



ABERDEEN
CITY COUNCIL

Aberdeen Local Development Plan Review

Proposal for a site to be included in the Main Issues Report

The Proposed Strategic Development Plan does not require us to allocate extra housing or employment land in the next Local Development Plan (LDP). Because the 2012 LDP identified a significant number of greenfield sites to accommodate these requirements, we are not looking to allocate any more greenfield housing or employment land in this plan. It is for this reason that we are not asking for greenfield development options this time around. However, we are always keen to identify new brownfield sites for housing or for other uses. Please use this form to provide details of the site that you wish to have included in the Main Issues Report for consideration as a proposal in the next Aberdeen Local Development Plan.

One of the purposes of this form is to inform a public debate on the merits of the different sites being proposed. All information submitted will therefore be made available to the public to promote a transparent and open process.

Please feel free to provide any further information you feel appropriate to support your submission. The City Council has produced a Sustainability Checklist which provides guidance on the issues which will be used to help us judge the merits of competing development options.

This can be found on www.aberdeencity.gov.uk/localdevelopmentplan

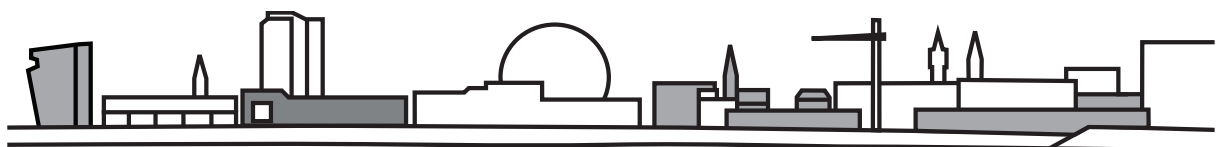
Please ensure your proposal is with us by 14th June 2013.

Using your personal information

Information you supply to Aberdeen City Council (ACC) in this form will be used to prepare the Local Development Plan. The information provided will be made public and will be placed on the Council's website. This will include the name and address of the proposer and landowner.

The Local Development Plan team may also use your contact details to contact you about the information you have provided.

For further information on how your information is used, how ACC maintain the security of your information, and your rights to access information ACC holds about you, please contact Andrew Brownrigg, Team Leader, Local Development Plan Team, Enterprise Planning and Infrastructure, Aberdeen City Council, Business Hub 4 Marischal College, Broad Street, Aberdeen AB10 1AB.



1

Name of proposer: Forbes Homes Ltd.

Date: 13 June 2013

Address: c/o Ryden LLP, 25 Albyn Place

Postcode: AB10 1YL

Telephone: [REDACTED]

Email: [REDACTED]

2

Name of landowner: Forbes Homes Ltd.

Address: c/o Ryden LLP

The site and your proposal

3 What name would you like the site to be known as?
[The site name could be descriptive or an address]

Loirsbank Road.

Have you any information for the site on the internet? If so please provide the web address:

N/A

4 Please provide a map showing the exact boundaries of the site you would like considered.

Map Provided

5 Please provide the National Grid reference of the site.

NJ 895 027.

6 What is the current use of the site?

Vacant agricultural land.

Has there been any previous development on the site? Yes No

If so, what was it?

N/A

7 What do you propose using the site for?

Residential use in accordance with former Aberdeen Local Plan, Green Spaces - New Places.

- 8 If you are proposing housing on the site please provide details of what you think would be appropriate, both in terms of the number of dwellings, and their forms (flats, detached houses, terraces etc).

The site is capable of accommodating 4-5 large detached residential properties continuing the street frontage development to Loirsbank Road presently under construction to the east.

- 9 It is likely that there will be a requirement for 25% of the housing within the development to be affordable. If applicable, are you considering more or less than this figure?

25% More Less

- 10 If you are proposing business uses please provide details of what you would market the land for? [Please make sure the area of land proposed for business use is shown on the site plan]

Business and offices (Use Class 4)

General industrial land (Use Class 5)

Storage and distribution (Use Class 6)

Do you have a specific occupier in mind for the site? Yes No

- 11 If you are proposing uses other than housing or business please provide as much detail as possible on what you propose. [Examples could include retailing, tourism, renewable energy, sports, leisure and recreation, institutions and education.]

N/A

- 12 Will the proposed development be phased? Yes No

If yes, then please provide details of what is anticipated to be built and when.

N/A

- 13 Has the local community been given the opportunity to influence/partake in the development proposal?

Yes No Not Yet

If there has been any community engagement please provide details of the way in which it was carried out and how it has influenced your proposals. **If no consultation has yet taken place, please detail how you will do so in the future.**

The proposals will comprise a local development and are not of a scale that requires public consultation.

Sustainable Development and Design

14 Have you applied principles of sustainable siting and design to your site? The City Council has produced a Sustainability Checklist which provides guidance on the principles of sustainable siting and design and other issues which can be found on www.aberdeencity.gov.uk/localdevelopmentplan

Please provide the following information:

A) Exposure – does the site currently have

- Little shelter from northerly winds
- Some shelter from northerly winds
- Good shelter to northerly winds

B) Aspect – is the site mainly

- North facing
- East or west facing
- South, south west or south east facing

C) Slope – do any parts of the site have a gradient greater than 1 in 12?

- Yes

If yes, approximately how much (hectares or %)

- No

D) Flooding – are any parts of the site at risk of flooding?

- Yes

If yes, approximately how much (hectares or %)

- No

E) Drainage – do any parts of the site currently suffer from poor drainage or waterlogging?

- Yes

If yes, approximately how much (hectares or %)

- No

F) Built and Cultural Heritage – would the development of the site lead to the loss or disturbance of archaeological sites or vernacular or listed buildings?

- Significant loss or disturbance
- Some potential loss or disturbance
- No loss or disturbance

G) Natural conservation – would the development of the site lead to the loss or disturbance of wildlife habitats or species?

- Significant loss or disturbance
- Some potential loss or disturbance
- No loss or disturbance

H) Landscape features – would the development of the site lead to the loss or disturbance of linear and group features of woods, tree belts, hedges and stone walls?

- Significant loss or disturbance
- Some potential loss or disturbance
- No loss or disturbance

I) Landscape fit – would the development be intrusive into the surrounding landscape?

