 4.4 Public Transport Access

A number of bus services pass the site and will link the proposed development to both Crieff town centre and other outlying communities.

The Crieff Town Service (45), operated by Sweeney's Garage, Burnbrae Garage and Docherty's Midland Coaches, runs on a hail and ride basis out with Crieff town centre, and stops on request at locations where it is safe to do so. The route for the town service is shown in Figure 4.6, with the routes in solid blue being operated four times per day Monday to Saturday, along with additional services on certain days of the week. The route includes Duchlage Road, Duchlage Court and King Street, all of which are within 400m of the development.

Most of Crieff is served by the town service and the majority of the community will reside a short walking distance from a point where the bus can be hailed.



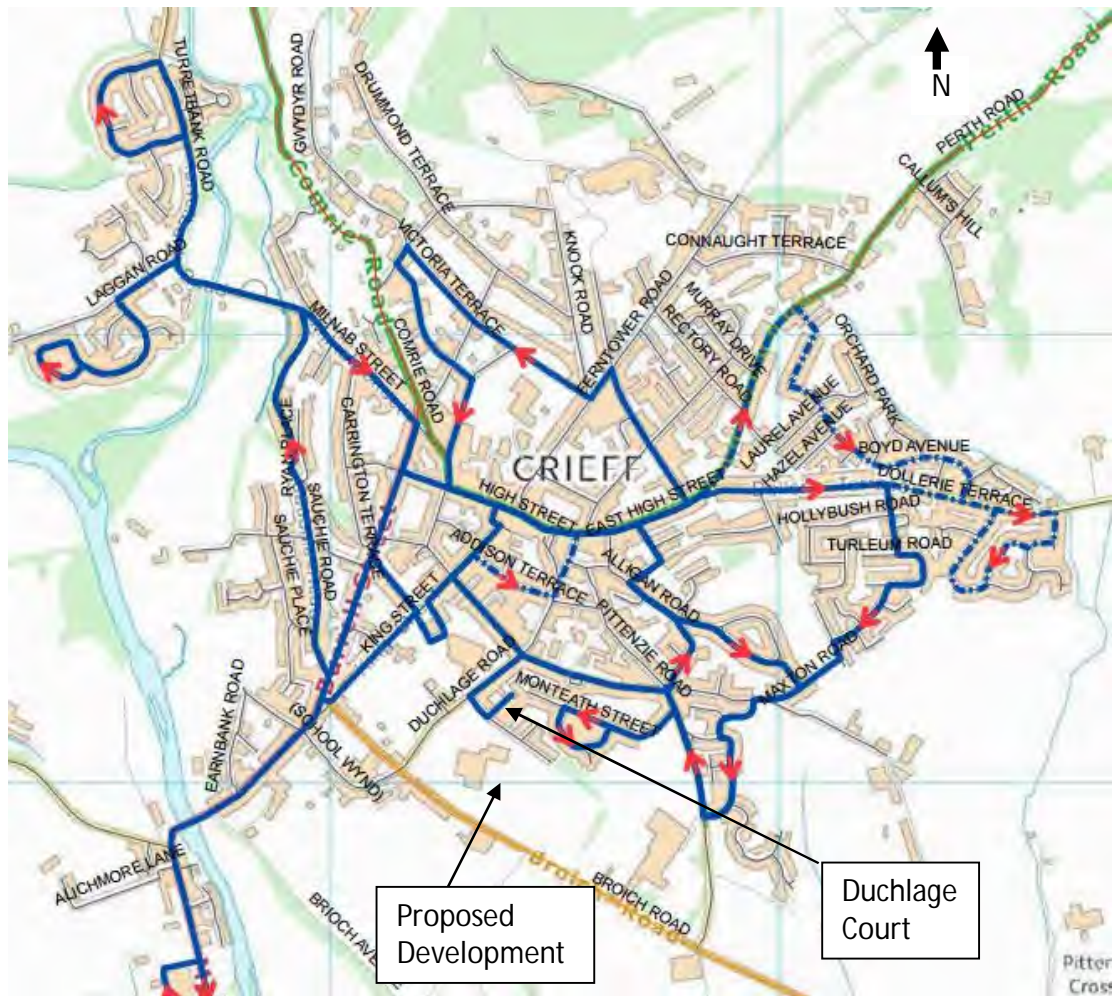


Figure 4.6 - Crieff Town Service Route (Source: Perth and Kinross Council)

In addition to the Crieff Town Service, the service 18, operated by Docherty's, runs from Auchterarder and Muthill to Crieff via either Broich Road or King Street – this service operates twice daily with additional services on Tuesdays, Thursdays and Fridays. The service is reduced on school holidays. On Saturdays, the service operates five times daily

Other bus services in Crieff run along High Street, with the Stagecoach service 15/15A operating approximately hourly between Comrie and Perth and Docherty's service 155 operating twice daily. Stagecoach also operate the service 47 between Stirling and Perth via Crieff – this service runs approximately every two hours on weekdays and Saturdays, with a reduced service on Sundays. Crieff High Street is approximately 10-15 minutes' walk from the proposed Aldi store.

#### 4.5

#### Access by Road

The proposed development will be accessed from the B8062 via a new priority junction. The access road will link into the car park for the two retail units, the HGV access and a section for future connection into the consented supermarket development. This access was designed to take account of the consented application (reference 08/01955/FLM) and



if the Aldi proposals come forward first, will deliver the site access for the adjacent development site to the west.

The B8062 is a two-lane single carriageway road which links Crieff with Strathallan and Auchterarder. The nature of the road changes from an urban street to a rural road as it passes the development. The carriageway is around 6m wide, with a footway provided on both sides as far as Duchlage Farm. To the east, a footway is provided only on the north side. The footway width varies from around 1.5m to less than 1m, however a section alongside the new Crieff Primary School has been widened to 2m. As well as the inter-urban function, the B8062 provides vehicular access to Crieff High School, the new primary school, the recycling centre and community facility within the high school.



## 5. Travel Plan Framework

### 5.1 Introduction

Once in operation, it will be important to ensure that the site remains accessible by a choice of travel modes. This Travel Plan (TP) framework has been prepared to set out the measures which will be adopted by Aldi to ensure such choice is available to staff and customers.

In line with national and local policy objectives to reduce the reliance on private car travel, Aldi is committed to providing travel choices for their staff and customers. In relation to staff travel, Aldi works to a general framework which includes the following statements of intent:

- The current emphasis of Government transport policy is not anti-car. Rather, it is aimed at promoting the more appropriate use of cars and to encourage the use of alternative travel modes to the private car and to encourage the use of alternative travel modes;
- The car will continue to play a significant role in people's travel choices; and
- However, their aim of both organisations is to be recognised as employers who are mindful of their duty to the environment and contribute meaningfully to meeting national and local traffic reduction and air quality targets.

### 5.2 General approach

This TP framework was developed to address the potential travel needs at the development, with the aim of reducing the reliance upon the private car and to promote alternative means of travel. The TP includes the following measures which will be adopted at the new store:

- Six months after opening, a Travel Survey of employees will be undertaken and the information collected used to set targets and specific objectives in relation to staff travel patterns specific to the new store;
- A Travel Plan Co-ordinator (TPC) will be identified who will promote the use of alternative modes of travel. The TPC will increase staff awareness of the available alternative modes of transport and provide details of the environmental, social and commercial benefits to be gained;
- A monitoring programme on the basis of bi-annual travel surveys to monitor the success or otherwise of particular measures, to establish the use of sustainable transport modes and to provide the opportunity for comment by staff and customers in relation to improvements to accessibility by modes other than the private car;
- Safe and secure cycle parking facilities will be provided for both staff and customers;
- As part of their ongoing commitment to travel plan measures, Aldi will also provide the following incentives to staff choosing to walk or cycle to work:
  - Changing facilities with lockers for the storage of clothes; and
  - A cycle user group will be set up.



The role of the TPC will include the following:

- Co-ordinate the staff travel survey and the analysis of the results;
- Provide public transport information to staff, this will include information on public transport services operating near the store;
- Establish and coordinate links with public transport operators in the surrounding area in order to maintain up to date information for both staff and the general public;
- Collate staff details and locations to aid in the potential for car-sharing opportunities and relate specific employees to bus, cycle and pedestrian routes;
- Examine and process comments and suggestions from staff and customers in relation to improving access to the development by alternative modes; and
- Publicise public transport information for customers and increase awareness of the availability of alternative modes of travel.

## 6. Mode Share Assessment and Travel Demands

### 6.1 Trip Generation

In order to establish the level of traffic likely to be generated as a result of the proposed development, relevant trip rates from the TRICS database were used. The trip rates and corresponding trip generation are shown below in Table 6.1 and Table 6.2 respectively with the relevant TRICS output provided in Appendix C. As agreed during the scoping exercise, only the weekday morning and evening peak hours are considered within the TA.

While Aldi is a discount food retailer which generally has a lower vehicular trip rate, this assessment assumes the vehicular trip rates for the Aldi part of the proposed development are identical to those of a typical class one food retail development.

Land Use	Unit	Morning Peak		Evening Peak	
		Arr	Dep	Arr	Dep
Food retail	Per 100m <sup>2</sup> GFA	2.575	1.832	5.008	5.153

Table 6.1 - Proposed Development Vehicular Trip Rates

Land Use	Units	Morning Peak		Evening Peak	
		Arr	Dep	Arr	Dep
Aldi Store	1,796m <sup>2</sup>	46	33	90	93
Class 1 Retail Unit	1,022m <sup>2</sup>	26	19	51	53
Total		72	52	141	146

Table 6.2 – Proposed development vehicular trip generation

### 6.2 Pass-by Trips

It has become accepted practice, particularly in the case of retail developments, that a proportion of the trips to a new development will be existing trips already on the road network. Although not taken forward into the modelling, the vehicular trip generation set out in Table 6.2 could be adjusted to take account of trips which would already be travelling along Broich Road or the south side of the town and would divert into the site (pass-by trips).

It was accepted by PKC that it is likely that 10% of the trips to the development would be pass-by. The adjusted trip generation taking account of this is set out within Table 6.3. The modelling carried out has assumed that all vehicular trips are new, rather than pass-by, meaning the results discussed in Chapter 7 are a robust estimate of the performance once the traffic generated by the proposed Aldi store is applied.

Trips	Morning Peak		Evening Peak	
	Arrivals	Departures	Arrivals	Departures
New trips	65	47	127	131
Pass-by	7	5	14	15
Total	72	52	141	146

Table 6.3 – Proposed development vehicle trip generation including pass-by

## 6.3

## Person Trips

In order to estimate the number of trips by all modes, reference was made to the 2012 Scottish Household Travel Diary Survey (SHS). This document provides a modal split for all shopping trips. This modal split is provided below in Table 6.4, which also shows the predicted number of trips travelling by each mode to the site.

Mode	%	Morning Peak		Evening Peak	
		Arr	Dep	Arr	Dep
Car Driver	48.3%	46	55	103	120
Car Passenger	12.7%	12	14	27	32
Walk	26.0%	25	30	55	65
Cycle	1.2%	1	1	3	3
Bus	8.1%	8	9	17	20
Taxi	1.3%	0	0	0	0
Rail	1.8%	2	2	4	4
Total	100%	96	114	213	248

Table 6.4 – Potential development mode share and multi modal trip generation

## 6.4

## Trip Distribution

The trip distribution for traffic travelling to and from the site was based upon the predicted store catchment as provided by GVA James Barr planning consultants. This catchment is shown in Appendix D.

The trip distribution for the proposals derived from the catchment is illustrated in Figure 6.1 with the resulting trip generation of the store on the road network is illustrated in Figures 6.2 and 6.3 in Appendix E.

## 7. Traffic Impact Study

### 7.1 General Approach

This Chapter describes the methodology used to assess the impact of the traffic generated by the development on the local road network.

The impact of the proposals on the local road network was tested using an S-Paramics model of the town with a base year of 2026. This model was developed by SiAS from a 2014 Crieff Local Development Plan (LDP) model.

A full modelling report was provided by SiAS (Ref: TPGRCR1/77268) and is provided within Appendix F.

### 7.2 Modelling Methodology

#### 7.2.1 Reference Case model

A 2026 Reference Case model was developed by SiAS from a baseline 2014 LDP test model for the purposes of future year tests within the town. The 2014 model included the new community campus adjacent to the new Crieff High School, the relocated Primary School and a consented Tesco store to the west for the Aldi store (planning reference 08/01955/FLM).

The model covers a morning and evening peak periods as follows:

- AM peak period 0700 to 1000;
- PM peak period 1500 to 1900.

The trips associated with the Tesco store and Primary School, as reported by SiAS, which for the purposes of this assessment are classed as committed developments, for the weekday morning and evening peak periods are set out Table 7.1 below.

	Tesco store		Primary school	
	Arrivals	Departures	Arrivals	Departures
Morning peak	394	242	95	72
Evening peak	931	970	49	78

Table 7.1 – Committed development trip generation

Within the 2026 Reference Case model, background traffic was grown from the base 2014 model using NRTF growth rates. The rates used were as follows:

- Lights 1.08043;
- Heavies 1.15169.

It should be noted the likely open year of the Aldi store is 2016, therefore a model with a base year of 2026 provides a very robust test. The Reference Case model also included the



signalisation of the '5 ways' junction between Broich Road, Burrell Street and King Street. This was identified within the TA undertaken in support for the Tesco planning application (Waterman Boreham, 2008) as required to accommodate the traffic associated the Tesco store. The signalisation of the junction is therefore included within any test scenario including Tesco.

### 7.2.2 Local Development Plan Site

To the south of Broich Road, opposite the Tesco and proposed Aldi sites there is a mixed use site identified as MU7 with the 2014 PKC Adopted Local Development Plan (LDP). This site is allocated for residential development of around 300 houses with up to 5 ha of serviced employment land.

While there is no existing planning consent for development on the LDP site, at the time of writing this TA, it is understood that an application was forthcoming.

To establish the cumulative impact of the committed, proposed and LDP site applications / permissions, the traffic associated with the LDP site was included within one of the modelling test scenarios.

The trip generation associated with the LDP site, as provided by SiAS and therefore included within the modelling is set out within Table 7.2.

	LDP site MU7	
	Arrivals	Departures
Morning Peak	343	391
Evening Peak	413	424

Table 7.2 – LDP Site trip generation

### 7.2.3 Test Scenarios

PKC requested that the traffic impact of the development be assessed using an S-Paramics model of the town. The model covers the whole of Crieff and its road network, including Broich Road from which access to the development is proposed. Third party direct access to the Paramics model is not permitted, as such the Council's agents SiAS Ltd were commissioned to undertake the necessary tests.

All trip generation and distribution figures which were agreed with PKC and were provided to SiAS for inclusion in the model.

During scoping discussions, it was agreed that the testing would consider the following scenarios in the weekday morning and evening peak periods:

- Test 1 – 2026 Reference Case plus Aldi proposals;
- Test 2 – Test 1 with the Tesco proposals removed; and
- Test 3 – Test 1, plus a mixed development to the south of Broich Road (LDP site).



Test 2 was undertaken to establish the potential impact of the Aldi proposals should they come forward in advance of the Tesco store. Test 3 was undertaken to confirm the cumulative impact should the committed developments including the mitigation they deliver, the Aldi proposals and the mixed development the on the LDP site come forward within the timescales of the model.

The tests were compared against the 2026 Reference Case model for the following time periods:

- AM peak period 0700 – 10000; and
- PM peak period 1500 – 1900.

### 7.3 Modelling Results

The modelling results provided by SiAS, are presented in terms of average and maximum queue lengths at defined junctions and average journey times on selected routes within the town.

#### 7.3.1 Queue Lengths

In relation to queue lengths, these were extracted from the model at the following junctions adjacent to the proposed Aldi site:

- Broich Road / Aldi site access;
- Broich Road / Duchlage Road / School Wynd;
- Broich Road / King Street / Burrell Street;
- Broich Terrace / Commissioner Street; and
- King Street / Commissioner Street.

Within the SiAS report, it is concluded that only the Broich Road / King Street / Burrell Street junction is critical in relation to queuing with the various tests. All other junctions do not show any notable queueing within any test scenarios.

The changes in queue lengths on all approaches to the Broich Road / King Street / Burrell Street junction within the morning and evening peak with each test scenario is provided in Figures 4.2 to 4.9 with the SiAS modelling report provided within Appendix F. As expected the largest queues were observed in Test 3, with the smallest queues observed in Test 2 due to the removal of the Tesco trips and the Broich Road / King Street / Burrell Street junction operating as a priority junction. It is noted from the original Tesco TA the signalisation of the 5 way junction did increase queueing on some approaches.

Only in Test 3, with the signals in place, were the queues observed not to full clear within each cycle.

#### 7.3.2 Journey Times

Journey times were extracted for two routes within the model, namely;

- Route 1. Broich Road between Highlandman Loan and Burrell Street; and

- Route 2. Duchlage Road between Commissioner Street and Broich Road.

During the morning peak, there is very little difference in journey times between all scenarios, with the exception of Test 2 which has the smallest journey time on all routes.

During the evening peak, there is a reasonably similar pattern, with Test 2 giving the lowest journey times on both routes. On Route 2- westbound, the largest change in journey time is predicted in Test 3.

## 7.4

## Summary

In Test 1, with the inclusion of the Aldi proposals onto the Reference case model there is a slight increase in queue level and journey times through the Broich Road / King Street / Burrell Street junction, however with a slight alteration to the signal phases the network operates without any issues.

In Test 2, the Broich Road / King Street / Burrell Street junction operates with no issues as a priority junction. This would suggest that if Aldi comes forward in advance of the Tesco proposals, there is no need to signalise the Broich Road / King Street / Burrell Street junction.

In Test 3, there was some increases in queue predicted on all approaches. While at some times during the evening peak the queue length did not full clear within each cycle, it was observed to too build-up too highly before it did clear.

It should be noted that the signalisation of the Broich Road / King Street / Burrell Street junction within the modelling operated within a fixed cycle. In reality, when the signalisation is implemented it would likely operate with some element of vehicle actuation (VA) and adjust its timings according to variations in vehicular and pedestrian demand.

A review of the trip generation of the Tesco, proposed Aldi and LDP sites shows that that the Aldi proposals along with the LDP site roughly equate to the trip generation associated with the Tesco application. Depending on the phasing and delivery of the various developments, it is likely that the Aldi, the additional retail unit and a proportion of the LDP site (it is likely that housing will be build out in phases) could come forward prior to the signalisation of the Broich Road / King Street / Burrell Street junction.



## 8. Summary and Conclusions

### 8.1 Summary

Grontmij was commissioned by Aldi Stores Ltd to undertake a Transport Assessment in support of an application for a new Aldi store and a class one retail development at Broich Road, Crieff.

The scope of the Transport Assessment was agreed in writing with Perth and Kinross Council. The development proposals were reviewed in the context of current local and national transport planning policy.

An accessibility review was undertaken to assess opportunities for travel to the site by all relevant transport modes and review the surrounding walking, cycling and public transport provision.

The predicted trip generation for the proposed development was established through reference to the TRICS database. It is predicted that the development will generate a maximum of 124 and 287 new two-way vehicle trips during the morning and evening peaks respectively.

The impact of the development traffic on the surrounding local road network was analysed the traffic model of Crieff town centre by SIAS on behalf of Grontmij.

### 8.2 Conclusions

The proposed development is very well located in relation to vehicular access and can deliver good opportunities for access by pedestrians walking to the store from surrounding areas.

The close proximity of the existing bus services operating near the site along with the implementation of a staff Travel Plan will aim to reduce the reliance on the private car travel.

The traffic impact assessment demonstrates that the traffic associated with the development will have a minimal impact on the operation of the surrounding road network.

# Appendices

## Appendix A - Scoping Correspondence

115758/RP/150422

Issue 0

From: Kelly, Graeme  
Sent: 21 April 2015 14:11  
To: 'jsthomson@pkc.gov.uk'  
Subject: Proposed Aldi Store, Broich Road, Crieff

John,

I can confirm that Grontmij has been appointed by Aldi Stores Ltd to undertake a Transport Assessment (TA) in support of a planning application for a retail development in Crieff.

Following our discussions at the recent pre-app meeting, I am writing to you to confirm the development proposals, the technical parameters and methodology to be taken forward within the TA which we will undertake in support of the planning application.

#### Development Proposals

The site is located to the immediate north of Broich Road, east of Duchlage Farm House. The overall site boundary is shown on the attached plan.

The development proposals include a 1,796 sqm GFA discount food store (Aldi) and a secondary 1,022 sqm retail unit with an overall expected opening year of 2017. As there is no end user identified at this stage for the second retail unit, for the purposes of the TA we will assume it is food retail due to the 'worst case' trip generation. It is proposed that vehicular access to the development will be via a new junction onto the Tesco Access road linking from Broich Road. Aldi would form the access onto Broich road should they come forward in advance of the Tesco store.

As part of the overall proposals, 167 car parking spaces will be constructed. This will be assessed against local and national parking standard within the TA.

#### Access by Sustainable Modes

Opportunities for access to the store by public transport, walking and cycling will be investigated within the TA. The site plan is currently being developed, however we are looking at options to provide a walking link to Duchlage Court to the north of the development.

#### Trip Generation

To establish the potential number of vehicular trips generated during the morning, evening and Saturday peak periods for the proposed store, reference was made to the TRICS database. Vehicular trip rates were extracted for food retail, with the resulting trip rates and trip generation shown in Tables 1 and 2 below. I attach the TRICS output files for your information.

**Table 1: Proposed development vehicular trip rates**

Land Use	Unit	AM Peak		PM Peak		Saturday Peak	
		Arrivals	Depart	Arrivals	Depart	Arrivals	Depart
Food Retail	per 100m <sup>2</sup> GFA	2.575	1.832	5.008	5.153	5.871	5.904

**Table 2: Proposed development vehicular trip generation**

Land Use	Unit	AM Peak		AM Peak		Saturday Peak	
		Arrivals	Arrivals	Arrivals	Depart	Arrivals	Depart
Aldi Store	1,796 sqm GFA	46	33	90	93	105	106

Class 1 Retail Unit	1,022 sqm GFA	26	19	51	53	60	60
Total Trips		72	52	141	146	165	166

An estimate of trips by all relevant modes of transport will be undertaken within the TA.

#### Trip Distribution

It is proposed that the distribution of trips will be based on a catchment identified GVA James Barr planning consultants. Once this is available, we will seek your acceptance of this prior to undertaking any assessments.

In order to take account of trips which would divert into the development as they pass, it is considered that 30% of trips generated by the development will be pass-by trips already on the network in the weekday evening peak and 10% on a Saturday and weekday morning peak.

#### Scope of Assessment

I would proposed that the following junctions will be included within the scope of assessment.

- Broich Road / Site Access;
- Broich Road / Duchlage Road / Scholl Wynd priority junction;
- Broich Road / King Street priority junction;
- Broich Road / Burrell Street priority junction;
- Broich Terrace Commissioner Street priority junction; and
- King Street / Commissioner Street priority junction.

We would propose to commission new traffic surveys to inform the traffic impact assessment.

#### Assessment scenarios

In order to assess the operation of the above junctions in relation to the additional traffic associated with the proposed store during the weekday morning, evening and Saturday peak periods, the following scenarios will be considered within the TA:

- 2017 Base traffic flows;
- 2017 Base + committed traffic flows (including Tesco as committed); and
- 2017 Base +committed (not including Tesco to test infrastructure requirements should Aldi be delivered before Tesco);
- 2017 Base + committed + development traffic flows.

Could you confirm if there are any other developments which have planning permission and should also be considered as committed within the study?

#### Traffic Impact Assessment Methodology

The impact of the development will be undertaken using industry standard isolated modelling packages. (Picady and Linsig).

We would propose that NRTF low growth to factor the 2015 surveys to a 2017 base.

#### Travel Plan

A Staff Travel Plan framework for the store will also be included within the TA.

I trust this meets your requirements and would seek you agreement and approval of the technical parameters set out with this email.

Please do not hesitate to contact me should you wish to discuss any of the scoping details further.



Kind regards,

Graeme

Graeme Kelly  
Technical Manager

---

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Perry, Richard

---

From: Tony Maric <AMaric@pkc.gov.uk>  
Sent: 17 June 2015 15:49  
To: Kelly, Graeme  
Cc: Perry, Richard  
Subject: RE: Proposed Aldi Store, Broich Road, Crieff

Graeme,

I have now had a look at your proposal and would just like to point out that the model is actually a 12 hour model, however I am content for you to test the AM and PM peaks. I am also content with your proposed scenarios. Whilst I am generally content for you to report in details on the junctions listed below, I would expect some form of commentary on any impacts that may occur within the wider model area as this information would be available to you to view from the model.

Regards

Tony

Tony Maric BSc (Hons) MSc PG Dip CMILT MCIHT MTPS MInstTA  
Transport Planning Officer  
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Web: [www.pkc.gov.uk](http://www.pkc.gov.uk)



---

From: Kelly, Graeme [mailto:[Graeme.Kelly@grontmij.co.uk](mailto:Graeme.Kelly@grontmij.co.uk)]  
Sent: 17 June 2015 12:01  
To: Tony Maric  
Cc: Perry, Richard  
Subject: FW: Proposed Aldi Store, Broich Road, Crieff

Tony,

Just checking you are happy with the content of my email as below.

We are commissioning the SiAS modelling today.

Regards,

Graeme

Graeme Kelly  
Technical Manager

---

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---

From: Kelly, Graeme  
Sent: 12 June 2015 13:48  
To: 'Tony Maric'; Perry, Richard  
Cc: John Thomson - TES  
Subject: RE: Proposed Aldi Store, Broich Road, Crieff

Tony,

Further to our recent telephone conversation we have approach SiAS to obtain fee quotation for undertaking the modelling.

Before we commission this could you confirm the following:

- As the existing model only covers weekday AM and PM peak period we will only test these periods;
- The trip generation to be tested is set out below, with 10% being considered as passby;

**Table 1: Proposed development vehicular trip rates**

Land Use	Unit	AM Peak		PM Peak	
		Arrivals	Depart	Arrivals	Depart
Food Retail	per 100m <sup>2</sup> GFA	2.575	1.832	5.008	5.153

**Table 2: Proposed development vehicular trip generation**

Land Use	Unit	AM Peak		AM Peak	
		Arrivals	Arrivals	Arrivals	Depart
Aldi Store	1,796 sqm GFA	46	33	90	93
Class 1 Retail Unit	1,022 sqm GFA	26	19	51	53

Total Trips		72	52	141	146
-------------	--	----	----	-----	-----

- Retail Catchment – this is attached. We will interpret this against the model zones and agree the trip distribution before modelling;
- We will report on the impact at the following junctions within the TA:
  - Broich Road / Site Access;
  - Broich Road / Duchlage Road / Scholl Wynd priority junction;
  - Broich Road / King Street priority junction;
  - Broich Road / Burrell Street priority junction;
  - Broich Terrace Commissioner Street priority junction; and
  - King Street / Commissioner Street priority junction.
- The following scenarios will be tested and reported;
  - Test 1 - 2014 Do minimum model (existing model);
  - Test 2 - 2014 Do minimum plus Aldi / additional unit;
  - Test 3 – Test 2 without Tesco trips;
  - Test 4 – Test 2 plus LDP site.

If you have any queries, please let me know.

Kind regards,

Graeme

Graeme Kelly  
Technical Manager

---

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From: Tony Maric [<mailto:AMaric@pkc.gov.uk>]  
Sent: 19 May 2015 16:56  
To: Perry, Richard; Kelly, Graeme  
Cc: John Thomson - TES  
Subject: Proposed Aldi Store, Broich Road, Crieff

Richard,

Thank you for sending me your scoping proposals for your proposed TA in respect of a proposed retail development in Broich Road. I am sorry for the delay in replying to you. Having now had the chance to review your proposals I would reply as follows:

- Development Proposals: - I note that the proposal is for a discount food store (Aldi) and a secondary retail unit at a site east of Duchlage Farm House and immediately adjacent to the proposed Tesco site. I am content to accept the proposal that the secondary retail unit be scoped as food retail as this does indicate a worst case scenario. Whilst I note your intention to provide a junction onto the proposed Tesco access road, I also note that you are aware that this may not come forward in the immediate future and therefore note your proposal to form an access directly onto Broich Road should your proposal come forward in advance of any development on the Tesco development site. Car parking should be in line with figures laid down in the National Roads Development Guide and I have provided a link to this for ease of reference.  
<http://www.pkc.gov.uk/CHttpHandler.ashx?id=26100&p=0>
- Access by Sustainable Modes - I would expect to see a full audit of current, walking, cycling and public transport routes and how the site intends to integrate into this network. With regards to public transport it is imperative that the most up to date public transport timetables are utilised and I would therefore encourage you to use the timetable pages on the Council's website [www.pkc.gov.uk](http://www.pkc.gov.uk) to facilitate this. You may also wish to note that this area is currently poorly served by public transport and it is therefore highly likely that my public transport colleagues would wish to enter into discussions regarding some form of contributions towards a new or improved bus service in this area.
- Trip Generation – The TRICS outputs have been audited and these have been found to be satisfactory. It would however be useful to define what the peak periods actually are in the TA
- Trip Distribution – We will await the GVA documents before commenting further on this aspect. However, with regards to pass-by and diverted trips, your figure of 30% is an unrealistic figure in this instance. As you may be aware Crieff does not have a large food superstore in the town, with the only food supermarket being a relatively modest Co-Op foodstore, which could not be considered to be a direct comparator for a discount foodstore. It is highly likely that a high proportion of food shopping trips will be carried out in Perth with the Tesco on Crieff Road being the nearest large scale food superstore for the residents of Crieff and its environs. Therefore, it would be difficult to justify a figure of 30% as pass-by or diverted trips. I would suggest a figure of 10% at most is a more realistic figure.
- Scope of Assessment – Your proposed junctions would be acceptable to us in terms of scenario testing, but please see the comments further on under general comments
- Assessment Scenarios – Your scenario testing would be generally acceptable to us, but you should note that as well as the consented Tesco application and the relatively new Community Campus, there is a new primary school that is in the process of being completed and there is currently pre-application discussions ongoing over a mixed use proposal for a site opposite the Tesco proposed site and new school that has been

recognised as a development site in our LDP. For this reason I would strongly urge you to adopt the approach put forward under the heading of general comments

- Traffic Impact Assessment Methodology – NRTF low growth rate would be acceptable, but please see also under general comments
- Travel Plan – Whilst I would accept that a Travel Plan would be predominantly aimed at staff travel, there is scope to provide travel information for customers as well, particularly those who might wish to use public transport and this should be acknowledged.
- General Comments – As mentioned earlier there is a lot of development, both recent, consented and planned in this area and for this reason the Council developed an S-Paramics model of Crieff to test the impact of development on the network. I would therefore expect that the model is used to carry out the traffic impact assessment element of the TA, rather than any modelling option as this will provide the best picture of the impact on the wider network. You should therefore liaise with our term consultants SIAS, so that they can carry out scenario testing on your behalf. As you are also aware there is currently a lot of activity regarding both potential sites and the uncertainty over the consented Tesco development. Given this, and the varying proposed start dates of these developments, it is imperative that the Council can accurately predict the cumulative impact of these developments and look to see build-out rates, timescales and possible phasing plans, so that appropriate mitigation measures can be put in place with regards to the transport infrastructure in this area. You are therefore strongly advised to consider working collaboratively with the other potential developers to adopt a masterplan approach to looking at the transport impacts of your development on the wider network and agreeing various scenarios that can be tested with the agreement of all parties concerned.

I trust that you find these comments useful.

Regards

Tony

Tony Maric BSc (Hons) MSc PG Dip CMILT MCIHT MTPS MInstTA  
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Perry, Richard

---

From: Alexander Deans <ADeans@pkc.gov.uk>  
Sent: 30 June 2015 09:46  
To: Perry, Richard; Tony Maric; John Thomson - TES  
Cc: Kelly, Graeme  
Subject: RE: Proposed Aldi Development, Crieff - Distribution for PKC Approval

Thanks Richard, yes go for 15 Pittenzie, 20 Duchlage as I think this would likely be nearer the mark

Fine after that to proceed with modelling

Regards  
Alex

---

From: Perry, Richard [mailto:Richard.Perry@grontmij.co.uk]  
Sent: 30 June 2015 09:43  
To: Alexander Deans; Tony Maric; John Thomson - TES  
Cc: Kelly, Graeme  
Subject: RE: Proposed Aldi Development, Crieff - Distribution for PKC Approval

Alex – yes, I'd predicted 5% from Pittenzie Road, with 30% coming via Duchlage Road for this area of Crieff. Would you be happier with a larger percentage from Pittenzie Road (10-15%) and a lower percentage from Duchlage Road?

Thanks

Richard

Kind regards,

Richard Perry  
Senior Transport Planner

---

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From: Alexander Deans [mailto:ADeans@pkc.gov.uk]  
Sent: 30 June 2015 09:35  
To: Perry, Richard; Tony Maric; John Thomson - TES  
Cc: Kelly, Graeme  
Subject: RE: Proposed Aldi Development, Crieff - Distribution for PKC Approval

Richard, I might be reading the flow diagram wrong, but are what you are saying is only 5% of the trip will come via Pittenzie Rd direction. There is a pretty large catchment to the north of this which I would have thought might have been attracted to an Aldi



Maybe you can clarify reasoning

Regards  
Alex

---

From: Perry, Richard [<mailto:Richard.Perry@grontmij.co.uk>]  
Sent: 29 June 2015 15:47  
To: Tony Maric; John Thomson - TES; Alexander Deans  
Cc: Kelly, Graeme  
Subject: RE: Proposed Aldi Development, Crieff - Distribution for PKC Approval

Hello John/Alex

I received an out of office response from Tony Maric in relation to the email (below) sent earlier this afternoon. We'd like to get SiAS to commence the modelling process today if possible – would either of you be able to review our proposed distribution (attached) for the development in Tony's absence?

Thanks in advance for your assistance.

Richard

Kind regards,

Richard Perry  
Senior Transport Planner

---

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From: Perry, Richard  
Sent: 29 June 2015 14:52  
To: 'amaric@pkc.gov.uk'  
Cc: Kelly, Graeme  
Subject: Proposed Aldi Development, Crieff - Distribution for PKC Approval

Tony

Further to our recent discussions regarding the proposed Aldi development at Crieff, I attached a sketch plan indicating the catchment area for the store and an estimation of how this relates to the road network in the town. – this has developed from analysis by GVA James Barr (also attached). The vast majority of trips to the store are likely to be from Crieff itself, however I've allowed a small contribution from Comrie and Muthill.

This distribution has been converted into a percentage for turning movements for each junction, which will be used by SiAS to undertake the modelling work.

I would be grateful if you can confirm you're happy with this distribution today to allow us to maintain momentum with the SiAS modelling.

If you've any questions, please let me know.

Thanks

Richard

Kind regards,

Richard Perry  
Senior Transport Planner

---

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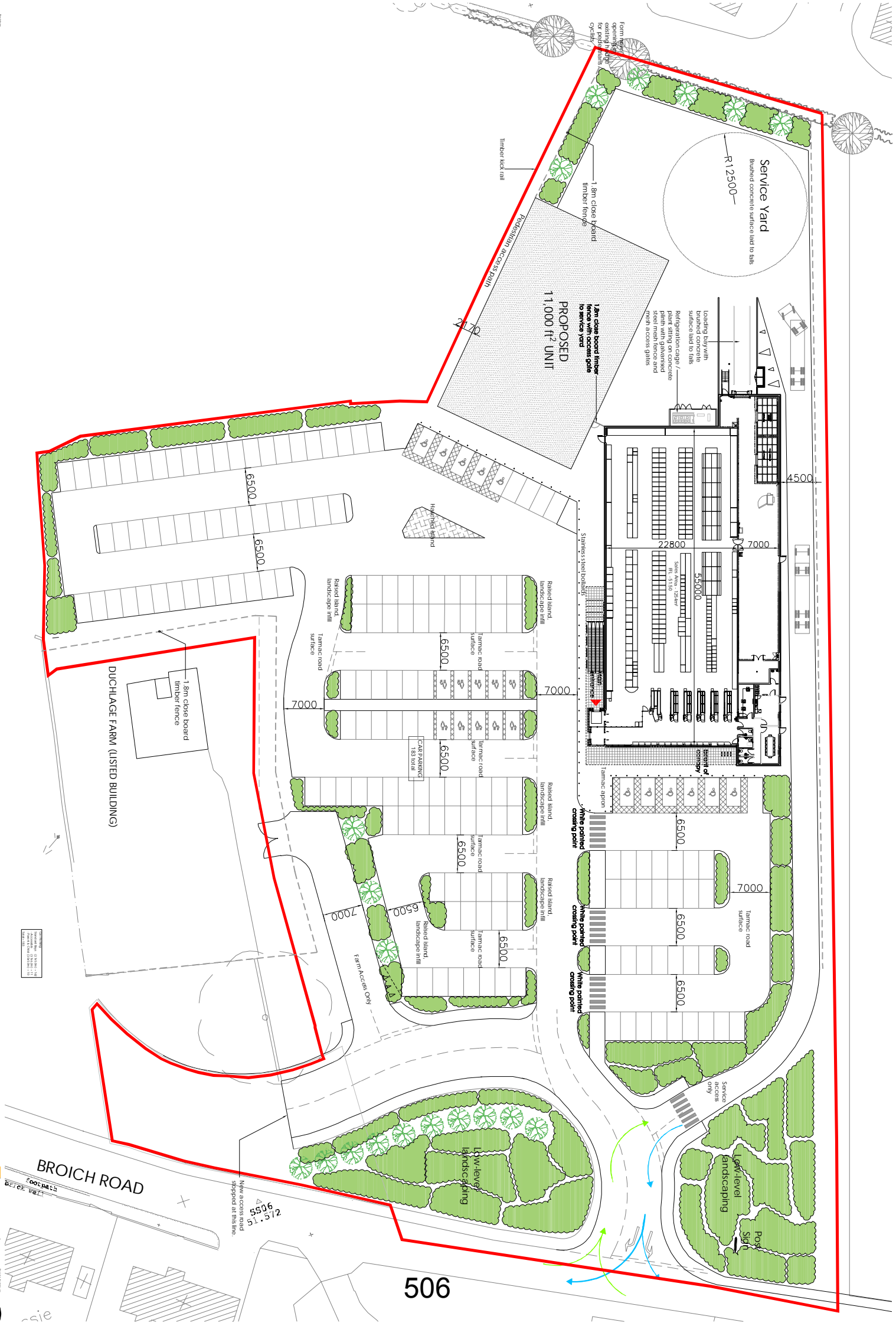
General enquiries to Perth & Kinross Council should be made to [enquiries@pkc.gov.uk](mailto:enquiries@pkc.gov.uk) or 01738 475000.

