

Pullar House 35 Kinnoull Street Perth PH1 5GD Tel: 01738 475300 Email: onlineapps@pkc.gov.uk

Applications cannot be validated until all the necessary documentation has been submitted and the required fee has been paid.

Thank you for completing this application form:

ONLINE REFERENCE 100633664-018

The online reference is the unique reference for your online form only. The Planning Authority will allocate an Application Number when your form is validated. Please quote this reference if you need to contact the planning Authority about this application.

Applicant or Agent Details

Are you an applicant or an agent? * (An agent is an architect, consultant or someone else acting on behalf of the applicant in connection with this application) ☐ Applicant ☒ Agent

Agent Details

Please enter Agent details

Company/Organisation:	Scott Hobbs Planning		
Ref. Number:		You must enter a Building Name or Number, or both: *	
First Name: *	Sharon-Lee	Building Name:	24a
Last Name: *	Bow	Building Number:	
Telephone Number: *	07309402520	Address 1 (Street): *	Stafford Street
Extension Number:		Address 2:	
Mobile Number:	07309402520	Town/City: *	Edinburgh
Fax Number:		Country: *	United Kingdom
		Postcode: *	EH3 7BD
Email Address: *	slb@scotthobbsplanning.com		

Is the applicant an individual or an organisation/corporate entity? *

☐ Individual ☒ Organisation/Corporate entity

Applicant Details

Please enter Applicant details

Title:		You must enter a Building Name or Number, or both: *	
Other Title:		Building Name:	Taymouth Castle
First Name: *		Building Number:	
Last Name: *		Address 1 (Street): *	Kenmore
Company/Organisation	River Tay Development Ltd	Address 2:	
Telephone Number: *		Town/City: *	Aberfeldy
Extension Number:		Country: *	United Kingdom
Mobile Number:		Postcode: *	PH15 2NT
Fax Number:			
Email Address: *	slb@scotthobbsplanning.com		

Site Address Details

Planning Authority:	Perth and Kinross Council

Full postal address of the site (including postcode where available):

Address 1:	TAYMOUTH CASTLE
Address 2:	KENMORE
Address 3:	
Address 4:	
Address 5:	
Town/City/Settlement:	ABERFELDY
Post Code:	PH15 2NT

Please identify/describe the location of the site or sites

Northing	746532	Easting	278458

Description of Proposal

Please provide a description of your proposal to which your review relates. The description should be the same as given in the application form, or as amended with the agreement of the planning authority: *
(Max 500 characters)

Erection of 2 estate properties and 2 garages, construction of access road connecting to existing estate road and associated works (Zone Z4-04)

Type of Application

What type of application did you submit to the planning authority? *

☒ Application for planning permission (including householder application but excluding application to work minerals).

☐ Application for planning permission in principle.

☐ Further application.

☐ Application for approval of matters specified in conditions.

What does your review relate to? *

☒ Refusal Notice.

☐ Grant of permission with Conditions imposed.

☐ No decision reached within the prescribed period (two months after validation date or any agreed extension) – deemed refusal.

Statement of reasons for seeking review

You must state in full, why you are a seeking a review of the planning authority's decision (or failure to make a decision). Your statement must set out all matters you consider require to be taken into account in determining your review. If necessary this can be provided as a separate document in the 'Supporting Documents' section: * (Max 500 characters)

Note: you are unlikely to have a further opportunity to add to your statement of appeal at a later date, so it is essential that you produce all of the information you want the decision-maker to take into account.

You should not however raise any new matter which was not before the planning authority at the time it decided your application (or at the time expiry of the period of determination), unless you can demonstrate that the new matter could not have been raised before that time or that it not being raised before that time is a consequence of exceptional circumstances.

See Grounds for Review Statement

Have you raised any matters which were not before the appointed officer at the time the Determination on your application was made? * ☐ Yes ☒ No

If yes, you should explain in the box below, why you are raising the new matter, why it was not raised with the appointed officer before your application was determined and why you consider it should be considered in your review: * (Max 500 characters)

Please provide a list of all supporting documents, materials and evidence which you wish to submit with your notice of review and intend to rely on in support of your review. You can attach these documents electronically later in the process: * (Max 500 characters)

See Documents List

Application Details

Please provide the application reference no. given to you by your planning authority for your previous application.

23/01113/FLL

What date was the application submitted to the planning authority? *

29/06/2023

What date was the decision issued by the planning authority? *

21/03/2025

Review Procedure

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

Can this review continue to a conclusion, in your opinion, based on a review of the relevant information provided by yourself and other parties only, without any further procedures? For example, written submission, hearing session, site inspection. *

☐ Yes ☒ No

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

Please select a further procedure *

By means of inspection of the land to which the review relates

Please explain in detail in your own words why this further procedure is required and the matters set out in your statement of appeal it will deal with? (Max 500 characters)

Visual inspection of the site required to understand the context of the proposals

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

Can the site be clearly seen from a road or public land? * ☐ Yes ☒ No

Is it possible for the site to be accessed safely and without barriers to entry? * ☐ Yes ☒ No

If there are reasons why you think the local Review Body would be unable to undertake an unaccompanied site inspection, please explain here. (Max 500 characters)

Estate is a construction site with restricted access to ensure health and safety compliance

Checklist – Application for Notice of Review

Please complete the following checklist to make sure you have provided all the necessary information in support of your appeal. Failure to submit all this information may result in your appeal being deemed invalid.

Have you provided the name and address of the applicant?. * ☒ Yes ☐ No

Have you provided the date and reference number of the application which is the subject of this review? * ☒ Yes ☐ No

If you are the agent, acting on behalf of the applicant, have you provided details of your name and address and indicated whether any notice or correspondence required in connection with the review should be sent to you or the applicant? * ☒ Yes ☐ No ☐ N/A

Have you provided a statement setting out your reasons for requiring a review and by what procedure (or combination of procedures) you wish the review to be conducted? * ☒ Yes ☐ No

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

Please attach a copy of all documents, material and evidence which you intend to rely on (e.g. plans and Drawings) which are now the subject of this review * ☒ Yes ☐ No

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

Declare – Notice of Review

I/We the applicant/agent certify that this is an application for review on the grounds stated.

Declaration Name: Ms Sheila Hobbs

Declaration Date: 12/06/2025

0131 226 7225
info@scotthobbsplanning.com
www.scotthobbsplanning.com

24a Stafford Street
Edinburgh
EH3 7BD

12 June 2025

Zone 4-04 Taymouth Castle, Kenmore, Aberfeldy PH15 2NT

Local Review against refusal of planning application 23/01113/FLL

Erection of 2 estate properties, garages, formation of access road connecting to existing estate road and associated works (Z4-04)

A- Forms, Decision, Report of Handling

B- Plans, Drawings

C- Supporting Documents and Reports

D- Consultee Responses

E- History & Others

Document Reference	Document Title
A1	23/01113/FLL: Application Form
A2	23/01113/FLL: EIA Screening Opinion
A3	23/01113/FLL: Decision Notice
A4	23/01113/FLL: Officer's Report of Handling
A5	23/01113/FLL: Appropriate Assessment
B1	23/01113/FLL: Location Plan
B2	23/01113/FLL: Existing Site Plan
B3	23/01113/FLL: Proposed Site Plan
B4	23/01113/FLL: CG 17 Proposed GF Plan
B5	23/01113/FLL: CG 17 Proposed FF Plan
B6	23/01113/FLL: CG 17 Proposed Roof Plan
B7	23/01113/FLL: CG 17 Section A-A
B8	23/01113/FLL: CG 17 NE Elevation
B9	23/01113/FLL: CG 17 SE Elevation
B10	23/01113/FLL: CG 17 SW Elevation
B11	23/01113/FLL: CG 17 NW Elevation

B12	23/01113/FLL: CG 18 Proposed GF Plan
B13	23/01113/FLL: CG 18 Proposed FF Plan
B14	23/01113/FLL: CG 18 Proposed Roof Plan
B15	23/01113/FLL: CG 18 Section A-A
B16	23/01113/FLL: CG 18 NE Elevation
B17	23/01113/FLL: CG 18 SE Elevation
B18	23/01113/FLL: CG 18 SW Elevation
B19	23/01113/FLL: CG 18 NW Elevation
B20	23/01113/FLL: HZ04 View 01
B21	23/01113/FLL: HZ04 View 02
B22	23/01113/FLL: HZ04 View 03
B23	23/01113/FLL: HZ04 View 04
B24	23/01113/FLL: HZ04 View 05
B25	23/01113/FLL: HZ04 View 06
B26	23/01113/FLL: HZ04 View 07
B27	23/01113/FLL: Z404 Tree Removal Plan
B28	23/01113/FLL: Amended Z4 Proposed Masterplan
B29	23/01113/FLL: Wider Z4 Location Plan
B30	23/01113/FLL: Wider Z4 Tree Removal Plan
C1	23/01113/FLL: Planning Statement
C2	23/01113/FLL: Design and Access Statement
C3	23/01113/FLL: Strategic Planning Framework (SPF)
C4	23/01113/FLL: SPF Appendix 1 Masterplan
C5	23/01113/FLL: SPF Appendix 2 Phasing Plan
C6	23/01113/FLL: SPF Appendix 3 Existing Core Paths
C7	23/01113/FLL: SPF Appendix 4 Temp Diversions
C8	23/01113/FLL: SPF Appendix 5 Heritage Schedule
C9	23/01113/FLL: Drainage Strategy

C10	23/01113/FLL: Ecology Report
C11	23/01113/FLL: Highway Strategy Statement
C12	23/01113/FLL: Tree Report
C13	23/01113/FLL: Z4 Drainage Assessment
C14	23/01113/FLL: Z4 S1 Geoenvironmental Assessment
C15	23/01113/FLL: Z4 Heritage Impact Assessment
C16	23/01113/FLL: Flood Risk Assessment March 2024
C17	23/01113/FLL: Response to AECOM 1
C18	23/01113/FLL: Response to AECOM 2
C19	23/01113/FLL: Response to AECOM 3
C20	23/01113/FLL: Response to AECOM 4
C21	23/01113/FLL: Response to AECOM 5
C22	23/01113/FLL: HZ4 Ecology
C23	23/01113/FLL: Response to SEPA
C24	Cover Letter Feb 25
D1	23/01113/FLL: Conservation Officer Response Z404
D2	23/01113/FLL: Conservation Officer Response Z4
D3	23/01113/FLL: HES Response Jan 24
D4	23/01113/FLL: HES Response March 25
D5	23/01113/FLL: Nature Scot Response December 23
D6	23/01113/FLL: Perth and Kinross Heritage Trust Response
D7	23/01113/FLL: Contributions Response
D8	23/01113/FLL: SEPA Response December 23
D9	23/01113/FLL: Scottish Water Response
D10	23/01113/FLL: Biodiversity Response
D11	23/01113/FLL: SEPA Response April 24
D12	23/01113/FLL: Community Greenspace Response
D13	23/01113/FLL: Contaminated Land Response

D14	23/01113/FLL: Transport Planning Response
D15	23/01113/FLL: Environmental Health Response
D16	23/01113/FLL: Nature Scot Withdrawal of Objection
D17	23/01113/FLL: Flood Response 1
D18	23/01113/FLL: Flood Response 2
D19	23/01113/FLL: Flood Response 3
D20	23/01113/FLL: Flood Response 4
E1	23/01228/FLL: Z401 Report of Handling November 2024
E2	11/00533/FLM: Masterplan
E3	11/00533/FLM: Decision Notice
E4	EKOS Economic Report

Scott Hobbs Planning

Grounds for Review Statement on behalf of:

River Tay Development LTD

Date:

12 June 2025

Grounds for Review of a Planning Decision 23/01113/FLL

Erection of 2 Estate Properties and Garages, Formation of Access Road Connecting to Existing Estate Road and Associated Works (Z4-04) Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT



Grounds for Review Statement:

Refusal of Application 23/01113/FLL

Erection of 2 Estate Properties and Garages, Formation of Access Road Connecting to Existing Estate Road, and Associated Works at Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT

A re-submission of the full planning application drawings, application form and landowner certification are included, alongside supporting reports. Please see LRB Documents List for full details of accompanying information.

Contents

1.0 Executive Summary
2.0 Introduction
3.0 The Site
4.0 The Proposals
5.0 Grounds for Review
6.0 Conclusions

1.0 Executive Summary

1.1 Planning permission should be granted because:

- The Proposals are appropriate in siting and scale, reflecting the importance of the relevant designations and sensitivity of the landscape in which they are sited.
- The Proposals result in no harm to the historical and architectural integrity of the Category A Listed Dairy Building, nor the Historic Garden and Designed Landscape. The Proposals preserve the significance of the heritage assets identified within the site and its setting.
- The Proposals have an **improved** outcome for the HGDL over the previously approved scheme in 2011.
- The Proposals support rural revitalisation in Highland Perthshire and represent an important commitment to rebalanced development and conservation of heritage assets in line with the National Planning Framework 4 Spatial Principles.
- There are no public objections, nor did Historic Environment Scotland object.
- Principle of Estate property development within Taymouth Estate is well established and supported by extant consents.
- The Proposals are compatible with NPF4; in accordance with the Local Development Plan; and supported by Material Considerations.
- The 2011 Condition no. 51 which serves to restrict development in this location was not a permanent prohibition – additional documents have been provided to demonstrate the Proposals will not result in any harm to the HGDL and any Listed Buildings, or their setting.
- Even if the Proposals are considered to be contrary to the Development Plan, planning permission should be granted, on the grounds that the material planning considerations support it.

1.2 The Council's reasons for refusal are unsound. The principle of development within Taymouth Estate is established through extant consents. The policy reasoning is weak, given the wealth of information provided by the applicant demonstrating compliance with the development plan.

1.3 Historic conditions should not serve as a totality to resist revised or future development as the needs of the Estate develop. The proposals result in no harm to the setting of the Category A listed Dairy Building, nor to the visual and spatial relationship between distinct elements of the Historic Garden and Design Landscape (HGDL).

1.4 It is therefore requested that the Perth and Kinross Local Review Body reconsiders the proposals and finds favour with the reasoning set herein this Review.

2.0 Introduction

2.1 This Statement of Grounds of Review ('the Statement') is submitted on behalf of River Tay Developments Ltd ('the Applicant'). This Statement relates to a decision to refuse planning permission for the erection of 2 Estate properties, garages, formation of access road connecting to existing Estate road and associated works (Z4-04) at Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT.

2.2 The Notice of Review is submitted under Section 43A of the Town and Country Planning (Scotland) Act 1997 (As Amended). The Notice of Review has been lodged within the prescribed three-month period from the refusal of planning permission dated 21st March 2025 (Document A4). Please see supporting Review documents list for the planning application form, plans and supporting information.

2.3 By Delegated Powers, the Service Lead of Economy, Development and Planning of Perth and Kinross Council decided to refuse the application, as recommended by the Planning Officer in the Report of Handling (RoH) (Document A5). The singular reason for refusal is as follows:

"*The proposal is contrary to Policies 27A and 29 of the Perth and Kinross Local Development Plan 2 (2019) and Policies 7(c) and (i) of National Planning Framework 4 (NPF4) as the proposal would impact detrimentally on the setting of the category A listed Dairy when viewed from the east. Furthermore, the development would interfere with the visual and spatial relationship between the very distinct elements (woodland and parkland) of the Taymouth Castle Historic Garden and Designed Landscape (HGDL) and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. The tree felling which is proposed would also further erode this key view. The proposed estate properties also sit above the majority of other elements of the golf course in this location which will mean the properties will be visually prominent and therefore failing to protect, preserve or enhance the cultural significance of the HGDL. There is also no extant planning permission on this site unlike other areas of the estate where planning permission has previously been granted*."

2.4 This statement outlines the grounds for Review which highlight the following:

- The proposals are suitable in siting and scale, reflecting the importance of designated assets and the landscape in which they sit. The proposals result in no harm to the setting of the Category A listed Dairy Building, nor to the visual and spatial relationship between distinct elements of the Historic Garden and Design Landscape (HGDL). The principle of development within Taymouth Estate is established through extant consents – *but* the extant consents should not serve as a totality to resist revised or future development as the needs of the Estate develop for the future, consistent with the Estate's variations throughout its history.

- The proposals represent an important development project for the Highland Perthshire area, and a holistic approach needs to be undertaken to ensure the significance of the project is realised and recognised. The applicants have demonstrated their commitment to Rural Revitalisation, Rebalanced Development and Conserving assets in line with the National Planning Framework 4 Spatial Principles to ensure the delivery of productive places.

2.5 Based on the evidence presented in this Review, the applicant contends that the reasons can be set aside, and planning permission can be granted for the proposed development, subject to the imposition of relevant, enforceable planning conditions.

3.0 The Site

3.1 Full details of the planning application site, details layouts, technical land use considerations and CGI visuals of the proposed development are contained within the planning application documents (Documents B1-30 and C1-24). **Documents B20-B26 (HZ4-04 Proposed Visualisations) as well as C15 (Z4 Heritage Impact Assessment) are of particular importance.**

3.2 Taymouth Castle Estate is located in Highland Perthshire, approximately 1.5km northeast of the village of Kenmore. The Castle is a Category A Listed Building which sits within an extensive estate, designated as a Historic Garden and Designed Landscape. There are numerous Listed Buildings and structures within the Estate. The Category A Listed Dairy Building is located north of the Review plots (see figure 2 for Zone 4 Masterplan).

3.3 The Estate is bound to the north and east by the River Tay, to the south by the public road, A827 and to the west by the village of Kenmore Figure 1 shows the location of Zone 4 within Taymouth Castle Estate. Zone 4 is bound by the River Tay immediately to the north. The land to the east, south and west has been developed as part of the Golf Course.

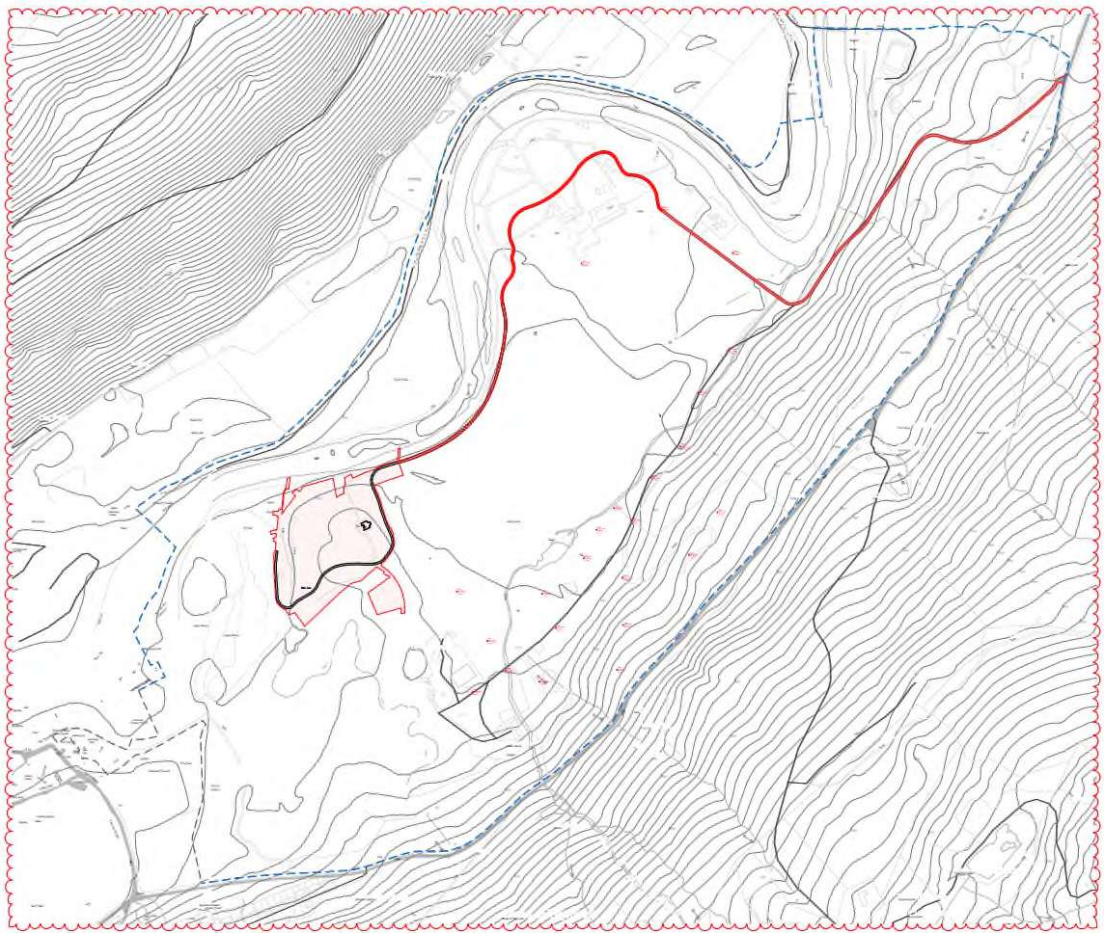


Figure 1 – Wider Zone 4 Location Plan

3.4 The planning strategy across Zones 1 – 5 at Taymouth Estate seek a reduction in Estate properties compared to the original planning permissions granted in 2005 and 2011.

3.5 The current proposals already comprise a substantial reduction on the proposed number of dwellings across the Estate in comparison to a total of 167 properties granted in 2005 and 2011. The cumulative impact of zone four has been reduced through the removal of an additional four plots forming part of the Z4-01 and Z4-02 applications. Presently the Z4 applications support 12 units, whereas the 2011 permissions approved 22 properties around these locations.

Planning History

3.6 There is an extant planning permission across Taymouth Estate for a total of 167 Estate properties which was granted in 2005 and 2011 (03/02250/PPLB and 11/00533/FLM). These permissions have been implemented and as such could be built.

3.7 The 2023 approvals for amendments to Zone 4 (see figure 2) consisted of:

- Z4-01 (9 properties, reduced to 7) (reference: 23/01228/FLL);
- Z4-02 (7 properties, reduced to 5) (reference: 23/001112/FLL); and
- Z4-03 alterations to the dairy to form a clubhouse (references: 23/01117/LBC and 23/01114/FLL).

4.0 The Proposals

4.1 The proposals seek planning permission for the erection of 2 estate properties, 2 garages and the construction of an access road connecting to the existing estate road, and associated works. The review site area measures approximately 0.40ha.

4.2 Estate properties are defined by their connection to the management and maintenance of the Estate through their title deeds. This allows the applicant to control matter such as maintenance, design of units and palette of materials. By their nature, the Estate properties are not suitable for permanent occupation.



Figure 2 – Z4 Amended Site Plan. Z4-04 – Review Site (outlined in red.)

4.3 The proposed development has been carefully designed to ensure that the character and historic interest of the structures and setting is retained. The Dairy Building is a designated heritage asset of high significance; however, the proposals are proportionate, appropriate and integrate into the surrounding character of the HGDL, in comparison to the extant consent of 167 estate properties (See Document F2 for approved 2011 masterplan). The significance of The Dairy Building will remain unharmed.

4.4 Of particular importance to the category A listed Dairy Building is View 1 (Document B20), as seen below. This image features the view across the HGDL from the Dairy Building towards Apollo's Temple. The proposed view demonstrates how the proposed dwellings will sit comfortably within the landscape, benefitting from natural screening from existing mature trees.



Figure 3 - Proposed View 1 (Document B20) of Estate Properties from the Dairy Building – demonstrating natural screening from existing mature trees

4.5 As noted within the Heritage Assessment (Document C15), the principal view of the Dairy is westwards towards Loch Tay. The design and orientation of the Dairy, presents a side flank in the direction of the appeal sites, suggesting that there was no intention to have any view across the landscape in this direction. As such, the applicant does not consider that the proposed development negatively impacts any views to/from the Dairy Building, a position shared by Historic Environment Scotland (HES) who did not object to the application.

4.6 The visualisation at Figure 3 (above) demonstrates that in winter it will be possible to glimpse the parts of the housing through the trees to the south of the Dairy. However, the trees remain the centre viewpoint. When the trees are in leaf, the houses will be further obscured, resulting in a limited impact on the setting of the Dairy.

4.7 With regard to the setting of the Dairy, housing units have been approved in closer proximity than the current application. The visualisations show that the new units will be substantially screened from the Dairy. The applicant would commit to a condition for further landscape works to strengthen the planting around the units. Per existing approvals the condition could require an updated Landscape Management and Woodland Replenishment Plan.

4.8 The wider landscape context of the proposed properties, as demonstrated in Figure 4 below, (View 5 - Document B24) guarantees that the maximum number of trees are retained. The retention of the large tree groupings ensures the proposed Estate properties sit concealed within the landscape and enhance the existing character of the HGDL. The proposals will result in the felling of nine trees but can be compensated through a pre-commencement condition requiring a mitigatory landscaping and planting plan - consistent with the approach taken elsewhere on the Estate.

4.9 As noted within the Heritage Assessment (C15), the key features of the landscape remain unobstructed, including the Dairy, the skyline and the planting gaps that provide views through to Kenmore Park. The use of natural materials in recessive colours ensures that the houses will not be prominent in the landscape. Care has been taken to retain the mature trees on the mound that lines the parkland to the east of the proposed houses.



Figure 4 – Proposed View 5 (Document B24) 5 of Estate Properties in context of Dairy Building setting

4.10 The proposals across Z4 have been micro-sited in subtle locations in direct comparison to the extant consent which approved a strip of properties along the edge of the golf course. The revised design principles seek to reduce Estate property visibility in this part of the Estate's landscape, and is consistent with the recent approvals in Z4-01 and Z4-02.

4.11 The current proposals have an improved outcome for the designated Garden and Designed Landscape over the previously approved scheme in 2011. The proposals remove the need for very prominent crescent of houses around the open 'horseshoe' area to the west.

4.12 The proposed housing plots are designed to sit sympathetically within the designed landscape with no solid boundary treatments between plots in order to help preserve the character of the landscape. The proposed development has been carefully sited to ensure that the properties do not interfere with the visual and spatial relationship between the woodland and parkland elements of the Taymouth Castle Historic Garden and Designed Landscape. The properties will sit harmoniously within the landscape – securing its cultural significance for future generations.

4.13 As referenced above, it is important to note that HES did not object to the planning application.

4.14 The site subject to this Review was the topic of condition 51 of the 2011 planning approval (Document F3) which stated: "The estate properties located in Zone 7 (drwg ref: 11/00533/8) and on the masterplan (B-20-03, B-21-03, B-22-03) are not approved. Estate properties B-21-10 and B-22-10 shall be relocated to Zone 2 (drwg ref: 11/00533/3) adjacent to B-01-03 and B-11-03. A revised masterplan and Zone 2 and 7 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones."

4.15 The reasoning for this condition is noted as: "In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of listed buildings." This is further discussed within Document F5 (2011 Committee Report) and is encompassed within the reason for refusal of application 23/01113/FLL (the subject of this Review). This has been addressed in paragraph 5.10 below.

4.16 The Officer ROH (Document A5) states that "*The argument made in the Heritage Statement (Document C15) that the impact on the setting of The Dairy is negated by the improvement to the wider HGDL by removing properties from the horseshoe is not accepted*." What the report does not acknowledge is the thorough assessment of heritage impact against of each of the submitted views (Documents B20-B26). This is discussed in the following Grounds for Review section.

5.0 Grounds for Review

5.1 This statement will argue the following Grounds:

- Ground 1. The Proposal is not contrary to Policies 27a and 29 of the Perth and Kinross Local Development Plan 2 (2019) and Policies 7 (c) and (i) of National Planning Framework 4 (NPF4). The Proposal would not have a detrimental impact on the setting of the Category A listed Dairy Building. The Proposal does not have a detrimental impact on the visual and spatial relationship between distinct elements of the Taymouth Castle Historic Garden and Designed Landscape (HGDL). The principle of development within Taymouth Estate is established through extant consents – *but* the extant consents should not serve as a totality to resist revised or future development as the needs of the Estate to secure its future is realised.

- Ground 2. The proposals represent an important development project for the Highland Perthshire area, and a holistic approach needs to be undertaken to ensure the significance of the project is realised and recognised.

Proposed Procedure to be Followed in Deciding the Review

5.2 The applicant requests that the Local Review Body undertake a site visit (accompanied) and considers further written representations in deciding the case.

5.3 With respect to the reasons for refusal, visual inspection of the review site is necessary to better understand the site and context of its location and the relationship between these plots and the wider Estate Masterplan (Document C4). A site visit will enable the Local Review Body to better understand why the reasons for refusal should be set aside.

5.4 The appellant retains the right to respond to any representations made throughout the course of the Local Review Body process.

Ground 1 - Policy Assessment

5.5 Section 25 of the Town and Country Planning (Scotland) Act 1997 (As Amended) states that planning applications should be determined in accordance with the Development Plan unless material considerations indicate otherwise.

5.6 These following paragraphs will focus on addressing relevant policy matters included within the reason for refusal before addressing material considerations.

- PKC LDP (2019) Policies 27a (Listed Buildings) & 29 (Gardens and Designed Landscapes.

- NPF4 (2023) Policies 7c and 7i (Historic Assets and Places).

- Material considerations: Extant consent, Economic Benefit.

National Planning Framework 4 (2023)

Policy 7 Historic Assets and Places states

(c) *Development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic interest.*

(i) *Development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting.*

PKC Local Development Plan (2019)

Policy 27a Listed Buildings states *"There is a presumption in favour of the retention and sympathetic restoration, correct maintenance and sensitive management of listed buildings to enable them to remain in active use… The layout, design, materials, scale, siting and use of any development which will affect a listed building or its setting should be appropriate to the building's character, appearance and setting."*

Policy 29 Gardens and Designed Landscapes states *"The Council will seek to manage change in order to protect and enhance the integrity of those sites included on the current Inventory of Gardens and Designed Landscapes."*

5.7 It is our view that there is no policy basis to support the refusal of the planning application to which this review relates. The proposals have been designed to ensure the character and historic interest of the Listed Dairy Building, and the setting within the wider Historic Garden and Designed Landscape is preserved.

5.8 The House of Lords in its judgement in the City of Edinburgh v Secretary of State for Scotland Case 1998 (SLT120) ruled that:

'*Although priority must be given to the Development Plan in determining a planning application, there is built in flexibility depending on the facts and circumstances of each case.*'

5.9 This provides the Planning Authority with discretionary powers. Planning Policy is the starting point for the determination of an application and is not an absolute. The site-specific nature of the proposed development has to be assessed in detail as opposed to a weak justification for refusal using local development plan policy which serves as a significant barrier to development which has the potential to impact the setting of a historic asset within the Estate. The weak policy justification for refusal and the fall back of a historical condition (Document A5 pg. 2) does not fully assess the detail of the case, and the Officer's assessment does not consider any other eventuality for development in this area.

5.10 Whilst the extant planning permission is an important material consideration that establishes the principle of development in the Estate, it cannot be the basis of refusal for proposals in "new" locations. This is especially concerning when national and local policy has evolved in the 14 years since the 2011 decision. Each application should be assessed on its own merits and whether it complies with the development plan. Not only is this a reasonable regulatory approach to Development Management by Perth and Kinross Council, but it would ensure a fair and balanced approach from the decision-making authority in regard to supporting rural development. The applicant addressed issues as they arose, which is evident from the additional documents, plans and visuals submitted during the application process.

5.11 The assessment for plots subject to this review in the RoH for Z4-01 and Z4-02 (Document E1 page 11) states that "*properties GC-17 and GC-18 which are subject to application 23/01113/FLL are located on a part of the estate where condition 51 of permission 11/00533/FLM made it clear that no development was permitted in this location due to the potential impact development in this area would have on the setting of the category A listed Dairy Building when viewed from the east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. Any properties in this location were considered to be visually prominent. Therefore, the proposal for two units does not accord within the findings of the original assessment of development in this location and therefore these are unlikely to be supported given this background*".

5.12 Within the Decision Notice for application 11/00533/FLM (Document F3), as noted in the RoH (Document A5), condition 51 restricted development in this area. The reasoning "*In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of Listed Buildings*." This condition does not serve as a permanent prohibition. A detailed study has now been undertaken and visualisations produced of the proposed units in their landscape context. The visualisations show that none of the potential impacts that concerned the decision-makers in 2011 are now valid.

5.13 The applicant has provided additional evidence that clearly shows the development does not harm the visual amenity, nor the HGDL, nor the setting of any Listed Buildings. This evidence has now been provided through a series of reporting, plans and CGI visualisations and as such, permission should be granted.

5.14 The applicant considers that the Planning Officer has attached disproportionate weight to the position taken in rejecting the proposed plots in 2011, rather than considering them in the context of the updated masterplan for the wider Estate. It is clear that the proposed Estate properties subject to this review, are appropriately sited and designed, reflecting the importance of the landscape and the heritage assets which surround. This is particularly the case given the enhancement in the openness of the western part of the designed landscape in particular, with the removal of 11 Estate properties fronting the River Tay as shown in figure 5. This area has now been developed as part of the improved golf course. Document B26 (Figure 6 – see below) demonstrates the impact the extant consent could have on this area of the HGDL.

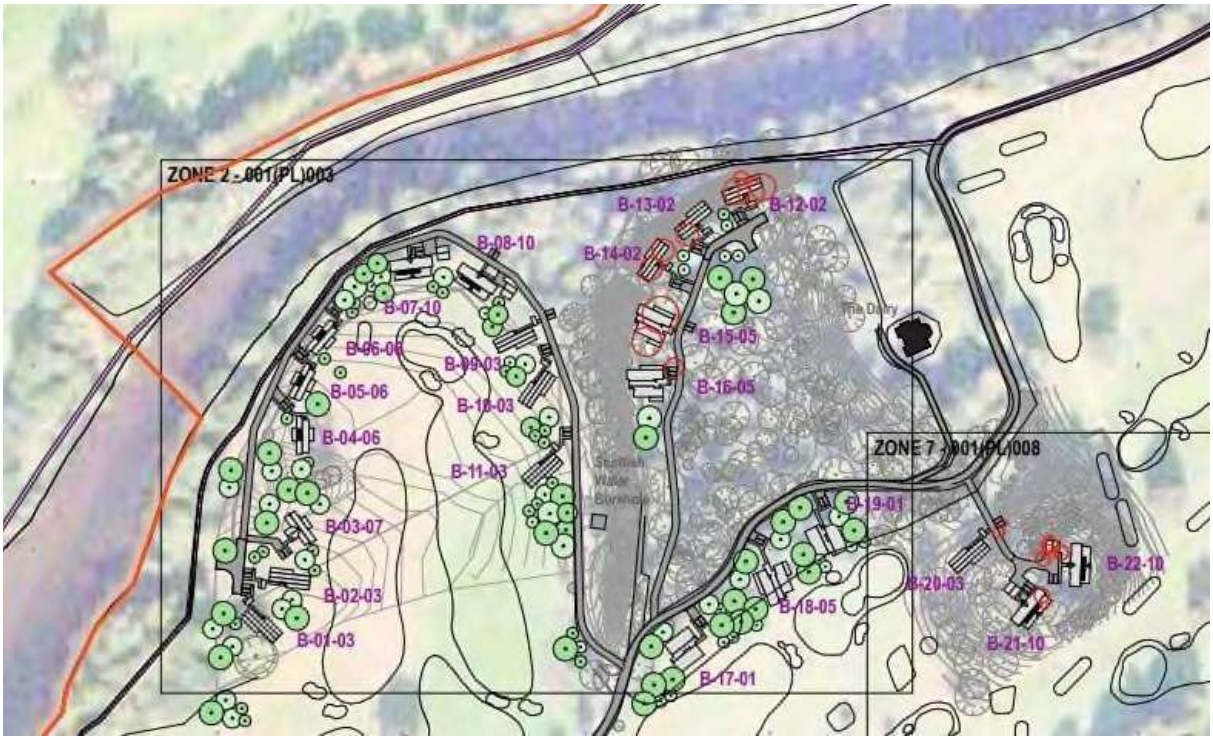


Figure 5 – 2011 Housing Masterplan (Document F2)

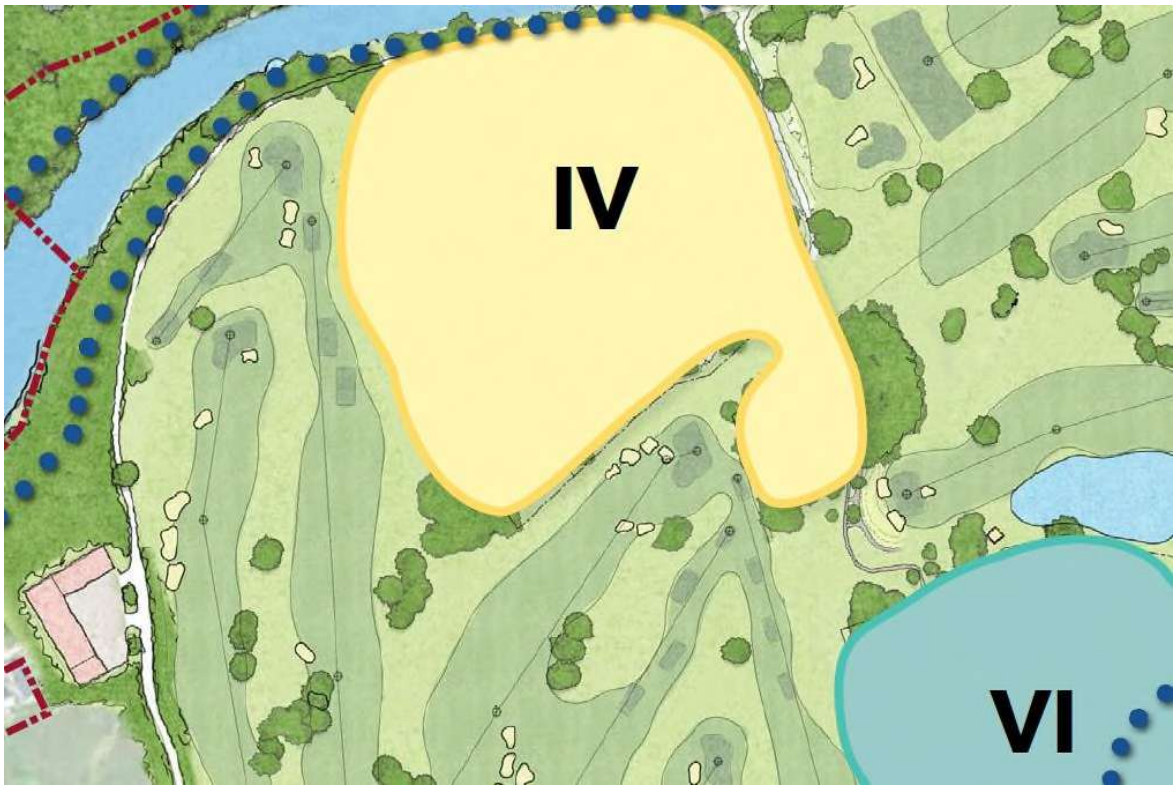


Figure 6 – Zone 4 of Taymouth Housing Areas Masterplan 2025 (Document F5)

5.15 The applicant has demonstrated its commitment to the restoration and revival of Taymouth Estate, through the immediate reduction of development across all zones. Whilst every application should be assessed on its own merits, and in compliance with the development plan, a holistic approach must ensue to ensure that there is appropriate planning judgement applied and a balanced approach to development management and economic benefit achieved.

5.16 The current planning proposals across all the zones are seeking a reduction in the total number of units to be constructed across the Estate in comparison to the extant consent (see Document B26). The Zone 4 applications have already seen a significant loss of plots (four removed as part of the recent planning process, on top of a reduction in the number of units approved in 2011).

5.17 Further reductions threaten the viability of the project, despite the immense investment from the applicant to support the restoration of the Castle.

5.18 It should be reminded that the Estate's function has been fluid throughout its entire history, adapting to the needs of its owners or occupants, whether that be as a grand castle, a school or a hospital. The Estate's current iteration is just a further development in its character, allowing important historical assets to be retained, reinstated and revitalised. Details of the Estate's history is available in Document C14 pg. 40-48.

5.19 In summary, there is no policy basis to support the refusal of plots subject to this review.

Ground 2 - Economic Benefit to Rural Economy

5.20 The current proposals already comprise a substantial reduction on the proposed number of dwellings across the Estate in comparison to a total of 167 properties granted in 2005 and 2011. The cumulative impact of zone four has been reduced through the recent removal of four plots forming part of the Z4-01 and Z4-02 applications. The retention of the two plots to which the current Review relates supports the long-term vision and viability of the Taymouth Estate revival, whilst supporting tangible benefits in the local economy.

5.21 As noted within the EKOS report (Document F4), the cumulative proposals will encompass a direct investment of c.£370 million, with a further £360 million in private sector investment throughout the construction period, as well as an additional £30 million of capital expenditure in locality improvements.

5.22 Rural revitalisation is one of the six overarching spatial principles included within NPF4 and encourages sustainable development in rural areas, recognising the need to grow and support rural communities.

5.23 The proposed dwellings ensure that the operations of the Taymouth Castle Estate which include enabling the restoration of Taymouth Castle, and the several buildings at risk within the wider Estate can be secured for the future, in line with Conservation of Assets (NFP4 Spatial Principle).

6.0 Conclusions

6.1 This Grounds for Review statement sets out the appellant's case, that all the reasons for refusal can be set aside, that appropriate and enforceable planning conditions can be imposed, and planning permission should be granted. This is because;

- The proposals are appropriate in siting and scale, reflecting the importance of the relevant designations and sensitivity of the landscape in which they are sited. The proposed properties are subtle in their siting and would sit inconspicuously within the landscape.

- The proposals result in no harm to the historical and architectural integrity of the Category A Listed Dairy Building, nor the Historic Garden and Designed Landscape. The proposals preserve the significance of the heritage assets identified within the site and its setting. This is supported by the lack of a HES Objection.

- The proposals have an **improved** outcome for the designated Garden and Designed Landscape over the previously approved scheme in 2011. The applicant is happy to consider landscaping conditions in line with other housing approvals across the Estate, to strengthen landscaping around the appeal site.

- The proposals support rural revitalisation in Highland Perthshire and represent an important commitment to rebalanced development and conservation of heritage assets in line with the National Planning Framework 4 Spatial Principles.

- The proposed form and function of the Estate is materially different from the 2003 and 2011 proposals. As such, the extent of built development across the Estate has reduced significantly as the proposals have progressed and aligned with the applicant's requirements.

- The 2011 Condition no. 51 which serves to restrict development in this location was not a permanent prohibition – additional documents have been provided to demonstrate the Proposals will not result in any harm to the HGDL and any Listed Buildings, or their setting.

6.2 It is therefore, respectfully requested that the Local Review Body reconsider the proposals and find favour with the arguments set out within the Grounds for Review and grant planning permission.

Scott Hobbs Planning

24a Stafford Street
Edinburgh | EH3 7BD
0131 226 7225
info@scotthobbsplanning.com
www.scotthobbsplanning.com

Registered in Scotland No SC3388885

shp

Pullar House 35 Kinnoull Street Perth PH1 5GD Tel: 01738 475300 Fax: 01738 475310 Email: onlineapps@pkc.gov.uk

Applications cannot be validated until all the necessary documentation has been submitted and the required fee has been paid.

Thank you for completing this application form:

ONLINE REFERENCE 100633664-001

The online reference is the unique reference for your online form only. The Planning Authority will allocate an Application Number when your form is validated. Please quote this reference if you need to contact the planning Authority about this application.

Type of Application

What is this application for? Please select one of the following: *

☒ Application for planning permission (including changes of use and surface mineral working).

☐ Application for planning permission in principle.

☐ Further application, (including renewal of planning permission, modification, variation or removal of a planning condition etc)

☐ Application for Approval of Matters specified in conditions.

Description of Proposal

Please describe the proposal including any change of use: * (Max 500 characters)

Erection of 2 estate properties and 2 garages, construction of access road connecting to existing estate road and associated works (Zone Z4-04)

Is this a temporary permission? * ☐ Yes ☒ No

If a change of use is to be included in the proposal has it already taken place? (Answer 'No' if there is no change of use.) * ☐ Yes ☒ No

Has the work already been started and/or completed? *

☒ No ☐ Yes – Started ☐ Yes - Completed

Applicant or Agent Details

Are you an applicant or an agent? * (An agent is an architect, consultant or someone else acting on behalf of the applicant in connection with this application) ☐ Applicant ☒ Agent

Agent Details

Please enter Agent details

Company/Organisation:	Scott Hobbs Planning		
Ref. Number:		You must enter a Building Name or Number, or both: *	
First Name: *	Alex	Building Name:	24a
Last Name: *	Calderwood	Building Number:	
Telephone Number: *	[redacted]	Address 1 (Street): *	Stafford Street
Extension Number:		Address 2:	
Mobile Number:		Town/City: *	Edinburgh
Fax Number:		Country: *	United Kingdom
		Postcode: *	EH3 7BD
Email Address: *	[redacted]		

Is the applicant an individual or an organisation/corporate entity? *

☐ Individual ☒ Organisation/Corporate entity

Applicant Details

Please enter Applicant details

Title:		You must enter a Building Name or Number, or both: *	
Other Title:		Building Name:	[redacted]
First Name: *		Building Number:	
Last Name: *		Address 1 (Street): *	
Company/Organisation	River Tay Development Ltd	Address 2:	
Telephone Number: *		Town/City: *	
Extension Number:		Country: *	
Mobile Number:		Postcode: *	
Fax Number:			
Email Address: *	[redacted]		

Site Address Details

Planning Authority: Perth and Kinross Council

Full postal address of the site (including postcode where available):

Address 1: TAYMOUTH CASTLE

Address 2: KENMORE

Address 3:

Address 4:

Address 5:

Town/City/Settlement: ABERFELDY

Post Code: PH15 2NT

Please identify/describe the location of the site or sites

Northing 746532 Easting 278458

Pre-Application Discussion

Have you discussed your proposal with the planning authority? * ☐ Yes ☒ No

Site Area

Please state the site area: 0.40

Please state the measurement type used: ☒ Hectares (ha) ☐ Square Metres (sq.m)

Existing Use

Please describe the current or most recent use: * (Max 500 characters)

Estate land with extant planning permission for residential development through applications 03/02250/PPLB and 11/00533/FLM.

Access and Parking

Are you proposing a new altered vehicle access to or from a public road? * ☒ Yes ☐ No

If Yes please describe and show on your drawings the position of any existing. Altered or new access points, highlighting the changes you propose to make. You should also show existing footpaths and note if there will be any impact on these.

Are you proposing any change to public paths, public rights of way or affecting any public right of access? * ☐ Yes ☒ No

If Yes please show on your drawings the position of any affected areas highlighting the changes you propose to make, including arrangements for continuing or alternative public access.

How many vehicle parking spaces (garaging and open parking) currently exist on the application Site? 0

How many vehicle parking spaces (garaging and open parking) do you propose on the site (i.e. the Total of existing and any new spaces or a reduced number of spaces)? * 6

Please show on your drawings the position of existing and proposed parking spaces and identify if these are for the use of particular types of vehicles (e.g. parking for disabled people, coaches, HGV vehicles, cycles spaces).

Water Supply and Drainage Arrangements

Will your proposal require new or altered water supply or drainage arrangements? * ☒ Yes ☐ No

Are you proposing to connect to the public drainage network (eg. to an existing sewer)? *

☐ Yes – connecting to public drainage network
☒ No – proposing to make private drainage arrangements
☐ Not Applicable – only arrangements for water supply required

As you have indicated that you are proposing to make private drainage arrangements, please provide further details.

What private arrangements are you proposing? *

☒ New/Altered septic tank.
☐ Treatment/Additional treatment (relates to package sewage treatment plants, or passive sewage treatment such as a reed bed).
☐ Other private drainage arrangement (such as chemical toilets or composting toilets).

What private arrangements are you proposing for the New/Altered septic tank? *

☒ Discharge to land via soakaway.
☐ Discharge to watercourse(s) (including partial soakaway).
☐ Discharge to coastal waters.

Please explain your private drainage arrangements briefly here and show more details on your plans and supporting information: *

See Flood Risk Assessment.

Do your proposals make provision for sustainable drainage of surface water?? * (e.g. SUDS arrangements) * ☒ Yes ☐ No

Note:-

Please include details of SUDS arrangements on your plans

Selecting 'No' to the above question means that you could be in breach of Environmental legislation.

Are you proposing to connect to the public water supply network? *

☒ Yes

☐ No, using a private water supply

☐ No connection required

If No, using a private water supply, please show on plans the supply and all works needed to provide it (on or off site).

Assessment of Flood Risk

Is the site within an area of known risk of flooding? * ☐ Yes ☒ No ☐ Don't Know

If the site is within an area of known risk of flooding you may need to submit a Flood Risk Assessment before your application can be determined. You may wish to contact your Planning Authority or SEPA for advice on what information may be required.

Do you think your proposal may increase the flood risk elsewhere? * ☐ Yes ☒ No ☐ Don't Know

Trees

Are there any trees on or adjacent to the application site? * ☒ Yes ☐ No

If Yes, please mark on your drawings any trees, known protected trees and their canopy spread close to the proposal site and indicate if any are to be cut back or felled.

Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste (including recycling)? * ☐ Yes ☒ No

If Yes or No, please provide further details: * (Max 500 characters)

Dealt with privately.

Residential Units Including Conversion

Does your proposal include new or additional houses and/or flats? * ☒ Yes ☐ No

How many units do you propose in total? * 2

Please provide full details of the number and types of units on the plans. Additional information may be provided in a supporting statement.

All Types of Non Housing Development – Proposed New Floorspace

Does your proposal alter or create non-residential floorspace? * ☐ Yes ☒ No

Schedule 3 Development

Does the proposal involve a form of development listed in Schedule 3 of the Town and Country Planning (Development Management Procedure (Scotland) Regulations 2013 * ☐ Yes ☒ No ☐ Don't Know

If yes, your proposal will additionally have to be advertised in a newspaper circulating in the area of the development. Your planning authority will do this on your behalf but will charge you a fee. Please check the planning authority's website for advice on the additional fee and add this to your planning fee.

If you are unsure whether your proposal involves a form of development listed in Schedule 3, please check the Help Text and Guidance notes before contacting your planning authority.

Planning Service Employee/Elected Member Interest

Is the applicant, or the applicant's spouse/partner, either a member of staff within the planning service or an elected member of the planning authority? * ☐ Yes ☒ No

Certificates and Notices

CERTIFICATE AND NOTICE UNDER REGULATION 15 – TOWN AND COUNTRY PLANNING (DEVELOPMENT MANAGEMENT PROCEDURE) (SCOTLAND) REGULATION 2013

One Certificate must be completed and submitted along with the application form. This is most usually Certificate A, Form 1, Certificate B, Certificate C or Certificate E.

Are you/the applicant the sole owner of ALL the land? * ☐ Yes ☒ No

Is any of the land part of an agricultural holding? * ☐ Yes ☒ No

Are you able to identify and give appropriate notice to ALL the other owners? * ☒ Yes ☐ No

Certificate Required

The following Land Ownership Certificate is required to complete this section of the proposal:

Certificate B

Land Ownership Certificate

Certificate and Notice under Regulation 15 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

I hereby certify that

(1) - No person other than myself/the applicant was an owner [Note 4] of any part of the land to which the application relates at the beginning of the period of 21 days ending with the date of the accompanying application;

or –

(1) - I have/The Applicant has served notice on every person other than myself/the applicant who, at the beginning of the period of 21 days ending with the date of the accompanying application was owner [Note 4] of any part of the land to which the application relates.

Name:	
Address:	The River Tay Castle LLPC/O Alter Domus (UK) Limited 10th Floor, 30 St Mary Axe, London, United Kingdom, EC3A 8BF
Date of Service of Notice: *	29/06/2023

(2) - None of the land to which the application relates constitutes or forms part of an agricultural holding;

or –

(2) - The land or part of the land to which the application relates constitutes or forms part of an agricultural holding and I have/the applicant has served notice on every person other than myself/himself who, at the beginning of the period of 21 days ending with the date of the accompanying application was an agricultural tenant. These persons are:

Name:

Address:

Date of Service of Notice: *

Signed: Alex Calderwood

On behalf of: River Tay Development Ltd

Date: 29/06/2023

☒ Please tick here to certify this Certificate. *

Checklist – Application for Planning Permission

Town and Country Planning (Scotland) Act 1997

The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

Please take a few moments to complete the following checklist in order to ensure that you have provided all the necessary information in support of your application. Failure to submit sufficient information with your application may result in your application being deemed invalid. The planning authority will not start processing your application until it is valid.

a) If this is a further application where there is a variation of conditions attached to a previous consent, have you provided a statement to that effect? *

☐ Yes ☐ No ☒ Not applicable to this application

b) If this is an application for planning permission or planning permission in principal where there is a crown interest in the land, have you provided a statement to that effect? *

☐ Yes ☐ No ☒ Not applicable to this application

c) If this is an application for planning permission, planning permission in principle or a further application and the application is for development belonging to the categories of national or major development (other than one under Section 42 of the planning Act), have you provided a Pre-Application Consultation Report? *

☐ Yes ☐ No ☒ Not applicable to this application

Town and Country Planning (Scotland) Act 1997

The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013

d) If this is an application for planning permission and the application relates to development belonging to the categories of national or major developments and you do not benefit from exemption under Regulation 13 of The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013, have you provided a Design and Access Statement? *

☐ Yes ☐ No ☒ Not applicable to this application

e) If this is an application for planning permission and relates to development belonging to the category of local developments (subject to regulation 13. (2) and (3) of the Development Management Procedure (Scotland) Regulations 2013) have you provided a Design Statement? *

☐ Yes ☐ No ☒ Not applicable to this application

f) If your application relates to installation of an antenna to be employed in an electronic communication network, have you provided an ICNIRP Declaration? *

☐ Yes ☐ No ☒ Not applicable to this application

g) If this is an application for planning permission, planning permission in principle, an application for approval of matters specified in conditions or an application for mineral development, have you provided any other plans or drawings as necessary:

☒ Site Layout Plan or Block plan.
☒ Elevations.
☒ Floor plans.
☒ Cross sections.
☒ Roof plan.
☒ Master Plan/Framework Plan.
☐ Landscape plan.
☐ Photographs and/or photomontages.
☐ Other.

If Other, please specify: * (Max 500 characters)

Provide copies of the following documents if applicable:

A copy of an Environmental Statement. *	☐ Yes	☒ N/A
A Design Statement or Design and Access Statement. *	☒ Yes	☐ N/A
A Flood Risk Assessment. *	☒ Yes	☐ N/A
A Drainage Impact Assessment (including proposals for Sustainable Drainage Systems). *	☐ Yes	☒ N/A
Drainage/SUDS layout. *	☐ Yes	☒ N/A
A Transport Assessment or Travel Plan	☐ Yes	☒ N/A
Contaminated Land Assessment. *	☐ Yes	☒ N/A
Habitat Survey. *	☒ Yes	☐ N/A
A Processing Agreement. *	☐ Yes	☒ N/A

Other Statements (please specify). (Max 500 characters)

Declare – For Application to Planning Authority

I, the applicant/agent certify that this is an application to the planning authority as described in this form. The accompanying Plans/drawings and additional information are provided as a part of this application.

Declaration Name: Ms Sheila Hobbs

Declaration Date: 29/06/2023

Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017

SCREENING OPINION

This Screening Opinion considers whether the proposal is EIA Development as by having regard to the descriptions of development, and applicable thresholds and criteria, within either Schedule 1 or Schedule 2.

Part I – Particulars of Screening Request/Planning Application

Applicant's Name & Address	Agent/Applicant's Name & Address
The River Tay Development Ltd Taymouth Castle Kenmore Aberfeldy PH15 2NT	Scott Hobbs Planning 24A Stafford Street Edinburgh EH3 7BD

Date Request/Application received	Application Ref. (if applicable)
9th November 2023	23/01113/FLL

Part 2 – Information Provided by the Developer in the Screening Request Under Regulation 8(1)

Site Location	Description of Proposal
Taymouth Castle Kenmore Aberfeldy PH15 2NT	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)
Description of the Aspects of the Environment Likely to be Significantly Affected by the Proposed Development	
The factors are— (a) archaeology;	

(b) biodiversity, and in particular species and habitats protected under Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora(a) and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds(b);
(c) surface and river flood risk;
(d) landscape and visual impact
(e) transport
(f) River Tay SAC
(g) Tree loss
(h) Cultural heritage

Description of Likely Significant Affects by the Proposed Development

Local archaeology records in area.
Biodiversity including protected species (Red Squirrel, European Otter, Fisheries/SAC interests)
Flood risk and drainage as parts of site are identified as being at risk from medium and low probability river and surface water flooding
Landscape and visual impact due to scale of proposal and location within Historic Garden and Designed Landscape and associated setting impact on listed buildings.
Impact on River Tay Special Area of Conservation and associated qualifying features

Description of Features or Proposed Measures to Avoid or Prevent Significant Adverse Effects on the Environment

- Design and Access Statement and Supporting Planning Statement
- Ecology Report
- Flood Risk and Drainage Impact Assessment
- Construction Method Statement
- Tree Survey and mitigation

Part 3 – Particulars of Screening Decision

Perth and Kinross Council hereby give notice, in accordance with the provisions of The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (hereafter referred to as the 'EIA Regulations') that the development referred to in Part I above is **unlikely** to have significant effects on the environment. The Council's reasons for reaching this conclusion are set out below.

1. Does the development fall within a description of development as defined in Schedule 1?

YES		**NO**	**X**

Description of development	

If YES – the proposal is EIA Development and EIA is required.

If NO – proceed to consideration of selection criteria under Schedule 2.

2. Does the development fall within Schedule 2, AND if it does, are the stated threshold and criteria of this schedule also met?

The relevant extract from the table in Schedule 2 is set out below and highlights the thresholds and criteria for the proposed development.

Column 1 *Description of development*	*Column 2* *Applicable thresholds and criteria*
The carrying out of development to provide any of the following:–	

12. Tourism and leisure	
(a) Ski-runs, ski-lifts and cable cars and associated developments;	(i) The area of the works exceeds 1 hectare; Or (ii) the height of any building or other structure exceeds 15 metres.
(b) Marinas;	The area of the enclosed water surface exceeds 1,000 square metres.
(c) Holiday villages and hotel complexes outside urban areas and associated developments;	The area of the development exceeds 0.5 hectare.
(d) Theme parks;	All development
(e) Permanent camp sites and caravan sites; (f) Golf courses and associated developments.	The area of the development exceeds 1 hectare. The area of the development exceeds 1 hectare.

This proposal qualifies as a Schedule 2 Development under the above regulations, as the proposal is for a development project on a site which is over 0.5 hectares in site area.

3. Does the development fall within a sensitive area?

In terms of the EIA Regulations "sensitive area" means any of the following:

(a) Site of Special Scientific Interest (SSSI);
(b) Land subject to Nature Conservation Orders;

(c) European Sites [Special Area of Conservation (SAC); an area classified under the Wild Birds Directive – Special Protection Areas (SPAs); OR a site housing a priority habitat or priority species being consulted upon (through the Habitats Directive)];
(d) World Heritage Sites;
(e) Scheduled Ancient Monuments;
(f) National Scenic Areas;
(g) National Parks; and
(h) Marine Protected Areas.

Circular 1/2017 advises that the more environmentally sensitive the location, the more likely it is that the effects of a Schedule 2 development will be significant and will require EIA. For the purposes of reaching a screening determination special consideration will apply to these areas. In certain cases other statutory and non-statutory designations, which do not meet the definition of 'sensitive areas', but are nonetheless environmentally sensitive, may also be relevant in determining whether EIA is needed. These can include local landscape or biodiversity designations.

The site is located adjacent to the River Tay Special Area of Conservation.

4. Is the development likely to have a significant effect(s) on the environment?

Circular 1/2017 advises that the basic question to be asked is 'Would this particular development be likely to have significant effects on the environment?' by virtue of considering factors such as its nature, size or location, taking account of the selection criteria set out in Schedule 3 to the EIA Regulations; the information supplied by the developer; and the available results of any relevant assessment.

The selection criteria in Schedule 3 of the Regulations (Annex A of Circular 1/2017). The three categories of criteria are listed:

1. Characteristics of development
2. Location of development
3. Characteristics of the potential impact

The Scottish Government and The European Commission have prepared checklists to assist this process by providing a systematic approach to screening. Such checklists also provide a clear record of the basis for which the opinion was reached and as a point of reference for scoping opinions or queries.

I have taken cognisance of these checklists in the assessment of the characteristics and location of the development, and the potential impacts upon the environment are identified in Appendix 1 below. The potential significance of each environmental effect found has been used to decide whether the interaction between the development and location are likely to be significant.

It is the opinion of the planning authority, having taking account of the characteristics of the potential impact of the development, in terms of extent,

scale, magnitude, complexity, probability, duration, frequency and reversibility, it is **unlikely** that the development would have a significant effect on the environment. A detailed study through an **EIA is therefore not required**.

This screening opinion does not constitute pre-application planning advice and any views or opinions expressed are made without prejudice to the Council's determination of any subsequent planning application. Therefore, this opinion should not be taken as implying that the planning authority considers this to be an acceptable development in this location.

Development Management & Building Standards Service Manager
Planning & Development
Perth and Kinross Council

Dated: 20th November 2023

APPENDIX 1: EIA SCREENING CHECKLIST

APPLICATION REFERENCE: **23/01113/FLL**
SITE LOCATION: Taymouth Castle Kenmore Aberfeldy PH15 2NT
DESCRIPTION OF PROPOSAL: Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)
DECISION: **EIA NOT REQUIRED**
OFFICER: **JOHN WILLIAMSON**
DATE: **20th November 2023**

	Yes/ No	**Briefly describe**	**Is effect likely to be significant? Significance should be considered in terms of the extent, transboundary nature, magnitude and complexity, probability, duration, frequency and reversibility of any impact(s).**
1. Characteristics of the Development	**The characteristics of development must be considered having regard, in particular, to:**		
(a) Scale of the development			
Will the development be out of scale with the existing environment?	**Yes**	The project will introduce new development of a number of buildings into the landscape but involves the re-design and re-siting of existing approved development under permission 03/02250/PPLB and 11/00533/FLM	Impact on landscape could be significant if not appropriately sited, designed or effectively screened.
Will it lead to further consequential development or works (e.g. new roads, extraction of aggregate, generation or transmission of power)?	**Possibly**	This part of the estate is served by an existing access track network but there may be minor changes to this required which would subject to separate planning applications	Impact on landscape could be significant if not appropriately sited, designed or effectively screened.
(b) Cumulation with other development			
Are there potential cumulative impacts with other existing development or for proposed development in the planning system?	**Yes**	Associated with the wider redevelopment of Taymouth Castle Estate which was approved in both 2003 (03/02250/PPLB) and 2011 (11/00533/FLM). Associated applications for new development associated with these parent permissions have been submitted.	Not considered to be significant given extant parent permissions on the site where extent of impact has been considered through previous Environmental Impact Assessment process.

Should the application for this development be regarded as an integral part of a more substantial project? If so, can related developments which are subject to separate applications proceed independently?	**Yes**	Associated with the wider redevelopment of Taymouth Castle Estate which was approved in both 2003 (03/02250/PPLB) and 2011 (11/00533/FLM). Associated applications for new development associated with these parent permissions have been submitted as referenced within planning submission.	Not considered to be significant given extant parent permissions on the site where extent of impact has been considered through previous Environmental Impact Assessment process.
(c) Use of natural resources			
Will construction or operation of the development use natural resources i.e. • land (especially undeveloped or agricultural land)?	**Yes**	Development will result in the development a rural partly wooded area.	Not considered to be significant given presence of extant permission for development in this location.
• water or fisheries?	**Yes**	Construction impact on River Tay SAC	Could be significant but can be subject to appropriate controls
• minerals or aggregates?	**No**		
• agriculture, forests and timber?	**Yes**	Site is occupied by trees	Development could result in some felling but not significant and subject to assessment through tree survey.
• energy including electricity and fuels?	**Yes**	Construction process will use materials, fuel, and electricity. Fuel will be used to import material from external sources.	
• any other resources?	**No**		
(d) Production of waste			
Will the development produce wastes during construction or operation or decommissioning?			
• spoil, overburden or mine wastes?	**Yes**	Spoil is likely from excavation works	No significant environmental impact if used on site and sensitively managed. There may be an impact on the road network and emissions if exported off site.
• municipal waste (household and/or commercial)?	**Yes**	Commercial waste associated with operation likely.	No significant environmental impact anticipated.
• hazardous or toxic wastes (including radioactive)?	**No**		
• other industrial process wastes?	**No**		
• surplus product?	**No**		
• sewage sludge or other sludges from effluent treatment?	**Yes**	Development will require a waste water drainage system	Not considered to result in significant impact provided appropriate drainage connection is provided.
• construction or demolition wastes?	**Yes**	There is likely to be associated construction waste arising from the	Impact is dependent on construction methods deployed which will then dictate the extent of waste. Unlikely to be

		development.	significant
• redundant machinery or equipment?	**No**		
• contaminated soils or other material	**No**		
• agricultural wastes?	**No**		
• any other solid wastes?	**No**		
• liquid or solid wastes in suspension?	**No**		
(e) Pollution and nuisances			
Will the development cause noise and vibration or release of leachates, light, heat energy or electromagnetic radiation during construction or operation or decommissioning?			
Emissions from:- • combustion of fossil fuels from stationary or mobile sources?	**Yes**	Construction then servicing of the development.	There will be an increase in emissions associated with construction, servicing and traffic movements. Given the scale and nature of the proposal this is unlikely to be significant particularly as this has been considered as part of wider development through parent permissions. Mitigation measures in place via Construction Traffic Management Plan etc.
• production processes?	**No**		
• materials handling including storage or transport?	**Yes**	Import of materials and Construction Plant.	Unlikely to be significant (see above)
• construction activities including plant & equipment?	**Yes**	Construction Plant.	Unlikely to be significant (see above)
• dust or odours from handling of materials including construction materials, sewage & waste?	**Yes**	construction may result in emissions of odour and dust. Operation will generate sewage and waste.	Proximity to other land uses including watercourses. Not likely to be significant given type of development proposed.
• incineration of waste?	**No**		
• burning of waste in open air (e.g. slash material, construction debris)?	**Yes**	Construction material may be burnt by contractor.	Unlikely to be significant.
• any other sources?	**No**		
Is there a potential risk from:- • leachates?	**No**		
• Escape of wastes or other products/byproducts that may constitute a contaminant in the environment?	**Yes**	Potentially during construction operations	Unlikely to be significant subject to appropriate controls and mitigation
Will the development cause noise and vibration or release of light, heat energy or electromagnetic radiation? • from operation of equipment e.g. engines, ventilation plant, crushers?	**Yes**	Construction may result in noise, vibration and artificial light pollution.	Proximity to other land uses means that noise and light pollution in particular may become a nuisance during construction and post construction. Potential to be significant if suitable construction methods are not deployed. .
• from industrial or similar processes?	**No**		
• from blasting or piling?	**No**		
• from construction or operational traffic?	**Yes**	Noise will be generated by construction traffic, e.g. vehicles delivering construction materials as	Proximity to other land uses means that noise may become a nuisance during construction. May be particularly significant at key times of the year (seasonal

		well as the operation of the development.	ecological impacts) if suitable mitigation construction methods are not deployed by competent contractor.
• from lighting or cooling systems?	**No**		
• from sources of electromagnetic radiation (effects on nearby sensitive equipment as well as people)?	**No**		
• from any other sources?	**No**		
(f) Risk of accidents, having regard in particular to substances technologies used			
Will there be a risk of accidents during construction or operation of the development which could have effects on people or the environment?			
• from explosions, spillages, fires etc from storage, handling, use or production of hazardous or toxic substances?	**No**		
• from events beyond the limits of normal environmental protection e.g. failure of pollution control systems?	**Yes**	Leaching of silt and sediment during construction into River Tay SAC	Could have impact on qualifying features of SAC unless appropriately controlled by appropriate mitigation through Construction Method Statement. Drainage implications on SAC also material to assessment of planning application
• from any other causes?	**No**		
• could the development be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslip, etc)?	**Yes**	Site is potentially at risk from flooding	Flood Risk Assessment (FRA) and Drainage Assessment required. Subject to development accounting for FRA and DIA findings, design recommendation and mitigation, this is not significant.
Will the development involve use, storage, transport, handling or production of substances or materials which could be harmful to people or the environment (flora, fauna, water supplies)?			
• use of hazardous or toxic substances?	**No**		
• potential changes in occurrence of disease or effect on disease carriers (e.g. insect or water borne diseases)?	**No**		
• effect on welfare of people (e.g. change of living conditions)	**No**		
• effects on vulnerable groups (e.g. the elderly)?	**No**		
(g) Risks to human health			
• arising from effects due to water contamination or air pollution etc.	**No**		
(h) Other characteristics: potential physical changes (topography, land use, changes in waterbodies etc) from			

construction, operation or decommissioning of the development			
• permanent or temporary change in land use, landcover or topography including increases in intensity of land use?	**Yes**	Land will change to tourism/housing and leisure resulting in a marked physical change in the appearance of the site.	Within Taymouth Castle Designed Garden and Landscape but as mentioned above parent permission for development on this site exists and this proposal seeks to make alterations to this therefore impact not considered to be significant and subject to assessment via planning process.
• clearance of existing land, vegetation & buildings?			
• peat land disturbance and/ or degradation leading to: carbon release, damage to habitats, affecting land stability or hydrology? • ff			
• creation of new land uses?	**Yes**	Moderate land take required	
• pre-construction investigations e.g. boreholes, soil testing?	**Yes**		Unlikely to be significant
• construction, demolition, reclamation or excavation works?	**Yes**	Construction works and some excavation may be undertaken.	Minor impact.
• temporary sites or housing for construction workers?	**Yes**	Potential need for site facilities e.g. portakabin type structure for workers.	Minor and temporary impact
• above ground buildings, structures?	**Yes**	Development will result in above ground structures	Effect on the environment relates mainly to landscape and visual impact and unlikely to be significant given presence of parent permission. No significant change.
• underground works including mining or tunnelling?	**No**		
• dredging?	**No**		
• coastal structures (seawalls, piers)?	**No**		
• offshore structures?	**No**		
• production and manufacturing processes?	**Yes**		
• facilities for storage of goods or materials?	**Yes**		
• facilities for treatment or disposal of solid wastes or liquid effluents?	**Yes**	Drainage system required during construction and upon operation	Moderate impact given proximity to Tay SAC, material to assessment of planning application.
• facilities for long term housing of operational workers?	**No**		
• new road, rail, air or sea traffic or infrastructure during construction or operation or decommissioning?	**Yes**	New access tracks within site	Minor impact
• new road, rail, air, waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc?	**No**		
• closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	**No**		
• transport of personnel or materials for construction, operation or decommissioning?	**No**		
• new or diverted transmission lines or pipelines?	**No**		
• any works requiring an authorisation under the Water Environment (Controlled Activities) (Scotland) Regulations 2005. impounding, damming, culverting, realignment or	**Possibly**	Works within watercourse including any culverting will require CAR Authorisation from SEPA	Moderate impact

other changes to the hydrology of watercourses or aquifers? abstraction or transfers of water from ground or surface waters?			
• changes in waterbodies or the land surface affecting drainage or run-off?	**Yes**	Excavation and formation of hard surfaces may affect land surface run-off drainage.	Mitigation measures may need to be deployed to prevent run-off in particular especially in areas of recorded surface water flood risk. Not significant.
• long-term/ongoing activity during restoration or decommissioning which could have an impact on the environment?	**No**		
• influx of people to an area either temporarily or permanently?	**Yes**	Associated with construction and the tourism/housing facilities thereafter.	Moderate impact and no increase over parent permissions
• introduction of alien species? loss of native species or genetic diversity?	**Potentially**	Potential for protected species to be located within site.	Assessment will be necessary to establish what species are present on site and associated mitigation measures which are required. Potential for significant effects but can be mitigated
• any other changes?	**No**		
2. Location of the Development	**The environmental sensitivity of geographical areas likely to be affected by development must be considered having regard, in particular, to:**		
(a) Existing land use			
Are there existing land uses on or around the location which could be affected by the development, e.g. undeveloped land, Greenfield land, homes, other private property, industry, commerce, tourism and recreation, public open space, community facilities, agriculture, forestry, tourism, water catchments, functional floodplains, mining or quarrying?	**Yes**	Residential properties located close to site. Flood risk area. Core paths, woodland	Impact on existing land uses may be material to any planning application for this development. Visual impact material to any planning application for this development. Impact on adjacent residential properties material to planning application. Impact on core path network material to any application.
Are there any areas on or around the location which is occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected?	**No**		
Is the development located in a previously undeveloped area where there will be loss of greenfield land?	**yes**	This particular part of the estate has yet to be development but has extant permission for development.	
(b) Relative abundance, quality and regenerative capacity of natural resources in the area			
Are there any areas on or around the location which contain important, high quality or scarce resources which could be affected by the development?			
• groundwater resources	**Poss**		

	ibly		
• surface waters	**Yes**	Earth movement and creation of hard surfaces could impact on surface water.	The scale of development could have a significant effect on nearby watercourse if SUDS mitigation is not deployed. Unlikely to be significant impact.
• forestry	**Yes**	Woodland located on site	Unlikely to be significant but requires to be addressed through planning submission.
• agriculture	**No**		
• fisheries	**Yes**	Potential impact on fisheries interest of SAC	Unlikely to be significant subject to mitigation through CMS approved as part of parent permission.
• tourism	**No**		
• minerals	**No**		
(c) Absorption capacity of the natural environment			
Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape and visual, cultural or other value, which could be affected by the development? Particular attention should be paid to wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, nature reserves and parks.	**Yes**	Taymouth Castle Designed Garden and Landscape River Tay Special Area of Conservation	Development should not have an adverse impact on HGDL given presence of parent permission and limited changes proposed when compared with extant development. Could have impact on qualifying features of SAC unless appropriately controlled by appropriate mitigation through Construction Method Statement. Unlikely to be significant Appropriate construction techniques and compensatory planting would be required to prevent impact woodland, delivered through wider estate woodland management.
Are there any groundwater source protection zones or areas that contribute to the recharge of groundwater resources?			
Are there protected species in/around the location, for example European Protected Species, which could be affected?	**Yes**	Detailed habitat survey will be required. Evidence of bats, birds and otters in local area according to GIS	Assessment will be necessary to establish what species are present within the site and any mitigation measures which may be required. Potential for significant impact unless mitigated.
Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected?	**Yes**	Core Path network is close vicinity to site	Unlikely to be significant. Can be accommodated into development and temporary arrangements made during construction.
Are there any areas or features of historical, cultural or archaeological significance on or around the location which could be affected?	**Yes**	Potentially archaeological remains Taymouth Castle Designed Garden and Landscape	Moderate impact. Subject to assessment through planning application archaeological assessment and associated documents. Requires to be considered in context of parent permissions.
Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which	**No**		

could be affected?			
Is the development in a location where it is likely to be highly visible to many people?	**Yes**	Site has elements of containment from existing trees but development may be visible from those walking on core path network	Moderate impact. Requires to be considered in context of parent permissions.
Is the development in a densely populated area and/or likely to impact on a large number of people?	**No**		
Is the location of the development susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions which could cause the development to present environmental problems?	**Yes**	Site is potentially at risk from flooding	Flood Risk Assessment (FRA) and Drainage Assessment will be required with any planning application. Subject to development accounting for FRA and DIA findings, design recommendation and mitigation, this is not significant.
3. Characteristics of the potential impact	**Establishing the potential significant effects of development must be considered in relation to criteria set out under Sections 1 and 2 above, and having regard in particular to:**		
(a) the extent of the impact (geographical area and size of the affected population); (b) the transfrontier nature of the impact; (c) the magnitude and complexity of the impact; (d) the probability of the impact; (e) the duration, frequency and reversibility of the impact.			

River Tay Development Ltd
c/o Scott Hobbs Planning
Sharon-Lee Bow
24A Stafford Street
Edinburgh
EH3 7BD

Pullar House
35 Kinnoull Street
PERTH
PH1 5GD

Date of Notice: **21st March 2025**

TOWN AND COUNTRY PLANNING (SCOTLAND) ACT

Application Reference: **23/01113/FLL**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to **refuse** your application registered on 9th November 2023 for Planning Permission for **Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04) Taymouth Castle Kenmore Aberfeldy PH15 2NT**

Kristian Smith
Development Management and Building Standards Service Manager

Reasons for Refusal

1. The proposal is contrary to Policies 27A and 29 of the Perth and Kinross Local Development Plan 2 (2019) and Policies 7(c) and (i) of National Planning Framework 4 (NPF4) as the proposal would impact detrimentally on the setting of the category A listed Dairy when viewed from the east. Furthermore, the development would interfere with the visual and spatial relationship between the very distinct elements (woodland and parkland) of the Taymouth Castle Historic Garden and Designed Landscape (HGDL) and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. The tree felling which is proposed would also further erode this key view. The proposed estate properties also sit above the majority of other elements of the golf course in this location which will mean the properties will be visually prominent and therefore failing to protect, preserve or enhance the cultural significance of the HGDL. There is also no extant planning permission on this site unlike other areas of the estate where planning permission has previously been granted.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

Notes

The plans and documents relating to this decision are listed below and are displayed on Perth and Kinross Council's website at www.pkc.gov.uk "Online Planning Applications" page

Plan Reference

01	20	41
02	21	42
03	23	43
04	24	44
05	25	45
06	26	46
07	28	47
08	29	48
09	30	49
10	31	50
11	32	51
12	33	52
13	34	53
14	35	54
15	36	55
16	37	56
17	38	57
18	39	
19	40	

REPORT OF HANDLING

DELEGATED REPORT

Ref No	**23/01113/FLL**	
Ward No	**P4- Highland**	
Due Determination Date	**8th January 2024 Extended to 30th May 2025**	
Draft Report Date	**21st March 2025**	
Report Issued by	**John Williamson**	**Date 21 March 2025**

PROPOSAL: Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)

LOCATION: Taymouth Castle Kenmore Aberfeldy PH15 2NT

SUMMARY:

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

BACKGROUND AND DESCRIPTION OF PROPOSAL

Full planning permission is sought for the erection of 2 estate properties and two associated garages within Taymouth Castle Estate, Kenmore. This application is one of three applications submitted for a section of the estate named as "Zone 4" within the planning submission which is located on the north side of the estate next to The Dairy, bound by the River Tay to the north.

There is extant planning permission within the estate for a total of 167 estate properties granted in 2005 and 2011 (03/02250/PPLB and 11/00533/FLM). Each of these applications have been implemented and are extant. Therefore, the estate properties as approved under these permissions could be implemented.

A total of three applications have been received for Zone 4, referred to as Z4-01 (9 properties) (ref:23/01228/FLL), Z4-02 (7 properties) (ref:23/01112/FLL) and Z4-04 (2 properties) (23/01113/FLL) equating to a total of 18 properties. Although it should be noted that a total of 4 properties have been omitted, 2 from Z4-01 and 2 from Z4-02. Meaning a total of 14 properties are now proposed.

A total of 22 estate properties were approved in this part of the estate under application 11/00533/FLM. The proposals within Zone 4 therefore propose an overall reduction of eight properties when compared with the extant permission. This includes the six properties to the south and south west of The Dairy, five to the immediate north west and 11 further properties extending to the west wrapping around the golf course layout. The proposal is now to omit the properties extending to the west, which is now proposed to be part of the golf course design. The Zone 4 development is now proposed to be more nucleated focussed within a more compact grouping around The Dairy with a total of 14 properties.

This particular application refers to 2 properties (Z4-04) (GC-17 and GC-18). These particular properties are located on the southern edge of the Zone 4 grouping. The properties are proposed to be served by a new access track linking to the existing track located to the south of The Dairy.

It should be noted that this particular part of the estate was subject to a planning condition on the 2011 permission which stated:

"The estate properties located in Zone 7 (drwg ref: 11/00533/8) and on the masterplan (B-20-03, B-21-03, B-22-03) are not approved. Estate properties B-21-10 and B22-10 shall be relocated to Zone 2 (drwg ref: 11/00533/3) adjacent to B-01-03 and B-11-03. A revised masterplan and Zone 2 and 7 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones."

Therefore, there is no extant permission on this part of the estate for any built development. The Committee Report for application 11/00533/FLM concluded the following:

"Concern was raised regarding any development in this area prior to the submission of the application. This concern was due to the potential impact development in this area would have on the setting of the category A listed Dairy building when viewed from the east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. This area also sits above the majority of other elements of the golf course in this location which will mean any units will be visually prominent. After further discussion with the applicant it was agreed that two of the units (B-21-10 & B-22-10) are to be removed from this area and relocated to the less sensitive "horseshoe" layout area in zone 2. The relocation of these units is considered to be appropriate as the new location is considered to be an area of less significance in terms of the HGDL. This aspect will be addressed through a condition.

One unit (B-20-03) still remains in the Tom More area and its proposed location causes concern. Some further discussion took place regarding this unit and the possibility for it being relocated closer to the units B17-B19 and therefore giving it more of a visual relationship with these units. The

applicant's agent has considered this issue and was advised to consider the potential impact on trees and upon the setting of the category A listed Dairy which moving this unit would have. A revised location has been submitted in draft but would appear to significantly impinge on important trees in this area. The original site plan indicated a number of trees in this location and from my site visits it was evident that there was a large group of trees in this location. The revised site plan does not indicate these trees. I am therefore concerned that the revised location for unit B-20-03 will involve the considerable removal of trees in this location to the detriment of the landscape character of the area and as such I am not willing to accept the revised location for this unit and therefore still intend to condition the consent to ensure this unit is not approved."

Therefore, there are actually no approved estate properties to the south of The Dairy as all three properties were omitted by condition 51 of permission 11/00533/FLM for the reasons outlined above.

This application is accompanied by a Planning Statement, Design Statement, Flood Risk Assessment, Drainage Assessment, Ecology Assessment and Tree Survey. The submission also includes information to demonstrate how this proposal links to the wider implementation of works within both the category A listed Taymouth Castle, other listed buildings and the wider estate which is a designated Historic Garden and Designed Landscape.

Planning permission and listing building consent has also recently been granted within Zone 4 to convert The Dairy into a golf club house (ref:23/01114/FLL and 23/01117/LBC)

SITE HISTORY

03/02250/PPLB Redevelopment of Taymouth Castle Estate to include restoration of Castle to form hotel, extension to incorporate 72 hotel suites, erection of spa within Newhall Kennels. Construction of 63 lodges and 26 new fractional ownership houses, conversion of existing buildings to form 7 fractional ownership houses, erection of 16 staff houses, erection of equestrian centre, infra structure and engineering works including sewage treatment works and associated landscaping and maintenance proposals 9 March 2005 Application Approved

11/00533/FLM Erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of castle 1 July 2011 Application Approved

23/01112/FLL Erection of 5 estate properties, formation of access roads and associated works (Zone Z4-02) - Pending consideration

23/01114/FLL Change of use and alterations to dwellinghouse to form clubhouse, formation of outdoor seating area, access track and parking area and installation of private foul water treatment plant 31 July 2024 Application Approved

23/01228/FLL Erection of 7 estate properties, formation of access roads and associated works (Zone Z4-01) – Application Approved

24/00618/FLL Extension to access road – Application Approved

24/00865/FLL Installation of foul water treatment plant, outfall and headwall, formation of access road and associated works 29 July 2024 Application Approved

PRE-APPLICATION CONSULTATION

Pre application Reference: None

DEVELOPMENT PLAN

The Development Plan for the area comprises National Planning Framework 4 (NPF4) and the Perth and Kinross Local Development Plan 2 (2019) (LDP2).

National Planning Framework 4

The National Planning Framework 4 (NPF4) is the Scottish Government's long-term spatial strategy with a comprehensive set of national planning policies. This strategy sets out how to improve people's lives by making sustainable, liveable and productive spaces.

NPF4 was adopted on 13 February 2023. NPF4 has an increased status over previous NPFs and comprises part of the statutory development plan.

The Council's assessment of this application has considered the following policies of NPF4:

Policy 3: Biodiversity

Policy 4: Natural Places

Policy 6: Forestry, Woodland and Trees

Policy 7: Historic Assets and Places

Policy 13: Sustainable Transport

Policy 14: Design, Quality and Place

Policy 15: Local Living and 20 Minute Neighbourhoods

Policy 22: Flood Risk and Water Management

Policy 23: Health and Safety

Policy 29: Rural Development

Policy 30: Tourism

Perth and Kinross Local Development Plan 2 – Adopted November 2019

The Local Development Plan 2 (LDP2) is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are:

Policy 1A: Placemaking

Policy 1B: Placemaking

Policy 2: Design Statements

Policy 8: Rural Business and Diversification

Policy 15: Public Access

Policy 26B: Scheduled Monuments and Archaeology: Archaeology

Policy 27A: Listed Buildings

Policy 29: Gardens and Designed Landscapes

Policy 38A: Environment and Conservation: International Nature Conservation Sites

Policy 39: Landscape

Policy 40B: Forestry, Woodland and Trees: Trees, Woodland and Development

Policy 41: Biodiversity

Policy 47: River Tay Catchment Area

Policy 52: New Development and Flooding

Policy 53B: Water Environment and Drainage: Foul Drainage

Policy 53C: Water Environment and Drainage: Surface Water Drainage

Policy 60B: Transport Standards and Accessibility Requirements: New Development Proposals

Statutory Supplementary Guidance

- Supplementary Guidance - Air Quality (adopted in 2020)
- Supplementary Guidance - Delivering Zero Waste (adopted in 2020)
- Supplementary Guidance - Developer Contributions & Affordable Housing (adopted in 2020)
- Supplementary Guidance - Flood Risk and Flood Risk Assessments (adopted in 2021)
- Supplementary Guidance - Forest & Woodland Strategy (adopted in 2020)
- Supplementary Guidance - Green & Blue Infrastructure (adopted in 2020)
- Supplementary Guidance - Housing in the Countryside (adopted in 2020)
- Supplementary Guidance - Landscape (adopted in 2020)
- Supplementary Guidance - Open Space Provision for New Developments (adopted in 2021)
- Supplementary Guidance - Placemaking (adopted in 2020)

OTHER POLICIES

Non Statutory Guidance

- Planning Guidance - Delivery of Development Sites
- Planning Guidance - Loch Leven SPA, the Dunkeld-Blairgowrie Lochs SAC and the River Tay SAC
- Planning Guidance - Planning & Biodiversity
- Supplementary Guidance - Renewable & Low Carbon Energy (draft)

NATIONAL GUIDANCE

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

Planning Advice Notes

The following Scottish Government Planning Advice Notes (PANs) and Guidance Documents are of relevance to the proposal:

- PAN 40 Development Management
- PAN 51 Planning, Environmental Protection and Regulation
- PAN 61 Planning and Sustainable Urban Drainage Systems
- PAN 68 Design Statements
- PAN 69 Planning and Building standards Advice on Flooding
- PAN 75 Planning for Transport
- PAN 77 Designing Safer Places

National Roads Development Guide 2014

This document supports Designing Streets and expands on its principles and is considered to be the technical advice that should be followed in designing and approving of all streets including parking provision.

CONSULTATION RESPONSES

EXTERNAL

Historic Environment Scotland – initial concerns regarding properties GC15 and 16 which have been resolved via deletion of these properties from the plans

Scottish Environment Protection Agency – initial objection regarding flood risk now addressed via submission of additional information

Kenmore Community Council – no comments

NatureScot – initial objection addressed via submission of separate application for private treatment plant

Perth And Kinross Heritage Trust – condition recommended

Scottish Water – no objection

INTERNAL

Transportation And Development – no objection

Development Contributions Officer – no contribution required given extant permissions

Community Waste Advisor - Environment Service – no objection

Biodiversity/Tree Officer - initial concerns have been addressed via submission of additional information. Conditions are recommended to ensure the findings of the ecology report are adhered to as part of the development.

Conservation Team – Removal of the proposed plots immediately west and south west of the category A listed Dairy is welcomed. Nevertheless, the two proposed properties to the south (GC-17 and GC-18) are considered to present an unacceptable visual intrusion on both the listed building and the designed landscape setting. The two substantial properties are discrete from the wider Z4 group, and landscape screening is likely to be insufficient to prevent an undue adverse impact in wider views.

Environmental Health (Contaminated Land) – no objection

Community Greenspace – appropriate conditions are recommended to ensure the core path network is not impacted upon by the development.

Environmental Health (Noise Odour) – conditions recommended regarding noise

Flooding – following extensive discussions and correspondence the flooding and drainage arrangements for Zone 4 are considered to be acceptable subject to conditions relating to land raising and infiltration testing

REPRESENTATIONS

Number of representations received: 0

Additional Statements Received:

Screening Opinion	Undertaken and on file
Environmental Impact Assessment (EIA): Environmental Report	Not Required – see Screening Opinion
Appropriate Assessment under Habitats Regulations	Habitats Regulations AA Completed and on file
Design Statement or Design and Access Statement	Submitted
Report on Impact or Potential Impact eg Flood Risk Assessment	Submitted

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan comprises NPF4 and the Perth and Kinross Local Development Plan 2019. The relevant policy considerations are outlined in the policy section above and are considered in more detail below. In terms of other material considerations, involving considerations of the Council's other approved policies and supplementary guidance, these are discussed below only where relevant.

In this instance, section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 places a duty on planning authorities in determining such an application as this to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. Section 64(1) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 is relevant and requires planning authorities to pay special attention to the desirability of preserving or enhancing the character or appearance of the designated conservation area.

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

Principle

The general principle of developing the estate has been established through the extant consents. Details of which can be found in the Committee Reports for applications 03/02250/PPLB and 11/00533/FLM. As outlined elsewhere in this report there is no extant permission for estate properties on this particular site although the general principal of enabling development has been accepted.

Design and Layout/Key Views and Cultural Heritage Impact

Policies 1A and B relate to placemaking and require new development to respect the character and visual amenity of the area and Policy 14 of NPF4 seeks to deliver well designed development and applying the place principle. Furthermore Policy 39 of the LDP2 states that the existing landscape should be capable of accommodating the new development. Further guidance is also provided within the associated Placemaking Supplementary Guidance. Policies 27A and 29 of LDP2 and Policy 7 Historic Assets and Places of NPF4 references Historic Gardens and Designed Landscapes (HGDL) and seeks to ensure that any change protects, preserve or enhance the cultural significance and the integrity of the site. They also seek to protect the setting of listed buildings

As indicated above there is no extant planning permission for built development on this part of the estate. The plots indicated on the original

masterplan were omitted by condition 51 of permission 11/00533/FLM. The applicant's agent has submitted a Heritage Statement and series of visualisations which seek to support the development of two estate properties in this location. It argues that the revised arrangements for Zone 4 omit a number of properties around the "horseshoe" section of Kenmore Park to the north west of The Dairy and that the removal of these properties from the estate justifies estate properties being built in the location subject to this application. A series of visualisations have also been submitted. Whilst there has been an overall reduction in the number of estate properties within Zone 4, the properties are now larger. During assessment of the 2011 application it was accepted that the "horseshoe" section of Kenmore Park was a less sensitive part of the overall HGDL and therefore had scope for development as it sits remote from key views and listed buildings and structures in a lower lying part of the estate close to the River Tay. The developer has now chosen to omit properties from this part of the HGDL to accommodate a larger golf course. The site subject to the current application is considered to be a much more sensitive part of the HGDL and site and are remote from the remainder of the approved properties in Zone 4. The site is located to the immediate south of The category A listed Dairy building and the proposed built development would impact detrimentally on the setting of The Dairy when viewed from the east. This is currently an open view across the estate with The Dairy being the prominent feature. The felling which is proposed as part of this application would open up that view further. The erection of two estate properties is considered to erode this view significantly. Similar to the previous proposal from 2011, development here would also interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. This area also sits above the majority of other elements of the golf course in this location which will mean the properties will be visually prominent. The argument made in the Heritage Statement that the impact on the setting of The Dairy is negated by the improvement to the wider HGDL by removing properties from the horseshoe area is not accepted. These parts of the estate have very different sensitivities and therefore overall impacts on the HGDL and the setting of The Dairy and are not considered to be comparable in terms of extent of impact on cultural heritage. Further the tree loss which is proposed here, which is referenced in more detail below is also considered to be of detriment to the HGDL.

The proposal is therefore contrary to Policies 27A and 29 of the Perth and Kinross Local Development Plan 2 (2019) and Policies 7(c) and (i) of National Planning Framework 4 (NPF4) as the proposal would impact detrimentally on the setting of the category A listed Dairy when viewed from the east. Furthermore, the development would also interfere with the visual and spatial relationship between the very distinct elements (woodland and parkland) of the Taymouth Castle Historic Garden and Designed Landscape and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. The tree felling which is proposed would also further erode this key view. This proposal estate properties also sit

above the majority of other elements of the golf course in this location which will mean the properties will be visually prominent.

Cultural Heritage

As part of the consultation process for Zone 1 Historic Environment Scotland (HES) raised concerns regarding how applications for further development within both Taymouth Castle and the wider HGDL would impact on the delivery of development of cultural heritage features within the estate. Following receipt of these comments from HES a discussion was undertaken with the applicant's agent and further information was received which outlines the timescales for implementation of these conservation works across the estate. This includes a phasing plan for the works which indicated that the intention was to complete all works to the west wing and main tower of Taymouth Castle by December 2023 within an application for the east wing of the castle having now been approved. The works to the main and west wing have the castle have now been completed after a substantial initial investment from the applicant which is welcomed. The applicant's agent also previously agreed to a condition which restricts occupation of any of the estate properties and the others in Zone 1 until after all works to the main and west wing of the castle, as have been previously consented to date, are completed in full. As these works have now been completed it is no longer necessary to apply the same condition to this particular application should it be approved.

A Schedule of Conservation Works has also been submitted which outlines the intentions for all listed structures, building and folleys within the estate and proposes a timescale for implementation of these works. It should be recognised that some of these works may require further listed building consent and planning permission in their own right but this document provides an overview of the intentions at this moment in time and the recommended condition requires for this to be updated on a quarterly basis (every 3 months) and submitted to the Planning Authority. A Strategic Planning Framework and phasing/masterplan are also submitted to outline the intentions for the wider estate which also require to be updated every 3 months and submitted. These documents are also being updated as further applications are made for zones elsewhere on the estate, including the current applications within Zones 2 and 3. The Planning Authority welcomes the extent of work and improvements that have been made to both listed buildings and the HGDL to date.

If this application is approved following an appeal, these proposed conditions would effectively allow the Council and HES (when required) to monitor work progressing across the estate upon each submission for upcoming zones for other housing elements and it would be for the developer to demonstrate the extent of progress that has been made on the ground and through updates to the Schedule of Conservation Works which explicitly shows what recent works have been undertaken. The Council would therefore retain control over matters as it would be for the developer to demonstrate appropriate progress with the conservation works as part of each future zone submission. Should it

be the case that limited progress was being made or timescales are not being met it may be the case that the Council would hold off on issuing any permissions for future zones until this progress is demonstrated. Given the extent of work which is progressing on site at this time, and the extensive completed works to the main and west wing of the castle, the completed works at the listed east gate which is evidenced during recent site visits, the intentions of the applicant are not doubted and it is clear that extensive work within the estate and castle is currently progressing and the Planning Authority would like to encourage that, however, it is important to ensure that the enabling development within Zone 4 is explicitly tied to the conservation works within wider estate and that the Council retains some control over the implementation and it would be for the applicant to demonstrate progress with these every 3 months as required by the recommended conditions.

In terms of Zone 4, the proposed condition on any approved application would ensure agreed timescales for implementation of the other conservation works throughout the estate. An updated Landscape Management and Woodland Replenishment Plan (for the whole estate) based upon the previously approved LMP but updated to reflect current circumstances with wording to ensure timescales and implementation has also been delivered as part of the Zone 1 permissions.

Trees

Policy 40B of LDP2 relates to trees and woodland and requires a tree survey accompany proposals where there are existing trees which may be affected. Polic6 of NPF4 is relevant in this instance.

The LDP2 and NPF4 seek to ensure that all new sites have a suitable landscape framework which can absorb the development proposed and that development contributes positively to the surrounding built and natural environment. It this respect it is considered that the site has a suitable landscape framework in the form of the existing trees, woodland and topography.

The submission includes a Tree Survey which covers the entirety of Zone 4, with all three sites referenced above. The report explains that the original planting on this part of the estate dates to the late part of the 18th century with occasional planting events and self set tree establishment taking place since. It explains that the trees have sustained damage in adverse weather events over the years including storm Arwen in November 2021 which saw several trees fall and others lose limbs.

Each tree has been assessed for its arboricultural, landscape, cultural and conservation value. The Tree Survey also references the approved 2004 Landscape Management Plan for this part of the estate which recommends retaining historic specimens, removing vegetation, trees and shrubs that obscures important views.

Within this particular site there is one category A tree proposed for felling, 6 category B trees and 2 category C trees. Therefore 9 in total.

This requires to be considered in the context of the felling proposed elsewhere within Zone 4 which equates to the following:

Z4-01 (23/01228/FLL) Sixteen category U trees are identified for removal. The development proposals require the removal of a further seven category A trees, twenty-five category B trees and fourteen category C trees.

Z4-02 (23/01112/FLL) Four category U trees are identified for removal. The development proposals require the removal of a further eight category A trees, twenty-four category B trees and nine category C trees.

Zone Z4-03 (23/01114/FLL) Eight category U trees are identified for removal. The development proposals require the removal of a further three category A trees, four category B trees and two category C trees. This application has been approved.

Across Zone 4, in relation to the development proposals only, a total of twenty-eight category U trees are identified for removal. The development proposals over the whole of Zone 4 require the removal of a further nineteen category A trees, fifty-nine category B trees and twenty-seven category C trees.

The development proposals require the removal of 105 trees that would otherwise be retained. The site has sufficient ground to accommodate appropriate replacement tree planting to provide a sustainable arboricultural amenity for the long term. The felling within the remainder of Zone 4 was generally accepted to ensure provision of the enabling development.

In the case of this particular application there is no extant approval here and the proposal involves the felling of 9 trees, one category A and six category B to accommodate the development. This would reduce the tree cover within this part of the estate and given the concerns outlined above regarding the sensitivity of this part of the HGDL the tree loss indicated is regrettable and whilst compensatory planting is proposed this could take some time to mature.

Landscape and Woodland Management

The 2005 and 2011 permissions includes a Landscape and Woodland Management Plan to ensure wider management of the tree and landscaping resource across the estate. It is important to ensure the requirements of this remain as part of this permission and therefore it has been agreed with the applicant's agent that an updated Landscape and Woodland Management Plan is submitted for approval as part of this application. The same condition would be applied to any applications for future zones. This, again, will ensure the Planning Authority retains control over the implementation of landscape and woodland management across the Designed Landscape. The condition

requires this document to be submitted and implemented as part of the ongoing estate development and updated every 12 months to reflect conditions on the estate at that time. The same condition will be applied to all zones across the estate and should be applied here if any approval is granted.

Residential Amenity

Given that the estate properties are in a similar location to the approved development there are not considered to be any concerns relating to residential amenity in terms of overlooking and overshadowing. The layout has been designed to match the extant permission on the most part with each estate property being part of a wider estate management landscape. The properties will not therefore have designated/fenced private garden areas which will enable the openness of the HGDL to be retained.

Access and Traffic

The site is proposed to be accessed from the east gate of the estate which is to be the guest entrance. A new access track is proposed to the north of the castle or alternatively Zone 4 can be accessed to the south of the castle. The access is proposed to be maintained by the applicant.

The agent has advised that for the management of waste, the waste will be collected by the housekeeping team and transported to a central sorting location by an electric buggy. There is a condition on permission 11/00533/FLM which requires submission of this information.

A bus stop has been delivered at the new west gate to cater for staff associated with the operation of the estate.

Traffic levels are not considered to be any greater than the extant permission on the site.

The proposal is therefore considered to be acceptable in terms of traffic and transportation and complies with the criteria contained within Policy 60B of the LDP2 and Policy 13 of NPF4.

Ecology

Policy 41 of the LDP2 and 3(a) of NPF4 states that development should seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes in the area. Planning permission will not be granted for development likely to have an adverse effect on protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. The River Tay is designated as part of The River Tay Special Area of Conservation (SAC) and therefore Policy 38A of the LDP2 and 4(b) of NPF4 are applicable.

An Ecology Report has been submitted for the application. The Bio Diversity Officer identified some concerns with the findings which had been put forward and following discussions with the developer and the ecologist additional information was submitted to address the concerns identified. The Bio Diversity Officer has now confirmed that the submitted information address the initial concerns and is satisfied with the information submitted. Conditions should be applied to any approval to ensure the findings of the report are adhered to as part of the development.

It should be noted that following discussions with Nature Scot there was some concern with the outfall location of the originally proposed foul treatment plan and the impact which it may have on protected species within the River Tay Special Area of Conservation. Following this, the foul treatment plant and outfall has been removed from this proposal and is now subject to a separate application with revised outfall positions which has recently been approved (24/00865/FLL). A condition should be applied to any approval to ensure that the properties subject to this application connect to this approved treatment plant.

Occupancy

The existing planning consent does not expressly restrict the occupation of the consented properties within the Estate however there is a condition which states the following:

"Prior to the occupation of any estate property, the applicant shall submit full details of the management/title deeds which links every estate property to the wider Taymouth Castle Estate. These details shall be submitted and agreed in writing with the Planning Authority prior to the occupation of any of the estate properties. Every estate property on the application site shall enter into this management agreement and be subject to these title deeds. This agreement between the Estate and each estate property shall be maintained in perpetuity."

Ultimately the purpose of the condition is to ensure that the estate properties always remain linked to the estate in terms of their ongoing management/servicing etc rather being completely removed from the overall management of the estate and being lived in as private residential units with no link at all to the wider estate. The applicant's agent has advised that they would be content with the same condition being applied to these units and the same condition has also been attached to the approval's within Zone 1. This is the same condition applied to the permission by the Development Management Committee during assessment of the previous application and therefore for consistency purposes it is considered important to ensure that it is applied to any new permissions.

Permitted Development

The proposed estate properties are to sit within an open landscape and therefore for the avoidance of doubt a condition should be applied to any

approval to ensure that permitted development rights are removed to avoid any occupier or the estate erecting new boundary fencing or outbuildings which could substantially alter the character of the estate to its detriment. This would enable the Council to retain control over development of this nature.

Core Path Network

This particular part of Zone 4 is remote from the core path network and therefore no condition is considered to be necessary.

Archaeology

Ongoing archaeological works are progressing on site at this time. Perth and Kinross Heritage Trust have offered no objection to this proposal but have advised that the entire site has significant archaeological activity. In that regard it is recommended that a condition requiring an archaeological investigation to be carried out if any approval is granted.

Foul Drainage

Policy 53B of the LDP2 and Policy 22 of NPF4 requires new development to be served by a private drainage system where there is no public system available. This application originally included a foul treatment plant but following discussions with Nature Scot on the location of the outfalls this has been omitted from this application and a new application with amended outfall locations has been submitted for the foul treatment plant (ref:24/00865/FLL). A condition should be applied to any approval to ensure that the development is not occupied until the new treatment plant infrastructure becomes available.

Surface Water

In terms of surface water on the new access roads, this will be connected via filter trenches and conveyed to the River Tay. Roof water is to be collected via underground geo cellular storage before being discharged into roadside filter trenches.

Policy 53C of LPD2 and Policy 22C of NPF4 require surface water drainage to be managed by a Sustainable Urban Drainage System (SUDS). The Drainage Report indicates that SUDS will be accommodated within the site which is considered to accord with Policy 53C. A detailed surface water drainage layout for the wider Zone 4 has also been submitted to demonstrate how surface water across all three applications is to be catered for. Further correspondence from the drainage engineer has also been submitted to address queries raised by the Council's Flood Team in terms of run off calculations, maintenance and capacity of the system. The agent has confirmed that there will be a maintenance team on the estate who will deal with any maintenance requirements of the surface water drainage systems. Responsibility will also fall on plot owners. Following a meeting with the developer's engineers the surface water drainage arrangements are now

considered to be acceptable and the Flood Team have confirmed that the information received is sufficient subject to a condition which requires infiltration testing to be carried out. This cannot be carried out until the tree felling on site has been undertaken and therefore a condition should be applied to any approval. A further condition should also be applied to any approval to ensure the SUDS system meets best management practises. The additional information which has been submitted is considered to comply with the requirements of Policy 53C of the LDP2.

Fluvial Flood Risk

Policy 52 of the LDP2 and Policy 22 of NPF4 states that there is a presumption against proposals for built development or land raising on flood plains. A Flood Risk Assessment accompanies the application and the estate properties,

SEPA initially objected to the application requesting additional information in the form of an updated FRA to reflect cross sections of the River Tay, further information on the proposed relocation and nature of the man made channel which traverses the new golf course layout and to demonstrate that all properties are outwith the flood risk area. Further information was submitted which SEPA have now concluded is sufficient to demonstrate that the properties subject to this application are outwith flood risk areas as they are sited on land already higher than the 200+Climate change level from any source. It should be noted that the drainage associated with the golf course was agreed as part of the submissions made under condition 42 of permission 11/00533/FLM and this involved discussions with both SEPA and the Council's Flood Team.

There have also been extensive discussions with the Council's Flooding and Drainage Team with regard to modelling, overland flow routes, the position of a turning head to the north west corner of Zone 4 which is proposed to link into a new access track which is subject to application 24/00618/FLL and the size of a culvert to accommodate a 200 year + CC event

The proposed access track and turning head are located within the 200yr + CC flood plain. No land raising is proposed to accommodate the access track and turning head and this requires to be considered in the context of the extant permission for a new access road in this location under application 11/00533/FLM. Whilst a new access is proposed here it is not proposed to be the sole access for the new properties. The main access to Zone 4 properties will be from the east from the east gate. The new track is solely to provide a link through the estate and will not be the main means of access for occupiers of Zone 4. On that basis there is a safe means of access and egress from Zone 4 to the east during a flood event. A Flood Evacuation Report and Plan was approved as part of application 11/00533/FLM in 2015. However, due to the change on ownership of the estate this is likely to be out of date and therefore an updated report can be requested by condition. This can ensure that occupiers aware of any evacuation procedures during a flood event.

Following consideration of additional information and a meeting between the applicant's flooding and drainage consultant and the Council's Flood Team the information regarding flood risk is now considered to be acceptable.

The applicant has indicated that the culvert needs to take the watercourse beneath the new road referenced above and under the core path so therefore requires to be within the functional flood plain. It has now been re-sized to accommodate a 200 year + CC event. The Council's flood team have stated that this is now acceptable

Additional information has been presented regarding the overland flow routes and modelling which has also now been accepted by the Council's Flood Team.

PKC Flooding and Drainage Team and SEPA have therefore now offered no objection to the application regarding fluvial flood risk.

Subject to this condition the proposal is considered to comply with Policy 52 of the LDP2 and Policy 22 of NPF4.

Ecology

Policy 41 of the LDP2 and Policy 3 of NPF4 state that the Council will seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes in the area. Planning permission will not be granted for development likely to have an adverse effect on protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. An Ecology Report has been submitted for the application. The Bio Diversity Officer identified some concerns with the findings which had been put forward and following discussions with the developer and the ecologist additional information was submitted to address the concerns identified. The Bio Diversity Officer has now confirmed that the submitted information address the initial concerns and is satisfied with the information submitted. Conditions should be applied to any approval to ensure the findings of the report are adhered to as part of the development.

The Ecology Report states that a Bio Diversity Strategy for the wider estate is proposed which includes the creation of new habitat opportunities and enhancement and management of existing habitats. On the basis of this and the extant approval it is important to ensure this is implemented going forward and therefore for the avoidance of any doubt a condition should be applied to any approval to ensure this is submitted for approval prior to the commencement of any development. The proposal is therefore considered to comply with Policy 41 of the LDP2.

It should be noted that following discussions with Nature Scot there was some concern with the outfall location of the originally proposed foul treatment plan for Zone 4 and the impact which is may have on protected species within the River Tay Special Area of Conservation. Following this, the foul treatment plant and outfall has been removed from this proposal and all other Zone 4

applications and is now subject to a separate application with revised outfall positions which has recently been approved (24/00865/FLL).

Developer Contributions

The Developer Contributions Guidance is not applicable to this application and therefore no contributions are required in this instance.

Economic Impact

The economic impact of the proposal is likely to be minimal and limited to the construction phase of the development.

VARIATION OF APPLICATION UNDER SECTION 32A

This application was varied prior to determination, in accordance with the terms of section 32A of the Town and Country Planning (Scotland) Act 1997, as amended. The variations incorporate submission of a Heritage Statement and visalisations.

PLANNING OBLIGATIONS AND LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

CONCLUSION AND REASONS FOR DECISION

To conclude, the application must be determined in accordance with the Development Plan unless material considerations indicate otherwise. In this respect, the proposal is considered to be contrary to the Development Plan. Account has been taken of the relevant material considerations and none has been found that would justify overriding the Development Plan.

Accordingly, the proposal is refused on the grounds identified below.

Reason for Refusal

The proposal is contrary to Policies 27A and 29 of the Perth and Kinross Local Development Plan 2 (2019) and Policies 7(c) and (i) of National Planning Framework 4 (NPF4) as the proposal would impact detrimentally on the setting of the category A listed Dairy when viewed from the east. Furthermore, the development would interfere with the visual and spatial relationship between the very distinct elements (woodland and parkland) of the Taymouth Castle Historic Garden and Designed Landscape (HGDL) and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. The tree felling which is proposed would also further erode this key view. The proposed estate properties also sit above the majority of other elements of the golf course in this location which will mean the properties will be visually prominent and therefore failing to protect, preserve or enhance the cultural significance of the HGDL. There is also no extant planning permission on this site unlike other areas of the estate where planning permission has previously been granted.

Justification

The proposal is not in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

Informatives

None

Procedural Notes

Not Applicable.

PLANS AND DOCUMENTS RELATING TO THIS DECISION

39
40
04
01
02
03
05
06
07
08
09
13
10
11
12

14
15
16
17
18
19
20
21
23
24
25
26
28
29
30
31
32
33
34
35
36
37
38
51
48
49
50
52
53
54
55
56
57
45
46
41
42
43
44
47

Perth and Kinross Council
APPROPRIATE ASSESSMENT OF PLANNING APPLICATION

This is a record of the Appropriate Assessment required by regulation 48 of the Habitats Regulations 1994 as amended (Habitats Regulations Appraisal) and the Nature Conservation (Scotland) Act 2004, undertaken by Perth and Kinross Council in respect of the following planning application.

Section 1 – Information in relation to the Planning Application

Reference Number:	23/01113/FLL
Location of Application:	Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT
Description of Application:	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)
Distance from SAC boundary:	245 metres
Number of net additional residential dwellings:	2 (foul drainage served by treatment plant approved by application 24/00865/FLL)

Section 2 – Information in relation to the International Nature Conservation Site

International Site:	**River Tay Special Area of Conservation (SAC)**
Site Description:	**River Tay Special Area of Conservation (SAC)** The River Tay Special Area of Conservation (SAC), designated for its Atlantic Salmon, River Lamprey, Sea Lamprey, Brook Lamprey, Otter and Oligomesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoete-Nanojuncetea, known as clearwater lochs.
Relevant international nature conservation features:	**River Tay Special Area of Conservation (SAC)** To avoid deterioration of the qualifying habitat (listed below) thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and To ensure for the qualifying habitat that the following are maintained in the long term: • Extent of the habitat on site • Distribution of the habitat within site

	• Structure and function of the habitat • Processes supporting the habitat • Distribution of typical species of the habitat • Viability of typical species as components of the habitat • No significant disturbance of typical species of the habitat Qualifying Habitat: Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels
Conservation objectives of the site	**River Tay Special Area of Conservation (SAC)** To avoid deterioration of the habitats of the qualifying species (listed below) or significant disturbance to the qualifying species, thus ensuring that the integrity of the site is maintained and the site makes an appropriate contribution to achieving favourable conservation status for each of the qualifying features; and To ensure for the qualifying species that the following are maintained in the long term: • Population of the species, including range of genetic types for salmon, as a viable component of the site • Distribution of the species within site • Distribution and extent of habitats supporting the species • Structure, function and supporting processes of habitats supporting the species • No significant disturbance of the species Qualifying Species: • Atlantic salmon • Brook lamprey • Otter • River lamprey • Sea lamprey

Section 3 – Consideration of Planning Application 23/01113/FLL

The consideration of the associated planning application is in accordance with national procedures and guidance of Nature Scot. **Guidance for Competent Authorities** when dealing with proposals affecting SAC freshwater sites (SNH 2006)

Stage 1: is the proposal directly connected with or necessary to site management for nature conservation?	No
Stage 2: Is the proposal likely to have a significant effect on the	The Planning Authority has formed the view, that there is a risk that individually or in combination with

internationally important interest features of the SPA?	other proposals, this application is "likely to have a significant effect" on the qualifying interests of River Tay SAC (unless proposed mitigation measures are secured in perpetuity)

The conclusions of Stages 1 and 2 have confirmed that there is a risk of significant impact on the SAC and the proposal is not directly connected with the management of the SAC. Therefore the Planning Authority must undertake an Appropriate Assessment of the implications of the proposals in view of the conservation objectives before permission can be granted.

This Appropriate Assessment has been prepared on the basis of information made available on the nature of the proposal and mitigation measures in relation to the SAC. Mitigation measures were submitted as part of the application process and duly considered by the Planning Authority and Nature Scot.

Stage 3: Assess the implications of the effects of the proposal for the site's conservation objectives – to include a description of any likely direct, indirect or secondary impacts of the proposal (either on its own or in combination with other proposals) on the designated site.	Perth and Kinross Planning Authority have identified and predicted any foreseeable and quantifiable risks associated to the integrity of the SAC. 1. The proposal is likely to have a significant impact on the qualifying interests of the SAC. In particular there is potential to impact upon Atlantic Salmon and lamprey species in the River Tay within the SAC boundary arising from the potential disturbance of the river bed and from potential pollution incidents due to construction vehicles. 2. Impacts on Atlantic Salmon and lamprey species in River Tay arising from the release of fine sediment and pollutants during construction of development. The proposal would thus conclusively have an impact on the qualifying interests of the SAC.
Stage 4: Can it be ascertained that the proposals will not adversely the integrity of the site?	No, it cannot be ascertained that the proposal will not adversely impact the integrity of the SAC. If no mitigation is applied, there is the potential for increased phosphorus loading on the SAC which could result in an adverse impact on the wildlife and habitat objectives.
Stage 5: Would compliance with conditions or other restrictions enable it to be ascertained that the proposal would not adversely affect the integrity of the site?	Within the Perth and Kinross Local Development Plan and NPF4 it states that development will only be permitted on a designated site (including an SAC) where the appropriate assessment indicates that the following criteria can be met: (i) The development will not affect the integrity of the site (ii) There are no alternative solutions (iii) There are imperative reasons for overriding public interest. The Council consider that in regard to the

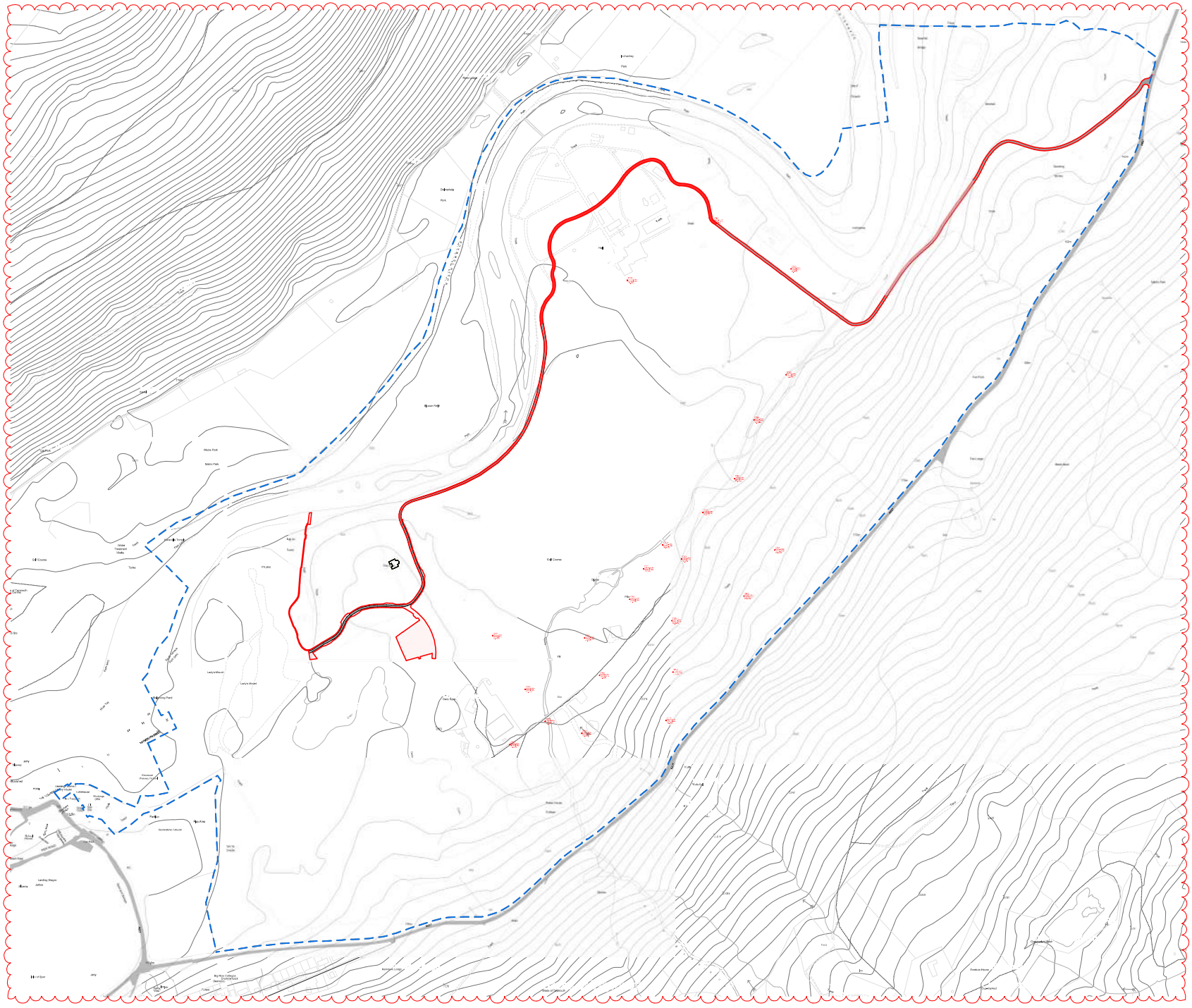
	information submitted to date that the development would have an adverse impact on the conservation interests of the SAC. The Council consider that the following conditions would prevent any potential adverse impact on the integrity of the site. The recommended conditions are as follows: The release of fine sediment from bank-side workings can be reduced to an acceptable level by adopting good working practice during the construction phase of the development. A Construction Method Statement will be approved by the Planning Authority prior to any work commencing. This statement will follow SEPA pollution prevention guidelines and according to recommended best practice to ensure that construction operations do not detrimentally affect natural heritage interests of the River Tay SAC, particularly in relation to the risk of the release of fine sediment. Furthermore, the developer will be required to adhere to the recommendations and mitigation measures contained within submitted survey work. The inclusion of the above conditions on any planning consent is therefore considered sufficient to ensure there are no adverse impacts on River Tay SAC.
Stage 6: Are there alternative solutions which avoid any adverse impacts on the integrity of the Natura 2000 site?	No

Section 4 - Conclusion

The Appropriate Assessment has concluded that:
In line with regulation 48 of the Habitats Regulations 1994 as amended and the Nature Conservation (Scotland) Act 2004, the preceding confirms that the proposals which are the subject of this assessment have been accordingly quantified and ascertained through the associated independent phosphorus report and application of the aforementioned enforceable mitigation measures, which shall consequently result in no adverse affect on the integrity of the site.

Perth and Kinross Council has concluded that there will be no adverse impact on the River Tay SAC as a consequence of the proposals, subject to the above mitigation.