- Significant intrusion
- Slight intrusion
- No intrusion

J) Relationship to existing settlements – how well related will the development be to existing settlements?

- Unrelated (essentially a new settlement)
- Partially related
- Well related to existing settlement

K) Land use mix – will the development contribute to a balance of land uses, or provide the impetus for attracting new facilities?

- No contribution
- Some contribution
- Significant contribution

L) Accessibility – is the site currently accessible to bus, rail, or major road networks?

	Bus Route	Rail Station	Major Road
Access more than 800m away	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Access between 400-800m	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access within 400m	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

M) Proximity to services and facilities – How close are any of the following?

	400m	400m-800m	>800m
Community facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Local shops	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sports facilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public transport networks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Primary schools	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

N) Footpath and cycle connections – are there any existing direct footpath and cycle connections to community and recreation facilities or employment?

- No available connections
- Limited range of connections
- Good range of connections

O) Proximity to employment opportunities – are there any existing employment opportunities within 1.6km for people using or living in the development you propose?

- None
- Limited
- Significant

P) Contamination – are there any contamination or waste tipping issues with the site?

- Significant contamination or tipping present
- Some potential contamination or tipping present
- No contamination or tipping present

Q) Land use conflict – would the development conflict with adjoining land uses or have any air quality or noise issues?

- Significant conflict
- Some potential conflict
- No conflict

If there are significant conflicts, what mitigation measures are proposed?

N/A

R) Physical Infrastructure – does the site have connections to the following utilities?

- Electricity
- Gas
- Water and Sewage

If you are proposing housing, is there existing school capacity in the area?

- Secondary Capacity
- Primary Capacity

Are there any further physical or service infrastructure issues affecting the site?

None.

15 No site is going to be perfect and the checklist above will inevitably raise some potential negative impacts from any development. Where negative impacts are identified, please provide details of their nature and extent and of any mitigation that may be undertaken. Listed below are examples of further information that may be included in your submission;

	Included	Not applicable
Contamination Report	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Flood Risk Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Drainage Impact Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Habitat/biodiversity Assessment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Landscape Assessment	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transport Assessment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other as applicable (e.g. trees, noise, dust, smell, retail impact assessment etc please state)	<input type="checkbox"/>	<input type="checkbox"/>

16 Does the development proposal give any benefits to the community? If so what benefits does the development bring, and how would they likely be delivered?

Community benefits can include new community facilities (such as local shops, health, education, leisure and community facilities), affordable housing, green transport links and open spaces. Include elements which you anticipate may be required as developer contributions from the development. (Please note, specific contributions will have to be negotiated with the Council on the basis of the proposal.)

The development will continue the street frontage development formed by the existing development to the east to provide an attractive streetscape to Loirsbank Road.

It will provide quality, low density development to satisfy an unmet demand in the area.

Pedestrian access will be improved to the River Dee and there is potential for the expansion of the Deeside Golf Course on the land to the south. The balance of the land to the south, which is in the same ownership, will be retained as public open space thereby enhancing the amenity of existing local residents.

17 If you have prepared a framework or masterplan showing a possible layout for the site, please include it with this form.

Masterplan/ Framework attached

If you need help reading this document (for example if you need it in a different format or in another language), please phone us on 01224 523317.

ভাষা/ইন্টারপ্রেটিং এবং অন্যান্য ফরমেটের
যোগাযোগ সাহায্যের জন্য দয়া করে
:01224 523317
নম্বরে যোগাযোগ করবেন।

如果需要語言/傳譯及其他形式的傳訊支援服務，
請聯絡:01224 523317。

Если требуется помощь при выборе
языка /переводчика или других
способов общения, звоните по
телефону :01224 523317

للحصول على مساعدة بخصوص اللغة/ الترجمة
و وسائل الاتصال الأخرى، الرجاء الاتصال
بالرقم التالي: 01224 523317

Lai saņemtū palīdzību sakarā ar
valodu/tulkošanu un citiem iespējamām
komunikāciju atbalsta formātiem, lūdzu
zvanīt 01224 523317

Jei jus turite sunkumu su kalba/ vertimu
ar kitomis bendravimo formomis,
skambinkite 01224 523317

Jeśli potrzebujesz pomocy **językowej /
tłumacza** lub innej pomocy w
porozumiewaniu się, proszę zadzwonić
pod numer: 01224 523317



Thank you for taking the time to complete this form.

Please return completed forms to:

Local Development Plan Team
Enterprise, Planning and Infrastructure
Aberdeen City Council
Business Hub 4
Ground Floor North
Marischal College
Broad Street
Aberdeen
AB10 1AB

Or email it to: ldp@aberdeencity.gov.uk

LOIRSBANK DEVELOPMENT BID FORBES HOMES LTD

PAPER APART

Justification

This site and the adjoining land to the east was previously allocated through the 2008 Aberdeen Local Plan, Green Spaces – New Places for residential development. It was acquired by Forbes Homes Ltd on this basis. It was subsequently carried forward into the Main Issues Report for the 2012 Local Development Plan but removed from the Proposed Plan at the behest of Members.

Planning permission was subsequently granted for the erection of 8 houses on the eastern portion of the site forming a street frontage to Loirsbank Road. That permission has now been implemented and a number of houses have been completed.

Objections were lodged in respect of the Proposed Plan relative to the proposed designation of the site as greenbelt and part of the green space network. The Reporter subsequently recommended modification of the Plan by designating that part of the site which has planning permission for residential development as an allocated housing site for 8 units.

The Reporter accepted that housing on the site would be seen as a minor addition to the built up area, would not affect the setting of the City and would have no implications for coalescence. He further noted that the development of the houses had blurred the previously clear distinction between the residential and countryside areas at Loirsbank Road and had the practical effect of moving the boundary of the residential area to the south of the houses rather than the road. However, at the time he did not accept that the flood risk associated with western portion of the site had been adequately addressed and excluded this area from the land allocated for housing.

It is contended that flood risk issues can be adequately addressed by localised ground raising and provision of compensatory storage. The accompanying Flood Risk Statement supports this position.