General enquiries to Live Active Leisure Limited should be made to

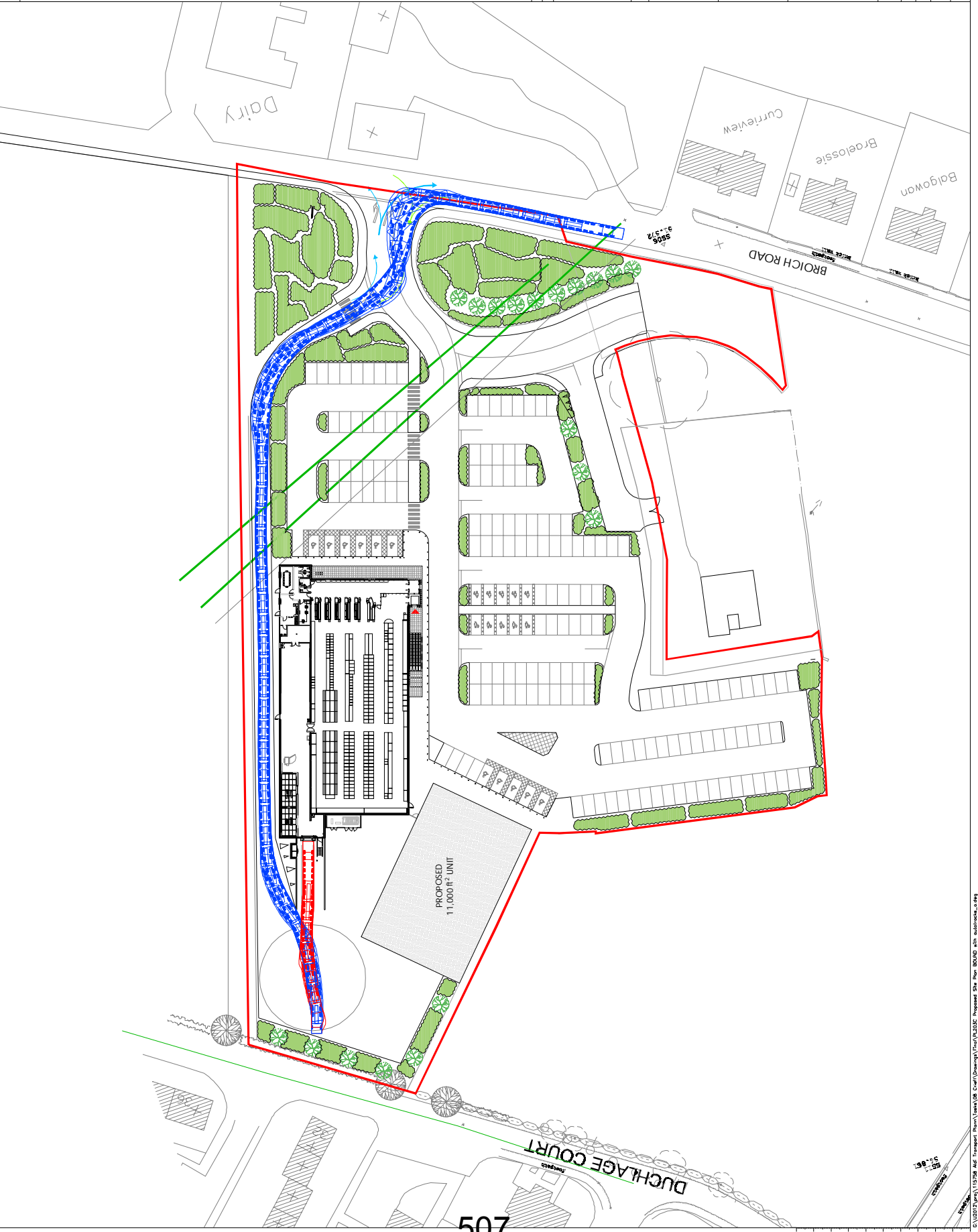
# Appendices

## Appendix B - Site Layout

115758/RP/150422 Issue 0



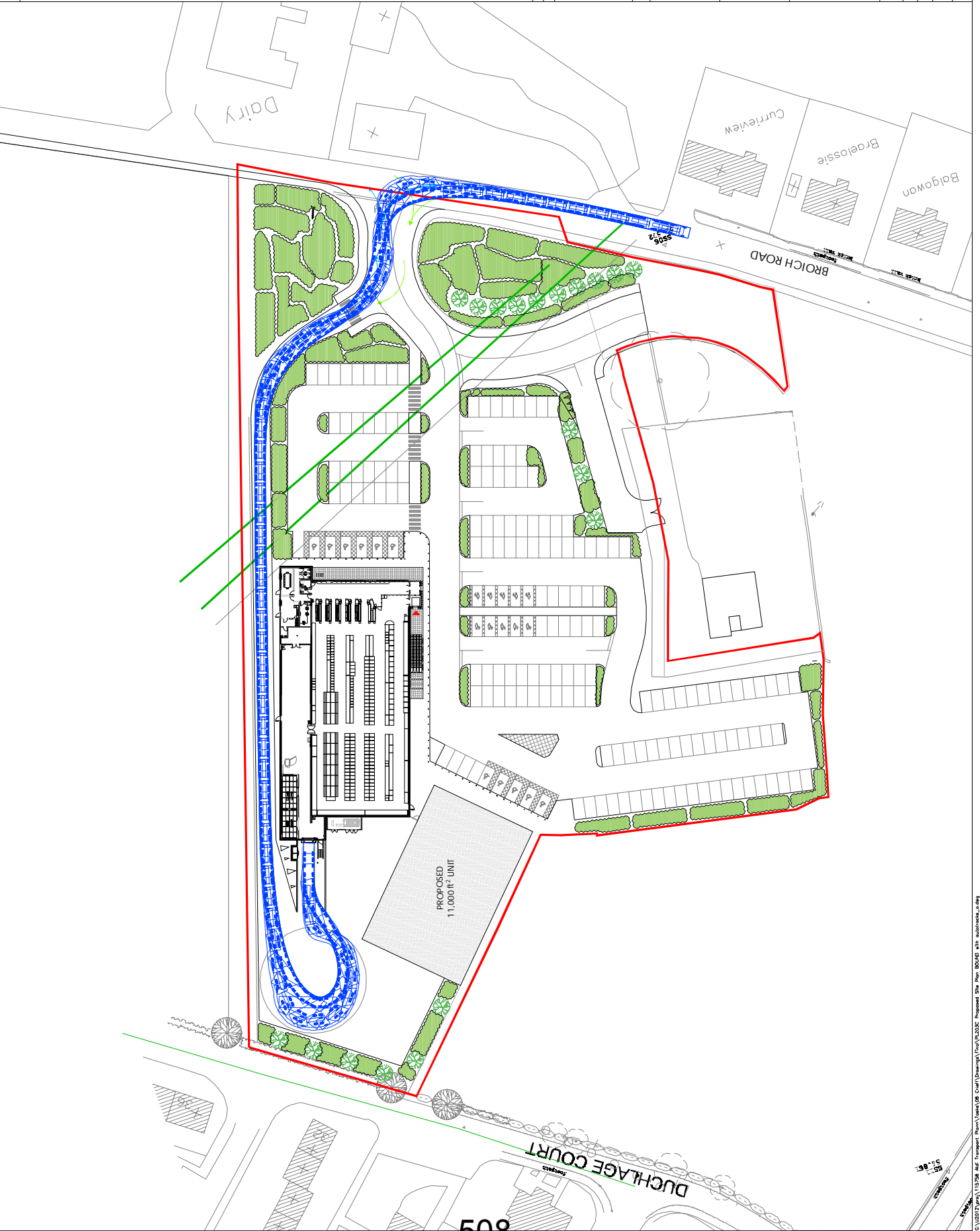
NOTES



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REV.	DATE	BY	CHKD	APPD	DATE
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2nd Floor Spectrum House Powdermill Road EH7 4GB www.grontmij.co.uk					
Tel: +44 (0) 131 550 6300 Fax: +44 (0) 131 550 6499					
Approved: 11/15/2017 Client: ALDI Project: ALDI Crieff Title: ARTICULATED VEHICLE ENTRY Status: - Drawn: NTS Checked: GK Approved: GK Date: 31/07/2015 Original: 31/07/2015 Drawing Scale: 5/8" x 11" - A1 Revision: -					
FIGURE 2.3					

NOTES



508

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Approved: 10th March 2015, 10th March 2015, 10th March 2015, 10th March 2015

CLIENT

ALDI

PROJECT

ALDI Crieff

TITLE

ARTICULATED  
VEHICLE EXIT

STATUS

DATE	RP	CHECKED	GK	APPROVED	GK
31/07/2015					
DATE	31/07/2015	DATE	31/07/2015	DATE	31/07/2015
THROWING SCALE	NTS	THROWING SCALE	NTS	THROWING SCALE	NTS
THROWING IN		THROWING IN		THROWING IN	

FIGURE 2.4

# Appendices

## Appendix C - TRICS data

115758/RP/150422 Issue 0



Calculation Reference: AUDIT-129303-150421-0454

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL  
Category : A - FOOD SUPERSTORE  
VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	CW CORNWALL	1 days
	DV DEVON	1 days
	GS GLOUCESTERSHIRE	1 days
	SM SOMERSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LE LEICESTERSHIRE	2 days
	NR NORTHAMPTONSHIRE	1 days
	NT NOTTINGHAMSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
	WK WARWICKSHIRE	2 days
09	NORTH	
	CB CUMBRIA	1 days
10	WALES	
	CP CAERPHILLY	1 days
	IA ISLE OF ANGLESEY	1 days
11	SCOTLAND	
	DU DUNDEE CITY	1 days
	SL SOUTH LANARKSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

## Filtering Stage 2 selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Gross floor area  
 Actual Range: 1700 to 11101 (units: sqm)  
 Range Selected by User: 800 to 12642 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 10/05/14

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	1 days
Thursday	1 days
Friday	12 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	18 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Town Centre	2
Edge of Town Centre	1
Suburban Area (PPS6 Out of Centre)	6
Edge of Town	8
Neighbourhood Centre (PPS6 Local Centre)	1

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Commercial Zone	1
Development Zone	1
Residential Zone	7
Retail Zone	2
High Street	2
No Sub Category	5

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

## Filtering Stage 3 selection:

Use Class:

A1	18 days
----	---------

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

## Filtering Stage 3 selection (Cont.):

Population within 1 mile:

1,001 to 5,000	1 days
5,001 to 10,000	6 days
10,001 to 15,000	2 days
15,001 to 20,000	2 days
20,001 to 25,000	4 days
25,001 to 50,000	1 days
50,001 to 100,000	2 days

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

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	5 days

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

Car ownership within 5 miles:

0.6 to 1.0	7 days
1.1 to 1.5	11 days

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

Petrol filling station:

PFS is present at the site and is included in the count	7 days
PFS is present at the site but is excluded from the count	4 days
There is no PFS at the site	7 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

Yes	2 days
No	16 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

LIST OF SITES relevant to selection parameters

1	CA-01-A-01 SIDNEY STREET	SAINSBURY'S	CAMBRIDGESHIRE
	CAMBRIDGE Town Centre High Street		
	Total Gross floor area:	2210 sqm	
	Survey date: FRIDAY	12/07/13	Survey Type: MANUAL
2	CB-01-A-07 WIGTON ROAD	SOMERFIELD	CUMBRIA
	NEWTOWN CARLISLE		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Gross floor area:	1700 sqm	
	Survey date: FRIDAY	05/02/10	Survey Type: MANUAL
3	CP-01-A-01 NEWBRIDGE ROAD	SAINSBURYS	CAERPHILLY
	PONTLLANFRAITH Edge of Town		
	No Sub Category		
	Total Gross floor area:	7124 sqm	
	Survey date: FRIDAY	07/10/11	Survey Type: MANUAL
4	CW-01-A-09 KERNICK ROAD	ASDA	CORNWALL
	PENRYN Edge of Town		
	No Sub Category		
	Total Gross floor area:	8991 sqm	
	Survey date: TUESDAY	26/05/09	Survey Type: MANUAL
5	DU-01-A-04 RIVERSIDE DRIVE	TESCO EXTRA	DUNDEE CITY
	RIVERSIDE DUNDEE		
	Edge of Town Centre		
	No Sub Category		
	Total Gross floor area:	9104 sqm	
	Survey date: FRIDAY	29/10/10	Survey Type: MANUAL
6	DV-01-A-21 TORR LANE	MORRISONS	DEVON
	PENNYCROSS PLYMOUTH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Gross floor area:	5000 sqm	
	Survey date: FRIDAY	23/10/09	Survey Type: MANUAL
7	GS-01-A-03 BARNETT WAY	SAINSBURYS	GLOUCESTERSHIRE
	BARNWOOD GLOUCESTER		
	Edge of Town Commercial Zone		
	Total Gross floor area:	7950 sqm	
	Survey date: FRIDAY	30/04/10	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

8	IA-01-A-01 MONA ROAD	CO-OP		ISLE OF ANGLESEY
	MENAI BRIDGE			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		1825 sqm	
	Survey date: MONDAY		13/07/09	Survey Type: MANUAL
9	LE-01-A-01 GLEN ROAD	SAINSBURYS		LEICESTERSHIRE
	OADBY			
	LEICESTER			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:		4850 sqm	
	Survey date: FRIDAY		19/06/09	Survey Type: MANUAL
10	LE-01-A-02 LEICESTER ROAD	ASDA		LEICESTERSHIRE
	OADBY			
	LEICESTER			
	Neighbourhood Centre (PPS6 Local Centre)			
	No Sub Category			
	Total Gross floor area:		8900 sqm	
	Survey date: TUESDAY		23/06/09	Survey Type: MANUAL
11	NR-01-A-03 WEEDON ROAD	SAINSBURYS		NORTHAMPTONSHIRE
	SIXFIELDS			
	NORTHAMPTON			
	Suburban Area (PPS6 Out of Centre)			
	Development Zone			
	Total Gross floor area:		7012 sqm	
	Survey date: FRIDAY		07/10/11	Survey Type: MANUAL
12	NT-01-A-05 CASTLE BRIDGE ROAD	SAINSBURYS		NOTTINGHAMSHIRE
	CASTLE BOULEVARD			
	NOTTINGHAM			
	Suburban Area (PPS6 Out of Centre)			
	Retail Zone			
	Total Gross floor area:		8101 sqm	
	Survey date: FRIDAY		07/10/11	Survey Type: MANUAL
13	SF-01-A-02 UPPER BROOK STREET	SAINSBURY'S		SUFFOLK
	IPSWICH			
	Town Centre			
	High Street			
	Total Gross floor area:		3280 sqm	
	Survey date: FRIDAY		19/07/13	Survey Type: MANUAL
14	SH-01-A-02 WHITCHURCH ROAD	MORRISONS		SHROPSHIRE
	DITHERINGTON			
	SHREWSBURY			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Gross floor area:		6800 sqm	
	Survey date: THURSDAY		11/06/09	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

15	SL-01-A-05	SAINSBURYS		SOUTH LANARKSHIRE
	GLASGOW ROAD			
	KINGSGATE RETAIL PARK			
	EAST KILBRIDE			
	Edge of Town			
	Retail Zone			
	Total Gross floor area:	11101 sqm		
	Survey date: FRIDAY	07/10/11		Survey Type: MANUAL
16	SM-01-A-01	ASDA		SOMERSET
	CREECHBARRROW ROAD			
	TAUNTON			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Gross floor area:	10725 sqm		
	Survey date: FRIDAY	13/07/12		Survey Type: MANUAL
17	WK-01-A-02	ASDA		WARWICKSHIRE
	CHESTERTON DRIVE			
	SYDENHAM			
	LEAMINGTON SPA			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	8018 sqm		
	Survey date: WEDNESDAY	17/10/12		Survey Type: MANUAL
18	WK-01-A-03	TESCO		WARWICKSHIRE
	EMSCOTE ROAD			
	WARWICK			
	Edge of Town			
	Residential Zone			
	Total Gross floor area:	7951 sqm		
	Survey date: TUESDAY	16/10/12		Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	4	8335	0.174	4	8335	0.012	4	8335	0.186
07:00 - 08:00	18	6702	1.286	18	6702	0.736	18	6702	2.022
08:00 - 09:00	18	6702	2.575	18	6702	1.832	18	6702	4.407
09:00 - 10:00	18	6702	3.673	18	6702	2.822	18	6702	6.495
10:00 - 11:00	18	6702	4.048	18	6702	3.576	18	6702	7.624
11:00 - 12:00	18	6702	4.542	18	6702	4.308	18	6702	8.850
12:00 - 13:00	18	6702	4.759	18	6702	4.749	18	6702	9.508
13:00 - 14:00	18	6702	4.702	18	6702	4.691	18	6702	9.393
14:00 - 15:00	18	6702	4.152	18	6702	4.435	18	6702	8.587
15:00 - 16:00	18	6702	4.414	18	6702	4.563	18	6702	8.977
16:00 - 17:00	18	6702	4.798	18	6702	4.824	18	6702	9.622
17:00 - 18:00	18	6702	5.008	18	6702	5.153	18	6702	10.161
18:00 - 19:00	18	6702	4.351	18	6702	4.925	18	6702	9.276
19:00 - 20:00	18	6702	3.213	18	6702	3.684	18	6702	6.897
20:00 - 21:00	17	6904	2.122	17	6904	2.655	17	6904	4.777
21:00 - 22:00	17	6904	1.146	17	6904	1.641	17	6904	2.787
22:00 - 23:00	4	8335	0.033	4	8335	0.231	4	8335	0.264
23:00 - 24:00									
Total Rates:			54.996			54.837			109.833

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

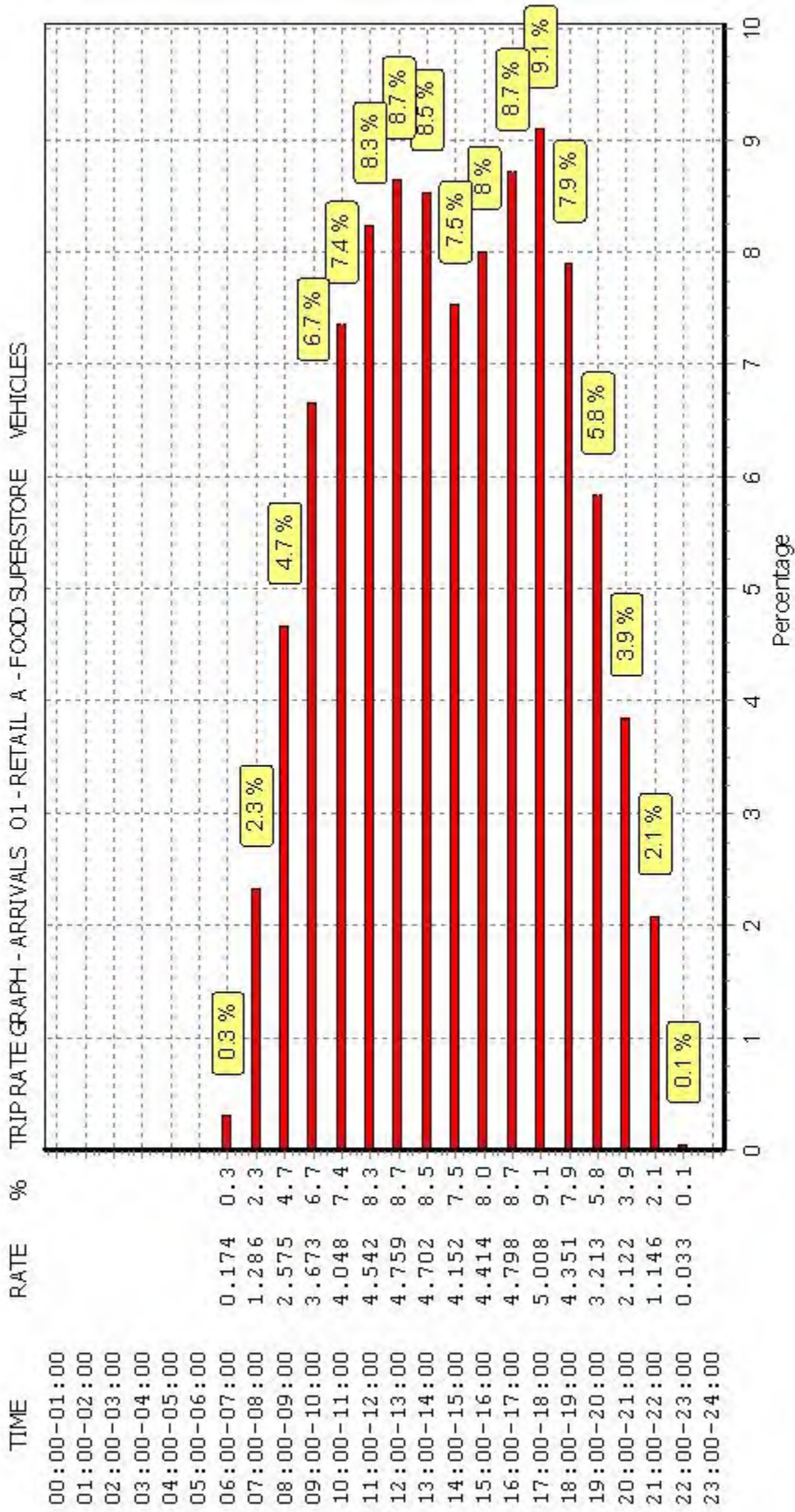
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

#### Parameter summary

Trip rate parameter range selected: 1700 - 11101 (units: sqm)  
 Survey date range: 01/01/07 - 10/05/14  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

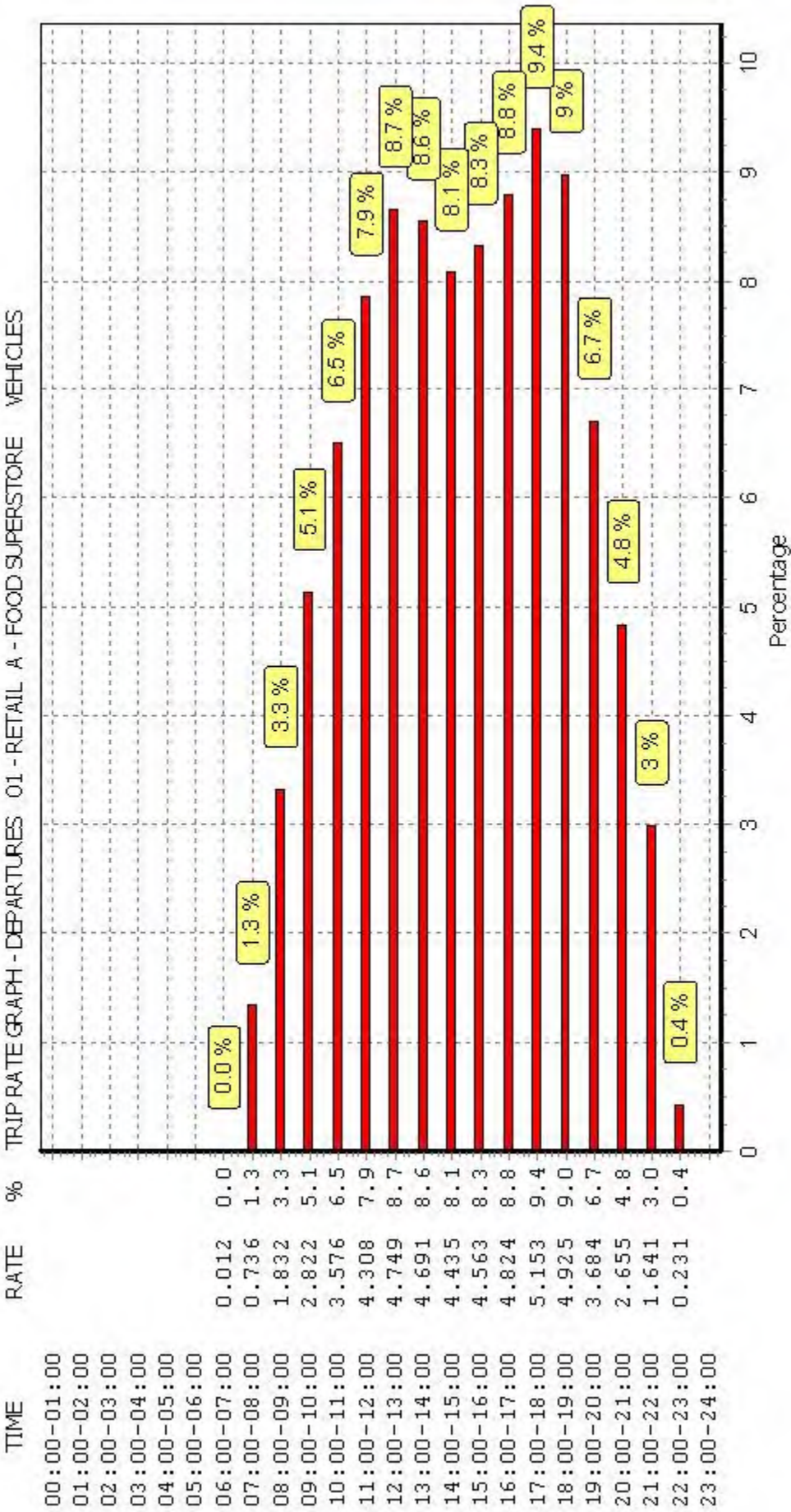
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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





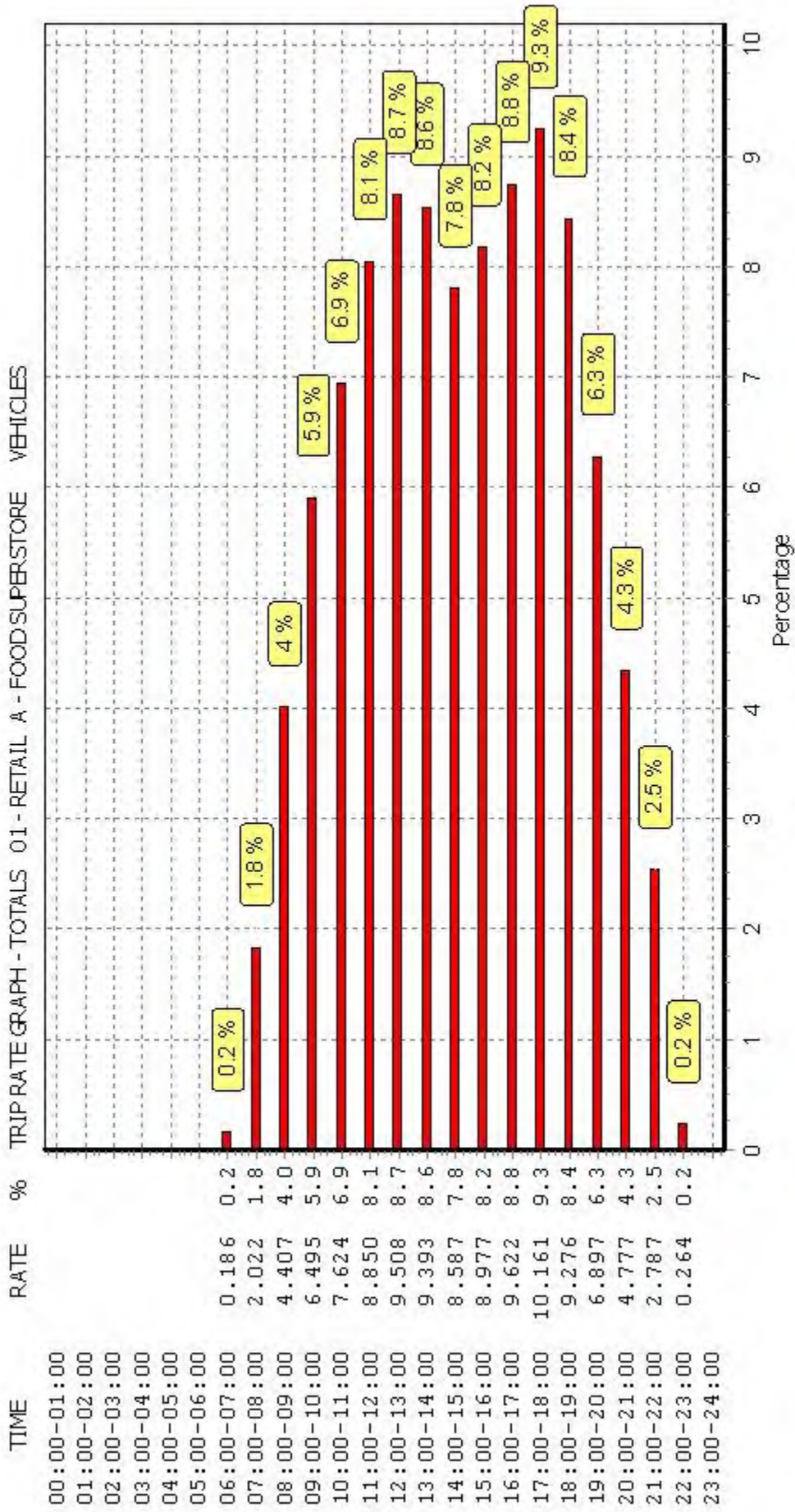
This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

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This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.





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TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE

TAXIS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	4	8335	0.003	4	8335	0.000	4	8335	0.003
07:00 - 08:00	18	6702	0.015	18	6702	0.014	18	6702	0.029
08:00 - 09:00	18	6702	0.016	18	6702	0.008	18	6702	0.024
09:00 - 10:00	18	6702	0.037	18	6702	0.027	18	6702	0.064
10:00 - 11:00	18	6702	0.042	18	6702	0.033	18	6702	0.075
11:00 - 12:00	18	6702	0.049	18	6702	0.049	18	6702	0.098
12:00 - 13:00	18	6702	0.034	18	6702	0.037	18	6702	0.071
13:00 - 14:00	18	6702	0.048	18	6702	0.046	18	6702	0.094
14:00 - 15:00	18	6702	0.041	18	6702	0.046	18	6702	0.087
15:00 - 16:00	18	6702	0.036	18	6702	0.040	18	6702	0.076
16:00 - 17:00	18	6702	0.044	18	6702	0.050	18	6702	0.094
17:00 - 18:00	18	6702	0.041	18	6702	0.039	18	6702	0.080
18:00 - 19:00	18	6702	0.039	18	6702	0.044	18	6702	0.083
19:00 - 20:00	18	6702	0.027	18	6702	0.036	18	6702	0.063
20:00 - 21:00	17	6904	0.027	17	6904	0.028	17	6904	0.055
21:00 - 22:00	17	6904	0.017	17	6904	0.018	17	6904	0.035
22:00 - 23:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
23:00 - 24:00									
Total Rates:			0.516			0.515			1.031

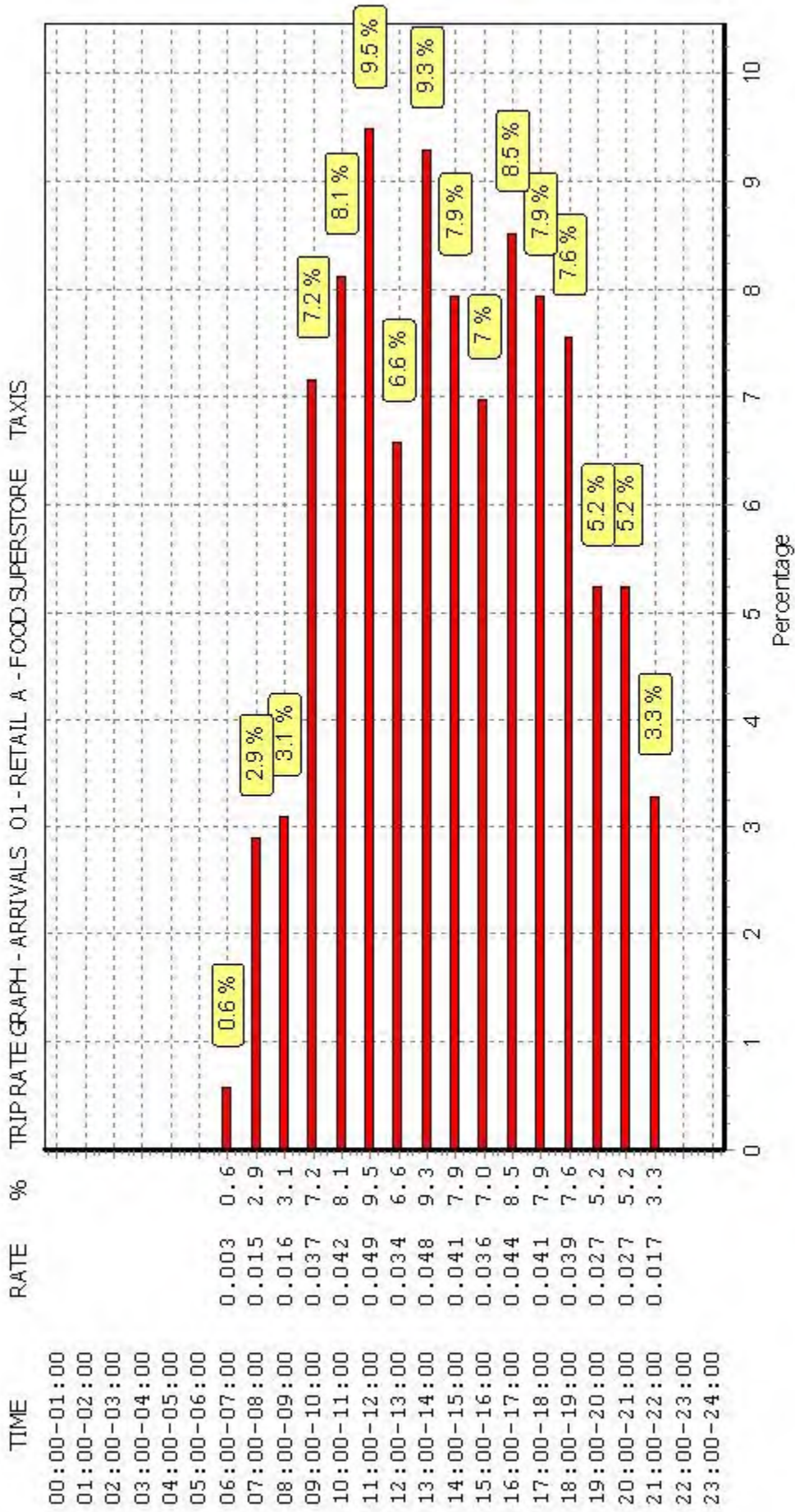
This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

#### Parameter summary

Trip rate parameter range selected: 1700 - 11101 (units: sqm)  
 Survey date range: 01/01/07 - 10/05/14  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

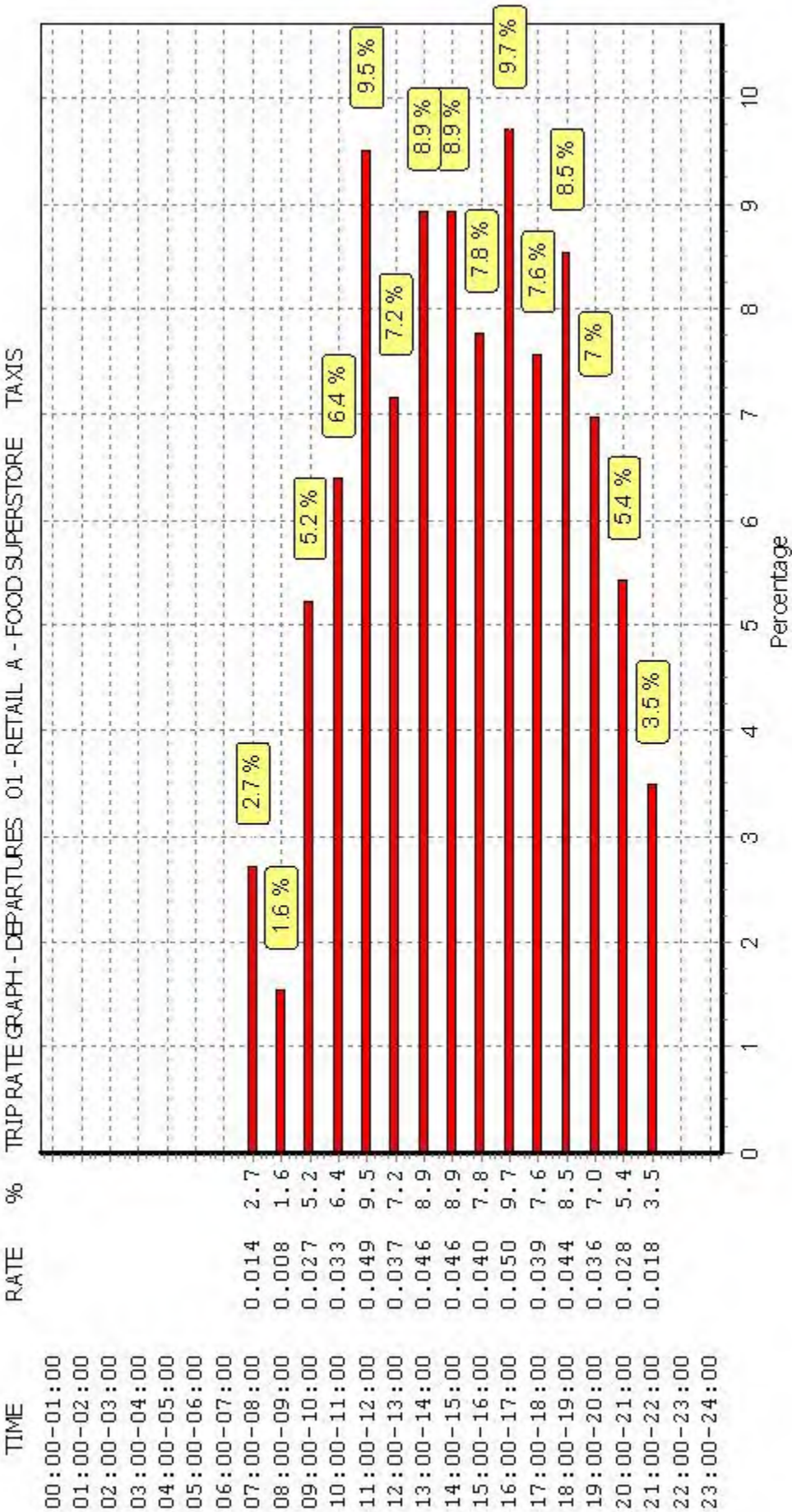
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

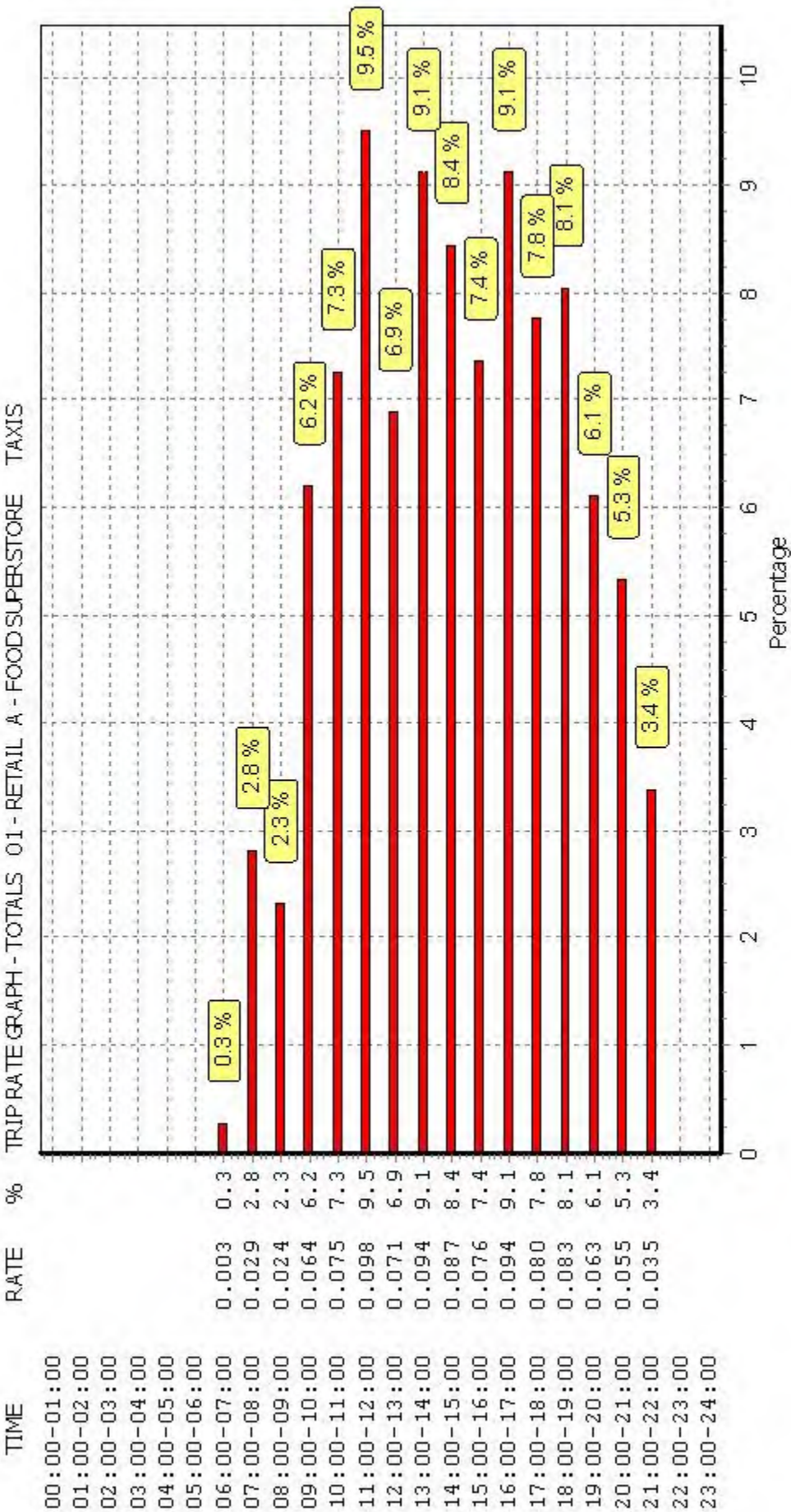


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This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

Licence No: 129303



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
07:00 - 08:00	18	6702	0.019	18	6702	0.013	18	6702	0.032
08:00 - 09:00	18	6702	0.022	18	6702	0.024	18	6702	0.046
09:00 - 10:00	18	6702	0.018	18	6702	0.024	18	6702	0.042
10:00 - 11:00	18	6702	0.014	18	6702	0.012	18	6702	0.026
11:00 - 12:00	18	6702	0.017	18	6702	0.021	18	6702	0.038
12:00 - 13:00	18	6702	0.022	18	6702	0.014	18	6702	0.036
13:00 - 14:00	18	6702	0.019	18	6702	0.020	18	6702	0.039
14:00 - 15:00	18	6702	0.016	18	6702	0.013	18	6702	0.029
15:00 - 16:00	18	6702	0.013	18	6702	0.022	18	6702	0.035
16:00 - 17:00	18	6702	0.010	18	6702	0.012	18	6702	0.022
17:00 - 18:00	18	6702	0.011	18	6702	0.012	18	6702	0.023
18:00 - 19:00	18	6702	0.014	18	6702	0.012	18	6702	0.026
19:00 - 20:00	18	6702	0.009	18	6702	0.010	18	6702	0.019
20:00 - 21:00	17	6904	0.009	17	6904	0.005	17	6904	0.014
21:00 - 22:00	17	6904	0.003	17	6904	0.003	17	6904	0.006
22:00 - 23:00	4	8335	0.003	4	8335	0.003	4	8335	0.006
23:00 - 24:00									
Total Rates:			0.219			0.220			0.439

