PP0929

PROPOSED ABERDEENSHIRE LOCAL DEVELOPMENT PLAN 2020

RESPONSE FORM

As part of the production of the Local Development Plan, a 'Main Issues Report' was published in January 2019. The responses from these consultations have helped to inform the content of the Proposed Local Development Plan ("the Proposed Plan").

The Aberdeenshire Local Development Plan will direct decision-making on land-use planning issues and planning applications in Aberdeenshire for the 10-year period from 2021 to 2031. The Proposed Plan was agreed by Aberdeenshire Council in March 2020 as the settled view of the Council. However, the Proposed Plan will be subjected to an independent examination and is now open for public comment.

This is your opportunity to tell us if anything should be changed in the Proposed Plan, and why.

When writing a response to the Proposed Plan it is important to specifically state the modification(s) that you would wish to see to the Plan.

This is the only remaining opportunity to comment on the Proposed Plan. The reasons for any requested changes will be analysed and reported to Scottish Ministers. They will then appoint a person known as a Reporter to conduct a public examination of the Proposed Plan, focusing particularly on any unresolved issues and the changes sought.

Ministers expect representations (or responses) to be concise (no more than 2000 words) and accompanied by limited supporting documents. It is important to ensure that all of the information that you wish to be considered is submitted during this consultation period as there is no further opportunity to provide information, unless specifically asked.

Please email comments to ldp@aberdeenshire.gov.uk or send this form to reach us by 31 July 2020*.

We recommend that you keep a copy of your representation for your own records.

**UPDATE 16 June 2020: Consultation period was extended from 17 July 2020 for a further two-week period.*

Aberdeenshire COUNCIL

ACCESSIBILITY

If you need information from this document in an alternative language or in a Large Print, Easy Read, Braille or BSL, please telephone 01467 536230.

Jeigu pageidaujate šio dokumento kita kalba arba atspausdinto stambiu šriftu, supaprastinta kalba, parašyta Brailio raštu arba britų gestų kalba, prašome skambinti 01467 536230.

Dacă aveți nevoie de informații din acest document într-o altă limbă sau într-un format cu scrisul mare, ușor de citit, tipar pentru nevăzători sau în limbajul semnelor, vă rugăm să telefonați la 01467 536230.

Jeśli potrzebowali będą Państwo informacji z niniejszego dokumentu w innym języku, pisanych dużą czcionką, w wersji łatwej do czytania, w alfabecie Braille'a lub w brytyjskim języku migowym, proszę o telefoniczny kontakt na numer 01467 536230.

Ja jums nepieciešama šai dokumentā sniegtā informācija kādā citā valodā vai lielā drukā, viegli lasāmā tekstā, Braila rakstā vai BSL (britu zīmju valodā), lūdzu, zvaniet uz 01467 536230.

Aberdeenshire Local Development Plan
Woodhill House, Westburn Road, Aberdeen, AB16 5GB

Tel: 01467 536230
Email: ldp@aberdeenshire.gov.uk
Web: www.aberdeenshire.gov.uk/ldp
Follow us on Twitter @ShireLDP

If you wish to contact one of the area planning offices, please call 01467 534333 and ask for the relevant planning office or email planning@aberdeenshire.gov.uk.

Please use this form to make comments on the Proposed Aberdeenshire Local Development Plan 2020. If you are making comments about more than one topic it would be very helpful if you could fill in **a separate response form for each issue you wish to raise**.

Please email or send the form to reach us by 31 July 2020 at the following address:

Post: Planning Policy Team, Infrastructures Services
Aberdeenshire Council, Woodhill House, Westburn Road, ABERDEEN, AB16 5GB

Email: ldp@aberdeenshire.gov.uk

Please refer to our **Privacy Notice** at the end of this form for details of your rights under the Data Protection Act.

YOUR DETAILS

Title:	Mr
First Name:	Michael
Surname:	Lorimer
Date:	28/7/20
Postal Address:	Ryden LLP, [redacted]
Postcode:	[redacted]
Telephone Number:	[redacted]
Email:	[redacted]

Are you happy to receive future correspondence only by email? Yes✓ ☐ No ☐

Are you responding on behalf of another person? Yes✓ ☐ No ☐

If yes who are you representing? **Bancon Homes Ltd**

☐ Tick the box if you would like to subscribe to the Aberdeenshire LDP eNewsletter: ✓

An acknowledgement will be sent to this address soon after the close of consultation.

YOUR COMMENTS

Please provide us with your comments below. We will summarise comments and in our analysis will consider every point that is made. Once we have done this we will write back to you with Aberdeenshire Council's views on the submissions made. We will publish your name as the author of the comment, but will not make your address public.

Modification that you wish to see (please make specific reference to the section of the Proposed Plan you wish to see modified if possible, for example Section 9, paragraph E1.1):

Proposed Plan Appendix 13 – Aberdeenshire Special Landscape Areas – South East Aberdeenshire Coast (Pages 1060 – 1067).

Request modification of Map 2 (Page 1065). The SLA boundary should be updated and moved to the east, to follow the line of the Coastal Tourist Route, leading south from Stonehaven before connecting with the A92 at the Junction South of Dunnottar Woods. For clarity, an annotated map is provided at Appendix 1.

Reason for change:

On behalf of Bancon Homes Ltd, objection is taken to Appendix 13 – Aberdeenshire Special Landscape Areas of the Proposed Plan. It is considered that this should be amended to adjust the associated boundaries to the immediate south of Stonehaven in line with the annotated Map, as contained at Appendix 1. This would see a minor shift of the SLA boundary to the east, to follow the line of the Coastal Tourist Route south of the settlement, beyond Dunnottar Castle, before connecting with the junction of the A92 to the south of Dunnottar Woods and following the main A92 route thereafter.

This representation should be read in conjunction with Bancon's Development Bid (Appendix 2) and representation to the MIR (Appendix 3) seeking a residential allocation at Land South of Braehead, Stonehaven (Site KN078). That site forms a potential phasing option as part of a larger development Bid KN077, encompassing land at East Newtonleys, between the A957 and Bogarty Head, to the south of Stonehaven. A masterplan of the larger site is included at Appendix 4. The eastern portion of KN078, which is situated to the north east of the larger East Newtonleys Bid (KN078), falls within the proposed SLA boundary. Accordingly, Bancon Homes would request adjustment of the SLA boundary, as detailed above and to reflect the annotated Map provided within Appendix 1. This would remove the small area of land sought within the abovementioned Bids from the SLA.

Bancon Homes recognise the importance of SLA designations, which seek to protect and enhance these valued landscapes across Aberdeenshire. However, having reviewed the South East Aberdeenshire SLA, it is maintained that the suggested adjustments to the boundary as detailed within Appendix 1 would pose no conflict with the general aims and objectives of the SLA designation. Indeed, the revised boundary would better align with the SLA description and continue to afford protection to the most important characteristics of the area, as detailed within the supporting Designation Statement.

The Designation Statement notes that the Southeast Aberdeenshire coast is identified by a general southeast facing orientation with important views out toward the North Sea. With regard to the area North of Bervie Bay, the coast is characterised by more 'rugged' landscape, with interesting features such as stacks and arches. It recognises Stonehaven as the largest settlement within this SLA, framed by cliffs, with a working harbour and a wealth of amenities and cultural interests. Dunnottar Castle, deservedly gets special mention as an iconic feature within the SLA and the designation statement specifically highlights that it is approached and appreciated via the coastal route from Stonehaven. In fact the coastal tourist route provides largely uninterrupted views of the coastline and North Sea as it branches off the main A92 and continues north for approximately 2.5km, past Dunnottar Castle and the Stonehaven War Memorial, before connecting with Dunnottar Avenue in Stonehaven.

The small area which would be removed from the SLA as a result of the proposed modifications, encompasses existing farmland around Braehead and East Newtonleys, which lies between the A957 and the Coastal Tourist Route. Due to the topography of this area, panoramic views of the coastline and the North Sea are much more restricted than those which can be appreciated from the coastal route further east. As such, the coastal setting of Stonehaven and key landscape features which characterise the area such as the cliffs, Dunnottar Castle and the War Memorial would remain unimpeded by the proposed change to the boundary.

As highlighted above, Bancon Homes are promoting land for development to the south of Stonehaven, a small portion of which falls within the SLA. This is evident within the attached annotated map (Appendix 1). Separate site specific representations have been prepared in support of those proposals and address landscape impacts. It should be noted that the area lies immediately north of allocated business land, Sites OP5 and BUS2 within both the extant 2017 LDP and the Proposed Plan. It also lies immediately south of the existing settlement boundary, therefore any development of the site would be read in close context with existing residential development and emerging business and industrial development associated with the allocated employment land. Indeed Officers when assessing the bid at MIR stage, acknowledged that it encroached slightly into the South East Aberdeenshire Coast SLA, but importantly noted that it, **"*would not have a detrimental impact on the coastal setting*"**. It is therefore maintained that the small area which currently falls within the SLA makes no significant contribution to the special characteristics of the landscape. Its removal as part of the proposed SLA boundary adjustments sought within the representation should therefore be supported.

It is hereby respectfully requested that the SLA boundary is adjusted in line with the proposed recommendations set out above and within the attached annotated plan (Appendix 1).

PRIVACY NOTICE

LOCAL DEVELOPMENT PLAN PUBLIC COMMENT

The Data Controller of the information being collected is Aberdeenshire Council.

The Data Protection Officer can be contacted at Town House, 34 Low Street, Banff, AB45 1AY.

Email: dataprotection@aberdeenshire.gov.uk

Your information is being collected to use for the following purposes:

- To provide public comment on the Aberdeenshire Local Development Plan. The data on the form will be used to inform Scottish Ministers and individual(s) appointed to examine the Proposed Local Development Plan 2020. It will inform the content of the Aberdeenshire Local Development Plan 2021.

Your information is:

Being collected by Aberdeenshire Council	X

The Legal Basis for collecting the information is:

Personal Data	
Legal Obligations	X

Where the Legal Basis for processing is either Performance of a Contract or Legal Obligation, please note the following consequences of failure to provide the information:

It is a Statutory Obligation under Section 18 of the Town and Country (Scotland) Act 1997, as amended, for Aberdeenshire Council to prepare and publish a Proposed Local Development plan on which representations must be made to the planning authority within a prescribed period of time. Failure to provide details requested in the 'Your Details' section of this form will result in Aberdeenshire Council being unable to accept your representation.

Your information will be shared with the following recipients or categories of recipient:

Members of the public are being given this final opportunity to comment on the Proposed Aberdeenshire Local Development Plan. The reasons for any changes that the Council receives will be analysed and reported to Scottish Ministers. They will then appoint a person to conduct a public examination of the Proposed Plan, focusing particularly on the unresolved issues raised and the changes sought.

Your name and respondent identification number (provided to you by Aberdeenshire Council on receipt of your submission) will be published alongside a copy of your completed response on the Proposed Local Development Plan website (contact details and information that is deemed commercially sensitive will not be made available to the public).

In accordance with Regulation 22 of the Town and Country (Development Planning) (Scotland) Regulations 2008 where the appointed person determines that further representations should be made or further information should be provided by any person in connection with the examination of the Proposed Plan the appointed person may by notice request that person to make such further representations or to provide such further information.

Your information will be transferred to or stored in the following countries and the following safeguards are in place:

Not applicable.

The retention period for the data is:

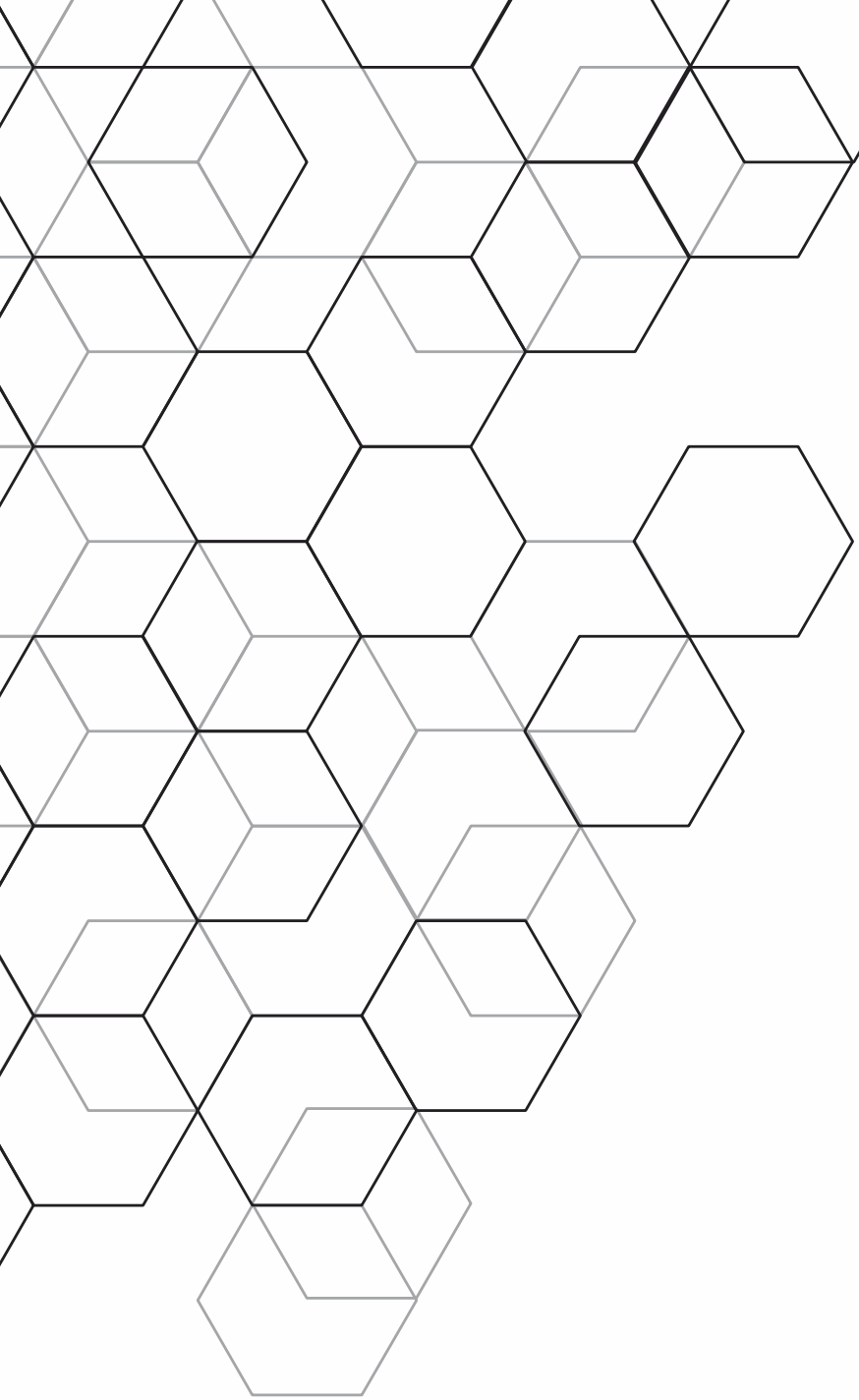
Aberdeenshire Council will only keep your personal data for as long as is needed. Aberdeenshire Council will retain your response and personal data for a retention period of 5 years from the date upon which it was collected. After 5 years Aberdeenshire Council will review whether it is necessary to continue to retain your information for a longer period. A redacted copy of your submission will be retained for 5 years beyond the life of the Local Development Plan 2021, possibly until 2037.

The following automated decision-making, including profiling, will be undertaken:

Not applicable.

Please note that you have the following rights:

- to withdraw consent at any time, where the Legal Basis specified above is Consent;
- to lodge a complaint with the Information Commissioner's Office (after raising the issue with the Data Protection Officer first);
- to request access to your personal data;
- to data portability, where the legal basis specified above is:
  (i) Consent; or
  (ii) Performance of a Contract;
- to request rectification or erasure of your personal data, as so far as the legislation permits.



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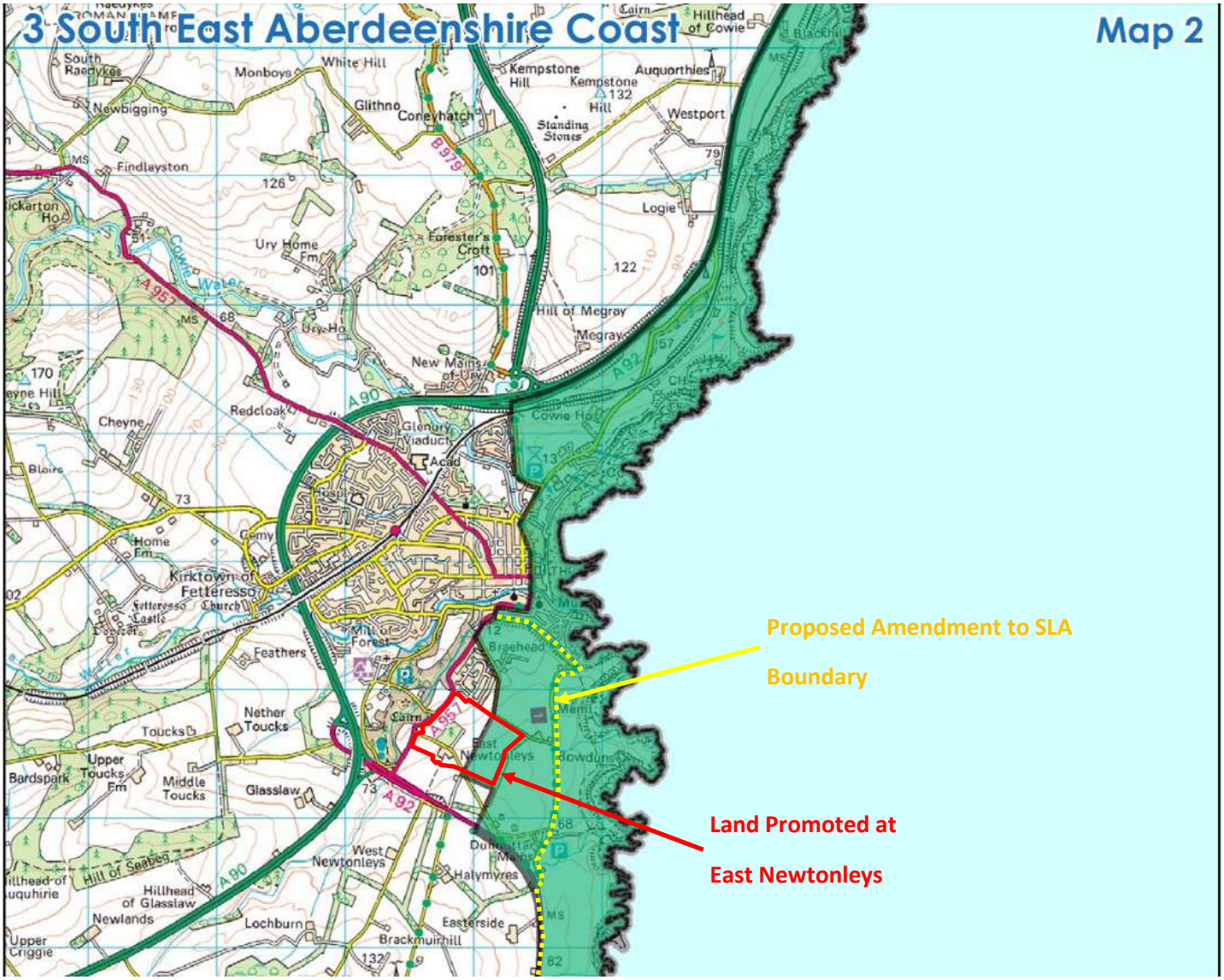
APPENDIX 1

Special Landscape Area Map


3 South East Aberdeenshire Coast
Map 2
Proposed Amendment to SLA Boundary
Land Promoted at East Newtonleys
Monboys
White Hill
Kempstone Hill
Auquorthies
Newbigging
Glithno
Coneyhatch
Standing Stones
Westport
Findlayston
Logie
Ury Home Fm
Forester's Croft
Hill of Megray
Megray
New Mains of Ury
Redcloak
Cheyne
Glenury Viaduct
Acad
Home Fm
Kirktown of Fetteresso
Fetteresso Castle
Feathers
Mill of Forest
Brachead
Nether Toucks
Toucks
Upper Toucks
Bardspark
Middle Toucks
Glasslaw
Hill of Seabeg
Hillhead of Glasslaw
Newlands
Lochburn
West Newtonleys
Halymyres
Easterside
Brackmuirhill
Upper Criggie
Cowie Hse
Cowie Water
A90
A92
A957
B979

APPENDIX 2

Development Bid

4. Site Details

Name of the site (Please use the LDP name if the site is already allocated)	Land south of Braehead, Stonehaven South, Stonehaven.
Site address	Land south of Braehead adjacent A957.
OS grid reference (if available)	NO 870 846
Site area/size	10.0 hectares
Current land use	Agricultural
Brownfield/greenfield	Greenfield
Please include an Ordnance Survey map (1:1250 or 1:2500 base for larger sites, e.g. over 2ha) showing the location and extent of the site, points of access, means of drainage etc.	

5. Ownership/Market Interest

Ownership (Please list the owners in question 3 above)	[redacted]
Is the site under option to a developer?	Yes
	[redacted] land is under option to Bancon Homes Limited.
Is the site being marketed?	No
	It is already under option.

6. Legal Issues

Are there any legal provisions in the title deeds that may prevent or restrict development? (e.g. way leave for utility providers, restriction on use of land, right of way etc.)	No
	If yes, please give details N/A
Are there any other legal factors that might prevent or restrict development? (e.g. ransom strips/issues with accessing the site etc.)	No
	If yes, please give details N/A

7. Planning History

Have you had any formal/informal pre-application discussions with the Planning Service and what was the response?	Yes
	The site has been the subject of extensive discussions resulting in the allocation of adjoining land for development. The intention is to promote it through the appropriate Local Development Plan process.
Previous planning applications	There have been no previous planning applications on the Bid site. However, it was promoted through the 2012 and 2017 Local Development Plans.
Previous 'Call for sites' history. See Main Issues Report 2013 at www.aberdeenshire.gov.uk/ldp	Previous Bid Reference No. KM098 which encompassed the entire Stonehaven South area. Please see details at Q19.
Local Development Plan status www.aberdeenshire.gov.uk/ldp	Is the site currently allocated for any specific use in the existing LDP? Part reserved for a Primary School (P9)
	If yes, do you wish to change the site description and or allocation? No

8. Proposed Use

Proposed use		Residential Development with associated infrastructure, open space and provision for primary school.
Housing	Approx. no of units	100
	Proposed mix of house types	Number of: • Detached: • Semi-detached: Details at Q19 • Flats: • Terrace: • Other (e.g. Bungalows):
		Number of: • 1 bedroom homes: • 2 bedroom homes: Details at Q19 • 3 bedroom homes: • 4 or more bedroom homes:
	Tenure (Delete as appropriate)	Private and Affordable Housing
	Affordable housing proportion	25% or such other proportion as agreed in accordance with Planning Policy requirements at the time of development.
Employment	Business and offices	N/A
	General industrial	N/A
	Storage and distribution	N/A
	Do you have a specific occupier for the site?	N/A
Other	Proposed use (please specify) and floor space	N/A
	Do you have a specific occupier for the site?	N/A
Is the area of each proposed use noted in the OS site plan?		Yes

9. Delivery Timescales

We expect to adopt the new LDP in 2021. How many years after this date would you expect development to begin? (please tick)	0-5 years	✓
	6-10 years	
	10+ years	
When would you expect the development to be finished? (please tick)	0-5 years	✓
	6-10 years	
	+ 10years	
Have discussions taken place with financiers? Will funding be in place to cover all the costs of development within these timescales	No Funding is available to allow development of the site following allocation and grant of the necessary consents.	
Are there any other risk or threats (other than finance) to you delivering your proposed development	No If yes, please give details and indicate how you might overcome them: N/A	

10. Natural Heritage

Is the site located in or within 500m of a nature conservation site, or affect a protected species? Please tick any that apply and provide details. You can find details of these designations at: • https://www.environment.gov.scot/ • EU priority habitats at http://gateway.snh.gov.uk/sitelink/index.jsp • UK or Local priority habitats at http://www.biodiversityscotland.gov.uk/advice-and-resources/habitat-definitions/priority/) • Local Nature Conservation Sites in the LDP's Supplementary Guidance No. 5 at www.aberdeenshire.gov.uk/ldp	RAMSAR Site	No
	Special Area of Conservation	No
	Special Protection Area	No
	Priority habitat (Annex 1)	No
	European Protected Species	No
	Other protected species	No
	Site of Special Scientific Interest	No
	National Nature Reserve	No
	Ancient Woodland	Yes
	Trees, hedgerows and woodland (including trees with a Tree Preservation Order)	No
	Priority habitat (UK or Local Biodiversity Action Plan)	No
	Local Nature Conservation Site	No
	Local Nature Reserve	No
	If yes, please give details of how you plan to mitigate the impact of the proposed development: No development is proposed on the area identified as ancient woodland. It will form an integral part of the development.	
Biodiversity enhancement		
Please state what benefits for biodiversity this proposal will bring (as per paragraph 194 in Scottish Planning Policy), http://www.gov.scot/Resource/0045/00453827.pdf) by ticking all that apply. Please provide details. See Planning Advice 5/2015 on Opportunities for biodiversity enhancement at: www.aberdeenshire.gov.uk/media/19598/2015_05-opportunities-for-biodiversty-enhancement-in-new-development.pdf Advice is also available from Scottish Natural Heritage at: https://www.snh.scot/professional-advice/planning-and-development/natural-heritage-advice-planners-and-developers and http://www.nesbiodiversity.org.uk/.	Restoration of habitats	
	Habitat creation in public open space	✓
	Avoids fragmentation or isolation of habitats	
	Provides bird/bat/insect boxes/Swift bricks (internal or external)	✓
	Native tree planting	✓
	Drystone wall	✓
	Living roofs	
	Ponds and soakaways	✓
	Habitat walls/fences	✓
	Wildflowers in verges	✓
	Use of nectar rich plant species	✓
	Buffer strips along watercourses	✓
	Show home demonstration area	
	Other (please state):	
	If yes, please provide details: Please see details at Q19.	

11. Historic environment

Historic environment enhancement		
Please state if there will be benefits for the historic environment.	Yes	
	If yes, please give details: Development of this site will negate the need to develop sites which may impact on the historic environment.	
Does the site contain/is within/can affect any of the following historic environment assets? Please tick any that apply and provide details. You can find details of these designations at: • http://historicscotland.maps.arcgis.com/apps/Viewer/index.html?appid=18d2608ac1284066ba3927312710d16d • http://portal.historicenvironment.scot/ • https://online.aberdeenshire.gov.uk/smrpub/master/default.aspx?Authority=Aberdeenshire	Scheduled Monument or their setting	Yes
	Locally important archaeological site held on the Sites and Monuments Record	No
	Listed Building and/or their setting	Yes
	Conservation Area (e.g. will it result in the demolition of any buildings)	No
	Inventory Gardens and Designed Landscapes	No
	Inventory Historic Battlefields	No
	If yes, please give details of how you plan to mitigate the impact of the proposed development: Please see details at Q19.	