The allocation and development of the western portion of this site would permit the continuation of the street frontage to Loirsbank Road formed by the previous development to the east. This would mirror the existing housing to the north and round off the site completing development at a natural point where the land begins to rise to the west and the character of the area changes.

The development of the site would help meet a continuing demand in the area for high quality, low density housing not forming part of a large sub-urban housing development. It would deliver the public benefits highlighted in the bid form and should be supported.

Do not scale from this drawing.



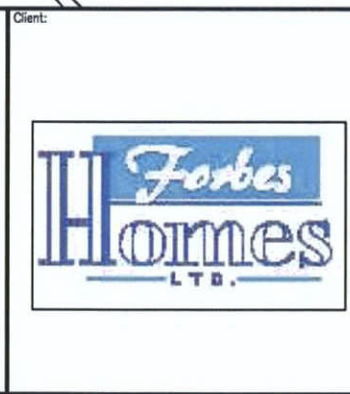
THIS REGISTER IS A NON-EXHAUSTIVE LIST OF RESIDUAL HAZARDS RELATING TO THE WORKS SHOWN ON THIS DRAWING THAT HAVE BEEN IDENTIFIED DURING THE DESIGN STAGE.

SIGNIFICANT RESIDUAL HAZARDS	DETAILS
EXISTING SERVICES	CONTRACTOR TO LIAISE WITH SERVICE AUTHORITIES AS NECESSARY AND GET SIGN PRIOR TO EXCAVATIONS
INTERFACE WITH PUBLIC AND VEHICLES	CONTRACTOR TO PROVIDE ADEQUATE TRAFFIC MANAGEMENT.

Rev.	Date	Description	Drawn	Checked	Approved

Notes: _____

Client: _____



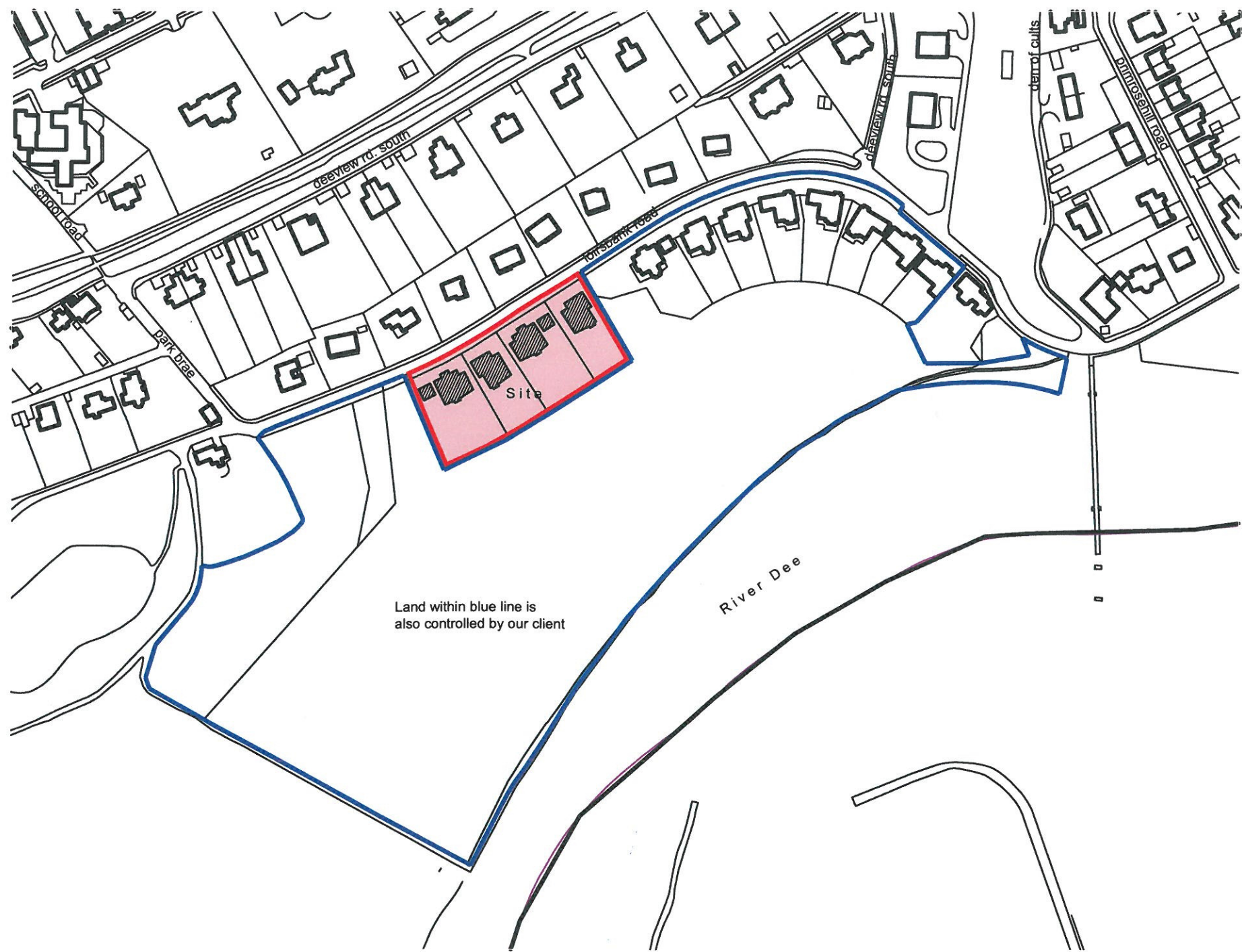
Project Title:
**4 HOUSE DEVELOPMENT AT
 LOIRSBANK ROAD
 CULTS
 ABERDEEN**

Drawing Title:
SITE LOCATION PLAN

FAIRHURST

W.A. Fairhurst & Partners
 88 Queens Road, ABERDEEN, AB15 4YQ
 Tel: 01224 321 222 Fax: 01224 323 201

Scale at A3: 1:2500	Status: For Information
Drawn: ZLH	Checked: DA
Date: 26/10/11	Approved: LAM
Date: 26/10/11	Date: 26/10/11
Date: 26/10/11	Date: 26/10/11
Drawing No.: 91116/0001	Revision: -

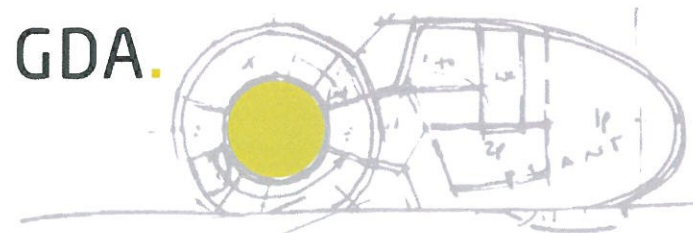


NORTH



LOCATION PLAN 1:2500

GDA.