Completed by:	John Williamson, Planning Officer, Perth and Kinross Council.
Date:	21 March 2025



Z4-04
Location Plan
1:2500

LEGEND:

- Land in ownership of the client
- Site Boundary - **Zone 4-04** Developable Area (**0,67ha**)
- Existing road
- Road subject to separate application

N

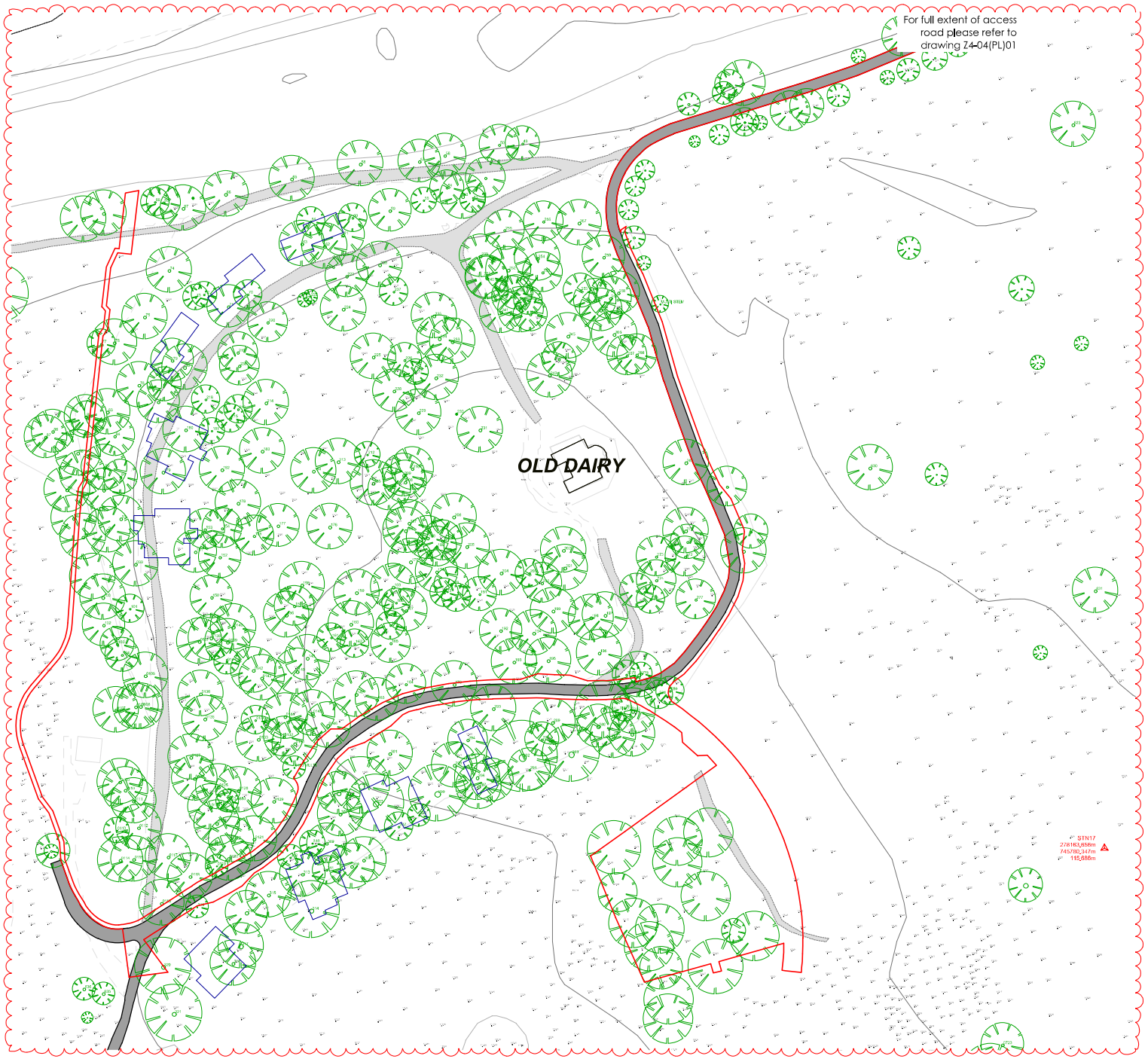
SCALE 1:2500

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/06/23	A	General drawing alterations as per planning vetting
17/11/23	B	Site Boundary altered
02/11/23	C	General drawing alterations

Job Title: Taymouth Castle Development Zone 4			
Drawing Title: Location Plan	Scale: 1:2500@A0	Drawing Status: PL	Drawn by: SO.XS
Drawing Number:		Project: C	Date: JUNE 2023



Z4-04

Existing Site Plan
1:500

LEGEND:

- -Site Boundary - **Zone 4-04** Developable Area (**0.67ha**)
- -Previously Approved House Locations
- -Existing Tarmac Road
- -Existing gravel track
- - Existing trees

N

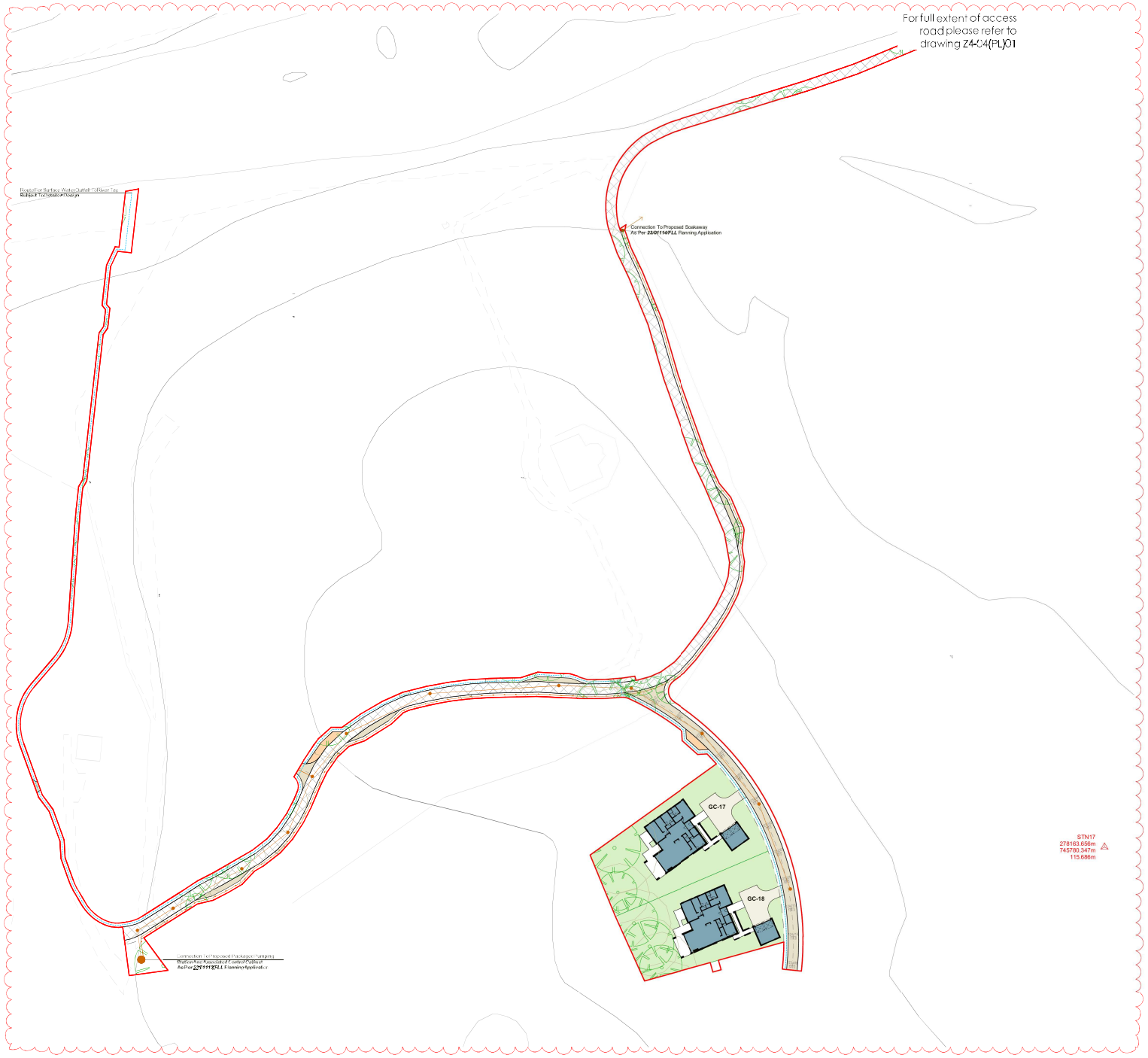
0 10 20 30 40 50

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/06/23	A	General drawing alterations as per planning vetting
17/11/23	B	Site Boundary altered
02/11/23	C	General drawing alterations

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Existing Site Plan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOXS
DRAWING NUMBER: Z4-04(PL)01		REVISION: C	DATE: JUNE 2023



Z4-04

Proposed Site Plan
1:500

LEGEND:

- Site Boundary - **Zone 4-04** Developable Area **(0.67ha)**
- Previously Approved House Locations
- Proposed New Road
- Proposed Drainage System Network
- Proposed Visitor Parking Space
- Existing Road Within Application Boundary
- Proposed House Location
- Existing Trees To Be Retained

N

0 10 20 30 40 50

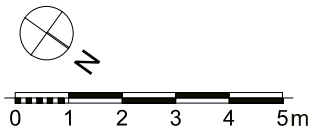
McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev	Description
09/11/23	A	General drawing alterations expert planning
17/11/23	B	Shuffle notes plan/1
09/11/23	C	General drawing alterations

Project: Taymouth Castle Development Zone 4			
Structure: Development Site Plan	Scale: 1:500 @A0	Drawn by: PL	Checked by: SCMS
Project Number: 14049.01		Date: C	Date: 10 Nov 2023

GROUND FLOOR PLAN 1:100

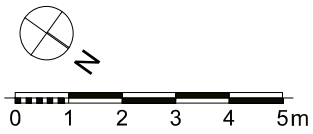


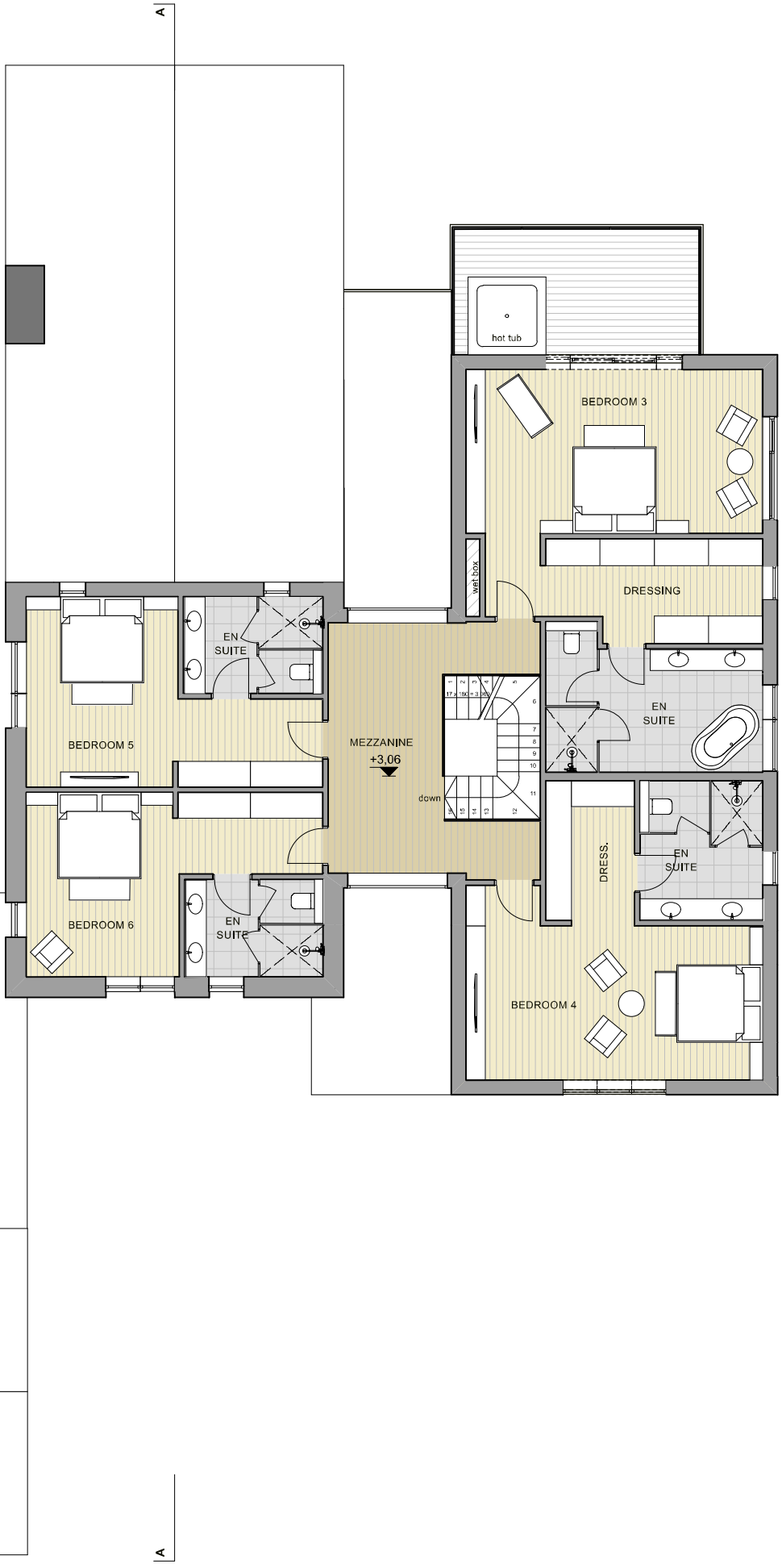
McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17

DRAWING TITLE:	SCALE:	DRAWING STATUS:	DRAWN BY: / CHECKED BY:
Ground Floor Plan	1:100 @A3	PL	SO,KS
DRAWING NUMBER:		REVISION:	DATE:
Z4-04/CG-17(PL)01			JUNE 2023

FIRST FLOOR PLAN 1:100

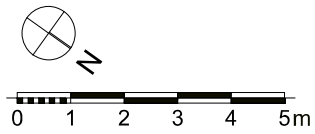




McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

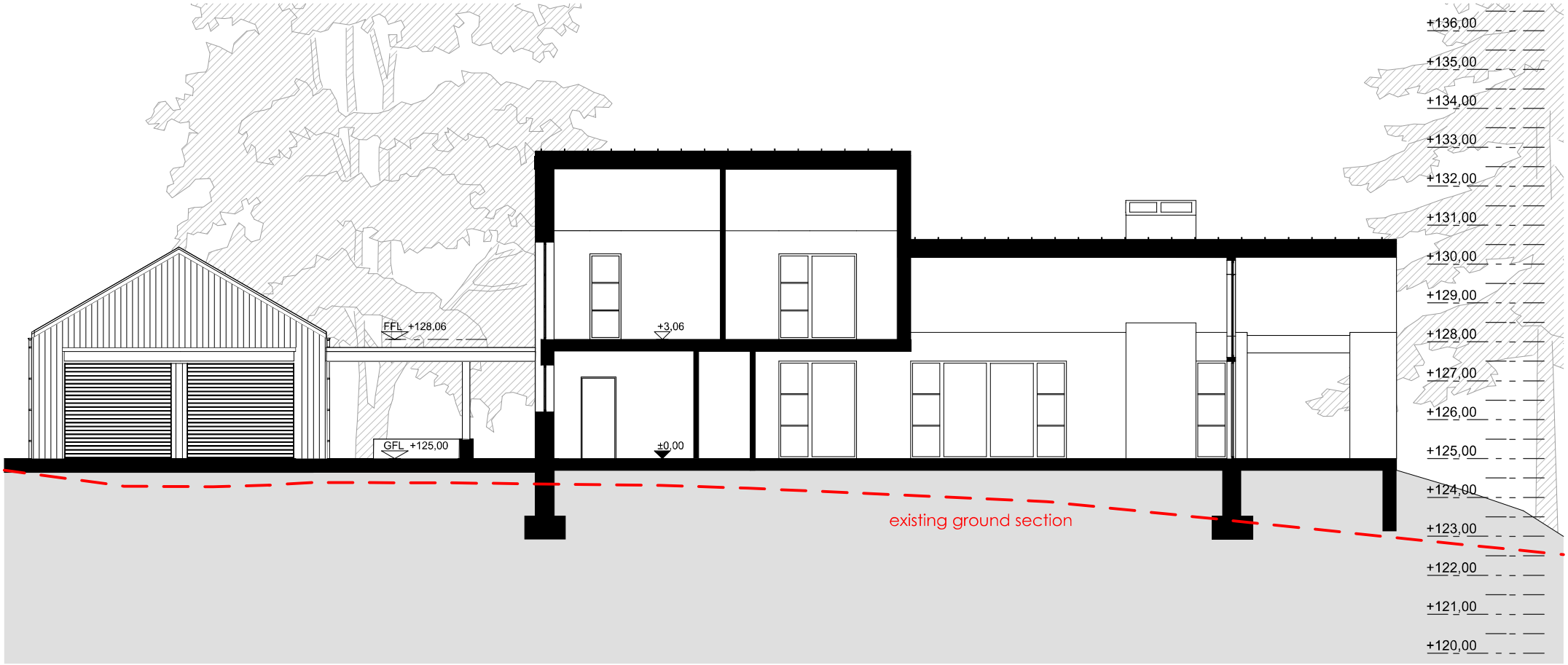
JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: First Floor Plan	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)02		REVISION:	DATE: JUNE 2023

ROOF PLAN 1:100



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Roof Plan	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)03		REVISION:	DATE: JUNE 2023



SECTION A-A 1:100

0 1 2 3 4 5

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Section A-A	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)04		REVISION:	DATE: JUNE 2023



NORTH-EAST ELEVATION

0 1 2 3 4 5m

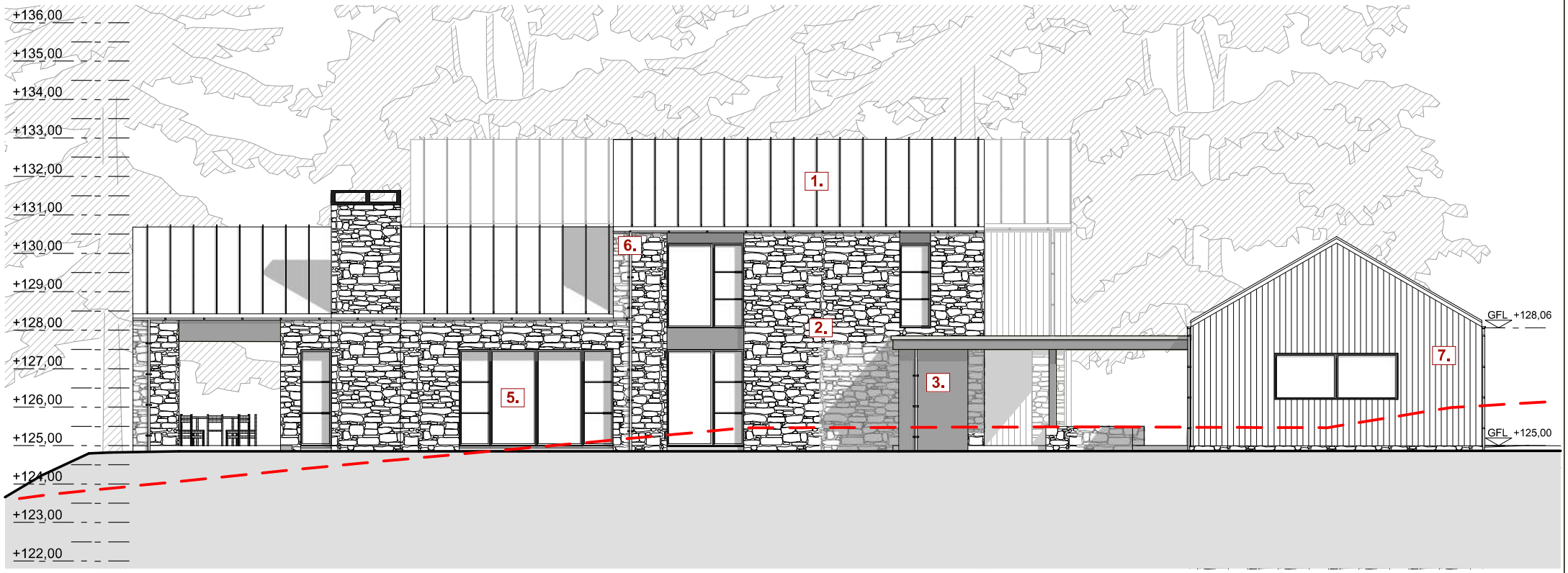
MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)05		REVISION:	DATE: JUNE 2023



SOUTH-EAST ELEVATION

0 1 2 3 4 5m

MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)06		REVISION:	DATE: JUNE 2023



SOUTH-WEST ELEVATION

0 1 2 3 4 5m

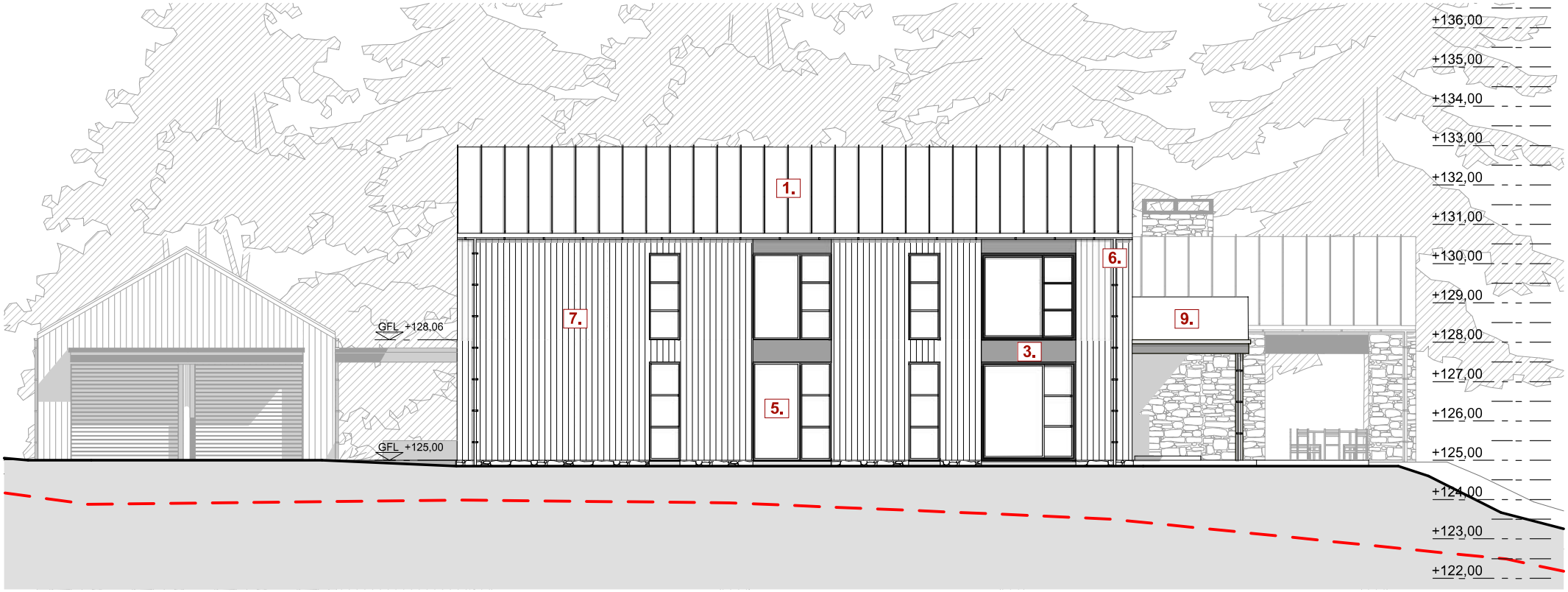
MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)07		REVISION:	DATE: JUNE 2023



NORTH-WEST ELEVATION

0 1 2 3 4 5m

MATERIAL KEY:

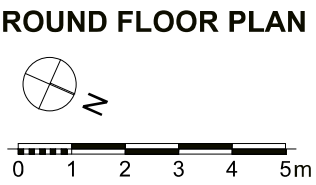
1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-17			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-17(PL)08		REVISION:	DATE: JUNE 2023

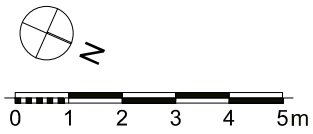
GROUND FLOOR PLAN 1:100

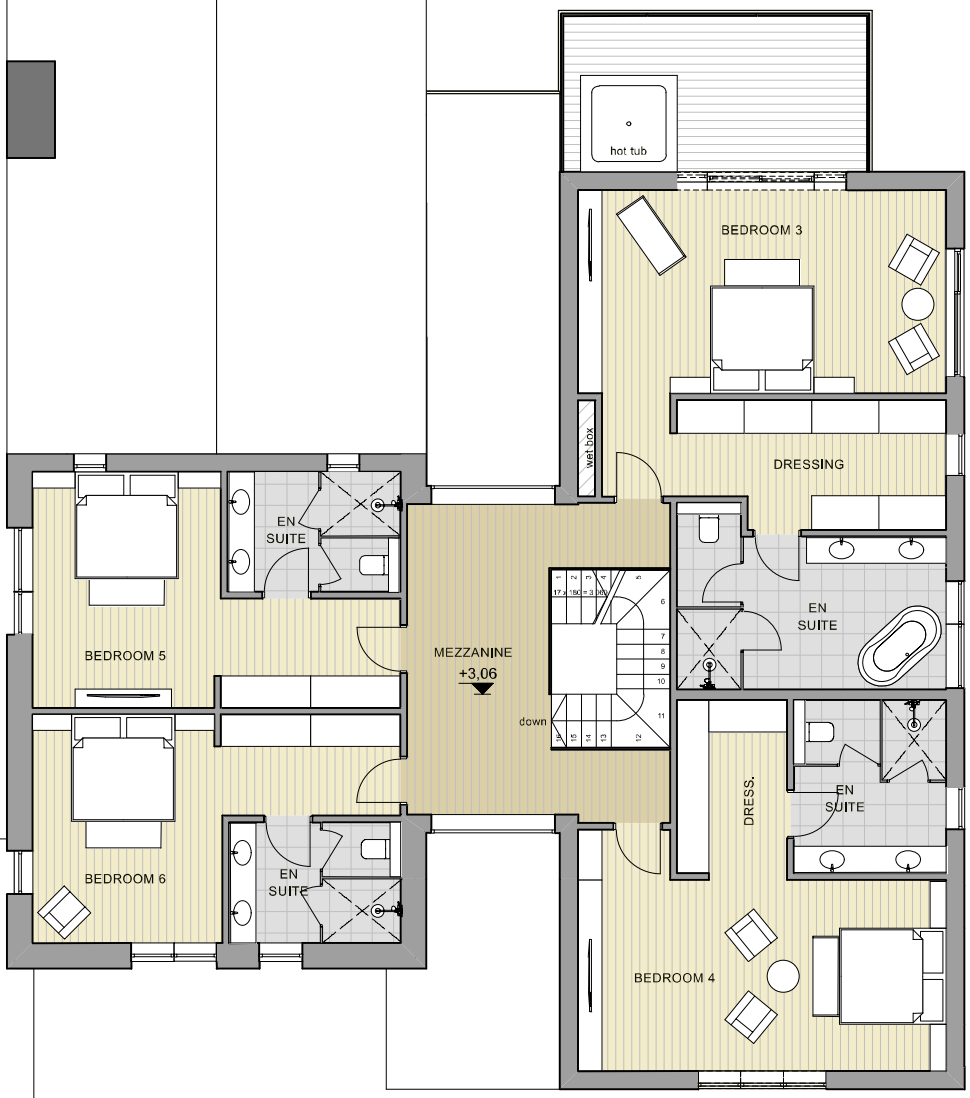


McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Ground Floor Plan	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)01		REVISION:	DATE: JUNE 2023

FIRST FLOOR PLAN 1:100

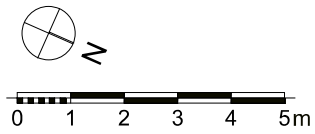




McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: First Floor Plan	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)02		REVISION:	DATE: JUNE 2023

ROOF PLAN 1:100



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Roof Plan	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)03		REVISION:	DATE: JUNE 2023



SECTION A-A 1:100

0 1 2 3 4 5

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Section A-A	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)04		REVISION:	DATE: JUNE 2023



NORTH-EAST ELEVATION

0 1 2 3 4 5m

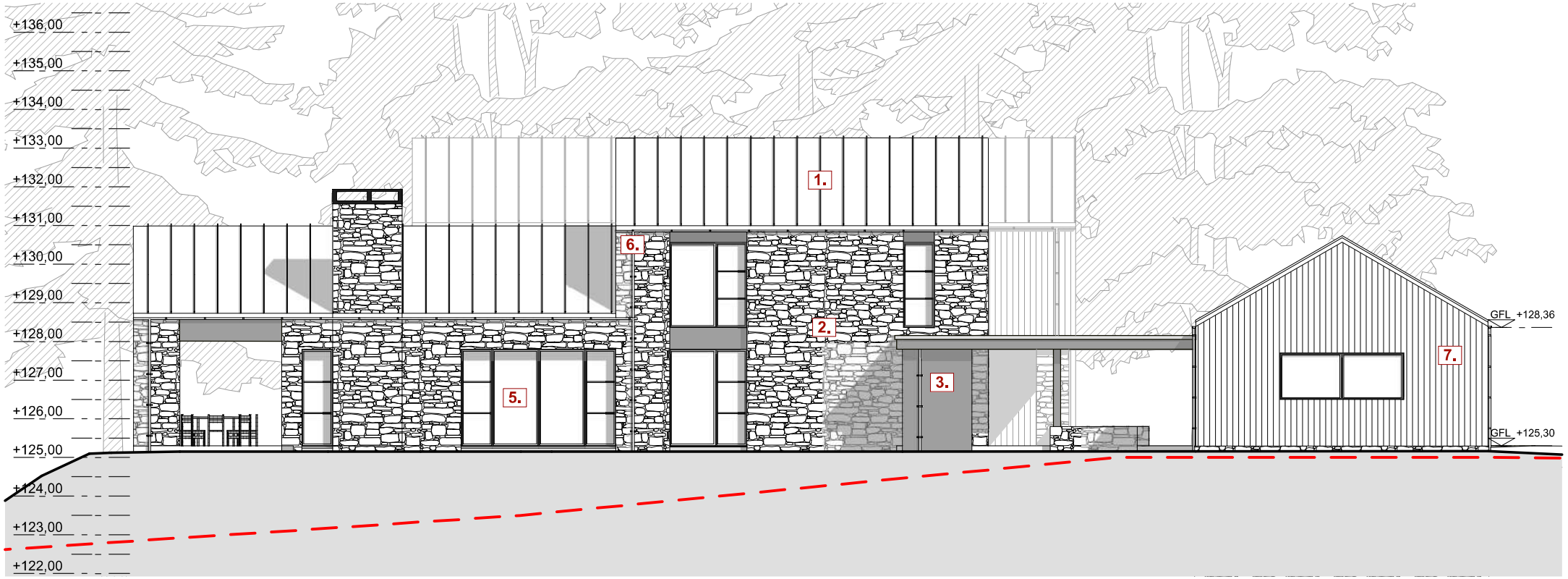
MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)05		REVISION:	DATE: JUNE 2023



SOUTH-EAST ELEVATION

0 1 2 3 4 5m

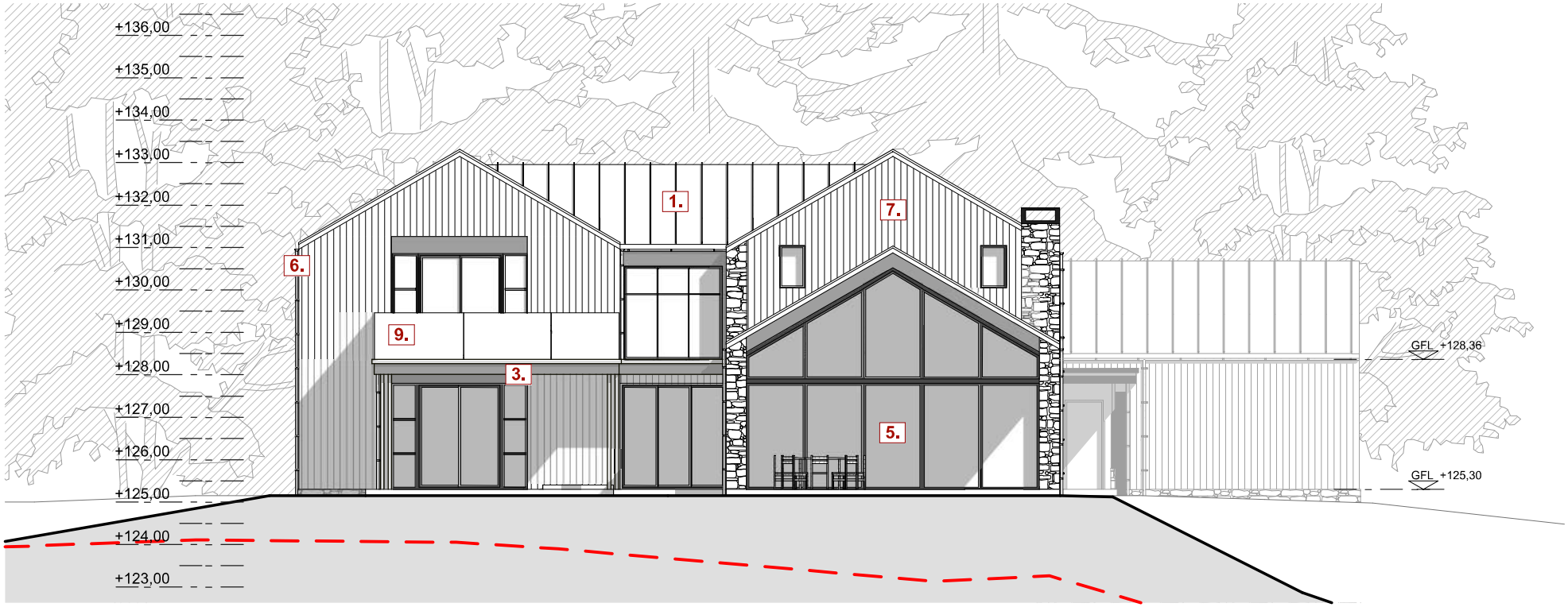
MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS / CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)06		REVISION:	DATE: JUNE 2023



SOUTH-WEST ELEVATION

0 1 2 3 4 5m

MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)07		REVISION:	DATE: JUNE 2023



NORTH-WEST ELEVATION

0 1 2 3 4 5m

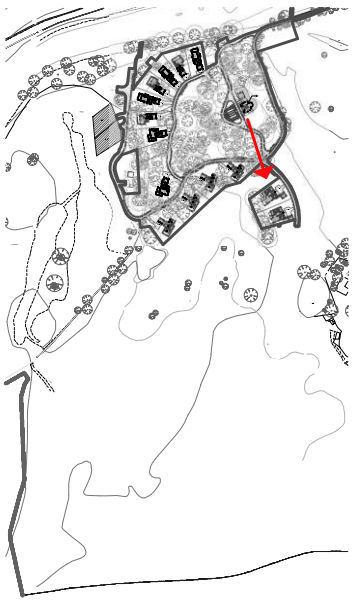
MATERIAL KEY:

1. Standing seam metal roof
2. Local natural stone (whinstone)
3. Graphite grey paint finish to exposed structural steel work
4. Exposed timber to be stained grey
5. All doors and windows to be timber frame aluminium clad
6. Gutters and downpipes graphite grey paint finish
7. Natural timber cladding stained grey
8. Areas of timber decking to be clear stained or grey
9. Structural glass balustrade

McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4 HT05/CG-18			
DRAWING TITLE: Elevations	SCALE: 1:100 @A3	DRAWING STATUS: PL	DRAWN BY: SO,KS — CHECKED BY:
DRAWING NUMBER: Z4-04/CG-18(PL)08		REVISION:	DATE: JUNE 2023



Location plan (nts)

VIEW 1 - EXISTING



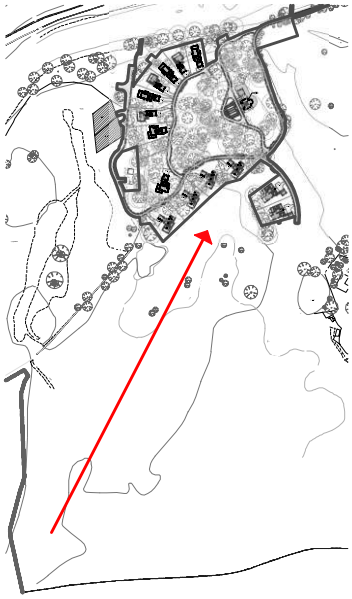
VIEW 1 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: **Taymouth Castle Development Zone 4**

DRAWING TITLE:	SCALE:	DRAWING STATUS:	DRAWN BY: / CHECKED BY:
VIEW 1	**nts @A2**	**PL**	**SO, KS**
DRAWING NUMBER:		REVISION:	DATE:
Z4(PL)MP			**January 2025**



Location plan (nts)

VIEW 2 - EXISTING

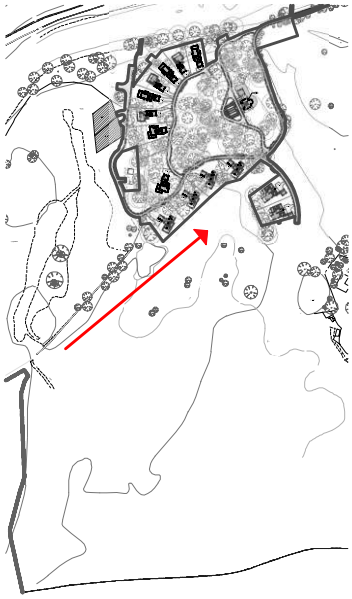


VIEW 2 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: VIEW 2	SCALE: nts @A2	DRAWING STATUS: PL	DRAWN BY: SO, KS / CHECKED BY:
DRAWING NUMBER: Z4(PL)MP		REVISION:	DATE: January 2025



Location plan (nts)

VIEW 3 - EXISTING

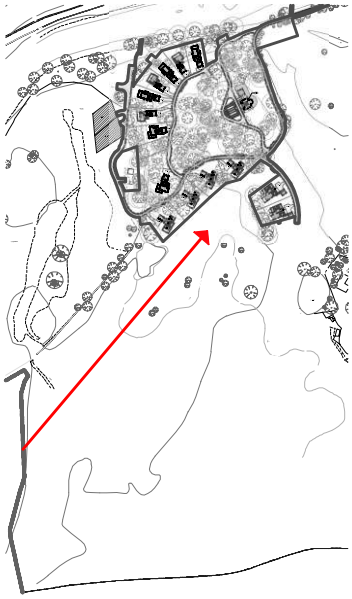


VIEW 3 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: VIEW 3	SCALE: nts @A2	DRAWING STATUS: PL	DRAWN BY: SO, KS / CHECKED BY:
DRAWING NUMBER: Z4(PL)MP		REVISION:	DATE: January 2025



Location plan (nts)

VIEW 4 - EXISTING



VIEW 4 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: **Taymouth Castle Development Zone 4**

DRAWING TITLE:	SCALE:	DRAWING STATUS:	DRAWN BY: / CHECKED BY:
VIEW 4	**nts @A2**	**PL**	**SO, KS**
DRAWING NUMBER:		REVISION:	DATE:
Z4(PL)MP			**January 2025**



Location plan (nts.)

VIEW 5 - EXISTING



VIEW 5 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4

DRAWING TITLE:	SCALE:	DRAWING STATUS:	DRAWN BY:	CHECKED BY:
VIEW 5	nts @A2	PL	SO, KS	

DRAWING NUMBER:	REVISION:	DATE:
Z4(PL)VI		January 2025



Location plan (nts.)

VIEW 6 - EXISTING



VIEW 6 - PROPOSED



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983
All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: VIEW 6	SCALE: nts @A2	DRAWING STATUS: PL	DRAWN BY: SO, KS / CHECKED BY:
DRAWING NUMBER: Z4(PL)VI		REVISION:	DATE: January 2025



Location plan (nts.)

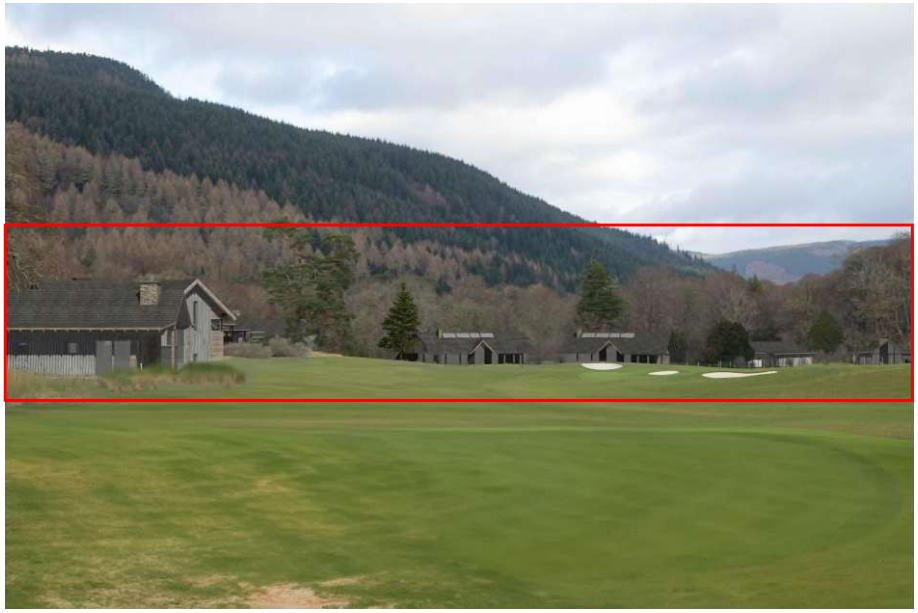
VIEW 7 - EXISTING



VIEW 7 - PROPOSED



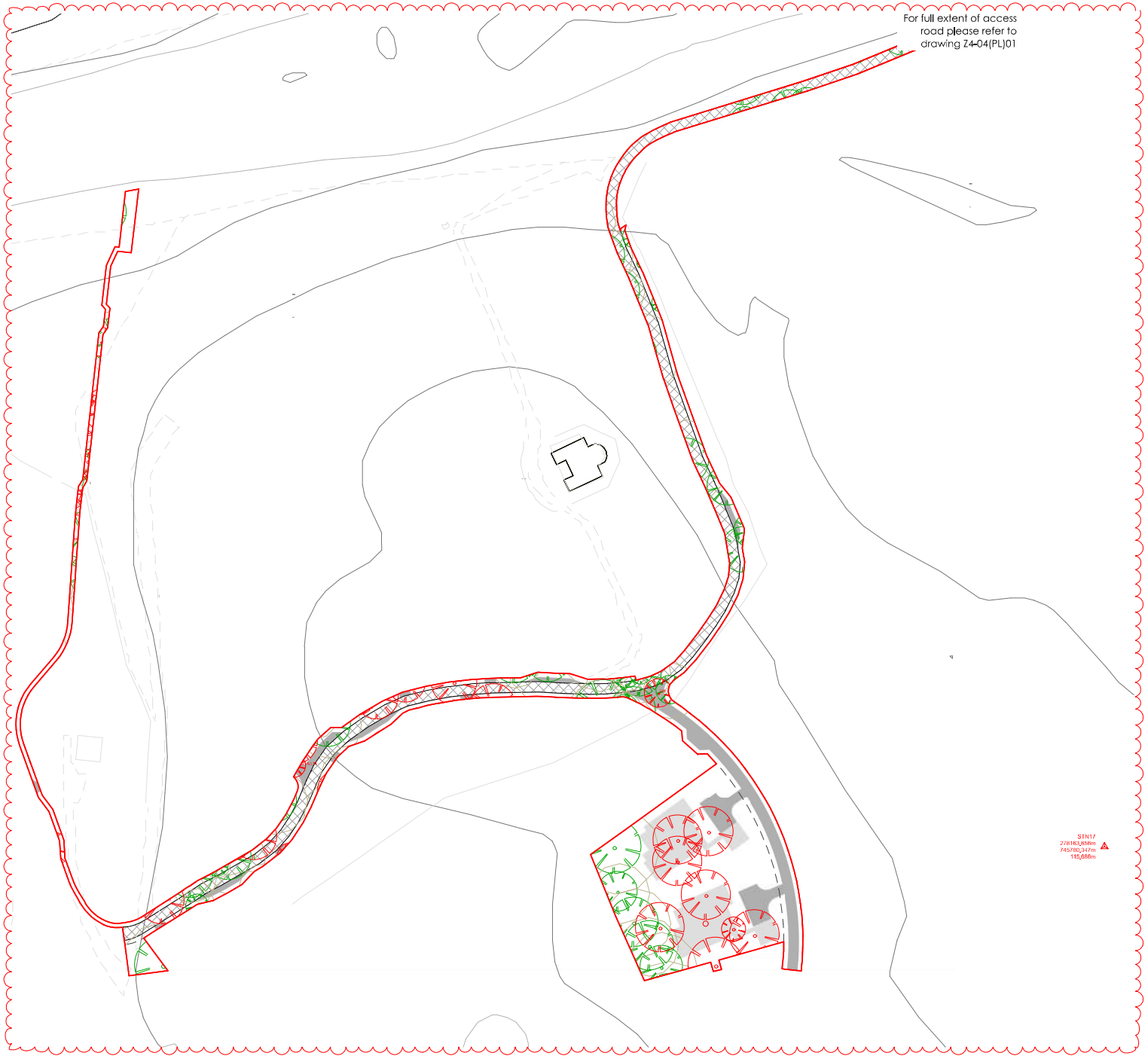
VIEW 7 - PROPOSED AS PER 11/00533/FLM APPLICATION



McKenzie Strickland Associates
23 Bank Street, Aberfeldy PH15 2BB, T: 01887 829 228
e: info@msa-architects.com
159 Dunkeld Road, Perth, PH1 5AS, T: 01738 445 983

All Contents Copyright All Rights Reserved

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: VIEW 7	SCALE: nts @A2	DRAWING STATUS: PL	DRAWN BY: SO, KS / CHECKED BY:
DRAWING NUMBER: Z4(PL)VI		REVISION:	DATE: January 2025



Z4-04

Tree Removal Plan
1:500

LEGEND:

- -Site Boundary - **Zone 4-04** Developable Area (**0.67ha**)
- -Existing Trees To Be Retained
- -Trees To Be Removed

N

0 10 20 30 40 50

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/06/23	A	General drawing alterations as per planning setting
17/10/23	B	Site Boundary altered
02/11/23	C	General drawing alterations

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Tree Removal Plan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOJ/KS CHECKED BY:
DRAWING NUMBER: Z4-04(PL)01		REVISION: C	DATE: JUNE 2023



Z4-MP

Proposed Masterplan 1:500

LEGEND:

- -Previously Approved House Locations
- -Existing Track
- -Proposed New Road
- -Previously Consented Development
- -Proposed House Location
- -Existing Trees To Be Retained
- -Proposed Drainage System Network

Proposed Developable Area

Z4-01	(approx. 1,66ha)
Z4-02	(approx. 1,96ha)
Z4-03	(approx. 1,95ha)
Z4-04	(approx. 0,67ha)

N

Scale bar 1:500

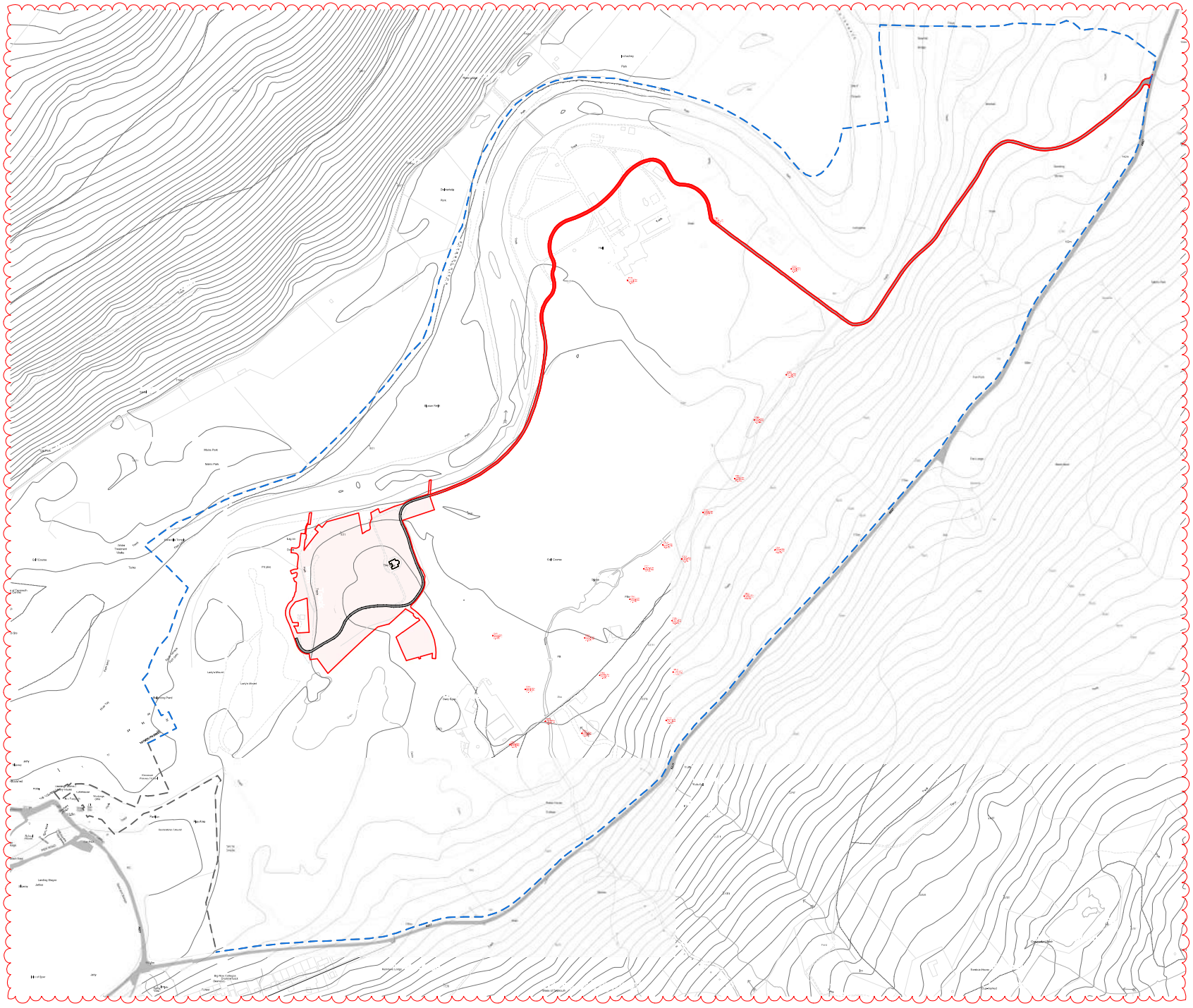
0 10 20 30 40 50m

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BS t: 01887 829238 21 Cornrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date:	Rev:	
20/09/23	A	General drawing alterations as per planning setting
17/10/23	B	Site Boundary altered
02/11/23	C	General drawing alterations
09/11/23	D	Access Track Alternative
06/06/24	E	Proposed Treatment Plant removed on plan & road layout altered
13/06/24	F	Proposed House Location altered On Plot GC-13, GC-14, GC-16
13/06/24	G	Proposed road levels adjusted
02/07/24	H	Proposed Finished Floor Levels Add On Plan
19/08/24	I	General drawing alterations

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Proposed Masterplan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOAS
DRAWING NUMBER:		REVISION: I	DATE: August 2024



Z4-LP

Zone IV Location Plan
1:2500

LEGEND:

- Land in ownership of the client
- Site Boundary - **Zone 4**
- Existing road
- Road subject to separate application

N

SCALE 1:2500

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/06/23	A	General drawing alterations as per planning vetting
17/11/23	B	Site Boundary altered
02/11/23	C	General drawing alterations

Job Title: Taymouth Castle Development Zone 4			
Drawing Title: Location Plan	Scale: 1:25000A0	Drawing Status: PL	Drawn by: SOXS
Drawing Number:		Project: C	Date: JUNE 2023



Z4-TR

Tree Removal Plan 1:500

LEGEND:

- Existing Trees To Be Retained
- Trees to be removed due to their condition as per the tree survey
- Trees to be removed - initial stages of decay as per the tree survey
- Trees to be removed and replaced by compensatory planting

N

Scale bar 1:500

0 10 20 30 40 50m

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev	
28/06/23	A	General drawing alterations as per planning setting
17/11/23	B	Site Boundary altered
02/11/23	C	General drawing alterations

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Tree Removal Plan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOJAS
DRAWING NUMBER: Z4-TR		PROJECT: C	DATE: JUNE 2023

Scott Hobbs Planning

Planning Statement on behalf of:
River Tay Development Ltd

Date:
08 November 2023

Planning Statement

Proposed Residential Development, Zone 4, Taymouth Castle Estate, Kenmore, PH15 2NT



Info

Application for Planning Permission:

Proposed amendments to the layout and design of homes approved by planning permissions 03/02250/PPLB and 11/00533/FLM

The Site

This Planning Statement supports a planning application for proposed residential development and amendments to the layout and design of homes approved by planning permissions 03/02250/PPLB and 11/00533/FLM at Zone 4, Taymouth Castle Estate, Kenmore, PH15 2NT

Contents

1.0 Introduction

2.0 Site and Surroundings

3.0 Planning History

4.0 The Proposed Development

Z4-01 Proposal

Z4-02 Proposal

Z4-03 Proposal

Z4-04 Proposal

5.0 Development Plan

Development Plan

NPF4

Perth and Kinross Local Development Plan 2019

National Planning Framework 4

6.0 Conclusion

1.0 Introduction

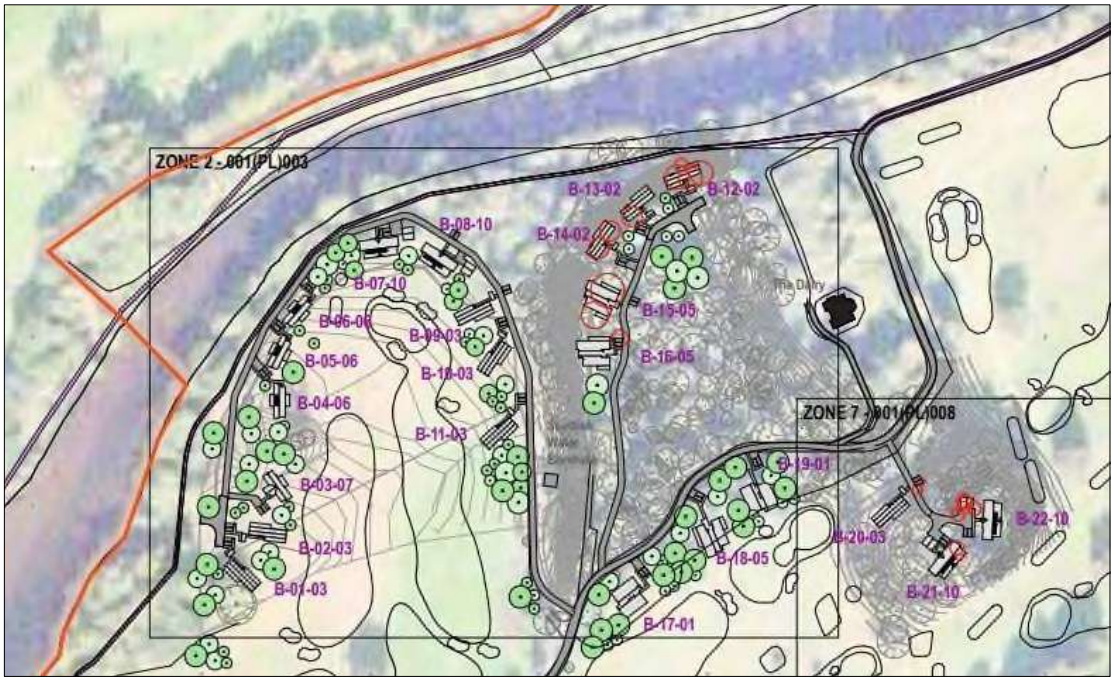
1.1 This Planning Statement is prepared on behalf of River Tay Development Ltd ('the Applicant') who is seeking detailed planning permission for residential development amendments to the layout and design of homes approved by the extant 2005 (0302250/PPLB) and 2011 (11/00533/FLM) planning permissions at Taymouth Castle Estate, Kenmore. Development commenced through the implementation of the first consent in late 2005, however worked ceased in late 2006 when the company undertaking the works went into administration. Planning and listed building consent was granted for development on site in June 2011. Development commenced on the second consent but again ceased due to funding uncertainties.

1.2 This Planning Statement supports the planning applications within Zone 4 of the Taymouth Estate. The proposals within the wider estate are broken down into Zones for masterplanning purposes.

Background

1.3 The masterplan submitted alongside the 2011 planning permission also split the proposed housing across the Taymouth Estate into separate zones. The 2011 approved masterplan is titled 'Estate Masterplan, Dwg No:001.L(90)001, Rev:F' and previously referred to the housing in this area as 'Zone 2' and partially, 'Zone 7'. Figure 1 below shows the layout and design of homes that were approved by that planning permission. The current application, described in Section 4 below, amends the layout in this zone and updates the house types being proposed.

Figure 1: Extract of the approved 2011 masterplan showing the zones relevant to this planning application



1.4 The 2011 consent has been implemented and the homes as consented could be delivered in their currently approved locations and designs. The principle of residential development in this area has already been established.

1.5 The Planning Statement will demonstrate that the modest amendments to the extant planning permissions of 2005 and 2011 in terms of the house types and positioning, the introduction of housing in new locations and the conversion of the Old Dairy Building is acceptable in the context of planning policy. It will also emphasise the improvements that have been made on the previously consented proposals in terms of technical matters.

1.6 This Planning Statement is part of a suite of documents supporting the planning application as follows:

- **Planning Statement**
- Design Statement
- Heritage Statement
- Flood Risk Report
- Ecology Statement

- Arboriculturalist Report

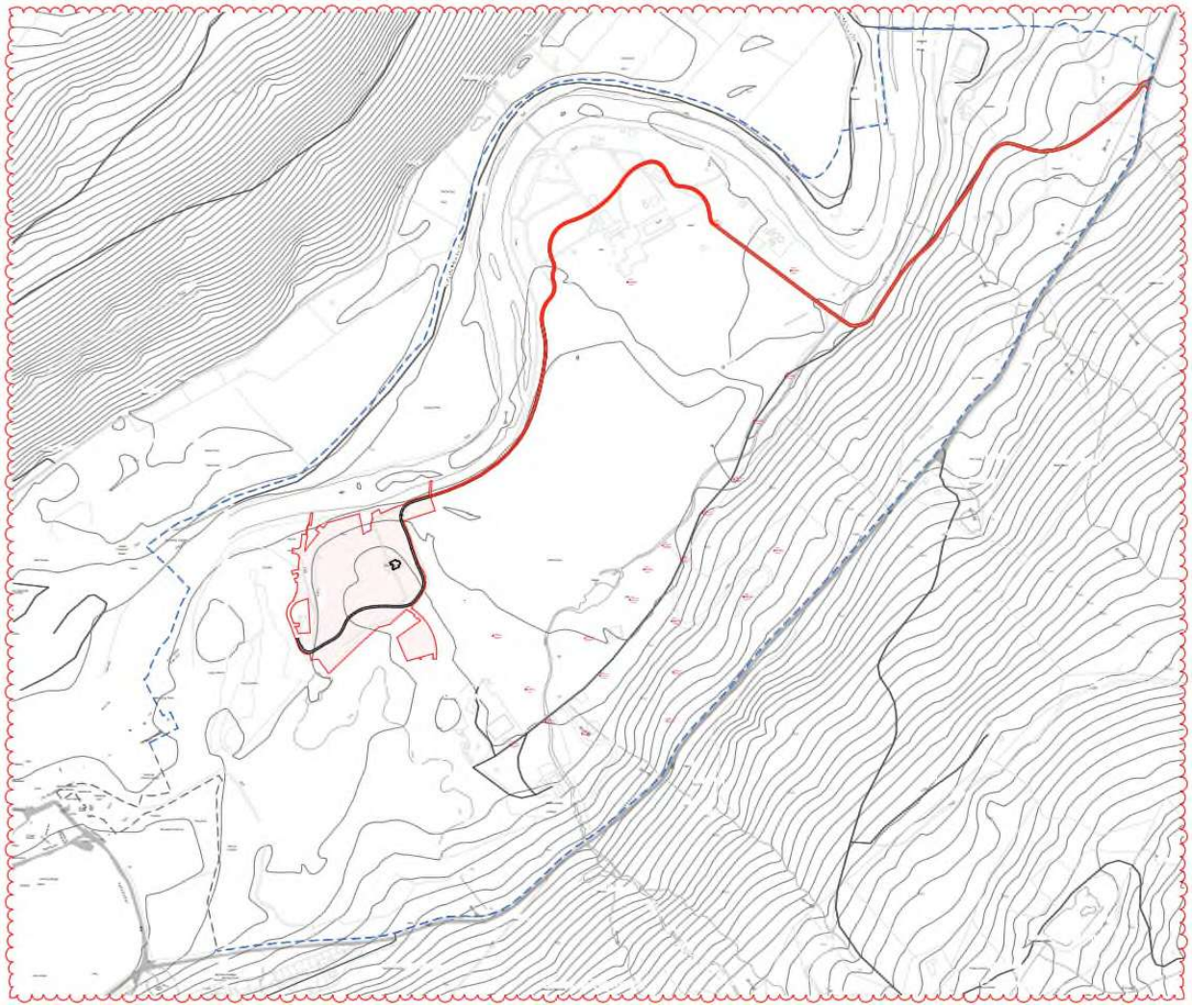
1.7 The Planning Statement will describe the sites and the surrounding area; explain the planning history; describe the proposed development; consider the proposed development against the Development Plan and other material considerations; and reach conclusions on the acceptability of the proposed development.

2.0 Site and Surroundings

2.1 Taymouth Castle Estate is located in Highland Perthshire approximately 1.5km northeast of the village of Kenmore. The Castle is a Category A Listed Building which sits within an extensive estate which is designated as a Designed Garden and Landscape. There are a number of other Category B and C Listed Buildings and structures within the estate. The River Tay runs from the southwest corner of the estate in a north easterly direction past Taymouth Castle. The A827 public road which links Kenmore with Aberfeldy to the east is situated to the southeast of the application site. The village of Kenmore is located directly adjacent to the southwest boundary of the application site.

2.2 The Estate is bounded to the north and east by the River Tay, to the south by the public road, A827 and to the west by the village of Kenmore. The village of Kenmore is split into north and south section by the River Tay. The north section of the village has a predominantly tourism and leisure use whilst the south is predominantly residential. Figure 2 shows the location of Zone 4 within Taymouth Castle Estate. Zone 4 is bound by the River Tay immediately to the north. The land to the east, south and west is to be developed as part of the Golf Course.

Figure 2: Zone 4 Location Plan



3.0 Planning History

3.1 Taymouth Castle Estate has been subject to a variety of applications over the years, the most relevant of which have been listed in the table in Appendix 1. This table is not an exhaustive list of applications within the Estate but provides a clear overview of the most recent and relevant applications approved within the Estate. The extant planning permissions were granted in 2005 and 2011, both of which have been implemented and remain live in perpetuity.

3.2 In March 2005 planning permission (reference 03/02250/PPLB) was granted for the redevelopment of Taymouth Castle Estate to include the restoration of the castle to form a hotel, extension to incorporate 72 hotel suites, erection of spa within Newhall Kennels. The construction of 63 lodges and 26 new fractional ownership houses, conversion of existing buildings to form 7 fractional ownership houses, erection of 16 staff houses, erection of equestrian centre, infra structure and engineering works including sewage treatment works and associated landscaping and maintenance proposals.

3.3 In July 2011 planning permission was granted for the erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to the golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of the castle.

3.4 Appendix 1 provides an overview of the planning history relevant to the housing applications within Taymouth Estate. Table 1 below details recently approved housing applications within Taymouth Estate.

Table 2: Recently approved housing applications within Taymouth Estate

Reference	Address	Description	Decision and Date
22/01484/FLL	Taymouth Castle, Kenmore, PH15 2NT	Erection of 8 estate properties, 2 garages and associated works (Zone D2)	16/02/2023
22/01485/FLL	Taymouth Castle, Kenmore, PH15 2NT	Erection of 6 estate properties, a garage and associated works (Zone D1)	16/02/2023
22/01486/FLL	Taymouth Castle, Kenmore, PH15 2NT	Erection of 5 estate properties, a replacement estate property, 6 garages and associated works (Zone C4)	15/03/2023
22/01487/FLL	Taymouth Castle, Kenmore, PH15 2NT	Erection of 5 estate properties and associated works (Zone C1)	16/02/2023

4.0 The Proposed Development

4.1 Eighteen residential units are proposed within Zone 4. Nine of these represent modest repositioning within largely the same plots as approved through the extant planning permission from 2011. The remaining nine units are in new locations. This is illustrated in Figure 3 below which shows that in comparison to the 2011 masterplan and the specific area identified in Figure 1, the Zone 4 residential area is smaller, more compact and reduces the number of units fronting the River Tay.

4.2 Figure 3 below shows the current proposals. The previously approved house locations are outlined in blue. In comparing Figures 1 and 2 the current proposals represent a reduction in the number of units proposed and the area over which residential units are to be located. The area in Figure 1 where plots B-01-03, B-02-03, B-03-07, B-04-06, B-05-06, B-06-06, B-07-10, B-08-10, B-09-03, B-10-03, B-11-03 are located, is no longer to be developed for residential purposes. It will instead be developed as part of the upgraded golf course as consented through the discharge of condition 42 associated with planning permission 11/00533/FLM.

4.3 Figure 1 illustrates the location of the 22 residential units that were consented as part of the approved 2011 masterplan. 18 units are proposed through the current Zone 4 proposals. 9 of these units are to be located in largely the same location as 9 of the units detailed in the 2011 masterplan. However, the other 9 are proposed in entirely new locations to the east.

Figure 3: Proposed Zone 4 Masterplan



4.4 Development within Zone 4 is broken down into seven separate applications including a total of 18 residential units. The details of these are as follows:

- Z4-01 – Erection of 9 estate properties, construction of access roads connecting to existing estate roads and associated works (Z4-01). Covering an area of approx. 1.45ha.

- Z4-02 – Erection of 7 estate properties, construction of access roads connecting to existing

estate roads and associated works (Z4-02). Covering an area of approx. 1.80ha.

- Z4-03 – Change of use and alterations to dwellinghouse to form clubhouse, formation of outdoor seating area, access track and parking area and installation of private foul water treatment plant at The Dairy, Taymouth Castle, Kenmore. Covering an area of approx. 1.83ha

- Z4-03 (Associated Listed Building Consent application) Internal and external alterations, including introduction of exterior seating area, and construction of new floor space at first floor level. Covering an area of approx. 1.83ha.

- Z4-04 – Erection of 2 estate properties and 2 garages, construction of access road connecting to existing estate road and associated works (Z4-04). Covering and area of approx. 0.40ha.

- Access Road – Formation of vehicular access road to provide access between Zone 4 housing site and East Gate.

4.5 Siting of the houses has taken full cognisance of any critical views or vistas across the estate, and in particular the key views identified in the landscape management plan for the estate. A significant opportunity is accommodating views towards Kenmore village and Loch Tay, and across the golf course. House locations and orientation have been developed to maximise these views whilst minimising visual intrusion on the designed landscape.

Z4-01 Proposal

4.6 Z4-01 comprises 9 houses, as detailed and shown in Figure 5 below.

Figure 5: Site plan showing batch Z4-01



4.7 The site of Z4-01 previously received consent through the extant 2005 and 2011 planning permissions for the erection of 5 residential units as detailed in Figure 4 & 5. The current proposals see a moderate increase in the footprint of, and re-orientation of these 5 units and the erection of a further 4 units bring the total to 9. These are the two plots to the east of the main access track and the two plots to the west of the main access track which are at each end of the row of proposed housing. The new plots within Z4-01 are achievable and can be constructed without any detriment to the site and wider estate. This is evidenced through the supporting Flood Risk Assessment, Drainage Strategy, Tree Survey and Ecology Report submitted as part of the application.

Z4-02 Proposal

4.8 Z4-02 comprises of 7 houses, as detailed and shown in Figure 5 below.

Figure 5: Site plan showing batch Z4-02



4.9 The site of Z4-02 previously received consent through the extant 2005 and 2011 planning permissions for the erection of 4 residential units as detailed in Figures 4 & 6. The current proposals see a moderate increase in the footprint of, and re-orientation of these 4 units and a further 3 units are to be added, on the north side of the existing access road, making a total of 7. The new plots within Z4-01 are achievable and can be constructed without any detriment to the site and wider estate. This is evidenced through the supporting Flood Risk Assessment, Drainage Strategy, Tree Survey and Ecology Report submitted as part of the application.

Z4-03 Proposal

4.10 Z4-03 relates to the category A listed, Old Dairy Building within Taymouth Estate. The proposed site plan is detailed in Figure 6 below.

Figure 6: Site plan showing batch Z4-03



4.11 Proposals for the listed building include change of use and alterations to form a clubhouse, the formation of an outdoor seating area, access track and parking area and the installation of a private foul water treatment plant. The submitted HIA titled 'Heritage Impact Assessment – Taymouth Castle Dairy, Kenmore – October 2023' provides a detailed justification for the proposals and the works which are to be carried out on the listed building.

4.12 As detailed in Figure 3, Zone 4 will be bound by the River Tay to the north and the golf course to the east, south and west. The clubhouse will support the golf course and will provide toilet facilities, a small retail space and a bar and dining area. The private foul water treatment plant will service the clubhouse and the residential development within Zone 4.

Z4-04 Proposal

4.13 Z4-04 comprises of 2 houses, as detailed and shown in Figure 7 below.

Figure 7: Site plan showing batch Z4-04



4.14 The location of plots GC-17 and GC-18 as detailed in Figure 7 are in the approximate location of plots B-20-03, B-21-10 and B-22-10 as detailed in the approved 2011 masterplan (Figure 1)

4.15 Therefore, the proposals for site Z4-04 will see a reduction in the number of units, from the approved 3 to 2. The new plots within Z4-04 are achievable and can be constructed without any detriment to the site and wider estate. This is evidenced through the supporting Flood Risk Assessment, Drainage Strategy, Tree Survey and Ecology Report submitted as part of the application.

Design and Materials

4.16 The design of the proposed housing has been carefully considered as part of the design process to harmonise and blend in with the landscape environment of Taymouth Estate. The proposed housing designs have been modestly enlarged to increase the footprint and area of the building envelope whilst minimising the volume of the proposed house design.

4.17 The roof finish to pitched flat roofs is to be in standing seam zinc or grey finished metal roofing. Rainwater goods are to be metal and finished in graphite grey paint finish. UPVC and plastic facias, soffits and eaves and other external finishes are not permitted.

4.18 Walls shall be principally in timber (cedar or larch if untreated), natural local stone (Grey whinstone unless agreed otherwise). Timber will be either natural (with pre-weathered coating to provide a consistent silver/grey weathered look from the onset), or if stained in a in a colour consistent with the agreed estate colour range palate.

4.19 Windows and doors should have high quality timber frames aluminium clad finished in grey or to compliment wall finishes and will have a vertical emphasis. Larger areas of glazing are permitted if carefully located to take advantages of light, solar gain, and outward views from the house.

4.20 The proposed external decking will be of timber construction and the balustrades to balconies will be of glass construction. Any exposed steelwork will be finished in a graphite grey paint to limit its prominence.

4.21 The proposed material palette has been carefully selected to harmonise with the natural environment and to reduce the visual impact and prominence of the proposed houses. The materials proposed are largely sustainable and effort will be made to locally source materials such as the natural stone, which is a key building material for the proposed houses.

4.22 The houses have been designed and positioned carefully to take into account adjacent trees and their root protection areas as well as taking into account the harsh gradient of the land across various plots. The massing of the two storey houses with basement levels have been carefully designed to sit against these steep gradients to reduce the prominence and visual impact such a tall structure would have upon the landscape of the estate. Each plot is served by a generous garden with ample space to enjoy the private amenity space and provide sufficient private parking for residents.

4.23 Full details of the proposed development and the scheme evolution can be found within the Design Statement submitted in support of this application.

5.0 Development Plan

5.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended) dictates that planning applications should be determined in accordance with the Development Plan unless material considerations indicate otherwise.

5.2 The Development Plan of relevance to the determination of the planning applications is the National Planning Framework 4 (NPF4) which sets out spatial principles, regional priorities, national developments and national planning policy, and the Perth and Kinross Local Development Plan 2019 which sets out specific and detailed policies to guide the location and form of development within Perth and Kinross.

NPF4

5.3 **Policy 1 – Tackling the Climate and Nature Crises** states that when considering all development proposals significant weight will be given to the global climate and nature crises.

5.4 The proposals seek planning permission for the erection of 18 residential units within Taymouth Castle Estate. A total of 9 units relate to the amendments to the layout and design changes to the housing approved under the extant 2005 and 2011 planning permissions. The remaining 9 units are in new locations and so should be assessed accordingly. The proposals are all relatively modest in terms of height changes, re-location of houses and general design changes and the planning application and accompanying documents demonstrate that they will not have a harmful impact on the character of the wider estate. The proposals have been designed with reference to climate change by the use of low carbon materials and taking into account the potential impact of flooding on the approved house plots by ensuring the finished floor levels are of sufficient height. Full details are provided in the Flood Risk Assessment. The proposals comply with Policy 1.

5.5 **Policy 2 – Climate Mitigation and Adaptation** states:

a) Development proposals will be sited and designed to minimise lifecycle greenhouse gas emissions as far as possible.

b) Development proposals will be sited and designed to adapt to current and future risks from climate change.

c) Development proposals to retrofit measures to existing developments that reduce emissions or support adaptation to climate change will be supported.

5.6 The proposals have been designed with reference to climate change by the use of low carbon materials and taking into account the potential impact of flooding on the approved house plots by ensuring the finished floor levels are of sufficient height. The proposals comply with Policy 2.

5.7 **Policy 3 – Biodiversity** states that proposals for local development will include appropriate measures to conserve, restore and enhance biodiversity, in accordance with national and local guidance. It also states that measures should be appropriate to the nature and scale of the development.

5.8 A Phase One Habitat Survey of Zone 4 has been carried out. The proposed residential development and amendments to the layout and design changes to the previously approved housing under the extant 2005 and 2011 planning permissions will not have a significant impact upon the biodiversity of the application site. There will also be no negative impacts upon species such as badgers, bats, birds or squirrels provided the recommendations set out in the Ecology Assessment are adhered to. The survey concluded that whilst development within housing Zone 4 will result in the loss of low value semi-natural habitat, there will be a negligible adverse impact on biodiversity from these habitats. It also concluded that the proposals would in fact have a positive effect on biodiversity in the area. The proposal is therefore in accordance with Policy 3.

5.9 **Policy 4 – Natural Places** states that development proposals that are likely to have a significant effect on a Special Area of Conservation and which are not directly connected with or necessary to their conservation management are required to be considered in terms of their implications for conservation objectives.

5.10 The proposals seek to amend the design and layout of 9 of the residential units included in the extant planning permissions of 2005 and 2011, as well as introduce 9 units in a different location. As a result, residential development will be concentrated to the proposed Zone 4 area. In comparison to the 2011 consent the latest proposals will have less of an impact on the natural environment and the wider Taymouth Estate because of the fact that the residential development will be concentrated within a smaller area. The proposals comply with Policy 4.

5.11 **Policy 6 – Forestry, Woodland and Trees** states that development proposals will not be supported if they result in the loss of ancient woodlands or have an adverse impact on native woodlands, hedgerows and individual trees of high biodiversity value. The submitted Arboricultural Assessment considers the potential impact of building and development and the introduction of associated infrastructure on the tree population as found within the Zone 4 site. It justifies the proposed residential development within Zone 4 and details why it will have no adverse implications for native woodlands, hedgerows and individual trees. Ultimately, the proposals comply with Policy 6 of NPF4.

5.12 **Policy 7 – Historic Assets and Places** states that development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting.

5.13 Taymouth Estate is a designated Gardens and Designed Landscape. The proposals seek to amend the design and layout of 9 of the residential units included in the extant planning permissions of 2005 and 2011, as well as introduce 9 units in different locations. Given the nature of the proposals it is not envisaged that they these amendments will have a harmful impact on the setting of the Gardens and Designed Landscape.

5.14 The proposals for the category A listed, Old Dairy Building within Taymouth Estate involve the change of use and alterations to form a clubhouse, the formation of an outdoor seating area, access track and parking area and the installation of a private foul water treatment plant. The proposals will involve the restoration and repainting of the existing timber rustic columns and the careful restoration of the existing slate roof. All works associated with the building will be respective of its historic status and the character of the wider estate. The submitted HIA titled 'Heritage Impact Assessment – Taymouth Castle Dairy, Kenmore – October 2023' provides a detailed justification for the proposals and the works which are to be carried out on the listed building.

5.15 The proposal is therefore in accordance with Policy 7.

5.16 **Policy 12 – Zero Waste** states that development proposals will seek to reduce, reuse or recycle materials in line with the waste hierarchy.

5.17 The proposal seeks to use locally sourced natural stone as a primary material for the external walls of the proposed housing. It is also proposed to use sustainable materials such as timber for external features such as sections of cladding, decking and windows and doors. A number of the proposed houses will also feature solar panels to their elevation roof slopes to assist with the generation of renewable energy. The proposal is therefore in accordance with Policy 12.

5.18 **Policy 14 – Design, Quality and Place** states that development proposals should be designed to improve the quality of an area whether in urban or rural locations and regardless of scale. The Policy also requires that development proposals will be supported where they are consistent with the six qualities of successful places: Healthy, Pleasant, Connected, Distinctive, Sustainable and Adaptable.

5.19 The proposals relate to the amendments to the layout and design changes to the housing approved under the extant 2005 and 2011 planning permissions. These proposed changes are all relatively modest in terms of height changes, re-location of houses and general design changes. Therefore, they will not have a harmful impact on the character of the wider estate. The proposals have been designed with reference to climate change by the use of low carbon materials and taking into account the potential impact of flooding on the approved house plots by ensuring the finished floor levels are of sufficient height. The design of the proposals are further justified by the submitted Design and Access Statement. The proposal is therefore in accordance with Policy 14.

5.20 **Policy 17 – Rural Homes** states that development proposals for new homes in rural areas will be supported where the development is suitably scaled, site and designed to be in keeping with the character of the area and the development.

5.21 The proposals seek to amend the design and layout of 9 of the residential units included in the extant planning permissions of 2005 and 2011, as well as introduce 9 units in different locations. The latest proposals will therefore have a lesser impact on the character of the area in comparison to the development granted in 2011. The proposals have been designed to integrate well with the rural character of the area.

5.22 **Policy 22 – Flood Risk and Water Management** states that development proposals will not:

- Not increase the risk of surface water flooding to others, or itself be at risk.
- Manage all rain and surface water through sustainable urban drainage systems (SUDS), which should form part of and integrate with proposed and existing blue-green infrastructure. All proposals should presume no surface water connection to the combined sewer.
- Seek to minimise the area of impermeable surface.

5.23 The proposals will not increase the risk of surface water flooding to both itself and neighbouring developments, will incorporate sustainable urban drainage systems and will seek to minimise the area of impermeable surface. The flooding and drainage solutions are justified and detailed in the Flood Risk Assessment and Drainage Strategy which have been submitted as part of this application. Ultimately, the proposals comply with Policy 22.

Perth and Kinross Local Development Plan 2019

5.24 **Policy 1A: Placemaking –** Development must contribute positively to the quality of the surrounding built and natural environment and the design, density and siting of development should respect the character and amenity of the place including improvement to links within and, where practical beyond, the site. All development should be planned and designed with reference to climate change, mitigation and adaption.

5.25 The proposals are all relatively modest in terms of height and general design and have been assessed to consider the impact on the character of the wider estate. The proposals have been designed with reference to climate change by the use of low carbon materials and taking into account the potential impact of flooding on the approved house plots by ensuring the finished floor levels are of sufficient height. The Design and Access Statement titled 'Amendments to Consented Housing (Areas Z4-01, Z4-02, Z4-03, Z4-04, Z4-05 and proposed new access track)', dated September 2023, justifies the proposed design and details the reasoning for its compliance with local and national policy. The proposal is therefore in accordance with Policy 1A.

5.26 **Policy 1B: Placemaking –** All proposals should meet all ten of the placemaking criteria:

- Create a sense of identity by developing a coherent structure of streets, spaces and buildings, safely accessibly from its surroundings.

- consider and respect site topography and any surrounding important landmarks, views or skylines, as well as the wider landscape character of the area.
- the design and density should complement its surroundings in terms of appearance, height, scale, massing, materials, finishes and colours.
- respect an existing building line where appropriate or establish one where none exists. Access, uses and orientation of principal elevations should reinforce the street or open space.
- all buildings, streets and spaces (including green spaces) should create safe, accessible, inclusive places for people, which are easily navigable, particularly on foot, bicycle and public transport
- buildings and spaces should be designed with future adaptability, climate change and resource efficiency in mind where possible.
- existing buildings, structures and natural features that contribute to the local townscape should be retained and sensitively integrated into proposals; and
- incorporate green infrastructure into new developments to promote active travel and make connections where possible to blue and green networks.
- Provision of satisfactory arrangements for the storage and collection of refuse and recyclable materials (with consideration of communal facilities for major developments).
- Sustainable design and construction.

5.27 The amended design and layouts respect the site topography by positioning the houses to attach to the steep gradients across the application zones. The proposed design reduces the visual prominence of the houses within the attractive landscape setting of the estate. The housing has been zoned and positioned to create small clusters of detached houses within the estate. As there are no pre-defined building lines the proposal seeks to position each house within its respective, generous plot. It would not be suitable to define a straight building line given the location and setting of the housing. The proposal will link to the wide network of paths within the estate that link to surrounding areas. The proposal will provide adequate storage and collection arrangements for refuse and will be of a sustainable design and construction. The Design and Access Statement titled 'Amendments to Consented Housing (Areas Z4-01, Z4-02, Z4-03, Z4-04, Z4-05 and proposed new access track)', dated September 2023, includes a Visual Impact Assessment on page 16. It considers the visual impact of the proposed housing amendments as compared to the residential estate properties approved under the 2011 extant consent and lists the improvements that have been made.

5.28 The proposals for the category A listed, Dairy Building within Taymouth Estate involve the change of use and alterations to form a clubhouse, the formation of an outdoor seating area, access track and parking area and the installation of a private foul water treatment plant. The proposals will involve the restoration and repainting of the existing timber rustic columns and the careful restoration of the existing slate roof. All works associated with the building will be respective of its historic status and the character of the wider estate. The submitted Heritage Statement further supports the proposals associated with Dairy Building, providing a more in depth analysis of its history, and internal and external features, whilst also consider the specific proposals. The proposal is therefore in accordance with Policy 1B.

5.29 **Policy 2: Design Statements** will normally need to accompany a planning application if the development is non-residential use greater than 0.5ha in area. A design statement that outlines the rationale and design-led approach of the proposed development is submitted as part of the application. The proposal is therefore in accordance with Policy 2.

5.30 **Policy 5 – Infrastructure Contributions** states that where the cumulative impact of new developments will exacerbate a current or generate a future need for additional infrastructure provision or community facilities, planning permission will only be granted where contributions which are reasonably related to the scale and nature of the proposed development are secured The relatively modest changes proposed by the planning applications will not place any significant additional strain on local community facilities. The proposal is therefore in accordance with Policy 5.

5.31 **Policy 8 – Rural Business and Diversification** provides that favourable consideration will be given to the expansion of existing businesses and the creation of new business. There is a preference that this will generally be within or adjacent to existing settlements. Sites out with settlements may be acceptable where they offer opportunities to diversify an existing business or are related to a site-specific resource or opportunity.

5.32 Proposals for new tourism related development will be supported where it can be demonstrated that they improve the quality of new or existing visitor facilities, allow a new market to be exploited, or extend the tourism season. This is provided that permanent employment is created, or additional tourism or recreational facilities are provided, or existing buildings are re-used. All proposals are required to meet all the criteria set out in the policy.

5.33 The proposals will contribute to the local economy by creating jobs throughout the construction of the proposal and the wider developments at Taymouth Estate. The proposed 18 residential units are carefully designed and positioned to prevent an over-suburbanisation of the estate. As agreed in the previous extant planning permissions, the housing within the estate is required to facilitate the restoration of Taymouth Castle. The Masterplan includes reference to the east wing extension of the Castle, new planning and listed building consent applications for which were approved in June 2023. The total investment in the Castle restoration, refurbishment and extension works is significant, with the first phase of restoration and refurbishment works due to be completed by May 2024. The submitted Strategy Planning Framework and Heritage Schedule detail the progress that has been made in relation to the other heritage assets across the estate. The proposal does not feature any retail elements. Therefore, the proposal is in accordance with Policy 8.

5.34 **Policy 19 – Housing in the Countryside** supports proposals for the erection, or creation through conversion, of single houses and small groups of houses in the countryside which fall into at least one of the six specified categories. As previously agreed through the extant planning permissions of 2005 and 2011 the proposed housing is required to facilitate the renovation of Taymouth Castle, a Category A Listed building. The proposed housing will not result in any adverse effects on the River Tay SACs. The proposal is therefore in accordance with Policy 19.

5.35 **Policy 26B – Archaeology** seeks to protect areas or sites of known archaeological interest and their settings. No Archaeological Survey has been undertaken yet in relation to the Zone 4 site. It is expected that the requirement to carry one out will be imposed through the attachment of a condition to any decision notice that is issued. This is the approach that was taken in relation to the consents that were issued for the housing sites within Zone 1. Such conditions required the approval of a Written Scheme of Investigation prior to the commencement of development and for monitoring to take place during construction. It is expected that this approach will be taken again in relation to Zone 4. The proposal is therefore in accordance with Policy 26B.

5.36 **Policy 29 – Gardens and Designed Landscapes** seeks to manage change in order to protect and enhance the integrity of those sites included on the current Inventory of Gardens and Designed Landscapes. The Council may require the submission of a management plan with any application for development within areas included in the current Inventory. Taymouth Estate is a designated Gardens and Designed Landscape. The proposals seek to amend the design and layout of 9 of the residential units included in the extant planning permissions of 2005 and 2011, as well as introduce 9 units in different locations. The Design Statement and Heritage Statement as submitted with the planning applications have demonstrated that the scale and siting of the proposed housing will be acceptable in terms of the setting of the Gardens and Designed Landscape. The proposal is therefore in accordance with Policy 29.

5.37 P**olicy 32 – Embedding Low and Zero Carbon Generating Technology in New Development** states that proposals for all new buildings will be required to demonstrate that at least 10% of the current carbon emissions reduction set by Scottish Buildings Standards will be met through the installation and operation of low and zero-carbon generating technologies.

5.38 The proposal seeks to use locally sourced natural stone as a primary material for the external walls of the proposed housing. It is also proposed to use sustainable materials such as timber for external features such as sections of cladding, decking and windows and doors. A number of the proposed houses will also feature solar panels to their elevation roof slopes to assist with the generation of renewable energy. The proposal is therefore in accordance with Policy 32.

5.39 **Policy 40B – Forestry Woodland and Trees** requires a presumption in favour of protecting trees and woodland resources.

5.40 As noted in the Arboricultural Assessment submitted alongside this Planning Statement the proposal has carefully considered and surveyed the trees within the application zones. The submitted tree report considers the potential impact of building and development and the introduction of associated infrastructure on the tree population as found within the Zone 4 site. It justifies the proposed residential development within Zone 4 and details why it will have no adverse implications for native woodlands, hedgerows and individual trees.

5.41 **Policy 41 – Biodiversity** highlights that the council will seek to protect and enhance all wildlife and wildlife habitats whether formally designated/protected or not, taking into account the ecosystems and natural processes in the area. Developers may be required to ensure detailed surveys are undertaken by qualified specialist where one or more protected or priority species is known or suspected.

5.42 As referred to in relation to Policy 3 of NPF4, A Phase One Habitat Survey of Zone 4 has been carried out. It relates to all of the application sites submitted for Zone 4. The full results of this survey can be viewed within the submitted Ecology Assessment. The proposal was concluded to be in accordance with the criteria of Policy 41.

5.43 **Policy 52 – New Development and Flooding** supports the delivery of the actions and objectives to avoid an overall increase, reduce overall and manage flood risk as set out within the relevant SEPA Flood Risk Management Strategies and the Local Flood Risk Management Plans. A Flood Risk Assessment (FRA) has been prepared as part of this submission and evidences that full consideration has been given to flood risk matters.

5.44 **Policy 53B – Foul Drainage** states that in settlements where there is little or no public sewerage system, a private system may be permitted provided it does not have an adverse effect on the natural and built environment, surrounding uses and amenity of the area. For a private system to be acceptable it must comply with the Scottish Building Standards Agency Technical Handbooks and applicants should also demonstrate suitable maintenance arrangements will be put in place for communal systems.

5.45 **Policy 53C – Water Environment and Drainage: Surface Water Drainage** requires all new development to employ Sustainable Urban Drainage Systems (SUDs) measures including relevant temporary measures at the construction phase. The accompanying Drainage Assessments submitted for each of the planning applications demonstrate that appropriate treatment, attenuation and disposal of surface water runoff generated by the development can be provided. Maintenance responsibilities and final approval mechanisms are identified to ensure the effective ongoing operation of SuDS measures. The key end of line systems is proposed to be maintained in perpetuity by the owners of Taymouth Castle Estate. The planning applications are therefore in accordance with Policy 53C.

6.0 Conclusion

6.1 Section 25 of the Town and Country Planning (Scotland) Act 1997 (as amended) dictates that planning applications should be determined in accordance with the Development Plan unless material considerations indicate otherwise.

6.2 The proposed development will seek to amend the layout and design of 9 of the residential units that were previously approved through the extant 2005 and 2011 planning permissions, as well as introduce 9 units in new locations. Some of the housing that was approved under the 2011 consent will not be implemented and instead residential development will be concentrated within the newly proposed Zone 4 area. The proposals have been carefully designed in terms of their arrangement, layout, design, density and mix of housing. The design has been primarily led by the immediate landscape and setting of the estate. The proposal seeks to utilise the sloping nature of the site to reduce the visual prominence of the proposed two storey houses. The number of housing proposed in each zone has been carefully limited to prevent suburbanisation of the estate and to provide high quality housing with excellent amenity space. Additionally, the proposed conversion of the Old Dairy building will have no adverse implications for the integrity of the A listed building and the character of the Garden and Designed Landscape in which it is located.

6.3 The proposed development will not have a harmful impact upon the biodiversity of this part of the estate as noted in the Ecology Assessment. Additionally, the only trees that will be removed from the application site are those which have been identified as being of poor quality with a limited lifespan, as per the Arboricultural Assessment. The remaining trees will be carefully managed to prevent any damage or loss to them.

6.4 The Planning Statement has demonstrated, through reference to the accompanying suite of supporting documents, most notably the Design Statement, that the planning application is acceptable in the context of the Perth and Kinross Local Development Plan 2019.

6.5 Planning permission should therefore be granted for the proposed developmen

7.0 Appendices

Appendix 1

Reference	Address	Description	Decision & Date
03/02250/PPLB	Taymouth Castle, Kenmore, PH15 2NT	Redevelopment of Taymouth Castle Estate to include restoration of Castle to form hotel, extension to incorporate 72 hotel suites, erection of spa within Newhall Kennels, Construction of 63 lodges and 26 new fractional ownership houses, conversion of existing buildings to form 7 fractional ownership houses, erection of 16 staff houses, erection of equestrian centre, infrastructure and engineering works and associated landscaping and maintenance works.	Approved 9 March 2005
11/00533/FLM	Taymouth Castle, Kenmore, PH15 2NT	Erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of castle.	Approved 1 July 2011
11/00530/FLM	Taymouth Castle, Kenmore, PH15 2NT	Deletion of conditions 4 and 5 of planning consent 03/02250/PPLB	Approved 24 June 2011
11/00531/LBC	Taymouth Castle, Kenmore, PH15 2NT	Modification of existing consent 03/02250/PPLB for revised proposals within the east wing to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing.	Approved 04 August 2011

11/01011/LBC	Dairy House, Taymouth, Kenmore, Aberfeldy, PH15 2NT	Alterations and extension	Approved 16 December 2011
11/01013/FLL	Dairy House, Taymouth, Kenmore, Aberfeldy, PH15 2NT	Alteration and extension to dwelling house	Approved 15 November 2011
12/00961/FLL	Taymouth Castle, Kenmore, PH15 2NT	Erection of a pumping station building.	Approved 17 July 2012
14/02108/LBC	Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT	Alterations to internal layout to form hotel accommodation	Approved 27 February 2015
15/00692/LBC	Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT	Alterations to internal layout	Approved 16 June 2015
16/00277/FLL	Dairy House, Taymouth, Kenmore, Aberfeldy, PH15 2NT	Alteration and extension to dwellinghouse	Approved 20 April 2016
16/00282/LBC	Dairy House, Taymouth, Kenmore, Aberfeldy, PH15 2NT	Alteration and extension to dwellinghouse	Approved 20 April 2016
22/00733/LBC	The Dairy, Taymouth,	Repair works to roof and timber columns (The Dairy)	Approved 23 June 2022
	Castle Kenmore		
22/01262/LBC	Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT	Erection of plant building, installation of LPG tanks, formation of vehicular access, path and associated works	Withdrawn 20 August 2022

Scott Hobbs Planning

24a Stafford Street
Edinburgh | EH3 7BD
0131 226 7225

info@scotthobbsplanning.com
www.scotthobbsplanning.com



Registered in Scotland No SC3388885



DESIGN STATEMENT

September 2023

Amendments to Consented Housing

(Areas Z4-01, Z4-02, Z4-03, Z4-04 and proposed new access track)

Taymouth Castle Estate
Kenmore, Perthshire

For The River Tay Castle LLP and
Discovery Land Company Ltd

Prepared by
McKenzie Strickland Associates
23 Bank Street,
Aberfeldy
PH15 2BB
t: 01887 829 228
e: info@msa-architects.com
www.msa-architects.com

Contents

1 INTRODUCTION AND BACKGROUND

2 SITE APPRAISAL: UNDERSTANDING THE ESTATE

3 DESIGN PROPOSALS

1) INTRODUCTION

i) Purpose of Statement

1. This Design Statement has been prepared on behalf of applicants The River Tay Castle LLP and their developer Discovery Land Company Ltd in support of a series of planning applications for the proposed amendments to housing designs approved previously under extant consents at Taymouth Castle. The document demonstrates the progression of the development proposals from site analysis and housing development requirements through to the proposed design solution within the context of the Designed Landscape and previously approved estate masterplan.
2. The design team have made significant efforts in understanding the site and site context, its history and heritage and physical condition in order to create a solution that respects its location and is one that provides a sensitive and positive redevelopment of the estate in terms of housing design and vision to and from the designed landscape.
3. This Statement has been prepared following review of the design and environmental statements prepared in 2003 and 2011 in support of consented applications for the redevelopment of Taymouth Castle Estate that were granted planning permission and Listed Building Consent in 2005 and 2011 (application reference 03/02250/PPLB and 11/00533/FLM respectively)
4. This statement should be read in conjunction with the Supporting Statement prepared by Scott Hobbs Planning and other accompanying supporting reports.

ii) Structure of Report

1. This report provides the planning and physical context for the proposed new development and clearly shows an informed design process, resulting in the illustrative masterplan.
2. In order to produce sensitive adjustments to the approved housing design solution we first needed to **understand the place**. This process evaluated the physical and historical characteristics of the site. Having considered these aspects of the site and setting, the proposed opportunities relative to the current owners brief were identified.
3. The **design development** was adjusted and refined to consider and accommodate both the analysis of the design team and the findings of environmental assessments carried out by a variety of relevant consultants. This results in a **design proposal** that clearly shows the evolution of the proposed development and responds to site context and positively contributes to the proposed development.
4. The statement covers the design proposals for all applications for proposed housing and development areas in Zone 4 as illustrated on accompanying drawings.
5. The statement also covers the design proposal and necessity for the new access track to the proposed housing zone through the 'D' of the castle.

iii) Background and Previous Approvals

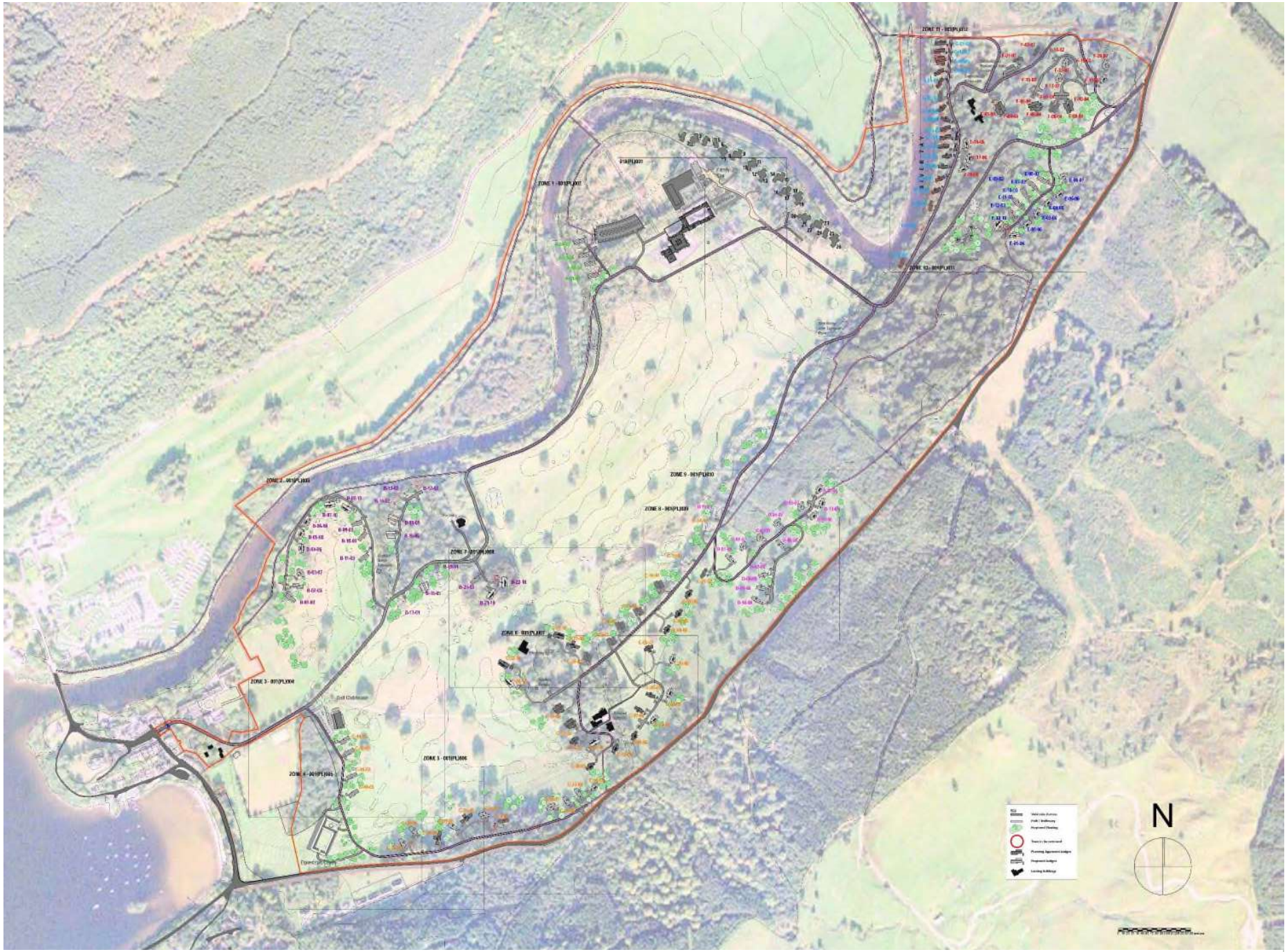
1. Taymouth Castle and its associated Estate is perhaps one of Scotland's most significant cultural assets. Taymouth Castle is a Category A Listed Building and the Estate is designated as a Historic Garden and Designed Landscape.
2. The landscape has changed over a period of time and use of the Estate has changed. In the 18th and 19th Centuries it was the home of the Campbells of Breadalbane with the high point in this period being the visit by Queen Victoria and Prince Albert in 1842. This historic phase of the Castle and Estate saw many changes in the structures and features present, with most of these now forming albeit important but largely hidden parts of the overall Estate setting today.
3. The more recent phases of the Castle and Estate has seen more dramatic changes in use and fortunes. Following purchase of the Estate from the Campbells in 1929 by the Mactaggart family, the Castle was converted into a Hotel. This period included the laying out of the Golf Course across the parklands by James Braid.
4. Come the outbreak of the Second World War the Castle was requisitioned to serve as a hospital for Polish officers and thereafter was used as a Civil Defence Training Camp in the 1950s. Between 1969 and 1975 it was then a school for the children of American servicemen stationed in Europe but has lain largely unused and un-occupied since that time.
5. Approved development was established by Planning and Listed Building Applications consented in 2005 (application reference 03/02250/PPLB) as amended in 2011 (11/00533/FLM) This included the approval of a total 163 new residential 'estate properties' across the site, summarised below:
   - 26 estate properties in the Castle Riverside area to the east and 4 to the west of Taymouth Castle)
   - 53 estate properties in the Newhall area (including 2 conversions of the existing Newhall Cottages)
   - 57 estate properties in the Sawmills and Dairy Byre area (including 4 conversions of the existing Dairy Byre, Sawmill/ Powerhouse cottages)
   - 4 estate properties in the Tom Na Croich area next to the proposed new golf clubhouse
   - 23 estate properties in the Dairy area (including the conversion of the A listed Dairy)
6. The planning permissions were for works to Taymouth Castle and the construction of 2 of the consented Estate Properties as show.
7. The applicants are committed to realising the majority of the previously approved development, including the important restoration works to the Historic Castle which is currently progressing as part of a multi-million-pound investment to fully restore the Category A Listed Building as existing approvals.

iv) Development Concept

1. Discovery Land Company is a premier US-based luxury residential real estate developer, and their vision for Taymouth Castle Estate is to create a world class resort by implementing sympathetic designs that reflect the cultural heritage of the area, with a dedicated commitment to renovate an important historic landscaped estate and to preserve the grandeur of the location.
2. The concept for the proposed development is to build upon existing consents and deliver a resort of international stature that can ensure the long-term viability of Taymouth Castle Estate. The development will deliver high quality resort facilities and housing that will not only respect the designed landscape but also positively enhance the historic setting.
3. Discovery Land has as a shared ambition to return the Estate to its former glory and secure sustainable resort that will act as a vehicle for the restoration of the Castle and Designed Landscape and help ensure the long-term conservation and management of the estate buildings and landscape.
4. The Taymouth development provides a unique opportunity to provide tangible economic and environmental benefits to the area through continuing engagement with the community. The improvements within the estate will provide significant economic benefits for the local and regional economy and safeguard Taymouth's cultural legacy for future generations.

v) Development Brief

1. The extant consent established the principal for sympathetic development of Estate Property Housing in the area of the estate which forms the subject of the accompanying applications.
2. In order to deliver this brief, the accompanying applications propose modest amendments to the size, design and locations of the previously consented housing in four areas within this part of the estate. These areas have been labelled Z4-01, Z4-02, Z4-03 and Z4-04.
3. The 2011 Consent identified these areas as Zone 2 which is West of The Dairy of Taymouth Estate.
4. As described later in this statement the accompanying designs aim to satisfy these requirements whilst accommodating the necessary development sympathetically within the context of the historic designed landscape.



2011 Consented Masterplan

2) SITE APPRAISAL

UNDERSTANDING THE ESTATE

i) Site Location and Description

1. Taymouth Castle and its Estate are located to the east of Kenmore, at the eastern end of Loch Tay, approximately 7.5 km, west of Aberfeldy on the River Tay. It lies within the Parishes of Kenmore and Dull, Perthshire and stands at the foot of Loch Tay, where the river issues from the loch. The first recorded building on this site was Balloch Castle (Am Bealach) a fortified house built in c.1559 from an original fortified tower.

2. Taymouth Castle lies about one and a half kilometres to the North-East of the village at the central point of a wide bow in the River Tay. Previously the full extent of the Estate lands extended onto the hills from skyline to skyline and beyond, the Designed Landscape using these existing hillsides as a context for its development.

3. Kenmore still effectively remains the Estate Village and stands at the foot of Loch Tay, where the river issues from the Loch, and at the west entrance to the Castle. The Castle is located at grid reference NN 784 466 and is set within a varied, interesting and valuable landscape. It lies just over half a kilometre to the North-East of the village at the geometric centre of a wide bow in the River Tay. The full extent of the Estate lands once extended to the north and south onto the hills from skyline to skyline.

4. The Estate now measures some 180ha and lies mainly on the flat ground within the extended flood plain of the river. Apart from the Castle itself, the landscape of the site contains a number of buildings designed for a variety of functions and embellishments in the park and wider landscape.

5. Taymouth Castle is Category A Listed and its surrounding landscape are arguably amongst Scotland's most important cultural heritage assets. It has laid empty and largely unused for many years. Although some maintenance has been carried out over the years the scale of the building(s) has made the task of keeping them in good order by the previous owners an overwhelming one.

ii) Estate History

1. Taymouth Castle is a Category A Listed Building and the Estate is designated as a Historic Garden and Designed Landscape. The Estate also includes 3 further Category A Listed Buildings (The Dairy, The Chinese Bridge and Maxwell's Tower) along with further Category B Listed Buildings.

2. The landscape has changed over a period of time as the use of the Estate has changed. In the 18th and 19th Centuries it was the home of the Campbells of Breadalbane with the high point in this period being the visit by Queen Victoria and Prince Albert in 1842. This historic phase of the Castle and Estate saw many changes in the structures and features present, with most of these now forming albeit important but largely hidden parts of the overall Estate setting today.

3. The more recent phases of the Castle and Estate has seen more dramatic changes in use and fortunes. Following purchase of the Estate from the Campbells in 1929 by the Mactaggart family, the Castle was converted into a hotel. This period included the laying out of the Golf Course across the parklands by James Braid. Come the outbreak of the Second World War the Castle was requisitioned to serve as a hospital for Polish officers and thereafter was used as a Civil Defence Training Camp in the 1950s. Between 1969 and 1975 it was then a school for children of American servicemen stationed in Europe but has lain largely unused and un-occupied since that time.

4. The Designed Landscape has been evolving over a period of 450 years in six distinct phases reaching its peak in 1862. Historical records, reviews and works of art suggests that the large-scale landscape has been constantly revised in response to changing tastes in landscape design and this has been well documented. The landscape today is essentially a mid-Victorian layout which was a modified 19th Century landscaped park incorporating various features. Since 1922 the designed landscape has ceased to be actively managed and is in an advanced state of decline. The estate is only part of the total designed landscape, which embraces the whole valley. The features of the designed landscape have been laid out to take advantage of the natural scenery and respond to the surrounding landscape.

5. The Designed Landscape comprises the following features:
   - Open space and parkland defined and enclosed by plantation woodland;
   - Garden structures and architectural features in specifically designed settings;
   - Walks and drives which connect the features and have specifically designed views which form vignettes;
   - Places away from the Castle to enjoy the landscape park critically;
   - Elevated interlocking viewpoints from where the wider landscape can be viewed and become part of the landscaped park;
   - Many mature trees including Semi Natural Ancient Woodland, Long Established Woodland of Plantations Origin and ornamental trees.



Landscape Compartments

iii) Landscape Analysis.

1. A detailed assessment of the historic landscape was contained in the Environmental Statement and Landscape Management Plan prepared in support of the 2011 planning approval. These assessments have been used to inform the adjusted siting of new development.
2. The estate landscape contains a diverse mix of woodland, scrub and fern, grassland, marsh as well as burns and water features
3. The estate has been split into the a series of distinct compartments which can be located in the figure opposite.
4. Those relevant to the accompanying applications are described below:

Compartment 5: South Terrace (including Ladies Mount

1. The South Terrace is located on the South bank of the River Tay and follows the natural topography of the riverside (as opposed to the level constructed North Terrace). The terrace line meets with the part of the Bow Walk on the North Lawn and travels West encompassing part of Tom More and Ladies Mount. It is formalised by rampart that exists near to the Castle end of the terrace. Mature beech exist along part of the terrace but they do not appear to have been so precisely planted as the beech trees on the North Terrace. There is now much unchecked tree regeneration along this terrace and the formal beech planting no longer forms a bold even aged line along the terrace.
2. Ladies' Mount is a natural hillock and today compromises of a small, wooded area densely covered with Rhododendron. It has been said to have been a more discreet viewing point for ladies to witness the hangings that occurred on Tom na Croiche. It was previously both an entry point for visitors to the estate and a viewing point with sketches made from here viewing over Kenmore and to the Loch.

Compartment 7: Deer Park West

1. This compartment is located to the southwest of the Castle and adjoins the Deer Park East as the title suggests. It now forms the main section of the Golf Course. The tree plantings are parkland landscape in nature (dominated by large deciduous specimens).
2. Photographic evidence has shown that some of the parkland trees are situated inside areas where the grass is allowed to grow to a long length during the summer while others have fine mowed turf growing up to the base. A stream runs through the southern edge of this compartment.

Compartment 11: Tom More

1. This is a natural hillock that is located between Deer Park West and Kenmore Park North. The vegetation is dominated by mature Rhododendron with associated regeneration, Oak and Beech. The Dairy building is situated within this area on the East face of the hillock, which was worked to form a formal earth terrace.
2. The Dairy has a view over the Deer Parks towards the Castle.
3. Areas appear to be remnants of a previously managed ornamental area with mature box and yew evident.
4. This hillock was once the main viewpoint within the park gaining views to the West and East. The 1720 plan shows trees and a summerhouse on the top, again shown in the 1735 view (Norie/Griffier). The Temple of Venus replaced the summerhouse in around 1755 with contemporary descriptions of surrounding trees and shrubs. 1830 saw the demolition of the Temple of Venus to enable the construction of The Dairy building, said to be built for a visit by Queen Victoria.

Compartment 13: Kenmore Park North

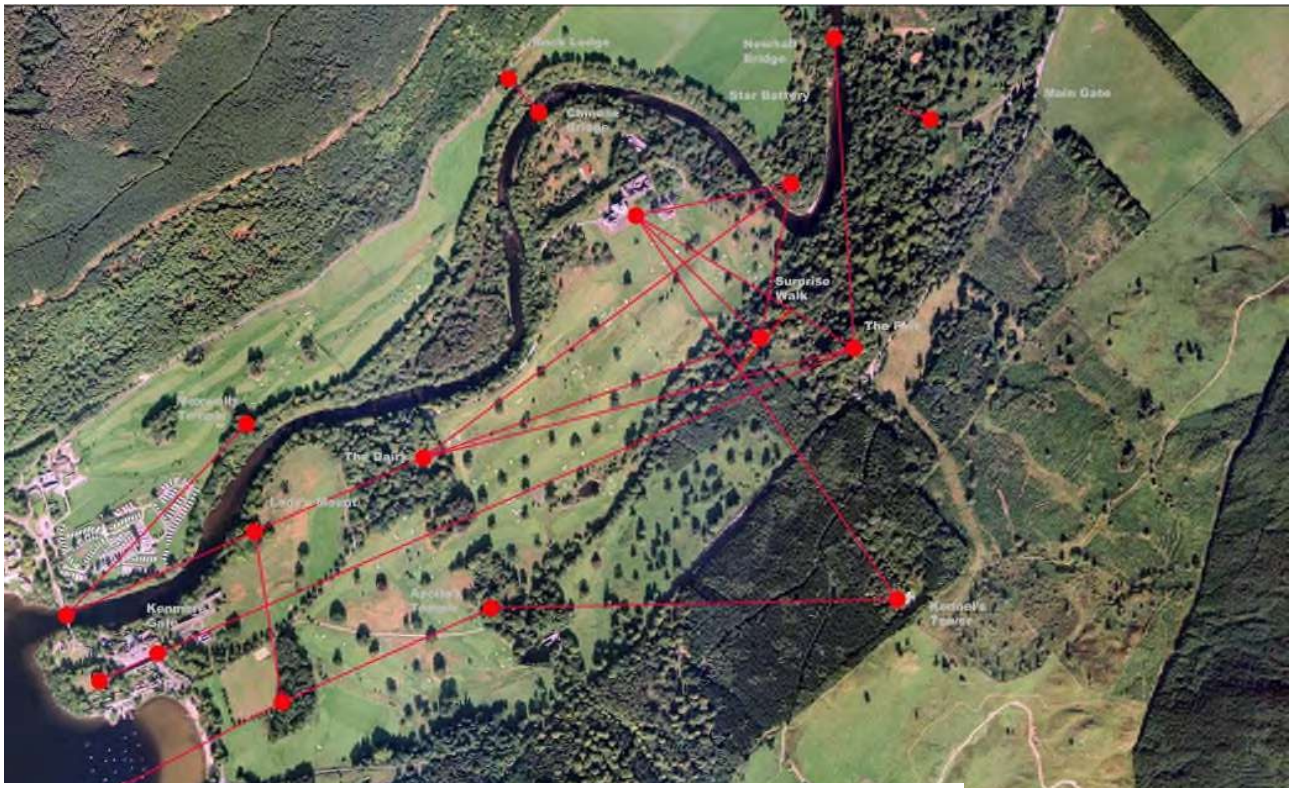
1. Located at the North-West of the estate, this compartment is open grass dominated by the golf course. There is a small linear group of trees present along the Southern boundary of this compartment. These trees provide a screening element to the Taymouth Drive, an area of residential housing located within the designed landscape, from the main driveway.
2. Further along the drive from the housing, the trees form an avenue of Cherry that, in terms of health and aesthetics, are found in various conditions.



View of Tom Moore from the Dairy



View of Deer Park West from the Dairy (Golf Course under construction)



Above: Key Views from 2011 Consent

Below: View from Castle Principal Rooms looking over Deer Parks towards South Park Slopes



iv) Key Views from 2011 Consent

1. Historic views and important vignettes have been identified across the estate. These are illustrated in the figure opposite and were key in assessing suitable areas the consented housing development. The accompanying amended housing proposals have been designed and assessed so that they will not detrimentally affect these views.
2. The proposed landscape management plan will be implemented as part of the extant consents and will have a major beneficial effect in restoring the landscape to its peak. A major focus of the management plan is to re-instate the original views, and also identified opportunities to improve existing of open up new views, all of which will require selective thinning of trees and undergrowth.

v) Land use

1. Land Use varies across the estate but can be summarised as follows:

	Compartment Area	Land Use
1	North Lawn	amenity tree plantings and storage buildings
2	Pleasure Ground	Unmanaged amenity planting
3	North Terrace (including Inchadney Plantation)	Unmanaged amenity and woodland
4	Elysian Fields	Unmanaged pasture
5	South Terrace (including Ladies Mount)	Unmanaged amenity/pathway along River Tay
6	Deer Park East	Golf course with Clubhouse
7	Deer Park West	Golf course
8	South Slope Park	Plantation and woodland
9	Fort Park	Woodland
10	South Park Slopes	Parkland
11	Tom More	Woodland with residential property
12	Temple Plantation	Woodland
13	Kenmore Park North	Golf course
14	Kenmore Park South	Golf course
15	Tom na Croiche	Woodland

3.0 DESIGN PROPOSALS

(ZONE 4)

The Dairy and Tom More

(Housing Areas Z4-01 to Z4-04)



2011 Consented Masterplan showing the approved housing in Zones 2



View from the top floor of Taymouth Castle of Tom More

The Dairy Building and Tom More

The Dairy Building sits on the top of Tom More as the key heritage feature overlooking the golf course and River Tay, surrounded by mature trees creating an elevated nature retreat on the estate.

Together with other areas and heritages assets across the estate, The Dairy Building and Tom More form part of the designed landscape known as The Landscape Park which was implemented in the Period 1810-1862.

The landscape is a mix of scattered broadleaf tree and plantation woodland which cover the hill of Tom More in varying degrees of density. Many of the trees have fallen/been damaged by natural causes in the last decade and the current owner is in process of clearing those for safety purposes. This process reveals natural clearings in the landscape.

Tom More overlooks both halves of the golf course (formerly the deer park) and contains dense scattered tree planting of different species and contrasts the neighbouring golf course which is dominated by the open grasslands of the golf estate.

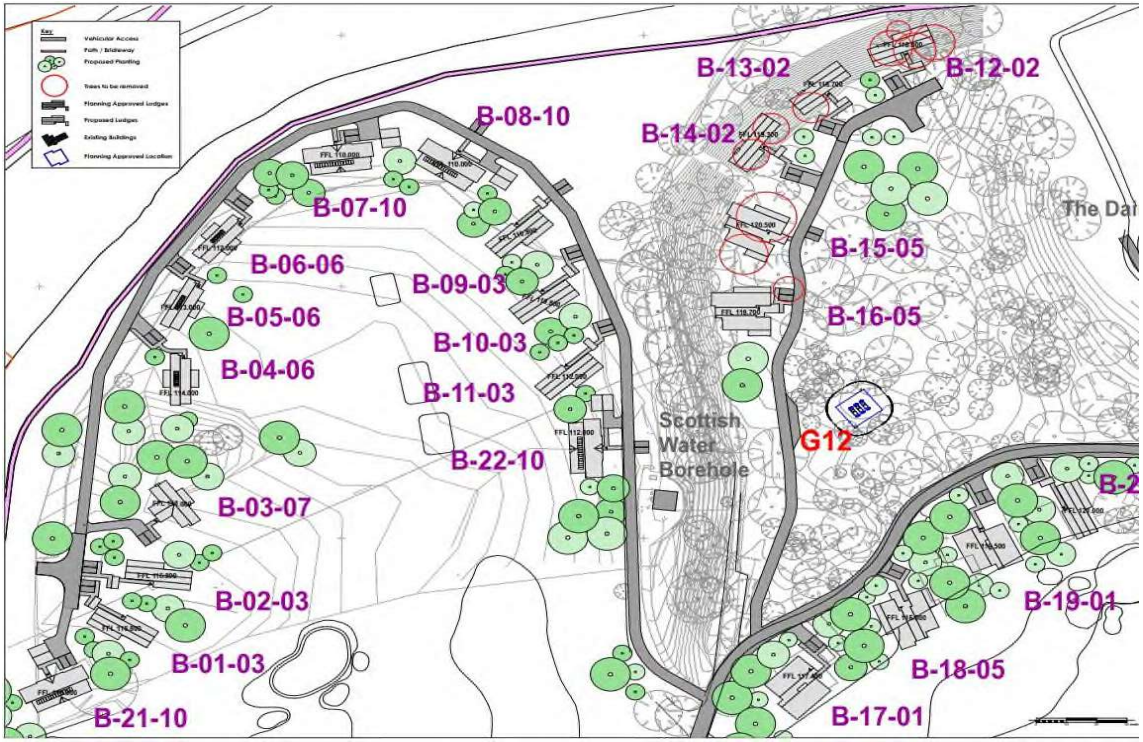
The area can be partially enjoyed from the castle, with tree canopies camouflaging it when in bloom, whilst the steep incline of the proposed sites provides overlooking of the river Tay, the full extent of the golf course and views towards Kenmore and Loch Tay.



Openings between existing trees



The Dairy Building



Above: Housing Consented in 2011 in The Dairy & Tom More area following purification of suspensive conditions

Approved housing types were selected to suit orientation and topography from selection of 10 house types that were designed in accordance with a Design Philosophy to ensure a consistency of architecture, form, and materiality. Images of a couple of the consented 2011 typical house types are shown below:



Consented Proposed Estate Property Type 3



Consented Proposed Estate Property Type 5



Consented Proposed Estate Property Type 6



Consented Proposed Estate Property Type 10

Proposed Housing Development

The accompanying applications identify five separate areas to the West of The Dairy Building in the Tom More area of the estate as illustrated in the figures opposite. The number of houses proposed will be less than consented in Zone 2 under the 2011 approval as summarised below:

Area Z4-01:
Consented Dwellings: 5
Proposed Dwellings: 9
Area Z4-02:
Consented Dwellings: 4
Proposed Dwellings: 7
Area Z4-03:
Consented Dwellings: 0
Proposed Dwellings: 0
Area Z4-04:
Consented Dwellings: 0
Proposed Dwellings: 2

TOTAL:
Consented Dwellings in Zone 2: 22
Proposed Dwellings in Zone 4: 18

The approved location for a majority of these houses is further West from Tom More area (as per the 2011 approval drawing), but after carrying out further site studies, the separate planning applications for each area of Zone 4, propose to relocate the houses closer to The Dairy building and in the Tom More area of the estate. This allows for fewer houses on the golf course and near the bank of the River Tay. The proposed house locations were micro-located in detail to ensure the tree root protection of important trees is protected and that the revised house designs accommodate the existing topography.

Siting of the houses has taken full cognizance of any critical view or vistas across the estate, and in particular the key views identified in the landscape management plan for the estate. A significant opportunity is accommodating views towards Kenmore village and Loch Tay, and across the golf course. House locations and orientation has been developed to maximise these views whilst minimising visual intrusion on the designed landscape.

These design adjustments are described in more detail in the following sections.

Design Proposals

The principal of development in this area of the estate has been established under the extant 2011 consent. As part of the accompanying application the nature of the proposed amended housing proposals in Areas Z4-01 to 04 have been carefully considered against the key design parameters that were established under previous approvals.

Proposed Site Layout

Design Principles

- The proposed adjusted house locations are generally in locations which overlap the footprints of the previously consented housing. The accompanying site plans illustrate the modest relocation of most of the house locations to accommodate plot-by-plot adjustments to suit topography, tree locations and other site-specific factors.
- Plots from further West as approved in 2011, are relocated to the Tom Moore due to detailed findings of the design team which show the approved locations within non-ideal development zones.
- The relocation of the above plots also allows the proposals to minimise the impact of the houses on the riverbank of the Tay and allow a softer edge to the Northern perimeter of the golf course, creating a softer landscape setting to the river and the core path.
- The site planning of the housing has been undertaken at the micro level and each site location has been examined by the master planning and consultant environmental team.
- Each of the identified house sites reflects spaces that exist without removing significant trees except for recent regeneration or dead/dying trees. The accompanying reports prepared by tree consultants Arboretum Internationale identify root protection areas and house positions have been adjusted to avoid impact on these wherever possible.
- Existing estate tracks and tracks that were part implemented by previous owners as part of the extant consent in 2011 are to be re-utilised except for the section to the South of Taymouth Castle to minimize impact on tree roots and for operational and construction access as well as routing of services.
- The houses and associated infrastructure have been located to minimise impacts on the trees and woodland and are individually arranged to achieve a clean, low impact building set within the landscape.
- The siting and construction of the house types has been developed to take full cognisance of areas of potential flood risk.
- Development areas have been assessed in conjunction with ecological consultants so as not to adversely affect the existing habitat and movement of protected species along the riverbanks and through the estate. Please refer to accompanying Ecological Statements prepared by Nigel Rudd Ecology.
- Orientation of each building footprint takes cognisance of site topography and slope and the form and floor levels designed to minimize under building.



Extract from Site Masterplan drawing showing proposed house footprints in blue fill, with previously consented house footprints illustrated in blue outline for comparison.



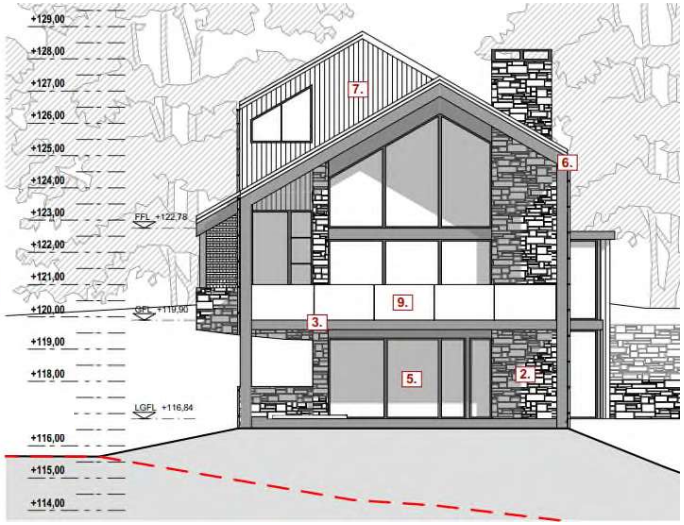
House Plot 1 Proposed Ground Floor Plan



House Plot 17 Proposed Plan



Example of Proposed Elevation 1



Example of Proposed Elevation 2

Proposed Housing Design

Scale, Form and Massing

- The previously consented house types incorporated generous overhanging roofs. The proposed housing designs have been modestly enlarged to increase the footprint and area of the building envelope whilst minimising the volume of the proposed house design.
- Where possible garaging has been integrated into the footprint of the house at lower ground floor levels to allow integration within the natural sloping topography whilst minimising visual impact in relation to scale and volume.
- Previous mono-pitch roof forms have been remodelled to incorporate higher pitched gable roofs. This allows a consistent palette of standing seam metal roofing across all house designs in terms of materiality.
- The siting of each house within plots was carefully located to ensure that the visual impact to the site is negligible.

Materials and Detail

The proposed revised housing design shall incorporate a simplified palate of external finishes in materials are to be used that is broadly consistent with the Design Philosophy contained within the 2011 consent as summarised below:

- The overall colour, tone and texture of materials to main walls and roofs shall be in harmony with each other and be complimentary to the hilltop setting.
- Roof finish to pitched and flat roofs is to be in standing seam zinc or grey finished metal roofing.
- Rainwater goods are to be metal and finished in graphite grey paint finish. UPVC and plastic facias, soffits and eaves and other external finishes are not permitted.
- The colour of grey roofing, render, windows and timber stain shall be chosen from a limited range of estate colours.
- Wall shall be principally in timber (cedar or larch if untreated), natural local stone (Grey whinstone unless agreed otherwise). Timber will be either natural (with pre-weathered coating to provide a consistent silver/grey weathered look from the onset), or if stained in a in a colour consistent with the agreed estate colour range palate.
- Exposed steelwork shall be in a grey consistent with the Estate colour palate.
- Windows and doors should have high quality timber frames aluminium clad finished in grey or to compliment wall finishes and will have a vertical emphasis. Larger areas of glazing are permitted if carefully located to take advantages of light, solar gain, and outward views from the house.
- The buildings should be detailed with clean, simple, uncluttered lines and unnecessary embellishments.

This aesthetic shall ensure a coherent aesthetic which will be consistent across the estate, and which will use natural materials such as stone and timber cladding where appropriate to compliment the hilltop setting.

Landscape Proposals

Landscape design mitigation measures have been fully considered and implemented in the accompanying housing proposals include:

- Micro siting of buildings to minimise tree loss, screen planting and planting to form a setting for the development in the landscape.
- Trees of significant arboricultural value have been retained wherever possible, whilst development will facilitate management of uncontrolled self-seeded trees and vegetation, and removal of trees that are diseased, dying, or dangerous.
- The proposed housing plots are designed to sit sympathetically within the designed landscape with no solid boundary treatments between plots in order to help preserve the character of the landscape.
- It is proposed that some remediation in the form of screen planting shall be introduced between houses with native species appropriate to the historic landscape setting.
- New private driveways within plots will be finished in permeable resin bound surfacing to ensure a high-quality durable finish, whilst enabling a fully SUDs compliant system

It is worth emphasising that as part of the previously approved Landscape Management Plan, Discovery Land have already invested in major compensatory measures to offset these effects are in the form of a comprehensive landscape management programme. The principal objective of this will be to arrest and reverse the decline of the designed landscape and return it to its peak of c. 1862. The guiding principles for the mitigation have been the original objectives of Historic Environment Scotland and are as follows:

· To retain the intrinsic value of the landscape design.
· To retain as many of the significant elements as possible.
· To re-instate elements, where possible.
· To ensure the appropriate management regimes are established and re-established to secure good conservation management of the landscape.

The continuing implementation of the Landscape Management Plan is of course dependant on the income that will be provided by the proposed amended resort housing model and ongoing service charge revenues these will generate.

Sustainability and Renewables

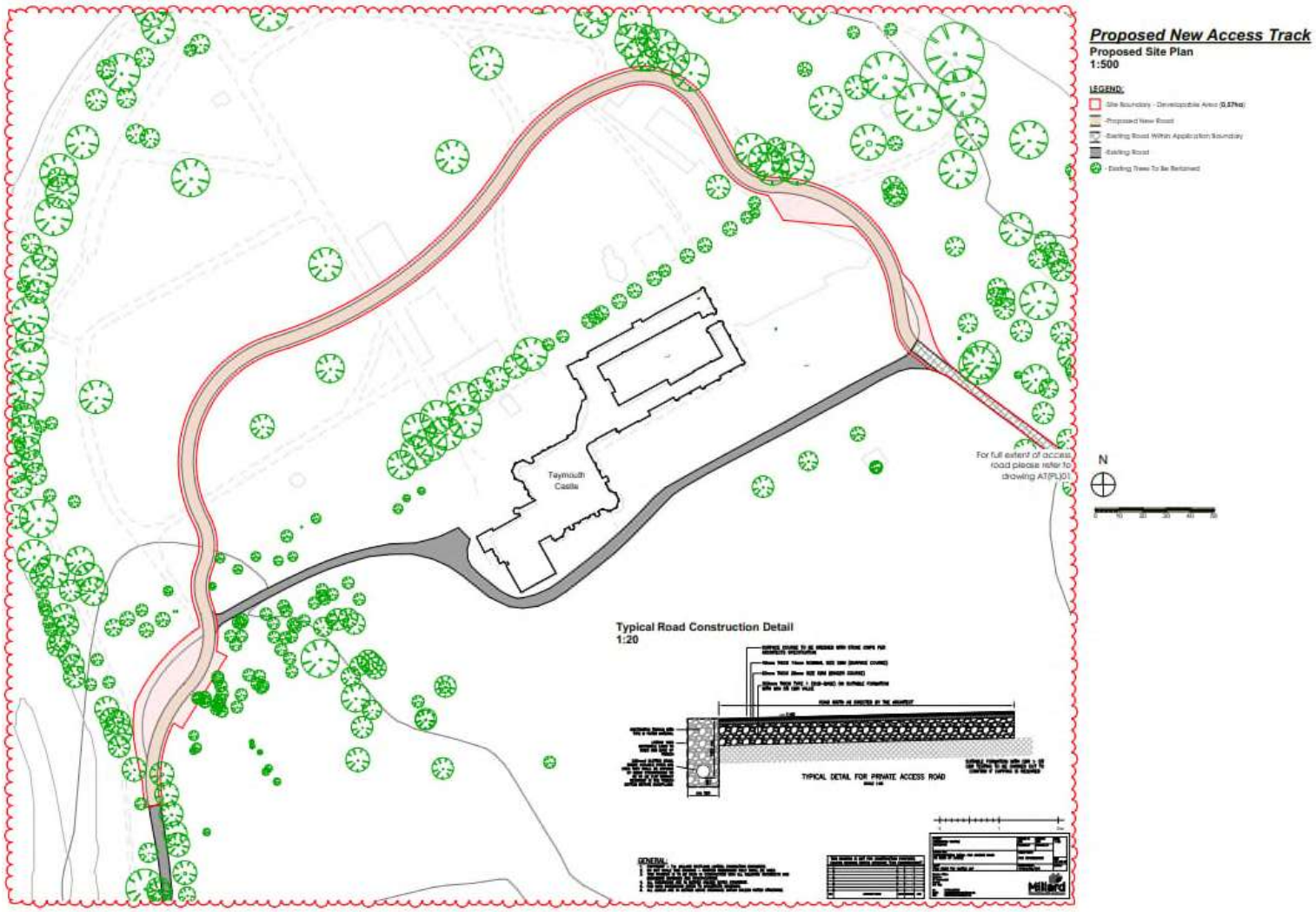
A decade has passed since the approval of the previous house types and the requirements of carbon emission reduction and sustainability have changed considerably in this time.

The proposed housing designs recognise that an opportunity exists to maximise carbon emissions reduction through the installation and operation of low and zero-carbon generating technologies.

It is intended that this is achieved by the incorporated of the following:

- A fabric first approach with a highly insulated building envelope.
- Ground or Air Source Heat Pump Technology (to replace the carbon hungry LPG heating proposed under the extant consent).
- Supplemental biomass stove heating with the opportunity to utilise timber harvested from forest management of the wider estate and neighbouring Newhall.

The applicant's aspiration is for the housing to be integrated within a wider vision for an estate wide strategic Smart Energy approach in order to minimising the development's carbon impact.



Access and Connections

Vehicular Access

- The access strategy for the revised housing area will require a new access track to the North of the Taymouth Castle connecting to the previously consented roads within the estate.
- This proposed vehicular track is required to remove the existing track on the South of Taymouth Castle creating a rough border between the listed building and the golf course. The proposed track to the North of the castle will allow the proposed landscaping and golf course design to create a more spectacular setting and platform for the castle. This track forms the main access for residents to the proposed housing zone around The Dairy building.
- The remaining approved roads were designed to reduce the net impact both visually and environmentally of vehicles travelling through the Estate. Those guests arriving at the Castle and housing zones forming part of this application will make use of the Main East Gate.
- The estate properties will be accessed by existing tracks which will be upgraded to provide single track road access to serve these areas. All upgraded and new roads have been designed to follow existing land contours to minimise the impact and use natural permeable finishes that are aesthetically sensitive to the landscape whilst encourage natural drainage as extant consents.
- As with the extant contents it is intended the amount of vehicular traffic movement within the estate is minimised by encouraging hotel guests and estate residents to use an Estate provided fleet of small electric cars and golf buggies to taxi them around a selected network of roads and tracks within the estate.

Proposed New Road around Taymouth Castle

Proposed road design in this application seeks to relocate the existing vehicular access track from the South of Taymouth Castle to the North.

The proposed relocation of the vehicular access will reduce the impact on the setting of the castle within the listed landscape and limit the number of vehicles passing in front of the South Elevation of the castle.

The reduction in vehicular movement will also protect the castle fabric by itself by minimising emissions within close proximity to the historic building and reducing the possibility of vehicles causing damage.

Through this relocation, the users of the castle, the estate and the golf course will have a safer environment provided for them to enjoy the listed landscape with minimal interruption from motorised vehicles.

The route of the proposed layout track utilises the existing tracks that were formed in the 'D' over the course of the years and used for maintenance & construction. The direction of the proposed track naturally forms around the existing trees to ensure their respective root protection areas are not invaded.



Overmarked image showing location of the proposals and key vistas.


View of Tom More from the Golf Course/Lady's Mount area.


View of Tom More from the Star Battery (not visible).


View of Tom More from The Fort (not visible in summer).


View of Tom More from the Surprise Walk area (not visible in summer).

Visual Impact Assessment

The following visual impact assessment considers the visual impact of the proposed housing amendments as compared to the residential estate properties approved under the 2011 extant consent.

- Whilst areas Z4-01, Z4-02, Z4-03 and Z4-04 sit within one of the key historic vistas identified across the estate (see figure opposite), the proposed housing amendments will not materially impact this view due to large shielding of trees and their canopies with only the existing Scottish Water building highly visible.
- Most proposed house locations are largely consistent with those approved in the extant 2011 consent with consented/proposed housing footprints overlapping. The amended siting of the remainder of houses will have a positive visual effect as they will not be as exposed between around the riverbank and golf course as approved in the 2011 consent.
- Due to the steep topography the lower areas of the slope can accommodate larger housing units amongst the scattered trees without negatively impacting on the views of the Tom More from the golf course.
- Even taking account of the moderate increase in roof heights of the amended house designs, the proposed properties will continue to sit below the elevated Dairy Building thus conserving the views to and from it. House types have been selected to allow integration into the hillside and minimise roof heights.
- The entire area of Tom More is embraced by mature trees and where tree cover already obscures views between Lady's Mount and The Dairy Building (and vice versa). The proposed estate properties in are visually screened from the rest of the estate and the slightly larger housing can be accommodated without detriment to the existing key views.
- The proposed increase in house massing and volume is modest within the context of plot sizes and spacing will have negligible visual impact within the scale and context of the existing landscape.
- Existing trees of arboricultural significance are to be retained, except for several that have been identified as diseased, dying, or dangerous and would require removal in any event.
- The form of each proposed new estate property has been sensitively designed to sit harmoniously within their individual settings and topography. The proposed building forms incorporate stepped levels or are set into existing sloping sites to avoid excessive under building and restrict building heights.
- This will minimise any visual impact of the new elements within the landscape and maintain key vistas across the estate. Great care has been taken to ensure that building forms and new landscaping provides maximum interaction with the countryside.

CONCLUSION

The principle of housing units within a large section of area within Zones Z4-01 through to Z4-04 has been established under the extant consents. The revised housing designs will have some visual impact but the nature of the landscape along with the proposed design and positioning of units within it will allow development to be sympathetically absorbed with negligible visual impact in comparison to existing consents as summarised below:

- New properties will remain strategically located on the lower slopes or highly tree covered areas to maintain views of Tom More area from the golf course and other parts of the estate.
- Sites for relocated properties have been identified between the existing scattered trees of the existing hilltop landscape, thus retaining trees of arboricultural value.
- The overall number of properties within this area of the estate reduces from 22 approved under the 2011 extant consent to 18 proposed properties.
- The modest increase in size of the proposed residential units will not impact on key views to and from The Dairy Building and will have a negligible effect on the views from the Golf Course.
- The any revised sitting of each house continues to be strategically positioned within clearings of the existing mature trees which will provide a landscaped visual screening from the estate.
- The limited removal of existing trees and landscaping will be mitigated by new planting to reduce the visual intrusion and to blend it into the woodland. This in combination of the existing mature tree canopy will mean that the key views are protected.
- The revised design of the proposed residential units will provide a hierarchy of design where pitched roofs and a simplified palate of materials will give a coherent and consistent architecture that sits harmoniously with the natural and designed landscape of the estate.

The resulting visual and environmental impacts of the proposed revisions to the previous development are therefore considered very low impact when compared with the extant planning permission. These minor changes should therefore be balanced with the direct and indirect social and economic enhancements that will certainly accrue along with the associated onward investment it will generate and the potential to deliver a long-term sustainable future for one of Scotland's most significant cultural heritage assets.

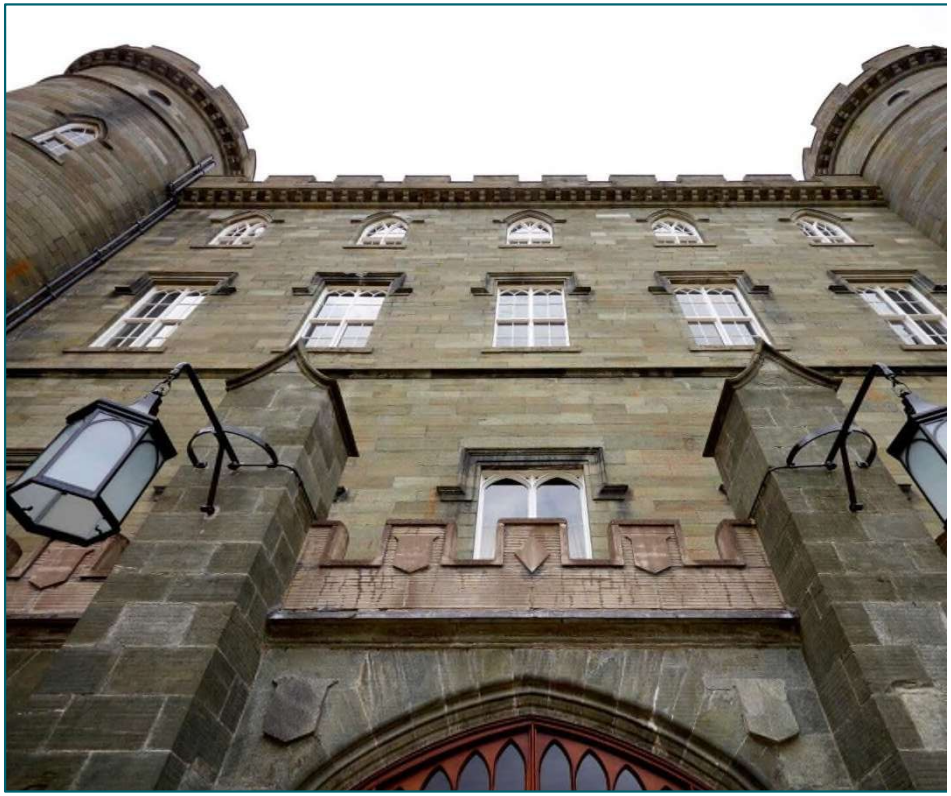
0131 226 7225
info@scotthobbsplanning.com
www.scotthobbsplanning.com

24a Stafford Street
Edinburgh
EH3 7BD

02 November 2023

Taymouth Strategic Planning Framework

Tay River Development Ltd.



Introduction

1. This Strategic Planning Framework (SPF) is prepared on behalf of River Tay Development Limited, the company behind the comprehensive refurbishment of Taymouth Castle and its associated listed buildings, and the vision of new estate properties within the grounds of Taymouth Castle. The resultant development will be operated by the Discovery Land Company (DLC) who is also restoring the Kenmore Hotel, the Kenmore Shop, various commercial properties and the beach at Kenmore as associated components of the wider development.

2. Taymouth Castle is situated on the edge of the village of Kenmore, surrounded by 182 hectares of park and woodlands stretching to the south bank of the River Tay. The Castle stands on the site of the much older Balloch Castle, which was built in 1552 as the seat of the Campbell clan. In the early 19th Century Balloch Castle was demolished so that the much larger castle could be rebuilt on the site. The new Gothic style Taymouth Castle is a Category A-listed building and the grounds are included in the Inventory of Gardens and Designed Landscapes. Taymouth Castle has been vacant since 1982 and twelve of its associated buildings and structures are recorded on the Buildings at Risk Register. The restoration work currently ongoing at the Castle will directly address these issues.

3. The purpose of this SPF is to set out the following:

   - A summary of the planning history and current planning context for the restoration and development works at Taymouth Castle Estate;
   - To present the current Masterplan and phasing plan for the proposed development; and
   - To explain the approach to specific areas of importance in the restoration and development works comprising heritage assets, biodiversity, trees, water/ drainage, core paths and Kenmore regeneration.

4. The SPF will be updated regularly throughout the planning process.

Planning History

5. In March 2005 planning permission (reference 03/02250/PPLB) was granted for the redevelopment of Taymouth Castle Estate to include the restoration of the castle to form a hotel; extension to incorporate 72 hotel suites; erection of spa within Newhall Kennels; construction of 63 lodges and 26 new fractional ownership houses; conversion of existing buildings to form 7 fractional ownership houses; erection of 16 staff houses; erection of equestrian centre; infrastructure and engineering works including sewage treatment works and associated landscaping and maintenance proposals.

6. In July 2011 planning permission was granted for the erection of 71 estate properties; formation of spa facilities; erection of restaurant; erection of bridge; alterations to the golf course; modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties; relocation of 14 estate properties; relocation of and amendments to equestrian centre and golf clubhouse; revised proposals within the east wing of castle to form health and beauty spa, 14

apartment suites and formation of hotel suite and external lift access in west wing of the castle.

The Masterplan and Phasing

7. The Taymouth Castle Estate Masterplan is an evolving process, and the SPF will be updated to reflect significant Masterplan updates going forward. The current Masterplan is at Appendix 1.

8. The current Phasing Plan is at Appendix 2 and is up to date as of Summer 2023. It outlines current work in progress, and anticipated timescales going forward.

9. The key components of the Phasing Plan are summarised as follows:

- **Taymouth Castle Restoration, Refurbishment and Extension** – the refurbishment and restoration of Taymouth Castle is consistent with the extant planning permissions and listed building consents as referred to in the previous section. The Masterplan also includes reference to the east wing extension of the Castle, new planning and listed building consent applications for which were approved in June 2023. The total investment in the Castle restoration, refurbishment and extension works is significant, with the first phase of restoration and refurbishment works due to be completed by April 2024.
- **Taymouth's Listed Buildings** – there are a number of listed buildings and structures across the Taymouth Castle estate, many of which are on the Buildings at Risk Register. Planning permission and listed building consent has been granted for works to a number of the listed buildings and other heritage structures, and a summary of the assets, and the proposed works is outlined in the Heritage Assets Schedule at Appendix 5.
- **Infrastructure Works** – there are significant infrastructure works associated with the extant planning permissions across the Estate and these include the creation of flood defence measures, the most notable of which is a new flood defence within Zone 3 to protect Taymouth Castle and estate properties. Other significant infrastructure works include the upgrade of the access routes through the estate, the upgrade of the East Gate and the creation of a new secondary West Access from the A827 on the south-western edge of the estate, to provide construction and ongoing service vehicle access, avoiding conflict with the main vehicular access to the estate through the East Gate. Planning permission and listed building consent has been granted for these works to the West Access and East Gate in February 2023 and May 2023 respectively.
- **The Golf Course** – significant maintenance works commenced in May 2023 at the James Braid-designed golf course, the most significant of which is the proposed fairway sand cap and drainage works, involving excavation, new drainage installation, new sand course and new grass seeding. These works are not classed as development requiring planning permission, being maintenance works associated with the normal operation of a golf course, as agreed with Perth and Kinross Council (PKC). Additional re-grading works are also now progressing at the course, and a discharge of

conditions application for these works was approved in May 2023 under condition 42 of the 2011 planning permission.

- **Estate Housing Zones** – the estate housing was approved as part of the 2005 and 2011 extant planning permissions. Amendments to the layout and design of the housing are being progressed in individual planning applications across each of the zones – the location and phasing of the zones is illustrated in the Masterplan at Appendix 1 and the Phasing Plan at Appendix 2.

Key Issues Summary

10. This SPF has explained the ongoing evolution of the Taymouth Masterplan/phasing, and the purpose of this section is to explain the approach adopted in relation to key issues associated with the development. These are addressed under the following subsections:

Heritage assets

11. Both the 2005 and 2011 planning permissions restrict the occupation of estate properties until the consented works to the Castle are completed. Condition 4 of the 2005 planning permission prevents occupation of any estate properties until the *"initial conservation works"* on the Castle main building and west wing are completed. Conditions on the 2011 planning permission relate to specific dates, including Condition 3 which requires all works to the main and west wing of the Castle to be fully completed within 18 months of the date of the planning permission or prior to the occupation of any of the estate properties located on the east side of Zone 3.

12. The restoration works referred to in the 2005 and 2011 permissions have been updated in more recent planning and listed building consents and are currently being fully implemented with a completion date for the main restoration of the Castle East Wing set for 2024. None of the estate housing will be completed, nor occupied, prior to the completion of the East Wing works to the Castle.

Biodiversity

13. Condition 28 of the 2011 planning permission requires the submission of an 'Ecological Review' prior to the commencement of development within any zone and this should demonstrate that *"no adverse impacts on biodiversity will arise from development progressing in that zone."*

14. The scope of the ecological review was to assess the presence of nesting birds, bats, red squirrels, and otter, together with ensuring that there are no adverse impacts on other habitats which may be present in a particular zone. The Ecological Review was undertaken in relation to Zones 3, 6, 7, 8, 9 and 10 of the original 2011 Masterplan, however the Applicant has prepared a Biodiversity Strategy to incorporate the requirements of Condition 28 of the 2011 planning permission, and this was approved by PKC in June 2023.

Trees

15. The designed landscape which constitutes the Taymouth Caste Estate has, since the early 20th century, been managed in a way that addressed immediate concerns as they occurred. The ongoing decline, conservation and future regeneration of the designed landscape had not

been considered meaningfully until the proposals for development of the estate were realised under the ownership of DLC.

16. Tree management at Taymouth Castle estate is governed by DLC's long-term plan that seeks to introduce changes to the designed landscape through a sensitive and carefully timed programme of delivery. The programme is subject to periodic review.

17. There are conditions within the 2011 planning permission in relation to trees within the Taymouth Castle Estate. Condition 30 requires the preparation of a tree survey for each zone prior to the commencement of development and an up-to-date tree survey will accompany each and every application submitted to PKC, either in relation to the discharge of conditions (such as the golf course) or for the amendment of previous estate housing within individual zones (for example a detailed survey was submitted to accompany the Zone 1 planning applications when they were submitted in September 2022).

18. Condition 31 of the 2011 planning permission requires tree protection for retained trees to be agreed with PKC in advance of commencement of works, making reference to the tree surveys referred to in Condition 30. Tree protection measures have been implemented across the Estate. Condition 32 relates to the supervision of Arboriculturalist protection measures and, again, this is being incorporated in the approach adopted by the Applicant.

19. A Landscape Management and Woodland Replenishment Plan was included in the EIA undertaken to support the 2011 planning permission and PKC will add a condition to each planning application for housing development within the Estate requiring the submission of an updated Landscape Management and Woodland Replenishment Plan prior to the commencement of any development within a zone as defined in the Phasing Plan at Appendix 2. The latest version of this was approved by PKC in August 2023.

Flooding and Drainage

20. The 2005 and 2011 planning permissions assume that the estate will be served by private sewage treatment plants and that these will remain in force until a connection can be made to the public sewer system (see Conditions 27 and 28 of 2005 planning permission). Further updates to this position will be provided as the development progresses.

21. A new flood defence was approved by the 2005 planning permission, and the detail of this is being finalised through an application to discharge condition 10 of the 2005 planning permission which requires the detailed design of the 'bund' to be agreed by PKC. Construction work on the bund is anticipated to commence in early 2024.

Core Paths

22. There are three core paths within the Taymouth Castle Estate, and these are defined in the adopted LDP. The core paths are illustrated in Appendix 3. Temporary diversions of the core paths during the construction phase for the Castle and the golf course have been approved by PKC, with the temporary diversions in place until September 2024. The temporary diversions plan is at Appendix 4. Agreement to a further temporary diversion to facilitate the construction of the approved

Zone 1 development and the West Access is currently being sought from PKC.

23. Over the long term, the Applicant is committed to the continued access to, and enjoyment of, the Taymouth Castle Estate by the local community and the wider public. For safety and security purposes a modest diversion of existing core paths has been necessary, most notably to facilitate the use of the golf course without risk of injury to members of the public using the existing core path network in the vicinity of the course.

Appendices

1. Current Masterplan
2. Current Phasing Plan
3. Existing Core Paths
4. Approved Temporary Core Path Diversions
5. Heritage Assets Schedule



Taymouth Castle | Taymouth Master Plan

Kenmore, Scotland December 8, 2023

2 min. walk

0 50 100 150 200 250 m

1 : 2,500 at 36" x 48"

HART HOWERTON

LEGEND:

Castle Main Tower and West Wing
Status - Construction Ongoing
Anticipated Competion - Apr 2024 (exc. landscaping)

Castle East Wing
Status - Planning Approved
Warrant Submission Date - 2024/2025
Anticipated Completion - 2027

Castle North Wing
Status - Design
Anticipated Start - Aug 2026
Anticipated Completion - Aug 2028

Housing Zone 1
Planning Permission Granted 16/02/23 & 15/03/23
Status - Infrastructure Works Started
Anticipated Completion - 2026

Housing Zone 2
Status - Design
Anticipated Planning Submission - 15th Nov 2023
Anticipated Start - 15th May 2024
Anicipated Completion - 2027

Housing Zone 3
Status - Design
Anticipated Planning Submission - 30th Nov 2023
Anticipated Start - 15th Jul 2024
Anicipated Completion - 2027

Housing Zone 4
Status - Planning Submission
Anticipated Planning Submission - 30th Oct 2023
Anticipated Start - Jul 2024
Anicipated Completion - 2027

Housing Zone 5
Status - Design
Anticipated Planning Submission - 7th Jan 2024
Anticipated Start - Aug 2024
Anicipated Completion - 2028

Housing Zone 6
Status - Design
Anticipated Planning Submission - 7th Jan 2024
Anticipated Start - Aug 2024
Anicipated Completion - 2028

Kenmore Properties
Status - Refurbishment Ongoing

Kenmore Hotel
Status - Design Underway
Anticipated Completion - 2026

Taymouth Trading
Anticipated Planning Submission - Mar 2024
Anticipated Completion - 2026

Various Staff Accommodation Buildings
Status - Ongoing Refurbishment
Anticipated Completion - 2027

West Access Gate
Status - Infrastructure Work Started
Anticipated Completion - Feb 2024

East Gatehouse
Status - Technical Design
Planning Permission Granted 31/05/2023
Anticipated Completion - April 2024



Golf Course Maintenance Work
Status - Works Commenced
Anticipated Completion - Oct 2024

BOH Commissary
Status - Design
Anticipated Planning Submission - Dec 2023

Land in ownership (Inchadney and Newhall Woods)

Woodland Management Across Estate
Status - Commenced Dec 2022
Anticipated Completion - 2052 (30 year programme)

A - Dates updated Feb'23 AT
B - Woodland Management added Feb'23 AT
C - Dates updated Oct'23 AT
D - Red gate date added Oct'23 AT
E - Housing dates updated Oct'23 AT

© This drawing, its contents, and all information contained therein is protected by copyright. It may be used once only for its intended purpose, unless a contract with Andrew Stevenson Associates, LLP specifically authorises other use. Any dealing that infringes these rights will be pursued in the courts. Any use of dimensions scaled from this drawing is at the user's own risk. Contractors must check all dimensions on site before starting work. Discrepancies must be reported immediately.
33 Rose Street, Aberdeen AB10 1HA T: 01467 637 637 | 140 Dundee Road, Perth, PH2 7AA T: 01738 448 788 (g) Contents Copyright (g) All Rights Reserved.