12. Landscape Impact

Is the site within a Special Landscape Area (SLA)? (You can find details in Supplementary Guidance 9 at www.aberdeenshire.gov.uk/ldp)	No, it sits adjacent.
	If yes, please state which SLA your site is located within and provide details of how you plan to mitigate the impact of the proposed development: Please see details at Q19.
SLAs include the consideration of landscape character elements/features. The characteristics of landscapes are defined in the Landscape Character Assessments produced by Scottish Natural Heritage (see below) or have been identified as Special Landscape Areas of local importance. • SNH: Landscape Character Assessments https://www.snh.scot/professional-advice/landscape-change/landscape-character-assessment • SNH (1996) Cairngorms landscape assessment http://www.snh.org.uk/pdfs/publications/review/075.pdf • SNH (1997) National programme of landscape character assessment: Banff and Buchan http://www.snh.org.uk/pdfs/publications/review/037.pdf • SNH (1998) South and Central Aberdeenshire landscape character assessment	**If your site is not within an SLA**, please use this space to describe the effects of the site's scale, location or design on key natural landscape elements/features, historic features or the composition or quality of the landscape character: Please see details at Q19.

http://www.snh.org.uk/pdfs/publications/review/102.pdf	

13. Flood Risk

Is any part of the site identified as being at risk of river or surface water flooding within SEPA flood maps, and/or has any part of the site previously flooded? (You can view the SEPA flood maps at http://map.sepa.org.uk/floodmap/map.htm)	No If yes, please specify and explain how you intend to mitigate this risk: N/A
Could development on the site result in additional flood risk elsewhere?	No If yes, please specify and explain how you intend to mitigate or avoid this risk: N/A
Could development of the site help alleviate any existing flooding problems in the area?	Yes If yes, please provide details: Surface water run-off from the area flows naturally to the Glasslaw Burn. This can be attenuated.

14. Infrastructure

a. Water / Drainage		
Is there water/waste water capacity for the proposed development (based on Scottish Water asset capacity search tool http://www.scottishwater.co.uk/business/Connections/Connecting-your-property/Asset-Capacity-Search)?	Water	No
	Waste water	Yes
Has contact been made with Scottish Water?	Yes If yes, please give details of outcome: Please see details at Q19.	
Will your SUDS scheme include rain gardens? http://www.centralscotlandgreennetwork.org/campaigns/greener-gardens	Yes Please specify: Dependent on topography and ground conditions.	
b. Education – housing proposals only		
Education capacity/constraints https://www.aberdeenshire.gov.uk/schools/parents-carers/school-info/school-roll-forecasts/	Secondary School capacity is available. Land is already reserved for a replacement primary school which could provide added capacity.	
Has contact been made with the Local Authority's Education Department?	No If yes, please give details of outcome: N/A	
c. Transport		
If direct access is required onto a Trunk Road (A90 and A96), or the proposal will impact on traffic on a Trunk Road, has contact been made with Transport Scotland?	N/A	
Has contact been made with the Local Authority's Transportation Service? They can be contacted at transportation.consultation@aberdeenshire.gov.uk	No If yes, please give details of outcome: N/A	

Public transport	Please provide details of how the site is or could be served by public transport: Available on A957. Please see details at Q19.
Active travel (i.e. internal connectivity and links externally)	Please provide details of how the site can or could be accessed by walking and cycling: Please see details at Q19.
d. Gas/Electricity/Heat/Broadband	
Has contact been made with the relevant utilities providers?	Gas: No If yes, please give details of outcome(s): Network connection available.
	Electricity: No If yes, please give details of outcome(s): Network connection available.
	Heat: No If yes, please give details of outcome(s): N/A
	Broadband: No If yes, please give details of outcome(s): Network connection available.
Have any feasibility studies been undertaken to understand and inform capacity issues?	No Please specify: N/A
Is there capacity within the existing network(s) and a viable connection to the network(s)?	Yes Please specify: Utilities are available adjacent to the site and there is no constraint to development.
Will renewable energy be installed and used on the site? For example, heat pump (air, ground or water), biomass, hydro, solar (photovoltaic (electricity) or thermal), or a wind turbine (freestanding/integrated into the building)	Appropriate technologies available at the time will be used to deliver reduced energy consumption and heat generation.
e. Public open space	
Will the site provide the opportunity to **enhance the green network**? (These are the linked areas of open space in settlements, which can be enhanced through amalgamating existing green networks or providing onsite green infrastructure) You can find the boundary of existing green networks in the settlement profiles in the LDP	Yes Please specify: Landscaped open space will be provided to link with existing features and amenity space within and adjacent to the development. Importantly it will provide connections to Dunnottar Woods to the west and to the pathways to the east as well as to the key points of interest in the area.
Will the site meet the open space standards, as set out in Appendix 2 in the **Aberdeenshire Parks and Open Spaces Strategy**? https://www.aberdeenshire.gov.uk/media/6077/approvedpandospacesstrategy.pdf	Yes Please specify: Open space provision, and the nature of that provision, will be in accordance with the standards set by Aberdeenshire Council. Please see further details at Q19.
Will the site deliver any of the shortfalls identified in the **Open Space Audit** for specific settlements?	Yes

https://www.aberdeenshire.gov.uk/communities-and-events/parks-and-open-spaces/open-space-strategy-audit/	Please specify: The development will significantly increase playing field provision in the town.
f. Resource use	
Will the site re-use existing structure(s) or recycle or recover existing on-site materials/resources?	Yes If yes, please specify: Existing top soil and sub soils will be re-used as appropriate within the site.
Will the site have a direct impact on the water environment and result in the need for watercourse crossings, large scale abstraction and/or culverting of a watercourse?	No If yes, please provide details: NA

15. Other potential constraints

Please identify whether the site is affected by any of the following potential constraints:

Aberdeen Green Belt https://www.aberdeenshire.gov.uk/media/20555/appendix-3-boundaries-of-the-greenbelt.pdf	No
Carbon-rich soils and peatland http://www.snh.gov.uk/planning-and-development/advice-for-planners-and-developers/soils-and-development/cpp/	No
Coastal Zone https://www.aberdeenshire.gov.uk/media/20176/4-the-coastal-zone.pdf	No
Contaminated land	No
Ground instability	No
Hazardous site/HSE exclusion zone (You can find the boundary of these zones in Planning Advice 1/2017 Pipeline and Hazardous Development Consultation Zones at https://www.aberdeenshire.gov.uk/planning/plans-and-policies/planning-advice/ and advice at http://www.hse.gov.uk/landuseplanning/developers.htm)	No
Minerals – safeguarded or area of search https://www.aberdeenshire.gov.uk/ldpmedia/6_Area_of_search_and_safeguard_for_minerals.pdf	No
Overhead lines or underground cables	Yes
Physical access into the site due to topography or geography	No
Prime agricultural land (grades 1, 2 and 3.1) on all or part of the site. http://map.environment.gov.scot/Soil_maps/?layer=6	Yes, part of site.
'Protected' open space in the LDP (i.e. P sites) www.aberdeenshire.gov.uk/ldp and choose from Appendix 8a to 8f	No.
Rights of way/core paths/recreation uses	No
Topography (e.g. steep slopes)	No
Other	No
If you have identified any of the potential constraints above, please use this space to identify how you will mitigate this in order to achieve a viable development: Please see details at Q19.	

16. Proximity to facilities

How close is the site to a range of facilities?	Local shops	400m – 1km
	Community facilities (e.g. school, public hall)	<400m (proposed)
	Sports facilities (e.g. playing fields	<400m (proposed)
	Employment areas	<400m (already allocated)
	Residential areas	<400m
	Bus stop or bus route	<400m (proposed)
	Train station	>1km
	Other, e.g. dentist, pub (please specify)	>1km (Numerous services and facilities in Stonehaven Town Centre)

17. Community engagement

Has the local community been given the opportunity to influence/partake in the design and specification of the development proposal?	Yes, previous bids have been subject to public consultation.
	If yes, please specify the way it was carried out and how it influenced your proposals: Please see details at Q19.
	If not yet, please detail how you will do so in the future: Further public exhibition and meetings with Community Council to be held.

18. Residual value and deliverability

Please confirm that you have considered the 'residual value' of your site and you are confident that the site is viable when infrastructure and all other costs, such as constraints and mitigation are taken into account.	I have considered the likely 'residual value' of the site, as described above, and fully expect the site to be viable: Please tick: ✓

If you have any further information to help demonstrate the deliverability of your proposal, please provide details.

Bancon Homes Ltd have undertaken a Development Appraisal and confirm that the land generates a residual value and that the development is deliverable having regard to infrastructure requirements and developer obligations.

19. Other information

Please provide any other information that you would like us to consider in support of your proposed development (please include details of any up-to-date supporting studies that have been undertaken and attach copies e.g. Transport Appraisal, Flood Risk Assessment, Drainage Impact Assessment, Peat/Soil Survey, Habitat/Biodiversity Assessment etc.)

FURTHER DETAILS IN RESPONSE TO SPECIFIC QUESTIONS RAISED IN THE BID FORM

Introduction

This Development Bid is submitted in response to a call for sites by Aberdeenshire Council to be considered for inclusion within the Aberdeenshire Local Development Plan (LDP) 2021. The land which is the subject of this Development Bid is owned by [redacted] and is under option to Bancon Homes Ltd. The Bid is submitted on their behalf.

[redacted] are a major landowner in the North East of Scotland with in excess of 50,000 acres of land and associated properties. Their main interests are in farming and forestry, but they are also a major provider of affordable rented housing in the Aberdeen and Aberdeenshire Housing Market Areas. They have also released land for residential development and seek to work with communities to ensure that development is sympathetically designed, sustainable, integrated with existing settlements, and provides a lasting benefit for those communities.

The land is under option to Bancon Homes Ltd, a housebuilder based in Banchory, Aberdeenshire. Bancon Homes is part of the Bancon Group, which also comprises Bancon Construction, and Deeside Timber Frame. The Group, founded in 1975, has grown from a small [redacted] joinery business into one of the North East's leading construction and housebuilding companies. The activities of the Group cover all aspects of the construction and development industry from building houses to schools, hotels and offices, and includes timber frame design and manufacture. Bancon Homes operate throughout the North East with developments ranging from the conversion of historic buildings in Aberdeen to new build residential developments in Aberdeen City and throughout Aberdeenshire. They are currently developing in Aberdeen, Inverurie, and Banchory.

The detail provided below expands, where necessary, on the response to each of the questions set out above. An indicative Masterplan has also been prepared to accompany the Bid and requires to be referred to in conjunction with this and the Response Form. Additional supporting information is attached and is referenced in the text below.

Q4. Site Details

The land proposed for the development lies to the south of Stonehaven immediately abutting the settlement boundary formed by the existing Braehead residential development to the north. The site, which extends to approximately 10.0 hectares or thereby. Presently in agricultural use, the land rises from a low point in the north west corner of the site to the east and south.

The site is bound to the north by the existing Braehead residential development and the minor Greenden Road, which connects the A957 with the coastal tourist route to Stonehaven. To the west, the site is bound by the A957, which links the A92 to the south with Stonehaven town centre. The eastern boundary is formed by a woodland shelter belt which runs north south along existing field boundaries. The southern boundary of the site is formed by a commercial woodland plantation and agricultural land. Further to the south Stonehaven Business Park lies within the defined settlement boundary and is allocated for employment uses. It benefits from two extant planning permissions. That permission, covering the eastern portion of the site identified as BUS2 in the extant Local Development Plan (LDP) 2017, has been implemented.

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As intimated above, agriculture is the dominant land use, with arable fields, bound mainly by post and wire fences. Previously pertaining to East Newtonleys Farm, the fields are currently on short term agricultural lets. The small commercial coniferous plantation, which forms the southern limit of the proposal site, along with the tree belt to the east comprise the only woodland to be found on the site. Other than that, vegetation is limited to field boundaries and around East Newtonleys Farm.

To the west of the site an area of land has been reserved for the replacement of Dunnottar Primary School. This was identified in the 2012 LDP and carried forward into the 2017 LDP. This Development Bid recognises that requirement, and the accompanying Masterplan at Appendix 2, makes provision for a replacement primary school.

Q5. Ownership/Market Interest

The majority of the site is owned by [redacted]. The land owned by the [redacted] is under option to Bancon Homes Ltd. The field lying to the north west of the site, bound by the A957 to the east, the Braehead Development to the north, and the minor road between the A957 and East Newtonleys to the south, is owned by [redacted]. The northern part of that field, which forms part of the bid, as well as some of the adjoining land owned by [redacted], is reserved through the extant LDP 2017 for the replacement of Dunnottar Primary School.

Q6. Legal Issues

As the entire site is either owned or under option to a housebuilder, there is no impediment to its development should it be allocated through the proposed LDP 2021.

Q7. Planning History

The site and the wider area has been promoted for development over a number of years. This has resulted in the development of the land to the north at Braehead for residential purposes and the allocation of the land to the south of the site adjacent to the A92 for employment uses. More recently it has been promoted through the 2012 and 2017 LDP processes.

The Consolidated Aberdeenshire Local Plans adopted in 1998, allocated much of the land for development. This was to address a then Structure Plan requirement for 400 houses in the period 2001-2006. This was, however, subject to a future Structure Plan Review, which eventually removed the requirement. Nevertheless, Aberdeenshire Council clearly considered the land capable of development. The Local Plan envisaged development progressing in a south westerly direction from the approved site at Braehead. The Council considered that this would minimise the visual impact of development on Stonehaven by concentrating it in one place. Moreover, they considered that locating most further development in the Braehead/East Newtonleys area, would provide economies of scale in the provision of services.

The Plan further highlighted that the proposed site would be required to provide affordable housing, necessary infrastructure on site, and to contribute to a range of education and leisure facilities and certain offsite infrastructure works. It further highlighted that community facilities would be required for the new housing development at Braehead, comprising convenience shops, playing fields, and a new primary school. A copy of the Settlement Statement for Stonehaven is attached at Appendix 3.

The 2006 Aberdeenshire Local Plan, adopted in June 2006, identified the Braehead residential development under designation EH6 and allocated a further area of land to the east of that for 25 houses. It also identified the Business Park under designation EmpB, allocated as suitable for appropriate employment use. The commercial forestry plantation lying to the north of East Newtonleys Farm was identified as a Protected Area.

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A Development Bid was submitted for this and the wider land in 2008 in response to the Call for Sites to be considered for inclusion in the 2012 LDP. The Main Issues Report (MIR) identified the site under Reference K101, Stonehaven South. Whilst not an Officer's preference for development, it was considered as being capable of development, and accepted as a possible alternative for employment use and the location of a supermarket. Following the Examination in Public an additional 7.0 hectares of employment land was allocated. Immediately abutting the 12.0 hectares allocated through the 2006 Plan, this was identified as Site E2 in the 2012 LDP. The 2012 Plan also reserved land to the north, adjoining the Braehead development, and currently the submission of this bid, for the provision of a replacement Dunnottar Primary School.

A further Bid was submitted in respect of the 2017 LDP process. This sought the allocation of the intervening land between Braehead and the allocated business uses to the south for the development of around 500 houses with associated retail provision, including a supermarket, a primary school, playing fields, and a club house. The site was identified as KMO98 in the MIR, which acknowledged that it had no significant constraints, but considered that it was not well connected to the settlement. The MIR further noted that while the site, when viewed from the north, has minimal impact on the coastal setting it was nevertheless considered visible and 'fairly' exposed. The site was not included in the proposed Plan and following representations was considered at the Examination in Public into the Plan.

At the Examination into the Plan the Reporter accepted that sufficient housing land had been allocated in the Aberdeen Housing Market Area and, as a consequence, no further land was required for residential development. He considered that the scale of residential development proposed at Stonehaven South would represent a relatively substantial urban extension, for which no strategic need had been identified having regard to the housing requirements having been met. Whilst he accepted that in landscape terms the western half of the site would be reasonably well contained, he had some concerns that the eastern half of the site would be significantly more prominent from the coastal area and remote from the town centre. On balance, however, he considered that **"…the western part of the site would have sufficient proximity and accessibility to the town and it would relate well to the OP5 and BUS1 sites".** Unfortunately, he did not consider there to be sufficient clarity regarding the potential cumulative impact of developments elsewhere in Stonehaven and was not persuaded that the whole allocation would be appropriate in landscape terms. Consequently, the site was not included for development.

This current Bid focusses development entirely to the west of the shelter belt and between the existing housing at Braehead and the woodland to the south. This avoids the coastal zone and minimises visual impacts.

Q8. Proposed Use

The proposal is for a residential development extending southwards from the existing Braehead housing development to the north. The proposal site is capable of accommodating 100 houses with scope for a Primary School on the land currently reserved for such use. New playing fields, and extensive areas of open space would be provided to the east to mitigate any impact on the Special Landscape Area. Provision would also be made for a spine road capable of extending southwards in the future to connect with the Stonehaven Business Park and the A92.

Given the scale of residential development proposed it is anticipated that a range of house types comprising detached, semi-detached, and terraced houses would be provided as well as an element of flatted development in appropriate locations, possibly with scope for retail use below. The size of properties are likely to range from 1 bedroom flats to 5 bedroom detached houses. Of the overall number, at least 25% would be provided as affordable housing through a range of options, including low cost home ownership and housing for social rent.

Exact details of the mix can only be provided at the planning application stage having regard to prevailing market conditions and demand at that time.

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Q9. Delivery Timescales

This Development Bid is capable of being implemented and built out in the first five year plan period. The Primary School is proposed as a replacement for the existing Dunnottar Primary School and will be part funded by the Council's capital programme augmented by developer contributions dependent upon the scale of the impact.

A separate Bid has been submitted for the overall Stonehaven South area which is considered capable of accommodating around 400 houses with associated infrastructure and facilities. A further standalone bid has also been submitted for land to the south adjacent to the Business Park (Site OP5), again capable of accommodating 100 houses. These Bids require to be considered on their own merits.

Q10. Natural Heritage

Other than the commercial forestry plantation, which is identified in the Ancient Woodland Inventory for Scotland, there are no other nature conservation interests affecting the site. The woodland, which extends to 2.18 hectares, will be retained as an integral part of the development to provide screening and amenity space. To the west of the A957 beyond the site, Dunnottar Woods is similarly identified as Ancient Woodland. It extends over 47.82 hectares and provides a significant area of amenity woodland for Stonehaven. The development of the proposal site will have no adverse impact on that woodland. The fact that it provides a well-used amenity space for the enjoyment of existing residents of Stonehaven demonstrates the accessibility of the proposal site and its inter-relationship with the wider town.

Other than the woodland plantation and the shelter belt to the west, the only scope for wildlife habitat and bio-diversity are along field boundaries. The development of the site creates an opportunity to introduce new habitats and enhance bio-diversity through the formation of green corridors linking those existing areas to new areas of amenity space and sustainable urban drainage measures located within the development.

The site has previously been the subject of an extended Phase 1 Habitat Survey. This highlighted the limited ecological and wildlife interests in the site. As a consequence, the development of the site will not result in any adverse ecological impact. Indeed, it provides the opportunity to enhance ecological interest in the area.

Q11. Historic Environment

There are no Listed Buildings or Scheduled Monuments within the site. There are a number of historical features located within the wider area. Glasslaw Bridge lying in Dunnottar Woods to the south west of the proposal site is a Category C Listed building. To the south east beyond the tree belt, which forms the eastern boundary of the proposal site, Stonehaven Radio Station is a Category C Listed building.

Invercarron Toll House, which lies to the north of the existing Braehead development and visually separated from the proposal site, is also a Category C Listed building. Further to the north east and east lie Blackhill War Memorial and Dunnottar Castle. The former is a Category C Listed building, whilst the latter is a Scheduled Ancient Monument. Associated with the Castle are a number of Category B Listed structures. Also, the gateway and Benholms Lodging are Category A Listed.

The setting of each of these properties is an important consideration and the site boundaries have been defined to ensure that the development proposals do not adversely impact on these properties. The inter-relationship between the site and key landscape and cultural features has been considered in detail. The boundaries of the site have also been refined over time having regard to the views of Aberdeenshire Council and previous comments arising from Examinations in Public.

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[redacted] themselves own Dunnottar Castle and the buildings associated with that. They recognise it as one of the main visitor attractions in the north east of Scotland, if not the whole of Scotland, and take all necessary steps to safeguard its heritage. They would not sanction any development which would detract from the cultural heritage or setting of Dunnottar Castle.

Q12. Landscape Impact

Part of the site adjoins the South East Aberdeenshire Coast Special Landscape Area. This covers the coast from the Aberdeen City Council boundary north of Portlethen to the mouth of the North Esk in the south. At Stonehaven South, the western limit of the Special Landscape Area (SLA) is defined by an arbitrary line running between Greenden Road and Mains of Dunnottar. No built development is proposed within the SLA.

The overall Stonehaven South area has been the subject of a full Landscape & Visual Impact Assessment to inform the extent of the area capable of accommodating development. This highlighted the more appropriate boundary formed by the tree belt which runs from Greenden Road to near the A92 at the south. This mature tree belt runs north - south along a ridgeline which acts as a key feature in defining the landscape structure of the area. Land to the west of the tree belt and ridgeline is enclosed from the coastal landscape and its character is now informed by views of Stonehaven. Land to the east of the ridgeline has a distinctly coastal landscape character. Here the land forms an open plateau, facing eastwards with open views to the sea. The mature tree belt provides a clear definition between the two areas and strengthening this would help mitigate the impact of development on the Special Landscape Area.

The Landscape & Visual Impact Assessment acknowledged that the proposals for the wider Stonehaven South area would be visible from several vantage points, but the additional visual impact beyond that already created by the Braehead development to the north and the Business Park to the south, would be minimal. The development itself will satisfy the management recommendations of the SLA. The focus of development would be on the growth of an existing settlement and would be of a scale and style that respects and complements the coastal character. The sense of place associated with the cliffs in the area will be unaffected by the proposed development.

The future expansion of Stonehaven is constrained by the A90, which has contained the growth of the town. The only available areas for expansion within the confines of the A90 lie to the north and south of the town. All of the open land to the north of the town falls within the SLA whereas only part of the overall site to the south, and no part of this site, lies within the SLA. Given the fact development has already taken place immediately to the north of the proposal site, further expansion would be logical.

Q13. Flood Risk

A review of SEPA's Flood Risk Maps for the area confirms that there is no risk from tidal/river sources in the Stonehaven South area. The Burn of Glasslaw, which flows through Dunnottar Woods to the west of the study area is identified as being at risk of flooding, but this does not encroach on the proposal site.

Flows from the Glasslaw Burn have created flooding problems in Stonehaven in recent years. Surface water run-off from the site flows naturally to the Glasslaw Burn. Development of the site would enable this to be controlled, thereby reducing the risk of flooding in the Glasslaw Burn and downstream of the Burn. A Flood Risk Assessment has been prepared for the site and a copy of this is attached at Appendix 4.

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Q14. Infrastructure

The site is capable of being served by both water and waste water facilities. Discussions have been ongoing with Scottish Water regarding the provision of water supplies to the Stonehaven Business Park to the south of the area. New infrastructure is to be installed to service the Business Park which will, in turn, provide for water supplies to the wider area, including this site. Given the cost involved in providing that infrastructure to the Business Park it would make best use of those resources by allowing further development in the area.

Waste water provision is addressed by a coastal main which connects all of the coastal villages south of Aberdeen with the waste water treatment plant at Nigg. This has capacity to accommodate the scale of development proposed and connection is available at the adjacent Braehead development to the north, which would allow gravity connection from the entire site.

Provision will be made for sustainable urban drainage systems within the overall development comprising attenuation ponds and soakaways. Consideration will also be given to the use of rain gardens, depending upon the layout and orientation of gardens, as well as ground conditions.

In terms of education provision the area falls within the catchment of Dunnottar Primary School and Mackie Academy. The 2017 based school roll forecasts show Mackie Academy to be at 97% of capacity at 2022. This would allow space for an additional 42 pupils at that time. Based on the ratio of 0.2 pupils per house this would allow for the development of 100 houses without impacting on the Academy.

Dunnottar Primary School serves a significant catchment to the south of Stonehaven. The school has been over-capacity for a number of years and is of a poor standard, and a replacement school has been identified as a key priority. Land has been reserved to the north west of the proposal site for a replacement school. Development of the site would, therefore, allow the replacement school to be sized to accommodate the scale of development proposed and for that development to partially fund the replacement school.

In terms of access, the site benefits from its proximity to the grade separated junction with the A90 to the south of Stonehaven. This junction has adequate capacity to cope with the scale of development proposed and provides direct access to the trunk road network. The site itself would be accessed from the A957. Provision would be made for a spine road through the site which, future development permitting, could connect with the Business Park to the south and the A92 beyond. This would have the long term benefit of allowing the closure of part of the A957 which is of a poor standard, both in terms of gradient and alignment.

Public transport services, operated by Stagecoach, presently utilise the A957. These services operate on an hourly basis. There is also a town bus service which presently serves the Braehead development to the north. This operates half hourly at peak times and could be expanded to include the proposal site. Those bus services provide a direct link to the town centre as well as the railway station providing connections north to Aberdeen and south to Laurencekirk, Dundee, Glasgow, and Edinburgh.

The site provides excellent opportunities for active travel. It is presently a popular area for walking, providing links between Dunnottar Woods and Dunnottar Castle and the coastal zone. However, these tend to be of poor quality utilising the existing minor road network. The development provides an opportunity to significantly enhance the footpath network to the south of Stonehaven and encourage more journeys by foot and cycle.

Part of the Aberdeenshire Coastal Path Network runs along the coastal strip to the east of the area. This makes up part of the North Sea Trail. National Cycle Route 1 also runs through Stonehaven on the coast road to the east of the proposal site. The development would enable safe connections to that route.

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Gas, electricity, and broadband connections are all available for connection at the Braehead development to the north. The Business Park to the south will be provided with high speed broadband services, thereby allowing connection of the wider development area. Adequate capacity is available in the gas and electricity networks to service the development proposed.

The area presently provides significant opportunities for informal recreation, particularly in the Dunnottar Woods area to the west and the coastal strip to the east. Development of the site will create opportunities to provide safe linkages between these areas and connect with areas of open space to be provided within the proposed development. Open space provision within the development will more than satisfy the standards set by Aberdeenshire Council. A significant area of the site has been set aside to provide new playing fields. Located to the east of the proposal site, this will further minimise the impact of development on the Coastal Landscape Area.

Given the sloping nature of the site, cut and fill will be required. The design of the proposals will be such as to minimise this and ensure that existing topsoil and subsoils are reused within the site, thereby ensuring no materials require to be deposited off-site and imported materials are kept to a minimum.

The development of the site will have minimal impact on the water environment. There are no notable water courses crossing the site which would require to be bridged. A number of drainage ditches are evident across the site and will be retained and incorporated as features of the development.

Q15. Other Potential Constraints

There are a small number of overhead power lines serving the site at present. These are capable of being re-routed or placed underground and are not an impediment to development.

Part of the site comprises Grade 3.1, prime agricultural land. The development of Braehead and the allocation of the land to the south for Business Park use has already set a precedent for the development of prime land in the area. In terms of Scottish Planning Policy its development is considered acceptable where that development is an essential component of the Settlement Strategy.