GRAMPIAN DESIGN ASSOCIATES
 ARCHITECTS AND DESIGN CONSULTANTS
 116 ROSEMOUNT PLACE, ABERDEEN, AB25 2YW
 TEL 01224 624724 FAX 01224 649394
 info@grampian-design.co.uk www.grampian-design.co.uk

REV NO.	DESCRIPTION	DATE
B	BLUE LINE AREA AMENDED	21.10.11
A	BLUE LINE AREA AMENDED	19.10.11
CLIENT FORBES HOMES LTD		
PROJECT RESIDENTIAL DEVELOPMENT AT		
CONTENT LOIRSBANK ROAD, CULTS, ABERDEEN		
SCALE	1:2500	DATE OCTOBER 2011
JOB REFERENCE	11/2426	DRAWING 07
		REV B

Residential Development at
Loirsbank Road, Cults



Transport Statement

October 2011

CONTROL SHEET

CLIENT: Forbes Homes Ltd
PROJECT TITLE: Residential Development at Loirsbank Road, Cults
REPORT TITLE: Transport Statement
PROJECT REFERENCE: 91116

Issue and Approval Schedule:

ISSUE	Name	Signature	Date
Prepared by	W ZOU		26/10/2011
Reviewed by	K Clark		27/10/2011
Approved by	K Clark		27/10/2011

Revision Record:

Issue	Date	Status	Description	By	Chk	App
2						
3						
4						
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This report has been prepared in accordance with procedure OP/P02 of W A Fairhurst & Partners' Quality Assurance System.

1 Introduction

1.1 Background

- 1.1.1 The following Transport Statement has been carried out by W.A. Fairhurst & Partners on behalf of Forbes Homes Ltd for the development of 4 no. houses development at Lorisbank Road, Cults, Aberdeen.
- 1.1.2 The proposed development forms Phase 2 of an adjacent development of 8 units by Forbes Homes, granted planning consent in October 2010 (Application No P101384). The site location plan is provided in Appendix A.

2 Accessibility

2.1 Site Location

2.1.1 The site is located on Loirsbank Road in the Cults area, in the west of Aberdeen City. Access to the A93, lying to the north, is available via Deevie Road South and St. Devenick's Place. Loirsbank Road connects eastwards to Inchgarth Road, which continues eastwards to become Garthdee Road eventually linking to the A90 trunk road at Bridge of Dee.

2.2 Road Accessibility

2.2.1 Deevie Road South is a narrow road with tight corner radii along its route, crossing. It would be considered to be of sub-standard design, if based on the specification for new residential roads contained in the 1998 Aberdeen City Council Guidelines. However, these standards are largely superseded with the publication of Designing Streets by the Scottish Government. Designing Streets advocates a very different approach to the previous standards-based design which simply encouraged higher traffic speeds.

2.2.2 Designing Streets on the other hand supports the use of natural traffic calming achieved through non-linear street design. This is evident from typical advice given in Designing Streets such as:

Street dimensions – can have a significant influence on speeds. Keeping lengths of street between junctions short is particularly effective.

Reductions in forward visibility – are associated with reduced driving speeds.

Changes in priority/or no priority – at junctions. This can be used to disrupt flow and therefore bring overall speeds down.

Physical features – involving vertical or horizontal deflection can be very effective in reducing speed.

“Straight and uninterrupted links should therefore be limited to this range (of 60-80 metres) to help ensure that the arrangement has a natural traffic-calming effect”.

“Designs should not rely solely on conventional traffic calming techniques. Speed controlling features should be built into the layout of the street, taking advantage of building alignment, parking, road narrowings, landscaping and other design features”.

2.2.3 Therefore, the layout of Deevie Road South, rather than being viewed as a road safety hazard simply on the basis of it not meeting the previous design standards, actually embodies all of the features of street design currently being advocated in Designing Streets, achieving the desired effect of naturally reducing traffic speeds.

2.2.4 Designing Streets also provides new guidance on junction visibilities based on the same principle of natural traffic calming. The advice now being given in Designing Streets is that a minimum ‘x’ distance of “2 m may be considered in some very lightly-trafficked and slow-speed situations”, and the ‘y’ distance “should be based on values for SSD”. Currently, due to vegetation overhanging the public footpath at the junction, visibility to the left from Loirsbank Road is reduced to around 20-25 metres from a 2.4 metre x-distance. This visibility is suitable for a design speed of around 20 mph, in accordance with Designing Streets criteria as specified in the below table:

Speed	Kilometres per hour	16	20	24	25	30	32	40	45	48	50	60
	Miles per hour	10	12	15	16	19	20	25	28	30	31	37
	SSD (metres)	9	12	15	16	20	22	31	36	40	43	56
	SSD adjusted for bonnet length	11	14	17	18	23	25	33	39	43	45	59

2.2.5 Due to the geometry of Deevie Road South, speeds of below 20mph will be prevalent at this location, and observed as being down to almost walking speed at the junction itself due to the tight radius bend. Additional visibility from Loirsbank Road could be achieved by cutting back the vegetation. Consideration could be given to changing the priority at the junction to make Loirston Road the main road, as greater visibility is achieved from Deevie Road South, however this measure is only likely to increase vehicle speeds in the locality and would be counter-productive.

2.2.6 We note that the road is used as a commuter route, however it is anticipated that the recent traffic calming scheme installed on Inchview Road will have discouraged much of the through traffic on this route.

2.2.7 With regards to intensification of the use of the junction, the introduction of 4 No. residential units is likely to generate around 2-3 additional vehicles in the peak periods, the effect of which will be negligible.