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

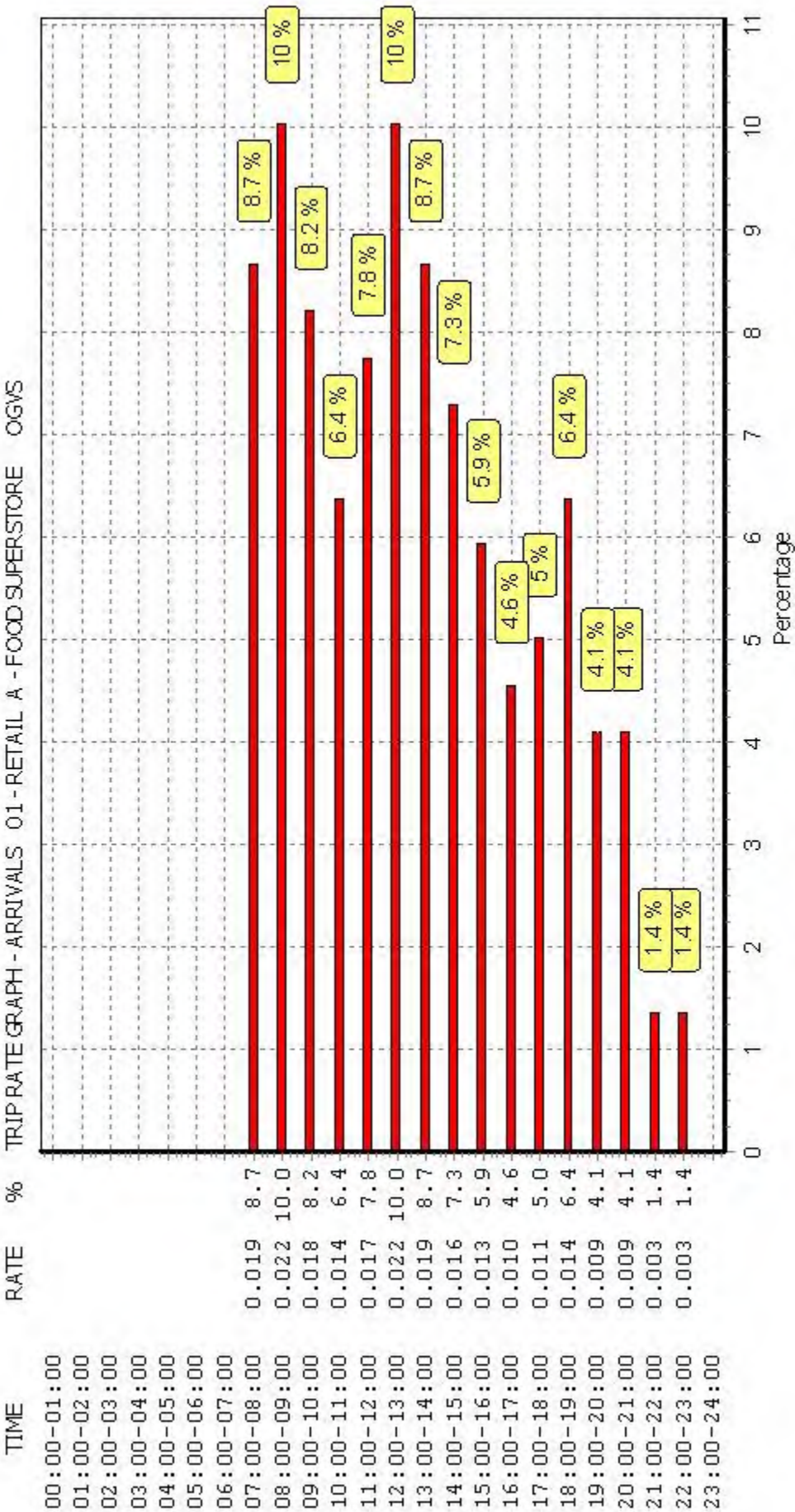
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

#### Parameter summary

Trip rate parameter range selected: 1700 - 11101 (units: sqm)  
 Survey date range: 01/01/07 - 10/05/14  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

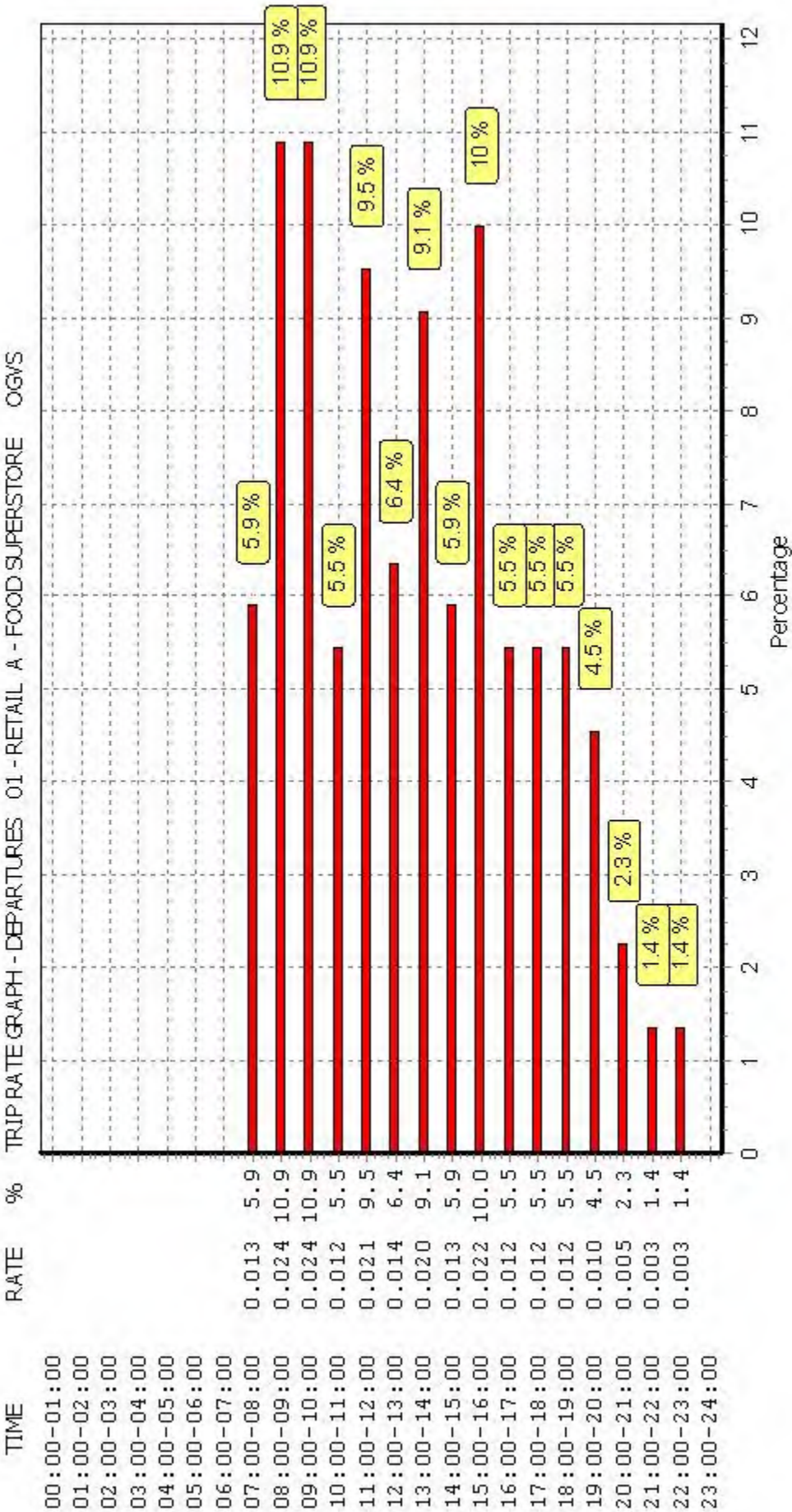
This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected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

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This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

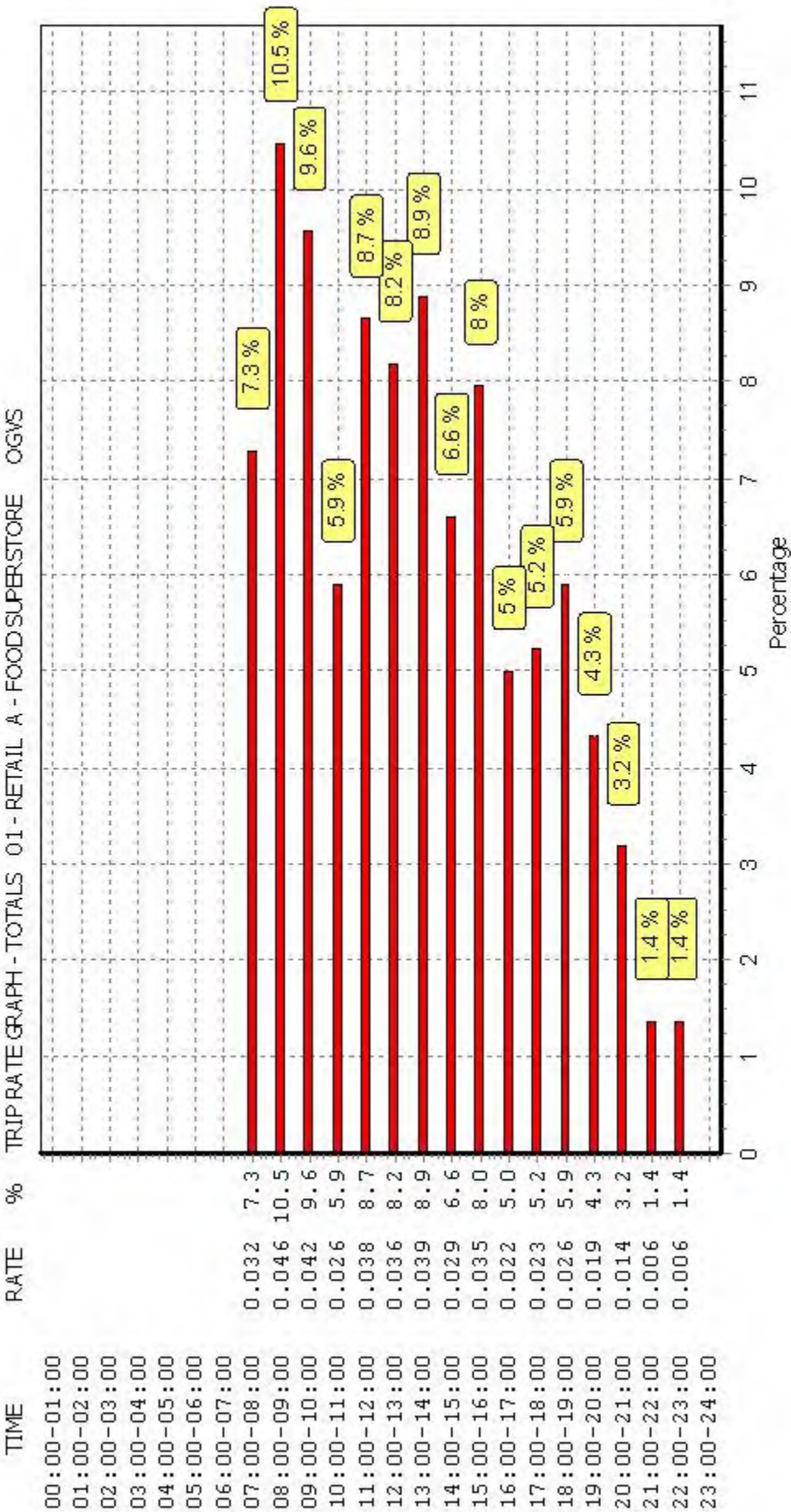
Licence No: 129303



This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
07:00 - 08:00	18	6702	0.002	18	6702	0.001	18	6702	0.003
08:00 - 09:00	18	6702	0.002	18	6702	0.003	18	6702	0.005
09:00 - 10:00	18	6702	0.006	18	6702	0.006	18	6702	0.012
10:00 - 11:00	18	6702	0.006	18	6702	0.001	18	6702	0.007
11:00 - 12:00	18	6702	0.007	18	6702	0.008	18	6702	0.015
12:00 - 13:00	18	6702	0.004	18	6702	0.002	18	6702	0.006
13:00 - 14:00	18	6702	0.011	18	6702	0.009	18	6702	0.020
14:00 - 15:00	18	6702	0.005	18	6702	0.009	18	6702	0.014
15:00 - 16:00	18	6702	0.002	18	6702	0.007	18	6702	0.009
16:00 - 17:00	18	6702	0.002	18	6702	0.003	18	6702	0.005
17:00 - 18:00	18	6702	0.005	18	6702	0.005	18	6702	0.010
18:00 - 19:00	18	6702	0.003	18	6702	0.002	18	6702	0.005
19:00 - 20:00	18	6702	0.003	18	6702	0.004	18	6702	0.007
20:00 - 21:00	17	6904	0.003	17	6904	0.001	17	6904	0.004
21:00 - 22:00	17	6904	0.001	17	6904	0.002	17	6904	0.003
22:00 - 23:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
23:00 - 24:00									
Total Rates:			0.062			0.063			0.125

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

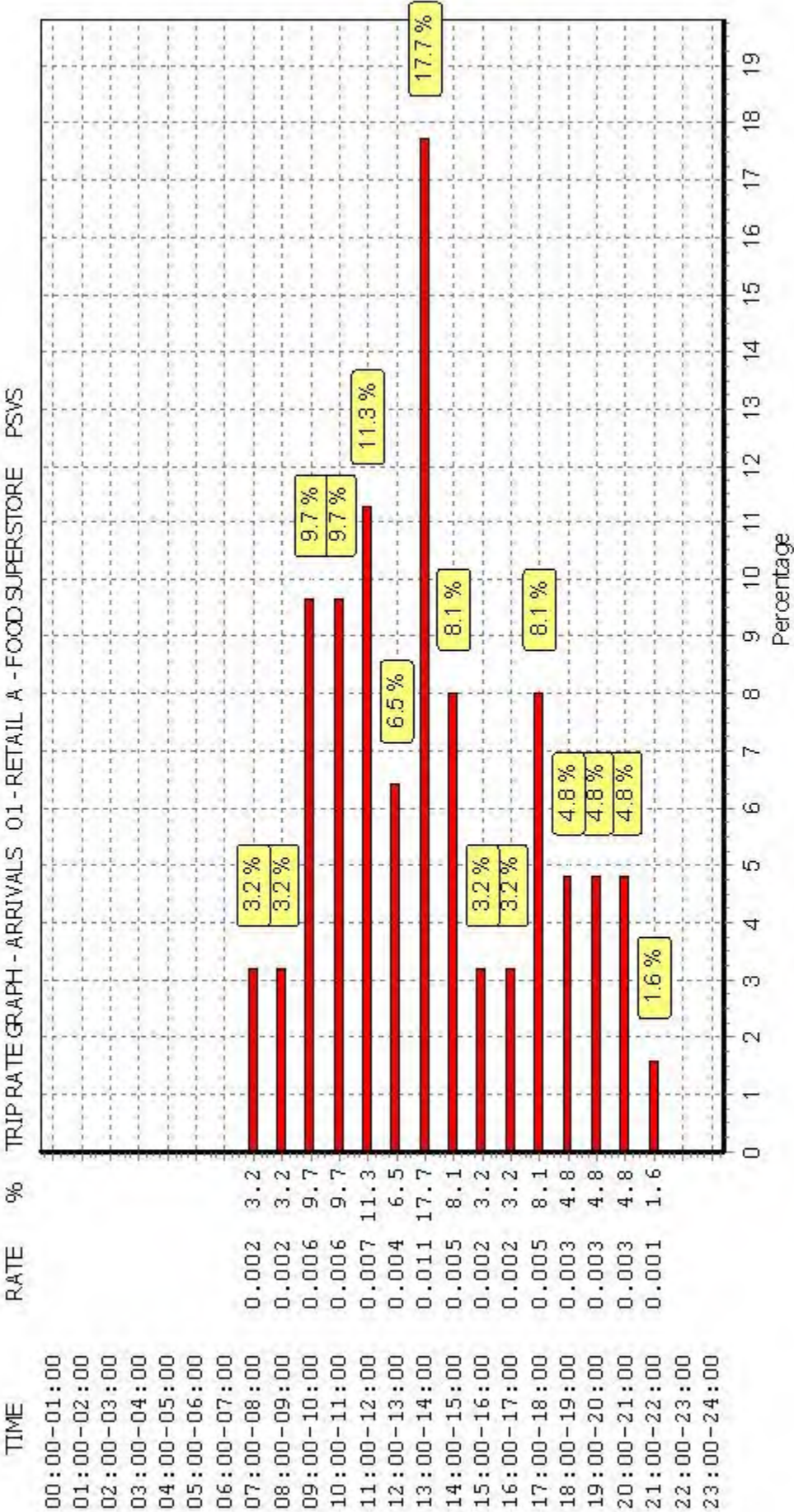
To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is:  $COUNT/TRP*FACT$ . Trip rates are then rounded to 3 decimal places.

#### Parameter summary

Trip rate parameter range selected: 1700 - 11101 (units: sqm)  
 Survey date range: 01/01/07 - 10/05/14  
 Number of weekdays (Monday-Friday): 18  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

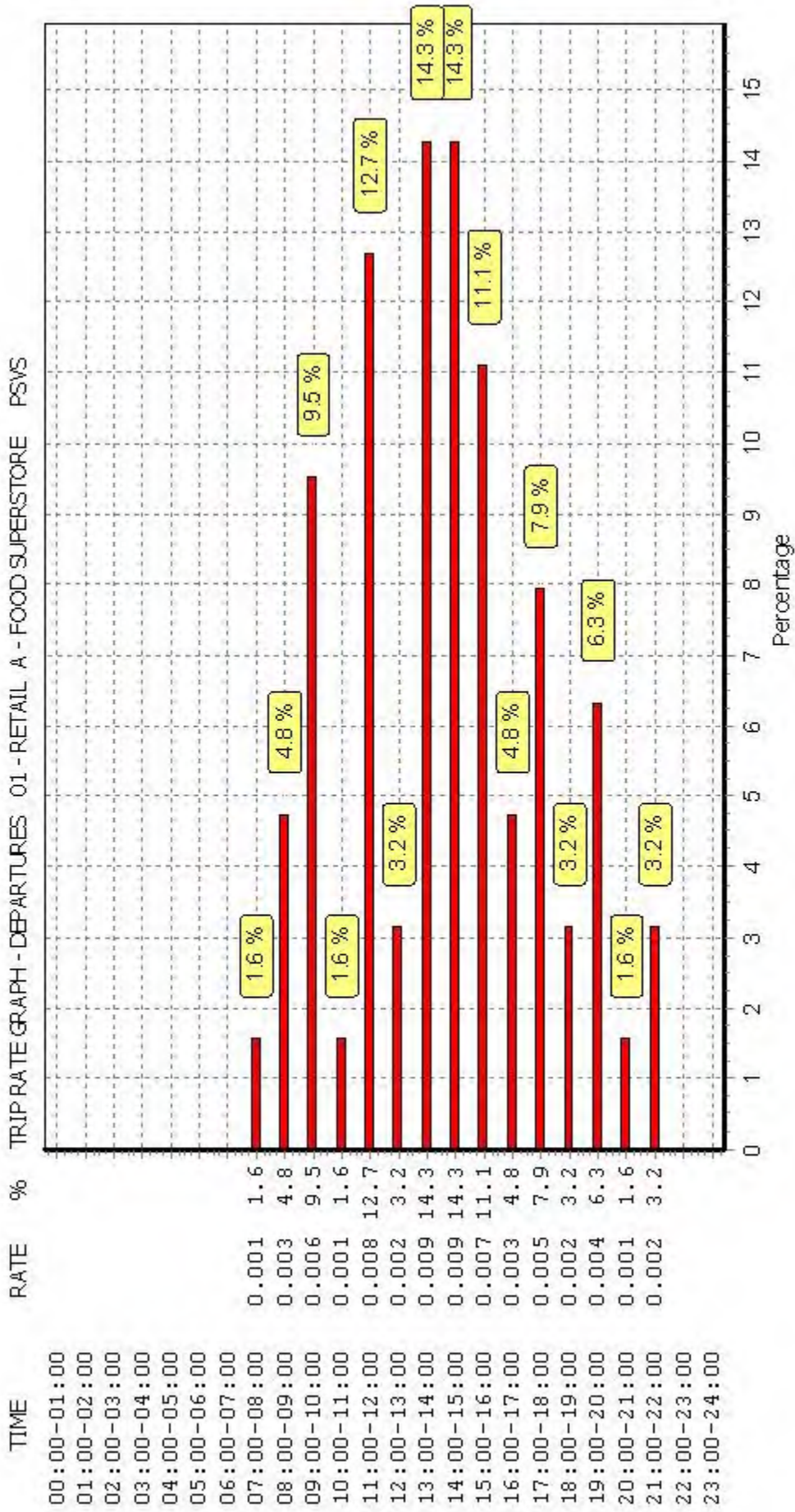
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This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

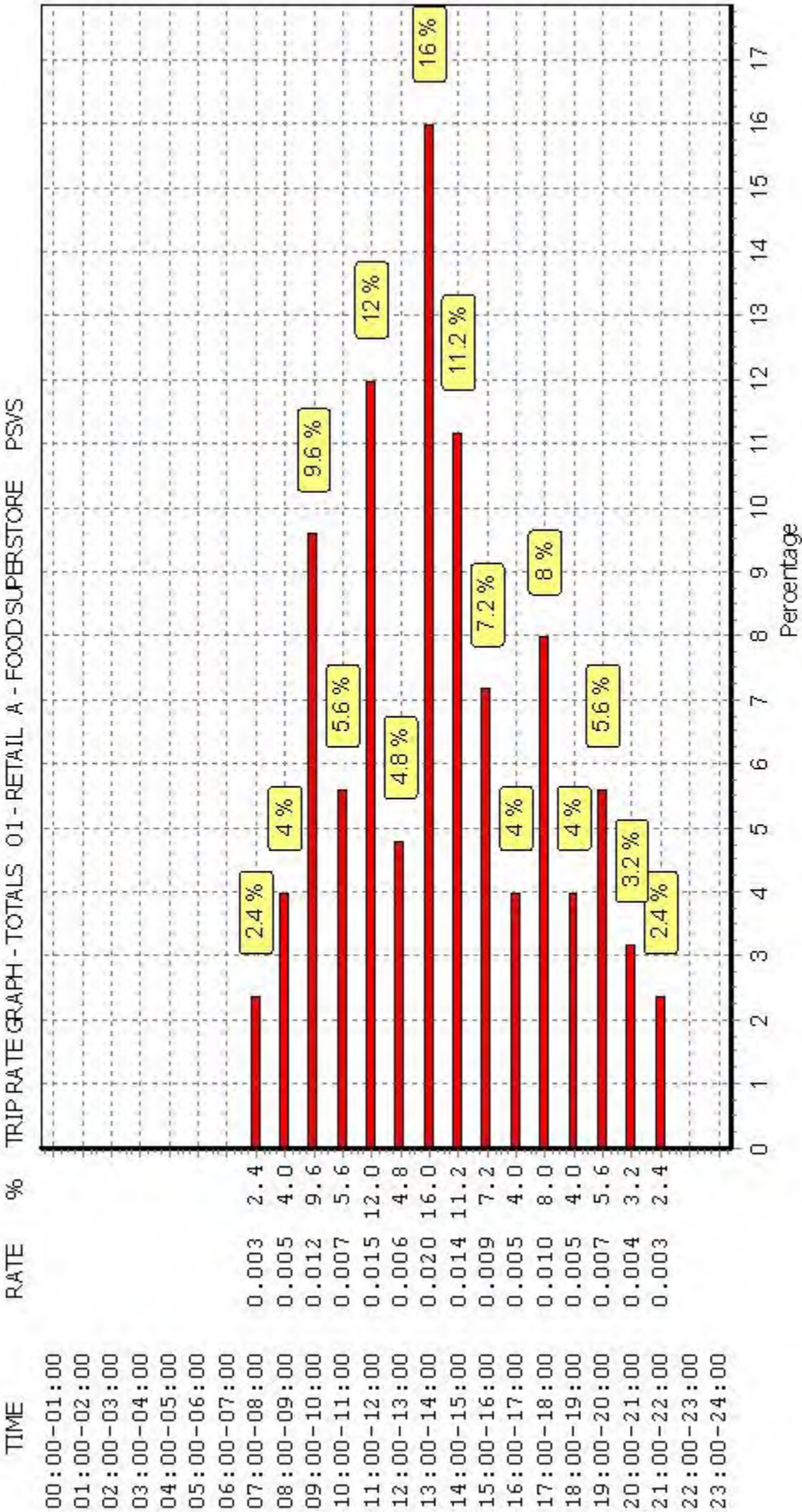




This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.



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TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
07:00 - 08:00	18	6702	0.031	18	6702	0.020	18	6702	0.051
08:00 - 09:00	18	6702	0.061	18	6702	0.042	18	6702	0.103
09:00 - 10:00	18	6702	0.063	18	6702	0.053	18	6702	0.116
10:00 - 11:00	18	6702	0.071	18	6702	0.070	18	6702	0.141
11:00 - 12:00	18	6702	0.076	18	6702	0.086	18	6702	0.162
12:00 - 13:00	18	6702	0.099	18	6702	0.096	18	6702	0.195
13:00 - 14:00	18	6702	0.106	18	6702	0.094	18	6702	0.200
14:00 - 15:00	18	6702	0.087	18	6702	0.088	18	6702	0.175
15:00 - 16:00	18	6702	0.094	18	6702	0.080	18	6702	0.174
16:00 - 17:00	18	6702	0.119	18	6702	0.110	18	6702	0.229
17:00 - 18:00	18	6702	0.105	18	6702	0.106	18	6702	0.211
18:00 - 19:00	18	6702	0.071	18	6702	0.119	18	6702	0.190
19:00 - 20:00	18	6702	0.048	18	6702	0.054	18	6702	0.102
20:00 - 21:00	17	6904	0.030	17	6904	0.023	17	6904	0.053
21:00 - 22:00	17	6904	0.014	17	6904	0.032	17	6904	0.046
22:00 - 23:00	4	8335	0.000	4	8335	0.000	4	8335	0.000
23:00 - 24:00									
Total Rates:			1.075			1.073			2.148

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

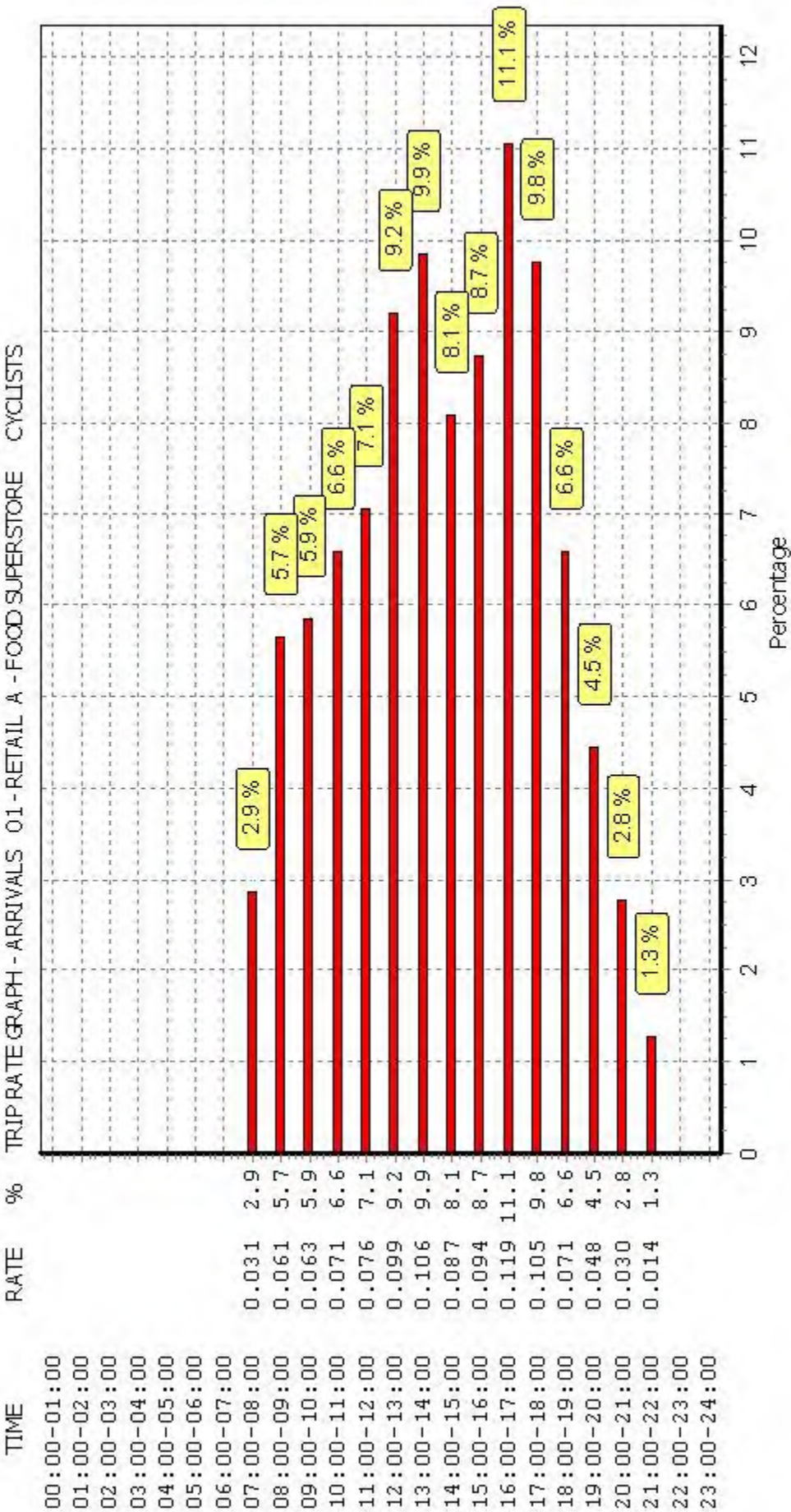
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#### Parameter summary

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 Number of Saturdays: 0  
 Number of Sundays: 0  
 Surveys manually removed from selection: 0

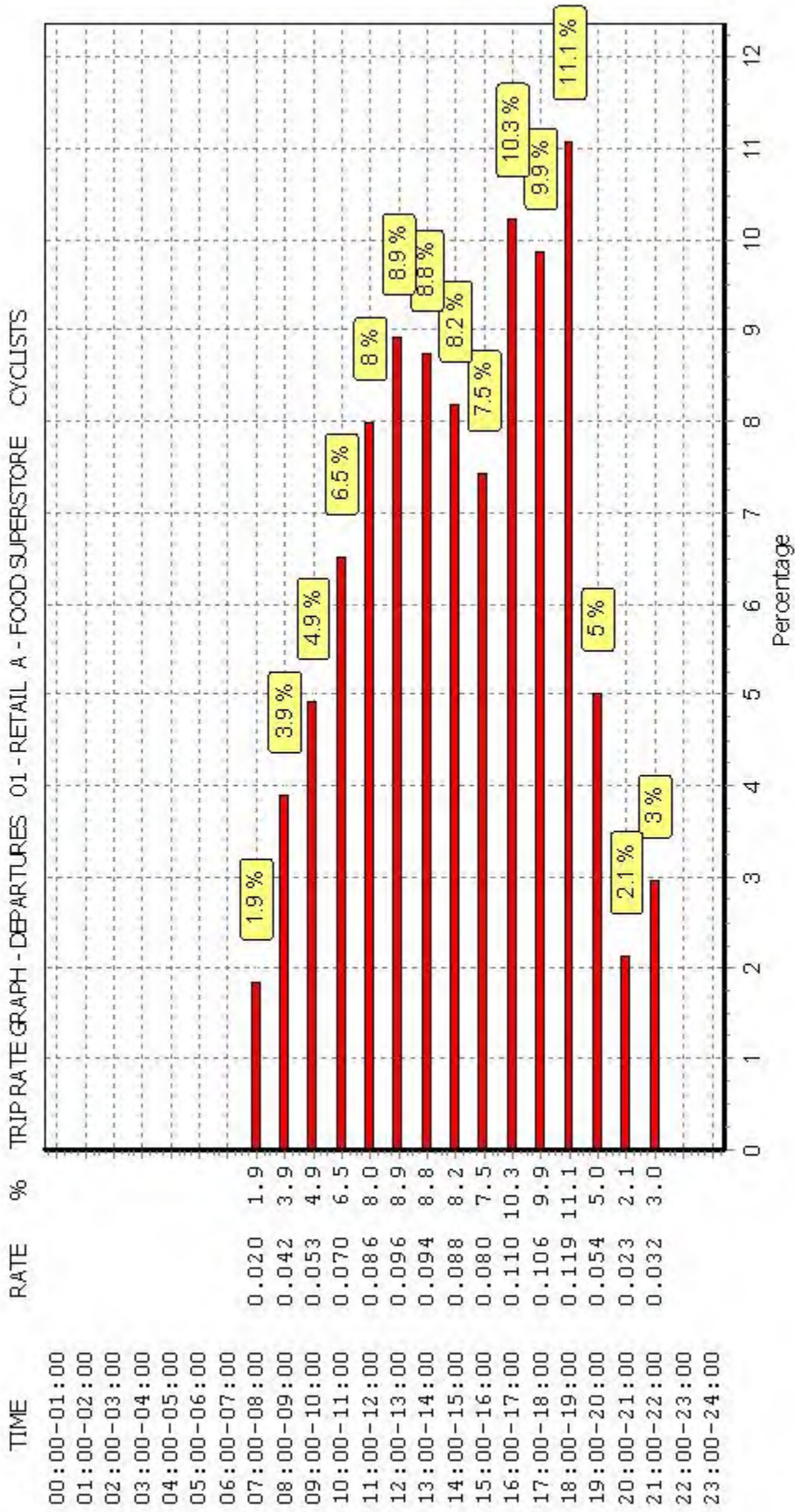
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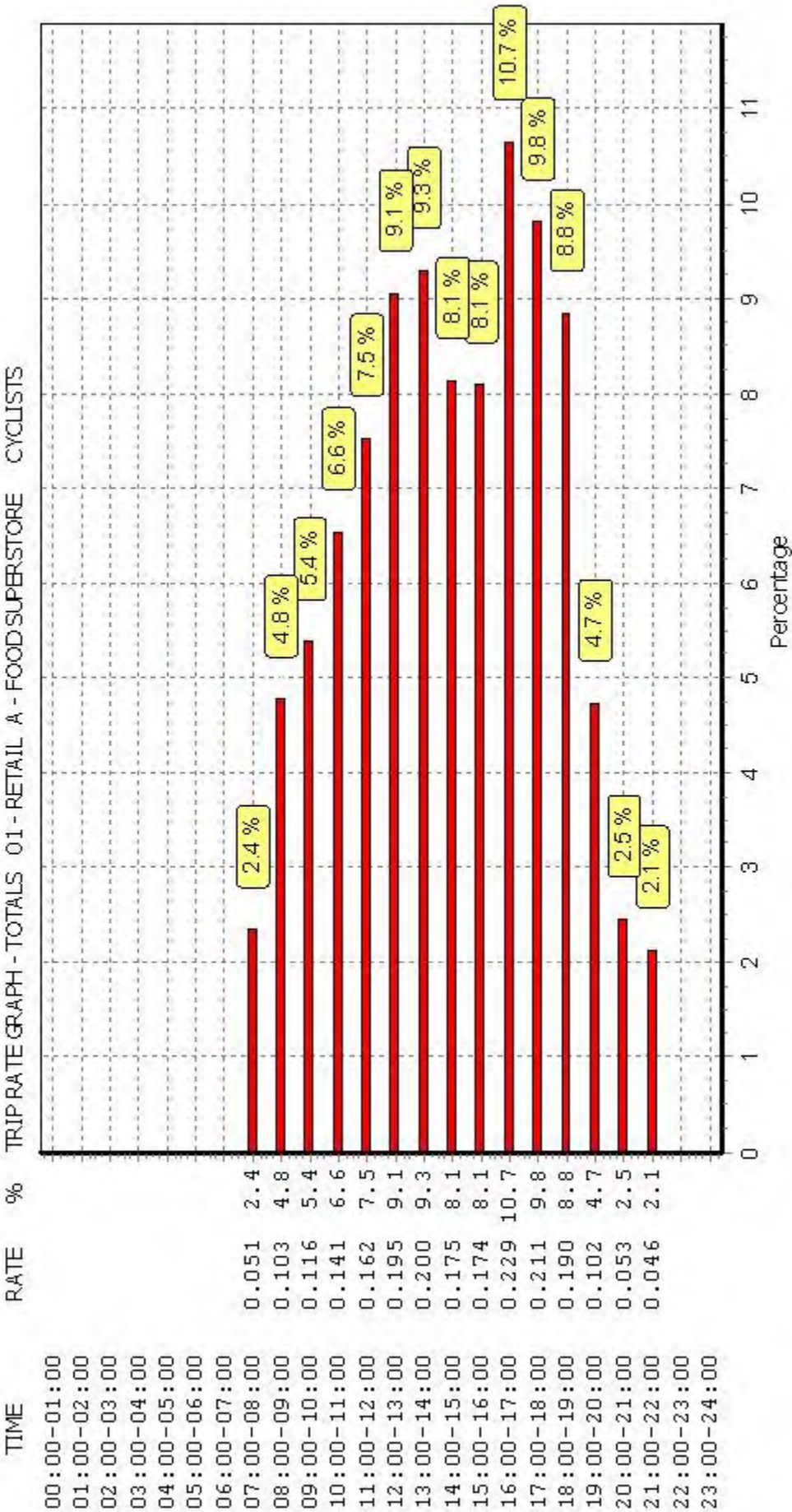
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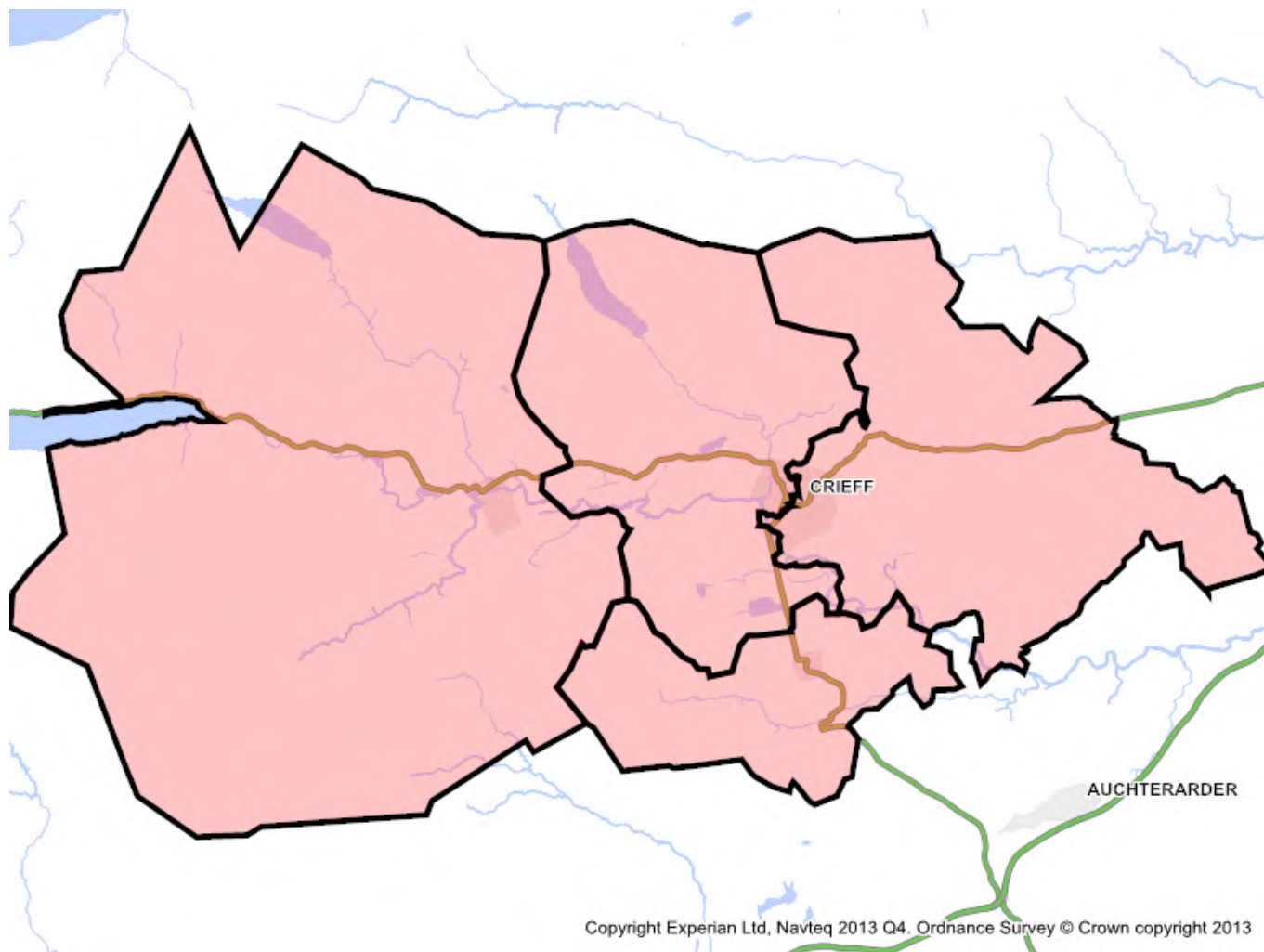


This graph is a visual representation of the trip rate calculation results screen. The same time periods and trip rates are displayed, but in addition there is an additional column showing the percentage of the total trip rate by individual time period, allowing peak periods to be easily identified through observation. Note that the type of count and the selected direction is shown at the top of the graph.