Q16. Proximity to Facilities

Stonehaven is very much a self-contained community with a broad range of services and facilities. It is well served by public transport being on the Aberdeen to Dundee rail line with regular services in both directions. It also benefits from regular bus services to Aberdeen and Dundee, and other coastal towns.

Buses already provide connection to the town centre from the Braehead development and the wider site is accessible by bus from the A957. All residential properties will be within 400mm of a bus service. The town service, which already connects to the Braehead development can be extended to encompass the development site, thereby ensuring it is adequately served by public transport. Much of the site is also within acceptable walking and cycling distances from the town centre. In addition, the site itself has the scope to provide neighbourhood shopping facilities and community facilities associated with the new primary school.

Q17. Community Engagement

The proposals for the development of Stonehaven South have long been in the public domain. Bancon Homes Ltd recognise the importance and benefits that can be gained from public engagement and have previously held public consultation events to raise awareness of their proposals for Stonehaven South. They remain committed to undertaking public consultation in respect of the development proposals.

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Should the site be preferred for development through the Main Issues Report, the promoters would intend to meet again with the Community Council to explain their proposals and to hold a further public consultation event. This would be held in a local venue and take the form of an exhibition of the indicative proposals. This would allow the public to make informed comment at the Main Issues Report stage and prior to publication of the proposed Plan.

Please tick to confirm your agreement to the following statement: ✓

By completing this form I agree that Aberdeenshire Council can use the information provided in this form for the purposes of identifying possible land for allocation in the next Local Development Plan. I also agree that the information provided, other than contact details and information that is deemed commercially sensitive (questions 1 to 3), can be made available to the public.

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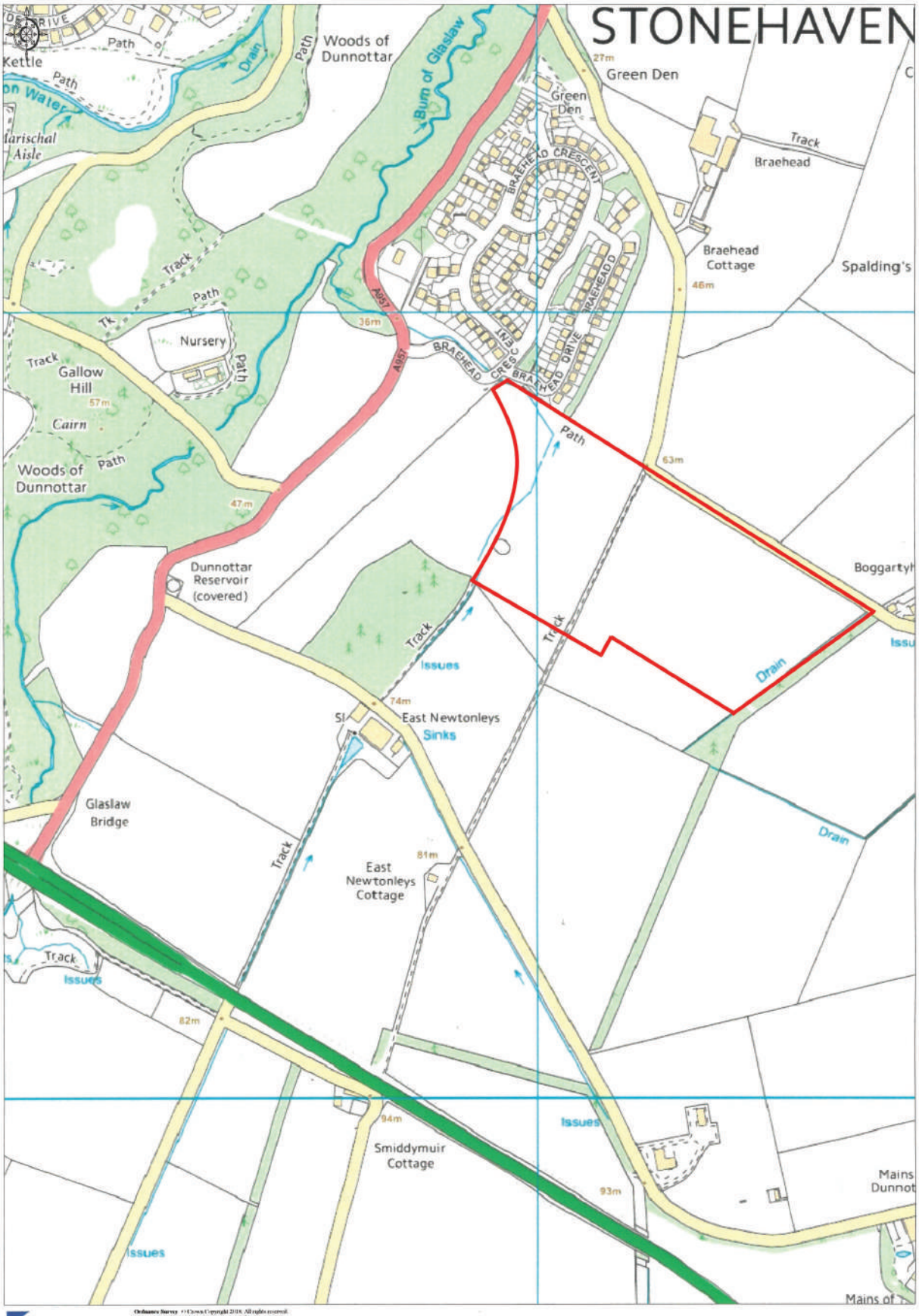
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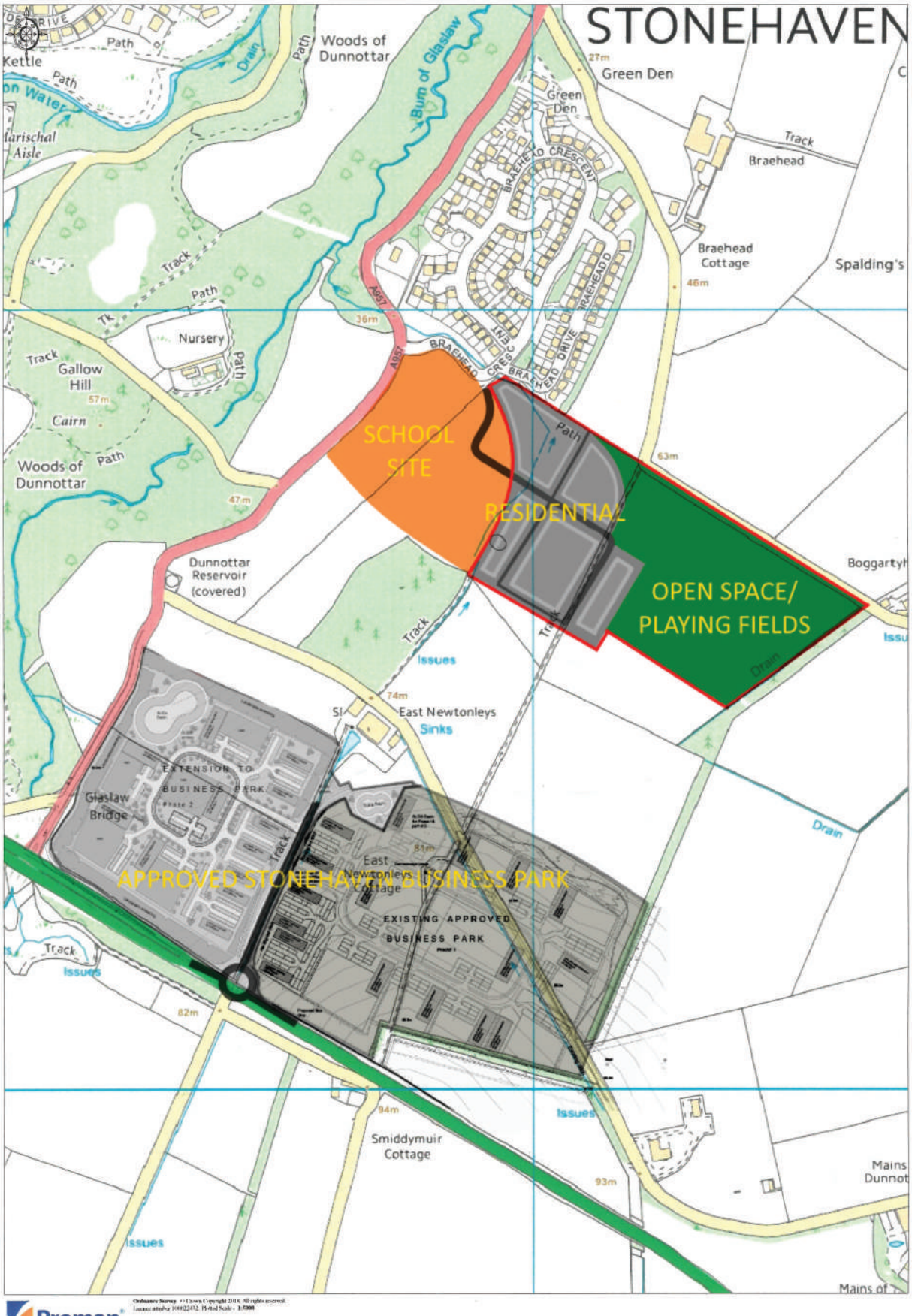
Woods of Dunnottar
Burn of Glaslaw
Green Den
Braehead
Braehead Cottage
Spalding's
Nursery
Gallow Hill
Cairn
Woods of Dunnottar
Dunnottar Reservoir (covered)
East Newtonleys
Sinks
Glaslaw Bridge
East Newtonleys Cottage
Smiddymuir Cottage
Boggartyh
Mains Dunnot
Mains of
Path
Track
Drain
Issues
A937
Promap

KN078


STONEHAVEN
Woods of Dunnottar
Burn of Glaslaw
Green Den
Braehead
Braehead Cottage
Spalding's
Nursery
Gallow Hill
Cairn
SCHOOL SITE
RESIDENTIAL
OPEN SPACE/ PLAYING FIELDS
Dunnottar Reservoir (covered)
East Newtonleys
Sinks
Glaslaw Bridge
EXTENSION TO BUSINESS PARK
Phase 2
APPROVED STONEHAVEN BUSINESS PARK
EXISTING APPROVED BUSINESS PARK
East Newtonleys Cottage
Smiddymuir Cottage
Issues
Drain
Track
Path
Promap

KN078

Stonehaven

Housing

*1 The Structure Plan allows some 390 houses to Stonehaven over the period 1996 – 2001 (Phase 1) AS/H1A) and a further 400 over the period 2001–2006 (Phase 2: AS/H1B) although it is to be stressed that the Phase 2 allocation will be subject to review before 2001. The quota for the period 1996 – 2001 of 390 houses has been fulfilled with the recent consents for 300 houses at Ury/Slug Road and Glenury Distillery, and the remaining 90 at Braehead.

Much of the Phase 2 (2001 – 2006) allowance could be provided at East Newtonleys, progressing in a south westerly direction from the approved site at Braehead.

However, alternative capacity may also remain at the Ury/Slug Road and Glenury Distillery sites, if the Phase 1 allocations do not use all of this land.

This will minimise the visual impact of development on Stonehaven by concentrating it in one place. Moreover, locating most further development in the East Newtonleys/Braehead area will provide economies of scale in the provision of services.

A high standard of design will be expected and development will be subject to design briefs and in accordance with Appendix AS/3 which shall be agreed with the Planning Authority.

Under Policy AS/H2, developers on the approved sites, and the proposed East Newtonleys site will be required to provide affordable housing, to provide necessary infrastructure on site and to contribute towards a range of education and leisure facilities and certain off site infrastructure works.

Landscape and the Countryside

*8 The countryside around Stonehaven is governed by Policy AS/CO4: Countryside Around Towns. Although not so strict as Green Belt, this restricts the type of development which would be permitted.

In addition, any development which could detract from the attractive coastal setting of Stonehaven would be opposed by the Planning Authority in accordance with policy AS/LV3(i), in the following areas:

- the 'skyline' clifftop area visible from the town, including Redcliff, the War Memorial and Braehead farm;
- the Netherley Road approach into Stonehaven;
- the golf course area and approach into Stonehaven.

The 'Dunnottar Woodland Park Association' has recently been established in order to assist Forest Enterprise in the management of Dunnottar Woods to the benefit of the local community. Within the Local Plan, Dunnottar Woods and the fields immediately surrounding them are recognised as a 'Rural Recreation Area', where development other than that which would enhance or facilitate public enjoyment will be restricted in accordance with policy AS/LV3(ii). Minor extensions to existing buildings would be acceptable however, as would sympathetic restoration of the buildings at Dunnottar Square (AS/TD12 on the Proposals Map), subject to a safe vehicular access being obtained.

Townscape and Design

Most of the town of Stonehaven, as it existed prior to the First World War, has been designated a Conservation Area. In addition, the more substantial, privately built, sandstone houses in Westfield Road, Dunnottar Avenue and Victoria Street and the inter war local authority houses in the High Street in the Old Town have been included in the designated area. Throughout the Conservation Area, the design criteria in Appendix AS3 will apply to any development in accordance with Specific Area Policy AS/TD4: Development in Conservation Areas.

The Old Town of Stonehaven and the lower part of the New Town is also designated an Area of Urban Townscape Value where enclosure of the street scene is provided by the continuous façades of tall, two or three storey buildings built close to the street. Any new development or redevelopment will be required to maintain the sense of urban enclosure in the same way in accordance with Policy AS/TD2 as shown on the Proposals Map.

The remainder of the Conservation Area is much more loosely knit and Policy AS/TD2 is not applicable. The pattern of large gardens and stone walls throughout this area forms one of the most distinctive features of Stonehaven. In accordance with policy AS/TD5, infilling is to be restricted in Urie Crescent and Bath Street (north side), and where the older

stone walls are found, as at Urie Crescent, these are to be protected under policy AS/TD12.

Within the Old Town, priority should be given to undergrounding of overhead power lines and any replacement street lighting or other street furniture should reflect their character (Proposals AS/PU15 and AS/C9)

Certain groups of trees are of particular significance to the town: those at Carron Walk are already protected by a Tree Preservation Order, and a further TPO is under consideration at Viewmount. The mature trees in the grounds of Keith Lodge and those at Malcolm's Mount may also merit designation of a TPO however, and these are to be given consideration by the Council (AS/TD6 on the Proposals Map). The stand of trees at East Newtonleys which the housing allowance for 1996 – 2001 will wrap around is designated AS/TD5 for protection since it will constitute a major amenity for this development in due course. The seafront area, in contrast, presents a rather stark appearance, and could benefit from the planting of hardy shrubs and bushes (AS/TD11 on the Proposals Map).

Business and Industry

An industrial site for up to 10 hectares has been granted planning permission adjacent to the A92 in the area of East Newtonleys. Shelter Belts of 15 to 20m would be required at south western and north western edges of the site in order to provide screening and maintain the countryside setting of the development.

Due to the proximity of the proposed site to Stonehaven Radio Station, applications for development will be subject to careful consideration in terms of their potential impact on radio communications.

Natural Resources and Nature Conservation

A Site of Special Scientific Interest occurs at Garron Point, and the area between Garron Point and Downie Point is recognised as a Site of Interest to Natural Science, of biological and geological value. Details of the extent of both sites, which are to be protected under policies AS/NR17 and AS/NR18 respectively, can be found in Appendix AS/5.

Public Utilities

Development at Glenury and Ury/Slug Road will require diversion of drainage from the Cowie to the Carron system. A new sewer will be required to drain the Braehead and East Newtonleys development to the Carron.

In order to meet the requirements of the new EC Urban Waste Water Directive, a new waste water treatment plant will be needed in Stonehaven by 2006.

Preparations are underway to upgrade the existing facilities and the North of Scotland Water authority is considering an option to transfer waste water from Stonehaven to Aberdeen and the long sea outfall at Nigg, via a series of pumping stations.

The timing will be closely dependent on the relevant Structure Plan Housing Allocations and their implementation.

Communications and Traffic

*2 In order to avoid bringing lorries into Stonehaven
*3 wherever possible, the Council would support the
*4 creation of a grade separated junction where the Slug
*5 Road currently crosses the by-pass. This would en-
*6 able forestry traffic in particular to join the by-pass directly - rather than having to go through the town centre as at present, or use the distributor road through the Farrochie/Edinview housing areas. A new junction here would be in accordance with the Council's view that heavy traffic should be directed along the Slug Road, and kept away from less suitable and scenic routes such as the Cairn O'Mount, and the Shooting Greens road at Potarch.

In order to reduce levels of traffic circulating in the central area of the town, the Council will investigate the possibility of extending the existing parking area at Stonehaven Station, as well as supporting the establishment of park and ride facilities.

Community Facilities

*7 Community facilities will be required for the new housing development at Braehead, comprising convenience shops, playing fields and a new primary school. The playing fields and park at Baird's and Mineral Well Parks, and the sports facilities, leisure centre, open-air pool and associated facilities, and two caravan sites and amusement arcade/restaurant at Queen Elizabeth Park should all be protected from development (Policy AS/CF7).

Tourism and Recreation

The Council is aware of the need for a camping site within the town and will investigate the advantages of any suitable sites that may become available.

SETTLEMENT PROPOSALS AND OPPORTUNITIES

Proposal AS/H1B

Housing 2001–2006 Subject to Structure Plan review:

(i) **East Newtonleys (i)** 4Ha, abutting Braehead to the south;

(ii) **East Newtonleys (ii)** 9.9Ha, abutting Braehead and East Newtonleys(i) to the east;

(iii) **East Newtonleys (iii)** 9.2Ha, abutting East Newtonleys(i) to the south.

Proposal AS/H2

Ury/Slug Road:

(i) At least 15 Affordable Houses;

(ii) Trunk Water Main sewer to serve site;

(iii) Pumping Station to divert foul sewage from the Cowie to the Carron system;

(iv) Contributions to secondary education, leisure and recreation facilities.

Proposal AS/H2

Glenury:

(i) At least 20 affordable houses at the redeveloped distillery site;

(ii) Contributions to secondary education facilities, and Mineral Well Park leisure and recreational facilities.

Proposal AS/H2

Braehead:

(i) At least 10% of houses to be affordable;

(ii) Contributions to secondary education facilities, a new primary school and leisure and recreation facilities and management of Dunnottar Woods.

Proposal AS/PU7

New Trunk Sewer from Stonehaven to Nigg under consideration (not shown on Proposals Map).

Proposal AS/PU7

Diversion of drainage from River Cowie Drainage System to River Carron System (not shown on Proposals Map).

Proposal AS/TD6

Tree Preservation Orders: Keith Lodge, Malcolm's Mount and East Newtonleys Wood.

Proposal AS/TD11

Environmental improvements and tree planting on the seafront area.

Proposal AS/TD12

Restoration of Dunnottar Square.

Proposal AS/CF6

(i) Provision of park and ride facilities at Stonehaven station;

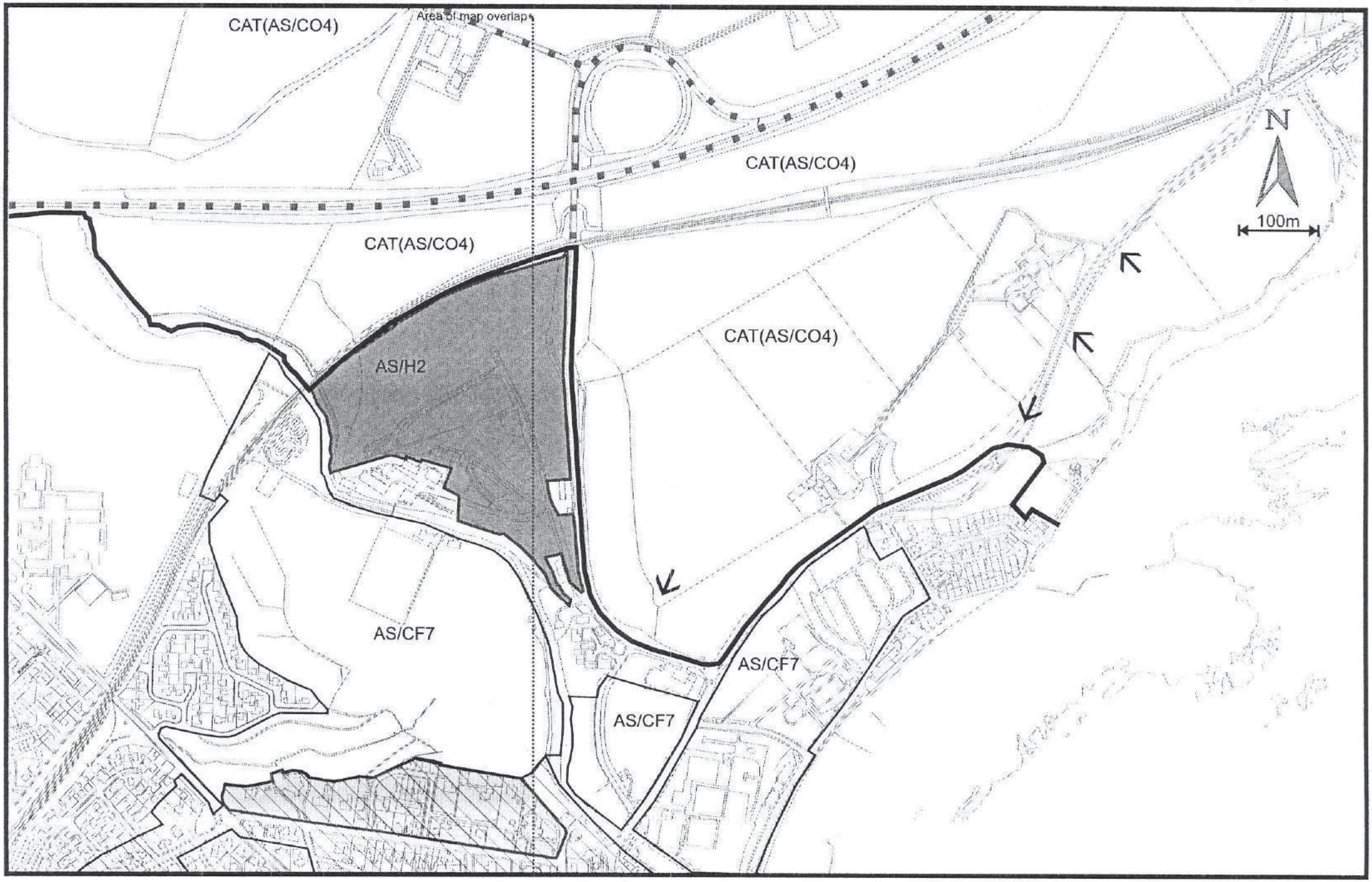
(ii) Enlargement of parking area at station;

(iii) Provision of convenience shopping facility for Braehead and East Newtonleys;

(iv) Provision of playing fields for Braehead and East Newtonleys;

(v) Provision of primary school for Braehead and East Newtonleys.