JOB TITLE: Taymouth Estate Masterplan
DRAWING TITLE: Phasing Plan
DRAWING STATUS: INFORMATION
DRAWN BY: AT
CHECKED BY: RJ
DRAWING NUMBER: 1172.001/INFO/001
SCALE: 1:5000 @A1
REV: E
DATE: December 2022



LEGEND:

- Existing Public Core Paths

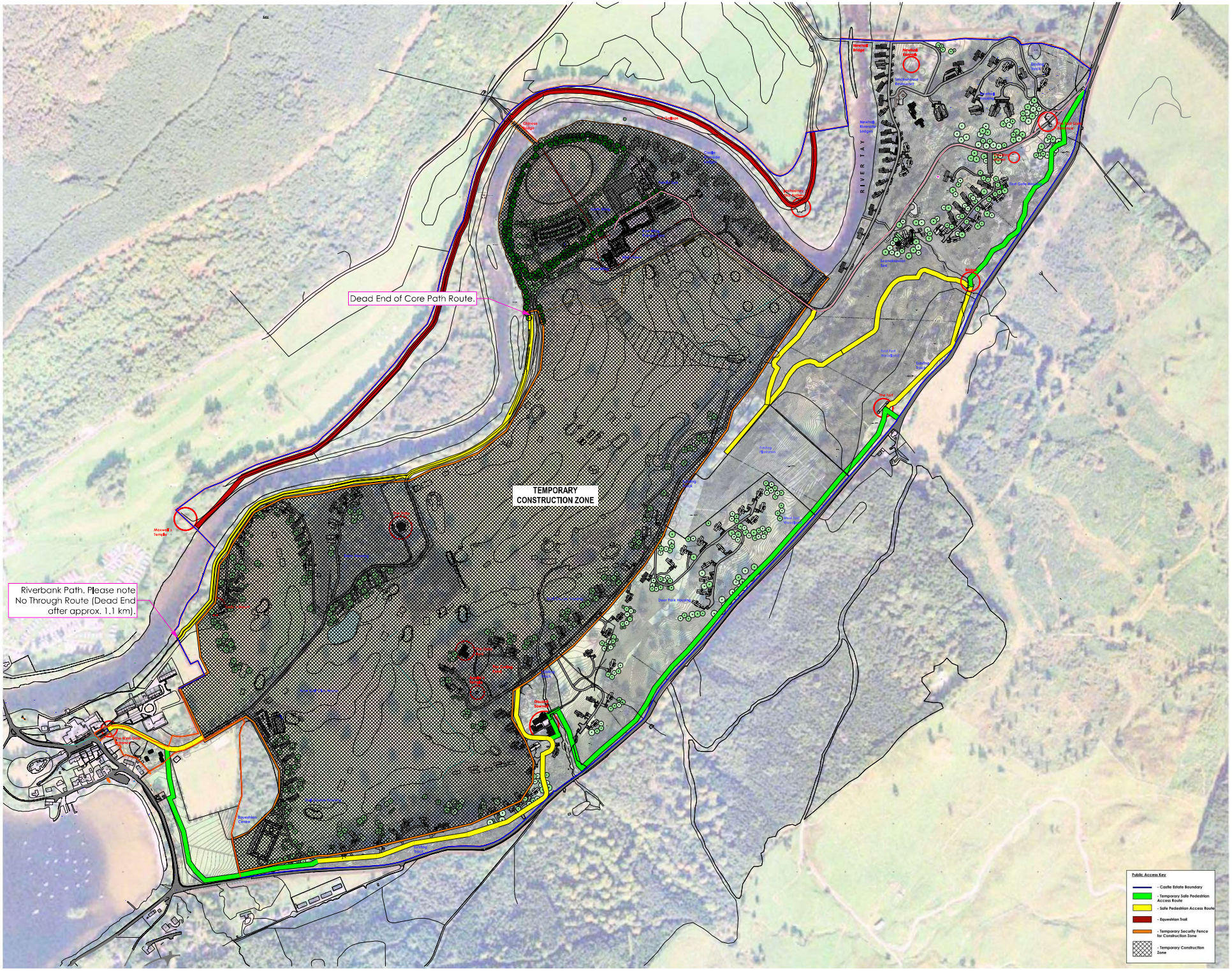
© This drawing, its contents, any supplementary information thereon is protected by copyright. It may not be used, reproduced or transmitted for any purpose, in whole or in part, without the prior written consent of the Copyright Owner. It is intended for the stated purpose only. It is being for information only and is not intended for construction use unless stated. It is not to be scaled. It is not to be used for any other purpose. This drawing and the design shown may be subject to design development and alteration. Do not scale from this drawing. If in doubt ask. Only the latest revision of this drawing should be used for any purpose. Unless otherwise agreed in writing by Ogilvie Construction Limited, no responsibility is accepted by Ogilvie Construction Limited for the use of this drawing for any purpose other than that for which it was prepared and delivered.

23 Kore Street, Aberdeen AB10 1SE T: 01087 029 258 | 159 Dunkeld Road, Perth PH1 5AL T: 01738 445 755

Ogilvie Construction Copyright All Rights Reserved

JOB TITLE: Taymouth Estate Masterplan			
DRAWING TITLE: Existing Public Core Paths		DRAWN BY: INFORMATION	CHECKED BY: AT / RJ
DRAWING NUMBER: 1172.001/INFO/002	SCALE: 1:5000 @A1	REVISION:	DATE: ####

All Dimensions Are In Millimetres.



N

metres

REV	DESCRIPTION:	DATE:	DRN BY:
A	Alteration to public Access	2011 09 13	LS
B	Temporary adjustment to Public Access to accomodate construction site	2022 03 04	AT
C	Adjustment of legend and path colours	2022 03 18	AT
D	Public core path ammended	2022 03 31	LR
E	Construction zone and path amended		
F	Core Path amended	2022 06 22	AT
G	Core Path amended	2022 06 30	LR
H	Core Path amended	2022 06 28	AT
I	Core Path amended	2023 03 28	AT

All Contents Copyright All Rights Reserved

McKenzie Strickland Associates
23 Bank Street Abercliffy
Perthshire PH15 2AH
t: 01887 829229
21 Canada Street Crieff
Perthshire PH7 4AX
t: 01764 918410

JOB TITLE:
Taymouth Castle Development - Masterplan

DRAWING TITLE:
Public Path Network

JOB NUMBER:	MODEL FILE:
800.001	

DRAWING NUMBER:	REVISION:
001.L(90) 018	**I**

DRAWING STATUS:	DRAWN BY CHECKED BY
PLANNING	**DD JR**

SCALE:	DATE:
1:2500@A0	**13 September 2011**

TAYMOUTH ESTATE HERITAGE FEATURES: PROPOSED SCHEDULE OF CONSERVATION WORKS

Project Name:
Taymouth Castle Estate, Kenmore

Project number:
1172-400

Updated 2nd October 2023. AT – MSA

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
1.0	**Apollo's Temple**	**B**	The Apollo Temple forms one of the main built features in the landscape design of the Taymouth Designed Landscape. The building is located on the top of a small hillock within the western sector of the park known as the Temple Plantation. The Temple is described in the listing as: *"A small circular building surmounting a mound south of Tom More, overlooking Kenmore Park to the west. Semi-circular arched doorways with triple keystones; low ogee slated roof; harled with some margins and base course"* The building is constructed with random rubble walling finished in traditional lime harle in a semi-rough finish. The ogee shaped roof is constructed from wrought circular timber logs with sarking and slate finish terminating in a carved slate cornice. Each of the entrance arches are constructed as separate recessed arches surrounded with grey slate terminating at a stringcourse of slate running around the centre of the wall height. The base course is of slate. The fallen limb of an old oak has extensively damaged the building. This has demolished the greater part of the roof and part of the wall head. The building is inaccessible due to overgrown rhododendron undergrowth.	**1. Stabilisation /Essential Repair Work** 1.1. Before the removal of the fallen branch, brace the entire building around the circumference with both scaffold and belt to hold the walls in place. 1.2. Remove the branch in stages to prevent compression damage to the walls. 1.3. Survey and inspect the tree. 1.4. Remove any damaged and dying overhanging branches of the oak and secure the tree. 1.5. Clear and remove all the surrounding Rhododendron growth in the close proximity to the building. 1.6. Carry out a full structural survey and implement any recommended structural stabilisation works.	Measured survey and current condition survey works is work is programmed to commence in February 2023. Tree and vegetation removal to permit survey works to be carried out has commenced at the time of this update.	Structural report completed. Measured survey to be carried out in April 2023. Essential repairs are programmed for April 2023. Completed January 2023.
				2. Conservation/ Restoration Works 2.1. Locate and identify all the slate cornice pieces and set aside. 2.2. Locate and identify all fallen arch key pieces and set aside. 2.3. Clear the internal debris and identify and record all relevant pieces. 2.4. Record and take down the roof. 2.5. Provide weather protection for the entire building. 2.6. Carefully excavate the internal floor and record any changes in floor level and artefacts found and the existing floor finish. 2.7. Analyse the existing lime mortar, harl coating and internal plaster to provide the basis for the reconstruction. 2.8. Review and record the interior of the building in order to identify any remains of painted surfaces and decoration and retain any existing paint surface. 2.9. Research and develop appropriate internal decoration. 2.10. Where necessary install stitching rods to secure the structure, especially at the entrance openings. 2.11. Remove loose rubble and reconstruct the damaged walls in the manner of the traditional random rubble construction using approved lime mortar. 2.12. Reconstruct the roof in the original manner. 2.13. Reharl the exterior of the building and paint in the analysed colour. 2.14. Replaster the interior surface and integrate any historical surfaces into this finish. 2.15. Paint the internal walls with an approved decoration. 2.16. Design appropriate shutters/gates for the openings and rehang. 2.17. Ensure that all vegetative matter is removed from the immediate surrounding and develop appropriate external paving.	Due to commence Nov 2023 on completion of survey and vegetation removal work. Discussion is presently underway with the owners regarding possible uses of this building. The aim is to preserve the building as stated in the conservation / restoration measures and to return it to a useful state for estate related activities.	Vegetation removed. Anticipated completion of survey work by Jan 2024. Discussion and preliminary thoughts regarding the use of this building have commenced with the owners of the Estate. It is anticipated the use will require close dialogue with PKC and HES together with planning and listed building applications once the dialogue has completed.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
2.0	**Stone Urn**	**B**	The Stone Urn is located at the intersection of the drives north of the Dairy: The Listing describes it as: *"An ornate urn on a square pedestal, about 1.8m high"* The urn is sandstone but there is a substantial crack running from the line of the lid to the waist and is near vertical down the south face. The urn also has a considerable accumulation of moss around the top. The major threat is of vandalism, and this should be recognised in its future. The pedestal is of polished Chlorite Slate Ashlar. Some of the pointing is deteriorating.	**1. Stabilisation /Essential Repair Work** 1.1. Check the stability of the pedestal masonry and implement any necessary stabilisation works as recommended by a fully qualified stone mason.	Commenced December 2022.	Completed mid-January 2023. The Urn was found to be damaged and had fallen from its pedestal. The Urn was fixed to the pedestal by means of a softwood packer at the base. The softwood packer has rotted, and this has resulted in the Urn falling from the pedestal. It is suspected that vandalism is the reason behind the damage. The Urn has been collected, packed up and is safely secured in a container on the estate pending survey and repair works.
				2. Conservation/ Restoration Works 2.1. Analyse the existing stone and research the resources to match the existing for repairs. 2.2. Clean out the jointing on the pedestal and repoint the entire pedestal in lime mortar. 2.3. The repairs to the Urn will require the advice of a fully qualified stone mason as approved by Historic Scotland.	Commenced December 2023.	This stage is ongoing. A monumental mason has been engaged to review the remains of the Urn in February. Initial report completed. The design team are currently reviewing the final placement of the Urn in the landscape. One option being considered are securing the Urn in a frameless glass enclosure or possible relocating the Urn within the estate to a position where its deteriorating condition can be arrested – possibly inside one of the Estate buildings i.e., North or East Wings. Dialogue with PKC and HES anticipated before end of 2023.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
3.0	**Maxwell's Temple**	**A**	*Maxwell's temple is located on the North Terrace on the opposite bank of the river from Ladies Mount. The listing describes it as follows:* *"It consists of Queen Eleanor's type of cross, located as a terminating feature at the West End of the North Terrace. Octagonal bottom part on a 9-step base, cruciform middle stage, and square pinnacle top surmounted by a cross. A staircase entered from the stone-faced door, leads to a middle stage platform.* *It includes Ashlar finishes. The building was constructed in 1830 and dedicated to Mary, Countess of Breadalbane".* The building is in a fair structural condition. However, the unsecured door allows uncontrolled access to the platform. The surfaces have been vandalised especially to the pilasters with graffiti etc. The greatest threat lies in the large limbs of the surrounding and overhanging beech trees or from the falling of entire trees onto the monument, as happened at Apollo's Temple.	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a comprehensive tree survey and the appropriate tree management to effect stabilisation and any risk of future damage through windfall or rot fall. 1.2. Carry out a full structural survey and implement any recommended structural stabilisation works.	Commenced late March 2023. A number of trees came down in the vicinity of the Temple during Storm Arwen – these have been removed and ongoing tree maintenance work is ongoing on the gallops heading North towards the Temple.	Process ongoing. Anticipated completion by end of 2023.
				2. Stabilisation /Essential Repair Work 2.1. Analyse the existing stone and research the resources to match the existing for repairs. 2.2. Analyse the lime mortar to establish the exact match for repair work. 2.3. Masonry repairs that are identified: carefully cut out the damaged stone and indent with new stone to match the existing using lime mortar; 2.4. Check all the existing pointing and repair using the analysed material type; Remove the graffiti using techniques for stone cleaning as approved by Historic Scotland. 2.5. Review the condition of the floor of the platform, record and replace with new timbers to match the existing; 2.6. Design and install new protective doors.	Detailed survey work to update the previously identified repairs is due to commence in April 2023.	Anticipated completion of conditions and survey work – Dec 2023. Structural report to be completed by Spring 2024. Once this stage is complete the Design Teams will be able to state what is required and the likely timeline for the repairs. It is anticipated, at the time of writing, that the building will be repaired and conserved by the end of 2023.
4.0	**The Fort**	**B**	The Fort is located on rising ground to in an area known as the South Slopes plantation to the south-east of the Castle. The Fort is a mock fortification, constructed as a screen wall with central entrance tower with central semi-circular arch with triple keystones and raised with a Gothic crenelated window, surmounted with a flagpole and flanking wing walls terminating in rounded, Islamic domed and crenelated towers surmounted with crescent moon finials. The structure was recorded in 1786. The structure, although remaining in its constructed form, is, through lack of maintenance, becoming unstable with the loss of all roofing materials and structural mortar. The front terrace is overgrown with trees which are also affecting the structure's stability.	**1. Stabilisation /Essential Repair Work** 1.1. Immediate stabilisation of the structure required. Carry out a full structural survey and implement any recommended structural stabilisation works. 1.2. Landscaping: Clear and remove the invasive trees from behind the structure and restore the landform.	Commenced October 2022. All rhododendron has been removed around the building and trees growing within the structure removed. The landform has been resorted and grass planted on the North side of the Fort. Grass has now grown for a walkable natural terrace. Survey work and associated chemical analysis of mortar ongoing at the time of this update.	Structural survey completed April 2023. Report to be issued to HES and PKC in future dialogue. Essential Repair work completed summer 2023. Discussion and preliminary thoughts regarding the use of this building have commenced with the owners of the Estate. It is anticipated the use will require close dialogue with PKC and HES together with planning and listed building applications once the dialogue has completed. It is hoped the roofed parts of the building can be put to a positive use. The south roof has collapsed and is wholly missing but there is evidence

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme: Commence	Work Programme: Complete
						of lead abutments. Early suggestions are to reinstate this roof and use the spaces as garden stores for the estate gardeners. The East and West sides also illustrate lead abutments and preliminary thoughts are to reinstate the 'Islamic' roof structures with the interiors being used as shelters for guests and owners when using the Estate. Future planning and listed building applications will be submitted after consultation with PKC.
				2. Conservation/ Restoration Works 2.1. Restore the masonry walls using traditional lime mortar. 2.2. Carry out the stitching of cracks and structure movement. 2.3. Research the content of the existing lime harl to determine the chemical content and re-harl the surfaces to match the existing in texture and colour; 2.4. Reconstruct the Islamic domes and finish in natural materials. The opportunity exists to use natural timber shingle finish to these structures. 2.5. Landscape restoration will require the removal of all invading trees on the terrace and the surprise walk and the lopping and trimming of trees in order to open the long views of the Estate.	Due to commence once final use of this structure have been discussed with PC and HES. It is anticipated planning and LBC will be required. The design stage has commenced.	Anticipated dialogue with PKC and HES before end of 2023. Listed building application to be submitted Spring 2024 and this structure will be complete in Autumn 2024.
5.0	**Star Battery**	**B**	The Star Battery is a 'romantic' structure located as the east terminating feature of the North Terrace. It provides important views across the valley to The Fort, The Dairy, and Castle Tower. The structure is constructed in ashlar masonry in the form of a classical half star fortification. The structure suffers from vegetation and tree invasion. The construction is affected by deteriorating mortar and lost masonry.	**1. Stabilisation /Essential Repair Work** 1.1. The repair and the reinstatement of the masonry structure will be necessary to stabilise and restrain further deterioration. 1.2. All structural reinstatement will be carried out using the traditional methods of lime mortar and masonry construction. 1.3. Landscaping: Clear and remove the invasive trees and vegetation.	Due to commence February 2023	Essential Repairs completed. Structural report to be complete by end of 2023.
				2. Conservation/ Restoration Works Landscape restoration will require: 2.1. The reinstatement of the traditional long views;	Due to commence Summer 2023.	TBA pending completion of initial investigations.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme: Commence	Work Programme: Complete
				2.2. The preparation of the ground surface will be required to carry the reinstatement of a paved surface.		
6.0	**The Icehouse**	**B**	The Icehouse as in all the large estates is located close to the main building usually on the north in order to reduce heat gain. Oval rubble building with gabled entrance porch to W, covering oval chamber. Of masonry construction and partially buried the structure provided the low ambient temperatures required to create ice. The structure is domed with the ice pit buried below the level of the external walls. There is a depressed-arched door to porch and a small loading platform to SW. Open-eaves slate roofs, now in disrepair. The roof is massively overgrown. The roof is in uncertain condition but appears to be largely present, though damaged. The lintel of the north doorway has partially collapsed. The structure has suffered significant deterioration and will require stabilising to meet the health and safety regulations. The Icehouse requires considerable repair to the structure. The enhancement of its setting will be contained through its position within the newly defined courtyard of the proposed North Wing and Leisure Spa and the landscape of its immediate surroundings.	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural stabilisation works.	Due to commence April 2024. Initial inspection has raised concerns about access due to partial collapse of the entrance door area. Temporary stabilisation to permit access is presently being evaluated by the project Structural Engineers. The building has been protected from vandalism or accidental construction damage by robust fencing and associated security measures.	Anticipated completion Winter 2025. Initial visual structural survey carried out in Summer 2023.
				2. Conservation/ Restoration Works 2.1. Review and record the existing roof construction and repair and/or replace as required to meet all the conservation requirements of Historic Scotland. 2.2. Where it will be necessary to take down any existing structure for repair, for example at the gable front the reconstruction of the gable reuse the existing masonry and reconstruct with traditional lime mortar and pointing. 2.3. The main walls will be properly raked and repointed in lime mortar following analysis to establish original mortar mix 2.4. To mitigate against any danger yet require visual access and historical commentary as a visitor attraction, it will be necessary to erect a perforated iron screen door at the entrance, provide adequate lighting, and provide a historical description information panel. 2.5. Restructure the surrounding landscape to provide a new setting.	Works here will be dependent on the outcomes of the detailed survey work – due to be completed Spring 2024.	The Design Team are reviewing the owners desire for this to be brought into a positive use on the Estate. It is anticipated the design team will bring forward a series of possible uses and sketch designs in the form of a formal Pre-App in the Summer of 2024.
7.0	**The Ramparts**	**B**	The Ramparts lie along the elevated south bank of the River Tay. They provide an imaginative fantasy walkway linking the Castle and Tom More . This extensive walk provided views onto and across the river from behind a battlemented structure. The battlemented wall with "watch towers" acts as a buttress wall supporting the change in level at the embankment down to the river. Damage has occurred through fallen trees overgrowth of the tree canopy and the deterioration of the masonry structure leading	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural works required to stabilise the damaged structure and strengthen the supporting function of the wall. 1.2. Structural mitigation will require the removal of fallen debris and branches.	Due to commence in the Spring of 2023. Additional damage has been recorded following damage during Storm Arwen in late 2022.	Completion of the preliminary report is anticipated late winter 2023. Initial finding will be passed to PKC and HES for onward dialogue.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme: Commence	Work Programme: Complete
			to weaknesses of the buttress structure. The views are now impeded by tree growth and under storey vegetation.	1.3. Landscape mitigation will require the removal of all the invasive trees affecting the structure and the walkway.	There also appears to be some land slippage on the river side of the Ramparts. Initial inspection work is ongoing at the time of this update.	
				2. Conservation/ Restoration Works 2.1. Restoration and reconstruction due to fallen trees and structural failure. 2.2. Replace damaged masonry and repoint entirely in lime mortar. 2.3. Clear and reinstate the walkway surface. 2.4. Carry out the necessary lopping and thinning in order to restore the controlled views of the river in accordance with the landscape management plan.	TBA	TBA
8.0	**The Ha Ha**	**B**	The Ha-Ha structure is the defining edge of the North Terrace. If forms the structural edge to the ditch and mound and runs for some 2.75km between the Star Battery and Maxwell's Temple The repairs to the Ha Ha structure will require both landscape clearance and structural repair.	**1. Stabilisation /Essential Repair Work** Cracking was identified in the structure in December 2022.	Structural investigations are ongoing at the time of this update. 2023. The Ha Ha has been closed off and warning signage erected pending detailed structural surveys.	Structural Survey carried out. Structural report to be completed by Dec 2023.
				2. Conservation/ Restoration Works 2.1. Clear out all vegetation from the wall surface. 2.2. Restore the main avenue of trees through judicious pruning and clearance. 2.3. Replant dead and dying trees. 2.4. Identify all fallen masonry. 2.5. Stabilise and reconstruct damaged parts of the wall along its entire length in traditional wall construction techniques to match in with existing. 2.6. Reinstate the footpath surface. 2.7. Restore and stabilise the "tunnel".	Some local tree felling was carried out in the autumn of 2022 following Storm Arwen. The referred to repair work will be in formed by the completion of the survey work referred to above.	Ongoing at the date of this update. Anticipated commencement late Spring 2024. Completion TBA once the extent of repairs has been fully appraised.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme: Commence	Work Programme: Complete
9.0	**The Dairy**	**A**	The Dairy is located on its terrace atop of Tom More. This important building is a square single storey with a central drum. It is constructed in thematic form with traditional Breadalbane overtones with rustic finishes in white quartz walls with log column porticoes and wall screens. The original drum balcony is now missing. A semi-circular bowed feature on the east face is reflected in the shape of the terrace. The building is located on a grassy terrace to the east side of Tom More. The building in the landscape is highly visible. However, many of the original design features have been lost over time. The building was converted relatively recently into a residence but its condition has deteriorated considerably since 2003, with substantial water ingress having damaged the roof structure and interiors significantly. Planning permission has been granted in 2005 for alterations to the Dairy to provide a two bedroom House. To restore the Dairy to its original place in the landscape conservation and restoration of the traditional features will be essential for the building to retain its significance in the Designed Landscape.	**1. Stabilisation /Essential Repair Work** 1.1. Fabric report to be carried out by an expert in the eradication of rot to establish repair methodologies that cause minimum damage to the historic fabric. Implement any rot eradication and repair work in accordance with their recommendation. 1.2. Carry out a full structural survey and implement any recommended structural stabilisation works to the roof and structure elsewhere in the building. 1.3. Strip out of modern/ post war finishes, fittings and partitioning as required to identify the extent of damage to the existing fabric. 1.4. Carry out roof repairs using the original slate reclaimed from the existing roof.	Detailed survey and investigations work commenced June 2022. This illustrated an urgent requirement to arrest water penetration. PKC requested an application for these urgent repairs. Permission granted for essential repairs and maintenance under 22/00733/LBC. The works are presently being developed, costed, and tendered. It is anticipated the works will start on site in the Spring of 2023.	Initial essential repair work completed summer 2023.
				2. Conservation/ Restoration Works Carry out alterations to provide new residential proposals in accordance with approved drawings including: 2.1. The restoration of the surrounding tree trunk feature to the external walls. 2.2. The reconstruction of the entrance. 2.3. The restoration of the projecting gable eaves.	Works are being developed and are due to commence late Spring 2023. It is likely there will be another planning and LB application to seek consent for this building to be used as the Estate Golf Clubhouse. It is anticipated and application will be presented for change of use in the Autumn 2023. Planning and LBC Applications now submitted and in-front of PKC for review.	Planning and Listed Building Consent applications submitted to bring The Dairy back into use as a Golf Clubhouse and carry out essential work. Awaiting feedback for applications from PKC.
10.0	**The Dairy Byre**	**B**	The Dairy Byre is a functional estate building complete with its original timber stalls and stone troughs. It is currently unused. Constructed in dressed stone in an L plan form, it has steeply pitched roofs finished in slate and decorative bargeboards. The building is set on the north-west side of the curling pond. The building is not wind and watertight. The roof is damaged in several places. Most windows and roof lights have lost their glazing. The gutters are full of plants and leaves. The surrounding woodland is encroaching on the building. Planning permission has been granted in 2005 for the conversion of the Dairy Byre to provide a three bedroom residential estate property. The highly decorative nature of the building and the clarity of the unusual	**1. Stabilisation /Essential Repair Work** 1.1. Fabric report to be carried out by an expert in the eradication of rot to establish repair methodologies that cause minimum damage to the historic fabric. Implement any rot eradication and repair work in accordance with their recommendations. 1.2. Carry out a full structural survey and implement any recommended structural stabilisation works to the roof and structure elsewhere in the building.	Due to commence Spring 2024.	Essential Repair works and vegetation clearing have commenced and are on-going during this update.
				2. Conservation/ Restoration Works Carry out conversion of Dairy Byre to provide new residential proposals in accordance with approved drawings including:	TBA	Conversation ongoing with client regarding the anticipated use of the building. Dialogue with HES

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
			internal detailing are elements that will be essential to be built into the restructuring of the building into residences:	2.1. Restoration will require the thinning and removal of impeding trees and the reformation of the landform to the rear of the building in order to establish measures to control groundwater and damp ingress as well as providing an improved setting. 2.2. Clean down the masonry walls and repoint overall in lime mortar. 2.3. Inspect and repair the decorative bargeboards. 2.4. Clear the roof of debris, take down the slates and comprehensively repair the entire roof using the best conservation measures and materials. 2.5. Replace all the rainwater goods with new cast iron. 2.6. Repair and restore and where practicable incorporate features of the byre timber into the restructured building. 2.7. Restructure the surrounding landscape.		and PKC to begin once brief is confirmed.
11.0	**Main Gate and Lodge**	**B**	The Main Gate and Lodge located at the east entrance to the castle forms a complex asymmetrical composition of screen wall, towers and lodge, castellated throughout. The structure consists of a Tudor style main arch flanked by square and circular towers. The octagonal lodge is located to the east side with circular tower and constructed in stugged ashlar. The date panel of 1570 and armorial panels of 16th and 17th centuries date from the demolition of Balloch Castle are incorporated. The Estate walks link it to either side. Designed by Archibald and James Elliot. The structure of the Gate is in a stable condition but will require some masonry repair to stabilise the masonry finish.	**1. Stabilisation /Essential Repair Work** Not applicable		
				2. Conservation/ Restoration Works 2.1. The gate opening is not sufficiently wide and high to accommodate the passage of the size of vehicles required to service the Hotel and its infrastructure: Landscape mitigation will be required to provide an adequate access route that will bypass the gate structure. This will entail the removal of selected trees and the reformation of the landform to accommodate a road. 2.2. Carry out general masonry restoration and indentation of damaged masonry.	Initial consent for reuse of the Gatehouse in place as per consent 22/00704/LBC, 22/02002/LBC and 22/00744/FLL. Work due to commence 2024. Consent for additional security pod and landscaping works approved by PKC.	Work on the main building to commence early 2024 with a completion by end of 2024.
12.0	**Kenmore Gate**	**B**	The Three Arch Gateway forms an impressive urban design feature at the junction with the Designed Landscape and the planed estate village. The structure is formed of a large four-centred main arch with crenelated gable over, flanked by octagonal towerlets and smaller side arches or pedestrian gates. The wrought iron gates were probably constructed c1838 by James Smith, clerk of works at Taymouth. The West Gate provides access to the Estate from Kenmore Village. The structure isin a stable condition. The gate is of adequate dimensions to cater for the movement of standard car traffic. Previous enhancement works by the Council has improved the surface of the "square" fronting onto the gate structure.	**1. Stabilisation /Essential Repair Work** Not applicable		
				2. Conservation/ Restoration Works 2.1. Carry out general masonry repairs to damaged masonry through Indentation and repointing in lime mortar as required. 2.2. Consideration should be given to the future creation of a more formal arrangement of the square and the surface treatment the will enhance the formality of the entrance to the hotel and the Estate.	Initial appraisal due to commence spring 2024. Initial preservation and repair work due to commence in the Winter of 2023.	Anticipated completion at the end of April 2024. TBA.
13.0	**The Breadalbane Wall**	**Listed.**	The Estate walls enclose the core area of the Designed Landscape on two sides with the Ha-Ha forming the north boundary. Their distinctive design integrity and general condition make them an outstanding example of estate walling and an important part of the Designed Landscape:	**1. Stabilisation /Essential Repair Work** Not Applicable	Survey work completed October 2023.	
				2. Conservation/ Restoration Works The Breadalbane Wall in rubble construction 2.1. Take down and repair damaged and unstable portions of the wall.	Application for consent required. Anticipated submission January 2024.	This work will commence in the Summer of 2024. Given the length of the walls and the required road closures it is

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
			• The Breadalbane Wall runs from the Main Gate to the East Lodge is constructed in rubble with long and short vertical coping and generally 1.2m to 2.9m high. Not separately listed.	2.2. Restore lost and fallen masonry using traditional walling techniques to match existing.	Reference should also be made to planning application ref 22/02099/FLL and 22/02099/FLL.	expected this work will take circa 3 years to complete.
14.0	**The Estate Wall**	**Listed**	The Estate Wall acts as a retaining wall to the A827, Aberfeldy Road and to the park allowing views across the Taymouth landscape from the loch to the Main Gate. It is constructed in coursed rubble with squared level coping and generally 0.6m to 1.5m high.	1. **Stabilisation /Essential Repair Work** Not Applicable	Survey work completed October 2023.	
				2. Conservation/ Restoration Works The Estate Wall in coursed rubble construction with squared level coping: 2.1. Take down and repair damaged portions of the wall. 2.2. Restore lost and fallen masonry using traditional walling techniques to match existing.	Listed Building Consent Application approved for repairs to the wall	This work will commence in the Summer of 2024. Given the length of the walls and the required road closures it is expected this work will take circa 6 months to complete.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
15.0	**Newhall**	**B**	The building is set out as a steading with a quadrangle of buildings arranged around a courtyard. The buildings were used for stabling, kennels, and accommodation for farm equipment and staff housing. The external walls are of random rubble construction with traditional harled finish and evidence of lime mortar. Fine semi-circular arches define the east and west entrances. The east entrance is a wide arch with niches and set into a truncated gable with crenelated apex above. Seven gothic arched windows are ranged along the main west wall. The north wall forms the range of kennels at low level. The building is in a partially derelict and ruinous state. Two cottages constructed of the same materials are located on rising ground to the south of the steading. This group of buildings makes an important contribution to the design of Scottish steadings. Planning permission has been granted in 2005 for the conversion of the Newhall Kennels to a luxury Spa. The current proposals for new spa facilities elsewhere on the site mean that this consent is unlikely to be realised and it is proposed that a separate application is progressed to convert the kennels to another use.	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural stabilisation works to the existing walls, including any temporary works required to render the ruinous structure safe.	Due to commence spring 2024.	Anticipated completion late Spring 2024.
				2. Conservation/ Restoration Works Carry out conversion of Dairy Byre to provide new use in accordance with approved drawings. The proposed redevelopment of the Newhall quadrangle (steading) and cottages will require proposals which will respect the traditional structure of the existing building including: 2.1. Retaining and repairing the two arched entrances. 2.2. The new development should not exceed the height of the average building mass. 2.3. Careful consideration of the use of materials will be essential if the integrity of the existing building is to be retained. 2.4. Reconstruction of the existing portions of the building to be carried out in traditional lime mortar. The wall surfaces to be harled and painted in traditional lime materials.	TBA	The Design Team are reviewing the owners desire for this to be brought into a different use on the Estate. It is anticipated the design team will bring forward a series of possible uses and sketch designs in the form of a formal Pre-App in the Summer of 2024.
16.0	**Newhall Bridge**	**B**	The bridge was designed to provide access for primary functions and to other features within the landscape, the Star Battery, and the North Terrace and Ha-Ha. However, due to its poor safety condition and its remote location, the bridge was decommissioned as part of works by previous owners which included the removal of the timber walkway and cast-iron deck structures. The current owners have a long-term aspiration to renovate Newhall Bridge.	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural stabilisation and repair works. 1.2. Repair and strengthen the main cast iron structure as required. 1.3. Resurface the bridge walkway with new treated timber.	Vegetation and trees removed from the structure in December 2022 and January 2023 Scaffold access installed Jan 2023 to permit safe access to allow survey work to be carried out. Safe access expected late Jan 2023. Initial results require removal of rust lamination from the structure to permit detailed analysis of the remaining steels to ascertain loadbearing characteristics.	Anticipated structural reports relating to condition - Spring 2024. Initial findings passed on to PKC. Discussions with client ongoing regarding scope of work and programme.
				2. Conservation/ Restoration Works To be confirmed subject to agreement with adjoining landowner and following input from local community.		
17.0	**The Chinese Bridge**	**A**	The bridges on the Estate have a variety of functions. These include: • Visual features set within the landscape. • Provide access to other features in the landscape; and • Provide access to primary functions within the Estate. The Chinese Bridge provides for two of the listed functions and is the most significant bridge within the Estate. The bridge is an historic one set out on to be a major feature of the landscape as well as providing access to the	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural stabilisation and repair works 1.2. Repair and strengthen the main cast iron structure as required. 1.3. Resurface the bridge walkway with new treated timber.	Scaffold access installed Jan 2023 to permit safe access to allow survey work to be carried out. Safe access expected late Jan 2023. Initial findings have illustrated	Anticipated structural reports relating to condition - Spring 2023. Additional structural surveys on-going due to difficulty of safe access around the bridge. Full report anticipated 2024.

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme: Commence	Work Programme: Complete
			rock house (the Chinese house) located across the river and to the North Terrace and the Ha-Ha. The bridge requires restoration and conservation.		severe damage to the structure. Access on hold pending alternative solutions to permit more detailed survey work. Update passed to PKC planning in January 2023.	
				2. Conservation/ Restoration Works 2.1. Remove the central barrier on the bridge 2.2. Repoint the masonry buttresses and breakwaters. 2.3. Prepare, prime and repaint the structure as required to prevent further deterioration. 2.4. Further to carrying out a risk assessment, and with the agreement of Historic Scotland, if required for health and safety measures provide a narrowing of the spacing of the balusters.	Presently on hold pending detailed survey works.	
18.0	**Estate Bridges**		There are a number of other bridges set within the landscape that provide some or all of the functional criteria stated above. These are:	**1. Stabilisation /Essential Repair Work** 1.1. Carry out a full structural survey and implement any recommended structural stabilisation and repair works, including any temporary propping or strengthening required for anticipated site construction traffic loadings. 1.2. Clear and remove all encroaching vegetation. 1.3. Clear and re-establish the watercourse at each bridge. 1.4. Stabilise embankments at the bridges.	Commenced October 2022. Ongoing. Initial strengthening of **Deer Park Bridge** has taken place to permit construction traffic to pass. It is anticipated this will stay in place for circa 3 years. The water worn stones from the parapets have been removed to protect them from damage during the construction phase. These are safely store on site and will be replaced in circa 5 years. Works to Deer Park Bridge planned in late 2024 now that Listed Building Consent is in place. **South Drive Bridge (I) –** this bridge had been condemned as unfit to take any traffic by the project engineers. The bridge has been fenced off for safety reasons pending detailed analysis and a long-term structural solution, **East Drive/Alt Cromitain** Initial strengthening of has	TBA.
		Not listed	• ***Deer Park Bridge*** The bridge only meets one of the functional criteria to provide access from the Main Drive to the Castle from the East Gate. Listed Building Consent given for repairs and renovation of the bridge.			
		B	***Curling Pond Bridge*** The bridge only meets one of the functional criteria as access along the South Drive. It will require repair and maintenance.			
		Not listed	• ***Sawmill Bridge*** This is a pedestrian bridge providing access to the Sawmill and the related cottages. It provides fine views of the cascade on Alt á Bhlealaich framed by the Cascade Bridge and links to the South Drive pathway system. It requires considerable repair and maintenance.			
		Not listed	• ***South Drive Bridge, Gravel Pit (1)*** This bridge has been lost to the landscape and formed a pedestrian link from the South Drive to the Deer Park Bridge. Recorded in c1820 as a timber structure. It requires to be made safe and the stonework restored in order to be retained as an integral element of the built heritage of the Estate.			
		B	• ***South Drive Bridge, Gravel Pit (2)*** The bridge meets one of the criteria established to provide access along the South Drive to link to Deer Park Bridge and the Main Drive. The bridge requires repair and maintenance. It is exposed within the landscape.			
		Not listed	• ***East Drive/Alt Cromitain Bridge*** The bridge spans the Alt Cromitain providing access along the east drive to Newhall Cottages. Small semi-circular arch constructed in random rubble with separate rustic stones as a parapet at the ground level.			
		Not listed	• ***Main Drive/Alt Cromitain Bridge*** The bridge carries the main drive from the east gate. Single span semi-circular arch in random rubble with Breadalbane wall parapets of high and low copes. Likely date c1800 based on the dates given for the similarly designed Estate walls. This bridge			

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
		B	also lies within the Newhall Surprise Woods adjacent to the East Drive Bridge. It requires repair and maintenance. • ***The Main Road Bridge, Cascade Bridge*** The bridge forms the boundary of the Estate. The Local Authority in its function as roads authority carries out all maintenance as required. All the Estate Bridges are to be restored to their visual function in the landscape.		taken place to permit construction traffic to pass. It is anticipated this will stay in place for circa 5 years. .	
				2. Conservation/ Restoration Works 2.1. Carry out structural repairs to all the abutments and springing arches. 2.2. Replace the lost and damaged masonry with natural masonry to match. 2.3. Bed and repoint all joints in traditional lime mortar. 2.4. Reconstruct all parapet walls and railings as original. 2.5. Reinforce and resurface the road surface. 2.6. At the Gravel Pit bridge (1), reinstate and repair the existing masonry abutments.	TBA	TBA
19.	**Main Tower and West Wing.**	**A**		As per consented PP and LBC.	Following the granting of Planning Permission in 2011 (11/00533/FLM), progress has been made in purifying a series of planning conditions to allow the permission to be taken forward. In addition, progress continues to be made in respect of the preceding permission (03/02250/PPLB superseded by 11/00530/FLM) which includes progressing conservation and restoration works to the first floor of the Castle as well as works to the ground floor of the Castle. An amendment to the extant Listed Building Consent (03/02250/PPLB) has been approved by PKC in respect of Floors 2 and 3 of the Main Castle (11/01800/LBC). This also confirmed the routing of the new lift within the Main Castle that was agreed as	

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
					a Non-Material Variation (planning only) in 2006. A listed building consent was approved in 2017(17/0910/LBC) for alternative suite layouts to provide 20 suites in the Main Tower (second and third floors) and 3 suites in the West wing (second floor). A separate listed building consent application was approved in September 2017 (17/01373/LBC) for internal alterations to the Victoria Rooms of the main castle to provide an additional en-suite bedroom suite to allow the flexibility of a possible alternative use, in addition to the current consent which proposes function rooms in this area.	Construction works commenced in January 2022. It is anticipated the Main Tower and West Wing with some external works will be wholly complete and handed over to the owners in March 2024.
20.	**East Wing.**	**A**		Throughout 2014 and 2015 planning and listed building consents were approved to amend the internal layouts of portions of the east wing to provide hotel suites. Listed building consent number 14/02108/LBC gave approval for 8 hotel suites in the south west range of the east wing (stage 1). Listed building consent number 15/00692/LBC gave approval for 11 further hotel suites in the central and North range of the east wing (stage 2). A further planning and listed building consent application was submitted in 2015 for the removal of the previously approved spa and swimming pool and converting the East Wing to a total of 52 Hotel suites (PKC planning refs 15/01590/FLL and15/01591/LBC). These applications were approved in December 2015 with a series of conditions which effectively supersede the conditions in the original consents (PKC planning refs 11/00533/FLM and 11/00531/LBC) which relate to the previous proposals for a swimming pool and spa in the East Wing of the Castle.	When the estate changed ownership in 2021 / 2022 the owners carried out a review of their accommodation requirements in relation to the East Wing and the wider Estate. The design team have been actively engaged in design changes. PP and LBC applications have been submitted to PKC reflecting the desired alterations. These applications are with PKC (in registration phase). It is anticipated, providing consents are in place, to commence with works relating to 2023 permissions as soon as possible. The East Wing will have a build programme of 2 years with an	Survey and investigation stage completed in March 2023. Planning application for the updated design has been approved in Summer 2023. Initial technical design on-going with planned commencement of works in Autumn 2024.

Heritage Feature		Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
					Commence	Complete
					anticipated completion and hand over in 2026. Survey works relating to the current condition of the buildings commenced in October 2022. Scaffold erected to south and, in part, east side to permit close inspection of stone and windows ahead of repairs. Scaffold due to be signed off for use at the end of January 2023. Site Investigation, ground testing and contamination surveys carried out December 2022 to permit detailed design of basement to commence. Trial pits to ascertain suitability of piling to permit the construction of a basement underway January 2023. Temporary tarpaulin placed over Northwest tower to arrest severe water ingress. Structural survey of NW tower due to commence in February 2023. Internal scaffolding to be erected in January / February 2023 to permit details inspection of high-level roof structures. Removal of defective new build works carried out in 2012 underway at the time of this update. Defective plasterboard, incorrect insulation, first fix electrical, plumbing, heating, and ventilation services are all to be removed.	

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Heritage Feature	Category Listing	Description of Existing	Proposed Schedule of Works	Work Programme	
				Commence	Complete

MCKENZIE STRICKLAND ASSOCIATES
23 Bank Street, Aberfeldy, PH15 2BB
t: 01887 829228
f: 0887 829588
e: info@msa-architects.com

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Drainage Strategy

Ref: 17864

Revision: C – Plans Updated

Date: November 2023

Subject: PROPOSED DEVELOPMENT (HOUSING ZONE 4)
AT TAYMOUTH CASTLE, KENMORE
For The River Tay Castle LLP

INTRODUCTION

Millard Consulting were appointed by River Tay Developments Ltd to assess a drainage strategy in support of planning applications for the above development.

DEVELOPMENT PROPOSALS

The proposed development comprises construction of dwellings with associated infrastructure, including renovation and conversion of The Dairy to provide a golf clubhouse with associated golf buggy park. Refer to **Appendix A** for existing and proposed site plans.

FOUL WATER DRAINAGE PROPOSALS

There are no foul water sewers in the vicinity of the development. During recent consultations with Scottish Water it was confirmed that there was insufficient capacity in Scottish Water's drainage infrastructure to serve the development. Subsequently SEPA granted a CAR License for disposal of treated foul water from the development into the River Tay via a new outfall by Newhall Bridge. Subject to a successful planning application and approval by applicable statutory bodies, it is intended to amend the point of discharge into the River Tay for this application.

Foul water from plots GC-01 to GC-18 and the proposed golf clubhouse would be collected and conveyed by drains to individual plot disconnection chambers and then conveyed by gravity drains to packaged foul water pumping stations. Foul water to be pumped via rising mains to a foul water packaged treatment plant. Subject to all necessary approvals, treated foul water would discharge into the River Tay at a point to be agreed with SEPA opposite the proposed foul water packaged treatment plant.

SURFACE WATER DRAINAGE PROPOSALS

Appropriate SUDS will be provided in accordance with "CIRIA C753 – The SUDS Manual" and Perth and Kinross Council's drainage requirements.

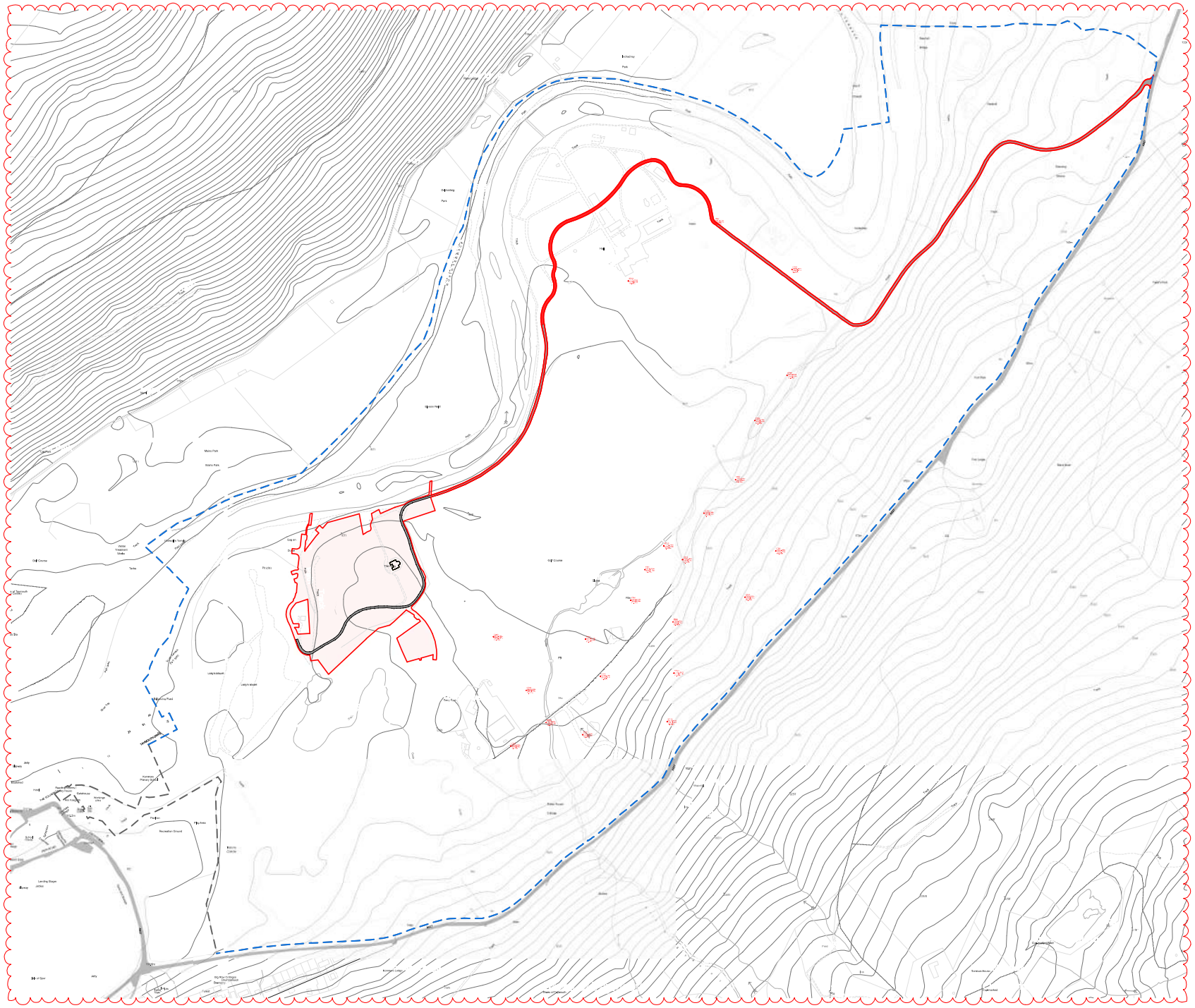
Surface water runoff from shared access roads to be collected by road-side filter trenches and conveyed by collector drains to the River Tay. The filter trenches will be lined with a geotextile rather than an impermeable membrane in order to maximise the opportunity for runoff to infiltrate into the subsoil. The drainage system will be sized to attenuate and restrict runoff to the pre-development Greenfield run-off rate or at a rate to be agreed with Perth and Kinross Council.

Roof water from individual plots to be collected and conveyed to underground geocellular storage attenuation systems before discharging from plot disconnection chambers into the road-side filter trench collector drains. Surface water discharge from each plot to be restricted to 0.5l/s up to the critical 1:200 year storm event (including additional allowance for current climate change and additional 10% dwelling roof area for future extensions).

APPENDIX A

Existing Site Layout

Proposed Site Layout



Z4-LP

Zone IV Location Plan
1:2500

LEGEND:

- Land in ownership of the client
- Site Boundary - **Zone 4**
- Existing road
- Road subject to separate application

N

SCALE 1:2500

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB T: 01887 829228 21 Comrie Street Crieff Perthshire PH7 4AX T: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/08/23	A	General drawing alterations as per planning vetting
17/10/23	B	Site Boundary of land
30/11/23	C	General drawing alterations

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Location Plan	SCALE: 1:2500@A0	DRAWING STATUS: PL	DRAWN BY: SOJS CHECKED BY:
DRAWING NUMBER:		REVISION: C	DATE: JUNE 2023
DEPOT:			



Z4-MP

Proposed Masterplan 1:500

LEGEND:

- -Previously Approved House Locations
- -Existing Track
- -Proposed New Road
- -Previously Consented Development
- -Proposed House Location
- -Existing Trees To Be Retained
- -Proposed Drainage System Network

Proposed Developable Area

Z4-01	(approx. 1,66ha)
Z4-02	(approx. 1,96ha)
Z4-03	(approx. 1,95ha)
Z4-04	(approx. 0,67ha)

N

Scale bar 1:500

0 10 20 30 40 50m

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Connie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/08/23	A	General drawing dimensions as per planning setting
17/10/23	B	Site Boundary of land
30/11/23	C	General drawing dimensions
28/11/23	D	Access Track Alternatives

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Proposed Masterplan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOAS
DRAWING NUMBER:		REVISION: D	DATE: JUNE 2023

Taymouth Castle
Housing 4
Aberfeldy

Discovery Land Company







Ecological Assessment

NIGEL RUDD ECOLOGY

Nigel Rudd
BSc CBiol MRSB CMLI

January
2024

Nigel R Rudd

Nigel Rudd Ecology
15 Birch Crescent
Penicuik
Midlothian
EH26 0FW

Mobile 07976 954 642

Email nigel@nigelruddecology.co.uk

CONTENTS

	SUMMARY	**3**
1.0	**INTRODUCTION**	**4**
2.0	**LEGISLATION & POLICY**	**4**
3.0	**THE SURVEY**	**7**
	Desk Study	**7**
	Field survey	**7**
4.0	**BASELINE ECOLOGICAL CONDITIONS**	**8**
	Designated sites	**8**
	Habitats	**9**
	Species	**9**
5.0	**ECOLOGICAL IMPACTS, OPPORTUNITIES and RECOMMENDATIONS**	**12**
	Designated sites	**12**
	Habitats	**13**
	Species	**13**
	Summary	**14**
6.0	**BIODIVERSITY**	**15**
	Habitats	**15**
	New Features	**15**
Bibliography		**15**
Figure 1	Location Plan	
Figure 2	Phase 1 Habitat Survey Plan	
Appendix 1	Personnel	
Appendix 2	Feature Evaluation Table	
Appendix 3	Species inspections	
Appendix 4	Plant species list	
Appendix 5	Sites	

SUMMARY

Nigel Rudd Ecology was commissioned by Discovery Land Company to undertake a Phase 1 Habitat Survey extended to include protected species, badger, bats, otter, red squirrel, and pine marten, as well as designated sites over their land on the Taymouth Castle Estate, Aberfeldy.

The survey is required to inform proposals to develop the land for residential use in respect of potential ecological impacts of the proposals. The proposals include construction of houses for leisure use, and the installation of associated infrastructure.

The January 2024 updates findings of earlier surveys of the Site, most recently in 2022, and was designed to establish the ecological status of the land which is located on mounds supporting open woodland/scattered trees. The trees are surrounded by open ground formerly supporting rhododendron.

The field survey was complemented by inspection of biological records for the Site and the surrounding area to a radius of 5km. In addition, potential effects on designated sites within a radius of 2.5km were considered.

There was found to be no potential adverse effect on international, UK Statutory, or locally designated sites, albeit no records were obtained for locally designated sites.

The Phase 1 Survey involved a walkover of the land noting habitats and plant communities and sought evidence of use of the land by protected species.

The habitats on the land are unexceptional examples of their type.

No evidence was found of badger, bats, otter, or pine marten, using the Site. Two stripped pinecones suggested red squirrels visit the Site.

Rhododendron is growing on the land. Large areas have been removed from the area to accommodate development and improve biodiversity opportunity.

There will be negligible adverse impact on biodiversity from the loss of unexceptional habitats.

It is anticipated development of the estate will incorporate management of the developed site for biodiversity benefit resulting in a positive effect on biodiversity.

1.0 INTRODUCTION

1.1 This report is commissioned by Discovery Land Company in respect of proposals for residential development of land at Taymouth Castle Estate, Aberfeldy (NN778459), the Site. The proposals comprise a small development of houses for leisure use, conversion of an established building to a golf club house, and the installation of associated infrastructure.

1.2 The Taymouth Castle Estate is approximately 6km west of Aberfeldy to the north of the A827 between Aberfeldy and Kenmore.

1.3 The Site is irregularly shaped and is located on a west-facing slope. The Site is in the west-centre of the Taymouth Castle grounds bounded to the north by the River Tay and on the east, south and west by the golf course. The west drive to the castle passes through the Site.

1.4 The Site comprises two small hills which supports scattered trees/open woodland with some clearings. The land has been cleared of very dense rhododendron cover. There is one building in the east of the site.

1.5 There is one European designated ecological site within 2.5km of the land; The River Tay SAC (Special Area of Conservation). One UK statutory site, River Lyon Bank SSSI (Site of Special Scientific Interest), is within 2.5km of the land. No records were obtained for locally designated sites.

1.6 It is important development as proposed is achieved with no adverse impact on biodiversity. The purpose of the survey is to ensure the wellbeing of protected species is safeguarded during construction and operation of the development and to ensure there is no adverse effect of development on designated sites.

1.7 The report will set out the survey methods, the findings of the survey, an assessment of the impact of development and recommendations for planting and habitat creation. The report also sets out explicit preliminary measures for enhancement of wildlife opportunities, which will be incorporated in the buildings and/or landscape on the site, should that be appropriate.

2.0 LEGISLATION & POLICY

2.1 The following legislation and policies are relevant to the current assessment:

- The Wildlife & Countryside Act 1981 as amended;
- The Wildlife and Natural Environment (Scotland) Act 2011;
- The Conservation (Natural Habitats &c) Regulations 1994
- The Nature Conservation Scotland Act 2004;
- The Protection of Badgers Act 1992;
- National Planning Framework NPF4;
- Perth and Kinross Local Development Plan 2 (2019); and

- Tayside LBAP (Local Biodiversity Action Plan)

2.2 The Wildlife & Countryside Act 1981 as amended - The Act consolidated and amended existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain, Council Directive 79/409/EEC which was updated by Directive 2009/147/EC.

2.3 The Act is one of the most important pieces of environmental legislation in Britain. The Act provides for the protection of wild animals, birds, and plants as well as the protection of areas of natural heritage value and the designation of protected areas including, Sites of Special Scientific Interest (SSSIs), National Nature Reserves, (NNRs) and Marine Nature Reserves (MNRs).

2.4 The Act has been variously amended over the years by legislation including the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment Act 2011.

2.5 Wildlife and Natural Environment (Scotland) Act 2011 – The Act makes changes to existing legislation covering deer management, game management, species licensing, muirburn, snaring, badgers, invasive non-native species, and protected areas; SSSIs and ASPs.

2.6 The Conservation (Natural Habitats &c) Regulations 1994 – The Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (The Habitats Directive) into national law. The Regulations have been amended several times in Scotland, the most recent of which was 2012. Irrespective of the amendments, the purpose of the Regulations has remained the same; containing five Parts and four Schedules, the Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

2.7 The Nature Conservation Scotland Act 2004 – The Act imposes a wide-ranging duty on the Scotland's public sector to conserve biodiversity and protect the nations natural heritage. The Act strengthens protection of SSSIs and increases maximum fines for deliberate or reckless damage to Scotland's important natural land and wildlife habitat from £5,000.00 to £40,000.00.

2.8 The Protection of Badgers Act 1992 – The Act protects badgers by making it an offence to: wilfully kill, injure, take or attempt to kill a badger; possess a dead badger or any part of a dead badger; cruelly ill-treat a badger; use badger tongs in the course of killing, taking or attempting to kill a badger; dig for a badger; possess, sell or offer for sale any live badger; or mark, tag or ring a badger.

2.9 It is also a crime to interfere with a badger sett by intentionally or recklessly causing or allowing: damage to a sett or any part of it; destruction of it; sett access to be obstructed, or any entrance of it; a dog to enter it; disturbance to a badger when it is occupying it.

2.10 There is provision in the Act for licensing any otherwise illegal activity if it can be demonstrated this is in pursuit of a legitimate purpose.

2.11 National Planning Framework 4 – NPF4 is intended to protect, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks.

2.12 The Framework requires that *LDPs should protect, conserve, restore and enhance biodiversity in line with the mitigation hierarchy. They should also promote nature recovery and nature restoration across the development plan area, including by: facilitating the creation of nature networks and strengthening connections between them to support improved ecological connectivity; restoring degraded habitats or creating new habitats; and incorporating measures to increase biodiversity, including populations of priority species.*

2.13 Policy 3 of NPF4 sets a framework for how this should be achieved in respect of biodiversity.

2.14 NPF4 also addresses the issue of natural places with the intention to protect restore and enhance natural assets making best use of nature-based solutions.

2.15 The Framework says *LDPs will identify and protect locally, regionally, nationally, and internationally important natural assets, on land and along coasts. The spatial strategy should safeguard them and consider the objectives and level of their protected status in allocating land for development. Spatial strategies should also better connect nature rich areas by establishing and growing nature networks to help protect and restore the biodiversity, ecosystems, and natural processes in their area.*

2.16 NPF4 Policy 4 sets out the approach to protection of designated sites from the effects of development.

2.17 Perth and Kinross Local Development Plan – Policies 38(a), 38(b) and NE1C cover protection of international, national, and local designated sites stating that development will not be permitted which adversely affects these sites, unless there is overriding public interest in development affecting international and national sites, or the benefits from development outweigh the biodiversity value of locally designated sites.

2.18 Policies 40A and 40B relate to trees and woodland supporting applications which retain or protect existing woodland and trees or seek to establish new woodland and tree planting, in advance of development in line with the guidance in the Perth and Kinross Forestry and Woodland Strategy. The policies also require that tree surveys undertaken by a competent person should support the application where there are trees on the site and the nature of the surveys should be agreed with the council before being carried out.

2.19 Policy 41 provides for protection and enhancement of all wildlife and their habitats, whether designated/protected or not. It states the council will apply the principles of the Tayside Biodiversity Partnership development guidance as well as wildlife legislation in making determinations on applications received.

2.20 The policy also states that development that would adversely affect a species protected by European legislation would not be permitted unless:

- There is overriding public need and no satisfactory alternative; and
- The development is required for reasons of public health or safety or other overriding reason of public interest or of benefit to the environment.
- and if it is established that the European protected species are present, and the development is not detrimental to the maintenance of the species at a favourable conservation status.

2.21 Planning permission will not be granted for development which would have a negative on a protected species unless it can be justified under the relevant protected species legislation.

2.22 Policy 42 requires that all new development contributes to the creation, protection, enhancement, and management of green infrastructure. This is to be achieved by incorporation of green infrastructure into new developments, using high standards of environmental design, protecting the countryside from inappropriate development, and protection and enhancement of open spaces and links between open spaces and the wider countryside. In addition, it sets out the need for protection, enhancement and management of existing habitats and the creation of new bio-resources. In particular, the policy refers to the protection, enhancement and management of water courses, waterbodies and other elements of the blue network and stressed provision should be made to link the with the green networks.

2.23 The Tayside BAP – The plan addresses the need for co-ordination of work across habitat types in the promotion of biodiversity opportunity. The plan recognises the importance of the built environment to some rarer species. The relationship between built and natural environment is considered important in terms of water management, flooding, and pollution.

2.24 The plan also seeks to influence aspects such as development proposals, open space management, rural areas, woodland management, and greening of the built environment.

3.0 THE SURVEY

3.1 Desk Study

3.2 The desk study comprised:

- Acquisition of biological data from the National Biodiversity Network Atlas (Scotland) (NBN Atlas);
- Acquisition of information on designated sites within 2.5km of the land from NatureScot (Sitelink);
- Aerial imagery from Google Earth
- Consulting the Tayside Biodiversity Action Plan; and
- Consultation of historical maps of the land and its surroundings.

3.3 Field Survey

3.4 The survey was undertaken by Nigel Rudd Ecology (Appendix 1) in January 2024.

3.5 The survey area extended to the site boundary (Fig1) and an area 50m beyond the boundary, where accessible. The weather was dry and bright with average seasonal temperatures.

3.6 The survey comprised a walkover of the land consistent with Phase 1 Habitat Survey methodology (JNCC 2016), noting habitat structure and component plant species, augmented by assessment for potential for use by, or inspection for signs of the presence of, species protected under legislation listed above.

3.7 The species sought were badger, otter, red squirrel, pine marten and roosting bats, there was no significant suitable habitat for water voles, or great crested newts on the land.

3.8 The findings of the survey are set out below.

3.9 The survey findings are complemented by consideration of recorded data available from the NBN Atlas (Scotland), and the author's experience of the estate gained over ten years of surveys).

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 **Designated sites**

4.2 *International/ National sites*

4.3 There is one European designated site within 2.5km of the land; the River Tay SAC.

4.4 This SAC consists of running and standing water features with small areas of bog, marsh, fen, and water fringe habitats. The qualifying features comprise both habitats and species. The habitats are *oligotrophic to mesotrophic standing water with vegetation of the Littorelleta uniflorae and/or Isoieto-Nanojuncetea*.

4.5 The species which is the primary reason for selection of this site is Atlantic salmon *Salmo salar.* The River Tay is constantly in the top 3 salmon fishing rivers in Scotland, presenting habitats that support the full range of salmon life-history types found in Scotland. Salmon enter the River Tay to spawn throughout the year.

4.6 Other species which are qualifying features of the SAC, but not a primary reason for site selection. They are sea lamprey *Petromyzon marinus*, brook lamprey *Lampetra planeri*, river lamprey *Lampetra fluviatilis*, and otter *Lutra lutra*.

4.7 The qualifying species are distributed throughout the SAC catchment.

4.8 The SAC approaches to within 30m of the south-west boundary of the site.

4.9 There is one UK Statutory site within 2.5km of the land; River Lyon Bank SSSI.

4.10 There is one UK statutory site within 2.5km of the Taymouth Castle site: River Lyon Bank SSSI (Site of Special Scientific Interest).

4.11 River Lyon Bank is a small biological SSSI, the notified feature of which is whorled Solomon's-seal *Polygonatum verticillatum*. The site is a narrow strip of riverside woodland noted for its rear vascular plant species including the nationally rare whorled Solomon's seal.

4.12 No record was obtained of local nature conservation sites within 1km of the Site.

4.13 Woodlands on the Estate are listed in the Ancient Woodland Inventory of Scotland.

4.14 **Habitats**

4.15 The land proposed for development is in the grounds of Taymouth Castle with its associated parkland golf course set in a mosaic of tree, shrub, herbaceous and grassland habitats. The composite of habitats will be described, and the overall habitat value assessed. The Site exhibits open woodland/scattered trees on two mounds. The site is divided by the west drive to the Castle. The mound is to the north of the drive and there are more trees to the south,

4.16 Tree cover comprises several tree species of varying ages and condition. Species include beech, cypress, lime, sycamore, chestnut, spruce, holly, and oak. The tree cover comprises groups of trees of various sizes and individual specimens.

4.17 The trees are set within areas of areas of open ground left by the clearance of rhododendron. Bracken, nettle, bramble, woodrush, violet, wood sorrel, some rhododendron and bilberry are represented in the field and ground layer.

4.18 The tree cover is not exceptional, this habitat has **site value.**

4.19 The building in the site is undergoing renovation, with refurbished stone walls a slate roof and new windows.

4.20 The River Tay flows west-east to the north of the Site.

4.21 In summary, the Site exhibits very restricted habitat opportunities, the existing habitats are simple in structure, their plant communities are species poor and there are invasive plant species present that detract from their value.

4.22 **Species**

4.23 The only protected species anticipated as resident on the land were badger, red squirrel, and bats. Otters are resident on the River Tay adjacent to the Site. There are local records of pine martens. Inspection of the land revealed no significant habitat potential for great crested-newt, or water vole.

4.24 *Badger*

4.25 The ecology of badgers *Meles meles* is outlined in Appendix 3. The survey extended to a radius of 50m beyond the Site boundary, where accessible.

4.26 The land was inspected for evidence of use by badgers (Appendix 3). **No evidence was found of the species using the Site.** There was neither historical nor recent sign of use by badgers identified on or around the Site.

4.27 The NBN Atlas has records of the species 2.0km from the Site.

4.28 **The Site presents suitable habitat for sett excavation and low value forage resource**, but there is no record of the species local to the Site.

4.29 It is not anticipated badgers use the Site and that the Site has **no value** for the species.

4.30 *Bats*

4.31 The ecology of bats *Chiroptera* is outlined in Appendix 3. There is one building on the site and mature trees.

4.32 The trees were inspected for roost potential. One dead tree and two beech trees exhibited low and negligible roost potential, respectively.

4.33 The NBN Atlas (Scotland) holds records of common and soprano *Pipistrellus pipistrellus and P. pygmaeus,* and brown long eared *Plecotus auritus* bats within 5km of the land. The author has recorded pipistrelle species local to the land.

4.34 There is one building on the site; the Dairy. This building has slate roofs and pointed stone walls. It is undergoing restoration, comprising replacing the roof, cleaning, and repointing the stone walls, and installation of doors and windows. The building is currently surrounded with scaffolding and affording negligible roost opportunity, because of its condition and extensive water ingress.

4.35 There is negligible potential for bat roosting on the site, but extensive forage opportunity on and around the Site, over the trees and along the river.

4.36 It is anticipated the site will have **negligible value** for bats.

4.37 *Otter (and beaver Castor fiber)*

4.38 The ecology of badgers *Lutra lutra* is outlined in Appendix 3. The survey extended to a radius of 200m upstream and downstream of the Site boundary, where accessible.

4.39 An otter and beaver survey was conducted over the stretch of the River Tay adjacent to the Taymouth Castle Estate, including the site boundary, in December 2022, recording evidence of activity but no resting places of either species, along the banks of the Site.

4.40 It is recognised the species use the river adjacent to the Site but is deterred from resting near on the land because of the level of human activity.

4.41 The 2024 survey found no evidence of the species adjacent to the Site, but this was expected as the river was in spate and field signs may be washed away.

4.42 No resting place was identified but it is recognised the species are resident on the river.

4.43 **Development of the Site as proposed could affect otter and beaver behaviour if lighting is installed both during construction and operation. This should be avoided by screening the river from lighting or installation of directional lighting, directed away from the river.**

4.44 *Red squirrel*

4.45 The ecology of red squirrels *Sciurus vulgaris* is outlined in Appendix 3. The survey extended to a radius of 50m beyond the Site boundary, where accessible.

4.46 Red squirrels are found on or adjacent to this Site, but negligible evidence, two stripped pinecones, was found during the survey. No drey was seen and surprisingly no stripped spruce cones were found, despite there being numerous spruce trees on the Site. It is possible squirrels were not responsible for the two stripped cones.

4.47 The habitat presented on the site is sub optimal for the species in that it is isolated from large areas of woodland, with tenuous threads of tree cover along the riverbank. There is no substantial woodland local to the Site.

4.48 **The site is considered to have limited value for the species. Development of the land has the potential to improve the red squirrel habitat by supplementary tree planting and installation and maintenance of artificial feeders on the Site and across the estate.**

4.49 *Pine marten*

4.50 The ecology of pine marten *Meles martes* is outlined in Appendix 3. The survey extended to a radius of 200m beyond the Site boundary, where accessible.

4.51 The land was inspected for evidence of use by the species and habitat opportunity. NBN Atlas Scotland holds only one recent record of the species, south of the River Tay within 5km of the site. This was a roadside sighting approximately 1km southwest of the Site. No evidence has been found of the species on the Taymouth Castle Estate, yet there have been numerous surveys carried out over the last fifteen years. There is restricted woodland cover in the east of the Site, such that the Site is sub-optimal for the species.

4.52 **It is considered the Site has negligible value for pine martens.**

4.53 *Other species*

4.54 No formal bird survey has been carried out over the Site. No bird nests have been found on the Site and no walkover survey has noted nesting bird activity, even though several inspections have been carried out during the nesting season. No nesting activity was recorded prior to clearance of the dense cover of *Rhododendron.*

4.55 **It is appropriate to carry out a nesting bird inspection of the proposed development zones if further vegetation clearance is proposed during the nesting season. It is considered ideal to undertake further vegetation clearance outside the bird nesting season.**

4.56 *Rhododendron ponticum* is growing on the land. There are small plants that survived the clearance scattered across the Site. The species is listed in Schedule 9 of the Wildlife & Countryside Act 1981 as amended because they are non-native invasive species with the capacity to smother native plant communities to the detriment to local biodiversity. It is an offence to cause these species to grow in the wild.

4.57 **It is recommended that the recovering plants are spot treated with herbicide to prevent the species taking over the Site again.**

4.58 **It is also recommended that specialist contractors are appointed to supervise excavation of areas contaminated with rhododendron and recommend on-site burial material, or disposal of contaminated material to licensed landfill.**

4.59 Freshwater pearl mussels *Margaritifera margaritifera* are found in the River Tay. The redevelopment of the Taymouth Castle Estate must be achieved without compromise of the conservation status of the species within the river. This issue is not addressed within this report as the matter is addressed in two recently commissioned reports (Skorpa Ecology & Trex Ecology (2023) and Gavia Environmental (2023)), and discussion of individual projects with potential effects on the species.

5.0 ECOLOGICAL IMPACTS, OPPORTUNITIES and RECOMMENDATIONS

5.1 The proposal is to develop the Housing 4 land for leisure residential use and conversion of the Dairy to a golf club house.

5.2 The proposed development land is scattered trees/open woodland within a country estate that has not been managed in recent years, albeit there has been extensive rhododendron removal recently.

5.3 The potential impacts of the proposed development are identified below, and where appropriate mitigation measures are proposed.

5.4 **Designated sites**

5.5 *International designated sites*

5.6 There is one international designated site within 2.5km of the of the land; the River Tay SAC. The SAC is valued for fish species it supports and the development of the land will put in place measures to ensure there will be no adverse effects on the river originating from the development of the land as proposed.

5.7 There is potential for enhancement of surface water runoff to enter the river, adversely affecting the qualifying species of the SAC, thereby compromising the conservation status of the SAC.

5.8 **It is proposed that surface water will be collected in filtration ditches and discharged to the river. The filtered water will equate to that discharged by small streams across the Site. There will be no particulate material discharge from this facility.**

5.9 **A foul water treatment works is proposed for the northeast of the site. The treatment will incorporate both physical and biological treatment and the discharge will be licenced by SEPA, considering the water quality of the river.**

5.10 **It is considered there will be no adverse effect on the SAC. This matter was addressed at the time of the original development consent and there will be no compromise of the accepted drainage treatment method.**

5.11 *UK designated sites*

5.12 River Lyon Bank SSSI is remote from and not connected to the D1 land. Development as proposed will not affect the SSSI.

5.13 *Local designated sites*

5.14 No locally designated site was noted during this study.

5.15 **Habitats**

5.16 The development will be located in longstanding scattered tree cover which has plantation origins. The understorey of the tree cover was almost entirely dense rhododendron cover. The rhododendron has been cleared leaving tall trees within open ground. **The habitat has site value, and their loss would result in no significant adverse impact on biodiversity.**

5.17 The habitats lost will be replaced by new build with new tree and shrub planting and extensive retention of existing habitats, which will be brought under management for biodiversity benefit. **These changes present positive impacts of development as proposed.**

5.18 **Species**

5.19 There was no evidence of badgers using the site, and there is no risk to the wellbeing of badgers during the construction process, but building construction raises potential threats to wildlife. **Development will not have an impact on the species, but a precautionary approach is recommended, putting measures in place to ensure small mammals do not come to harm during construction; open pipes should be closed up at the end of each working day, and trenches should be covered, or a ramp provided to permit animals that fall in a means of exit, to prevent animals becoming trapped. Chemicals and materials should be stored securely.**

5.20 No significant bat roost potential was recorded on the land. It is anticipated that bats forage over the Site. **There is very little likelihood of bat roosting in the Dairy building. There is no evidence of the building housing roosting bats and much of the building is in poor sub-optimal condition for bat roosting. It is suggested that repair of the roof associated with refurbishment does not require a bat roost disturbance licence.**

5.21 **It is deemed appropriate that bat boxes are placed on nearby trees prior to start of work. The roof should then be removed under supervision of a licenced bat worker. If bats are encountered work should stop and the bats given an opportunity to fly away. If they do not, the bat worker should remove them and place them in the boxes and the work should continue.**

5.22 There will be no significant reduction of forage opportunity because the forage resource lost to development is insignificant in the context of local forage opportunity. The

Taymouth Castle Estate presents extensive high quality forage opportunities. **Development of the land with the associated tree and shrub planting represents a possible positive impact on local bat populations.**

5.23 There will be clearance of low value semi-natural habitat to make way for development. Clearance of vegetation has the potential to adversely affect nesting birds. Nevertheless, **it is recommended that clearance is carried out outside the bird nesting season; March to August, such that no adverse effect on nesting birds arises. If this is an obstacle to development, it is important that no clearance is undertaken before the land is inspected for nesting birds by a suitably qualified ecologist.**

5.24 There is a small amount of rhododendron in the area. **There is a programme of rhododendron removal on the estate which has been implemented on this Site bringing biodiversity enhancement opportunities. The Site will be monitored for rhododendron recovery and new growth will be eradicated, resulting in a long-term effect on biodiversity.**

5.25 **Summary**

5.26 Development of the Housing 4 land will result in the loss of low value semi-natural habitat to development. There will be negligible adverse impact on biodiversity from the loss of unexceptional habitats and it is **anticipated there will be a positive effect on biodiversity because of implementation of development as proposed.**

5.27 There will be no adverse impact on designated or protected sites.

5.28 There will be no impact on badger populations, but precautionary measures should be put in place to safeguard small mammals during construction.

5.29 There will be no impact on bat populations.

5.30 There will be no adverse impact on otters providing care is taken to avoid illumination of the riverbank.

5.31 There will be no adverse effect on red squirrels and there will be an opportunity to enhance the habitat resource of the Site for the species.

5.32 There will be no adverse effect on pine martens and the species, should individuals visit the Site, may benefit from the installation of measures to safeguard small mammals.

5.33 There has been a reduction of the extent of rhododendron on the land which will have a positive impact on biodiversity. The species will be eradicated from the Site.

5.34 **It is anticipated that there will be a positive effect on biodiversity because of redevelopment as proposed.**

5.35 **A Biodiversity Strategy for the Taymouth Castle Estate has been prepared proposing creation of new habitat opportunities, and enhancement and management of existing habitats to increase the biodiversity status of the estate. In addition, consideration will be given to installation of features which would artificially enhance wildlife opportunities across the estate.**

6.0 BIODIVERSITY

6.1 The development proposals have been designed to produce a modern leisure environment which accommodates new biodiversity opportunities on the land through appropriate planting and installation of new nesting, foraging, and breeding features. The proposals are prepared in the context of the *National Planning Framework 4.*

6.2 **Habitats**

6.3 Development as proposed results in the loss of low value, species-poor habitat, which will be replaced by new habitats. There has been removal of rhododendron from the Site. It is proposed to retain most of the trees on the Site and augment this with new tree and shrub planting. The new habitat complement will be managed for biodiversity benefit, incorporating new planting and creation of a diversity of habitat opportunities.

6.4 Retention of the tree cover ensures plant community continuity and connection to linear habitat resources along the riverbank.

6.5 All habitats will be managed for biodiversity benefit and enhancement.

6.6 **New features**

6.7 The development will incorporate installation of bat roosting and bird nesting opportunities, either integral or attached structures will be used, to be approved by Perth & Kinross Council.

6.8 Which type of feature is used will be what is most suitable for the individual buildings or mature trees. The selection will be made after consideration of the potential damage to the external finishes by soiling from bird faeces and to an extent bat urine. Defacing individual properties has the potential to prejudice the marketability of these buildings, increase maintenance and compromise their appearance.

6.9 Bat boxes will be installed in pairs, at least 3m above ground, facing south and east, swift nest boxes will be placed at least 5m above ground facing north or west, and starling boxes will be place at least 3m above ground facing north or west. The bird boxes are located on buildings and the bat boxes on the retained trees.

Bibliography

Collins, J. (ed) (2016), *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.

Gavia (2023), *River Tay SAC – Taymouth Freshwater Aquatic Surveys – Taymouth Castle Estate,* Gavia Environmental, Perth.

JNCC, (2016), *Handbook for Phase 1 Habitat Survey - a technique for environmental audit*, ISBN 0 86139 636 7

Skorpa Ecology and Trex Ecology (2023), *River Tay Freshwater Pearl Mussel and Lamprey Assessment,* Aberfeldy and Crieff.

Figure 1

Location Plan

Figure 1



Taymouth Castle Hsg.4
Aberfeldy

Location Plan
January 2024

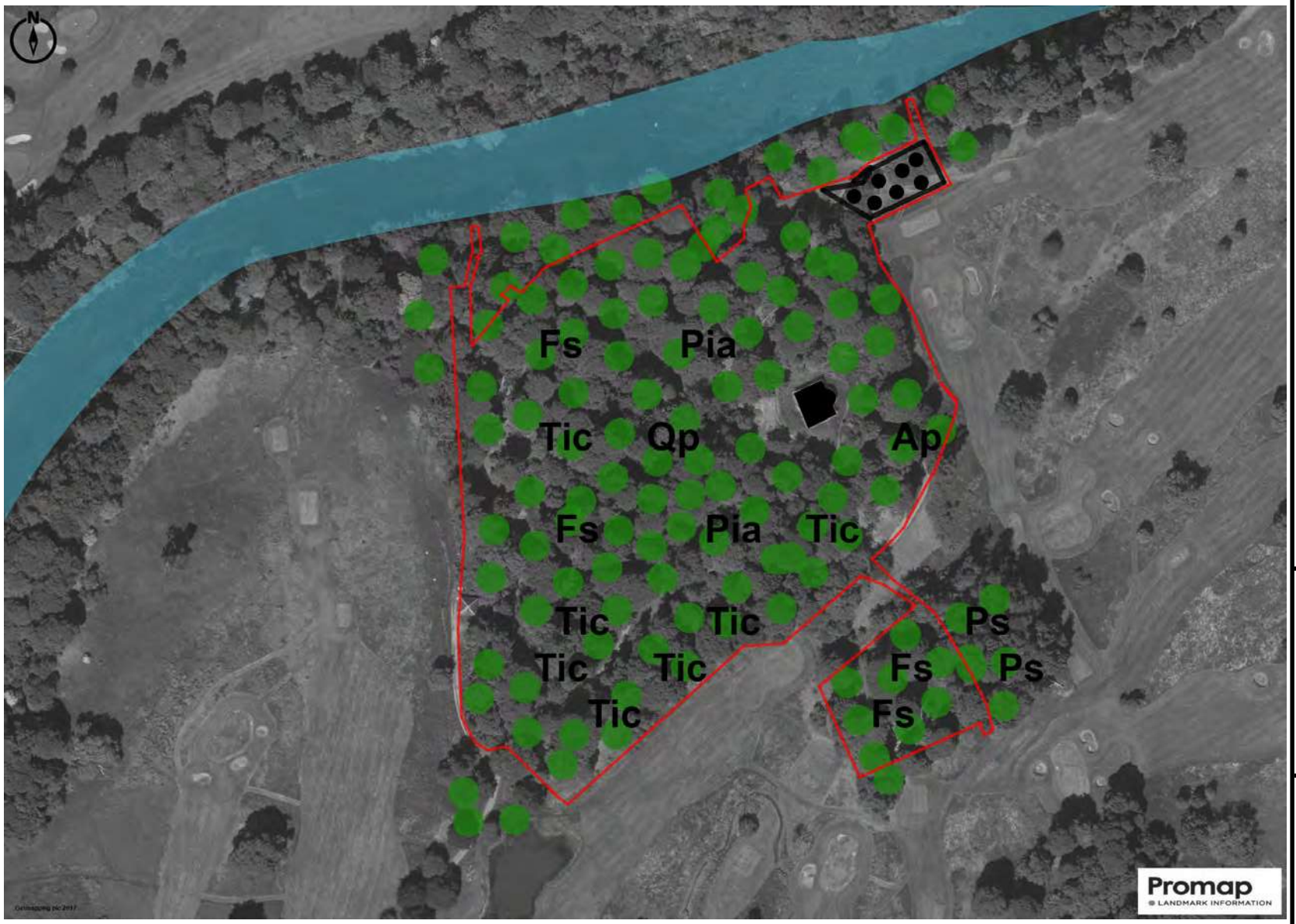
NIGEL RUDD ECOLOGY
15 Birch Crescent
Penicuik EH26 0FW

nigel@nigelruddedology.co.uk

Figure 2

Phase 1 Habitat Plan

Figure 2



Scattered trees

Running water

Building

Bare ground

Taymouth Castle Hsg 4
Aberfeldy

Habitat Plan
January 2024

NIGEL RUDD ECOLOGY

15 Birch Crescent
Penicuik EH26 0FW

nigel@nigelruddedology.co.uk

Appendix 1

Personnel

Nigel Rudd BSc CBiol MRSB CMLI

Consultant ecologist with forty-tree years' experience. Twenty-three years part-time and twenty full time. Over twenty-five years-experience in Phase 1 Habitat Survey, twenty in bat, otter, and badger survey and fifteen years in reptile, and formal great crested newt surveys.

Graduated in Applied Biology – Honours Ecology in 1976. (Liverpool Polytechnic)

Three years' research in estuarine algae Heriot Watt University. Lectured Ecology to Landscape students at Edinburgh College of Art/Heriot Watt University 1979-2002, Dean of Faculty Environmental Studies 1998-2000.

Chartered Biologist – Member of the Royal Society of Biology since 1976
Chartered Landscape Architect – member since 1986

Clients – Major house builders, Local and Central Government, non-governmental organisations. Provided survey, EA and BREEAM reports. Professional witness. Co-authored policy and methodology reports.

Appendix 2

Feature Evaluation Table

Nature Conservation Value	*Example of Selection Criteria*
International	A site designated, or identified for designation, at the international level e.g., World Heritage Site, Special Protection Area (SPA), Special Area of Conservation (SAC) and/or RAMSAR site. A sustainable area of habitat listed in Annex 1 of the Habitats Directive, or smaller areas of such habitat that is essential to maintain the viability of a greater whole. Any regularly occurring population of an internationally important species e.g., UK Red Data Book Species, which is listed as occurring in 15 or fewer 10km squares in the UK, and that is identified as having unfavourable conservation status in Europe or global conservation concern in the UKBAP.
UK	A site protected by national designations e.g., Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), or Marine Protected Area or a site considered worthy of such designation. A sustainable area of any priority habitat identified in the UK BAP, or smaller areas of such a habitat that is essential to maintain the viability of a larger whole. A feature identified as of critical importance in the UK BAP. A sustainable population of a nationally important species (species listed in Schedules 1, 5 and 8 of the Wildlife & Countryside Act 1981 as amended), which is threatened or rare in the District. Any regularly occurring population of a nationally important species that is threatened or rare in that region of the country and for which the LBAP identifies the need to protect all remaining sites.
National Scotland	Sustainable area of key habitat identified in the UK BAP or smaller areas of such habitat that is essential to maintain the viability of a larger area. Non-statutory sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves. Some non-statutory designated sites (Ancient Woodland, TPOs). Any regularly occurring, locally important population of a species listed in a Regional Red Data Book or LBAP on account of its national rarity or localisation.
District	Some designated sites (e.g., Local Nature Reserve) Some non-statutory designated sites (including SLNCI/CWS) A viable area of habitat identified in a District BAP. Sustainable populations of a species that is rare or scarce within a District, or listed in a District BAP. A viable area of a habitat that is uncommon in the District/district or a degraded example of a habitat identity in a District BAP. Sites or populations that appreciably enrich the District/district habitat resource.
Local	Area of internationally or nationally important habitats, which are degraded and have little potential for restoration. Areas within the site or locally, or populations, that appreciably enrich the habitat/species resource within the locality, e.g., species-rich hedgerow.
Within zone of influence **Site Value**	Common and widespread species. Areas of heavily managed or modified vegetation of low intrinsic interest and low value to species of nature conservation interest that do not appreciably enrich the site or locality.

Appendix 3

Species inspections

Badgers

Background – The badger is the largest member of the Mustelidae in Britain weighing up to 20kg and reaching a length of 1m. Badgers are strong animals, adapted to digging, have good hearing and a well-developed sense of smell.

Badgers live in setts. A sett is a network of underground tunnels, which can have a total length of several hundred metres, although individual tunnels reach only 15m. The tunnels incorporate nesting and sleeping chambers, which are usually lined with dry plant material.

Setts are recognised by the large volume of soil and rock deposited at their entrances and the shape of the opening, usually an oval/arch wider than it is high. Plant debris from the bedding is often found close to the entrances. Setts are only excavated where the soil is deep enough and dry.

The setts vary. Main setts are large and in continuous use and on average have ten to twelve entrances. Often close to a main sett (up to 150m away) there may be an Annexe sett linked to the main sett by established paths. Annexe setts have an average of eight entrances and may not be in continuous use. Subsidiary setts are close to the main sett and are not connected by a clear path and not continuously active the average number of entrances is four. The fourth kind of sett is an Outlying sett. These can be distinguished by having little associated spoil, no approach path and are seldom used. Often, they can be occupied by other species such as foxes and rabbits. The average number of holes is two.

The badger diet is mainly earthworms but also includes fruit, berries, small mammals, birds, carrion, insects, and other invertebrates. Usually, the badgers find the earthworms in areas of short grass, the most important forage resource used.

Badgers live in extended families or clans with up to 6 adults. They are territorial, often marking the boundary of their territory with latrines. The latrines can be used to establish the size of badger territories in bait marking exercises. The territory can extend to 120 hectares in areas with plenty of improved grassland. Where the forage resource is poorer the territory can be much larger.

Badgers mate at any time of the year and births are most common between December and June.

Badgers and the Law

Badgers are protected by the Protection of Badgers Act 1992, which is designed to protect the species against cruelty and incidental effects of lawful activity that might harm badgers.

Under the legislation it is an offence to wilfully or recklessly:

kill, injure, take, possess, or cruelly ill-treat a badger, or attempt to do so;
Interfere with a sett by damaging or destroying it;
Obstruct access to, or any entrance of, a badger sett; or
Disturb a badger when it is occupying a sett.

A person is not guilty of an offence if the act was '*the incidental result of a lawful operation and could not have been reasonably avoided*'; what is reasonable often must be determined by the courts.

A badger sett is defined as '*any structure or place which shows signs of current use by a badger*', including culverts, pipes, holes under sheds, piles of boulders, old mines, and quarries.

Current does not mean current occupation but applies to any sett in an area of current badger activity. This applies if the sett is used for only short periods in the year.

The Act makes provision for the issue of licences permitting otherwise illegal operations. Scottish Natural Heritage (SNH) is the licence issuing authority for the purposes of development.

The Survey - The inspection was carried out in January 2024 and involved inspection the land for evidence of use by badgers.

In addition to setts, there are numerous signs that indicate badger activity. These include hair on fences; paths or runs; footprints; latrines; snuffle holes in the ground; day nests and scratch marks on trees.

The site and surrounding accessible land to a radius of 50m was assessed for badger activity. A constant search method was employed in a thorough walkover of the land.

No evidence was found of badgers using the land.

Low value potential forage habitat was found on the Site.

NBN Atlas (Scotland) holds records of badgers 2.0km from the Site. It is unlikely the species visits the Site.

Bats

Background - Bats are mammals. They are the only mammals capable of true flight and feed at night, on insects.

During the active seasons of the year bats require a reliable source of insect food, and therefore habitat rich in insects is good for bats. The preferred feeding habitats are well vegetated, moist, sheltered, and warm areas such as mixed woodland, freshwater and hedgerow.

Bats roost during the day in a range of places. In summer females form nursery colonies mainly in buildings, especially houses. Males and non-breeders will use a variety of crevice-type locations, including under slates, gaps in masonry, hollows in trees and bridges, and some species also use these sites for nursery roosts.

Distance travelled to feed varies with species, the pipistrelle is known to travel 3 to 5km radius from the roost, while long-eared bats only travel about 1km as a maximum. Bats use linear features of the landscape: rivers, hedges, woodland edge, to commute from their roost and between feeding areas. These linear features are also feeding routes.

Bats are true hibernators, that is, they can survive the winter with little food by lowering their body temperature and surviving on stored fatty deposits built up in the autumn. They use a variety of sites for hibernation: hollow trees, caves, old mines, or more superficial sites (depending on

species) like crevices in buildings and bridges, old rubble-filled stone walls, even under roof slates or tiles. Most species require a stable cool temperature for hibernation and generally the deeper and more sheltered the space, the more stable is the temperature. Unlike some other hibernators, bats may be active at any time during the winter, particularly on mild nights. They will slowly arouse from hibernation and become active when disturbed, and so are particularly vulnerable in winter when becoming active will possibly exhaust their stored energy supply.

Evidence of bats using crevices and holes in trees and buildings on a regular basis includes; urine and grease stains, droppings, food remains, individual animals and evidence of disturbance of spiders' webs.

Acoustic detectors can be employed to identify bat activity in conjunction with dusk and dawn observations.

Inspection

The Site presents scattered trees, and one building.

The trees on the site were inspected from the ground for bat roost potential in August 2022. The conditions were ideal for this survey because the weather was clear sky and no rain. The scale of the site meant this survey was straightforward.

One tree was assessed as having **low bat roost potential**, this was a dead tree exhibiting upright dead timber with no voids but some raised bark.



Dead tree south of the Drive.

The roost potential of both the trees and the building are made using criterial set out in Table A, below.

Table A - Roost potential classification

Classification Of Feature	Category description and associated features	Possible further survey work Depending on context
Confirmed Roost	Evidence of roosting bats; live/dead bats, droppings,	If the structure/tree is to be affected by

	urine stains, grease staining.	development, a disturbance licence must be obtained from SNH for the proposed work. The licence application would need to be supported by close inspection findings and those of activity surveys. Building/tree work should be supervised in accordance with good practice guidance. Where the roost site is **unaffected** by the proposal, it is likely a precautionary working method statement or mitigation proposals will be required.
High Potential	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat.	Buildings – Three visits at least one dusk and one dawn activity survey between May – September. Trees – Closer/Aerial assessment by roped access bat worker (if appropriate) **and/or** nocturnal survey as above between May – August. Additional assessments may result in up or down grading the building/tree, based on findings. If upgraded, and the building/tree is to be affected by development it will be necessary to obtain a licence as described above. If there is no upgrading after consideration of findings a precautionary method statement may be required.
Moderate potential	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, condition, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Buildings – Two visits one dusk and one dawn activity survey between May – September. Trees – Closer/Aerial assessment by roped access bat worker for a tree (if appropriate) **and/or** nocturnal surveys as above between May – August. Additional assessments may result in up or down grading the tree, based on findings. If upgraded, and the building/tree is to be affected by development it will be necessary to obtain a licence as described above. As above there may be a need for acquisition of a licence or preparation of a precautionary method statement.
Low potential	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and / or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Buildings – One dusk or dawn activity survey between May – August. Trees – No further survey work required, but a precautionary working method statement may be appropriate.
Negligible/No potential	Negligible habitat features on site likely to be used by roosting bats.	None.

There is one building, the Dairy. This is a small two storey building which presents a 'rustic' character of rough pointed-stone walls, slate roof elements with lead flashing and very deep mineral board soffits, and a flat metal sheet roof on the upper floor.

The inspection involved close -scrutiny of the walls either by eye or using close-focus binoculars, for crevices, holes, droppings, grease, and urine stains.

The pointing was intact. The joint between the soffit and the wall head was pointed with mortar and intact. The window recesses were intact presenting no roost potential.

The interior of the building was inspected for bats, potential for and evidence of its use by roosting bats. The internal inspection revealed timber rafters and sarking throughout, with part of the roof exhibiting recent repair work and new timber and the remainder exhibiting extensive water ingress and one or two holes through the structure.

The ground floor walls are painted plaster, which have been damaged by vandals in places. There is evidence of these walls having been wallpapered the ceiling of the ground floor has been removed revealing the internal structure of the upper roof. There is some plaster and lath work revealed.

The extensive damp, occasionally rotting, roof presents a sub-optimal roosting habitat for bats. No dropping, dead animals, or food remains were found in the building.



East elevation



West elevation



Deep overhang with pointed junction with wallhead



Pointed walls and slate roof.

The findings of the internal inspection are summarised below.

	The upper element of the wood with wet timber and plaster and lath construction.

	Ground floor with ceiling removed and the underside of the upper floor
	Relatively recent new timber installation in upper roof.
	Hole through the lower roof exhibiting failed timbers and water ingress
	Upper roof with wet and failed timbers

Negligible bat roost potential was noted. There is potential for bats to access the building, but the internal environment is significantly sub-optimal for roosting bats. There is forage available across the Site but the extent of forage on the estate makes resource adjacent on the land insignificant to local bat populations.

The NBN Atlas (Scotland) holds records of common *Pipistrellus pipistrellus* and soprano pipistrelle *P. pygmaeus*, and brown long eared *Plecotus auritus* bats within 2.5km of the Site. Pipistrelle bats have been recorded on the estate by the author.

The findings of the assessment, it is considered the renovation can continue without the need for further survey work. There is no evidence of the building being used for roosting and very little likelihood of it because of its condition.

Otters

Background - Otters are carnivorous mammals that require access to fresh water, living on the banks of rivers, lakes, and seacoasts. Their riverside home range can extend to 25km, and they mark their territory with spraints or droppings. They have slick, oily fur and very thick tails. Their diet is primarily fish, but they will eat small birds, small mammals, and frogs.

Otters have a series of holts, usually short burrows into the ground, within their range, one of which a maternity holt is protected by an underwater entrance.

The young otters stay with their mothers for over a year. They thrive on little disturbance and prefer clean water habitats with reed and tree cover for seclusion. The animals are inquisitive and can tolerate disturbance within their territory. The species is recorded on watercourses in many towns and cities.

For many years, otter populations were in decline but there is evidence that they are experiencing a renaissance. The primary threats to otters have been the extensive use of biocides and industrial pollution. Both problems are now more rigorously controlled. The developing population is now under threat from the expanding human population and in particular the construction of new roads and the use of road vehicles. Otters are increasingly being killed crossing roads where new roads are built within their territories.

Otters and the Law

Otters in the UK are protected by a raft of legislation, both European and UK that underlines international and national obligations.

Statutory Obligations

Annex II and IV of European Communities Directive on the Conservation of Natural Habitats and Wild Flora and Fauna. (ECH2, 4)
Appendix II of Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats). (BC2)
Appendix 1 of Convention on International Trade in Endangered Species of Wild Fauna and Flora. (CITES 1)

Schedule 5 and 6, Wildlife and Countryside Act 1981 (and later amendments). (WCA5,6)

ECH2, 4 is transposed into UK legislation by the Conservation (Natural Habitats, etc) Regulations 1994 and is generally known as the Habitats Directive. Under this Directive it is an offence to:

Damage or destroy an Otter shelter, whether intentionally or not; and
To deliberately disturb an Otter.

WCA5, 6 states that it is a criminal offence, in most circumstances, to:

Intentionally kill, take, or injure an Otter;
Intentionally disturb an Otter in its place of shelter; and
Intentionally damage, destroy or obstruct access to a place of shelter.

Other obligations

NPPG14 advises that the presence of a protected species is a material consideration in the assessment of development proposals.
Otters are a priority species in the UK Biodiversity Action Plan and are therefore included as a priority species in local Biodiversity Action Plans.
Statutory protection for biodiversity is entrenched in the Nature Conservation (Scotland) Act 2004. Under this Act every public body has a duty to conserve biodiversity when executing their duties. Scottish Ministers have also published a Scottish Biodiversity Strategy to create a framework for the next 25 years which will target priority species, including Otter.

Licences

Statutory advice states that an Otter Disturbance Licence will be required for all works within 20 metres of an Otter resting place or 30 metres of a holt. The details of any licence requirements must be agreed with SNH and SEERAD.

Licences will only be granted under the Conservation (Natural Habitats, Etc) Regulations 1994 if SEERAD are satisfied that:

There is no satisfactory alternative and
The action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

Survey

The survey was undertaken in January 2024.

The survey comprised an inspection of the riverbank and immediately adjacent habitats 200m up and down stream of the Site, where accessible, for evidence of use by the species for both forage and shelter. Signs sought included: individual animals; tracks; shelters or lay ups; food remains or spraints (faeces).

A desk survey was undertaken to consult recorded biological data for a radius of 5km of the Site. The findings of the survey were compromised by the state of the river at the time of survey.

There is however a current otter and beaver survey of the river (Skorpa 2022), including the survey area, which revealed no otter or beaver resting places within 200m of the Site.

There will be no disturbance of the riverbank by development as proposed.

No evidence was found of otters on the adjacent riverbank. NBN Atlas (Scotland) holds records of the species local to the Site.

Taking into account the findings of the 2022 (Skorpa 2022) survey it is considered there will be no adverse effect on otters from implementing development as proposed.

Red squirrels

The red squirrel (*Sciurus vulgaris*) has experienced a reduction in its distribution over the last half-century, mainly because of competition from alien, grey squirrels (*S. carolinensis*) but also possibly because of habitat fragmentation and disease. Throughout most of Scotland the red squirrel populations are regarded as vulnerable.

Red squirrels are protected under the Wildlife and Countryside Act 1981 that makes it an offence; to intentionally or recklessly kill, injure, take, or sell an animal, or damage, destroy or obstruct, access to its nesting place.

Without human intervention, it is recognised that where red and grey squirrels both live in an area, after a period of roughly fifteen years the greys will oust the red population. It is recognised that management can be introduced to control the grey squirrel populations of areas, thus protecting the red population, but that once introduced management must continue indefinitely, and that this may involve the co-ordination of the work of several different landowners.

In the pursuit of red squirrel conservation identification of priority and potential areas of conservation have been identified. Areas of conifers between 2000-5000ha are considered ideal for the conservation of a population with a high degree of success but areas as small as 200-300ha have potential to support a viable population with appropriate habitat management and grey squirrel control. Even with appropriate management smaller areas have little prospect of success without the involvement of all landowners in a co-ordinated programme.

The Forestry Commission in their Practice Note 5 set out several recommendations for the conservation of red squirrels that might apply to Woodland Grant Scheme applications. These recommendations represent a considered framework of the principles applicable to red squirrel conservation. The factors are:

- Red squirrel reserves should be separated from a grey-dominated area by a buffer zone of at least 1km and consist of a habitat unsuitable for greys comprising conifer forest, broadleaved woodland comprising small-seeding species, arable land, or moorland.
- The core of the most suitable sites should be identified, and management proposed that provides a suitable mix of food and cover and provide the opportunity for red squirrels to expand into less suitable areas.
- Tree age classes should vary with a third of the trees <15 years old, one third 15-30 years and the remainder >30 years old.

- Scots pine, larch, Norway spruce, lodgepole pine, firs, yew, and hawthorn should be incorporated into the canopy particularly at the edges to promote seeding and fruiting. Birch, rowan, ash, willow, aspen and alder should be planted for general conservation as they do not promote grey squirrels.
- Thinning should be tailored to increase the number of insolated edges to promote seeding.
- Planting of oak, chestnut, beech, and hazel should be avoided as they encourage greys, and mature trees of these species should be removed as they seed readily.
- Extensive clear felling should be avoided to allow movement between canopies.
- The planning should maximise production by the following – extending south - facing aspects, creating irregular shapes to increase edge habitat, aligning rides east-west to create south-facing edges, delaying felling large crown trees, avoiding clear-felling, creation of uneven aged woodland and varying tree species.

The most important aspect of promotion of red squirrels is the control of the grey population. This can be achieved by shooting or trapping. Neither system is without its problems. Shooting is relatively ineffective and risks the shooting of red squirrels by mistake whereas live trapping is more effective but also risks trapping the wrong species. In addition, both systems are costly to implement in terms of man hours and materials.

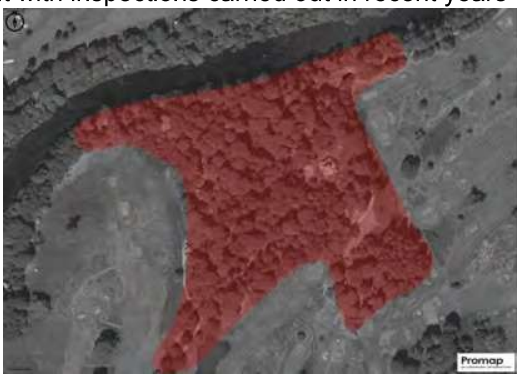
Survey

The survey was undertaken on 6 January 2024. The weather was sunny with no precipitation and average temperatures.

The survey extended across the site and the trees connected to the site within 50m of the boundary. The canopy of the trees within the survey area was inspected for individual animals, opportunities for squirrels to rest and constructed dreys. Close scrutiny of the canopy was aided by the use of binoculars. In addition, a constant search of the ground beneath the trees for evidence of the species feeding, stripped conifer cones.

No evidence was found of red squirrels on the Site, but there are records of the species within 100m of the Site to the east. No grey squirrel was seen during the walkover.

The findings are consistent with inspections carried out in recent years



Squirrel survey area

There will be no adverse effect on red squirrels from implementing development as proposed. Development of the Site can be effected in a way that promotes opportunities for red squirrels to recolonise the Site.

A further inspection should be carried out before felling trees on the site.

Pine marten

The pine marten (*Meles martes*) is a cat-sized (65m - 75cm long) member of the weasel family. The species has dark brown fur, except for a cream-coloured bib.

Pine martens prefer native woodlands but also live in conifer plantations and on rocky hillsides. They make breeding nests amongst rocks, in hollow trees, or in birds' nests and squirrel dreys. The species also have den's, (temporary resting places) in their territory. They have up to five young in April.

Pine martens feed on small rodents, birds, eggs, insects, and fruit.

Pine marten numbers crashed in the 19th century, chiefly because the persecution by gamekeepers on sporting estates. The species has recovered such that the Scottish population is estimated at 3500 adult pine martens the species was given full legal protection in 1988.

Pine martens and their dens are protected by the Wildlife and Countryside Act 1981 (as amended) and by the Nature Conservation Act 2004. It is an offence to intentionally or recklessly;

- Kill, injure, or capture a pine marten;
- Disturb a pine marten in a den*; or
- Damage, destroy or obstruct access to a pine marten den.

* unless the den is in the roof space or other part of a house, where it is not an offence to discourage a pine marten from using the den, or to block access to the den, provided a pine marten is not in the den at the time and does not have dependent young.

Survey

The survey was undertaken in January 2024, updating the findings of similar exercises undertaken over the last ten years. The most recent survey was extended to 200m of the site, where accessible. The field signs sought were footprints, food remains, and suitable den or nest opportunities. There is extensive bare ground around the site that presented opportunities to find tracks should there be any.

No evidence was found of pine martens on the Site, NBN Atlas Scotland holds few records of the species local to the Taymouth Castle estate. They have only two records of the species south of the River Tay, within 5km of the Site. The nearest and most recent (2020) is approximately 1km south of the site.

No survey since 2009 has found evidence of the species. There are potential nest sites in the tops of two trees near the Dairy, but no evidence was found of species in the survey area.

Birds

Legal protection

All wild birds, and their nests, are protected by the Wildlife & Countryside Act 1981 WCA) (as amended). Offences relevant to development work include, to intentionally or recklessly:

- Kill, injure or take a wild bird;
- Take, damage, destroy or interfere with a nest of any wild birds whilst it is in use or being built;
- Obstruct or prevent any wild bird from using its nest; and
- Take or destroy an egg of any wild bird.

Species listed In schedule one of the WCA afforded additional protection due to the rarity, vulnerability or sensitivity to disturbance. For these species it is an offence to intentionally or recklessly:

- Disturb any wild bird whilst it is building a nest or is in, on, or near a nest containing eggs or young;
- Disturb any wild bird whilst lekking (where birds gather to display; applicable in Scotland to capercaillie and ruff)]; disturb the dependent young of any wild bird.

For species listed in schedule 1A of the WCA (golden eagle, white-tailed eagle, hen Harrier and red kite) it is also an offence to intentionally or recklessly

- harass any wild bird at any time (any harassment but particularly relevant to roosting birds out with the breeding season).

The nests of species listed in schedule A1 of the WCA [golden eagle and white-tailed eagle] also protected between breeding seasons as they are long-lasting structures that can be reused by these birds from year to year. For these species it is an offence to intentionally or recklessly:

- take, damage, destroy or interfere with a nest at any time that is habitually used by any wild bird.

This means that if a bird is affected in these ways by a development, and no action is taken to prevent it, an offence may be committed.

Development and birds

Birds occur everywhere in all types of habitats, including highly urbanised or industrial areas and can use buildings for nesting and roosting. Birds could therefore potentially be affected by most development proposals due to direct mortality, disturbance, displacement and/or loss or damage of habitat.

If construction work is taking place during the breeding season, there is a risk of direct mortality, disturbing nesting birds or damaging their nests, and an offence being committed. The bird

breeding season runs in the main from March to August, though precise timing within this period varies from species to species, and some species start breeding earlier or finish later than this. The sensitive period when nests and dependent young could be affected will therefore depend on the species that are likely to nest in and around a development site.

The distances from development works at which breeding birds are at risk of disturbance is dependent on the species, habitat, terrain and the type of development activity, and may require the judgement of an experienced ornithologist. Most breeding birds are tolerant of some human activity close to a nest. However, some more vulnerable species are prone to significant disturbance from larger distances, and by relatively short periods of human activity.

Outwith the breathing periods, the main risk of disturbance is from development close to where birds regularly congregate at important feeding or roosting sites. Disturbance distances are again dependent on the species and the particulars of the development proposal and require the judgement of an experienced ornithologist.

A bird survey should be carried out where a development presents a risk of disturbing nesting birds or damaging their nests, or a risk of disturbance of important feeding and roosting sites, or where there is potentially significant loss or damage to bird habitats, or in direct connectivity to a protected area for which the birds are either a qualifying interest (SPA) or notified interest (SSSI).

Survey

A desk survey was carried out involving inspection of records held by the NBA Atlas Scotland to determine the presence of species listed in Schedule 1.1, 1A and A1 within a 5km radius of the Site.

In addition, observation of bird activity, nesting opportunity and evidence of nesting was carried out simultaneously with the other surveys of the land. The findings will be complemented by a nesting bird survey prior to start of work on the Site should it be proposed to start work during the bird nesting season.

The Findings

The desk survey focused on the species listed in Schedule 1.1 of the Wildlife & Countryside Act 1981 (as amended). The historical records held by the NBN Atlas Scotland within the last decade were considered to be relevant to this exercise. The following table presents those results and record the most recent and closest records for each listed species. There are departures from the 10-year period for one or two species recorded local to the Site.

Schedule 1 species recorded within 5km of Zone 4 since 2014

Common name	Scientific name	Nearest record Distance (km) and direction	Year of record
Kingfisher	*Alcedo atthis*	1 W	2019
Whooper swan	*Cygnus cygnus*	1.5 NW	2009

Merlin	*Falco columbarius*	2 NW	2022
Peregrine	*F. peregrinus*	3 W	2014
Hobby	*F. subbuteo*	3 W	2011
Red-throated diver	*Gavia stellata*	3 W	2008
Crossbill	*Loxia curvirostra*	1 W	2019
Barn owl	*Tyto alba*	4.5 NE	2019
Field fare	*Turdus pilaris*	2 NNW	2019
Redwing	*T. iliacus*	2 NNW	2019
Wood warbler	*Phylloscopus sibilatrix*	1.5 SW	2017
Yellowhammer	*Emberiza citrinella*	3.5 NE	2016

Four of the above species have been recorded within 2km of the Site, the remainder are more remote. **The habitat structure of the Site is very simple offering limited nesting opportunity, nevertheless no work should start during the nesting season until a nesting bird survey has been completed and the area found to be free of nesting birds.**

Appendix 4

Plant species list

Taymouth Castle Housing 4
Aberfeldy

Plant Species

Beech	*Fagus sylvatica*
Bent grass	*Agrostis tenuis*
Birch	*Betula pendula*
Bilberry	*Vaccinium myrtillus*
Bracken	*Pteridium aquilinum*
Bramble	*Rubus fruticosus*
Broom	*Citisus scoparius*
Common haircap	*Polytrichum commune*
Holly	*Ilex aquifolium*
Lime	*Tilia platyphyllos*
Lawson's cypress	*Chamaecyparis lawsoniana*
Nettle	*Urtica dioica*
Oak	*Quercus petraea*
Redwood	*Sequoia sempervirens*
Reindeer moss	*Cladonia rangiferina*
Soft rush	*Juncus effusus*
Spruce	*Picea sp.*
Sweet chestnut	*Castanea sativa*
Sycamore	*Acer pseudoplatanus*
Violet	*Viola canina*
Woodrush	*Luzula sylvatica*
Wood sorrel	*Oxalis acetosella*

Appendix 5

Sites

River Tay

Designated Special Area of Conservation (SAC)	
Country	Scotland
Unitary Authority	Eastern Scotland, Highlands and Islands
Centroid*	NN818481
Latitude	56.56666667
Longitude	-4.083333333
SAC EU Code	UK0030312
Status	Designated Special Area of Conservation (SAC)
Area (ha)	9461.63

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may no represent the location where a feature occurs within the SAC.



Location of River Tay SAC

General site character

- Shingle, Sea cliffs, Islets (0.5%)
- Inland water bodies (Standing water, Running water) (95%)
- Bogs, Marshes, Water fringed vegetation, Fens (4.5%)

Download the Standard Data Form for this site as submitted to Europe (PDF <100kb)

Note When undertaking an appropriate assessment of impacts at a site, all features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

- Not Applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- **3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea**

Annex II species that are a primary reason for selection of this site

- **1106 Atlantic salmon** *Salmo salar*
  The River Tay supports a high-quality **Atlantic salmon** ***Salmo salar*** population, with rod catch returns showing that the Tay is consistently one of the top three salmon rivers in Scotland. In 1999 the catch was 7230 fish, over 10% of the Scottish total. The Tay drains a very large catchment, and has the greatest flow of all UK rivers. There is considerable ecological variety in the Tay catchment, resulting in the Tay supporting the full range of salmon life-history types found in Scotland, with adult salmon entering the River Tay throughout the year to spawn in different parts of the catchment.

Annex II species present as a qualifying feature, but not a primary reason for site selection

- **1095 Sea lamprey** *Petromyzon marinus*
- **1096 Brook lamprey** *Lampetra planeri*
- **1099 River lamprey** *Lampetra fluviatilis*
- **1355 Otter** *Lutra lutra*

Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.

ABOUT US

- About JNCC
- Careers
- Procurement

OUR WORK

RIVER TAY SPECIAL AREA OF CONSERVATION (SAC)

Designation date: 17 March 2005

Administrative area: Angus; Argyll and Stirling; Perth and Kinross; Stirling

Qualifying Interests for which the site is designated:

Lampetra fluviatilis	River lamprey
Lampetra planeri	Brook lamprey
Lutra lutra	Otter
Oligotrophic to mesotrophic standing waters with vegetation of the *Littorelletea uniflorae* and/or of the *Isoëto-Nanojuncetea*	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels
Petromyzon marinus	Sea lamprey
Salmo salar	Atlantic salmon

CITATION

RIVER LYON BANK
SITE OF SPECIAL SCIENTIFIC INTEREST
Perth and Kinross

Site Code: 1362

NATIONAL GRID REFERENCE: NN 782487

OS 1:50,000 SHEET NO: Landranger Series 52
1:25,000 SHEET NO: Explorer Series 379

AREA: 1.18 hectares

NOTIFIED NATURAL FEATURES:

Biological: Vascular plants: Whorled solomon's-seal *Polygonatum verticillatum*

DESCRIPTION

River Lyon Bank Site of Special Scientific Interest (SSSI) lies approximately 7 kilometres west of Aberfeldy on the northern bank of the River Lyon, to the north west of its confluence with the River Tay. The site comprises a narrow strip of mixed riverside woodland and is notified for its rare vascular plant species, in particular a single colony of the nationally rare whorled solomon's-seal *Polygonatum verticillatum*.

The woodland is a mix of alder, ash, rowan, bird cherry, sycamore and wych elm. Its rich ground flora includes typically woodland species such as ramsons *Allium ursinum*, giant bellflower *Campanula latifolia* and wood anemone *Anemone nemorosa* along with some uncommon species such as moschatel *Adoxa moschatellina*, toothwort *Lathraea squamaria* and mountain melick M*elica nutans*.

NOTIFICATION HISTORY

First notified under the Wildlife and Countryside Act 1981: 15 December 1983

Reviewed under the Nature Conservation (Scotland) Act 2004: 10 December 2010

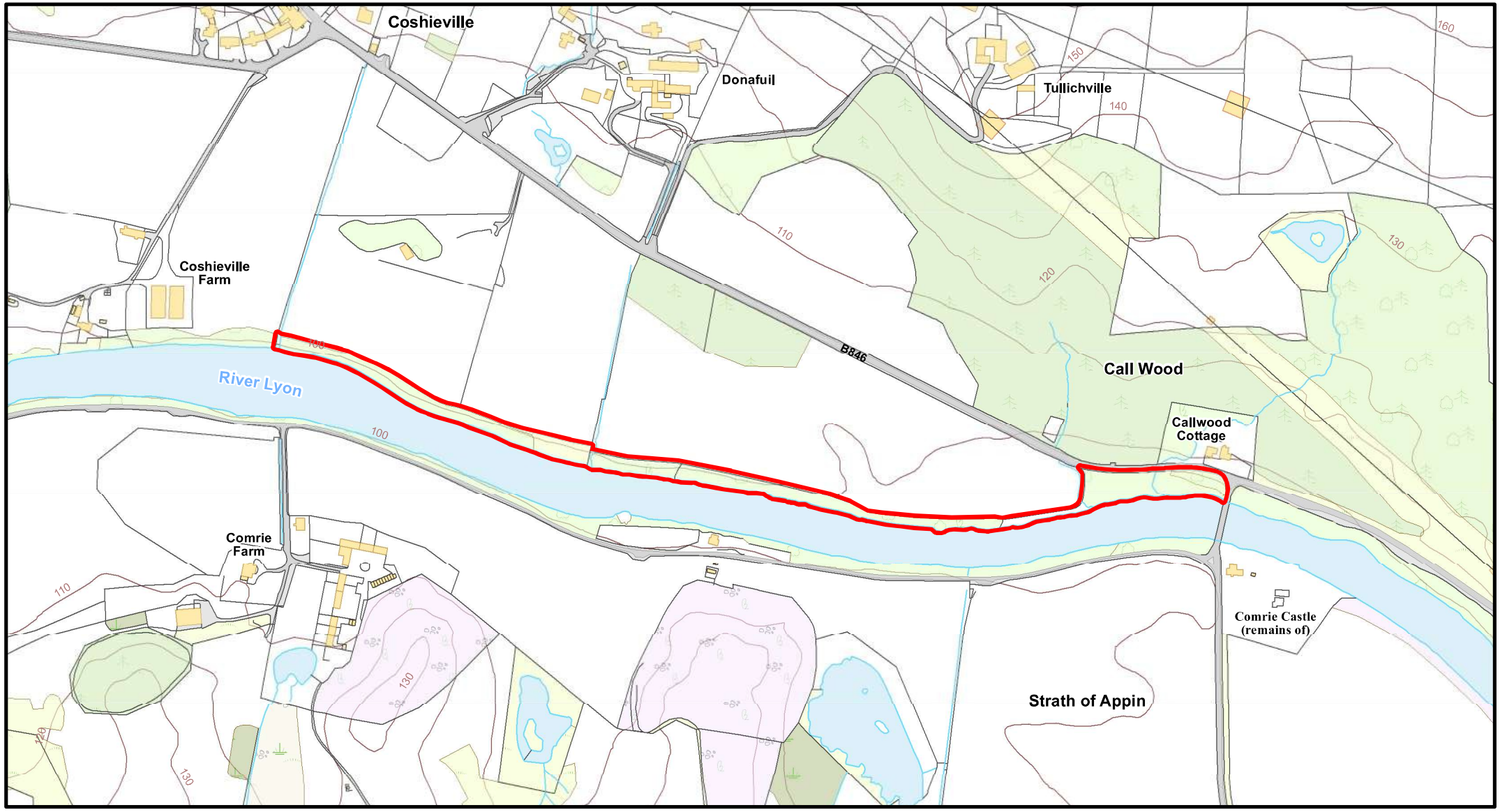
REMARKS

Measured area of site corrected (from 1.2 ha).

River Lyon Bank SSSI overlaps part of the River Tay Special Area of Conservation which is designated for the habitat and species listed below.

Habitat: Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels

Species: Atlantic salmon *Salmo salar*
Brook lamprey *Lampetra planeri*
Otter *Lutra lutra*
River lamprey *Lampetra fluviatilis*
Sea lamprey *Petromyzon marinus*



River Lyon Bank

Site of Special Scientific Interest

Site Code: 1362

Site boundary follows the inside edge of the boundary line shown

Produced by: Geographic Information Group, SNH, 2009
© Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2009. All rights reserved. Ordnance Survey Licence number SNH 100017908.

This is an updated representation of the notified site boundary. Any apparent small differences are due to changes to the OS backdrop.

Scale 1:5,000



Millard

More than civil engineers

Highway Strategy Statement for Zone 4 Residential Development at Taymouth Castle Estate, Kenmore

Ref: 17265/KP/896 Rev. C

November 2023

HIGHWAY STRATEGY STATEMENT FOR ZONE 4 RESIDENTIAL DEVELOPMENT AT TAYMOUTH CASTLE ESTATE, KENMORE

CLIENT: RIVER TAY DEVELOPMENT LTD

DATE: OCTOBER 2023

DOC REF: 17265/KP/896 Rev C

1.0 Highway Strategy Statement

1.01 Millard Consulting have been appointed by River Tay Development Ltd to provide various roads and drainage infrastructure services across the Taymouth Castle Estate. Detailed planning permission for the re-development proposals were duly granted consent on 8th March 2005 under planning reference number 03/02250/PPLA. A further detailed planning application, reference number 11/00533/FLM, for modifications to the earlier consent was granted approval on 24th June 2011.

1.02 Part of the overall consented development included a number of zones for residential development. One of the zones referred to as Zone 4 has recently gone through a layout re-design and will require a new detailed planning application to be submitted for consideration. Millard Consulting have undertaken both roads and drainage design services to inform the development of the new site layout. This highway strategy statement has been prepared to support the new planning submission and outlines the highway design principles and considerations.

1.03 The site under consideration sits to the west of the existing castle as illustrated on the site location plan in Figure 1.



Figure 1

1.04 The development proposals within Zone 4 comprise of the construction of 18 new residential properties along with a new golf clubhouse with an undercroft golf buggy park. An existing listed building, "The Dairy", is situated within the Zone 4 boundary. The golf clubhouse proposals include re-use of this building along with a buggy drop off zone and provision for parking within an undercroft structure to the west of "The Dairy" building.

1.05 The zone 4 redevelopment proposals provide for 5 different house types and planning applications are to be submitted for four individual phases with 9 units in zone 4-01, 7 units within zone 4-02 and 2 units within zone 4-04 along with the golf clubhouse in zone 4-03. The site layout proposals are illustrated in Figure 2.



Figure 2

2.0 Highway Design

2.01. A section of the site will be accessed from an existing track and this will serve six of the proposed dwellings. The remainder of the development will be serviced by a new road network as illustrated in Figure 2.

2.02. Full re-construction of the existing track will be carried out as per the road cross-section specification presented in Figure 3. The road itself will be 3.7m wide with passing places strategically located as illustrated in Figure 2. The geometry of the passing places will comply with the standards provided within the National Roads Development Guide (NRDG) and will provide a minimum of 5.5m road width.

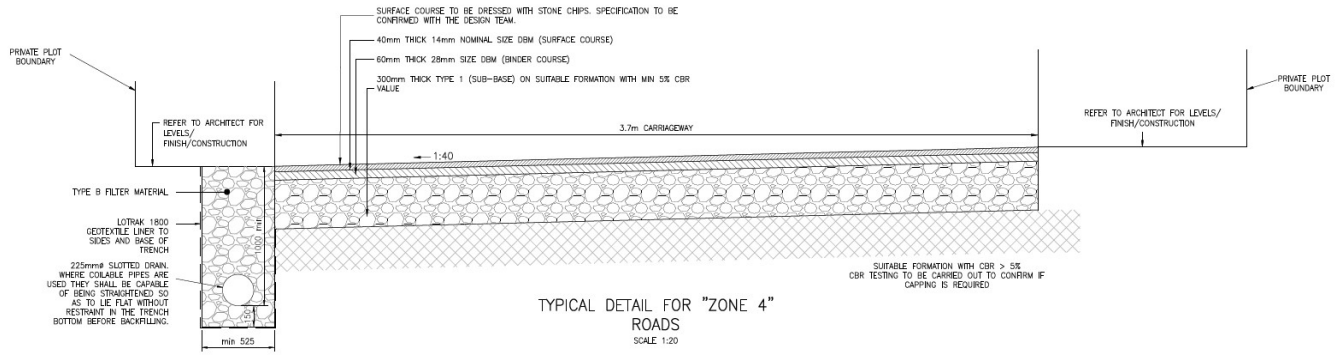


Figure 3

2.03. A minimum of 5 visitor spaces will be provided to serve the 18 residential properties. Cycle parking provision will be provided within a garage or secure area within the curtilage of the dwelling. All 18 properties will have a minimum of 5 bedrooms and provision for 3 vehicle parking spaces has been made within the curtilage of each property. A schedule of the bedroom and parking provision has been included within Figure 4. It can be confirmed that parking provision is compliant with the NRDG standards.

Taymouth - Zone 4

Name	Plot No.	Bedrooms	Required Parking
House Type 1	GC-1	5	3
House Type 2	GC-2	5	3
House Type 1	GC-3	5	3
House Type 2	GC-4	5	3
House Type 1	GC-5	5	3
House Type 2	GC-6	5	3
House Type 6	GC-7	5	3
House Type 6	GC-8	5	3
House Type 3	GC-9	5	3
House Type 3	GC-10	5	3
House Type 3	GC-11	5	3
House Type 3	GC-12	5	3
House Type 4	GC-13	5	3
House Type 4	GC-14	5	3
House Type 4	GC-15	5	3
House Type 4	GC-16	5	3
House Type 5	GC-17	6	3
House Type 5	GC-18	6	3
Visitor Parking	n/a	n/a	5

Figure 4

2.04. A 1.5m service strip will be provided either side of the 3.7m wide road pavement. The purpose of this is to provide for statutory service provision and also road drainage infrastructure. The roads drainage system will comprise of roadside filter trenches with collector drains.

2.05 There is provision within the sales particulars for all properties for the control of boundary and frontage treatments of each plot. The specification ensures that all forward visibility design standards can be achieved in accordance with NRDG standards.

2.06. Swept Path assessments have been carried out on the site layout proposals for both private car and fire engine vehicles. To comply with the swept path requirements for those specific vehicles some road widening was necessary at a few locations on the highway layout. This has been incorporated into the overall site layout design.

2.07. The road network serving the previously consented plots to the west of zone 4 will be in close proximity to Scottish Water's water supply infrastructure services. Negotiations with Scottish Water have already been held on this matter and approval has been granted subject to receipt of appropriate construction method statements. Access provision will be maintained to allow Scottish Water access/egress to the water supply treatment works and the existing turning head will remain in situ.

2.08. Adherence to the NRDG road gradient guidance has been complied with where possible. In general, the majority of the roads infrastructure has been designed to comply with a maximum gradient standard of 8% or less apart from two sections where the general topography of the site prevents compliance. One of the areas is on the bend adjacent to property GC-9 where a 10% gradient can only be achieved. The other area lies adjacent to the golf clubhouse. A minimum gradient of 1 in 9 (11.1%) can only be achieved on the approach road to the south of "The Dairy" and 1 in 7 (14.2%) on the access road to the north of The Dairy". The proposals for access to/from the golf clubhouse for visitors is via golf carts. The golf carts to be used (2-seater, 4-seater and 6-seater) all have the capability to accommodate a 1 in 5 (20% incline).

2.09. In summary it can be concluded that the site proposals, although private and not public adoptable infrastructure, are in general compliant with the NRDG standards apart from a few deviations which are not considered to be significant in respect to the operational requirements.

Millard
More than civil engineers

DUNDEE
Seabraes, 18 Greenmarket
Dundee, Angus
DD1 4QB

t 01382 227 380

dundee@millardconsulting.co.uk

Millard
Structures

Millard
Infrastructure

Millard
Flood Risk

Millard
Environmental

Millard
Hydrology

Millard
Transportation

ISO 14001 REGISTERED FIRM

ISO 9001 REGISTERED FIRM

Building Standards Approved Certifier
The Scottish Government

Dundee | Perth | Aberdeen
Registered in Scotland No. SC220557
Registered Office: Seabraes, 18 Greenmarket, Dundee DD1 4OB
TA Millard Scotland Ltd trading as Millard Consulting

Arboricultural Assessment

Zone 4

Taymouth Castle

Arboretum
Internationale

Prepared for: **Discovery Land Company**
14605 N. 73rd Ave.
Scottsdale
Arizona
85255
United States of America

Prepared by: **Paul Hanson**
Arboretum Internationale Ltd.
Ochil Cottage
Main Road
Guildtown
Perth
PH2 6BS

Tel: 01821 640 555 E-mail: paul@arboretum-intl.com

Signed [redacted] 6th November 2023

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Version 5.0	Issued 6th November 2023
Last reviewed	02/11/2023
Next review	TBC
Author	Paul Hanson
Approved by	

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

CONTENTS

Summary

Introduction

Part 1 - Tree Assessment

1 Scope and Limitations of Assessment
2 Assessment Method
3 The Site
4 Tree Assessment
5 Recommended Tree Works

Part 2 – Proposed Development in Relation to Trees

6 Tree Constraints
7 Development Appraisal
8 Scotland's National Planning Framework 4

Part 3 – Arboricultural Method Statement

9 Tree Protection – General Measures
10 Site Specific Tree Protection Measures
11 New Hard Surfaces within RPAs
12 Underground Services
13 Arboricultural Supervision

Conclusions

Development Recommendations

Appendices

1 Schedule of Trees
2 Cascade Chart for Tree Quality Assessment BS5837:2012)
3 Protective Barriers (BS 5837:2012 Figure 2)
4 Principles of 'No Dig' Construction Close to Trees
5 Removal of Debris Near Trees
6 Further Information
7 Site Plans
- Location Plan
- LMP compartment designation
- Proposed Development Masterplan

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

SUMMARY

Taymouth Castle and its designed landscape are amongst the most important cultural and heritage features in Scotland, elements of the landscape are in a condition that makes them vulnerable. Action to conserve these original arboricultural and horticultural features is urgently required if they are not to be lost.

This report considers in detail 293 significant trees that constitute the important heritage tree plantings in 2 areas of the estate known in the available records as 'South Terrace (including Ladies Mount) and 'Tom More' (surrounding the Dairy) located as a component of Compartments 5 and 11 as defined in the 2004 Taymouth Castle Landscape Management Plan (LMP). This report is confined to those parts of the 2 compartments located to the south of the Tay, between Ladies Mount and east of Tom More.

The arboricultural assessment considers the potential impact of building and development and the introduction of associated infrastructure on the tree population as found within the site.

The trees in Zone 4 are variable in age, condition, size, and species. The original planting is said to date from the late part of the 18th Century, with occasional planting events and self-set tree establishment occurring since. The trees in Zone 4 have sustained damage in adverse climatic events over the years, storm Arwen in late November 2021 saw several trees fall and others lose significant limbs. There is much careful work required to address safety and promote conservation in this group of important trees.

INTRODUCTION

This report provides information on the trees in line with the provisions of the British Standard document, BS 5837: 2012 'Recommendations for Trees in relation to design, demolition and construction' to support any future building development and to promote the delivery of the 2004 LMP as agreed with the local authority planning department.

This report, consisting of pages (including the cover), is the result of site investigations conducted by Arboretum Internationale Ltd. in January, April and September 2023, notes were made regarding the size and condition of the trees that form Zone 4, identifying the suitability of trees for retention and providing recommendations for remedial works where necessary. These notes form appendix 1 of this report. The information provided on the trees in appendix 1 places particular emphasis on their physical dimensions and condition, which will determine their suitability for retention and, the extent of the protection zone required around retained trees to minimise the potential tree damage during any future construction works.

This report is prepared on the basis that Arboretum Internationale Ltd. has taken all reasonable steps to meet the requirements of its clients and that this report should only be considered valid at the time of inspection.

Instructions:

This tree survey and report was commissioned by Alan Anderson on behalf of the site owners, the Discovery Land Company (DLC).

Terms of Reference:

To inspect the significant trees in accordance with British Standard 5837:2012 'Trees in relation to design, demolition, and construction– Recommendations'

Assess their suitability for safe retention on the site,

Determine the extent of tree root protection for trees identified for retention,

Provide guidance on measures that should be taken to ensure the protection of retained trees.

Documents Provided:

An electronic dwg. topographic plan of the site (incomplete), prepared by WSP, Glasgow.

Two separate, electronic dwg. topographic plans of the site (incomplete), prepared by Cross Civils, Aberfeldy.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Master Plan,' drawing no. Z4(PL)MP, Revision A, dated June 2023 at a scale of 1:500 @ AO.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Location Plan', drawing no. Z4(PL)LP, Revision A, dated June 2023 at a scale of 1:2500 @ AO.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Site Plan', drawing no. Z4-1(PL)03, Revision A, dated June 2023 at a scale of 1: 500 @ A1.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Site Plan', drawing no. Z4-2(PL)03, Revision A, dated June 2023 at a scale of 1: 500 @ A1.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Site Plan', drawing no. Z4-03(PL)03, Revision A, dated June 2023 at a scale of 1: 500 @ A1.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Site Plan', drawing no. Z4-04(PL)03, Revision A, dated June 2023 at a scale of 1: 500 @ A1.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Proposed Master Plan', drawing no. Z4(PL)MP, Revision B, dated June 2023 at a scale of 1: 500 @ AO.

Taymouth Castle Landscape Management Plan (2004).

An electronic pdf. Plan of housing proposals for Zone 4, entitled 'Location Plan', drawing no. Z4-1(PL)01, Revision C, dated June 2023 at a scale of 1: 2500 @ AO.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Location Plan', drawing no. Z4-2(PL)01, Revision C, dated June 2023 at a scale of 1: 2500 @ AO.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Location Plan', drawing no. Z4-3(PL)01, Revision C, dated June 2023 at a scale of 1: 2500 @ AO.

An electronic pdf. plan of housing proposals for Zone 4, entitled 'Location Plan', drawing no. Z4-4(PL)01, Revision C, dated June 2023 at a scale of 1: 2500 @ AO.

Part 1 TREE ASSESSMENT

1 Scope and Limitations of Assessment

1.1 This assessment and report are concerned with the arboricultural aspects of the Zone 4 site only. The assessment is restricted to trees within the estate and specifically those trees found in Zone 4 across compartments 5 and 11, it is assumed that these trees are in the ownership of the DLC.

1.2 The survey was conducted following guidelines detailed in British Standard 5837:2012 'Trees in relation to design, demolition, and construction– Recommendations' (BS5837). It is based on a ground level tree assessment and examination of external features only – described as the 'Visual Tree Assessment' method expounded by Mattheck and Breloer (The Body Language of Trees, DoE booklet Research for Amenity Trees No. 4, 1994).

1.3 293 individual mature trees that are considered to belong to the original 18C planting have been assessed, other trees in Zone 4 have not been individually considered in this assessment. There are

other trees in this area within the compartments generally, the majority, if not all of these other trees, have been introduced to the site after the establishment the original planting that constitutes the arboricultural element of the historic designed landscape.

1.4 No plant tissue samples were taken, and no internal investigation of the trees was conducted. No soil samples were taken, or soil analyses conducted.

1.5 The risk of tree-related subsidence to structures has not been assessed.

1.6 No specific assessment of wildlife habitats has been conducted.

1.7 It is assumed that there are underground services within the curtilage of the site, extending from existing structures; their exact positions are not described herein.

1.8 This report should be considered in conjunction with the plans at appendix 7 below which include the position of significant man made and boundary features and is based on the plans provided by the client or other instructed professionals.

1.9 The recommendations contained in this report may be used to inform, but do not in themselves constitute, a specification for any tree work which the client may wish to have undertaken as a result of those recommendations. Arboretum Internationale Ltd. will be pleased to draw up a tree-work specification for tendering purposes, should this be required.

2 Assessment Method

2.1 Trees have been considered individually and recorded as such. The trees are uniquely identified on site with tags, fixed to the tree stems at circa 1.5-2.5m above ground level. These numbers are referred to in the tree schedules, which form appendix 1 of this report. The trees in Zone 4 have been assessed on several occasions historically and there are many tags that remain affixed to trees, where present these have been noted in the tree schedule, all the trees recorded have had new, uniquely numbered, tags introduced.

2.2 Whilst the assessment of a tree's condition is a subjective process, Table 1 of BS5837 (see appendix 2) gives clear guidance on the appropriate criteria for categorising trees and, in particular, the factors that would assist the arboriculturist in determining the suitability of a tree for retention. BS 5837 makes a clear distinction between trees on development sites and trees in other situations where the factors that determine the retention and management of trees may be different.

2.3 The tree assessment was undertaken from ground level. Measurements recorded are given on the understanding that due to the extent of fallen tree material resulting from storm Arwen, constraints of fencing and other man-made structures, not all are exact. Where reasonably practicable non-critical measurements have been estimated, for some trees it has not been safe to take measurements, for others dense epicormic growth made taking accurate measurements impossible, the missing measurements can be collected as required at a future date.

3 The Site

3.1 The site lies within the boundaries of the Taymouth Castle designed landscape, described in the site plans below. Access is taken from the A827 public highway (to the east directly into the estate – to the west from Kenmore village), and over private roads within the estate. Zone 4 extends westwards from the extreme east side of the Tom More compartment where it rises from the internal road uphill towards Ladies Mount, on the south side of the Tay.

3.2 Within the Inventory of Gardens and Designed Landscape in Scotland (1987), the Condition and Future Management Potential for Taymouth Castle is described as follows:

"Split into multiple ownership, there is no cohesive management for the policies at Taymouth. In the 18th Century, the Pleasure Grounds, which covered most of the policies were considered as some of the most beautiful. They were one of the earliest examples in Scotland of informal pleasure grounds

and were well cared for until the estate was split up in the 1920s. For the last 50 years at least, there has been no overall management of the landscape and today most of it is in a state of dereliction. It was such a significant designed landscape; every effort should be made to conserve what is left".

3.3 Zone 4 occupies a short stretch of the Tay bank within compartment 5 where it lies to north side of compartment 11 as described in the 2004 LMP. The tree planting in this area is best described as Policy Woodland in nature (predominantly populated by large deciduous trees). Dominant tree species are Oak, Beech, Sycamore and Lime with Birch regeneration at the margins; there are some notable young, tall, exotic conifers towards the centre of Zone 4.

4 Tree Assessment

4.1 293 significant, individual trees within Zone 4 have been identified in the assessment and are included herein as they constitute the remaining elements of the historic tree planting.

4.2 Housing zone 4 is comprised of 4 smaller zones in which housing development is proposed, this tree report addresses the trees within each discreet zone and across the whole of housing Zone 4. The impact of the development proposals is discussed zone by zone at Part 2 'Arboricultural Implications Assessment', section 6 'Tree Constraints', below.

4.3 The trees in Zone 4 are wonderful examples of ancient trees in all manner of aesthetic forms with abundant specialist wildlife habitat and high amenity and ecological value. Each tree has been assessed in terms of its arboricultural, landscape, cultural and conservation values in accordance with BS5837 and placed within one of the four following categories:

Category U: Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.

Category A: Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category B: Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category C: Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm.