# Appendices

## Appendix D - Predicted Catchment

115758/RP/150422 Issue 0



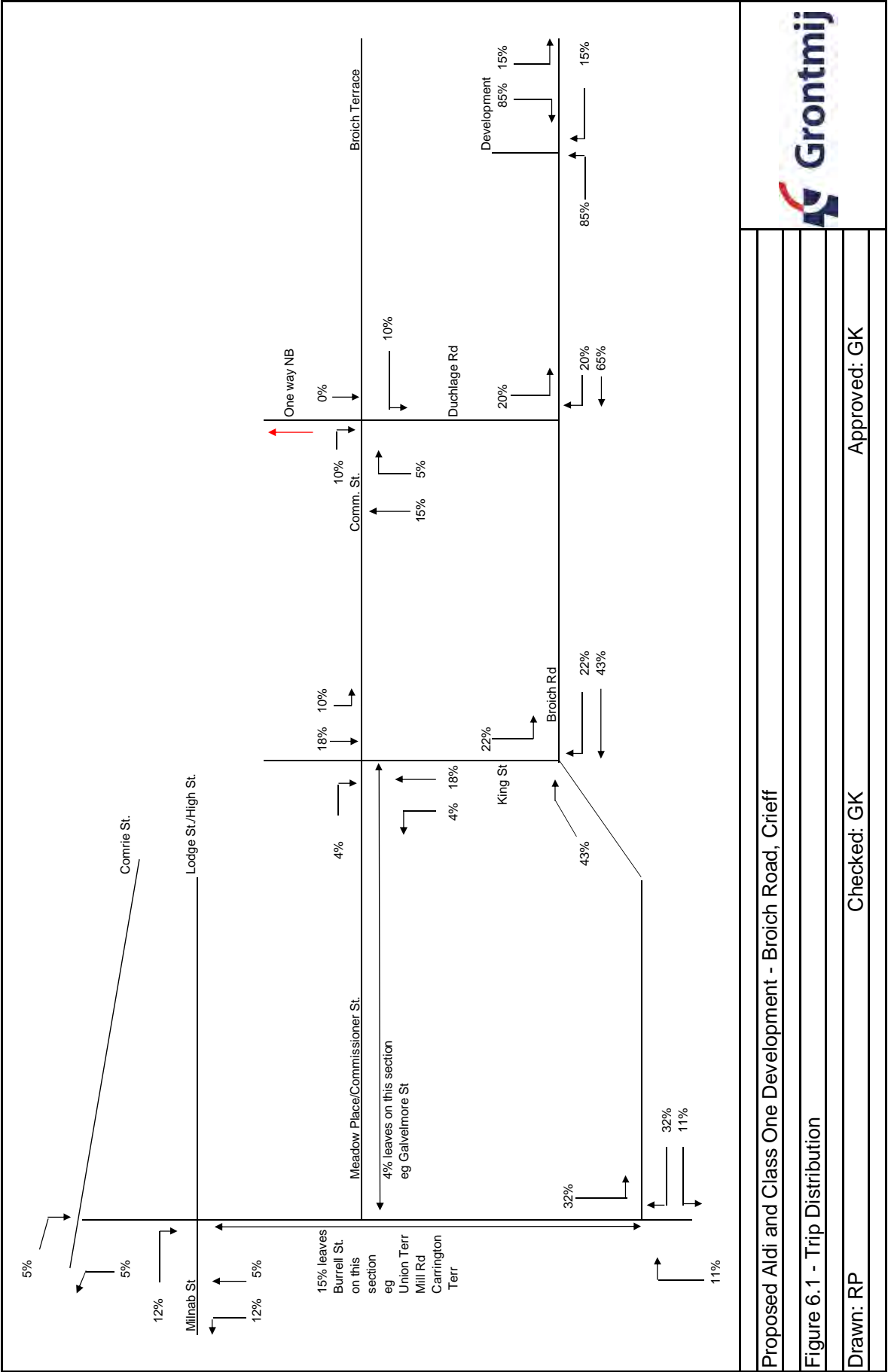
2014 Experian Ltd  
2014 Experian Ltd, Living Costs and Food Survey, National Statistics Â© Crown Copyright 2012 Published with the permission of the Office of Public Sector Information (OPSI).

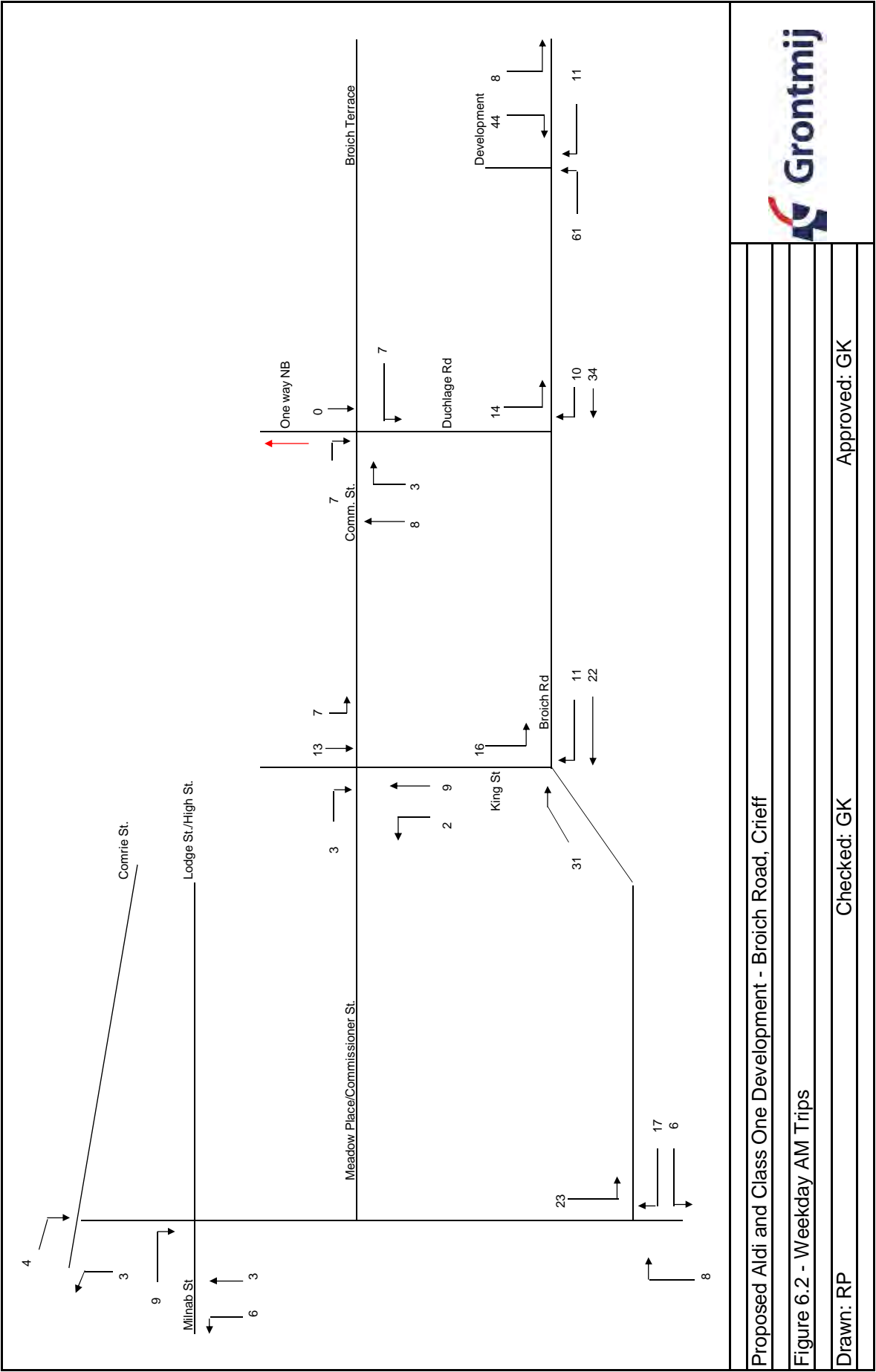


# Appendices

## Appendix E - Trip Distribution and Generation Figures

115758/RP/150422 Issue 0





Proposed Aldi and Class One Development - Broich Road, Crieff

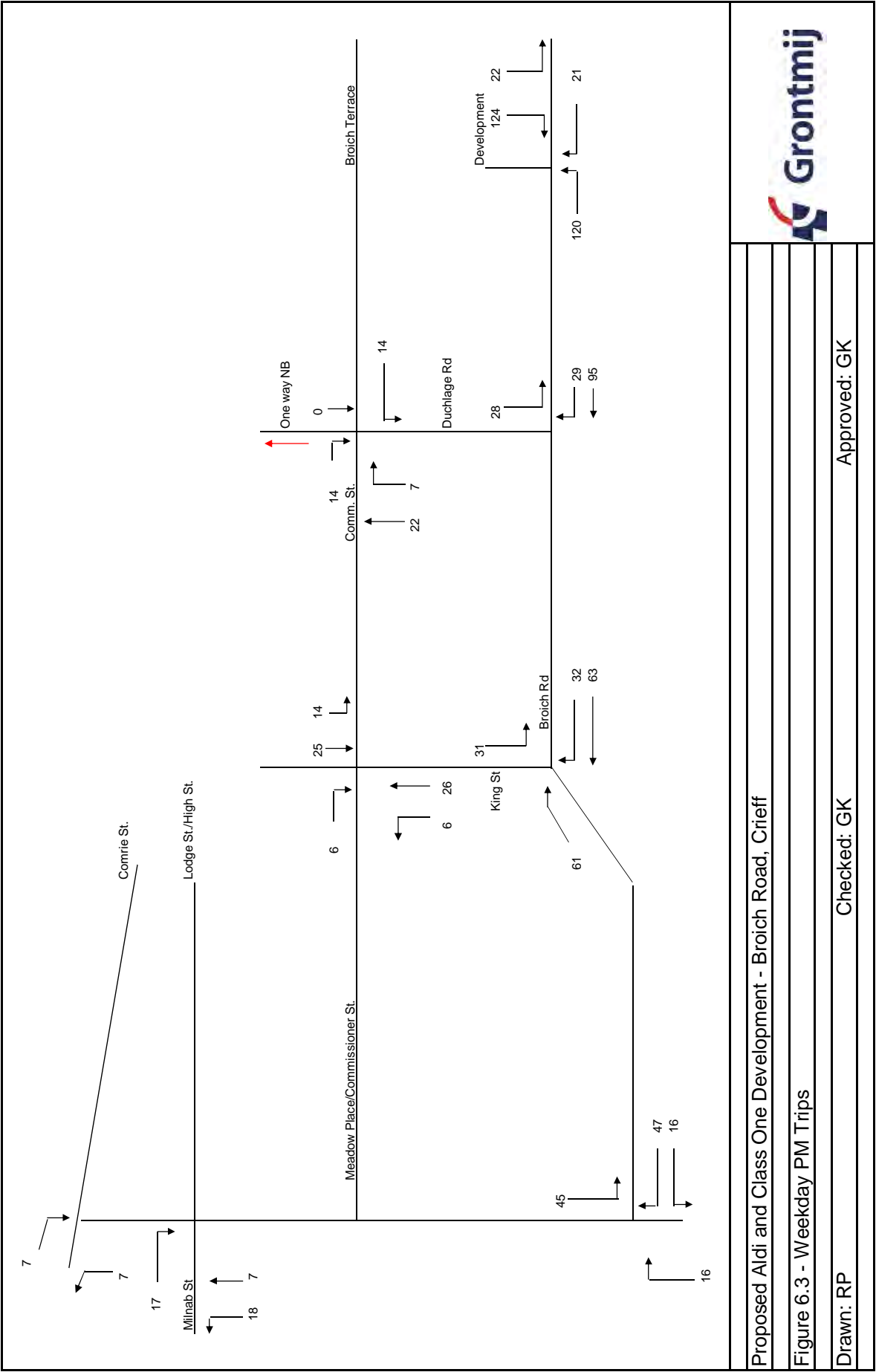
Figure 6.2 - Weekday AM Trips

Drawn: RP

Checked: GK

Approved: GK





# Appendices

## Appendix F - SiAS Modelling Report

115758/RP/150422

Issue 0

# Grontmij Crieff S-Paramics Model Proposed Retail Development Crieff

Date :	7 August 2015	Distribution :	
Author :	Vukica Djuric	Graeme Kelly	Grontmij
Reviewer:	Callum Guild		
Reference :	TPGRCR1/77345		

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## 1 INTRODUCTION

SIAS Limited (SIAS) has been commissioned by Grontmij to undertake S-Paramics testing of a proposed retail development (Aldi plus Class 1 Retail Unit) in Crieff and to present the evidence on the potential impact that future generated trips will have on the local network.

The proposed development is situated to the South of Crieff. The site is bound to the south by Broich Road from which it is proposed the development will be accessed. Grontmij has provided SIAS with the development trip rates and development access junction design.

### 1.1 Model Testing

A Crieff 2026 Reference Case S-Paramics model was used to undertake testing of the proposed retail development. The 2026 Crieff Reference Case was developed from a 2014 Crieff LDP Reference Case Model, as documented in *Crieff LDP Testing Report* (SIAS Ref. 76115, March 2014).

For the purpose of option testing, the assumption on traffic growth based on the relative (low) growth in the National Road Traffic Forecast (NRTF) was applied to the 2014 Crieff Model to produce the 2026 Crieff Reference Case.

The following development scenarios will be compared against the 2026 Reference Case model:

- Test 1 - Includes 2026 Reference Case committed development plus proposed retail development (Aldi plus Class 1 Retail Unit)
- Test 2 - Includes 2026 Reference Case committed development without Tesco trips plus proposed retail development (Aldi plus Class 1 Retail Unit)
- Test 3 - Includes 2026 Reference Case committed development, proposed retail development (Aldi plus Class 1 Retail Unit), plus a further Broich Road development (proposed LDP site to the South of Broich Road)

The 2026 Crieff-with development scenarios will be compared against the 2026 Reference Case model in the following time periods:

- AM peak period                      07:00 – 10:00
- PM peak Period                      15:00 – 19:00



## 2 2026 MODEL DEVELOPMENT

### 2.1 Introduction

This section details the traffic demand element of the future year modelling, including the development of the Crieff 2026 Reference Case model and the 2026 with-development models.

### 2.2 2026 Reference Case Model Development

The 2026 Crieff Reference Case was developed from the 2014 Crieff LDP Reference Case Model, as documented in *Crieff LDP Testing Report (SIAS Ref. 76115, March 2014)*.

As detailed in the *LDP Testing Report*, the 2014 Crieff model includes the Community Campus, the committed Tesco store on Broich Road and relocated Crieff Primary School from Commissioner Street to a new building on Broich Road, adjacent to the new Crieff High School.

The total number of trips associated with Tesco and the Primary School and detailed in Table 2.1.

Table 2.1 : Proposed Tesco and Relocated Primary School, Trip Totals (vehicles)

	Tesco		Primary School	
	Arrivals	Departures	Arrivals	Departures
AM	394	242	95	72
PM	931	970	49	78

To growth the 2014 Reference Case model to a 2026 Reference Case Model, NRTF low growth was be applied to the external-external route zones.

The NRTF low growth factor applied to the external-external trips was:

- Lights 1.08043
- Heavies 1.15169

### 2.3 2026 Proposed Retail Development Content

The proposed retail development consists of:

- Aldi Store 1,796m<sup>2</sup> GFA
- Class 1 Retail Unit 1,022m<sup>2</sup> GFA

The development trip detail and application within the model is detailed in Section 2.5.

### 2.4 Development Access

Appendix A shows the indicative development access layout provided by Grontmij. The development is accessed via priority junctions from the Tesco access road. The priority is given to Tesco departing trips.

The development drawing provided indicates a two lane exit onto Broich Road which has been included in all three modelled scenarios. The two lane section extends 24m back from Broich Road.

The exact location and form of these junctions will be informed through discussions with Perth & Kinross Council.

The internal layout of the development has yet to be fully defined and it was agreed that SIAS would not model the full internal layout of the development. The access junction to Aldi and Tesco was modelled, as well as the Aldi priority junction connecting to the Tesco access road. The development access layout drawing provided to SIAS by Grontmij, (Appendix A) was utilised as a guide for the model coding.

The traffic demand profile applied to the development utilised the existing arrival and departure profiles developed for the Tesco Development in the 2014 LDP testing. The arrival and departure profiles for the Aldi development are shown in Appendix B.

## 2.5 Development Trip Rates and Generation

The AM and PM peak period trips generation for the proposed development have been provided by Grontmij and are shown in Table 2.2.

*Table 2.2 : Trip rates and trips total for proposed retail development*

	ALDI		Class 1 Retail Unit		Total	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
07:00-08:00	23	13	13	8	36	21
08:00-09:00	46	33	26	19	73	52
09:00-10:00	66	51	38	29	104	80
total	135	97	77	56	<b>213</b>	<b>153</b>
15:00-16:00	79	82	45	47	124	129
16:00-17:00	86	87	49	49	135	136
17:00-18:00	90	93	51	53	141	145
18:00-19:00	78	88	44	50	123	139
total	333	350	189	199	<b>523</b>	<b>549</b>

The local trip distribution for the proposed retail development was provided by Grontmij and is provided in Appendix C.



### 3 MODEL TESTING

#### 3.1 Introduction

The proposed development was assessed using the 2026 Crieff Reference Case Model.

The following tests scenarios were undertaken for this study:

- **Test Option 1:**  
Includes 2026 Reference Case committed development plus the proposed retail development. Broich Road/A822 Burrell Street junction is a **signalised junction** with revised phasing.
- **Test Option 2:**  
Includes 2026 Reference Case committed development, plus the proposed retail development, but without Tesco associated trips. Broich Road/A822 Burrell Street junction is a **priority junction** in this option.
- **Test Option 3:**  
Includes 2026 Reference Case committed development, plus the proposed retail development, and also including the Broich Road development (proposed LDP site to the South of Broich Road). Broich Road/A822 Burrell Street junction is a **signalised junction** with revised phasing.

The following Table 3.1 and Table 3.2 detail the total number of the additional trip associated with each modelled scenarios in the AM and PM peak periods.

Table 3.1 : Trip Totals in modelled scenarios AM peak period

		Total	Ref Case	Test 1	Test 2	Test 3
Primary School	Arrivals	95	95	95	95	95
	Departures	72	72	72	72	72
Tesco	Arrivals	394	394	394	x	394
	Departures	242	242	242	x	242
Aldi + Class 1 Retail Unit	Arrivals	213	x	213	213	213
	Departures	153	x	153	153	153
Broich Rd Development	Arrivals	343	x	x	x	343
	Departures	391	x	x	x	391
<b>Total</b>		<b>1,903</b>	<b>803</b>	<b>1,169</b>	<b>533</b>	<b>1,903</b>

Table 3.2 : Trip Totals in modelled scenarios PM peak period

		Total	Ref Case	Test 1	Test 2	Test 3
Primary School	Arrivals	49	49	49	49	49
	Departures	78	78	78	78	78
Tesco	Arrivals	931	931	931	x	931
	Departures	970	970	970	x	970
Aldi + Class 1 Retail Unit	Arrivals	523	x	523	523	523
	Departures	549	x	549	549	549
Broich Rd Development	Arrivals	416	x	x	x	416
	Departures	424	x	x	x	424
<b>Total</b>		<b>3,940</b>	<b>2,028</b>	<b>3,100</b>	<b>1,199</b>	<b>3,940</b>

In the AM Period, the total number of trips associated with:

- Primary School 167
- Tesco development 636
- Aldi plus Class 1 Retail Unit 366
- Broich Road 734

In the PM Period, the total number of trips associated with:

- Primary School 127
- Tesco development 1,901
- Aldi plus Class 1 Retail Unit 1,072
- Broich Road 840

### 3.2 Traffic Signals


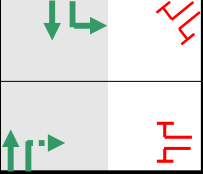
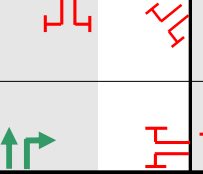
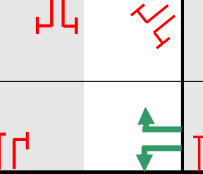
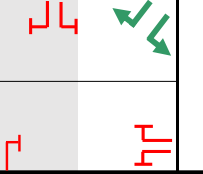
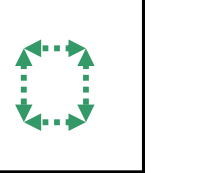
The traffic signal timings at the Broich Road/A822 Burrell Street junction were initially taken from the 2026 Reference Case model scenario.

In both the Test Option 1 and Test Option 3, it was observed that traffic turning right from Burrell Street to Broich Road was having difficulty in finding a gap against the southbound traffic flow. This was impacting on the northbound traffic queues.

The traffic signal phasing at the Broich Road/A822 Burrell Street junction was revised in Test scenarios 1 and 3 to include an early cut-off for the southbound traffic on Burrell St.

Revised signal phasing and timings for Tests 1 and 3 in the AM and PM period are shown in the following Table 3.3.

Table 3.3 : Signal Timings at Broich Road/A822 Burrell Street junction

 <b>Broich Rd/Burrell Street</b>										
	Stages	Stage 1		Stage 2		Stage 3		Stage 4		Stage 5
AM Peak		29	5	10	5	31	5	12	7	7 9
PM Peak		33	5	11	5	26	5	12	7	7 9

Appendix D shows the maximum queue lengths on all approaches to the Broich Road/A822 Burrell Street junction for Test 1, with and without the additional traffic phase. With the additional phase included, it can be seen from the graphs that allowing the right turning traffic from Burrell Street to Broich Road significantly reduces the northbound traffic queues, particularly in the PM peak.

The revised phasing of the Broich Road/A822 Burrell Street junction was carried forward into the Test 1 and 3 network scenarios.

## 4 MODEL TEST RESULTS

This section provides the model statistical comparison between the 2026 Crieff Reference Case and the Aldi development Test scenarios. The following statistical outputs have been collected in the AM and PM peak periods:

- Average and maximum queue lengths at defined junctions
- Average journey times on selected routes

### 4.1 Model Queue Lengths

Model queue length statistics at the Broich Road/Burrell Street junction were based on an average of 5 model runs. Grontmij requested the following junction be assessed in terms of the level of queueing:

- 1 Broich Road/Aldi Site access
- 2 Broich Road/Duchlage Road/School Wynd
- 3 Broich Road/King Street/ Burrell Street
- 4 Broich Terrace/Commissioner Street
- 5 King Street/Commissioner Street.

Figure 4.1 shows the queue paths locations.

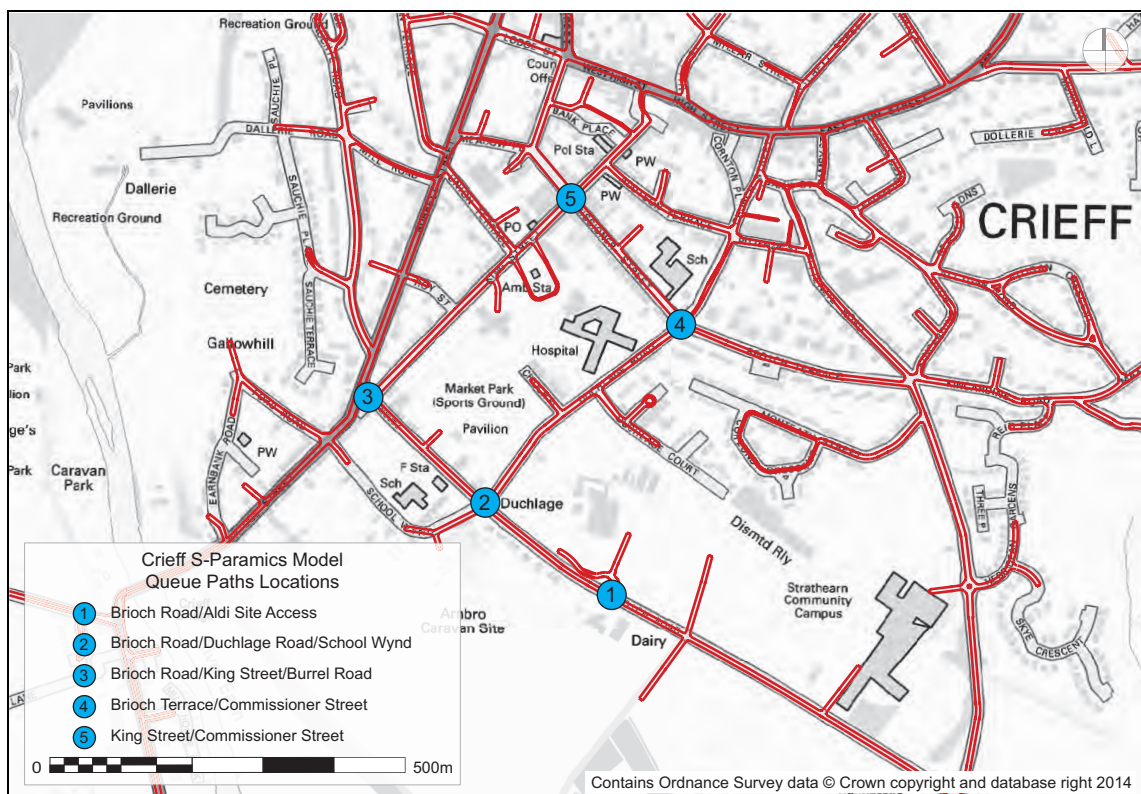


Figure 4.1 : Queue Paths Locations

The following Table 4.1 and Table 3.4 show the average and maximum queue lengths recorded in each model for the AM and PM peaks respectively.

Table 4.1 : Average and Maximum Queue lengths (m), AM Period (07:00 – 10:00)

Junction / Arm	Ref Case		Test 1		Test 2		Test 3	
	Ave	Max	Ave	Max	Ave	Max	Ave	Max
1 East	6	19	5	22	6	17	14	32
1 North	7	19	12	28	7	20	14	29
1 West	0	0	0	0	0	0	0	0
2 East	5	19	7	17	4	12	17	47
2 North	7	21	12	28	7	21	16	32
2 West	2	25	1	19	0	0	3	36
3 Burrell St North	66	91	77	104	14	80	97	140
3 King Street	42	68	54	91	0	0	55	87
3 Broich Road	44	64	52	82	20	58	76	112
3 Burrell St South	71	108	69	89	22	66	87	137
4 East	11	62	5	53	4	36	8	56
4 South	7	15	9	23	3	17	12	26
4 West	8	51	5	33	5	47	7	17
5 East	8	26	6	24	6	20	6	20
5 South	6	17	6	17	5	19	8	20
5 West	3	21	3	19	3	20	11	22
5 North	2	14	3	20	2	14	0	0

Table 4.2 : Average and Maximum Queue lengths (m), PM Period (15:00 – 19:00)

Junction / Arm	Ref Case		Test 1		Test 2		Test 3	
	Ave	Max	Ave	Max	Ave	Max	Ave	Max
1 East	9	16	18	42	5	12	29	69
1 North	22	33	29	33	13	22	30	57
1 West	0	0	6	28	0	0	11	39
2 East	13	25	27	53	9	19	49	88
2 North	16	31	24	37	11	19	30	61
2 West	6	20	3	12	5	19	10	37
3 Burrell St North	83	115	94	135	15	58	119	184
3 King Street	51	73	62	88	2	27	77	113
3 Broich Road	71	90	94	111	20	33	126	183
3 Burrell St South	101	176	76	107	22	41	116	220
4 East	4	52	5	51	3	54	6	54
4 South	12	21	21	34	6	15	32	54
4 West	6	17	8	29	3	12	9	18
5 East	13	21	20	38	12	22	28	47
5 South	11	21	14	27	11	21	12	23
5 West	8	23	5	20	8	25	8	27
5 North	2	15	3	14	1	11	3	20

From these tables, the average and maximum queues lengths are higher in Test Scenarios 1 and 3 when compared to the Reference Case model. This reflects the additional demand on the local network associated with these two tests. Average and maximum queue lengths are at the lowest level in Test Option 2, which does not include trips associated with Tesco.

These queue length statistics together with model observations have shown that the Broich Road/Burrell Street junction is the critical junction to review when assessing the various development content scenarios on Broich Road. The other junctions in the vicinity do not show any significant queueing or delay issues of note in each of the network scenarios considered.

Figure 4.2 to Figure 4.5 are showing the maximum queue lengths at the Broich Road/Burrell Street junction for each scenario in the AM peak.

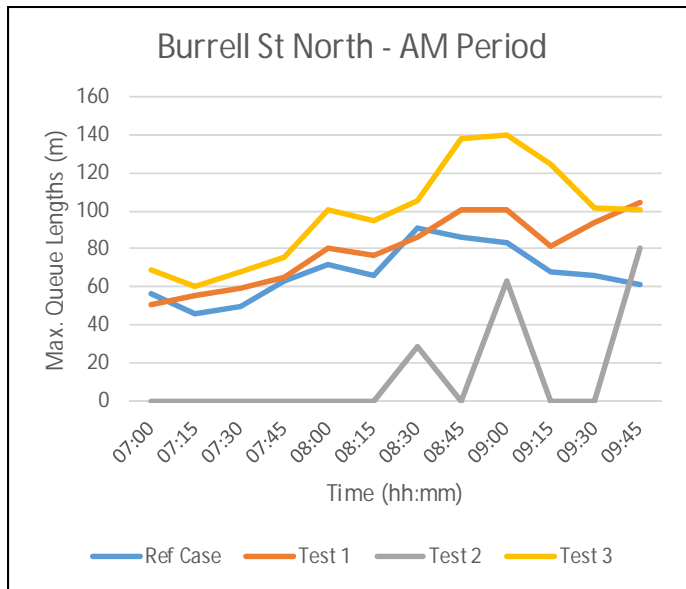


Figure 4.2 : Maximum Queue Lengths, Burrell St North

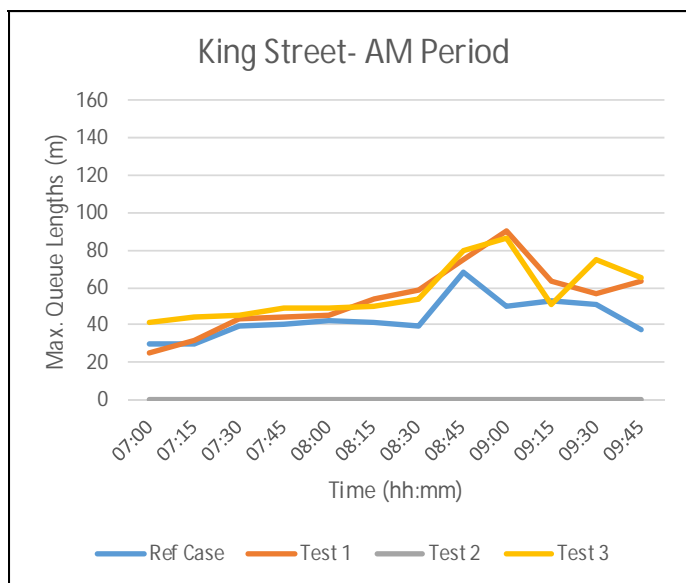


Figure 4.3 : Maximum Queue Lengths, Broich Road



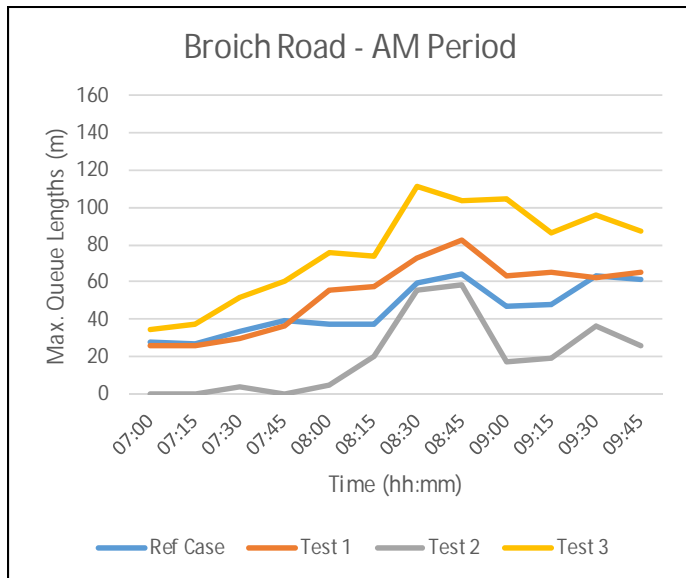


Figure 4.4 : Maximum Queue Lengths, Broich Road

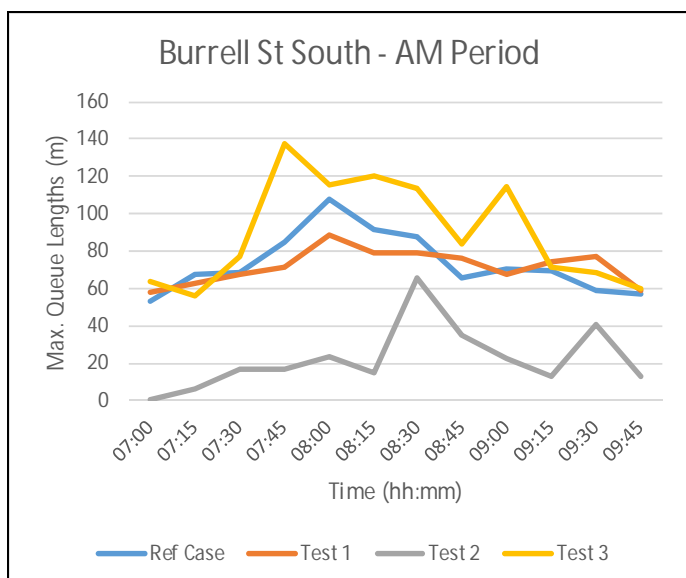


Figure 4.5 : Maximum Queue Lengths, Burrell Street South

In the AM peak, queues lengths on all approach arms are longer in Test Option 3 compared to the Reference Case. In test Option 1, the queues are also longer than the reference Case Model (but not as long as in Test 3) on all approaches apart from the Burrell Street south approach, due to the revised signal phasing. The minimum queues lengths have been recorded in Test Option 2 without Tesco, where the Broich Road/ Burrell Street operates as a priority junction.

In Test Option 2, without Tesco, the Broich Road/Burrell Street is a priority junction and priority is given to Burrell Street North and King Street. Unexpected queueing on the Burrell Street North AM approach was observed to be due to traffic waiting behind a dwelling bus at the bus stop which is in close proximity to the junction.

Figure 4.6 to Figure 4.9 are showing the maximum queue lengths at the Broich Road/Burrell Street junction in the PM period.

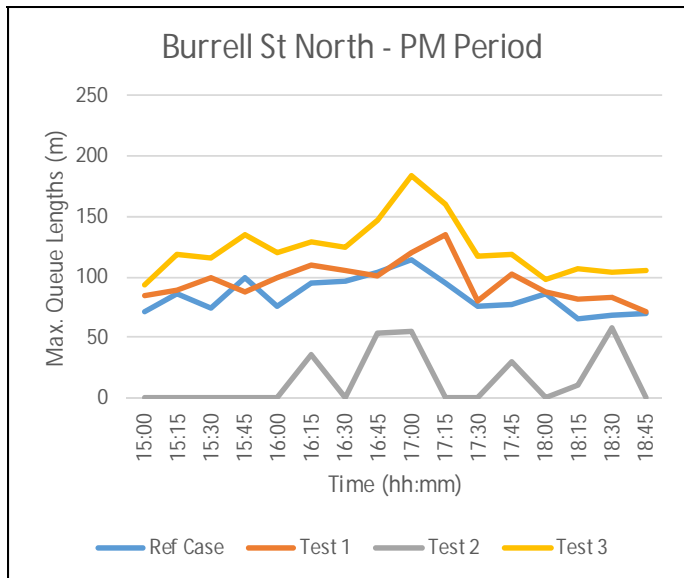


Figure 4.6 : PM Maximum Queue Lengths, Burrell St North

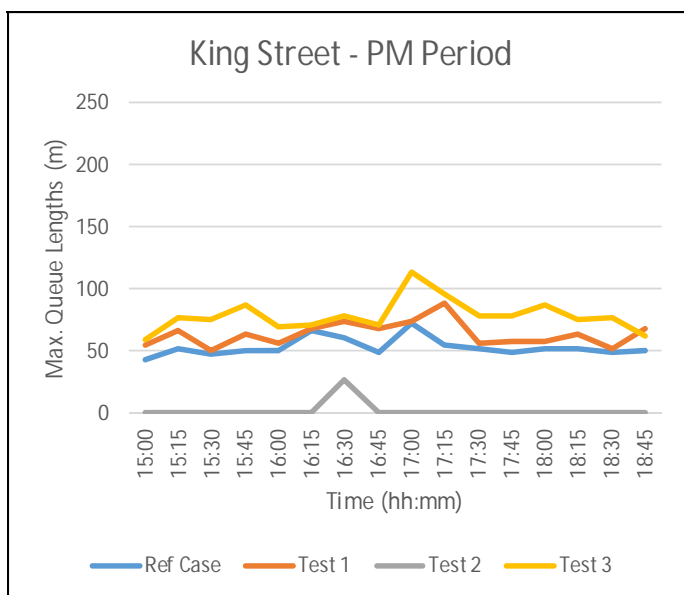


Figure 4.7 : PM Maximum Queue Lengths, King Street



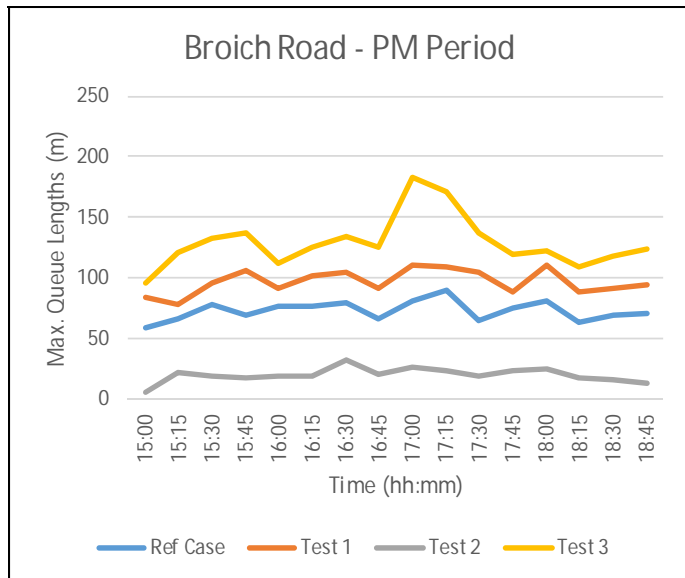


Figure 4.8 : PM Maximum Queue Lengths, Burrell St South

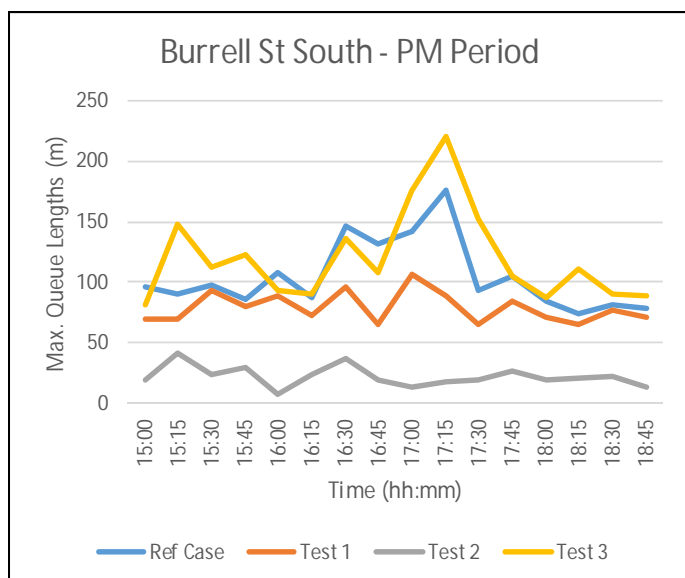


Figure 4.9 : PM Maximum Queue Lengths, Burrell Street South

Similarly, in the PM peak, queues lengths are longer in Test Option 3 compared to the Reference Case. The shortest queues lengths have been recorded in Test Option 2, without Tesco, where Broich Road/Burrell Street is a priority junction. In Test Option 1, the queues are longer than in Reference Case Model (but shorter than Test 3) on all approaches apart from the Burrell Street South approach, due to the revised signal phasing.

In Test 3, the longer queues on approach to the junction were observed to not always clear within one cycle of the signalised junction phasing.

## 4.2 Average Journey Times

Average journey times were extracted from the models for the following routes:

- Route 1: Broich Road between Highlandman Loan and Burrell Street
- Route 2: Duchlage Road between Commissioner Street and Broich Road

The journey time routes are shown in Figure 4.10.

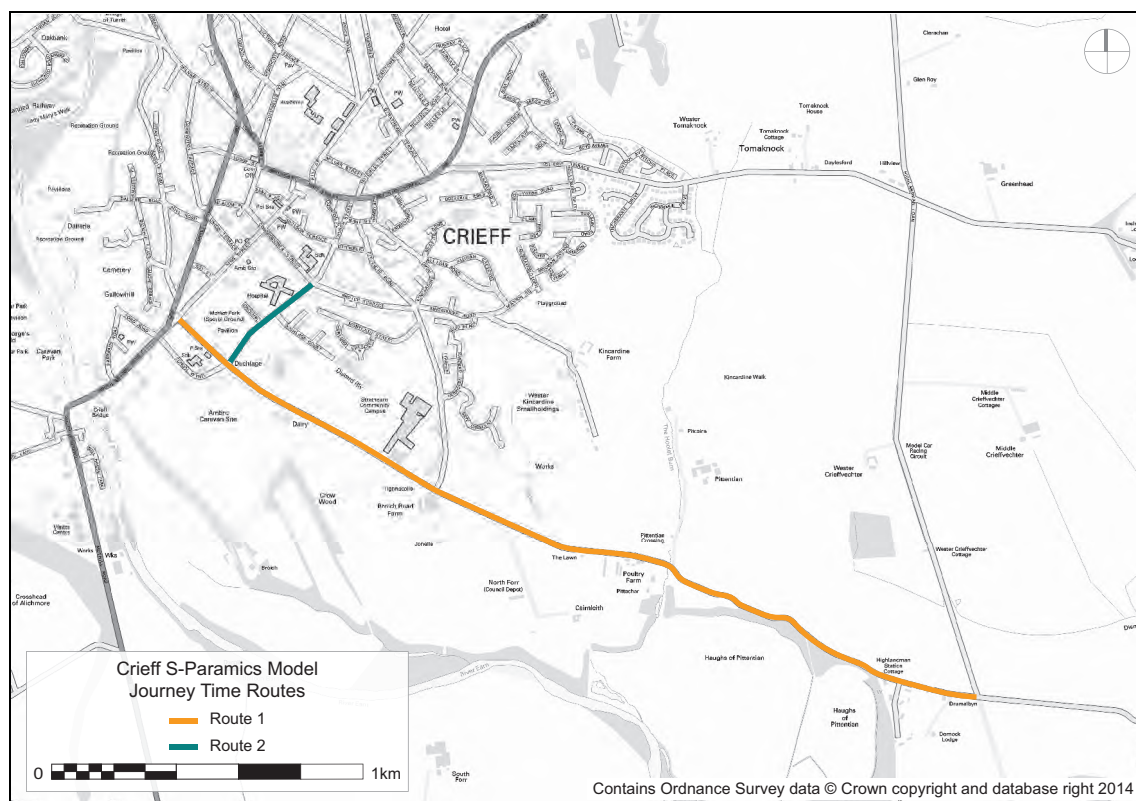


Figure 4.10 : Journey Time Routes- 2026 Crieff Model

The average journey times for vehicles traversing these two routes have been collated from the model in the AM and PM peak periods and the results are provided in Table 4.3 and Table 4.4.