2.3 Pedestrian and Cycling Accessibility

2.3.1 There is a continuous footway on one side of Deevie Road South providing a connection between the site and North Deeside Road in Cults. It is recognised that the footway is narrow, however, pedestrians are only required to cross the road once, at the traffic signals. Crossing the bridge across the old railway line between

Deeview Road South and St. Devenick's place involves crossing at the dropped kerbs provided then using the footway on the bridge.

- 2.3.2 Cycling on Deeside Road south would take place on-road, which is suitable in low-speed traffic situations, which is the case on this route and would not necessarily be if the road were designed to typical roads standards.
- 2.3.3 The gradient of the road between Loirsbank Road and North Deeside Road whilst steep for pedestrians and cyclists, is not insurmountable and would be taken into account by potential residents with regards to accessibility and sustainable travel choices.
- 2.3.4 Links to the Deeside Way are available from Deeview Road South and this provides a dedicated off-road route to the City, as well as local areas to the east and west such as Cults and Bielside. The Deeside Way forms a valuable part of the local pedestrian and cycling network in this area and provides excellent walking and cycling accessibility in this area.

2.4 Bus Accessibility

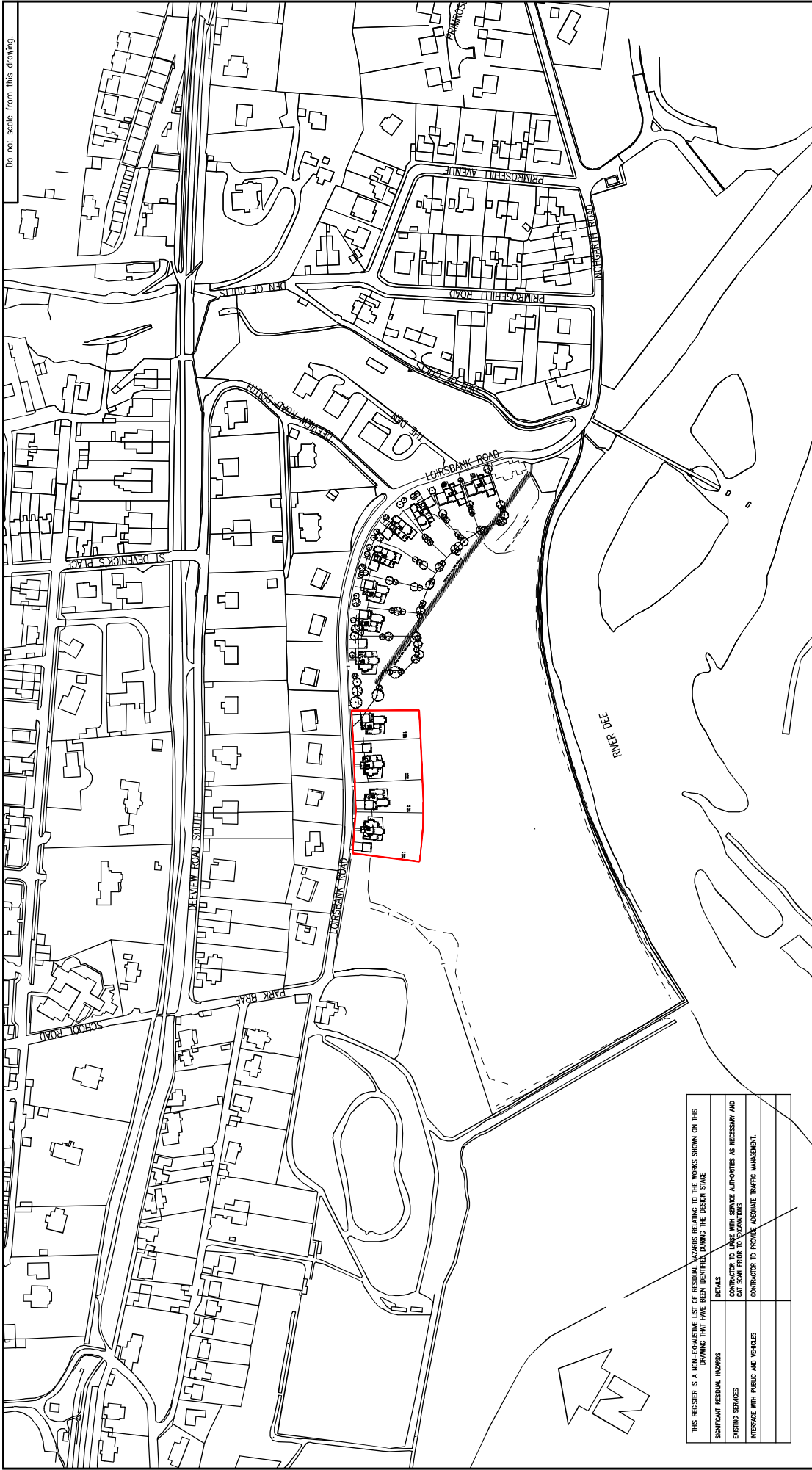
- 2.4.1 Frequent bus services to and from the city, as well as destinations to the west, are available on the A93 to the north of the site. Stops are provided to the east and west of the junction of St Devenick's Place and North Deeside Road approximately 600 metres from the site. Stops on North Deeside Road can also be accessed via Station Road approximately 550 metres from the site.

3 Summary

3.1 Summary

- 3.1.1 The area around Loirsbank Road is naturally traffic-calmed, creating low traffic speeds and embodies the very layout criteria currently being advocated in the latest design guidance produced by the Scottish Government. The intensification in the use of the junction is limited to around 2-3 additional vehicles in the peak periods, and the visibility at the existing junction is sufficient when viewed in the context of the surrounding road conditions and prevalent traffic speeds, which are more of a desirable feature at this location than a hazard.
- 3.1.2 Access to the Deeside Way off road walking/cycle path close by provides excellent walking and cycling accessibility to and from the City Centre and neighbouring areas. The gradients involved in reaching the Deeside Way from Loirsbank Road whilst steep are not insurmountable and would be taken into account by potential residents. The natural traffic calming on the surrounding roads assists the walking and cycling environment by reducing traffic speeds.