4.4 Twenty-eight individual trees are graded as Category U and should, within the context of tree hazard and risk management, be removed.

4.5 Eighty-five of the trees are graded as Category C.

4.6 One hundred and twenty-seven trees are graded as Category B, these trees make an important contribution to the landscape and should continue to do so with some remedial works required.

4.7 Fifty-three trees remain as remnants of the historic landscape planting in good condition and as such they are graded as category A.

4.8 The individually surveyed trees are listed in the tree schedule at appendix one which includes a key with explanatory notes.

4.9 It should be understood that even apparently healthy and structurally sound trees can fail under extreme weather conditions and the safety of any tree can never be guaranteed.

5 Recommended Tree Works

5.1 In accordance with recommendations in BS5837, this report addresses preliminary recommendations for works that should be conducted in the interests of good arboricultural practice. Appendix 1 below details the minimum recommendations for works to promote the safe retention of individual trees.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

5.2 The 2004 LMP makes recommendations to ensure the short-term safety of the trees in these compartments including to retain historically important tree specimens; remove vegetation that obscures views and vistas; remove vegetation that threatens valued historic structures and features; and to remove unwanted ground vegetation, tree, and shrub regeneration.

5.3 Formal inspection of the trees on site by the property owners and/or managers during summer and winter periods will help to identify any changes in tree condition. Careful consideration of trees following adverse weather will be required to assess tree damage. Once all remedial works recommended herein are complete a formal tree inspection by a suitably qualified tree inspector should be undertaken on a five-yearly cycle as a minimum.

5.4 These recommendations are made in the knowledge that the site is the subject of development proposals and that the nature and extent of works would not perhaps be appropriate if the future use of the site were different. For example, BS5837 recommends that any trees 'in such condition that their existing value would be lost within ten years' should be removed, this is not appropriate in sites or areas of the larger site where development is not being considered.

5.5 Before authorising these, or any other tree works, the local planning authority should be consulted in accordance with the current version of the Town and Country Planning (Scotland) Act.

5.6 All tree works should be conducted in accordance with the current version of British Standard 3998: 'Tree work - Recommendations' and by a suitably qualified and insured tree contactor.

Part 2 ARBORICULTURAL IMPLICATIONS ASSESSMENT

6 Tree Constraints

6.1 Arboretum Internationale is aware of potential development in Zone 4 (see the proposed Masterplan at appendix 7), the design of that development should rely on the information on root protection contained herein. Where possible building footprints, utility services, new pedestrian and vehicular access routes and any other new structures or major landscape alterations should be restricted to ground out with the root protection areas (RPAs) identified.

6.2 6.2.1 Zone Z4-01. Sixteen category U trees are identified for removal. The development proposals require the removal of a further five category A trees, twenty-six category B trees and fourteen category C trees.

6.2.2 Zone Z4-02. Four category U trees are identified for removal. The development proposals require the removal of a further eight category A trees, twenty-four category B trees and nine category C trees.

6.2.3 Zone Z4-03. Eight category U trees are identified for removal. The development proposals require the removal of a further three category A trees, four category B trees and two category C trees.

6.2.4 Zone Z4-04. The development proposals require the removal of a one category A tree, six category B trees and two category C trees.

6.3 Across housing Zone 4, in relation to the development proposals only, at total of twenty-eight category U trees are identified for removal. The development proposals over the whole of Zone 4 require the removal of a further seventeen category A trees, sixty category B trees and twenty-seven category C trees.

6.4 Potential damage to structures by the future growth of trees is not considered here. (See BS5837:2012 Annex A, and NHBC Standards Chapter 4.2)

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

7 Development Appraisal

7.1 Some development of the Zone 4 site is feasible arboriculturally, the loss of self-set, dead, dying and or diseased trees, and the pruning of others should not be prohibitive. The loss of any tree is always regrettable, on this site the trees identified for removal to date described as Category U are those of poor quality and/or are hazardous, where there is a clear conflict with safety, and/or the trees have a short safe useful life expectancy. The development proposals require the removal of 104 trees that would otherwise be retained. The site has sufficient ground to accommodate appropriate replacement tree planting to provide a sustainable arboricultural amenity for the long term.

7.2 The primary arboricultural objective of this assessment is the analysis of the woody plants growing on the site and to determine the extent, number, and type of trees and shrubs, which can be removed, or retained, as appropriate. Quite apart from the requirement to retain some of the existing character, the presence of trees is generally accepted as being beneficial to the environment.

7.3 The construction phase of any development will require careful protection of the RPAs of the trees out with the area proposed for development.

7.4 **Encroachment within RPAs**

7.4.1 Within housing Zone 4 the identified sub zones Z4-01, Z4-02, Z4-03 and Z4-04 show low impact pedestrian and garage facilities, vehicular access, and small portions of building footprints which overlap the RPAs of some adjacent trees.

7.4.2 Discreet areas of conflict with RPAs can be managed through careful manual excavation to install surfacing and structures with the adoption of 'no-dig' systems to facilitate the formation of lightweight pedestrian and vehicle access routes. Footpath formation will require the removal of surface vegetation through a combination of herbicide treatment and manual hand tools before developing the sub-surface of the structure/new surface on top.

7.4.3 Works to prepare the existing ground for construction within or close to tree RPAs could, potentially, cause damage to trees and it is essential that this is carried out in a manner that prevents materials spilling onto unprotected soils and avoids excessive excavation or other forms of damage to underlying soils such as compaction.

7.4.4 In all circumstances tree RPAs should be considered as sacrosanct and no works or materials storage should be permitted in these areas, notwithstanding paragraph 9.4 and sections 11 and 12 below.

8 Scotland's National Planning Framework 4, Policy 6 Forestry, woodland and trees

8.1 Policy 6a) the development proposals are not detrimental to this policy.

8.2 Policy 6b) the proposals will not result in:

i. Conflict with Restocking Direction, Remedial Notice or Registered Notice to Comply issued by Scottish Forestry.

Policy 6b) the proposals will result in:

ii. Loss of ancient and veteran trees or will have an adverse impact on their ecological condition.
iii. Impacts on individual trees of high biodiversity value.
iii. Fragmenting of woodland habitats,

8.3 Policy 6c) the proposals do not require woodland removal.

8.4.1 Policy 6d) the proposals do not affect land identified in the Forestry and Woodland Strategy as being suitable for woodland creation.

8.4.2 Policy 6d) the proposals do affect existing woodland.

Part 3 ARBORICULTURAL METHOD STATEMENT

9 Tree Protection - General Measures

9.1 Where development is to take place BS5837 requires that the RPA of all retained trees is protected from the effects of development by the installation of protective barriers. It should be noted however, that the position of these barriers may also be influenced by the presence of any tree canopies that extend beyond the RPA and that could be damaged by construction works or where it is desirable to protect areas for future tree planting. BS 5837 recommends that areas of the site in which new or replacement tree planting is proposed should also be protected from the effects of construction.

9.2 Protective barriers demarcate the 'Construction Exclusion Zone', they should be installed prior to the commencement of any construction works, including clearance or demolition. They should be maintained for the duration of the works. All weather notices should be erected on the barriers with words such as 'Construction exclusion zone – Keep out.' Protective barriers should be in accordance with Figure 2 of BS5837: 2012 (or similar accepted), a copy is included as appendix 3.

9.3 The position of protective barriers should extend to cover all RPAs; the area within them should be regarded as sacrosanct and protective fences and barriers should not be taken down without the written approval of the local planning authority, or where present, the supervising arboricultural engineer.

9.4 **Ground Protection**

9.4.1 Where it is necessary, for the construction operation, to permit vehicular or pedestrian access within tree RPAs, for example to erect scaffolding, retained trees should be further protected by a combination of barriers and ground protection.

9.4.2 Ground protection should be of sufficient strength and rigidity to prevent disturbance or compaction to the soil underneath. In areas of heavy and/or continued usage it is advised that the protection plates or mats are linked or connected and that they are placed over a bed of bark or wood chippings (100 to 150mm depth).

9.5 Contamination of the soil by any substances should be prevented by the use of geotextile fabric. Do not raise or lower soil levels or strip topsoil around trees – even temporarily.

9.6 Avoid disturbing the natural water table level.

9.7 Do not light fires near trees.

9.8 Do not attach notice boards, telecoms cables or other services to any part of a tree. No construction materials should be stored within root protection areas. Toxins such as diesel, petrol, or cement should be suitably stored to prevent such substances leaching into the soil.

9.9 Care and planning are necessary to accommodate the operational arcs of excavation, unloading and lifting machinery, including their loads, especially large building components such as beams and roof trusses. Operations like these have the potential to cause incidental damage to trees and logistical planning is essential to avoid conflicts. Any movement of plant and materials in close proximity to trees should be conducted under the supervision of a banksman to ensure that adequate clearance from trees is maintained at all times.

10 Site Specific Tree Protection Measures

10.1 Prior to the commencement of any other works, any tree pruning, or removal works recommended herein, should be carried out by an appropriately qualified and insured tree work contractor and in

accordance with British Standard 3998: 2010 'Tree work - Recommendations'.

10.2 Following all preparatory tree and vegetation clearance works, tree protection barriers and any ground protection in accordance with BS5837:2012, Figure 2 (appendix 3) shall be installed in the permanent positions and shall remain in place for the duration of the construction works.

10.3 The position of any site huts, materials storage, and any on site car parking for contractors should be clearly identified. These should be outside RPAs unless special arboricultural advice is obtained, and any recommended additional tree protection measures implemented.

10.4 Where any works within RPAs are necessary, great care shall be taken to remove just that length of protective fencing required to facilitate the works and to ensure that it is re-installed immediately upon completion. Works required, within RPAs, to safeguard tree roots ahead of forming any permanent hard landscaping features will be undertaken before protective fencing is permanently removed. When new surfaces are completed these may be used for access purposes however precautions to prevent the spillage or leaching of materials into underlying soils shall be implemented. Under no circumstances shall vehicles travel across, or materials be stored upon unprotected soils within the RPAs.

10.5 Tree protection measures shall remain in place until completion of the development; they may only be removed to facilitate post development landscaping.

11 New Hard Surfaces Within RPAs

11.1 Where temporary access within an RPA may be required for construction purposes, these surfaces should either be formed at the beginning of the construction period or robust ground protection must be installed that has sufficient strength and rigidity to withstand any expected loading without causing compaction or other damage to the ground below. Under no circumstances should construction traffic be permitted to travel across unprotected ground within RPAs.

11.2 The principles of 'no dig' construction close to trees are explained in appendix 4 and in APN 12 'Through the Trees to Development' published by the Arboricultural Advisory and Information Service (APN 12). The final specification shall be determined by a suitably qualified engineer in conjunction with the arboriculturist.

12 Underground Services

12.1 Where possible all new underground services shall be routed to avoid passing through the RPAs of retained trees.

12.2 If the installation or upgrading of underground services within RPAs is unavoidable it shall be conducted in accordance with National Joint Utilities Group Guidelines (2007) Volume 4 'Guidance for the Planning, Installation, and maintenance of Utility Apparatus in Proximity to Trees' (NJUG) and under the supervision of the arboricultural engineer.

13 Arboricultural Supervision

13.1 The arboricultural engineer (AE) shall attend an initial site meeting with the project manager and the site manager prior to the commencement of ANY works on site that may affect trees. At this meeting, the programme of works will be reviewed and an outline schedule of visits by the AE will be determined and agreed.

13.2 Site visits by the AE should coincide with key stages of the development and in particular:

- Any preliminary arboricultural works or site clearance
- The installation of tree protection measures
- Any works within RPAs such as the removal of hard surfaces or installation of underground services or new hard surfaces.
- Any change in site or project manager personnel

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

13.3 This schedule may be subject to later review and may be influenced by unforeseen events or where there has been a failure in the maintenance of approved tree protection measures.

13.4 A copy of the outline schedule of visits by the AE will be submitted on request to the LPA for their records who will be informed by phone, email or in writing of any changes, variations, or amendments.

13.5 Particular attention must be given to any works of any nature that have to be undertaken within RPAs. These must be performed under the direct supervision of the AE.

13.6 The AE should be available to attend any site meetings at the request of the Local Planning Authority (LPA). In addition, the AE should be available in the event that any unexpected conflicts with trees arise.

13.7 The AE should keep a written log of the results of all site inspections and note any changes to the schedule of site visits. Any contraventions of the tree protection measures or other incident that may prejudice the wellbeing of retained trees shall be brought to the attention of the site manager in the form of a written report. Copies of the inspection log and any contravention reports will be available at the site for inspection by the local planning authority at all times.

CONCLUSIONS

The trees that constitute Zone 4 have been assessed in accordance with British Standard 5837: 2012 'Trees in relation to design, demolition, and construction– Recommendations' (BS5837). The retention of the historic trees within the Zone is both desirable and feasible albeit with a significant commitment to delivering technical arboricultural solutions in the management of the veteran trees.

Retained trees will be protected from the effects of development by means of appropriate protective barriers and ground protection throughout the duration of the works.

The strict observance of the arboricultural method statement, together with any additional guidance from the AE will ensure the successful integration of these proposals with retained trees.

The statements in this report do not take account of the effects of accidents, biological events, chemical contamination, extremes of climate, fire, or vandalism. Arboretum Internationale cannot therefore accept any liability in connection with these factors, nor where prescribed work is not conducted in a correct and professional manner in accordance with current good practice. The authority of this report ceases at any stated time limit within it, or if none stated after one year from the date of the report or when any site conditions change or pruning or other works unspecified in the report are applied to, or affecting, the subject tree(s), whichever is the sooner.

DEVELOPMENT RECOMMENDATIONS

Once any development proposals have been approved all remedial tree works (see appendix 1 below) should be undertaken before any construction work begins. All tree works should be delivered in accordance with British Standard 3998: 2010 'Tree work - Recommendations' and by a suitably qualified and insured tree contractor. The tree protection measures detailed in this report should be implemented and supervised by an appropriately experienced arboricultural engineer.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 1 Schedule of Trees

'Tree no.' Reflects the numbers detailed in appendix 1 and affixed to trees on site.

'Species' Trees are described with common names.

'Age Class' may have been recorded in the Tree Schedule in the following terms: NP (newly planted) – tree still supported by staking or other support, Y (young) - less than one-third life expectancy, EM (early-mature) – one- third to two-thirds life expectancy; M (mature) – more than two-thirds life expectancy, OM (over-mature) – beyond the normal life expectancy, V (veteran) - veteran tree or legacy tree is a tree which, because of its great age, size or condition, is of exceptional cultural, landscape or nature conservation value.

'Tree height' (Height) is given in metres; heights have been estimated to the nearest 1m.

'Diameter at Breast Height' (single DBH): this measurement, recorded in millimetres, has been taken with a girthing tape at 1.5m above ground level except. Where an * appears in this column the figures have not been calculated, the trees have been accorded the maximum root protection until am accurate measurement can be taken. Where ** appears in this column it was not considered safe to take an accurate measurement. Where *** appears, the tree fell in storm Arwen and has been left as a severed stump. Where parts of this column are 'greyed out' there is no requirement for any information.

'General observations': the 'health' or 'vitality' of the tree (assessed by comparison of the number, size and colour of the leaves and the length of annual twig extension growth with what would be expected for an average tree of equivalent age, of the same species) may be described as Good - Showing correct leaf colour / density and / or expected twig extension growth. Any wound wood present is seen to be forming well. Very few and minor pathogens and / or pests present (if any) which should only affect visual amenity. Fair - Meets the expected average in terms of leaf colour/density and/or twig extension growth. Host to more numerous minor pests and pathogens present; minor die back in areas of the canopy; a history of repeated and significant pruning; evidence of frequent, minor, and moderate, naturally occurring branch loss. Poor - Small and sparse leaf cover of an abnormal colour for the species; small increments in twig extension growth; host to significant pathogens and/or infestations of pests; significant crown die-back; a history of severe over-pruning with poor wound-wood development. Where technical terms are used to describe the cause of the defect, a definition, or further information will be found in the Glossary. Defects may be described as: Minor – Where the defect is small, shows no sign of instability and there is little concern with regard to safety or tree health and form; Moderate – Where the defect is likely to fail with some risk in relation to safety and/or tree health or form, or where the defect significantly affects tree form; Major – Where the defect is likely to fail with significant risk to persons and/or property. Severe damage, whole tree failure and/or tree death may occur, or where the defect dramatically affects tree form.

'Management Recommendations': generally, where practical tree-work operations are recommended, it is expected that these will be conducted to the British Standard BS 3998:2010 'Recommendations for tree work' as a minimum.

'Contribution': this is the estimated minimum number of years for which the tree can be expected to make a safe, useful contribution to the tree cover on the site.

'Retention Category': the code letter in this column reflects the general desirability of the tree for retention on a development site, based on species, form, age, and condition. A: trees of high quality and value (the suffixed number after the code letter indicates the particular sub-category – 1 being mainly arboricultural values, 2: mainly landscape values, 3 Mainly cultural values, including conservation.

'Root Protection Area Radius': This figure (recorded in metres) is that to be used to determine the correct location for the erection of protective fencing based on a circular Root Protection Area.

Housing Zone 4 sub-zones 1 to 3

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
49	Lime	EM	N 4 S 4 E 5 W 5	20 2	3 SW	> 1250		Minor die-back in upper canopy, minor dead wood throughout.	Crown clean.	>20 B2, B3	15
50	Horse chestnut	M	N 7 S 9 E 7 W 6	27 1	2 E	2S	720 0 640 928000 0 0	Moderate decay in west side stem at circa 1m. Moderate storm damage in east stem.	Crown reduce to circa 20m	>10 C1	11.4
51	Beech	M	N 9 S 7 E 6 W 8	20 2	7 W	1010		Minor die-back throughout. Minor bark damage to stem - north side. Historic storm damage in upper canopy.	Crown clean and prune to improve symmetry.	>20 B1	12
52	Beech	EM	N 3 S 9 E 2 W 7	23 4	6 W	570		Major asymmetry to southwest. Moderate storm damage throughout.	Fell.	5 U	6.9
53	Noble fir	M	N 4 S 6 E 5 W 5	35 11	13 W	1110		Minor dead wood throughout.	Crown clean.	>40 A1, A2	13.2
54	Beech	M	N 13 S 3 E 9 W 7	20 3	4 W	750		Moderate asymmetry and lean north. Moderate storm damage in upper canopy.	Crown clean and prune to improve symmetry.	>20 B1	9
55	Larch	EM	N 5 S 3 E 4 W 4	23 8	12 N	530		Historic loss of leader.	No work required.	>20 B1	6.3
56	Sycamore	EM	N 8 S 1 E 6 W 3	17 8	7 W	520		Moderate asymmetry to north.	Prune to improve symmetry.	>10 C1	6.3
57	Beech	EM	N 5 S 9 E 5 W 8	26 4	1.5 NW	2S	530 0 420 457300 0 0	Moderate asymmetry and leaning to southwest. Include bark union from 3m.	Inspect included bark union.	>20 B1	8.1
58	Beech	M	N / 9 S 6 E 8 W 8	22 1	4 N	1210		*Kretzschmaria deusta* present.	Fell or pollard at 5m.	>10 C1	14.4
59	Beech	M	N 14 S 7 E 9 W 10	23 2	3 N	1190		Moderate asymmetry to north.	Prune to improve symmetry.	>20 B1	14.1
60	Beech	EM	N 14 S 4 E 6 W 6	21 2	3 N	670		Moderate asymmetry to north. Numerous cavities throughout. Major dead wood on north side.	Fell or pollard at 5m.	>10 C1	8.1
61	Beech	M	N 15 S 8 E 12 W 6	23 7	5 E	2S	700 0 800 1130000 0 0	Major fork failing at 1m. Major dead wood throughout.	Fell.	5 U	12.6
62	Beech	M	N 10 S 12 E 9 W 12	27 3	3 N	2S	780 0 1000 1608400 0 0	Major decay in stem to south side. Suspicious branch unions at 1.5m and at 10m.	Picus fork at 1.5m, then aerially inspect fork at 10m.	TBC C1	15

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
63	Beech	M	N 12 S 14 E 10 W 12	22 1	2 S	1160		Multiple wounds / cavities north, potential for column of decay, some black staining to north. Multi stemmed from 8m.	Pollard to 8m.	>10 C1	13.8
64	Beech	EM	N 12 S 4 E 6 W 10	25 3	3 W	570		Multi-stemmed above 14m. Leaning north.	No work required.	>10 C1	6.9
65	Western red cedar	EM	N 8 S 6 E 8 W 8	33 1	3 N	3S	550 0 1110 2789000 1120 0	Minor root damage on north side.	No work required.	>40 A1, A2	15
66	Beech	M	N 8 S 11 E 10 W 4	29 1	3 S	1260		Previously storm damaged, minor dead, wood some broken and hanging on north side. Moderate included bark unions from 1-2m and at 8m.	Crown clean.	>20 B1	15
67	Beech	M	N 8 S 14 E 10 W 11	28 2	3 S	1100		Unidentifiable fungus at root collar on southeast side.	Return in autumn 2024 to identify fungus.	TBC B1	13.2
68	Oak	EM	N 9 S 2 E 4 W 5	19 5	8 N	620		Unidentifiable fungus at root collar on east side. Leaning north.	Return in autumn 2024 to identify fungus.	>10 C1	7.5
69	Sycamore	EM	N 7 S 6 E 4 W 5	20 2	2 N	550		Canopy biased to north, 2 stems above 10m .	Prune to improve symmetry.	>20 C1	6.6
70	Oak	EM	N 9 S 1 E 8 W 4	14 1	3 N	590		Canopy biased to north. Minor damage on stem south east and on 2 branches north and northeast. Minor dead wood throughout.	Crown clean, prune to improve symmetry.	>20 C1	7.2
71	Beech	EM	N 9 S 11 E 10 W 9	24 1	1 N	770		Twin stem at circa 11m, minor dead wood throughout.	Crown clean.	>20 C1	9.3
72	Beech	EM	N 10 S 9 E 7 W 4	26 1	4 E	400		Leaning north at circa 10°. Minor dead wood throughout.	Crown clean, prune to improve symmetry.	>10 C1	4.8
73	Beech	EM	N 10 S 10 E 6 W 9	27 1	2 N	400		2 stems above 14m. Minor dead wood throughout.	Crown clean.	>10 C1	4.8
74	Oak	M	N 6 S 5 E 2 W 9	22 2	3 N	400		Major damage and decay throughout.	Fell or pollard at 6m.	5 U	4.8
75	Beech	M	N 16 S 5 E 8 W 8	31 5	6 N	400		Minor dead wood throughout. 2 stems from 13m. Major asymmetry lean to north.	Crown reduce to 15m, crown clean, prune to improve symmetry.	>20 B1	4.8
76	Beech	M	N /9 S 7 E 9 W 7	29 4	11 N	400		Several major compression forks throughout. Minor deadwood throughout.	Crown reduce to 15m, crown clean, prune to improve symmetry.	>20 C1	4.8

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
77	Horse chestnut	M	N 10 S 5 E 5 W 8	20 1	5 S	660		Minor deadwood throughout. Leaning northwest. Cracking on large lateral branch to northwest.	Reduce large lateral on northwest to 6m.	>20 B1	7.8
78	Beech	M	N 13 S 6 E 9 W 11	23 1	4 N	1010		*Kretzschmaria deusta* present.	Fell.	<5 U	12
79	Beech	M	N 15 S 4 E 101 W 5	25 3	3 N	780		Major asymmetry to north and northwest. Minor decay, minor storm damage throughout. Multi-stemmed above 7m.	Crown clean, prune to improve symmetry.	20 C1	9.3
80	Beech	M	N S E W	>30 3	2 W	1140		Major defects throughout.	Crown reduce to circa 20m.	>10 C1	13.8
81	Beech	M	N S E W	>25 4	4 W	590		Major decay from ground level to >0.5m.	Fell.	<5 U	7.2
82	Beech	M	N S E W	>25 10	10 N	1170		Major decay from ground level to 4m.	Fell.	<5 U	14.1
83	Oak	EM	N S E W	>20 3	2 W	930		Major dieback throughout.	Fell.	<5 U	11.1
84	Beech	M	N S E W	>25 1	2 N	700		Moderate cavity at ground level to east rising to a hollow stem. 2 stems from 7m.	Undertake at Picus test at 2.5m.	TBC B3	8.4
85	Beech	EM	N S E W	>25 2	2 N	2S	290 0 440 277700 0 0	2 stems from ground level.	No work required.	>20 B1	6.3
86	Oak	M	N S E W	>30 8	6 NW	930		Leaning northwest at 5°. Minor to moderate dead wood throughout.	Crown clean.	>40 B1, B3	11.1
87	Oak	M	N S E W	>30 7	1.5 W	840		Leaning northwest at 5°. Minor to moderate dead wood throughout.	Crown clean.	>40 B1, B3	9.9
88	Beech	OM	N S E W	>30 1	3 W	1130		Minor asymmetry to northwest. Evidence of internal decay in stem.	Perform Picus tomogram at 1m.	TBC B3	13.5
89	Beech	OM	N S E W	>30 1	3 W	860		Minor asymmetry to west.	No work required.	>20 B1	10.2
90	Beech	M	N S E W	>30 2	5 N	870		No significant defects.	No work required.	>20 B1	10.5

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
91	Beech	M	N S E W	>30 6	5 N	580		No significant defects.	No work required.	>20 B1	6.9
92	Beech	M	N S E W	>30 1	3 S	570		Minor asymmetry to south. 2 stems from 6m.	No work required.	>20 B1	6.9
93	Beech	M	N S E W	>30 12	10 W	820		Small canopy above 10m.	No work required.	>20 B1	9.9
94	Beech	M	N S E W	>25 1	1 SW	870		Minor asymmetry to southwest.	No work required.	>20 B1	10.5
95	Oak	M	N S E W	>30 1	2 W	1140		Moderate asymmetry to west.	No work required.	>40 A1	13.8
96	Oak	M	N S E W	>25 1	3 N	960		Moderate asymmetry to west. Minor to moderate dead wood throughout.	Crown clean and prune to improve symmetry.	>20 B1	11.4
97	Oak	M	N S E W	>30 2	3.5 W	930		Moderate asymmetry to west.	Crown clean and prune to improve symmetry.	>20 B1	11.1
98	Oak	M	N S E W	>30 1.5	2 W	1160		Moderate asymmetry to west.	Crown clean and prune to improve symmetry.	>20 B1	13.8
99	Beech	OM	N S E W	>30 1	2 W	1140		Leaning east at 7°, moderate asymmetry to east. *Kretzschmaria deusta* present.	Fell.	<5 U	13.8
100	Beech	OM	N S E W	>30 1	2 W	950		Moderate cavity from 0.25 to 1m on north side. Moderate asymmetry to west.	Pollard at 10m	>10 C1	11.4
101	Oak	Y	N S E W	>20 2.5	2 SW	480		No significant defects.	No work required.	>40 B1	5.7
102	Beech	OM	N S E W	>30 1	3 W	1250		Major decay from 4-6m. *Kretzschmaria deusta* present.	Pollard at 8m.	>20 B3	15
103	Beech	M	N S E W	>30 1	3 W	400		Major wounds on stem at southeast to 4m.	Perform Picus tomogram at 1.75m.	TBC C	4.8
104	Beech	M	N S E W	>30 0.5	2.5 S	400		Moderate asymmetry to south.	Prune to improve symmetry.	>20 B1	4.8

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
105	Oak	M	N S E W	>30 11	2 N	1250		Major, failing compression fork from ground level to 1m.	Crown reduce to 15m and cable brace.	>40 B1	15
106	Oak	Y	N S E W	>20 2.5	3 W	560		Moderate symmetry to west.	Prune to improve symmetry.	>20 B1	6.6
107	Sweet chestnut	OM	N S E W	17 2.5	N/a N/a	4S	270;250;450; 440 0 0 193600 0	Multi-stemmed from ground level. Moderate asymmetry to west.	Prune to improve symmetry.	>40 A1, A2, A3	5.1
108	Beech	EM	N S E W	>25 2	1 S	730		No significant defects.	No work required.	>40 B1	8.7
109	Oak	EM	N S E W	>20 1	4 W	560		Major asymmetry to west.	Prune to improve symmetry.	>20 C1	6.6
110	Beech	M	N S E W	>30 2	2 SW	850		Major decay from ground level to 1m on southeast. Major asymmetry to west.	Perform Picus tomogram at 0.5m.	TBC C1	10.2
111	Oak	EM	N S E W	>30 2	2 NW	750		Minor dead wood throughout. Long lateral to west overhanging Scottish Water pump station.	Reduce long lateral on west to circa 10m.	>40 A1	9
112	Beech	M	N S E W	>30 2	1 SE	1100		Minor dead wood and storm damage throughout.	Crown clean.	>20 C1	13.2
113	Oak	Y	N S E W	>15 1	1.75 SE	460		Moderate die-back in upper canopy.	Crown reduce to circa 10m.	>20 B1	5.4
114	Oak	M	N S E W	>35 2.5	1.5 SW	1250		Moderate asymmetry to west. Major dead wood present, some broken and hanging.	Crown clean and prune to improve symmetry.	>40 A1	15
115	Beech	OM	N S E W	>30 2	1 S	1250		Major basal decay.	Crown reduce to 8m or fell.	<5 C1	15
116	Beech	M	N S E W	17 2	3.5 N	960		Major cavities throughout scaffold limbs at 6, 8 and 12m. Moderate compression forks present.	Crown reduce to 15m.	>20 B1	11.4
117	Beech	M	N S E W	18 1	3.5 S	750		Minor dead wood throughout.	Crown clean.	>40 B1	9
118	Japanese red cedar		N S E W	18 1.5	2 E	400		No significant defects.	No work required.	>40 A1	4.8

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
119	Beech	Y	N S E W	16 1	2.5 E	370		No significant defects.	No work required.	>40 A1	4.5
120	Noble fir	M	N S E W	>30 1	2 W	1050		Minor dead wood throughout.	Crown clean.	>40 A1	12.6
121	Noble fir	M	N S E W	>25 2.5	6 E	400		Minor dead wood throughout.	Crown clean.	>40 B1	4.8
122	Douglas fir	Y	N S E W	>25 2	2 W	1010		Minor dead wood throughout.	Crown clean.	>40 B1	12
123	Beech	M	N S E W	>25 1	2 W	830		Minor asymmetry to southwest.	No work required.	>40 B1	9.9
124	Douglas fir	Y	N S E W	>35 12	14 W	940		Minor dead wood throughout.	Crown clean.	>40 B1	11.4
125	Douglas fir	Y	N S E W	>25 8	8 E	850		Minor dead wood throughout.	Crown clean.	>40 C1	10.2
126	Oak	Y	N S E W	18 3	4 W	660		Leaning southwards at 15°.	Prune to improve symmetry.	>20 C1	7.8
127	Beech	M	N S E W	18 2	4 NW	1080		Minor to moderate dead wood throughout. Moderate cavities at 3m to west and 6m to east.	Crown clean.	>40 C1	12.9
128	Oak	Y	N S E W	16 7	7 E	720		Minor to moderate dead wood throughout.	Crown clean.	>20 C1	8.7
129	Oak	EM	N S E W	22 4	5 SW	960		Moderate asymmetry to south. Minor to moderate dead wood throughout.	Crown clean and prune to improve symmetry.	>40 C1	11.4
130	Holly	OM	N S E W	15 1	0.25 W	4S	470 0 660 869000 420 190	Major decay throughout.	Crown reduce to circa 6m.	>10 C1	11.1
131	Beech	M	N S E W	>30 4	5 SW	760		Major decay to northwest from ground level to 3m.	Fell.	<5 U	9
132	Oak	Y	N S E W	>25 12	SW 9	540		Major die-back throughout. Major asymmetry to southeast.	Fell.	<5 U	6.3

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
133	Oak	M	N S E W	>30 5	5 NE	1250		Minor to major dead wood throughout.	Crown clean.	>40 A1	15
134	Holly	OM	N S E W	11 1	1 W	3S	280 0 330 389800 450 0	Major basal decay.	Crown reduce to circa 6m.	>20 B1	7.5
135	Beech	EM	N S E W	>30 1	2.5 E	670		No significant defects.	No work required.	>40 A1	8.1
136	Beech	OM	N S E W	>30 1	0.5 W	1350		Moderate asymmetry to west.	Prune to improve symmetry.	>40 A1	15
137	Oak	Y	N S E W	18 1	1 S	2S	520 0 350 392900 0 0	Minor to moderate dead wood present, some broken and hanging.	Crown clean.	>20 C1	7.5
138	Oak	EM	N S E W	>30 6	6 W	730		Minor to moderate dead wood present, some broken and hanging.	Crown clean.	>40 A1	8.7
139	Oak	EM	N S E W	>25 6	5 SW	810		Major dead wood, some broken and hanging.	Crown clean.	>40 B1	9.6
140	Douglas fir	EM	N S E W	>30 5	10 E	780		Minor dead wood throughout.	Crown clean.	>40 B1	9.3
141	Holly	OM	N S E W	12 1	1 SE	2S	320 0 410 270500 0 0	Major basal decay.	Crown reduce to circa 6m.	>20 B1	6.3
142	Douglas fir	Y	N S E W	>30 12		780		Minor dead wood throughout.	Crown clean.	>40 B1	9.3
143	Douglas fir	Y	N S E W	>30 6		400		Minor dead wood throughout.	Crown clean.	>40 B1	4.8
144	Beech	M	N S E W	>30 1	7 NE	770		No significant defects.	No work required.	>40 A1	9.3
145	Beech	M	N S E W	>30 1	7 W	750		Leaning to south at 5°. Moderate cracking in stem from ground level to 5m.	Crown reduce to 15m.	>20 B1	9
146	Beech	M	N S E W	>30 4.5	4.5 SW	940		Minor asymmetry to south.	Prune to improve symmetry.	>40 A1	11.4

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
147	Sweet chestnut	M	N S E W	19 1	1 S	950		Major die-back and dead wood throughout.	Crown reduce to 8m.	>20 B1	11.4
148	Beech	M	N S E W	>25 2	6 SE	780		Douglas fir windblown into and hanging in canopy.	Remove Douglas fir.	>20 A1	9.3
149	Douglas fir	Y	N S E W	>30 5	7 S	850		Minor dead wood throughout.	Crown clean.	>40 B1	10.2
150	Oak	Y	N S E W	15 5	5 SW	470		Minor dead wood present, minor asymmetry to west. Cracking in stem from ground level to 3m on east.	Prune to improve symmetry, crown clean.	>20 B1	5.7
151	Oak	Y	N S E W	17 1	2 W	700		Minor dead wood throughout.	Crown clean.	>40 B1	8.4
152	Oak	EM	N S E W	>25 1	2.5 W	970		Minor to moderate dead wood present. Major cracking in stem from ground level to 15m.	Crown reduce to 20m.	>40 A1	11.7
153	Oak	Y	N S E W	18 5	7 W	640		Leaning northwest at 12°.	No work required.	>20 B1	7.5
154	Oak	Y	N S E W	20 5	6 SW	640		Minor to moderate dead wood throughout.	Crown clean.	>40 B1	7.5
155	Beech	OM	N S E W	>30 4	9 S	1150		Major basal decay.	Fell or crown reduce to 6m.	<5 U	13.8
156	Douglas fir	Y	N S E W	>35 7	9 S	810		Minor asymmetry to south. Minor dead wood throughout.	Crown clean.	>40 B1	9.6
157	Oak	Y	N S E W	>30 1	10 N	580		Suppressed by adjacent trees, minor to major dead wood present.	Pollard at 8m.	>10 C1	6.9
158	Beech	M	N S E W	>30 1	8 SE	940		Decay and bark necrosis from ground level to 2m.	Perform Picus tomogram at 1m.	TBC B1	11.4
159	Beech	M	N S E W	>30 1	1.5 W	720		Major decay from ground level to 0.75m on east	Perform Picus tomogram at 0.25m.	TBC A1	8.7
160	Beech	M	N S E W	>30 4	2 S	780		No significant defects.	No work required.	>40 A1	9.3

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
161	Beech	M	N S E W	>30 1	3 N	620		No significant defects.	No work required.	>40 A1	7.5
162	Holly	OM	N S E W	10 1	3.5 W	430		Major decay to 4m.	Crown reduce to 5m.	>20 B1	5.1
163	Oak	EM	N S E W	>25 8	3 SE	880		Minor to major dead wood present. Moderate asymmetry to south.	Prune to improve symmetry, crown clean.	>20 B1	10.5
164	Beech	EM	N S E W	>25 1	3.5 S	550		Large lateral branch from 3.5m on south side supported by a failing union.	Reduce large lateral to 6m from union.	>20 C1	6.6
165	Holly	OM	N S E W	10 2	2 S	2S	260 0 310 163700 0 0	Major decay to 1.25m.	Pollard or fell.	<10 C1	4.8
166	Sweet chestnut	EM	N S E W	15 2	3 W	670		Major decay in stem from ground level to upper canopy.	Pollard or fell.	<10 C1	8.1
167	Beech	M	N S E W	>30 2	4 S	640		Moderate asymmetry to southeast.	Prune to improve symmetry.	>40 B1	7.5
168	Beech	Y	N S E W	>25 1	1 NE	460		Moderate asymmetry to west.	Prune to improve symmetry.	>20 C1	5.4
169	Beech	M	N S E W	>30 5	11 W	1000		No significant defects.	No work required.	>40 A1	12
170	Beech	OM	N S E W	>30 1	3.5 W	1300		*Kretzschmaria deusta* present.	Pollard or fell.	<5 U	15
171	Oak	Y	N S E W	>25 4	2 W	530		Very small canopy above 20m. Minor to moderate dead wood present.	Pollard at 8m	>20 C1	6.3
172	Oak	Y	N S E W	>25 2.5	2.5 W	570		Major asymmetry to southwest.	Pollard at 8m	>20 C1	6.9
173	Beech	Y	N S E W	>30 2	3.5 SE	530		Moderate asymmetry to east.	Prune to improve symmetry.	>40 A1	6.3
174	Sweet chestnut	M	N S E W	>25		690		Moderate decay throughout from ground level. Minor to moderate dead wood present.	Perform Picus tomogram at 1m.	>20 C1	8.1

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
175	Beech	OM	N	>30	2.5	1640		*Kretzschmaria deusta* present with major defects.	Pollard or fell.	<5	15
			S							U	
			E								
			W	3	NE						
176	Beech	OM	N	>30	4	1330		*Kretzschmaria deusta* present with major defects.	Pollard or fell.	<5	15
			S							U	
			E								
			W	1	W						
177	Beech	OM	N	>30	2	1110		2 Stems from 2.5m.	No work required.	>20	13.2
			S							B1	
			E								
			W	1	E						
178	Beech	OM	N	>30	2.5	1250		*Armillaria sp.* fruiting bodies on root collar to south east.	Perform Picus tomogram at 0.25m.	TBC	15
			S							A1	
			E								
			W	1.5	S						
179	Beech	OM	N	>25	2.5	1020		Minor to major dead wood throughout. Moderate asymmetry to south and southeast.	Prune to improve symmetry, crown clean.	>20	12.3
			S							B1	
			E								
			W	2	W						
180 .	Beech	OM	N	>30	3	1350		*Kretzschmaria deusta* present with many major defects.	Fell.	<5	15
			S							U	
			E								
			W	2	E						
181	Holly	OM	N	9	3.5	410		Two stems from 1.75m.	No work required.	>20	4.8
			S							B1	
			E								
			W	52	SW						
182	Beech	M	N	>25	3	1090		Major decay from ground level to 5m.	Fell or pollard at 5m.	<5	13.2
			S							U	
			E								
			W	1	NW						
183	Beech	M	N	>30	4	1160		Evidence of decay from ground level to 3m.	Perform Picus tomogram at 0.25m.	TBC	13.8
			S							C1	
			E								
			W	1	W						
184	Beech	M	N	8	6	930		Standing stump.	No work required.	>10	11.1
			S							B1	
			E								
			W	2.5	NE						
185	Douglas fir	Y	N	>35	6	770		Leaning East at circa 15°.	No work required.	>10	9.3
			S							C1	
			E								
			W	6	W						
186	Beech	M	N	>30	1.5	1120		Two stems from 1.5m Major decay on northwest at 1m.	Perform Picus tomogram test at 1m.	TBC	13.5
			S							C1	
			E								
			W	1	W						
187	Beech	M	N	>20	0.75	580		Moderate decay from 1.4 to 2m to northwest.	No work required.	>10	6.9
			S							C1	
			E								
			W	1	NW						
188	Douglas fir	Y	N	>35	10	900		No significant defects.	No work required.	>20	10.8
			S							B1	
			E								
			W	9	W						

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
189	Douglas fir	Y	N S E W	>25 >12	>15 SE	880		Lost leader above 25m.	No work required.	>10 C1	10.5
190	Douglas fir	Y	N S E W	>35 1.5	6 SW	740		Two stems from 6m wit a moderate compression fork.	Brace above 20m, or fell.	>10 C1	8.7
191	Sweet chestnut	M	N S E W	>15 2	1.75 W	620		75% dead.	Pollard at 6m.	>10 C1	7.5
192	Beech	OM	N S E W	>30 2	3.5 NW	1260		Minor to moderate dead wood.	Crown clean, crown thin by circa 10%.	>20 B1	15
193	Beech	M	N S E W	>30 3	4.5 SE	760		No significant defects.	No work required.	>20 B1	9
194	Oak	Y	N S E W	>30 >25	>15 NW	560		Small canopy, all above 25m.	No work required.	>10 C1	6.6
195	Beech	OM	N S E W	>30 1.5	3 NW	1550		Minor to moderate dead wood.	Crown clean.	>20 B1	15
196	Beech	OM	N S E W	>30 1.5	3 NW	1110		Major cavity on north side from ground level to 2.5m	Perform Picus tomogram at 1m.	TBC C1	13.2
197	Beech	OM	N S E W	>30 1.5	4 N	1330		*Kretzschmaria deusta* present.	Fell.	<5 U	15
198	Beech	OM	N S E W	>30 2	3 SE	1060		Minor to moderate dead wood throughout, some broken and hanging. Moderate storm damage in upper canopy.	Crown clean, crown thin by circa 10%.	>10 C1	12.6
199	Sweet chestnut	OM	N S E W	>20 1.5	1 NW	880		Minor to major dead wood throughout.	Crown reduce to circa 8m and crown clean	>20 B1	10.5
200	Oak	Y	N S E W	>25 9	8 N	670		Minor dead wood throughout, minor storm damage in upper canopy.	Crown clean and formative prune.	>20 B1	8.1
201	Oak	M	N S E W	>35 >10	8 S	1250		Two stems from 4m. Minor to moderate dead wood throughout, some broken and hanging. Moderate storm damage throughout.	Crown clean and formative prune.	>40 A1	15
202	Common lime	M	N S E W	>25 2	0.25 E	710		Minor to moderate dead wood throughout. Broken branch from adjacent oak hung up in canopy.	Crown clean and formative prune.	>20 B1	8.4

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
203	Sweet chestnut	M	N S E W	>10 2	1.5 SE	800		Major dead wood present, 75% of canopy dead.	Pollard at 3.5m.	>20 B1	9.6
204	Beech	OM	N S E W	>30 1	3 SE	1100		Major decay to 3m.	Pollard at 4.5m.	>10 C1	13.2
205	Oak	M	N S E W	>35 3	4 SE	880		Three stems above 12m. Minor dead wood throughout.	Crown clean and crown thin by 10%.	>40 A1	10.5
206	Oak	M	N S E W	>20 3	7 NE	870		Two stems from 6m. Broken top at 10m on west.	Prune to improve symmetry.	>20 B1	10.5
207	Sycamore	EM	N S E W	>30 6	7 N	720		No significant defects.	No work required.	>40 B1	8.7
208	Douglas fir	EM	N S E W	>30 3	8 W	750		Broken top above 30m. Moderate asymmetry to southeast.	No work required.	>20 C1	9
209	Douglas fir	EM	N S E W	>35 6	9 N	870		No significant defects.	No work required.	>40 B1	10.5
210	Douglas fir	EM	N S E W	>35 4	10 W	1140		Minor dead wood throughout, some broken/hanging.	Crown clean and crown thin by 10%.	>20 B1	13.8
211	Douglas fir	EM	N S E W	>35 >15	>15 SE	1130		Minor dead wood throughout, some broken/hanging.	Crown clean and crown thin by 10%.	>20 B1	13.5
212	Beech	OM	N S E W	>25 1.5	3.5 NW	920		Major decay from ground level to 2.4m on west side.	Crown reduce to 15m.	>10 C1	11.1
213	Beech	OM	N S E W	>30 2	3.5 SE	1140		Major decay/cavity from ground level to 3m on southeast side. Major storm damage in upper canopy.	Fell or pollard at 6m.	>10 C1	13.8
214	Beech	OM	N S E W	>35 1.5	5 SW	1290		Two stems from 4m with a failing compression fork.	Fell.	<5 U	15
215	Oak	Y	N S E W	>30 >15	>15 SE	560		Moderate asymmetry to west.	No work required.	>20 B1	6.6
216	Beech	Y	N S E W	>30 2	4 S	530		Two stems from 6m.	No work required.	>20 B1	6.3

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
217	Holly	OM	N	>12	4	270		Moderate decay from 0.25 to 1.25m. Leaning northwest at 10°.	Crown reduce to 5m.	>10	3.3
			S							C1	
			E								
			W	1	NW						
218	Beech	EM	N	>25	1.5	590		Moderate asymmetry to northeast.	No work required.	>20	7.2
			S							B1	
			E								
			W	1	N						
219	Beech	M	N	>30	9	700		Dense canopy.	Crown thin by 10%.	>40	8.4
			S							A1	
			E								
			W	3	SE						
220	Beech	M	N	>30	6	1060		Major decay from ground level to 3.5m.	Perform tomograms at 0.25, 1.5 and 2.5m.	TBC	12.6
			S							C1	
			E								
			W	7	NE						
221	Holly	M	N	12	4	280		Moderate bark wound at 0.25m. Three stems above 4m.	No work required.	>10	3.3
			S							C1	
			E								
			W	4	NW						
222	Holly	M	N	11	1.75	330	0	Moderate decay from ground level to 0.5m to southwest.	No work required.	>10	3.9
			S							C1	
			E								
			W	3	W						
223	Beech	OM	N	>35	7	1040		*Kretzschmaria deusta* present.	Fell.	<5	12.3
			S							U	
			E								
			W	7	SE						
224	Beech	OM	N	>35	8	1000		Major decay from 1 to 3.5m to northwest.	Fell.	<5	12
			S							U	
			E								
			W	7	N						
225	Beech	OM	N	>35	6	1340		Major decay on north side to 7m.	Fell.	<5	15
			S							U	
			E								
			W	3	NW						
226	Beech	EM	N	>35	>15	550		Dense canopy.	Crown thin by 10%.	>40	6.6
			S							A1	
			E								
			W	>10	NE						
227	Beech	EM	N	>35	3	510		Minor dead wood throughout, some broken & hanging Poorly formed canopy.	Crown clean and crown thin by 10%.	>40	6
			S							A1	
			E								
			W	1	SE						
228	Beech	M	N	>35	3.5	760		Minor dead wood throughout, some broken & hanging	Crown clean and crown thin by 10%.	>40	9
			S							A1	
			E								
			W	1.5	S						
229	Beech	OM	N	>35	1.5	1670		Minor dead wood throughout.	Crown clean and crown thin by 10%.	>20	15
			S							B1	
			E								
			W	1.5	SW						
230	Beech	OM	N	6	2.5	830		Standing stump, top broken at 6m.	Retain as is for wildlife.	>5	9.9
			S							C1	
			E								
			W	2	N						

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
231	Beech	OM	N	>35	1.5	2110		Major decay from ground level to 2m on southeast side.	Crown reduce to 25m and crown clean.	>20	15
			S								
			E								
			W	1.5	SW					B1	
232	Beech	M	N	>35	3.5	860		Dense canopy.	Crown thin by 10%.	>20	10.2
			S								
			E								
			W	1.5	NW					B1	
233	Beech	OM	N	>35	6	1250		Major storm damage in upper canopy.	Crown reduce to 20m.	>10	15
			S								
			E								
			W	3	W					C1	
234	Beech	OM	N	>30	5	1020		Major decay from ground level to 3.5m.	Fell or pollard at circa 4m.	<5	12.3
			S								
			E								
			W	2	SW					U	
235	Beech	OM	N	>35	4.5	1020		Moderate asymmetry to northwest.	Crown clean and crown thin by 10%.	>20	12.3
			S								
			E								
			W	1.5	N					B1	
236	Beech	EM	N	>30	5	720		No significant defects.	No work required.	>40	8.7
			S								
			E								
			W	2	N					A1	
237	Beech	EM	N	>30	7	570		No significant defects.	No work required.	>40	6.9
			S								
			E								
			W	2	E					A1	
238	Beech	OM	N	>35	5.5	1590		Major compression forks at 2m.	Crown thin by 10%. Install non-invasive cable brace.	>20	15
			S								
			E								
			W	2	NW					B1	
239	Beech	M	N	>30	2	840		Moderate asymmetry to west.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20	9.9
			S								
			E								
			W	6	W					B1	
240	Beech	M	N	>35	8	720		Moderate asymmetry to west.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20	8.7
			S								
			E								
			W	7	W					B1	
241	Beech	Y	N	>35	4	500		Moderate asymmetry to west.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>10	6
			S								
			E								
			W	2	W					C1	
242	Beech	OM	N	>35	9	1470		Major cavity from ground level to 2.5m. Major asymmetry to southeast.	Fell.	<5	15
			S								
			E								
			W	7	S					U	
243	Beech	OM	N	>35	3	1370		3 stems from 1.5m. Minor to moderate dead wood throughout.	Crown clean and crown thin by 10%.	>10	15
			S								
			E								
			W	2	E					C1	
244	Beech	M	N	>35	2	790		2 stems from 2m. Various rubbing scaffold limbs throughout.	Crown clean and crown thin by 10%.	>10	9.3
			S								
			E								
			W	2	NW					C1	

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
245	Beech	M	N S E W	>35 3	3 SE	940		Major buttress root damage to south and east. Minor bark wound on south side to 1.5m.	Perform Picus tomogram at 1m.	TBC C1	11.4
246	Beech	EM	N S E W	>30 2	2.5 N	580		Major buttress root damage at root collar.	Perform Picus tomogram at 1m.	TBC C1	6.9
247	Sweet chestnut	M	N S E W			930		Major asymmetry to northwest, major dead wood throughout. Major buttress damage to south & east to 0.75m.	Fell.	<5 U	11.1
248	Beech	Y	N S E W	>30 2	2 N	420		Minor dead wood throughout.	Crown clean.	>20 C1	5.1
249	Beech	EM	N S E W	>30 >20	8 NW	560		Moderate asymmetry to north, minor dead wood throughout, some broken hanging.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>10 C1	6.6
250	Beech	M	N S E W	>30 9	6 NW	670		Moderate asymmetry to west.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>10 C1	8.1
251	Beech	M	N S E W	>35 7	8 W	720		Moderate asymmetry to west.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20 B1	8.7
252	Beech	M	N S E W	>35 6	4 NW	900		Major compression fork at 4m. Moderate asymmetry to northwest.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>10 C1	10.8
253	Beech	EM	N S E W	10 3	4 SE	600		Broken top at 8m. Major cavity at ground level on south side.	Fell.	<5 U	7.2
254	Beech	M	N S E W	>30 2	5 N	680		Moderate asymmetry to east. Minor storm damage, some broken and hanging.	Crown clean and crown thin by 10%.	>10 C1	8.1
255	Beech	M	N S E W	>35 4	5 N	720		Moderate asymmetry to west.	Crown clean and crown thin by 10%.	>20 B1	8.7
256	Beech	M	N S E W	>30 1	4 E	740		2 stems from 6m. Major external decay all round to 1.75m.	Perform Picus tomogram at 1m.	TBC C1	8.7
257	Oak	M	N S E W	>30 2.5	3.5 NE	1040		Moderate external decay on west to 1m.	Perform Picus tomogram at 1m.	TBC C1	12.3
258	Beech	M	N S E W	>30 1.5	3.5 E	850		Moderate asymmetry to northeast. Decay/cavity at root collar on north side. Leaning north at circa 8°.	Perform Picus tomogram at 1m.	TBC C1	10.2

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
259	Beech	M	N S E W	>30 7	7 NE	830		Moderate asymmetry to northeast, minor dead wood throughout.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20 B1	9.9
260	Beech	M	N S E W	>30 3	2 E	730		Two stems from 3m.	No work required.	>40 B1	8.7
261	Windblown during survey.		N S E W								
262	Beech	EM	N S E W	>30 8	5 E	550		Minor asymmetry to north. Small canopy above 15m.	No work required.	>10 C1	6.6
263	Beech	EM	N S E W	>25 3	4 E	460		Minor asymmetry to north/northwest.	No work required.	>10 C1	5.4
264	Beech	M	N S E W	>30 2	4.5 W	680		Minor to moderate dead wood throughout.	Crown clean and crown thin by 10%.	>20 B1	8.1
265	Beech	M	N S E W	>30 2.5	3.5 SE	630		Moderate decay at root collar to south and east sides.	Perform Picus tomogram at 1m.	TBC C1	7.5
266	Beech	M	N S E W	>35 4	4 E	400		Minor dead wood throughout.	Crown clean and crown thin by 10%.	>20 B1	4.8
267	Beech	M	N S E W	>30 3	4 E	700		Minor dead wood throughout, minor asymmetry to south.	Crown clean and crown thin by 10%.	>20 B1	8.4
268	Beech	M	N S E W	>30 4	3 E	650		Moderate asymmetry to east.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20 B1	7.8
269	Beech	OM	N S E W	>30 2	4.5 N	1220		Two stems from 3.5m. Minor dead wood throughout, some broken and hanging. Moderate asymmetry east.	Crown clean and crown thin by 10%.	>20 B1	14.7
270	Beech	M	N S E W	>30 2	2 E	950		Minor bark wound to southeast from 0.5m to 1.5m. Moderate asymmetry to east. Minor storm damage in upper canopy.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20 B1	11.4
271	Common lime	Y	N S E W	>15 5	4 NE	460		Suppressed by tree no. 270. Minor dead wood throughout, major asymmetry to east.	Crown clean and prune to improve symmetry.	>10 C1	5.4
272	Common lime	EM	N S E W	>15 2.5	3.5 E	530		Moderate asymmetry to southeast. Minor dead wood throughout.	Crown clean and prune to improve symmetry.	>10 C1	6.3

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
273	Sycamore	EM	N S E W	>25 2.5	4 N	660		Major asymmetry to northwest.	Prune to improve symmetry.	>20 C1	7.8
274	Beech	M	N S E W	>35 2	7 E	1160		Minor dead wood throughout.	Crown clean and crown thin by 10%.	>40 A1	13.8
275	Oak	EM	N S E W	>30 >25	6 S	710		Minor dead wood throughout.	Crown clean.	>40 A1	8.4
276	Oak	Y	N S E W	>20 14	10 SE	560		Major asymmetry and leaning southeast at 12°. Minor dead wood throughout.	No work required.	>40 C1	6.6
277	Beech	M	N S E W	>30 2	4 S	890		Major internal cavity, honey fungus on exposed roots.	Fell.	<5 U	10.8
278	Oak	EM	N S E W	>25 1.5	3 SE	850		Moderate asymmetry to southeast. Old storm damage in upper canopy.	Crown clean and prune to improve symmetry.	>40 B1	10.2
279		EM	N S E W			510				>40 B1	6
280	Yew	Y	N S E W	12 GL	1 E	800		Minor asymmetry to east.	Crown clean and prune to improve symmetry.	>40 A1	9.6
281	Yew	Y	N S E W	12 1	1 NE	520		Minor storm damage to west.	Crown clean and prune to improve symmetry.	>40 A1	6.3
282	Oak	Y	N S E W	>25 6	5 NW	450		Minor dead wood throughout.	Crown clean.	>40 B1	5.4
283	Oak	Y	N S E W	>25 6	6 SE	610		Moderate asymmetry to southeast. Minor dead wood throughout, some broken and hanging.	Crown clean and prune to improve symmetry.	>40 B1	7.2
284	Oak	Y	N S E W	>25 3	5 E	650		Moderate asymmetry and leaning south at 5°. Minor to moderate dead wood throughout some broken and hanging.	Crown clean and prune to improve symmetry.	>40 B1	7.8
285	Oak	Y	N S E W	>25 3	4 W	695		Major asymmetry and leaning south at 15°. Minor to moderate dead wood throughout. Fence embedded in root collar.	Crown clean and prune to improve symmetry. Remove fence.	>40 B1	8.4
286	Oak	EM	N S E W	>25 6	6 NW	575		Minor dead wood throughout, leaning south at 5°.	Crown clean.	>40 A1	6.9
287	Oak	EM	N S E W	>30 6	6 NW	2S	575 0 700 820625 0 0	Two stems from 1.5m. Minor dead wood throughout.	Crown clean.	>40 A1	10.8

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height Crown height	Lowest branch Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution Retention category	RPA Radius
288	Beech	M	N S E W	>35 6	6 S	1060		Wire embedded in root collar. Major asymmetry to southeast. Major timber defects at 15m.	Crown clean and crown thin by 10%. Prune to improve symmetry.	>20 B1	12.6
289	Sycamore	Y	N S E W	>25 3	4 E	530		2 stems from 8m.	No work required.	>40 B1	6.3
290	Oak	Y	N S E W	>30 10	10 E	590		Minor wound at 1m. Minor to moderate dead wood throughout.	Crown clean.	>40 B1	7.2
291	Oak	Y	N S E W	>20 2	1.5 E	590		Major asymmetry and leaning south at 15°. Major stem defect at 6m to 8m.	Crown reduce to 10m.	>20 C1	7.2
292	Beech	OM	N S E W	>35 5	6 S	1380		Major decay to buttress roots.	Perform Picus tomogram at 1m.	TBC B1	15
293	Beech	OM	N S E W	>35 2	5 S	1000		Major decay throughout.	Crown reduce to 10m.	>5 C1	12
294	Oak	Y	N S E W	>30 5	7 SE	600		Minor dead wood throughout.	Crown clean.	>40 A1	7.2
295	Oak	EM	N S E W	>25 7	5 SE	780		Minor to moderate dead wood throughout. Major asymmetry to south. Two stems from 5m.	Crown clean and prune to improve symmetry.	>20 C1	9.3
296	Oak	M	N S E W	>30 3	5 W	980		Minor to moderate dead wood throughout. Minor asymmetry to southeast.	Crown clean.	>40 A1	11.7
297	Oak	EM	N S E W	8 1.5	4 W	740		Major storm damage above 5m. Major asymmetry to southeast. Minor dead wood throughout.	Crown clean.	>20 C1	8.7
298	Oak	M	N S E W	>30 1.5	4 SW	960		Minor to moderate dead wood throughout. Two stems from 2m.	Crown clean.	>40 A1	11.4
299	Oak	M	N S E W	>30 2.5	3 SW	1220		Minor to moderate dead wood throughout, some broken and hanging. Overlarge limb on south side from 3m.	Crown clean, reduce overlarge limb to 5m length.	>40 A1	14.7
300	Oak	Y	N S E W	>20 0.5	1.5 S	580		Moderate asymmetry to south.	Prune to improve symmetry.	>40 B1	6.9
301	Sweet chestnut	M	N S E W	>30 3	5 S	1270		Minor to moderate dead wood throughout, some broken and hanging. Minor die-back in upper canopy.	Crown reduce to 20m and crown clean.	>40 A1	15

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
302	Oak	Y	N S E W	>20 1	2 S	650		Minor to moderate dead wood throughout. Minor asymmetry to southeast.	Crown clean and prune to improve symmetry.	>40 B1	7.8
303	Common lime	OM	N S E W	>25 1	1.5 NW	1450		Moderate asymmetry to southeast. Major decay from 2m to 4m. Moderate asymmetry to southeast.	Crown reduce to circa 15m and prune to improve symmetry.	>40 A1	15
304	Common lime	OM	N S E W	>35 3	5 NW	>1250		Major decay to 6m. Evidence of major failure in upper canopy historically.	Crown reduce to circa 15m.	>40 A1	15
305	Lawson cypress	M	N S E W	>20 0.25	2.5 N	1020		75% dead.	Fell.	<5 U	12.3
306	Oak	M	N S E W	>30 1	4 S	1160		Minor to moderate dead wood, some broken and hanging. Historic storm damage throughout.	Crown reduce to 25m.	>40 B1	13.8
307	Oak	M	N S E W	>30 6	6 NW	1050		Minor dead wood throughout, minor asymmetry to northwest.	Crown clean and prune to improve symmetry.	>40 A1	12.6
308	Beech	M	N S E W	>25 1	2 NW	790		Wire embedded in root collar to north. Moderate asymmetry to southwest. 2 stems from 4m.	Remove wire and prune to improve symmetry.	>20 B1	9.3
309	Oak	EM	N S E W	>30 10	8 E	720		Moderate asymmetry to east. Minor to moderate dead wood throughout, some broken and hanging.	Crown clean and prune to improve symmetry.	>40 A1	8.7
310	Oak	Y	N S E W	>25 5	6 N	590		Moderate asymmetry to northwest. Minor to moderate dead wood throughout, some broken and hanging.	Crown clean and prune to improve symmetry.	>40 B1	7.2
311	Oak	Y	N S E W	20 16	15 S	640		Moderate asymmetry and leaning south at 10°. Minor dead wood throughout.	Crown clean and prune to improve symmetry.	>20 B1	7.5
312	Oak	Y	N S E W	>20 3	6 N	610		Minor asymmetry to northwest.	Perform Picus tomogram at 0.25m.	TBC B1	7.2
313	Douglas fir	Y	N S E W	>35 9	12 NW	960		No significant defects.	No work required.	>40 B1	11.4
314	Oak	M	N S E W	>25 1	4 SW	1410		Major asymmetry to southeast. History of failure throughout.	Prune to improve symmetry.	>40 A1	15
315	Beech	M	N S E W	>30 2	3 SW	1200		Major decay from 7m - 9m.	Crown reduce to 12m.	>20 A1	14.4

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
316	Beech	OM	N S E W	>30 2	3 SW	1200		Major decay at point of historic failure from 1m-5m.	Crown reduce to 8m.	>20 A1	14.4
317	Beech	OM	N S E W	>30 1	2 S	1250		*Kretzschmaria deusta* present. Numerous compression forks above 8m.	Crown reduce to 10m.	>20 A1	15
318	Beech	OM	N S E W	>30 1	2 S	970		Two stems from 3m. Moderate bark damage at root collar. Major cavity to east at 3m.	Perform Picus tomogram at 3m.	TBC B1	11.7
319	Beech	EM	N S E W	>25 1	2 E	500		Poorly pruned recently. Moderate asymmetry.	Correct poor pruning.	>20 A1	6
320	Beech	OM	N S E W	>30 2	3.5 NW	1460		Multi-stemmed above 3m with failing branch unions.	Crown reduce to 6m.	>20 B1	15
321	Oak	M	N S E W	>30 1	1 S	1460		Many major defects throughout associated with historic failure events.	Crown reduce to circa 25m.	>40 A1	15
			N S E W								
			N S E W								
			N S E W								
			N S E W								
			N S E W								
			N S E W								
			N S E W								
			N S E W								

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Housing Zone 4 sub-zone 4

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
2171	Beech	OM	N 12 S 5 E 7 W 11	23 1	2 SE	1260		Minor asymmetry to north. 2 stems above 5m.	Undertake Picus testing at 0.5m.	TBC B	15
2172	Beech	OM	N 7 S 9 E 7 W 10	24 1	3 N/a	1110		Minor cavities ans cracks throughout.	Undertake Picus testing at 0.5m.	TBC A	13.2
2173	Beech	OM	N 10 S 9 E 14 W 7	24 1	4 SW	1000		Moderate asyetry to east. Minor defects throughout.	Undertake Picus testing at 0.5m.	TBC B	12
2174	Beech	M	N 6 S 9 E 7 W 7	23 1	2 W	780		Minor defects throughout.	Undertake Picus testing at 0.5m.	TBC B	9.3
2175	Oak	EM	N 6 S 5 E 6 W 8	20 24 3	2 W	860		Moderate asymmetry to west. Major cracking in upper canopy.	Crown reduce to circa 15m.	>10 C1	10.2
2176	Beech	M	N 10 S 11 E 6 W 12	23 3	3.5 NW	990		Suppressed canopy to east. Moderate cavity at on west side. Sporadic bark necrosis to 8m.	Undertake Picus testing at 0.5m.	TBC B	12
2177	Beech	M	N 4 S 9 E 7 W 8	25 1	2.5 S	840		Moderate asymmetry to west. Cracking in stem to 3.5m on northeast and southwest sides.	Undertake Picus testing at 0.5m.	TBC B	9.9
2178	Beech	OM	N 11 S 5 E 11 W 7	23 2	4 S	1060		Moderate asymmetry to northeast. Twisted and fluted stem.	Undertake Picus testing at 0.5m.	TBC B	12.6
2179	Beech	OM	N 10 S 7 E 8 W 9	19 1	3.5 W	990		2 stems from 7m.	Undertake Picus testing at 0.5m.	TBC B	12
2180	Beech	OM	N N/a S N/a E N/a W N/a	9 N/a	N/a N/a	1060		Old stump, *Kretzschmaria deusta* present.	No work required.	>5 C1	12.6
2181	Beech	OM	N 6 S 8 E 8 W 9	24 1	3 W	1020		Moderate asymmetry to west.	Undertake Picus testing at 0.5m.	TBC B	12.3
2182	Beech	OM	N 7 S 8 E 10 W 10	19 1	3.5 NW	1110		Major cavity from 4 to 6m on east side.	Crown reduce to circa 8m.	>20 C1	13.2
2183	Oak	M	N 10 S 13 E 7 W 10	19 2	3 SW	1300		Major damage due to scaffold limb failure on southwest side from ground level to 3m. Moderate cavities throughout the upper canopy.	Crown reduce to 15m.	>40 B1	15
2184	Beech	OM	N 8 S 9 E 11 W 9	24 1	3 W	1110		Moderate cavities in scaffold limbs at mide canopy.	Undertake Picus testing at 0.5m.	TBC B	13.2

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Tree no.	Species	Age class	Crown spread	Height / Crown height	Lowest branch / Direction	DBH Single	DBH Multiple	General condition/observations	Management Recommendations	Contribution / Retention category	RPA Radius
2185	Beech	EM	N 5 S 3 E 4 W 5	22 2	3 N	790		Moderate crown die-back throughout, with a history of major branch failure. Moderate defects throughout.	Crown reduce to circa 8m.	>20 C1	9.3
2186	Beech	OM	N 8 S 9 E 7 W 8	25 1	5 S	1120		*Kretzschmaria deusta* present on adjacent stump.	Undertake Picus testing at 0.5m.	TBC B	13.5

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 2 Cascade chart for tree quality assessment

Category and definition Criteria (including subcategories where appropriate)

Trees unsuitable for retention (see Note)

Category U
Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years. Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g., where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning). Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low-quality trees suppressing adjacent trees of better quality.

NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve.

1 Mainly arboricultural qualities, 2 Mainly landscape qualities, 3 Mainly cultural values, including conservation.

Trees to be considered for retention.

Category A
Trees of high quality with an estimated remaining life expectancy of at least 40 years. Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g., the dominant and/or principal trees within an avenue). Trees, groups, or woodlands of particular visual importance as arboricultural and/or landscape features. Trees, groups, or woodlands of significant conservation, historical, commemorative, or other value (e.g., veteran trees or wood- pasture).

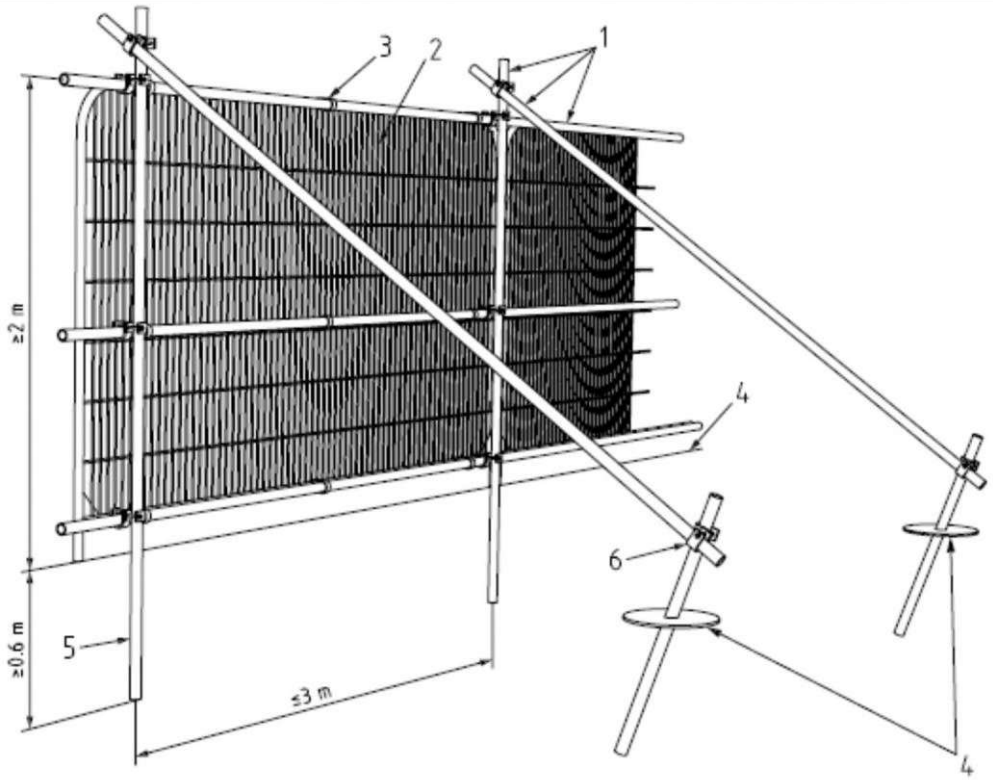
Category B
Trees of moderate quality with an estimated remaining life expectancy of at least 20 years. Trees that might be included in category A, but are downgraded because of impaired condition (e.g., presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation. Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality. Trees with material conservation or other cultural value.

Category C
Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm. Unremarkable trees of limited merit or such impaired condition that they do not qualify in higher categories. Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits. Trees with no material conservation or other cultural value.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 3 BS5837: 2012 Figure 2

Figure 2 **Default specification for protective barrier**



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Appendix 4 Construction Principles of 'No Dig' Hard Surfaces Close to Trees

Special construction methods are required for hard surfaces within root protection areas [RPAs] of retained trees. Whilst the following information provides guidance in the principles of such construction, the final specification shall be determined in conjunction with a suitably qualified engineer and guidance from the manufacturers of the products used.

Important points to remember about tree roots:

- most tree roots are in the top 600mm of soil, many are just below the surface,
- very fine, fibrous roots are just as important as large woody roots, they are easily damaged and prone to drying out,
- roots need moisture and oxygen to survive,
- soil compaction kills roots by reducing the soil's capacity to hold water and oxygen,
- 80% of compaction is caused by the first passage of a vehicle over soil,
- non- permeable surfaces and damage to the soil surface such as smearing or panning prevents water penetration and gaseous exchange.

'No dig' hard surfaces near trees should:

- cause minimal disturbance to soils, both during construction and in the long term,
- provide a stable, permanent surface of sufficient strength and durability for its purpose,
- include a three-dimensional cellular confinement system such as 'Geogrid' or 'Cellweb',
- be constructed using porous materials to enable percolation of water and gaseous exchange, e.g., gravel, porous tarmac, or brick paviors with nibbed edges, joints should be filled with 6mm diameter washed aggregate to maintain porosity (not sand).

Construction principles:

- surface vegetation should be removed using an appropriate systemic herbicide that will not harm retained trees or manually, using hand tools,
- minor levelling of the existing surface can be conducted where necessary, but using hand tools only; hollows can be filled with sharp sand,
- any exposed roots should be covered with good quality topsoil immediately to prevent them drying out; any damaged roots should be cut cleanly with a hand saw/secateurs,
- tree stumps shall be removed using a stump grinder rather than by digging to minimise disturbance,
- no vehicles or machinery shall travel over unprotected soil surfaces near trees. Where it is necessary to move materials used in the construction of the surface, they should be transported on the laid subbase as it is 'rolled out' through the RPA,
- the construction of the path or road should be conducted off an already completed section of the surface – not from bare ground,
- the completed surface may require protection if it will be used for access during the construction period, especially where it may see frequent use by heavy machinery.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 5 Removal of Debris Near Trees

The removal of any material should be conducted from outside the RPA whenever possible and from within the footprint of the existing building or surface where this is within the RPA of a tree.

The excavation of the material must not extend into the soil underneath. In practical terms the bucket of the excavator must be used so that the cutting edge is horizontal so that any disturbance of the underlying soil is kept to an absolute minimum. The cutting edge of the bucket should be flat and without 'teeth' to further reduce the risk of root damage. Where the surfacing is very thin and/or roots are very near the surface, the digging should be done manually.

Any exposed tree roots should be covered with good quality topsoil immediately to prevent them drying out. Any damaged roots should be cut cleanly with a hand saw or secateurs.

Debris and rubble of any type must not be stockpiled within the RPA of the tree and must be exported without crossing the RPA.

Due care and planning must be taken to ensure that the operational arcs of excavators do not damage the crowns of retained trees.

Where new surfacing is to be installed, if the depth of the old surface is insufficient, the wearing surface may need to be higher than existing in order to accommodate the appropriate thickness. There may be a requirement for a geo-textile membrane to be laid on the soil surface, but this is an engineering matter dependent upon soil type. The separation is beneficial for root development.

Where the old surface is taken up and not replaced, the infill should be of good quality topsoil laid without compaction.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 6 Further Information

Anon (2010) **British Standard Recommendations for Tree Work BS 3998: 2010**
British Standards Institution, 2 Park Street, London W1A 2BS

Anon (2012) **British Standard Recommendations for Trees in relation to design, demolition and construction BS 5837: 2012**
British Standards Institution, 2 Park Street, London W1A 2BS

Lonsdale D. (2013) **Principles of Tree Hazard Assessment & Management**
DETR, Elland House, Bressenden Place, London

Mattheck C. Breloer H. (1994) **The Body Language of Trees –A Handbook for Failure Analysis.**
DOE Arboricultural Advisory and Information Service Alice Holt Lodge, Farnham, Surrey

Mitchell A. (1989) **The Trees of Great Britain and Northern Europe**
Collins, Grafton Street, London

Strouts R. G. Winter T. G. (1994) **Diagnosis of Ill-Health in Trees**
DOE Arboricultural Advisory and Information Service Alice Holt Lodge, Farnham, Surrey

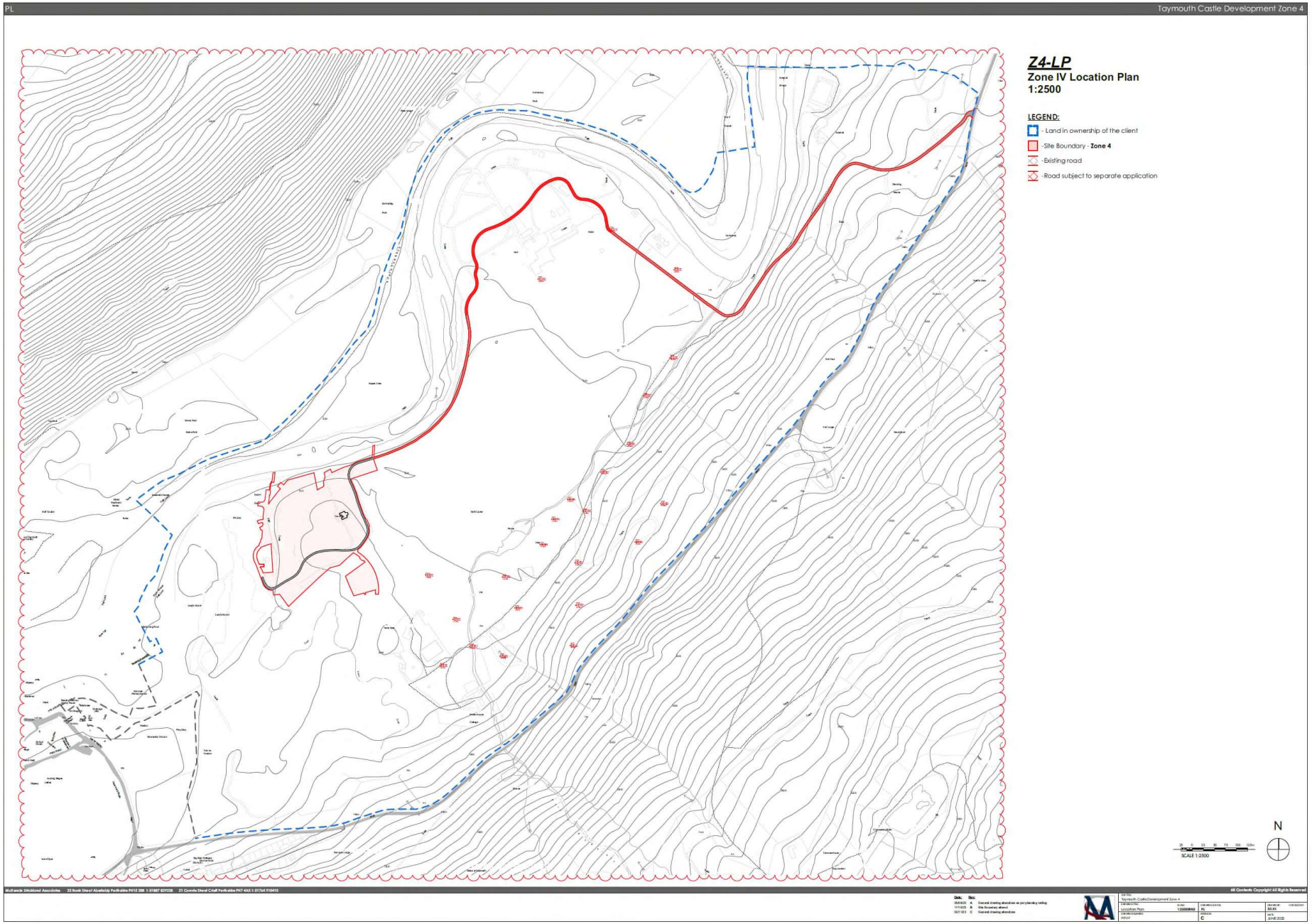
Anon (2007) **National Joint Utilities Group Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees**
One Castle Lane, London, SW1E 6DR

Anon (2007) **Arboricultural Practice Note 12 'Through the Trees to Development**
Alice Holt Lodge, Wrecclesham, Farnham, Surrey, GU10 4LH

Wilson S. (2004) **Taymouth Castle Landscape management Plan**
4 Foxcombe Court, Wyndyke Furlong, Abdingdon, Oxfordshire OX14 1D2

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.

Appendix 7 Site Plans


PL
Taymouth Castle Development Zone 4
Z4-LP
Zone IV Location Plan
1:2500
LEGEND:
- Land in ownership of the client
- Site Boundary - Zone 4
- Existing road
- Road subject to separate application
N
SCALE 1:2500
All Contents Copyright All Rights Reserved



Zone 4 – approximate boundary shown as red line.

© 2023 Arboretum Internationale Ltd., Ochil Cottage, Main Road, Guildtown, Perthshire, PH2 6BS.


PL
Taymouth Castle Development Zone 4
Z4-MP
Proposed Masterplan 1:500
LEGEND:
-Previously Approved House Locations
-Existing Track
-Proposed New Road
-Previously Consented Development
-Proposed House Location
-Existing Trees To Be Retained
-Proposed Drainage System Network
Proposed Developable Area
Z4-01 (approx. 1.66ha)
Z4-02 (approx. 1.96ha)
Z4-03 (approx. 1.99ha)
Z4-04 (approx. 0.67ha)
DAIRY
N
Scale bar 1:500
0 10 20 30 40 50m

PROPOSED RESIDENTIAL DEVELOPMENT (ZONE 4) AT TAYMOUTH CASTLE, KENMORE

DRAINAGE ASSESSMENT

AUGUST 2024

DOC REF: 17864/WH/970A

TABLE OF CONTENTS

1. Introduction
2. Scope
3. General Description of Existing Site and Proposed Development
4. Water Supply
5. Treatment and Disposal of Waste Water
6. Surface Water and SuDS
7. Drainage Maintenance Responsibilities
8. Construction Phase SuDS
9. Health and Safety Risk Assessments
10. Conclusions

LIST OF APPENDICES

Appendix A External Works Layout
Appendix B Surface Water Calculations

Proposed Residential Development (Zone 4) at Taymouth Castle, Kenmore

DRAINAGE ASSESSMENT

August 2024

REPORT REFERENCE: 17864/WH/970A

CLIENT: The River Tay Castle LLP

ENGINEER: Millard Consulting
Seabraes
18 Greenmarket
Dundee
DD1 4QB

Tel: 01382 227 380

Report Prepared By:

.....
Walter Hayes – Principal Engineer

Report Checked By:

.....
Fraser Petrie – Associate Director

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or part without the written consent of Millard Consulting or the Client.

REGISTRATION OF AMENDMENTS

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By
A 01/08/2024	Appendix A drawing updated to re-locate attenuation crates at GC10 and GC12	FP	

1. Introduction

1.1. Millard Consulting have been appointed by The River Tay Castle LLP to prepare a Drainage Assessment in support of a full Planning Application to vary an existing consented full Planning Application (PKC ref 03/00250/PPLB & 11/00533/FLM) for a residential development at Taymouth Castle.

1.2. This report is confidential to the Client for the purpose of submission to the Local Authority. Millard Consulting accepts no responsibility whatsoever to other parties to whom this report, or any part thereof, is made known. Any such other parties rely upon the report at their own risk.

2. Scope

2.1. The scope of this report is to identify a suitable drainage strategy serving the proposed development and to demonstrate that the proposed development can be effectively drained with no detrimental impact to surrounding properties or land.

2.2. This report has been prepared broadly in accordance with "Water Assessment and Drainage Assessment Guide" produced by the Sustainable Urban Drainage Scottish Working Party (SUDSWP) and Perth and Kinross Council's document "Flood Risk and Flood Risk Assessments (adopted March 2021)".

2.3. Provision of SuDS serving the development has also been assessed against "CIRIA C753 – The SuDS Manual", and SEPA document "Regulatory Method (WAT-RM-08) V6.4, July 2019" whilst taking cognisance of the proportionate scale of this development, which lies within the larger Taymouth Castle estate.

3. General Description of Existing Site and Proposed Development

3.1. The site within Taymouth Castle Estate is located to the east of the village Kenmore in Perth and Kinross, and the site boundary is shown indicatively in red within Figure 1 below. The Ordnance Survey grid reference for the centre of the site is approximately NN 7790 4592.



Figure 1: Site Location Plan

3.2. The site is irregular in shape and is to be split into 4 phases totalling approximately 6.24ha in size. The site is currently estate grounds. Land use in the area within the site boundary generally comprises woodland, bound to the north by the River Tay and elsewhere by golf course. The Dairy building is located within the site boundary and is subject to refurbishment as part of the planning application.

3.3. Refer to the architect's drawings on the Planning Portal which indicate that the site has a gradual fall towards the River Tay.

3.4. The proposed development comprises the construction of 18no plots, with associated driveways, private shared accesses and drainage infrastructure along with refurbishment of the Dairy building and

provision of associated golf buggy storage building. Refer to the architect's drawings on the Planning Portal for latest site layout drawings.

4. Water Supply

4.1. Scottish Water have existing water supply infrastructure within Taymouth Castle Estate.

4.2. Water supply is outwith Millard Consulting's scope of works. At the time of preparing this report, the clients design team were in discussions with Scottish Water to agree necessary infrastructure to serve the development.

5. Treatment and Disposal of Waste Water

5.1. The development is not in a sewered catchment. Therefore, private foul water drainage infrastructure is proposed.

5.2. Subject to SEPA approval, a specialist treatment plant will be provided to accommodate the proposed foul loadings from the development, together with providing the required quality of effluent for discharge to the River Tay.

5.3. Foul water from individual plot disconnection chambers, including from the refurbished Dairy building will be collected and conveyed by foul water drains to a shared private foul water treatment plant. Treated foul water would be conveyed by drains to a new outfall into the River Tay, in the vicinity of National Grid Reference NN 7791 4603.

5.4. SEPA have been consulted and have confirmed that SEPA authorisation would be required for the treatment plant and discharge into the River Tay.

5.5. NatureScot were also consulted regarding provision of an outfall to the River Tay. The location of the outfall has been agreed in order to minimise any impact on protected species.

5.6. Consultation was also undertaken with an Arborist to minimise impact on trees with respect to the outfall to the River Tay.

5.7. The private foul water drainage system has generally been designed in accordance with the current version of Scottish Water's document "Sewers for Scotland", with the packaged treatment plant sized in accordance with the current version of British Water's document "Flows & Loads".

5.8. The site levels dictate that foul water will require to be pumped to the packaged treatment plant. The pumping station and rising main have been designed by a specialist, with 24 hours emergency storage in case of power or mechanical failures. It is understood that the Client is arranging procedures with the specialist supplier to ensure a programme of routine maintenance and that any emergency repairs are carried out as quickly as possible.

5.9. The location of key foul drainage components are shown on drawing number 17864/02/001'C in **Appendix A.**

6. Surface Water and SuDS

6.1. It is proposed to treat runoff generated by the development before returning this to the water environment.

6.2. Appropriate SUDS will be provided with consideration of the site context within the Taymouth Castle Estate landscape. The existing estate access roads do not have a formal drainage system, with surface water runoff from the access roads generally discharging over-the-edge into verges or burns.

6.3. Key surface water drainage components are shown on drawing number 17864/02/001'C in **Appendix A.**

6.4. Site investigations comprising trial pits and infiltration testing have been carried out at numerous locations across the wider Taymouth Caste Estate. The investigations indicated that the site is generally favourable for disposal of surface water via soakaways. This should be confirmed prior to construction of the works.

6.5. Surface water runoff from shared access roads will be collected by road-side filter trenches and conveyed by collector drains to the River Tay. The filter trenches will be lined with a geotextile rather than an impermeable membrane in order to maximise the opportunity for runoff to infiltrate into the subsoil. A slotted collector pipe in the base of the filter trench will convey runoff to an outfall into the River Tay to ensure the site is adequately drained.

6.6. A similar drainage strategy will be applied for existing access roads to be retained and upgraded as part of this application with formalised drainage in the form of a road-side filter trenchs.

6.7. There is insufficient space available within individual plot boundaries to provide surface water soakaways in accordance with current Building Standards requirements, with tree root protection zones further constraining provision of soakaways. Therefore, roof water from individual plots including the refurbished Dairy building will be collected and conveyed to underground geocellular storage attenuation systems before discharging from plot disconnection chambers into the road-side filter trench collector drains. Surface water discharge from each plot will be restricted to 0.5l/s up to the critical 1:200 year storm event (including additional allowance for current climate change and additional 10% dwelling roof area for future extensions), with treatment provided by stone filled treatment/disconnection chambers.

6.8. The proposed golf buggy garage associated with the refurbished Dairy building will incorporate a green roof system for disposal of roof water which will be designed by a specialist. An emergency overflow from the green roof system into the road-side filter trench will be provided to ensure adequate drainage is provided during adverse weather events.

6.9. Driveways will comprise free draining material. Should ground conditions indicate that subsoil is not favourable for free draining driveways, then the underground geocellular storage attenuation systems within plots should be increased in size to accommodate driveway runoff.

6.10. The roof water attenuation systems have be sized to accommodate up to the critical 1 in 200 year storm event (including 39% allowance for climate change and additional 10% roof area for future extensions). Refer to **Appendix B** for calculations.

6.11. The site area for Zone 4 measures approximately 6.24ha. Using the Wallingford Greenfield Estimation tool, the Greenfield Runoff rates have been estimated

Area (ha)	Greenfield Runoff Rates (l/s)	
	1 in 30 year	1 in 200 year
6.24	65.1	82.79

6.12. As noted in paragraph 6.7 above, post-development runoff from building roofs including the refurbished Dairy building will be restricted to 0.5l/s per plot up to the critical 1:200 year storm event (including additional allowance for current climate change and additional 10% dwelling roof area for future extensions). As Zone 4 comprises 18 plots and the refurbished Dairy building, the total post-development attenuated runoff equates to 9.5l/s. It is anticipated that runoff from shared access roads will infiltrate into the substrata via road-side filter trenches. However, to ensure adequate drainage is provided during adverse weather conditions, as noted above, a slotted collector pipe in the base of the filter trench will convey runoff to an outfall into the River Tay to ensure the site is adequately drained. The outfall drain into the River Tay will be sized to ensure discharge does not exceed the 1 in 30 year Pre-Development Greenfield Runoff Rate of 65.1l/s. This can be achieved by limiting the outfall pipe into the River Tay to a 225mm diameter at a maximum gradient of 1:70 over it's final length (based on Wallingford's publication "Tables for the Hydraulic Design of Pipes and Sewers".

6.13. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the shared access roads are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
General access roads	Low	0.5	0.4	0.4

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Shared access roads	Road-side filter trench	0.4	0.4	0.4
	Underlying soil with good contaminant attenuation potential of at least 300mm in depth	0.4 x ½	0.3 x ½	0.3 x ½
Comparison		0.6>0.5	0.55>0.4	0.55>0.4
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for shared access roads is considered to be sufficient.

6.14. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the plot driveways are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
General access roads	Low	0.5	0.4	0.4

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Individual plot driveways	Permeable gravel pavement	0.4	0.4	0.4
	Underlying soil with good contaminant attenuation potential of at least 300mm in depth	0.4 x ½	0.3 x ½	0.3 x ½
Comparison		0.6>0.5	0.55>0.4	0.55>0.4
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for individual plot driveways is considered to be sufficient.

6.15. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the building roofs are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Building roofs	Very low	0.2	0.2	0.05

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Residential roofs including Dairy building	Stone filled treatment chamber	0.4	0.4	0.4
Comparison		0.4>0.2	0.4>0.2	0.4>0.05
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for roof water is considered to be sufficient.

7. Drainage Maintenance Responsibilities

7.1. The following table sets out drainage maintenance responsibilities:

Element	Maintenance Responsibility	Approval Mechanism
Foul Water		
In curtilage foul drainage infrastructure	Estate	Building Warrant
Foul water drains, inspection chambers, manholes and outlet structures	Estate	Building Warrant
Foul Water Packaged Pump Station and Rising Main	Estate	Building Warrant, SEPA
Outfall to the River Tay	Estate	Building Warrant, SEPA, NatureScot
Surface water		
In curtilage surface water drainage infrastructure including attenuation system and permeable driveways	Estate	Building Warrant
Road-side filter trenches and associated drainage infrastructure	Estate	Building Warrant

8. Construction Phase SuDS

8.1 The site lies in close proximity to the River Tay, which is designated as a Special Area of Conservation (SAC). Special measures will be required to prevent mobilisation of silts during construction together with other pollution risks.

8.2 The site also lies in close proximity to Scottish Waters abstraction boreholes for potable water. In consultation with Scottish Water site specific measures will be required to ensure no risk of pollution arising from the construction works.

8.3 The Contractor will be required to develop a construction phase Method Statement to deal with surface water to suit their programme of works. If suitable pre-treatment is provided, it may be acceptable to use a section of the finished SuDS scheme for temporary drainage during Construction works.

8.4 The Contractor will also be required to assess and mitigate risks associated with traffic movements, the storage of materials and fuels etc to protect the water environment.

9. Health and Safety Risk Assessments

9.1 Other than the potential pollution risks during construction noted in Section 8, there are not considered to be any Health and Safety Risks associated with the drainage infrastructure which a competent Contractor would not be aware of.

9.2 The Contractor will be requested to provide Method Statements which address the risks associated with the construction, ongoing maintenance requirements and potential decommissioning of the SuDS elements.

10. Conclusions

10.1 Millard Consulting have carried out an assessment of foul and surface water drainage principles serving the proposed residential development.

10.2 SEPA and NatureScot have been consulted on foul drainage proposals, with an application for a CAR Licence to be applied for. No formal consultation has taken place on surface water drainage as the proposed SuDS will be covered under General Binding Rule 10 of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

10.3 This report demonstrates appropriate treatment, and disposal of foul and surface water runoff generated by the development can be provided.

10.4 Maintenance responsibilities and final approval mechanisms are identified to ensure the effective ongoing operation of the drainage infrastructure.

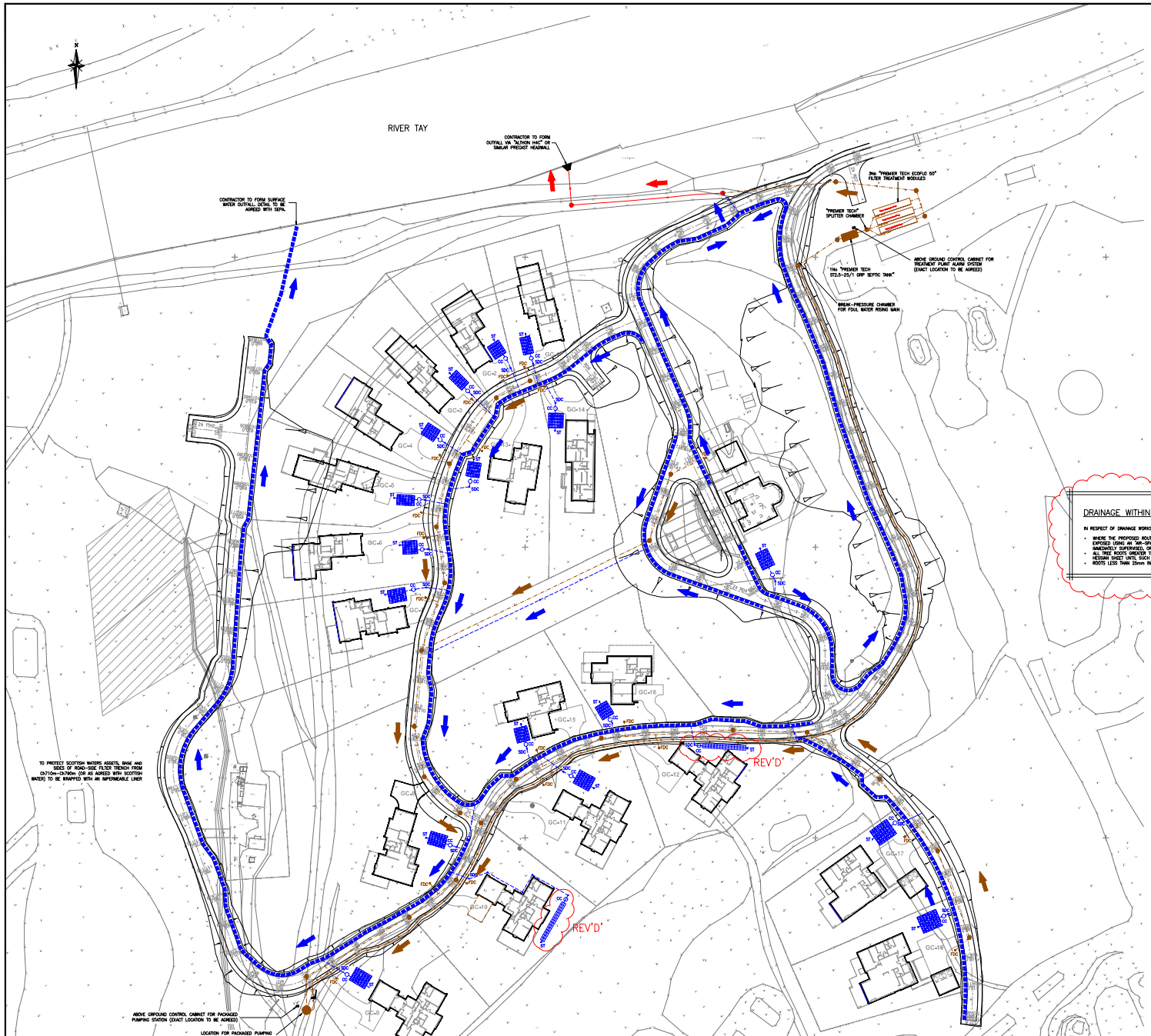
10.5 The drainage infrastructure is proposed to be monitored and maintained by Taymouth Castle Estate.

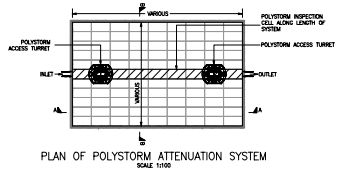
10.6 Submission of detailed design in support of the Building Warrant application will ensure the infrastructure is designed, constructed and maintained to appropriate standards.

APPENDICES

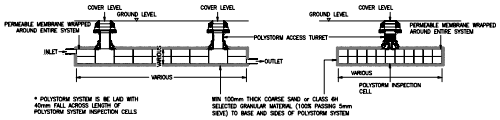
APPENDIX A

External Works 17864/02/001'D'





PLAN OF POLYSTORM ATTENUATION SYSTEM
SCALE 1:100



TYPICAL SECTION A–A THROUGH POLYSTORM ATTENUATION SYSTEM
SCALE 1:100

TYPICAL SECTION B–B THROUGH POLYSTORM ATTENUATION SYSTEM
SCALE 1:100

REV'D'

DRAINAGE WITHIN ROOT PROTECTION AREAS

IN RESPECT OF DRAINAGE WORKS THE CONSTRUCTION TECHNIQUES TO FORM THE TRENCHES WILL ADOPT THE FOLLOWING APPROACH:

- WHERE THE PROPOSED ROUTE OF DRAINAGE PASSES THROUGH A ROUTE PROTECTION AREA THE DESIRED TRENCH LINE WILL BE EXPOSED USING AN "AIR-SPADE" TO A DEPTH OF 600mm ACROSS THE REQUIRED WIDTH OF THE TRENCH. THIS WORK WILL BE IMMEDIATELY SUPERVISED, OR UNDERTAKEN, BY AN ARBORIST.
- ALL TREE ROOTS GREATER THAN 25mm IN DIAMETER WILL BE RETAINED. THESE ROOTS WILL BE COVERED BENEATH A WET HESSIAN SHEET UNTIL SUCH TIME AS THE EXCAVATION IS RE-FILLED.
- ROOTS LESS THAN 25mm IN DIAMETER MAY BE REMOVED, BY AN ARBORIST USING SHARP HAND TOOLS, AS PER BS 3998.

KEY

- PROPOSED ROAD-SIDE FILTER/INFILTRATION TRENCH
- PROPOSED FOUL DRAIN/MANHOLE
- PROPOSED PLOT FOUL WATER DISCONNECTION CHAMBER
- PROPOSED FOUL RISING MAIN
- PROPOSED SURFACE WATER DRAIN/MANHOLE
- PROPOSED SURFACE WATER SILT TRAP
- PROPOSED SURFACE WATER FLOW CONTROL CHAMBER
- PROPOSED PLOT SURFACE WATER DISCONNECTION CHAMBER
- PROPOSED COMBINED DRAIN/MANHOLE
- DENOTES DIRECTION OF FLOW FOR ROAD-SIDE FILTER/INFILTRATION TRENCHES
- DENOTES DIRECTION OF FLOW FOR GRAVITY FOUL DRAINS
- DENOTES DIRECTION OF FLOW FOR COMBINED DRAIN

GENERAL:

1. COPYRIGHT – T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
4. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
5. FOR MAIN DIMENSIONS REFER TO ARCHITECTS DRAWINGS.
6. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
7. TOPOGRAPHICAL SURVEY BASED ON "WSP" SURVEY RGD" DEC 2022.
8. ALL EARTHWORKS SHOWN ARE INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN.
9. POSITION OF PLOT DISCONNECTION CHAMBERS ARE INDICATIVE ONLY – FINAL LOCATION TO SUIT BUILDING DRAINAGE.
10. TREES CARTIED FOR CLARITY. REFER TO ARBORIST FOR TREE ROOT PROTECTION ZONES.
11. POSITION SHOWN OF PLOT ATTENUATION SYSTEMS IS INDICATE ONLY – FINAL LOCATION TO SUIT BUILDING DRAINAGE AND PLOT SERVICES.

DRAINAGE:

1. ALL DRAINAGE TO COMPLY WITH BUILDING CONTROL REQUIREMENTS.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING THE POSITIONS OF ALL EXISTING SERVICES AND SHALL ALLOW FOR IN HIS RATES OF EXCAVATION FOR HAND DIGGING SO AS TO ENSURE THAT SERVICES ARE NOT DAMAGED. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF EXISTING SERVICES AND ENSURE THAT ANY DAMAGE TO EXISTING SERVICES, SERVICES ENCOUNTERED IN THE COURSE OF EXCAVATION SHALL BE ADEQUATELY SUPPORTED AND PROTECTED.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY SUPPORT OF ALL EXCAVATIONS. SYSTEMS SUCH AS TIMBER BOARDING AND SHEET TRENCHING SHALL BE DESIGNED AND CONSTRUCTED SO AS TO PREVENT LOSS OF GROUND OR SETTLEMENT OF ADJOINING GROUND OR STRUCTURES AND TO ENSURE THAT BACKFILLING CAN BE CARRIED OUT SATISFACTORILY.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAGE SUDS AND FOR MANAGING RUNOFF DURING CONSTRUCTION WORKS.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF THE WORKS DURING CONSTRUCTION FROM INUNDATION AND GROUND WATER.
6. PROVIDE CONCRETE PROTECTION TO PIPES WITH LESS THAN 1200mm COVER BELOW ROAD PAVEMENTS AND TO PIPES WITH LESS THAN 900mm COVER BELOW FOOTPATHS AND LANDSCAPING. REFER TO TYPE S BEDDING DETAIL.
7. CHAMBER COVER AND FRAMES TO BE CLASS B125 IN LANDSCAPED AREAS AND D400 IN VEHICULAR TRAFFICKED AREAS.
8. ALL PROPRIETARY PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
9. CONTRACTOR TO MAKE GOOD ANY EXISTING SERVICES ENCOUNTERED DURING THE WORKS. CONTRACTOR TO MAKE ALLOWANCE FOR RESETTING EXISTING SERVICE COVERS TO SUIT PROPOSED FINISHED GROUND LEVELS.
10. PROPRIETARY PRODUCTS TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.

CAR REGULATIONS

DISCHARGE OF FOUL EFFLUENT TO THE ENVIRONMENT REQUIRES AUTHORISATION FROM SEPA PRIOR TO FIRST USE. APPROVAL TO DISCHARGE TREATED EFFLUENT HAS BEEN SUBMITTED TO SEPA AND APPROVAL IS AWAITED. IT IS RECOMMENDED THAT THE CLIENT OBTAINS SEPA CONSENT AND ALL NECESSARY APPROVALS TO DISCHARGE FOUL EFFLUENT PRIOR TO COMMENCING ANY DRAINAGE WORKS.

FOUL WATER TREATMENT PLANT

1. FOUL WATER TREATMENT SYSTEM (INCLUDING SEPTIC TANKS AND PREMIER TECH "ECOFLO" PLANT) TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS. GROUND FINISH TO LANDSCAPE ARCHITECTS SPECIFICATION.
2. REFER TO MANUFACTURER FOR CONTROL CABINET/ELECTRICAL SUPPLY/TELEMAS REQUIREMENTS.
3. FOUL WATER TREATMENT SYSTEM TO BE LOCATED 5m MINIMUM FROM BUILDINGS & BOUNDARIES.
4. FOUL WATER TREATMENT SYSTEM TO BE LOCATED MAXIMUM 25m FROM SUITABLE HARD STANDING AREA FOR DE-SLUDGING TANKER.
5. FOUL WATER TREATMENT SYSTEM TO BE COMMISSIONED BY PREMIER TECH. CONTRACTOR TO LIAISE WITH PREMIER TECH/ENGINEER TO ARRANGE SUITABLE TIMINGS.

ACCESS ROAD CONSTRUCTION:

1. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH THE MCHW1 UNLESS OTHERWISE AGREED WITH THE ENGINEER.
2. PRIOR TO COMMENCING WORKS, CONTRACTOR TO CONFIRM CBR VALUES OF FORMATION LEVEL TO ENABLE ASSESSMENT OF REQUIRED CAPPING LAYER. LOCATION OF CBR TEST TO BE CONFIRMED IN ADVANCE WITH THE ENGINEER.
3. ENGINEER TO BE INFORMED AND TO CARRY OUT INSPECTION ONCE FORMATION IS EXPOSED.

EARTHWORKS:

1. UNLESS OTHERWISE AGREED WITH THE ENGINEER, ALL EARTHWORK OPERATIONS INCLUDING EXCAVATIONS, DEPOSITION OF MATERIAL, COMPACTION AND PROTECTION OF MATERIAL/FORMATION ARE TO BE UNDERTAKEN AND FORMED IN ACCORDANCE WITH RESPECTIVE SECTIONS OF THE SPECIFICATION FOR HIGHWAY WORKS" (SHW) CURRENT (SI 5121 MARCH 2009).
2. ALL WORKS TO BE CARRIED OUT TO THE SHW.
3. PRIOR TO COMMENCING WORKS THE CONTRACTOR MUST FAMILIARISE THEMSELVES WITH THE REQUIREMENTS OF THE SHW, AND IN PARTICULAR "SERIES 600 – EARTHWORKS".
4. UNLESS OTHERWISE AGREED WITH THE ENGINEER, EMBANKMENTS SHALL BE CONSTRUCTED WITH SIDE SLOPES NOT STEEPER THAN 1 IN 2.
5. THE EXCAVATION OF CUTTINGS MAY BE HALTED AT ANY STAGE PROVIDING AT LEAST 300 MM OF MATERIAL AS A WEATHER PROTECTION IS LEFT IN PLACE ABOVE THE FORMATION.
6. COMPACTION OF FILL MATERIAL TO BE BY "METHOD COMPACTION" IN ACCORDANCE WITH SHW SERIES 600 CLAUSE 612, CLASS 3 MATERIAL SHALL NOT BE USED.
7. UPFILL MATERIAL BELOW ROAD FORMATION TO COMPRISE CLASS 1 OR 6 IN ACCORDANCE WITH SHW SERIES 800 TABLE 6/1.
8. REFER TO SHW SERIES 600 TABLE 6/4 FOR SUITABLE COMPACTION EQUIPMENT, NUMBER OF PASSES AND MAXIMUM DEPTH OF COMPACTION LAYER. EARTHMOVING PLANT SHALL NOT BE ACCEPTED AS SUITABLE COMPACTION EQUIPMENT.
9. VERGES AND SIDE SLOPES TO BE MINIMUM 150mm THICK CLASS 5A OR 5B TOPSOIL. REFER TO LANDSCAPE ARCHITECT FOR GRASS SEED SPECIFICATION.

DRAINAGE STRATEGY

SUBJECT TO SEPA AND STATUTORY APPROVALS, FOUL WATER FROM PLOTS GC-01 TO GC-18 AND THE PROPOSED GOLF CLUBHOUSE TO BE COLLECTED AND CONVEYED BY DRAINS TO INDIVIDUAL PLOT DISCONNECTION CHAMBERS AND THEN CONVEYED BY GRAVITY DRAINS TO PACKAGED FOUL WATER PUMPING STATIONS. FOUL WATER TO BE PUMPED VIA RISING MAINS TO A FOUL WATER PACKAGED TREATMENT PLANT. SUBJECT TO ALL NECESSARY APPROVALS, TREATED FOUL WATER WOULD DISCHARGE INTO THE RIVER TAY AT A POINT TO BE AGREED WITH SEPA OPPOSITE THE PROPOSED FOUL WATER PACKAGED TREATMENT PLANT.

SURFACE WATER RUNOFF FROM SHARED ACCESS ROADS TO BE COLLECTED BY ROAD-SIDE FILTER/INFILTRATION TRENCHES AND CONVEYED BY COLLECTOR DRAINS TO THE RIVER TAY. THE FILTER TRENCHES WILL BE LINED WITH A GEOTEXTILE RATHER THAN AN IMPERMEABLE MEMBRANE IN ORDER TO MAXIMISE THE OPPORTUNITY FOR RUNOFF TO INFILTRATE INTO THE SUBSOIL.

ROOF WATER FROM INDIVIDUAL PLOTS TO BE COLLECTED AND CONVEYED TO UNDERGROUND GEOCELLULAR STORAGE ATTENUATION SYSTEMS BEFORE DISCHARGING FROM PLOT DISCONNECTION CHAMBERS INTO THE ROAD-SIDE FILTER/INFILTRATION TRENCH COLLECTION DRAINS. SURFACE WATER DISCHARGE FROM EACH PLOT TO BE RESTRICTED TO 0.5L/s UP TO THE CRITICAL 1:200 YEAR STORM EVENT (INCLUDING ADDITIONAL ALLOWANCE FOR CURRENT CLIMATE CHANGE AND ADDITIONAL 10% DWELLING ROOF AREA FOR FUTURE EXTENSIONS).

THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES UNLESS DRAWING STATUS SPECIFIES "FOR CONSTRUCTION".

REV	AMENDMENT DETAILS	DRAWN	APPROVED	DATE
D	ATTENUATION FOR GC10 & GC12 RE-LOCATED FOLLOWING DISCUSSIONS WITH ARBORIST, , NOTE ADDED	FP		01.08.24
C	UPDATED TO SUIT REVISED SITE LAYOUT, NOTES UPDATED.	WH		16.07.24
B	ROUTE OF FOUL AND SURFACE WATER DISCHARGE UPDATED	WH		30.05.24
A	PRELIMINARY LOCATIONS FOR CONTROL CABINETS ADDED	WH		26.08.23

PROJECT: TAYMOUTH CASTLE KENMORE	DESIGNED BY: WH	DRAWN BY: WH	SCALE: 1:500
	CHECKED BY:	APPROVED BY:	
DRAWING TITLE: EXTERNAL WORKS ZONE 4 – DRAINAGE STRATEGY	DRAWING STATUS: FOR DISCUSSION ONLY		DATE: 24.08.23
CLIENT: THE RIVER TAY CASTLE LLP	DRAWING NUMBER: 17864/02/001		REVISION: D

Dundee Office
Seabraes
18 Greenmarket
Dundee
DD1 4QB
tel: 01382 227380
email: dundee@millardconsulting.co.uk
web: www.millardconsulting.co.uk

Millard
More than civil engineers

ORIGINAL SHEET SIZE A0H

APPENDIX B

Surface Water Calculations

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 294 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.324	0.324	0.0	0.3	0.3	6.5	O K
30 min Summer	0.471	0.471	0.0	0.4	0.4	9.4	O K
60 min Summer	0.638	0.638	0.0	0.5	0.5	12.7	O K
120 min Summer	0.676	0.676	0.0	0.5	0.5	13.5	O K
180 min Summer	0.681	0.681	0.0	0.5	0.5	13.6	O K
240 min Summer	0.678	0.678	0.0	0.5	0.5	13.5	O K
360 min Summer	0.677	0.677	0.0	0.5	0.5	13.5	O K
480 min Summer	0.675	0.675	0.0	0.5	0.5	13.5	O K
600 min Summer	0.671	0.671	0.0	0.5	0.5	13.4	O K
720 min Summer	0.666	0.666	0.0	0.5	0.5	13.3	O K
960 min Summer	0.656	0.656	0.0	0.5	0.5	13.1	O K
1440 min Summer	0.624	0.624	0.0	0.5	0.5	12.5	O K
2160 min Summer	0.581	0.581	0.0	0.5	0.5	11.6	O K
2880 min Summer	0.534	0.534	0.0	0.4	0.4	10.7	O K
4320 min Summer	0.440	0.440	0.0	0.4	0.4	8.8	O K
5760 min Summer	0.368	0.368	0.0	0.4	0.4	7.3	O K
7200 min Summer	0.314	0.314	0.0	0.3	0.3	6.3	O K
8640 min Summer	0.273	0.273	0.0	0.3	0.3	5.4	O K
10080 min Summer	0.240	0.240	0.0	0.3	0.3	4.8	O K
15 min Winter	0.364	0.364	0.0	0.4	0.4	7.3	O K
30 min Winter	0.530	0.530	0.0	0.4	0.4	10.6	O K
60 min Winter	0.719	0.719	0.0	0.5	0.5	14.3	O K
120 min Winter	0.766	0.766	0.0	0.5	0.5	15.3	O K
180 min Winter	0.777	0.777	0.0	0.5	0.5	15.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	6.7	18
30 min Summer	105.600	0.0	9.9	33
60 min Summer	73.829	0.0	13.8	62
120 min Summer	42.000	0.0	15.7	122
180 min Summer	30.263	0.0	17.0	180
240 min Summer	24.063	0.0	18.0	208
360 min Summer	17.584	0.0	19.8	270
480 min Summer	14.172	0.0	21.2	338
600 min Summer	12.040	0.0	22.6	406
720 min Summer	10.572	0.0	23.8	476
960 min Summer	8.671	0.0	26.0	616
1440 min Summer	6.581	0.0	29.6	882
2160 min Summer	5.060	0.0	34.1	1280
2880 min Summer	4.186	0.0	37.7	1672
4320 min Summer	3.133	0.0	42.3	2420
5760 min Summer	2.543	0.0	45.8	3168
7200 min Summer	2.169	0.0	48.8	3888
8640 min Summer	1.906	0.0	51.5	4584
10080 min Summer	1.711	0.0	53.9	5336
15 min Winter	142.665	0.0	7.5	18
30 min Winter	105.600	0.0	11.0	33
60 min Winter	73.829	0.0	15.5	62
120 min Winter	42.000	0.0	17.6	118
180 min Winter	30.263	0.0	19.0	174

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.776	0.776	0.0	0.5	0.5	15.5	O K
360 min Winter	0.768	0.768	0.0	0.5	0.5	15.3	O K
480 min Winter	0.762	0.762	0.0	0.5	0.5	15.2	O K
600 min Winter	0.753	0.753	0.0	0.5	0.5	15.0	O K
720 min Winter	0.741	0.741	0.0	0.5	0.5	14.8	O K
960 min Winter	0.717	0.717	0.0	0.5	0.5	14.3	O K
1440 min Winter	0.660	0.660	0.0	0.5	0.5	13.2	O K
2160 min Winter	0.583	0.583	0.0	0.5	0.5	11.6	O K
2880 min Winter	0.512	0.512	0.0	0.4	0.4	10.2	O K
4320 min Winter	0.386	0.386	0.0	0.4	0.4	7.7	O K
5760 min Winter	0.299	0.299	0.0	0.3	0.3	6.0	O K
7200 min Winter	0.240	0.240	0.0	0.3	0.3	4.8	O K
8640 min Winter	0.198	0.198	0.0	0.3	0.3	4.0	O K
10080 min Winter	0.167	0.167	0.0	0.2	0.2	3.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	20.2	228
360 min Winter	17.584	0.0	22.1	284
480 min Winter	14.172	0.0	23.8	362
600 min Winter	12.040	0.0	25.3	438
720 min Winter	10.572	0.0	26.6	514
960 min Winter	8.671	0.0	29.1	664
1440 min Winter	6.581	0.0	33.1	952
2160 min Winter	5.060	0.0	38.2	1360
2880 min Winter	4.186	0.0	42.2	1756
4320 min Winter	3.133	0.0	47.3	2508
5760 min Winter	2.543	0.0	51.3	3232
7200 min Winter	2.169	0.0	54.6	3960
8640 min Winter	1.906	0.0	57.6	4664
10080 min Winter	1.711	0.0	60.3	5352

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.025

Time (mins) From:	To:	Area (ha)
0	4	0.025

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	21.0	21.0	0.800	21.0	36.2	0.801	0.0	36.2

Orifice Outflow Control

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 310 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.315	0.315	0.0	0.3	0.3	6.7	O K
30 min Summer	0.459	0.459	0.0	0.4	0.4	9.8	O K
60 min Summer	0.622	0.622	0.0	0.5	0.5	13.3	O K
120 min Summer	0.661	0.661	0.0	0.5	0.5	14.1	O K
180 min Summer	0.669	0.669	0.0	0.5	0.5	14.3	O K
240 min Summer	0.667	0.667	0.0	0.5	0.5	14.3	O K
360 min Summer	0.667	0.667	0.0	0.5	0.5	14.3	O K
480 min Summer	0.666	0.666	0.0	0.5	0.5	14.2	O K
600 min Summer	0.664	0.664	0.0	0.5	0.5	14.2	O K
720 min Summer	0.661	0.661	0.0	0.5	0.5	14.1	O K
960 min Summer	0.653	0.653	0.0	0.5	0.5	14.0	O K
1440 min Summer	0.625	0.625	0.0	0.5	0.5	13.4	O K
2160 min Summer	0.585	0.585	0.0	0.5	0.5	12.5	O K
2880 min Summer	0.542	0.542	0.0	0.4	0.4	11.6	O K
4320 min Summer	0.450	0.450	0.0	0.4	0.4	9.6	O K
5760 min Summer	0.379	0.379	0.0	0.4	0.4	8.1	O K
7200 min Summer	0.326	0.326	0.0	0.3	0.3	7.0	O K
8640 min Summer	0.284	0.284	0.0	0.3	0.3	6.1	O K
10080 min Summer	0.251	0.251	0.0	0.3	0.3	5.4	O K
15 min Winter	0.354	0.354	0.0	0.4	0.4	7.6	O K
30 min Winter	0.516	0.516	0.0	0.4	0.4	11.0	O K
60 min Winter	0.701	0.701	0.0	0.5	0.5	15.0	O K
120 min Winter	0.749	0.749	0.0	0.5	0.5	16.0	O K
180 min Winter	0.763	0.763	0.0	0.5	0.5	16.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	6.9	18
30 min Summer	105.600	0.0	10.2	33
60 min Summer	73.829	0.0	14.4	62
120 min Summer	42.000	0.0	16.4	122
180 min Summer	30.263	0.0	17.7	180
240 min Summer	24.063	0.0	18.7	216
360 min Summer	17.584	0.0	20.6	276
480 min Summer	14.172	0.0	22.1	340
600 min Summer	12.040	0.0	23.5	410
720 min Summer	10.572	0.0	24.7	478
960 min Summer	8.671	0.0	27.0	616
1440 min Summer	6.581	0.0	30.8	894
2160 min Summer	5.060	0.0	35.5	1296
2880 min Summer	4.186	0.0	39.2	1672
4320 min Summer	3.133	0.0	44.0	2424
5760 min Summer	2.543	0.0	47.6	3168
7200 min Summer	2.169	0.0	50.7	3888
8640 min Summer	1.906	0.0	53.5	4584
10080 min Summer	1.711	0.0	56.0	5344
15 min Winter	142.665	0.0	7.7	18
30 min Winter	105.600	0.0	11.5	33
60 min Winter	73.829	0.0	16.1	62
120 min Winter	42.000	0.0	18.3	118
180 min Winter	30.263	0.0	19.8	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.764	0.764	0.0	0.5	0.5	16.3	O K
360 min Winter	0.757	0.757	0.0	0.5	0.5	16.2	O K
480 min Winter	0.754	0.754	0.0	0.5	0.5	16.1	O K
600 min Winter	0.746	0.746	0.0	0.5	0.5	16.0	O K
720 min Winter	0.737	0.737	0.0	0.5	0.5	15.8	O K
960 min Winter	0.717	0.717	0.0	0.5	0.5	15.3	O K
1440 min Winter	0.665	0.665	0.0	0.5	0.5	14.2	O K
2160 min Winter	0.593	0.593	0.0	0.5	0.5	12.7	O K
2880 min Winter	0.525	0.525	0.0	0.4	0.4	11.2	O K
4320 min Winter	0.401	0.401	0.0	0.4	0.4	8.6	O K
5760 min Winter	0.314	0.314	0.0	0.3	0.3	6.7	O K
7200 min Winter	0.253	0.253	0.0	0.3	0.3	5.4	O K
8640 min Winter	0.210	0.210	0.0	0.3	0.3	4.5	O K
10080 min Winter	0.177	0.177	0.0	0.2	0.2	3.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	21.0	228
360 min Winter	17.584	0.0	23.0	288
480 min Winter	14.172	0.0	24.7	364
600 min Winter	12.040	0.0	26.3	442
720 min Winter	10.572	0.0	27.7	518
960 min Winter	8.671	0.0	30.3	666
1440 min Winter	6.581	0.0	34.5	954
2160 min Winter	5.060	0.0	39.8	1364
2880 min Winter	4.186	0.0	43.9	1760
4320 min Winter	3.133	0.0	49.2	2512
5760 min Winter	2.543	0.0	53.3	3240
7200 min Winter	2.169	0.0	56.8	3968
8640 min Winter	1.906	0.0	59.9	4672
10080 min Winter	1.711	0.0	62.8	5440

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.026

Time (mins) From:	To:	Area (ha)
0	4	0.026

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	22.5	22.5	0.800	22.5	37.7	0.801	0.0	37.7

Orifice Outflow Control

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 414 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.295	0.295	0.0	0.3	0.3	7.6	O K
30 min Summer	0.431	0.431	0.0	0.3	0.3	11.1	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	15.1	O K
120 min Summer	0.637	0.637	0.0	0.4	0.4	16.3	O K
180 min Summer	0.654	0.654	0.0	0.4	0.4	16.8	O K
240 min Summer	0.661	0.661	0.0	0.4	0.4	16.9	O K
360 min Summer	0.664	0.664	0.0	0.4	0.4	17.0	O K
480 min Summer	0.669	0.669	0.0	0.4	0.4	17.2	O K
600 min Summer	0.672	0.672	0.0	0.4	0.4	17.2	O K
720 min Summer	0.675	0.675	0.0	0.4	0.4	17.3	O K
960 min Summer	0.677	0.677	0.0	0.4	0.4	17.4	O K
1440 min Summer	0.667	0.667	0.0	0.4	0.4	17.1	O K
2160 min Summer	0.644	0.644	0.0	0.4	0.4	16.5	O K
2880 min Summer	0.611	0.611	0.0	0.4	0.4	15.7	O K
4320 min Summer	0.529	0.529	0.0	0.4	0.4	13.6	O K
5760 min Summer	0.460	0.460	0.0	0.4	0.4	11.8	O K
7200 min Summer	0.407	0.407	0.0	0.3	0.3	10.4	O K
8640 min Summer	0.362	0.362	0.0	0.3	0.3	9.3	O K
10080 min Summer	0.326	0.326	0.0	0.3	0.3	8.4	O K
15 min Winter	0.331	0.331	0.0	0.3	0.3	8.5	O K
30 min Winter	0.484	0.484	0.0	0.4	0.4	12.4	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	17.0	O K
120 min Winter	0.719	0.719	0.0	0.5	0.5	18.4	O K
180 min Winter	0.742	0.742	0.0	0.5	0.5	19.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.7	19
30 min Summer	105.600	0.0	11.4	33
60 min Summer	73.829	0.0	16.0	62
120 min Summer	42.000	0.0	18.2	122
180 min Summer	30.263	0.0	19.7	182
240 min Summer	24.063	0.0	20.9	240
360 min Summer	17.584	0.0	22.9	308
480 min Summer	14.172	0.0	24.6	370
600 min Summer	12.040	0.0	26.1	434
720 min Summer	10.572	0.0	27.5	502
960 min Summer	8.671	0.0	30.1	642
1440 min Summer	6.581	0.0	34.3	922
2160 min Summer	5.060	0.0	39.6	1320
2880 min Summer	4.186	0.0	43.7	1728
4320 min Summer	3.133	0.0	49.0	2504
5760 min Summer	2.543	0.0	53.1	3232
7200 min Summer	2.169	0.0	56.6	3968
8640 min Summer	1.906	0.0	59.7	4680
10080 min Summer	1.711	0.0	62.5	5448
15 min Winter	142.665	0.0	8.6	18
30 min Winter	105.600	0.0	12.8	33
60 min Winter	73.829	0.0	18.0	62
120 min Winter	42.000	0.0	20.4	120
180 min Winter	30.263	0.0	22.1	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.753	0.753	0.0	0.5	0.5	19.3	O K
360 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
480 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
600 min Winter	0.762	0.762	0.0	0.5	0.5	19.5	O K
720 min Winter	0.761	0.761	0.0	0.5	0.5	19.5	O K
960 min Winter	0.757	0.757	0.0	0.5	0.5	19.4	O K
1440 min Winter	0.728	0.728	0.0	0.5	0.5	18.7	O K
2160 min Winter	0.679	0.679	0.0	0.4	0.4	17.4	O K
2880 min Winter	0.622	0.622	0.0	0.4	0.4	16.0	O K
4320 min Winter	0.503	0.503	0.0	0.4	0.4	12.9	O K
5760 min Winter	0.412	0.412	0.0	0.3	0.3	10.6	O K
7200 min Winter	0.344	0.344	0.0	0.3	0.3	8.8	O K
8640 min Winter	0.292	0.292	0.0	0.3	0.3	7.5	O K
10080 min Winter	0.252	0.252	0.0	0.3	0.3	6.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	23.4	232
360 min Winter	17.584	0.0	25.7	338
480 min Winter	14.172	0.0	27.6	386
600 min Winter	12.040	0.0	29.3	460
720 min Winter	10.572	0.0	30.9	540
960 min Winter	8.671	0.0	33.7	692
1440 min Winter	6.581	0.0	38.4	994
2160 min Winter	5.060	0.0	44.4	1424
2880 min Winter	4.186	0.0	48.9	1840
4320 min Winter	3.133	0.0	54.9	2632
5760 min Winter	2.543	0.0	59.5	3392
7200 min Winter	2.169	0.0	63.4	4112
8640 min Winter	1.906	0.0	66.9	4840
10080 min Winter	1.711	0.0	70.0	5552

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.029

Time (mins) From:	To:	Area (ha)
0	4	0.029

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.8	0.801	0.0	43.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 466 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.294	0.294	0.0	0.3	0.3	8.4	O K
30 min Summer	0.430	0.430	0.0	0.3	0.3	12.2	O K
60 min Summer	0.588	0.588	0.0	0.4	0.4	16.8	O K
120 min Summer	0.639	0.639	0.0	0.4	0.4	18.2	O K
180 min Summer	0.660	0.660	0.0	0.4	0.4	18.8	O K
240 min Summer	0.670	0.670	0.0	0.4	0.4	19.1	O K
360 min Summer	0.676	0.676	0.0	0.4	0.4	19.3	O K
480 min Summer	0.682	0.682	0.0	0.4	0.4	19.4	O K
600 min Summer	0.688	0.688	0.0	0.4	0.4	19.6	O K
720 min Summer	0.692	0.692	0.0	0.4	0.4	19.7	O K
960 min Summer	0.698	0.698	0.0	0.4	0.4	19.9	O K
1440 min Summer	0.694	0.694	0.0	0.4	0.4	19.8	O K
2160 min Summer	0.678	0.678	0.0	0.4	0.4	19.3	O K
2880 min Summer	0.649	0.649	0.0	0.4	0.4	18.5	O K
4320 min Summer	0.570	0.570	0.0	0.4	0.4	16.2	O K
5760 min Summer	0.502	0.502	0.0	0.4	0.4	14.3	O K
7200 min Summer	0.447	0.447	0.0	0.4	0.4	12.7	O K
8640 min Summer	0.402	0.402	0.0	0.3	0.3	11.5	O K
10080 min Summer	0.364	0.364	0.0	0.3	0.3	10.4	O K
15 min Winter	0.329	0.329	0.0	0.3	0.3	9.4	O K
30 min Winter	0.483	0.483	0.0	0.4	0.4	13.8	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	18.9	O K
120 min Winter	0.721	0.721	0.0	0.5	0.5	20.6	O K
180 min Winter	0.748	0.748	0.0	0.5	0.5	21.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	8.5	19
30 min Summer	105.600	0.0	12.5	33
60 min Summer	73.829	0.0	17.7	62
120 min Summer	42.000	0.0	20.1	122
180 min Summer	30.263	0.0	21.7	182
240 min Summer	24.063	0.0	23.1	240
360 min Summer	17.584	0.0	25.3	324
480 min Summer	14.172	0.0	27.2	382
600 min Summer	12.040	0.0	28.8	446
720 min Summer	10.572	0.0	30.4	512
960 min Summer	8.671	0.0	33.2	654
1440 min Summer	6.581	0.0	37.8	926
2160 min Summer	5.060	0.0	43.7	1340
2880 min Summer	4.186	0.0	48.2	1732
4320 min Summer	3.133	0.0	54.1	2512
5760 min Summer	2.543	0.0	58.6	3288
7200 min Summer	2.169	0.0	62.5	4032
8640 min Summer	1.906	0.0	65.9	4752
10080 min Summer	1.711	0.0	68.9	5448
15 min Winter	142.665	0.0	9.5	19
30 min Winter	105.600	0.0	14.0	33
60 min Winter	73.829	0.0	19.8	62
120 min Winter	42.000	0.0	22.5	120
180 min Winter	30.263	0.0	24.4	178

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.762	0.762	0.0	0.5	0.5	21.7	O K
360 min Winter	0.774	0.774	0.0	0.5	0.5	22.1	O K
480 min Winter	0.776	0.776	0.0	0.5	0.5	22.1	O K
600 min Winter	0.780	0.780	0.0	0.5	0.5	22.2	O K
720 min Winter	0.783	0.783	0.0	0.5	0.5	22.3	O K
960 min Winter	0.784	0.784	0.0	0.5	0.5	22.3	O K
1440 min Winter	0.764	0.764	0.0	0.5	0.5	21.8	O K
2160 min Winter	0.723	0.723	0.0	0.5	0.5	20.6	O K
2880 min Winter	0.671	0.671	0.0	0.4	0.4	19.1	O K
4320 min Winter	0.554	0.554	0.0	0.4	0.4	15.8	O K
5760 min Winter	0.461	0.461	0.0	0.4	0.4	13.1	O K
7200 min Winter	0.390	0.390	0.0	0.3	0.3	11.1	O K
8640 min Winter	0.335	0.335	0.0	0.3	0.3	9.5	O K
10080 min Winter	0.291	0.291	0.0	0.3	0.3	8.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	25.8	234
360 min Winter	17.584	0.0	28.3	342
480 min Winter	14.172	0.0	30.4	432
600 min Winter	12.040	0.0	32.3	470
720 min Winter	10.572	0.0	34.0	548
960 min Winter	8.671	0.0	37.2	702
1440 min Winter	6.581	0.0	42.3	1008
2160 min Winter	5.060	0.0	48.9	1444
2880 min Winter	4.186	0.0	54.0	1848
4320 min Winter	3.133	0.0	60.6	2640
5760 min Winter	2.543	0.0	65.6	3408
7200 min Winter	2.169	0.0	69.9	4176
8640 min Winter	1.906	0.0	73.8	4920
10080 min Winter	1.711	0.0	77.2	5648

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.032

Time (mins) From:	To:	Area (ha)
0	4	0.032

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	30.0	0.800	30.0	47.6	0.801	0.0	47.6

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 652 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.264	0.264	0.0	0.3	0.3	10.5	O K
30 min Summer	0.387	0.387	0.0	0.3	0.3	15.4	O K
60 min Summer	0.532	0.532	0.0	0.4	0.4	21.2	O K
120 min Summer	0.585	0.585	0.0	0.4	0.4	23.3	O K
180 min Summer	0.611	0.611	0.0	0.4	0.4	24.4	O K
240 min Summer	0.627	0.627	0.0	0.4	0.4	25.0	O K
360 min Summer	0.645	0.645	0.0	0.4	0.4	25.7	O K
480 min Summer	0.654	0.654	0.0	0.4	0.4	26.1	O K
600 min Summer	0.662	0.662	0.0	0.4	0.4	26.4	O K
720 min Summer	0.669	0.669	0.0	0.4	0.4	26.7	O K
960 min Summer	0.683	0.683	0.0	0.4	0.4	27.3	O K
1440 min Summer	0.694	0.694	0.0	0.4	0.4	27.7	O K
2160 min Summer	0.697	0.697	0.0	0.4	0.4	27.8	O K
2880 min Summer	0.682	0.682	0.0	0.4	0.4	27.2	O K
4320 min Summer	0.622	0.622	0.0	0.4	0.4	24.8	O K
5760 min Summer	0.564	0.564	0.0	0.4	0.4	22.5	O K
7200 min Summer	0.516	0.516	0.0	0.4	0.4	20.6	O K
8640 min Summer	0.474	0.474	0.0	0.4	0.4	18.9	O K
10080 min Summer	0.438	0.438	0.0	0.4	0.4	17.5	O K
15 min Winter	0.296	0.296	0.0	0.3	0.3	11.8	O K
30 min Winter	0.434	0.434	0.0	0.3	0.3	17.3	O K
60 min Winter	0.598	0.598	0.0	0.4	0.4	23.9	O K
120 min Winter	0.659	0.659	0.0	0.4	0.4	26.3	O K
180 min Winter	0.690	0.690	0.0	0.4	0.4	27.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	10.5	19
30 min Summer	105.600	0.0	15.4	34
60 min Summer	73.829	0.0	22.1	64
120 min Summer	42.000	0.0	25.1	122
180 min Summer	30.263	0.0	27.1	182
240 min Summer	24.063	0.0	28.7	242
360 min Summer	17.584	0.0	31.5	360
480 min Summer	14.172	0.0	33.8	440
600 min Summer	12.040	0.0	35.9	496
720 min Summer	10.572	0.0	37.8	558
960 min Summer	8.671	0.0	41.2	690
1440 min Summer	6.581	0.0	45.9	966
2160 min Summer	5.060	0.0	54.6	1384
2880 min Summer	4.186	0.0	60.2	1788
4320 min Summer	3.133	0.0	67.5	2596
5760 min Summer	2.543	0.0	73.2	3352
7200 min Summer	2.169	0.0	78.1	4112
8640 min Summer	1.906	0.0	82.3	4848
10080 min Summer	1.711	0.0	86.1	5640
15 min Winter	142.665	0.0	11.7	19
30 min Winter	105.600	0.0	17.1	33
60 min Winter	73.829	0.0	24.7	62
120 min Winter	42.000	0.0	28.1	120
180 min Winter	30.263	0.0	30.4	178

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.710	0.710	0.0	0.4	0.4	28.3	O K
360 min Winter	0.735	0.735	0.0	0.5	0.5	29.3	O K
480 min Winter	0.748	0.748	0.0	0.5	0.5	29.9	O K
600 min Winter	0.755	0.755	0.0	0.5	0.5	30.1	O K
720 min Winter	0.760	0.760	0.0	0.5	0.5	30.3	O K
960 min Winter	0.774	0.774	0.0	0.5	0.5	30.9	O K
1440 min Winter	0.777	0.777	0.0	0.5	0.5	31.0	O K
2160 min Winter	0.764	0.764	0.0	0.5	0.5	30.5	O K
2880 min Winter	0.732	0.732	0.0	0.5	0.5	29.2	O K
4320 min Winter	0.637	0.637	0.0	0.4	0.4	25.4	O K
5760 min Winter	0.553	0.553	0.0	0.4	0.4	22.1	O K
7200 min Winter	0.485	0.485	0.0	0.4	0.4	19.3	O K
8640 min Winter	0.428	0.428	0.0	0.3	0.3	17.1	O K
10080 min Winter	0.381	0.381	0.0	0.3	0.3	15.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	32.2	236
360 min Winter	17.584	0.0	35.3	348
480 min Winter	14.172	0.0	37.9	458
600 min Winter	12.040	0.0	40.2	558
720 min Winter	10.572	0.0	42.3	584
960 min Winter	8.671	0.0	46.0	732
1440 min Winter	6.581	0.0	50.6	1040
2160 min Winter	5.060	0.0	61.1	1492
2880 min Winter	4.186	0.0	67.4	1932
4320 min Winter	3.133	0.0	75.6	2764
5760 min Winter	2.543	0.0	82.0	3568
7200 min Winter	2.169	0.0	87.4	4328
8640 min Winter	1.906	0.0	92.2	5096
10080 min Winter	1.711	0.0	96.5	5848

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.040

Time (mins) From:	To:	Area (ha)
0	4	0.040

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	42.0	42.0	0.800	42.0	62.8	0.801	0.0	62.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 385 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.296	0.296	0.0	0.3	0.3	7.0	O K
30 min Summer	0.432	0.432	0.0	0.3	0.3	10.3	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	14.0	O K
120 min Summer	0.634	0.634	0.0	0.4	0.4	15.1	O K
180 min Summer	0.650	0.650	0.0	0.4	0.4	15.4	O K
240 min Summer	0.653	0.653	0.0	0.4	0.4	15.5	O K
360 min Summer	0.656	0.656	0.0	0.4	0.4	15.6	O K
480 min Summer	0.659	0.659	0.0	0.4	0.4	15.6	O K
600 min Summer	0.661	0.661	0.0	0.4	0.4	15.7	O K
720 min Summer	0.662	0.662	0.0	0.4	0.4	15.7	O K
960 min Summer	0.662	0.662	0.0	0.4	0.4	15.7	O K
1440 min Summer	0.647	0.647	0.0	0.4	0.4	15.4	O K
2160 min Summer	0.620	0.620	0.0	0.4	0.4	14.7	O K
2880 min Summer	0.584	0.584	0.0	0.4	0.4	13.9	O K
4320 min Summer	0.500	0.500	0.0	0.4	0.4	11.9	O K
5760 min Summer	0.431	0.431	0.0	0.3	0.3	10.2	O K
7200 min Summer	0.378	0.378	0.0	0.3	0.3	9.0	O K
8640 min Summer	0.335	0.335	0.0	0.3	0.3	8.0	O K
10080 min Summer	0.299	0.299	0.0	0.3	0.3	7.1	O K
15 min Winter	0.332	0.332	0.0	0.3	0.3	7.9	O K
30 min Winter	0.486	0.486	0.0	0.4	0.4	11.5	O K
60 min Winter	0.663	0.663	0.0	0.4	0.4	15.8	O K
120 min Winter	0.717	0.717	0.0	0.5	0.5	17.0	O K
180 min Winter	0.738	0.738	0.0	0.5	0.5	17.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.2	19
30 min Summer	105.600	0.0	10.6	33
60 min Summer	73.829	0.0	14.9	62
120 min Summer	42.000	0.0	17.0	122
180 min Summer	30.263	0.0	18.4	180
240 min Summer	24.063	0.0	19.5	240
360 min Summer	17.584	0.0	21.3	298
480 min Summer	14.172	0.0	22.9	360
600 min Summer	12.040	0.0	24.3	426
720 min Summer	10.572	0.0	25.7	494
960 min Summer	8.671	0.0	28.1	634
1440 min Summer	6.581	0.0	31.9	910
2160 min Summer	5.060	0.0	36.9	1320
2880 min Summer	4.186	0.0	40.7	1704
4320 min Summer	3.133	0.0	45.6	2468
5760 min Summer	2.543	0.0	49.4	3224
7200 min Summer	2.169	0.0	52.7	3960
8640 min Summer	1.906	0.0	55.6	4672
10080 min Summer	1.711	0.0	58.2	5440
15 min Winter	142.665	0.0	8.0	18
30 min Winter	105.600	0.0	11.9	33
60 min Winter	73.829	0.0	16.7	62
120 min Winter	42.000	0.0	19.0	120
180 min Winter	30.263	0.0	20.6	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.746	0.746	0.0	0.5	0.5	17.7	O K
360 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
480 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
600 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
720 min Winter	0.745	0.745	0.0	0.5	0.5	17.7	O K
960 min Winter	0.737	0.737	0.0	0.5	0.5	17.5	O K
1440 min Winter	0.702	0.702	0.0	0.4	0.4	16.7	O K
2160 min Winter	0.647	0.647	0.0	0.4	0.4	15.4	O K
2880 min Winter	0.587	0.587	0.0	0.4	0.4	13.9	O K
4320 min Winter	0.468	0.468	0.0	0.4	0.4	11.1	O K
5760 min Winter	0.378	0.378	0.0	0.3	0.3	9.0	O K
7200 min Winter	0.313	0.313	0.0	0.3	0.3	7.4	O K
8640 min Winter	0.264	0.264	0.0	0.3	0.3	6.3	O K
10080 min Winter	0.226	0.226	0.0	0.2	0.2	5.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	21.8	232
360 min Winter	17.584	0.0	23.9	334
480 min Winter	14.172	0.0	25.7	378
600 min Winter	12.040	0.0	27.3	454
720 min Winter	10.572	0.0	28.7	534
960 min Winter	8.671	0.0	31.4	684
1440 min Winter	6.581	0.0	35.7	982
2160 min Winter	5.060	0.0	41.3	1404
2880 min Winter	4.186	0.0	45.6	1816
4320 min Winter	3.133	0.0	51.1	2592
5760 min Winter	2.543	0.0	55.4	3344
7200 min Winter	2.169	0.0	59.0	4040
8640 min Winter	1.906	0.0	62.2	4760
10080 min Winter	1.711	0.0	65.2	5544

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.027

Time (mins) From:	To:	Area (ha)
0	4	0.027

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	25.0	25.0	0.800	25.0	41.0	0.801	0.0	41.0

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 414 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.295	0.295	0.0	0.3	0.3	7.6	O K
30 min Summer	0.431	0.431	0.0	0.3	0.3	11.1	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	15.1	O K
120 min Summer	0.637	0.637	0.0	0.4	0.4	16.3	O K
180 min Summer	0.654	0.654	0.0	0.4	0.4	16.8	O K
240 min Summer	0.661	0.661	0.0	0.4	0.4	16.9	O K
360 min Summer	0.664	0.664	0.0	0.4	0.4	17.0	O K
480 min Summer	0.669	0.669	0.0	0.4	0.4	17.2	O K
600 min Summer	0.672	0.672	0.0	0.4	0.4	17.2	O K
720 min Summer	0.675	0.675	0.0	0.4	0.4	17.3	O K
960 min Summer	0.677	0.677	0.0	0.4	0.4	17.4	O K
1440 min Summer	0.667	0.667	0.0	0.4	0.4	17.1	O K
2160 min Summer	0.644	0.644	0.0	0.4	0.4	16.5	O K
2880 min Summer	0.611	0.611	0.0	0.4	0.4	15.7	O K
4320 min Summer	0.529	0.529	0.0	0.4	0.4	13.6	O K
5760 min Summer	0.460	0.460	0.0	0.4	0.4	11.8	O K
7200 min Summer	0.407	0.407	0.0	0.3	0.3	10.4	O K
8640 min Summer	0.362	0.362	0.0	0.3	0.3	9.3	O K
10080 min Summer	0.326	0.326	0.0	0.3	0.3	8.4	O K
15 min Winter	0.331	0.331	0.0	0.3	0.3	8.5	O K
30 min Winter	0.484	0.484	0.0	0.4	0.4	12.4	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	17.0	O K
120 min Winter	0.719	0.719	0.0	0.5	0.5	18.4	O K
180 min Winter	0.742	0.742	0.0	0.5	0.5	19.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.7	19
30 min Summer	105.600	0.0	11.4	33
60 min Summer	73.829	0.0	16.0	62
120 min Summer	42.000	0.0	18.2	122
180 min Summer	30.263	0.0	19.7	182
240 min Summer	24.063	0.0	20.9	240
360 min Summer	17.584	0.0	22.9	308
480 min Summer	14.172	0.0	24.6	370
600 min Summer	12.040	0.0	26.1	434
720 min Summer	10.572	0.0	27.5	502
960 min Summer	8.671	0.0	30.1	642
1440 min Summer	6.581	0.0	34.3	922
2160 min Summer	5.060	0.0	39.6	1320
2880 min Summer	4.186	0.0	43.7	1728
4320 min Summer	3.133	0.0	49.0	2504
5760 min Summer	2.543	0.0	53.1	3232
7200 min Summer	2.169	0.0	56.6	3968
8640 min Summer	1.906	0.0	59.7	4680
10080 min Summer	1.711	0.0	62.5	5448
15 min Winter	142.665	0.0	8.6	18
30 min Winter	105.600	0.0	12.8	33
60 min Winter	73.829	0.0	18.0	62
120 min Winter	42.000	0.0	20.4	120
180 min Winter	30.263	0.0	22.1	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.753	0.753	0.0	0.5	0.5	19.3	O K
360 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
480 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
600 min Winter	0.762	0.762	0.0	0.5	0.5	19.5	O K
720 min Winter	0.761	0.761	0.0	0.5	0.5	19.5	O K
960 min Winter	0.757	0.757	0.0	0.5	0.5	19.4	O K
1440 min Winter	0.728	0.728	0.0	0.5	0.5	18.7	O K
2160 min Winter	0.679	0.679	0.0	0.4	0.4	17.4	O K
2880 min Winter	0.622	0.622	0.0	0.4	0.4	16.0	O K
4320 min Winter	0.503	0.503	0.0	0.4	0.4	12.9	O K
5760 min Winter	0.412	0.412	0.0	0.3	0.3	10.6	O K
7200 min Winter	0.344	0.344	0.0	0.3	0.3	8.8	O K
8640 min Winter	0.292	0.292	0.0	0.3	0.3	7.5	O K
10080 min Winter	0.252	0.252	0.0	0.3	0.3	6.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	23.4	232
360 min Winter	17.584	0.0	25.7	338
480 min Winter	14.172	0.0	27.6	386
600 min Winter	12.040	0.0	29.3	460
720 min Winter	10.572	0.0	30.9	540
960 min Winter	8.671	0.0	33.7	692
1440 min Winter	6.581	0.0	38.4	994
2160 min Winter	5.060	0.0	44.4	1424
2880 min Winter	4.186	0.0	48.9	1840
4320 min Winter	3.133	0.0	54.9	2632
5760 min Winter	2.543	0.0	59.5	3392
7200 min Winter	2.169	0.0	63.4	4112
8640 min Winter	1.906	0.0	66.9	4840
10080 min Winter	1.711	0.0	70.0	5552

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.029

Time (mins) From:	To:	Area (ha)
0	4	0.029

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.8	0.801	0.0	43.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

DUNDEE
Seabraes, 18 Greenmarket
Dundee, Angus
DD1 4QB

t 01382 227 380

dundee@millardconsulting.co.uk

Millard

More than civil engineers





Taymouth Castle Estate – Zone 4 Residential Development Area

Stage 1 Geoenvironmental Risk Assessment

Ref: 17877/MM/875

APRIL 2023

Taymouth Castle Estate – Zone 4 Residential Development Area

STAGE 1 GEOENVIRONMENTAL RISK ASSESSMENT

APRIL 2023

REPORT REF: 17877/MM/875

CLIENT: The River Tay Castle LLP

ENGINEER: Millard Consulting
Seabraes
18 Greenmarket
Dundee
DD1 4QB

Tel.: 01382 227380
Fax: 01382 229291

Report Prepared By:

[redacted]

.....