Note: Conservation Area also covered by policy AS/TD4



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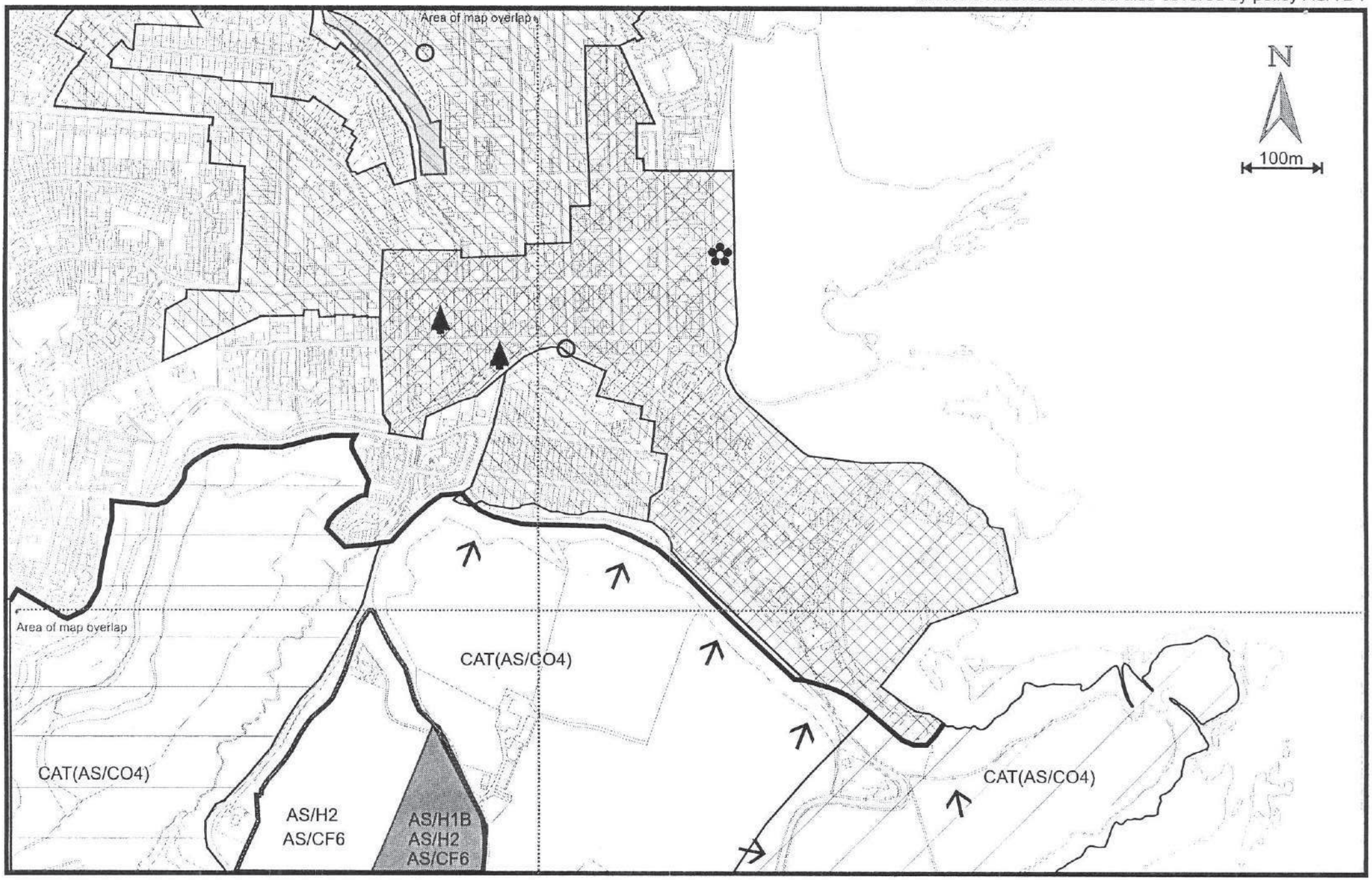
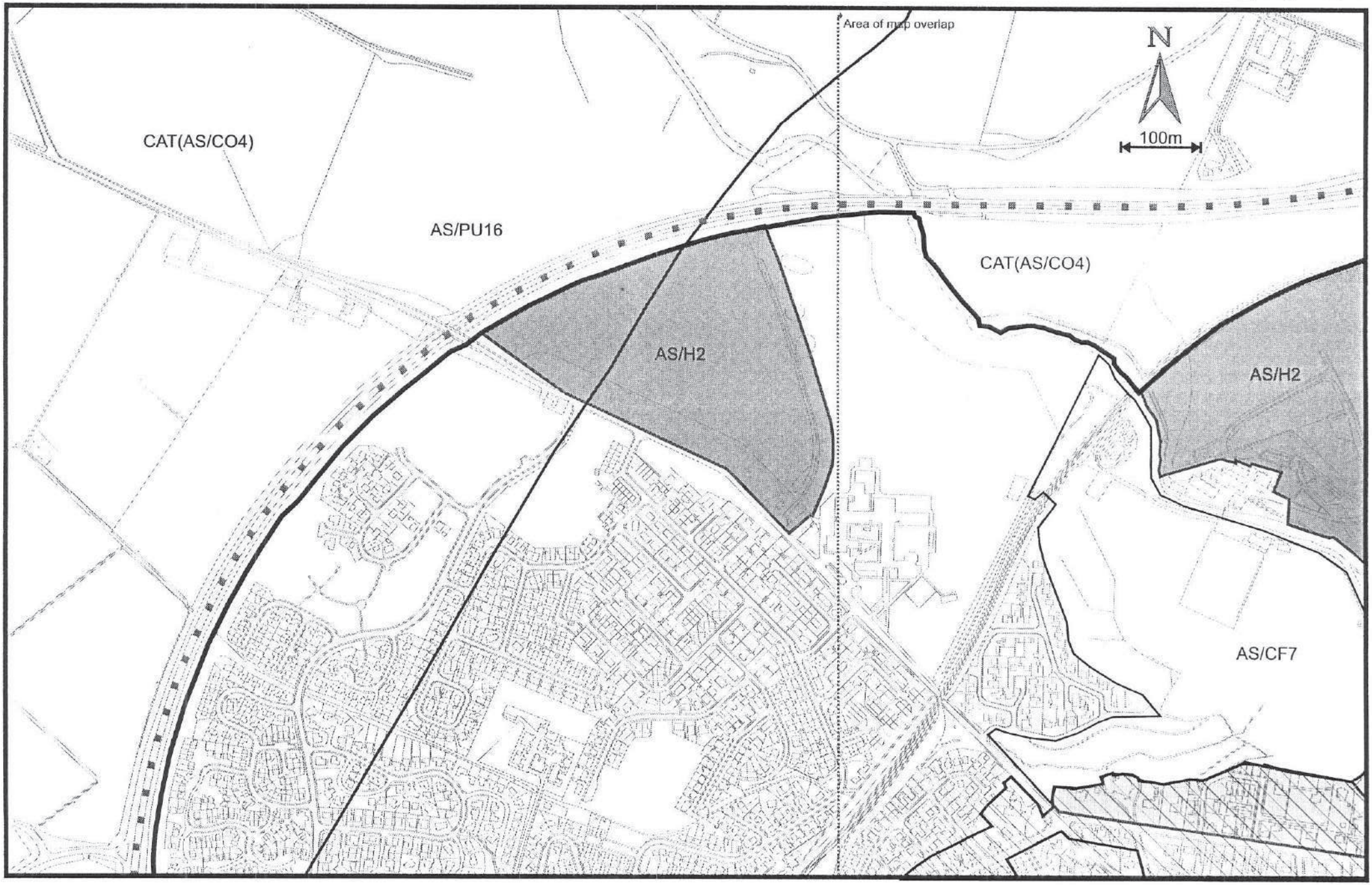
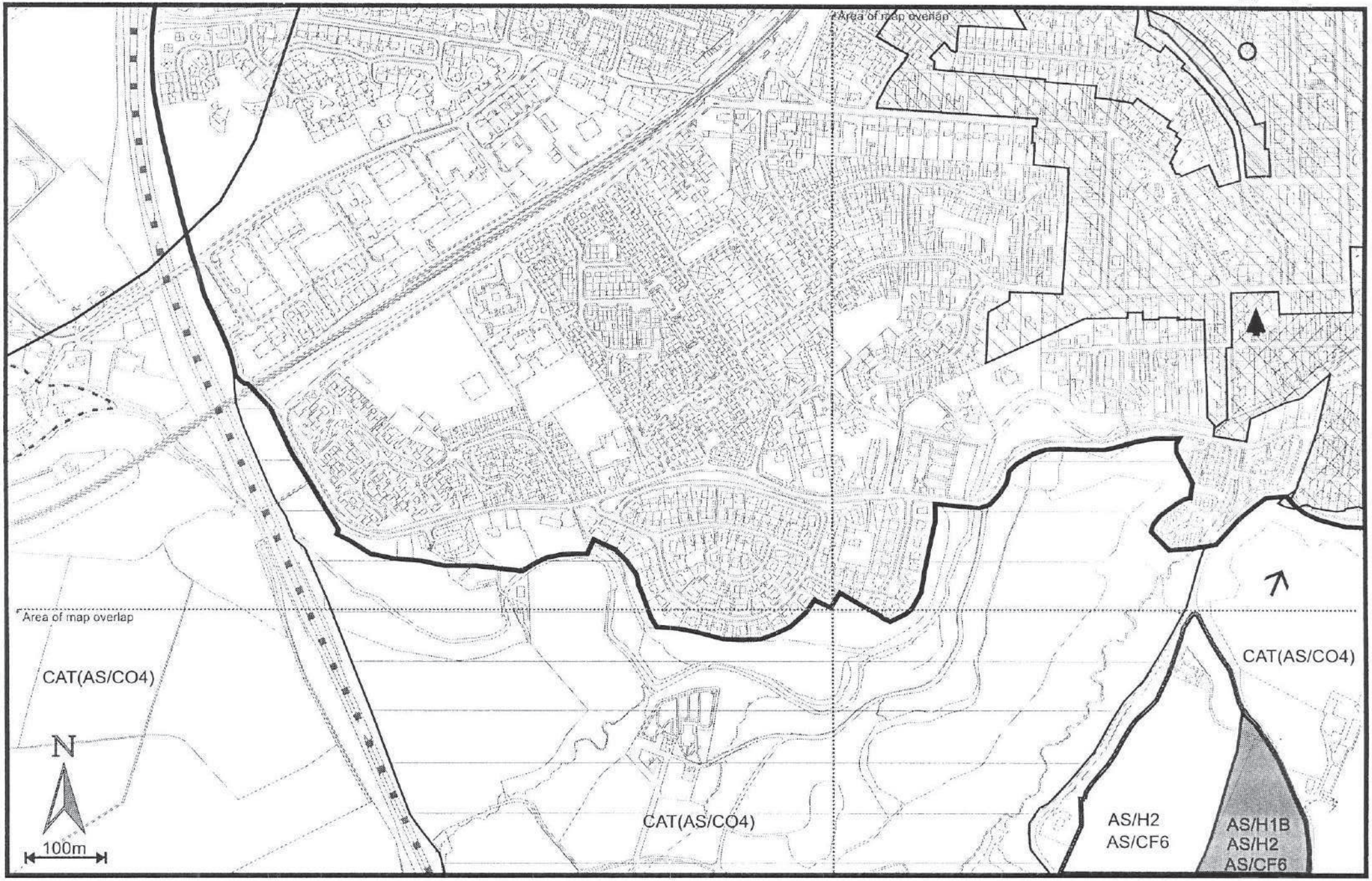


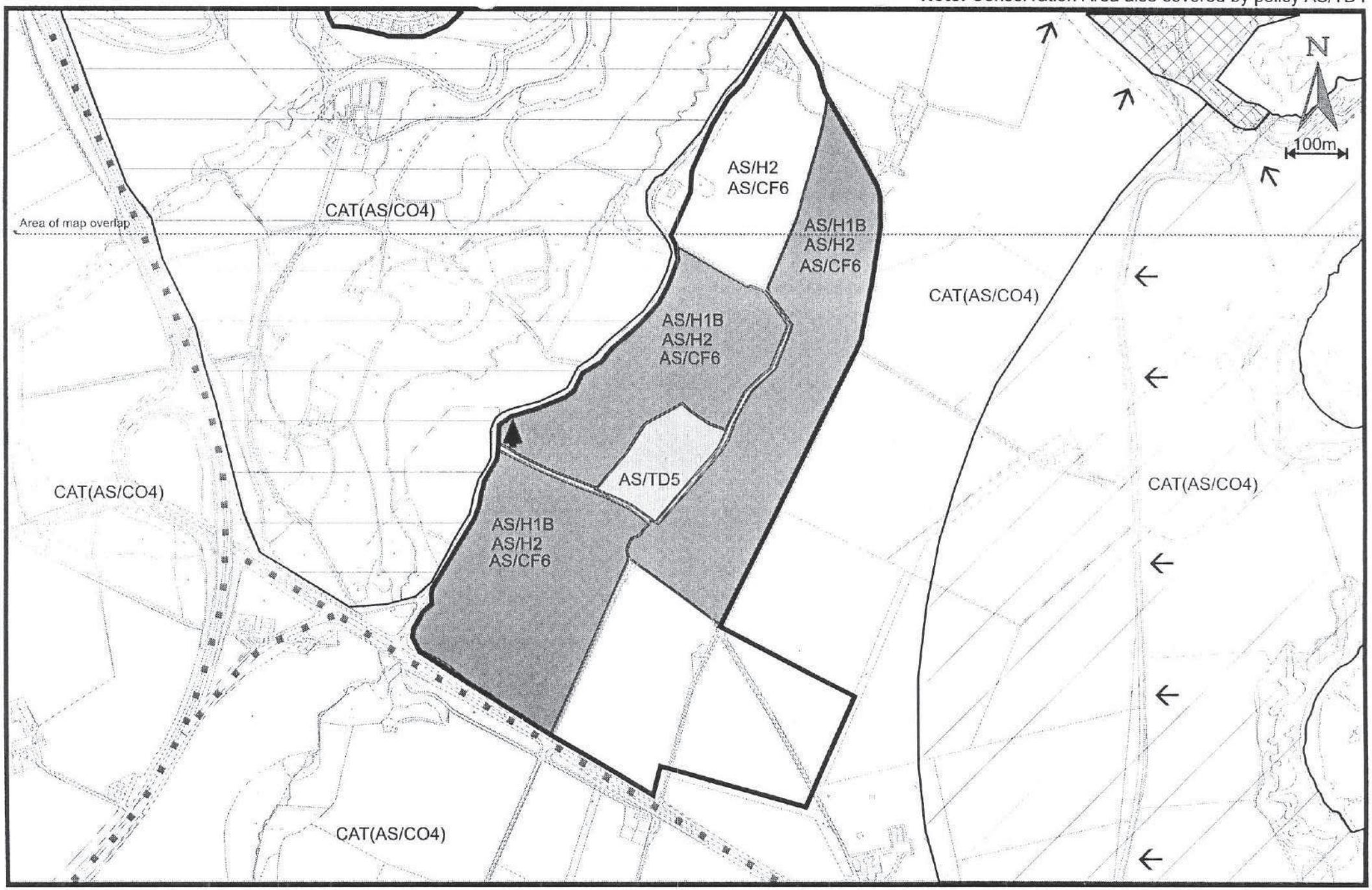
Note: Conservation Area also covered by policy AS/TD4



Note: Conservation Area also covered by policy AS/TD4



Note: Conservation Area also covered by policy AS/TD4



Key to Proposals Maps

Settlement Boundary

AS/H **Housing Policies**

AS/B **Business Policies**

Boundary Between Countryside Policies - AS/CO3, AS/CO4, AS/CO5

AS/LV1 - National Scenic Areas

AS/LV2 - Areas of Regional Landscape Significance

AS/LV3(i) - Area of Local Landscape Significance
- Approaches or Viewpoints

AS/LV3(ii) - Area of Local Landscape Significance
- Rural Recreation Areas

AS/TD2 - Urban Townscape Value

AS/TD3 - Conservation Area - Existing
- Conservation Area - Proposed

Note

AS/TD4 - Development in Conservation Area

AS/TD5 - Significant Wooded Area

AS/TD6 - TPO

AS/TD11 - Environmental Improvements

AS/TD12 - Protection/Restoration of Attractive Features

AS/TD13 - Removal of Unsightly Features

AS/PU6 - Specific Areas Where Drainage Problems Restrict Development

AS/PU7 - Drainage Schemes

AS/PU16 **AS/PU16** - Pipeline Safeguarding

AS/C8 - Retention of Street Form

AS/C9 - Street Furniture

AS/C13 - Access Onto Busy Roads

AS/C20 - Road Alterations and Landscaping

AS/Tour2 - Tourism & Recreational Facilities

AS/AH2 - Archaeological and Historic Heritage - Private Initiatives on Interpretative Facilities

AS/AH6 - Designed Landscapes and Gardens

KN078

Development at East Newtonleys, Stonehaven
Flood Risk Assessment

April 2014

Development at East Newtonleys, Stonehaven
Flood Risk Assessment

Client:	Ramsay and Chalmers
Document number:	[redacted]
Project number:	[redacted]
Status:	Final
Author:	[redacted]
Reviewer:	
Date of issue:	15 April 2014
Filename:	East Newtonleys FRA.docx

[redacted]

[redacted]

Offices:
Glasgow
Banchory

Contents

Appendices

Figures

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1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Ltd was commissioned by Ramsay and Chalmers Ltd on behalf of Bancon Developments Ltd to undertake a flood risk assessment (FRA) for a proposed mixed-use development at East Newtonleys, Stonehaven.

1.2 Scope of Report

The aim of this study is to assess the likely level and source of flood risk to the proposed development site. In addition a review of potential drainage ditch re-alignment options will be undertaken with outline designs developed for the drainage ditch diversions proposed. The diversions are being proposed in order to divert surface waters away from the Burn of Glaslaw to the North Sea. This is being undertaken with a view to reducing the peak flows in the Burn of Glaslaw and therefore reduce the risk of flooding in Stonehaven Town Centre.

1.3 Methodology

The following methodology has been adopted for this study:

- Desk based review of available reports/drainage layout plans
- Site visit to determine likely flooding mechanisms, examine watercourses and floodplain;
- Hydrological and catchment assessment to determine flood flows through the site ditches;
- Hydraulic modelling of watercourses on site, using Infoworks RS, to determine the 1 in 200 year functional floodplain extent;
- Outline channel sizing for proposed channel diversions. A two stage channel is proposed that will contain the 1 in 200 year + 20% climate change flows. Two indicative cross sections will be provided showing required channel dimensions;
- Conveyance calculations to determine the required capacity of the culvert under the road to the east of the site;
- Review of potential ditch re-alignment options;
- Diversion channel design considerations; and
- Reporting.

1.4 Regulatory Framework

1.4.1 Scottish Planning policy

Scottish Government planning policy on flooding is provided by Scottish Planning Policy (SPP) (para. 196–211). The policy in this SPP is based on the following principles:

- Developers and planning authorities must give consideration to the possibility of flooding from all sources;
- New development should be free from significant flood risk from any sources;

- In areas characterised as “medium to high” flood risk for watercourses and coastal flooding new development should be focused on built up areas and all development must be safeguarded from the risk of flooding;
- The storage capacity of functional flood plains should be safeguarded from further development. The functional flood plains comprise areas generally subject to an annual probability of flooding greater than 0.5%;
- Drainage is a material consideration and the means of draining a development should be assessed. Any drainage measures proposed should have a neutral or better effect on the risk of flooding both on and off the site.

SPP proposes a Risk Framework approach which identifies flood risk in three main categories:

- **Little or no risk area** (annual probability of flooding less than 0.1%). No constraints to development due to flood risk.
- **Low to medium risk area** (annual probability of flooding between 0.1% and 0.5%). Usually suitable for most developments but not essential civil infrastructure.
- **Medium to high risk area** (annual probability of flooding greater than 0.5%). Generally not suitable for essential civil infrastructure such as hospitals, fire stations, emergency depots, etc.; as well as schools, care homes and ground-based electrical telecommunications equipment unless subject to an appropriate long term flood risk management strategy.

In this report, annual exceedance probability (AEP) is used to define the likelihood of a flood event with a certain magnitude. The relation between AEP and the concept of “return periods” is documented in Appendix A for reference purposes.

1.4.2 SEPA Guidance

SEPA has issued guidance in relation to preparing FRAs (SEPA, 2010). Technical requirements for FRAs depend on the complexity of the site with more complex or high risk sites requiring detailed assessments. SEPA has also published a report checklist which must be submitted with a FRA as part of a planning application. In summary, FRAs must include the following:

- Background site data, including suitable plans and/or photographs;
- Historic flood information;
- Description of methodologies used;
- Identification of relevant flood sources;
- In case of river flooding: assessment of river flows, flood levels, depths, extents, displaced flood storage volumes, etc;
- Assessment of culverts, sewers or other structures affecting flood risk;
- Consideration of climate change impacts;
- Details of required flood mitigation measures; and
- Conclusions on flood risk related to relevant national and local policies.

In addition to reporting requirements, the document also provides technical guidance on Flood Estimation Handbook (FEH) methodologies and on land raising and compensatory storage.

2 SITE DESCRIPTION

2.1 Site Location

The proposed development site is located immediately to the south of Stonehaven, Aberdeenshire. The site is split into two development areas (Figure 2-1). The centre of the northern development area is located at NO 87268 84625 and the southern development site is located at NO 86696 84306.

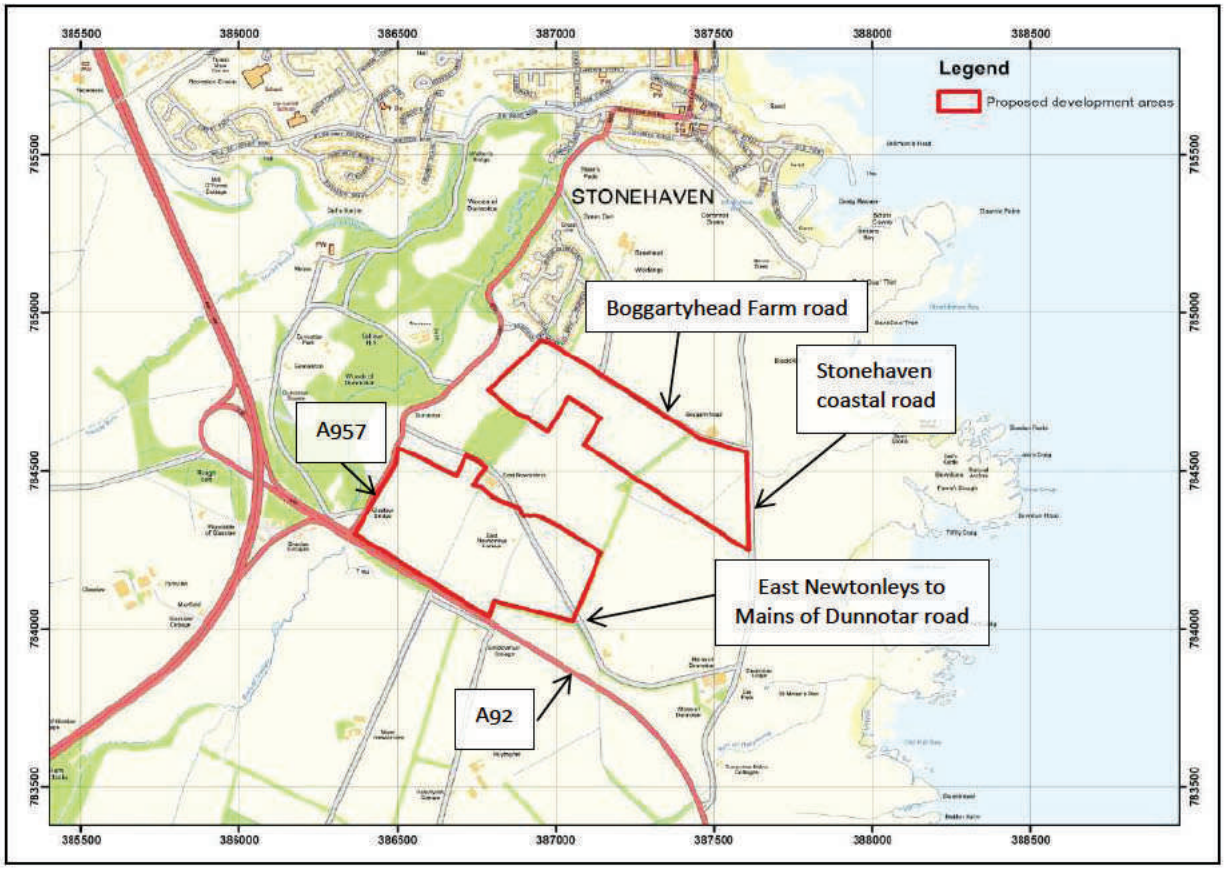


Figure 2-1 Location of proposed development site in Stonehaven

2.2 Proposed Development

The majority of the site is currently agricultural land and therefore assumed to be a greenfield site for planning purposes. A plan of the proposed site layout is provided in Appendix B.

2.2.1 Northern Development Area

The northern development area is bounded to the north by a small single-track road beyond which is located a small housing development and agricultural fields. The development area is bounded to the east by the Stonehaven coastal road and to the west and south by agricultural fields.

The proposed development will be mixed-use comprising a supermarket, a school, a public centre and square, and playing fields. Access to the developments will be via the A957 to the west and the Stonehaven coastal road to the east. The development area has a total surface area of 0.18km^2 and ground levels at the site vary from approximately 47 metres above Ordnance Datum (mAOD) at the centre of the southern boundary of the site to 46mAOD and 63mAOD at the north western and north eastern corners of the site respectively.

2.2.2 Southern Development Area

The southern development area is bounded to the north and east by agricultural fields and to the south and west by the A92 and A957, respectively. The proposed development is for a business park which will be constructed in two phases.

A small single track road connecting the A957 to the Stonehaven Coastal road currently dissects part of the area to be developed, and it is proposed that this connecting road will be cut off to accommodate the development with proposed access to East Newtonleys B&B to the north and Mains of Dunnotar to the east being only via the A957 and Stonehaven Coastal Road respectively. Access to the Business Park at the southern development area will be from the A92 to the south. The development area has a total surface area of 0.23km^2 and ground levels at the site vary from approximately 93 metres Ordnance Datum (mAOD) at the centre of south east corner of the site to 56.5mAOD and 80mAOD at the north western and north eastern corners of the site respectively.

2.3 Consultation and Flood History

SEPA have previously been consulted by Aberdeenshire council with regard to the proposed development. In their response (Letter dated 13 Jan 2014, Ref PCS/130505), SEPA stated that they were likely to object to the development until a Flood Risk Assessment was submitted demonstrating that the development was in line with SPP. In particular they highlighted that no watercourses should be culverted as part of the development.

In order to satisfy this requirement, and to reduce the peak flows in the Burn of, it is proposed that two of the existing open ditches will be diverted to accommodate the development. The diversion of the ditches will result in much of the current catchment draining eastwards towards the North Sea rather than north westwards to the Burn of Glaslaw. The Burn of Glaslaw drains into the River Carron at Stonehaven, which has a known history of flooding. Diversion of the ditches as part of the proposed development will reduce peak flows in the Burn of Glaslaw, and thereby contribute to reducing flood risk downstream in Stonehaven.

2.4 Site Walkover Survey

A walkover survey of the site was undertaken on the 7th March 2014. The weather conditions on the day of the survey were sunny and dry although there had been frequent rain showers in the days preceding the survey. Site photographs are provided in Appendix C.

3 RIVERS AND CATCHMENTS

3.1 Current Drainage Conditions

There are no natural watercourses located within or in the immediate vicinity of the site. The development site is currently crossed by a network of small drainage ditches (Figure 3-1). The western part of the site currently drains into the Burn of Glaslaw to the north west of the northern development area via two small ditches (Ditch A and Ditch B) with converge to form a single ditch (Ditch C) at East Newtonleys on the northern boundary of the southern development area.

The eastern part of the site drains eastwards via two small drainage ditches (Ditch D and Ditch E) located at the north east of the site. The ditches are culverted under the Stonehaven coastal road where they merge to form one outflow channel (Ditch F) which drains into the North Sea.

3.1.1 Ditch A

Ditch A originates in the farmland to the south of the A92 (Figure 3-1). The ditch is culverted under the A92 via a 300mm diameter clay pipe. The culvert outflows into an open ditch on the north side of the A92, where it flows north eastwards along the field boundary to East Newtonleys farm. At the farm the ditch opens into a Mill Pond (presumed to be used for watering livestock and other farm work). The Mill Pond outlet at East Newtonleys Farm is controlled via an old sluice gate and is culverted under the access road to the north for a length of ~ 145m via a stone cundie, approximately 0.40m x 0.45m in size. Ditch A joins Ditch B under the access road. The combined culvert then outflows 86m further to the north of East Newtonleys farm, forming Ditch C.

3.1.2 Ditch B

The catchment of Ditch B is relatively small, comprising only the land to the north of the A92 (Figure 3-1). There is a small pipe (150mm diameter) which emerges on the north side of the A92 at the south eastern corner of the site. It was originally assumed that the ditch flowed under the A92, but on the day of the survey, the culvert and outflow ditch were dry and it did not appear as though water regularly flows through the culvert or ditch at this location. Another small 150 mm pipe from the ditch leads under an access track immediately downstream was also dry as was the outflow ditch which extends along the access road between East Newtonleys and the Mains of Dunnottar. It is therefore assumed that these culvert and upper part of the ditch are no longer in use and there is no connectivity with ditches to the south of the A92.

Further downstream, adjacent to a small strip of forestry to the left of the access road, there was standing water in the ditch which is thought to be runoff from this land. Downstream of the forestry strip, the gradient of the burn increases rapidly and water in the ditch begins to flow. The burn collects water from the farmland to the north of the road. It is culverted under the entrance to East Newtonleys farm (250mm pipe) and is then culverted for a second time under the road which connects the A957 to the coastal road, before meeting Ditch A in the culvert and emerges as Ditch C 140m downstream.

3.1.3 Ditch C

Ditch C originates at the outflow culvert from Ditch A and B to the north of East Newtonleys farm (Figure 3-1). The outflow was fully submerged on the day of the survey and it was not possible to obtain the geometry of the outflow culvert. Ditch C flows in a north westerly direction towards Stonehaven. The watercourse is

culverted under the Braehead Crescent (500mm diameter clay pipe), before flowing into the Burn of Glaslaw 300m downstream.

3.1.4 Ditch D

Ditch D originates along the boundary of a field to the south west of Boggartyhead Farm (Figure 3-1). The ditch flows north eastwards along the field boundary before being culverted along the southern side of the access road to the Boggartyhead Farm. The culvert outflows into an open ditch adjacent to the farm, which flows eastwards to the coastal road where it is again culverted and diverted southwards to join Ditch E under the coastal road.

3.1.5 Ditch E

Ditch E originates along the boundary of a field to the south west of Boggartyhead Farm (Figure 3-1). The ditch flows eastwards along the field boundaries to the coastal road where it is conveyed under the road, along with the water from Ditch D.

3.1.6 Ditch F

Ditch F originates at the outflow of the coastal road culvert and conveys the water eastwards to the North Sea.