Table 4.3 : Average Journey time on selected routes, AM Peak Period (07:00 – 10:00)

	Route 1 Westbound	Route 1 Eastbound	Route 2 Southbound	Route 2 Northbound
<b>Ref Case</b>	00:03:32	00:02:48	00:00:33	00:00:32
<b>Test 1</b>	00:03:27	00:02:48	00:00:34	00:00:32
<b>Test 2</b>	00:02:51	00:02:48	00:00:33	00:00:32
<b>Test 3</b>	00:03:34	00:02:49	00:00:36	00:00:34

Table 4.4 : Average Journey time on selected routes, PM Peak Period (15:00 – 19:00)

	Route 1 Westbound	Route 1 Eastbound	Route 2 Southbound	Route 2 Northbound
<b>Ref Case</b>	00:03:30	00:02:49	00:00:35	00:00:33
<b>Test 1</b>	00:03:50	00:02:49	00:00:38	00:00:32
<b>Test 2</b>	00:02:52	00:02:48	00:00:34	00:00:32
<b>Test 3</b>	00:04:12	00:02:50	00:00:41	00:00:35

From the tables, the following comments can be made:

- **Route 1:**  
Westbound journey times are the shortest in Test Scenario 2 and longest in Test Scenario 3 in both peak periods when compared to the Reference Case Model. There is a significant increase in journey time for traffic routeing westbound along Broich Road in Test 1 and, even more so, in Test 3 compared to the Reference Case.
- **Route 2:**  
In the AM peak, all southbound journey times on Route 2 are similar. In the PM peak, the southbound journey times are an average of 6 seconds longer in Test Option 3 and no different in Test Option 2 when compared to the Reference Case. There is a very little or no difference in the average journey times between all the model scenarios in both peak periods for the northbound traffic.

From these tables, the greatest journey time differences between the modelled scenarios are observed for the westbound journeys on Broich Road (Route 1). The following Figure 4.11 and Figure 4.12 are showing AM and PM average journey time for the westbound traffic on Route 1. The remaining journey time graphs are shown in Appendix E.

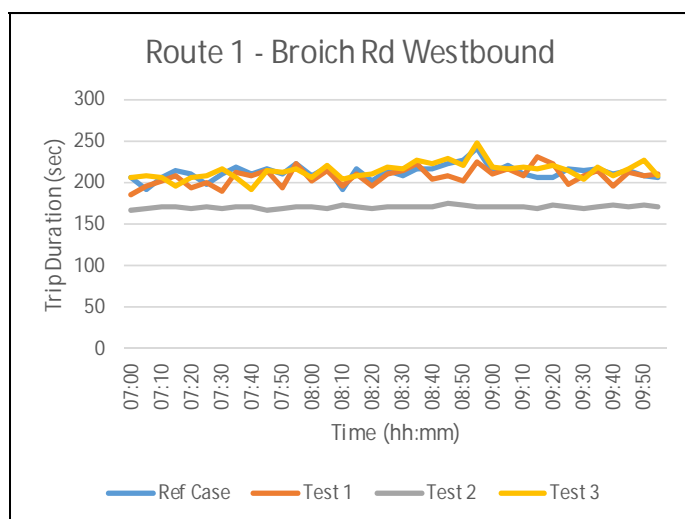


Figure 4.11 : Average Journey Time, Route 1 Westbound, AM Period

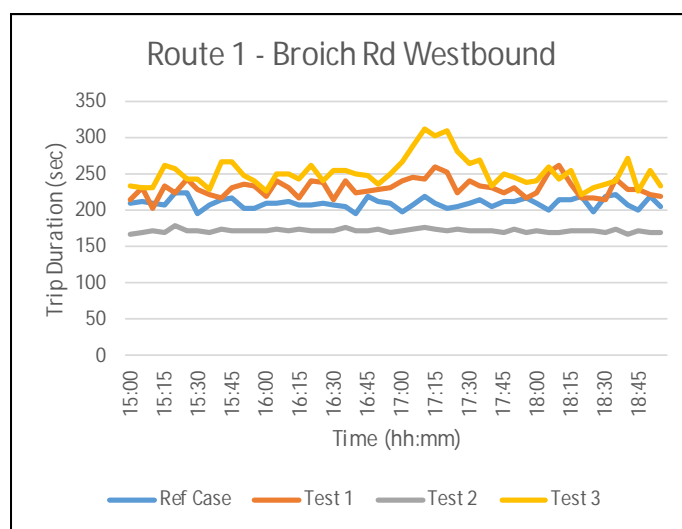


Figure 4.12 : Average Journey Time, Route 1 Westbound, PM Period

In the AM peak, Test Option 1 and Option 3 show similar results for the westbound traffic on Broich Road. The shortest journey time for this route is in Test Option 2 where the Broich Road/Burrell Street is a priority junction and the Tesco development is not included.

In the PM peak, Test Option 3 demonstrates a sizeable increase in journey time for the westbound traffic approaching the Broich Road/A822 Burrell Street when compared to the Reference Case Model and Test Option 1. The maximum journey time of 5min 12s is 1min 28s longer than the maximum recorded in the Reference Case.

#### 4.3 Further Model Observations

From observations of the traffic behaviour in the test model scenarios, it was noted that in Test Option 3, there were occasions where the traffic did not clear the Broich Road/A822 Burrell Street junction in one signal phasing cycle. This was noted to occur in the PM Peak, particularly on the Broich St arm of the junction. The queueing on this arm was not observed to build up too high before clearing out. It should be noted that Test Option 3 could be considered as a worst case scenario with respect to development levels on Broich Road.

A further observation was noted to occur within the Aldi/Tesco development access road. In Tests 1 and 3, where Aldi and Tesco developments are both included, the traffic modelling showed some queueing within the development access road from vehicles turning right into Aldi against the Tesco outbound traffic. This queueing was observed to tail back towards the mainline junction. This should be borne in mind when finalising the internal junction layout. It may be worth considering reversing the priority arm at the Aldi/Tesco junction or alternatively consider a roundabout at this location.

In general, from model observations, it was noted that there were not any significant delays in the rest of the town.



## 5 MODEL TESTING SUMMARY

### 5.1 General

SIAS Limited (SIAS) has been commissioned by Grontmij to undertake S-Paramics testing of the proposed retail development in Crieff.

The proposed development is situated to the South of Crieff and consists of an Aldi Store plus Class 1 Retail Unit. Grontmij provided SIAS with the trip rates, distribution, and development access junction arrangement and requested SIAS to assess the impact of the proposed development on the local network.

An existing Crieff 2026 Reference Case S-Paramics model was used to undertake testing of the proposed retail development. The 2026 Crieff Reference Case was developed from a 2014 Crieff LDP Reference Case Model, as documented in *Crieff LDP Testing Report (SIAS Ref. 76115, March 2014)*.

For the purpose of option testing, the assumption on traffic growth based on the relative (low) growth in the National Road Traffic Forecast (NRTF) was applied to the 2014 Crieff Model to produce the 2026 Crieff Reference Case

The 2014 and 2026 Ref Case Crieff models include the proposed Tesco store on Broich Road and relocated Crieff Primary School to a new location on Broich Road.

The following test scenarios were undertaken in this study:

- Test 1:  
Includes 2026 Reference Case committed development plus proposed retail development. Broich Road/A822 Burrell Street junction is a signalised junction with revised phasing (early cut off to southbound traffic).
- Test 2:  
Includes 2026 Reference Case committed development without Tesco associated trips plus proposed retail development. Broich Road/A822 Burrell Street junction is a priority junction in this test option.
- Test 3:  
Includes 2026 Reference Case committed development, proposed retail development and Broich Road development (proposed LDP site to the South of Broich Road). Broich Road/A822 Burrell Street junction is a signalised junction with revised phasing (early cut off to southbound traffic).

### 5.2 Model Testing Results

The test scenarios were compared against the 2026 Reference Case model for various journey time and queue length model statistics.

#### 5.2.1 Test Option 1

In Test Option 1 there were slightly longer average queue lengths on each arm of the Broich Road/Burrell Street signalised junction when compared to the Reference Case Model. An exception to this was queueing on the southern approach to the junction, where the revised signal phasing brought the queue levels lower than in the Reference Case.

Traffic journey times for Test 1 through the key routes were similar to the Reference Case, with the exception of traffic routeing westbound along Broich Road which were approximately 10% longer in the PM peak.





In summary, for the Test 1 scenario, there was a slight impact on queue levels and journey times around the Broich Road/Burrell Street signalised junction compared to the Reference Case scenario, however, with the revised signal phasing included, the network operates without any significant issue. In the rest of the town, from model observations, it was noted that there were not any significant delays in the rest of the town.

#### 5.2.2 Test Option 2

In Test Option 2 the Broich Road/Burrell Street Road is a priority junction. Model statistics showed that there were shorter queues on each arm of the Broich Road/Burrell Street junction compared to the Reference Case Model, due to the removal of the Tesco development and the significant reduction in trips in this scenario compared to the Reference Case.

Similarly, journey times along the Broich Road and Dulchlage Road were generally shorter or equal to the Reference Case.

#### 5.2.3 Test Option 3

In general, the traffic queue levels on approach to the Broich Road/Burrell Street signalised junction are longer in this option when compare to the Reference Case Model or any of the other scenarios tested. This is primarily due to the additional traffic demand associated with Broich Road LDP development, as well as the proposed Aldi retail development and committed Tesco store and Primary School. In general, from model observations, it was noted that there were not any significant delays in the rest of the town.

Test Option 3 demonstrates marginally longer journey time along the Broich Road and Dulchlage Road in all direction when compared to the Reference Case. The westbound journey times on Broich Road were significantly longer than the Reference Case scenario.

From observations of the traffic behaviour in this test model scenario, there were occasions where the traffic did not clear the Broich Road/A822 Burrell Street junction in one signal phasing cycle. This was noted to occur in the PM Peak, particularly on the Broich Street arm of the junction. The queueing on this arm was however, not observed to build up too high before clearing out. It should be noted that Test 3 could be considered as a worst case scenario with respect to development levels on Broich Road and with inclusion of Tesco and Aldi trips.

#### 5.2.4 Further Comment

In Tests 1 and 3, where Aldi and Tesco developments are both included, the traffic modelling showed some queueing within the development access road from vehicles turning right into Aldi against the Tesco outbound traffic. This queueing was observed to tail back towards the mainline junction. This should be borne in mind when finalising the internal junction layout. It may be worth considering reversing the priority arm at the Aldi/Tesco junction or alternatively consider a roundabout at this location.

In general, it was noted that there were not any significant delays in the rest of the town in all modelled scenarios.



# A INDICATIVE DEVELOPMENT ACCESS LAYOUT

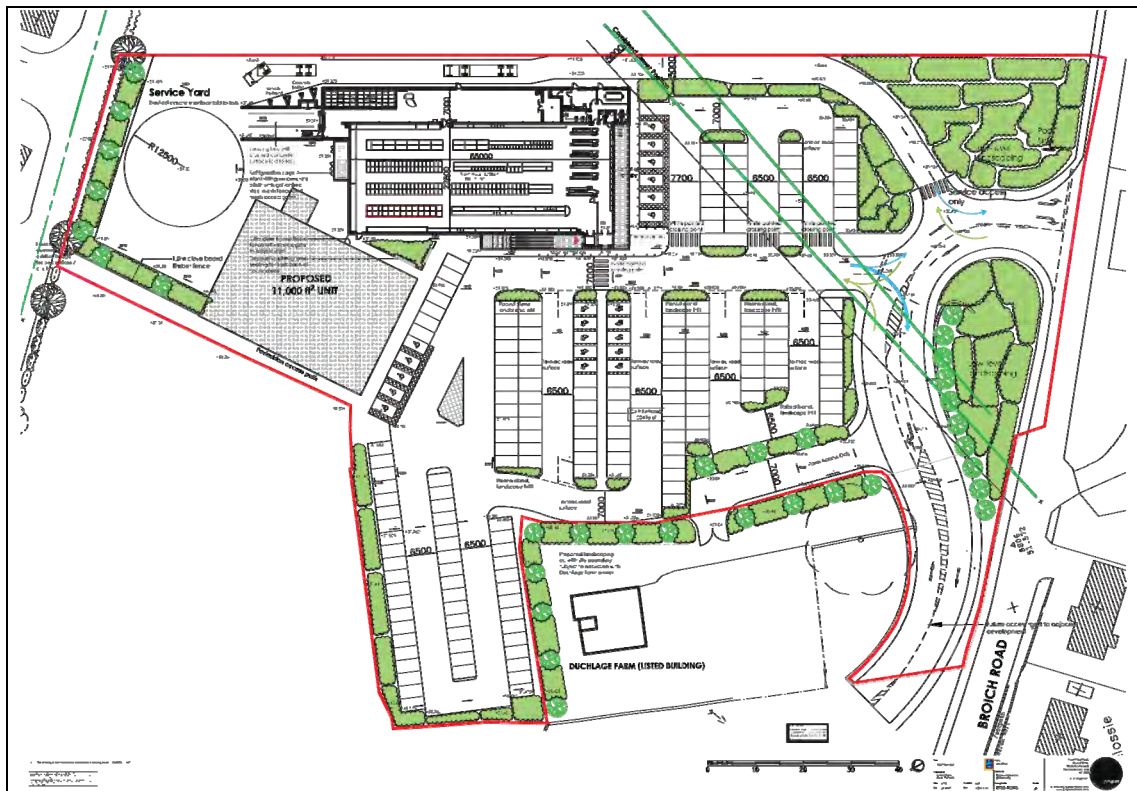


Figure A.1 : Indicative development access layout  
Source: Grontmij



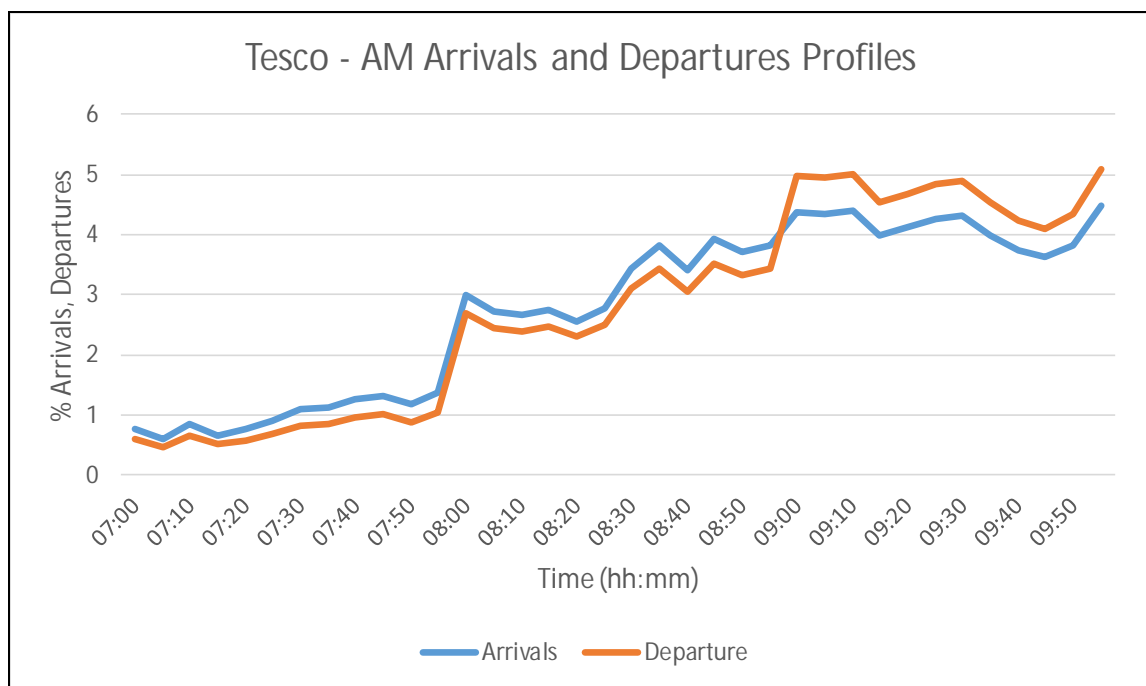
**B ARRIVAL AND DEPARTURE PROFILES**

Figure B.1 : AM Arrivals and departure profiles Tesco Store

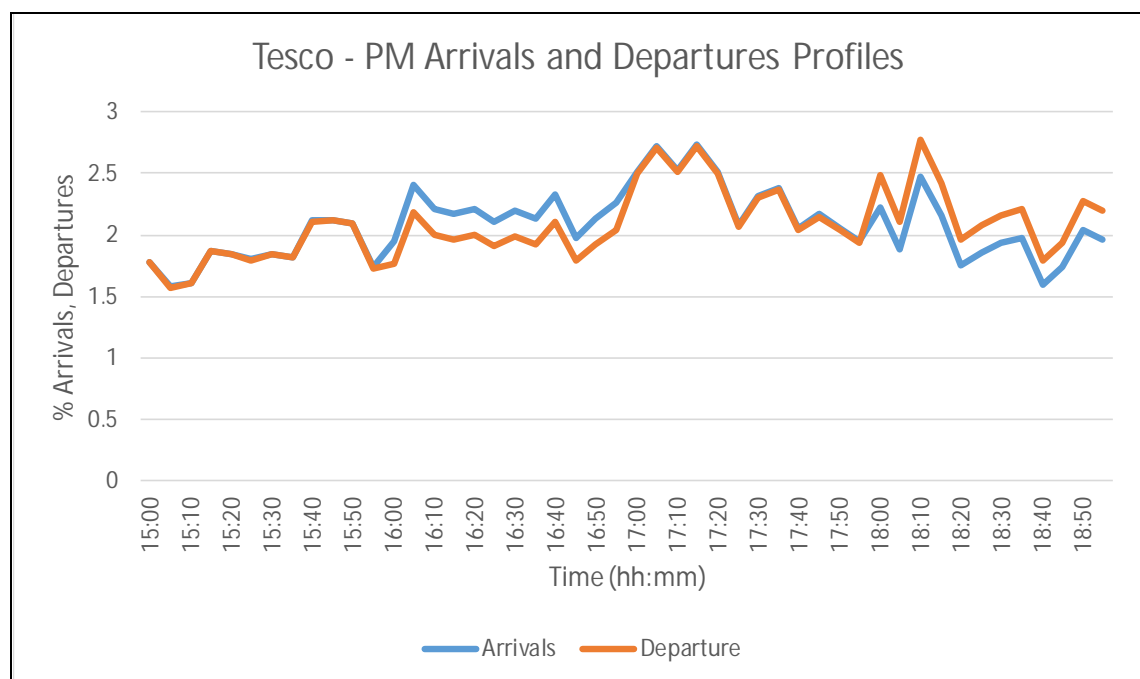


Figure B.2 : PM Arrivals and departure profiles Tesco Store



# C TRIPS DISTRIBUTION: PROPOSED RETAIL DEVELOPMENT

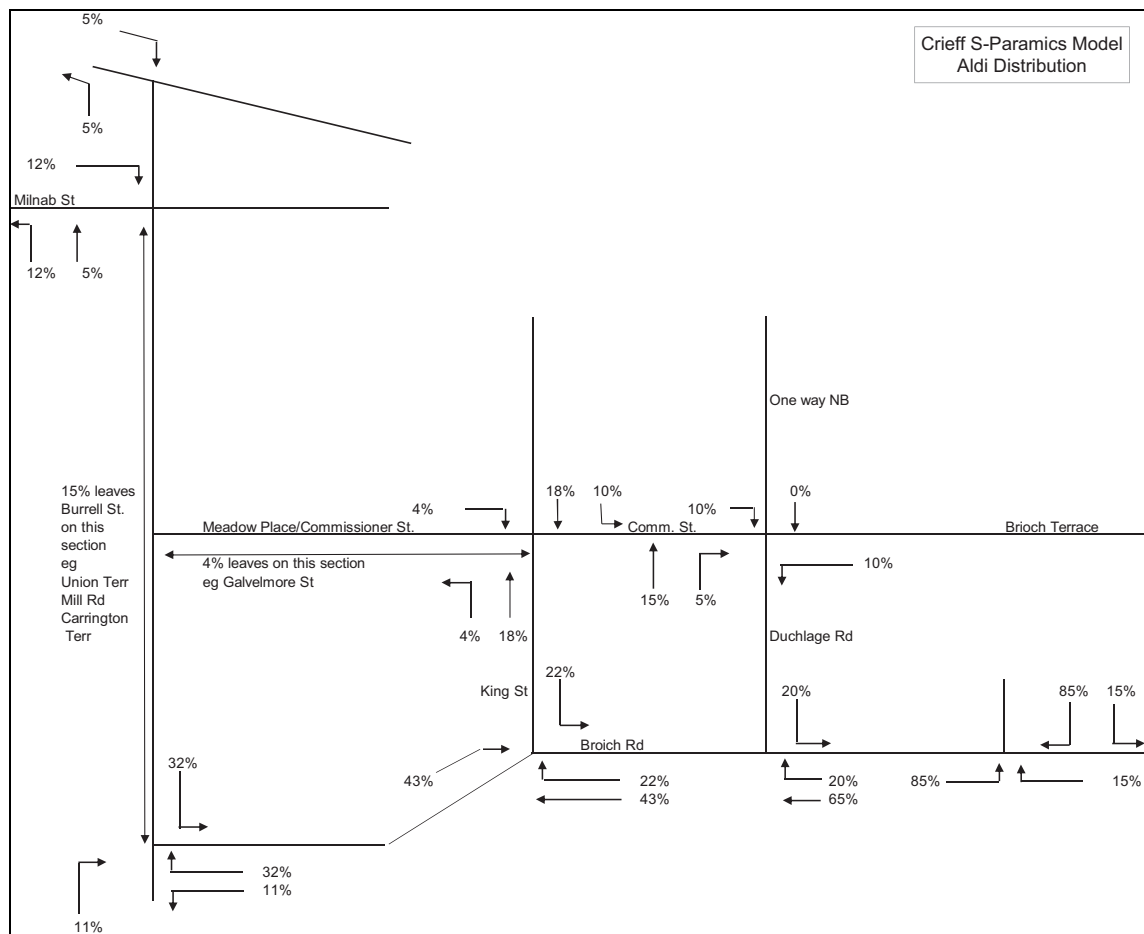


Figure C.1 : Proposed Retail Development, Trips Distribution

Source: Grontmij

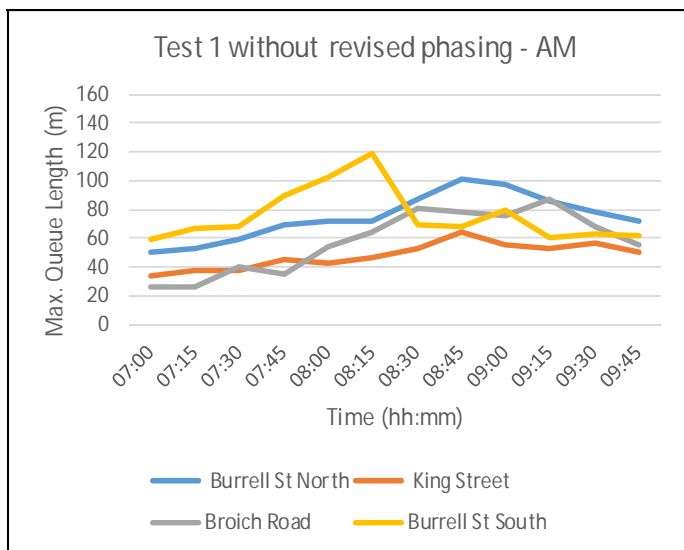
**D TEST OPTION 1 WITH AND WITHOUT REVISED PHASING MITIGATION, QUEUES**

Figure D.1 : Test 1 without revised phasing at the Broich Road/Burrell Street, AM period

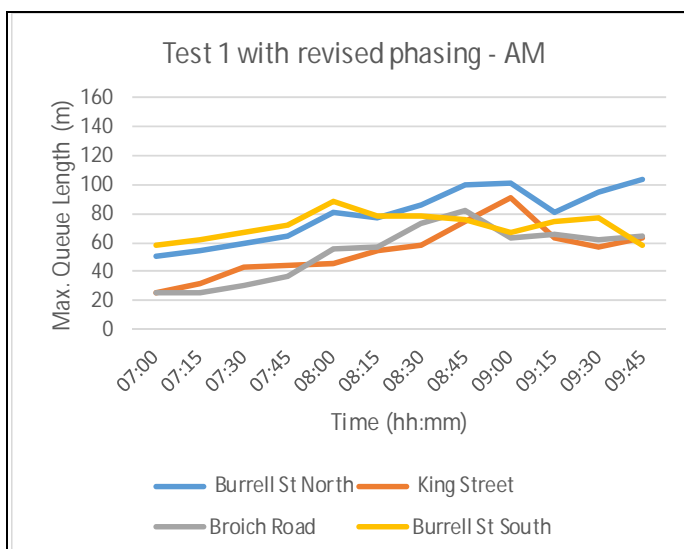


Figure D.2 : Test 1 with revised phasing at the Broich Road/Burrell Street, AM period

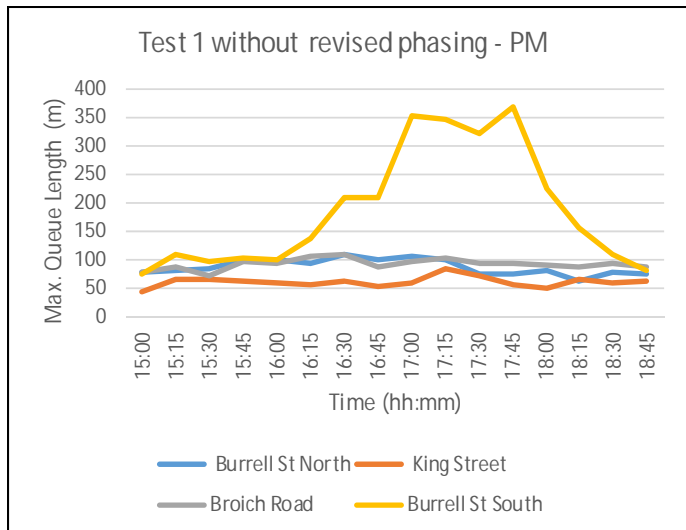


Figure D.3 : Test 1 without revised phasing at the Broich Road/Burrell Street, PM period

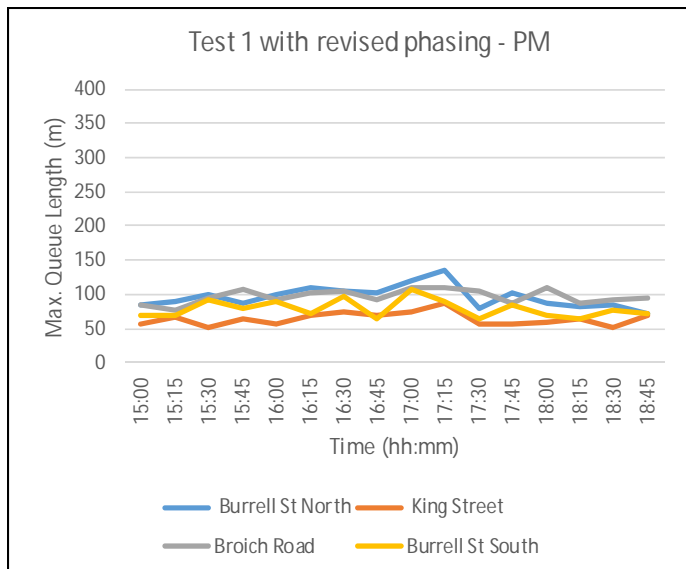


Figure D.4 : Test 1 with revised phasing at the Broich Road/Burrell Street, PM period

## E JOURNEY TIMES

### E.1 AM Period, Average Journey Time (s)

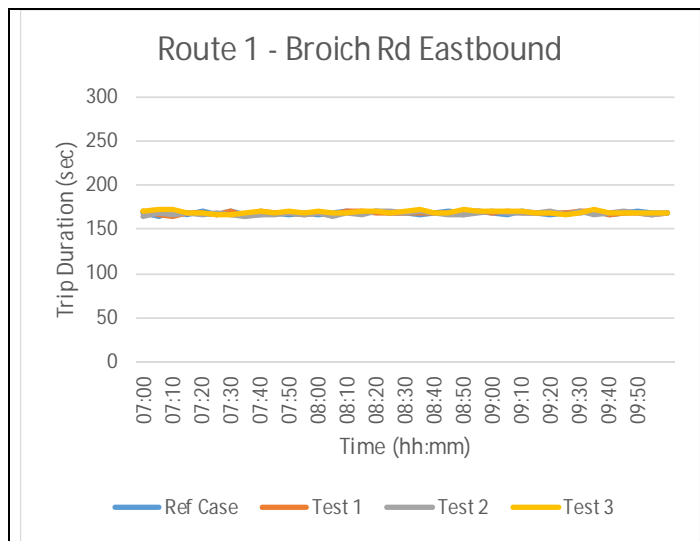


Figure E.1 : AM Period, Average Journey time, Route 1 Eastbound

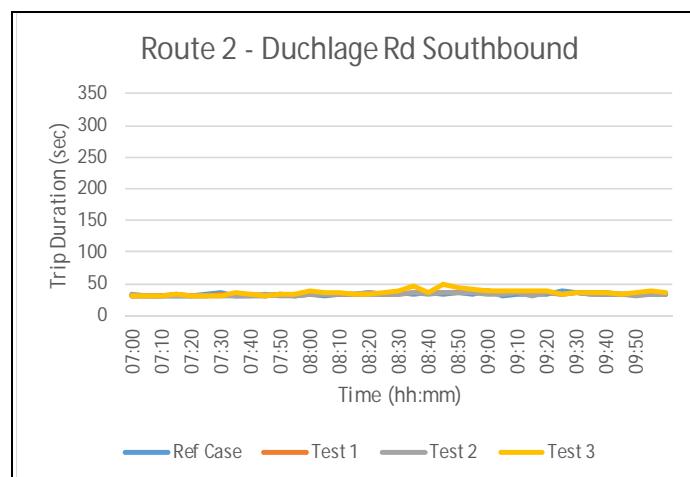


Figure E.2 : AM Period, Average Journey time, Route 2 Southbound



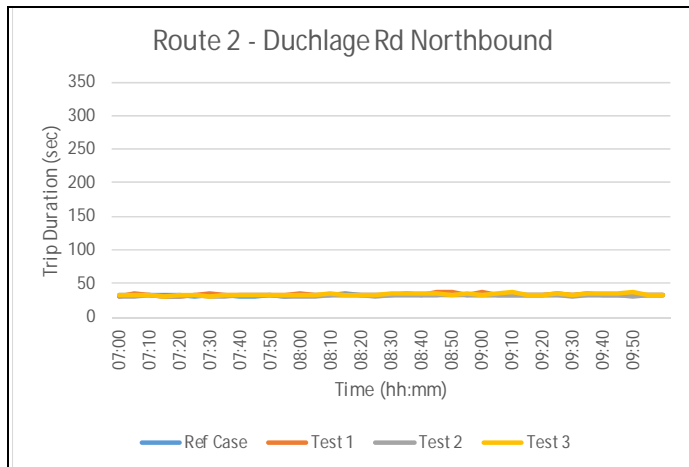


Figure E.3 : AM Period, Average Journey time, Route 2 Northbound

## E.2 PM Period: Average Journey Time (s)

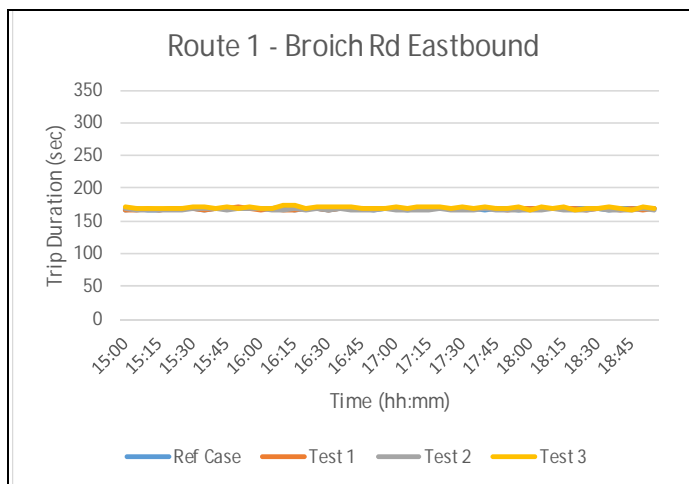


Figure E.4 : PM Period, Average Journey time, Route 1 Eastbound

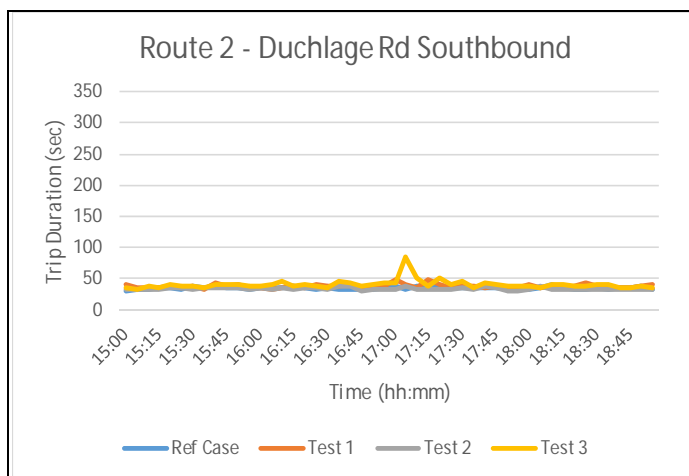


Figure E.5 : PM Period, Average Journey time, Route 2 Southbound

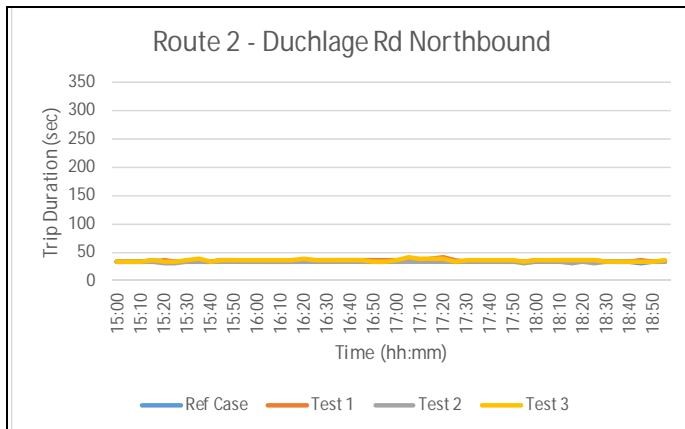


Figure E.6 : PM Period, Average Journey time, Route 2 Northbound



**Document 3: Pre-application Consultation Report**



**Planning application by Aldi Stores Ltd. for proposed foodstore and additional Class 1 retail development at Broich Road, Crieff.**

<b>BACKGROUND</b>	<b>3</b>
<b>THE PROPOSALS</b>	<b>4</b>
<b>BENEFITS OF THE PROPOSAL</b>	<b>4</b>
<b>COMMUNITY ENGAGEMENT PROGRAMME</b>	<b>5</b>
<b>FEEDBACK FORM RESULTS</b>	<b>9</b>
<b>FEEDBACK AND FURTHER ACTIONS ARISING FROM COMMUNITY ENGAGEMENT PROGRAMME</b>	<b>11</b>
<b>CONCLUSIONS</b>	<b>12</b>
<b>APPENDICES</b>	<b>13</b>

## **BACKGROUND**

The Planning etc. (Scotland) Act 2006 sets out requirements for community engagement in Major and National planning applications. It aims to ensure that communities are engaged in shaping the future of their area. The intention is for this Community Engagement Report to reflect an open, honest and fair dialogue between the applicants, the local community and other stakeholders.

Pre-application consultation between prospective applicants and communities is a statutory requirement for 'National' and 'Major' planning applications, as defined by the Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009.

Under these regulations, the current application is defined as a 'Local' development, not requiring statutory pre-application consultation (PAC). However, the applicant, Aldi Stores Limited, appreciates the importance of involving local communities in development proposals at all stages and considers it good industry practice.

This report has been compiled by James Harbison & Company on behalf of the applicant.

## **THE PROPOSALS**

The applicant is preparing a planning application for a new, modern, local foodstore for Crieff, providing the local community with the opportunity to access Aldi's award-winning brand and high quality offer. The proposals will also include an additional, complementary retail unit on adjacent land to the north of the proposed Aldi store.

## **BENEFITS OF THE PROPOSAL**

- Investment
  - Bringing a new, modern foodstore and a second retail unit with car parking and associated landscaping
- Jobs
  - Creating up to 30 new Aldi jobs for local people plus further retail employment associated with the second retail unit, together with construction jobs.
- Greater Choice
  - Improving choice and quality of shopping provision and bringing the award-winning Aldi brand to the Crieff community.
- Sustainability
  - Providing improved local retail provision thereby reducing the need to travel to other destinations including Perth and Stirling, thereby retaining trade in Crieff.

## COMMUNITY ENGAGEMENT PROGRAMME

The applicant has consulted widely with the general public, local residents, businesses and stakeholders who have an interest in the development site.

The proposed consultation strategy was discussed in advance of the public event with planning officer Steve Callan at Perth & Kinross Council in April 2015.

The project team identified the following groups as interested parties:

- The general public - local residents, local businesses
- Stakeholders –

Officers of Perth & Kinross Council

Perth & Kinross Site Ward Councillors:  
Ward 6, Strathearn

Rhona Brock  
Ann Cowan  
Anne Younger

MSP:  
Perthshire South & Kinross-shire

Roseanna Cunningham

List MSPs  
Mid Scotland

Jayne Baxter  
Claire Baker  
Annabelle Ewing  
Murdo Fraser  
Willie Rennie  
Richard Simpson  
Liz Smith

MP:  
Ochil & South Perthshire

Gordon Banks  
Shadow Minister, Scotland  
Won seat in 2005 and held at last  
election by 5187 votes

General Election candidates:

Tasmina Ahmed-Sheikh  
**NB: elected MP on 7<sup>th</sup> May**

Luke Graham  
Dr Illyan Stefanov

Site Community Council:  
Crieff  
[www.crieff.org](http://www.crieff.org)

Stephen Leckie, Chair  
Chris McIntosh, Vice Chair  
Jean Ann Scott Miller, Secretary

Neighbouring Community Councils:  
Strathearn & District Forum of Community Councils

Auchterarder & District  
Blackford  
Braco & Greenloaning  
Comrie  
Dunning  
East Strathearn  
Muthill & Tullibardine  
St Fillans



Crieff Community Trust	Ailsa Campbell Mhairi Rolin Graham Donaldson
Crieff Succeeds BID	Steering Group
Crieff & Upper Strathearn Partnership	John Champion, Secretary
Crieff and Strathearn Drovers' Tryst	Julia Greenlees, Treasurer
Crieff in Leaf	Keith Stewart, Chair
Community Police:	PC Donald Florence, King Street, Crieff PH7 3HA
Fire Service:	Stuart Graham, Leading Fireman
Crieff Medical Centre	Ann Massey, Practice Manager / Jennifer Benny, Practice Manager
Crieff Highland Gathering	Colin Crawford, Chair
Crieff Primary School St Dominics RC Primary School Crieff High School	Annette Beaton, Head Teacher Elizabeth Hunter, Head Teacher Mrs C Ross, Head Teacher Mr T Rae, Business Manager Simon Pengelley, Rector Annie Le Roy-Lewis, Admin
Morrison's Academy Ardvreck School	
Chamber of Commerce: Perthshire	Vicki Unite, Chief Executive
Jobcentre Plus	
Media	Dundee Courier Press & Journal Strathearn Herald Strathallan Times Perthshire Advertiser Crieff & Comrie Quair Heartland FM BBC Perth/Tayside STV

The consultation undertaken to date has included:

- Initial private briefing with Crieff Community Council
- Further briefing to Crieff Community Council which was open to the public
- Editorial coverage in the local press including:
  - Strathearn Herald -
    - "New supermarket and jobs set for Crieff as Aldi reveal site for proposed store." *7<sup>th</sup> May online*

- “Aldi site for Crieff revealed. Firm excited about store bid.” *Front page 8<sup>th</sup> May*
- “Aldi site in Crieff. Plans for new store.” *8<sup>th</sup> May*
- “Superstore sets out vision for the future. Firm says it was made to feel welcome at Crieff events.” *22<sup>nd</sup> May*
- Strathallan Times –
  - “Aldi’s exciting plans for Crieff” *15<sup>th</sup> May*
- Dundee Courier –
  - “Crieff Aldi ‘a wonderful opportunity’ that could bring 30 jobs.” *8<sup>th</sup> May*
- Crieff & Comrie Quair –
  - “Aldi’s Plans For Crieff”, *June 2015 edition*
  - “Following the decision by Tesco not to build a new store at the Broich Road site, proposals have now been brought forward to develop an Aldi store with the public exhibition held at Strathearn Artspace recently outlining the new proposals for two retail units with the potential to create 32 jobs and help attract new enterprise. What is clear is that we need to see both investment in the local area as well as the promotion of the area to help attract visitors all year round.” – *Elizabeth Smith MSP, July 2015 edition*

- Public Exhibition Preview for invited guests including ward councillors, politicians, business and community representatives

Strathearn Artspace, Thursday 14<sup>th</sup> May, 11am – 12noon

- Public Exhibition:

Strathearn Artspace, Thursday 14<sup>th</sup> May, 12noon – 7pm

The events were well publicised both in the local press and with posters and banners in Crieff town centre.

The preview was well attended by community representatives including Crieff Community Council, East Strathearn Community Council, St Fillans Community Council, Crieff Community Trust, Crieff Highland Gathering, Crieff High School and Community Hub, St Dominic’s RC Primary School, Crieff Primary School, Crieff and Strathearn Drivers’ Tryst, Crieff in Leaf and immediate neighbours from Duchlage Court.

The public exhibition was also well attended and it is estimated approximately 250 people visited the exhibition and 300 leaflets with feedback forms were issued over the course of the day. (Due to popular demand, a further 200 leaflets were re-printed and

distributed via the Community Campus and Primary School and other interested members of the public.)