Michael Mudie MSc GMICE

Report Checked by

[redacted]

.....

James Short BSc. MSc. CEnv, CSci

COPYRIGHT

Copyright of this report is vested in T A Millard Scotland Ltd and no part of it may be reproduced or copied by any means without prior written permission from T A Millard Scotland Ltd. If you have received this report in error, please destroy all copies in your possession and notify T A Millard Scotland Ltd immediately.

The findings and recommendations of this report are for the use of the client named on the cover and relate to the project described in this report only. Unless otherwise agreed in writing by T A Millard Scotland Ltd no other party may use, make use of or rely on the contents of this report. No liability is accepted by T A Millard Scotland Ltd for any use of this report, other than the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of T A Millard Scotland Ltd using due skill, care and diligence in the preparation of the same. No independent verification of any of the documents or information supplied to T A Millard Scotland Ltd has been made

REGISTRATION OF AMENDMENTS

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By

CONTENTS

1 INTRODUCTION 1
1.1. General 1
1.2. Objectives 1
1.3. Limitations and Exceptions 1
1.4. Land Quality Assessment Methodology 1
2 LAND USE AND ENVIRONMENTAL SETTING 2
2.1 Site Location 2
2.2 Site Description and Walkover 2
2.3 History 5
2.4 Relevant Environmental Database Records 6
2.5 Geology, Hydrogeology and Hydrology 6
2.6 Geohazards 7
3 GEOENVIRONMENTAL RISK ASSESSMENT 9
3.1 Hazards 9
3.2 Pathways 9
3.3 Receptors 10
3.4 Conceptual Site Model 10
3.5 Qualitative Risk Assessment 12
3.6 Risk Management Actions 13
4 ENGINEERING DISCUSSION 14
4.1 Superficial Soil Formations 14
4.2 Bedrock Formations 14
4.3 Groundwater 14
5 CONCLUSIONS AND RECOMMENDATIONS 15
5.1 Conclusions 15
5.2 Recommendations 15

Appendix A SITE PLANS
Appendix B ENVIRONMENTAL DATABASE REPORT
Appendix C RISK ASSESSMENT METHODOLOGY
Appendix D NOTES ON LIMITATIONS

1 INTRODUCTION

1.1. General

Millard Consulting were appointed by The River Tay Castle LLP to prepare a Stage 1 geoenvironmental risk assessment to inform development planning in Zone 4 of the Taymouth Castle estate by Aberfeldy. The study area includes forested land to the northeast of the estate where residential dwellings with garden grounds and access roads are planned. Location plans are included in Appendix A and Appendix B.

1.2. Objectives

The primary objective of this (Stage 1) report is to collate information on the site history and its environmental setting to create a Conceptual Site Model to inform a preliminary risk assessment of geoenvironmental constraints.

Land contamination risks are evaluated relative to the residential land-use, provision of utilities, site users and the water environment. Ground conditions are evaluated in regard to proposed structural development.

Where potentially elevated risks are identified a secondary objective is to outline, where necessary, a (Stage 2) investigation strategy, to qualify and quantify hazards that could present risk. This may include trial excavations, boring, coring, soil sampling and testing, construction of monitoring installations and ground gas or groundwater monitoring. Where necessary a separate Stage 3 Remediation Implementation Plan may be required, followed by Stage 4 Verification (1.4).

1.3. Limitations and Exceptions

This report has been prepared by Millard Consulting for the benefit of The River Tay Castle LLP and their advisors only, no third-party liability or duty of care is extended. Third parties using any information contained in this report do so at their own risk. The report has been prepared using information available at the time of writing and as dated. No liability is taken for information which has become available since this time. The assessment has been undertaken on the identified development area using information referenced. Any changes to the development area after these dates may need to be assessed separately and are not included as part of this assessment.

1.4. Land Quality Assessment Methodology

The assessment of risk relating to land and groundwater contamination is undertaken in a structured and consistent procedure. Reference is made to regulatory guidance for the evaluation and assessment of land quality for current and proposed use as well as authoritative guidance on best practise methods for compiling risk assessments and completing this process in support of planned land-use. A complete description of the Risk Assessment Framework including the methods and references is given in Appendix C.

2 LAND USE AND ENVIRONMENTAL SETTING

Information on the historic land-use and environmental setting is obtained from a variety of sources as detailed within each section. A site specific environmental database report (Appendix B) has been consulted, which provides information on Historical Industrial Sites, Landfill and Other Waste Sites, Current Land Use, Geology and Hydrogeology, Designated Environmentally Sensitive Sites, Flooding, Mining, Natural Hazards, Radon reporting (which supersedes the UK Radon online mapping[1]), Borehole Records, Railways and Tunnels. This has been supplemented where necessary by reference to the British Geological Survey GEOINDEX[4] online database, Scotland's Environment Map[2] and the Coal Authority mapping[3] and reporting services.

2.1 Site Location

The study area comprises a dense woodland on the northwest side of the Taymouth castle estate inside the boundary wall which runs parallel to the River Tay and A827 Aberfeldy to Kenmore Road. A location plan is provided in the Environmental Database report (Appendix B). Photographs were taken during the site walkover to provide illustrative context of the written descriptions.

2.2 Site Description and Walkover

Area	6.17ha approx.	**NGR**	E277885 N745876
Date	13/03/23	**Weather**	Cloudy, Wet
Carried out by	Michael Mudie		

2.2.1 General appearance

The study area comprises of a densely wooded (coniferous and deciduous trees), undulating forest, with multiple forestry tracks snaking throughout the area. There is a steep slope on the north and eastern boundaries, as shown in the images below.


Central study area showing undulating forest


Northeast Corner of study area

2.2.2 Topography

The study area sits approximately 20m above the River Tay along the northwest to northeast boundary, where it begins to level off with the River Tay towards the southwest boundary.

[1] http://www.ukradon.org/information/ukmaps
[2] https://map.environment.gov.scot/sewebmap/
[3] http://mapapps2.bgs.ac.uk/coalauthority/home.html

2.2.3 Boundary conditions

Adjacent land-use			
North	Woodland/Track/River Tay	East	Track/Woodland/Golf course
South	Track/Woodland/ Golf Course	West	Track/Woodland/ Golf Course

2.2.4 Surface Cover, Uneven or Made Ground

A forestry track snakes around the west and north boundaries, and another along the south and east boundary where they both meet in the northeast corner of the study area. A further forestry track leads northwards to a building (named the Dairy in the historical maps, see Section 2.3) with garage and kennel outbuildings beyond.



Outbuildings to rear of Dairy

2.2.5 Vegetation

Evidence of stress	×
Invasive plant species (e.g. giant hogweed/ Japanese Knotweed)	×

Dense trees along with grass, and some Rhododendron are typical found across the area.

2.2.6 Surface Water

Streams, ponds, seepages, sinks etc.	☑
Unsuitable ground (marshy, waterlogged, standing water)	×

The River Tay flows east along the northern boundary. To the western boundary a small burn/ditch flow from south to north.



Burn across Northern Boundary

2.2.7 Evidence of Contamination / Materials Storage (waste, spoil, fuel etc.)

There was evidence of material storage and possible contamination within the study area in the form of a gas storage tank to the north of the Dairy Building, current use undetermined. Nearby there is also an inspection chamber with an underground storage tank, as show in the images below.



Gas and Underground Storage Tanks to rear of Dairy

2.2.8 Infrastructure and Structural Information

Structures on site	☑
Evidence of previous structures	☑
Utilities evidence	*
Access constraints (e.g. for investigation plant)	☑

The only significant structure in the study area is a large A listed Dairy building structure with associated derelict garage and kennels. To the southwest of the study area there is a Scottish Water Monitoring Station with signs of foul and surface water drainage. The Dairy building and other structures are built atop the steep slopes to the north and east boundaries. The Scottish Water monitoring station is situated in the southwest of the study area where foul and surface water utilities were found to be present, as shown in the images below.



FW and SW Sewers

2.3 History

The site history has been assessed by reviewing historical Ordnance Survey maps provided in the Environmental Database report (Appendix B).

Dates	History
1862 – 1901	The County Series first edition plans show undulating densely wooded ground in the study area, with tree lined forestry tracks snaking around the perimeter of the study area. The study area sits on top of a steep slope which wraps around the West, North and East boundaries. The River Tay flows eastwards along the northern boundary of the study area. A small monument is shown in the northeast of the study area. An unnamed structure is shown in the middle of the study area 
1977-1981	The entire study area is marked by densely wooded coniferous and deciduous plantation. To the Northeast the construction of 2 new buildings are shown beside the existing Dairy Building which is now named. One is labelled Kennels. Part of the forestry track on the south boundary has been re-aligned to give access to the dairy building from south to north rather than from west to east (see map extract below). 
1981 - 2022	To the northeast of the study area the buildings and structure remain and are still marked as Dairy, Kennels and monument. To the south, out with the study area the land use has changed, and a golf course is now present (see extract of map below).



2.4 Relevant Environmental Database Records

Information from the database, which is of relevance or close proximity is summarised below to inform the environmental setting of the site-specific conceptual site model (CSM).

Environmental Database Information	Site Specific Comment
Historical industrial land uses.	A Dairy is identified on site, but it is a listed structure for habitation or leisure use rather than of industrial consequence.
Designated Ancient Woodland	Ancient Woodland is designated in the wider local area, but not within the study area and therefore is of no significant concern.

2.5 Geology, Hydrogeology and Hydrology

A review of geological conditions is made from records presented in the Environmental database (Appendix B), the British Geological Survey (BGS) onshore Geoindex[4] and site walkover observations.

2.5.1 Made Ground

No artificial deposits are recorded in published data for the area, though the Dairy building and associated structures in the middle of the area may have been backfilled, along with any previous structures and road constructions and thus comprise of made ground of an undetermined nature.

2.5.2 Superficial Deposits

Superficial deposits underlying the low-lying areas of the site are mapped as undifferentiated river terrace deposits, which include river alluvium, typically of sand and gravel, locally with lenses of silt and peat. River and water worked deposits may be loose to dense fine to coarse-grained sand or sand and gravel, with some cobbles. Sandy clay and silt, sometimes laminated, may occur locally and be associated with peat. At the foot of the hill where water deposited (alluvial) material is present they may range from sand and gravel to very soft to very stiff silt or clay. Deposits may become soft to very soft at depth.

[4] http://www.bgs.ac.uk/geoindex/

2.5.3 Solid Geology

The bedrock underlying the site is the Pitlochry Schist formation comprising psammite and semipelite. The BGS describe these as very weak to strong generally widely jointed foliated, often with pronounced mineral layering, medium to coarse-grained schist. These rocks usually show marked strength anisotropy which is stronger to normal foliation. They weather to gravelly sand or sandy clay.

2.5.4 Hydrogeology and Hydrology

The nearest classified surface watercourse is the river Tay (ID:6501) which is in the River Tay catchment of the Scotland river basin District. The stem from Loch Tay to River Lyon confluence is 4.4km in length and classified as good overall status. The superficial deposits underlying are identified as the Tummel and Tay Sand and Gravel, which is a groundwater (ID: 150735), in the Scotland river basin district, which is 76.0 square kilometres in area and of overall good status. The BGS record these deposits to have high to very high permeability with flow through matrix. They are a quaternary sand and gravel aquifer of local importance.

Bedrock is recorded by the BGS as Precambrian crystalline basement rock, known as the Southern Highland group, which offers little potential for groundwater storage and transport other than in cracks and joints. It is a low productivity aquifer of medium to very low permeability in which flow is through discontinuities in the near surface and weathered zone.

Flooding	
River flooding	1 in 30 year, 0.3-1.0m (within 50m)
Coastal flooding	Negligible within 50m
Surface water flooding	1 in 30 year, 0.3-1.0m (within 50m)
Groundwater flooding	Low within 50m

2.6 Geohazards

2.6.1 Radon

The study area is not a radon affected area.

2.6.2 Mining

The site is not in a coal mining reporting area.

2.6.3 Geo-Hazard Summary Table

Rank	Geo-Hazard	Hazard Rating	Advice	Technical Considerations
Very low	Shrink Swell	Ground conditions predominantly low plasticity.	No actions required to avoid problems due to shrink–swell clays	No special ground investigation required or increased construction costs or increased financial risk due to potential problems with shrink–swell clays.
Moderate	Landslides	Significant potential for slope instability with relatively small changes in ground conditions.	Avoid large amounts of water entering the ground through pipe leakage or soakaways. Do not undercut or place large amounts of material on slopes without technical advice.	New build – Assess slope stability of site and consequences of excavation, loading and water content changes during and after construction. Existing property – Probable increase in insurance risk due to natural slope instability after changes to ground conditions such as a very long, excessively wet winter.
Negligible	Soluble Rocks	Soluble rocks are either not thought to be present or are not prone to dissolution. Dissolution features are unlikely to be present.	No actions required to avoid problems due to soluble rocks.	No special ground investigation required or increased construction costs or increased financial risk due to potential problems with soluble rocks.
Moderate	Compressible Ground	Significant potential for compressibility problems.	Avoid large differential loadings of ground. Do not drain or dewater ground near the property without technical advice.	New build — Assess the variability and bearing capacity of the ground. May need special foundations to avoid excessive settlement during and after construction. Consider effects of groundwater changes. Extra construction costs are likely. Existing property — Possible increase in insurance risk from compressibility if groundwater levels drop due to drought or dewatering.
Very low	Collapsible Rocks	Deposits with potential to collapse when loaded and saturated are unlikely to be present.	No actions required to avoid problems due to collapsible ground.	No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible ground.
Low	Running Sand	Possibility of running sand problems after major changes in ground conditions.	Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should avoid any problems due to running sands.	New build — Consider possibility of running sands into trenches or excavations if water table is high. Avoid concentrated water inputs to site. Unlikely to be increase in construction costs due to potential for running sand problems. Existing property — No significant increase in insurance risk due to running sand problems.

3 GEOENVIRONMENTAL RISK ASSESSMENT

To formulate a qualitative risk assessment this section establishes what relevant hazards may exist. How those hazards may reach sensitive receptors (pathways) and what those receptors may be in view of the proposed site use and environmental setting.

3.1 Hazards

The land has been developed with castle estate grounds, comprising grass and woodland since first edition mapping. The only significant feature was noted to be a Dairy Building on the 1900 OS plan. Evidence of man-made ground includes the presence of forestry tracks, Dairy building, garage, kennels, and an underground storage tank. On tracks, made ground is expected to comprise replaced natural soils, or introduced gravel, which is most likely generally inert. The nature of material in the surrounding area of the Dairy is unknown.

The following possible hazards may exist in the study area:

- Made ground – Dairy.

3.2 Pathways

Hazards released to the ground, could allow pollution to enter groundwater, which in granular alluvial soils would most likely permeate readily into the water table. Gravels and sands immediately underlying are likely be high permeability and it should be assumed are water bearing in continuity with the protected water environment of the River Tay.

The proposed residential use, comprising new hardcover of buildings and driveways reduces infiltration of precipitation. Private gardens will allow residents to come into contact with soil. In low lying alluvium the presence of peat could be associated with hazardous ground gases, which if found may be a constraint that requires to be managed during planned redevelopment.

Building and utility materials will be in direct contact with soil, such as standard water supply pipe.

If mobile or leachable contamination has been released to the ground there are likely to be pathways into the superficial groundwater and even laterally to the surface water environment. Bedrock aquifer is of limited resource potential and pathways for contamination to enter rock are limited.

Consideration is given to the buildings and utilities being in direct contact with site soil and future users being exposed to soil in gardens. Consideration is also given to the potential for site sourced contamination to affect the water environment.

The following pathways are considered relevant for the conceptual site model and risk assessment:

- Consumption of contaminated produce
- Dermal contact with soil and soil derived dust
- Direct / indirect exposure to hazards
- Direct contact with groundwater
- Direct contact with soils
- Gas migration
- Infiltration and migration
- Ingestion of soil
- Inhalation of soil derived dust
- Migration through groundwater & ecological uptake

- Surface water run-off and soakaways

3.3 Receptors

The following relevant receptors are identified for the risk assessment.

Receptor	Description
Residents and ground workers	During development and upon completion within new residential premises.
Property – buildings, utilities	Foundations and utilities.
Water Environment	Surface water, superficial groundwater and deep groundwater in the bedrock.
Special Area of Conservation	River Tay

3.4 Conceptual Site Model

The potential hazard-pathway-receptor linkages identified above can now be combined to formulate a qualitative risk assessment. The risk assessment is based on best practise guidance using a combination of the receptor sensitivity, hazard severity, magnitude of consequences and likelihood of a pollutant linkage occurring. A semi-quantitative scoring system is applied to ensure consistent and proportionate evaluation of risk. The risk assessment methodology detailing the classes of significance is given in Appendix C.

The hazards, pathways and receptors are now combined in a semi-quantitative assessment of risk in the table below.

Receptor Group	Min. risk	Max. risk	Action	Risk Management Action
Residents	Low	Low	Advisory	Hard covered use is planned in the Dairy area. While residents are high sensitivity and hazard severity is medium a significant exposure scenario is not proposed in the new use, which results in low risk. It is likely that the building will be retained due to it's A listing status, therefore there is minimal chance of elevated risk.
Users	Low / Moderate	Low / Moderate	Advisory	Risk scenarios are as for Residents above. Sensitive uses in the Dairy area could include the use of the building as a golf club establishment with outdoor seating and putting area, in which exposure to site soil could cause greater probability of exposure and elevated risk.
Groundworkers	Low / Moderate	Low / Moderate	Advisory	As there is proposed hard landscaping in the Dairy area only, there is expected to be a low likelihood of exposure for groundworkers. Low risk can be further ameliorated by adherence to use of standard HSW PPE protocols including overalls and gloves for coming in contact with ground in this area.
Buildings	Low	Low	No	This hazard category is of little significance for building materials.
Groundwater	Low / Moderate	Low / Moderate	Advisory	The groundwater is at low likelihood of being locally impacted by former Dairy activities. Given the close proximity to the River Tay and surrounding soil type risk is concluded to be low.
Surface Water	Low	Low	Advisory	The closest pathway can be found within 150m of the Dairy site. It is advisable that new drainage installed as part of the planned use of the Dairy area is suitable to protect against any potential contamination and protect any drainage outfall or soakaway discharge that could potentially mobilise contamination residues.
Habitats	Low	Low	No	The habitat in the site area and the habitats of the Tay are sufficiently remote to be unlikely to be affected by this hazard category.
Utilities	Low / Moderate	Low / Moderate	Advisory	As the area is a greenfield site and the A listed structure will be retained, organic contamination will be non-aggressive to the water supply pipe. Therefore standard pipe should be laid for the purpose of the development.
Aquifer	Very Low	Very Low	No	Bedrock aquifer has very limited resource potential and is unlikely to be impacted by any surface source hazards.

3.5 Qualitative Risk Assessment

The risk assessment has been compiled for the hazards, pathways and receptors identified in the risk assessment table presented above. The pollution linkages are summarised below in order of receptor category along with the minimum and maximum risk ranges. Actions regarding risk management are qualified where required.

Site Name	Taymouth Castle Estate – Zone 4		Stage of Assessment	Preliminary CSM Stage1		
Site no.	17877		Date	28/03/23		
Receptors	**Sensitivity**	**Hazards**	**Hazard Severity**	**Pathways**	**Consequence**	**Likelihood**	**Risk**
Residents	High	Made Ground releases around Dairy	Medium	Consumption of contaminated produce	Substantial	Very Unlikely	Low
Residents	High	Made Ground releases around Dairy	Medium	Dermal contact with soil and soil derived dust	Substantial	Very Unlikely	Low
Residents	High	Made Ground releases around Dairy	Medium	Direct contact with soils	Substantial	Very Unlikely	Low
Residents	High	Made Ground releases around Dairy	Medium	Gas migration	Substantial	Very Unlikely	Low
Residents	High	Made Ground releases around Dairy	Medium	Ingestion of soil	Substantial	Very Unlikely	Low
Residents	High	Made Ground releases around Dairy	Medium	Inhalation of soil derived dust	Substantial	Very Unlikely	Low
Groundworkers	Medium	Made Ground releases around Dairy	High	Dermal contact with soil and soil derived dust	Substantial	Unlikely	Low / Moderate
Groundworkers	Medium	Made Ground releases around Dairy	High	Direct contact with soils	Substantial	Unlikely	Low / Moderate
Groundworkers	Medium	Made Ground releases around Dairy	High	Ingestion of soil	Substantial	Unlikely	Low / Moderate
Groundworkers	Medium	Made Ground releases around Dairy	High	Inhalation of soil derived dust	Substantial	Unlikely	Low / Moderate
Groundworkers	Medium	Made Ground releases around Dairy	High	Gas migration	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Consumption of contaminated produce	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Dermal contact with soil and soil derived dust	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Direct contact with soils	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Gas migration	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Ingestion of soil	Substantial	Unlikely	Low / Moderate
Users	High	Made Ground releases around Dairy	Medium	Inhalation of soil derived dust	Substantial	Unlikely	Low / Moderate
Buildings	High	Made Ground releases around Dairy	Low	Direct contact with soils	Mild	Low Likelihood	Low
Buildings	High	Made Ground releases around Dairy	Low	Direct contact with groundwater	Mild	Low Likelihood	Low
Buildings	High	Made Ground releases around Dairy	Low	Gas migration	Mild	Low Likelihood	Low
Utilities	High	Made Ground releases around Dairy	High	Direct contact with soils	Severe	Unlikely	Low / Moderate
Utilities	High	Made Ground releases around Dairy	High	Direct contact with groundwater	Severe	Unlikely	Low / Moderate
Groundwater	High	Made Ground releases around Dairy	High	Infiltration and migration	Severe	Unlikely	Low / Moderate
Aquifer	Low	Made Ground releases around Dairy	Low	Infiltration and migration	Minor	Unlikely	Very Low
Aquifer	Low	Made Ground releases around Dairy	Medium	Surface water run-off and soakaways	Minor	Unlikely	Very Low
Surface_Waters	Medium	Made Ground releases around Dairy	Medium	Infiltration and migration	Mild	Low Likelihood	Low
Surface_Waters	Medium	Made Ground releases around Dairy	Medium	Surface water run-off and soakaways	Mild	Low Likelihood	Low
Habitats	Medium	Made Ground releases around Dairy	Medium	Migration through groundwater & ecological uptake	Mild	Low Likelihood	Low
Habitats	Medium	Made Ground releases around Dairy	Medium	Surface water run-off and soakaways	Mild	Low Likelihood	Low

3.6 Risk Management Actions

The majority of the study area is expected to be free of potential hazards and thus at very low to low risk from land contamination.

4 ENGINEERING DISCUSSION

4.1 Superficial Soil Formations

In the middle of the area where the Dairy is located a band of alluvium has been deposited with river terrace deposits found on either side.

Alluvium and river terrace deposits present variable foundation conditions, which are dependent on shear strength and consolidation characteristics. In particular the Groundsure report highlights that the river terrace deposits present a moderate hazard in relation to compressibility ("compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site") whilst the alluvium is considered to present a negligible risk.

Foundation design may need to include the potential risk of severe differential settlements in soft, highly compressible zones, especially where foundations bridge from fine to coarse deposits. Near surface silty and fine sandy lithologies may also be frost susceptible and should be considered if designing shallow foundations. Blown sand may be unsuitable for pad or strip foundations and may require raft or piling in its place.

Alluvium and river terrace deposits are usually easy digging and excavations may be stable in the short-term, though may require immediate support unless groundwater ingress is controlled or absent. Running conditions may occur in silts and sands below the water table. The presence of water-bearing sand/silt layers will require groundwater control measures.

Site Investigation is important to determine lithological variation and deposit geometry, particularly the presence and dimensions of buried channels and characteristics of infilling deposits, the presence, depth and extent of any soft compressible zones (and depth to sound strata). Fine deposits may need to be assessed for shrink-swell potential and sulphate/sulphide contents.

4.2 Bedrock Formations

Bedrock is highly unlikely to be encountered across the study area.

If encountered bedrock is generally expected to present good foundation conditions, which will be dependent on inherent variability of the schist rock and depth and nature of the weathered zone.

For excavation, ripping or blasting may be required, depending on strength along foliations and spacing and orientation of discontinuities.

Variable strength and durability affect use of bedrock as engineered fill, though it is usually suitable as general granular fill if care is taken in selection and abstraction.

4.3 Groundwater

Groundwater control measures will be required where excavations are taken below the water table, especially in alluvium across the low-lying portion of the study area.

Where significant underbuilding is proposed in shallow groundwater areas then groundwater level monitoring and permeability testing of superficial deposits is advisable to obtain parameters to inform groundwater control options, tanking and buoyancy considerations.

Running sand conditions may confound deep excavation works where adequate groundwater controls are not designed appropriate for the conditions.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

One discreet portion of land on the middle east corner of the study area has been used as a Dairy historically and some disturbed ground in this area can be expected, the nature of which should be evaluated to determine if it is environmentally acceptable in regard to contamination. The risk to development in this part of the area is currently assessed as low / moderate.

The presence of an underground storage tank alongside the Dairy building presents a low / moderate risk of contamination as well as the potential for locally unstable ground conditions due to presence of soft, compressible materials.

Risk associated with made ground and new water mains design is expected to be low. An advisory note is given that soil tests may be required if water mains are to be routed through made ground.

The land in the study area is evaluated to present low risk to the water environment.

5.2 Recommendations

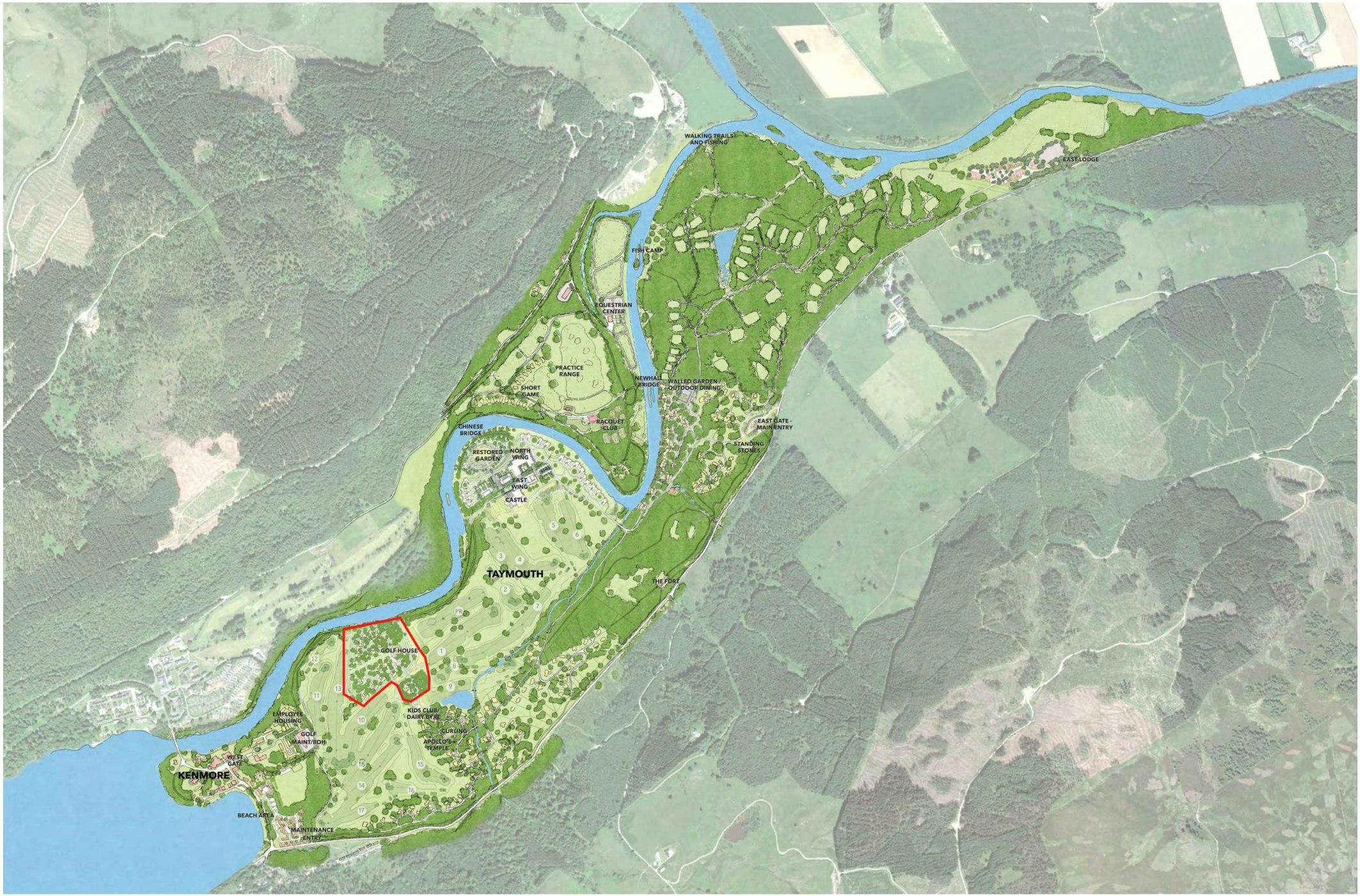
Further investigation is required to establish the extent and usage of the underground storage tank beside the Dairy and of potentially soft, compressible, or made ground across development plots. Geotechnical testing is recommended to confirm depth, strength, and settlement characteristics of superficial sub-soil formations across the proposed structural development plot areas.

In water bearing soils the measurement of groundwater levels is recommended.

Selected samples of soil and water should be taken as required for analysis at an accredited environmental laboratory to evaluate land contamination risk from made ground.

A range of in-situ and laboratory testing would be appropriate to classify sub-soil formations to inform foundation designs for proposed infrastructure and structural development. Such testing is typically a requirement of house building insurers.

APPENDIX A SITE PLANS



Taymouth Castle | Master Plan

Taymouth Castle Kenmore, Scotland January 24, 2023

5 min. walk

0 100 200 300 400 500 m

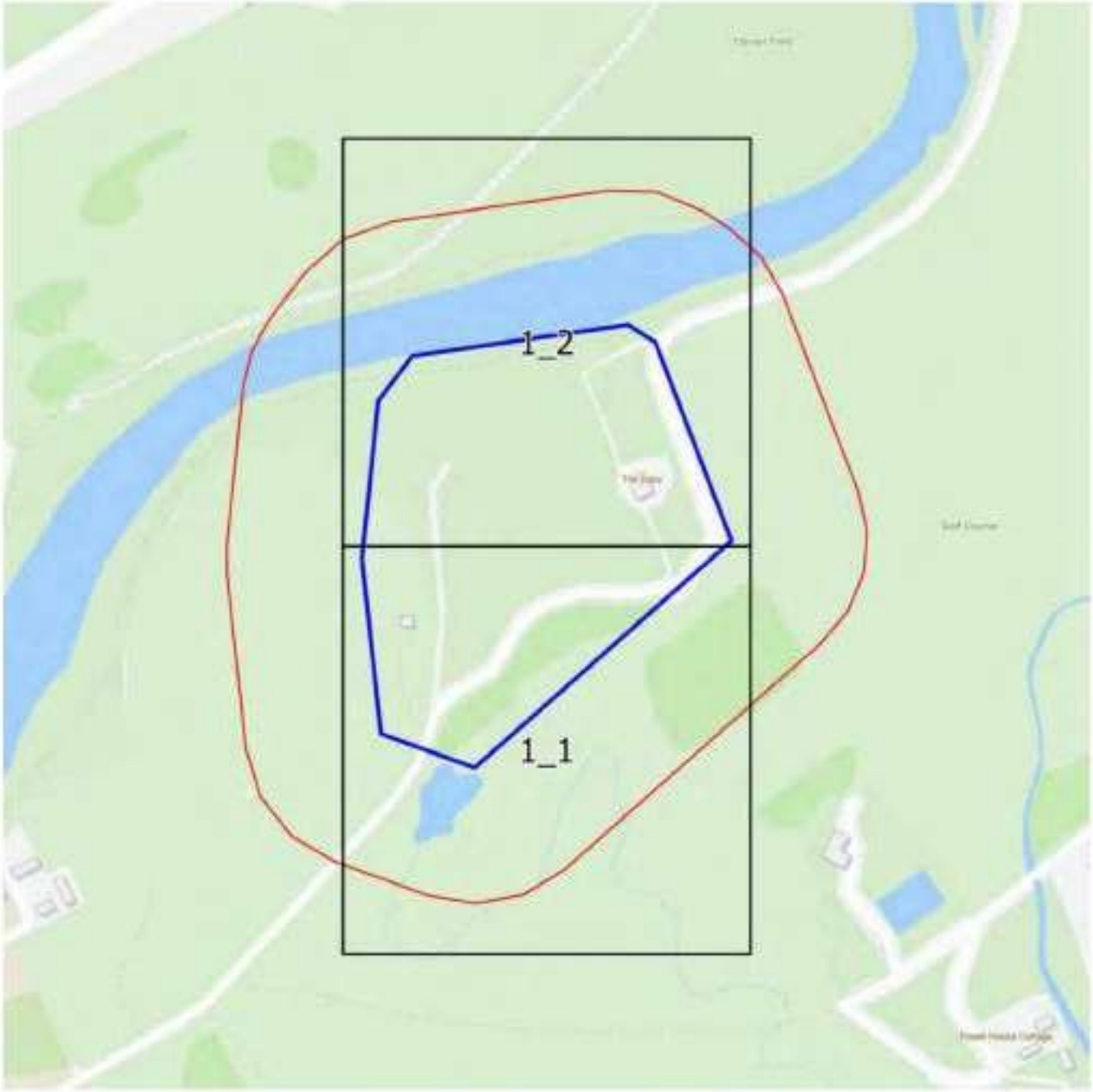
1 ha

1/4 ha

1 : 5,000 *at 30" x 42"*

HART HOWERTON

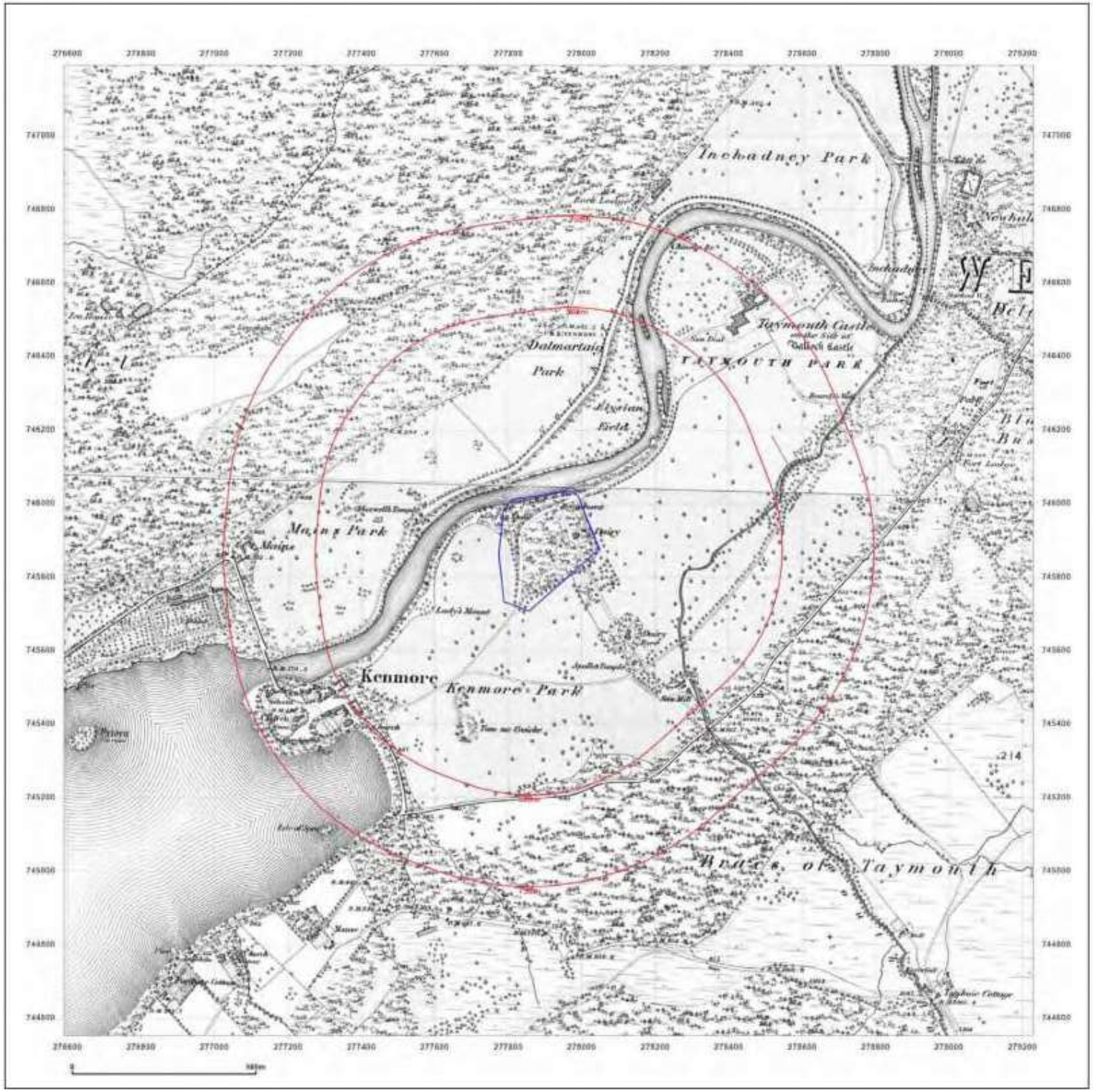
APPENDIX B ENVIRONMENTAL DATABASE REPORT



Groundsure
INSIGHTS

Landline Scale Grid Index





Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: County Series
Map date: 1862
Scale: 1:10,560
Printed at: 1:10,560

N



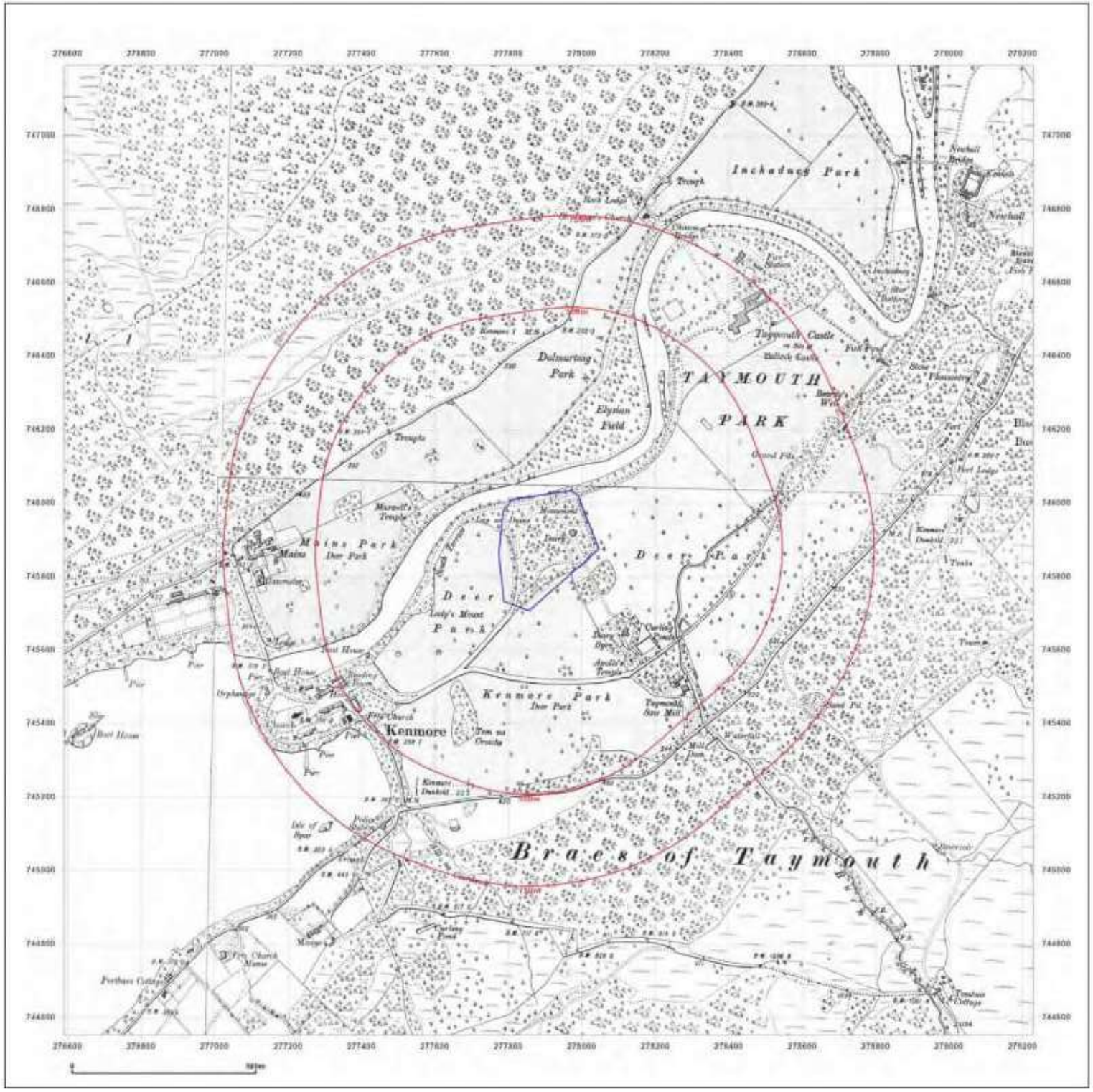
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

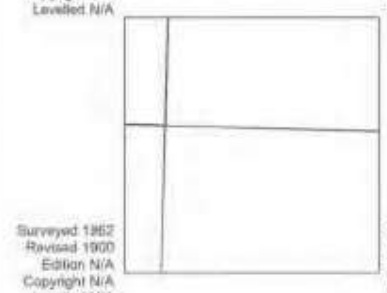
Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: County Series
Map date: 1900-1901
Scale: 1:10,560
Printed at: 1:10,560

N



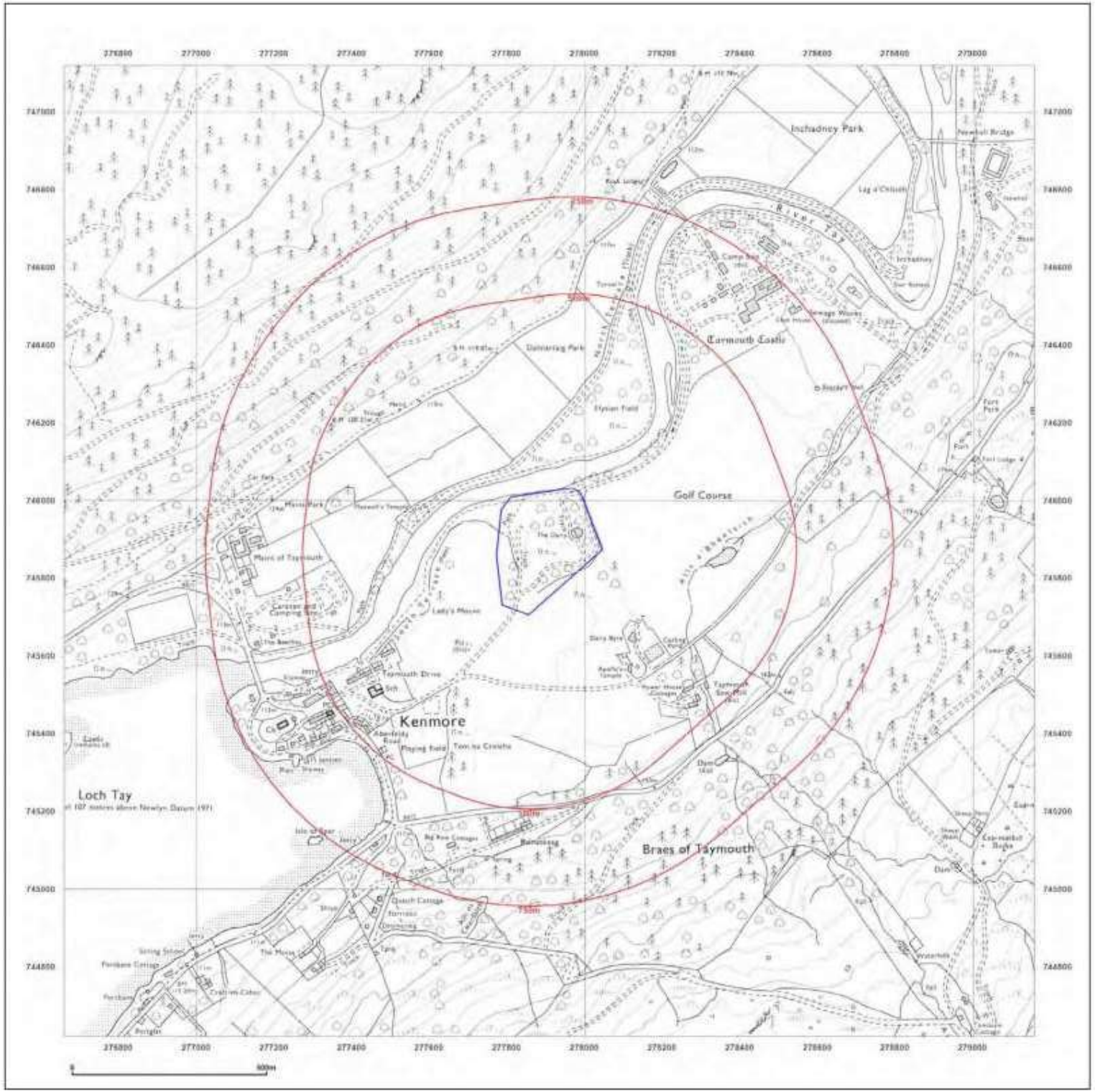
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: National Grid
Map date: 1977-1980
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

Surveyed 1960
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised N/A
Edition N/A
Copyright 1979
Levelled N/A

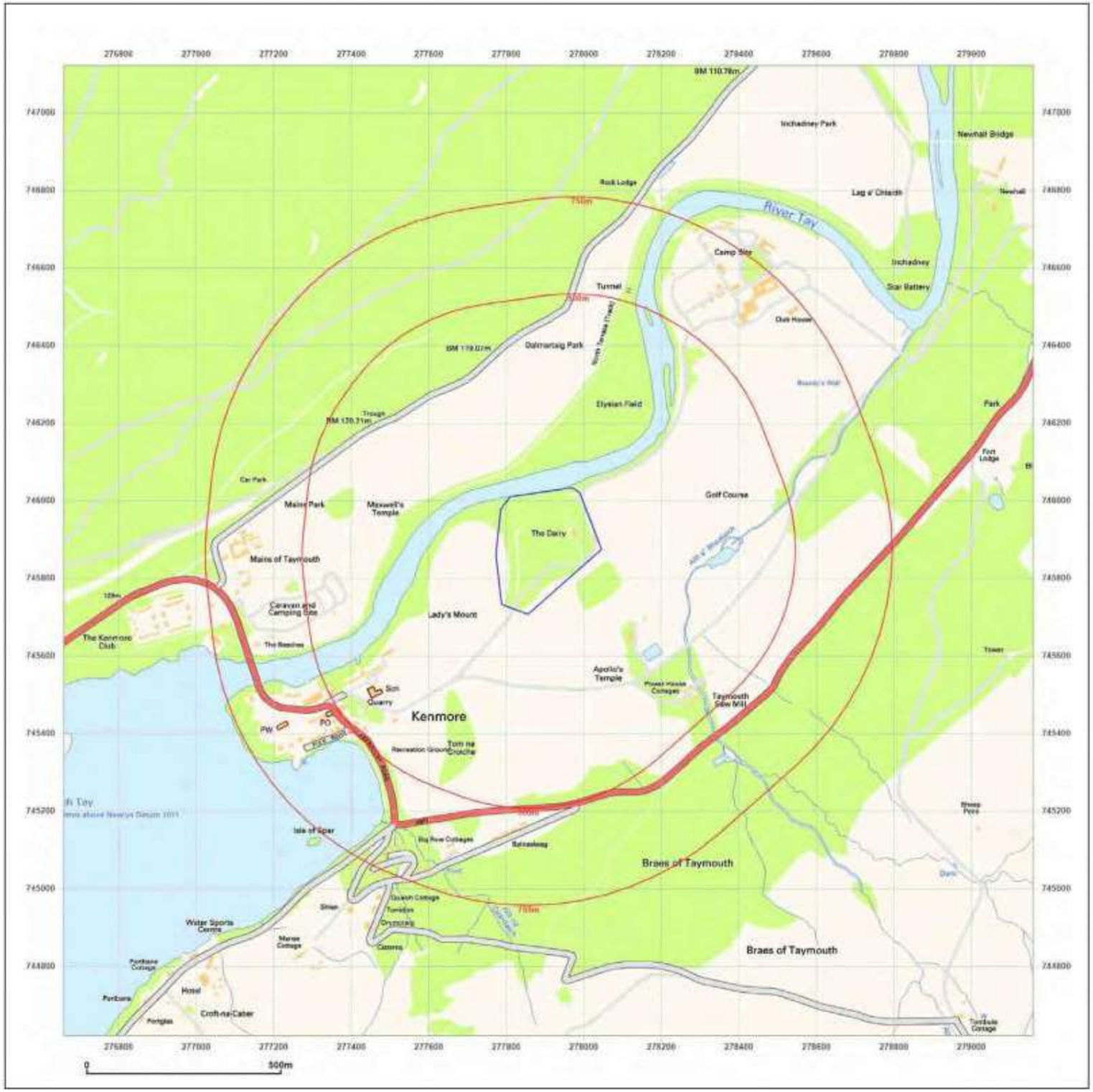
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
Printed at: 1:10,000

N
W
E
S



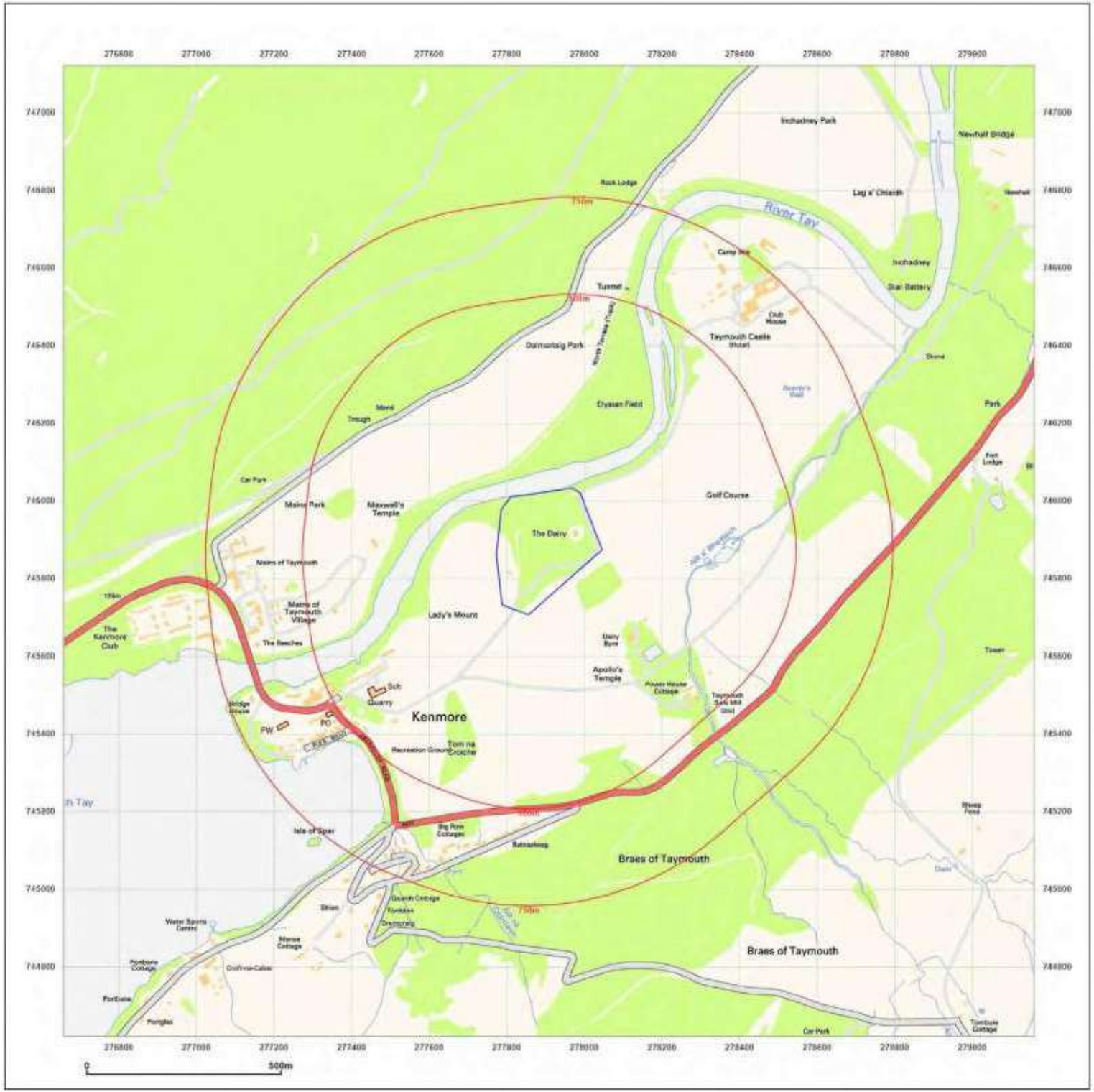
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: National Grid
Map date: 2010
Scale: 1:10,000
Printed at: 1:10,000

N

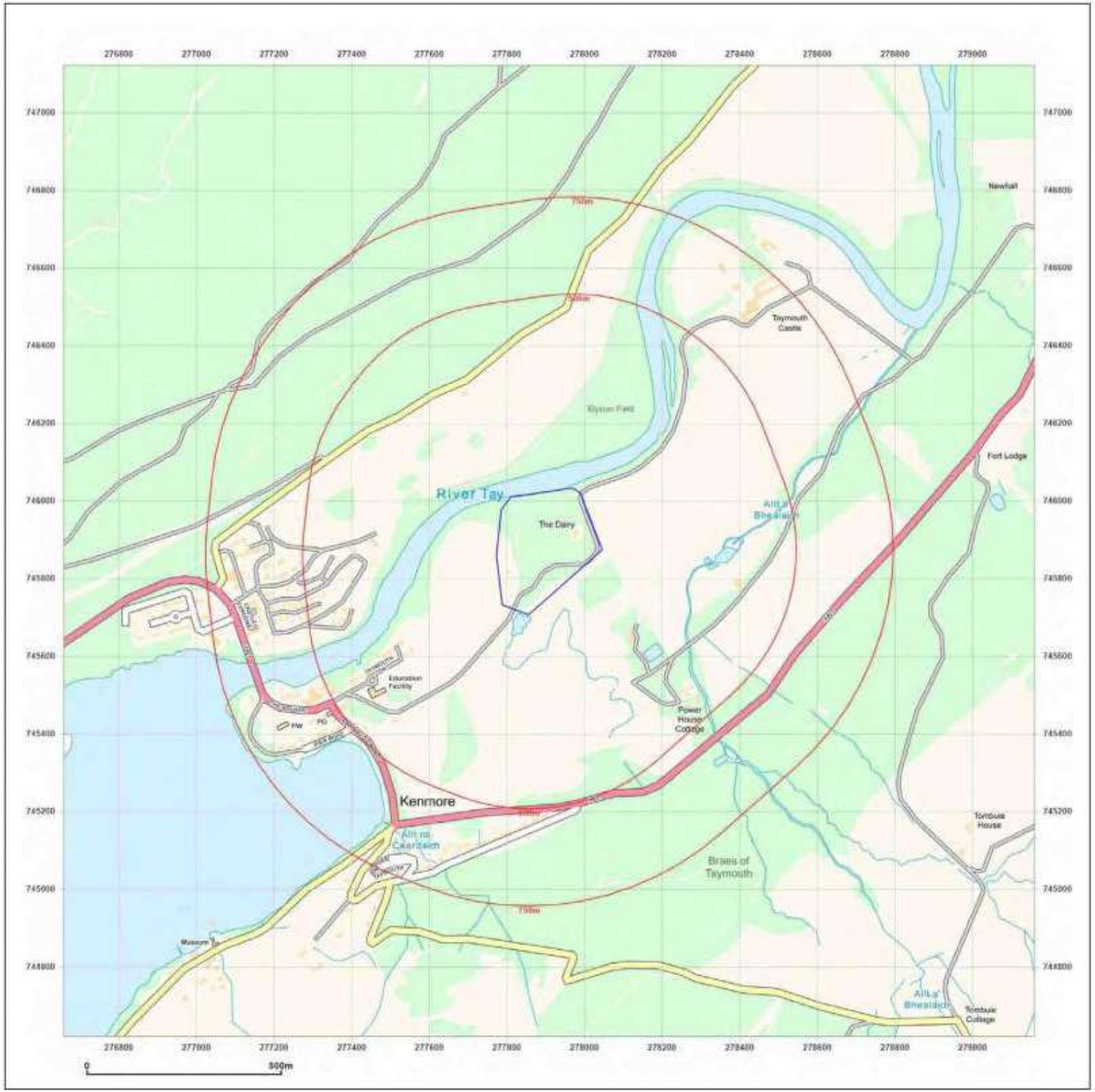
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843
Grid Ref: 277909, 745871

Map Name: National Grid
Map date: 2022
Scale: 1:10,000
Printed at: 1:10,000

N



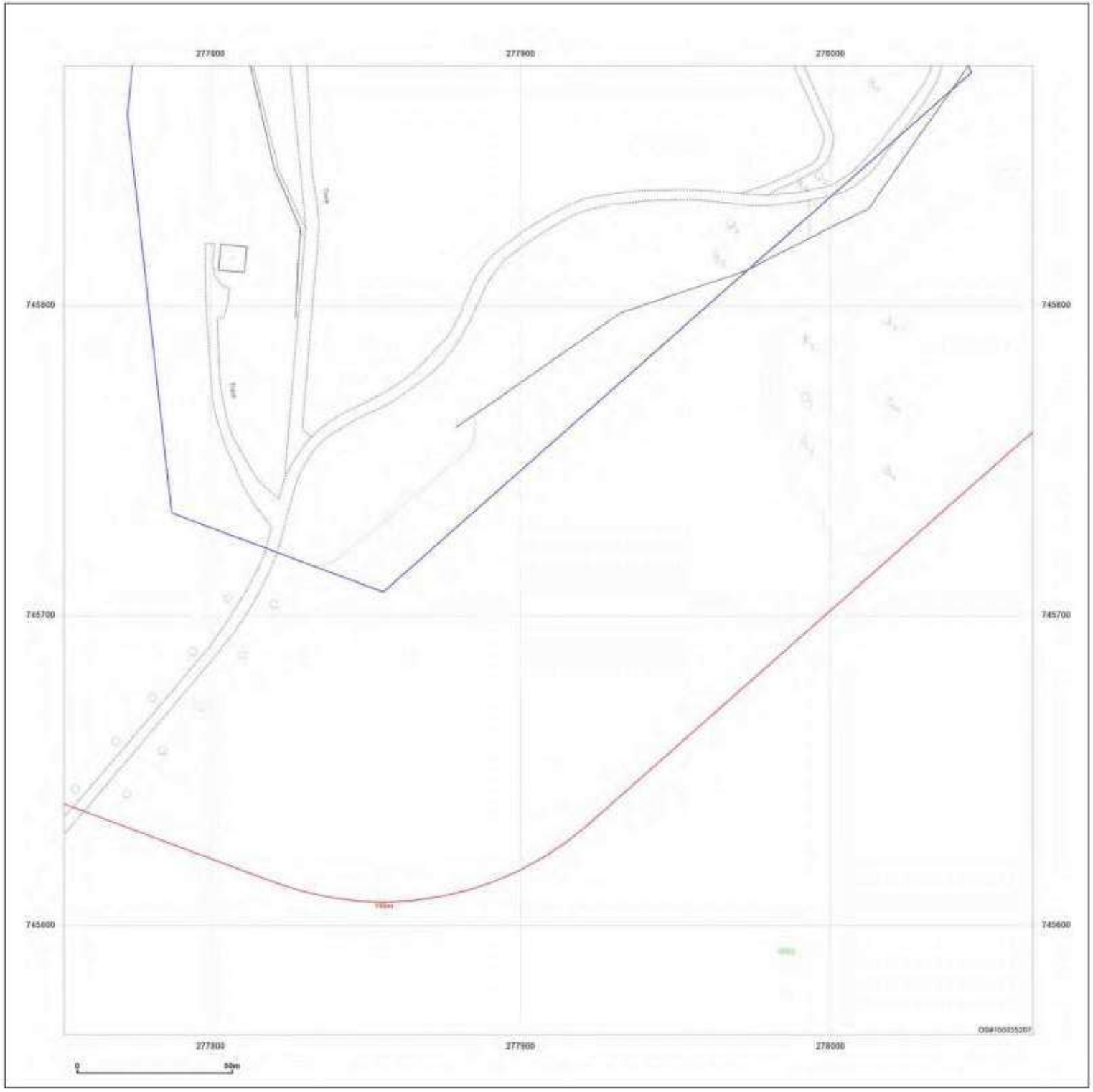
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_Landline_1_1
Grid Ref: 277909, 745721

Map Name: LandLine
Map date: 2003
Scale: 1:1,250
Printed at: 1:1,250

N
W
E
S



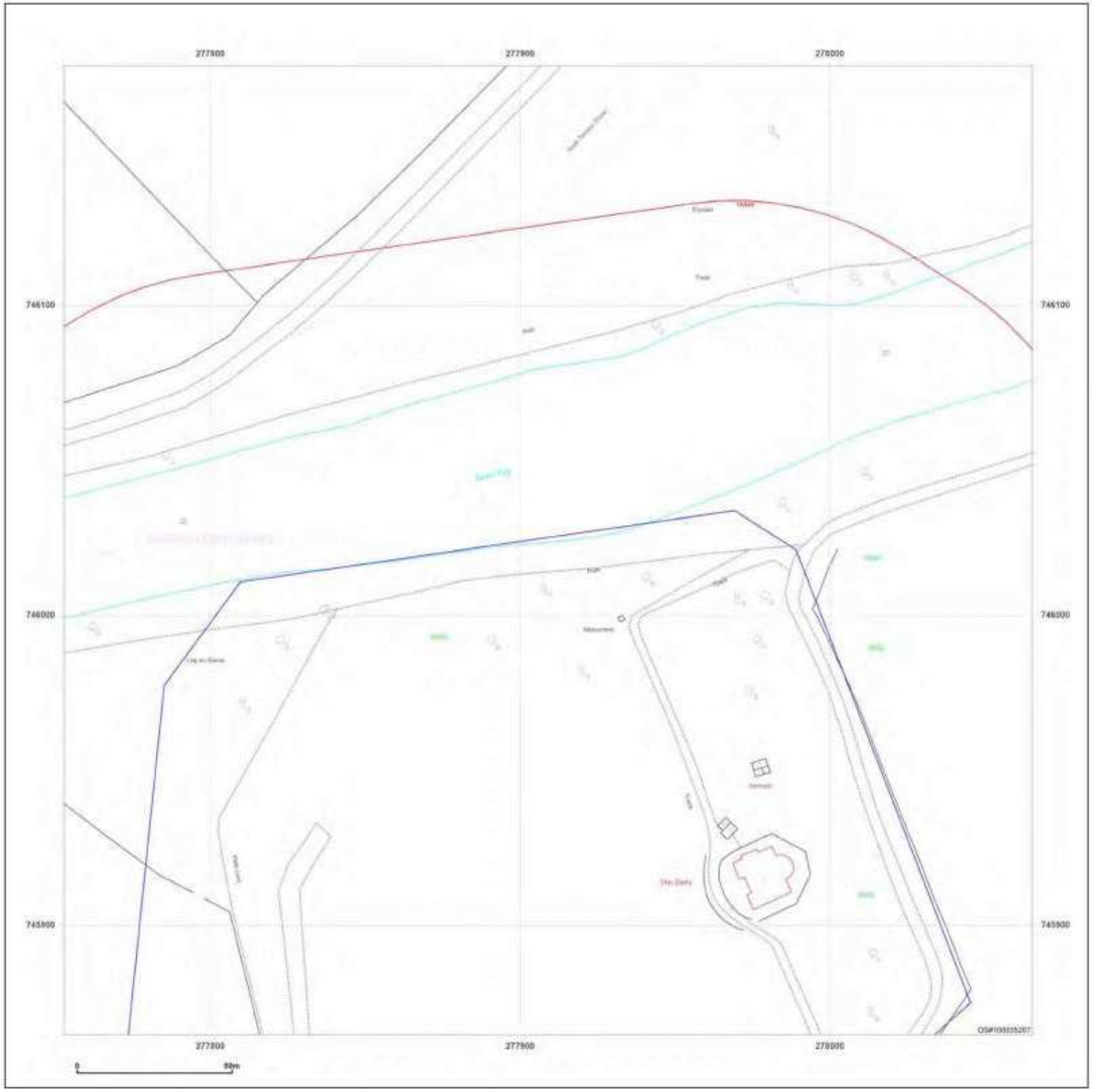
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_Landline_1_2
Grid Ref: 277909, 746021

Map Name: LandLine
Map date: 2003
Scale: 1:1,250
Printed at: 1:1,250

N
W E
S



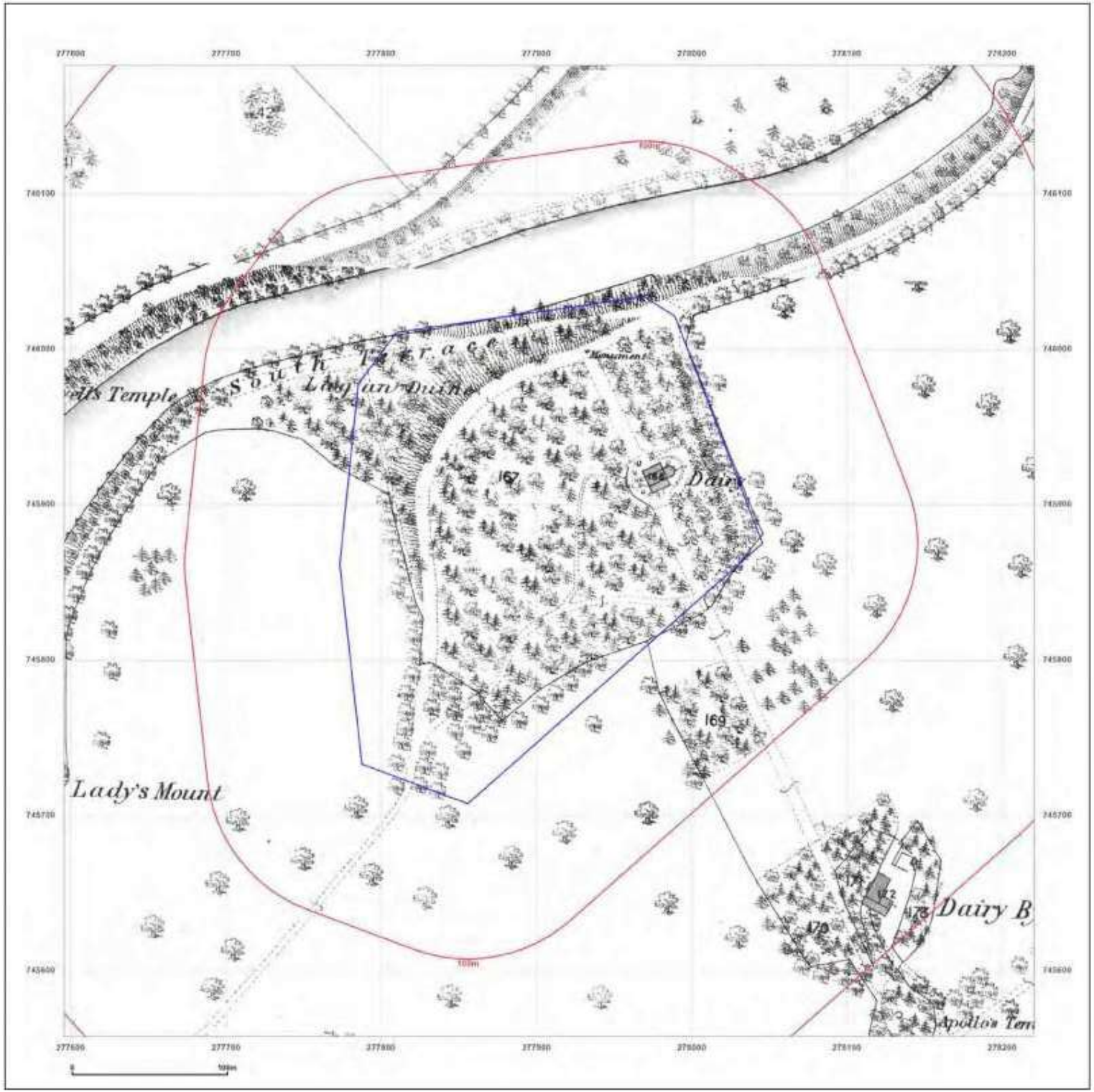
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

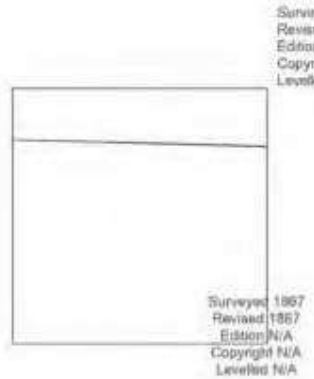
Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_2500
Grid Ref: 277908, 745870

Map Name: County Series
Map date: 1867
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



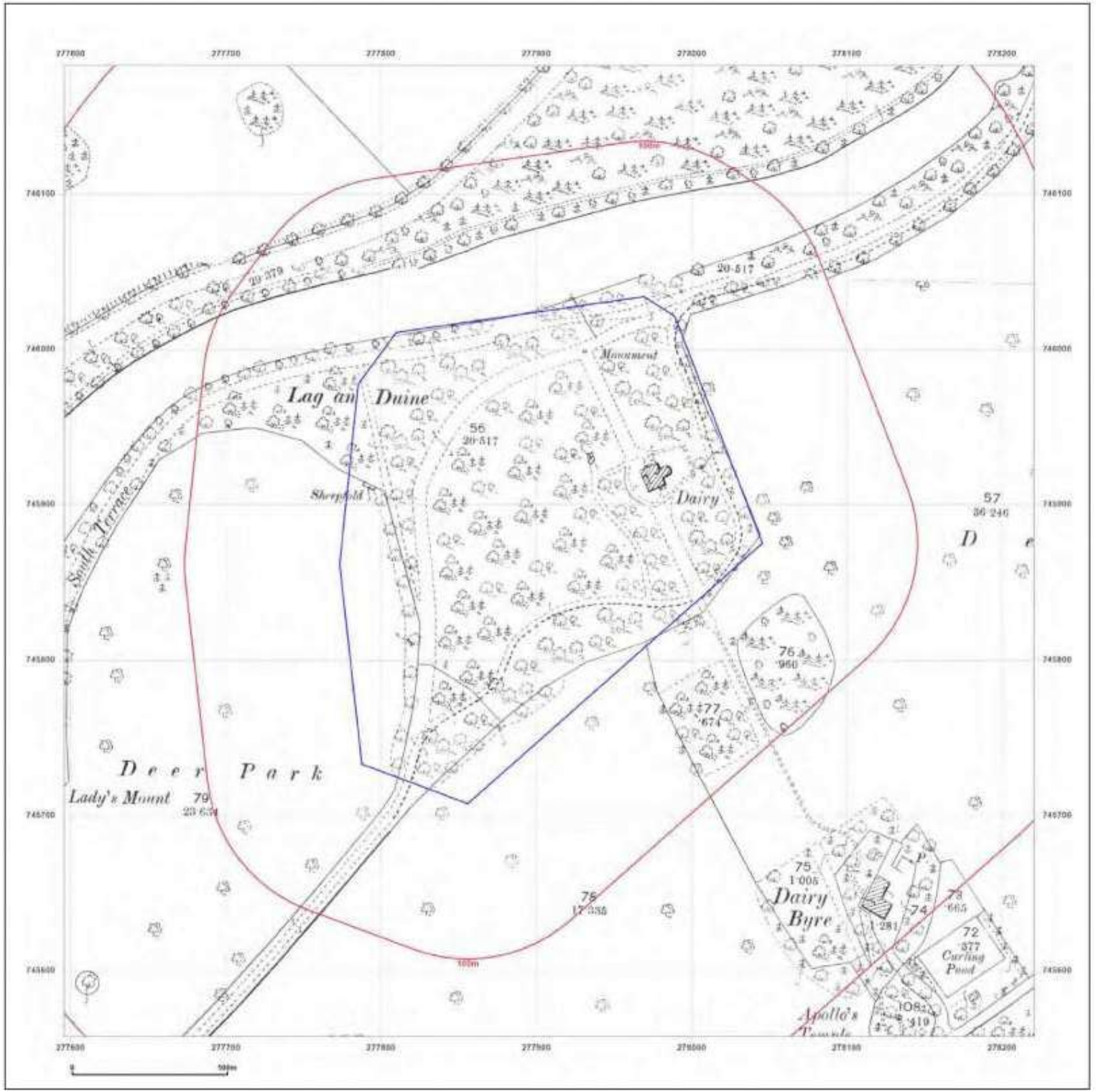
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

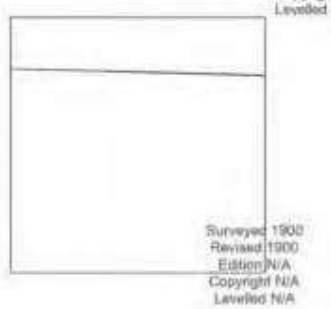
Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_2500
Grid Ref: 277908, 745870

Map Name: County Series
Map date: 1900
Scale: 1:2,500
Printed at: 1:2,500

N



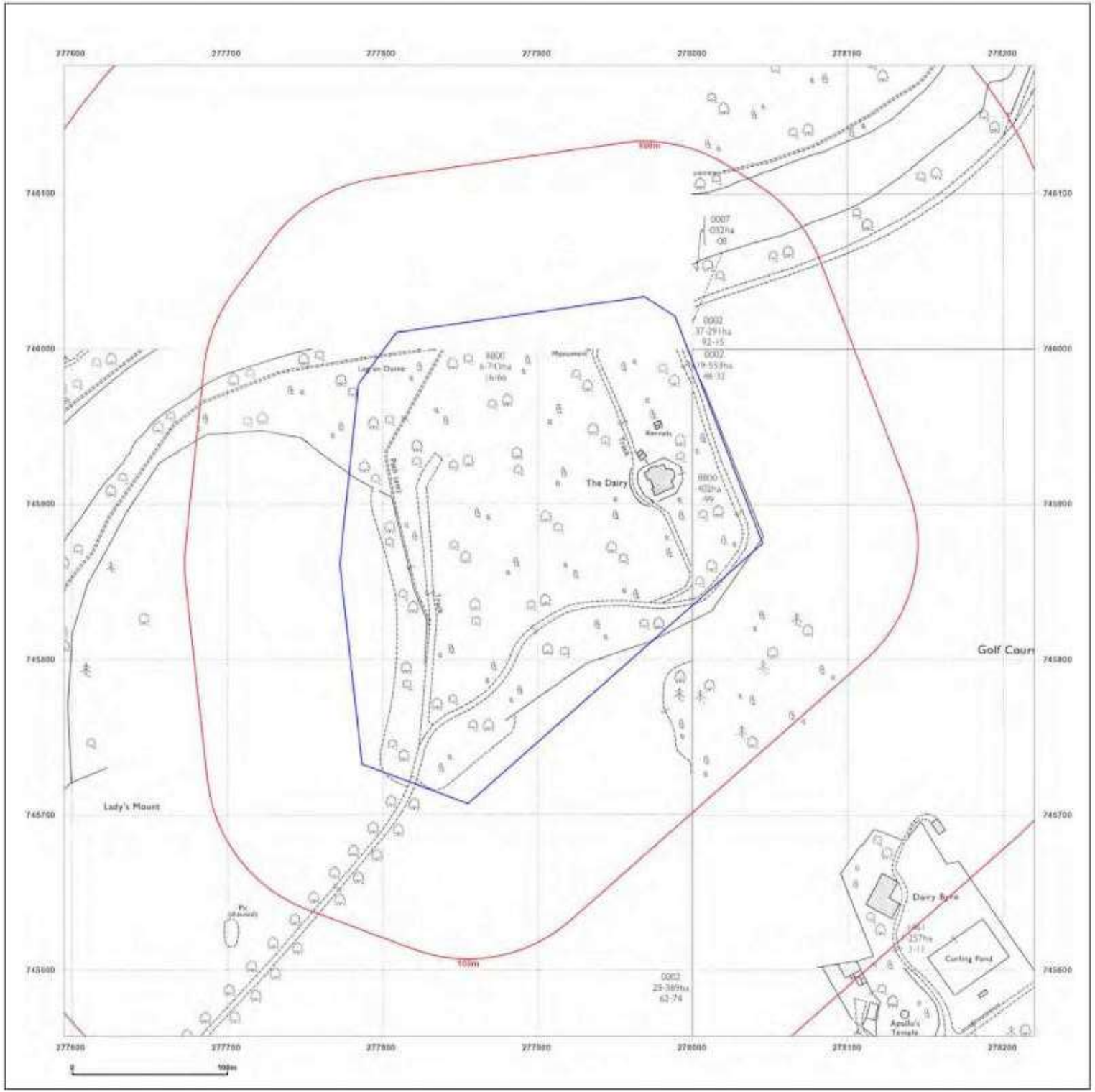
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

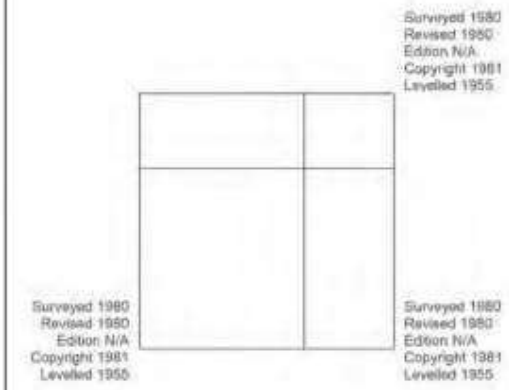
Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_2500
Grid Ref: 277908, 745870

Map Name: National Grid
Map date: 1981
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



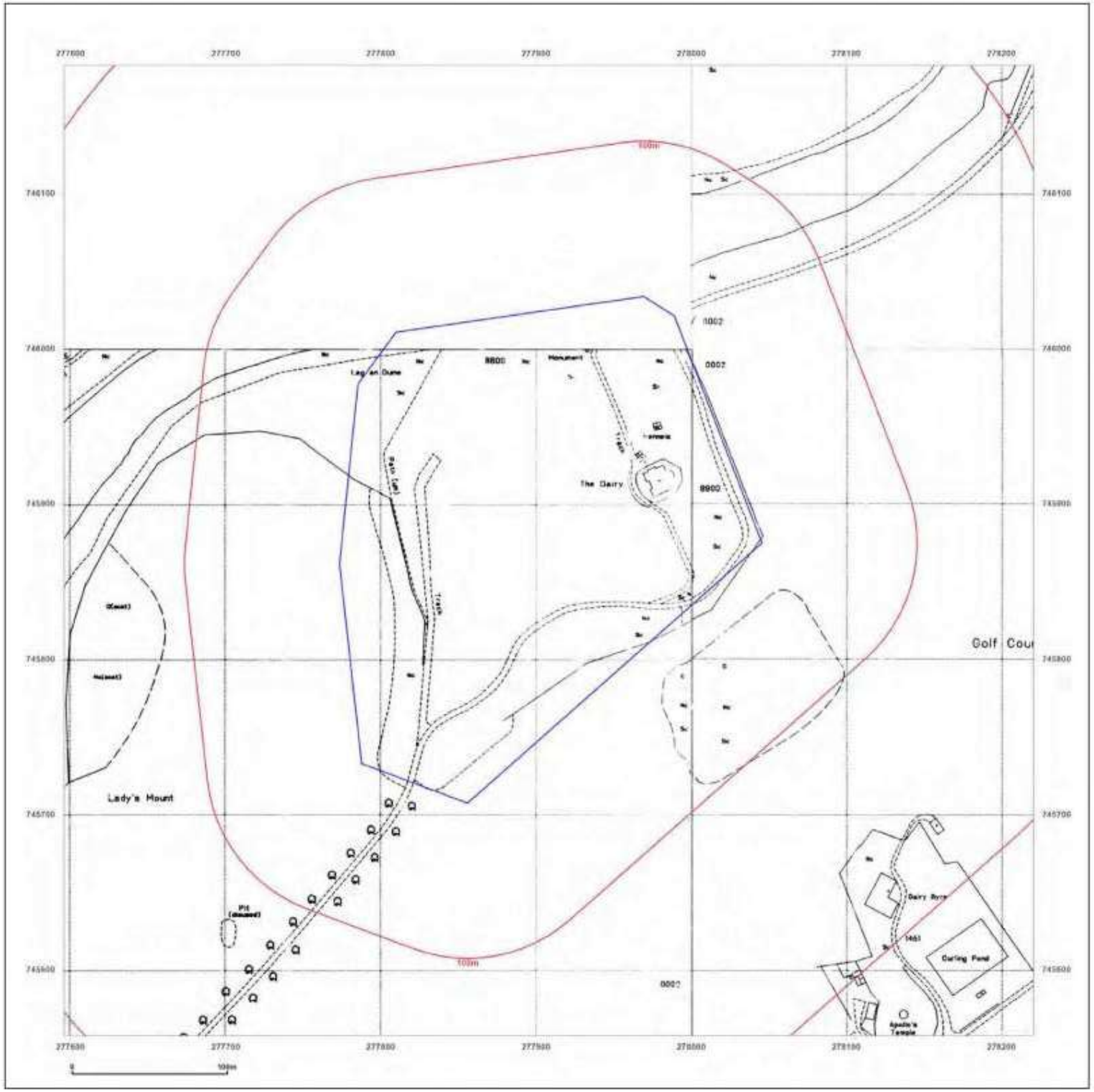
Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

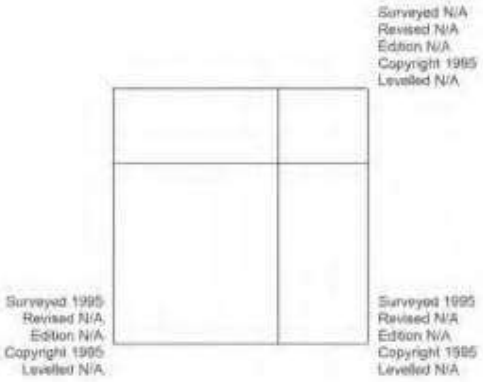
Site Details:

Taymouth Zone 4

Client Ref: 17877_z4
Report Ref: GS-9247843_2500
Grid Ref: 277908, 745870

Map Name: National Grid
Map date: 1995
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 07 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo
Insight

Taymouth Zone 4,

Order Details

Date: 07/12/2022

Your ref: 17877_z4

Our Ref: GS-9247844

Site Details

Location: 277885 745876

Area: 6.17 ha

Authority: Perth and Kinross Council



Summary of findings p. 2

OS MasterMap site plan p.11

Aerial image p. 7

groundsure.com/insightuserguide

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
12	1.1	Historical industrial land uses	2	0	2	5	-
13	1.2	Historical tanks	0	0	0	0	-
13	1.3	Historical energy features	0	0	0	1	-
14	1.4	Historical petrol stations	0	0	0	0	-
14	1.5	Historical garages	0	0	0	0	-
14	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
15	2.1	Historical industrial land uses	3	0	3	6	-
16	2.2	Historical tanks	0	0	0	0	-
16	2.3	Historical energy features	0	0	0	1	-
17	2.4	Historical petrol stations	0	0	0	0	-
17	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
18	3.1	Active or recent landfill	0	0	1	1	-
19	3.2	Historical landfill (BGS records)	0	0	0	0	-
19	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
19	3.4	Licensed waste sites	0	0	0	0	-
19	3.5	Historical waste sites	0	0	0	0	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
20	4.1	Recent industrial land uses	0	0	0	-	-
20	4.2	Current or recent petrol stations	0	0	0	0	-
20	4.3	Electricity cables	0	0	0	0	-
20	4.4	Gas pipelines	0	0	0	0	-
20	4.5	Sites determined as Contaminated Land	0	0	0	0	-
21	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
21	4.7	Regulated explosive sites	0	0	0	0	-

21	4.8	Hazardous substance storage/usage	0	0	0	0	-
21	4.9	Part A(1), IPPC and Historic IPC Authorisations	0	0	0	0	-
21	4.10	Part B Authorisations	0	0	0	0	-
22	4.11	Pollution inventory substances	0	0	0	0	-
22	4.12	Pollution inventory waste transfers	0	0	0	0	-
22	4.13	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
23	5.1	Superficial aquifer	Identified (within 500m)				
24	5.2	Bedrock aquifer	Identified (within 500m)				
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
25	6.1	Water Network (OS MasterMap)	0	3	7	-	-
26	6.2	Surface water features	1	2	4	-	-
Page	Section	River flooding					
27	7.1	River flooding	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Coastal flooding					
29	8.1	Coastal flooding	Negligible (within 50m)				
Page	Section	Surface water flooding					
30	9.1	Surface water flooding	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
32	10.1	Groundwater flooding	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
33	11.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
34	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
34	11.3	Special Areas of Conservation (SAC)	1	0	0	0	0
34	11.4	Special Protection Areas (SPA)	0	0	0	0	0
35	11.5	National Nature Reserves (NNR)	0	0	0	0	0
35	11.6	Local Nature Reserves (LNR)	0	0	0	0	0
35	11.7	Designated Ancient Woodland	0	0	1	3	22
36	11.8	Biosphere Reserves	0	0	0	0	0

37	11.9	Forest Parks	0	0	0	2	0
37	11.10	Marine Conservation Zones	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
38	12.1	World Heritage Sites	0	0	0	-	-
39	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
39	12.3	National Parks	0	0	0	-	-
39	12.4	Listed Buildings	2	0	2	-	-
40	12.5	Conservation Areas	0	0	0	-	-
40	12.6	Scheduled Ancient Monuments	0	0	0	-	-
40	12.7	Registered Parks and Gardens	1	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
41	13.1	Agricultural Land Classification	Grade 4.1 (within 250m)				
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
42	14.1	10k Availability	Identified (within 500m)				
43	14.2	Artificial and made ground (10k)	0	0	0	0	-
44	14.3	Superficial geology (10k)	0	0	0	0	-
44	14.4	Landslip (10k)	0	0	0	0	-
45	14.5	Bedrock geology (10k)	0	0	0	0	-
45	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
46	15.1	50k Availability	Identified (within 500m)				
47	15.2	Artificial and made ground (50k)	0	0	0	0	-
47	15.3	Artificial ground permeability (50k)	0	0	-	-	-
48	15.4	Superficial geology (50k)	2	0	2	1	-
49	15.5	Superficial permeability (50k)	Identified (within 50m)				
49	15.6	Landslip (50k)	0	0	0	0	-
49	15.7	Landslip permeability (50k)	None (within 50m)				
50	15.8	Bedrock geology (50k)	1	0	0	2	-
51	15.9	Bedrock permeability (50k)	Identified (within 50m)				

51	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
52	16.1	BGS Boreholes	0	0	1	-	-
Page	Section	Natural ground subsidence					
53	17.1	Shrink swell clays	Very low (within 50m)				
54	17.2	Running sands	Low (within 50m)				
56	17.3	Compressible deposits	Moderate (within 50m)				
58	17.4	Collapsible deposits	Very low (within 50m)				
59	17.5	Landslides	Moderate (within 50m)				
61	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
62	18.1	Natural cavities	0	0	0	0	-
63	18.2	BritPits	0	0	1	1	-
63	18.3	Surface ground workings	0	0	1	-	-
64	18.4	Underground workings	0	0	0	0	0
64	18.5	Historical Mineral Planning Areas	0	0	0	0	-
64	18.6	Non-coal mining	0	0	0	0	6
65	18.7	Mining cavities	0	0	0	0	0
65	18.8	JPB mining areas	None (within 0m)				
65	18.9	Coal mining	None (within 0m)				
65	18.10	Brine areas	None (within 0m)				
66	18.11	Gypsum areas	None (within 0m)				
66	18.12	Tin mining	None (within 0m)				
66	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
67	19.1	Radon	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
69	20.1	BGS Estimated Background Soil Chemistry	9	7	-	-	-
70	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-

70	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
71	21.1	Underground railways (London)	0	0	0	-	-
71	21.2	Underground railways (Non-London)	0	0	0	-	-
71	21.3	Railway tunnels	0	0	0	-	-
71	21.4	Historical railway and tunnel features	0	0	0	-	-
71	21.5	Royal Mail tunnels	0	0	0	-	-
72	21.6	Historical railways	0	0	0	-	-
72	21.7	Railways	0	0	0	-	-
72	21.8	Crossrail 1	0	0	0	0	-
72	21.9	Crossrail 2	0	0	0	0	-
72	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 25/08/2019

Site Area: 6.17ha

Recent site history - 2015 aerial photograph



Capture Date: 01/10/2015

Site Area: 6.17ha

Recent site history - 2011 aerial photograph



Capture Date: 12/05/2011

Site Area: 6.17ha

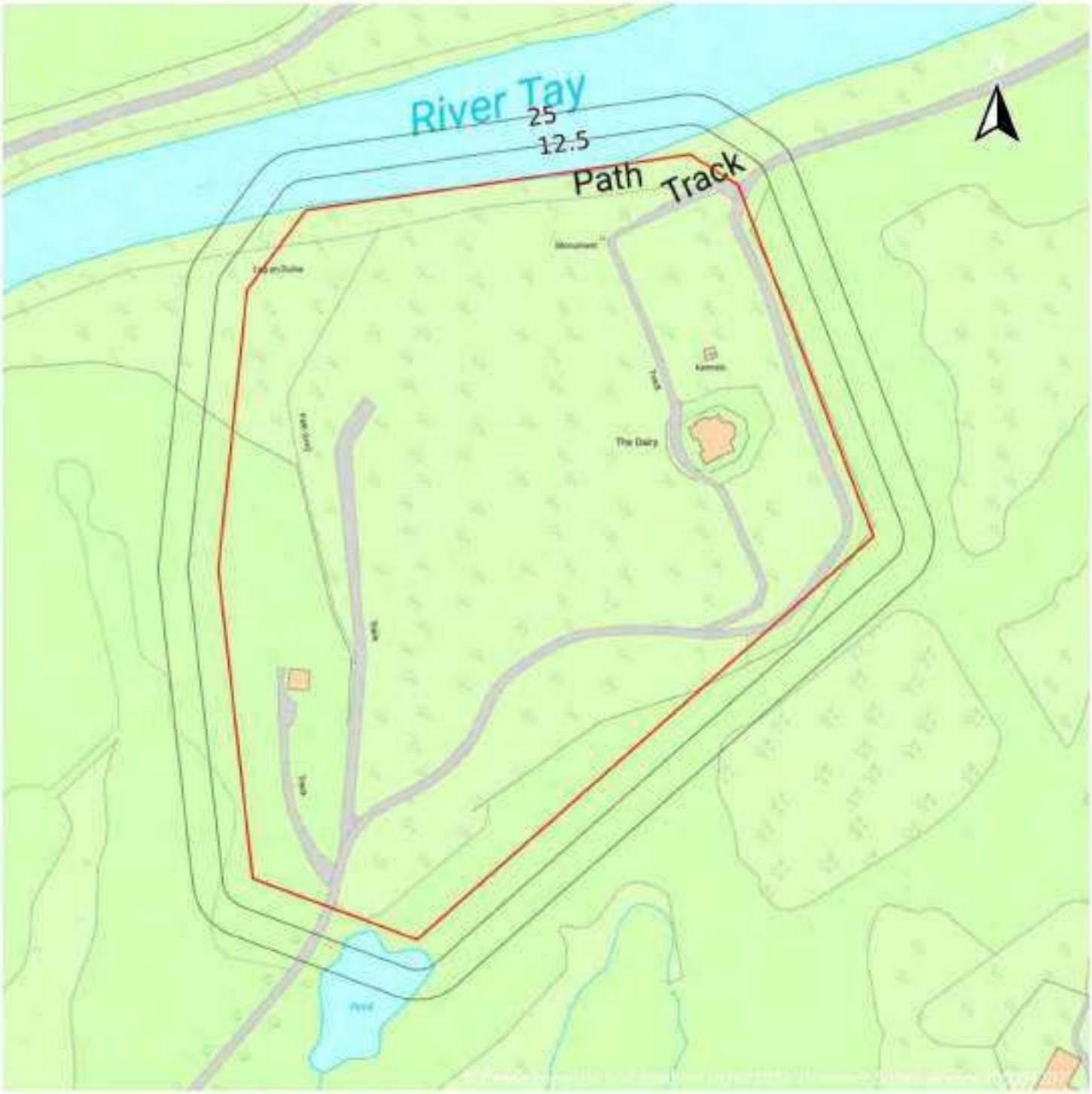
Recent site history - 2010 aerial photograph



Capture Date: 26/09/2010

Site Area: 6.17ha

OS MasterMap site plan



Site Area: 6.17ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical energy features

1.1 Historical industrial land uses

Records within 500m	9

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
A	On site	Dairy	1862 - 1900	77417

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Dairy**	**1980**	**78697**
1	128m SW	Unspecified Disused Pit	1980	75375
2	207m SE	Dairy	1862 - 1900	77268
3	278m SW	Unspecified Ground Workings	1862	72590
4	395m SW	Boat House	1900	75857
5	415m SE	Sawmill	1862 - 1900	78052
6	428m SE	Disused Saw Mill	1980	73646
8	477m N	Tunnel	1980	75547

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	1

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
7	477m SW	Electricity Substation	1980	3878

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical energy features

2.1 Historical industrial land uses

Records within 500m	12

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 15**

ID	Location	Land Use	Date	Group ID
A	On site	Dairy	1900	77417
A	On site	Dairy	1862	77417
A	On site	Dairy	1980	78697

ID	Location	Land Use	Date	Group ID
1	128m SW	Unspecified Disused Pit	1980	75375
B	207m SE	Dairy	1900	77268
B	215m SE	Dairy	1862	77268
2	278m SW	Unspecified Ground Workings	1862	72590
3	395m SW	Boat House	1900	75857
C	415m SE	Sawmill	1900	78052
C	417m SE	Sawmill	1862	78052
C	428m SE	Disused Saw Mill	1980	73646
5	477m N	Tunnel	1980	75547

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	0

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	1

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 15**

ID	Location	Land Use	Date	Group ID
4	477m SW	Electricity Substation	1980	3878

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	0

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Active or recent landfill point

3.1 Active or recent landfill

Records within 500m	2

Active or recently closed landfill sites under Scottish Environment Protection (SEPA) regulation.

Features are displayed on the Waste and landfill map on **page 18**

ID	Location	Address	Details
1	180m SW	Name: Mains Of Taymouth, Kenmore, Ph15 2hn	Licence number: PPC/E/20049 Waste type: Inert Wastes - Ec Code 10 11 03 Waste Glass Based Fibrous Materials, 15 01 07 - Glass Packaging, 17 01 01 Concrete, 17 01 02 Bricks, 17 01 03 Tiles & Ceramics, 17 02 02 Glass, 17 05 04 Soil & Stones Excluding Topsoil & Peat, 20 01 02 Glass, 20 02 02 Facility type: -

ID	Location	Address	Details
2	492m W	Name: Mains Of Taymouth, Kenmore, Ph15 2hn	Licence number: PPC/E/20049 - 11/11/04 Waste type: Inert Wastes - Ec Code 10 11 03 Waste Glass Based Fibrous Materials, 15 01 07 - Glass Packaging, 17 01 01 Concrete, 17 01 02 Bricks, 17 01 03 Tiles & Ceramics, 17 02 02 Glass, 17 05 04 Soil & Stones Excluding Topsoil & Peat, 20 01 02 Glass, 20 02 02 Facility type: Landfill

This data is sourced from the Scottish Environment Protection Agency.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Licensed waste sites

Records within 500m	0

Active or recently closed waste sites under Scottish Environment Protection Acency (SEPA) regulation.

This data is sourced from the Scottish Environment Protection Agency.

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

4 Current industrial land use

4.1 Recent industrial land uses

Records within 250m	0

Current potentially contaminative industrial sites.

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Part A(1), IPPC and Historic IPC Authorisations

Records within 500m	0

Records of Part A installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.

4.10 Part B Authorisations

Records within 500m	0

Records of Part B installations regulated for the release of substances to the environment.

This data is sourced from the Scottish Environment Protection Agency.

4.11 Pollution inventory substances

Records within 500m	0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.12 Pollution inventory waste transfers

Records within 500m	0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.13 Pollution inventory radioactive waste

Records within 500m	0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

Limited or local potential

Locally important - intergranular

5.1 Superficial aquifer

Records within 500m	1

Records of groundwater classification within superficial geology.

Features are displayed on the Hydrogeology map on **page 23**

ID	Location	Description	Type	Rock description
1	On site	**Concealed aquifers, aquifers of limited potential, regions without significant groundwater**	**Concealed aquifers; aquifers with limited or local potential**	**Quaternary Coastal and Fluviatile Alluvium**

This data is sourced from the British Geological Survey.

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Highly productive - fissures/discontinuities
- Highly productive - intergranular
- Moderately productive - fissures/discontinuities
- Moderately productive - intergranular
- Low productive - fissures/discontinuities
- Low productive - intergranular
- No significant groundwater

5.2 Bedrock aquifer

Records within 500m	1

Records of groundwater classification within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 24**

ID	Location	Description	Flow	Summary	Rock description
1	On site	Low productivity aquifer	Flow is virtually all through fractures and other discontinuities	Small amounts of groundwater in near surface weathered zone and secondary fractures.	SOUTHERN HIGHLAND GROUP

This data is sourced from the British Geological Survey.

6 Hydrology



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

6.1 Water Network (OS MasterMap)

Records within 250m	10

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 25**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	21m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Tay

ID	Location	Type of water feature	Ground level	Permanence	Name
A	25m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	49m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	65m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	82m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	86m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	105m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	139m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	143m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	237m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Allt a' Bhealaich

This data is sourced from the Ordnance Survey.

6.2 Surface water features

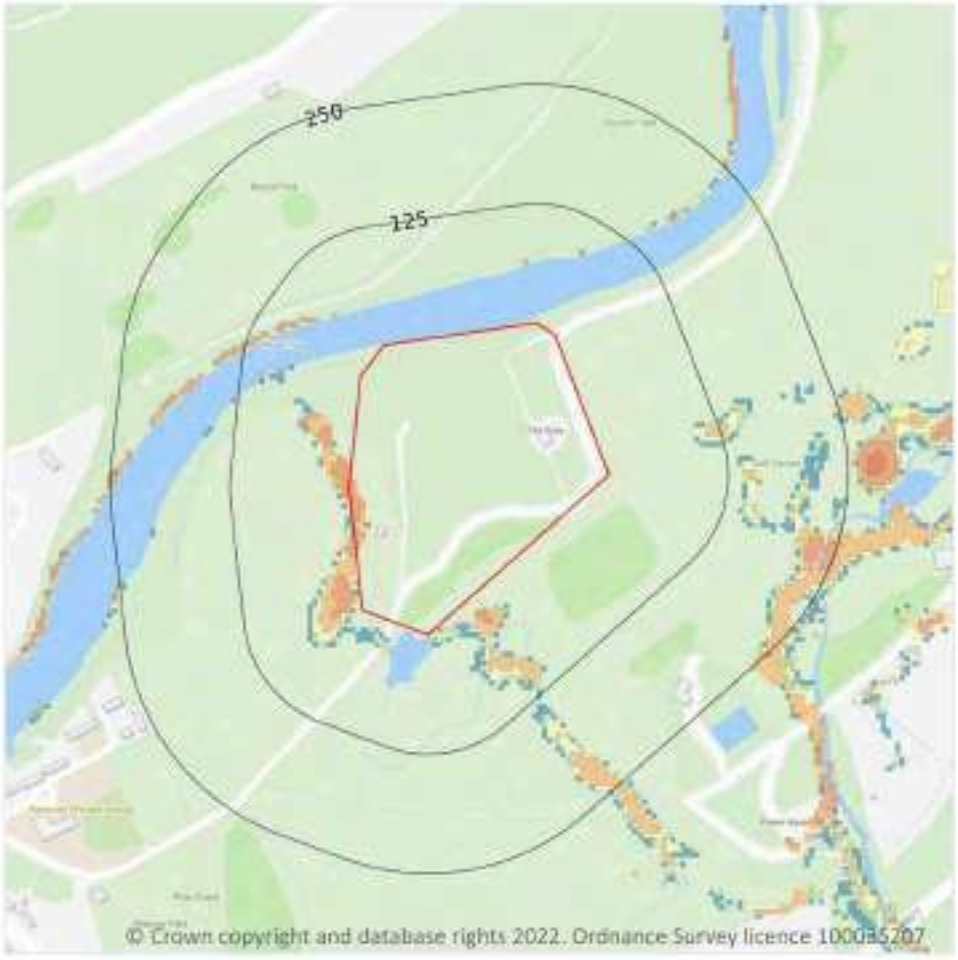
Records within 250m	7

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 25**

This data is sourced from the Ordnance Survey.

7 River flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

7.1 River flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

This is an assessment of flood risk for rivers in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of flooding from rivers presented in the following categories:

- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)

- and 1 in 1,000 year (0.1%)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Features are displayed on the River flooding map on **page 27**

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

8 Coastal flooding - Coastal flooding

8.1 Coastal flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

This is an assessment of coastal flood risk in Scotland produced using modelled data, provided by Ambiental Risk Analytics. It also takes account of flood defence information provided by the Scottish Environment Protection Agency (SEPA). It shows the chance of coastal flooding presented in the following categories:

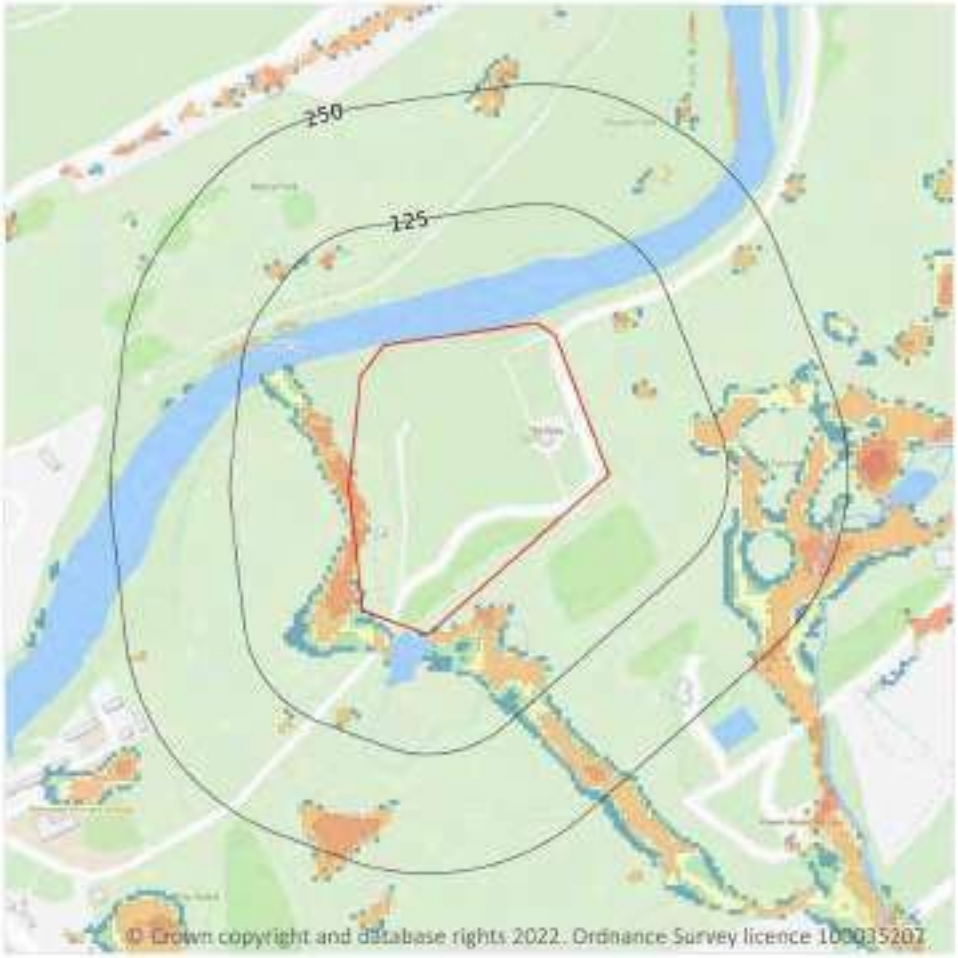
- 1 in 30 year (3.33%)
- 1 in 100 year (1%)
- 1 in 250 year (0.4%)
- and 1 in 1,000 year (0.1%)

The data shown on the map shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Surface water flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

9.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 30**.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

10 Groundwater flooding





10.1 Groundwater flooding

Highest risk on site	**Low**
Highest risk within 50m	**Low**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 32**

This data is sourced from Ambiental Risk Analytics.

11 Environmental designations



Site Outline

Search buffers in metres (m)

Special Areas of Conservation (SAC)

Designated Ancient Woodland

Forest Parks

11.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 Special Areas of Conservation (SAC)

Records within 2000m	1

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

Features are displayed on the Environmental designations map on **page 33**

ID	Location	Name	Features of interest	Habitat description	Data source
1	On site	River Tay	Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels; Sea lamprey; Brook lamprey; River lamprey; Atlantic salmon; Otter.	Inland water bodies (Standing water, Running water); Shingle, Sea cliffs, Islets; Bogs, Marshes, Water fringed vegetation, Fens	Scottish Natural Heritage

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.7 Designated Ancient Woodland

Records within 2000m	26

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 33**

ID	Location	Name	Woodland Type
2	64m N	Unknown	Ancient (of semi-natural origin)
3	327m NW	Unknown	Long-Established (of plantation origin)
6	418m S	Unknown	Long-Established (of plantation origin)
7	459m E	Unknown	Ancient (of semi-natural origin)
8	601m S	Unknown	Long-Established (of plantation origin)
9	617m E	Unknown	Ancient (of semi-natural origin)
10	620m W	Unknown	Long-Established (of plantation origin)
11	648m W	Unknown	Ancient (of semi-natural origin)
12	919m E	Unknown	Ancient (of semi-natural origin)
13	1076m NE	Unknown	Ancient (of semi-natural origin)

ID	Location	Name	Woodland Type
14	1076m NE	Unknown	Long-Established (of plantation origin)
15	1194m SW	Unknown	Ancient (of semi-natural origin)
16	1209m NE	Unknown	Ancient (of semi-natural origin)
17	1327m NE	Unknown	Ancient (of semi-natural origin)
18	1472m NE	Unknown	Other (on Roy map)
19	1511m SW	Unknown	Ancient (of semi-natural origin)
20	1654m NE	Unknown	Ancient (of semi-natural origin)
-	1667m NE	Unknown	Long-Established (of plantation origin)
-	1699m E	Unknown	Long-Established (of plantation origin)
-	1782m NE	Unknown	Long-Established (of plantation origin)
-	1818m NW	Unknown	Other (on Roy map)
-	1830m NE	Unknown	Long-Established (of plantation origin)
-	1831m E	Unknown	Ancient (of semi-natural origin)
-	1861m NW	Unknown	Ancient (of semi-natural origin)
-	1994m E	Tullichuil Wood	Long-Established (of plantation origin)
-	1994m NW	Unknown	Ancient (of semi-natural origin)

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.9 Forest Parks

Records within 2000m	2

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

Features are displayed on the Environmental designations map on **page 33**

ID	Location	Name
4	329m NW	Tay
5	333m NW	Tay

This data is sourced from the Forestry Commission.

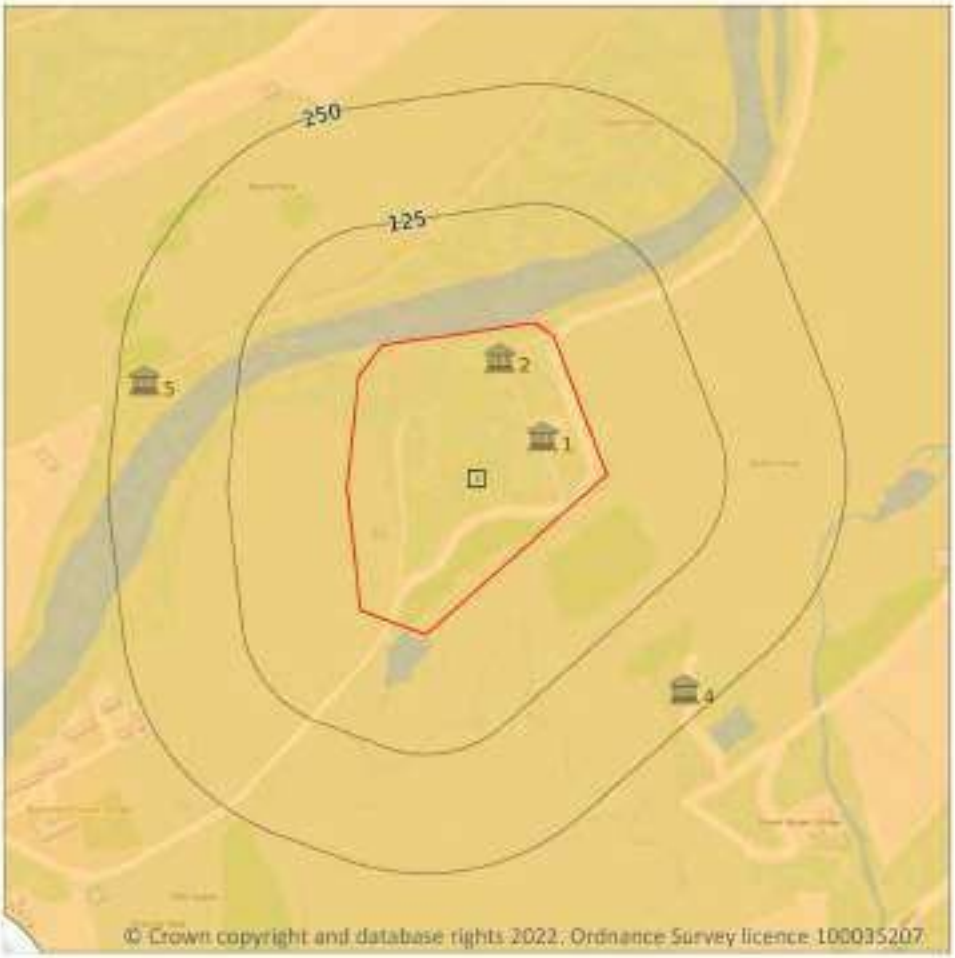
11.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

12.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

12.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

12.4 Listed Buildings

Records within 250m	4

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on **page 38**

ID	Location	Name	Grade	Reference Number	Listed date
1	**On site**	**Dairy, Taymouth Castle, Perth and Kinross**	**A**	**344765**	**05/10/1971**
2	**On site**	**Urn, Dairy Drive, Perth and Kinross**	**B**	**347014**	**05/10/1971**
4	221m SE	Dairy Byre, Taymouth Castle, Perth and Kinross	B	391722	23/02/1998
5	223m W	Maxwell's Temple, Taymouth Castle, Perth and Kinross	A	347013	05/10/1971

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12.7 Registered Parks and Gardens

Records within 250m	1

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

Features are displayed on the Visual and cultural designations map on **page 38**

ID	Location	Name	Grade
3	On site	Taymouth Castle	-

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

13 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 4 - good quality
- Grade 5 - moderate quality
- Grade 6 - poor quality
- Grade 7 - very poor quality

13.1 Agricultural Land Classification

Records within 250m	2

Classification of the quality of agricultural land taking into consideration multiple factors inclusing climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 41**

ID	Location	Classification	Description
1	**On site**	**Grade 4.1**	**Land Suited to Arable Cropping**
3	55m NW	Grade 4.1	Land Suited to Arable Cropping

This data is sourced from the James Hutton Institute.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 42**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 46**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**No coverage**	**Full**	**Full**	**No coverage**	**SC055w_Schiehallion_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m	0

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

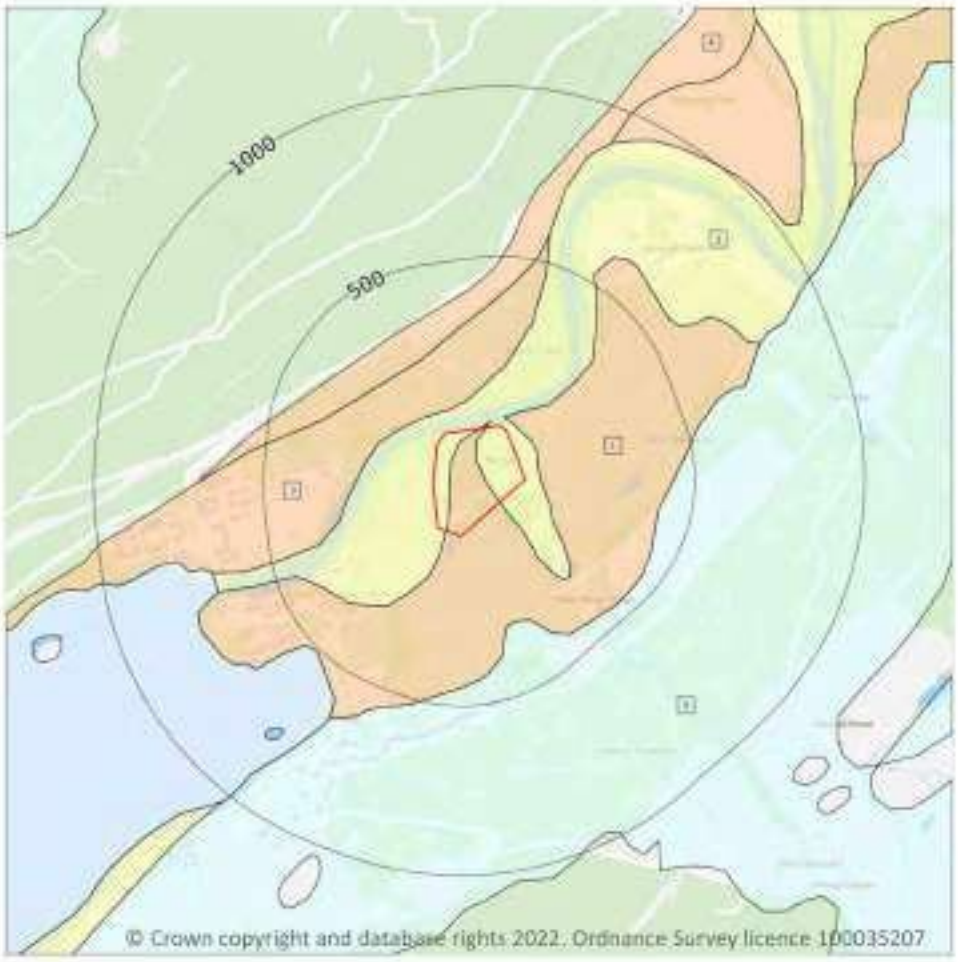
15.3 Artificial ground permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m **5**

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 48**

ID	Location	LEX Code	Description	Rock description
1	On site	RTDU-XVSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND, SILT AND CLAY
2	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	64m NW	RTDU-XVSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND, SILT AND CLAY

ID	Location	LEX Code	Description	Rock description
4	222m NW	RTDU-XVSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	GRAVEL, SAND, SILT AND CLAY
5	298m S	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	Very Low
On site	Intergranular	Very High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m	0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m	3

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 50**

ID	Location	LEX Code	Description	Rock age
1	On site	DCPS-PSSP	PITLOCHRY SCHIST FORMATION - PSAMMITE AND SEMIPELITE	-
2	329m NW	UIPC-AMPHB	UNNAMED IGNEOUS INTRUSION, PRE-CALEDONIAN - AMPHIBOLITE	-

ID	Location	LEX Code	Description	Rock age
3	398m NW	UIPC-AMPHB	UNNAMED IGNEOUS INTRUSION, PRE-CALEDONIAN - AMPHIBOLITE	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Low**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes



Site Outline

Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m	1

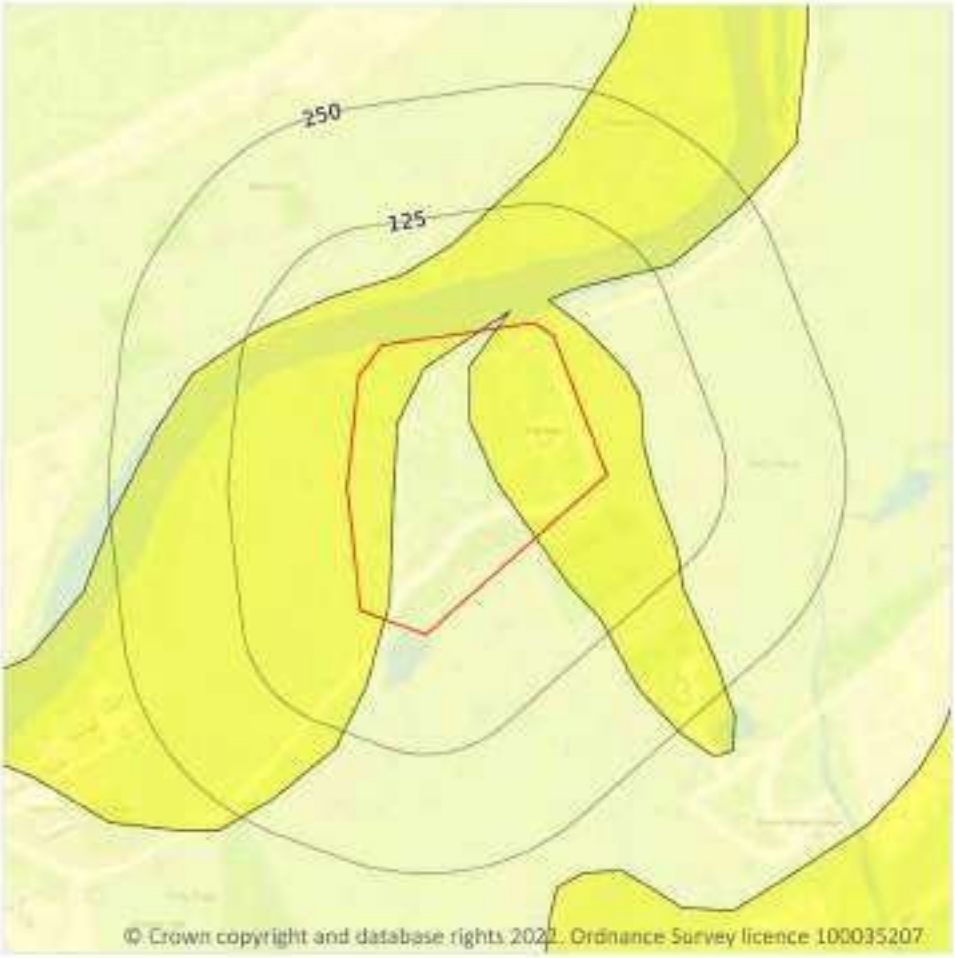
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 52**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	121m SW	277700 745650	KENMORE BH	-	Y	N/A

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays





17.1 Shrink swell clays

Records within 50m	2

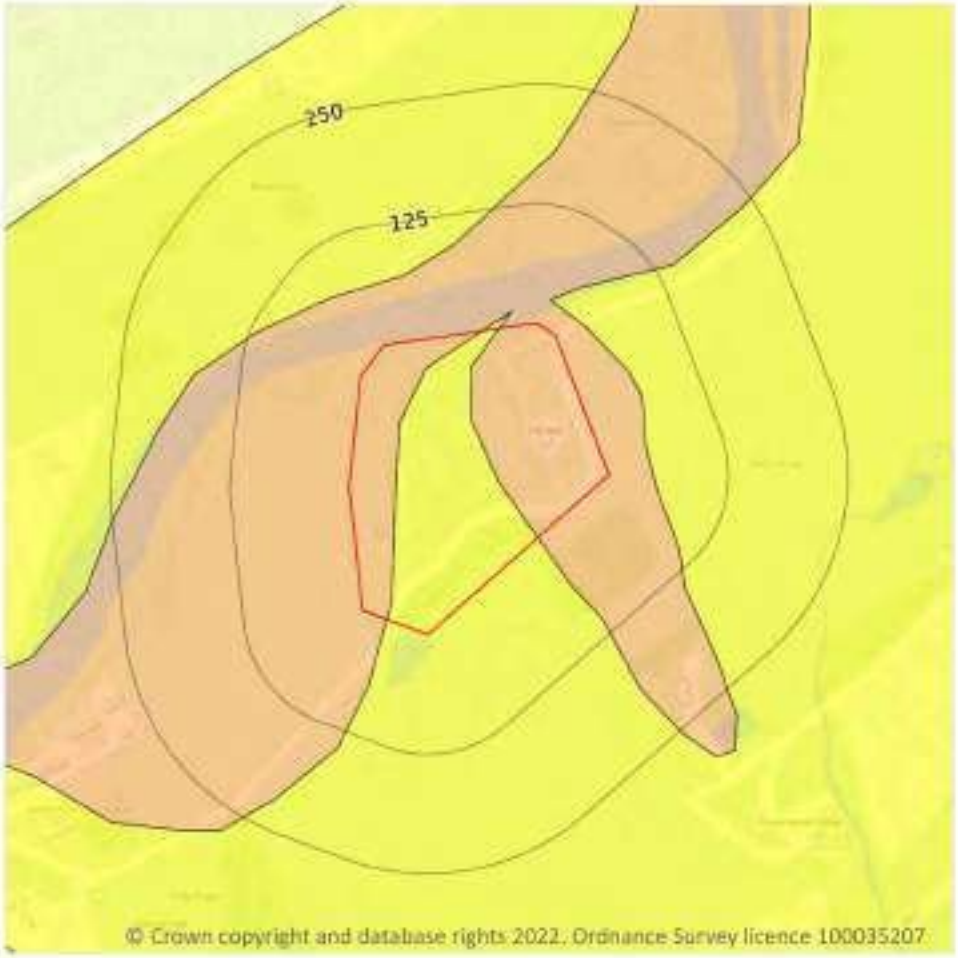
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 53**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline
Search buffers in metres (m)
No data
Negligible
Very low
Low
Moderate
High

17.2 Running sands

Records within 50m	2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

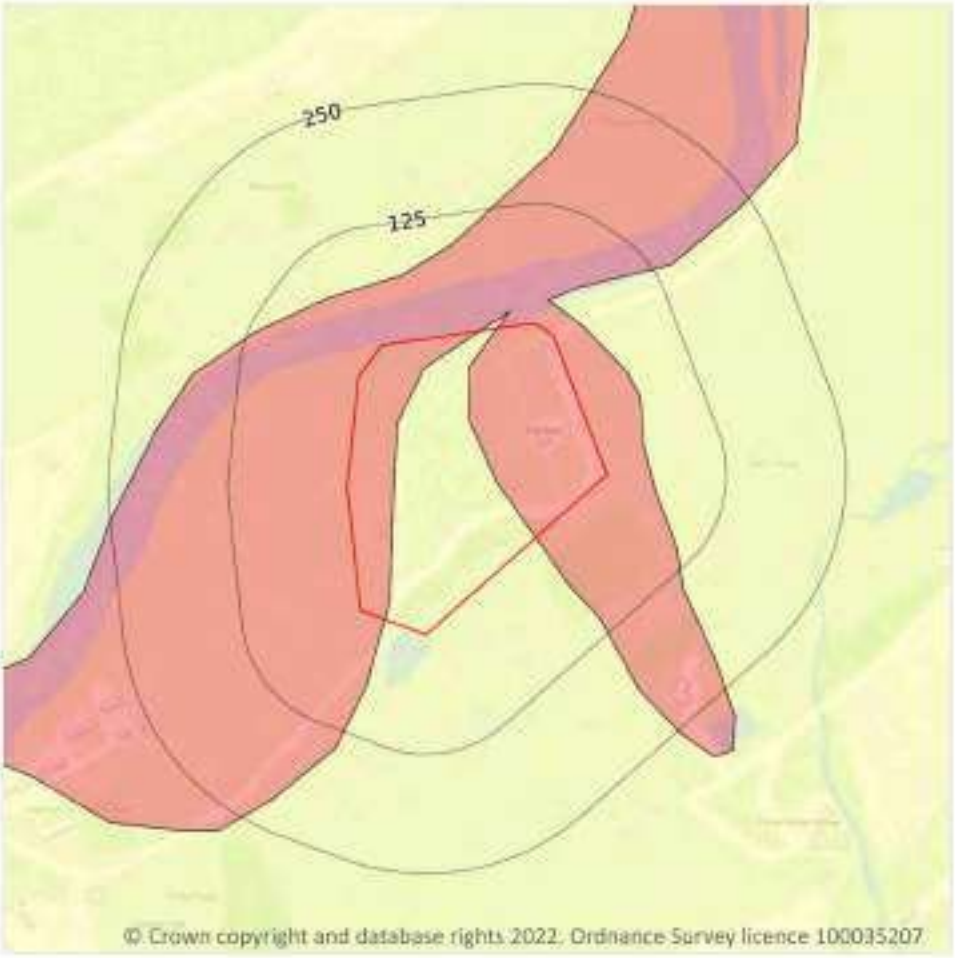
Features are displayed on the Natural ground subsidence - Running sands map on **page 54**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

Location	Hazard rating	Details
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline
Search buffers in metres (m)
No data
Negligible
Very low
Low
Moderate
High

17.3 Compressible deposits

Records within 50m	2

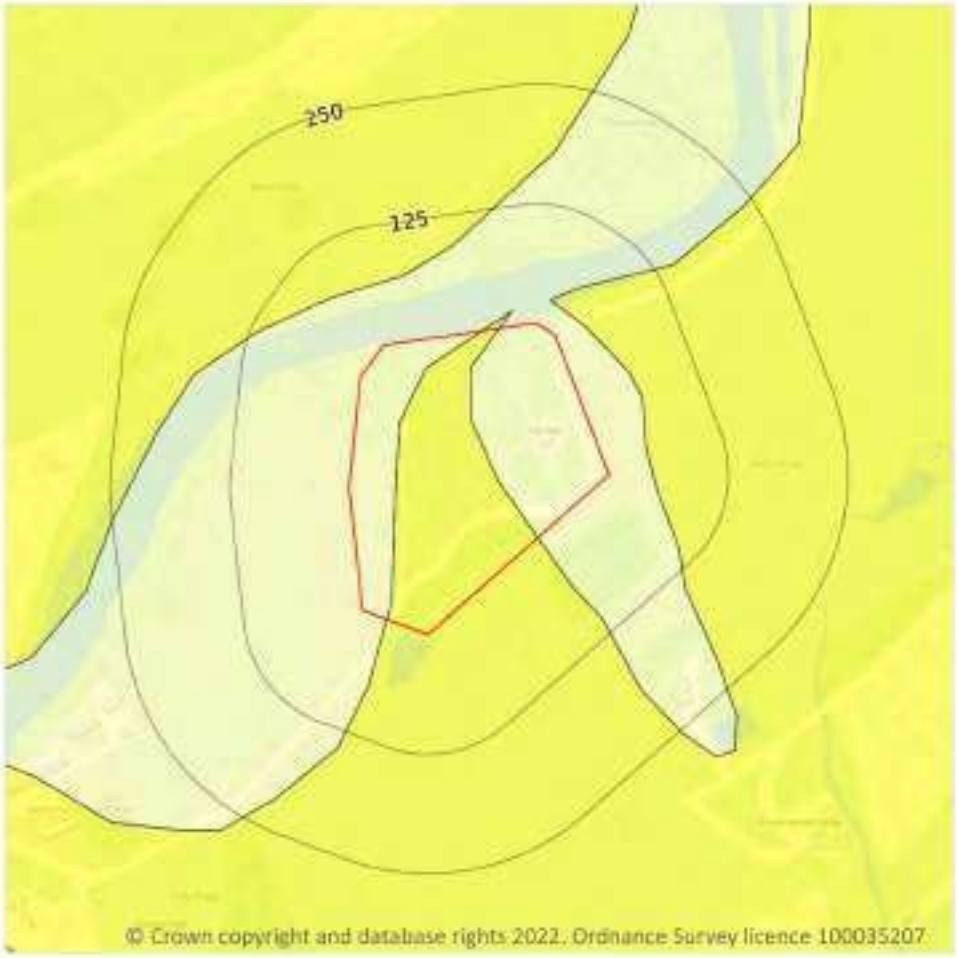
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 56**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline
Search buffers in metres (m)
No data
Negligible
Very low
Low
Moderate
High

17.4 Collapsible deposits

Records within 50m	2

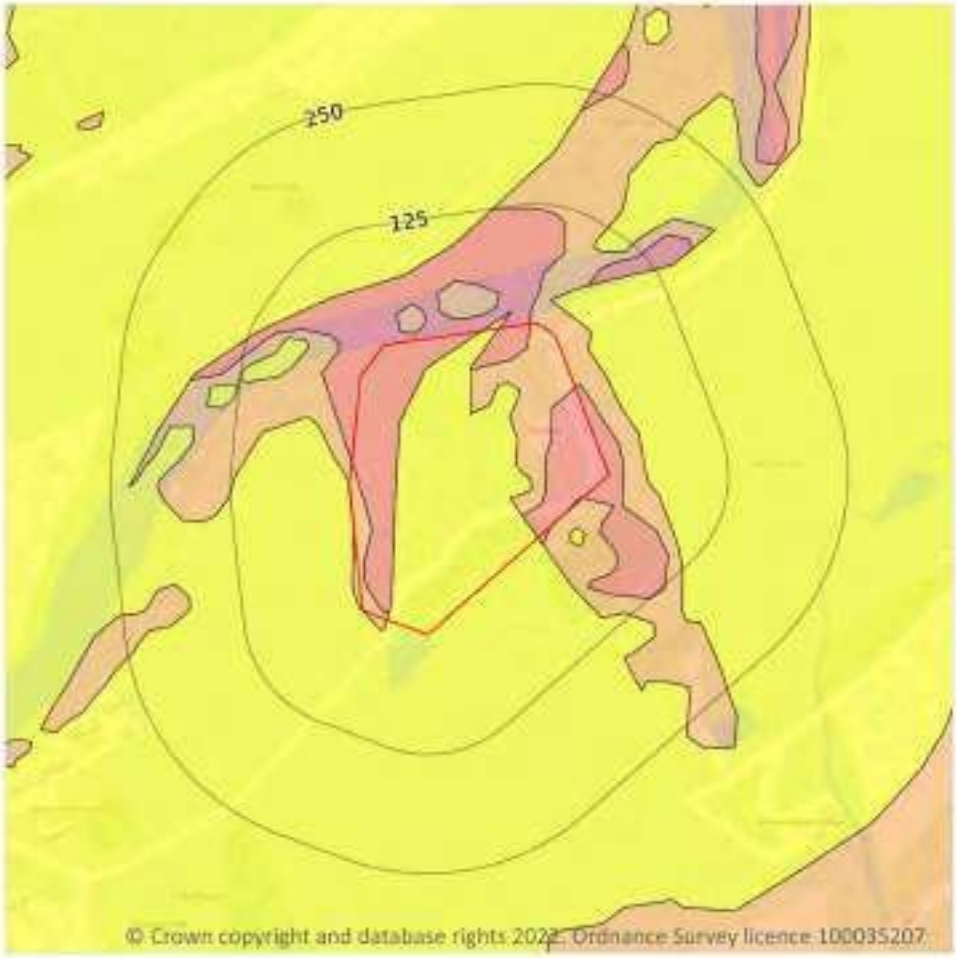
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 58**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	6

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

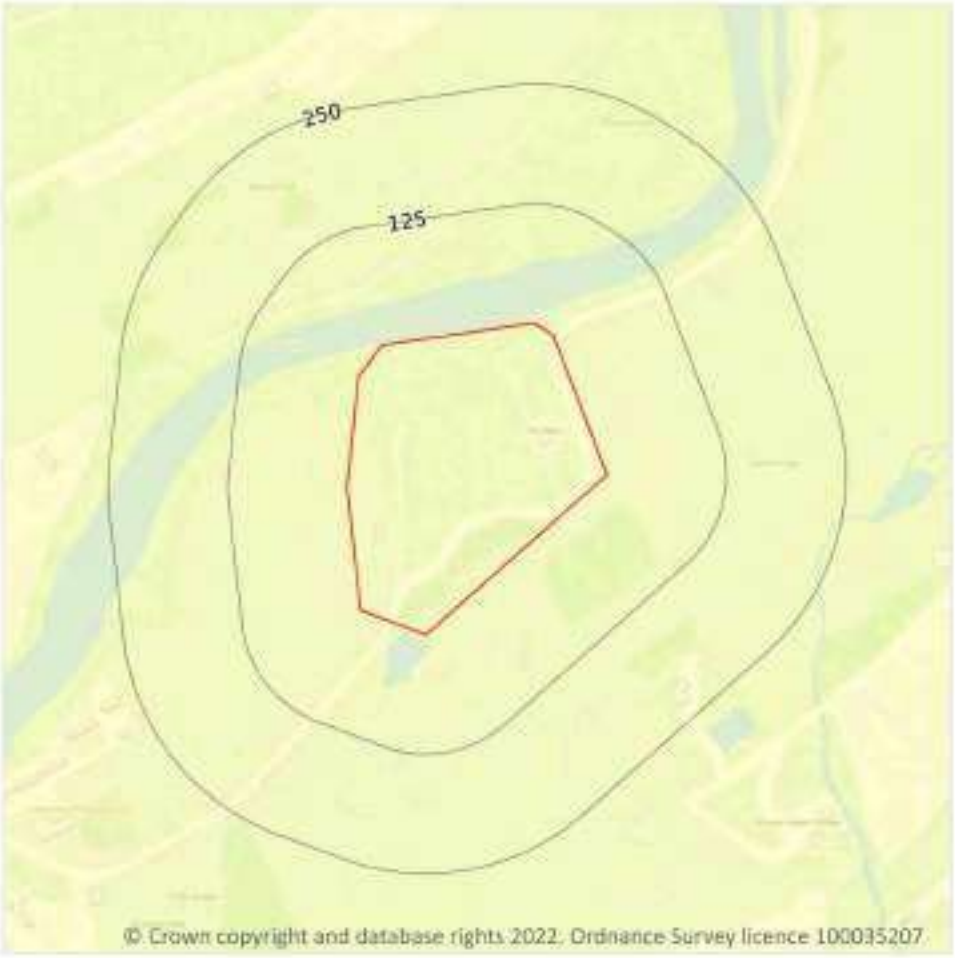
Features are displayed on the Natural ground subsidence - Landslides map on **page 59**

Location	Hazard rating	Details
On site	Very low	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**
On site	**Moderate**	**Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.**
7m N	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
15m N	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
18m SE	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	1

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 61**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	2

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining, ground workings and natural cavities map on **page 62**

ID	Location	Details	Description
A	137m SW	Name: Lady's Mount Sand Pit Address: KENMORE, Perthshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
4	456m SW	Name: Kenmore Address: KENMORE, Perthshire Commodity: Igneous & Metamorphic Rock Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	1

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 62**

ID	Location	Land Use	Year of mapping	Mapping scale
A	128m SW	Unspecified Disused Pit	1980	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	6

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining, ground workings and natural cavities map on **page 62**

ID	Location	Name	Commodity	Class	Likelihood
6	723m SE	Not available	Vein Mineral	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
7	804m SW	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
8	823m SE	Not available	Vein Mineral	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
-	875m SW	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

ID	Location	Name	Commodity	Class	Likelihood
-	920m SE	Not available	Vein Mineral	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
-	937m SW	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.13 Clay mining

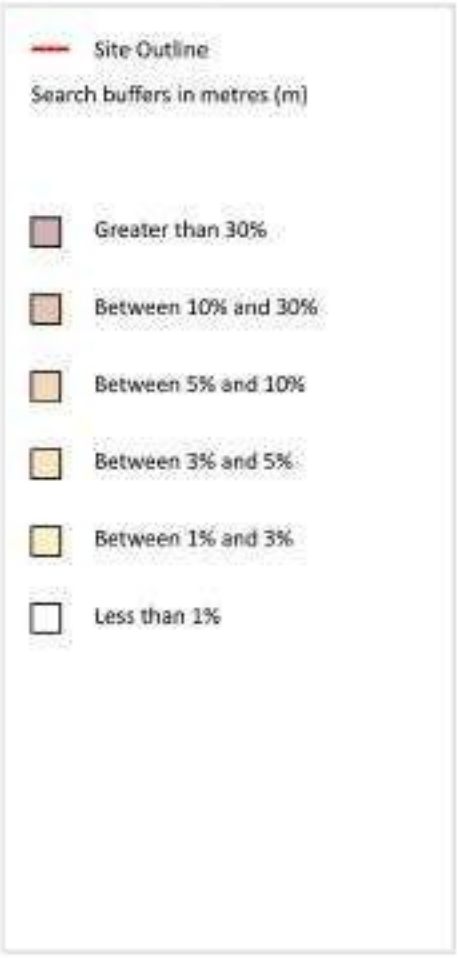
Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Radon





19.1 Radon

Records on site	1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 67**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	16

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
3m NE	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
3m NE	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
26m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
27m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
43m NE	15 - 25 mg/kg	-	100 mg/kg	60 mg/kg	No data	40 - 60 mg/kg	15 - 30 mg/kg
45m E	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg
49m NE	15 mg/kg	-	100 mg/kg	60 mg/kg	No data	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

APPENDIX C RISK ASSESSMENT METHODOLOGY

The methods of assessment used to create this report are developed in accordance with the Statutory Guidance on Contaminated Land[5], model procedures for the management of land contamination[6] and guidelines for environmental risk assessment and management[7]. Other relevant technical guidance is provided by CIRIA[8]. Investigations are designed with reference to the British Standard[9].