The drainage ditch network is shown in Figure 3-1

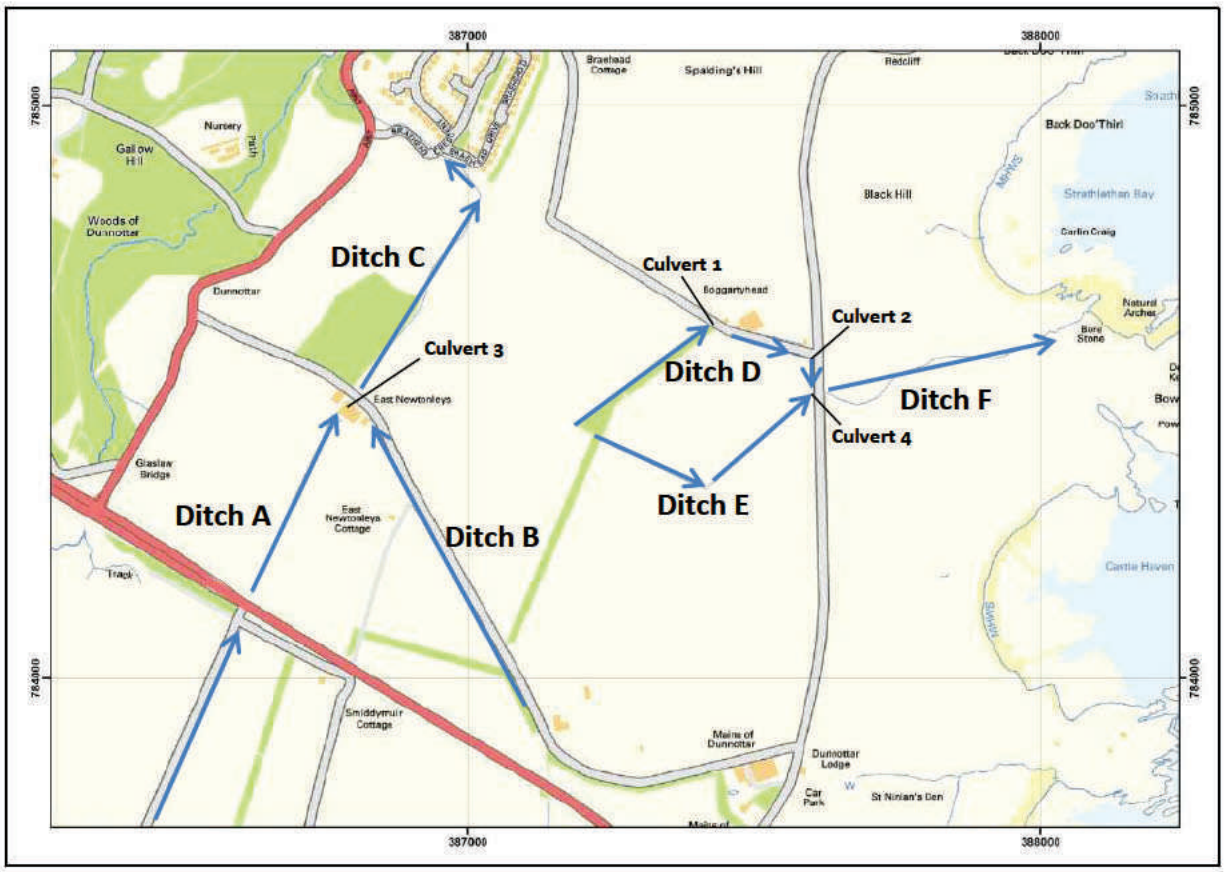


Figure 3-1 Current field ditch layout

3.2 Post-Development Layout

In order to reduce the peak flows in the Burn of Glaslaw, it is proposed to re-route sections of two of the existing ditches.

A number of options have been considered including re-routing ditch C through Ditch D. This option has since been discounted as would lead to an increase in flows past the farm and cottage at Boggartyhead which may result in an increase in flood risk to these properties.

After careful consideration it is proposed that Ditch B be routed northwards under the East Newtonleys farm to Mains of Dunnottar Road to connect with Ditch E at its western extent. Ditch C will also be re-routed eastwards to join with Ditch E. Re-routing these ditches would remove part of catchment draining in to the Glaslaw burn and thereby also help to reduce flood risk to Stonehaven. The proposed post-development ditch layout is provided in Figure 3-2.

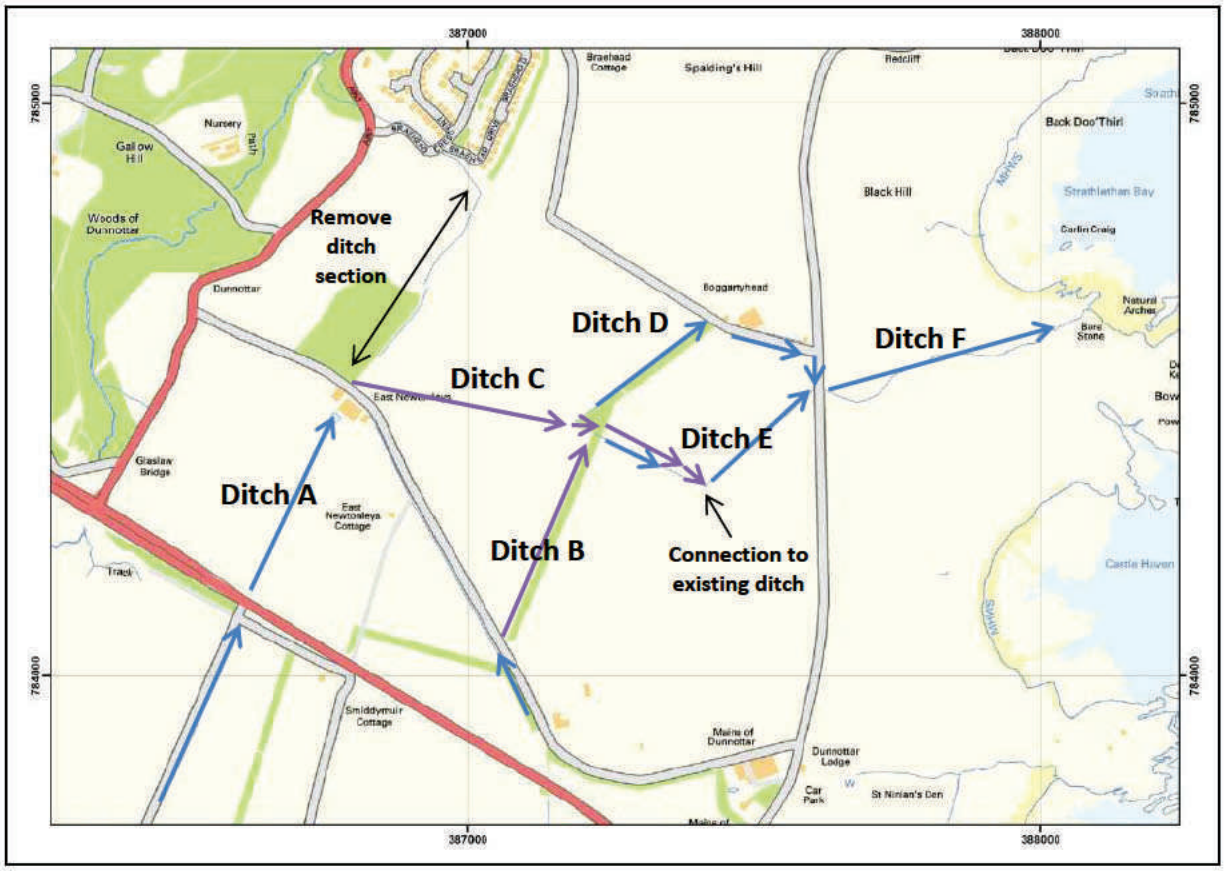


Figure 3-2 Proposed post-development field ditch layout

The required dimensions of each of the proposed ditches are outlined in section 4, with the accompanying calculations provided in Appendix F. Routine inspections of the ditch should be carried out, along with additional inspections following extreme flood events. Maintenance works should be carried out as and when required to maintain the conveyance capacity of the ditch.

4 FLOOD RISK

4.1 Sources of Flooding

Table 4.1, below, provides an overview of the potential sources of flood risk within the vicinity of the proposed development site. The watercourses all have catchment areas of <3km^2 and are therefore not included within the river flooding on the SEPA Flood Maps. There is some indication of limited pluvial flooding along Ditch D and Ditch E shown on the flood maps, although this does not extend into the proposed development areas.

Table 4.1 Potential sources of flooding

Flood mechanism	Source	Flood risk	Comments	Measures required
Watercourses (inc. culverts and other in-line structures)	Ditch A	Medium to high	The ditch flows through the proposed southern development site. Culvert/sluice at East Newtonleys Farm. Failure of structure (e.g. blockage) could cause flooding of the site to the west.	• Layout design and landscaping/drainage system considerations. • Incorporation of freeboard to building levels
	Ditch B	Low to medium	Ditch currently flows through an area proposed for development at southern site.	• Ditch to be re-routed to allow for development
	Ditch C	Low to medium	Ditch currently flows through an area proposed for development at northern site	• Ditch to be re-routed to allow for development
	Ditch D	Medium to high	Ditch flows north eastwards along field boundary and eastwards adjacent to Boggartyhead farm and cottage. The ditch flows through an area proposed for sports fields. Backing up of floodwater behind culvert 1 could cause flooding to part of site.	• Layout design and landscaping considerations.
	Ditch E	Medium to high	Ditch currently flows eastwards through an area proposed for development at the eastern part of the northern site Backing up of water behind culvert could cause flooding of part of site.	• Upgrade of culvert at Stonehaven coastal road (culvert 4)
Overland flows (Pluvial)		Medium	Runoff from steep slopes may enter the development sites although there is low likelihood of water ponding on the development sites given the sloping topography.	• Effective drainage system • Layout design and landscaping considerations. • Incorporation of freeboard to building levels
Groundwater		Low	Much of site has a steep gradient. No significant areas of standing water observed on site. Groundwater seepages could potentially flow onto the site at the bottom of the slope to the north, east or west.	• Effective drainage system
Tidal	North Sea	None	The proposed development areas are not located within the tidal extent.	• None

4.2 Assessment of Flood Risk

Design flows for each of the drainage ditches have been derived using the FEH rainfall runoff technique and the adopted design flow and further details of the flood frequency analysis are included in Appendix D.

A combination of hydraulic modelling and conveyance estimation has been used to determine the likelihood and magnitude of any flooding. Further details are provided in Appendices E and F and the results are summarised in the following sections.

4.3 Ditch A

The main flood mechanism from Ditch A is overtopping of the ditch. Overtopping of the left bank occurs along the length of the ditch and is likely to result in floodwater flowing north westwards across the southern development site. The access to the southern development site is to be located immediately to the north west of the ditch and therefore floodwater will also flow across the access road.

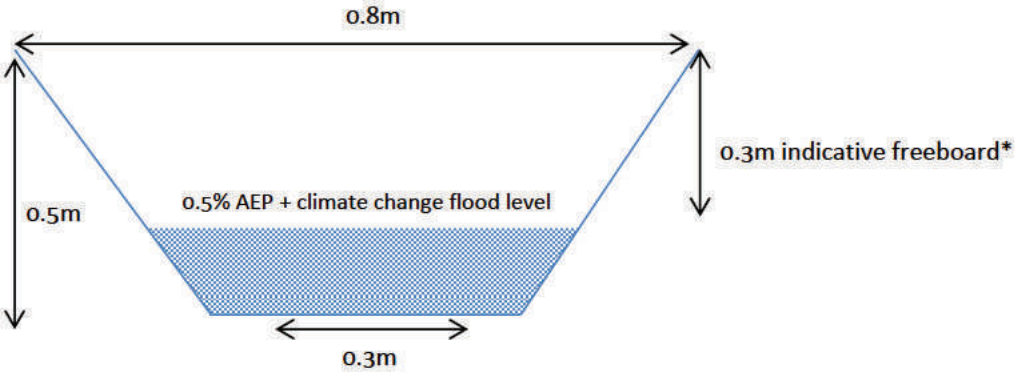
Overtopping of the left bank of the ditch at East Newtonleys farm also occurs as a result of backing up behind the sluice culvert (culvert 3). During a 0.5% AEP flood event, flood water is likely to overtop the left bank of the drainage ditch at the farm (Appendix E). This may result in water flowing onto the land to the west of the farm. It is unlikely that flood water will pond due to the sloping terrain and will flow north westwards following the local topography. Depending on the exact location of the overtopping, there is the potential for the north western part of the southern development area to be affected. This impact is likely to be worse should a blockage of culvert 3 at East Newtonleys farm occur.

In order to prevent flood water adversely impacting the proposed development, the finished floor level of the development should be situated at least 0.5m above the height of the drainage channel banks and should be landscaped in such a way as to route any overland flow safely through the development site.

4.4 Ditch B

Estimation of the conveyance capacity of ditch B indicates that there is currently no risk of flooding during a 0.5% AEP event and as a result no mitigation measures are required (Appendix F). It is proposed to re-route the existing ditch so that it flows northwards to meet Ditch E which will convey the floodwater eastwards to the North Sea.

The required dimensions of the proposed ditch have been calculated based on the terrain at the site and an indicative cross section of the ditch is shown in Figure 4-1.



*Freeboard to be agreed in consultation with Aberdeenshire Council.

Figure 4-1 Proposed dimensions of new ditch B

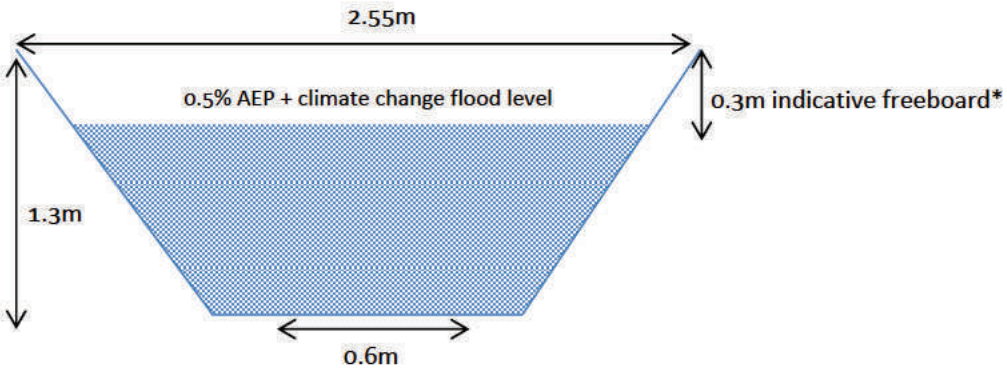
4.5 Ditch C

Ditches A and B currently converge under the road at East Newtonleys Farm and outflow into Ditch C adjacent to an area of woodland to the north of the road. Hydraulic modelling has shown that the ditch will not overtop in a 0.5% AEP flood event (Appendix E) and as a result no mitigation measures will be required.

A collapsed culvert at a field entrance (NGR 386926 784681) has resulted in this ditch being partially blocked. Whilst the ditch itself has sufficient capacity to convey floodwater in a 0.5% AEP flood, it is likely that the collapsed culvert will result in an obstruction to flow in an extreme flood event and will result in floodwater will overtopping the banks of the burn at this location and flowing in a north westerly direction down the steep slope towards the A957.

The proposals for the site include re-routing the ditch so that it flows eastwards to join ditch E and water is conveyed towards the North Sea. This, combined with the re-routing of Ditch B, will significantly reduce the size of the catchment (by approximately 17%) draining into the Burn of Glaslaw to the west of the Braehead housing estate. This in turn should help reduce the flood risk to Stonehaven during extreme flood events by reducing the estimated peak flow on the Glaslaw burn from approximately 6.7m^3/s to 5.6 m^3/s. Any overland flow generated downstream of the ditch which would previously have drained into the ditch will be controlled and treated on site as part of the development SuDs system.

This land along the route of the proposed ditch rises by approximately 2.5m at its highest point, although as significant landscaping will be required to accommodate the proposed development, it is assumed that this will include landscaping to achieve a suitable gradient for the new ditch as part of the overall landscaping design. Ditch E originates on this ridge of land and therefore it has been assumed for the conveyance calculations that the new ditch will join Ditch E at a point further downstream, as indicated on Figure 3-2, which will result in an overall drop in elevation of 3m along the new section of ditch which would result in a gradient of 0.0046m/m. The required dimensions of the proposed ditch, based on this gradient, are provided in the indicative cross section shown in Figure 4-2. The ditch has been designed to convey flood water generated in a 0.5% AEP flood event + 20% climate change with an additional 0.5m freeboard allowance to provide a safety margin.



*Freeboard to be agreed in consultation with Aberdeenshire Council.

Figure 4-2 Proposed dimensions for the ditch

4.6 Ditch D

Estimation of the conveyance capacity indicates that there is currently no flood risk from Ditch D in a 0.5% AEP flood event (Appendix F).

The flows in Ditch D will be slightly reduced as part of the proposed development, as part of the catchment to the south will be dissected by the route of the new ditch from East Newtonleys and the course of the ditch will not be altered. Therefore there will be no increase in flood risk to Boggartyhead farm, past which the ditch flows, as a result of the development with the reduction in estimated flows should help to reduce flood risk to the farm and land downstream.

The conveyance capacity of the two culverts located within Ditch D was derived using the 'Tables for the hydraulic design of pipes sewers and channels' (Wallingford and Barr, 2006) in order to assess whether or not they pose a flood risk to the proposed development. Culvert 1 is located upstream of Boggartyhead farm at the northern extent of the ditch. An estimate of the conveyance capacity of the culvert has shown that it is significantly undersized and will likely result in water backing up in the channel behind the culvert. The backing up of water behind culvert 1 will significantly limit the volume of water in the channel downstream, although it is likely to result in flood water spilling out of the channel and spilling over the right bank of the burn. Any out-of-bank flow will drain south eastwards down the northern boundary of the site towards the coastal road (Figure 4-3). Culvert 2 is also shown to be significantly undersized and in its current condition is likely to increase flood risk to the coastal road.

Sports pitches are proposed for the area of land to the south and east of Ditch D. As this type of recreational development can be considered suitable under SPP guidance no specific flood mitigation measures will be required although it is recommended that the development is landscaped in such a way as to route any overland flow safely around the pitches.

4.7 Ditch E

The conveyance capacity of Ditch E and the culvert at the eastern extent of ditch E have also been assessed using the 'Tables for the hydraulic design of pipes sewers and channels' (Wallingford and Barr, 2006). Under current conditions, Ditch E has sufficient capacity to convey the 0.5% AEP flows, although the culvert under the Stonehaven coastal road has insufficient capacity to convey these flows which will likely result in water backing up behind the culvert and overtopping the coastal road. It is proposed to replace the culvert under the Stonehaven coastal road (culvert 4) to ensure it can adequately convey the 0.5% AEP + 20% climate change flood flows as part of the development.

As previously mentioned, the proposed development plans involve re-routing Ditch B and Ditch C eastwards to reduce the peak flows in the Burn of Glaslaw. Ditch E will receive the flow from the new ditches and as a result, the flows through Ditch E will be increased from 0.155m^3/s to 1.331m^3/s. Conveyance assessment has demonstrated that the existing ditch has sufficient capacity to convey the estimated 0.5%AEP + 20% climate change flows (Appendix F), provided it is well maintained and kept clear of vegetation and debris, and therefore should not result in increased flood risk to the coastal road. Should an additional freeboard be required, the dimensions of the ditch will have to be increased.

4.8 Ditch F

Ditch F is located downstream of the proposed developments areas, to the east of the Stonehaven coastal road. Ditches D and E currently drain into Ditch E via a large culvert under the Stonehaven coastal road (culvert 4). The ditch will receive a significant increase in flow from 0.56m^3/s to 2.05m^3/s as a result of the proposed development. The conveyance capacity of the ditch has been assessed (Appendix F) and found to have sufficient capacity to convey the increased flows. Due to the significant drop in elevation between the upstream and downstream side of the road, the culvert outflow is perched above the bed of the channel and this has resulted in some scouring of the bed of the channel. During the site visit it was observed that the base of the channel at the culvert outfall has experienced significant erosion due to scouring from floodwater. When upgrading the culvert under the Stonehaven coastal road, it is recommended that bed and bank protection measures are installed to prevent increased erosion at the culvert outfall.

4.9 Overland Flows

The development areas are located on sloping land and as a result there is the potential for overland flow to affect the proposed development. Figure 4-3 shows the overland flow routes based on the current topography of the site. These flow routes should be considered in the development layout and landscaping design so as to prevent the proposed buildings and access routes being affected by runoff.

Any surface waters falling on the proposed development areas will be collected and attenuated within SuDs systems which will be designed to provide a larger storage volume than is normally required.

The overland flow routes for runoff generated on site are indicated by the green arrows although these routes may change as a result of the development design and landscaping. The hatched area at the north west corner of the site shows the area that currently drains into the Ditch C. Following the re-routing of the ditch, any overland flow from this area will have to be treated as part of the northern development areas SuDs system.

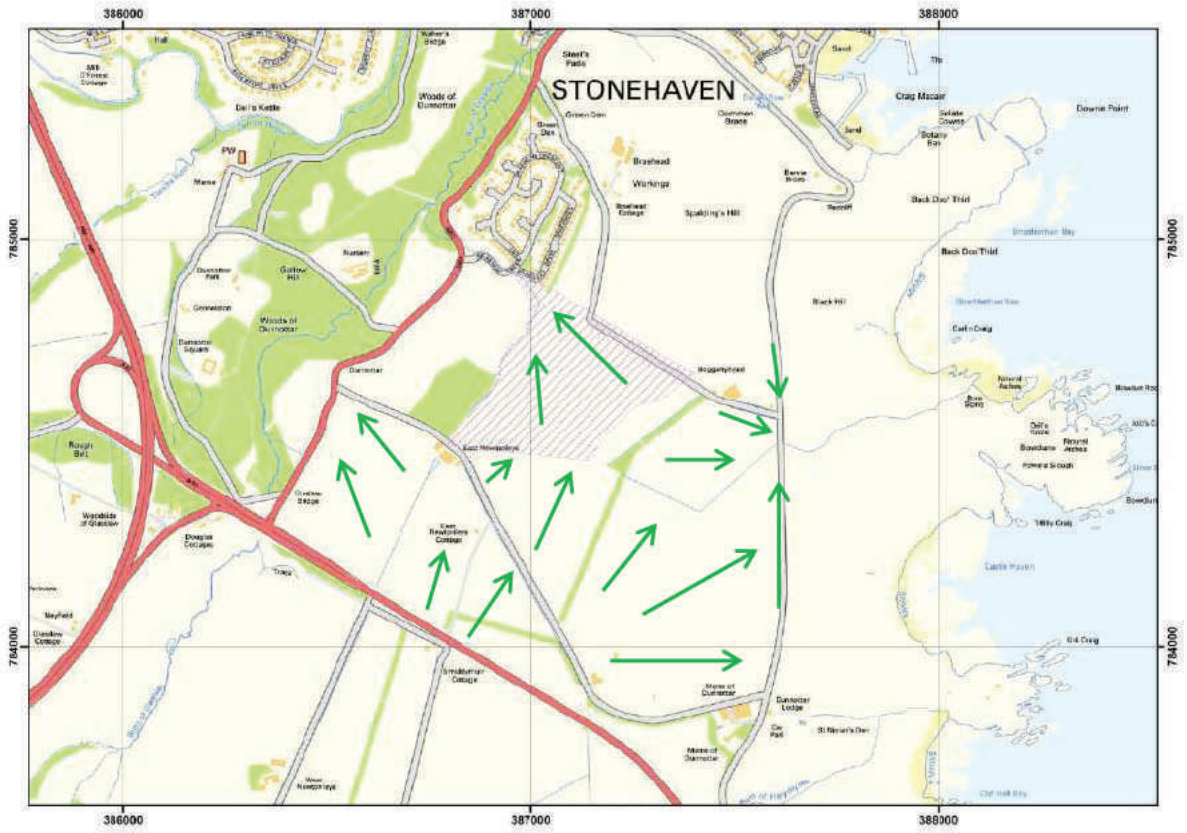


Figure 4-3 Overland flow paths

4.10 Groundwater Flooding

The sites are located on sloping land which appears to be free-draining. No significant areas of waterlogged ground were evident on the day of the survey and the site is considered to be at low risk of groundwater flooding.

4.11 Tidal Flooding

At the nearest point, the northern development site is located 330m from the coastline and is located approximately 60m above the Mean High Water Spring (MHWS). The southern development area is located 800m from the shore and at least 75m above the MHWS at its closest point. The proposed development is therefore not considered to be at risk from tidal flooding.

5 SUMMARY AND MITIGATION

5.1 Summary of Existing Site Conditions

Under current conditions, there is potential for overland flow in a number of locations to affect the areas proposed for development following periods of heavy rainfall. At Ditch A, this is mainly due to the insufficient capacity of the ditch, and culverts 1,2, 3 and 4 (labelled in Figure 5.1) also have insufficient conveyance capacity and are likely to result in floodwater backing up and overtopping the banks of the channel. The locations where overland flow could result from back up and overtopping are shown by the orange arrows in Figure 5.1.

Based on the hydraulic modelling results and conveyance capacity calculations, a number of areas have been identified as being at risk of overland flooding from water overtopping the ditches. Due to the sloping topography, it is unlikely that overland flow will pond on the site and therefore an indicative map showing areas at risk of flooding has been produced based on the topographic contours. These higher risk areas are shown shaded in grey on Figure 5.1.

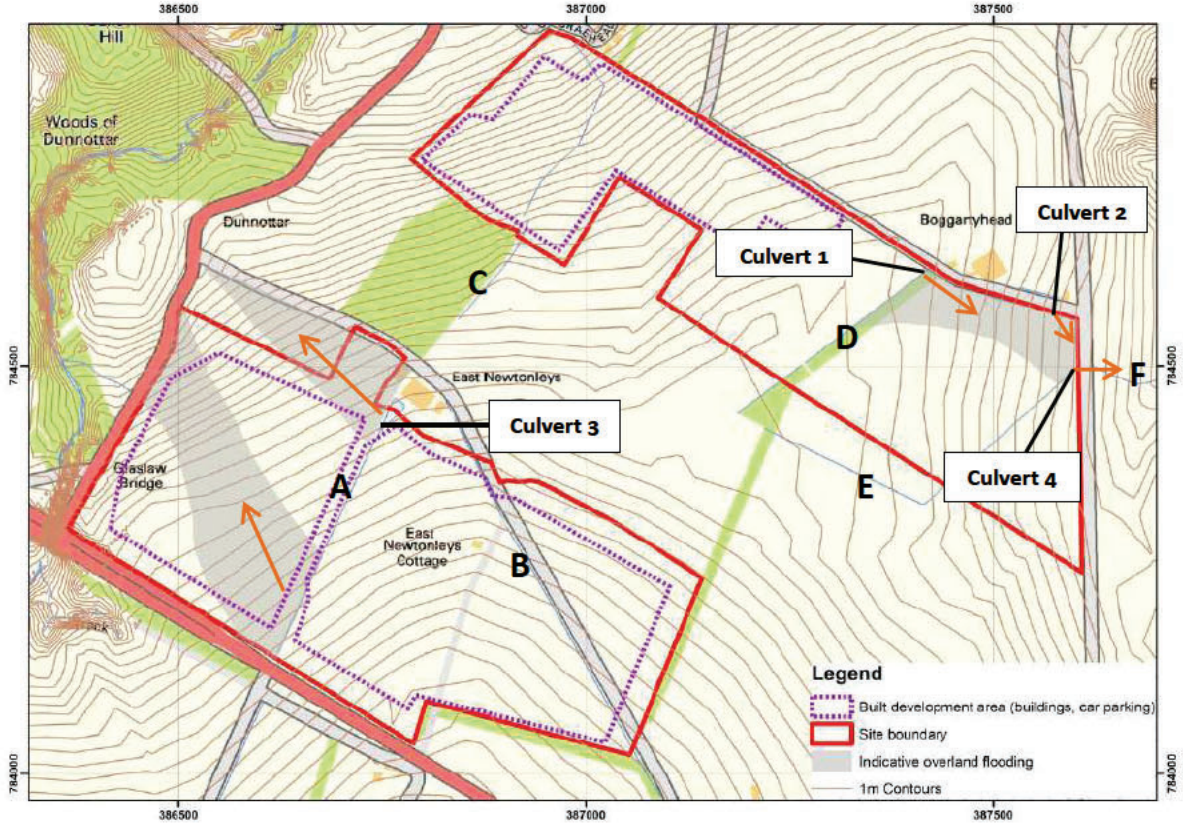


Figure 5.1 Indicative map showing areas considered to be at particular risk of overland flooding

5.2 Proposed Mitigation

New Ditches

Ditches B and C will be re-routed as part of the proposed development and, instead of draining to the Burn of Glaslaw, will flow eastwards into Ditch E and the North Sea. The required capacities of the new ditches have been calculated and provided as part of this assessment.