The exhibition was staffed by senior members of the Aldi executive team and the project team including transport and planning consultants to ensure that all questions could be answered directly or respondents' details taken for subsequent follow-up.

The exhibition included details of the proposals, architect's drawings and computer generated images of the proposal in situ and a location/site plan to enable members of the public to identify the site and show the proposed plans in context. Information on the Aldi brand was also provided for those unfamiliar with the discount retailer.

An information leaflet which included a feedback form with freepost facility was available at the exhibition. Contact addresses, telephone and email details for the project team were publicised on the information leaflet. It was made clear on the feedback forms that comments to the consultation event were not formal representations to Perth & Kinross Council and that formal representations could be submitted once the application was lodged.

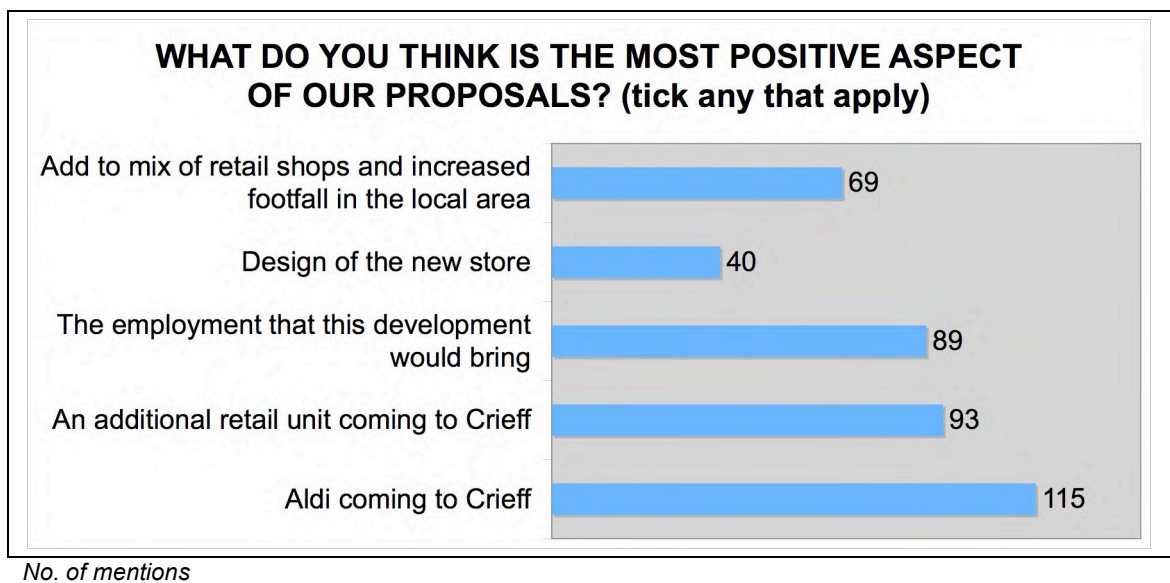
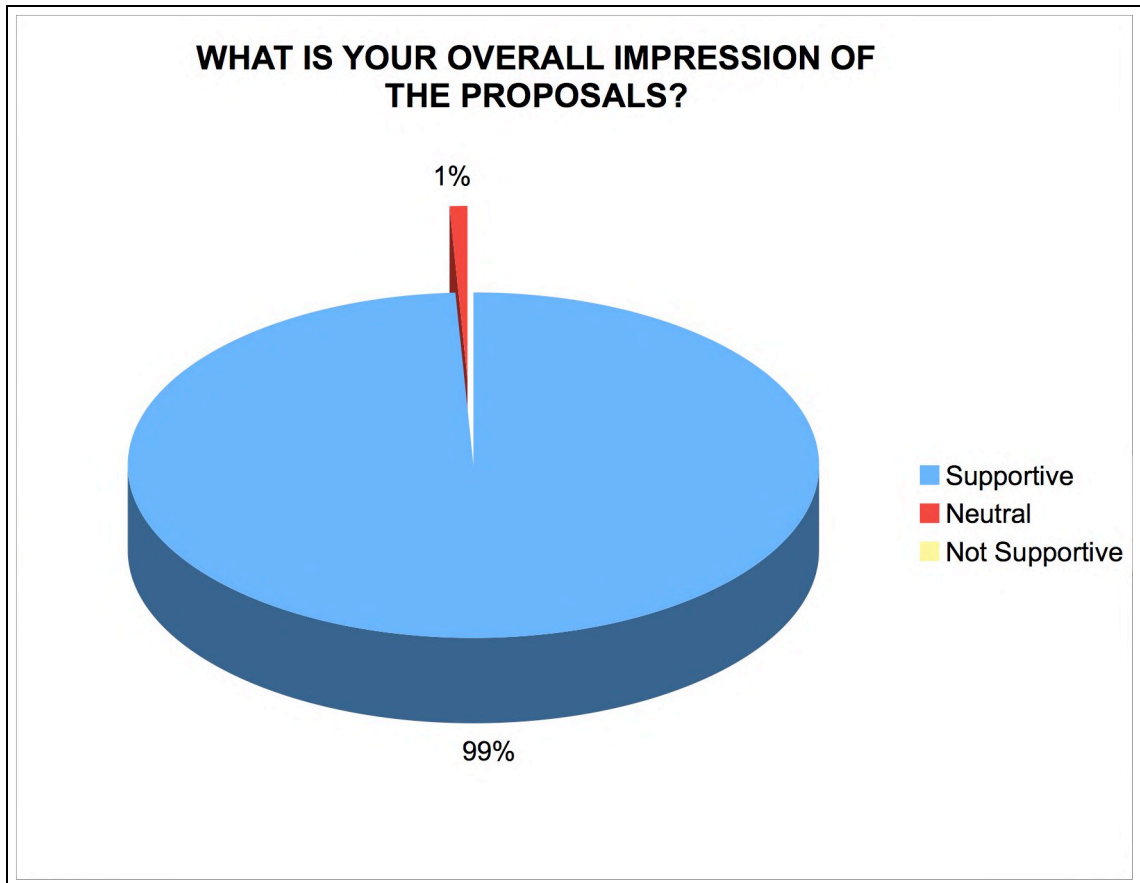
To date 130 feedback forms have been returned. 99% of respondents are supportive of these plans with a further 1% being neutral. There have been no objections. A complete summary of individual comments can be seen in Appendix 5.

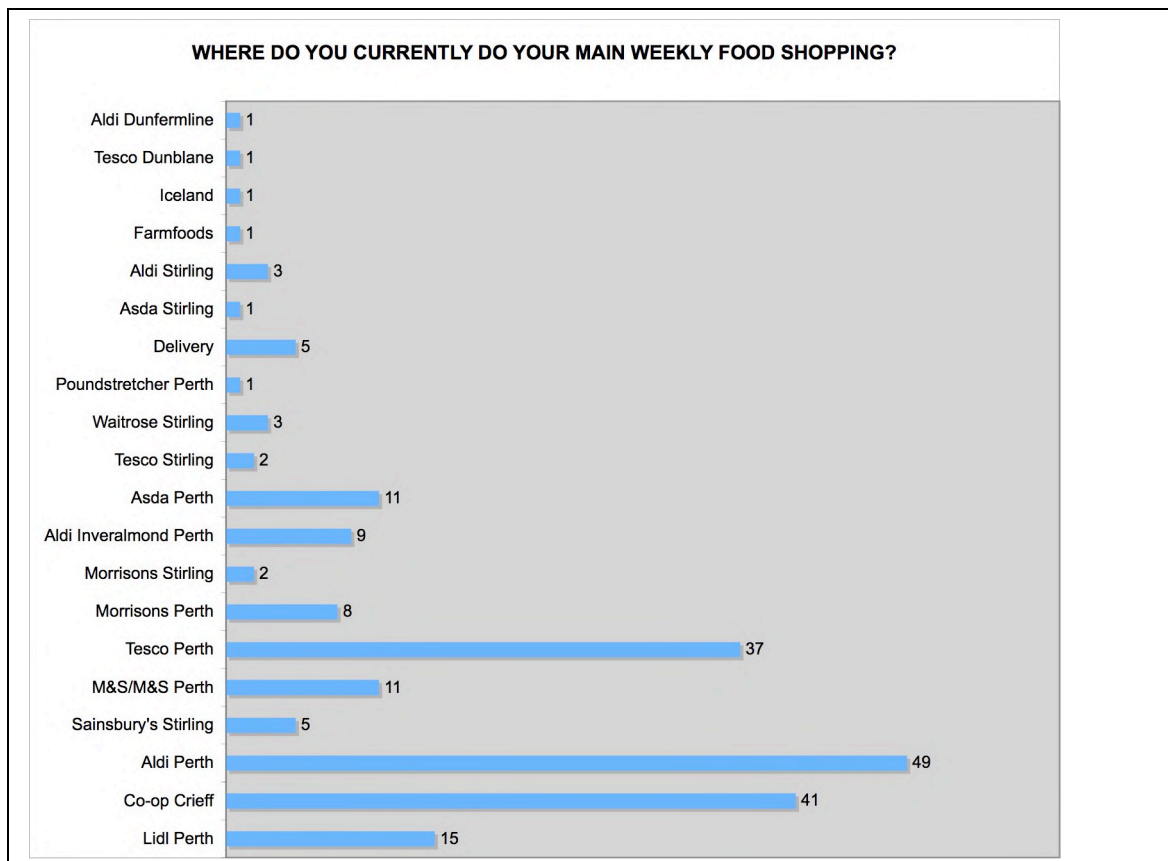
Respondents were also asked for their views on the most positive aspects of the proposals and the results (ranked in order of number of mentions) indicate significant support for –

- 1 Aldi coming to Crieff
- 2 An additional retail unit coming to Crieff
- 3 The employment that this development would bring
- 4 Add to mix of retail shops and increased footfall in the local area
- 5 Design of the new store

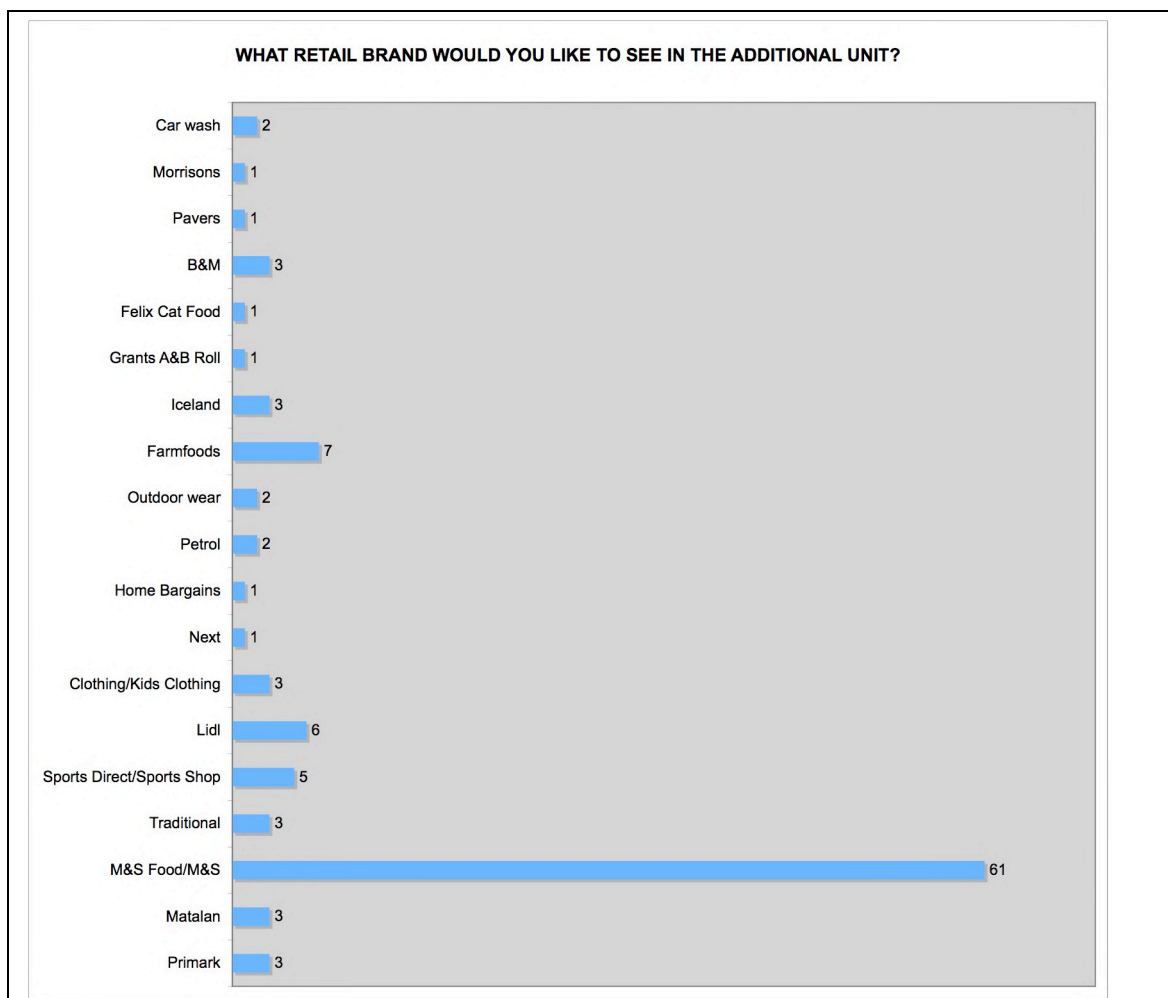
Feedback has also been received from Crieff Community Council offering their full support and co-operation. See Appendix 6.

## FEEDBACK FORM RESULTS





*No. of mentions*



*No. of mentions*

## FEEDBACK AND FURTHER ACTIONS ARISING FROM COMMUNITY ENGAGEMENT PROGRAMME

99% of those attending the public exhibition event supported the proposals. A further 1% remained neutral. There were no objections.

These consultations also confirmed that the overwhelming majority of local shoppers welcome Aldi's proposals, the additional retail unit and the employment and investment the proposals would bring.

There were a limited number of recurring questions asked at the exhibition and mentioned in feedback forms. Aldi's responses are set out below.

ISSUE:	RESPONSE:
<ul style="list-style-type: none"> <li>Pedestrian access and safety on Broich Road</li> </ul>	<p>Vehicular access to the development will be made via a new junction onto Broich Road. This junction will provide access to a shared car park for both the Aldi store and the 2<sup>nd</sup> retail unit. The design of the access would also allow the Tesco development to the west to come forward in the future with minimal disruption to traffic.</p> <p>Pedestrian and cycle access will also be available via Broich Road. The proposals include the widening and resurfacing of the footway along the southern boundary of the site. An additional pedestrian and cycle access from Duchlage Court to the north of the site is also included within the proposals.</p> <p>Further detail can be found in the Traffic Impact Assessment to accompany the planning application.</p> <p>It is understood that Perth &amp; Kinross Council will shortly be resurfacing the existing footway along Broich Road and improving the street lighting provision.</p>
<ul style="list-style-type: none"> <li>Is there an operator for the proposed 2<sup>nd</sup> retail unit?</li> </ul>	<p>At the time of these consultations Aldi explained they were in discussions with a number of well known retail names. Should planning be granted, Aldi is confident of finding a complementary retail brand. There was much public speculation regarding this and from feedback received M&amp;S is clearly a favourite among Crieff shoppers.</p>

## CONCLUSIONS

This document is submitted to demonstrate that the local community has been widely consulted and their views given due consideration and taken into account where feasible.

The consultation was well planned and publicised and the contact has been open and two-way. The community has been given a number of opportunities to contribute to the process and take an active part in developing the proposal. Feedback has been given and residents will be kept informed about development of the plans both through community representatives and the local press.

The invitation-only exhibition preview held in advance of the public exhibition at Strathearn Artspace was well attended by community representatives including Crieff Community Council, Crieff Community Trust, Crieff Highland Gathering, Crieff High School and Community Hub, Crieff Primary School and immediate neighbours from Duchlage Court.

From the feedback received at the public exhibition there was virtually unanimous support (99%) from the local community for the Aldi brand coming to Crieff, bringing further competition and choice to the area and the employment the foodstore would bring.

Feedback also indicates a further 1% remain neutral on the development proposals with no objections received.

Throughout the consultation and on supporting documentation it was made clear the consultation was not a formal representation to the planning authority.

The applicant has also addressed the suggestions and issues raised during the consultations, particularly in relation to pedestrian safety and traffic and this is reflected within the Transport Assessment which accompanies the planning application.



## **APPENDICES**

1. Exhibition signage
2. Exhibition photographs
3. Exhibition boards
4. Exhibition leaflet/feedback form
5. Exhibition feedback comments
6. Email from Crieff Community Council

**Appendix 1**  
Signage promoting exhibition



**Appendix 2**  
Exhibition Photographs  
Strathearn Artspace  
Thursday 14 May 2015





## THANK YOU FOR COMING ALONG TODAY



Aldi is pleased to be bringing forward a planning application to develop a new discount food store on Broich Road, Crieff next to the new primary school.

As part of these proposals and in order to bring forward a comprehensive development of the entire site, the application will also apply for the principle of an additional complementary retail unit adjacent to the proposed Aldi store. Although no occupier has yet been selected for this unit, Aldi is speaking with a range of interested parties.

Overall, the proposals will help improve the range and quality of shopping provision within the Crieff area, whilst also providing the local community with the opportunity to access Aldi's award-winning brand and high quality offer.



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## ABOUT ALDI



Aldi is one of the world's largest, privately-owned companies with more than 8,000 stores across Europe, North America and Australia.

It launched in the UK in 1990 and we now operate over 550 stores. In Scotland there are currently 59 Aldi stores and we now plan to bring our award-winning products to more locations throughout the country.

Aldi achieves lower prices through an extraordinarily efficient operation, from product sourcing to the retail experience in-store. In Aldi you will not find 100s of versions of the same product. Instead, we focus on quality rather than quantity, stocking a range of everyday groceries.

Our goal is simple - to provide our customers with the products they buy regularly and ensure they are of the highest possible quality at guaranteed low prices. To put it simply, we offer our customers a smarter way to shop.

Aldi is a regular award winner for product excellence winning 8 gold and 10 silver awards at the Grocer Own Label Awards 2014.



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## ALDI IN SCOTLAND



Scotland is home to some of the world's best quality produce.

Our commitment to local sourcing means it is easy to pick up a quality bargain and at the same time support local suppliers and help reduce food miles.

Our dedicated Scottish buying team sources a range of over 270 fresh meat, fish, dairy, fruit, vegetable, bread and bakery products. At Aldi you will find a range of high quality foods, seasonally fresh, with an unmistakable Scottish flavour.

Aldi is proud to support Scottish producers and since we have no in-store bakery, butcher, fishmonger, cafe or newsagent to sell cigarettes or lottery tickets, we do not compete with existing businesses in the local area.



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## OUR PROPOSALS FOR CRIEFF



A new, modern, local food store for Crieff to help improve the range and quality of shopping provision within the Crieff area, providing the local community with the opportunity to access Aldi's award-winning brand and high quality offer.

The proposals will include an additional, complementary retail unit on adjacent land to the north of the proposed Aldi store.



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## LOCATION



ORACLE  
RetailWeek  
AWARDS 2014  
WINNER



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## SITE PLAN



- Aldi store – 1,804sqm (19,418sqft) gross, 1,254sqm (13,500sqft) sales. Welfare and storage areas 462sqm (4,973sqft)
- Retail Unit B – 1,056sqm (11,367sqft) gross, approx. 845sqm (9,096sqft) sales
- 167 shared car parking spaces including dedicated disabled and parent and child bays
- Dedicated service access
- Improved pedestrian linkages through the site

ORACLE  
RetailWeek  
AWARDS 2014  
WINNER



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## BENEFITS OF OUR PROPOSALS



- **Investment** - bringing a new, modern food store and a second retail unit with car parking and associated landscaping.
- **Jobs** - creating up to 30 new Aldi jobs for local people plus further retail employment associated with the retail unit, together with construction jobs.
- **Greater choice** - improving choice and quality of shopping provision and bringing the award-winning Aldi brand to the Crieff community.
- **Sustainability** - providing improved local retail provision thereby reducing the need to travel to other locations and retaining trade in the local area.



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## ALDI - A GOOD NEIGHBOUR



Our store managers and staff are local and we take pride in becoming involved in local community matters.

Our stores open between 8am and 10pm Monday - Saturday and 9am - 7pm on Sunday and generally only require one to two goods deliveries per day.

During store construction we work closely with our neighbours to keep potential nuisance to a minimum.

The planning application will be supported by a range of technical documents to ensure that impacts on amenity are minimised. These will comprise a Planning and Retail Statement, Transport Assessment and Drainage Report.



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## THE PLANNING APPLICATION PROCESS

An application will be lodged with Perth and Kinross Council for planning permission in principle for both developments.

As part of this submission, detailed matters will be brought forward for the design and layout of the Aldi store to allow this to be developed upon the issue of the consent. A further Matters Specified in Conditions application would then be submitted by the future occupier of the retail unit to bring forward the full detail of that proposal, as indicated on the adjacent plan.

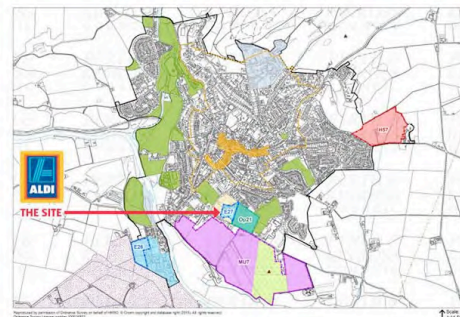


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## PLANNING POLICY - THE CURRENT SITUATION

The statutory development plan for the site is TAYplan and the Perth and Kinross Council Local Development Plan. Within the LDP the site is allocated as E27 where it is designated for General Employment Use. This allocation forms part of the wider settlement expansion area to the south of Crieff that is also intended to accommodate new housing growth, together with the development of employment land and replacement school provision.

Matters ranging from the loss of employment land and retail policy considerations will all form part of a detailed Planning and Retail Statement that will be submitted with the application. This will demonstrate that the proposals can alleviate both a quantitative and qualitative deficiency in retail provision within the local area, whilst bringing forward significant employment benefits that can outweigh the loss of this site from the land supply.



**TAYplan**  
The Strategic Development Planning Authority  
for Dundee, Angus, Perth and North Tayside



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We take great pride in the style and quality design of our stores and this proposal aims to provide a contemporary, attractive store for the community.

## DESIGN, LANDSCAPING AND ACCESS



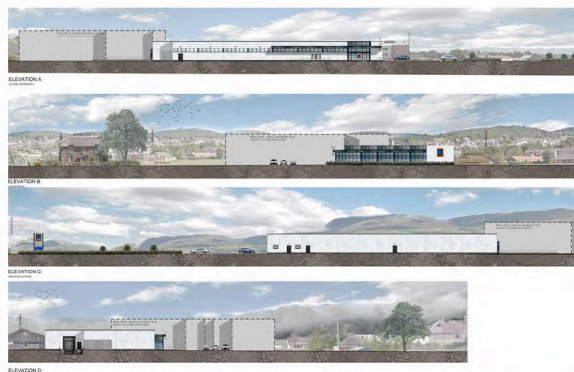
The proposed low profile, single-storey Aldi design features a high quality glazed entrance giving a clean, crisp look to the building. Within the site a mix of shrub planting will provide the area around the store with an attractive setting. The Aldi store has been carefully designed to meet, and exceed where possible, current building standards. The sustainability measures incorporated include the installation of solar panels on the roof, energy efficient LED light fittings and recycling of waste heat from the refrigeration systems. The design and appearance for the additional retail unit will be brought forward in a later application. Two example images of what this may look like are shown above.

Vehicular access to the development will be made via a new junction onto Broich Road. This junction will provide access to a shared car park for both the Aldi store and the complementary retail unit B. The design of the access would also allow the Tesco development to the west to come forward in the future. Pedestrian and cyclist access will also be available via Broich Road. The proposals include widening and resurfacing the footway along the southern boundary of the site. An additional pedestrian and cyclist access from Duchlaga Court to the north of the site is also included within the proposals.



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## NEXT STEPS



A planning application is being prepared and will be submitted to Perth & Kinross Council in the next two months. Feedback from today's exhibition will be included with the application. If successful, construction work will begin late 2016 and the store will open mid 2017.

**YOUR VIEWS MATTER - PLEASE COMPLETE A FEEDBACK FORM TODAY. THANK YOU**

For further information, please contact:  
Aldi Crieff, James Harbison & Company, 61a North Castle Street, Edinburgh EH2 3LJ  
T: 0131 225 8734 M: 07836 665236 E: jh@jamesharbison.co.uk



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<b>What do you think is the most positive aspect of our proposals? (tick any that apply)</b>
<b>Other (please give details)</b>
Competition for Co-op
We need more choice
Would create more jobs as I'm looking for a job.
As we only have 1 supermarket in Crieff would give us greater choice
Competition for Co-op
I am looking to work in Aldi: it is a great place to work and has a nice team to work with.
Delivery service - no feeble excuses about not being available at other Aldi stores. Be creative in Crieff!
Very good prospect of bringing in another food retail which can only benefit Crieff.
A very attractive prospect bringing a good quality all round store to Crieff which is much needed.
Will bring people to Crieff for benefit of all businesses and the community.
Very glad to see Aldi coming to Crieff.
Bringing in more people from around other areas.
Pleased to get the variety of choice Aldi gives. Good pricing.
Crieff needs competition to the one existing supermarket and discount store Aldi is perfect answer.
Crieff desperately needs a new store. Going into Perth is a 38 mile round trip. The people of Comrie and St Fillans would gain also.
Opposition for the Co-op as they have it all their own way.
It will be good to get food at a value for money.
I am happy with Aldi coming but sorry the location takes traffic/pedestrian from the High Street
Your great prices.
Just can't wait. No more trips to Perth for food shop.
Café! Small packets of vegetables for the elderly
Perth Aldi is a long way to travel to. 40 mile round trip.
We only shop at Aldi in Perth. This would save me going to Perth for my messages, saving petrol, so green.er
Stick to your promises. Come soon to Crieff.
More influence on safety of Broich Road
<b>Any other comments you would wish to add?</b>
We need competition for the Co-op and Primark for the young shoppers.
Main concern is traffic along Broich with three schools using this route.
Getting fed-up of shopping at Co-op as there is too many rude shoppers.
Aldi is a very nice clean store in Perth with lots of Scottish produce.
I think this would be a great store for Crieff and if M&S was to come also even greater.
Absolutely delighted that Aldi will be coming to Crieff!!!
Look forward to the new shop.
Crieff only has one supermarket - Co-op - which is expensive and service poor. Some competition is welcome and overdue.
Would be delighted if you opened in Crieff.
Very expensive the Co-op
Delighted Aldi coming to Crieff. Can't come soon enough - store plans look great.
I am currently looking for a job and see working for Aldi as a great place to work.
I regularly shop at Aldi Perth and welcome the chance to shop locally.

The quicker, the better.
dear shop!!
Road would need to be improved before going ahead.
Crieff badly needs competition for the existing Co-operative store and as soon as possible.
Delighted that Crieff will at last have some choice and believe it will bring people into the town.
Go for it - sooner rather than later. Just hope planners have the sense to approve the plan.
Would be fantastic
A decent food retail outlet will bring people to the area to shop without having to go to Perth - people of Muthill, Comrie, St Fillans and beyond.
This would be great for Crieff.
Improvement of surrounding roads to access point of store.
Aldi and good 2nd unit may contain more shoppers to Crieff.
Great for the town. Long overdue!
Looking forward to a cheaper good product store
2 concerns - traffic/pedestrian chaos on Broich Road. Unfair competition for existing excellent local baker, butcher and fishmonger.
Having Farmfoods/Iceland you would have more choice in frozen foods.
Looking forward to Aldi - Co-op has monopoly at the moment, poor selection, over priced. Poor customer service. Lack of regard for environment. Dirty car park.
Please try and cut opening time to 2016.
The new Aldi store in Crieff would be more convenient for us. More car parking and disability use.
Aldi in Crieff will be much more convient than driving to Perth.
Regularly visit Aldi at Inveralmond Perth.
If and when you have permission, start building A.S.A.P.
Crieff has had plenty of promises in the past refering to other supermarkets. Please do not make the same mistake. Sooner rather than later.
The Co-op store we have at present does not meet the demands of a place like Crieff and surrounding district. The prices at the Co-op are too high.
Aldi will provide value for money shopping!
As I depend on transport this will save time by shopping local instead of going to Perth.
Our son takes my wife to Perth once a month to Aldi, so we are forced to use the Co-operative.
Organic range please! Loose produce please!
As a family we are delighted with the quality of Aldi food and the mix of bargain offers. I have shopped at Aldi Perth, Dundee, Dunfermline (both) for years. Thank you.
An Aldi in Crieff would save me personally a 45 mile round trip every 2 weeks.
Make it soon. We need Aldi in Crieff.
We will welcome Aldi with open arms.
Please ensure that you supply in town parking for the crowds that will visit Aldi. Crieff needs business to survive and thrive.
When we heard the news it was like birthday, Christmas, all in one. All best wishes and welcome to Crieff.
We are so happy to have you. You will have good customers in Crieff.
Easy parking.
Good range in audio-visual units - CD, DVD, books - would be welcome.
Prices are rising all the time. It's no wonder people (single women on limited incomes) bus to Perth each week.
Get your shop opened quicker than 2017!
The Co-op have an efficient and helpful delivery service - will Aldi?
Think this will be great for Crieff in many ways. Love Aldis for quality and value.

Can't wait for you to open.
I also shop at Co-op in Crieff and at Marks & Spencer at Inveralmond or Dunblane.
It would be beneficial for me and for the town to have Aldis in Crieff
Very good if they continue to increase their Scottish suppliers. Not supportive of M&S due to their stance on Israeli occupation of Palestine.
Unit 'B' should not be higher than the Aldi structure. Widen Road.
As long as your products remain as competitive as at present.

"Thank you again for last night - well-received, and the view in the town continues to be extremely welcoming."

Press Release issued by Community Council

***Crieff Community Council welcomes Aldi proposals for Crieff***

*Crieff Community Council is delighted with the recent announcement by Aldi, says Community Councillor Chris McIntosh. Following the cancellation of Tesco's plans to build in Crieff, we have been pursuing Aldi to encourage them to consider Crieff for a future store.*

*Chairman Stephen Leckie commented that CCC has been in dialogue with Aldi for some time, and whilst CCC is keen to encourage town centre development, this is a wonderful opportunity and we will do all we can to ensure that good progress is made with the proposal. An additional supermarket in Crieff is long overdue, and I know the Community Council and local population will support an application of this nature. While it is not yet known who Aldi's retail partner will be, we are confident that the proposed pairing will bring a real mix of retail opportunity to the town*

*The Community Council will continue to work with Perth and Kinross Council on achieving some much needed safety improvements to Broich Road, including our request for a roundabout at the dangerous triple junction with King St & Burrell Street.*

*Prior to the detailed public consultation, Aldi will present an outline of its proposals during the next Community Council meeting on Tuesday, 12<sup>th</sup> May at 6.30 p.m. in the Strathearn Community Campus. We hope for a good attendance.*

*Ends*

28 July 2015

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# Noise Statement

## Noise Impact Assessment for a Generic New ALDI Retail Development Site

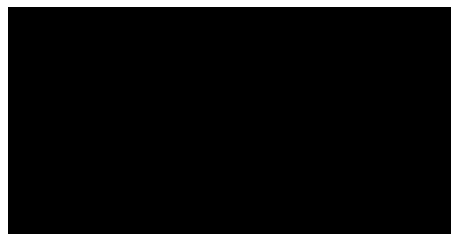
Our Reference – J2387-R2

Report compiled by: Paul Horsley MIOA

Date of Report: 17.07.15

Rev 1: 28.07.15

Rev 2: 03.08.15



**CONTENTS**

- 1.0 Proposed Aldi Store Location – Assumptions
- 2.0 Design Target Limits
- 3.0 Typical Aldi Noise Sources
  - 3.1 Car Park Noise Sources
  - 3.2 Store Service Noise Sources
  - 3.3 Fixed Plant Noise Sources
- 4.0 Mitigating Noise Control
- 5.0 Report Summary

## 1.0 Proposed Aldi Store Location - Assumptions

For the purposes of this assessment the following assumptions are applicable to any new ALDI store for which this report is to be utilized.

- Any new ALDI retail store will be located within its own bounded site.
- The proposed facility will have dedicated vehicle access formed from a main highway.
- There will be a self contained car park, generally, located at the front of the store.
- There will be a loading bay to the side of the store which incorporates either a raised loading ramp providing access directly into the store area or a loading slope down to allow ground level loading directly into the store.
- Any externally located fixed plant items will be positioned together inside a caged compound to the rear or side of the store.

## 2.0 Design Target Limits

Use has been made of the relevant National and International Standards with regards noise and limiting noise levels set for typical site plant, equipment and activities for both daytime and nighttime periods.

Based upon the limiting recommendations of WHO 1999 and PAN1/2011 the following design target noise limits have been utilized for a typical site, for the activity under consideration to a Noise Sensitive Receptor, NSR.

### 2.1 Table of Recommended Design Target Noise Limits

Period	External Noise Limits	Equivalent Internal Noise Limits
Daytime (0700 – 2300 Hrs)	LAeq, 16 Hours – 50 dB	NR 30
Night-time (2300 – 0700 Hrs)	LAeq, 8 Hours – 45 dB LAmax - 60 dB	NR 25

### 3.0 Typical ALDI Noise Sources

The noise sources likely to be introduced as a result of a new ALDI store fall into 3 main categories.

- 1 Carpark Noise
- 2 Service Yard Noise
- 3 Fixed Plant Noise

Each assessment will deal with the proposed operational or activity time period relevant to that particular source.

In the absence of finalized information the assessments will assume store trading times as follows;

Monday to Saturday 08.00 to 22.00

Sunday 09.00 to 19.00

It is also assumed that ALDI will service the store 24 hours daily.

### 3.1 Car Park Noise Sources

Noise from the customer car parking area will be assessed as commercial sources for the purpose of this assessment, and the activity associated with the noise will be restricted to the confines of the site only.

The activities of concern centre on arrival and departure of vehicles, together with associated events such as engine start-up, door slamming etc. In order to make predictions of the noise level at some distance from the car park, it is first necessary to establish reference noise levels. A series of detailed measurements have been carried out at a number of ALDI stores, the results of which are summarised in the following table. The results are based upon a distance of 1 metre, for ease of comparison.

Activity	Duration, s	LAeq,T	LAmix
Open door, get in, close door, start engine, reverse out of parking space, drive away to distance	30	73 dB	85 dB
Drive towards bay, park, switch-off engine, open door, get out and slam door shut	30	69 dB	88 dB

Calculations have been carried out to determine resultant noise levels at various distances from the activities of the carpark area.

Predicted LAeq, 1hr and LAmx façade noise levels are set out in the table below. Experience indicates that for car park usage during the trading hours, customers will seek to park as close to the store entrance as possible. The car parking spaces nearest to the store entrance have therefore been used as the datum for the predictions. For the purposes of this exercise, consideration of 10 No car parking bays in simultaneous use will be used to predict the likely noise levels at any noise sensitive receptors.

Noise Sensitive Receiver	Floor	Car Park Activity	Predicted Noise Levels	
			LAeq/1hr	LAmx
20m to NSR	Ground Floor Level	Vehicles arrive and park at bays	37 dB	62 dB
		Vehicles depart from bay	33 dB	
		<b>Cumulative</b>	<b>38 dB</b>	
40m to NSR	Ground Floor Level	Vehicles arrive and park at bays	31 dB	56 dB
		Vehicles depart from bay	27 dB	
		<b>Cumulative</b>	<b>32 dB</b>	
60m to NSR	Ground Floor Level	Vehicles arrive and park at bays	29 dB	54 dB
		Vehicles depart from bay	25 dB	
		<b>Cumulative</b>	<b>30 dB</b>	
80m to NSR	Ground Floor Level	Vehicles arrive and park at bays	25 dB	50 dB
		Vehicles depart from bay	21 dB	
		<b>Cumulative</b>	<b>26 dB</b>	
100m to NSR	Ground Floor Level	Vehicles arrive and park at bays	24 dB	49 dB
		Vehicles depart from bay	20 dB	
		<b>Cumulative</b>	<b>25 dB</b>	

Normally acceptable daytime level within an external recreational area of a residential garden is 50 dBA to avoid undue loss of amenity. The above calculations indicate that there will be no cumulative increase in background due to the carparking activities.

## **3.2 Store Service Noise Sources**

It is considered appropriate to assess noise from delivery vehicles, unloading of delivery vehicles and re-loading of empties including the movement of produce cages. The methodology underpinning the assessment of these noise sources is discussed in the following sections.

### **3.2.1 Prediction of Servicing Noise**

It is proposed that access to the store service dock will be obtained via the main highway and through the carpark entrance.

There are generally two types of deliveries to an ALDI store; Deliveries from local suppliers will take place during normal opening hours and, ALDI own vehicles, which are 2 No per day and ALDI prefer unrestricted time periods for these vehicles to allow maximum logistics flexibility.

It should be noted at this stage that there is usually only space available for 1 No vehicle to access the store service dock at any one time, therefore, if multiple deliveries are considered for a store they would be on separate occasions and as such there would be no cumulative noise associated with deliveries to the store.

Taking account of the Local Supplier deliveries, usually for bread, milk and other produce supplies, would take place during normal opening hours and take place either at the loading dock or store entrance. As such these deliveries are usually provided by smaller vehicles and would not impose any additional noise above that already assessed for general customer car park activities. No further assessment of this type of delivery will be necessary.

If we consider the ALDI own delivery vehicle, 2 per day, assumed to be an articulated lorry making use of the loading dock only, we must model the activity in full to determine if the noise generated is acceptable for out of hours periods.

For the purposes of calculations, it is taken that the delivery vehicle will approach the store along the main highway and drive towards the loading bay via the carpark in front of the store. The delivery vehicle will then continue around the carpark then reverse down the loading bay road at the side of the building such that the rear of the vehicle faces the back of house stores area. The vehicle then reverses to the dock area doors for off-loading. Upon completion of the off-loading process the vehicle drives

away from the loading dock in a forward direction, through the carpark and turning on to highway and the major road network.

It is understood that produce will be unloaded onto a dedicated loading dock inside the building. The complete offloading operation takes approximately 35 minutes.

It is taken that produce cage movements may occur during this unloading activity, however, their movements would be contained within the vehicle trailer only and not exposed to the environment as they are offloaded directly from the vehicle trailer into the store. A period of 10 minutes being considered appropriate based on observations from other comparable ALDI sites. In addition to the above, the assessment allows for a certain time of general off loading activities, such as moving plastic pallets, movement of produce, etc. A period of 10 minutes within the 1 hour assessment period has been used. Again all movements are contained within the trailer or internally within the store, with no external noise sources.

The delivery process can therefore be modelled as a number of elements, vehicle arrival, unloading and vehicle departure, internal trailer cage movements, and general off loading activities. Considering arrivals and departures, the likely path taken by the delivery vehicle has been modelled as a series of straight-line segments to approximate the path travelled by the vehicle. HGV noise emissions have been assumed as constant and independent of vehicle speed, since tyre noise is not significant in comparison to noise from the engine and exhaust. Calculations assume point source radiation as the vehicle travels along each segment, with a correction then applied to account for the time of traverse. This approach has been derived from observations of vehicle manoeuvring operations at numerous ALDI stores. Source and receiver heights of 1.5 metres and 4.5 metres respectively have been used, with the latter corresponding to the most exposed windows of the nearest NSR to the service yard.

With regard to unloading, fixed source positions have been taken for both the unloading and the transfer of goods into the store. Point source attenuation has been assumed throughout. Noise levels have been assumed as continuous throughout the entire unloading operation.

A summary of a typical unloading process for a chilled goods delivery, together with the corresponding activity noise levels is given in the table below. The data has been taken from our library of activity noise measurements obtained at numerous ALDI sites.



Note that reverse horns have not been considered for daytime deliveries and if nighttime deliveries are considered to be appropriate for the site, the reverse horns would be disabled.

### 3.2.2 Summary of noise levels for typical service dock activities (dB re: 20uPa)

Activity	Typical Event Duration	Mean Distance	LAeq	LAmx
HGV arrives and reverses to unloading dock	1 minutes	2 metres	71 dB	88 dB
Unloading of produce by pallet truck, internally within the delivery trailer to the loading dock	25 minutes	2 metres	58 dB	84 dB
General off loading activities	10 minutes	2 metres	56 dB	86 dB
HGV departs loading dock	1 minutes	2 metres	70 dB	88 dB

Using the table of data above, delivery noise predictions have been carried out for various NSR positions from this activity. The activities have been taken as a first floor window of the NSR with a direct line of sight of the loading dock road; therefore, no barrier attenuation is applicable.