These best practise methods, which are accepted by regulators, require the development of a site specific assessment using "**source-pathway-receptor** pollution linkages". For risk to exist each stage of the pollution linkage must be present. If there is no pollution linkage, then there is no risk. If a pollution linkage is established, the assessment will then consider the level of risk and whether any further works or actions are required to clarify, manage or mitigate the risk.

While land contamination is a material consideration in ensuring a site is suitable for its planned use, references to the phrase "contaminated land" in this report, relate to the statutory definition of Contaminated Land under the Environmental Protection Act 1990: Part IIa Contaminated Land, unless otherwise stated.

That definition is:

> "any land which appears to the Local Authority in whose area it is situated to be in such condition, by reason of substances on, in or under the land that:
>
> (a) Significant harm is being caused or there is a significant possibility or such harm being caused; or
>
> (b) Significant pollution of the water environment is being caused or there is a significant possibility of such pollution being caused".

Risk Assessment Framework

To determine if a site presents environmental risks and whether or not the risks are acceptable is evaluated initially by development of a carefully structured process in accord with relevant guidance. This starts by reviewing historic land-use to establish if this may have caused contamination to be present, constituting a **source** of hazard. The environmental setting must then be reviewed to establish if anything in the nature or context of the site and its location may create **pathways** which allow hazards to come into contact with environmentally sensitive uses. Lastly the process must consider the current and/or proposed use of a site to establish if **receptors** such as site users, the water environment, property etc. may be at risk from contamination hazards. Completing this process as Stage 1 allows recommendations to be made regarding potential environmental liabilities associated with purchase or proposed development of land and what type of further information is

[5] Department of the Environment, Transport and the Regions. Circular 01/2006, Statutory Guidance on Contaminated Land. September 2006.

[6] DEFRA/ Environment Agency, Model Procedures for the Management of Land Contamination, CLR11, September 2004.

[7] Department of the Environment, Transport and the Regions, Environment Agency and Institute of Environmental Health. Guidelines for Environmental Risk Assessment and Management. HMSO July 2000.

[8] Construction Industry Research and Information Association (CIRIA). Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552 2001.

[9] Investigation of potentially contaminated sites. Code of practice, BS10175:2011+A1:2013

required to qualify and quantify these hazards and risks and determine if remedial measures are necessary to reduce them.

Planned Developments

To gain regulatory approval developments on brownfield or previously used land typically require risk assessment and where necessary remedial action to ensure land is suitable for use and not "contaminated land". This involves submission to the Planning authority of up to 4 stages of risk assessment and management reporting. The accepted procedure for undertaking an environmental risk assessment uses the source-pathway-receptor methodology to develop a Conceptual Site Model (CSM) of risk linkages.

> Risks identified at **Stage 1** are indicative and speculative based on a desk study of historic activity and the environmental setting in context of development proposals. The CSM developed at Stage 1 establishes how possible contamination hazards may cause harm or pollution and an assessment of *potential* risk informs recommendations for **Stage 2** ground investigation, to qualify and quantify hazards and pathways, and evaluate *actual* risk, using site data. Recommendation is made at Stage 2, as necessary, for remedial measures and a **Stage 3** Remediation Implementation Plan is submitted for agreement by the Planning authority. The agreed remedial measures are then validated at **Stage 4** with a Remediation Validation report of the as-built construction, providing various details, specifications, photographs and drawings of remediation. This is submitted for agreement by the Planning authority at Stage 4, demonstrating the site has been made suitable for use and is not "contaminated land" and to obtain final discharge of contaminated land planning conditions.

Current Land Use

The former land uses are the principal sources of hazard which may cause concern over contamination or environmental pollution occurring on or due to a site. A walkover inspection of the site is undertaken to view the site and adjacent land in its current condition. Evidence of historic activities, derelict structures or utilities as well as the general condition of the land are noted and factored into the risk evaluation process.

Historical Land Use

Information about the environmental setting and history of development at a site is obtained by review of historic Ordnance Survey maps. Some of the oldest nationwide mapping from the 19th century is available to view online free at websites such as http://maps.nls.uk/index.html. However a complete set of maps, including the periods of heaviest industrialisation in the mid-20th century must be purchased from a licensed environmental database provider. These provide an excellent record of the historical uses of a site, are often the best source of information and are the minimum requirement for completing a Stage 1 assessment.

On some more intensively developed areas additional databases are beneficial in compiling a history of past contaminative uses. These include licensed activities regarding storage of fuels, waste management, permitted industrial processes and registers of incidents. Historic aerial photography and postal registers can also be useful.

Environmental Setting

The environmental setting of a site is reviewed to establish if anything in the context of a sites location may create pathways for hazards to cause risk. This includes a review of published information on the geology, hydrogeology and hydrology of the land. Consideration is also made of environmental sensitivity in the area, such as designated land-use as nature reserve or protected water environment.

The sensitivity is assessed using British Geological Survey (BGS) information and data on groundwater and surface water protected areas from SEPA and the local authorities. Some data on water abstractions can be purchased from environmental database companies. The vulnerability of surface water and groundwater is based on sensitivity to pollution, distance from abstractions, type and nature of groundwater and type of overlying strata.

Having established a sites environmental setting, the level of contamination, if any on site, can be evaluated in context. Soil contamination and even water pollution if present in a "non-sensitive" setting may not be a material consideration for evaluating land in its current condition or for the purpose of proposed re-development.

Environmental Legislation

The need to evaluate land quality is prescribed in PartIIA of the Environmental Protection Act 1990 (EPA 1990) and the Water Resources Act 1991. These Acts address environmental protection measures for land, water and air in the UK. The Local Authority are primary regulator of air and land quality and SEPA for water quality. While some information is available from environmental database companies, other more site specific data may be requested from local authorities' under the Environmental Information (Scotland) Regulations 2004 (sometimes at cost). This information usually identifies if the authority already has concerns about contamination at a site.

Environmental Risk Assessment

The first stage of qualitative risk assessment is to develop a conceptual site model for the site specific scenario. The first consideration is to establish if a source of contamination or pollution hazard has been present or still exists on the land and define the associated potential contaminants of concern. As well as the type of source, the extent, concentration and availability of a contaminant is also assessed.

The level of risk associated with a hazard is largely governed by the sensitivity of a receptor. Receptors may typically include people, buildings, animals, plants and local resources (such as groundwater, surface waters, nature reserves). For example, if a commercial site is to be redeveloped into a residential housing estate, a residential use is considered more sensitive than a commercial use. Contamination hazards are more likely to present risks if present in a private garden than if buried under a concrete slab.

The presence of contamination (as a potential hazard) does not necessarily mean that there is a risk. It is the exposure pathway and the quantity of contamination that reaches the receptor which may determine the effect on a receptor. For example if a concrete slab covers the contamination it may be considered a barrier preventing contaminant contact with site users and preventing infiltration of rainwater from washing contamination off-site into the water environment.

The risk classification for both likelihood and consequence is based on methodology presented in Contaminated Land Risk Assessment, A Guide to Good Practice (CIRIA C552, 2001) and has been developed from procedures outlined in DETR Circular 02/2000. The DETR, with the Environment

Agency (EA), SEPA and Institute of Environment & Health, has also published guidance on risk assessment (Guidelines for Environmental Risk Assessment and Management). The guidance states that the designation of risk is based upon consideration of both:

- magnitude of the consequence (severity) of risk occurring, which takes account of both the potential severity of the hazard and the sensitivity of the receptor; and
- The likelihood of an event occurring (probability) which takes of both the presence of the hazard and receptor and the integrity of the pathway.

For the purpose of compiling the risk statements in the conceptual site model the receptor sensitivity, hazard severity and probability of occurrence are scored as follows:

Millard Environmental Risk Assessment Methodology

The magnitude of consequence (severity) and likelihood (probability) are defined in the CIRIA guidance, together with examples. Scores are allocated in this report to receptor sensitivity and hazard severity (table 1) to enable a matrix evaluation of the relative magnitude of consequence if a pollution linkage were to exist.

Table 1 Relative scoring for risk assessments used in the report

	receptor sensitivity	hazard severity
High	3	3
Medium	2	2
Low	1	1

Likelihood definition	Likelihood score
Likely	5
Moderately Likely	4
Low Likelihood	3
Unlikely	2
Very Unlikely	1

The magnitude of consequence is defined from the Table 1 matrix by 5 bands of then considered in relation to the environmental setting and current or proposed land-use using The likelihood of a pollution linkage existing or being realised during development of a proposed new land-use is then applied to evaluate the potential risks.

Estimation of risk for each pollution linkage ranges from "very high risk" to "very low risk" (table 2). A description of the risks and likely actions required is presented in Table 3.

Table 2 Comparison of consequence against probability

		Consequence				
		Severe	**Substantial**	**Medium**	**Mild**	**Minor**
Probability	**High likelihood**	Very high	High	High	Moderate	Moderate/low
	Likely	High	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/ low	Moderate/low	Low	Very low	Very low
	Very Unlikely	Low	Low	Very Low	Very Low	Very Low

The estimation of risk in this way has distinct advantages in maintaining an objective focus on the relevant magnitude of risks in context of current or planned use at the site and enables re-evaluation at any stage when new information comes available. For example elevated risks at Stage 1 will likely need to be qualified and quantified by ground investigation. When this information comes available the Stage 1 assessment is amended and re-scored accordingly at Stage 2 when potential risk are either confirmed or refuted. The process may conclude at either Stage 1 or 2. If remedial measures are recommended to manage risks at the conclusion of Stage 2, then a Remediation Implementation Plan and Verification Report are required to complete Stages 3 and 4.

Table 3 Description of the classified risks and likely action required

Level of Risk	Description of Classification
Very High	There is a distinct probability that severe harm could arise to a sensitive receptor from a significant hazard, or there is evidence that severe harm to a receptor is currently happening. This risk may already be realised or is likely. It will result in significant health impacts, environmental or financial liability to current and/or future site owners/occupiers. Urgent investigation (if not already undertaken) and remediation will be required.
High	Hazards are present which can cause substantial harm, which is more likely than not to occur. The high risk is either due to the severity of the hazard or the sensitivity of the receptor and the probability that a risk linkage is in place or will be in place. If risk is realised, it is likely to present a substantial health impact, environmental or financial liability to current and/or future site owners/occupiers. Urgent investigation (if not already undertaken) is required and remediation work may be necessary in the short term and likely over the longer term, which may include works in advance of any development.
Moderate / Low	Hazards are present which may range in severity from high to low, which may combine with receptors also ranging in sensitivity from high to low. A range of probabilities from unlikely to likely results in certain scenarios where mild consequences may be more likely to occur and severe to substantial consequences are unlikely to occur. Moderate / low risks need to be considered more specifically to determine if risk realisation is a concern for current or future planned use. Investigation is normally required to clarify the risk and determine the potential health impacts, environmental or financial liability. Some remedial works may be required, though not necessarily if the site is left undeveloped and during development may be incorporated into the building fabric and groundworks.
Low	Hazards and receptors may combine in such a way that high tends to cancel out low and even if probability is likely the consequences would be minor. Alternatively if substantial consequences could occur it would be very unlikely. In some scenarios both hazard severity and receptor sensitivity are low, though a risk linkage is likely occurring. Low risks need to be considered more specifically in context, since remedial work may or may not be required. Investigation would be advisable to inform decisions for development proposals, dependant on the sensitivity of the receptor and view point of those of interest. Under current use no remedial work may be necessary. Any remedial works for development may be limited.
Very Low	Any harm that could arise to a receptor would be mild or minor with a low probability of occurrence. This is due to low hazard severity, low sensitivity of receptors and generally low probability. No remediation would be required. The risk assessment and management plan may already have implemented remediation and risks reduced as a result of hazard removal or receptor protection.

The acceptability of risk will always depend upon the view point of those of interest, whether it is an occupier of a site, a regulator or stakeholder. As a result, it could be that action will be required to deal with a level of risk even if it is classified as very low.

The completion of a structured risk assessment using the foregoing procedure is highly advisable for regulatory acceptance of recommendations and conclusions. It provides a valid and justifiably reproducible basis for promoting informed discussion on the degree of risk management required on land to demonstrate it is or can be made suitable for a proposed use and is not "contaminated land".

APPENDIX D NOTES ON LIMITATIONS

MILLARD CONSULTING, ENVIRONMENTAL AND GEOTECHNICAL CONSULTANCY SERVICES

General

Millard Consulting have completed the attached report for the use of the Client detailed on the front cover and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed.

Third parties should not use or rely upon the contents of the report unless written approval has been gained from Millard Consulting; (due to legal requirements, a charge may be levied against such approval).

Millard Consulting accepts no responsibility or liability for:

a) The consequences of this documentation being used for any purpose or project other than that for which it was commissioned, and

b) This document to any third party with whom approval for use has not been agreed.

Stage I Environmental Risk Assessments, Desk Studies and Site Audits

The work completed and utilised to provide this report comprises a study of available documentation. The opinions and results presented in this report have been arrived at by utilising the finite amount of data available at the time of writing and are relevant only to the purpose for which the report was commissioned. The data which has been reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative information pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, Millard Consulting reserves the right to review this information and, if warranted, to modify the opinions presented in the report accordingly.

It should be noted that the risks which are identified in this report are perceived risks based on the available information at the time of writing and that the actual risks associated can only be assessed following a physical investigation of the site.

Dundee

Seabraes

18 Greenmarket

Dundee

DD1 4QB

t 01382 227380

f 01382 229291

e dundee@millardconsulting.co.uk

Housing Plots 17 and 18, Zone 4 Taymouth Castle Designed Landscape

Heritage Impact Assessment

February 2025



Nick Haynes, MA (Hons), IHBC
Historic Environment Consultant

www.conserve.scot

Copyright: Nick Haynes, unless images otherwise credited, 2025.

IHBC INSTITUTE · OF · HISTORIC · BUILDING · CONSERVATION

Planning Application 23/01113/FLL

Housing Plots 17 and 18, Zone 4

Taymouth Castle Designed Landscape

Heritage Impact Assessment

February 2025

Contents

		Page
1.	Summary	2
2.	Introduction	5
3.	Designations	7
4.	Taymouth Estate, Tom More and The Dairy	8
5.	Statement of Significance	17
6.	Proposed Scheme	18
7.	Heritage Impacts	20
8.	Heritage Impact Assessment	36
9.	Conclusion	38
10.	Bibliography	39
11.	Appendix A - Historic Environment Scotland Designation Entries	40

Digital version

The index is interactive: please click on the topic name to go to the relevant page. To return to the index, please click on the page number at the foot of any page.

1. SUMMARY

Background

1.1. Numerous developments were previously approved across the Taymouth Estate under planning permissions (subject to conditions) dating from 2005 (0302250/PPLB) and 2011 (11/00533/FLM). Both consents were implemented and remain live in perpetuity, but little progress was made with construction. In 2021 the present owners acquired the estate and significant investment has been made to repair and conserve numerous heritage assets including Taymouth Castle itself in accordance with the Taymouth Estate Schedule of Conservation Works.

1.2. In the intervening period since the 2011 consent it has become apparent that improvements in the design and location of the residential units are desirable for various reasons, including sustainability, practical management of the estate and visual amenity. In order to carry out these improvements, a series of amendments to the 2011 position have been sought through various planning applications. The current application seeks to improve on the extant consent for housing in the former Zone 2, now Zone 4.

The Site

1.3. The site of the current application 23/01113/FLL is located some 100m south of the Dairy. It stands within a clump of trees that runs along and west of a natural ridge between the Deer Park (east) and Kenmore Park (west). The site is set lower than the ridge, on the Kenmore Park side of the clump. There are two east-west gaps in the planting between the clump where the site is located and the woodland surrounding the Dairy and the woodland surrounding the Dairy Byre.

1.4. The three proposed houses on the site in 2011 were specifically excluded from the consent by Condition 51, which required removal of one housing unit altogether and relocation of the two remaining houses to Zone 2 on the grounds of potential harmful impact on the setting of the designated heritage assets. However, a Heritage Impact Assessment on the site was not undertaken and the visual impacts were not presented in visualisations or considered in detail at that time.

Heritage Designations

1.5. The site stands within the Taymouth Castle Designated Garden & Designed Landscape. Under National Planning Framework 4 (NPF4) Policy 7i) and Perth & Kinross Local Development Plan 2, Policy 29, proposed developments will be supported where they protect, preserve or enhance the cultural significance, character and integrity of the designation and where proposals will not significantly impact on important views to, from and within the site, or its setting.

Setting of Listed Buildings

1.6. Development here has the potential to impact on the setting of the Category A-listed Dairy. Under National Planning Framework 4 (NPF4) Policy 7c) and Perth & Kinross Local Development Plan 2, Policy 27A, development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic interest.

Development Proposals

1.7. It is proposed to construct two new houses and garages on the site and an associated access road. The design and materials have been carefully considered as part of the design process to harmonise and blend in with the landscape

environment of the Taymouth Estate. The existing planting to the east of the access road will be retained and also the mature trees lining the edge of Kenmore Park, maintaining the mature margins of the clump in the easterly and westerly views from the parks. Eight trees are required to be removed, as per the submitted Tree Removal Plan, but compensatory planting will undertaken.

Heritage Issues

1.8. The Committee Report on the 2011 scheme identified four areas of concern regarding the proposals for three houses on this site at that time:

- The setting of the Category A-listed Dairy when viewed from the east;
- Interference with the visual and spatial relationship between the two very distinct elements of the designated designed landscape (woodland and parkland);
- Interference with important east-west key views between the Deer Park in the East and Kenmore Park in the west;
- Visual prominence on account of the raised ground on which the site stands.

Heritage Impact Assessment

1.9. In order to assess the visual impacts of the current proposals on the heritage assets , a series of seven visualisations were commissioned (Figure 22 to Figure 28). The visualisations were undertaken in January 2025, when the leaves were off the trees and any impacts would be most visible.

1.10. The assessment of potential impact on the heritage assets of the Taymouth Estate takes into account the current baseline situation of approved developments from 2005, 2011 and 2021.

1.11. The current proposal for the site at Z4-04 is reduced from the previously proposed three units to two. The application is also made in the context of a revised masterplan for Zone 4 that envisages a general reduction in the number of units and removal of the units in Zone 2 that would have been prominent within the parkland of the horseshoe (see Figure 1).

1.12. The analysis of the impacts under the current application 23/01113/FLL demonstrate that there would be a **Moderate/Beneficial** impact from removal of units from the horseshoe area of Kenmore Park. The 'worst case' predicted impact is **Negligible/Neutral** on two of the views where there is a very low level adverse impact on the setting of the Dairy, but this is balanced by the beneficial impact of removing the units from the horseshoe area. The repair and re-use of the Dairy is not taken into account in this assessment as it relates to an existing planning permission. However, the masterplan for Zone 4 in its totality represents a significant investment in, and improvement to, the heritage assets over the existing 2011 consent.

1.13. The proposals are in accordance with Historic Environment Scotland's guidance on setting and designed landscapes and meet the Policy 7 requirements of NPF4 and Policy 29 of Perth & Kinross Local Development Plan 2. The total proposed development under the masterplan for Zone 4, including the current application for Z4-04, will protect, preserve or enhance the cultural significance, character and integrity of the designed landscape designation and will not significantly impact on important views to, from and within the site, or its setting



Figure 1. Visualisation of the view north from near the Kenmore entrance to the estate, approved under the 2011 planning permission. This visualisation represents the current baseline position of what is consented under 11/00533/FLM for construction in the former Zone 7. © McKenzie Strickland Associates, January 2025e



Figure 2. Proposed view north from near the Kenmore entrance to the estate under the current proposals 23/01113/FLL. The intention of the proposals for Z4 - 04 is to improve on the 2011 scheme by removing the approved housing units around the 'horseshoe' area, reducing the number of units and locating the remaining units slightly deeper into the woodland edge of the parkland at Zone 4. © McKenzie Strickland Associates, January 2025.



Figure 3. Plan showing plots for buildings consented in 2011 (in red) which have been removed as proposed compensation for the current plots (boundary in green). © Hart Howerton, January 2025.

2. INTRODUCTION

2.1. This Heritage Impact Assessment (HIA) is prepared on behalf of River Tay Development Ltd ('the Applicant') who is seeking detailed planning permission for 2 estate properties at Zone 4-04 under planning application ref. 23/01113/FLL.

2.2. The information contained in this document is supplementary to the understanding of the Site provided in the accompanying Planning Statement and Design Statement. Reports on arboriculture, ecology and flood risk have also been submitted separately.

2.3. The Taymouth Estate has a long and complicated planning history that has been supported by detailed studies of the landscape. The purpose of this document is not to revisit these detailed assessments, but rather to focus on the area affected by the current scheme.

2.4. Planning permission (23/01114/FLL) and listed building consent (23/01117/LBC) for works to repair and convert the Dairy to a golf clubhouse were granted on 31 July 2024 and 05 July 2024 respectively. Planning permission was granted on 14 November 2024 for the erection of 7 estate properties and associated works at Z4-01 (23/01228/FLL) and the erection of 5 estate properties at Z4-02 (23/01112/FLL).

2.5. The approved works at Section 2.4 above represent amendments and improvements to the layout and design of developments previously approved under extant planning permissions dating from 2005 (0302250/PPLB) and 2011 (11/00533/FLM).

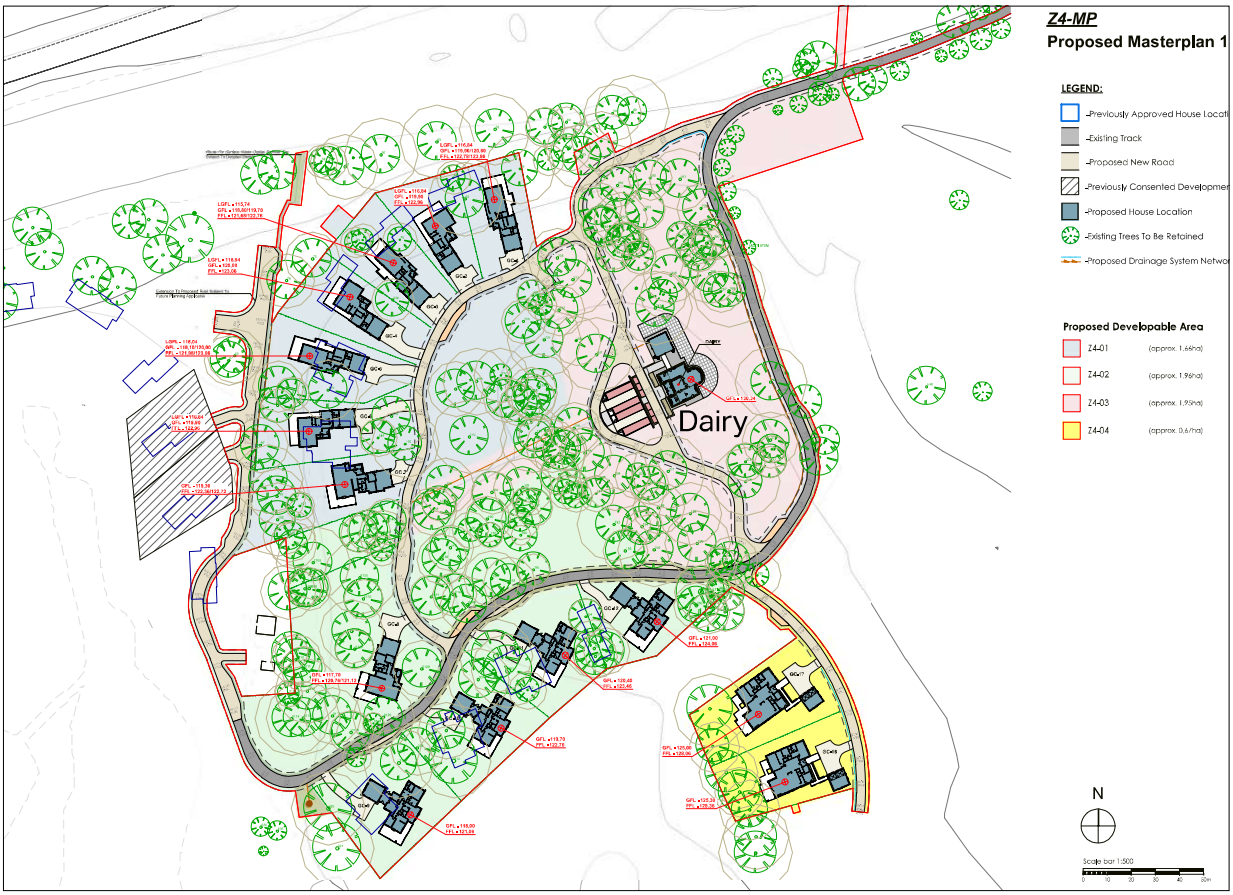


Figure 4. Site Plan for Zone 4, showing location of existing approved houses (in blue and green). The site marked in yellow is the subject of this report. © McKenzie Strickland Associates, 2025.

2.6. Development commenced on the 2005 scheme, however worked ceased in late 2006 when the company undertaking the works went into administration.

2.7. New planning and listed building consents were granted for development in what was then known as Zone 7 in June 2011. The current proposed site at Z4-04 was specifically excluded from the consented scheme by Condition 51 of the planning permission '*due to the potential impact development in this area would have on the setting of the category A listed Dairy building when viewed from the east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west*' (Committee Report). Under Condition 51, the buildings were to be moved to what was then Zone 2 in the 'horseshoe' area west of the Dairy.

2.8. Development commenced on the second consents, but again ceased due to funding uncertainties.

2.9. As things stand now in 2025, the 2011 consent has been implemented and the 22 homes as consented could be delivered in their currently approved locations and designs.

2.10. The HIA begins with a brief history of the Taymouth Estate and The Dairy and continues with a Statement of Significance, outlining what is important about heritage assets, and then assesses the potential impact of the proposed works on that significance. For the purpose of making this report a standalone document,

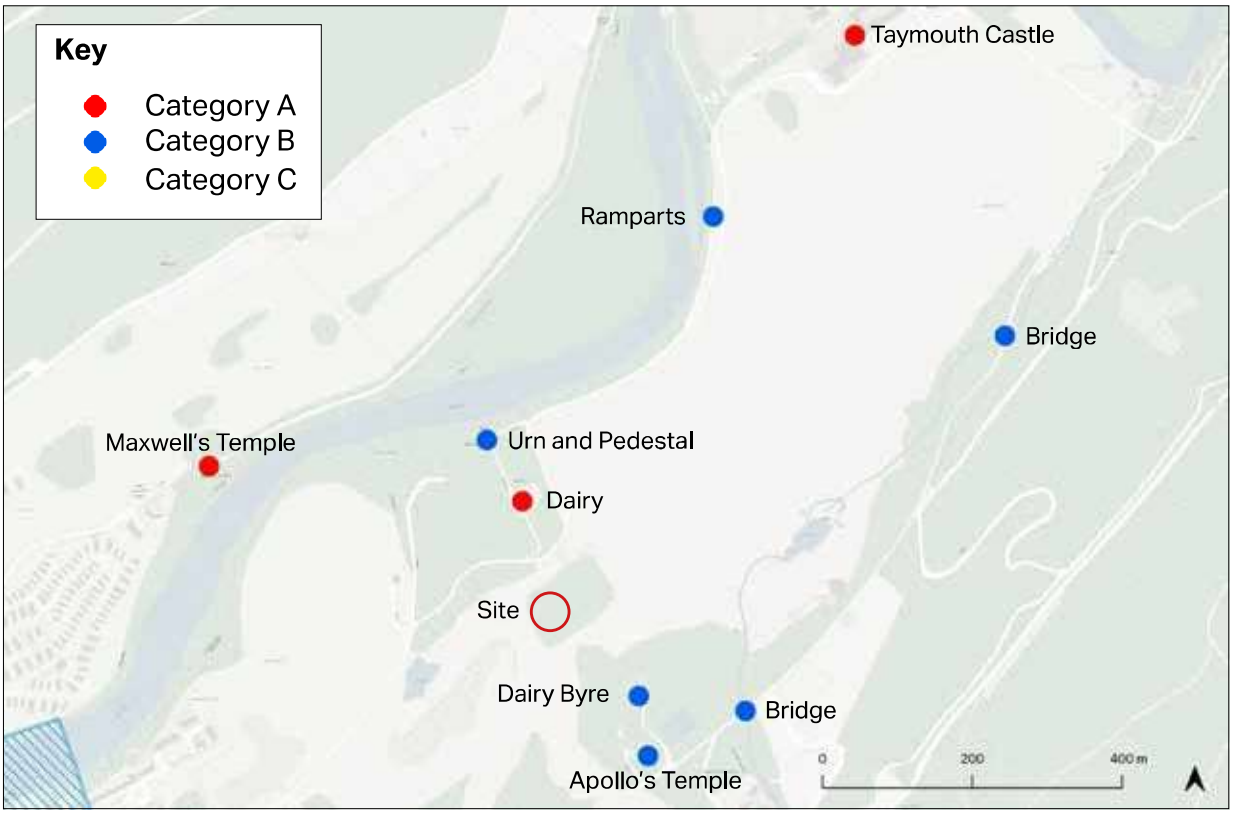


Figure 5. *Listed buildings in the immediate surrounds of Taymouth Castle and the Dairy. © Crown copyright and database rights. Ordnance Survey 2025. Listed building data contains public sector information licensed under the Open Government Licence v3.0.*

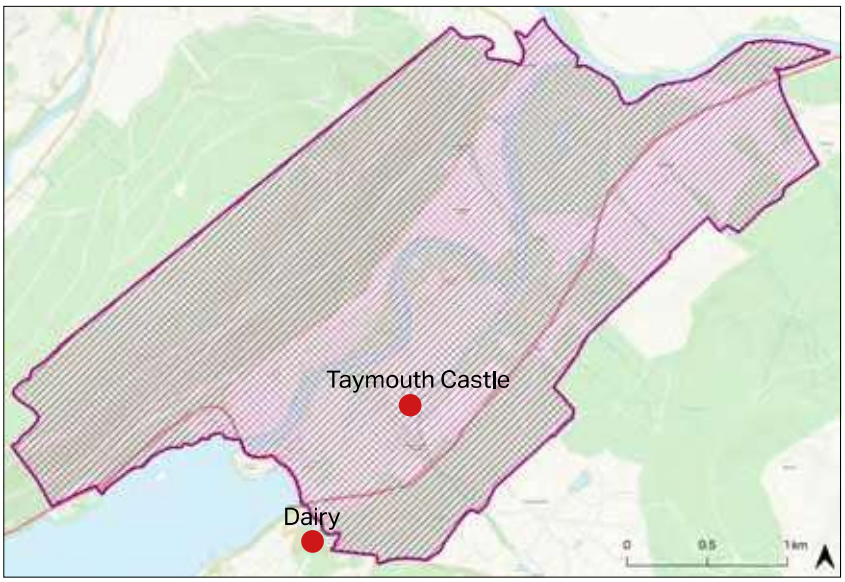


Figure 6. *Boundary of the Taymouth Castle Inventory Garden & Designed Landscape.*

much of this historical material is repeated from the Heritage Assessment that was previously submitted in support of the approved plots in Zone 4. Considerations of below-ground archaeology are excluded from this report.

3. DESIGNATIONS

3.1. Please see listed buildings map at Figure 5 and the boundary of the Taymouth Castle Inventory Garden & Designed Landscape at Figure 6. Full list descriptions of the Dairy and Taymouth Castle are set out at Appendix A. The full Garden & Designed Landscape Inventory entry is also included at Appendix A.

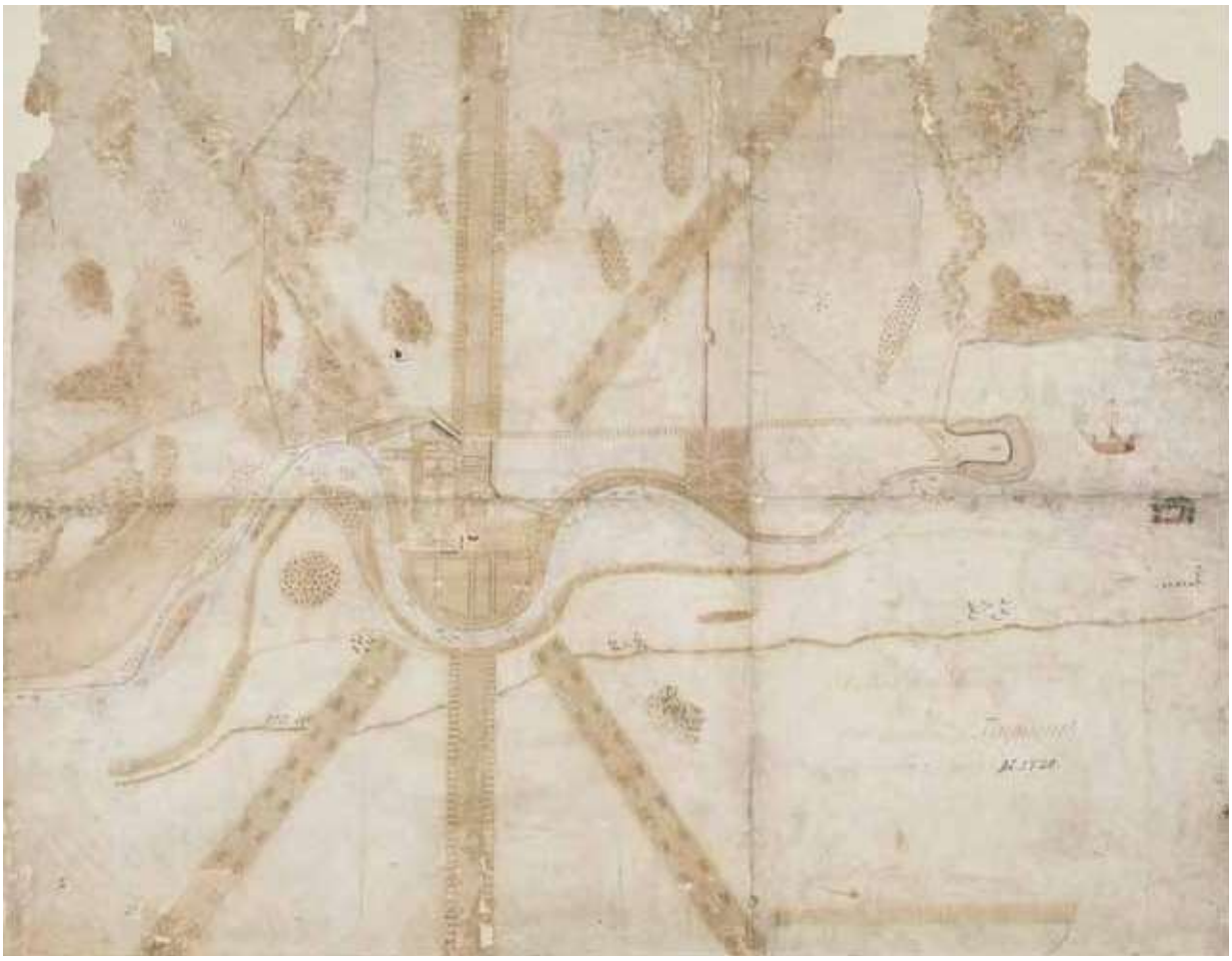


Figure 7. Anonymous, 'A Plan and Survey of the Gardens of Taymouth [Castle] and County Adjacent. An. 1720'. © Crown Copyright (National Records of Scotland, ref. RHP721)

4. TAYMOUTH ESTATE, TOM MORE AND THE DAIRY

4.1. In earliest times, the lands of Taymouth belonged to Balloch Castle, which stood on the site of the current Taymouth Castle. Sir Duncan Campbell was reputed to be the first Highland laird to turn his attention to rural improvements in the 1550s.

4.2. John Campbell inherited the Taymouth lands and the title of 2nd Earl of Breadalbane in 1717. He set about creating an enormous formal landscape (see Figure 7 and Figure 9).

4.3. A 'wilderness' garden was created by planting (in the form of a Union Flag) on Tom More, the natural hillock now occupied by the Dairy. Wilderness gardens of the late 17th and early 18th centuries were normally formed close to the house and consisted of compartments of trees and/or shrubs bounded by tall hedges, usually of box or yew. The height of the hedges constrained views along the corridors of the paths. It was possible to wander the paths without sight of the house, leading to the name 'wilderness'.

4.4. A small, square gazebo, depicted in Figure 9, was constructed at the centre of the wilderness garden. The structure enjoyed views out along the wilderness paths to the park, loch, river, plain and hills beyond.

4.5. A further distinctive feature of the Taymouth landscape at this period was the tree-lined bend in the River Tay around the north side of the castle. The 2nd Earl created further tree-lined walks in this area, including the linear east-west 'Berceau Walk' (

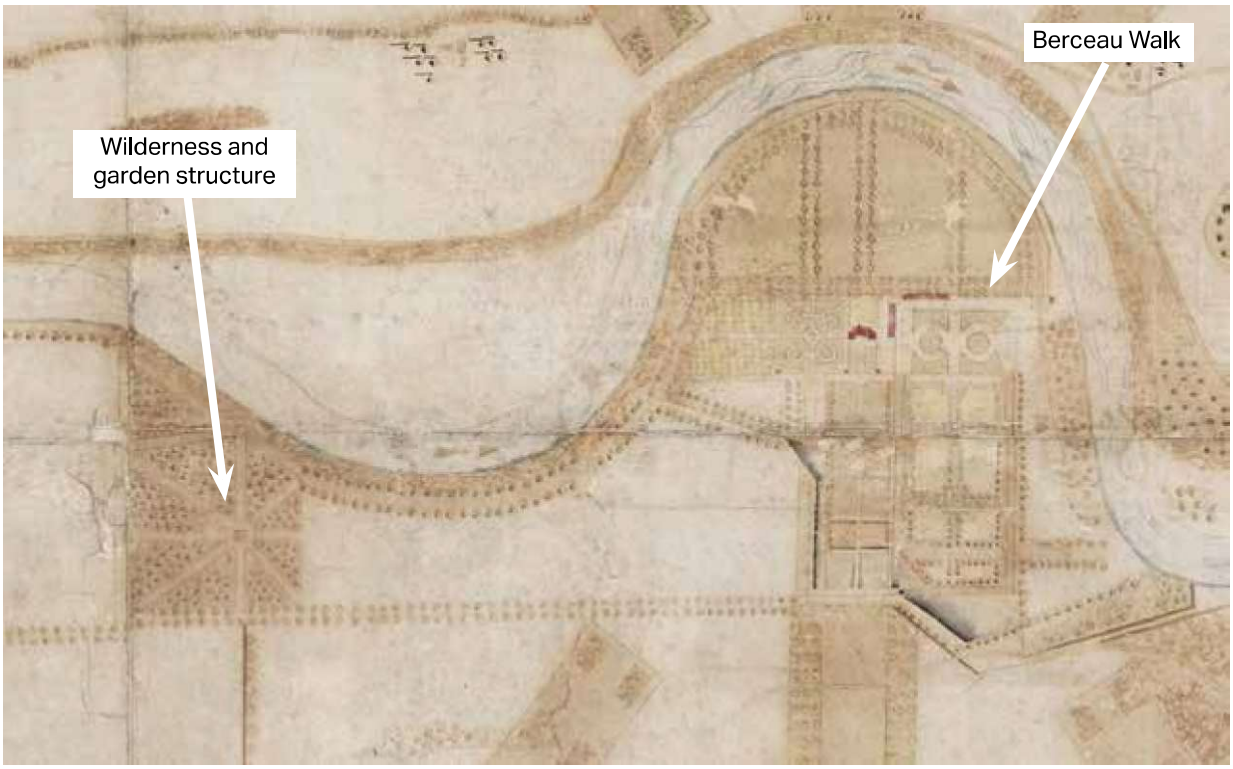


Figure 8. Detail of anonymous 'A Plan and Survey of the Gardens of Taymouth [Castle] and County Adjacent. An. 1720'. The detail has been turned to show north at the top of the image. © Crown Copyright (National Records of Scotland, ref. RHP721)

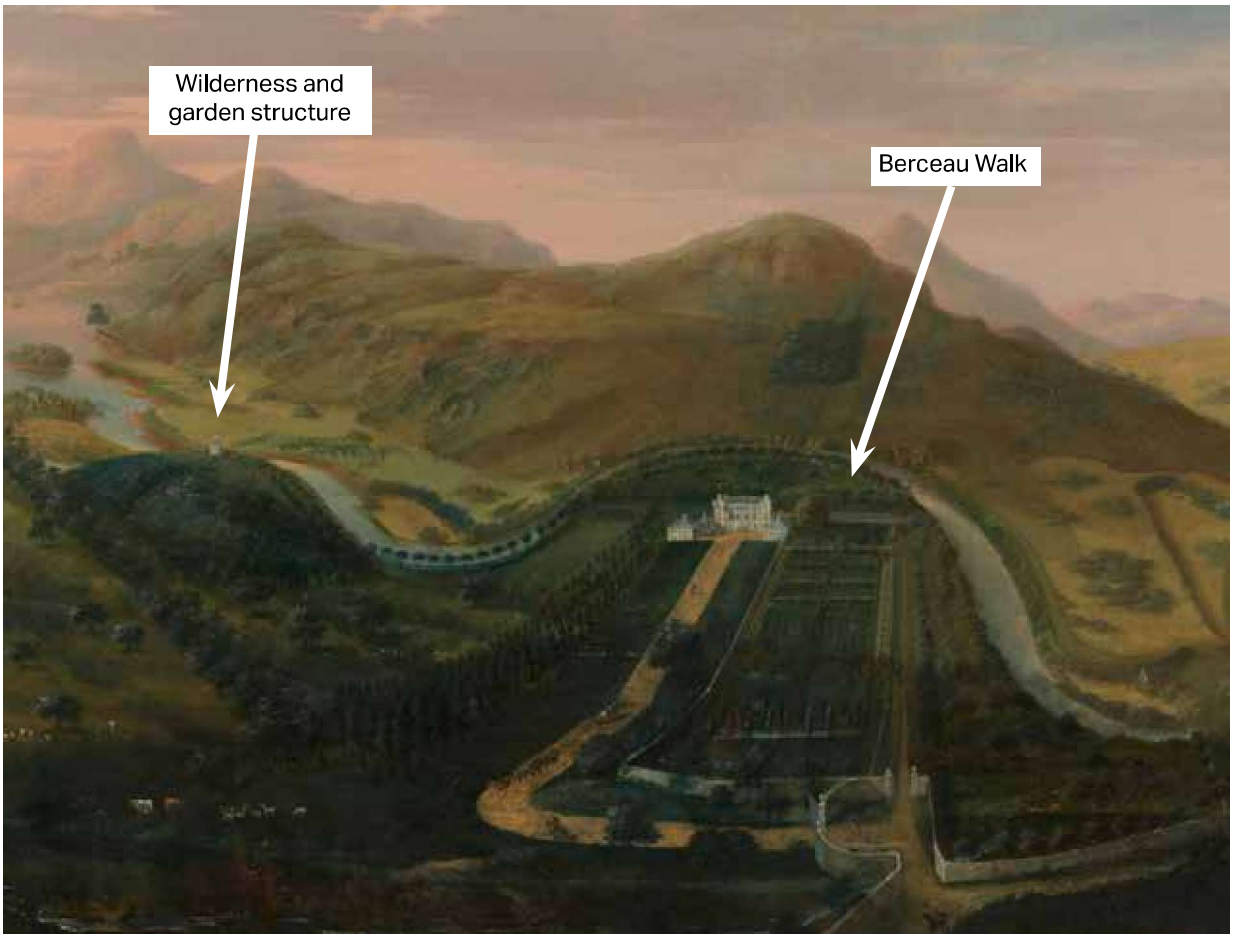


Figure 9. James Norie (1733) and John Griffier (updated 1739), View of Taymouth Castle from the south. Creative Commons CC by NC. National Galleries of Scotland.

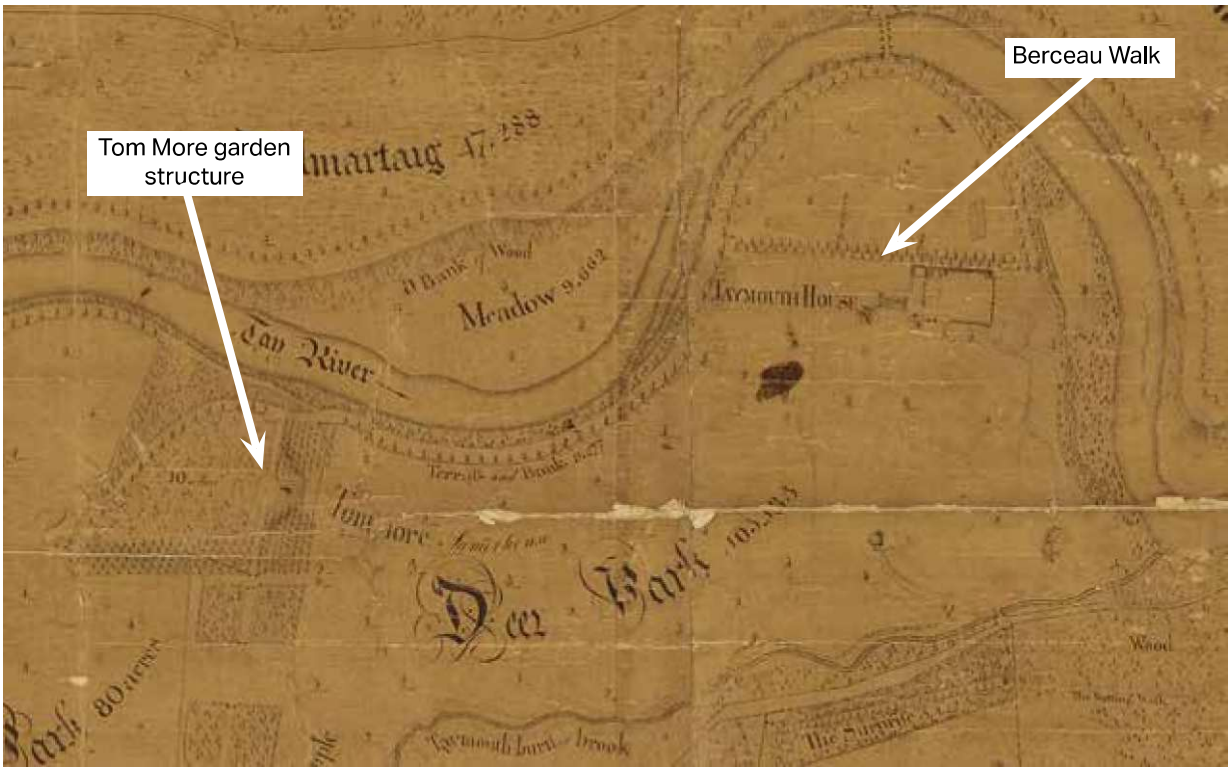


Figure 10. Thomas Winter, 'A Plan of Taymouth The Seat of the Right Honourable The Earl of Breadalbane in Perthshire', 1754. By permission of the National Records of Scotland (RHP961/3)

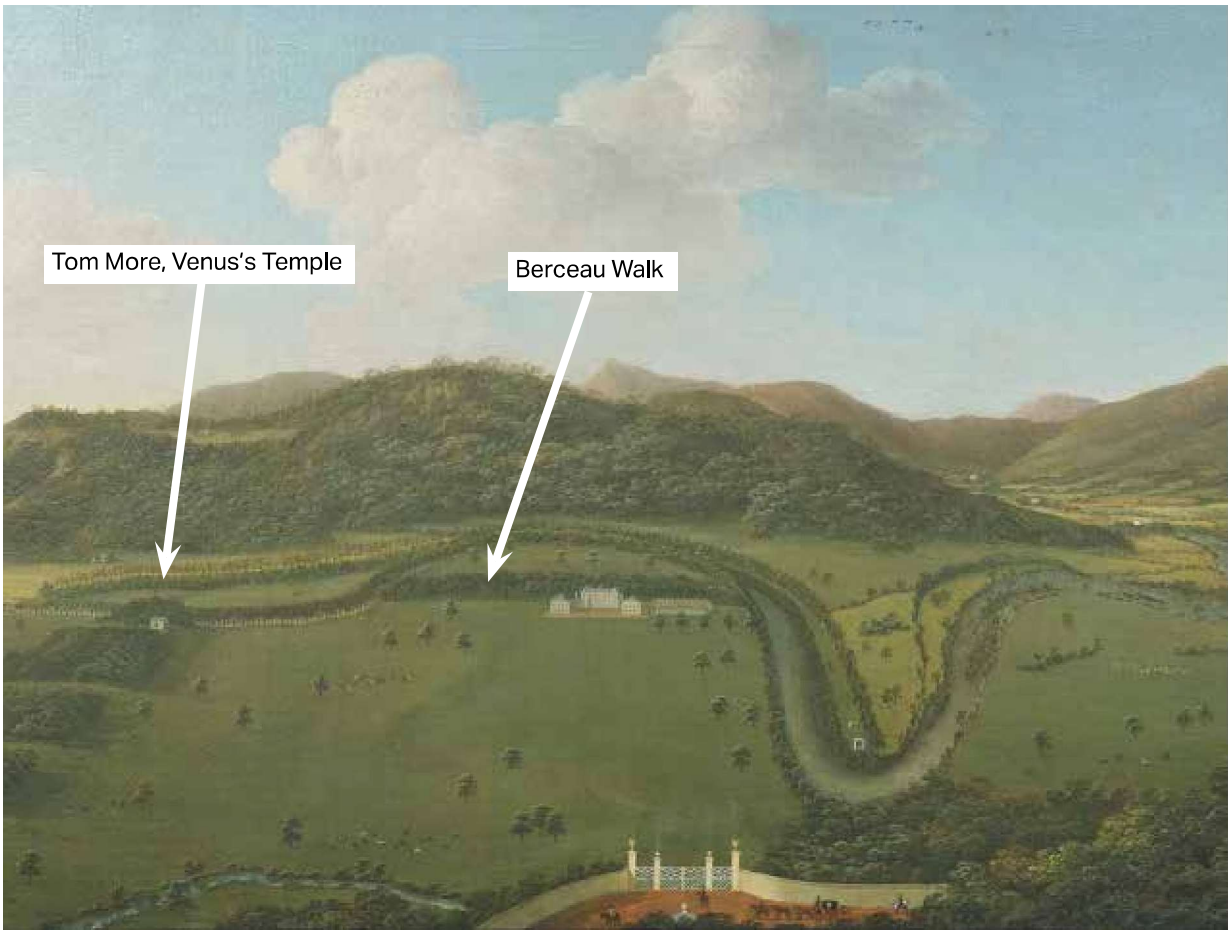


Figure 11. John Sanger, Taymouth Castle from the south, 1757. For sale at Bonhams, October 2023.

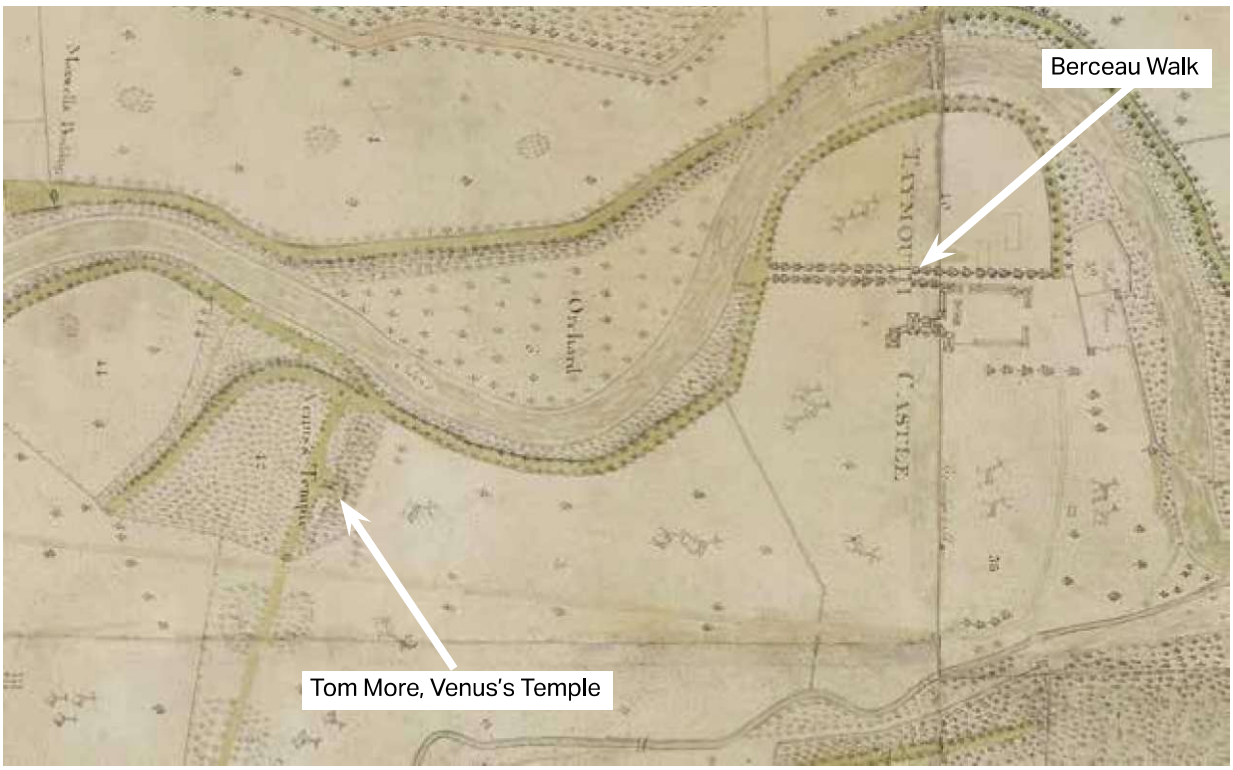


Figure 13. George Langlands, 'Taymouth policies, the seat of the Rt Hon the Earl of Breadalbane', 1786. © By permission of the National Records of Scotland (ref. RHP961/2)

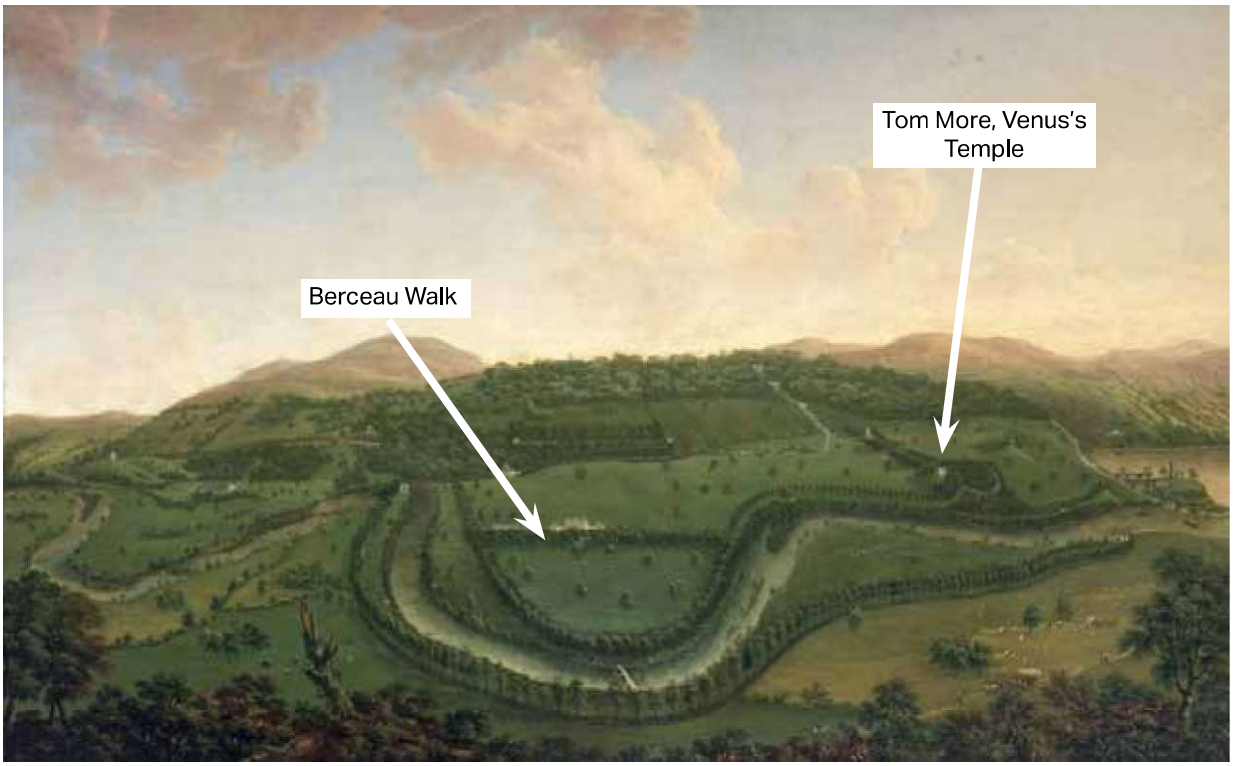


Figure 12. John Sanger, Taymouth Castle from the north, 1756. Creative Commons CC by NC. National Galleries of Scotland.

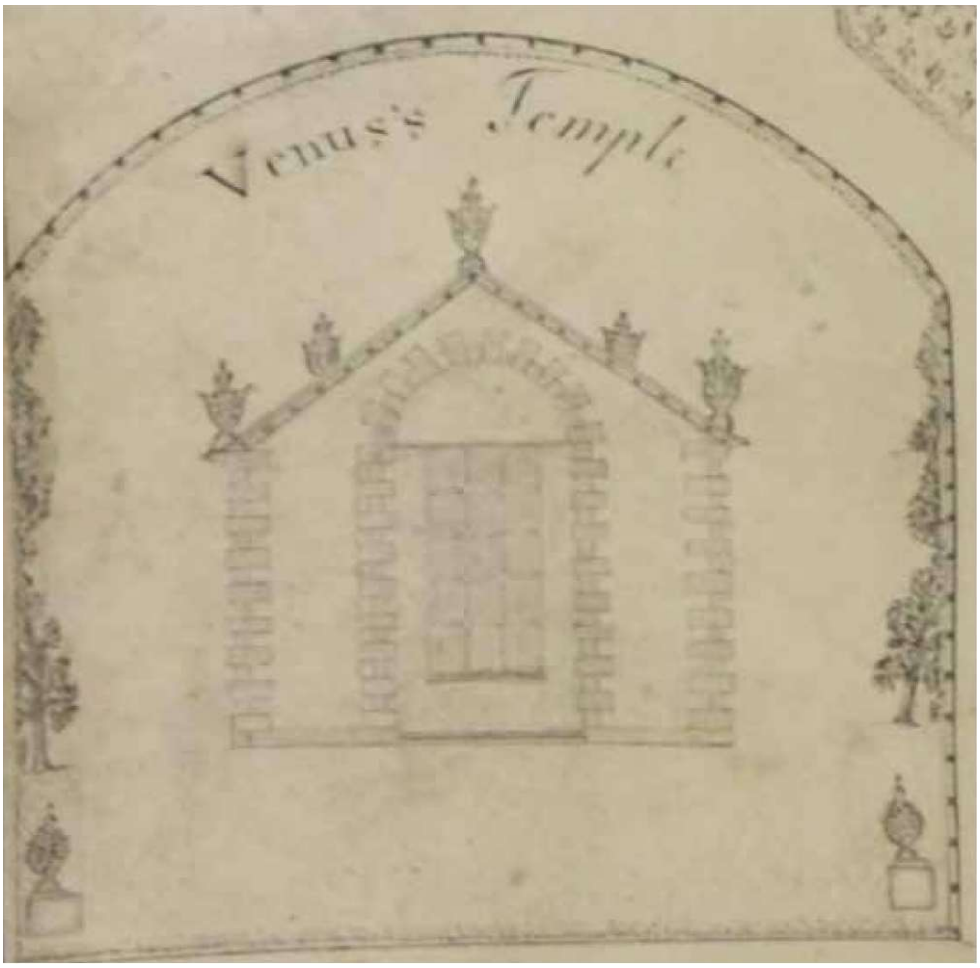


Figure 14. Detail of Venus' s Temple from George Langlands' 'Taymouth policies, the seat of the Rt Hon the Earl of Breadalbane', 1786. © By permission of the National Records of Scotland (ref. RHP961/2)

after the French for cradle or arch) and three perpendicular avenues between the Berceau Walk and the riverside walk.

4.6. The 2nd Earl died in 1752 and his son, John Campbell, succeeded. The 3rd Earl commissioned a plan of the estate from Thomas Winter in 1754 (Figure 10) and two landscape paintings from John Sanger (Figure 11 and Figure 12). These images show that a process of informalisation of the landscape had begun, including removal of the main south avenue.

4.7. The planting at Tom More was expanded and the formal pattern of wilderness paths removed. A single north-south path remained with an expanded lozenge-shaped opening to the west of a new classical summerhouse called Venus's Temple (Figure 14). Langland's 1786 depiction of Venus's Temple suggests that it was a small single storey gabled structure, ornamented with raised quoins and numerous urns. The building was probably erected in about 1750 and contained a 'very fine cast from the celebrated Venus de Medicis' and a 'shifting Venus', supplied by the sculptor John Cheere.[1]

4.8. The temple appears to have been constructed on a series of terraces. There was no planting to the east, allowing views out and for the building to be widely seen in the landscape. A new informal curved path was cut through the plantation to the west of the summerhouse from the bank above the river.

1 Cooper (2000) vol 1, p.190. .

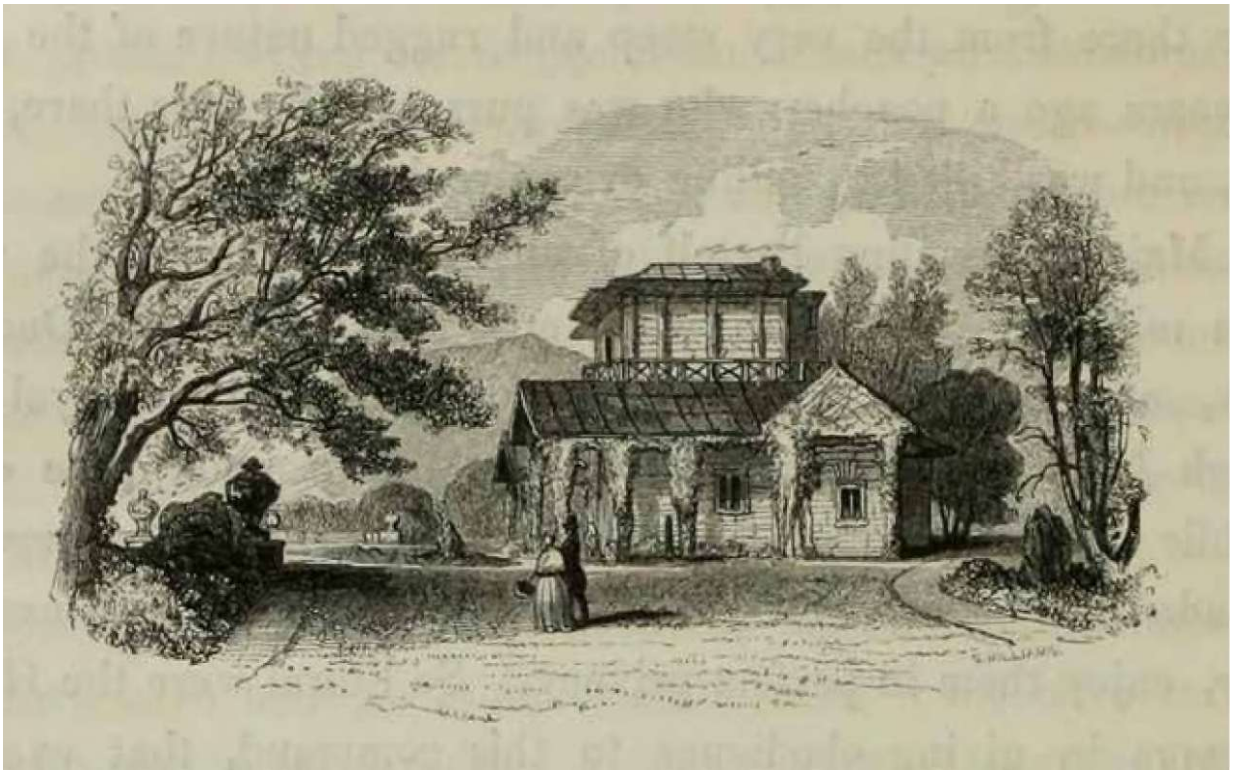


Figure 15. S. Williams, engraving of the south side of the Dairy from Thomas Dick Lauder's 'Memorial of the Royal Progress in Scotland', 1843, p.320.

4.9. By the time of Langland's plan in 1786, the informalisation of the landscape had progressed further. Almost all the formal walks and rides through the middle of the area had been removed and only peripheral planting remained, with the notable exception of the Berceau Walk.

4.10. Some planting had been placed below Venus's Temple on the east side.

4.11. Between 1800 and 1842, the 1st and 2nd Marquesses of Breadalbane transformed Taymouth Castle into a Gothic fantasy on a huge scale. These works were accompanied by similarly lavish interventions in the landscape to create large areas of open parkland with scatters of trees and clumps.

4.12. In 1830-31 William Atkinson designed a model Dairy to replace Venus's Temple on Tom More.[2] The completion of the building coincided with the 4th Earl's elevation to 1st Marquess of Breadalbane.

4.13. The striking structure in white quartz with rustic timber columns is of two storeys and T-plan in form. It is symmetrical through its east-west axis. The main entrance is from the west. To the east, the centre of the building is bowed.

4.14. An early depiction of the building (Figure 15) shows how the rustic timber columns and trellis-work in the pediments were covered with climbing plants. They seem to be set further forward from the building than they are today to create a covered walkway or shelter around the north, west and south sides. There was a balcony with a rustic balustrade at the first floor, allowing visitors to look out over the landscape in all directions. The roofing material is not clear from the image, but it does not appear to be slate - perhaps heather thatch or sheets of lead.

4.15. The setting of the building was to the west, where the depiction at Figure 15 shows

2 Gifford (2007), p. 729.

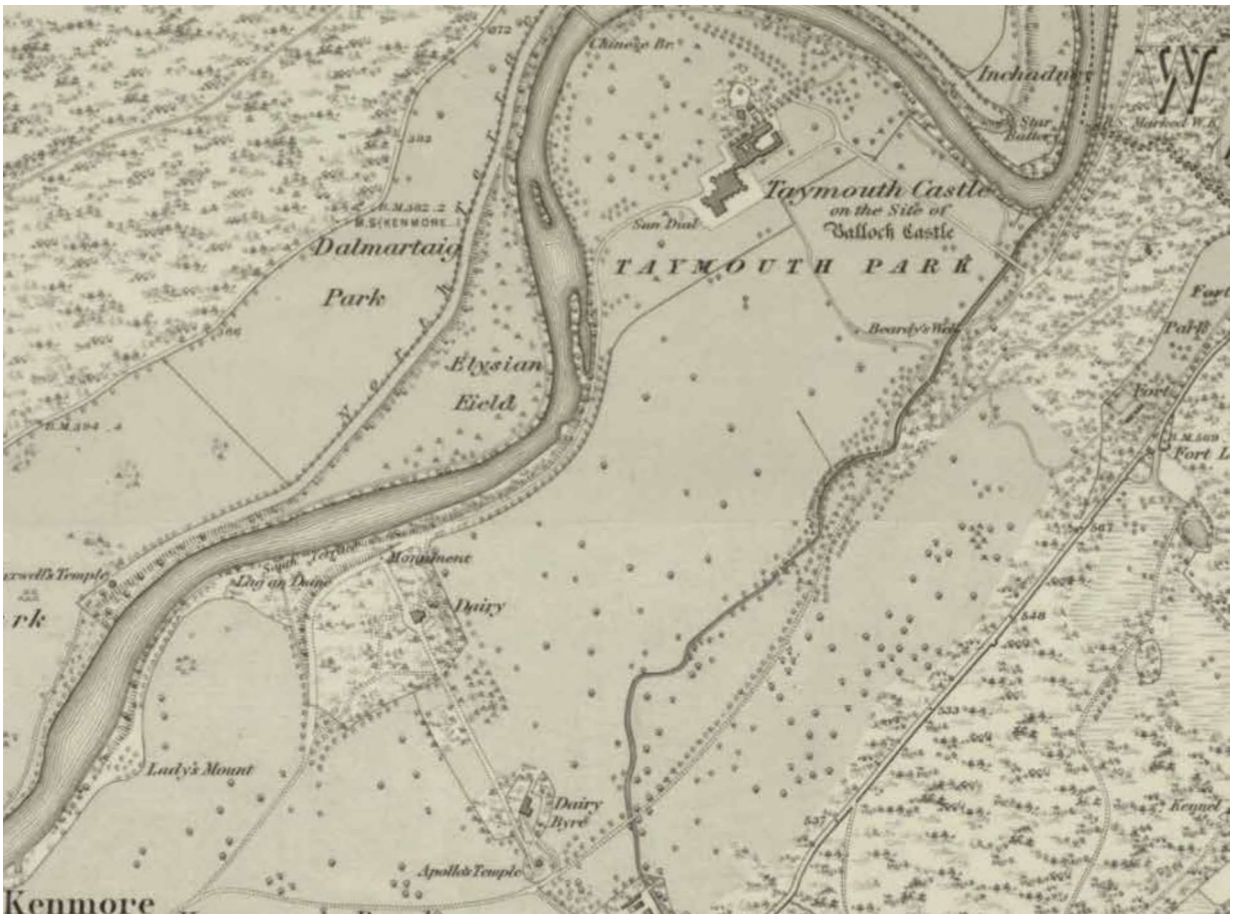


Figure 17. Ordnance Survey map, 6-inch, 1867. By permission of the National Library of Scotland.

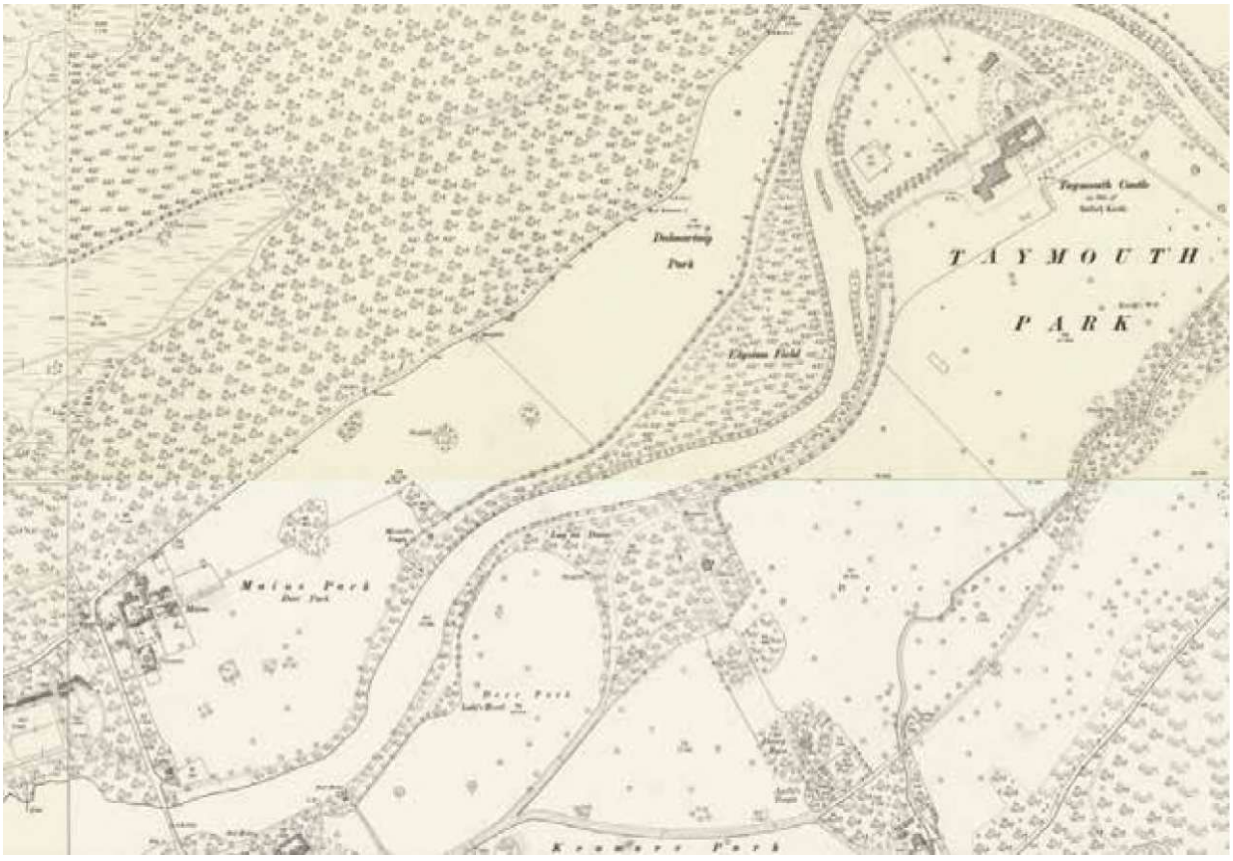


Figure 16. Ordnance Survey map, 25-inch, 1900. By permission of the National Library of Scotland.

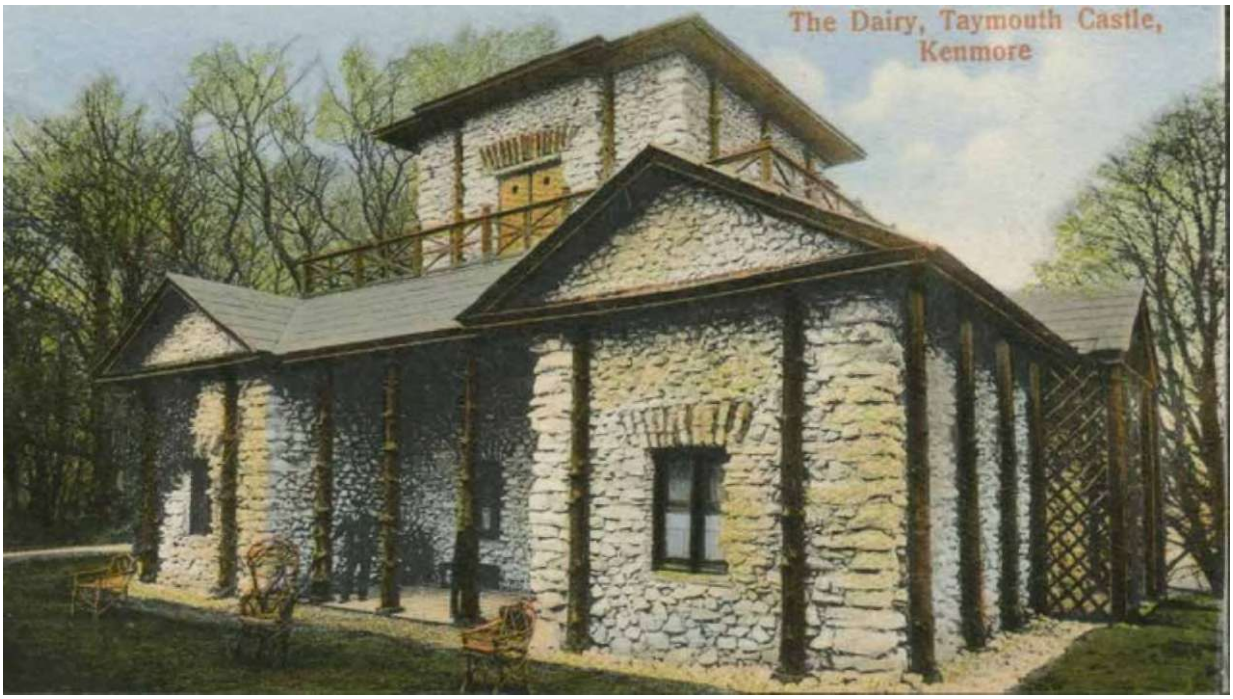


Figure 18. Postcard showing the Dairy from the south-west, circa 1900. Author's collection.



Figure 19. Aerial view of the landscape behind Taymouth Castle in 1946. © HES, www.ncap.org.uk.

a circular flowerbed, or shrubbery, and a quadrant terrace, ornamented with four large urns on pedestals.

4.16. The building played a role in the visit of Queen Victoria to Taymouth in 1842, as described by Sir Thomas Dick Lauder:

The Queen walked up the river's bank, until she came to the slopes of shaven turf, leading up to the Dairy, which stands on the flattened summit of a very beautiful little hill, clothed with trees and shrubbery of the richest luxuriance of growth. It is a lovely spot, and the building is worthy of the scene in which it is placed. It bears some resemblance in plan to the dairy cottages of the Swiss chalets, and is built entirely of dazzling white quartz rock. The western front commands one of the most beautiful views to be found anywhere in the grounds, and it is still more perfect when contemplated from the rustic balcony of the upper story of the building.

The Queen walked in by the first opening that offered itself, which happened to be the kitchen door. The damsels of the Dairy were astonished to see so fine a lady, though they could hardly have guessed that it was the fair Sovereign of these mighty kingdoms. They showed Her Majesty the rooms, however, which are paved with tessellated marbles, and of a delightfully cool temperature. The milk was all laid out in nice brown Rockingham ware, and some of it in clean wooden milk dishes, which are much preferred by the dairy-maid. Many of the vessels are of fine raised china. These were all placed on a shelf running round the apartment. Her Majesty examined every thing, and made many enquiries, and expressed great pleasure and gratification with all she saw. With her own hand, she also essayed the operation of making butter, by turning the wooden handle of a beautiful little china churn, worked by very nice wooden machinery. The Queen asked for some oaten cake, but the dairymaids had nothing of the sort. They, however, produced some cakes of a more delicate description, which had been sent up to them as a 'bonne bouche' from the castle, and they filled a glass with new milk for Her Majesty, of which she partook with great good humour and satisfaction. The Queen carried away with her the simple hearts of the two dairymaids, who afterwards declared that she was as "humble a leddy as they had ever seen".[3]

4.17. It is clear from the description that the focus of views from the building was from the terrace and the upper floor balcony and looking west towards Kenmore and Loch Tay. This view is no longer possible, as it is obscured by trees.

4.18. The Ordnance Survey map of 1867 (Figure 17) shows a path between the Dairy and Apollo's Temple at the Dairy Byre. There was probably also a visual connection (that no longer exists) between the two landscape features.

4.19. Also on the 1867 Ordnance Survey map a 'Monument' is located in the centre of the path to the north of the Dairy. This is probably the urn and pedestal that has been restored recently. The urn is possibly derived from Venus's Temple and re-located from the western terrace of the Dairy, one of the four urns shown in the early depiction at Figure 15.

4.20. The 1867 map also shows that the Berceau Walk had been largely removed, but by the time of the 1900 Ordnance Survey map it had been reinstated in large part.

4.21. The Ordnance Survey maps suggest that the planting of the Tom More woodland was mixed deciduous and evergreen.

4.22. By about 1900, when the postcard at Figure 18 was made, the Dairy had been re-

3 Dick Lauder (1843), pp.120-1.

roofed in slate and cleared of climbing plants. The balcony balustrade had been replaced in less rustic form and the rustic columns had been re-positioned directly against the quartz walls.

4.23. In 1929 the Taymouth was acquired by the MacTaggart family, who converted the house to a hotel and constructed a golf course to the designs of James Braid in the grounds. During World War II, when the castle was requisitioned for use as a hospital for Polish officers, the D-shaped area to the north of the castle was laid out with tracks and Nissen Huts (Figure 19). After the War, a Civil Defence Training Camp was established on the estate. Between 1969 and 1975 the house served as a school for the children of American servicemen. For much of the late 20th century and into the 21st century, the golf course continued to operate, but the various designed landscape elements were not actively managed and fell into disrepair. Historic views are now overgrown in places.

4.24. In 2018 Discovery Land Company acquired Taymouth Castle and the surrounding estate. Work is currently underway on a major repair and rehabilitation scheme for the house and landscape.

4.25. The Dairy remains largely as depicted in 1900, but is now in very poor condition.

5. STATEMENT OF SIGNIFICANCE

5.1. The designed landscape at Taymouth Castle is of outstanding artistic, historical, architectural and scenic interest, as described in the Inventory of Gardens and Designed Landscapes.

5.2. The landscape retains features from six principal stages of its development as far back as the seventeenth century. The predominant character of the landscape is now that of the early 19th-century parkland and its 20th- and 21st-century adaptation as a golf course. The parkland is divided into two principal compartments, east and west, by a natural ridge and clumps of planting. There are small gaps between the planting clumps that allow views from one compartment to another in certain locations.

5.3. A key interest of the designed landscape is its response to the surrounding natural scenery and exploitation of views, both internally to built and natural features and externally beyond its boundaries to the hills, rivers and lochs. Although noted on the views map supporting the 2011 planning applications, a number of the views between points are now notional, rather than actual, as the mature tree cover blocks them.

5.4. The Dairy itself and the west terrace is listed by Historic Environment Scotland at Category A, denoting a building of special architectural or historic interest which is a major example of a particular period, style or building type.

5.5. The English architect William Atkinson, who designed the Dairy, was renowned throughout the UK for his country house designs in the Gothic style. He had a particular interest in gardening and garden buildings.

5.6. The building has a noted connection with the visit to Scotland of Queen Victoria in 1842. This visit, particularly to the Taymouth Estate, was to trigger the Queen's love of Highland Scotland and the purchase of the Balmoral Estate in Aberdeenshire.

5.7. The bright white quartz stone used for the construction of the Dairy is highly

unusual and makes the building a particularly notable and eye-catching feature in the landscape.

5.8. The use of rustic tree trunks as columns is a particular feature of the estate buildings at Taymouth and the surrounding villages.

5.9. The terrace to the west of the building was designed with similarly striking quartz walling. It was intended to give access to the westward views towards Kenmore and Loch Tay.

5.10. Two features to the north of the Dairy, the urn and pedestal and small (pet) burial enclosure, are later additions to the layout of the area. The urn and pedestal are listed at Category B, but the enclosure is not listed. The locations of these features do not appear to have significance in the context of the overall arrangement of the Dairy or the broader landscape layout. The urn is probably a remnant of Venus's Temple or its setting and was then used on the terrace to the west of the Dairy.

5.11. The Dairy is surrounded by mature and over-mature broadleaf and plantation woodland. In views from the parkland to the east, the trees form a contrasting dark background to the sparkling white of the quartz. Views from the west (and outwards to the west) are limited by the density of the woodland in this direction. Views to the south and north are similarly limited by the woodland planting around the Dairy.

6. PROPOSED SCHEME

6.1. Full details of the proposals are set out in the drawings and Design Statement accompanying the applications for planning permission and listed building consent.

6.2. In summary the scheme proposes construction of two new houses to the south of the houses approved under 23/01112/FLL. The houses will be located within the clump of trees that divides the eastern and western parts of the parkland landscape.

Materials and Detail

6.3. The proposed housing design incorporates a simplified palate of external finishes in materials that are broadly consistent with the Design Philosophy contained within the 2011 consent as summarised below:

- The overall colour, tone and texture of materials to main walls and roofs will be in harmony with each other and be complementary to the setting.
- Roof finish to pitched and flat roofs is to be in standing seam zinc or grey finished metal roofing.
- Rainwater goods are to be metal and finished in graphite grey paint finish. UPVC and plastic facias, soffits and eaves and other external finishes are not permitted.
- The colour of grey roofing, render, windows and timber stain shall be chosen from a limited range of estate colours.
- Walls will be principally in timber (cedar or larch if untreated), natural local stone (Grey whinstone unless agreed otherwise). Timber will be either natural (with pre-weathered coating to provide a consistent silver/grey weathered look from



Figure 20. Proposed design for Plot 17. © McKenzie Strickland Associates, 2025.

the onset), or if stained in a in a colour consistent with the agreed estate colour range palate.

- Exposed steelwork will be in a grey consistent with the Estate colour palate.
- Windows and doors will have high-quality timber frames aluminium clad finished in grey or to compliment wall finishes and will have a vertical emphasis. Larger areas of glazing are permitted if carefully located to take advantages of light, solar gain, and outward views from the houses.
- The buildings will be detailed with clean, simple, and uncluttered lines.
- This aesthetic will ensure a coherent aesthetic which will be consistent across the estate, and which will use natural materials such as stone and timber cladding where appropriate to compliment the setting.

Landscape Proposals

6.4. Landscape design mitigation measures have been fully considered and implemented in the accompanying housing proposals include:

- Micro-siting of buildings to minimise tree loss, screen planting and planting to form a setting for the development in the landscape.
- Trees of significant arboricultural value have been retained wherever possible, whilst development will facilitate management of uncontrolled self-seeded trees and vegetation, and removal of trees that are diseased, dying, or dangerous.

- The proposed housing plots are designed to sit sympathetically within the designed landscape with no solid boundary treatments between plots in order to help preserve the character of the landscape.
- It is proposed that some remediation in the form of screen planting shall be introduced between houses with native species appropriate to the historic landscape setting.
- New private driveways within plots will be finished in permeable resin bound surfacing to ensure a high-quality durable finish, whilst enabling a fully SUDs compliant system.

6.5. It is worth emphasising that as part of the previously approved Landscape Management Plan, Discovery Land have already invested in major compensatory measures to offset these effects are in the form of a comprehensive landscape management programme. Compensatory landscaping plans across the estate are conditioned with each approved housing zone, ensuring mitigation is delivered consistently. The principal objective of this is to arrest and reverse the decline of the designed landscape and return it to its peak of c. 1862. The guiding principles for the mitigation have been the original objectives of Historic Environment Scotland and are as follows:

- To retain the intrinsic value of the landscape design.
- To retain as many of the significant elements as possible.
- To re-instate elements, where possible.
- To ensure the appropriate management regimes are established and re-established to secure good conservation management of the landscape.

6.6. The continuing implementation of the Landscape Management Plan is of course dependant on the income that will be provided by the proposed amended resort housing model and ongoing service charge revenues these will generate.

7. HERITAGE IMPACTS

7.1. In order to assess the potential visual impacts of the proposed development on the setting of the Dairy and on the character of the designated Taymouth Castle Garden & Designed Landscape, 7 viewpoints to and from the site have been selected. These are based on the viewpoints and view lines identified in the 2011 planning submission (Figure 21).

7.2. The commentaries on each viewpoint address the concerns set out in the Committee Report for the 2011 consent.

7.3. The potential impact of the development proposals on significance of the heritage assets is considered below in the following respects:

- Type of impact;
- Magnitude of impact
- Nature of impact;

TYPE OF IMPACT	
Direct	Has a physical impact on a receptor.
Indirect	Has a visual impact on a receptor, but does not cause any physical changes to the fabric of the receptor.

MAGNITUDE OF IMPACT	
Major	The change resulting from the impact of the proposed development upon the heritage value of the receptor would give rise to a very significant effect.
Moderate	The change resulting from the impact of the proposed development upon the heritage value of the receptor would give rise to a significant effect.
Minor	The change resulting from the impact of the proposed development upon the heritage value of the receptor would give rise to an effect, but this would not be significant.
Negligible	The change resulting from the impact of the proposed development upon the heritage value of the receptor would give rise to a barely discernible effect. This would not be significant.
None	The change resulting from the impact of the proposed development upon the heritage value of the receptor would have no effect.

NATURE OF IMPACT	
Beneficial	An enhancement to a receptor.
Neutral	An effect that on balance, is neither beneficial nor adverse to a receptor, and therefore preserves the receptor.
Adverse	A harmful impact to a receptor.

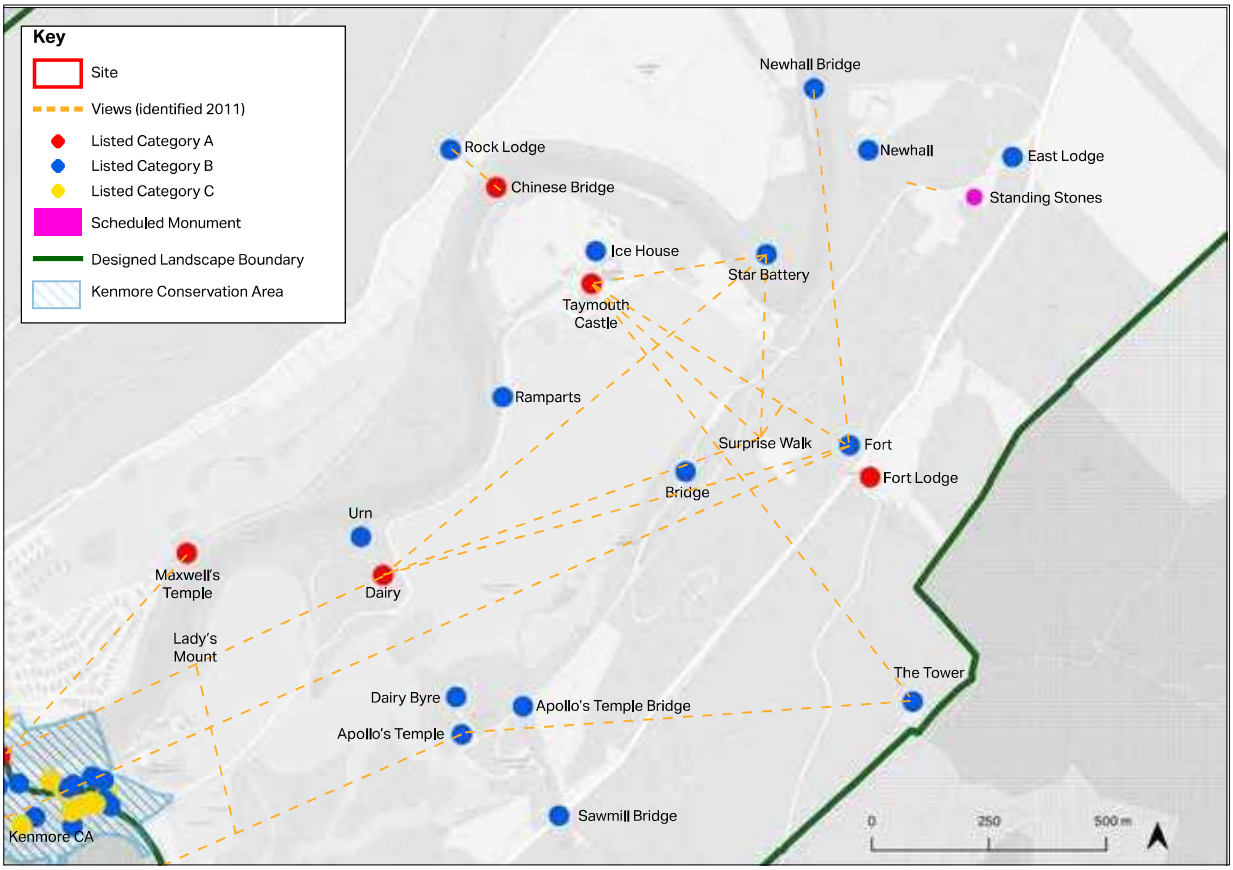


Figure 21. Plan of views identified in the 2011 planning submission. Not all these views are possible now (and were probably not possible in 2011), for example the Star Battery cannot be seen from the Dairy. © Crown copyright and database rights. Ordnance Survey 2025.. Listed building data contains public sector information licensed under the Open Government Licence v3.0.



Figure 22. View 1: existing and proposed views south from the Dairy towards the site. © McKenzie Strickland Associates, January 2025.

View 1 (Figure 22)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Neutral

7.5. The Category A-listed Dairy and its setting and the wider Designed Landscape are assessed as of **outstanding heritage significance**.

7.6. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. The impact of the development on the setting of the listed building is **indirect** (visual).

7.7. View 1 shows the current and proposed views looking south from the Dairy.

7.8. As noted in the history of development at Section 4.17 above, the principal designed view from the Dairy was westwards towards Loch Tay. This is the direction of view mentioned by in the description of Queen Victoria's visit. The view axis continued through the building to the east. Of course there were other views from the upper level of the Dairy.

7.9. Previous structures on the site of the Dairy probably had a clear visual relationship with Apollo's Temple (see Figure 12), but the design and orientation of the Dairy, presenting a side flank towards the temple, suggests that it was not a prime intention to maintain that link. The 1st Edition Ordnance Survey map of 1867 (Figure 17) shows a track between the Dairy and Apollo's Temple, passing through the clump of trees that forms the current site and also taking in an access to the Dairy Byre. The trees at the centre of the clump (affected by the proposal) are likely to be younger than those around the outside margins of the clump because of the track through the middle. By the time of the 25-inch Ordnance Survey map of 1900, the track is marked as a path and trees are shown blocking the axial route and surround the temple. There is no visual link between the Dairy and Apollo's Temple today, and that is likely to have been the case for at least a century.

7.10. The visualisation at Figure 22 demonstrates that in winter it will be possible to discern the parts of the housing through the trees to the south of the Dairy. The trees remain the foreground view. When the trees are in leaf, the houses will be further obscured. Consent was granted in 2024 for Plot 12, which is closer to the Dairy and likely to be more visible than Plot 17.

7.11. There will be night-time impacts from lighting in the landscape, but these are considered to be negligible in the context of the existing approved developments and represent an improvement on the consented scheme of 2011 in the highly visible horseshoe area.

7.12. The assessment of the potential impact of the development proposal on the setting of the listed Dairy and designed landscape is **Direct and Indirect: Negligible Neutral**. The assessment takes into account the fact that the listed building was designed to take advantage of the principal views west and east, that the south elevation is articulated as a subsidiary side elevation, that the views to and from the south are limited by mature trees, that the trees will remain the most prominent features in the views, that the views to the development will be effectively screened by existing mature trees and compensatory planting, that consent has already been granted for a similar building that is closer to the Dairy.

7.13. It should be noted that the applicants will be repairing the Dairy and providing it with a long-term beneficial use under planning permission (23/01114/FLL) and listed building consent (23/01117/LBC), removing it from the Buildings at Risk Register.

7.14. The nature of the impact is considered to be **Neutral** overall because there is a small negative impact on the setting of the Dairy, but an improvement in terms of the wider designed landscape by removing the units from the horseshoe area (approved under the 2011 consent).



Figure 23. View 2: existing and proposed views north-east towards the site. © McKenzie Strickland Associates, January 2025.

View 2 (Figure 23)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Beneficial

7.15. Taymouth Castle Designated Garden and Designed Landscape is assessed as of **outstanding heritage significance.**

7.16. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. There will also be **indirect** (visual) impacts on the views in this direction.

7.17. View 2 is a distant panoramic view towards the site from the south-west (see location plan at Figure 23). The gap in planting between the clump where the site is located and the woodland surrounding the Dairy Byre (allowing views between Kenmore Park and the Deer Park) is marked on the 'existing' image. The planting gap further north between the Dairy and the clump is not visible at this angle.

7.18. The 'proposed' view includes the two houses under the current application and the consented buildings under 23/01228/FLL and 23/01112/FLL.

7.19. At this distance the trees in front of the buildings remain prominent and there are only glimpses of the houses behind. The key features of the landscape remain unobstructed, including the skyline and the planting gap that provides a view through to the Deer Park. The two houses forming the subject of the current application appear no more visible than the consented buildings. The use of natural materials in recessive colours ensures that the houses will not be prominent in the landscape. Care has been taken to retain the mature trees that line the parkland to the west of the proposed houses.

7.20. The cumulative impact of the additional two houses on top of the existing 23/01228/FLL and 23/01112/FLL consents is considered to be small in such an expansive landscape. The total number of units will be lower than the planning permission granted in 2011.

7.21. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Negligible/Beneficial**. The assessment takes into account the fact that the views in this direction are very broad and panoramic in character, that the natural materials of the building blend with the palette of the landscape, that the existing mature trees lining the edge of the parkland will be retained, that the houses will not be prominent features in the views, that the key features of the landscape including its parkland/woodland balance and spatial/visual relationships, skyline, and the views from Kenmore Park to the Deer Park will all be maintained.

7.22. The nature of the impact is considered to be **Beneficial** overall because there is an improvement on the current baseline position in terms of the wider designed landscape by removing the units from the highly visible horseshoe area (approved under the 2011 consent).



Figure 24. View 3: existing and proposed views looking north-north-east towards the site. © McKenzie Strickland Associates, January 2025.

View 3 (Figure 24)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Beneficial

7.23. Taymouth Castle Designated Garden and Designed Landscape is assessed as of **outstanding heritage significance.**

7.24. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. There will also be **indirect** (visual) impacts on the views in this direction.

7.25. View 3 is a distant panoramic view towards the site from the south-west (see location plan at Figure 24). The gap in planting between the clump where the site is located and the woodland surrounding the Dairy (allowing views between Kenmore Park and the Deer Park) is marked on the 'existing' image. The planting gap further south between the clump and the Dairy Byre is not visible at this angle.

7.26. The 'proposed' view includes the two houses under the current application and the consented buildings under 23/01228/FLL and 23/01112/FLL.

7.27. At this distance the trees in front of the buildings remain prominent and there are only glimpses of the houses behind. The key features of the landscape remain unobstructed, including the skyline and the planting gap that provides a view through to the Deer Park. The two houses forming the subject of the current application appear no more visible than the consented buildings. The use of natural materials in recessive colours ensures that the houses will not be prominent in the landscape. Care has been taken to retain the mature trees that line the parkland to the west of the proposed houses.

7.28. The cumulative impact of the additional two houses on top of the existing 23/01228/FLL and 23/01112/FLL consents is considered to be small in such an expansive landscape. The total number of units will be lower than the planning permission granted in 2011.

7.29. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Negligible/Beneficial**. The assessment takes into account the fact that the views in this direction are very broad and panoramic in character, that the natural materials of the building blend with the palette of the landscape, that the existing mature trees lining the edge of the parkland will be retained, that the houses will not be prominent features in the views, that the key features of the landscape including its parkland/woodland balance and spatial/visual relationships, skyline, and the views from Kenmore Park to the Deer Park will all be maintained.

7.30. The nature of the impact is considered to be **Beneficial** overall because there is an improvement on the current baseline position in terms of the wider designed landscape by removing the units from the highly visible horseshoe area (approved under the 2011 consent).



Figure 25. View 4: existing and proposed views looking north-east towards the site. © McKenzie Strickland Associates, January 2025.

View 4 (Figure 25)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Beneficial

7.31. Taymouth Castle Designated Garden and Designed Landscape is assessed as of **outstanding heritage significance.**

7.32. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. There will also be **indirect** (visual) impacts on the views in this direction.

7.33. View 4 is a distant panoramic view towards the site from the south-west (see location plan at Figure 25). The gap in planting between the clump where the site is located and the woodland surrounding the Dairy Byre (allowing views between Kenmore Park and the Deer Park) is marked on the 'existing' image. The planting gap further north between the Dairy and the clump is not visible at this angle.

7.34. The 'proposed' view includes the two houses under the current application and the consented buildings under 23/01228/FLL and 23/01112/FLL.

7.35. At this distance the trees in front of the buildings remain prominent and there are only glimpses of the consented houses behind. The key features of the landscape remain unobstructed, including the skyline and the planting gap that provides a view through to the Deer Park. The two houses forming the subject of the current application are almost completely obscured by the foreground roundel from this viewpoint.

7.36. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Negligible/Beneficial**. The assessment takes into account the fact that the houses will be barely visible features in this view, that the key features of the landscape including its parkland/ woodland balance and spatial/visual relationships, skyline, and the views from Kenmore Park to the Deer Park will all be maintained.

7.37. The nature of the impact is considered to be **Beneficial** overall because there is an improvement on the current baseline position in terms of the wider designed landscape by removing the units from the highly visible horseshoe area (approved under the 2011 consent).



Figure 26. View 5: existing and proposed views looking eastwards towards the site from the Deer Park. © McKenzie Strickland Associates, January 2025.

View 5 (Figure 26)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Neutral

7.38. The Category A-listed Dairy and its setting and the wider designed landscape are assessed as of **outstanding heritage significance**.

7.39. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. There will also be **indirect** (visual) impacts on the setting of the listed building and designed landscape.

7.40. View 5 is a distant panoramic view towards the site from the north-east (see location plan at Figure 26). The gaps in planting between the clump where the site is located and the woodlands surrounding the Dairy and Dairy Byre (allowing views between Kenmore Park and the Deer Park) are marked on the 'existing' image. The view is on the east-west axis of the symmetrical Dairy.

7.41. The 'proposed' view includes the two houses under the current application and the consented buildings under 23/01228/FLL, 23/01112/FLL and 23/01114/FLL.

7.42. At this distance the trees and mound in front of the proposed units remain prominent and there are only glimpses of the houses behind. The key features of the landscape remain unobstructed, including the Dairy, the skyline and the planting gaps that provide views through to Kenmore Park. The use of natural materials in recessive colours ensures that the houses will not be prominent in the landscape. Care has been taken to retain the mature trees on the mound that lines the parkland to the east of the proposed houses.

7.43. The cumulative impact of the additional two houses on top of the existing 23/01228/FLL and 23/01112/FLL consents is considered to be small in such an expansive landscape. The total number of units will be lower than the planning permission granted in 2011.

7.44. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Negligible/Neutral**. The assessment takes into account the fact that the views in this direction are very broad and panoramic in character, that the natural materials of the building blend with the palette of the landscape, that the existing mature trees lining the edge of the parkland will be retained, that the houses will not be prominent features in the views, that the key features of the landscape including the Dairy, its parkland/ woodland balance and spatial/visual relationships, skyline, and the views from the Deer Park to Kenmore Park will all be maintained.

7.45. It should be noted that the applicants will be repairing the Dairy and providing it with a long-term beneficial use as a golf clubhouse under planning permission (23/01114/FLL) and listed building consent (23/01117/LBC), removing it from the Buildings at Risk Register.

7.46. The nature of the impact of the current application is considered to be **Neutral** overall because there is a negligible negative impact on the setting of the Dairy, but an improvement in terms of the wider designed landscape by removing the units from the horseshoe area (approved under the 2011 consent).



Figure 27. View 6: existing and proposed views eastwards from the Deer Park towards the site. © McKenzie Strickland Associates, January 2025.

View 6 (Figure 27)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Negligible/Beneficial

7.47. Taymouth Castle Designated Garden and Designed Landscape is assessed as of **outstanding heritage significance**. .

7.48. There will be **direct** impacts on the designed landscape by virtue of removal of 8 trees for the development. New trees will be planted to compensate for the loss of the existing trees. There will also be **indirect** (visual) impacts on the setting of the listed building and designed landscape.

7.49. View 6 is a close view towards the site from the north-east (see location plan at Figure 27). The gaps in planting between the clump where the site is located and the woodlands surrounding the Dairy and Dairy Byre (allowing views between Kenmore Park and the Deer Park) are marked on the 'existing' image.

7.50. The 'proposed' view includes the two houses under the current application and the consented buildings under 23/01112/FLL.

7.51. At this distance the trees and mound in front of the proposed units remain prominent and there are only glimpses of the houses behind. The key features of the landscape remain unobstructed, including the skyline and the planting gaps that provide views through to Kenmore Park. The use of natural materials in recessive colours ensures that the houses will not be prominent in the landscape. Care has been taken to retain the mature trees on the mound that lines the parkland to the east of the proposed houses.

7.52. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Negligible/Beneficial**. The assessment takes into account the fact that the existing mature trees lining the edge of the parkland will be retained, that the houses will not be prominent features in the views, that the key features of the landscape including its parkland/ woodland balance and spatial/visual relationships, skyline, and the views from Deer Park to Kenmore Park will all be maintained.

7.53. The nature of the impact is considered to be **Beneficial** overall because there is an improvement on the current baseline position in terms of the wider designed landscape by removing the units from the highly visible horseshoe area (approved under the 2011 consent).

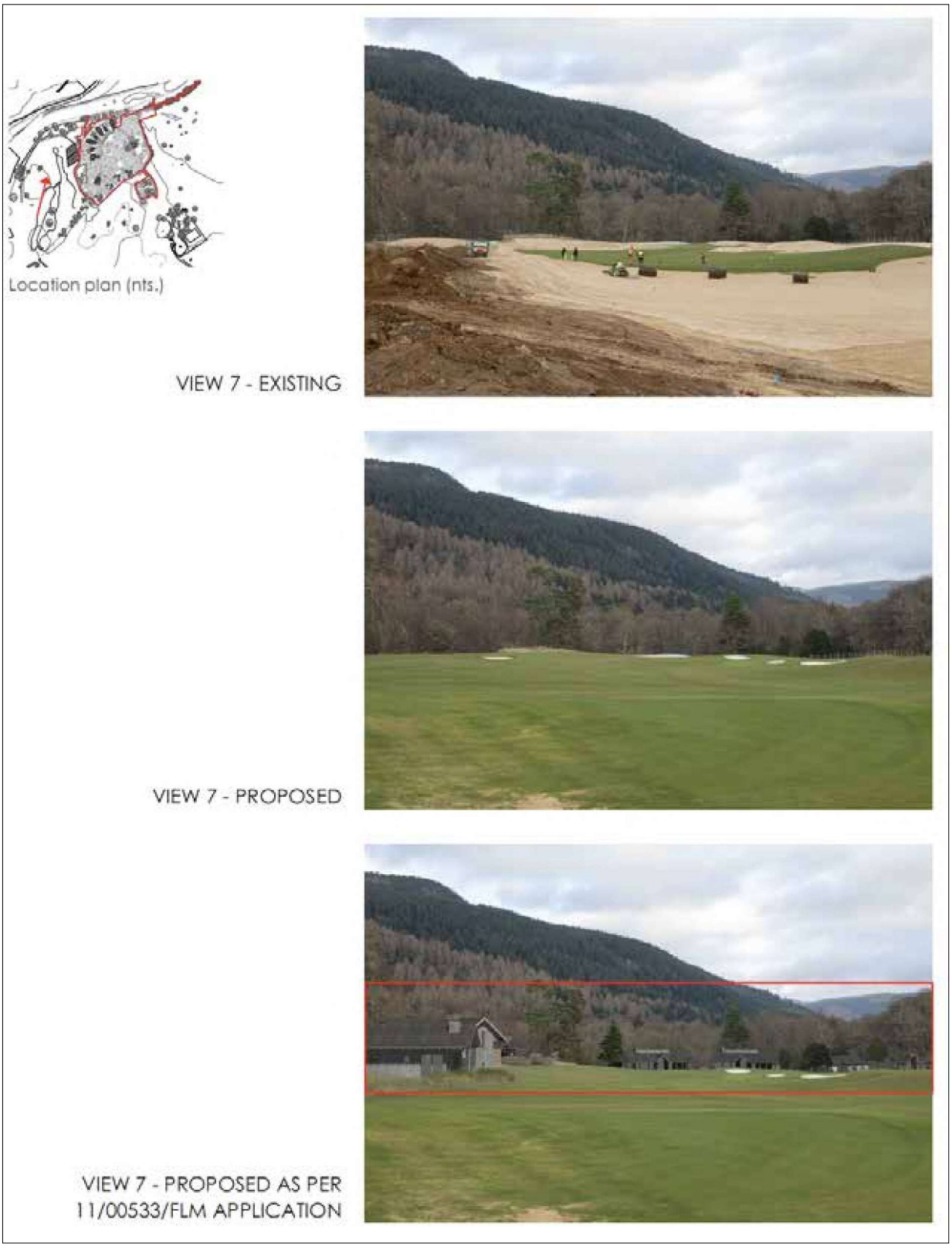


Figure 28. View 7: existing and proposed views south from the Dairy towards the site. © McKenzie Strickland Associates, January 2025.

View 7 (Figure 28)

SIGNIFICANCE: Outstanding

IMPACT: Direct and Indirect/Moderate/Beneficial

7.54. Taymouth Castle Designated Garden and Designed Landscape is assessed as of **outstanding heritage significance.**

7.55. If planning permission is granted for the current application at Z4-04, the intention is not to proceed with the consented units in this view (see the third image at Figure 28). There will be **direct** impacts on the designed landscape by virtue of removal of development from this location. There will also be **indirect** (visual) impacts on the designed landscape.

7.56. View 7 is a distant view of the horseshoe area and hills beyond (see location plan at Figure 28).

7.57. The 'proposed as per 11/00533/FLM' shows the current baseline approved in 2011. The 'existing' view shows the horseshoe area as it is today, with works to the golf course in progress. The 'proposed' view shows the horseshoe area as it will be if the current application 23/01113/FLL is granted planning permission.

7.58. The horseshoe area is open parkland to the west of the Dairy. It is highly visible from Kenmore, the River Tay and the core path. The consented scheme under 11/00533/FLM would see housing units constructed in the open parkland. If built, these units would be prominent adverse features in views eastwards across the designed landscape.

7.59. Although this area stands outside the boundary of the proposed development site at Z4-04, there would be direct benefits to this part of the estate through granting planning permission to application 23/01113/FLL, as there would no longer be a need to construct the units shown in the last image at Figure 28.

7.60. The assessment of the potential impact of the development proposal on the designated landscape is **Direct and Indirect: Moderate/Beneficial**. The assessment takes into account the fact that the key features of the landscape in this location including its parkland/woodland balance and spatial/visual relationships, skyline, and the views would all be maintained as they are.

7.61. The nature of the impact is considered to be **Beneficial** overall because there is an improvement on the current baseline position in terms of the wider designed landscape by removing the units from the highly visible horseshoe area (approved under the 2011 consent).

Summary of impacts

Receptor Listed Building (LB)/Designed Landscape (DL)	Significance	Type	Magnitude	Nature
View 1 (LB/DL)	Outstanding	Direct/Indirect	Negligible	Neutral
View 2 (DL)	Outstanding	Direct/Indirect	Negligible	Beneficial
View 3 (DL)	Outstanding	Direct/Indirect	Negligible	Beneficial
View 4 (DL)	Outstanding	Direct/Indirect	Negligible	Beneficial
View 5 (LB/DL)	Outstanding	Direct/Indirect	Negligible	Neutral
View 6 (DL)	Outstanding	Direct/Indirect	Negligible	Beneficial
View 7 (DL)	Outstanding	Direct/Indirect	Moderate	Beneficial

7.62. Under the current application 23/01113/FLL there would be a **Moderate/ Beneficial** impact from removal of units from the horseshoe area of Kenmore Park. The 'worst case' predicted impact is **Negligible/Neutral** where there is a very low level adverse impact on the setting of the Dairy, but this is balanced by the beneficial impact of removing the units from the horseshoe area. The repair and re-use of the Dairy is not taken into account in this assessment as it relates to an existing planning permission. However, the masterplan for Zone 4 in its totality represents a significant investment in and improvement to the heritage assets over the existing 2011 consent.

8. HERITAGE IMPACT ASSESSMENT

Legislation, Policy and Guidance

8.1. In determining the planning application for construction of the two new houses, the planning authority is required to take into account the potential impact of the works on the setting of the Dairy as a Category A-listed building.

8.2. The site also falls within the Taymouth Castle Garden & Designed Landscape, which is included on the national inventory. As a result, in determining the application for planning permission, the planning authority is obliged to take into account the potential impact of the proposed works on the designation.

8.3. The Planning (Listed Buildings & Conservation Areas)(Scotland) Act 1997 places emphasis on the preservation of the building or its setting or any features of special architectural interest.

8.4. Policy 7 of National Planning Framework 4 (NPF4) states that *Development proposals for the reuse, alteration or extension of a listed building will only be supported where they will preserve its character, special architectural or historic interest and setting. Development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic interest* (NPF4, Section c) and *Development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting* (NPF4, Section i).

8.5. NPF4 encourages the sensitive repair of buildings on the national Buildings at Risk Register: *Development proposals which sensitively repair, enhance and bring*

historic buildings, as identified as being at risk locally or on the national Buildings at Risk Register, back into beneficial use will be supported (NPF4, Section m). It should be noted that Taymouth Castle itself, the Dairy and Urn are three of a number of estate buildings that are the subjects of significant investment by the present applicant to repair and bring them back into beneficial use.

Guidance

8.6. Detailed guidance on the management of heritage assets can be found in Historic Environment Scotland's *Managing Change - Setting* and *Managing Change - Gardens & Designed Landscapes* are particularly relevant to this case.

8.7. Historic Environment Scotland's *Setting* guidance sets out the issues to analyse in assessing the potential impact of change. These are set out as a series of questions below.

Are key views to or from the historic asset or place likely to be interrupted?

8.8. The key views in this part of the Taymouth Castle Designated Garden and Designed Landscape are to the Dairy from the east and from the Dairy looking eastwards across the Deer Park. There are also views between the parkland compartments of Deer Park and Kenmore Park through gaps in the woodland planting to the north and south of the site. The site lies within the wide panoramic views to the surrounding hills that are available from the two parks.

8.9. The visualisations at Figure 22 to Figure 28 demonstrate that the proposed development at Z4-04 will not interrupt any of these key and important views and that the impact on the setting of the Dairy will be negligible.

Would the proposed change dominate or detract in a way that affects our ability to understand and appreciate the historic assets?

8.10. The proposals have been developed specifically to avoid dominating or detracting from the heritage assets. Overall, the proposal will represent an improvement on the consented scheme of 2011 by removing units from the horseshoe area. This will increase our ability to understand and appreciate the historic assets.

What is the visual impact of the proposed change relative to the scale of the historic asset or place and its setting?

8.11. The visual impact of the proposed change relative to the very large scale of the Taymouth designed landscape is minimal.

What is the visual impact of the proposed change relative to the current place of the historic asset in the landscape?

8.12. Although the designed landscape is enormous, it stands within an even larger context of hills, lochs and rivers. The visual impact of the proposed change relative to the wider landscape is very small indeed.

What is the presence, extent, character and scale of the existing built environment within the surroundings of the historic asset or place and how the proposed development compares to this?

8.13. The original character of the built environment was highly dispersed individual buildings scattered across the broad landscape, some of which are related visually across long distances. However, the 2011 consent introduced a number of clusters of housing and leisure-associated structures that should be considered

the baseline for the current application. The proposed development represents a small part of a revised masterplan that aims to reduce the number of individual housing units and remove them from the more sensitive open areas of parkland where possible.

What is the magnitude of the proposed change relative to the sensitivity of the setting of an asset? – sometimes relatively small changes, or a series of small changes, can have a major impact on our ability to appreciate and understand a historic asset or place. Points to consider include:

- **the ability of the setting to absorb new development without eroding its key characteristics;**
- **the effect of the proposed change on qualities of the existing setting such as sense of remoteness, current noise levels, evocation of the historical past, sense of place, cultural identity, associated spiritual responses;**
- **cumulative impacts: individual developments may not cause significant impacts on their own, but may do so when they are combined.**

8.14. Consent has already been granted (2005 and 2011) for significant changes in order to enable investment in the rescue, repair and long-term sustainable re-purposing of the heritage assets. The previous consents recognised the very large scale of the challenges to the repair and conservation of the heritage assets and the similarly extensive scale of the landscape. The designed landscape and the setting of the Dairy are sensitive to change, however such is the extent of the landscape that does have some ability to absorb development without eroding its key characteristics. As noted above, the present application is a small-scale amendment to the existing consents that is intended to improve our ability to appreciate and understand the historic assets.

9. CONCLUSION

9.1. The proposals have been thought through carefully in order to further reduce the visual and carbon impact of the previously approved scheme of 2011.

9.2. Repositioning of the houses already approved in 2011 will reduce their visual impact on the wider designed landscape.

9.3. As part of the masterplan for Zone 4, a significant scheme of repairs and a new long-term sustainable use as a golf clubhouse will rescue the Dairy from its current state of dereliction and its place on the Buildings at Risk Register.

9.4. The proposals are in accordance with Historic Environment Scotland's guidance on setting and designed landscapes and meet the Policy 7 requirements of NPF4 and Policy 29 of Perth & Kinross Local Development Plan 2. The total proposed development under the masterplan for Zone 4, including the current application for Z4-04, will protect, preserve or enhance the cultural significance, character and integrity of the designed landscape designation and will not significantly impact on important views to, from and within the site, or its setting.

10. BIBLIOGRAPHY

Scott Cooper, *A History of Ornamental Buildings and Structures in Scotland's Gardens and Designed Landscapes from12th century to 1840*, 2 vols (University of Edinburgh PhD Thesis, 2000), vol. 1 pp.187-198

Christopher Dingwall, "Gardens in the Wild" in *Garden History*, Vol. 22, No. 2 (Winter, 1994), pp. 133-156

John Gifford, *Buildings of Scotland - Perth & Kinross* (London, 2015), pp. 717-731

Nick Haynes, *RIAS Illustrated Architectural Guide to Perth & Kinross* (Edinburgh, 2000), pp. 123-125

Thomas Dick Lauder, *Memorial of the Royal Progress in Scotland* (Edinburgh, 1843)

Peter McGowan Associates, *Taymouth Castle - Historical Landscape Survey* (unpublished, undated)

Alistair Rowan, "Taymouth Castle" in *Country Life* (London, 8 October 1964, pp. 912-916 and 15 October 1954, pp. 978-981)

A.A. Tait, *The Landscape Garden in Scotland* (Edinburgh, 1980), pp.52-6

11. APPENDIX A - HISTORIC ENVIRONMENT SCOTLAND DESIGNATION ENTRIES

Address/Name of Site

TAYMOUTH DAIRY AND TERRACE ON WEST.

LB12091

Status: Designated

Documents

There are no additional online documents for this record.

Summary

Category
A

Local Authority
Perth And Kinross

NGR
NN 77978 45915

Date Added
05/10/1971

Planning Authority
Perth And Kinross

Coordinates
277978, 745915

Parish
Kenmore

Description

Rustic - Italianate, of white quartz. Single-storey with central tower, log-column porticos, semi-circular bowed feature on E. Shortly before 1838.

Statement of Special Interest

Exceptionally spectacular and complete group of large house and ancillaries

References

Bibliography

N.S.A. v. X p.476.

Address/Name of Site

URN AT TERMINATION OF DAIRY DRIVE (MARKED 'MONUMENT' ON O.S. MAP).

LB13805

Status: Designated

Documents

There are no additional online documents for this record.

Summary

Category
B

Local Authority
Perth And Kinross

NGR
NN 77933 45998

Date Added
05/10/1971

Planning Authority
Perth And Kinross

Coordinates
277933, 745998

Parish
Kenmore

Description

Ornate urn on square pedestal. No inscription.

Statement of Special Interest

Exceptionally spectacular and complete group of large country house and ancillaries

References

Bibliography

No Bibliography entries for this designation

Address/Name of Site

TAYMOUTH CASTLE

LB12093

Status: Designated

Documents

There are no additional online documents for this record.

Summary

Category
A

Local Authority
Perth And Kinross

NGR
NN 78440 46523

Date Added
05/10/1971

Planning Authority
Perth And Kinross

Coordinates
278440, 746523

Parish
Kenmore

Description

Gothic, mainly chlorite-slate ashlar. Main block 4-storey with circular angle towers of 5-storeys, central staircase and lantern: 2-storey east wing; west wing partly stuccoed brickwork 2-storey, S. part 3-storey ashlar. Battlemented throughout.

Building history:- Main block of old Ballock Castle demolished. 1799 leaving flanking 2-storey wings of c. 1733 by Wm. Adam standing.

1806 main block begun James and Archibald Elliot archts, cloisters and main building completed 1808. Staircase wholly designed and executed by Francis Bernasconi who also did the plasterwork of drawing rooms 1809-12: painted by Cornelius Dixon 1813. East wing pulled down and new east wing built 1818-19 and further extended by 1823, Wm. Atkinson, architect. 2-storey additions of stuccoed brickwork and crenellated parapet to west wing, 1825, also by Atkinson. Alterations to west wing, Queen's Rooms, Library, probably Library corridor, cast-iron external staircase and great dining hall and further storey, new battlements, ashlar casing added to Adam wing, J. Gillespie Graham archt. 1838-42 with interior work by A.W.N. Pugin. Drawing room and other ceilings by J.G. Grace from Pugin designs, finest of their period in UK.

Statement of Special Interest

Ground floor perhaps Paterson's work at least in part as the walls were built with a considerable batter and obviously not intended to have the present cloisters applied against them. Prior to Paterson, Robert Mylne had prepared plans for a new 'chateau' in 1789 but nothing was done though he did design and build a bridge 'for new road' the following year. Exceptionally spectacular and complete group of large country house and ancillaries.

References

Bibliography

Neale, Seats.

N.S.A. v. X p.468-9.

Gillies (ills)

A.H. Millar CASTLES AND MANSIONS.

Breadalbane Correspondence per A.J. Rowan, Esq. (Gillies contains the best published description.) The Breadalbane correspondence shows that several of the published descriptions of the castle are inaccurate: the work of 1838 is frequently ascribed to Bryce (1842).

Inventory Garden & Designed Landscape

TAYMOUTH CASTLE

GDL00354

Status: Designated

Documents

Where documents include maps, the use of this data is subject to terms and conditions (https://portal.historicenvironment.scot/termsandconditions).

Type Map
Title Map for TAYMOUTH CASTLE (GDL00354) (https://portal.historicenvironment.scot/document/600000805)

Summary

Date Added
01/07/1987

Local Authority
Perth And Kinross

NGR
NN 78277 46527

Parish
Kenmore

Coordinates
278277, 746527

An impressive mid-18th century designed landscape that spreads across the whole glen of the River Tay, and comprises parkland, woodland and category A listed buildings.

Artistic Interest

Level of interest Outstanding

The imaginative and bold mid 18th century designed landscape which covered the entire glen has outstanding value as a Work of Art.

Historical

Level of interest Outstanding

The significance of the early informal landscape, designed at the same time as the trendsetters in England, the association with the designers William Adam, Alexander Nasmyth, the Elliot brothers, William Atkinson, and James Gillespie Graham and with the Breadalbane family gives Taymouth outstanding Historical value.

Horticultural

Level of interest Some

The remnants of the pinetum and the outstanding size of the remaining trees gives this site some Horticultural value.

Architectural

Level of interest Outstanding

The designed landscape has outstanding Architectural value as the setting for category A listed buildings.

Archaeological

Level of interest Not Assessed

Scenic

Level of interest Outstanding

The designed landscape covers the whole glen of the River Tay and can be seen from both roads giving this site outstanding Scenic value.

Nature Conservation

Level of interest Some

The flora along the river and in the remnants of the deciduous woodland gives Taymouth some Nature Conservation value.

Location and Setting

Taymouth Castle is situated off the A827 about 1 mile (1.5km) north of Kenmore and 5 miles (8km) west of Aberfeldy. It lies on the south bank of the River Tay about a mile from Loch Tay in the heartland of the Western Grampians. The policies cover the whole of the broad glacial valley and on either side of it, they extend up to the tree line on the surrounding hills. The climate is typical of central Scotland. Set in one of the finest glens in Scotland, Taymouth is bordered on two sides by mountain ranges, by Loch Tay on the third and by the confluence of the Rivers Lyon and Tay on the fourth. There are long views north to the range of hills above Aberfeldy and particularly towards Meall Tairneachan, 2,582' (787m). There are shorter views north-west across the river to Drummond Hill and south-east to Craig Hill, 1,857' (566m). From the walled garden and pinetum, there are long views south-west across Loch Tay but the Loch cannot be seen from the Castle. Most of the designed landscape can be seen from the two roads which run through the policies on either side of the river; the A827 to the south and the minor road between Kenmore and the Appin of Dull to the north.

Lying in the centre of it policies, Taymouth Castle stands in the middle of a wide peninsula formed by a long bend in the river. The designed landscape covers the entire glen and is bordered by the surrounding physical features such as the Loch and hills. From about 1720, when the first landscape was laid out, the extent of the designed landscape has remained almost unchanged and today, it covers an area of about 2,194 acres (888ha).

The designed landscape was laid out three times during the 18th century. The first design can be seen on the plan attributed to William Adam of 1720, the second on Thomas Winter's survey of 1754 and the third on George Langlands' survey of 1786. Comparison of these plans show the radical changes which took place. The landscape was altered again in the mid-19th century as shown on the 1st edition OS of 1862, and on the 2nd edition of 1901.

Site History

There are still the remnants of the informal designed landscape undertaken in the 1750s which were added to in the early 19th century. The design remained unaltered until the estate was sold in 1922. Today, much of the designed landscape has gone and many of the remaining features are derelict.

In about 1550, Balloch Castle, as Taymouth was then called, was owned by Sir Duncan Campbell, 1st Baronet. According to Burke's peerage he is reputed to have been the 'first Highland laird to turn (his) attention to rural improvements and plant trees and he forced his tenants to do so'. It was his descendant John Campbell, the 2nd Earl of Breadalbane, who succeeded in 1717 and started the alterations to the Castle and the laying out of the grounds. In 1752, he died at the age of 90. His son John, as Lord Glenorchy and later the 3rd Earl of Breadalbane, had taken over the management of Taymouth from his elderly father and is said to have laid out the first design in 1720 and he certainly laid out the second landscape in the 1750s. He married, Amabell de Grey, the daughter and heiress of the 1st Duke of Kent, who had laid out the formal water garden at Wrest Park, Bedfordshire.

In 1720, William Adam produced a plan showing the grand design in which six radiating avenues, each over a mile long, converged on the Castle. Two elaborate gardens with parterres, grass platts and orchards were set on either side of the Castle. To the south of it around the loop of the river, Adam planted an avenue of trees in the shape of a D. This shape was divided by three avenues at angles to the Castle; one extended the central axis through it and the other two subsidiary ones continued lines set up in the two gardens.

On top of the sharply defined terraces on the banks of the river, Adam planted two long avenues of lime trees. These are known as the North Terrace and the South Terrace. In about 1733, this layout appears in a painting called: 'Birdseye view of Taymouth Castle', attributed to James Norie. This painting also shows the renovated Tower Castle with its two flanking pavilions designed by William Adam. In 1739, Jan Griffer (spelt in the accounts as Greffier) was 'paid for making changes to a view of Taymouth'. His changes to the Norie painting can still be discerned. They show the removal of the long radiating avenues and the modification of the gardens to accommodate the pavilions. The park has many more individual trees and the overall design is less formal. General Roy's plan, of c.1750 confirms these changes. It also shows the long avenue leading to the Loch and the outline of the viewing terrace cut into the slope half way up Craig Hill.

In 1754, Thomas Winter prepared another survey of the grounds and by this time all of the formal gardens, the remaining avenue and part of the terrace had been removed. The orchard had been moved to the west of the ridge where the Dairy now stands. The walled garden was also moved to the north-east of the Castle adjacent to the Newhall Kennels. Woodland had been planted on both Drummond Hill and Craig Hill. The North and South Terraces were untouched and so was the D formation of trees to the south of the Castle. Between the 1740s and mid-1750s there are several accounts for the supply of seed and garden equipment. In 1754 there is an account for a box of seed from America which is the same year as Peter Collinson supplied five boxes of seed for 'nobility & gentry of Scotland'. Collinson imported seed of wild plants mainly from the East Coast of America collected by John Bartram. Collinson was also supplying the 3rd Earl's cousin, the Duke of Argyll.