Due to the insufficient conveyance capacity of Ditch A and its close proximity to the access road into the site, the ditch will be upgraded so that it can safely convey the 0.5% AEP + 20% climate change flood flows plus an appropriate freeboard. This will prevent overtopping of the banks in an extreme flood event.

Culvert upgrading works

Culverts 1, 2, 3 and 4 will all be upgraded as part of the proposed development to ensure that they can safely convey the 0.5% AEP + 20% climate change flood flows. This will prevent water from backing up behind the culvert structures and overtopping the banks of the drainage ditch.

Due to the significant drop in elevation between the upstream and downstream side of the Stonehaven coastal road, the culvert outflow on Ditch F (culvert 4) is perched above the bed of the channel and this has resulted in some scouring of the bed of the channel. During the site visit it was observed that the base of the channel at the culvert outfall has experienced significant erosion due to scouring from floodwater. When upgrading the culvert under the Stonehaven coastal road, it is recommended that bed and bank protection measures are installed to prevent increased erosion at the culvert outfall.

Overland flow

Due to the residual risk from overland flow given the sloping topography of the sites, it is proposed that the finished floor level of development should be situated at least 0.5m above the banks of the ditches. This will provide an additional safety margin should the banks of the ditches overtop following an extreme flood event. As an additional measure it is recommended that the development areas be landscaped in such a way as to safely route any potential overland flows, as part of the SuDs provisions for each site.

6 CONCLUSIONS

A combination of hydraulic modelling and conveyance calculations have been used to assess the current and post-development flood risk to the northern and southern development areas at East Newtonleys, Stonehaven.

There are no natural watercourses located within or in the immediate vicinity of the site, other than the Burn of Glaslaw which at its closest point is located 70m to the west in a deep gorge more than 7m below the site. The development site is therefore not located within the functional floodplain as defined in SPP. There is however a network of man-made drainage ditches at the site which could cause flood risk to the site if the capacity of the ditches are exceeded resulting in overtopping of the banks leading to subsequent overland flow. In addition there are a number of culverts which could result in backing up of floodwater, particularly if the culverts become blocked.

Two ditches will be re-routed as part of the proposed development. Ditch B and Ditch C which currently flow north westwards into Ditch C, and then into the Burn of Glaslaw, will be diverted eastwards into Ditch E. This will help to reduce peak flood flows on the Burn of Glaslaw and downstream in Stonehaven where there is a known risk of flooding. The proposed ditches have been sized to ensure that they have sufficient capacity to convey the 0.5% AEP + 20% climate change flood flows and the development will have sufficient freeboard above the established flood level. The peak flows in the Burn of Glaslaw will be reduced from approximately 6.7m^3/s to 5.6m^3/s as a result of the diversions of the ditches.

The results of the assessment indicate that the left bank of Ditch A is likely to be overtopped in a 0.5% AEP flood event and could result in floodwater flowing north westwards across the southern development site. The access to the southern development site is to be located immediately to the north west of the ditch and therefore floodwater may also flow across the access road. This flood risk will be mitigated as part of the proposed development by increasing the capacity of the ditch so that is safely conveys the 0.5% AEP + 20% climate change flood flows. An additional freeboard allowance will be added to the proposed FFL to account for potential modelling uncertainty.

The northern edge of the southern development area is also currently at risk of flooding from floodwater overtopping the bank of Ditch A behind the culvert at East Newtonleys Farm (culvert 3) in a 0.5% AEP flood event. This flood risk will be mitigated by upgrading the existing culvert so that it can convey the estimated flows for the 0.5% AEP + 20% climate change allowance flood event.

The northern development site is currently at risk of flooding from floodwater overtopping the banks of the ditch behind the culvert at Boggartyhead Farm (culvert 1). Ditch D has a very small catchment and therefore the volumes of overland flow are likely to be low. The development proposed for this area is sports pitches and therefore infrequent flooding is considered to be acceptable and will not pose a risk.

The south eastern corner of the northern development site may also currently be at risk of flooding in a 0.5% AEP flood as a result of overtopping the ditch banks behind the culvert under the Stonehaven Coastal road at the downstream end of Ditch E. It is proposed to upgrade this culvert (culvert 4) as part of the development which will remove the risk of flooding to the northern development site and Stonehaven Coastal road at this location in a 0.5% AEP flood event. Indicative required culvert dimensions have been established.

REFERENCES

CEH. (2009). FEH CD-ROM 3. Wallingford: Centre for Ecology & Hydrology.

HR Wallingford. (2006). *Tables for the hydraulic design of pipes, sewers and channels* (Vol. II). London: Thomas Telford.

MWH Soft. (2011). InfoWorks RS.

SEPA. (n.d.). Indicative River & Coastal Flood Map (Scotland). Retrieved from http://www.sepa.org.uk/flooding/flood_extent_maps.aspx

Wallingford Software. (2008). Conveyance Estimation System. Wallingford: Wallingford Software Ltd.

APPENDICES

A ANNUAL EXCEEDANCE PROBABILITY AND RETURN PERIODS CONVERSION TABLE

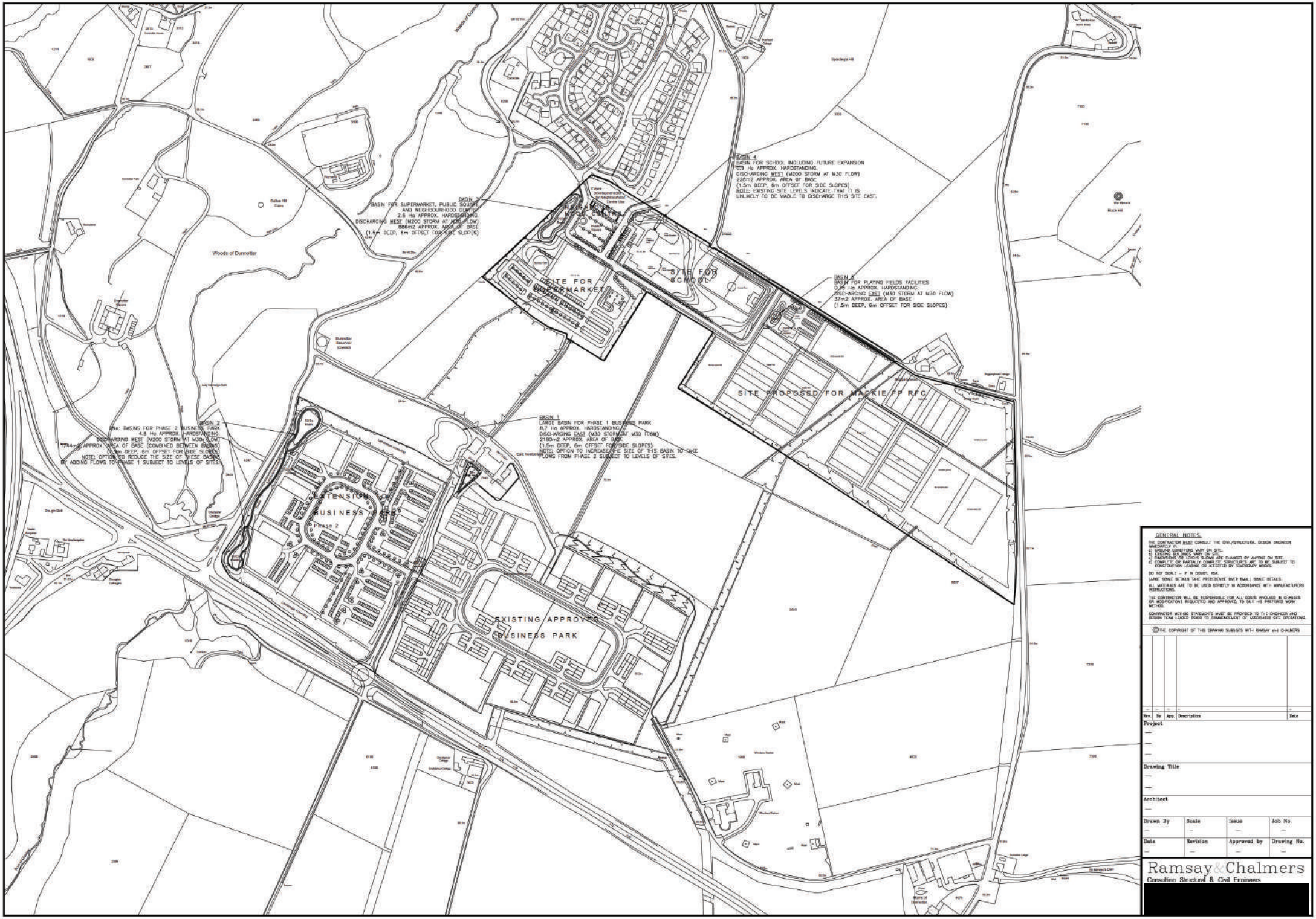
Table A.1 Relationship between annual exceednace probability and return periods

Annual Exceedace Probability, AEP (%)	Return Period, T (year)
50	2
20	5
10	10
5	20
3.3	30
2	50
1	100
0.5	200
0.2	500
0.1	1,000

The annual exceedance probability of particular flood conditions is the chance these conditions (or more severe) occur **in any given year**.

The return period of a flood is the **long-term average** period between flood conditions of such magnitude (or greater).

B PROPOSED DEVELOPMENT LAYOUT



GENERAL NOTES:

THE CONTRACTOR MUST CONSULT THE CIVIL/STRUCTURAL DESIGN ENGINEER IMMEDIATELY IF:
a) GROUND CONDITIONS VARY ON SITE.
b) EXISTING BUILDINGS VARY ON SITE.
c) DIMENSIONS OR LEVELS SHOWN ARE CHANGED BY ANYONE ON SITE.
d) COMPLETE OR PARTIALLY COMPLETE STRUCTURES ARE TO BE SUBJECT TO CONSTRUCTION LOADING OR AFFECTED BY TEMPORARY WORKS.

DO NOT SCALE – IF IN DOUBT, ASK.

LARGE SCALE DETAILS (eg. PRECEDENCE OVER SMALL SCALE DETAILS.

ALL MATERIALS ARE TO BE USED STRICTLY IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS INVOLVED IN CHANGES OR MODIFICATIONS REQUESTED AND APPROVED, TO SUIT HIS PRACTICE WORK METHODS.

CONTRACTOR METHOD STATEMENTS MUST BE PROVIDED TO THE ENGINEER AND DESIGN TEAM LEADER PRIOR TO COMMENCEMENT OF ASSOCIATED SITE OPERATIONS.

Rev.	By	App.	Description	Date
–	–	–	–	–

Project
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Drawing Title
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Architect
—

Drawn By	Scale	Issue	Job No.
–	–	–	–
Date	**Revision**	**Approved by**	**Drawing No.**
–	–	–	–

Ramsay&Chalmers
Consulting Structural & Civil Engineers

[redacted]

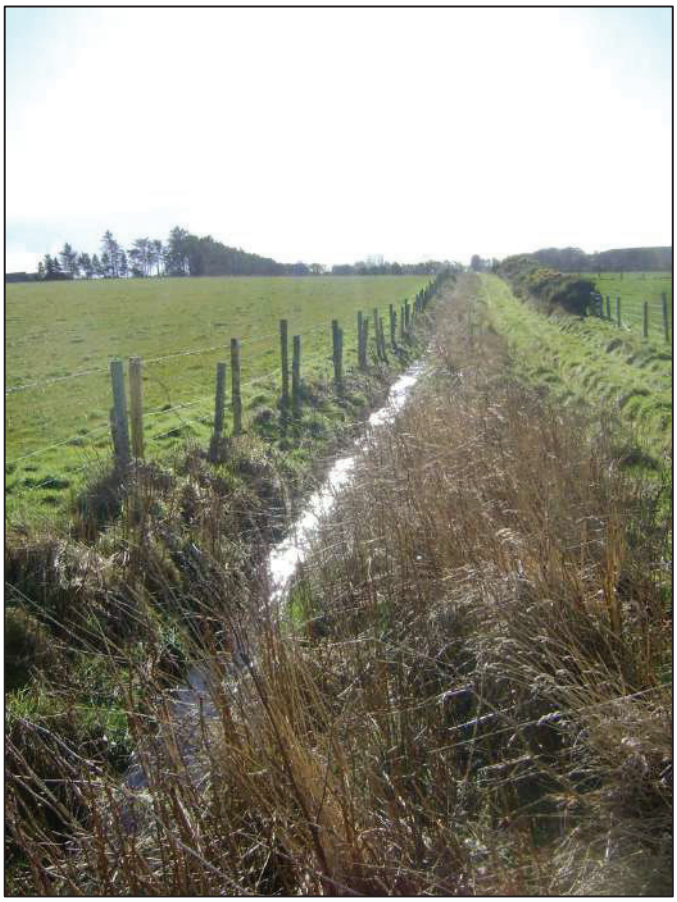
C SITE PHOTOGRAPHS

Ditch A:

Photograph 1: View looking upstream along Ditch A from just to the south of the A92

Photograph 2: Ditch A inflow culvert under A92 (300mm dia. clay pipe)

Photograph 3: Ditch A outflow culvert from under A92



Photograph 4: Looking upstream along Ditch A from farm.

Photograph 5: Looking downstream on Ditch A towards former farm pond.

Ditch B:

Photograph 6: 150mm plastic pipe at upstream extent of Ditch B

Photograph 7: Looking downstream along Ditch B from adjacent to the wireless station.

Photograph 8: Looking upstream along Ditch B at East Newtonleys B&B.

Photograph 9: Culvert under entrance track to East Newtonleys B&B

Photograph 10: View looking Downstream along Ditch B adjacent to East Newtonleys farm

Photograph 11: Culvert under single track road at East Newtonleys farm (250mm pipe culvert).

Ditch C:

Photograph 12: Outflow Culvert into Ditch C (assumed 0.4 x 0.45m stone culvert)

Photograph 13: Looking downstream along Ditch C, adjacent to forestry block.

Photograph 14: Looking upstream along Ditch C, adjacent to Braehead Crescent.

Photograph 15: Culvert under Braehead Crescent

Photograph 16: Looking downstream along Ditch C to A957.

Ditch D:

Photograph 17: Looking upstream along Ditch D from farm

Photograph 18: Looking downstream along culverted section of Ditch D at farm (assumed 250mm clay pipe culvert)

Photograph 19: Looking upstream towards open section of ditch D.

Photograph 20: Ditch D inflow culvert under Stonehaven coastal road (assumed 0.25m dia. pipe culvert).

Ditch E

Photograph 21: Looking upstream along Ditch E (1m top width, 0.3m bed width approx.)

Photograph 22: Access chamber to Ditch E culvert under Stonehaven coastal road.

Ditch F:

Photograph 23: Outflow Culvert on eastern side of Stonehaven coastal road.

Photograph 24: Looking downstream along channel of Ditch F

Proposed Ditch 1:

Photograph 25: Looking along route of proposed ditch from single track road towards Ditches A and B.

Proposed Ditch 2:

Photograph 26: Looking south westwards along proposed ditch route towards East Newtonleys

Photograph 27: Looking north eastwards along proposed ditch route towards Ditch D at farm

D FLOOD FREQUENCY ANALYSIS

FEH Rainfall-Runoff Method

Design flows for the adjacent burn have been estimated using the Flood Estimation Handbook (FEH) rainfall-runoff method, which is an appropriate method for calculating flow in small catchments. In this method, a conceptual lumped model is applied to the catchment with extreme rainfall data and catchment characteristics used as input data.

Due to the small sizes of ditches and their contributing catchment areas, it was not possible to obtain catchment characteristics using the FEH CD-ROM (CEH, 2009). A neighbouring catchment, the Burn of Glaslaw, was used as a donor to obtain catchment descriptors which were then adjusted by area to estimate design flows for the ditches for a range of flood event magnitudes. The catchment descriptors are provided in Table D.2. The model output includes a full flood hydrograph for given rainfall conditions. Here, the model was implemented within the ISIS Rainfall-Runoff model (CH2IM Hill, 2013) and the critical storm duration was established. The resulting design flows were then scaled by catchment area in order to establish design flows for each of the drainage ditches. A climate change scenario has been considered assuming a 20% increase in flow by the 2080s compared with present-day climatic conditions. The results of the flood frequency analysis are summarised in Table D.3 and Table D.4.

Table D.2 Burn of Glaslaw catchment descriptors

Grid Reference	NN 53050 00250
AREA	1.08
ALTBAR	222
ASPBAR	209
ASPVAR	0.65
BFIHOST	0.768
DPLBAR	1.55
DPSBAR	252.8
FARL	1
LDP	2.62
PROPWET	0.74
RMED-1H	9.4
RMED-1D	41.2
RMED-2D	55.6
SAAR	1618
SAAR4170	1561
SPRHOST	21.8
URBCONC1990	-999999
URBEXT1990	0.0023
URBLOC1990	-999999

Table D.3 Pre-development design flows (m^3/s)

	Ditch A	Ditch B	Ditch C (Includes Ditch A & Ditch B)	Ditch D	Ditch E	Ditch F (Includes Ditch D & Ditch E)
Catchment Area (km^2)	0.534	0.084	0.822	0.072	0.093	0.334
Annual Exceedance Probability						
3.3%	0.600	0.094	0.923	0.081	0.104	0.375
2%	0.676	0.106	1.041	0.091	0.118	0.423
0.5%	0.892	0.140	1.373	0.120	0.155	0.558
0.5% including 20% Climate Change	1.070	0.168	1.648	0.144	0.186	0.669

Table D.4 Post-development design flows (m^3/s)

	Ditch A	Re-routed Ditch B	Re-routed Ditch C	Ditch D (Includes Ditch A + Ditch B)	Ditch E (Ditch)	Ditch F (All ditch Flow)	Overland Flow†
Catchment Area (km^2)	0.534	0.023	0.685	0.055	0.797	1.022	0.136
Annual Exceedance Probability							
3.3%	0.600	0.026	0.770	0.062	0.895	1.148	0.153
2%	0.676	0.029	0.868	0.070	1.010	1.295	0.172
0.5%	0.892	0.038	1.144	0.092	1.331	1.707	0.227
0.5% including 20% Climate Change	1.070	0.046	1.373	0.110	1.597	2.048	0.273

†Overland flow is flow no longer captured by Ditch C following its diversion. This runoff will be controlled and treated on the within the northern development area SuDs prior to discharge into the Burn of Glaslaw.

E HYDRAULIC MODELLING

Model Construction

Topographic surveys of the site, the burn and adjacent floodplain was undertaken by the CWS Partnership in February 2011 with additional topographic data obtained by MSurv in March 2014. The topographic survey data is included in Appendix G. The survey data was used to develop a hydraulic model using Infoworks RS software, version 11.5. The model includes 12 river cross sections derived from the topographic survey and a number of cross sections were interpolated to provide additional detail. The modelled reach includes Ditch A and Ditch C. In order to be conservative, flow contributed from ditches B and C was modelled as part of the inflow into Ditch A.

The culvert inlet at East Newtonleys farm was modelled as a rectangular culvert with a height of 0.4m, a width of 0.45m and a length of 145m. A lateral spill, connected to a storage are on the left floodplain, was included immediately upstream of the culvert in order to simulate flow over the left bank of the ditch from water backing up behind the culvert during an extreme flood event.

River bed and floodplain roughness parameters (Manning's n values) were estimated from standard tables. A Manning's value of 0.03 was used for the channel to represent a clean straight channel with earth banks. A Manning's value of 0.5 was chosen for the floodplain to represent height varying grass and shrubs. The model was run in unsteady mode with a normal depth downstream boundary. A schematic diagram of the model is shown in Figure E.1 and Figure E.2

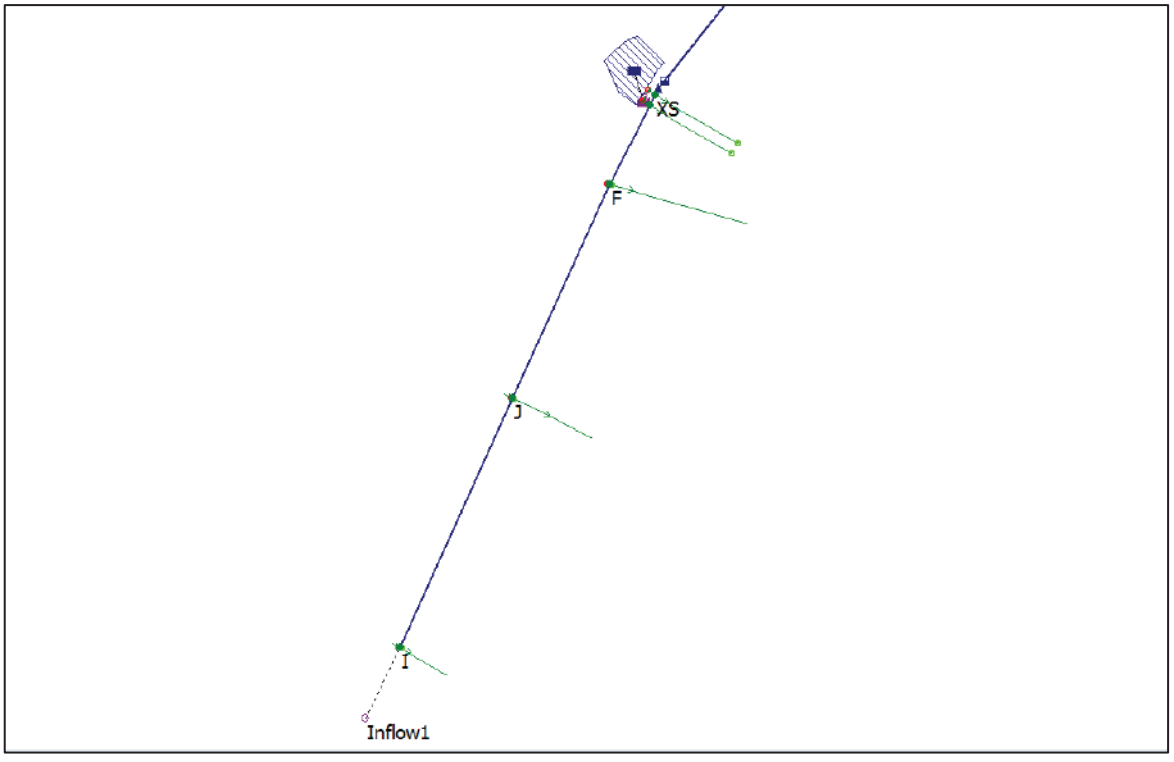


Figure E.1 Schematic diagram of hydraulic model for Ditch A

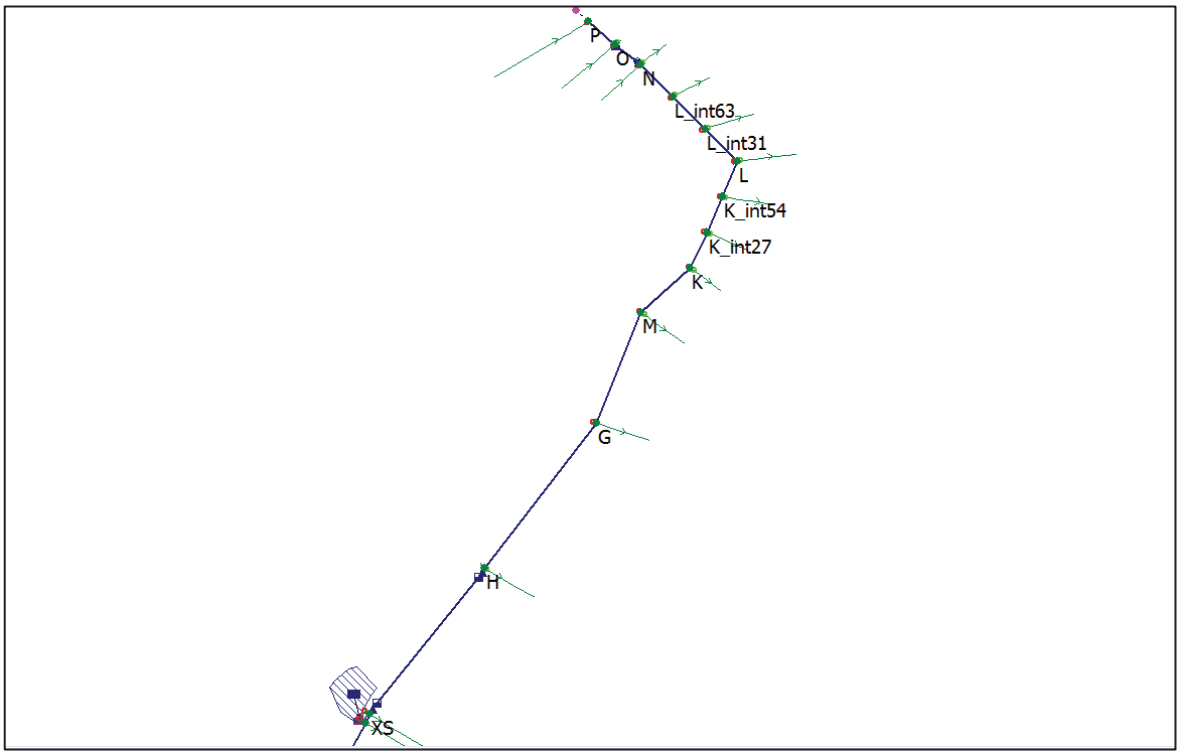


Figure E.2 Schematic diagram of hydraulic model for Ditch C

Sensitivity Analysis

Sensitivity analysis of the flows, assumed roughness values, and downstream boundary conditions was undertaken to evaluate the sensitivity of the results to possible inaccuracy in individual modelling components or assumptions. The model was run for the following scenarios:

- 0.5% AEP flow through the ditch network
- 0.5% AEP + 20% climate change ditch flow
- 0.5% AEP ditch flow with a 20% increase in Manning's roughness values
- 0.5% AEP ditch flow with a gradient reduction of 20% to test the influence of the downstream boundary.