Appendix A
Site Location Plan



THIS REGISTER IS A NON-EXHAUSTIVE LIST OF RESIDENTIAL WORKS RELATING TO THE WORKS SHOWN ON THIS DRAWING THAT HAVE BEEN IDENTIFIED DURING THE DESIGN STAGE.

SIGNIFICANT RESIDENTIAL IMPACTS	DETAILS
EXISTING SERVICES	CONTRACTOR TO LIAISE WITH SERVICE AUTHORITIES AS NECESSARY AND OBTAIN PRIOR TO COMMENCEMENT
INTERFACE WITH PUBLIC AND VEHICLES	CONTRACTOR TO PROVIDE ADEQUATE TRAFFIC MANAGEMENT.

Rev.	Date	Description	Drawn	Checked	Approved



Project Title
**4 HOUSE DEVELOPMENT AT
 LOIRSBANK ROAD
 CULTS
 ABERDEEN**

Drawing Title
SITE LOCATION PLAN

FAIRHURST		
M.A. Fairhurst & Partners, 45, King Street, Aberdeen, Scotland, G3 7LN. Tel: 01224 321122 Fax: 01224 323201		
Scale of A3:	Status: For Information	
1:2500	Drawn:	Checked:
	ZLH	DA
	Date:	Approved:
	28/10/11	LAM
	28/10/11	Date:
		28/10/11
	Drawing No.:	Revision:
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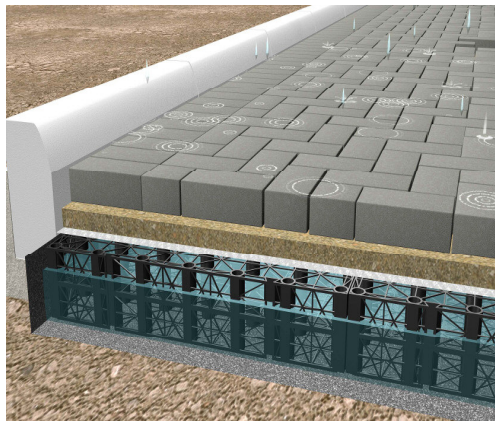
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PORTS & HARBOURS • GEOTECHNICAL & ENVIRONMENTAL ENGINEERING • PLANNING &
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	Wellesbourne

FAIRHURST

Loirsbank Road, Cults, Aberdeen



Drainage Assessment

October 2011

FAIRHURST

engineering solutions, delivering results

CONTROL SHEET

CLIENT: Forbes Homes

PROJECT TITLE: Loirsbank Road, Cults, Aberdeen

REPORT TITLE: Drainage Assessment

PROJECT REFERENCE: 91116

Issue and Approval Schedule:

ISSUE 1 Final	Name	Signature	Date
Prepared by	D Aitken	DA	18/10/2011
Reviewed by	P Quak	PQ	18/10/2011
Approved by	L Harper	ZH	18/10/2011
Issue details	Final document		

Revision Record:

Issue	Date	Status	Description	By	Chk	App
2						
3						
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6						
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This report has been prepared in accordance with procedure OP/P03 of W A Fairhurst & Partners' Quality Assurance System.

Contents

Drainage Assessment	4
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This drainage assessment is prepared in accordance with the guidance given in the following documents:-

Drainage Assessment – A guide for Scotland, produced by SEPA on behalf of the Sustainable Urban Drainage Scottish Working Party (SUDSWP), May 2005.

Planning Advice Note (PAN) 61: Planning and Sustainable Urban Drainage Systems, issued by the Scottish Executive Development Department, July 2001.

The SUDS Manual – (CIRIA C697).

Sewers for Scotland, Second Edition, November 2007, published by WRc plc.

The Development Proposal

Forbes Homes propose to build 4 new houses on a 0.555 hectare greenfield site at Loirsbank Road, Cults, Aberdeen, immediately west of their previous 8 unit development. The site is located at OS Grid Ref NJ89400260 and is bound to the north by Loirsbank Road, to the east by the previous residential development, south by agricultural land with the River Dee immediately beyond and to the west by existing woodlands.

Existing Drainage

The site generally slopes from the highest boundary at Loirsbank Road in the north to the south at an average gradient of 1 in 13. Site levels will be raised locally in order to provide level platforms for the units.

There is an existing 150mm diameter combined sewer to the north of Loirsbank Road within private residential garden grounds. There is also a 600mm diameter combined sewer to the south within the developer's agricultural land.

There is a 300mm diameter surface water sewer running past the western boundary discharging to the River Dee in the south. With a 150mm diameter foul sewer in the east, extended previously to service the 8 residential units, this discharges to the combined sewer in the south.

There is also an existing aqueduct running along the northeast boundary of the site.

Site Conditions

Infiltration tests were carried out in February 2011 for the adjacent 8 unit development in accordance with BRE Digest 365, a total of 4 infiltration test pits were recorded, The results of these indicated infiltration rate "f" values of between 1.50×10^{-5} and 7.78×10^{-6} . Infiltration rates greater than 10^{-6} m/sec indicate that the subsoil's are suitable for the disposal of water direct to ground and it is therefore considered that the use of soakways may be suitable for draining this development.

Foul Drainage

New foul sewers will be provided to serve the development and will be located within the field to the south. Sewers will be designed and installed in accordance with "Sewers for Scotland, Second Edition, November 2007", published by WRc plc.

The new foul sewers will connect into the existing combined sewer in the south running west to east.

Each plot will discharge to the new sewer via a single disconnecting chamber located within its own curtilage.

Surface Water Drainage

Referring to Chapter 5 of The SUDS manual (CIRIA C697) and SEPA guidance, residential developments of less than 50 units require only 1 level of treatment, therefore the surface water run-off will be dealt with as follows:-

Source control – Run-off from each of the 4 unit's roofs and driveways will be drained to individual infiltration trenches within their own curtilage. These infiltration trenches will provide the single level of SUDS treatment.

Hydraulic Control

In accordance with the Drainage Assessment guide, the rate and volume of surface water run-off from the post development situation should not exceed the surface water run-off from the existing greenfield site.

The infiltration trenches have been designed in accordance with BRE Digest 365 and will contain the run-off volume generated by the critical 30 year return period rainfall event.