In 1786, a plan of the 'seat of the Earl of Breadalbane' was drawn by George Langlands. This shows a much more polished landscape in the informal style. All the formal planting in the glen has been removed and the entire floor turned into a huge park. The extent of the open space is accentuated by clumps of trees and single specimens. The main road had been moved to halfway up Taymouth Hill and the entrance drive re-aligned. Views of the Castle and most of the follies are shown around the plan and these include, the Octagon, the Fort, Maxwell's Building, Star Seat, Apollo's Temple, Venus' Temple, Aeolus's Temple and the Recess in the Surprise Wall. The Tower, Chinese Bridge and Ladies Mount were noted on the plan but not illustrated.

In 1760, Richard Pococke visited Taymouth and he describes at some length the walk which he took around the pleasure grounds. It must have been a long walk as it included visiting all the buildings shown in Langlands plan and the landscape he described was very similar in concept to that of Stourhead, Hagley Hall and Painshill which had all been started at most only ten years before Taymouth. In 1776, William Gilpin was not as impressed as Pococke, and wrote: 'The whole scene is capable of great improvement: but when we saw it, nothing like taste had been exercised upon it'. Although published in 1796 sometime after his visit, William Marshall, in the 2nd edition of his book on 'Planting and Rural Ornament', describes the 3rd Earl's pleasure ground at some length. He wrote the 'the late Earl .... made Taymouth his principal residence ... and made great alterations in the place; and considering the day in which they were done (near half a century ago, in the early dawn of rational improvements), they remain,....proofs of his superior abilities'. In 1782, John the 4th Earl, aged 20 years old, succeeded his grandfather. In 1789, he commissioned Robert Mylne, the architect to the Duke of Argyll at Inveraray to prepare plans for a new 'chateau'. They were not executed.

But between 1800 and 1834, the 4th Earl transformed the Castle using various architects including Alexander Nasmyth who drew up proposals for another house and a bridge and William Atkinson who was noted for his interest in gardening. In 1831 John was created 1st Marquess of Breadalbane; he died three years later. His son, the 2nd Marquess played host to Queen Victoria and Prince Albert in 1842 during a three day visit to Taymouth and the Castle was exuberantly refurbished by James Gillespie Graham for this visit. In 1866, the Queen returned for a private visit.

Throughout the 19th century, there were changes to the designed landscape; some of the 18th century follies were removed and new ones built in their place; for example, the Venus' Temple was substituted by the Dairy, Maxwell's Building by Maxwell's Temple and the Star Seat by the Star Battery, but it is not known who laid out these changes though William Atkinson designed the replica of Queen Eleanor's Cross as Maxwell's Temple.

In 1823, J.C. Loudon in his Encyclopaedia of Gardening described Taymouth as the 'most magnificent residence in the county. ..... The mountain, lawn and banks of the waters, are richly clothed with wood, through which are led magnificent walks. Of trees, the lime and larches have attained to a great size, and there is an avenue of the former 450 yards in length, scarcely equalled anywhere.'

By the 1st edition OS plan of 1862, there had been several changes to the designed landscape. The kitchen garden had been moved to its present site on the northern banks of the Loch. Several additional drives had been made in the park, and new buildings added, particularly the Dairy Byre, the Monument, the sawmill and Newhall offices and buildings.

In 1862, the 2nd Marquess died and the United Kingdom titles became extinct. The succession to the Scottish Earldom was decided in favour of a very distant cousin, John Campbell, who became the 6th Earl. He died ten years later and was succeeded by his son, Gavin. In 1873, the 7th Earl was created 1st Marquess of Breadalbane and he managed to lose most of his large estate. In 1922, following his death, his nephew inherited and had to sell the Castle and its grounds.

In 1929, the Castle opened as an hotel and the park was laid out as a golf course. During World War II, the Castle was used as a Polish hospital and Nissen Huts were constructed on the lawns between the Castle and the river. The foundations are still there today. In 1950 it became the Civil Defence School run by the Home Office. Recently the lease for a school has terminated and the Castle has been empty for many years. The golf course is still in use today.

Landscape Components

Architectural Features

Taymouth Castle, listed category A, is a four-storey 'Gothic' building with circular towers. Originally a 15th century stronghold, two pavilions were added by William Adam around 1733. In 1799, the central tower was demolished. The reconstruction of the main block began in 1801 to designs by John Paterson. He was dismissed in 1805 and his building pulled down. In 1806, James and Archibald Elliot started the block again. Their design clearly shows the influence of the 18th century Inveraray Castle. In 1818-19, following the death of James Elliot, William Atkinson built

a new east wing which was extended in 1823 and 1825-27. For the 2nd Marquess in 1838, James Gillepsie Graham added a further storey to the Castle, adjusted the facades of the wings and added new battlements. He arranged for the exuberant and ornate interiors to be finished in time for Queen Victoria's visit in 1842. Taymouth is considered by Alistair Rowan as 'one of the most magnificent Georgian neo- Gothic castles in Scotland'.

Main Lodge and Arch, listed category B designed by James and Archibald Elliot, is an octagonal lodge with a circular staircase and the entrance arch is castellated flanked by a Tudor Screen. Newhall Lodge, listed category B is a rustic lodge at the eastern entrance to the grounds. Fort Lodge, listed category A, is a single storey building with rustic columns and arches made from logs in the late 1830s. The eaves are decorated with stags' heads in the centre.

Kenmore Screen and Lodge, listed category B. Kenmore Bridge Lodge, is listed category B. Delarb Rustic Lodge, listed category B, is an early 19th century, 'Gothic' rustic building overlooking Loch Tay at the end of the pinetum. The ruined Rock Lodge, listed category B, is a 19th century, 'Gothic' circular tower with rustic masonry. Rustic Lodge, listed category A, was built around 1840 and is similar to Fort Lodge with rustic log colonnades.

Newhall Bridge, listed category B, was constructed with cast-iron arched spans with wooden decking which is now rotten. The Kennels and Farm Buildings, are sited near the 18th century kitchen gardens. The 5m high walls of the garden with arched doorways have two cottages built against them. The early 19th century Bridge, listed category B, spans the Taymouth Burn just below the Fort. The derelict Fort, listed category B, is a semi-circular folly flanked by stone screens. It was shown on Langlands plan of 1786, mentioned by Pococke in 1760 and is said to be by John Baxter.

The ruined Tower, listed category B is described by Pococke in 1760 as a 'round tower, the walls of which are about three feet thick,... the top being finished with battlements; from which there is a very fine prospect to the West and North.'

A Bridge over Taymouth Burn near Apollo's Temple listed category B, is early 19th century. Apollo's Temple, listed category B is derelict. The derelict Dairy Byre and Old Curling pond lie north of the mound of Apollo's Temple. The Byre is an ornate cowshed. The Sawmills are also derelict. The Dairy, listed category A, is a rustic Italianate building made from white quartz. It replaced the Venus' Temple shown on the 1786 plan and has recently been restored. The Monument, listed category B, is an Urn on a square Pedestal and is thought to date from the 18th century. It is marked on the 1st edition OS of 1862. The crenellated Ramparts, listed category B, run along about 200 yards of the riverbank just west of the Castle.

The Walled Garden, listed category B, is a large rectangle with an imposing 'Gothic' gateway built about 1838. The Maxwell's Temple, listed category A is shaped like Queen Eleanor's Cross and was designed by William Atkinson in 1831. The derelict Chinese Bridge, listed category A, is early 19th century with cast-iron arches possibly by A. Nasmyth on the site of a previous wooden bridge. The Star Battery, listed category B, is a crenellated wall built on the plan of half a star on the site of the Star Seat shown on the 1786 plan. It is said to be on the site of the Old Parish Church. All the buildings are considered by the listings as an 'exceptionally spectacular and complete group of large Country House (buildings) and ancillaries'.

Parkland

For over 2 miles (3km) on either side of the river, the park extends from the Loch to the confluence with the River Lyon. Originally designed by William Adam in 1720, it was radically altered between 1754 and 1760. When Richard Pococke visited Taymouth in 1760, he described in detail the long walks around pleasure grounds, the follies and other features. These are clearly shown on the 1786 plan. At this time Taymouth was one of the earliest landscapes in Scotland with 'ferme ornee' features and it also had strong similarities to Painshill and Stourhead.

In 1796, Marshall described the park as ' composed of rich, well turned knolls, rising one behind the other, with dips of flattened stages between them; falling back with easy slopes; so as to form a most beautiful style of the ground: such as is seldom seen in mountain districts'. Early in the 19th century, the park was altered but many features still remain of its mid-18th century design. Throughout the 19th century it was grazed by deer, and also by a herd of bison which was later replaced by the more 'gentle Highland cattle'.

On either side of river, the raised banks or terraces are remnants of William Adam's design. The South Terrace ran from Lady's Mount, at the western end of the park, to the northern end of the loop in the river near the Castle. It was planted with lime trees some of which were replaced in the 1800s and others in the last 5 years. The North Terrace stretched for over 450 yards from Maxwell's Temple to the river bank opposite the Rustic Lodge near Point of Lyon. This is still bordered by closely spaced lime trees as far as the Star Battery which is about half way along the original avenue. These limes created the Gothic arch experience described by all the commentators. The girth of these trees is very small if they were planted in about 1720. They may have been replanted in the 1800s.

Taymouth Park has been laid out as a golf course and the fairways imposed upon it. There has been no replacement of park trees and new planting has defined the straight edged fairways. Most of the western end of the park has been absorbed into Kenmore by new development and playing fields have been made to the south of the drive. All the park on the north side of the river is now grazed with livestock and the trees have been removed. At the west end there is an unsightly caravan park. Derelict army huts now cover the lawns in the loop of the river where in the late 19th century, the beautiful grass was commented on. In the 18th century, there were over 13 miles of walks around the policies and now, except for the main drive, all the other paths have been abandoned. Most of the follies and the two bridges are derelict and smothered by weeds.

Woodland

In 1796, Marshall described Drummond Hill as 'now mantled from the base to near the summit, with woods of the most luxuriant growth: the lower and middle regions with oak, beeches, and other deciduous woods, interspersed with larch and firs: the upper region with Highland Pine'. By the 1754 plan, the woods on both Craig Hill and Drummond Hill were nearly planted up; they had been completed by the 1786 survey. In 1922, following the sale, most of these woodlands were replanted with conifers. Since the 1950s, the Forestry Commission has extended the coniferous plantations further up the hills. The small woodland copses along the river and around the Dairy Terrace have had little attention since the early 20th century and those towards Newhall and around Star Battery are in a poor condition.

Woodland Garden

There are a few remaining Rhododendrons and Azaleas on the Dairy Terrace and to the west of the Castle. In the mid-19th century, the pinetum was planted along the Loch shore to the south-west of the walled garden. A Wellingtonia still stands over 148' high, planted only a year after it was introduced in 1853. In 1982, Alan Mitchell measured 23 conifers of 15 species and only four were under 100'. As there has been little maintenance for the last 30 years, sycamore seedlings have taken over and the arboretum is a tangle of undergrowth and fallen trees.

Walled Gardens

The walled garden was built in the early 19th century and its layout is clearly seen on the 1st edition OS plan. All glasshouses and other ancillary buildings have gone except the 'Gothic' arched entrance and the brick walls. In 1900, an article in the Gardening World described these gardens in detail. They contained several glasshouses including several stove houses, and an enormous Palm House, seven vineries, three peach houses and a small fernery. The centre walk was bordered on either side by 'two lovely ribbon borders' and there were flower gardens on the south and east sides but there is no trace of them today. At present, planning permission is being sought to build time- share apartments within the walls. (Since the survey permission has been granted and now the apartments are being built).

References

Bibliography

Sources

Printed Sources

T. Pennant, Tour in Scotland 1772, 80-81

J.P.Neale Views v.6, 1823

F.O. Morris, Series of Picturesque Views v.2, 31

R.Pococke, Tours in Scotland 1887, 235-36

Gdning World, v.17, 1900, 104-05

CL v.136, 1964, 912-13,978-79

B.Jones, Follies & Grottoes 1974, 188-91

J.Harris, Artist and the Country House 1979,198-99

William Marshall, Planting & Rural Ornament,1796

J.C. Loudon, 1824

NSA 1845

A.A. Tait, 1980

A. Mitchell, Tree Survey 1983

Groome's, 1882

Listings

NMRS, Engravings & Photographs

Millard
More than civil engineers





Proposed Residential Development at Zone 4, Taymouth Castle, by Kenmore, Perth & Kinross

Flood Risk Assessment

Ref: 17264/AB/872 Rev D
March 2024



REGISTRATION OF AMENDMENTS

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By
Final 20.3.23	N/A	A.Braid	K.Pirie
A 27.10.23	Updated for planning layout.	A.Braid	K.Pirie
B 27.10.23	Text Amendments.	A.Braid	K.Pirie
C 09.11.23	Report updated with latest masterplan.	A.Braid	K.Pirie
D 08.03.24	Report updated to include design information for the man-made channel and culvert through the golf course.	A.Braid	K.Pirie

CLIENT: The River Tay Castle LLP

ENGINEER: Millard Consulting
Seabraes
18 Greenmarket
Dundee
DD1 4QB

Tel: 01382 227380

Report Prepared By:



.....
Andrew Braid

Report Checked By:



.....
Ken Pirie (Managing Director)

COPYRIGHT

Copyright of this report is vested in T A Millard Scotland Ltd and no part of it may be reproduced or copied by any means without prior written permission from T A Millard Scotland Ltd. If you have received this report in error, please destroy all copies in your possession and notify T A Millard Scotland Ltd immediately.

The findings and recommendations of this report are for the use if the client named on the cover and relate to the project described in this report only. Unless otherwise agreed in writing by T A Millard Scotland Ltd no other party may use, make use of or rely on the contents of this report. No liability is accepted by T A Millard Scotland Ltd for any use of this report, other than the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of T A Millard Scotland Ltd using due skill, care and diligence in the preparation of the same. No independent verification of any of the documents or information supplied to T A Millard Scotland Ltd had been made.

CONTENTS

1.0	**Introduction**	**4**
2.0	**General Description of Site**	**6**
3.0	**General Observations**	**10**
4.0	**Estimation of Flood Flows**	**11**
5.0	**Predicted Flood Levels**	**16**
6.0	**Predicted Flood Risk – Man-Made Channel**	**21**
7.0	**Proposed Mitigation and Management of Flood Risk**	**25**
8.0	**Conclusion**	**26**
9.0	**References**	**27**

Appendix A: Data and Results from WINFAP Flow Analysis

Appendix B: Output from Hydraulic Model

Appendix C: SEPA FRA Checklist

PLANS

17264/SK/101B	**ZONE 4 AND GOLF COURSE CULVERT AND OPEN CHANNEL ALIGNMENT**
17264/21/400	**PREDICTED FLOOD EXTENTS**
17264/21/403A	**PREDICTED 1 IN 200YR + CLIMATE CHANGE FLOOD EXTENT WITH PROPOSED LAYOUT OVERLAIN**
17264/21/404	**POST DEVELOPMENT OVERLAND FLOW PATHS – GOLF COURSE CULVERT**
Z4(PL)MP D	**PROPOSED MASTERPLAN (MCKENZIE STRICKLAND ASSOCIATES)**

1.0 Introduction

Millard Consulting have been instructed by The River Tay Castle LLP, to carry out a Flood Risk Assessment in relation to a proposed development at Taymouth, by Kenmore. This report specifically refers to Zone 4 of the proposed development, which covers the area in the vicinity of the castle itself. The proposed layout for Zone 4 is shown on McKenzie Strickland Associates drawing Z4(PL)MP Revision B, enclosed within the "Plans" section of this report.

This assessment uses the methods of the Flood Estimation Handbook – Institute of Hydrology (1999). The assessment is prepared using our best engineering judgement but there are levels of uncertainty implicit in the historical data and methods of analysis. Details of the range of possible error in the methods of flood estimation are given in the Flood Estimation Handbook (FEH).

The overall site area is bounded in red in Figure 1 below, while Figure 2 shows the extents of Zone 4.



Figure 1 – Site Location Plan, Taymouth Estate

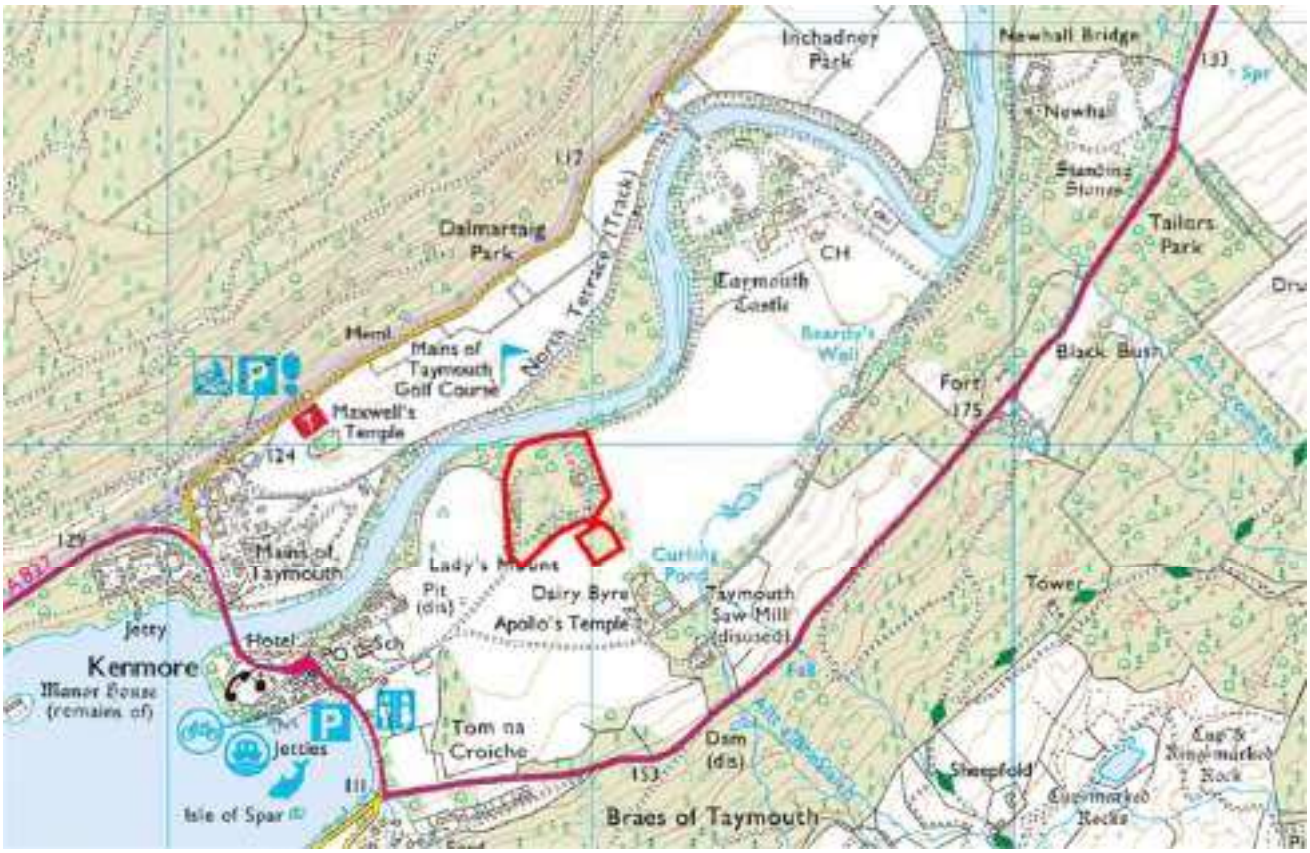


Figure 2 – Zone 4 location plan

2.0 General Description of Site

The Taymouth site consists of the full grounds of Taymouth Castle and is located immediately north east of the village of Kenmore in Perth and Kinross. The site is centred at Ordnance Survey grid reference NN 78249 46017.

The Taymouth site is approximately 1.4km^2 in size and consists of a large woodland area, a golf course, Taymouth Castle and a number of dwellinghouses. The topography of the site is generally flat from the north western boundary across the golf course area, before ground levels rise steeply towards the A827 public road which forms the south eastern boundary of the site. The golf course area consists mainly of short grass and rough grassland with occasional trees, with the steeply sloping section accounting for the majority of the woodland area. Ground levels around the castle generally fall from approximately 103m AOD at its western end, to 101.5m AOD at its eastern end, while ground levels within Zone 4 sit generally between 115m and 130m AOD.

Zone 4 is 5.3ha in size and is located at the south western end of the estate, bounded to the north by the River Tay. In addition to the River Tay a man-made surface water channel flows past the western side of Zone 4, before flowing into the River Tay. The man-made channel meanders through the adjacent golf course to the south of Zone 4 before entering a man-made pond in the vicinity of the south western corner of Zone 4 and then continuing past the site.

Zone 4 generally sits higher than surrounding ground, with steep slopes down to surrounding ground along its northern, eastern and western edges. To the south ground levels generally fall to the south/south east.

The River Tay flows from the eastern end of Loch Tay at Kenmore, in a north easterly direction past Taymouth Estate. The length of the River Tay modelled as part of this assessment begins at the downstream side of Kenmore Bridge and extends a further 3.8km downstream. Within the length of the model, two bridges cross the River Tay. These include the “Chinese Bridge” which is located approximately midway through the model, adjacent to Taymouth Castle, and the Newhall Bridge towards the downstream end. Both bridges have been constructed spanning across the watercourse with the support of piers. The bridges have both been modelled as part of this assessment.

The site generally sits higher than surrounding ground, with steep slopes around the northern, eastern and western sides of Zone 4. The highest point within Zone 4 is situated at an elevation of approximately 130.6m AOD. In the vicinity of the highest point an existing building is located, noted on mapping as “The Dairy”.

A second natural watercourse is located running through Taymouth Estate which is relevant to this assessment. The Allt a Bhealaich flows into Taymouth Estate from the south, flowing through the steep wooded area, before entering the flatter golf course section of the site. At this location the watercourse begins flowing in a north easterly direction at the bottom of the woodland slope, before reaching its confluence with the River Tay approximately 500m upstream of Newhall Bridge. This watercourse is a significant distance from Zone 4 to the south east and due to this distance and surrounding topography the Allt a Bhealaich does not pose a flood risk to the site, however it has been included in the hydraulic model utilised in this assessment.

A Scottish Water water supply borehole is located at the western edge of Zone 4 along with associated supply pipes. The supply pipes run generally north and south from the borehole, with a pipe running in an easterly direction along the bank of the Tay in the vicinity of the northern boundary of Zone 4.



Photograph 1 – looking southwards towards “The Dairy” which can be seen in the centre right of the picture. The significant rise in ground levels from the golf course into Zone 4 is evident.



Photograph 2 – taken from the north eastern corner of Zone 4, looking north east. As can be seen there is a significant level difference from the photograph location down to the River Tay.



Photograph 3 – looking south west from approximately the south western extent of Zone 4

3.0 General Observations

The objective of this flood risk assessment is to analyse the flows in the watercourses and define the appropriate flood levels and flood envelope affecting the site.

Under National Planning Framework 4 (NPF4), it is stated that development proposals at risk of flooding or in a flood risk area will only be supported if they are for:

i. essential infrastructure where the location is required for operational reasons;

ii. water compatible uses;

iii. redevelopment of an existing building or site for an equal or less vulnerable use; or.

iv. redevelopment of previously used sites in built up areas where the LDP has identified a need to bring these into positive use and where proposals demonstrate that long-term safety and resilience can be secured in accordance with relevant SEPA advice.

In this instance therefore development requires to be outwith a defined flood risk area. NPF4 defines a flood risk area as follows:

"For planning purposes, at risk of flooding or in a flood risk area means land or built form with an annual probability of being flooded of greater than 0.5% which must include an appropriate allowance for future climate change."

In this particular instance therefore all proposed properties should be outwith the 0.5% annual probability flood extent (alternatively known as the 1 in 200 year return period flood extent), including an allowance for climate change.

Previous flooding events have been known to occur on Taymouth Estate, with the worst flood in recent times in 1993 being recorded as having flooded an outbuilding to the north east of the castle to a depth of 0.4m (Scott Wilson Associates, 1993). SEPA have a gauging station on the Tay at Taymouth Castle, and a maximum level of 2.525m was recorded on the 17th of January 1993. Adding this level to the gauge datum value of 100.4m to convert the recorded level to Ordnance Survey, it can be said that the maximum recorded flood level at the gauge was 102.93m. SEPA have provided the latest annual maxima series for the gauging station, which states a peak flood flow of 336.5m^3/s on 17th January 1993.

As part of a proposed redevelopment of the adjacent golf course, the man-made, meandering channel is to be culverted for a significant proportion of its length. This includes the removal of the existing pond to the south west of Zone 4, while the open channel which runs northwards along the western boundary of Zone 4 will be altered also. At the time of writing, final proposals for this channel are to be confirmed.

4.0 Estimation of Flood Flows

In order to define the extent and water surface level of the 0.5% annual probability floodplain, an assessment has been made of flood flows in both the River Tay and the Allt a Bhealaich. The Statistical Method as outlined in the Flood Estimation Handbook (FEH) has been utilised for both watercourses, while the FEH Rainfall Runoff Method and the Revitalised Flood Hydrograph Method have also been utilised for the Allt a Bhealaich.

4.1 River Tay

4.1.1 FEH Statistical Method

The first stage in flow estimation for the River Tay was to establish a pooling group of catchments similar to the River Tay at Kenmore, where SEPA currently have a gauging station located adjacent to the site. A "pooling group" is a selection of catchments across the UK which have very similar characteristics and which have existing gauged flow records covering a statistically adequate number of years. The gauging station on the River Tay at Kenmore was included in the pooling group, with an additional weighting added to it due to its increased "value" to the pooling group based on its location.

The latest available annual maxima series at the time of analysis for the Tay at Kenmore gauge was used in the estimation of flood flows; a hybrid dataset collated using NRFA peak flows data (version 11) and the annual maxima data obtained directly from SEPA. For comparative purposes the flow estimation was also undertaken applying only the NRFA data. Although the 1 in 200 year flood flow predictions were very similar, the hybrid dataset provided a slightly higher 1 in 200 year flood flow.

The pooling group is established in WINFAP-FEH software which subjects the group to a statistical analysis. In this case an additional weighting towards the River Tay at Kenmore station was applied. The outcomes of the statistical analysis are predictions of the QMED (the flood flow along the river or floodplain that is statistically "exceeded on average every other year") and Q200 flowrates for the Tay at Kenmore (adjacent to the site). The final pooling group is shown in Figure 3 below.

	Station	Distance (SDM)	Years of data	QMED AM	L-CV Observed	L-CV Deuteranised	L-SKEW Observed	L-SKEW Deuteranised	Discordancy
1	15016 (Tay @ Kenmore)	0.000	46	200.593	0.162	**0.162**	0.135	**0.135**	0.462
2	18003 (Tatth @ Bridge of Teith)	0.246	51	229.500	0.174	**0.175**	0.105	**0.104**	1.608
3	85001 (Leven @ Linnbrane)	0.676	43	124.173	0.109	**0.109**	0.093	**0.093**	1.461
4	94001 (Ewe @ Poolewe)	0.748	49	115.927	0.147	**0.147**	0.103	**0.103**	0.277
5	75002 (Derwent @ Casselton)	0.775	50	203.936	0.167	**0.168**	0.219	**0.218**	1.311
6	75003 (Derwent @ Ouse Bridge)	0.966	54	101.259	0.234	**0.234**	0.381	**0.380**	1.752
7	76003 (Eamont @ Udford)	0.955	55	200.926	0.204	**0.205**	0.227	**0.225**	0.689
8	15007 (Tay @ Pinacree)	1.045	55	354.932	0.171	**0.171**	0.180	**0.180**	0.932
9	96002 (Naver @ Apigill)	1.040	44	135.932	0.184	**0.184**	0.276	**0.276**	0.997
10	16001 (Earn @ Kinkell Bridge)	1.104	50	203.984	0.110	**0.110**	0.019	**0.018**	1.102
11	15011 (Lyon @ Comrie Bridge)	1.117	49	221.166	0.184	**0.184**	0.272	**0.272**	0.509
12									
13									
14									
15									

Figure 3 – River Tay flow estimation pooling group (no adjustments required)

The WINFAP-FEH analysis was undertaken for the Generalised Logistic distribution. The Generalised Logistic distribution is generally accepted as being the most appropriate for UK catchments, as recommended by the Flood Estimation Handbook. The results from the analysis are outlined in the table below:

Return Period	Distribution
	Generalised Logistic
$QMED_{observed}$	200.593m^3/s
Q200	481.7m^3/s
Q200+53%	737m^3/s

Table 4.1 Flow calculation results using FEH Statistical Method

For comparative purposes, a Single Site Analysis using the River Tay at Kenmore gauging station was undertaken to estimate the Q200 flowrate in the Tay adjacent to the site. The Q200 flowrate derived by the Single Site Analysis was 453.8m^3/s using the Generalised Logistic distribution.

As outlined in Section 3.0, an allowance for climate change is to be included to establish the applicable flood risk area. Climate change requirements set out in the SEPA document "Climate change allowances for flood risk assessment in land use planning" have been applied in this assessment. An uplift in flood flow of 53% has therefore been applied to the estimated 1 in 200 year flood flow for the River Tay.

The results of the WINFAP flow analysis are enclosed within Appendix A of this report.

Catchment descriptors for the Tay at Kenmore catchment are shown in Figure 4 below, while Figure 5 shows the area of the catchment.

```
TYPE,CD3
VERSION,3.0
[END]
[STATION NUMBER]
 15016
[END]
[CDS DETAILS]
NAME,Tay
LOCATION,Kenmore
NOMINAL AREA,  598.28
NOMINAL NGR,2782,7467
[END]
[DESCRIPTORS]
IHDTM NGR,GB     ,278200,746700
CENTROID NGR,GB,253567,733600
DTM AREA,  598.28
ALTBAR, 446
ASPBAR, 78
ASPVAR,0.07
BFIHOST,0.423
DPLBAR, 35.36
DPSBAR,226.5
FARL,0.760
FPEXT,0.0344
LDP, 68.92
PROPWET,0.71
RMED-1H, 10.7
RMED-1D, 52.9
RMED-2D, 75.1
SAAR,2130
SAAR4170,2068
SPRHOST,44.79
URBEXT1990,0.0002
URBEXT2000,0.0006
```

Figure 4 – Tay at Kenmore catchment descriptors

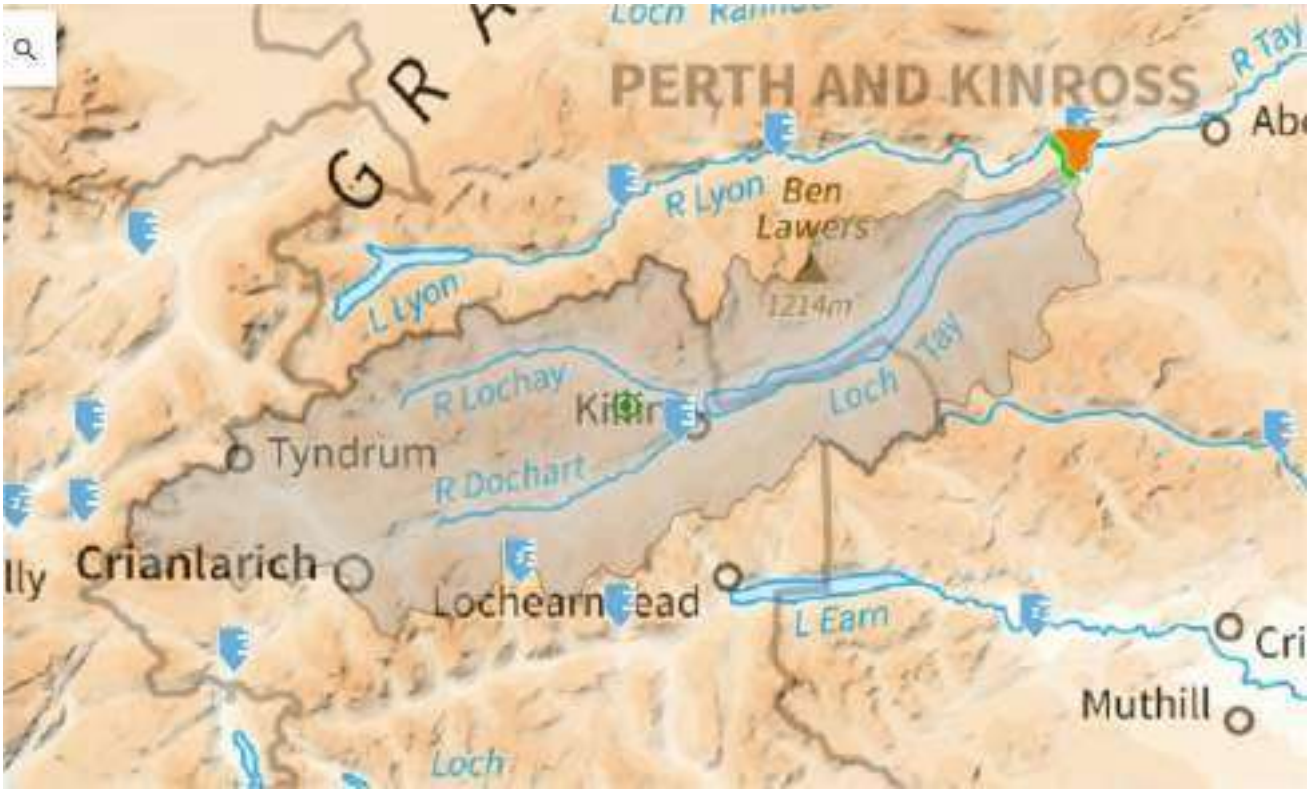


Figure 5 – Catchment of Tay at Kenmore

4.2 Allt a Bhealaich

Flood flows for the Allt a Bhealaich were estimated for a recent flood risk assessment undertaken for Zone 1 of the proposed development at Taymouth Castle (Millard Consulting report ref: 17264/AB/833, dated September 2022). In this assessment a 1 in 200 year flood flow of 22.59m^3/s was estimated for a catchment size of 7.91km^2. The catchment of the Allt a Bhealaich at its confluence with the River Tay has been estimated as 8.25km^2 in size, hence for the purposes of this report the predicted 1 in 200 year flood flow estimated in the Zone 1 report has been increased by the ratio of catchment size for the Allt a Bhealaich at Zone 1, and at its confluence with the Tay.

8.25/7.91 = 1.043 (hence the increase in catchment size is estimated as 4.3%).

22.59 x 1.043 = 23.56m^3/s

The 1 in 200 year flood flow to be applied in this assessment for the Allt a Bhealaich is therefore 23.56m^3/s.

Due to the size of the catchment being less than 30km^2 in size, the applicable climate change allowance for the Allt a Bhealaich is 39%, which should be applied to rainfall intensities. Calculations undertaken for the Taymouth Castle Zone 1 flood risk assessment report show that an increase in rainfall intensity of 39% results in an additional 47% peak flood flow. The 1 in 200 year + climate change flood flow for the Allt a Bhealaich has therefore been estimated as 34.63m^3/s (23.56 x 1.47).

Return Period	Predicted Flood Flow
Q200	**23.56m^3/s**
Q200+CC	**34.63m^3/s**

Table 4.2 Predicted flood flows for the Allt a Bhealaich

4.3 Unnamed Channel adjacent to Zone 4

Flood flows for the unnamed channel were estimated using both the FEH Rainfall Runoff Method and ReFH2. The full catchment of the channel adjacent to Zone 4 has been estimated as being 0.87km^2 in size (0.9km^2 applied in flow calculations). The estimated catchment is shown in Figure 5 below.

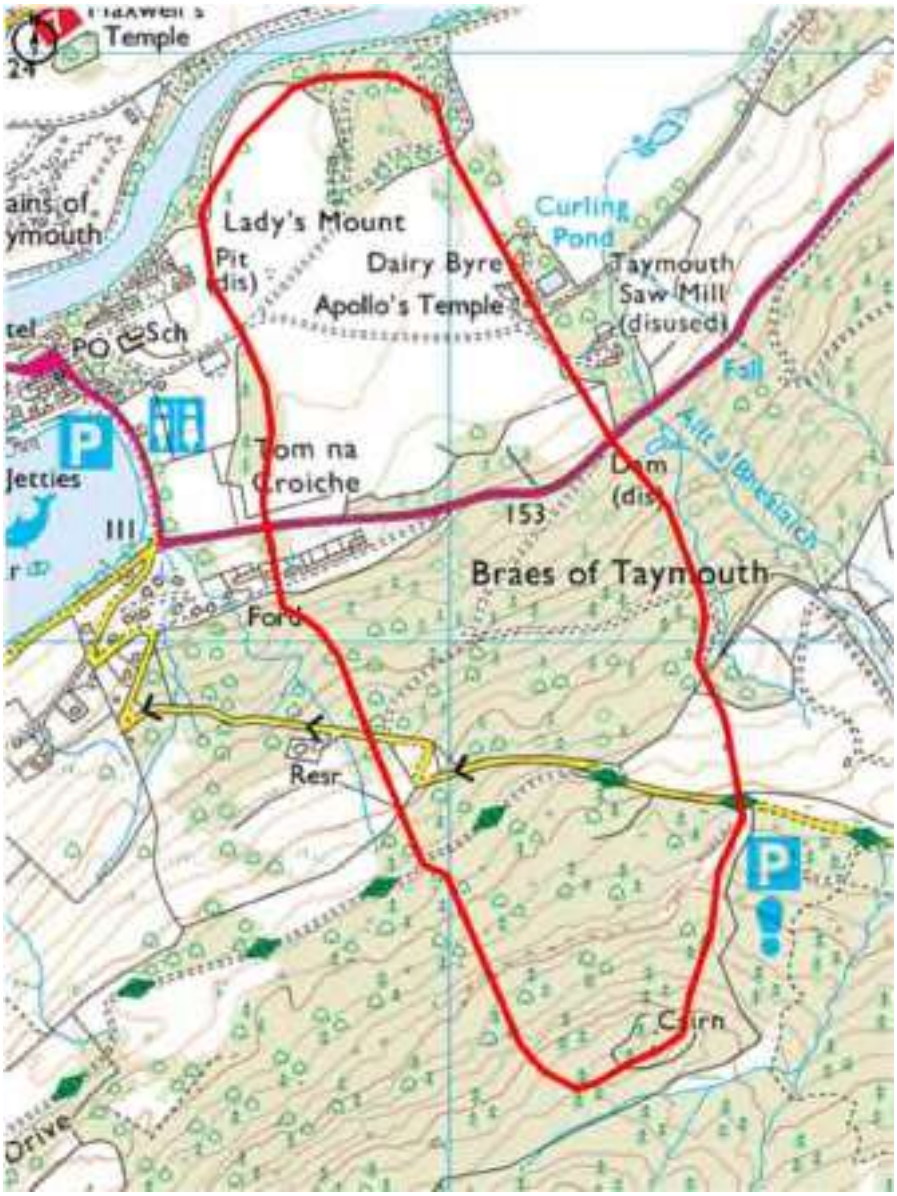


Figure 6 – Estimated catchment of unnamed channel adjacent to Zone 4

The catchment of the unnamed channel does not appear on the FEH Web Service, hence descriptors from the Allt a Bhealaich have been applied, with the AREA and DPLBAR descriptors amended to 0.9 and 0.944 ($0.9^{0.548}$ = 0.944) respectively.

4.3.1 Rainfall Runoff Method – Unnamed Channel

The Rainfall Runoff method relies on rainfall records rather than river flow records. Hence, if catchment characteristics are known or estimated, the method converts the theoretical design rainfall event of a known return period into a design flood event, with a peak of a known return period.

Flood Modeller software was used to undertake the Rainfall Runoff analysis, and a 1 in 200 year flood flow of 3.03m^3/s was estimated. With the addition of 39% to rainfall for climate change, a 1 in 200 year + climate change flood flow of 4.2m^3/s was calculated.

4.3.2 Revitalised Flood Hydrograph Method (ReFH2) – Unnamed Channel

The second method utilised for the assessment of flood flows in the unnamed channel was the Revitalised Flood Hydrograph Method.

The ReFH2 model is comprised of three components; a loss model, a routing model and a baseflow model. The total rainfall, less the losses is input into the routing model, with results from the routing and baseflow models combined to provide a prediction of flow. The ReFH2 model is used in conjunction with a depth-duration-frequency model, either the FEH13 model or FEH22 model. In this instance, the FEH22 model was used to provide the rainfall input.

Using the ReFH2 software, a 1 in 200 year flood flow of 2.71m^3/s was calculated. With the addition of 39% to rainfall for climate change, a 1 in 200 year + climate change flood flow of 3.94m^3/s was calculated.

5.0 Predicted Flood Levels – River Tay

5.1 Initial Model

Having estimated flood flows in the watercourses in the vicinity of the site, it is necessary to analyse the watercourse channel to see what level the floodwater would reach during the 1 in 200 year flood event.

A 1D-2D linked hydraulic model of the River Tay and Allt a Bhealaich has been constructed and analysed using Flood Modeller software. Both watercourses have been surveyed on site over the length adjacent to the site and for some distance upstream and downstream. The cross sections were surveyed by WSP in August 2022, with a spacing of between 30m and 240m. The model extent is shown in figures 7 to 9. The Chinese Bridge and Newhall Bridge on the River Tay have been modelled, as have two masonry bridges on the Allt a Bhealaich. The first bridge modelled on the Allt a Bhealaich is on the main drive into the castle, while the second bridge crosses the Allt a Bhealaich further upstream. Both watercourses have been modelled in 1D, with a 2D floodplain modelled in the vicinity of the castle.

The model has been run with flood events beginning on both watercourses at the same time, hence their peaks do not arrive simultaneously. The watercourse catchments are significantly different in size and scale. As such the watercourses will react differently to the same rainfall event and it can be said that its very unlikely both watercourses would be subjected to a 1 in 200 year flood event at the same time. The flood peak on the Allt a Bhealaich will arrive significantly earlier than that of the Tay.

Figures 7 to 9 below show the modelled cross section locations:



Figure 7 – Modelled cross sections, 1 of 3



Figure 8 – Modelled cross sections, 2 of 3



Figure 9 – Modelled cross sections, 3 of 3

The 2D extent of the model is shown in green in Figure 10 below:

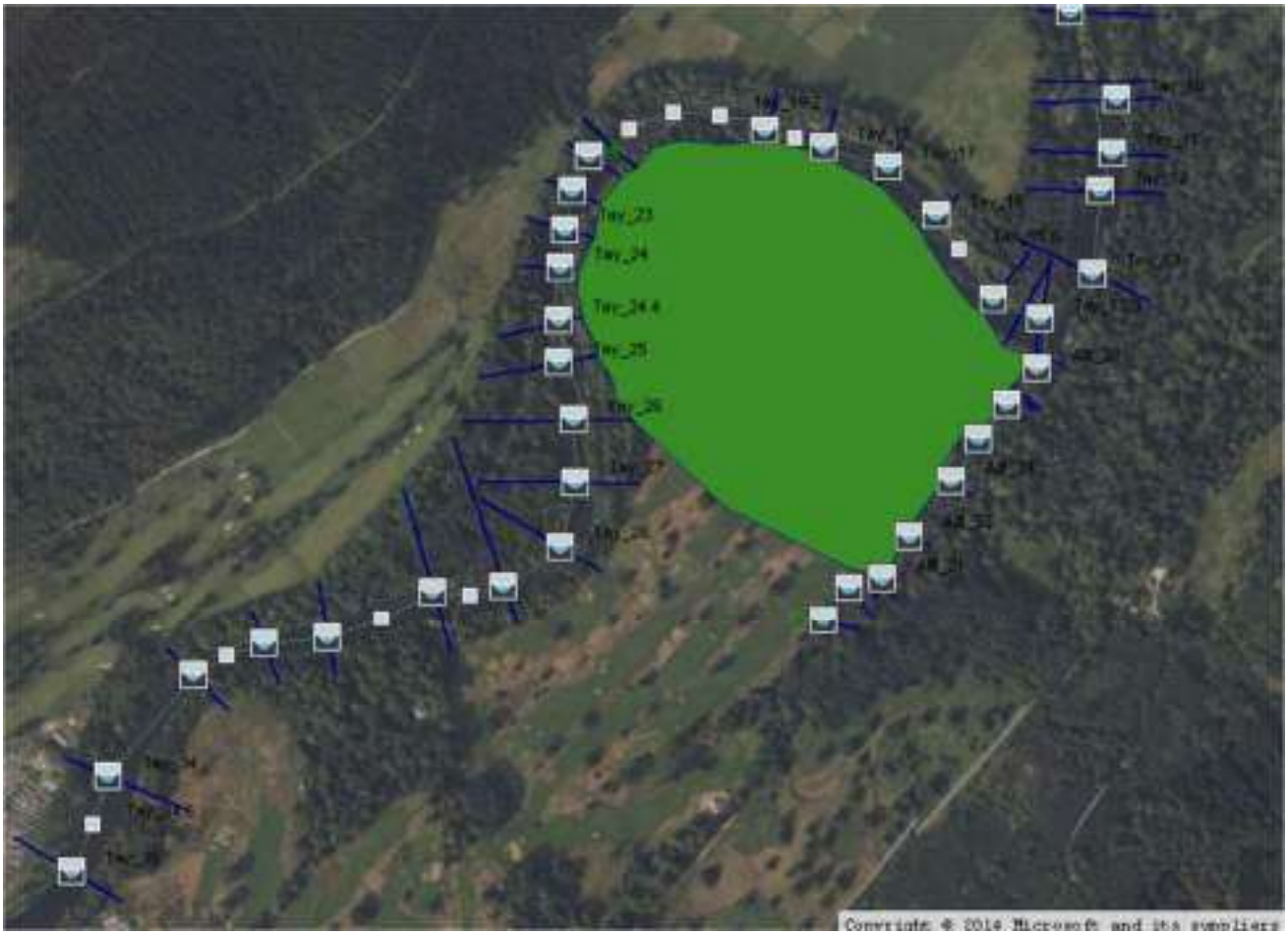


Figure 10 – Extent of 2D model (green area)

Manning's n coefficients were selected for the site based on inspection of existing conditions, and comparison with tabulated descriptors in tables of Manning's values. Hence the following were selected:

River Tay

- Main channel: natural streams, clean, winding, some pools and shoals (value of n = 0.04)
- Flood plains: light brush and trees, in summer (normal value of n = 0.06); heavy stand of timber, few down trees, little undergrowth, flow below branches (normal value of n = 0.1); scattered brush, heavy weeds (normal value of n = 0.05); high grass (normal value of n = 0.035); short grass (normal value of n = 0.03)

Allt a Bhealaich

- Main channel: natural streams, clean, winding, some pools and shoals (value of n = 0.04)
- Flood plains: light brush and trees, in summer (normal value of n = 0.06); heavy stand of timber, few down trees, little undergrowth, flow below branches (normal value of n = 0.1); high grass (normal value of n = 0.035)

The largest flood flow recorded at the gauging station next to the site was recorded in 1993. The peak flood flow recorded was 336.1m^3/s, which resulted in a stage of 2.525m being measured at the Tay at Kenmore gauging station. With a datum level of 100.4m AOD, the peak flood level measured at the Tay at Kenmore gauge during the 1993 event was 102.925m AOD.

To assess the validity of the model results, it was run with a peak flow of 336.1m^3/s. At the location of the gauge (approximately cross section Tay_22) a flood level of 103.1m AOD was predicted. This level is slightly conservative, however it is close to the actual level recorded and hence seen as an indication that the model is producing verifiable results, and that roughness values for the Tay are appropriate.

Results of the analysis are contained in Appendix B.

Table 5.1 below shows the predicted 1 in 200 year flood levels for the River Tay in the vicinity of the site. The mass balance figures for the existing scenario, 1 in 200 year model run were 0.18% and 0.2% for the 1D and 2D domains respectively.

Location	Flood Water Level (m AOD)
Tay_26	105.06
Tay_27	105.21
Tay_28	105.67
Tay_29	106.01
Tay_30	106.43
Tay_31	107.32
Tay_32	107.83
Tay_33	108.27
Tay_34	109.28
Tay_35	109.52
Tay_36	109.64
Tay_37	109.63

Table 5.1 – Predicted Q200 Flood levels

The predicted flood extents in the vicinity of the site are shown on drawing number 17264/21/400, enclosed within the "Plans" section of this report.

Table 5.2 below shows the predicted 1 in 200 year + climate change flood levels for the River Tay in the vicinity of the site. The mass balance figures for the existing scenario, 1 in 200 year + climate change model run were 0% and -0.1% for the 1D and 2D domains respectively.

Location	Flood Water Level (m AOD)
Tay_26	105.86
Tay_27	106.01
Tay_28	106.4
Tay_29	106.74
Tay_30	107.08
Tay_31	108.13
Tay_32	108.57
Tay_33	109.03
Tay_34	110.36
Tay_35	110.61
Tay_36	110.73
Tay_37	110.69

Table 5.2 – Predicted Q200 + Climate Change Flood levels

The predicted 1 in 200 year + climate change flood extent in the vicinity of the site is shown on drawing 17264/21/400, enclosed within the "Plans" section of this report.

5.2 Sensitivity Analysis

Sensitivity analyses were carried out using the "existing scenario" model to check the effect of a variation in flow rate and variation in Manning's 'n' values. A sensitivity analysis was not undertaken on the downstream boundary given its significant distance downstream of Zone 4.

Table 5.3 below compares the predicted 1 in 200 year flood levels and 1 in 200 year flood levels with an increase in flood flow of 20%.

Location	Level (m)		Variation in level (m)
	Flow = Q200	Flow = Q200 + 20%	
Tay_26	105.86	105.43	0.43
Tay_27	106.01	105.55	0.46
Tay_28	106.4	106.01	0.39
Tay_29	106.74	106.34	0.4
Tay_30	107.08	106.72	0.36
Tay_31	108.13	107.67	0.46
Tay_32	108.57	108.15	0.42
Tay_33	109.03	108.61	0.42
Tay_34	110.36	109.73	0.63
Tay_35	110.61	109.98	0.63
Tay_36	110.73	110.1	0.63
Tay_37	110.69	110.08	0.61

Table 5.3 Sensitivity Analysis: Variation in Flowrate

Sensitivity of the model to changes in Manning's n was tested by increasing the initial values in the 1D model by 20%. This was carried out using the 1 in 200 flowrate. The results of this analysis are shown in Table 5.4 below:

Location	Level (m)		Variation in level (m)
	1 in 200 year	1 in 200 year with n + 20%	
Tay_26	105.86	105.29	0.57
Tay_27	106.01	105.49	0.52
Tay_28	106.4	105.95	0.45
Tay_29	106.74	106.29	0.45
Tay_30	107.08	106.61	0.47
Tay_31	108.13	107.62	0.51
Tay_32	108.57	108.12	0.45
Tay_33	109.03	108.6	0.43
Tay_34	110.36	109.54	0.82
Tay_35	110.61	109.79	0.82
Tay_36	110.73	109.91	0.82
Tay_37	110.69	109.92	0.77

Table 5.4 Sensitivity Analysis: Manning's n Values

6.0 Predicted Flood Risk – Man-Made Channel

The man-made channel is to be culverted to the south of the site as part of the golf course re-development via a 0.9m diameter pipe through the golf course (modelled with 0.1m substrate in the invert) (this is upstream of the extent shown on drawing 17263/SK/101B (see below for further description)). In the vicinity of the south western corner of the site, the new culvert will outfall into an open channel which will be sized to accommodate the full 1 in 200 year + climate change flood flow for the catchment.

102m downstream the channel will again be culverted, this time via 2 No. 1.2m diameter structured wall pipes. These pipes run to the west of two previously consented plots. The 1.2m diameter pipes run for a length of 130m, outfalling into another length of open channel, some 60m long. At the downstream end of this second length of open section the channel is again culverted. It is proposed that this culvert will be formed using 3 No. 1m wide x 0.5m high box culvert sections, buried by 0.2m (i.e. each culvert will have an opening 1m wide x 0.3m high). At this location where the box culverts are proposed there are significant restrictions with respect to available depth for the culvert which is required to run beneath a water main which requires a minimum cover depth. The box sections will take the channel to an outfall to the River Tay. Drawing 17263/SK/101B, enclosed within the "Plans" section of this report shows the design proposals in the vicinity of the site. This drawing also shows a typical cross section through the open channel and cross section locations from a HECRAS model constructed to assist in the sizing of the culverts and open channel sections.

The downstream culvert formed by box sections is not sized to accommodate the full 1 in 200 year + climate change flood flow. This is due to significant restrictions in the vicinity with respect to construction; the culvert proposed runs through the flood plain of the Tay and hence ground levels above cannot be raised. The new water main above requires 0.9m cover. It is therefore very tight to place a culvert suitably beneath the water main while maintaining a discharge to the Tay at an appropriate level. With a downstream water surface derived by modelling the QMED flow in the River Tay, it is estimated that flood flows in exceedance of the 1 in 10 year event will result in floodwater overtopping the culvert and flowing overland and into the River Tay.

With respect to flood flow, a 1 in 200 year + climate change (39%) flow of 1.87m^3/s has been estimated for the catchment of the golf course culvert at the upslope (southern) edge of the golf course (200yr + CC flow of 1.82m^3/s + 0.05m^3/s inflow from potential future development). The catchment applied in this instance is shown in Figure 11, and the flow has been estimated using the FEH Rainfall Runoff Method. A lower flood flow (1.46m^3/s) was estimated using ReFH2. Additional inflows from golf course drainage have been added into the model throughout the culvert, while a 1 in 200 year + 39% flood flow of 4.2m^3/s has been applied at cross section 3. This is the predicted 1 in 200 year + climate change flood flow for the full catchment, estimated using the FEH Rainfall Runoff method. The predicted 1 in 10 year flood flow for the catchment has been estimated as 1.56m^3/s.

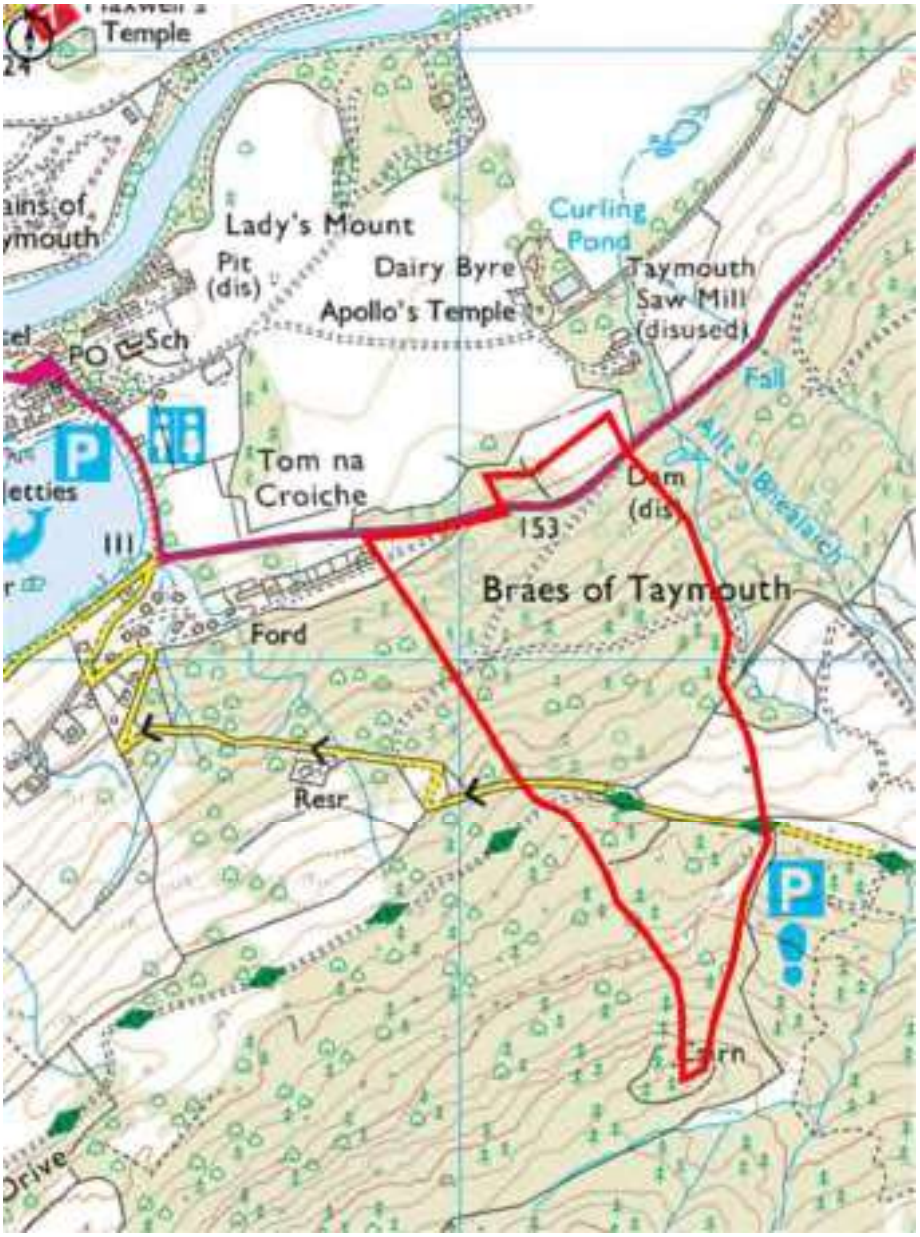


Figure 11 – Catchment contributing to golf course culvert at upslope edge of golf course

HECRAS output showing predicted flood levels and extents for the 1 in 200 year + CC and 1 in 10 year flood events, both modelled with a QMED level in the River Tay at the downstream end are enclosed within Appendix B. The new channel shown on drawing 17263/SK/101B runs from node 4 to node 0.05 on the HECRAS profile. The HECRAS profile shows predicted flood levels for the 1 in 200 year + climate change event in the 0.9m diameter culvert through the golf course also. The culvert is modelled with 0.1m substrate in its invert.

A roughness value of 0.035 has been applied for the open channel in the vicinity of the site, with 0.013 applied for the pipe culvert and box culvert. A roughness value of 0.03 has been applied for the bed of the box culvert where it is buried beneath the bed of the channel.

Predicted 1 in 200 year + climate change water levels in the manmade channel in the vicinity of the site are shown in Table 6.1 overleaf.

Location (manmade channel)	200yr + CC Flood Water Level (m AOD)
0.06	106.52
0.076	107.99
0.08	108.09
0.09	108.11
0.1	108.12
0.2	108.11
0.4	109.1
0.5	109.12
0.6	110.23
0.7	110.25
0.8	110.57
0.9	110.6
1	110.63
2	110.78
3	111.28
4	111.66

Table 6.1 – Predicted Q200 + Climate Change Flood levels in manmade channel in the vicinity of the site

A sensitivity analysis has been undertaken on the roughness values applied for the open section of man-made channel in the vicinity of the site and the 1.2m diameter twin pipe culvert and the box culvert sections downstream. The roughness values were increased by 20%. The results of this analysis are shown in Table 6.2 below.

Location (manmade channel)	200yr + CC Flood Water Level (m AOD)	200yr + CC Flood Water Level with roughness + 20% (m AOD)
0.06	106.52	106.52
0.076	107.99	108.01
0.08	108.09	108.08
0.09	108.11	108.1
0.1	108.12	108.12
0.2	108.11	108.11
0.4	109.1	109.1
0.5	109.12	109.13
0.6	110.23	110.12
0.7	110.25	110.14
0.8	110.57	110.51
0.9	110.6	110.56
1	110.63	110.63
2	110.78	110.78
3	111.28	111.29
4	111.66	111.7

Table 6.2 – Predicted Q200 + Climate Change Flood levels in manmade channel in the vicinity of the site

The potential impact of a blockage in the upstream section of twin 1.2m diameter culverts was assessed, and it has been established through modelling that a blockage of up to 0.45m from the invert of both pipes can be accommodated without floodwater overtopping the banks of the channel. This equates to a blockage of 34%.

In the event of a significant blockage within the 0.9m diameter culvert, there is potential for overland flow across the golf course. Drawing 17264/21/404 enclosed shows the predicted post development overland flow routes from all manholes on the culvert. As can be seen, finished levels on the golf course will ensure any

potential overland flow from the culvert will not adversely impact any properties in Zone 4. With respect to pre-development overland flow routes, any floodwater overtopping the open channel would flow generally in a north westerly direction, before flowing over the existing path in the vicinity of the pond and returning to the open channel downstream of the pond. It should be noted that the channel downstream of the pond is undersized for the 1 in 200 year + climate change flood event, as is the 450mm pipe which served as the outlet from the pond itself. As such, the proposals reduce flood risk to the Scottish Water borehole located at the western boundary of Zone 4. In addition the proposals reduce flood risk to the core path located at the northern boundary of the site, given water flows over this regularly at present.

7.0 Proposed Mitigation and Management of Flood Risk

The results of the flow modelling exercise show that the site is outwith the predicted 1 in 200 year + climate change flood extent from the River Tay with the exception of a very small area to the rear of two plots at the northern end of the site and part of an access road turning head at the north western corner of the site. No landraising should be undertaken within the 1 in 200 year + climate change flood extent as part of the proposed development. Drawing 17264/21/400 shows the predicted flood extents as existing, while drawing 17264/21/403A (enclosed) shows the predicted flood extent with the proposed layout overlain.

Ground levels rise significantly into the site from the banks of the River Tay, with levels rising from approximately 108m to between 117.5m and 120m across a distance of approximately 18m to 27m. A number of the proposed plots do extend to the bottom of the slope, however the majority of the developable area is significantly above the predicted 1 in 200 year + climate change flood levels in the River Tay.

Potential flood risk from the man-made channel has been fully considered. The channel design and golf course levels will reduce flood risk to the Scottish Water borehole and the core path, while ensuring capacity for the 1 in 200 year + climate change flood flow as the channel passes Zone 4. Flood water which may flow from a manhole on the culvert route within the golf course will be directed back into the new channel to the south west of Zone 4.

From inspection of the proposed golf course layout it can be said that overland flow paths in the vicinity of Zone 4 will in general remain as they are currently. Should overland flow occur this would be shallow. Overland flow could occur in the vicinity of the south western corner of Zone 4 from a manhole on the culvert should a blockage occur. The overland flow would not adversely impact the proposed development.

It should be ensured that all properties are constructed with a suitable upstand above surrounding ground to the lowest floor level, commensurate with good building practice. Finished ground levels should be set to ensure no surface water runoff can adversely impact the proposed properties.

From inspection of existing ground levels at the south western corner of Zone 4 there may have been potential for the southern corner of plot GC-9 to be impacted by limited surface water runoff during heavy rainfall. The proposed property on this plot should be set on higher ground within the plot, and this has been proposed on the latest masterplan. The plot is not shown to be at risk from overland flow from the new culvert through the golf course. A finished floor level of 118m is proposed for the house on Plot GC-9, significantly higher than the closest manhole on the golf course culvert which is located approximately 40m south west of the proposed house with a cover level of approximately 114m.

There are two plots proposed which sit separate to the main body of Zone 4. These plots are located to the south east of the main zone area. The topography within these plots slopes steeply in a south westerly direction from a level of approximately 126m to 121m AOD. Once beyond these plots to the south west ground levels continue to fall into the golf course. To the east/north east of these plots ground levels fall significantly, while ground levels also fall in a southerly and northerly direction, hence these properties are not at risk of flooding. Should the properties be constructed part way down the slope, appropriate measures should be constructed to ensure surface water runoff from upslope does not adversely impact the new properties.

Solum levels for proposed properties should be set no less than 0.6m above the adjacent predicted 1 in 200 year + climate change flood level, while also incorporating a suitable upstand to finished floor level from surrounding ground levels.

Where properties are constructed with sloping ground above, appropriate drainage arrangements should be designed and constructed to ensure no adverse impact from surface water runoff on the new housing.

In order to avoid any increase in flood risk, surface water runoff generated by the site should be dealt with following the principals of Sustainable Urban Drainage Systems.

8.0 Conclusions

It has been established that the vast majority of Zone 4 is outwith the predicted 1 in 200 year flood extent of the River Tay. No landraising should be undertaken within the flood extent shown on drawing 17264/21/400 as part of the Zone 4 development.

Limited mitigation is required, however the recommendations outlined in Section 7.0 of this report should be implemented as part of the development.

Significant alterations are proposed to the man-made, meandering channel and associated pond which are located in the vicinity of the site. The proposed culverting and channel alterations have been modelled and it has been demonstrated that the design proposals are appropriate with respect to flood risk.

We have used our best engineering judgement in this Assessment, and our calculations have been carried out using the Flood Estimation Handbook, WINFAP, Flood Modeller and other standard hydrological methods. We note that as with all such Flood Risk Assessments the accuracy of the results is only as good as the data and statistical techniques used.

9.0 References

i. Flood Estimation Handbook, Duncan Reed, CEH Institute of Hydrology, Wallingford, 1999.

ii. FEH Web Service, UK Centre for Ecology and Hydrology, 2022.

iii. WINFAP-FEH, Version 5, Wallingford Hydrosolutions and NERC

iv. Flood Modeller, Version 5.1.7985.17743, Jacobs, 2021

v. Flood Risk Assessment on Proposed Residential Development at Zone 1, Taymouth Castle, by Kenmore, Perth and Kinross, Millard Consulting, September 2022

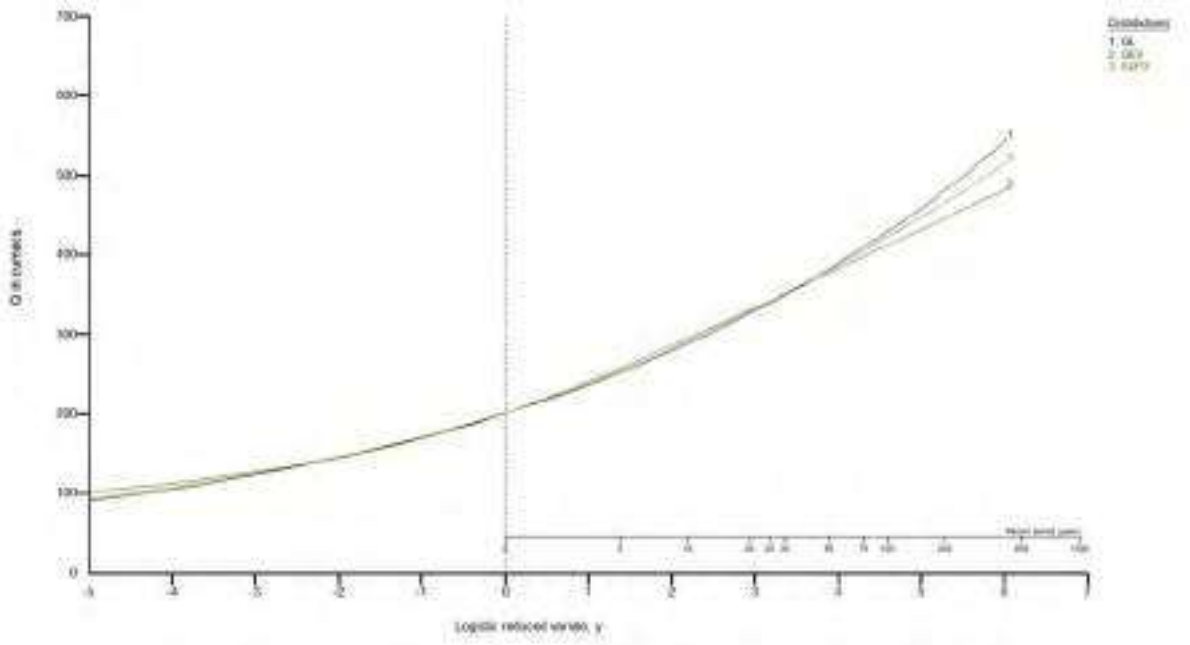
vi. National Planning Framework 4, Scottish Government, February 2023

Appendix A: Data and Results from WINFAP Flow Analysis

Fittings for Flood Frequency Curve - urban

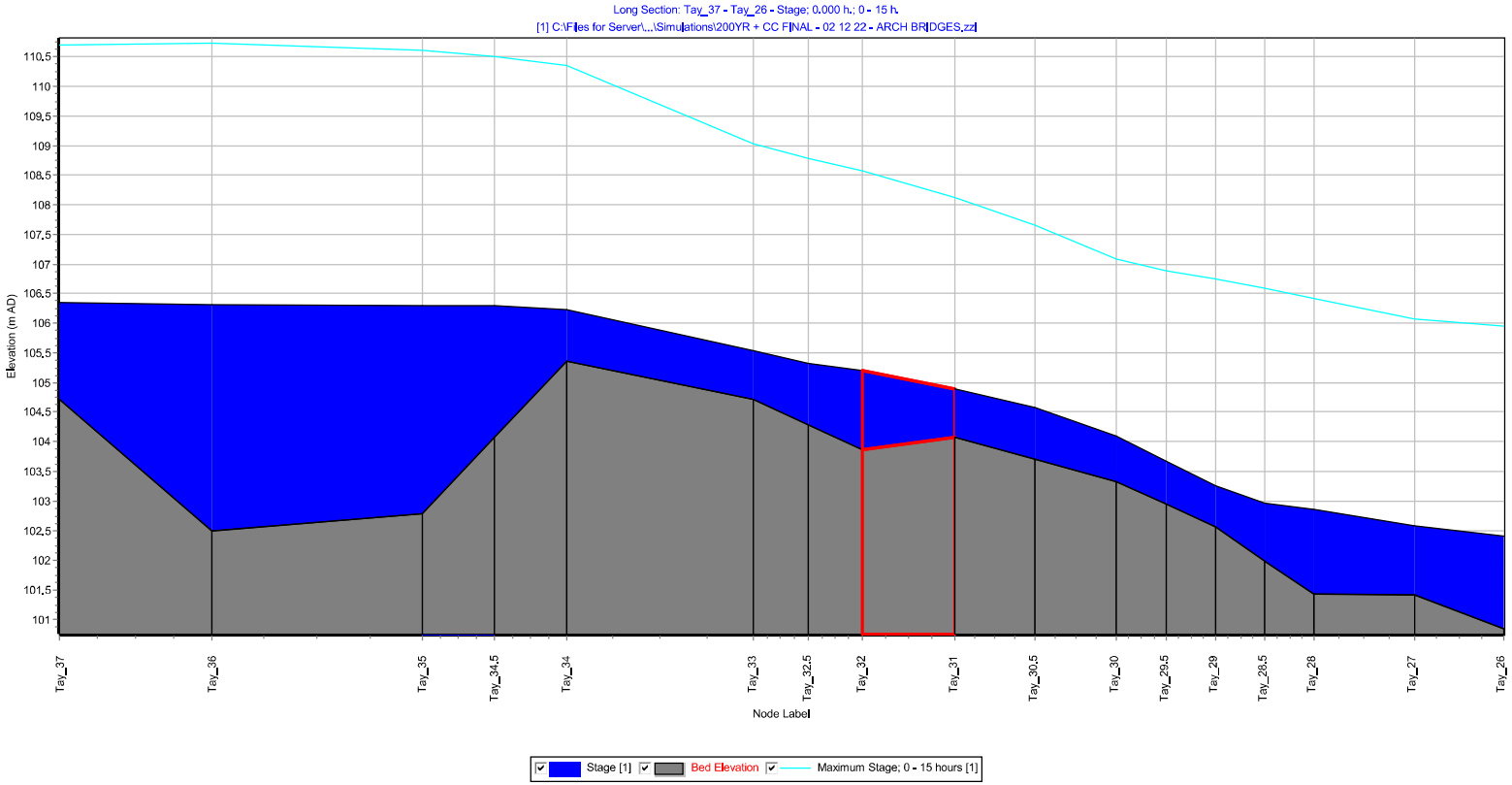
Return periods

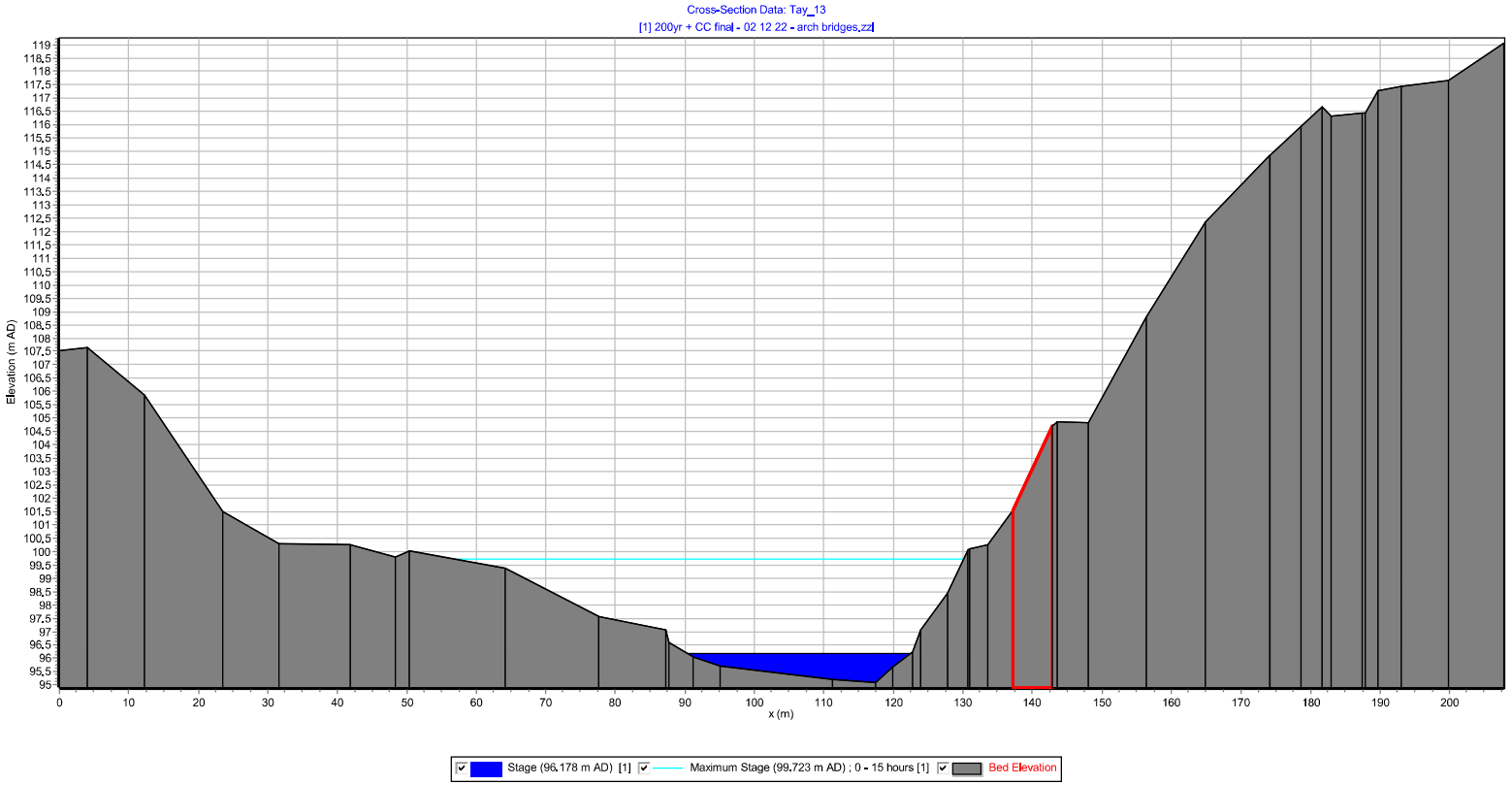
	GL	GEV	KAP3
2	200.593	200.593	200.593
5	251.855	257.129	254.177
10	287.922	294.534	291.147
20	325.839	330.394	328.541
25	338.714	341.765	340.866
30	349.523	351.014	351.069
50	381.359	376.781	380.383
75	408.443	397.125	404.501
100	428.738	411.519	422.113
200	481.701	446.113	466.389
500	561.713	491.724	529.270
1000	630.947	526.175	580.432

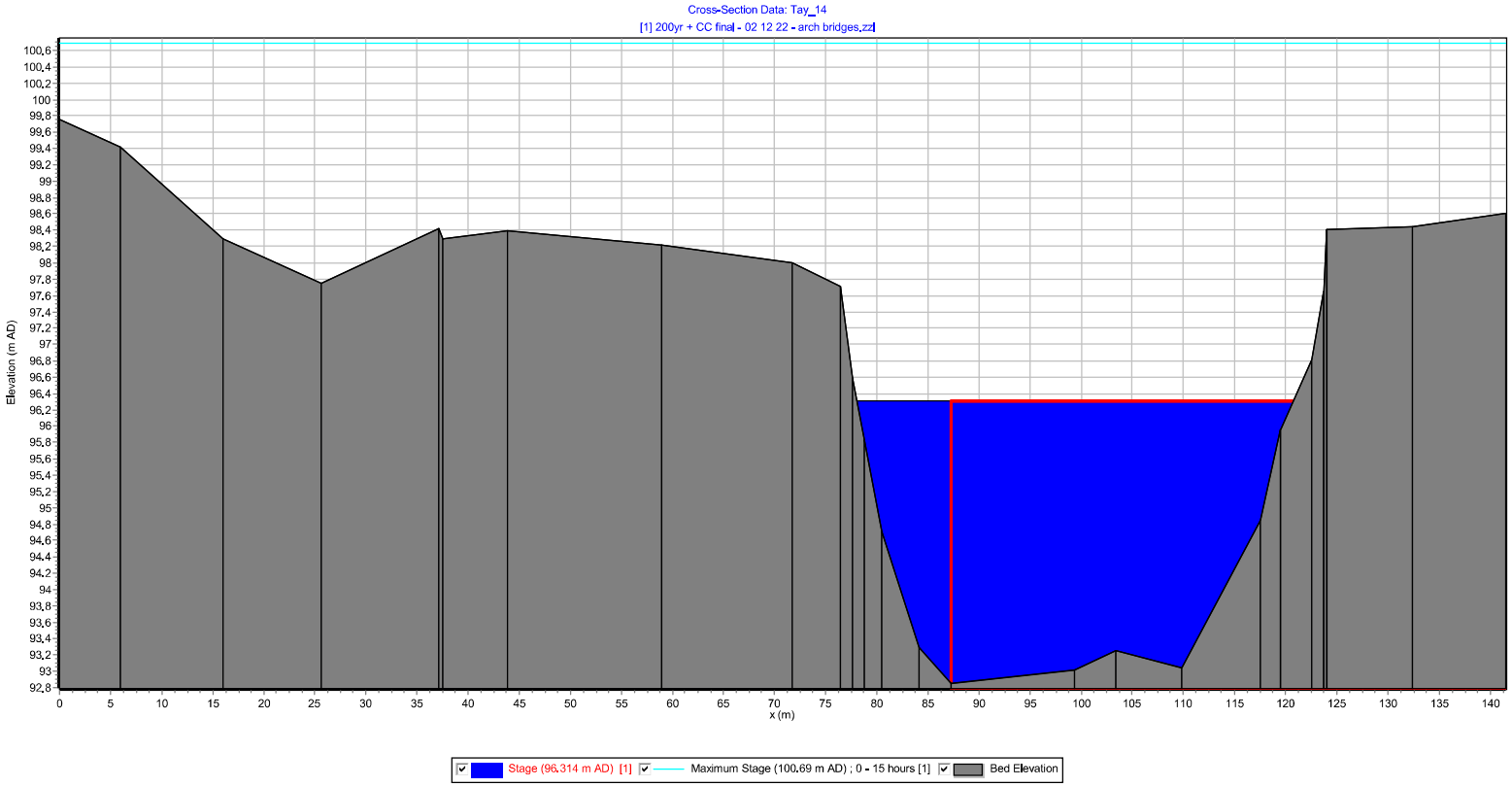


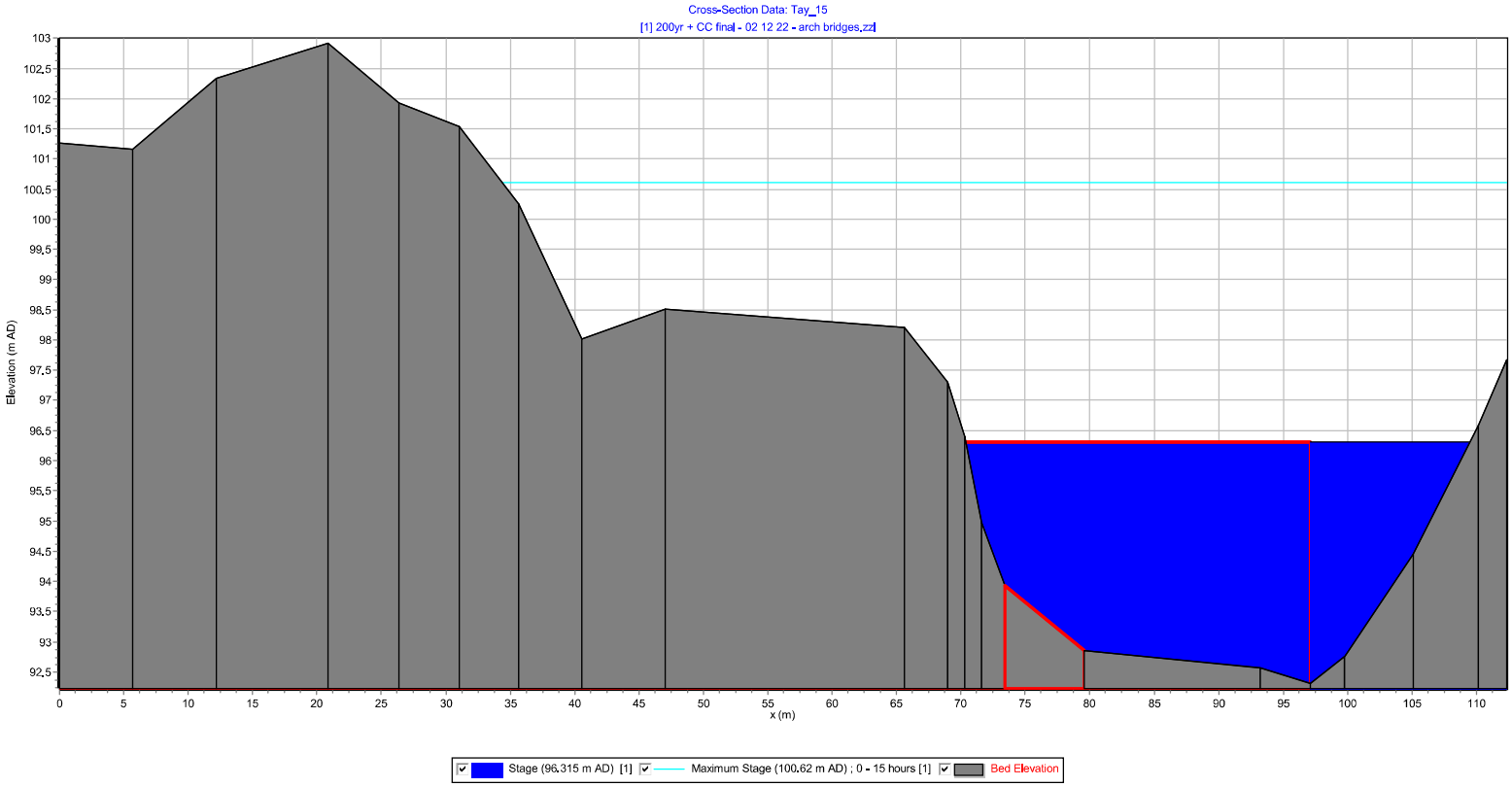
Appendix B: Output from Flood Modelling

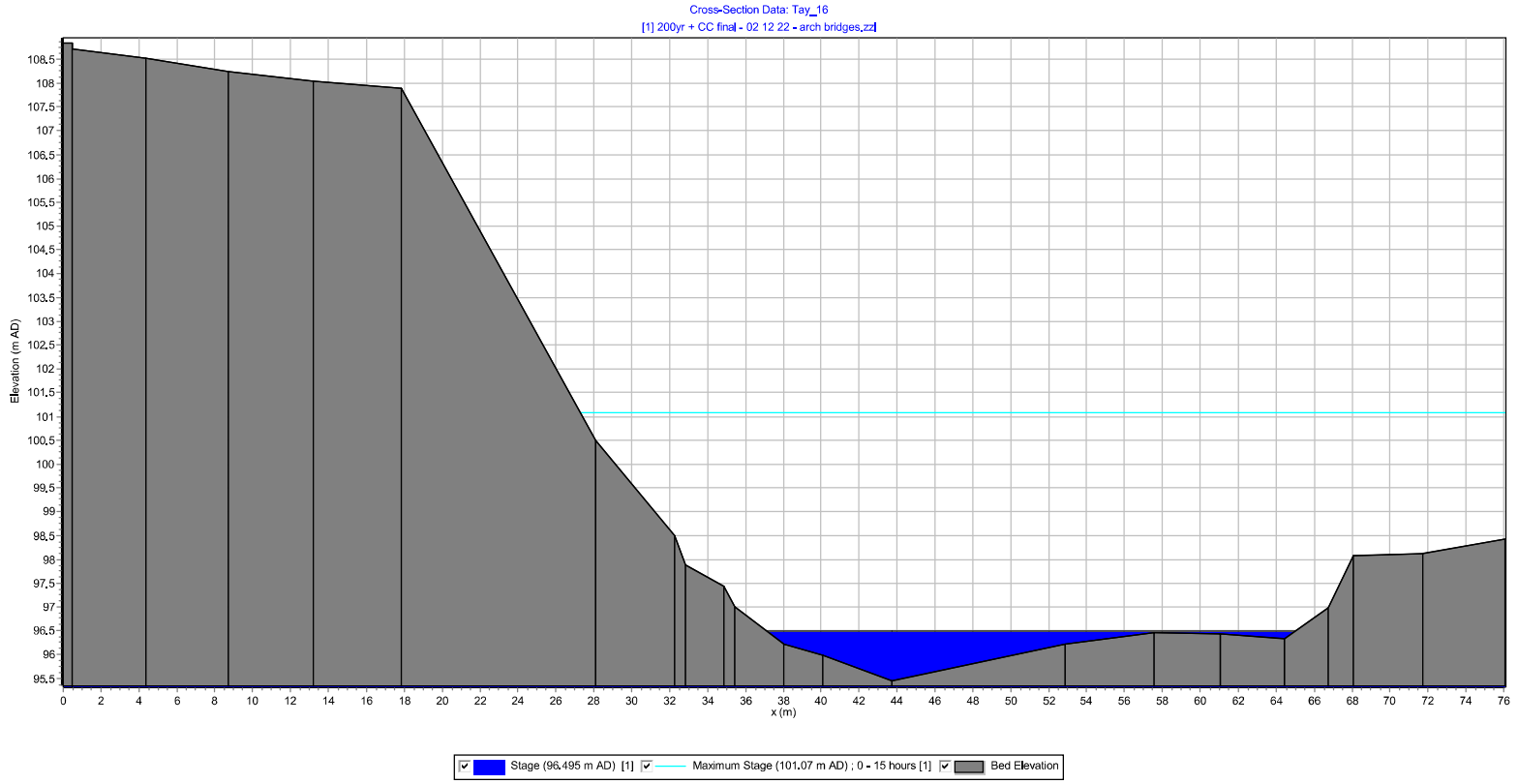
River Tay Cross Sectional Output – 200yr + CC (Flood Modeller)

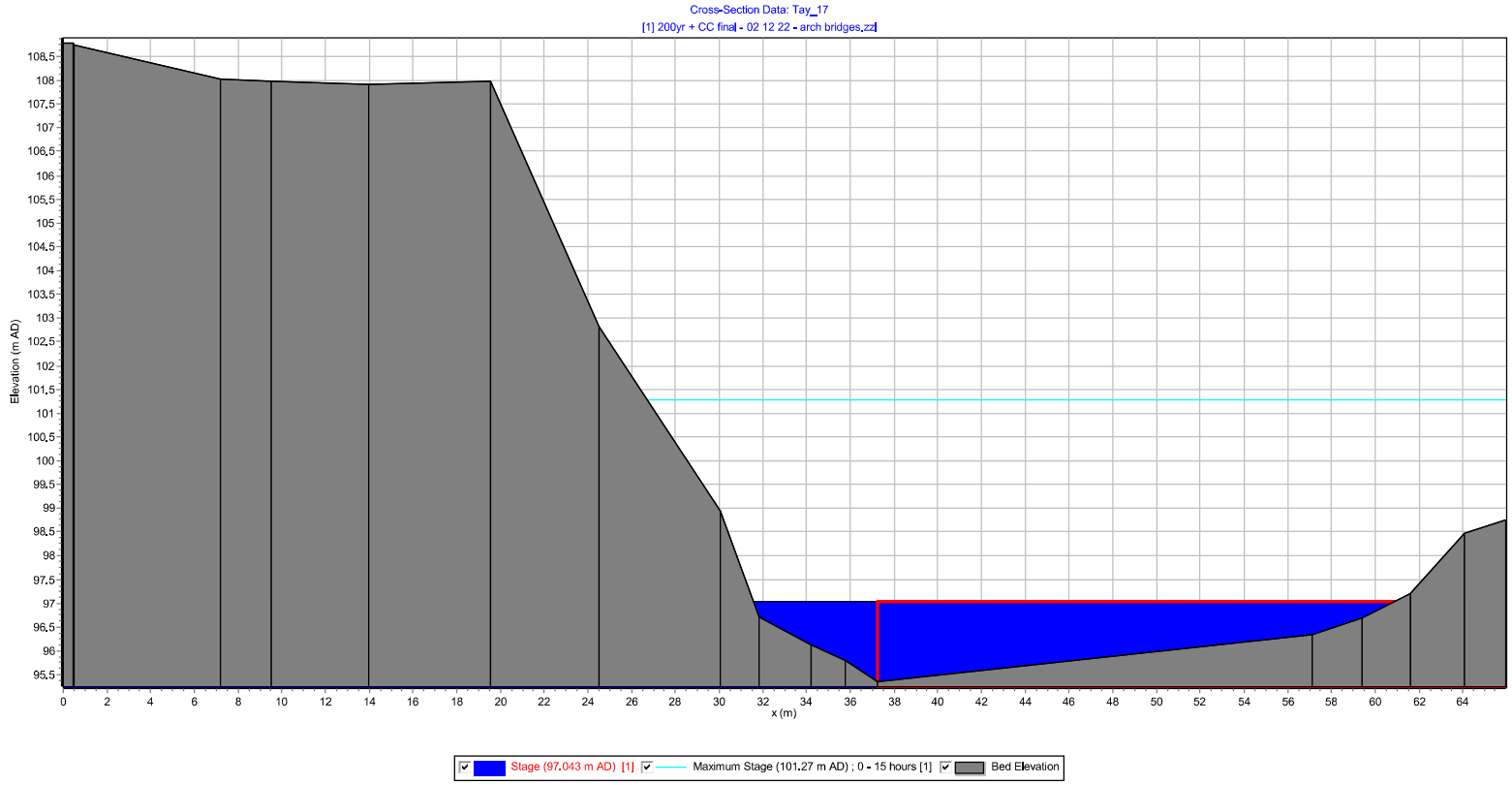

Long Section: Tay_37 - Tay_26 - Stage; 0.000 h.; 0 - 15 h.
[1] C:\Files for Server\...\Simulations\200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
110.5
110
109.5
109
108.5
108
107.5
107
106.5
106
105.5
105
104.5
104
103.5
103
102.5
102
101.5
101
Tay_37
Tay_36
Tay_35
Tay_34.5
Tay_34
Tay_33
Tay_32.5
Tay_32
Tay_31
Tay_30.5
Tay_30
Tay_29.5
Tay_29
Tay_28.5
Tay_28
Tay_27
Tay_26
Node Label
Stage [1]
Bed Elevation
Maximum Stage; 0 - 15 hours [1]

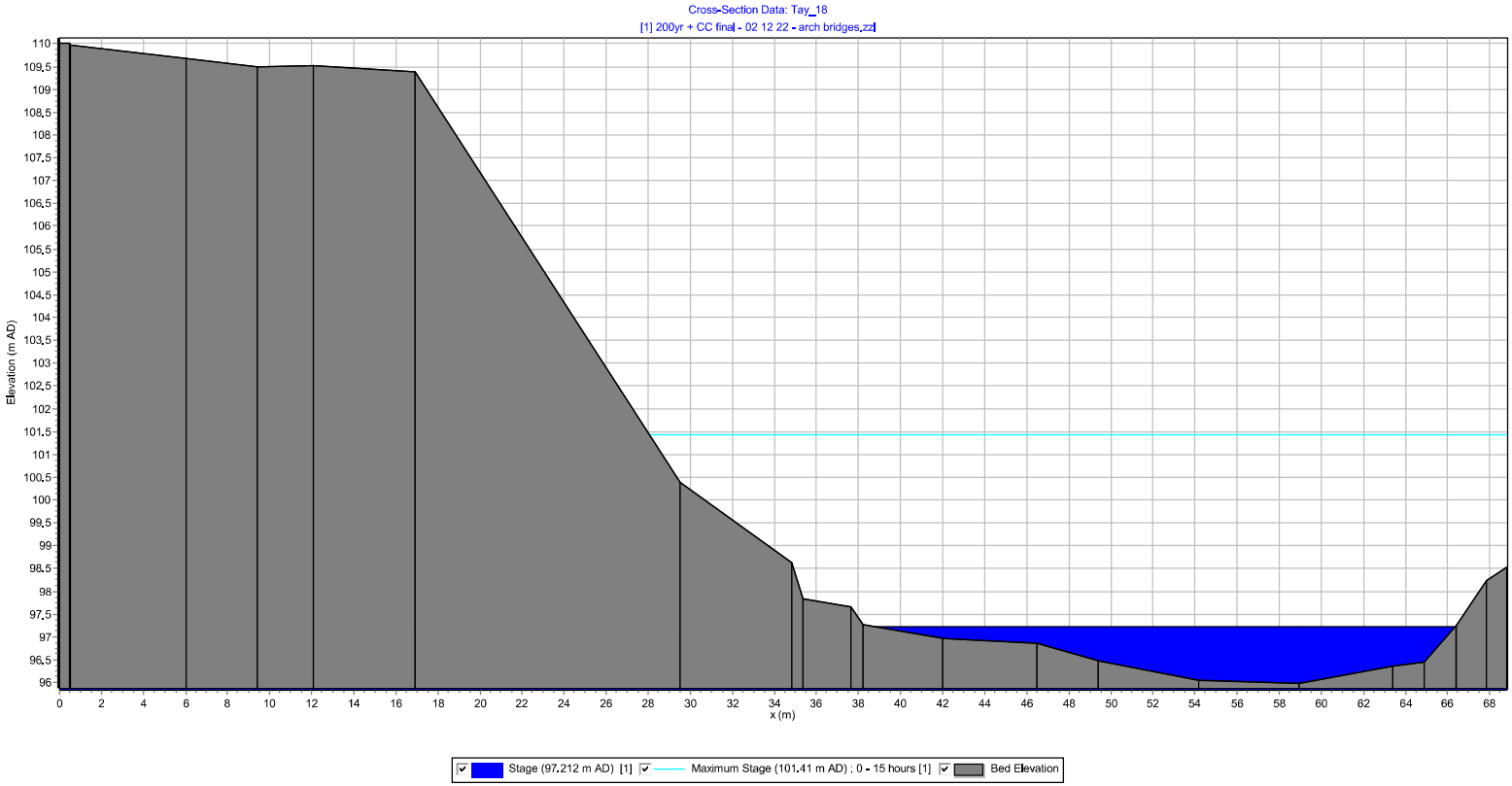

Cross-Section Data: Tay_13
[1] 200yr + CC final - 02 12 22 - arch bridges.zz
Elevation (m AD)
x (m)
Stage (96.178 m AD) [1]
Maximum Stage (99.723 m AD) ; 0 - 15 hours [1]
Bed Elevation

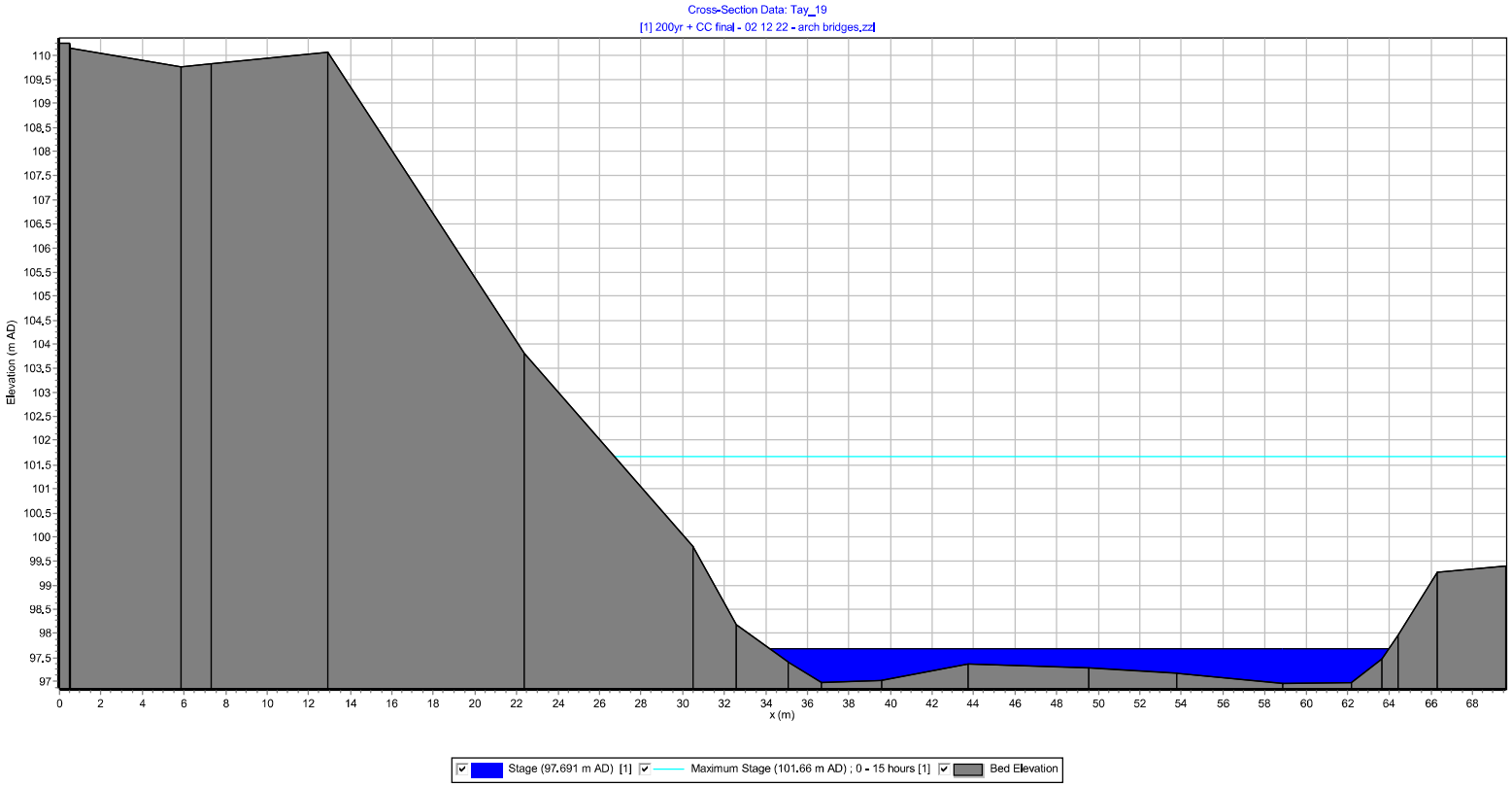

Cross-Section Data: Tay_14
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (96.314 m AD) [1]
Maximum Stage (100.69 m AD) ; 0 - 15 hours [1]
Bed Elevation

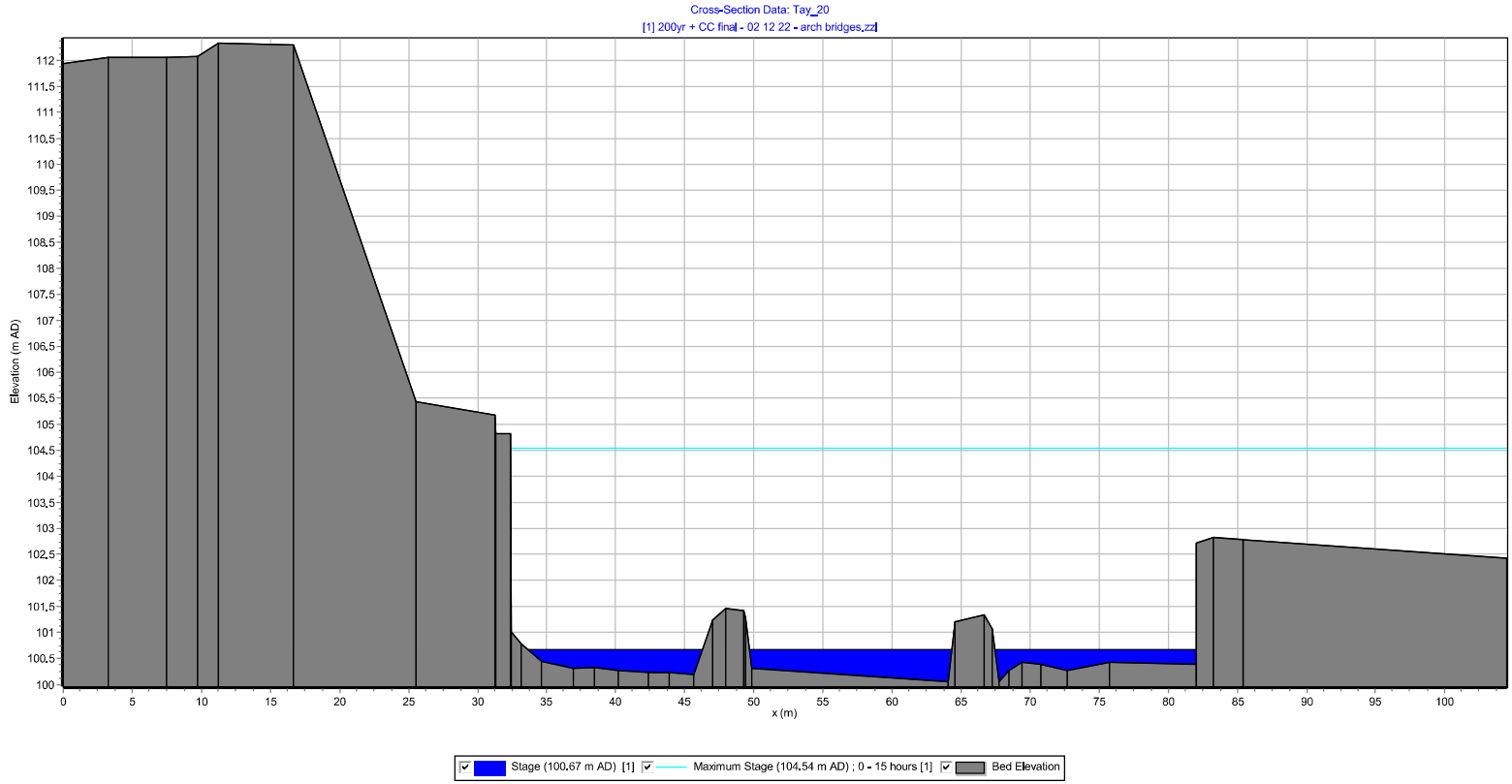

Cross-Section Data: Tay_15
[1] 200yr + CC final - 02 12 22 - arch bridges.zz
Elevation (m AD)
x (m)
Stage (96.315 m AD) [1]
Maximum Stage (100.62 m AD) ; 0 - 15 hours [1]
Bed Elevation

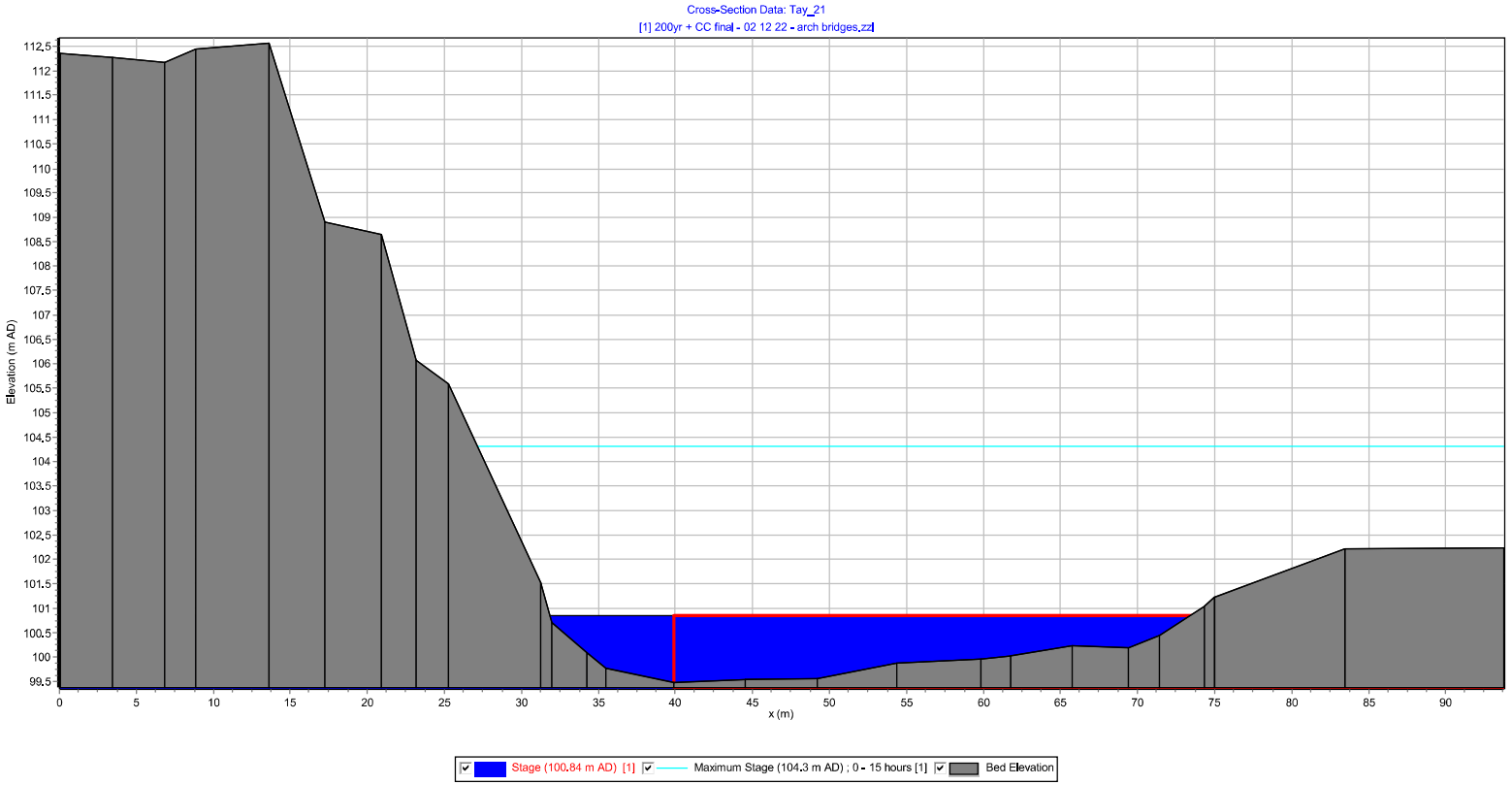

Cross-Section Data: Tay_16
[1] 200yr + CC final - 02 12 22 - arch bridges.zz
Elevation (m AD)
x (m)
Stage (96.495 m AD) [1]
Maximum Stage (101.07 m AD) ; 0 - 15 hours [1]
Bed Elevation

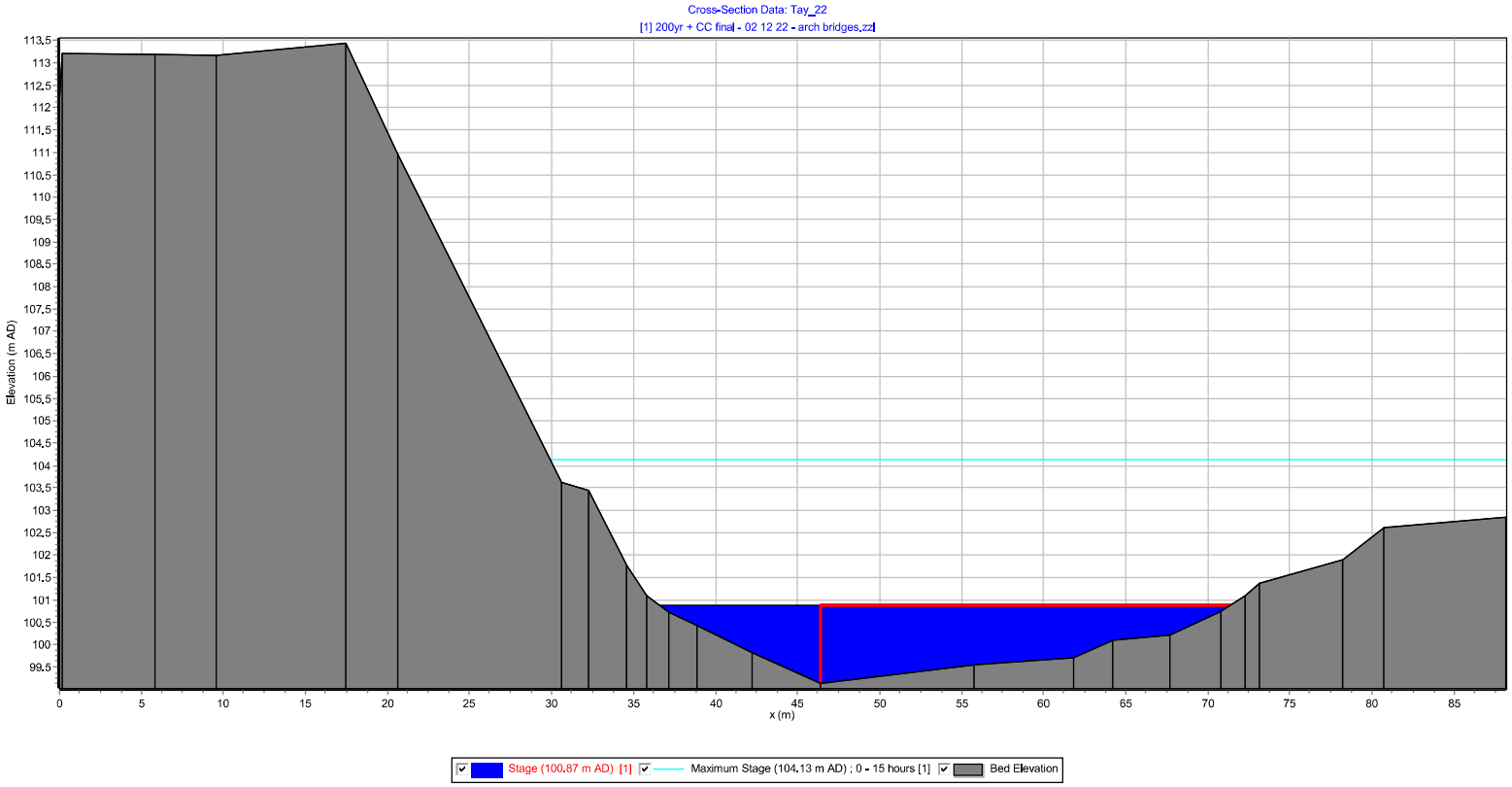

Cross-Section Data: Tay_17
[1] 200yr + CC final - 02 12 22 - arch bridges.zz
Elevation (m AD)
x (m)
Stage (97.043 m AD) [1]
Maximum Stage (101.27 m AD) ; 0 - 15 hours [1]
Bed Elevation

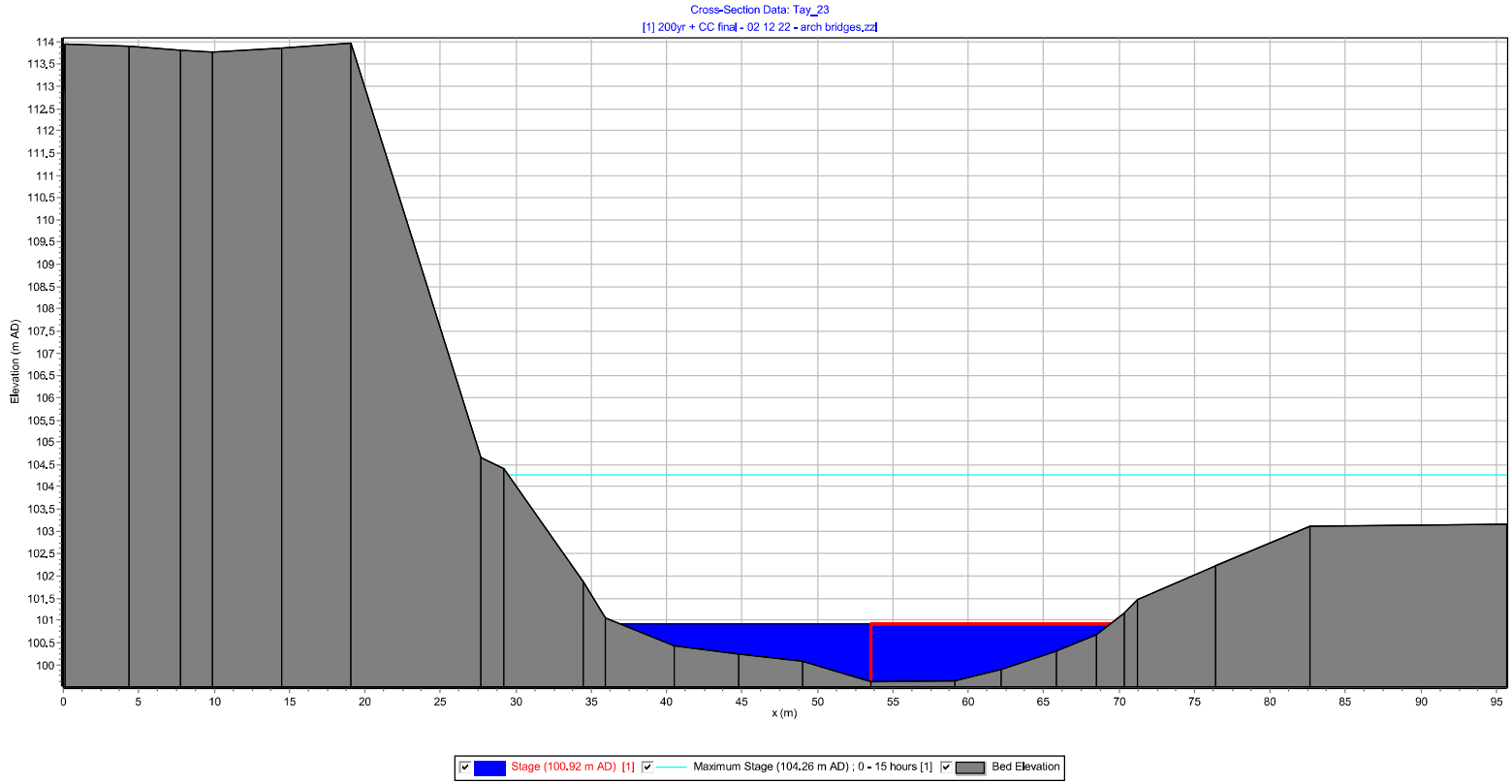

Cross-Section Data: Tay_18
[1] 200yr + CC final - 02 12 22 - arch bridges.zz
Elevation (m AD)
x (m)
Stage (97.212 m AD) [1]
Maximum Stage (101.41 m AD) ; 0 - 15 hours [1]
Bed Elevation

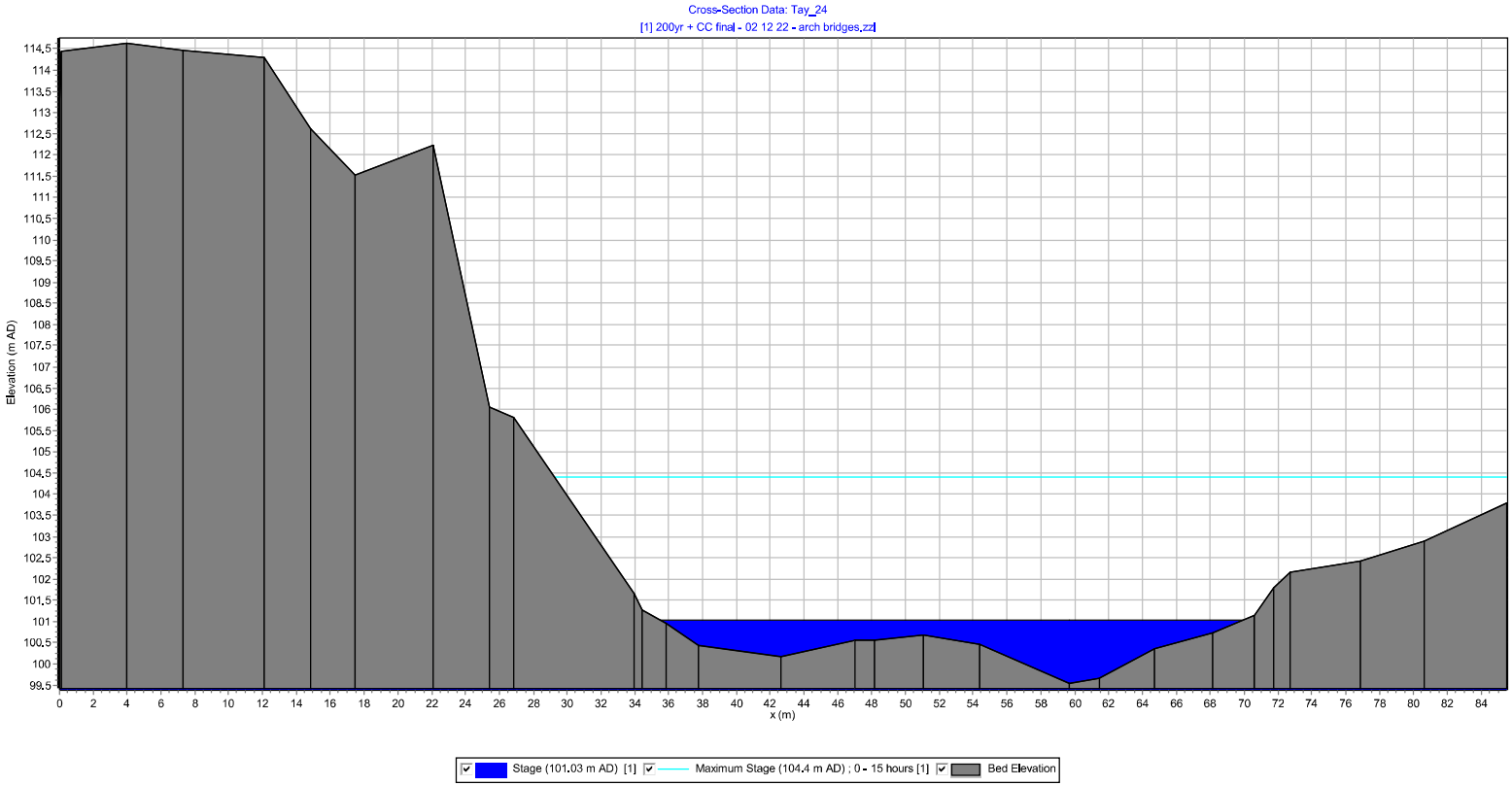

Cross-Section Data: Tay_19
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (97.691 m AD) [1]
Maximum Stage (101.66 m AD) ; 0 - 15 hours [1]
Bed Elevation

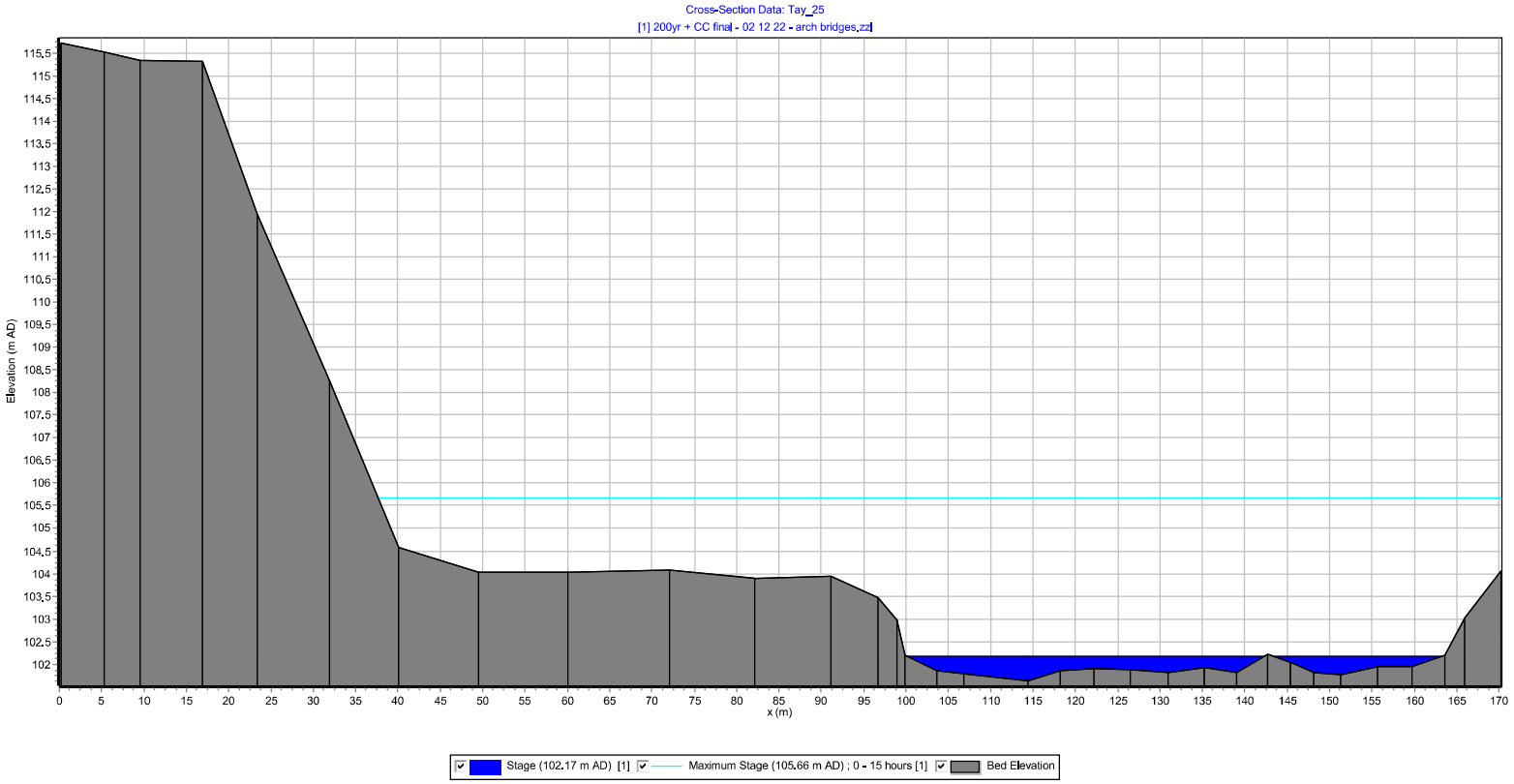

Cross-Section Data: Tay_20
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (100.67 m AD) [1]
Maximum Stage (104.54 m AD) ; 0 - 15 hours [1]
Bed Elevation

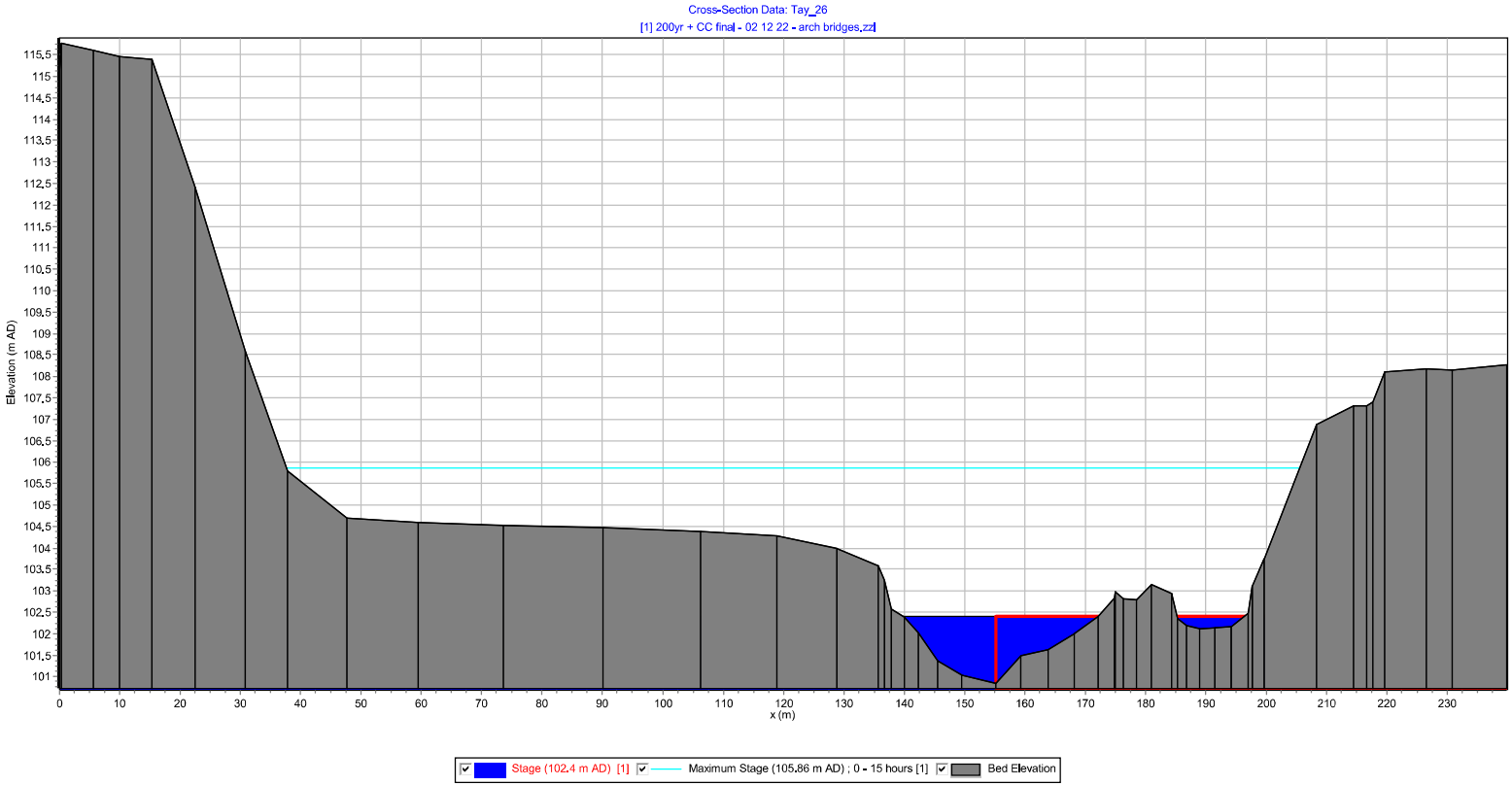

Cross-Section Data: Tay_21
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (100.84 m AD) [1]
Maximum Stage (104.3 m AD) ; 0 - 15 hours [1]
Bed Elevation

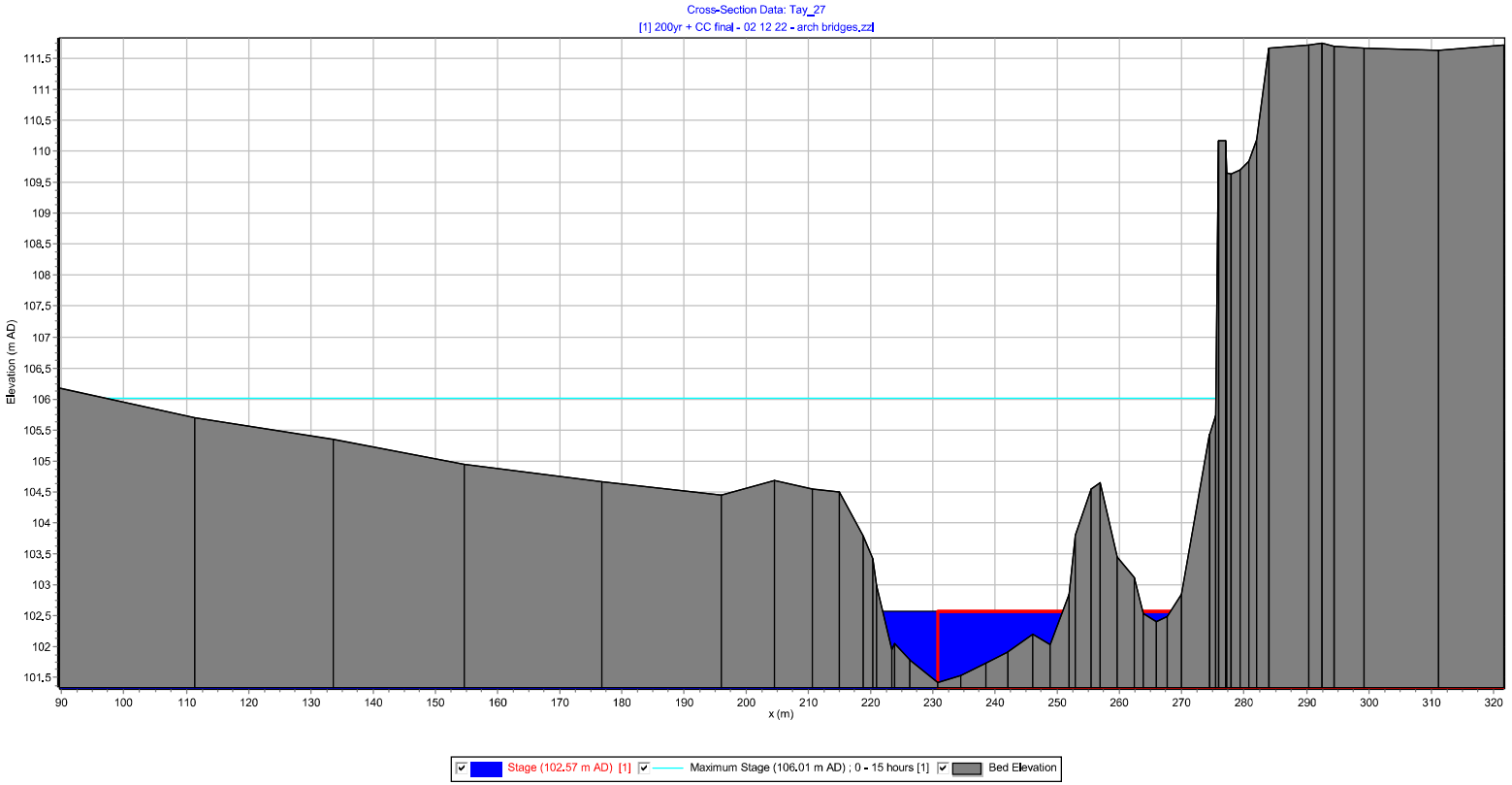

Cross-Section Data: Tay_22
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (100.87 m AD) [1]
Maximum Stage (104.13 m AD) ; 0 - 15 hours [1]
Bed Elevation

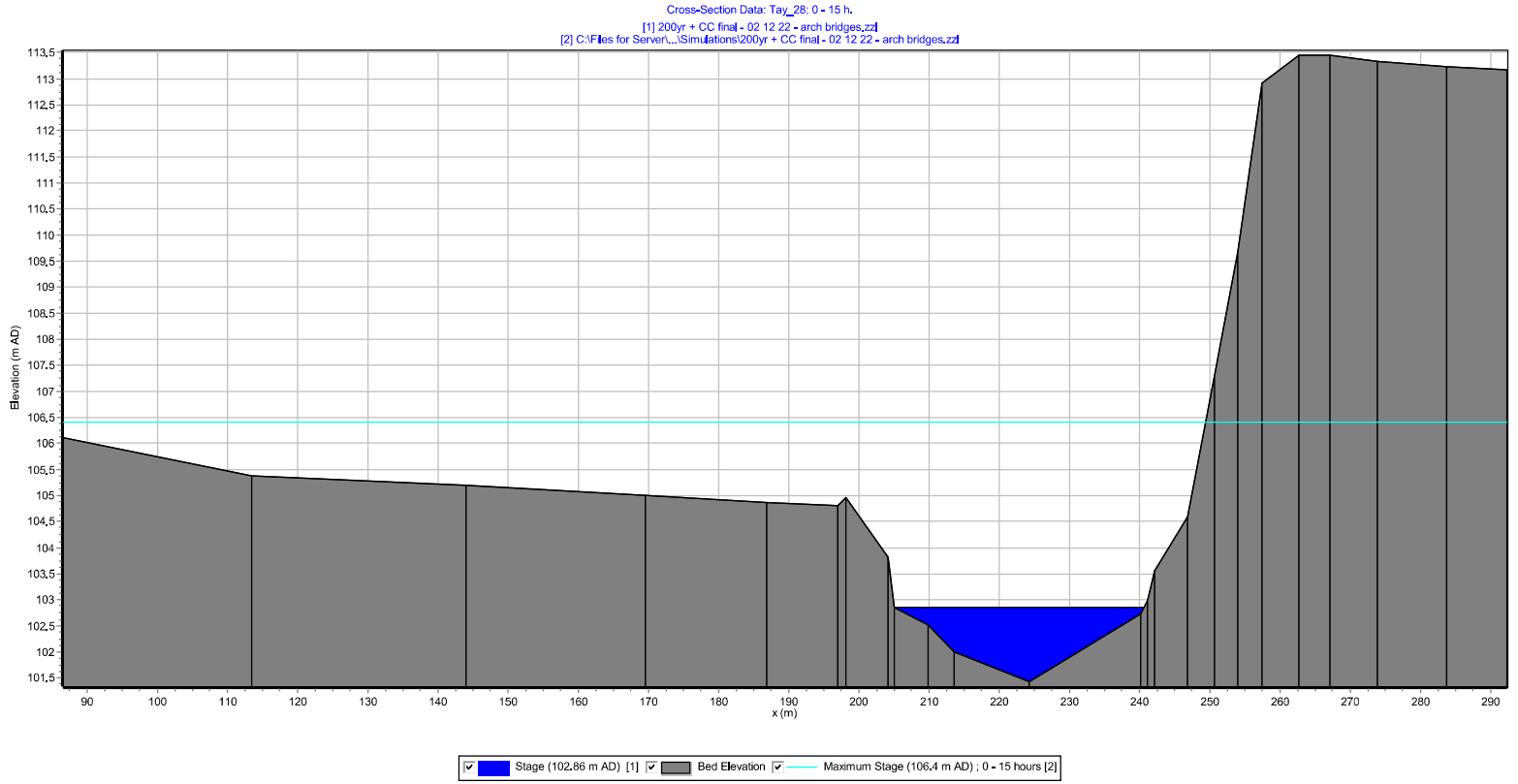

Cross-Section Data: Tay_23
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (100.92 m AD) [1]
Maximum Stage (104.26 m AD) ; 0 - 15 hours [1]
Bed Elevation

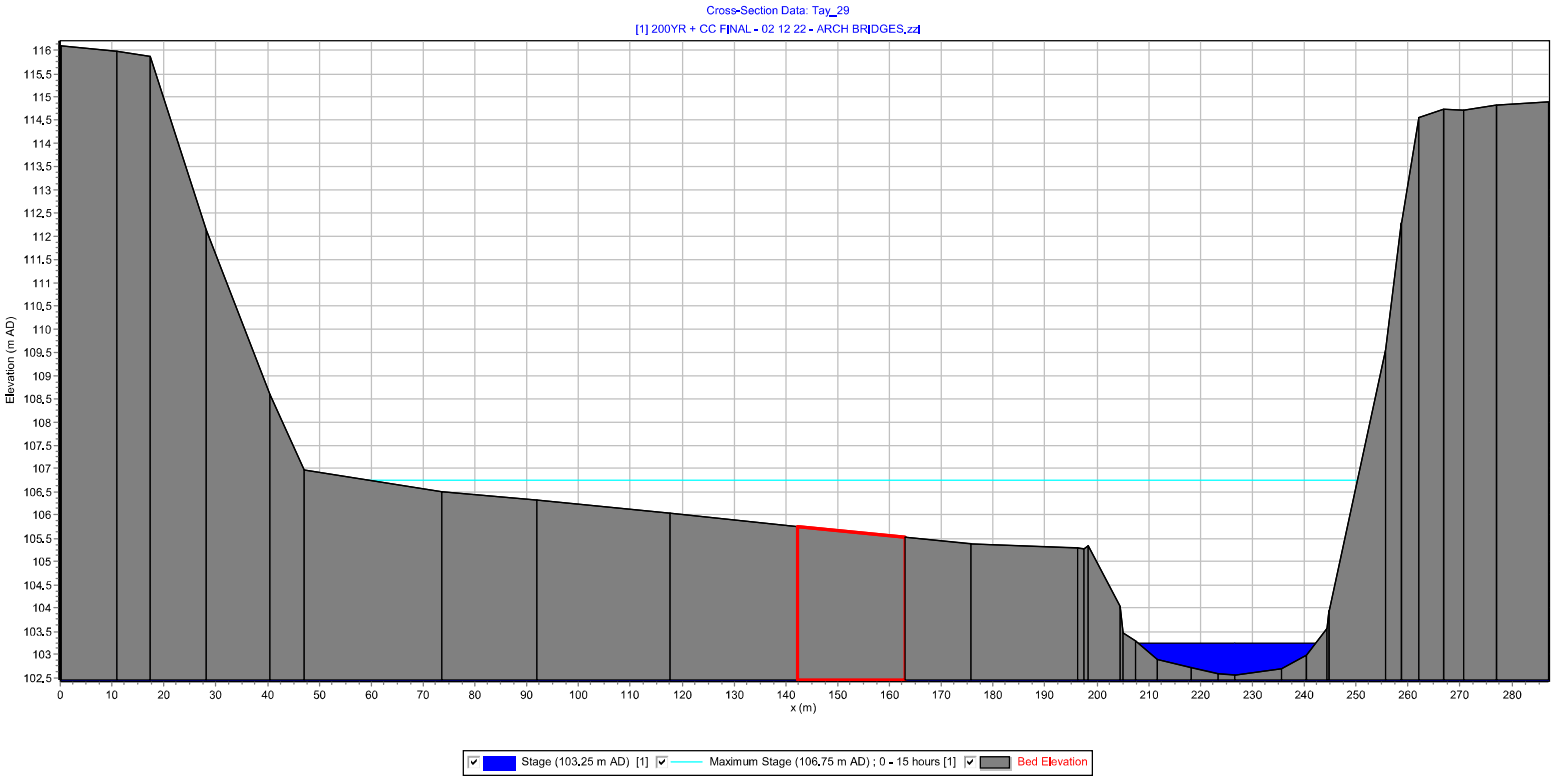

Cross-Section Data: Tay_24
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (101.03 m AD) [1]
Maximum Stage (104.4 m AD) ; 0 - 15 hours [1]
Bed Elevation