The results of the sensitivity analysis are given in Table E.5. The results of the sensitivity analysis indicate that the model is insensitive to changes in the downstream boundary of the model with the reduction in model gradient resulting in only a 0.05m increase in water surface elevation at the last cross section of the model. The relative insensitivity to downstream gradient is likely due to the steepness of the channel. The cross sections upstream of the culvert are most sensitive to increases in flow as the limited conveyance capacity of the culvert significantly limits the flows reaching the channel downstream. Overall, the model appears to be most sensitive to the Manning's values uses in the model with a maximum increase in water surface elevation of 0.098m at the upstream end of Ditch A.

Table E.5 Sensitivity Analysis Results

Reach	Node label	Baseline flood level (0.5% AEP event)	Increased Flow (0.5% AEP + 20% allowance for climate change)	Increased Manning's (20% increase)	Increased d/s boundary	25% Culvert Block
			Difference in predicted water level (m)			
Ditch A	I	83.218	0.066	0.028	-0.001	0.01
	J	79.492	0.029	0.098	0	-0.001
	F	75.977	0.028	0.01	0	0.007
	XS!	75.879	0.038	-0.012	0.001	0.025
	XS	75.879	0.038	-0.012	0.001	0.024
Ditch B	H	69.081	0.001	0.055	0	-0.038
	G	62.874	-0.004	0.033	-0.004	-0.032
	M	58.173	0.003	0.054	0.002	-0.021
	K	55.78	0.001	0.037	0.001	-0.036
	K_int27	54.279	0.006	0.016	-0.002	-0.016
	K_int54	53.236	0.002	0.061	-0.003	-0.082
	L	51.292	0.015	0.046	0	-0.009
	L_int31	48.461	0.001	0.02	-0.001	-0.055
	L_int63	45.264	0.018	0.014	0	-0.007
	N	42.276	0.003	0.167	-0.004	-0.089
	O	41.901	0.001	0.062	-0.025	-0.055
	P	40.905	0.002	0.092	0.05	-0.078

Results

Hydraulic modelling has indicated that the majority of the development areas in the vicinity of Ditches A and C are located out with the functional floodplain of the ditches. Out of bank flow from Ditch A at the southern development area is only likely to occur as a result of floodwater building up behind the downstream culvert at East Newtonleys Farm. The results of the design event are provided in Table E.6and the maximum water surface elevation of the burn during a 0.5% AEP flood event is shown on the long section provided in Figure E.3.

It has not been possible to map the flood extents of the ditches at the development site as the topography of the ground is steeply sloping which prevents floodwater from ponding on the site. Any water overtopping the banks of the ditches will simply flow downslope. This being the case, it is recommended that the finished floor levels of the development are located at least 0.5m above the elevation of the left bank of the ditch. The development should be designed and landscaped in such a way as to allow any overland flow to pass safely through or around the development site without increasing flood risk to property or infrastructure downstream. The cross sections used tin the hydraulic modelling as shown in Figure E.4.

Table E.6 Flood levels

Reach	Node label	flood level (0.5% AEP event)	Elevation of left Bank of Ditch	Finished Floor Level elevation*
Ditch A	I	83.218	82.890	83.390
	J	79.492	79.670	80.170
	F	75.977	75.950	76.450
	XS!	75.879	75.720	76.220
	XS	75.879	75.720	76.220
Ditch B	H	69.081	69.570	70.070
	G	62.874	63.300	63.800
	M	58.173	58.330	58.830
	K	55.78	55.890	56.390
	K_int27	54.279	54.577	55.077
	K_int54	53.236	53.263	53.763
	L	51.292	51.950	52.450
	L_int31	48.461	49.357	49.857
	L_int63	45.264	46.763	47.263
	N	42.276	44.170	44.670
	O	41.901	42.500	43.000
	P	40.905	41.000	41.5

*Freeboard allowance to be determined through consultation with Aberdeenshire Council

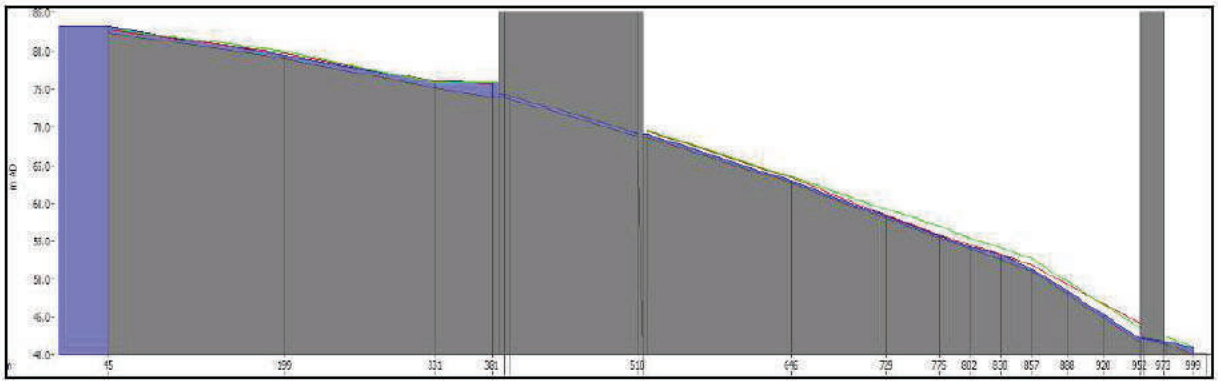
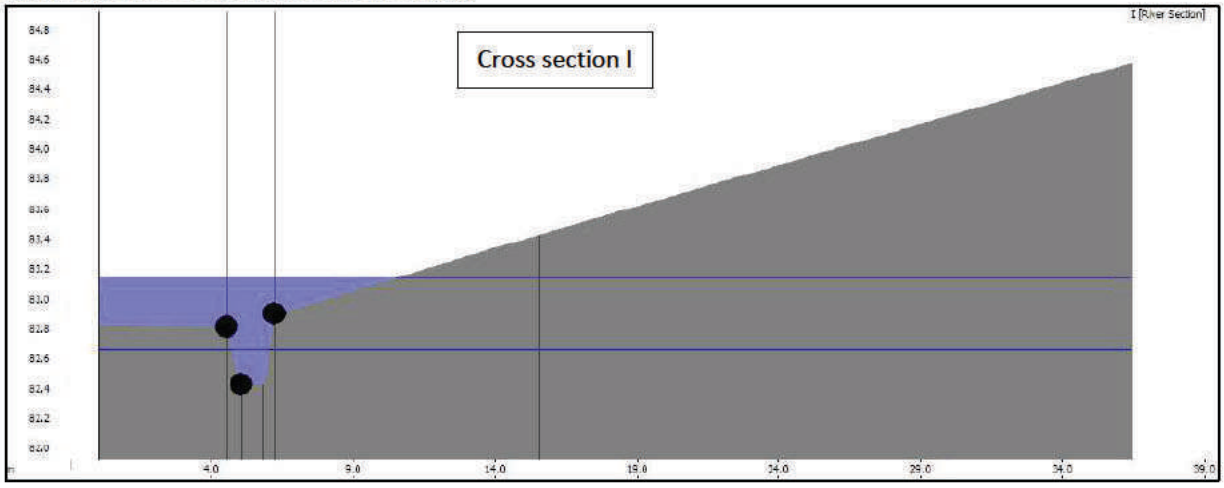
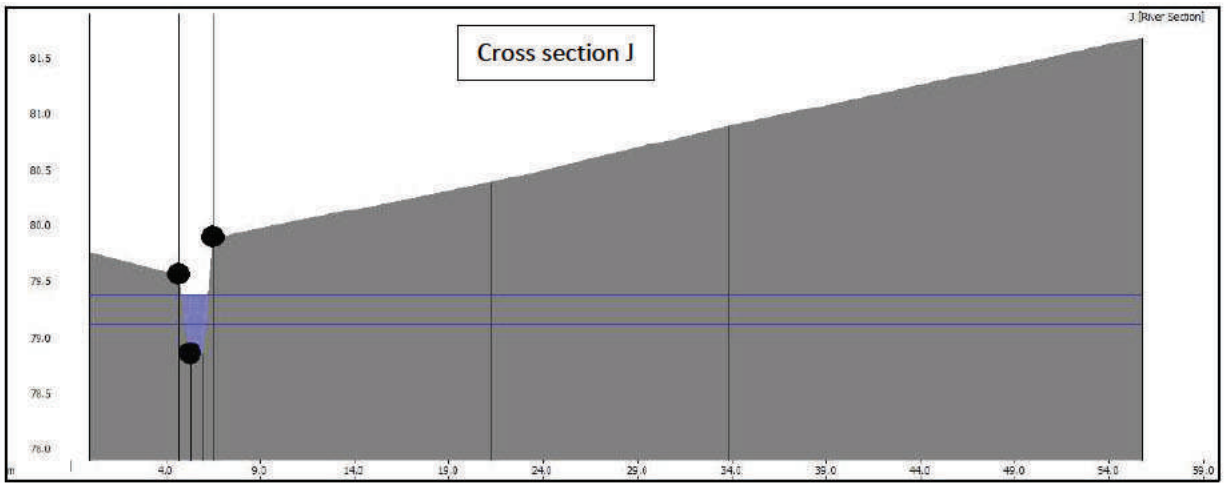
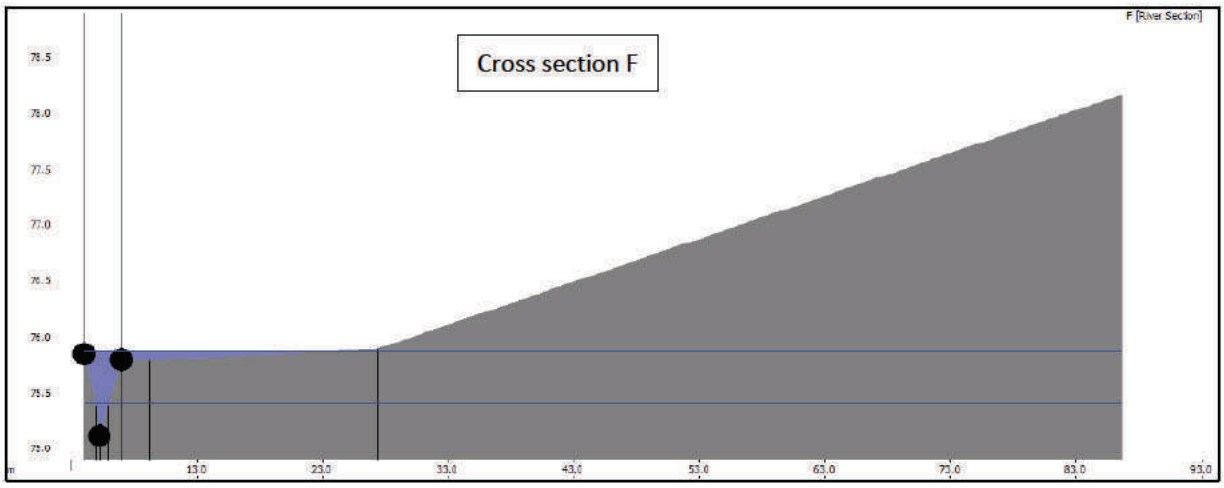


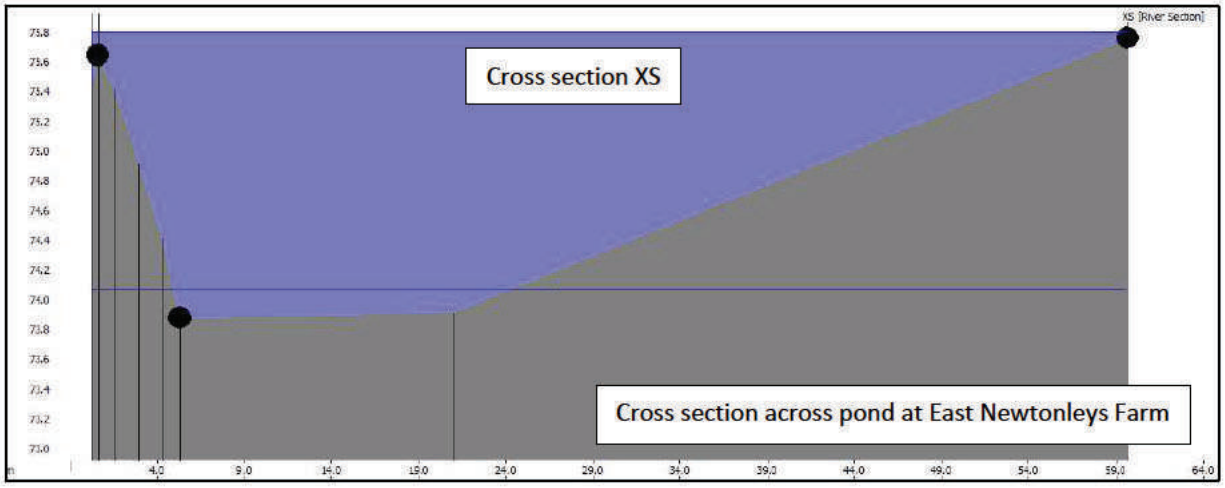
Figure E.3: Long section of the burn in a 0.5% AEP flood event

Figure E.4 Cross sections used in modelling





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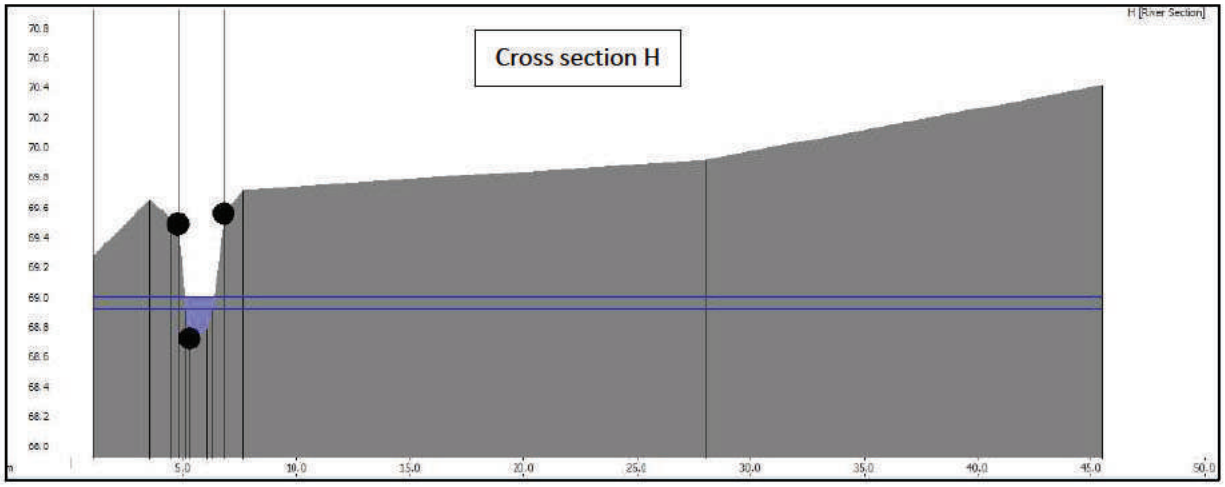
Cross section XS
Cross section across pond at East Newtonleys Farm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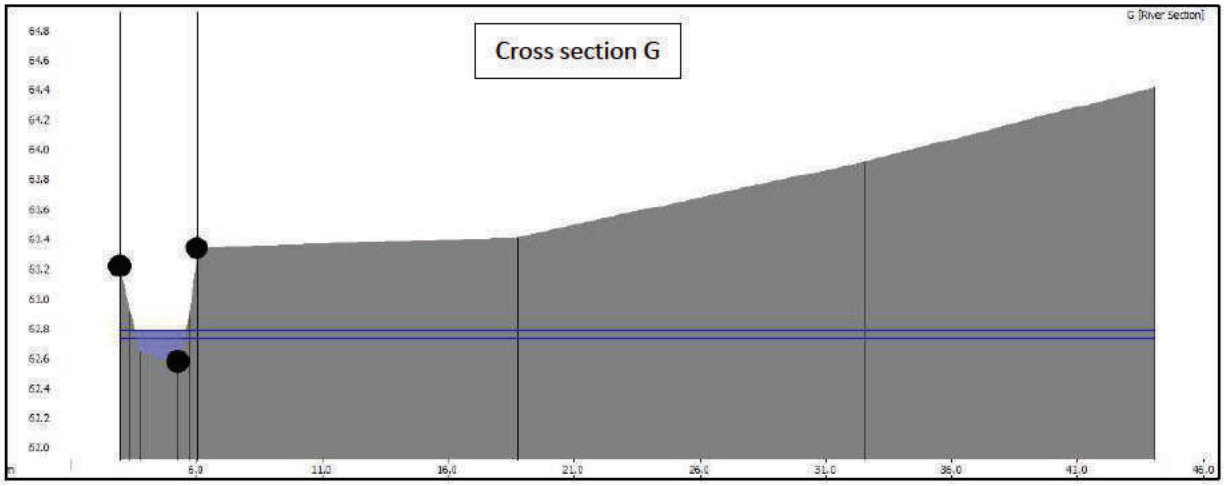
Cross section H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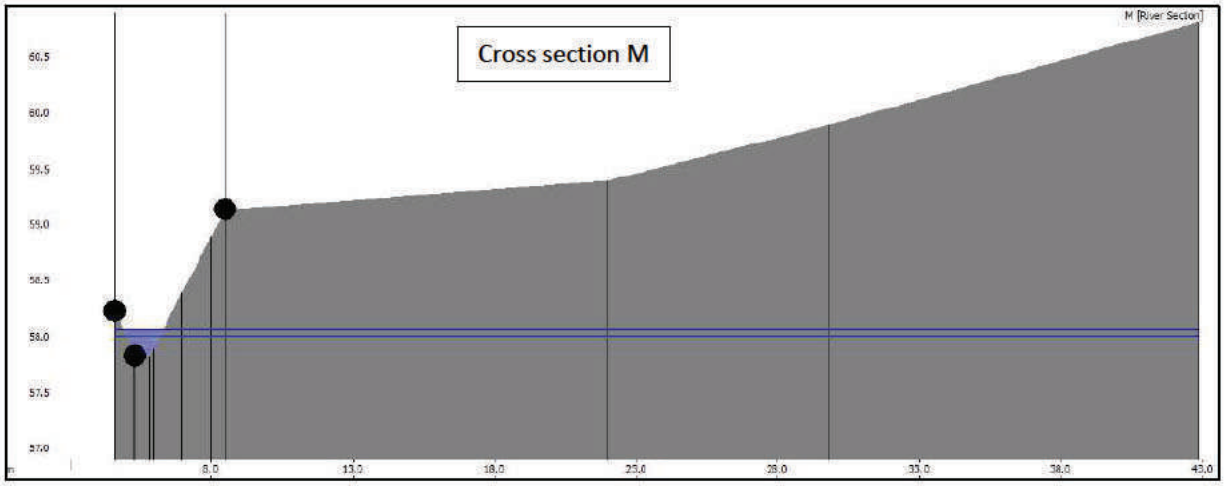
Cross section G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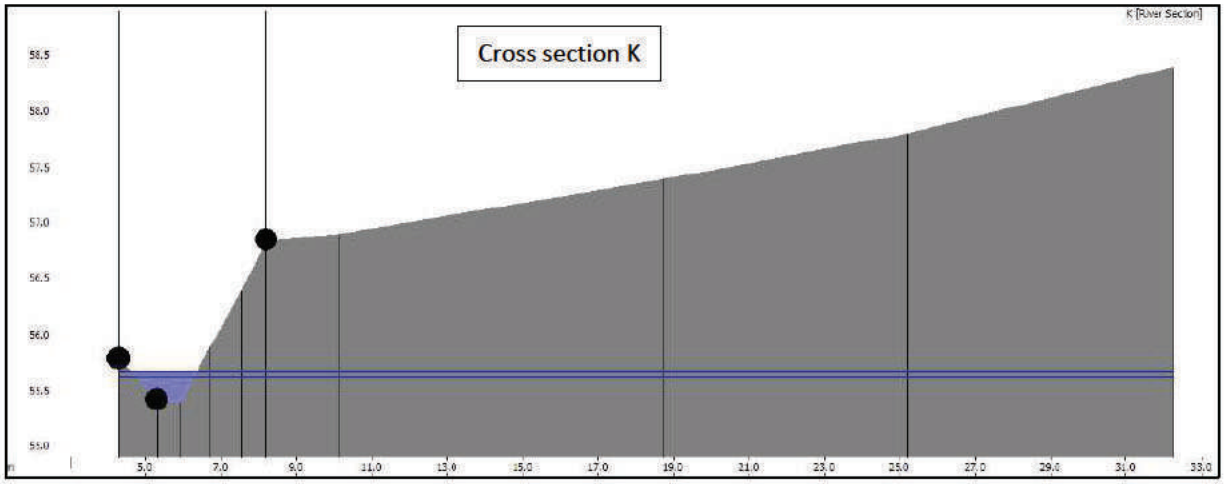
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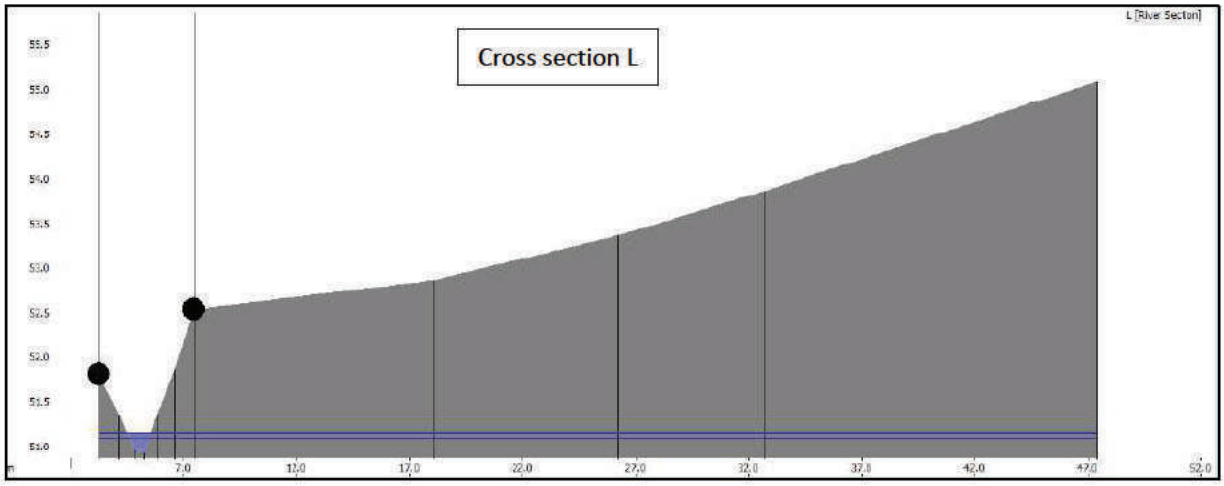
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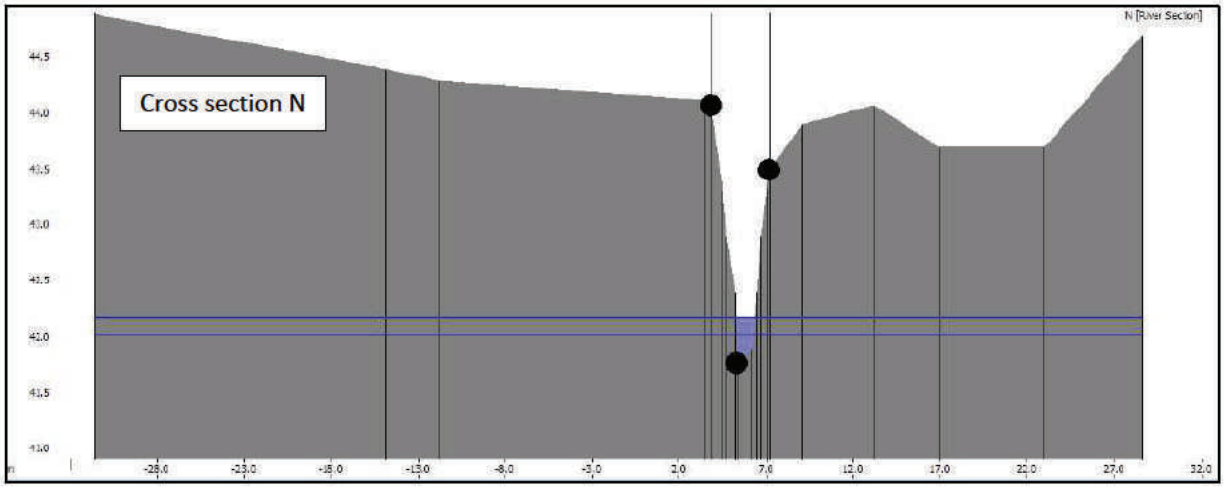
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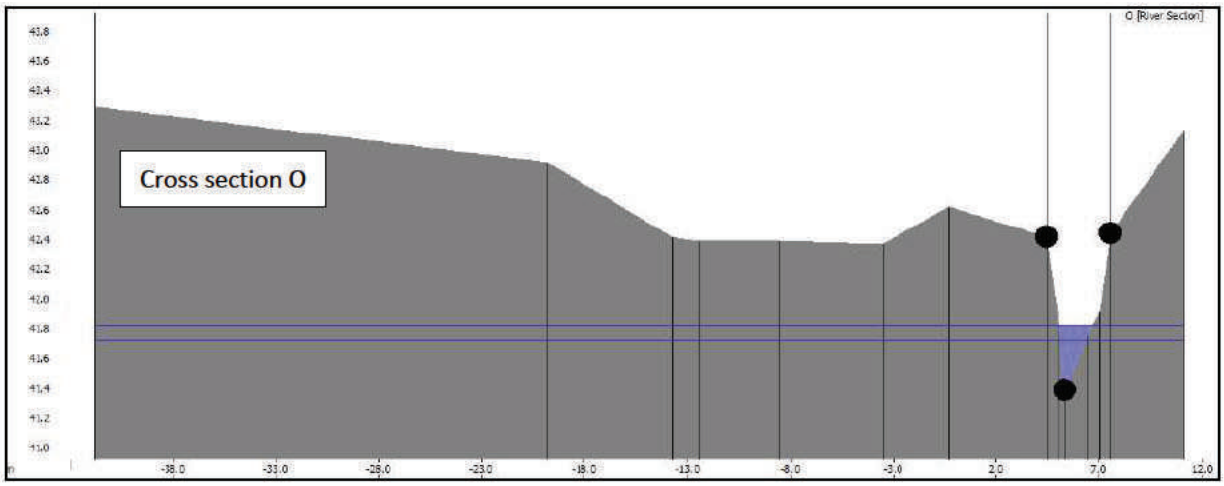
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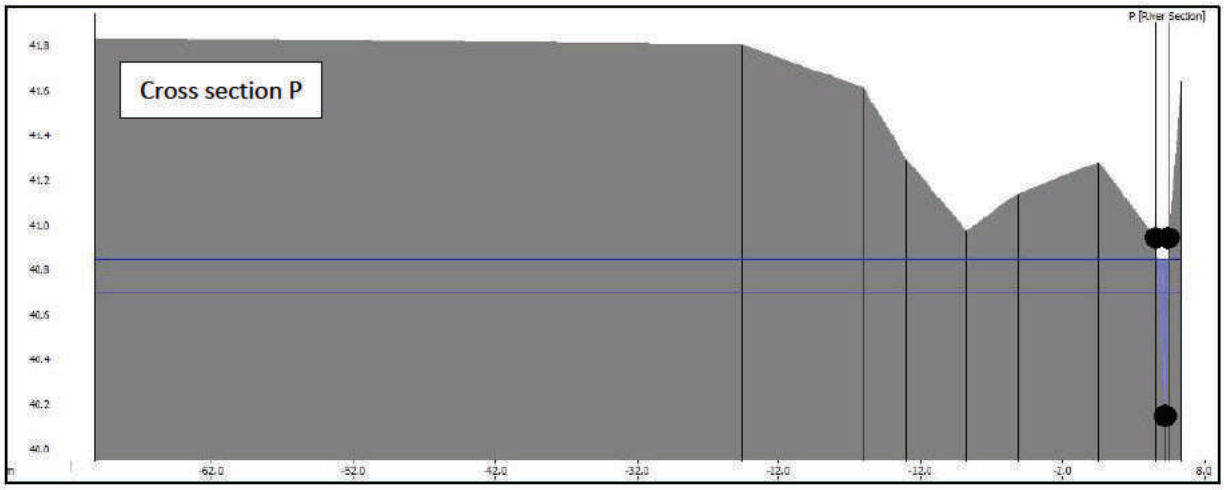
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Culvert Blocking Scenario

Under current conditions, the culvert has insufficient capacity to convey the predicted 0.5% AEP flood flows causing overtopping of the left bank of Ditch A as a result of water backing up in the channel. Table E.5 also shows the results of the culvert blocking scenario and illustrates that, as would be expected, the 0.5% AEP water surface elevations upstream of the culvert increase when the conveyance capacity of the culvert is reduced and the water surface elevation in the channel downstream of the culvert are reduced.