Refer to the attached calculations for details of the infiltration trench designs.

Run-off volumes generated on the development site by larger rainfall events, which are not contained within the infiltration measures, will overflow to the field to the south which is at a lower level than the development. No existing or proposed properties will be affected by these flows.

Maintenance

It is anticipated the adoption and maintenance of the above drainage measures will be as follows:

The foul sewer and associated manholes will be adopted and maintained by Scottish Water.

Each plot internal drainage system, including SUDS measures will remain private and will be owned and maintained by the site owners/occupiers. A maintenance regime will be produced for these measures and will consist of biannual check and cleaning as necessary to maintain the performance of the system.

Construction Phase SUDS

A method statement, detailing how surface water arising during construction will be dealt with, will be prepared by the contractor for approval prior to commencement of works on site.

Appendix A - Calculations

Plots 1 & 3 Micro Drainage Infiltration trench design

Plots 2 & 4 Micro Drainage Infiltration trench design

Appendix B - Drawings

91116-2200 Conceptual Drainage Layout

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Flood Risk Statement

This Flood Risk Statement has been prepared by W A Fairhurst & Partners on the instruction of Forbes Homes. It has been prepared in support of the proposed development of 4 units of housing at Loirsbank Road, Cults.

This statement will firstly describe the proposals and relevant local and national planning policies. It will then describe possible sources of flood risk and justify the basis for the view that the site is not at risk of flooding.

Development proposals

A residential development comprising 4 detached dwellings is proposed by Forbes Homes at Loirsbank Road, Cults. The development will front onto Loirsbank Road. The site is located in predominantly open ground to the south of Loirsbank Road in the vicinity of its junction with Deevie Road South. It is bounded to the south-east by open ground falling towards the banks of the River Dee. The site location is shown on Fairhurst drawing no. 91116/0001.

The development comprises four medium to large detached houses. The plots have been numbered for reference Plots 1 to 4 running from east to west. The site layout is shown on Grampian Design Associates (GDA) drawing no. 11/2426-02 Rev. A.

The site of the proposed development lies to the west of an adjacent Forbes Homes development comprising 8 detached dwellings fronting onto Loirsbank Road. Planning consent was granted for the adjacent development in 2010.

The site of the proposed development is the subject of a separate planning application reference P111153 for formation of an agricultural access, including field gates. The two proposals are mutually exclusive.

Existing site topography

Loirsbank Road falls gently to the east and west from a high point at a level of about 18.1m at its junction with Deevie Road South. At the location of the westernmost house, Plot 4, the road level is approximately 16m, falling to about 15m at Plot 1. The existing ground within Plots 1 to 4 is set lower than adjacent road level, falling steeply away from the road to the south-east to a level of about 10m, and then falling more gently towards the banks of the River Dee.

The southern boundary of the site is set approximately 25m from the rear of the new houses and varies in level from about 7.2m to 9.7m. The lowest part of the site is at the south-eastern boundary of the site at the boundary between Plots 2 and 3, which is at approximately the 7.2m contour. The River Dee floodplain to the south-east is at a typical level of about 7m.

Proposed development levels

Drawings have been prepared by GDA showing sections through the site at the location of each proposed house. The sections are shown on GDA drawing nos. 11/2426-04 Rev. A. The houses on Plots 1 to 4 are on infill in order to provide access at first floor level from Loirsbank Road. The designs involve a lower floor at the rear of the house. The lowest proposed house floor level is at Plots 1 and 2, where the proposed finished floor level of the lower floor is 12.17m.

Planning policy

Aberdeen Local Plan: The Aberdeen Local Plan was formally adopted on 25 June 2008. New communities and land allocations are discussed in Section 2.2 of the plan; which identifies the site at Loirsbank Road for housing. In terms of Figure 8b an assessment of flood risk demonstrating acceptable consequences is required.

Policy 24: Planning and Flooding explains that development will be assessed in accordance with the risk framework and other guidance contained within (the now superseded) SPP7 Planning and Flooding. To ensure that proper precautions are taken against the risk of flooding the policy lists 4 criteria which if met would suggest that development should not be permitted. These can be summarised as:

1. it would increase the risk of flooding:
 - By reducing the capacity of, or increasing the flows within a flood plain;
 - Through the discharge of additional surface water; or
 - By harming flood defences.
2. it would be at risk itself from flooding;
3. adequate provision is not made for access to watercourses for maintenance; or
4. it would result in the construction of new or strengthened flood defences that would have a significantly damaging effect on the natural heritage interests within and adjacent to a watercourse.

Surface water drainage and disposal associated with development must:

- be the best available in terms of SUDS;
- be dealt with in a sustainable manner; and
- avoid flooding and pollution both during and after construction.

Scottish Planning Policy: Scottish Planning Policy (SPP) is a statement of Scottish Government Policy on land use planning. Published on 4 February 2010, the SPP consolidates the existing SPP and NPPG series of guidance.

The topic of flooding and drainage is discussed in paragraphs 196 – 211. It is explained that flooding is a natural process which although can not be prevented, can be managed. Paragraph 197 states that '*development which would have a significant probability of being affected by flooding or would increase the probability of flooding elsewhere should not be permitted*'. It is therefore the responsibility of the planning authority to have regard to the risk of flooding when preparing development plans and determining planning applications.

Paragraph 204 describes the basis for planning decisions made in relation to flood risk. A risk framework is provided which divides flood risk into three categories and outlines an appropriate response to each. It goes on to list a number of criteria which should be considered when applying the framework. They are stated as:

- the characteristics of the site;
- the use and design of the proposed development;
- the size of the area likely to flood;
- depth of water, likely flow rate and path, rate of rise and duration;
- existing flood prevention measures – extent, standard and maintenance regime;
- allowance for freeboard;
- cumulative effects of development, especially the loss of flood storage capacity;

- cross boundary effects and the need for consultation with adjacent authorities;
- effects of flood on access including by emergency services;
- effects of a flood on proposed open spaces including gardens; and
- the extent to which the development its materials and construction are designed to be water resistant.

PAN 69 Planning and Building Standards Advice on Flooding (August 2004): PAN 69 provides background information on best practice to prevent development which would have a significantly high probability of being affected by flooding or would increase the probability of flooding elsewhere.