The following façade noise levels are predicted taking account of the "on-Time" of the activity defaulted to 1 hour and the natural attenuation due to distance to the recipient, assuming  $20\log r$  (-6) dB. (-6dB used due to reflections off the building façade and the source not decaying in a fully free field condition for robustness purposes)

### 3.2.3 Predicted delivery/servicing noise levels (dB re: 20μPa)

Noise Sensitive Receiver	Activity	Predicted Noise Level	
		L <sub>Aeq</sub> ,60min	L <sub>Amax</sub>
NSR at 20m	HGV arrives and reverses to unloading dock	28 dB	63 dB
	Unloading of produce by forklift	30 dB	59 dB
	General off loading activities	25 dB	61 dB
	HGV departs loading dock	27 dB	63 dB
	<b>Cumulative</b>	<b>34 dB</b>	N/A
NSR at 40m	HGV arrives and reverses to unloading dock	22 dB	57 dB
	Unloading of produce by forklift	24 dB	53 dB
	General off loading activities	19 dB	55 dB
	HGV departs loading dock	21 dB	57 dB
	<b>Cumulative</b>	<b>28 dB</b>	N/A
NSR at 60m	HGV arrives and reverses to unloading dock	18 dB	53 dB
	Unloading of produce by forklift	20 dB	49 dB
	General off loading activities	15 dB	51 dB
	HGV departs loading dock	17 dB	53 dB
	<b>Cumulative</b>	<b>24 dB</b>	N/A
NSR at 80m	HGV arrives and reverses to unloading dock	16 dB	51 dB
	Unloading of produce by forklift	18 dB	47 dB
	General off loading activities	13 dB	49 dB
	HGV departs loading dock	15 dB	51 dB
	<b>Cumulative</b>	<b>22 dB</b>	N/A
NSR at 100m	HGV arrives and reverses to unloading dock	14 dB	49 dB
	Unloading of produce by forklift	16 dB	45 dB
	General off loading activities	11 dB	47 dB
	HGV departs loading dock	13 dB	49 dB
	<b>Cumulative</b>	<b>20 dB</b>	N/A

Comparison of the above calculated noise levels due to off loading at the store with the accepted noise level of 50 LAeq dB, for daytime periods at noise sensitive premises gardens indicates that noise is not an issue with respect to loss of amenity.

Comparing the nighttime accepted external noise limits of 45 LAeq dB, for nighttime periods, at noise sensitive premises indicates that noise is not an issue with respect to loss of amenity.

At distances less than 40m from the activity, there may be a possibility that the nighttime amenity of a NSR may be compromised by the LAMax dB noise levels produced, highlighted in red above. Mitigation measures may need to be considered in these situations only, based upon nighttime deliveries.

### 3.3 Fixed Plant Noise Sources

Fixed plant items associated with an ALDI development usually include refrigeration and ventilation equipment. The following plant items are installed within a wire plant cage externally to the store next to the back of house stores area.

Plant Item	Typical Location	Operational Mode
Condenser Units	Plantroom / Service Yard Area	24-Hours
General Ventilation Fans	Plantroom and Back of House Areas	Variable dependant upon area served. Usually store trading periods.

Based upon the latest ALDI plant data there will be 3 No condenser units and 1 No chiller pack on any one store. ALDI specification states these items should be selected to operate at less than 45 dBA at 10m.

The proposal is for the following:

- 1 No Arctic Circle FD unit with EC fans operating at 45 dBA at 10m daytime and 36 dBA at 10m night set.
- 3 No single compressor condenser units each operating at 45 dBA at 10m.

If we assume that these units are required to serve the chilled produce cases, then it is also feasible to assume that they would operate 24-hours on a demand basis.

Taking account of their location to a NSR, calculations show that for simultaneous operation of all 3 No units the resultant noise levels at the NSR would be as follows for both daytime periods, operating on full load, and nighttime periods with all units operating and the Arctic Circle unit on night set back.

### 3.3.1 Table of Predicted Noise Contribution Levels Due to Fixed Plant

Noise Sensitive Receptor	Daytime Operations Calculated Noise Levels dBA	Nighttime Operations Calculated Noise Levels dBA
NSR at 10m	<b>51.0</b>	<b>49.9</b>
NSR at 20m	45.0	43.9
NSR at 30m	41.5	40.4
NSR at 40m	39.0	37.9
NSR at 50m	37.0	35.9
NSR at 60m	35.4	34.3
NSR at 70m	34.1	33.0
NSR at 80m	33.0	31.9
NSR at 90m	32.0	30.9
NSR at 100m	31.0	29.9
NSR at 150m	27.5	26.4
NSR at 200m	25.0	23.9

Comparison of the above calculated noise levels due to fixed plant operations with the accepted noise level of 50 LAeq dB, for daytime periods at noise sensitive premises gardens indicates that noise is not an issue with respect to loss of amenity for distances of 20m and above.

Comparing the nighttime accepted external noise limits of 45 LAeq dB, for nighttime periods, at noise sensitive premises indicates that noise is not an issue with respect to loss of amenity, again for distances of 20m and above.

The predicted noise levels fall within the accepted noise limits for both daytime and nighttime periods and as such the plant operations should not give rise to complaints relating to noise for 20m and above.

At distances less than 20m from the plant items, there may be a possibility that the amenity of a NSR may be compromised by the plant noise levels produced, highlighted in red above. Mitigation measures may need to be considered in these situations only.

#### **4.0 Mitigating Noise Control**

Based upon the findings from the above assessments of the general activities of a new ALDI store, all activity noise levels fall below the design target limits set for the site, taking account of both National and International Standards with regard to noise levels.

As such no additional mitigating noise control measures are required for the plant equipment or activities of a typical ALDI site in order to maintain the amenity of the NSR.

Nighttime servicing of the store where a NSR is located at a distance of 40m or less may require additional mitigation measures to ensure that the LAMax dB limit is not exceeded.

Mitigation may be required for situations where a NSR is located at a distance of 20m or less from the plant to ensure that the proposed limits are not exceeded.

Mitigation measures are a bespoke item for each site where they are considered necessary and would need to be assessed individually to ensure that the correct level of mitigation has been selected to suit.

## 5.0 Report Summary

Any new ALDI store introduces noise sources to an area. This report has assessed the potential noise sources likely to be introduced into an area as a consequence of a typical ALDI development.

Use has been made of the relevant National and International Standards with regards noise and limiting noise levels set for typical site plant, equipment and activities for both daytime and nighttime periods.

Based upon the limiting recommendations of WHO 1999 and PAN1/2011 the following design target noise limits have been utilized for a typical site, for the activity under consideration to a Noise Sensitive Receptor, NSR.

**Table of Recommended Design Target Noise Limits**

<b>Period</b>	<b>External Noise Limits</b>	<b>Equivalent Internal Noise Limits</b>
Daytime (0700 – 2300 Hrs)	LAeq, 16 Hours – 50 dB	NR 30
Night-time (2300 – 0700 Hrs)	LAeq, 8 Hours – 45 dB L <sub>Amax</sub> - 60 dB	NR 25

Impact noise assessments have been carried out for the prime sources associated with a typical ALDI development. These sources include noise associated with carparking activities, servicing noise and fixed plant and equipment noise. It has been concluded that the noise from all of these sources, following development, are not likely to have a detrimental effect or unduly impact on the amenity of an NSR at a distance of 40m or greater from the activity for both daytime or nighttime operations as the design target limits have been demonstrated as being achieved.

Mitigating noise control will not be necessary for the plant, equipment or activities of a typical ALDI store. However, with distances less than 40m from the service dock, it may necessary to consider the need for mitigation measures to achieve the proposed design target noise levels only if nighttime servicing is required at the store. Distances of less than 20m from the plant area may require mitigation measures to ensure that the amenity of the NSR is not compromised.





**TCP/11/16(398)**

**Planning Application – 15/01354/IPL – Erection of two units (class 1) and associated works (in principle), including full details of one retail unit, car parking, landscaping and associated works, land 50 metres east of Duchlage Farm, Duchlage Road, Crieff**

## **REPRESENTATIONS**



SUPPORT

**Tracy McManamon**

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**From:** Jean Ann Scott Miller <[REDACTED]>  
**Sent:** 27 August 2015 13:24  
**To:** Development Management - Generic Email Account  
**Cc:** Stephen Leckie; Marilyn Bibby  
**Subject:** Planning application Ref. 15/01354/IPL - Erection of foodstore, car parking, access, landscaping and other works (in principle) Land 50 metres east of Duchlage Farm, Broich Road, Crieff

Dear Sir,

I write on behalf of Crieff Community Council.

We warmly welcome this application. We believe that Aldi's proposal to develop their own and another Class 1 retail store, intended for a high-end retail partner, will be of huge economic and social benefit to Crieff, providing needed retail expansion, and a pairing which will both retain local custom in the town and encourage people from the wider Strathearn area to shop here. We hope that this important application will be supported by the Development Management Committee, and ask that we may have the opportunity to address the Committee when the application is considered.

Yours faithfully,  
Jean Ann Scott Miller  
Secretary  
Crieff Community Council  
c/o Perth and Kinross Council  
North Bank Building  
James Square  
CRIEFF  
PH7 3EY

ENTERED IN COMPUTER

27 AUG 2015



**Ms anne patrick (Supports)**

**Comment submitted date: Fri 28 Aug 2015**

This will bring economic development to Crieff which is badly needed at this time.



Tracy McManamon

15/01354/1PL SC2

**From:** Service Centre  
**Sent:** 28 August 2015 15:56  
**To:** Development Management - Generic Email Account  
**Subject:** Comment Planning and Building - Ref No - 101001735989

Please see web enquiry received below:-

I would like to register my support for the Planning Application by Aldi for retail units in Crieff. We live 16 miles from Crieff and have only the Co-op to provide a major shop. To be honest this shop is not very well run and their pricing sometimes leaves a lot to be desired.

Aldi have shown their commitment to supplying Scottish sourced vegetables, fruit and meats at consistently very good prices and would therefore be a valuable asset to the commercial sector of Crieff and its surrounding area. It would be a very sorry day if this planning application was refused especially when a survey of residents came out 100% in favour of the new store. That, I think, speaks for itself.

Enquirer's details are: - Mr Fraser Ballantyne, Allt - an - Fhionn Lodge, St Fillans, PH6 2NG Tel: - [REDACTED]  
[REDACTED]

Please respond via email.  
Regards

Jill  
Customer Service Advisor  
Pullar House  
35 Kinnoull Street  
PERTH  
PH1 5GD

Tel 01738 475000

Email [enquiries@pkc.gov.uk](mailto:enquiries@pkc.gov.uk)

ENTERED IN COMPUTER

- 3 SEP 2015





**Mr James Bisset (Supports)**

**Comment submitted date: Fri 28 Aug 2015**

A much needed facility for the residents of Crieff and environs.



**Tracy McManamon**

---

**From:** Johnston brown [REDACTED]  
**Sent:** 30 August 2015 14:13  
**To:** Development Management - Generic Email Account  
**Subject:** 15/01354/IPL Comment From St Fillans Community Council

Dear Sirs

Letter of support

**15/01354/IPL | Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works | Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff**

St Fillans Community Council, having taken soundings from the villagers of St Fillans, fully supports the application by Aldi to develop a store in Crieff alongside another Class 1 retail store. At present St Fillans Villagers have only one equivalent retail outlet within 15 miles of St Fillans. To have competition in Crieff for the existing outlet would be beneficial to St Fillans Villagers who currently only have the further option of travelling a much longer distance into Perth or Stirling.

The proposed development would therefore provide both competition and savings in petrol and time, as well as bringing additional employment into the Crieff area.

On Behalf of St Fillans Community Council

Frances M Brown

Community Counsellor  
Alva  
1 Dundurn Walk  
St Fillans  
Crieff  
PH6 2NA  
[REDACTED]





**Mr Richard Graham (Supports)**

**Comment submitted date: Mon 31 Aug 2015**

Only 100 characters? I fully support. No choice other than CoOp within 30 miles. Employment + choice





Support (Graham)

**Tracy McManamon**

---

**From:** Richard Graham [REDACTED]  
**Sent:** 31 August 2015 15:16  
**To:** Development Management - Generic Email Account  
**Subject:** Application 15/01354/IPL

Dear Sir,

I have left a comment on the Make a Comment area of your planning site, but was surprised that it allowed me only 100 characters - barely enough for a sentence.

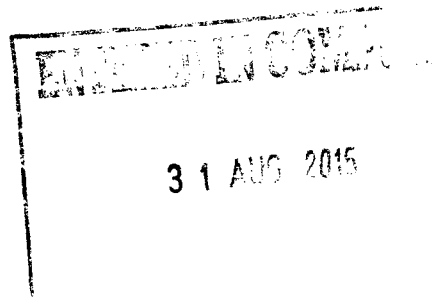
I fully support the application for an Aldi and another high end retail outlet in Crieff and I will give my reasoning below.

The compelling argument for those of us in rural Perthshire, in my case St Fillans, is that there are very few mid to large sized retail outlets available to us. Within 30 miles of St Fillans there is only the small Co-Op already operating in Crieff, other than that we must travel to Perth or Stirling. This position offers no choice for us and no competition for the Co-Op, which is not a good position. When there is choice or competition, standards, offers and choice to the consumer all increase because if they do not, the outlets market share inevitably reduces.

The second compelling case is for the generation rural employment. It is hard enough to find jobs in the countryside and this will offer that opportunity. The knock on for the local authority is a reduction in ammount that the state has to provide for those out of work, and of course a commercial outlet generates income in the form of Tax, Vat, and NI for employees, etc.

For those reasons I fully support the application.

Richard Graham.  
Lochearnside,  
St Fillans, PH62NF  
[REDACTED]





**Dr Donald Forrester (Supports)**

**Comment submitted date: Tue 08 Sep 2015**

Dear Sirs

We write in support of Aldi's planning application for a retail store in addition to a high end retail unit in Crieff. We are residents of St Fillans, so have 15 miles to travel to the existing supermarket in Crieff. The Co-op is small, has a very limited choice of products and is quite expensive. This results in us having to make at least weekly sixty-mile round trips to either Perth or Stirling to facilitate a reasonable choice of foods.

We understand that Tesco has made it very clear that due to the economic climate, they are no longer planning to build a store in Crieff. The presence of an Aldi supermarket would give a much needed boost to the local economy, whilst also providing additional local employment. It would also provide much needed competition for the Co-op which can only be of benefit to the residents of Crieff and surrounding villages.

Yours sincerely

Donald and Patricia Forrester



2nd letter from same household

15/01354/1 PL

SC

**Tracy McManamon**

---

**From:** Gordon Campbell - [REDACTED]  
**Sent:** 09 September 2015 14:28  
**To:** Development Management - Generic Email Account  
**Subject:** Aldi

I am in total favour of the plans I have seen for the Aldi store in Crieff. I hope their planning application will be approved in full.

Gordon Campbell  
18 Hebridean Gardens  
Crieff  
PH7 3BP





SC.

Tracy McManamon

---

**From:** [REDACTED]  
**Sent:** 09 September 2015 22:29  
**To:** Development Management - Generic Email Account

15/01354/IPL - Erection of foodstore, car parking, access, landscaping and other works (in principle) |  
Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff

I am in full support of Aldi Supermarkets proposals to open a store in Crieff. It will create jobs, bring fresh competition and hopefully kick-start the retail business in the town. Crieff is an expanding town and to have another supermarket (especially a budget one) can only be a positive. I really hope this goes ahead.

Ross Brock  
56a King Street  
Crieff  
PH7 3AX

Sent by Outlook for Android







REDACT

15/01354/IAL

SC

**Tracy McManamon**

---

**From:** sandra Campbell [REDACTED]  
**Sent:** 09 September 2015 14:56  
**To:** Development Management - Generic Email Account  
**Subject:** Fwd: Aldi's plans for Crieff

I confirm that I have viewed the plans for an Aldi store in Crieff and completely endorse them.

Sandra Campbell



**Mrs S Graham (Supports)**

**Comment submitted date: Wed 09 Sep 2015**

This development could bring much needed employment to the town. At the moment, I shop at Aldi's in Perth because of good prices and the range of fresh produce. If an Aldi came to Crieff, I would DEFINITELY shop there, without a doubt. Family members who live in Comrie would also shop in a Crieff Aldi. This application is good all round.



Sc

15/01354/1PL

**Tracy McManamon**

---

**From:** leanne marshall [REDACTED]  
**Sent:** 10 September 2015 10:47  
**To:** Development Management - Generic Email Account  
**Subject:** RE: Also store in Crieff

Good Morning Tracy

My address is 9 Johnstone Court, Crieff, PH7 3BA

Regards

Leanne Marshall

Sent from my Windows Phone

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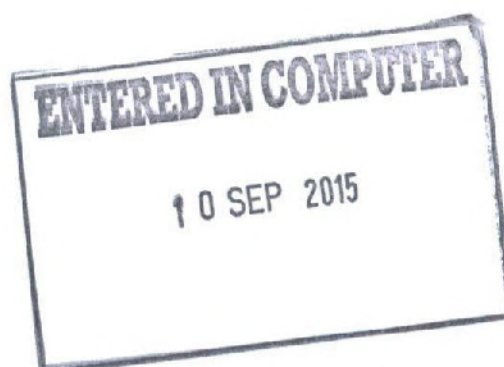
**From:** Development Management - Generic Email Account  
**Sent:** 10/09/2015 10:04  
**To:** 'leanne marshall'  
**Subject:** RE: Also store in Crieff

Dear Ms Marshall

To enable us to register your comments we will need your full postal address including postcode.

Regards

Tracy McManamon  
Senior Support Assistant  
Planning and Development  
35 Kinnoull Street  
Perth  
PH1 5GD



---

**From:** leanne marshall [REDACTED]  
**Sent:** 10 September 2015 08:57  
**To:** Development Management - Generic Email Account  
**Subject:** Also store in Crieff

15/01354/IPL - Erection of foodstore, car parking, access, landscaping and other works (in principle) | Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff

Dear Sir/Madam

I am writing to show my support for the above proposed development in Crieff.

As a resident of the area I believe that it will benefit Crieff and the surrounding areas massively.

Kind regards

Leanne Marshall

Sent from my Windows Phone

Securing the future... - Improving services - Enhancing quality of life - Making best use of public resources.

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General enquiries to Perth & Kinross Council should be made to [enquiries@pkc.gov.uk](mailto:enquiries@pkc.gov.uk) or 01738 475000.

General enquiries to Live Active Leisure Limited should be made to [enquiries@liveactive.co.uk](mailto:enquiries@liveactive.co.uk) or 01738 454600.

General enquiries to TACTRAN should be made to [info@tactran.gov.uk](mailto:info@tactran.gov.uk) or 01738 475775.

Securing the future... - Improving services - Enhancing quality of life - Making best use of public resources.



## Comments to the Development Quality Manager on a Planning Application

<b>Planning Application ref.</b>	15/01354/IPL	<b>Comments provided by</b>	Diane Barbary
<b>Service/Section</b>	Conservation	<b>Contact Details</b>	<a href="mailto:DianeBarbary@pkc.gov.uk">DianeBarbary@pkc.gov.uk</a> 75357
<b>Description of Proposal</b>	Erection of foodstore, car parking, access, landscaping and other works		
<b>Address of site</b>	Land 50m east of Duchlage Farm, Duchlage Road, Crieff		
<b>Comments on the proposal</b>	<p>Duchlage House is a category B listed farmhouse, dating to the early 1800's, and incorporating earlier fabric. There are associated agricultural buildings to the north and east of the farmhouse, and a u-plan steading range to the immediate north east, which is visible at least in part on the 1<sup>st</sup> edition Ordnance Survey plan (1866). Although dilapidated, it is a good quality rubble-built steading with original arched openings to the east range. It has been heavily altered over time, with corrugated sheet roofing in places and later brick additions, but it retains a significant degree of historic character and interest. As it is within the curtilage of the farmhouse, the steading range is also protected by the category B listing.</p> <p>The current application is for the erection of two retail units in principle, with associated landscaping and car parking to the north and east of Duchlage Farmhouse. This would require the demolition of the agricultural buildings associated with Duchlage House, including the listed steading. In order to approve the demolition, an application for listed building consent would have to be submitted with full supporting information to indicate that (as set out in the Scottish Historic Environment Policy):</p> <ul style="list-style-type: none"> <li>a. the building is not of special interest; or</li> <li>b. the building is incapable of repair; or</li> <li>c. the demolition of the building is essential to delivering significant benefits to economic growth or the wider community; or</li> <li>d. the repair of the building is not economically viable and that it has been marketed at a price reflecting its location and condition to potential restoring purchasers for a reasonable period.</li> </ul> <p>Notwithstanding this lack of supporting information in relation to the proposed demolition, the layout proposed in the current application is likely to have a severely detrimental impact on the setting of Duchlage House. The proposed 1.8m close-boarded fence is in extremely close proximity to the north and east elevations of the farmhouse, and would effectively sever it from its existing context and setting. Policy HE2 sets out that there is a presumption in favour of the sensitive management of listed buildings, which</p>		

	<p>includes not just the asset itself, but also its setting. Historic Scotland guidance on setting (Managing Change in the Historic Environment) states that “setting” is the way in which the surroundings of a historic asset contribute to how it is experienced, understood and appreciated. It further sets out that:</p> <p><b>If proposed development is likely to impact on a setting, an objective written assessment should be prepared by the applicant to inform the decision-making process. The conclusions should take into account the significance of the historic asset and its setting and attempt to quantify the extent of any detrimental impact... In the light of the assessment described above, finalised development proposals should seek to avoid or mitigate detrimental impacts on the settings of historic assets. (p.2)</b></p> <p>The potentially severe impact on the listed building group does not appear to have been fully considered as part of the development of the current proposal, which is unacceptable in this respect.</p> <p>The large mature sycamore to the south of the farmhouse has significant amenity value, and its protection should be incorporated into consideration of any future development within or adjacent to the site.</p>
<b>Recommended planning condition(s)</b>	
<b>Recommended informative(s) for applicant</b>	
<b>Date comments returned</b>	11.09.2015

Sc.

**Tracy McManamon**

---

**From:** Douglas Buchan [REDACTED]  
**Sent:** 11 September 2015 12:34  
**To:** Development Management - Generic Email Account  
**Subject:** 15/01354/IPL - Erection of foodstore, car parking, access, landscaping and other works (in principle) | Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff

I am writing on behalf of my wife and myself in support of Aldi's plan for the new food-store in Crieff.

Douglas Buchan

[REDACTED]  
Clickham,  
Milnab Terrace,  
Crieff  
PH7 4ED





Foulford,  
By Crieff,  
Perthshire.

PH7 3LN

10/9/15

Planning Ref: 15/01354/IPL

Dear Sir,

The members of East Strathearn Community Council would like to confirm their support for the above application. There is a strong feeling among our local community that this development is very welcome; it would give local residents a much-needed choice of retail opportunities in the immediate area. It may well encourage residents from further afield to shop in Crieff, rather than Perth or Stirling and this can only be good for all businesses in the town. The developer seems to be determined to progress this application, which is a positive step forward compared to the years of prevarication by Tesco. We look forward to a positive decision by planners and elected members.

Yours faithfully,  
Maureen Beaumont. (Chair – East Strathearn CC)



Sc.

## Tracy McManamon

---

**From:** [REDACTED]  
**Sent:** 11 September 2015 20:37  
**To:** Development Management - Generic Email Account  
**Subject:** Re: New Aldi Store in Crieff, Perthshire, Scotland

Dear Ms McManamon  
My full postal address is:-  
Kintyre  
Kintyre Lane  
Comrie  
Ph6 2Dg

Kind regards  
Karen Brown

Sent from my iPhone

On 10 Sep 2015, at 09:44, Development Management - Generic Email Account  
<[DevelopmentManagement@pkc.gov.uk](mailto:DevelopmentManagement@pkc.gov.uk)> wrote:

Dear Ms Brown

To enable us to register your comments we will need your full postal address including postcode.

Regards

Tracy McManamon  
Senior Support Assistant  
Planning and Development  
35 Kinnoull Street  
Perth  
PH1 5GD

Telephone 01738 475334

<image001.jpg><image002.jpg>

**From:** Holly B [[mailto:\[REDACTED\]](mailto:[REDACTED])]  
**Sent:** 09 September 2015 17:14  
**To:** Development Management - Generic Email Account  
**Subject:** New Aldi Store in Crieff, Perthshire, Scotland

Dear sirs

I am writing to add my support towards the planning application and a successful outcome for the building of a new Aldi Store on Duchlage Road, Crieff, to get the go ahead.

Kind Regards



Karen Brown .

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SC.

**Tracy McManamon**

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**From:** [REDACTED]  
**Sent:** 12 September 2015 10:29  
**To:** Development Management - Generic Email Account  
**Subject:** [MAYBE SPAM] Aldi store

15/01354/IPL - Erection of foodstore, car parking, access, landscaping and other works (in principle) | Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff

In support of the above application to bring Aldi to Crieff.

Regards  
Charles RM Roy  
3 Ancaster Way  
Muthill PH5 2AG



**Tracy McManamon**

---

**From:** [REDACTED]  
**Sent:** 13 September 2015 10:27  
**To:** Development Management - Generic Email Account  
**Subject:** Aldi store Crieff

Dear Sir / Madam

I would like to express my support for the proposal of an Aldi store here in Crieff. Crieff desperately need a store like this after waiting all these years for a Tesco Store which never happened. The chance to do grocery shopping from another store other than the Co-op would be extremely welcome as the Co-op is so expensive. Aldis would also bring some much needed employment opportunities to Crieff

Regards,  
Ellen Low  
Crieff



## Tracy McManamon

---

**From:** Isobel McEwan [REDACTED]  
**Sent:** 13 September 2015 14:46  
**To:** Development Management - Generic Email Account  
**Subject:** support for Aldi's application

I would like to add my support for Aldi's application for the erection of a foodstore in Crieff. At the moment we only have one supermarket therefore very little choice. A town the size of Crieff should be better served. The alternative is to go through to either Perth or Stirling which can be costly with fuel expenses or for those without private transport reliant on the bus service.

Yours in hope,  
Isobel McEwan





SC

**Tracy McManamon**

---

**From:** Me 99 [REDACTED]  
**Sent:** 13 September 2015 21:22  
**To:** Development Management - Generic Email Account  
**Subject:** 15/01354 Aldi store Crieff

I wanted to request the approval of Aldi's planning application. I believe having an Aldi store in Crieff will ensure more local shoppers, both at the Aldi store and consequently the rest of the town. It will also bring much needed employment to the area.

I am really hoping Aldi will get your approval.

Marian Burns  
55 Tay Avenue  
COMRIE  
PH6 2PF

[REDACTED]

Sent from my iPad



# Memorandum

To	Development Quality Manager	From	Regulatory Service Manager
Your ref	15/01354/IPL	Our ref	MP
Date	14 September 2015	Tel No	01738 476415

The Environment Service

Pullar House, 35 Kinnoull Street, Perth PH1 5GD

## **Consultation on an Application for Planning Permission**

**RE: Erection of food store, car parking, access, landscaping and other works (in principle) Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff for Aldi Stores Ltd**

I refer to your letter dated 25 August 2015 in connection with the above application and have the following comments to make.

**Environmental Health** (assessment date – 14 September 2015)

### **Recommendation**

**I do not believe that sufficient information has been provided to demonstrate that in terms of Noise and Air Quality this is a suitable location for the proposed development.**

### **Comments**

This supermarket application located in Crieff has the potential to affect the amenity of local residential receptors due to noise and the air quality impacts, particularly the High Street corridor which has recently been declared an Air Quality Management Area. Each of these issues is discussed separately below.

This site is directly adjacent to the site of application 08/01955/FLM for a Tesco store with provision for 258 parking spaces and an associated service yard. It is understood that this application is still current, but it is unknown whether Tesco intend to proceed or whether another supermarket will occupy this land. I am very concerned about the potential for cumulative effects to arise for both noise and air quality, therefore clarification of this issue is required.

### **Noise**

In support of this application, a generic Noise Statement was submitted, general to Aldi Stores. It describes impacts from the car park, fixed plant and deliveries at a variety of fixed distances, beginning at 20m for both car park and service yard noise. The fixed plant is located around 60 metres from receptors at Duchlage Court and should be acceptable at that distance, however if considered cumulatively with the adjacent site, may become an issue.

I am more concerned about the noise from deliveries particularly since the Noise Statement says "ALDI prefer unrestricted time periods for these vehicles to allow maximum logistics flexibility", meaning there could be overnight deliveries which may disturb sleep particularly at Duchlage Court located only 15 metres away. At 20 metres predicted L<sub>max</sub> levels were

63dBA, I would anticipate it being around 3dBA higher at 15 metres which would lead to internal levels above those recommended by the World Health Organisation to prevent sleep disturbance.

Due to this and the generic nature of the noise assessment, I would not be able to support this until a more detailed noise impact assessment was conducted, tailored to this site. As this is only an in principal application, I am content that this be done at the Approval of Matter stage should this application proceed. I would advise that any future noise impact assessment should be done in line with BS4142:2014 and any required mitigation measures should be recommended and quantified.

### **Air Quality**

Perth and Kinross Council have a statutory duty under the Environment Act 1995 to review and assess air quality within their area. Under these duties the High St Corridor of Crieff was declared an AQMA recently, however the Air Quality Action Plan which accompanies this has not yet been prepared.

This application contains provision for 183 parking spaces, which has the potential to lead to increased traffic flow throughout Crieff and hence a degradation of air quality. The widely used guidance document by Environment Protection UK titled *Development Control: Planning for Air Quality* recommends any development which introduces 50 parking spaces within an AQMA or 100 out with, requires an air quality assessment to be conducted. That publication has been updated and contains more stringent standards but has not yet been adopted in Scotland.

The aforementioned Tesco planning application had an air quality assessment conducted in support, the latest iteration of which was 2011 and this predicted no major increase in NO<sub>2</sub> or PM<sub>10</sub> in Crieff. Given this was done 4 years ago, plus there is a major planning application to the south of this one for 400 houses and there exists a consented supermarket site nearby, I believe air quality should be considered as part of this application and cannot support this application until this is done.

### **Contaminated Land** (assessment date – 07/09/2015)

#### **Recommendation**

**I have no objection in principle to the application but recommend the under noted conditions be included on any given consent.**

#### **Comments**

A previous land use that has led to the contamination of a site is generally identifiable from historical records. However consideration needs to be given to situations where this is not so apparent and there is the potential for contamination to cause a constraint in the redevelopment of specific sites. A good example of this is where there is a proposed use change from agricultural to residential.

Under the contaminated land research programme administered by the Department of the Environment, Food and Rural Affairs, Science Reports 2, 3, and 7 set out the framework for deriving Soil Guideline Values or SGV's for proposed changes in land use and sets targets based on the sensitivity of receptors and the land use function. Originally these soil guideline values were restricted to what was considered to be "priority pollutants" but the research programme has now been extended to include other contaminants and respective toxicological data. These soil guideline values are based on risk evaluation in specific

circumstances which are a standard function of land use i.e. residential with plant uptake, residential without plant uptake and commercial and industrial.

The most sensitive land use recognised by the soil guideline values is “residential with gardens”, where there is likely to be a greater contact between those at risk, in this case the residents and any contaminants contained within the soil. SGV’s for this land use type are therefore at their most conservative and the potential for contaminants to be present and cause a constraint to development are greater.

Potentially there are a range of contaminants that could be present in agricultural land. This is particularly true of areas used as farmyards which may have contained a variety of buildings that have been put to a number of uses. Aside from the likely presence of made ground any number of chemicals could have been used and potentially leaked or been spilled. The risks associated with this remain difficult to quantify until there has been some form of sampling and chemical analysis of the soils contained within the development area. This will help determine the suitability of the site for the proposed development and whether any measures are needed to mitigate against any risks that have been identified.

### **Condition**

Prior to the commencement of works on site, an evaluation for the potential of the site to be affected by contamination by a previous use should be undertaken and as a minimum, a Preliminary Risk Assessment (Phase 1 Desk Study) will be submitted for consideration by the Council as Planning Authority. If after the preliminary risk assessment identifies the need for further assessment, an intrusive investigation should be undertaken to identify;

- I. the nature, extent and type(s) of contamination on the site
- II. measures to treat/remove contamination to ensure the site is fit for the use proposed
- III. measures to deal with contamination during construction works
- IV. condition of the site on completion of decontamination measures.

Prior to the completion or bringing into use of any part of the development the agreed measures to decontaminate the site shall be fully implemented as approved by the Council as Planning Authority. Validation that the scheme has been fully implemented must also be submitted to the Council as Planning Authority.



SC

**Tracy McManamon**

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**From:** Claire [REDACTED]  
**Sent:** 15 September 2015 10:25  
**To:** Development Management - Generic Email Account  
**Subject:** ALDI APPLICATION (15/01354/IPL)

35 Inchbrakie drive  
Crieff  
Ph7 3ss

I am writing to support Aldi coming to Crieff. It will be a fantastic investment to the area and give local people value you for money on their shopping.

Claire macdonald







2nd comment from same household

SC

**Tracy McManamon**

---

**From:** david macdonald [REDACTED]  
**Sent:** 15 September 2015 21:10  
**To:** Development Management - Generic Email Account  
**Subject:** ALDI APPLICATION (15/01354/IPL)

35 Inchbrakie Drive  
Crieff  
Ph73ss

To Whom It May Concern:

I am writing to support Aldi coming to Crieff. I think it will be a great asset to the Town, providing jobs and good value produce for all.

It will also bring down fuel costs, as we (people of Crieff) won't have to travel 15 miles (each way) to Perth.

Regards,

David Macdonald





SC

**Tracy McManamon**

---

**From:** Graham Donaldson [REDACTED]  
**Sent:** 15 September 2015 10:30  
**To:** Development Management - Generic Email Account  
**Subject:** ALDI APPLICATION (15/01354/IPL)

Dear Sirs,

I write in support of the ALDI APPLICATION (15/01354/IPL) to build in Crieff.

Crieff has a great lack of food retailers and we desperately require a new supermarket in Crieff.

At present a lot of local people from Crieff drive to Perth and Stirling to do their grocery shopping and this leakage of money from the town has a knock on effect on the rest of the retailers in Crieff, this is very bad for the local economy. The extra driving is also having a detrimental effect on the environment and is adding to congestion problems in Perth and Stirling.

I write as a local resident my address is

Graham Donaldson  
Gwydyr Cottage  
Gwydyr Road  
Crieff  
PH7 4BS

I also write as a local Crieff retailer

Graham Donaldson  
Gordon and Durward  
14 West High St  
Crieff  
PH7 4DL





Sc

## Tracy McManamon

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**From:** Jane Murrell [REDACTED]  
**Sent:** 15 September 2015 10:05  
**To:** Development Management - Generic Email Account  
**Subject:** Aldi application (15/01354/IPL)

Dear Sirs,

I refer to the application by Aldi for a store here in Crieff.

My family and I support this application as we feel there are lots of benefits to the town and surrounding areas, but especially myself as I am the one that does most of the shopping!

Personally I will shop much more in Crieff at Aldi rather than travelling to Perth or using a delivery service from a Perth supermarket. It is a pain having to decide a week in advance of what I'm going to cook or need then getting home and realising I've forgotten something. And many of my friends have agreed they will do the same.

Other benefits to the town include more jobs locally which may mean less travelling for some people plus Aldi pays well. Having a decent supermarket here in Crieff will also make it a shopping destination from surrounding areas rather than just driving through to go to Perth - for example St Fillans, Comrie, Lochearnhead, Amulree residents will be able to shorten their shopping journeys - time saving for them and good for the environment. But also when you tend to travel a distance to do the food shopping you tend to get other things at the same time - greetings cards, presents, have a coffee or lunch, browse the local shops . . . these people can be doing this in Crieff not Perth.

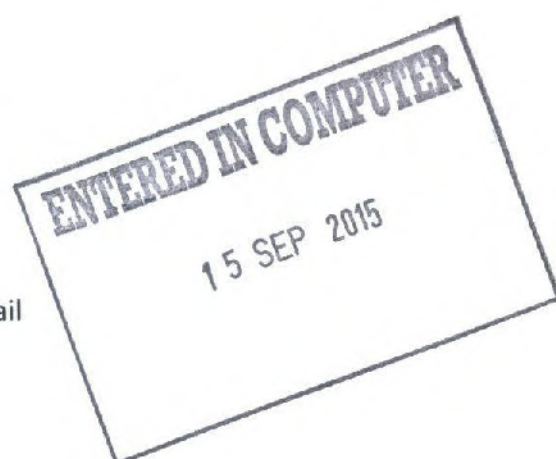
For those that say 'What about our local shops like the butcher, fishmonger, deli and green grocers?' Well I say that if you use those shops anyway you will continue to do so - I use the Handyshop for the majority of my fruit and veg and will do when Aldi comes to Crieff. But again there will be a bigger footfall of shoppers coming to Crieff who will discover our local shops too.

I have not met a single person that is against Aldi coming to Crieff and after the Tesco/ Sainsbury fiasco it cannot come soon enough.

Yours Sincerely

Mrs Jane Murrell  
32 Inchbrakie Drive  
Crieff  
Perthshire  
PH7 3SS

Sent from Windows Mail







5c  
**Tracy McManamon**

---

**From:** IAN MCGREGOR <[REDACTED]>  
**Sent:** 16 September 2015 09:13  
**To:** Development Management - Generic Email Account  
**Subject:** Re: RE: 15/01354/IPL - Erection of foodstore etc Duchlage Farm Duchlage Road Crieff

Tracy

My address is 15 Strathview Place, Comrie, Crieff PH6 2HG.

Iain

-----Original message-----

**From :** [DevelopmentManagement@pkc.gov.uk](mailto:DevelopmentManagement@pkc.gov.uk)

**Date :** 15/09/2015 - 15:32 (GMTST)

**To :** [REDACTED]

**Subject :** RE: 15/01354/IPL - Erection of foodstore etc Duchlage Farm Duchlage Road Crieff

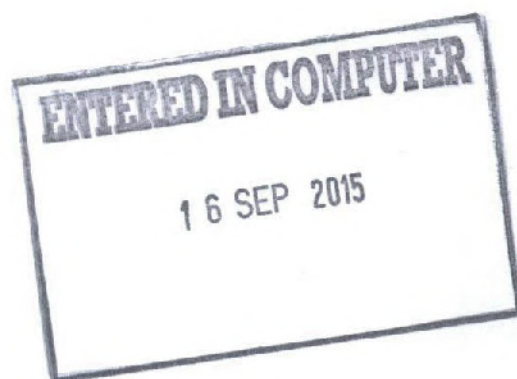
Dear Mr McGregor

To enable us to register your comments we will need your full postal address including postcode.

Regards

Tracy McManamon  
Senior Support Assistant  
Planning and Development  
35 Kinnoull Street  
Perth  
PH1 5GD

Telephone 01738 475334



**From:** IAN MCGREGOR <[REDACTED]>  
**Sent:** 15 September 2015 13:56  
**To:** Development Management - Generic Email Account  
**Subject:** 15/01354/IPL - Erection of foodstore etc Duchlage Farm Duchlage Road Crieff

I am all for the above development. It would re-energize the town and avoid the necessity of travel to Perth for general groceries. I use the Co-op less and less as in my view it is not well run, has limited lines and horrendous car park (I know it doesn't belong to the Co-op.

Iain Macgregor  
Comrie

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SC2.

ENTERED IN COMPUTER

28 SEP 2015

RECEIVED

28 SEP 2015

50, BRIGH TERRACE  
CRIEFF

PH73BE

DATE 24TH SEPTEMBER.

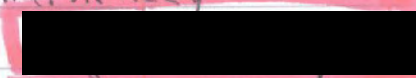
2015

DEAR SIR/MAJAM,

I AM WRITING TO SUPPORT 'ALDI'S' PLAN  
FOR A NEW STORE IN CRIEFF.

I QUOTE THE FOLLOWING REFERENCE DETAILS  
'IE- 15/01354/1PL - ERECTION OF FOODSTORE,  
CAR PARKING ACCESS, LANDSCAPING AND OTHER WORKS  
(IN PRINCIPLE) LAND 50 METRES EAST OF DUCHLAGE FARM  
DUCHLAGE ROAD CRIEFF.

YOURS FAITHFULLY

  
(JAMES DOUGLAS)







To:	Steve Callan, Planning Officer
From:	Sarah Winlow, Heritage Officer (Maternity Cover)
Tel:	01738 477080
Email:	SWinlow@pkht.org.uk
Date:	24 <sup>th</sup> September 2015

**15/01354/IPL: Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff for Aldi Stores Ltd**

Thank you for consulting PKHT on the above application. The area proposed for development is considered archaeologically sensitive given its location on the terrace above the River Earn to the south of the town of Crieff. In brief, this area appears to have been a focus for prehistoric ceremonial and funerary activity. It is one of half a dozen clusters of such sites with Perthshire. It includes the Broich cursus - a ceremonial enclosure, orientated north-south that was defined by a ditch and bank roughly 800 m long and 100-150m wide, and that excavation has shown went out of date in the mid Neolithic, some 4600 years ago. Until archaeological work took place on the new Primary School site – adjacent to the development site – this density of archaeological sites was thought to centre around the cursus, and the two sites removed in the 19<sup>th</sup> and 20<sup>th</sup> centuries - the Broich Road standing stone and the Stayt of Crieff, a large prehistoric burial mound, later used as a meeting place for the court of the Earls of Strathearn in the medieval period.

However a programme of archaeological works in advance of the construction of the Primary School revealed two quite different Bronze Age cemeteries; one consisting of three urn burials and at least three cremation burials and a second, larger cemetery made up of five cists and five further cremation burials. These burials were grouped in and around a circular feature, 14m in diameter, defined by large oval pits and postholes. The excavator considered these features to have been covered by cairns, which have been removed by ploughing. The scientific dates for the cemeteries have yet to be received but typologically, from the styles of ceramic found, both these cemeteries appear to date from the Early Bronze Age, between 2000 – 1500 BC.

Whilst it is recognised that much of the development site is currently occupied by 19<sup>th</sup> and 20<sup>th</sup> century farm buildings and associated infrastructure, there are areas that do have potential for subsurface archaeological deposits. Given the significant results in its vicinity, there is a need to assess the presence / absence, significance and condition of any archaeological deposits within the development site.

**Recommendation:**

In line with Scottish Planning Policy historic environment section (paragraphs 135-137 and 150), it is recommended that the following condition for a programme of archaeological works be attached to consent, if granted:

*No development shall take place within the development site as outlined in red on the approved plan until the developer has secured the implementation of a programme of archaeological works in accordance with a Written Scheme of Investigation which has been submitted by the applicant, agreed by Perth and Kinross Heritage Trust, and approved by the Planning Authority. Thereafter the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the*

*development site is undertaken to the satisfaction of the Planning Authority in agreement with Perth and Kinross Heritage Trust.*

Notes:

- 1. Should consent be given, it is important that the developer, or his agent, contact me as soon as possible. I can then explain the procedure of works required and, if necessary, prepare for them written Terms of Reference.**
- 2. This advice is based on information held on the Perth and Kinross Historic Environment Record. This database of archaeological sites and historic buildings is regularly updated.**

**To:** Development Management - Generic Email Account

**Subject:** [MAYBE SPAM] ALDI Crieff

Dear Sir

I have been shopping at ALDI for almost 20 years - initially in England when visiting family and more recently in Perth. The quality of their goods is excellent and so are their prices. I strongly believe that ALDI would be a great asset to the town of Crieff, bring much needed competition to the town and also reducing the number of miles residents have to travel to shop at a major Supermarket. I have friends in Killin who have said that they would travel to Crieff to shop at ALDI, so the whole town could benefit from ALDI's opening a store as visitors will stop for a snack or a coffee while they are here.