A spill was modelled between cross sections XS and XS! to simulate floodwater overtopping the banks at this location. Under current conditions, the culvert conveys up to 0.66m^3/s of floodwater during a 0.5% AEP flood event with approximately 0.73m^3/s of water overtopping the banks onto the floodplain.

A scenario was set up whereby the height of the culvert at the downstream extent of Ditch A was reduced by 25% to simulate the potential impacts of a significant blockage at the south east of the development site. Under this scenario, the conveyance capacity of the culvert is reduced to 0.49m^3/s resulting in approximately 0.90m^3/s of water overtopping the banks onto the floodplain.

The culvert should be routinely inspected in order to prevent build-up of excess sediment and debris, and maintain the conveyance capacity of the culvert. Appropriate maintenance of the riparian zone upstream of the box culvert will significantly reduce the risk of a blockage occurring.

F CONVEYANCE CALCULATIONS

Existing Ditch B

Ditch	
1 in 200 year design flow (m^3/s)	0.14
Manning's co-efficient	0.03
Slope of channel (m/m)	0.028
Top width (m)	2.5
Depth (m)	0.8
Base width (m)	0.5
Cross sectional area (m^2)	1.2
Conveyance capacity (m^3/s)	2.42

Culvert	
1 in 200 year design flow (m^3/s)	0.14
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.034
Culvert Diameter (m)	0.25
Conveyance capacity (m^3/s)	0.15

Proposed Ditch B

Ditch	No freeboard	Including 0.3m freeboard
1 in 200 year + 20% design flow (m^3/s)	0.05	0.05
Manning's co-efficient	0.03	0.03
Slope of channel (m/m)	0.02857	0.02857
Top width (m)	0.8	0.8
Depth (m)	0.2	0.5
Base width (m)	0.25	0.25
Cross sectional area (m^2)	0.11	0.275
Conveyance capacity (m^3/s)	0.06	0.40

Proposed ditch C

Ditch	No freeboard	Including 0.3m freeboard
1 in 200 year + 20% design flow (m^3/s)	1.37	1.37
Manning's co-efficient	0.03	0.03
Slope of channel (m/m)	0.0046	0.0046
Top width (m)	2.1	2.55
Depth (m)	0.6	0.6
Base width (m)	0.75	0.75
Cross sectional area (m^2)	1.35	2.04
Conveyance capacity (m^3/s)	1.43	2.68

Existing ditch D

Ditch	
1 in 200 year design flow (m^3/s)	1.2
Manning's co-efficient	0.03
Slope of channel (m/m)	0.0021
Top width (m)	1.5
Depth (m)	0.84
Base width (m)	0.5
Cross sectional area (m^2)	0.84
Conveyance capacity (m^3/s)	1.68

Culvert 1	
1 in 200 year design flow (m^3/s)	1.32
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.0206
Culvert Diameter (m)	0.25
Conveyance capacity (m^3/s)	0.12

Culvert 2	
1 in 200 year design flow (m^3/s)	1.32
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.0178
Culvert Diameter (m)	0.25
Conveyance capacity (m^3/s)	0.11

Existing Ditch E

Ditch	
1 in 200 year design flow (m^3/s)	0.16
Manning's co-efficient	0.03
Slope of channel (m/m)	0.0279
Top width (m)	3
Depth (m)	0.6
Base width (m)	0.5
Cross sectional area (m^2)	1.05
Conveyance capacity (m^3/s)	1.55

Culvert	
1 in 200 year design flow (m^3/s)	0.16
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.1487
Culvert Diameter (m)	0.25
Conveyance capacity (m^3/s)	0.10

Proposed Ditch E

Ditch	No freeboard	Including 0.5m freeboard
1 in 200 year + 20% design flow (m^3/s)	1.60	1.60
Manning's co-efficient	0.03	0.03
Slope of channel (m/m)	0.0279	0.0279
Top width (m)	3.1	5.2
Depth (m)	0.6	1.1
Base width (m)	0.6	0.6
Cross sectional area (m^2)	3.18	1.11
Conveyance capacity (m^3/s)	1.67	8.28

Proposed Culvert E

Culvert	
1 in 200 year design flow (m^3/s)	1.60
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.1
Culvert Diameter (m)	0.525
Conveyance capacity (m^3/s)	1.79

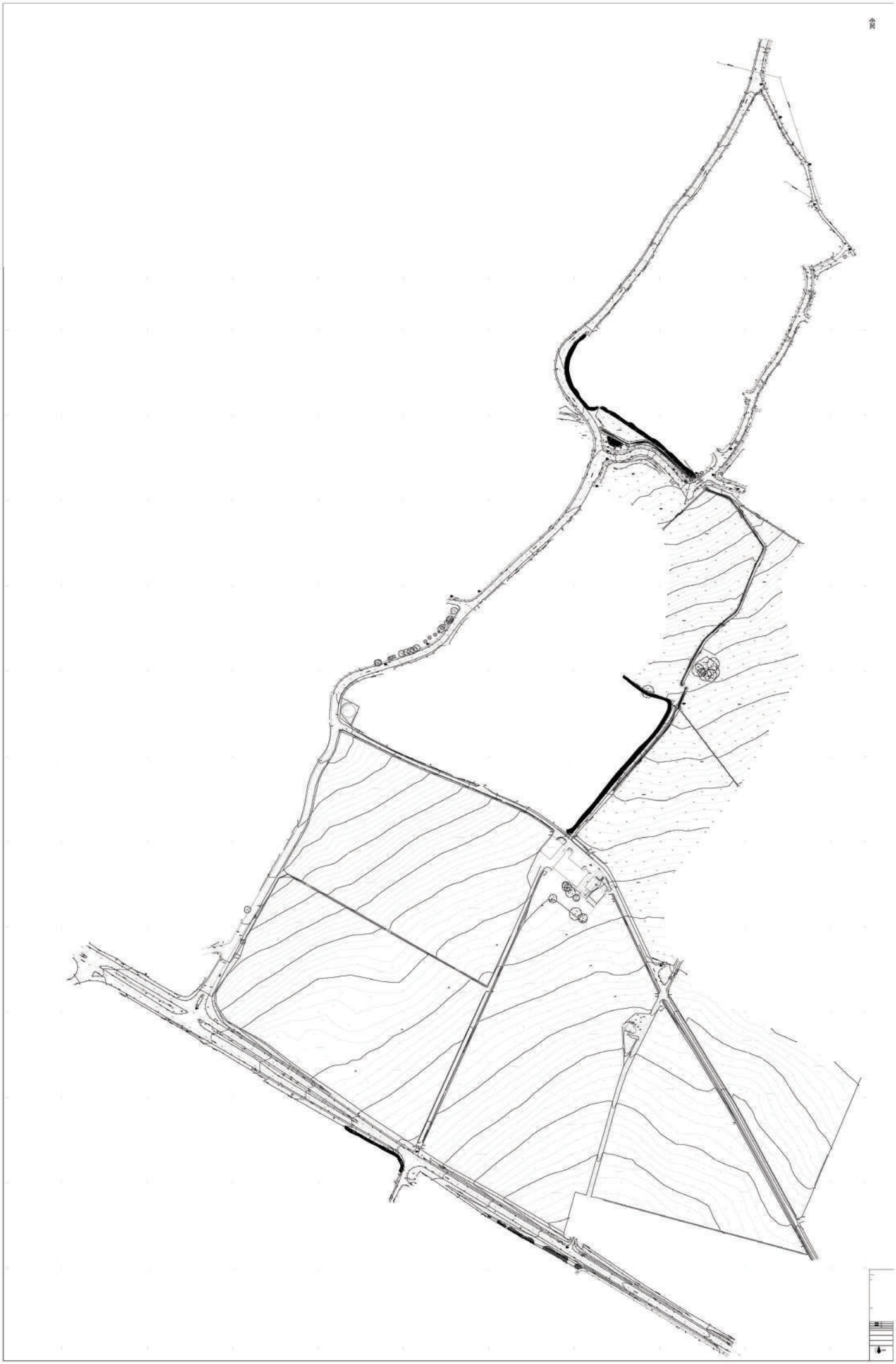
Existing Ditch F

Ditch	
1 in 200 year design flow (m^3/s)	0.56
Manning's co-efficient	0.03
Slope of channel (m/m)	0.0508
Top width (m)	3.75
Depth (m)	2.25
Base width (m)	0.75
Cross sectional area (m^2)	5.05
Conveyance capacity (m^3/s)	34.47

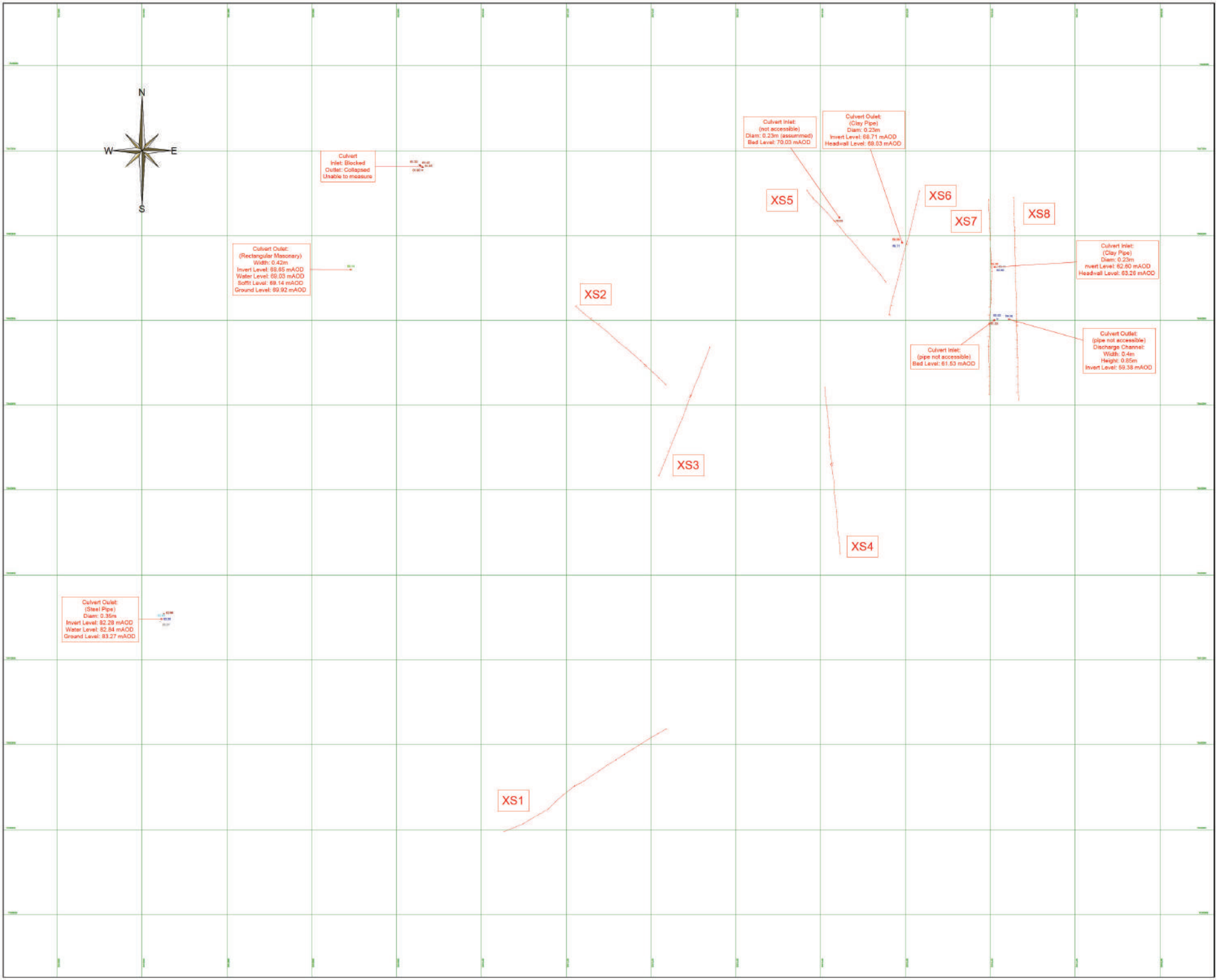
Proposed Culvert F

Culvert	
1 in 200 year design flow + 20% (m^3/s)	2.05
K co-efficient (mm)	0.15
Slope of channel (m/m)	0.01
Culvert Diameter (m)	0.6
Conveyance capacity (m^3/s)	2.54

G TOPOGRAPHIC SURVEYS



KN078



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client
EnviroCentre

project
Stonehaven

detail
Section Locations

dr	date	scale @ A1
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drg no.
1215-S-14032

APPENDIX 3

MIR Rep

For internal use only

Aberdeenshire Local Development Plan 2021: Main Issues Report 2019
Main Issues Report Response Form

Important Information: Please Read

The Main Issues Report (MIR) is a key stage in preparing the Aberdeenshire Local Development Plan 2021 (LDP 2021). The MIR sets out options for how the LDP 2021 could be improved both in terms of the policies that Aberdeenshire Council will use to determine planning applications as well as identifying land allocations for development. The MIR has been published along with a Monitoring Report and Interim Environmental Report of the Strategic Environmental Assessment. These, along with other supporting documents are available at: https://www.aberdeenshire.gov.uk/planning/plans-and-policies/ldp-2021/main-issues-report/.

Comments are sought on the MIR and Interim Environmental Report, or indeed any other matter that you feel that we need to consider, by 5pm on Monday, 8 April 2019. Responses can be emailed to us at ldp@aberdeenshire.gov.uk or received via post, Planning Policy Team, Infrastructure Services, Aberdeenshire Council, Woodhill House, Westburn Road, Aberdeen, AB16 5GB.

Please note that in order for comments to be considered as valid you must include your contact details.

We will use these details to confirm receipt of your comments and to seek clarification or request further information as required. Should you have any concerns regarding the holding of such information please contact ldp@aberdeenshire.gov.uk. Anonymous comments will not be considered as part of the consultation process. Petitions will only be noted in the name of the person submitting the document.

All comments received will be carefully assessed and will be used to inform the preparation of the Proposed Aberdeenshire Local Development Plan. There will be a further opportunity to comment on the Proposed Plan when it is published in December 2019.

Name	[redacted]
Organisation (*optional*)	**Ryden LLP**
On behalf of (if relevant)	**Bancon Homes Limited**
Address	[redacted]
Postcode	[redacted]
Telephone (*optional*)	[redacted]
E-mail (*optional*)	[redacted]

Doing things digitally is our preference. Tick the box if you are <u>not</u> happy to receive correspondence via email:	☐
Tick the box if you would like to subscribe to the Aberdeenshire LDP eNewsletter:	☑

Fair processing notice

Please tick to confirm your agreement to the following statements: ☑

By submitting a response to the consultation, I agree that Aberdeenshire Council can use the information provided in this form, including my personal data, as part of the review of the Aberdeenshire Local Development Plan. This will include consultation on the Main Issues Report (including any subsequent Proposed Plan).

I also agree that following the end of the consultation, i.e. after 8 April 2019, my name and respondent identification number (provided to you by Aberdeenshire Council on receipt of your submission) can be published alongside a copy of my completed response on the Main Issues Report website (contact details and information that is deemed commercially sensitive will not be made available to the public).

The data controller for this information is Aberdeenshire Council. The data on the form will be used to inform a public debate of the issues and choices presented in the Main Issues Report of the Aberdeenshire Local Development Plan 2021. It will inform the content of the Proposed Aberdeenshire Local Development Plan.

Aberdeenshire Council will only keep your personal data for as long as is needed. Aberdeenshire Council will retain your response and personal data for a retention period of 5 years from the date upon which it was collected. After 5 years Aberdeenshire Council will review whether it is necessary to continue to retain your information for a longer period. A redacted copy of your submission will be retained for 5 years beyond the life of the Local Development Plan 2021, possibly until 2037

Your Data, Your Rights

You have got legal rights about the way Aberdeenshire Council handles and uses your data, which include the right to ask for a copy of it, and to ask us to stop doing something with your data.

If you are unhappy with the way that Aberdeenshire Council or the Joint Data Controllers have processed your personal data then you do have the right to complain to the Information Commissioner's Officer, but you should raise the issue with the Data Protection Officers first. The Data Protection Officers can be contacted by writing to:

- Mr [redacted], Data Protection Officer, Aberdeenshire Council, Business Services, Town House, 34 Low Street, Banff, AB45 1AY

If you have difficulty understanding this document and require a translation, or you need help reading this document (for example if you need it in a different format or in another language), please phone us on 01467 536230.

Which document(s) are you commetning on?	Main Issues Report	✓
	Draft Proposed Aberdeenshire Local Development Plan	
	Strategic Environmental Assessment Interim Environmental Assessment	
	Other	

Your comments

Representations to the Main Issues Report on behalf of Bancon Homes Limited in relation to Site Ref; KN078, land South of Braehead, East of A957, Stonehaven.

On behalf of Bancon Homes Ltd, objection is taken to the failure of the Main Issues Report (MIR) to identify Site Reference KN078, land South of Braehead, East of A957, Stonehaven as a preferred option for residential development either in the first 5 year Plan period, or as reserved for future development.

This representation requires to be read in conjunction with Bancon Homes general representations on the MIR and, in particular, the housing land requirement. It also requires to be considered in the context of the Development Bid submitted at the pre-MIR stage. It is respectfully requested that this site should be allocated for development in the proposed Aberdeenshire Local Development Plan 2021 (LDP). Separate representations are made in respect of Sites KN076 and KN077. The various Bids demonstrate the capability of the area to accommodate a phased development to address the housing requirements set by the Strategic Development Plan.

At the outset, it is important to highlight concern at the failure of the MIR to provide any clarity on the scale of housing land release to be accommodated in Stonehaven and other settlements in order to satisfy the housing allowances set by the proposed Strategic Development Plan. This issue is addressed more fully in separate representations. In the absence of such information, it must be assumed that sites for around 200 units require to be found in Stonehaven, as this appears to be the number of additional units preferred for development in and around Ury House to the north west of Stonehaven. However, the MIR presents a somewhat confused picture as to how much additional housing is being preferred in and around Ury Estate.

The MIR Settlement Statement in respect of Stonehaven acknowledges that Stonehaven has a strong demand for development and is located in the Strategic Growth Area and the Aberdeen Housing Market Area. The text goes on to recognise that the town plays an important role in delivering Strategic Housing Allowances. Unfortunately, the sites preferred for development in Stonehaven are unlikely to contribute to the delivery of those Strategic Housing Allowances. The preferred sites around Ury Estate are extensions of existing sites which have yet to be built out. As such, the preferred sites will not result in the early delivery of additional housing, as they are dependent upon the existing sites being completed. Scottish Planning Policy places significant emphasis on the delivery of housing and this can only be achieved through the identification of sites which are not dependent upon existing sites being built out. The Development Bids highlighted above at Stonehaven South are capable of delivering the Strategic Housing Allowances within the timeframe of the Local Development Plan.

The assessment of Site KN078 as contained within the MIR raises a number of issues, many of which have no basis, and which require a response. In particular, the assessment considers the site to be detached from the settlement due to topography and does not **"connect or relate well"** with the town. However, the site sits immediately adjacent to the existing Braehead residential development which lies within the defined settlement boundary of Stonehaven. It also immediately adjoins the site safeguarded in the extant LDP 2017 for the replacement of Dunnottar Primary School. Notwithstanding the fact that that site may no longer be required by the Councils Learning Estates Team, the very fact it was identified

in the first place demonstrates its proximity and connectivity to the town. The Bid site also lies considerably closer to Stonehaven town centre than the nearest site at Ury Estate (OP2). Unlike Ury, it is not physically separated from the town by the A90 and is more readily accessible from the town centre on foot, cycle and by public transport. The site must also be considered in the context of the Business Park at East Newtonleys to the south. This also falls within the settlement boundary as defined within both the extant LDP 2017 and the draft Proposed LDP 2021. The Business Park benefits from two extant planning permissions with the permission covering the eastern portion of the site, identified as BUS2 in the extant LDP 2017 having been implemented. Consequently, it is logical and sustainable to site further residential development to the south of Stonehaven immediately adjacent to existing residential uses and in close proximity to land allocated for employment uses as it minimises the need to travel for employment.

Lying to the south of the town, yet in close proximity to the town centre, the site also enjoys excellent access to the Trunk Road network being situated a short distance from the A92/A90 grade separated junction. The junction has substantial spare capacity and affords good connections both North and South.

As highlighted in the Development Bid, Aberdeenshire Council themselves previously considered that the area was suitable for development. The consolidated Aberdeenshire Local Plans adopted in 1998 allocated much of the land for development. This was to address a Structure Plan requirement for 400 houses in the period 2001-2006, but was subject to a future Structure Plan Review, which eventually removed the requirement. The Local Plan envisaged development progressing in a south westerly direction from the previously approved site at Braehead. At the time the Council considered that this would minimise the visual impact of development in Stonehaven by concentrating it in one place. Moreover, they considered that locating further development in the East Newtonleys/Braehead area, would provide economies of scale in the provision of services. The comments within the site assessment, therefore, are entirely at odds with the historic view of the Council as regards the potential of Stonehaven South.

More recently, following the Examination in Public into the LDP 2017 the Reporter considered that **"…the western part of the site would have sufficient proximity and accessibility to the town and it would relate well to the OP5 and BUS1 sites"**. Unfortunately, he did not consider there to be sufficient clarity regarding the potential cumulative impact of developments elsewhere in Stonehaven and was not persuaded that the whole allocation would be appropriate in landscape terms.

The current Bid, to which this representation relates, had regard to the comments of the Reporter and focuses development to the west of the shelter belt which runs north - south and provides containment to the site. Whilst it continues to encroach slightly into the South East Aberdeenshire Coast Special Landscaped Area it would have no detrimental impact on the coastal setting and it is pleasing that this has been recognised in the MIR assessment of the site.

Notwithstanding the above, the assessment contends that the site is exposed and visible when viewed from the north and considers that it would have a significant landscape and visual impact on the setting of Stonehaven. Whilst the site would be visible from certain vantage points to the north of Stonehaven, the visual impact beyond that already created by the Braehead development to the north and the Business Park to the south, would be minimal. The Business Park benefits from an implemented planning permission and any development on the lower ground to the north must be considered in the context of future business development which will effectively act as a backdrop to that residential development.

To suggest that other less sensitive sites are preferred for development is a distortion of the facts. The sites preferred are entirely detached from the town being separated from it by the A90 dual carriageway with limited connectivity by foot, cycle, or public transport. This is acknowledged in the assessment of the preferred sites and whilst reference is made to the proposal for a link road between the B979 and the A957 in an effort to mitigate this, the link road will do nothing to improve linkages into the town. In any event, as highlighted above, the preferred sites are a considerable distance from the town centre with the closest being significantly further from the town centre than Site KN078. The preferred sites also impact on the setting of Ury House, which is a Listed building. It is contended that the land at Stonehaven South

should be preferred to that at Ury House given its limited visual impact on the town and the coastal area, and its proximity to the town and the business uses at Stonehaven South.

It is acknowledged that part of the site comprises Grade 3.1 agricultural land yet so too is much of the land preferred for development at Ury Estate. This, and the allocation of the Business Park to the south has already set a precedent for the development of prime land in the area. Scottish Planning Policy acknowledges that its development is considered acceptable where that development is an essential component of the settlement strategy. Site KN078 has the capacity and capability of satisfying the strategic growth of Stonehaven particularly as part of a phased development of Stonehaven South. When taken in the round it will provide a comprehensive and sustainable mixed use expansion to the south of Stonehaven all within the confines of the A90 and A92 road network which provide recognisable and defensible boundaries to the town notwithstanding the limited 'enabling' development that has taken place at Ury House.

Whilst the Development Bid made provision for the siting of a new Primary School, it is noted that the site allocated in the LDP 2017 is no longer preferred by the Council's Learning Estates Team. That said, the requirement for a replacement Dunnottar Primary School continues to be highlighted in the MIR, but no guidance provided as to its preferred location. Given the existing schools location to the south of Stonehaven, and limited opportunities for redevelopment in the immediate vicinity of the school, it would seem logical to identify a replacement site within the same catchment to the south of the town. This would enable it to be tied to the future expansion of Stonehaven thereby further enhancing the sustainability of development to the south of Stonehaven.

In summary, Site KN078 to the south of Stonehaven should be preferred for development over those currently identified for the Ury Estate to the north of the town. The land to the south of Stonehaven sits immediately adjacent to the settlement boundary and provides for infill development between it and the Business Park to the south. The site lies significantly closer to the town centre than the nearest allocated site at Ury Estate and unlike the Ury sites, is not separated from the town by the A90 dual carriageway. Indeed, development to the south of Stonehaven would ensure that the town remained within the confines of the A90 and the A92. Accordingly, it should be preferred for development.

APPENDIX 4

Indicative Masterplan