Site allocation

The site is allocated for housing development in Section 2.2 of the adopted local plan. The plan identifies the site at Loirsbank Road as lying within site OP124 suitable for accommodating 10 units of housing.

Sources of flood risk

The following potential sources of flood risk have been considered:

Fluvial flooding: The site is set on rising ground adjacent to the River Dee. Where sites are located in the vicinity of a watercourse it is necessary to consider fluvial flood risk. Accordingly, information has been obtained from a previous study. It has been concluded that the site is located outwith the functional floodplain of the River Dee and is protected against flooding to the standards required by national and local planning policy. This is set out in more detail below.

Overland flow: Flood risk arising from overland flow from extreme pluvial events that exceed the capacity of surface water sewers has been considered. A small area to the north and north-west of Loirsbank Road falls towards the site. However, any overland flow reaching Loirsbank Road is likely to flow east and west down Loirsbank Road and thence to the River Dee. The design of the entrance to each plot will ensure that surface water is directed away from the houses.

Sewer flooding: Flood risk from sewers has been considered. The proposed houses are set below the level of the adjacent road. The design of the entrance to each plot will ensure that any sewer flooding occurring outside the plot is directed away from the houses. The design of foul drainage and sanitary fittings within each plot will ensure that backflow of sewage cannot occur.

Groundwater flooding: The site is not considered vulnerable to groundwater flooding because of its sloping topography and location.

Infrastructure failure: No potential source of flooding from infrastructure failure has been identified.

Coastal flooding: The site is not subject to coastal flood risk as it is set above possible sea levels.

Previous studies on fluvial flood risk

A study on flood risk from the River Dee was carried out by consultants on behalf of Aberdeen City Council and Aberdeenshire Council. The study report, entitled River Dee Flood Study Final Report was issued in December 2004. This study extended from Aberdeen Harbour upstream to Park flow gauging station and covered the reach of the river adjacent to the Loirsbank Road site. The study included hydrological assessment of the River Dee and its various tributaries between Park and the sea, based on the Flood Estimation Handbook methodology, and construction of a numerical hydraulic model to allow prediction of water levels in flood events. The numerical model was based on extensive cross-section surveys of the river.

As part of the study, water levels were predicted for events up to 1 in 200 year return period. In addition, model runs were carried out for a 20% increase in flow rates to take account of the possible future effects of climate change.

Model output for the Loirsbank Road site for the 1 in 200 year event has been obtained from the study report Appendix D.1. Model output for the 1 in 200 year event plus climate change allowance has been obtained from the Councils' consultants.

Location	Water level (m AOD)	
	200 year	200 year + 20%
Left bank floodplain adjacent to Loirsbank Road	10.95	11.57

The recommended methods of flow prediction in the Flood Estimation Handbook have been revised since the Council study was carried out in 2004. In addition, further years of record are available at local gauging stations on the River Dee. A re-assessment has been carried out of the flow predictions at Park gauging station, which were used as input to the numerical model. Predicted flows using current methodology and data are significantly lower than those used in the 2004 study. It has been concluded that the 2004 study predictions are conservative and their use provides an additional factor of safety. Water level predictions used in this assessment originate from the 2004 study.

Fluvial flood risk to site

The extent of the 1 in 200 year event plus 20% increase in flows to allow for climate change is shown on Fairhurst drawing no. 91116/2600. The majority of the area of the plots is below the 1 in 200 year plus climate change event level, but the access to Loirsbank Road at the front of the plots is well above the predicted flood level.

Flood protection proposals

The proposed infill within the house plots will bring ground levels in front of and around the houses above predicted flood levels. The proposed minimum house floor level of 12.17m at Plots 1 and 2 provides a freeboard of 0.6m above predicted flood level of 11.57m in the 1 in 200 year event plus 20% increase in flows to allow for climate change.

Parts of the rear gardens of all four plots will remain within the functional floodplain of the River Dee based on the 2004 Aberdeen City/Aberdeenshire study and may be subject to periodic inundation.

Access and egress during emergencies

A safe egress route to higher ground and access for emergency services during flood events on the River Dee is available. The route is from Loirsbank Road via Deeview Road South and St. Devenick's Place to the A93 North Deeside Road.

Floodplain storage

Infilling is referred to within SPP as landraising, which involves permanently elevating a site above the functional flood plain. Landraising within the functional floodplain of the River Dee will result in a loss of floodplain storage volume. The loss of storage volume is very small relative to the natural storage within the River Dee system and is unlikely to result in any detectable alteration in flood levels.

However, SPP requires that proposals for landraising should:

- be linked to the provision and maintenance of compensatory flood water storage to replace the lost capacity of the functional flood plain,
- have a neutral or better effect on the probability of flooding elsewhere, including existing properties,
- not create a need for flood prevention measures elsewhere,
- not create islands of development but should adjoin developed areas outwith the functional flood plain, and
- be set back from the bank of the watercourse.

In order to comply with SPP requirements on landraising, compensatory storage proposals have been prepared. The proposals are shown on Fairhurst drawing no. 91116/2601. The compensatory storage has been designed to provide at least level-for-level compensation in accordance with SEPA guidance. The storage volumes lost and provided are detailed on the table on drawing no. 91116/2601. The volumes of compensatory storage provided exceed the volume lost at each increment of level.

Conclusion

The proposed development site is protected against flood risk from fluvial flooding from the River Dee to an acceptable standard. A freeboard has been provided above the 1 in 200 year flood level including allowance for climate change. The standard of protection is in accordance with local and national planning policy. Potential flood risk from other sources has been addressed in the design of the plots.

Part of the site lies within the functional floodplain of the River Dee. There is a loss of floodplain storage associated with the proposal. Compensatory storage on a level-for level basis is required and has been allowed for in the proposal in accordance with Scottish Planning Policy.

No effects on flood risk elsewhere are anticipated due to the replacement of lost floodplain storage with compensatory storage at the appropriate level.

It is concluded that the site can be developed in accordance with national and local policy regarding flood risk.

W A Fairhurst & Partners Aberdeen office	26 October 2011 91116/01
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