I look forward to ALDI coming to Crieff

Val Edwards

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SC2

Tracy McManamon

15/01354/1PL

**From:** avril patrick [REDACTED]  
**Sent:** 29 September 2015 21:09  
**To:** Development Management - Generic Email Account  
**Subject:** Aldi

Dear sir / madam. I understand you require people to say they want and agree to an Aldi supermarket in Crieff, I wish to agree with this. I find it an excellent idea and will look forward very much to its completion , Yours Sincerely, Avril Patrick, 12, Ochil Place, Crieff, PH7 3BJ/





Your ref. 15/01354/1 PL

13 Shielinghill place,  
SC  
Breiff  
PH 7 HER

4.10.15.

Dear Sir or Madam,

I realise this letter  
is a bit late - owing to circumstances  
beyond my control as BBC used to say!  
I just wanted to say I support aldi coming  
to Breiff. We badly need another big  
store here. Everyone I have spoken to feels  
the same so good luck to you!

Yours faithfully,

J Miller

RECEIVED

08 OCT 2015

ENTERED IN COMPUTER

08 OCT 2015



SC



**GL Hearn**

Part of Capita plc

Our ref: J034564

Your ref: 15/01354/IPL

Steve Callan  
Pullar House  
35 Kinoull Street  
Perth  
PH1 5GD



GL Hearn Limited  
16 Gordon Street  
Glasgow G1 3PT

T: +44 (0)141 226 8200  
F: +44 (0)141 226 8210  
glhearn.com

06 October 2015

Dear Mr Callan

**Planning Application 15/01354/IPL: Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works. Land 50 metres East of Duchlage Farm, Duchlage Road, Crieff**

**Objection made on behalf of the Co-operative Group**

On behalf of our client, the Co-operative we hereby submit the following objection to the above application. As you may be aware, our clients are a key stakeholder in the Crieff town centre.

Having reviewed the submitted application our clients have significant concerns with the proposed retail development, particularly the impact it will have on the vitality and viability of Crieff and surrounding settlements.

The key points of our objection can be summarised as follows:

- **The application site is allocated for Business and Employment uses as identified on the adopted Proposals Map and therefore the proposed use is not supported by Development Plan policies;**
- **The application site is located in an out-of-centre location whereby retail development is not supported;**
- **No householder shopper survey has been conducted in relation to the catchment area chosen and therefore has led to inaccuracies with the trade diversions concluded within the Retail Impact Assessment;**
- **The scale and nature of the proposed supermarket cannot be supported by the catchment area and the proposals will have a significant adverse effect on Crieff Town Centre.**
- **The sequential test has not taken into consideration the 'Tesco Duchlage Farm site' and therefore provides an unbalanced approach to the sequential argument.**

The following sections of our objection provide an assessment of the application proposals against the relevant development plan policies and other material considerations.



## Application Proposals

The application before the Council seeks planning permission in principle for a Class 1 retail foodstore, an additional Class 1 retail development and associated works with detailed matters brought forward for the Class 1 foodstore car parking, access, landscaping and other works.

The following sections of our objection provide an assessment of the application proposals against the relevant development plan policies and other material considerations.

## Planning Policy

The development plan relevant to the appraisal site comprises of the strategic development plan for the area, TAYplan (2012), and the Perth and Kinross Local Development Plan (2014).

### TAYplan (2012)

This Strategic Development Plan sets out a spatial strategy for the plan area. This identifies Crieff as a Tier 2 settlement/smaller town centre which has the potential to make a major contribution to the regional economy but will accommodate a smaller share of the region's additional development.

A central vision for the TAYplan area is outlined within the plan:

*"By 2032 the TAYplan region will be sustainable, more attractive, competitive and vibrant without creating an unacceptable burden on our planet. The quality of life will make it a place of first choice where most people choose to live, work, study and where business choose to invest and create jobs".*

In setting out to achieve this goal, TAYplan identifies the following objectives which are relevant to the proposals of this application:

*"Ensure that new development makes the best use of existing networks of infrastructure, movement corridors and ecosystems;"*

*"Promote and enhance places and landscapes as economic drivers and tourist destinations; and, support the region's town centres as accessible business and service locations"*

More specifically, TAYplan, through **Policy 7**, lays out a specific policy in relation to town centres and their livelihood:

*"Protecting and enhancing the vitality and viability of all centres, and particularly town centres, directly contribute to providing good quality places and to the region's economic competitiveness".*

This policy is in line with the Scottish Government's aim to protect and enhance town centre vitality and viability.

### Perth and Kinross Local Development Plan

The LDP has been consulted and the following parts are relevant to this application.

The Proposals Map within the LDP shows that the application site is designated for Business/Employment Use under allocation E27. The designation notes for this site highlight that proposals must be compatible with neighbouring uses, especially visual and noise impacts. Neighbouring uses include a residential area [and proposed primary school and supermarket].

In addition to these site specific policies, there are a number of general development policies related to this development.



**Policy PM1: Placemaking** makes clear that all new developments must contribute positively to the quality of the surround built and natural environment; with reference to climate change, mitigation and adaptation. This policy continues when it notes that density, design and siting of development should respect the character and amenity of place, and should seek to create and improve links beyond the site.

**Policy PM1B** continues this rhetoric by listing a number of criteria including: creating a sense of identity and inclusive places for people, design should respect existing surroundings, proposals should contribute to the local townscape, and incorporate green infrastructure into new developments.

**Policy ED1: Employment and Mixed Use Areas** advises that employment uses should be retained for such uses, and within these areas any proposed development should be compatible with surrounding land uses in addition to the following criteria:

- a) *Policies should not detract from the amenity of adjoining, especially residential areas*
- b) *The local road network should not be suitable for the traffic generated by the proposals*
- c) *There should be good walking, cycling and public transport links to new employment generating uses*
- d) *Proposals for retail uses in employment areas will not generally be acceptable unless they are ancillary to an acceptable use on the site*
- e) *Proposals for waste management facilities can be considered to be acceptable subject to detailed specific considerations*
- f) *Proposals should not result in adverse impacts, either individually or in combination, on the integrity of any European designated site*

Due to the nature of the proposal, LDP policies relating to retail are of interest. Primarily this includes, policy **RC4: Retail and Commercial Leisure** which states:

*"Proposals in the edge of town centre, other commercial centres or out of centre locations will only be acceptable where:*

- (a) It can be demonstrated that a proposal helps meet quantitative and qualitative deficiencies in existing provision*
- (b) It is supported by a favourable sequential assessment*
- (c) It is of an appropriate scale*
- (d) It provides improved distribution and accessibility of shopping provision*
- (e) It provides for accessibility to public transport and non-car modes of transport*
- (f) Any detrimental effects identified in the transport assessment are mitigated*
- (g) It has been demonstrated that there will be no significant impact (individual or cumulative) on any of the centres within the network of centres*

*For proposals outwith town centres the Council will consider the needs for restrictions to be imposed on the installation of mezzanine floors and, in the case of convenience shopping developments, on the amount of comparison goods floorspace allowed".*

**Policy TA1B:** New Development Proposals considers transport aspects. It states that all development proposals which involve significant travel generation should be well served by, and easily accessible to all modes of transport. In particular, sustainable modes of walking, cycling and public transport should be considered, in addition to cars.



## **Material Considerations**

### **Duchlage Farm Area Development Brief (2006)**

This material consideration for this application is the non-statutory brief that was produced and approved by Perth and Kinross Council in 2006.

The brief identifies that this area could be suitable for a supermarket. It notes that high quality landscaping would be required, and that any development can connect to the town centre. Importantly, the brief highlights that any development would need to provide evidence that it would not damage the vitality or the town centre and other businesses.

It is noted that the Development Brief has been overtaken by the adopted Development Plan however it is still pertinent to note that this area has been brought forward in line with Council aspirations; a Community Campus and School have both been built out and a supermarket approved and started implementation although not yet near completion and without an occupier.

### **Planning Policy Assessment**

This section will assess the proposal against the relevant planning policy.

#### Principle of Development

As noted within the Planning Policy and Retail Statement the sites is identified as being allocated for Business / Employment purposes under Policy ED1 and allocation E27.

It is important to note that Policy ED1 states that retail uses will not generally be supported in such areas unless they are ancillary to an acceptable use on the site. It is also noted that the applicant's main argument to justify the loss of the employment land in favour for retail development is due to the fact that there is an 'oversupply' of allocated employment land. The applicant refers to paragraph 8.1.5 of the Council's Plan and states correctly that the total requirement for the 14 year plan period is estimated to be 20ha. The applicant also states that based on these figures a 5 year land supply requirement would logically be 7.14ha and that given that 22.6ha is allocated to employment uses there is an oversupply of this type of allocation.

What the applicant fails to mention is that within the same paragraph (8.1.5) the Plan states that there is only 5.6ha of immediately available land. This therefore means that it would be detrimental to the supply if allocated sites are completely lost to other uses.

This application is seeking the complete loss of this employment site (Site E27) for retail purposes and therefore is not even providing an element of employment use.

Furthermore, paragraph 8.1.4 of the Plan states that opportunities for employment purposes are in particularly directed towards Crieff and Auchterarder. This even more means that losing this site to another use and for another purpose would not be in line with Council aspirations for this area as identified within the adopted Local Development Plan.

In addition, it is noted that not only is this site identified for employment purposes, the site is located within an out-of-centre location whereby retail development is not encouraged. Furthermore, it is widely recognised through the Plan and the application itself that there is an extant permission for a supermarket on an adjacent site at Brioch Road, which can be built out and occupied at any time.

Through the applicant's supporting report it has been stated that the extant permission for the supermarket (made by Tesco) is not to be brought forward by Tesco. Although this *may* be true, this does not mean that another operator is not already in talks / or could be in the near future be in talks to bring the site forward as per the permission.



If both this application and the 'Tesco' permission were to come forward they would have a detrimental impact of Crieff Town Centre.

### Impact

Firstly, and critically, it should be highlighted that a specific householder shopper survey was not conducted for the identified catchment area in order to support the Planning and Retail Statement. The applicant seeks to use information from the Perth and Kinross Retail Study, however the catchment areas within the Retail Study represent a different geography to the catchment area for the proposed store within the application. The applicants have utilised a 10-15 minute drive time from the application site and we would have expected a household shopper survey to be commissioned which reflects this catchment. Instead it appears that many of the assertions contained within the Retail Statement are based on 'anecdotal evidence' from public consultation exercises, rather than clear empirical data.

This presents a problem when seeking to calculate accurate trade diversion estimates from individual stores and outside the catchment, and ultimately the retail impact of the proposal.

Paragraph 7.14 of the Retail Statement indicates that the total convenience turnover of the catchment is £11.48m in 2018, but states that these figures under-represent likely trading figures for the Co-Op store which in the applicant's view significantly overtrades. There is however no analysis presented to back up this assertion.

Paragraph 7.21 onwards of the Retail Statement seeks to quantify the turnover of the extant Tesco permission. It is correct that the floorspace from this proposal needs to be factored into the assessment, given that another foodstore operator could develop the site and trade from this location.

However, the convenience turnover of the Tesco permission is indicated as being £15.87m on the basis of a sales density of £9,916/sqm. The sales density for this convenience floorspace is low. Whereas, in Paragraph 7.26 the comparison turnover is calculated as being £5.51m on the basis of a £13,785/sqm turnover. This sales density is considered to be high and it is suggested that the wrong sales densities have been used for this store, which have led to inaccurate figures being presented.

Furthermore, it is stated in Paragraph 7.25 that only 70% of the turnover of this permission would be drawn from the catchment area, whereas this figure is identified as 80% for the proposed Aldi store. There is no analysis or evidence to demonstrate why these trade draws would be different given the stores are of broadly similar size.

Paragraph 7.42 of the Retail Statement indicates that the speculative Class 1 unit would have a turnover of some £2,599/sqm occupied by a comparison operator based on a range of potential occupiers sourced from Mintel. No information is given on the identity of the occupiers within Mintel, but if Poundland were to occupy this unit the turnover would be over double this figure, in excess of £6,000/sqm. This again raises doubts that the applicant has used inaccurate figures to represent a more favourable position for the proposal.

The applicant refers to the retail planning principle that 'like trades with like' in terms of individual stores. GL Hearn would agree with this principle, however within a Retail Statement there needs to be analysis of how stores trade. This is usually informed by the Shopper Survey. Without specific details provided by the applicant, it is considered that given the present level of provision locally, the Co-Op would act as a main food shopping destination as well as a top-up shopping location.

The existing Co-Op has a convenience floorspace of some 943sqm, whilst the Tesco permission has a convenience floorspace of 1,600sqm and the proposed Aldi store has a convenience floorspace of 1,003sqm. The level of floorspace provided in these stores are clearly within a broadly similar range and therefore these three stores would trade directly with each other in terms of convenience goods.



On this basis, it can be seen that the convenience trade diversions of the proposed Aldi store are low and disproportionately skewed toward the Tesco permission, as set out in Paragraph 7.49 of the Retail Statement. Here it is claimed that some 50% of the trade diversion would be on the Tesco, whilst only 3% would be diverted from the Co-Op. This would not appear to be a reasonable interpretation and is borne out of the inaccuracies highlighted above. The real level of diversion and impact on the Co-Op would be much higher.

Furthermore, it is claimed that some 47% of trade will be diverted from locations outside the catchment area, however there is no evidence of the fascia of these store or where they are located.

In light of the above, we would seriously refute the conclusion of the applicant that the impact of the proposal would be insignificant. The analysis is not based on proper evidence and there are a number of inaccuracies within the calculations. We would therefore expect the impact of the development to be of a greater scale and far more significant.

In addition, when considering whether sufficient capacity exists in the catchment area to support the proposed development, the conclusion at Paragraph 75 of the Committee Report for the Tesco permission should be considered (July 2011) which states that the available information indicates that Crieff would only support one [additional] superstore, i.e. the Tesco permission.

#### Scale

Furthermore, the applicants do not appear to have addressed the 'scale' matter as set out within Scottish Planning Policy. If an Aldi store with the Class 1 comparison unit is opened and an operator implements the Tesco permission, there would be some 4,071sqm of new retail floorspace at this out-of-centre location, in effect creating a new retail 'hub' for the local area.

The applicants identify that Crieff Town Centre extend to some 6,638sqm in floorspace, which is only marginally larger than the new retail 'hub' which could be created. This scale is clearly out of context with the catchment which it would be serving.

Furthermore, given this scale of development, it is expected that the applicant would undertake analysis of the impact of the proposals on the level of linked trips between the Co-Op and other shops in the town centre as a result of the diversion to this out of centre location. This analysis has not been undertaken, meaning that the effect on the vitality and viability of the centre as a result of this scale of development has not been assessed.

#### Sequential

In coming to the sequential test analysis presented within the Retail Statement it is acknowledged that the applicant did not assess the 'Tesco' site due to its 'out of centre location'. This approach is considered to be flawed due to the fact that this site was allocated and preferred by the Council to be in use as a Class 1 supermarket and therefore must be discounted as a sequentially preferable site for the applicants site to be found favourably by the Council.

In addition, it is noted within the Retail Statement and above in this letter that the size of the Tesco store permitted and the proposed Aldi store are of a comparable size and therefore this site should be included within any sequentially testing.

Therefore, the approach taken here is concluded as being inconsistent and provides an unbalanced argument.

### Conclusions

The submitted application seeks permission to develop a 1,804 sqm (gross) foodstore and a 1,022sqm Class 1 retail unit in an out of centre location which will promote unsustainable shopping patterns and will not support the town centre Crieff.

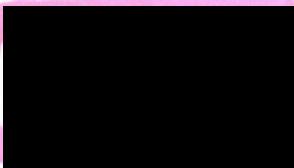
Our consideration of the submitted application has demonstrated that the proposed development is likely to have a very significant adverse impact on the vitality and viability of the existing shopping facilities in Crieff, and it is evident that the submitted retail study has sought to hide the true impact of the proposed supermarket.

Furthermore, it is evident that the adopted Local Plan and Local Development Plan do not support the development of a supermarket on a site that is located within an allocated Business and Employment site and is also within an out of centre location in retail terms. The proposals represent a clear departure from the Development Plan.

Taking all of the above matters into account, particularly the extent to which the proposals offend the development plan, we respectfully request that the application before the Council is refused.

We trust that the above matters raised in our objection will be given due consideration by the Council and I would be grateful for written confirmation of receipt of this letter. It would also be appreciated if we could be kept informed as to how matters progress.

Yours sincerely



**Catriona Fraser**  
Associate Director

[Catriona.fraser@glhearn.com](mailto:Catriona.fraser@glhearn.com)



## Comments to the Development Quality Manager on a Planning Application

<b>Planning Application ref.</b>	15/01354/IPL	<b>Comments provided by</b>	Alasdair Finlayson
<b>Service/Section</b>	TES / Forward Planning	<b>Contact details</b>	Ext. 75315
<b>Description of Proposal</b>	Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works		
<b>Address of site</b>	Land 50 Metres East Of Duchlage Farm, Duchlage Road, Crieff		
<b>Comments on the proposal</b>	<p><b>Introduction</b></p> <p>It is acknowledged that there is considerable public support for the applicant Aldi's application to develop a store in Crieff. There is one supermarket trading in the town at present (Co-Operative at Union Terrace) and one of the most commonly cited aspects of this application is that a second supermarket would be beneficial as it could improve choice and increase competition, resulting in more expenditure being retained in the town and consequentially shorter shopping trips.</p> <p><b>Context</b></p> <p>By way of context, planning permission already exists for a second supermarket in the town at land west of Duchlage Farm (08/01955/FLM). That consent has technically been implemented and the Adopted LDP allocates that site for retail use. While work to date has not progressed much beyond commencement of development, the planning permission runs with the land and the consented supermarket development west of Duchlage Farm could yet come forward. A fresh planning application would be required should any alternative development be proposed at that site, which is allocated for retail use in the Adopted LDP as mentioned above.</p> <p><b>Local Development Plan</b></p> <p>This planning application at land east of Duchlage Farm would therefore be for the town's third supermarket (in full), and a further retail unit (in principle). If approved, this application together with the extant consent at the site to the west has the potential to lead to a significant increase to the amount of retail development outwith the town centre at Broich Road.</p> <p>The Adopted LDP allocates the site (E27) for employment uses, which excludes retail use, and the application if approved would represent a significant departure from the LDP.</p> <p>At examination stage, the Reporter considered a number of representations, some of which raised issues of retail provision in the town, raised concerns over the health of the town centre, and the need for employment land at the application site. The Reporter also considered specific concerns raised by the</p>		



	<p>Community Council that retail use at site E27 would have an adverse effect on Crieff's High Street, and that the Broich Road area might be developed in a piecemeal way; and from Crieff Community Trust seeking a commitment not to use land outside the town centre (such as at Broich Road) for retail. There were no representations seeking retail use at site E27.</p> <p>In his consideration of the unresolved issues, the Reporter took account of the planning permission for the supermarket site west of E27, and in assessing the need for employment land in the town he took account of other employment land allocations that were proposed at E26 and MU7. However in his conclusions, he recommended that the application site remain allocated for employment uses because he considered it important that there be a choice of location for small-scale businesses that would be compatible with the neighbouring retail, residential and school uses; and he considered it important to protect this allocation from further retail or commercial uses.</p> <p>His conclusions also make reference to the development brief approved by the Council in 2006 for the Broich Road area, and to policies protecting listed buildings and their setting.</p> <p>A review of the LDP has begun, and at the time of writing the Main Issues Report is under preparation. There were no submissions seeking alternative uses at site E27 received during the previous Call for Sites and Issues consultation stage.</p> <p><b>Conclusion</b></p> <p><b>Following its examination, the LDP was adopted in February 2014 and the proposal would represent a significant departure from the Plan.</b></p>
<b>Recommended planning condition(s)</b>	
<b>Recommended informative(s) for applicant</b>	
<b>Date comments returned</b>	6 October 2015

**From:** Alan Hewkin [REDACTED]  
**Sent:** 10 September 2015 09:24  
**To:** Development Management - Generic Email Account  
**Subject:** 15/01354/1pl

i am writing to say my wife and i are for the building of an aldi shop in crieff,we shop at aldi in perth every week it would save us the journey.meaning less traffic in perth and it would give jobs to people out of work.thank you alan hewkin.

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**Mr C Finlay (Supports)****Comment submitted date: Thu 15 Oct 2015**

I have just read a document on this planning application from Alasdair Finlayson, PKC Planning Officer, entitled "Internal Consultee Reports (Policy)", where he points out that Crieff Community Trust and Crieff Community Council have said in past official responses to a consultation on the area's Local Development Plan that they do not wish to see any retail development on Broich Road, Crieff.

I must point out that although these comments seem to have been made by Crieff Community Council, they have since sent a Letter of Support in favour of Aldi's planning application. I would have thought this letter would supersede any previous comments.

I hope that this confusion can be resolved soon in order that the area of Strathearn can see at least one new supermarket along Broich Road, preferably Aldi, and preferably on E27.

**Comment submitted date: Tue 08 Sep 2015**

As one of the members of Crieff Community Council who encouraged the idea of sending a letter of request for an alternative retailer to look at building a store in Crieff, I warmly welcome the application from Aldi Stores.

The majority of people in Crieff are vocal in their strong desire for an alternative food store to compete with the existing Co-operative store, and I feel that local retention of economic spending would help towards building a stronger community.

Many rural residents of surrounding villages throughout Strathearn would also benefit hugely from another store.

The application includes the building of a second store on the proposed site and I welcome this proposal as it could provide a third popular retailer in the town.



## Comments to the Development Quality Manager on a Planning Application

<b>Planning Application ref.</b>	15/01237/IPM AND 15/01354//IPL	<b>Comments provided by</b>	Tony Maric Transport Planning Officer
<b>Service/Section</b>	Transport Planning	<b>Contact Details</b>	75329 amaric@pkc.gov.uk
<b>Description of Proposals</b>	<p>15/01237/IPM - Mixed use development including residential, compatible employment uses, areas of open space, amenity landscaping, formation of access roads, footpaths and cycleways, associated drainage works and ancillary facilities</p> <p>15/01354/IPL - Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works</p>		
<b>Addresses of sites</b>	<p>15/01237/IPM - Land 300 Metres South West Of Tighnacaille Broich Road Crieff</p> <p>15/01354/IPL - Land 50 Metres East Of Duchlage Farm Duchlage Road Crieff</p>		
<b>Comments on the proposals</b>	<p><b>I note that these two applications relate to proposals on opposite sides of Brioich Road in Crieff. This area is earmarked in the current LDP as the major expansion area for Crieff and I am aware of several developments in this area, including a residential development at Duchlage Road, a new community campus, a recently completed non-denominational primary school, together with an extant planning consent (08/01955FLM) for a retail food store adjacent to the proposed foodstore that is the subject of one of these applications.</b></p> <p><b>In order to fully assess the impact of development within Crieff, the Council's Transport Planning Team commissioned an S-Paramics micro-simulation traffic model of Crieff from our term consultants SIAS in 2014. This model was used to assess the current and future impacts of development within Crieff and particularly within the Brioich Road corridor.</b></p> <p><b>Both applicant's provided full Transport Assessments (TA's) and were also required to test out their scenarios using the Crieff Traffic Model. These TA's have been audited by the Transport Planning Team.</b></p> <p><b>Whilst the TA's provided very useful commentary and information on the impact of the applicant's individual proposals, under current legislation and guidance they are not obliged to look at the cumulative impact of development within the area, being obliged only to show the impact of their development on the transport network. It should also be borne in mind that they only considered signalisation as a mitigation measure as this was the mitigation proposal put forward with the extant planning consent 08/01955/FLM.</b></p>		

	<p>The Council's Transport Planning Team therefore decided to carry out further extensive testing to ascertain the cumulative impact of these applications on this area in particular and Crieff as a whole. We also wished to consider alternative mitigation measures to the signalisation of the Brioch Road/King Street/Commissioner Street junction.</p> <p>Whilst signalisation of the junction would introduce a dedicated pedestrian phase, it was noted that the introduction of pedestrian controlled pedestrian crossings on their own would also have the same effect of allowing dedicated crossing time for pedestrians. Signalisation was noted to be sub-optimal at this location as it would add in an added element of delay to the network where none had previously existed and this would also apply to pedestrian movements as well as they would have to wait for their dedicated phase within each cycle.</p> <p>A range of options were examined, and from results it would appear that the best option would be to reconfigure the junction and look at changing the priorities to ensure that the junction could accommodate the extra traffic whilst still functioning effectively. This would be tied into a package of complementary infrastructure measures to provide dedicated pedestrian crossings, footways and other ancillary works, together with the potential to investigate measures to enhance the local public transport provision in this area and consider parking issues within the wider area (particularly in and around the High Street). Given that the typical cost of providing full signalisation would be in the region of £200k, this approach could provide wider community benefits whilst still ensuring that the junction operated safely and efficiently.</p> <p>Therefore, given that there are a range of potential options the Transport Planning Team would not wish to object to these applications, but would wish to proceed on the basis of entering into consultations with the local Community Council and the applicants, to agree a package of measures that all parties are happy with and which meets the criteria of allowing for the safe and efficient operation of the entire transport network in Crieff</p>
<b>Recommended planning condition(s)</b>	
<b>Recommended informative(s) for applicants</b>	
<b>Date comments returned</b>	06 November 2015



**From:** CRAIG FINLAY [REDACTED]  
**Sent:** 22 March 2016 14:08  
**To:** Development Management - Generic Email Account  
**Subject:** Letter of Support

Dear Sir

**Town & Country Planning (Scotland) Act 1997**  
**The Town & Country Planning (Schemes of Delegation & Local Review Procedure)**  
**(Scotland) Regulations 2013**

**Application Ref: 15/01354/IPL – Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works, land 50 metres east of Duchlage Farm, Duchlage Road, Crieff – Aldi Stores Ltd**

I refer to the recent appeal, by Aldi Stores Ltd, to the Local Review Body for the above application of two retail units, both of which are possibly food, and would like to make it clear that many members of the public contacted me in my capacity as a community councillor in Crieff, after this application was rejected by Perth and Kinross Council, to raise their dismay and anger. While I understand the reasons given for the application's refusal, I think the majority of people do not care - or would like to see flexibility - with regards to land being designated for one specific development in the Local Development Plan - in this case employment use, and not retail use.

Therefore, I support this appeal and would like to see a development, as outlined above, on this land, regardless of what the land has been designated for previously in the Local Development Plan.

Regards,  
Craig Finlay

33 Clark Terrace  
Crieff  
PH7 3QE



## CHX Planning Local Review Body - Generic Email Account

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**From:** Ellenlow10 [REDACTED]  
**Sent:** 23 March 2016 20:38  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** 15/01354/IPL

Proposal for Aldi Store

I am writing in full support of this application. I live on Broich Road and have spoken with lots of people in the area who are also in support. We couldn't believe you had refused the first application as its a shop we have wanted for a long time. They, like me, are tired of having to drive or travel to Perth to buy groceries etc at the same price as city dwellers and have much more choice too. It would also have a positive impact in the High street in Crieff too as many of us only use the local stores on the times we don't get to Perth. I know that if I'm not going to Perth or Stirling I enjoy a walk along the street going into or window shopping all the different wee shops. It would also be a giant boost to the local workforce who find they have to add 2 hours to their working day to travel to any available jobs in the city..if they can work local their work - life balance would be hugely enriched. That in turn would be a boost to the many cafe's especially around lunchtime. We have been let down so many times since Tesco was first mentioned that it would re-energise the town and the people in it .

Regards  
Ellen Low  
2c Arnbro CS  
Broich road, Crieff Ph7 3se



## **CHX Planning Local Review Body - Generic Email Account**

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**From:** sandra Campbell [REDACTED]  
**Sent:** 25 March 2016 14:04  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Aldi planning application

I supported the proposals for the Aldi store in Crieff and was both amazed and horrified when their planning application was turned down. I am writing to you to express my continued support for this application and the hope that their appeal is successful.

Sandra Campbell  
18 hebridean gardens  
Crieff



## **CHX Planning Local Review Body - Generic Email Account**

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**From:** Gordon Campbell [REDACTED]  
**Sent:** 25 March 2016 16:01  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Aldi Application Appeal

Dear Sir,

I note that Aldi are appealing PKC's refusal of planning permission for their proposed store in Crieff. I was (and am) very supportive of Aldi's plans and registered that during the consultation process. I was therefore surprised and disappointed with the Council's refusal. Given the current local plan allowing for new housing in the area of Broich Road, and the strong support of our residents for the store, it seems that Aldi's facility is much needed. This is the only Crieff location, I gather, they are able to consider. I had thought the wishes of your taxpayers and the employment opportunities Aldi would bring would outweigh the intractability of your local plan for retail.

Yours sincerely,  
Gordon Campbell  
18 Hebridean Gardens  
Crieff  
Perth & Kinross  
PH7 3BP





## CHX Planning Local Review Body - Generic Email Account

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**From:** Alan Hewkin [REDACTED]  
**Sent:** 25 March 2016 09:44  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** aldi store

dear sir madam,my wife and iare asking you to allow aldi,s to build a store in crieff.we think it would be a good thing for crieff and surrounding area,comrie muthill and gilmiton.aldis would not only be good for this area but for scotland also as they sell a lot of foods produced in scotland ie meat and veg .they would also provide jobs for the younger people in the area.yours sincerly alan hewkin.



## **CHX Planning Local Review Body - Generic Email Account**

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**From:** Isobel McEwan [REDACTED]  
**Sent:** 25 March 2016 14:52  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Re: Aldi's planning application.

I am in full support of Aldi's application as we desperately need a store like that in this town as at the moment we are held to ransom by the Co-op. To say that it would take away from the vitality and vibrancy of the town is nonsense as there is nothing vital or vibrant about Crieff right now but then to consider planning applications from another source with several retail outlets is somewhat hypocritical. We need Aldi's.

Isobel McEwan.



## **CHX Planning Local Review Body - Generic Email Account**

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**From:** Douglas Buchan [REDACTED]  
**Sent:** 26 March 2016 10:16  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** ALDI'S PLANS FOR CRIEFF - APPEAL TO LOCAL REVIEW BODY ref: TCP/11/16(398)

Dear Sirs,

As a resident of Crieff I wish to make a strong representation to the Planning Review Board that the Aldi planning application is approved. What they are offering is absolutely essential to the area especially as there are proposals to build another 400 or so houses close to the proposed Aldi site.

One objection, I believe, was mentioned that it would damage the High Street shops, this is most unlikely as there are few shops in the High Street which Aldi would compete with, the only competition would be with the CO Operative and that is absolutely essential as they are extremely poor and expensive.

Thank you for taking the time to read this email and I hope you will decide that the Aldi plan is approved as soon as possible.

Douglas Buchan

Milnab Terrace

Crieff





## **CHX Planning Local Review Body - Generic Email Account**

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**From:** james Douglas [REDACTED]  
**Sent:** 27 March 2016 02:46  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Application for supermarket in Crieff by Aldi.

I was disappointed with the refusal by pkc.to support the plans by Aldi for a new supermarket in Crieff.. I wish to reiterate my support for Aldi.



## **CHX Planning Local Review Body - Generic Email Account**

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**From:** IAN MCGREGOR [REDACTED]  
**Sent:** 27 March 2016 10:39  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Re: TCP/11/16(398)

I write in an effort to further support Aldi's application to create retail units at Duchlage. Looking round Crieff I am fully aware that there are a number of empty retail units but here is a vibrant and progressive company which, if given permission to develop may well be the catalyst for the founding of other businesses.

The hitherto Co-op monopoly in Crieff does nothing for customer choice.

Iain Macgregor, Comrie



**Jean Ann Scott Miller** [REDACTED]

**CHX Planning Local Review Body**

**Subject: TCP/11/16(398)**

**Application Ref: 15/01354/IPL –Erection of two retail units (Class 1) and associated works (in principle) including full details of one retail unit, car parking, landscaping and associated works, land 50 metres east of Duchlage Farm, Duchlage Road, Crieff – Aldi Stores Ltd**

I write on behalf of Crieff Community Council.

1. In our original letter of support, submitted on 27<sup>th</sup> August 2015, we wrote: We warmly welcome this application. We believe that Aldi's proposal to develop their own and another Class 1 retail store, intended for a high-end retail partner, will be of huge economic and social benefit to Crieff, providing needed retail expansion, and a pairing which will both retain local custom in the town and encourage people from the wider Strathearn area to shop here. We hope that this important application will be supported by the Development Management Committee, and ask that we may have the opportunity to address the Committee when the application is considered.

2. In the event, the application was refused under delegated powers, a decision which was met with both disbelief and anger in the community at large, where a very high level of support had been shown for the application, both at Aldi's consultation event and through letters of support to Perth and Kinross Council.

3. We now write in support of Aldi's appeal, and ask the Local Review Body to take the following matters into account.

- Under the current Local Development Plan, Crieff is scheduled for massive expansion – up to a possible further 700 houses to be built, most of them on the south-eastern periphery
- Crieff is already suffering from a lack of retail competition in the food sector, and consequently there is a steady leakage of people travelling to Perth or Stirling to do their weekly shop
- Aldi's proposal, based on a successful retail model, would not only help to stem this flow, it would also bring people from the wider Strathearn area to the town
- Aldi have pledged to bring other significant economic benefits to Crieff, through the initial employment of up to 35 staff, and their strategic commitment to use local suppliers
- We accept that the site has been identified as employment land. We submit that there is already a large allocation of employment land in the mixed-use Broich Road development, now with outline consent, immediately to the south-east of the Aldi site, for which no new end-users have been identified
- We also submit that plots designated for employment and light industrial use on the Muthill Road remain vacant – there is no immediate evidence of demand in the Crieff area

- Aldi have stated that they will not consider any other site in Crieff
- London & Scottish Investment have now revealed their proposals for the erection of retail units to the West of Duchlage Farm. These show a very large retail area, separated internally to provide two retail outlets
- London & Scottish made a brief verbal presentation to Crieff Community Council on 7<sup>th</sup> March 2016. Their proposal in no way matches what Aldi are offering, consisting as it does of “a food retail outlet and another non-food retail partner”
- L&SI’s representative was not able to identify potential end-users beyond saying that “well-known High Street names” were keen to come to Crieff. When pressed, he suggested that Poundland might be a contender
- Crieff’s High Street is already suffering. The Crieff Succeeds BID and other community organisations, including the Community Council, are working hard to improve the town, support local business, and encourage visitors. We do not need a development at the low-end of the retail sector

4. We renew our support for Aldi’s proposal, recognising that this is a unique opportunity to improve retail provision, stem leakage, and encourage footfall. We earnestly request the Local Review Body to overturn the earlier decision to refuse this application.

Jean Ann Scott Miller  
Secretary  
Crieff Community Council  
29<sup>th</sup> March 2016

## Paige Crighton

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**From:** false [REDACTED]  
**Sent:** 31 March 2016 19:04  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** ALDI'S PLANS FOR CRIEFF - APPEAL TO LOCAL REVIEW BODY ref: TCP/11/16(398)

Dear Sir,

I previously wrote in support of Aldi's application for 2 retail units in Crieff. I was most astonished and dismayed that this application was refused.

Since August 2015, a major retail outlet, Edinburgh Woolen Mill and Golf Shop has closed and notification was received today that yet another shop, SSE in Crieff is due to close. In addition, at least another 5 smaller retailers in the town center shut their doors in the same period.

Most people will shop in areas well served by a choice of grocery outlets with ample parking, mostly at out of town venues. Aldi would encourage more customers to come to Crieff from surrounding areas and take advantage of other shops and food outlets in the town centre, rather than drive to Stirling or Perth to spend their money.

Crieff badly needs employment opportunities to replace the above lost retail positions.

Please do not let Crieff become an empty ghost town and grant the planning application to Aldi.

Thank you

M Burns  
55 Tay Avenue,  
COMRIE  
PH6 2PF





## Paige Crighton

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**From:** Jane Murrell [REDACTED]  
**Sent:** 01 April 2016 10:44  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Cc:** [REDACTED]  
**Subject:** Aldi Planning Crieff

### **ALDI'S PLANS FOR CRIEFF - APPEAL TO LOCAL REVIEW BODY ref: TCP/11/16(398)**

I am very disappointed that this first submission was rejected by the planning committee.

As a resident of Crieff I strongly believe that Aldi coming to Crieff would strengthen our community, provide local jobs and bring shoppers from outlying areas into the town rather than by passing and going to Perth or heading to Stirling.

This means less traffic leaving Crieff to travel to Perth or Stirling for shopping and groceries so less traffic pollution, less road damage and people staying local.

More local employment so people do not need to travel to get work.

More shoppers in the town from outlying areas not only using the supermarket but using our other gift, clothes, card, hardware shops and cafes.

I have not come across one person that is against the idea of Aldi coming to Crieff – I have only heard people excited at the prospect.

We badly need better shopping facilities – other smaller towns have been granted supermarkets – why not Crieff?

Please reconsider your decision and give us the positive outcome we are hoping for.

Yours Sincerely

Jane Murrell and Family.



## Paige Crighton

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**From:** Don Forrester [REDACTED]  
**Sent:** 02 April 2016 14:10  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** ALDI'S PLANS FOR CRIEFF - APPEAL TO LOCAL REVIEW BODY ref: TCP/11/16(398)

Dear Sir,

We supported Aldi's planning application during the consultation process and were very disappointed to hear that this had been declined.

The present supermarket in Crieff has a very limited choice of products, is expensive and often out of stock of key products. Crieff needs more competition to improve quality and service standards. Aldi would provide this, boost the local economy and provide additional local employment.

Crieff is an ideal location, serving a wide area from St Fillans, where we live, to East Strathearn.

We hope that Aldi's appeal will be heard by the Local Review Body.

Yours faithfully

Dr Donald and Mrs Patricia Forrester  
7 Dundurn Walk  
St Fillans  
Crieff  
PH6 2NA



## Paige Crighton

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**From:** Richard Graham [REDACTED]  
**Sent:** 02 April 2016 09:05  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** TCP/11/16(398) Aldi in Crieff.

Good morning,

I wish to once again support Aldi's application for a store in Crieff, as I did during their original application.

I find the decision not to allow such an application quite bizarre when you consider that for those of us in the local rural community, St Fillans in my case, our options are Co-Op in Crieff or 30 miles to either Perth so Stirling - there is absolutely nothing else.

Why is it OK to have Asda, Tesco's, M&S's, Aldi, Lidl, etc in Perth, yet we are not even allowed to choose between two? Why does Co-Op have this monopoly?

Pass the application and give us a choice.

Richard Graham.





## Paige Crighton

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**From:** Anne Patrick [REDACTED]  
**Sent:** 02 April 2016 09:15  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** TCP/11/16 (398). Aldo application

I am in receipt of your email re the above and would like to make further comment in favour of the application.

Your main reason for refusal appears to be in connection with the vitality and viability of Crieff town centre and that this application will be to the detriment of the town centre in question.

I live in St Fillans and in the past I would shop in Crieff at the co-op and some independents and invariably have a light lunch in the town centre. I have personally found that the cost of shopping at the co-op is very high and the service they provide is appalling. So I have now moved to online shopping and supplement my shopping in Comrie instead.

If Aldi was to come to Crieff - I already shop at their stores elsewhere- I would re visit my shopping regime in Crieff and my lunches in the town centre \_ so rather than their application detracting from the town centre I think it might be an enhancement and attract non residents back into the town centre.

Anne Patrick  
Dundurn Lodge  
St Fillans



## Paige Crighton

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**From:** FRASER BALLANTYNE [REDACTED]  
**Sent:** 03 April 2016 17:56  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** Aldi Planning Application.

Dear Sir,

Although I was of the people who wrote in favour of the last Planning Application I would like to emphasise my hope that this application will, on this occasion, be approved.

This application, whilst maybe not in 'exactly' the place that officialdom wants is not far from it and will provide much needed employment for the people of Crieff and the surrounding areas. Many main streets are suffering from closed shops with the demise of McEwans in Perth as yet another terrible loss so the availability of a foodstore that everyone wants will do nothing to alter the empty premises in the centre of Crieff.

Parking meters have now been placed in Crieffs main street with two parking spaces having one parking meter to service it ! At a charge of just under £3000 this is far from saving taxpayers cash and also driving people away from the town centre.

I hope that thos in charge of this decision will use their votes wisely and give the taxpayer what they want.

Yours faithfully,

Fraser Ballantyne  
Allt-na-Fhionn Lodge,  
St Fillans.  
Perthshire. PH6 2NG.



## Paige Crighton

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**From:** St Fillans Community Council [REDACTED]  
**Sent:** 03 April 2016 21:38  
**To:** CHX Planning Local Review Body - Generic Email Account  
**Subject:** ALDI'S PLANS FOR CRIEFF - APPEAL TO LOCAL REVIEW BODY ref: TCP/11/16(398)

Dear Sir,

I write on behalf of St Fillans Community Council.

St Fillans Community Council, having sounded out the opinions of our villagers strongly supported the application by Aldi to develop a store in Crieff.

Our community were therefore very disappointed to hear that the council had turned down the application.

We understand that part of this decision was based on the fact that retail planning permission had been given to the adjacent site formerly owned by Tesco. Surely, competition benefits the local community. It enhances the quality of products in addition to competitive pricing.

As a village our nearest quality supermarket with reasonable choice is 30 miles away. The proposed development would provide savings in petrol and to the environment.

We feel it is important for Aldi's appeal to be heard by the Local Review Body.

Yours faithfully

Donald Forrester

Vice Chair and Treasurer St Fillans Community Council

7 Dundurn Walk

St Fillans

Crieff

PH6 2NA