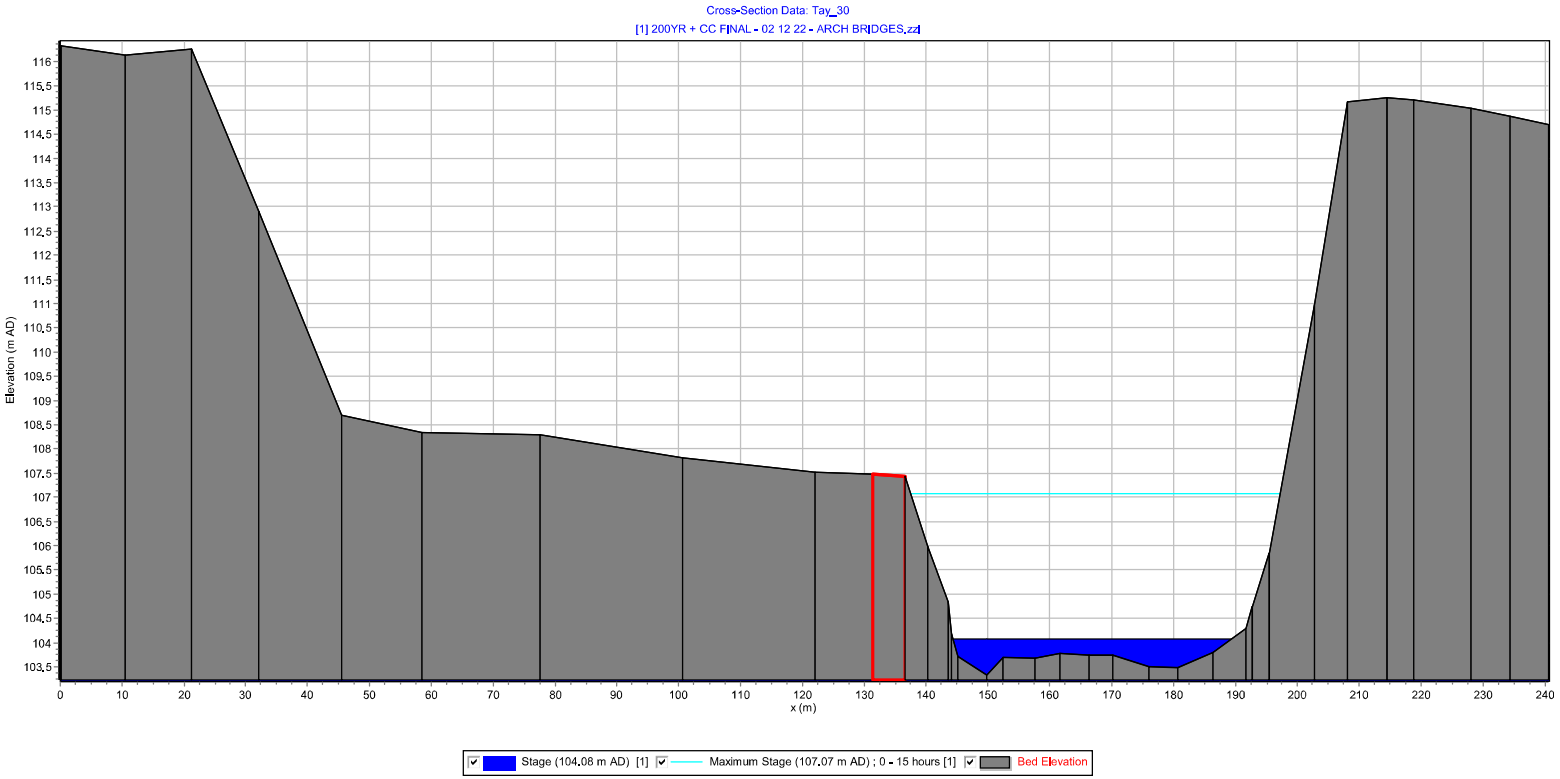

Cross-Section Data: Tay_25
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (102.17 m AD) [1]
Maximum Stage (105.66 m AD) ; 0 - 15 hours [1]
Bed Elevation

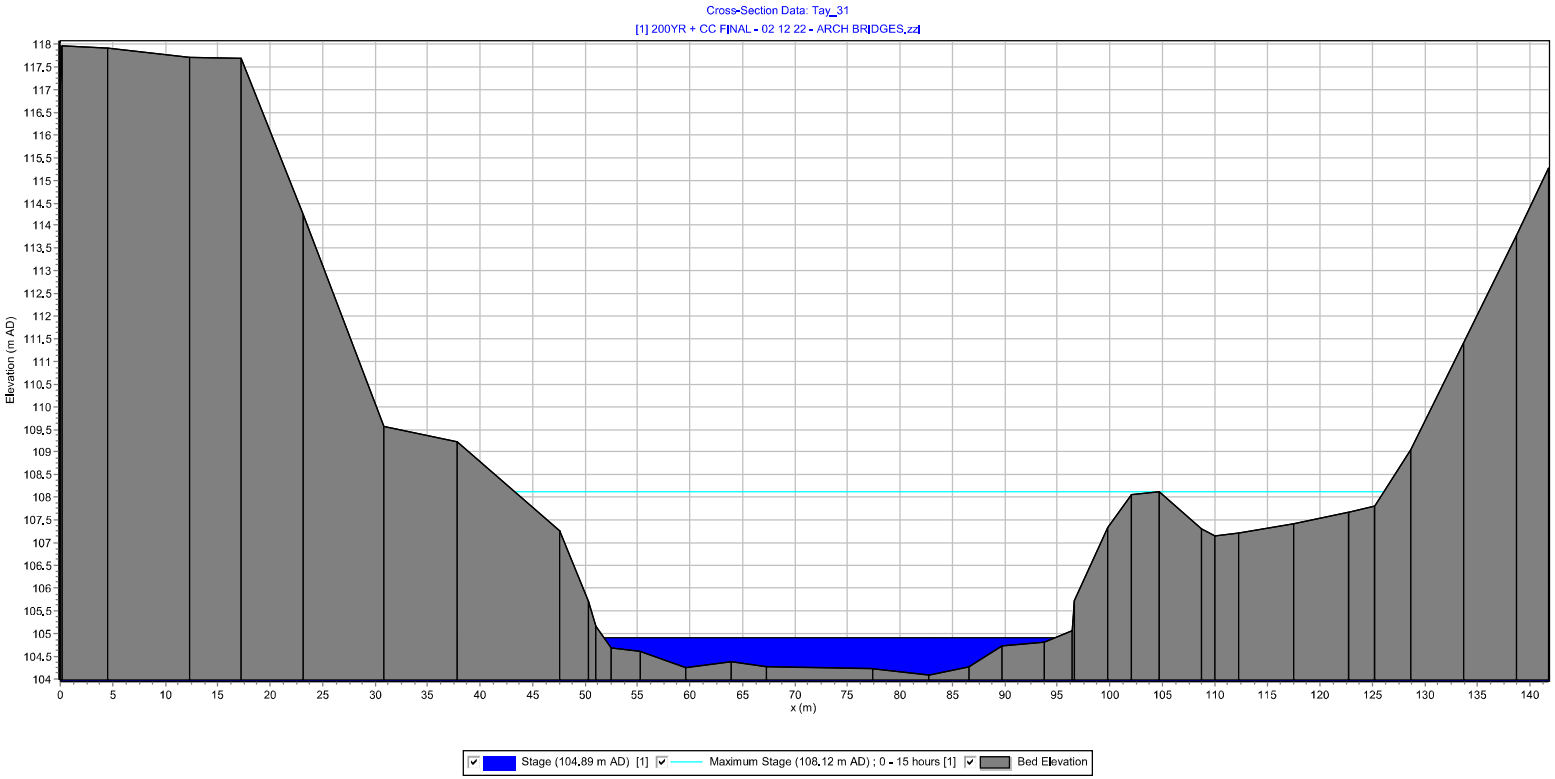

Cross-Section Data: Tay_26
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (102.4 m AD) [1]
Maximum Stage (105.86 m AD) ; 0 - 15 hours [1]
Bed Elevation

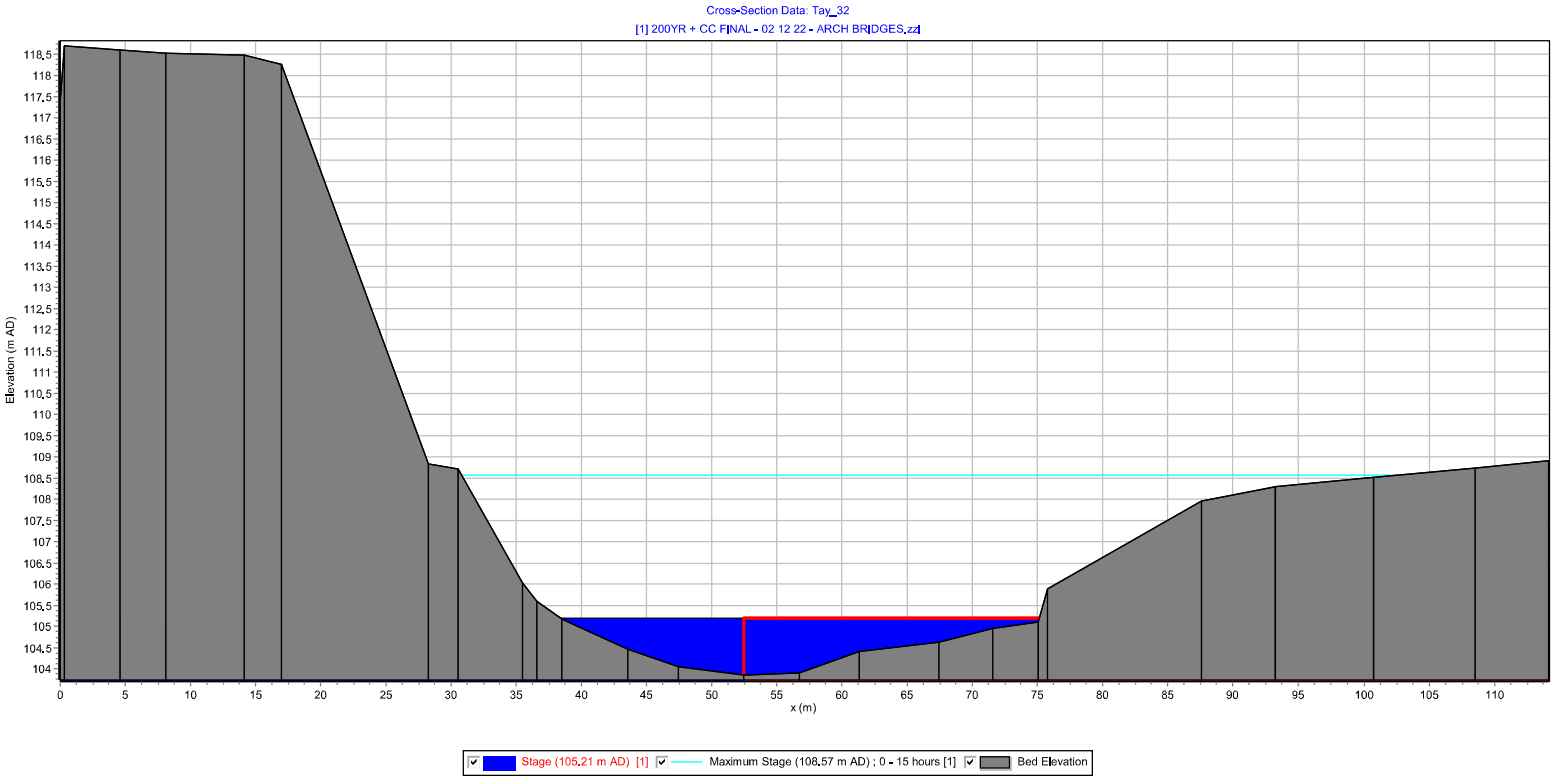

Cross-Section Data: Tay_27
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
x (m)
Stage (102.57 m AD) [1]
Maximum Stage (106.01 m AD) ; 0 - 15 hours [1]
Bed Elevation

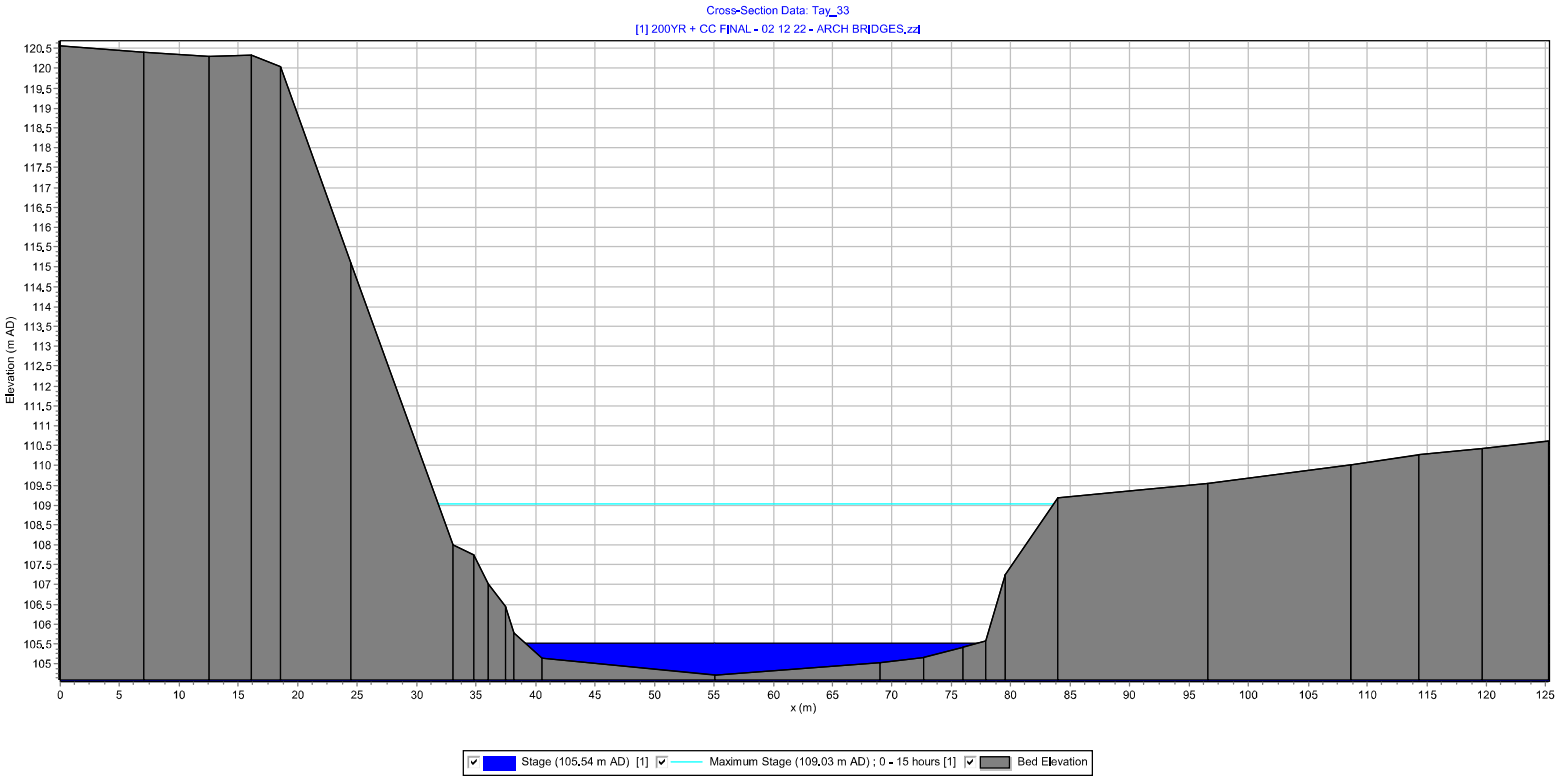

Cross-Section Data: Tay_28; 0 - 15 h.
[1] 200yr + CC final - 02 12 22 - arch bridges.zzl
[2] C:\Files for Server\...\Simulations\200yr + CC final - 02 12 22 - arch bridges.zzl
Elevation (m AD)
113.5
113
112.5
112
111.5
111
110.5
110
109.5
109
108.5
108
107.5
107
106.5
106
105.5
105
104.5
104
103.5
103
102.5
102
101.5
90
100
110
120
130
140
150
160
170
180
190
200
210
220
230
240
250
260
270
280
290
x (m)
Stage (102.86 m AD) [1]
Bed Elevation
Maximum Stage (106.4 m AD) ; 0 - 15 hours [2]

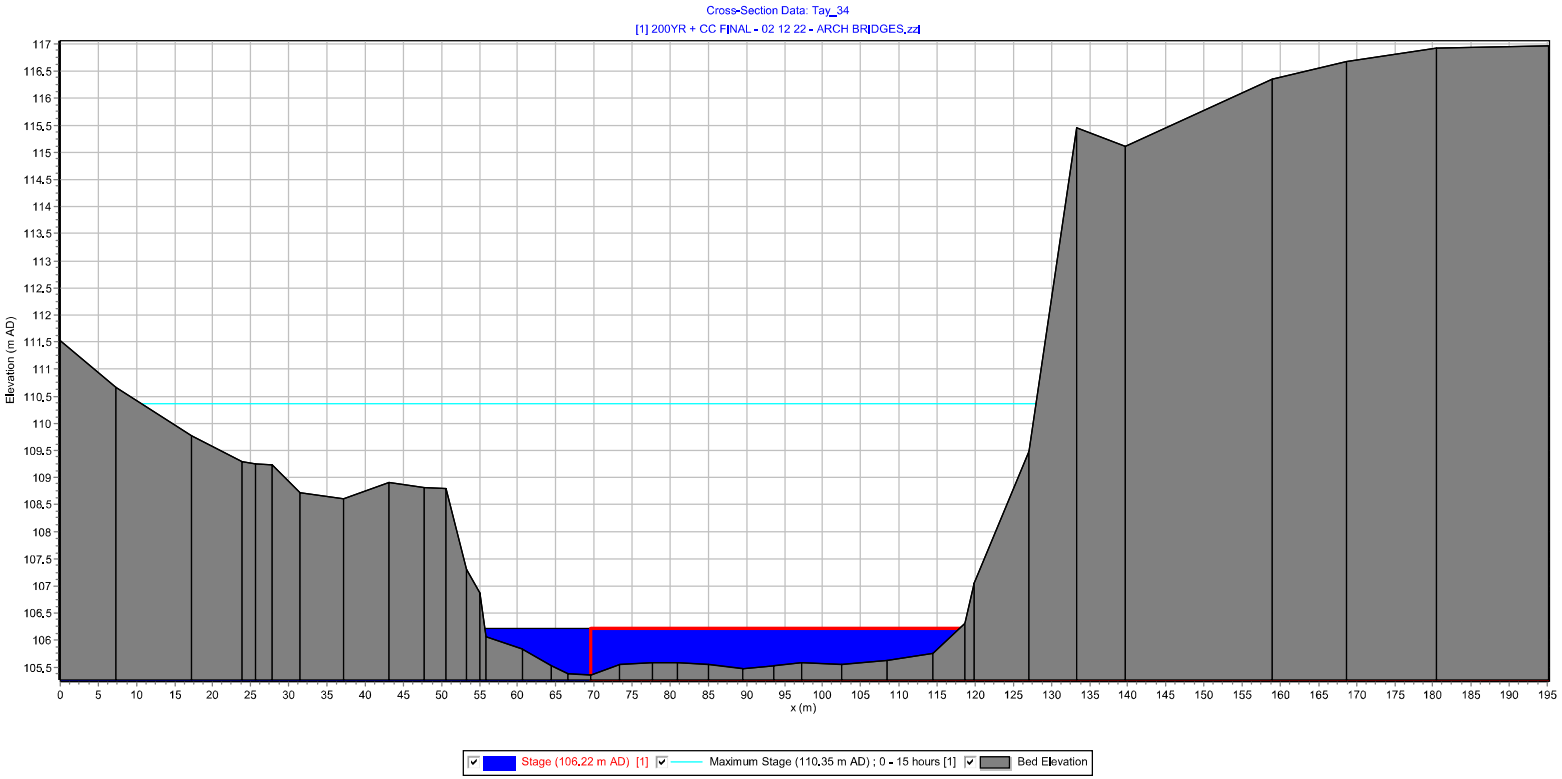

Cross-Section Data: Tay_29
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (103.25 m AD) [1]
Maximum Stage (106.75 m AD) ; 0 - 15 hours [1]
Bed Elevation

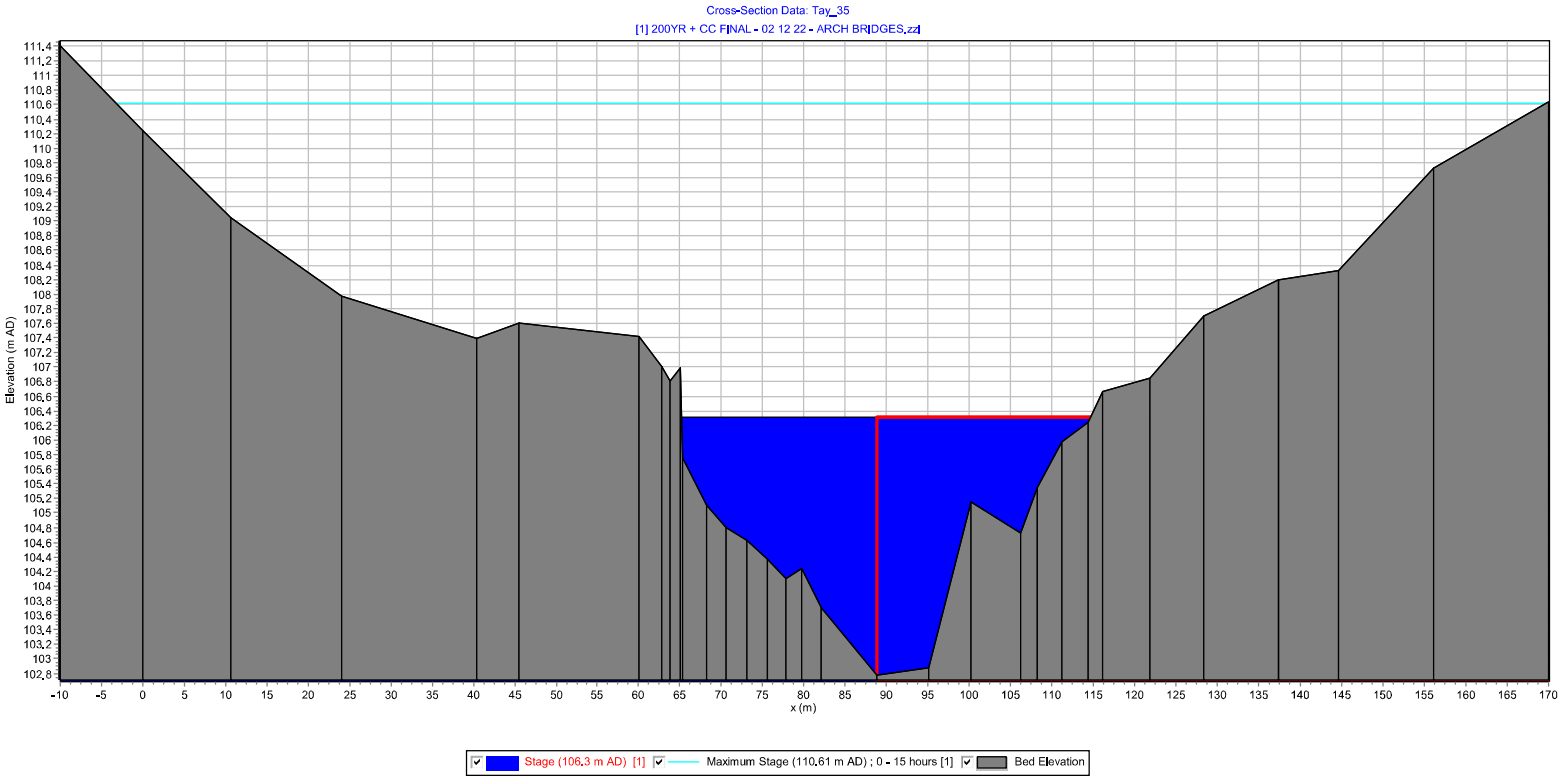

Cross-Section Data: Tay_30
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (104.08 m AD) [1]
Maximum Stage (107.07 m AD) ; 0 - 15 hours [1]
Bed Elevation

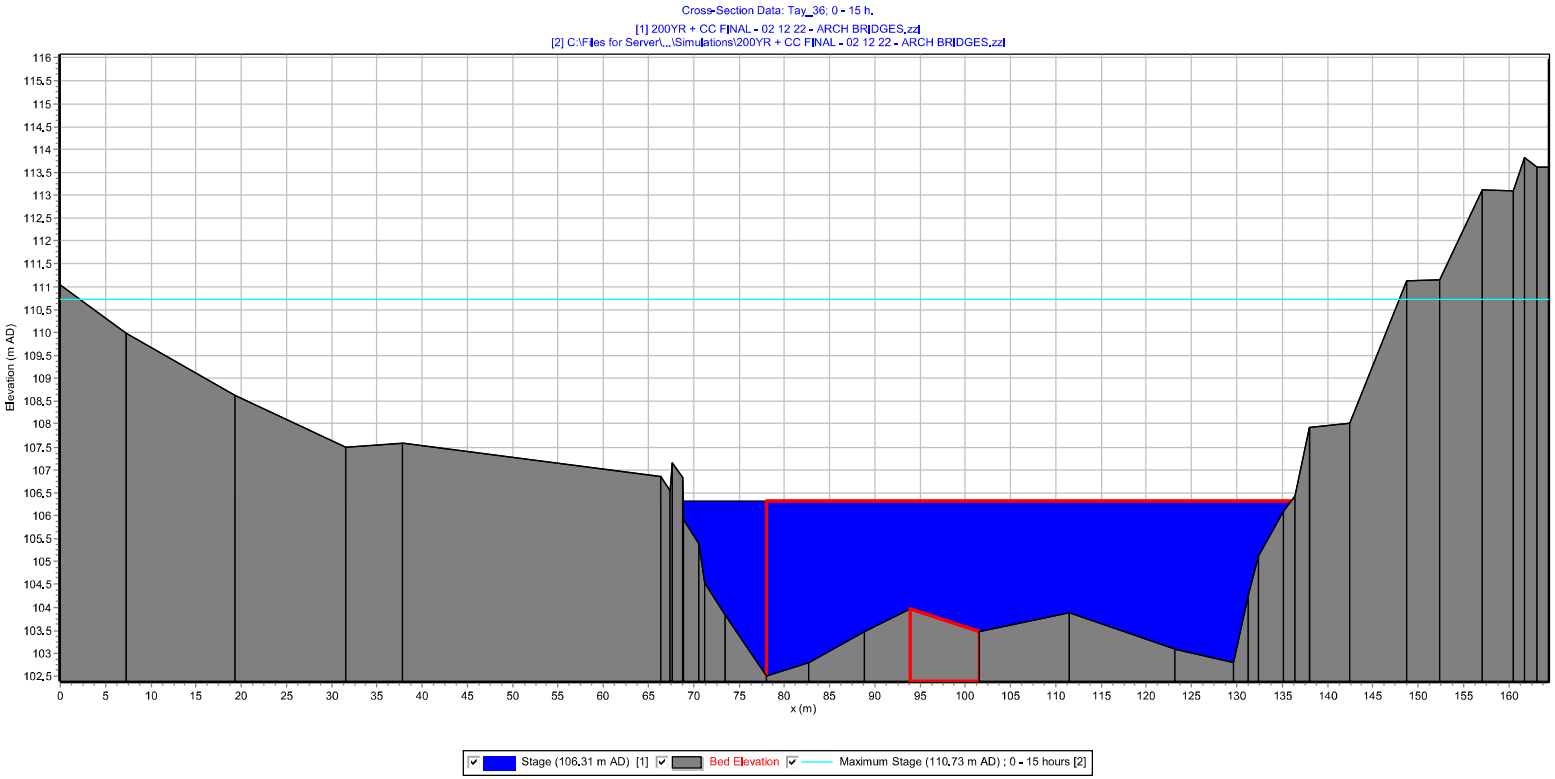

Cross-Section Data: Tay_31
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (104.89 m AD) [1]
Maximum Stage (108.12 m AD) ; 0 - 15 hours [1]
Bed Elevation

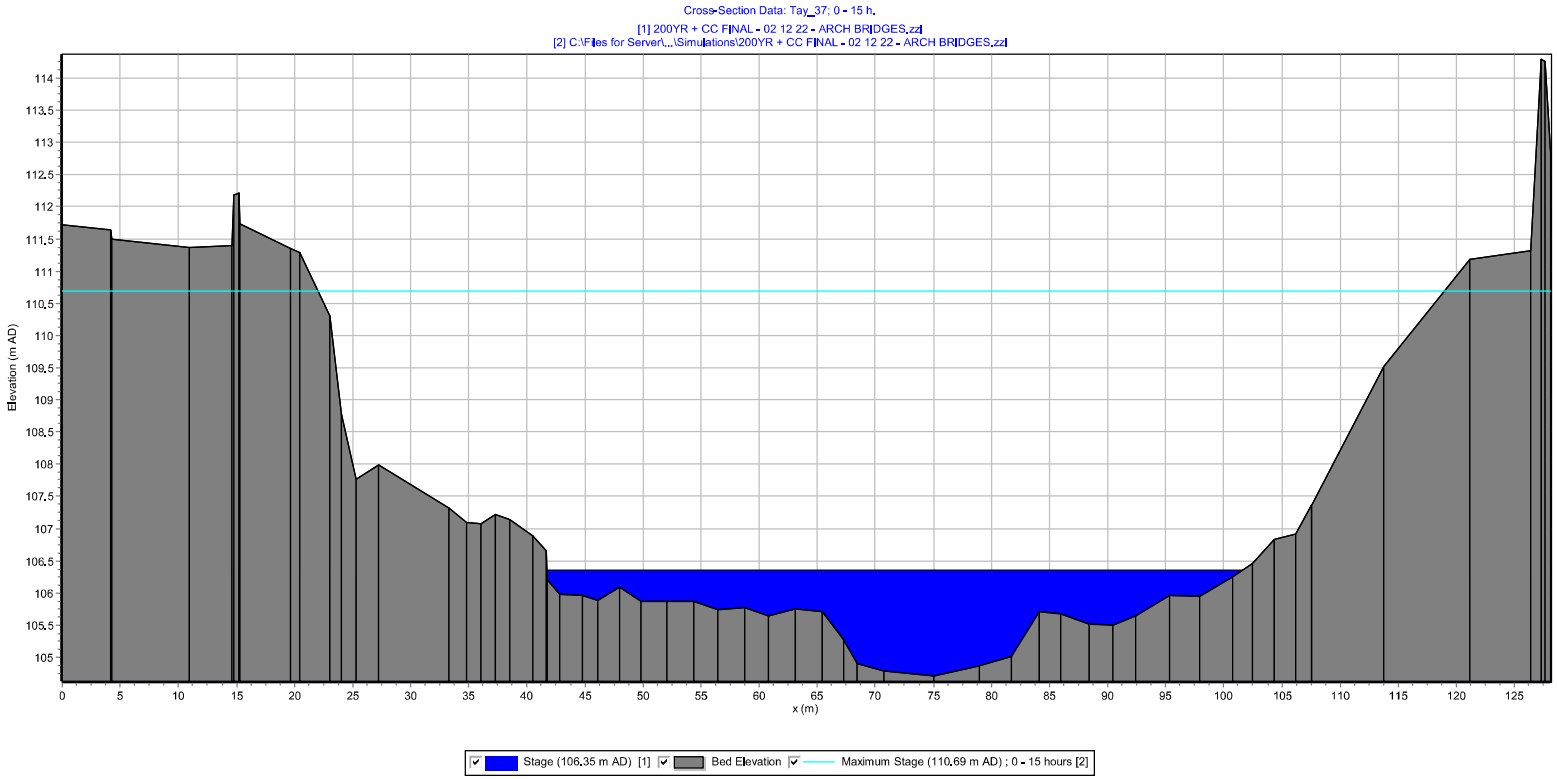

Cross-Section Data: Tay_32
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (105.21 m AD) [1]
Maximum Stage (108.57 m AD) ; 0 - 15 hours [1]
Bed Elevation


Cross-Section Data: Tay_33
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (105.54 m AD) [1]
Maximum Stage (109.03 m AD) ; 0 - 15 hours [1]
Bed Elevation


Cross-Section Data: Tay_34
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (106.22 m AD) [1]
Maximum Stage (110.35 m AD) ; 0 - 15 hours [1]
Bed Elevation

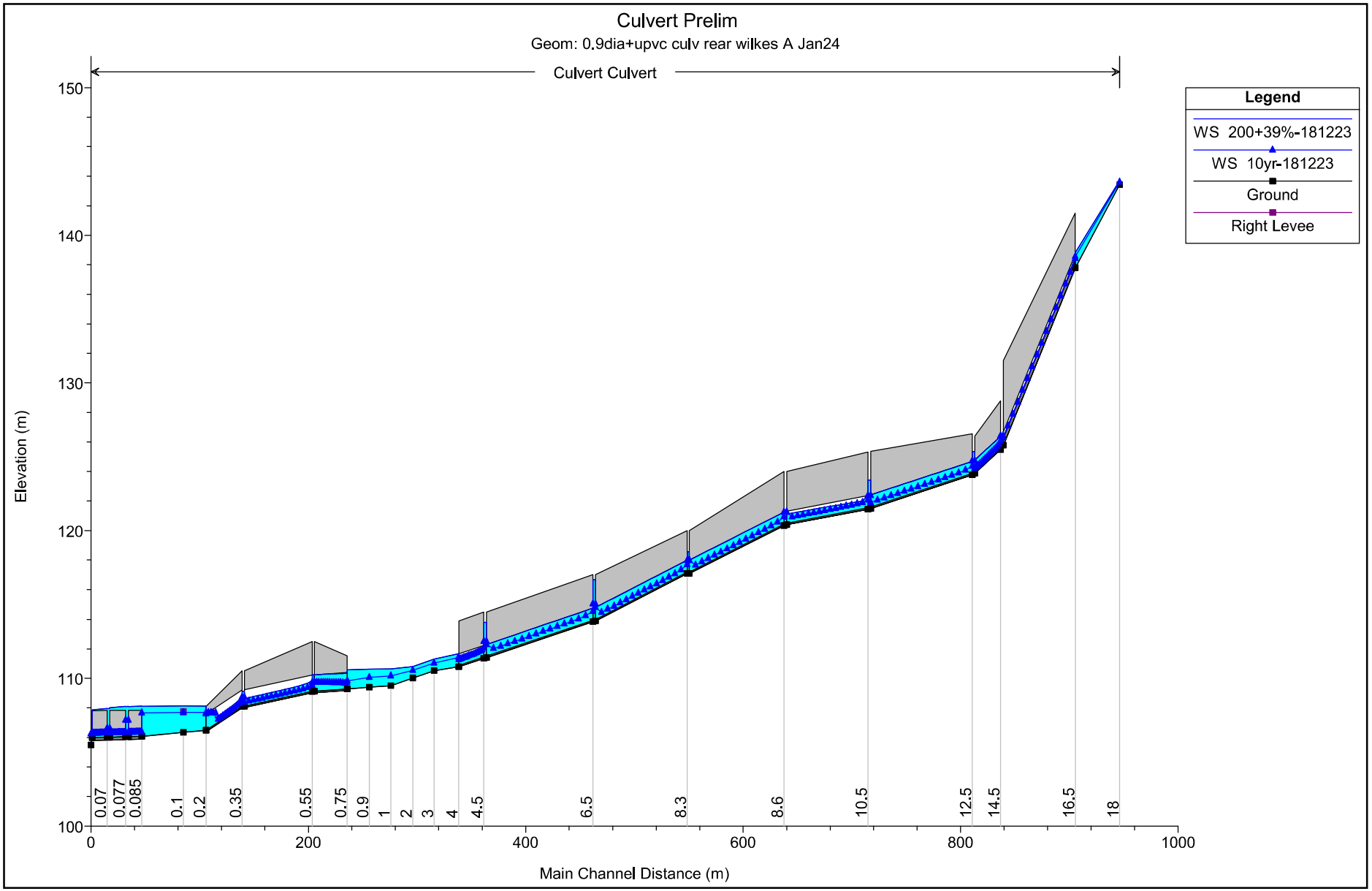

Cross-Section Data: Tay_35
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (106.3 m AD) [1]
Maximum Stage (110.61 m AD) ; 0 - 15 hours [1]
Bed Elevation

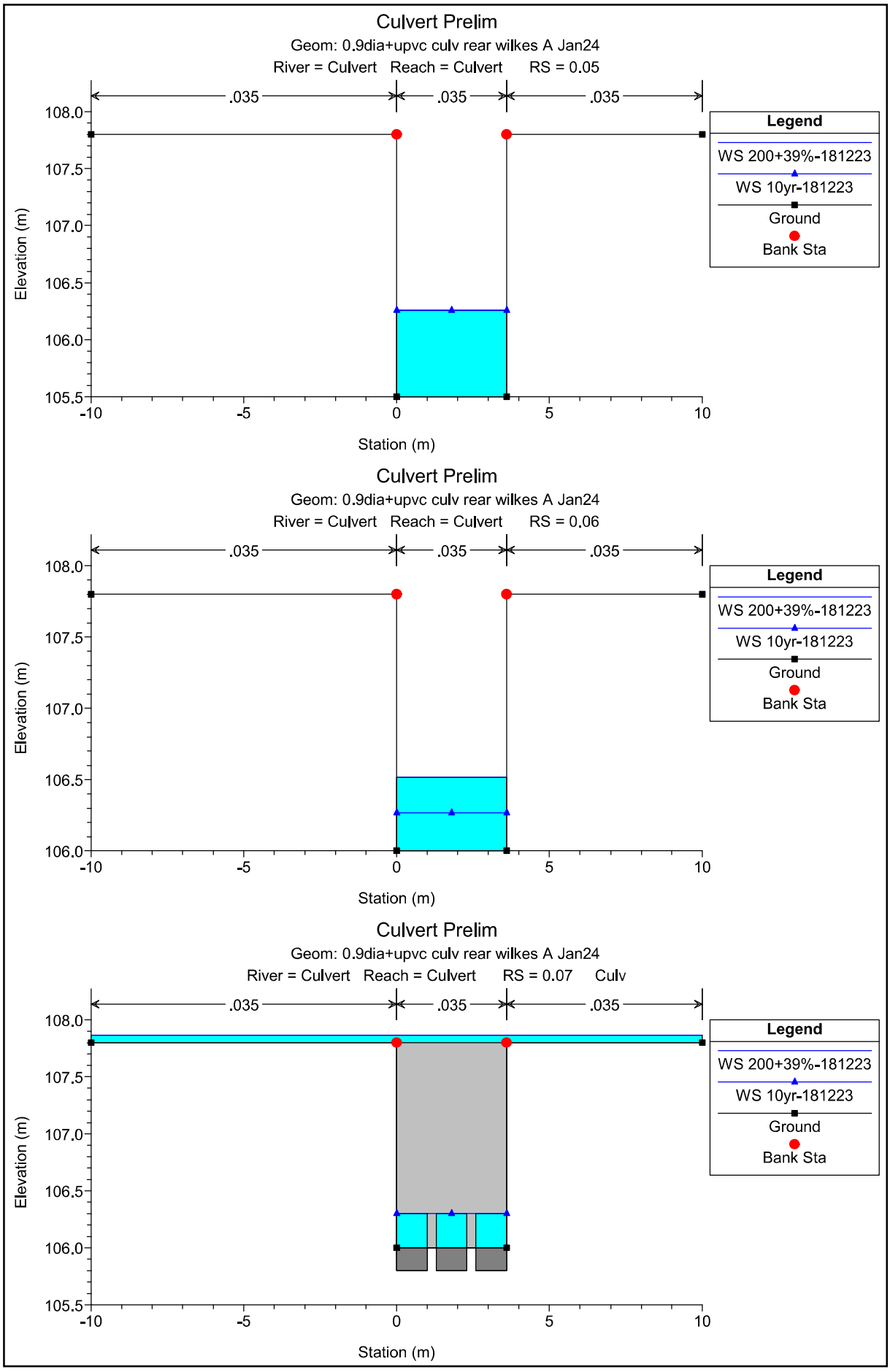

Cross-Section Data: Tay_36; 0 - 15 h.
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
[2] C:\Files for Server\...\Simulations\200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
x (m)
Stage (106.31 m AD) [1]
Bed Elevation
Maximum Stage (110.73 m AD) ; 0 - 15 hours [2]

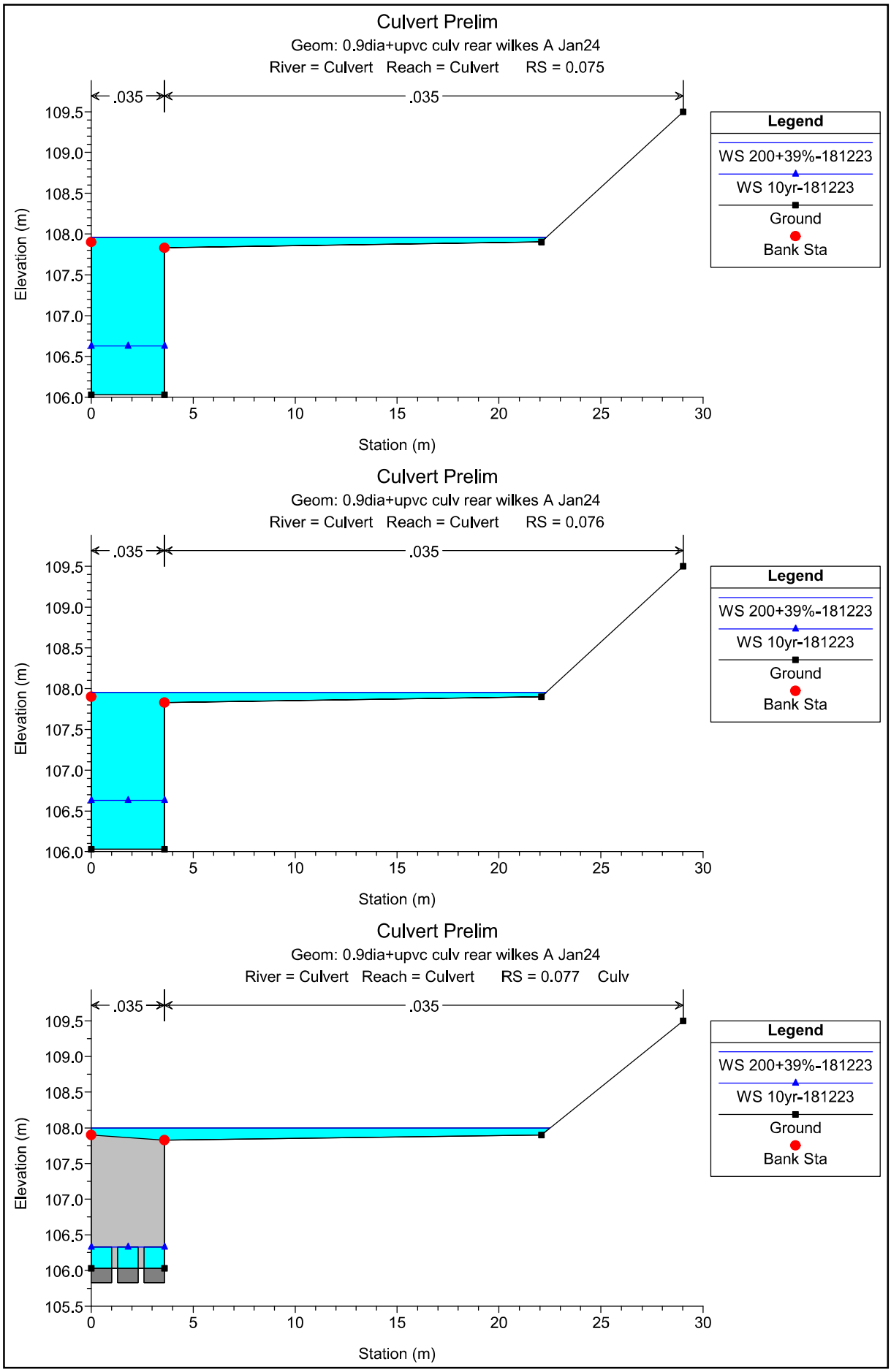

Cross-Section Data: Tay_37; 0 - 15 h.
[1] 200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
[2] C:\Files for Server\...\Simulations\200YR + CC FINAL - 02 12 22 - ARCH BRIDGES.zzl
Elevation (m AD)
114
113.5
113
112.5
112
111.5
111
110.5
110
109.5
109
108.5
108
107.5
107
106.5
106
105.5
105
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
100
105
110
115
120
125
x (m)
Stage (106.35 m AD) [1]
Bed Elevation
Maximum Stage (110.69 m AD) ; 0 - 15 hours [2]

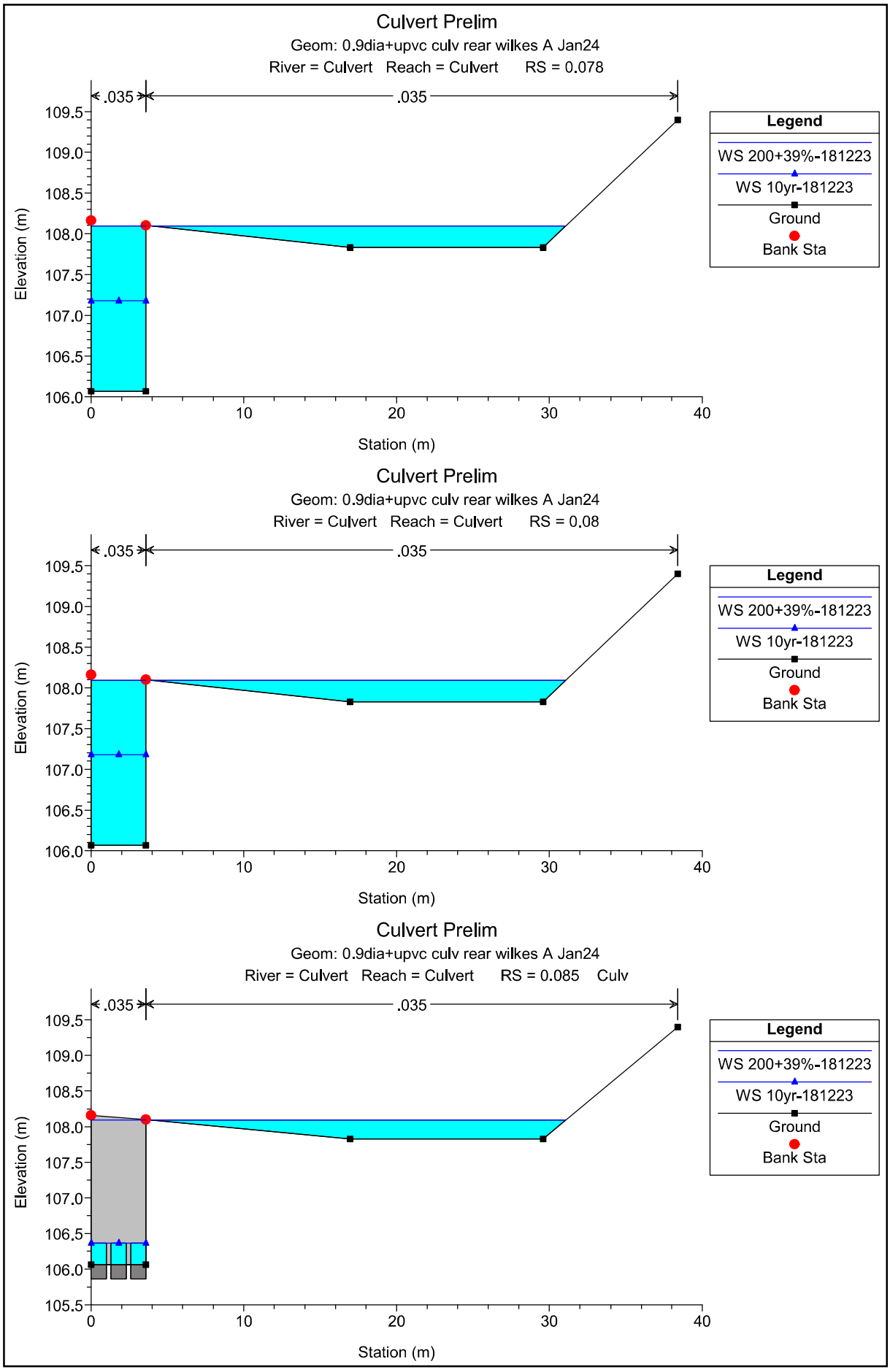
Man-made Channel – No Blockage – 200yr + CC and 10yr

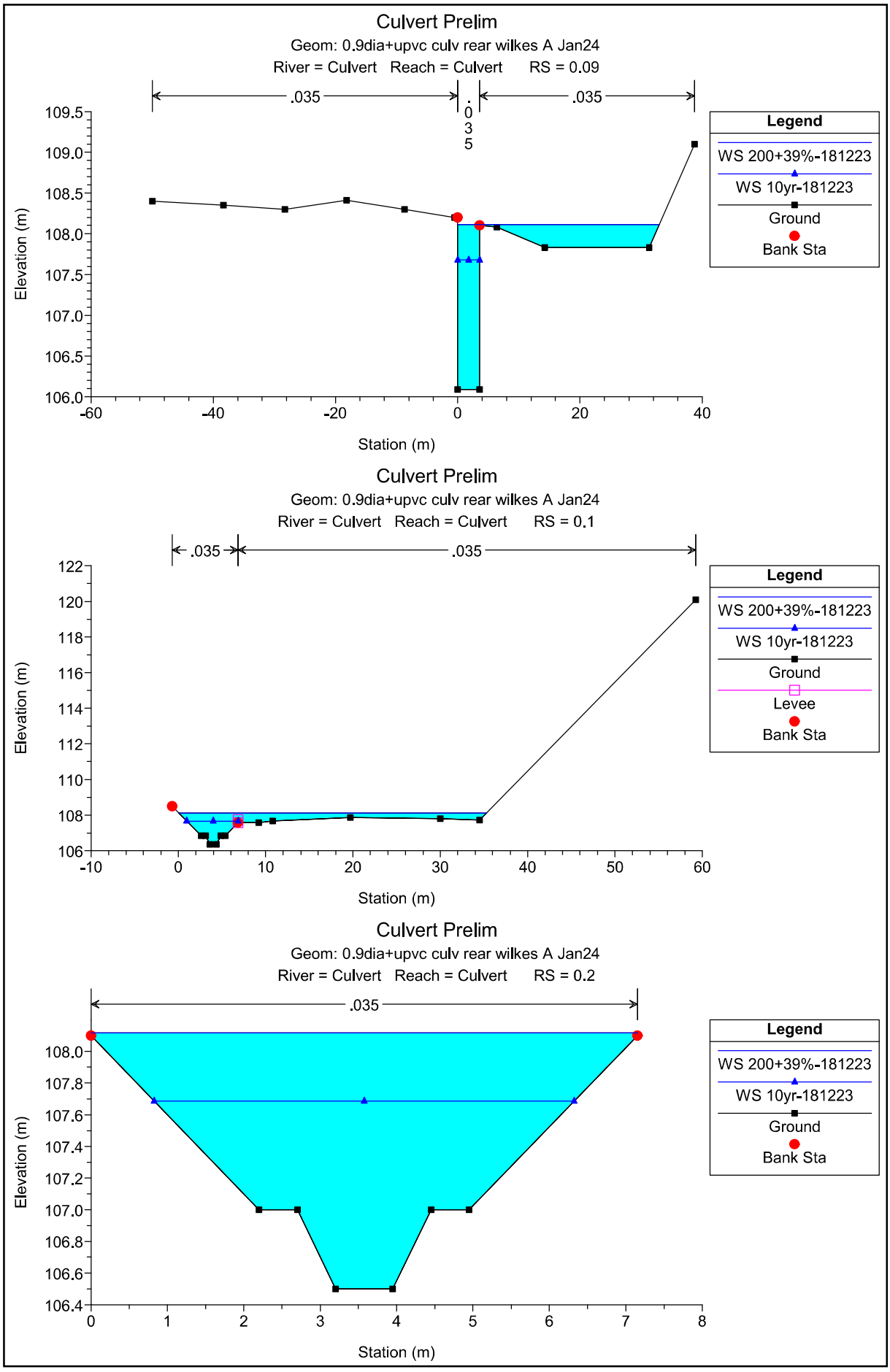
(HECRAS)

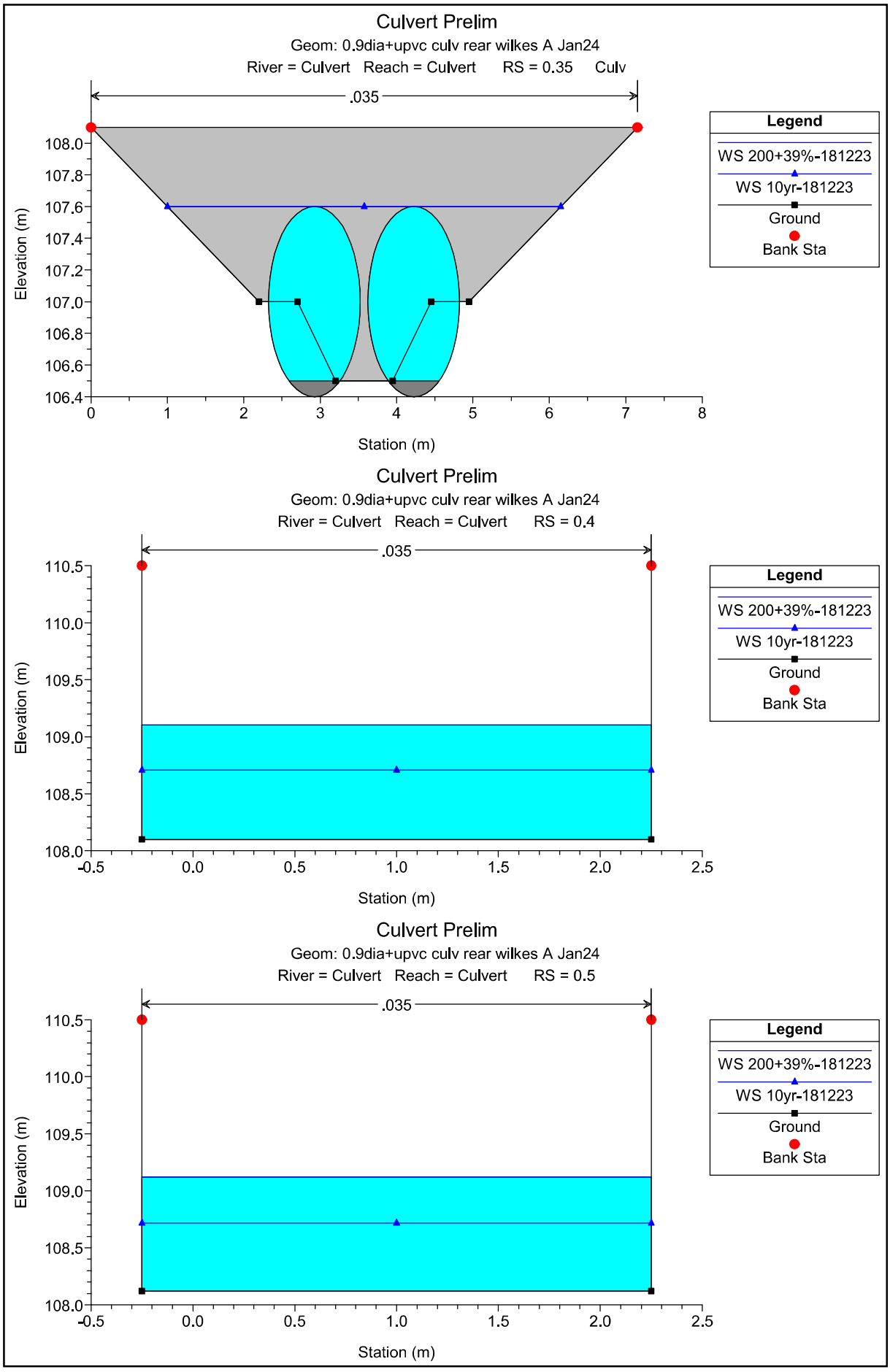

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
Culvert Culvert
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Right Levee
Elevation (m)
150
140
130
120
110
100
0
200
400
600
800
1000
Main Channel Distance (m)
0.07
0.077
0.085
0.1
0.2
0.35
0.55
0.75
0.9
1
2
3
4
4.5
6.5
8.3
8.6
10.5
12.5
14.5
16.5
18

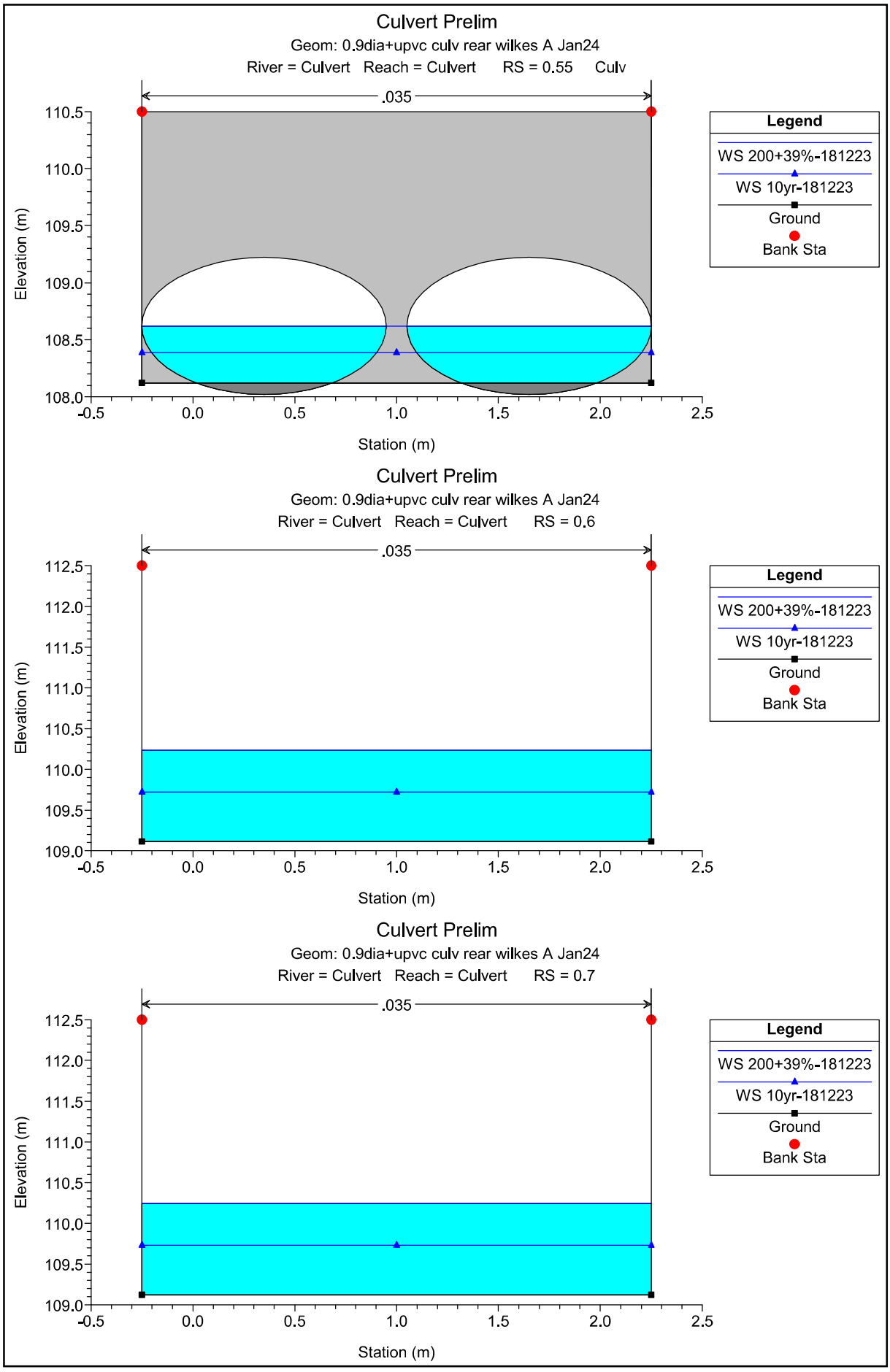

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.05
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.06
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.07 Culv
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)

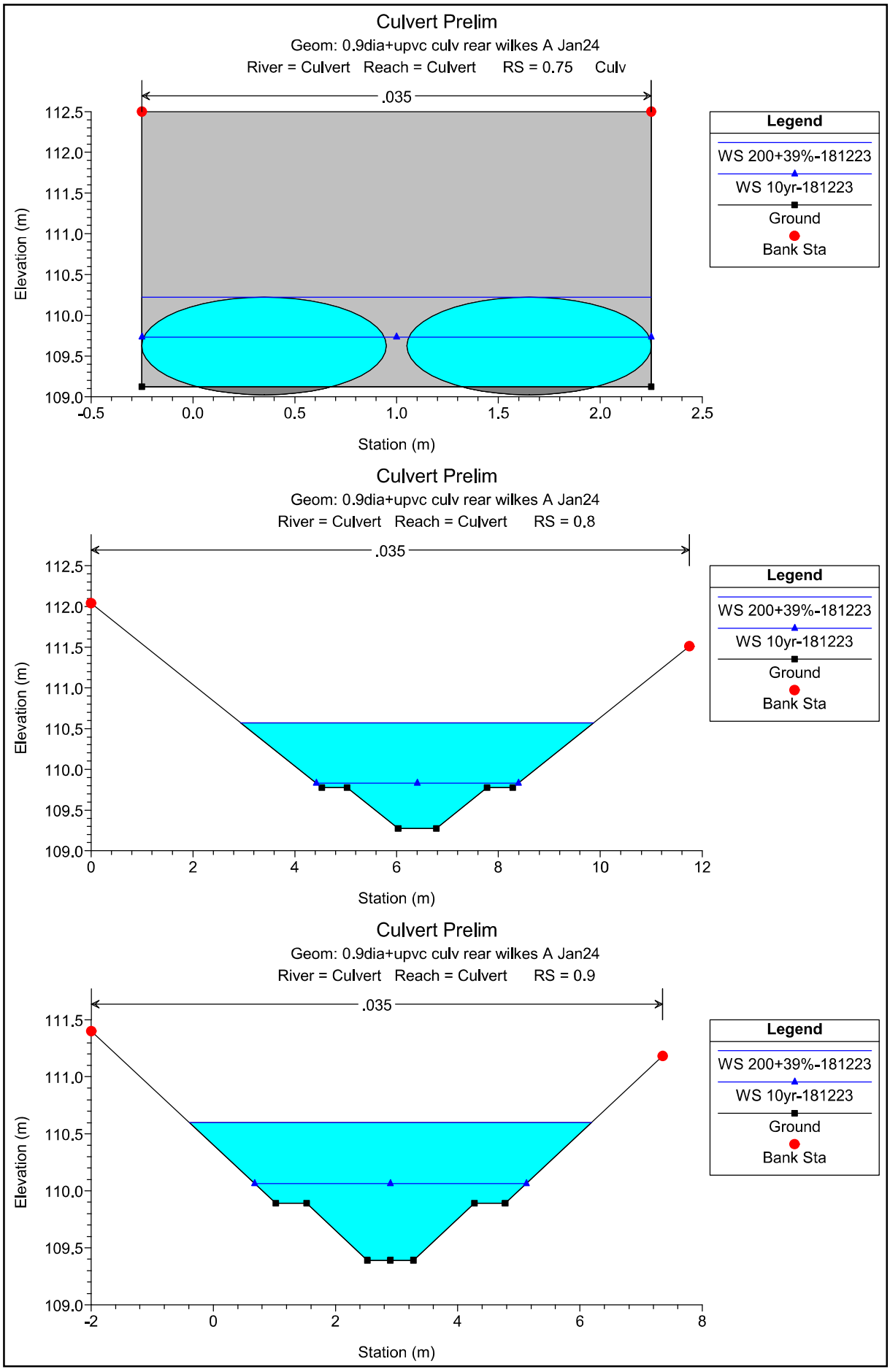

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.075
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.076
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.077 Culv
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

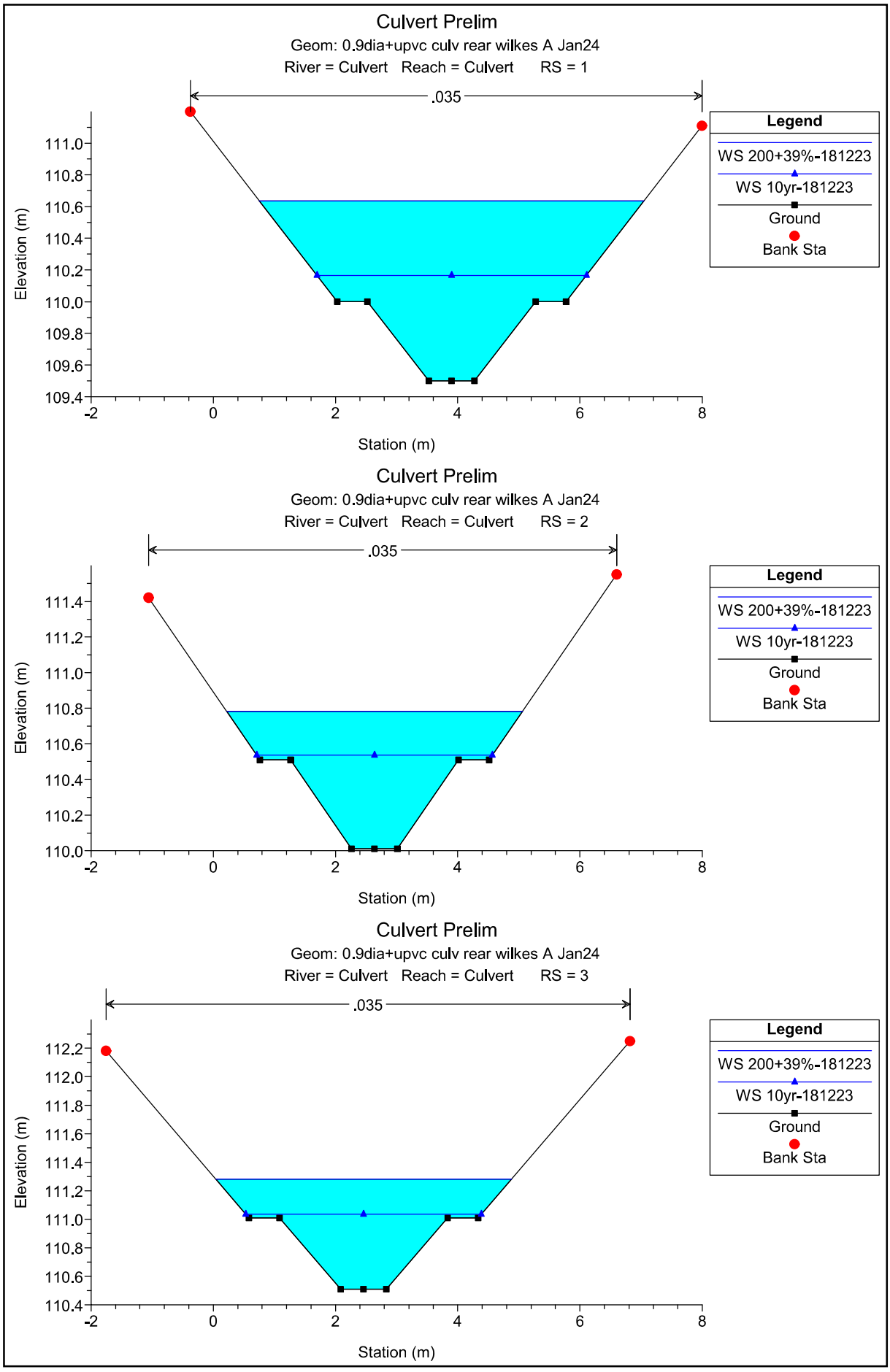

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.078
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.08
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.085 Culv
.035
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

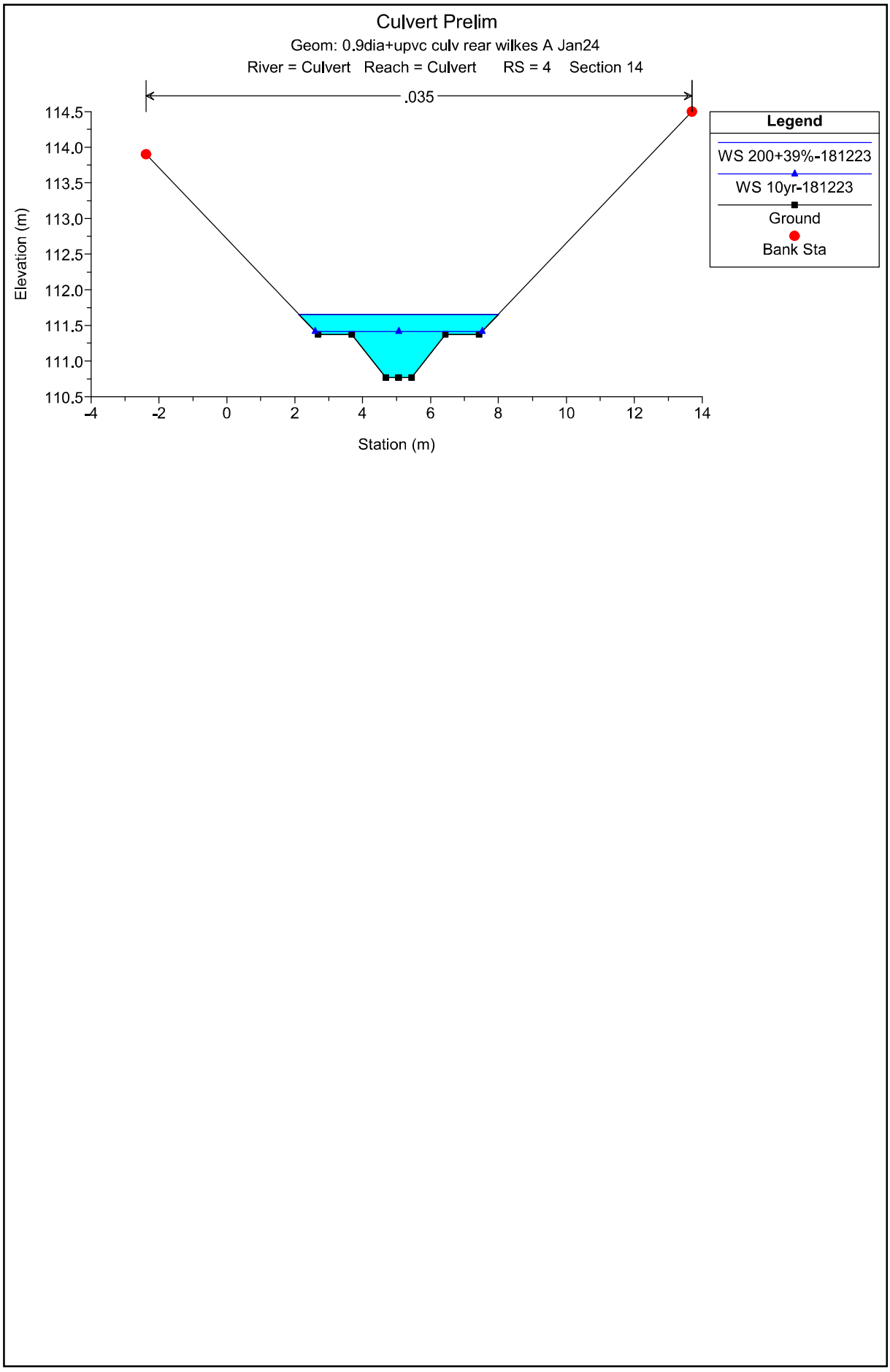

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.09
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.1
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.2
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.35 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.4
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.5
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.55 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.6
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.7
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

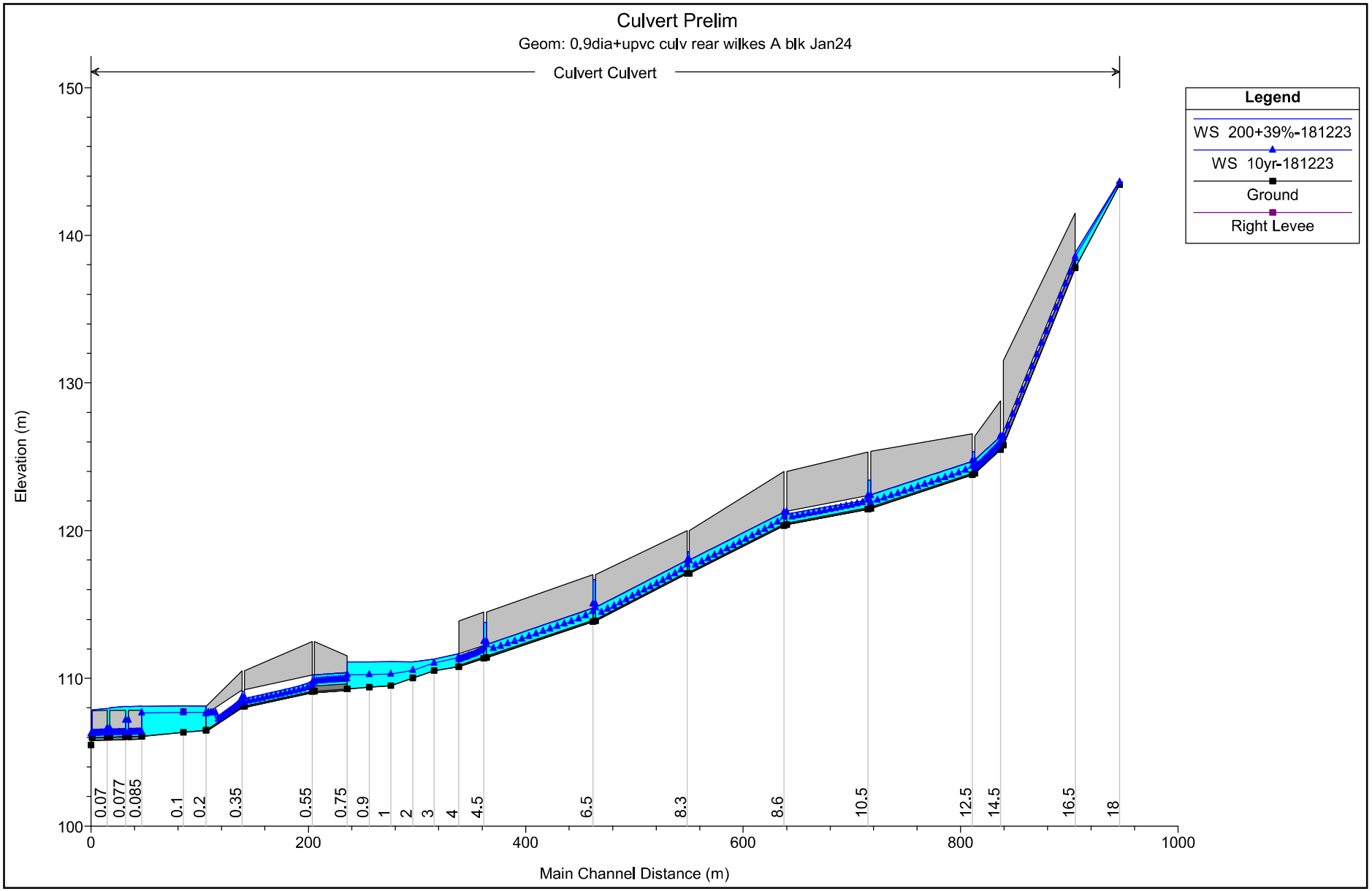

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.75 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.8
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 0.9
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

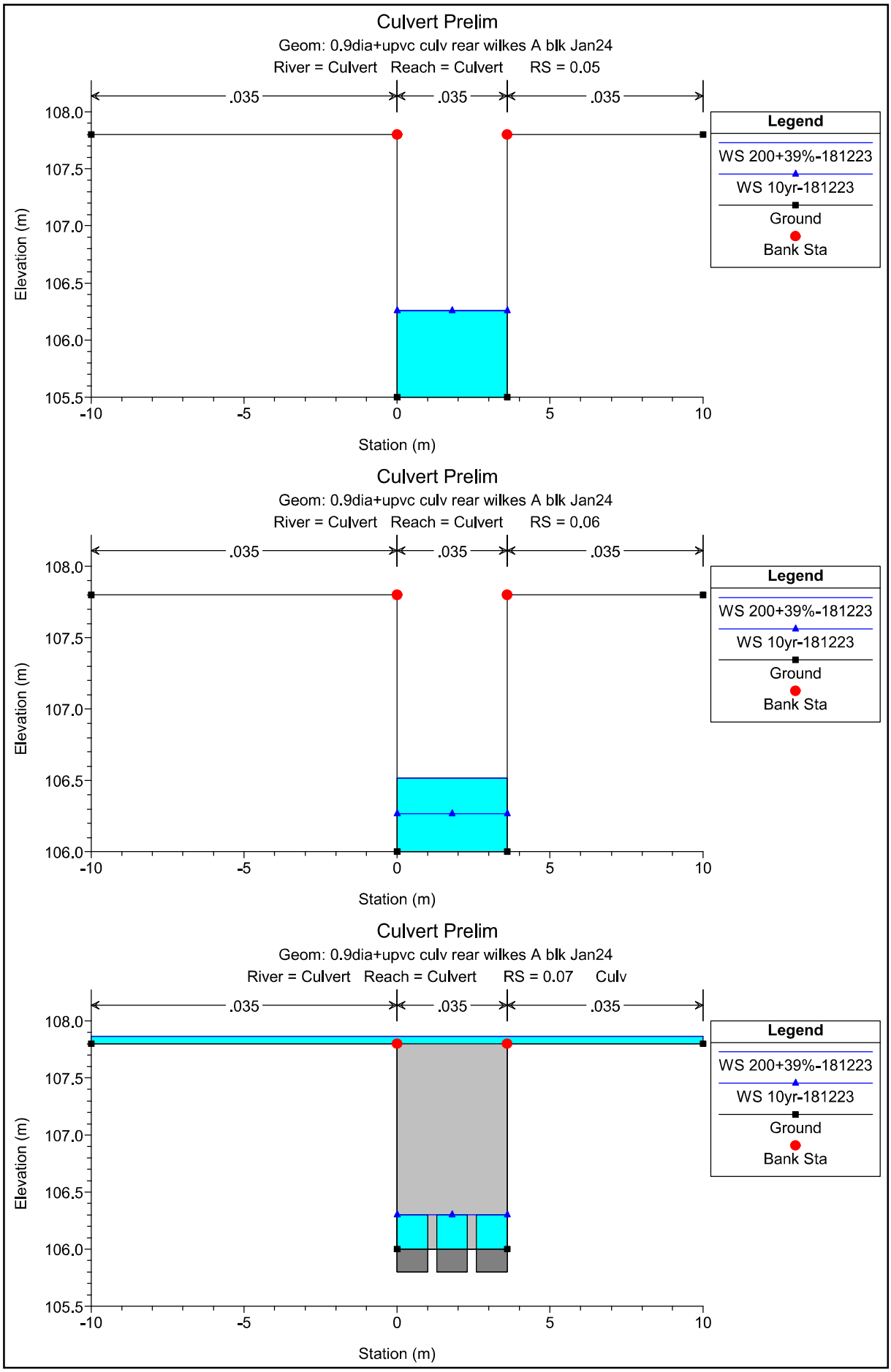

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 1
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 2
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 3
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

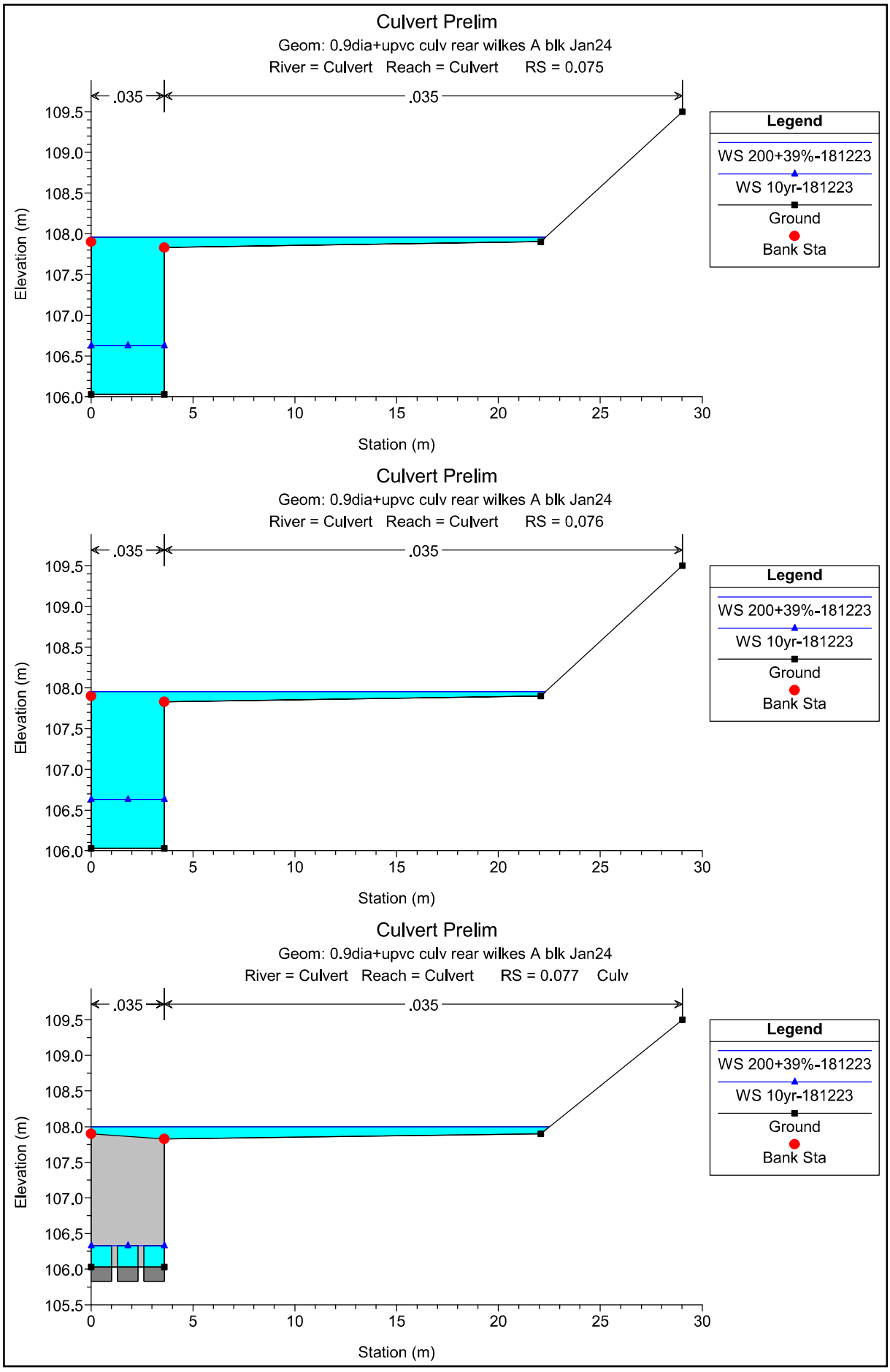

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A Jan24
River = Culvert Reach = Culvert RS = 4 Section 14
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
114.5
114.0
113.5
113.0
112.5
112.0
111.5
111.0
110.5
-4
-2
0
2
4
6
8
10
12
14

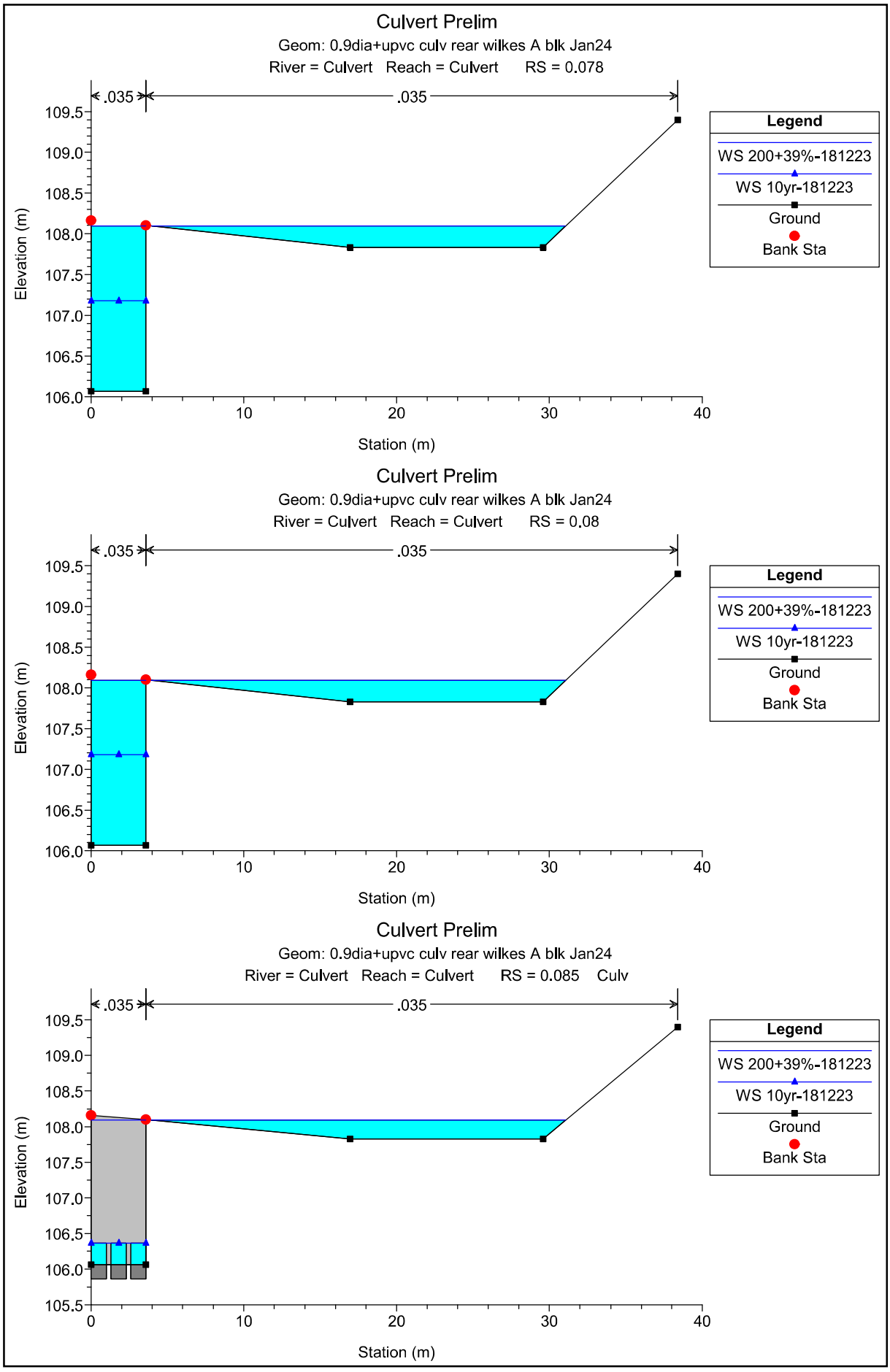
Man-made Channel – including Blockage – 200yr + CC and 10yr

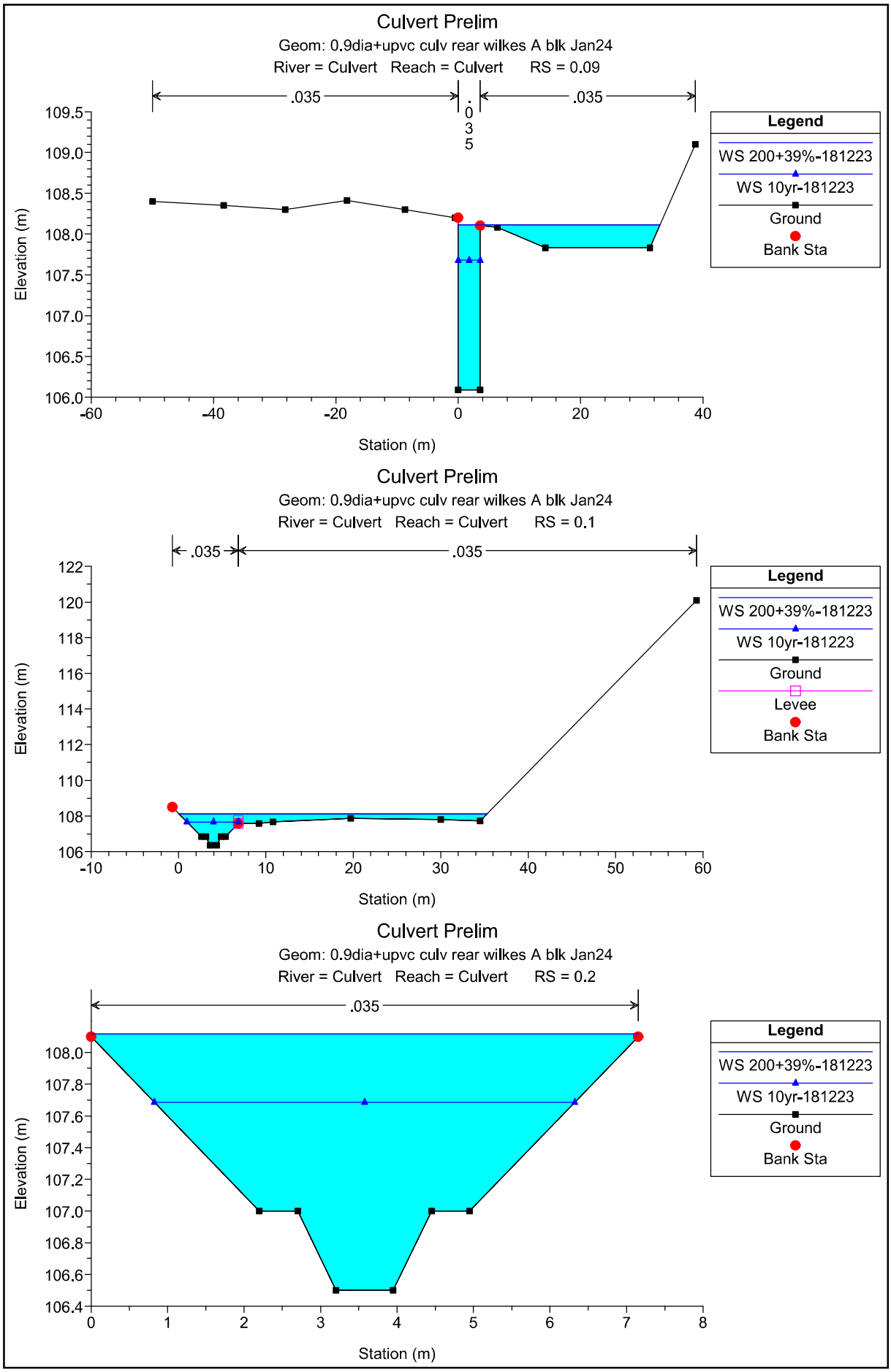
(HECRAS)

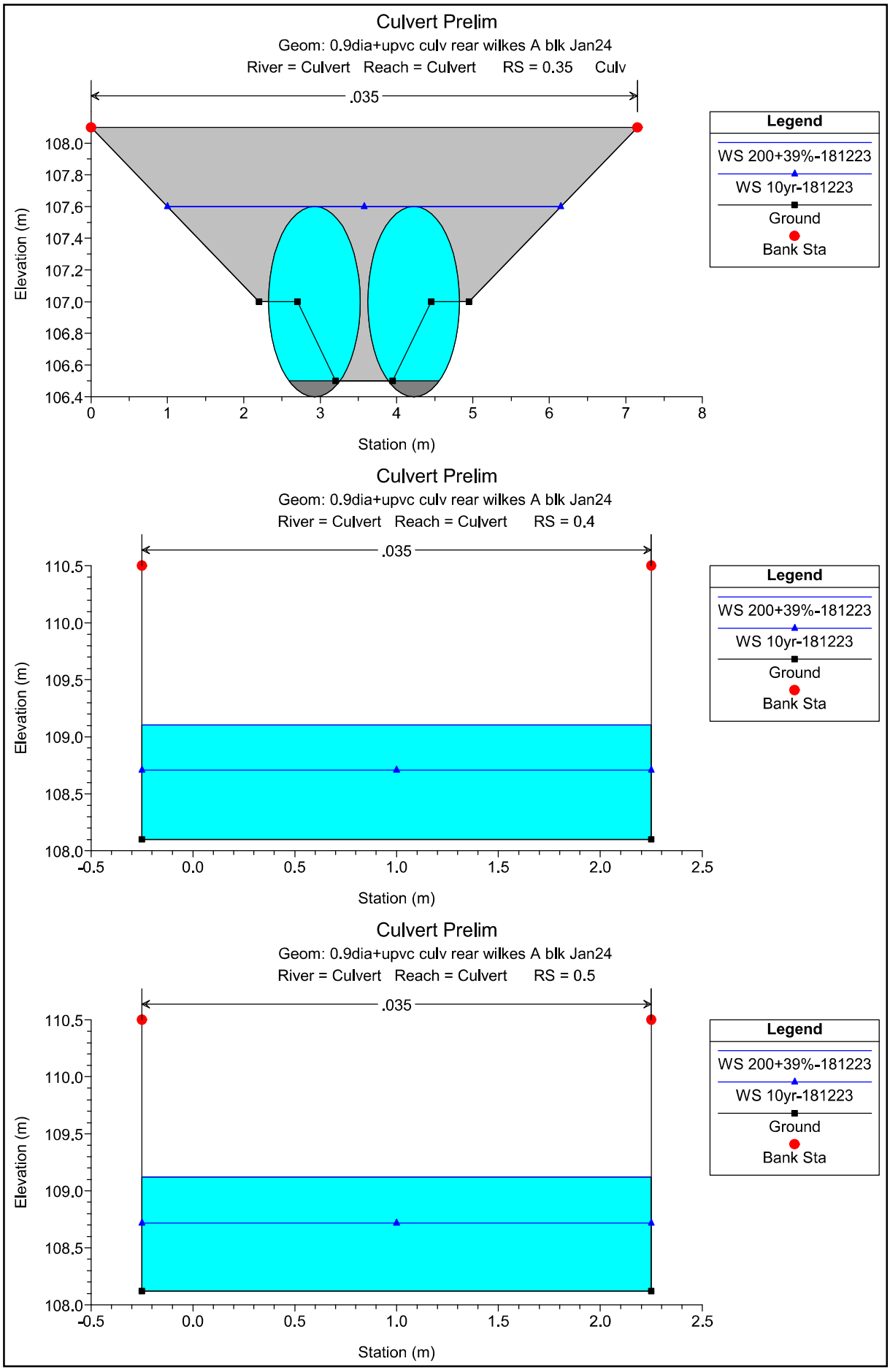

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
Culvert Culvert
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Right Levee
Elevation (m)
150
140
130
120
110
100
0
200
400
600
800
1000
Main Channel Distance (m)
0.07
0.077
0.085
0.1
0.2
0.35
0.55
0.75
0.9
1
2
3
4
4.5
6.5
8.3
8.6
10.5
12.5
14.5
16.5
18

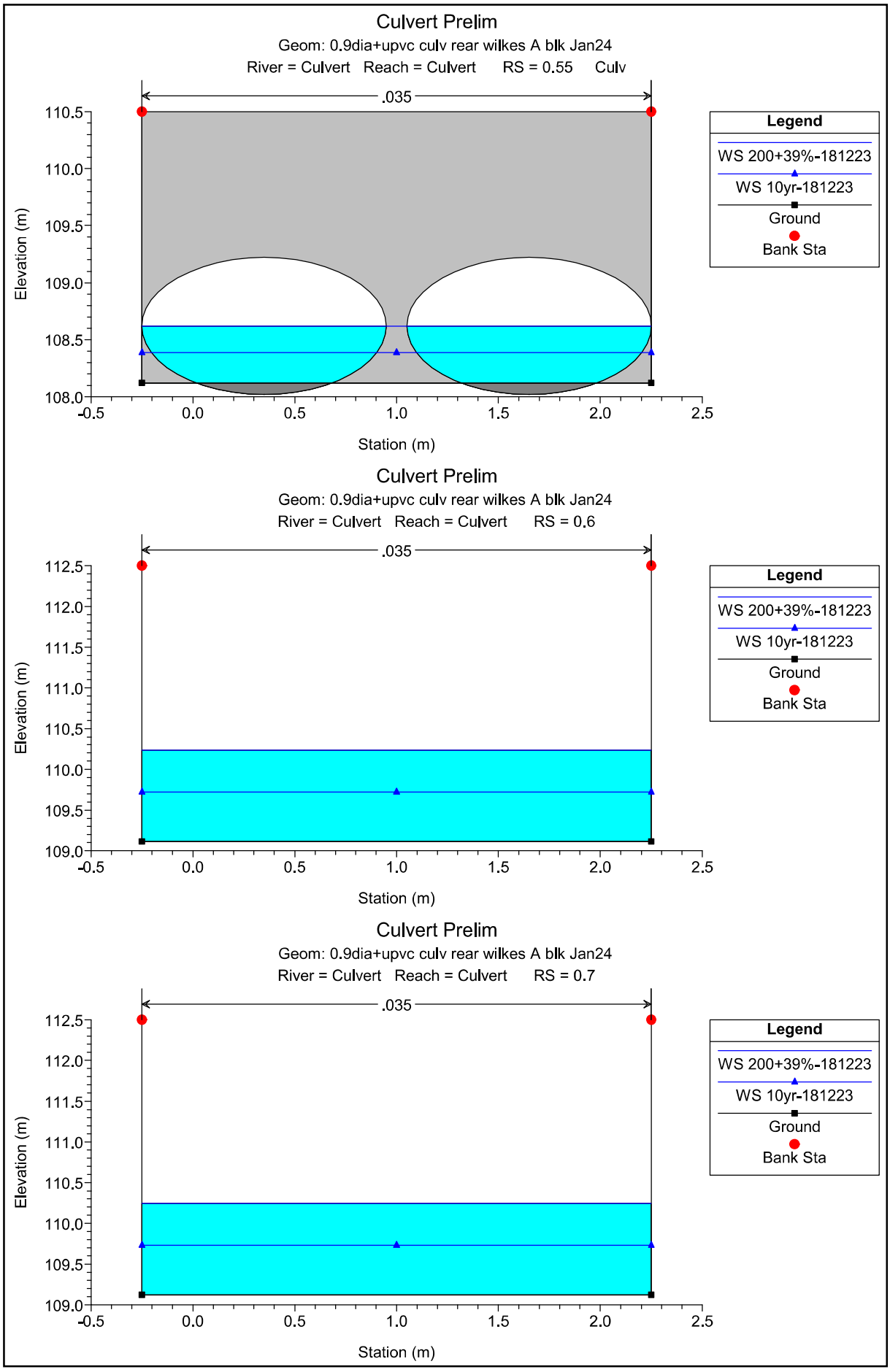

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.05
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.06
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.07 Culv
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)

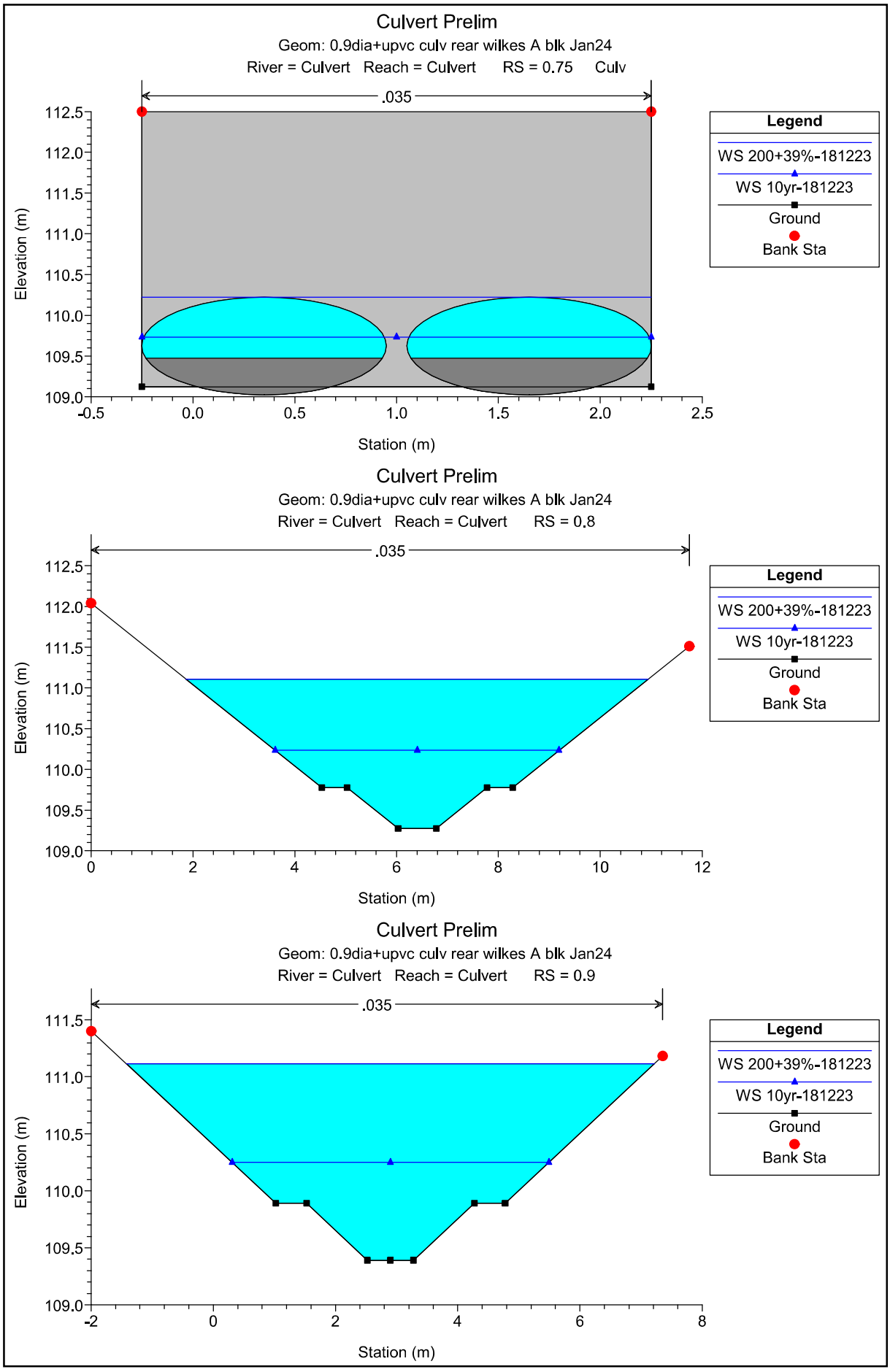

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.075
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.076
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.077 Culv
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)

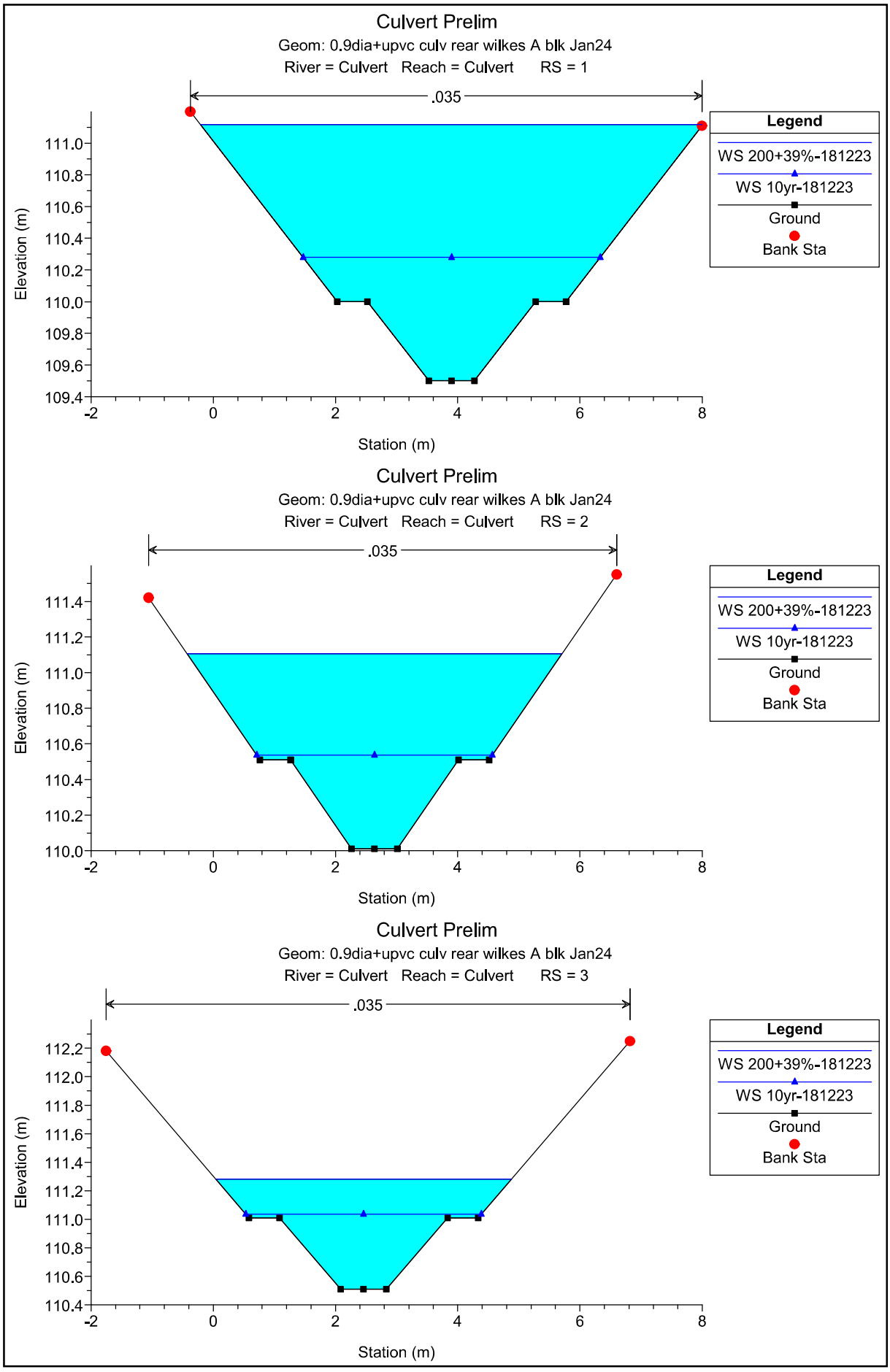

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.078
.035
.035
Elevation (m)
109.5
109.0
108.5
108.0
107.5
107.0
106.5
106.0
0
10
20
30
40
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.08
.035
.035
Elevation (m)
109.5
109.0
108.5
108.0
107.5
107.0
106.5
106.0
0
10
20
30
40
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.085 Culv
.035
.035
Elevation (m)
109.5
109.0
108.5
108.0
107.5
107.0
106.5
106.0
105.5
0
10
20
30
40
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

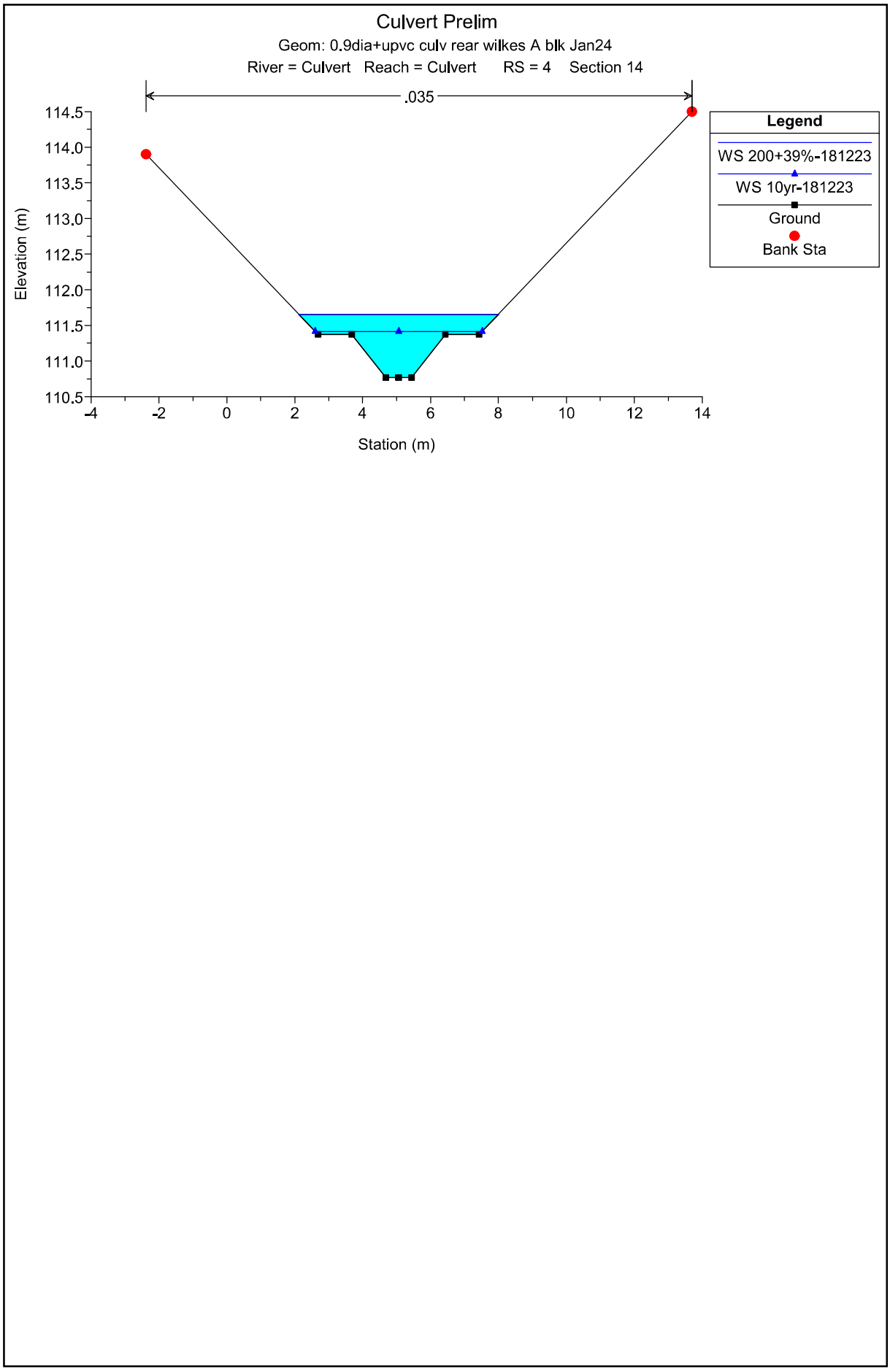

Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.09
.035
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.1
.035
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.2
.035
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Elevation (m)
Station (m)


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.35 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.4
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.5
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.55 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.6
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.7
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.75 Culv
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.8
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 0.9
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 1
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 2
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta
Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 3
.035
Elevation (m)
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta


Culvert Prelim
Geom: 0.9dia+upvc culv rear wilkes A blk Jan24
River = Culvert Reach = Culvert RS = 4 Section 14
.035
Elevation (m)
114.5
114.0
113.5
113.0
112.5
112.0
111.5
111.0
110.5
-4
-2
0
2
4
6
8
10
12
14
Station (m)
Legend
WS 200+39%-181223
WS 10yr-181223
Ground
Bank Sta

Appendix C: SEPA FRA Checklist

Flood Risk Assessment (FRA) Checklist

(SS-NFR-F-001 - Version 13 - Last updated 15/04/2015

This document should be attached within the front cover of any flood risk assessments issued to Local Planning Authorities (LPA) in support of a development proposal which may be at risk of flooding. The document will take only a few minutes to complete and will assist SEPA in reviewing FRAs, when consulted by LPAs. This document should not be a substitute for a FRA.

Development Proposal						
Site Name		Taymouth Castle Zone 4				
Grid Reference	Easting:	277900	Northing:	745914		
Local Authority		Perth and Kinross Council				
Planning Reference number (if known)						
Nature of the development		Residential		If residential, state type:	Housing	
Size of the development site		5.3	Ha			
Identified Flood Risk	Source:	Fluvial		Source name:	River Tay	
Supporting Information						
Have clear maps / plans been provided within the FRA (including topographic and flood inundation plans)		Yes				
Has a historic flood search been undertaken?		Select from List				
Is a formal flood prevention scheme present?		No		If known, state the standard of protection offered		
Current / historical site use		Greenfield				
Hydrology						
Area of catchment		598.3	km^2			
Qmed estimate		200.6	m^3/s	Method:	Gauged Record	
Estimate of 200 year design flood flow		481.7	m^3/s			
Estimation method(s) used *		Pooled analysis		If other (please specify methodology used):		
				If Pooled analysis have group details been included	Select from List	
Hydraulics						
Hydraulic modelling method		Linked 1D 2D		Software used:	Other	
If other please specify		Flood Modeller				
Modelled reach length		3800	m			
Any structures within the modelled length?		Bridges		Specify, if combination		
Brief summary of sensitivity tests, and range:						
variation on flow (%)		20	%			
variation on channel roughness		20%				
blockage of structure (range of % blocked)			%	Reference CIRIA culvert design guide R168, section 8.4		
boundary conditions:		**Upstream**			**Downstream**	
(1) type		Flow			Normal depth	
	Specify if other			Specify if other		
(2) does it influence water levels at the site?		Yes			No	
Has model been calibrated (gauge data / flood records)?		Yes				
Is the hydraulic model available to SEPA?		Select from List				
Design flood levels	200 year	Varies	m AOD	200 year plus climate change	Varies	m AOD

Flood Risk Assessment (FRA) Checklist

(SS-NFR-F-001 - Version 13 - Last updated 15/04/2015

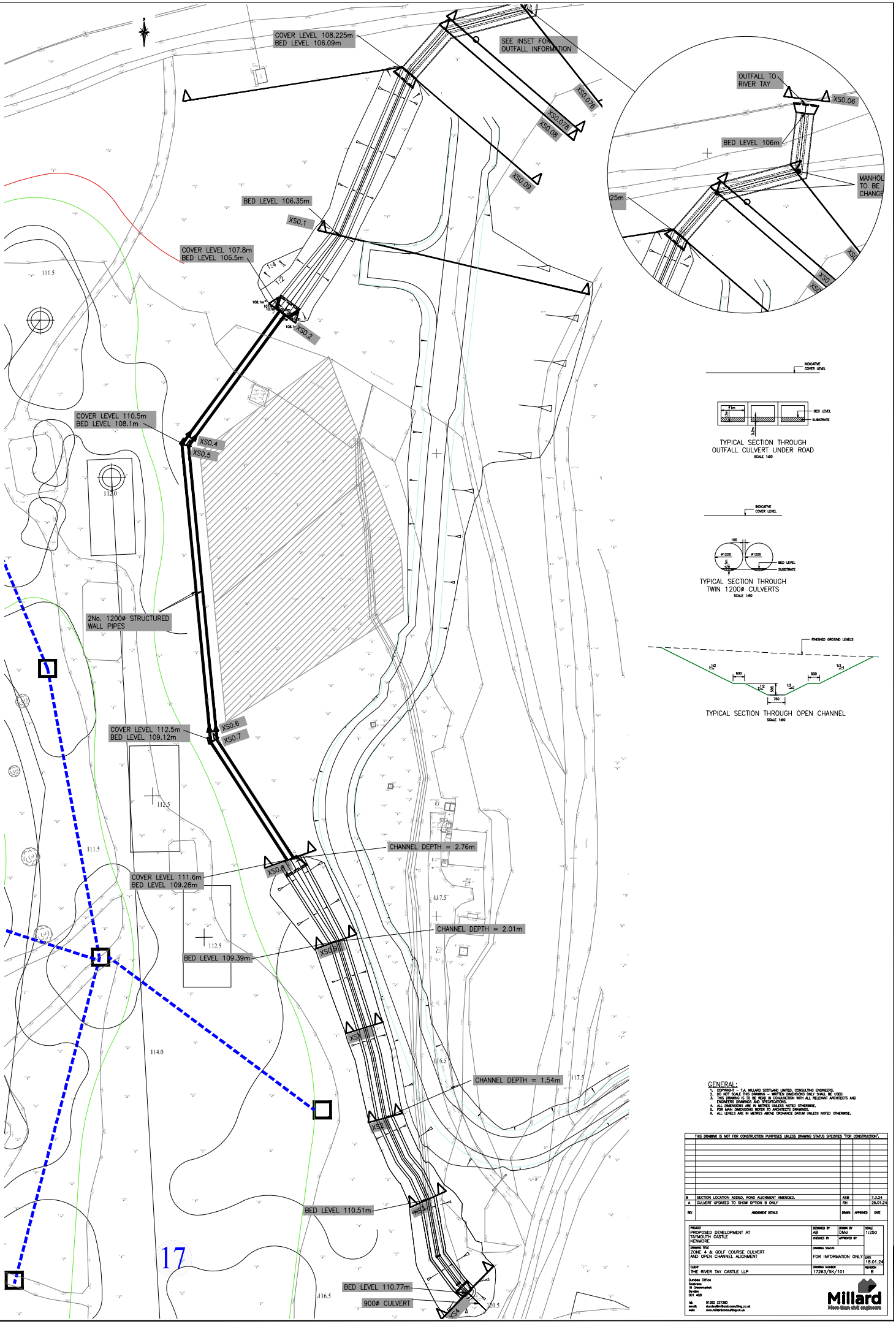
Coastal						
Estimate of 200 year design flood level			m AOD			
Estimation method(s) used		Select from List	If other (please specify methodology used):			
Allowance for climate change (m)			m			
Allowance for wave action etc (m)			m			
Overall design flood level			m AOD			
Development						
Is any of the site within the functional floodplain? (refer to SPP para 255)		Yes	If yes, what is the net loss of storage		0	m^3
Is the site brownfield or greenfield		Greenfield				
Freeboard on design water level (m)		0.6	m			
Is the development for essential civil infrastructure or vulnerable groups?		No	If yes, has consideration been given to 1000 year design flood?		Select from List	
Is safe / dry access and egress available?		Vehicular and Pedestrian	Min access/egress level			m AOD
If there is no dry access, what return period is dry access available?			years			
If there is no dry access, what is the impact on the access routes?	Max Flood Depth @ 200 year event:		m	Max Flood Velocity:		m/s
Design levels	Ground level		m AOD	Min FFL:	Varies	mAOD
Mitigation						
Can development be designed to avoid all areas at risk of flooding?		Yes				
Is mitigation proposed?		No				
If yes, is compenstory storage necessary?		Select from List				
Demonstration of compensatory storage on a "like for like" basis?		Select from List				
Should water resistant materials and forms of construction be used?		Select from List				
Comments						
Any additional comments:						

Approved by: Andrew Braid
Organisation: Millard Consulting
Date: 15/03/2023

Note: Further details and guidance is provided in 'Technical Flood Risk Guidance for Stakeholders' which can be accesssed here:- **CLICK HERE**

**** ReFH2 is now accepted by SEPA for flow estimates in Scotland. Any use of this method should be compared with other accepted methods.***

PLANS



GENERAL:

1. COPYRIGHT - T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND OTHER CONSULTANTS' DRAWINGS.
4. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
5. FOR MAIN DIMENSIONS REFER TO ARCHITECTS' DRAWINGS.
6. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.

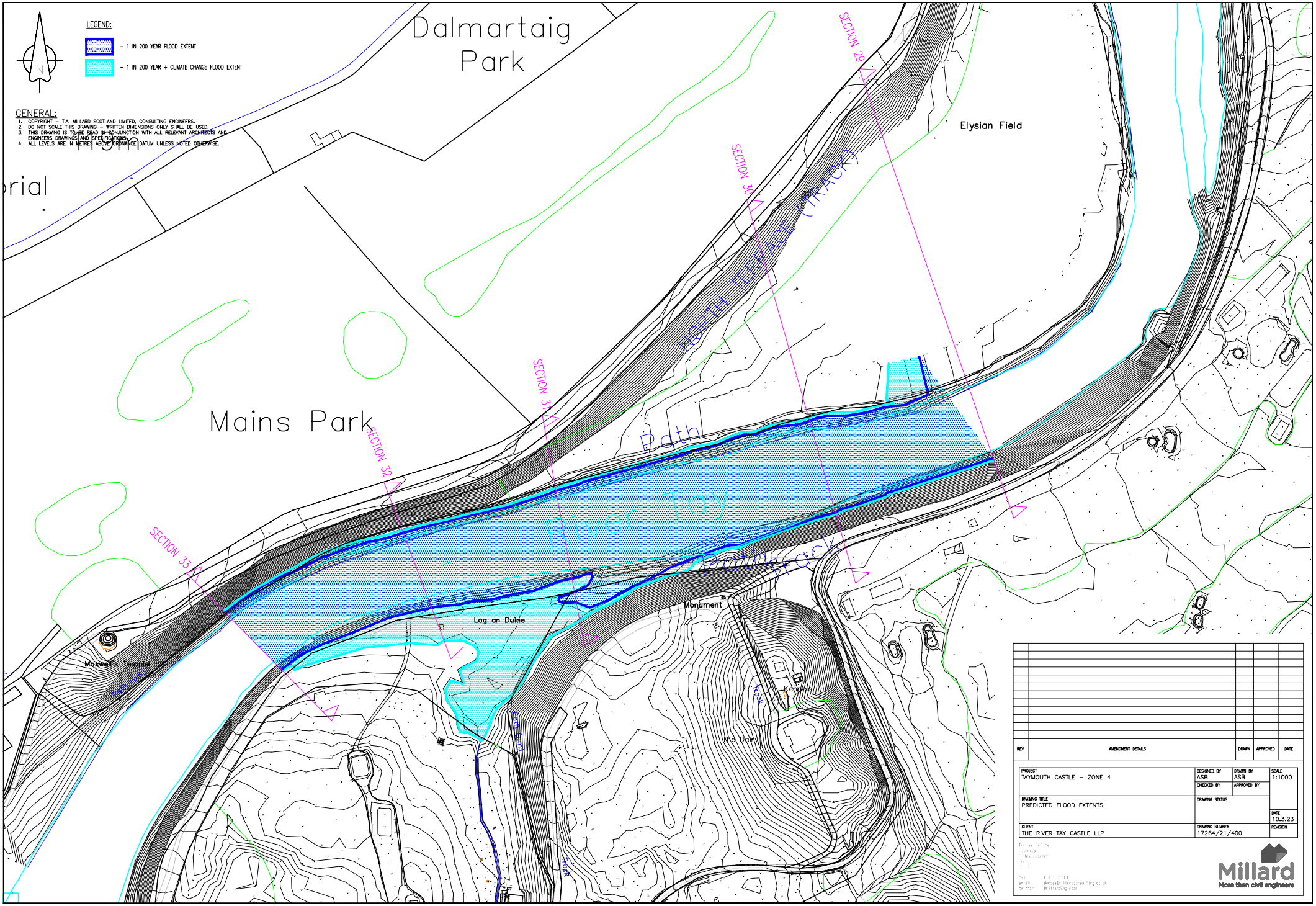
THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES UNLESS DRAWING STATUS SPECIFIES "FOR CONSTRUCTION".

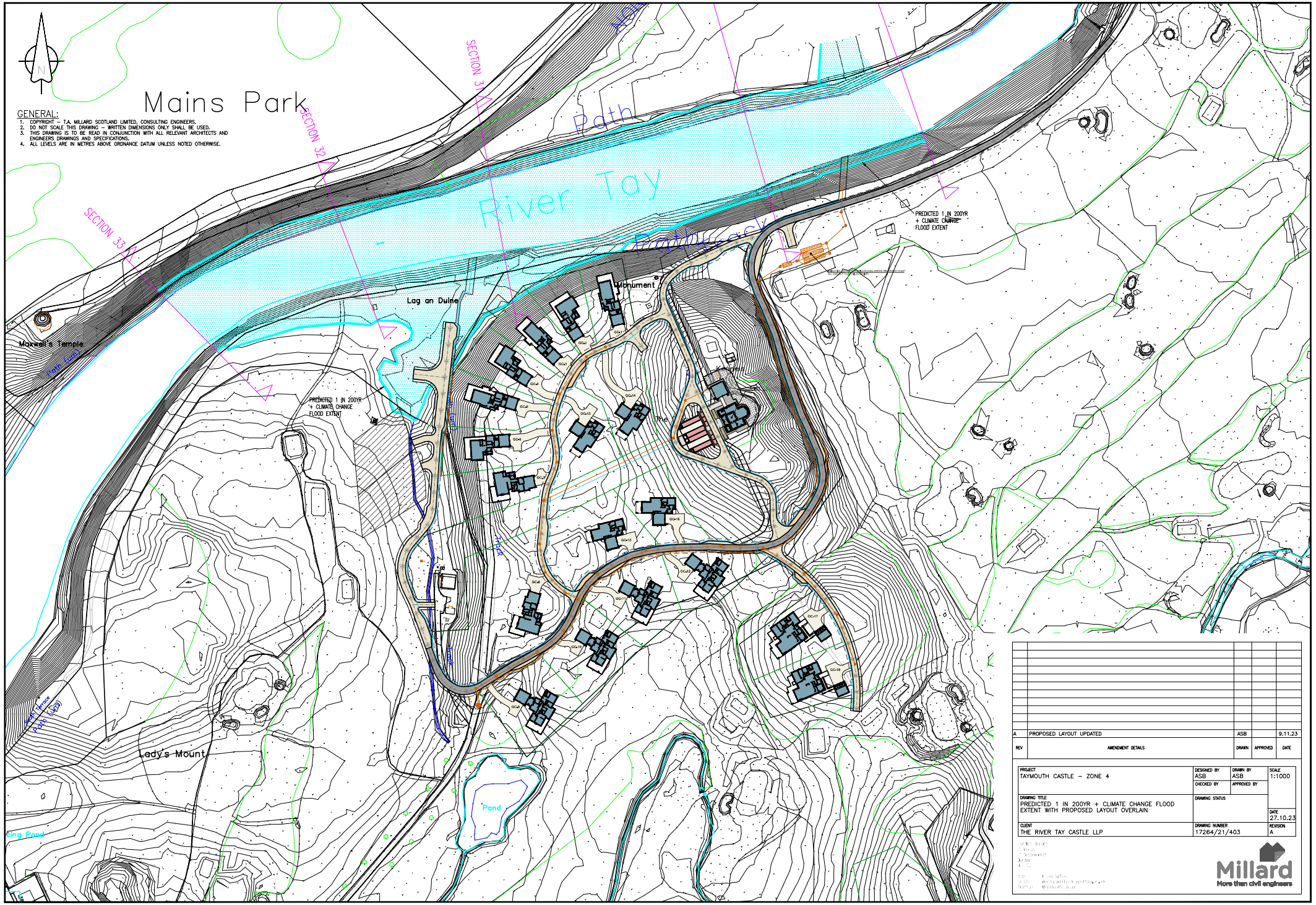
REV	AMENDMENT DETAILS	DRWN	APPROVED	DATE
B	SECTION LOCATION ADDED, ROAD ALIGNMENT AMENDED.	ASB		7.3.24
A	CULVERT UPDATED TO SHOW OPTION B ONLY	RH		25.01.24

PROJECT: PROPOSED DEVELOPMENT AT TAYMOUTH CASTLE KENMORE	DESIGNED BY: AB	DRAWN BY: DMcI	SCALE: 1:250
	CHECKED BY:	APPROVED BY:	
DRAWING TITLE: ZONE A & GOLF COURSE CULVERT AND OPEN CHANNEL ALIGNMENT	DRAWING STATUS: FOR INFORMATION ONLY		DATE: 18.01.24
CLIENT: THE RIVER TAY CASTLE LLP	DRAWING NUMBER: 17263/SK/101		REVISION: B

Dundee Office
Seabraes
18 Greenmarket
Dundee
DD1 4QB
tel: 01382 227380
email: dundee@millardconsulting.co.uk
web: www.millardconsulting.co.uk

Millard
More than civil engineers


LEGEND:
- 1 IN 200 YEAR FLOOD EXTENT
- 1 IN 200 YEAR + CLIMATE CHANGE FLOOD EXTENT
GENERAL:
1. COPYRIGHT - T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING - WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
Dalmartaig Park
Elysian Field
Mains Park
SECTION 29
SECTION 30
SECTION 31
SECTION 32
SECTION 33
NORTH TERRACE (TRACK)
Path
River Tay
Lag an Duine
Monument
Maxwell's Temple
Kennels
The Dairy
Track
REV
AMENDMENT DETAILS
DRAWN
APPROVED
DATE
PROJECT
TAYMOUTH CASTLE - ZONE 4
DESIGNED BY
ASB
DRAWN BY
ASB
SCALE
1:1000
CHECKED BY
APPROVED BY
DRAWING TITLE
PREDICTED FLOOD EXTENTS
DRAWING STATUS
DATE
10.3.23
CLIENT
THE RIVER TAY CASTLE LLP
DRAWING NUMBER
17264/21/400
REVISION
Millard
More than civil engineers


Mains Park
GENERAL:
1. COPYRIGHT – T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
4. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.
SECTION 31
SECTION 32
SECTION 33
River Tay
Path
Monument
Lag an Duine
Maxwell's Temple
PREDICTED 1 IN 200YR + CLIMATE CHANGE FLOOD EXTENT
Lady's Mount
Pond
A 9.11.23 PROPOSED LAYOUT UPDATED ASB
REV AMENDMENT DETAILS DRAWN APPROVED DATE
PROJECT TAYMOUTH CASTLE – ZONE 4
DESIGNED BY ASB
DRAWN BY ASB
CHECKED BY
APPROVED BY
SCALE 1:1000
DRAWING TITLE PREDICTED 1 IN 200YR + CLIMATE CHANGE FLOOD EXTENT WITH PROPOSED LAYOUT OVERLAIN
DRAWING STATUS
DATE 27.10.23
CLIENT THE RIVER TAY CASTLE LLP
DRAWING NUMBER 17264/21/403
REVISION A
Millard
More than civil engineers



Z4-MP

Proposed Masterplan 1:500

LEGEND:

- -Previously Approved House Locations
- -Existing Track
- -Proposed New Road
- -Previously Consented Development
- -Proposed House Location
- -Existing Trees To Be Retained
- -Proposed Drainage System Network

Proposed Developable Area

Z4-01	(approx. 1,66ha)
Z4-02	(approx. 1,96ha)
Z4-03	(approx. 1,95ha)
Z4-04	(approx. 0,67ha)

N

Scale bar 1:500

0 10 20 30 40 50m

McKenzie Strickland Associates 23 Bank Street Aberfeldy Perthshire PH15 2BB t: 01887 829228 21 Connie Street Crieff Perthshire PH7 4AX t: 01764 910410

All Contents Copyright All Rights Reserved

Date	Rev.	
28/08/23	A	General drawing dimensions as per planning setting
17/10/23	B	Site Boundary Layout
30/11/23	C	General drawing dimensions
28/11/23	D	Access Track Alternatives

JOB TITLE: Taymouth Castle Development Zone 4			
DRAWING TITLE: Proposed Masterplan	SCALE: 1:500@A0	DRAWING STATUS: PL	DRAWN BY: SOAS CHECKED BY:
DRAWING NUMBER:		REVISION: D	DATE: JUNE 2023



LEGEND:

→ – PREDICTED OVERLAND FLOW PATH SHOULD A BLOCKAGE OCCUR WITHIN THE 0.9m⌀ CULVERT

FOR PRICING AND DISCUSSION ONLY:
ROUTE AND DETAILS OF CULVERT TO BE AGREED WITH GOLF COURSE DESIGNERS AND CLIENT

CULVERT NOTES:

1. CULVERT TO BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
2. UNLESS NOTED OTHERWISE, CHAMBER TO BE FORMED IN 1800mm DIA PRECAST CONCRETE MANHOLES IN ACCORDANCE WITH SCOTTISH WATER STANDARDS
3. CONNECTIONS BETWEEN CULVERT AND CHAMBERS TO BE IN ACCORDANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
4. FOR CULVERT AND OPEN CHANNEL LONG SECTIONS, REFER TO DRAWING 17263/SK/91

GENERAL:

1. COPYRIGHT – T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND ENGINEERS DRAWINGS AND SPECIFICATIONS.
4. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
5. FOR MAIN DIMENSIONS REFER TO ARCHITECTS DRAWINGS.
6. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.

THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES UNLESS DRAWING STATUS SPECIFIES "FOR CONSTRUCTION".

REV	AMENDMENT DETAILS	DRAWN	APPROVED	DATE
		MDC		

PROJECT: PROPOSED DEVELOPMENT AT TAYMOUTH CASTLE, KENMORE	DESIGNED BY:	DRAWN BY: ASB
	CHECKED BY:	APPROVED BY:
DRAWING TITLE: POST DEVELOPMENT OVERLAND FLOW PATHS GOLF COURSE CULVERT	DRAWING STATUS:	
CLIENT: THE RIVER TAY CASTLE LLP	DRAWING NUMBER: 17264/21/404	

SCALE: 1:1000
DATE: 05.03.24
REVISION:

Dundee Office
Seabraes
18 Greenmarket
Dundee
DD1 4QB
tel: 01382 227260
email: dundee@millardconsulting.co.uk
web: www.millardconsulting.co.uk

Millard
More than civil engineers

Dundee
Seabraes
18 Greenmarket
Dundee
DD1 4QB

t 01382 227380
f 01382 229290

e dundee@millardconsulting.co.uk

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response
Flood Risk – Taymouth Castle Zone 4

Ref: 23/01228/FLL, 23/01112/FLL, 23/01902/FLL, 23/01113/FLL, 23/01114/FLL

Date: 1st October 2024

Subject: Taymouth Castle Zone 4, response to AECOM comments dated 15/08/24 with respect to flood risk

---

This statement addresses comments received from AECOM (on behalf of Perth and Kinross Council) in relation to flood risk, dated 15th August 2024. Each section of the Planning Consultation response by AECOM is copied below in *italics*, with our responses following.

AECOM Comment
3.13 It appears that only a small section of the Allt a Bhealaich has been modelled, starting from the middle of the golf course. However, as shown by SEPA flood maps, this burn is shown to have a possible overland flow route near to the site which flows into the manmade burn. Please provide commentary on why the model does not extend upstream to capture this overland low route.

It has been stated that in the Zone 1 application that the Allt a Bhealaich was modelled a significant distance upstream and no overland flow route was predicted through the site.

However, as stated within the review of the Zone 1 applications, this extent does not extend far enough upstream in order to capture any overland flow over the A827.

The SEPA flood maps show significant overtopping here which flows across the Taymouth estate into the unnamed/manmade burn and into the Tay. Evidence should be provided that there won't be any overtopping upstream which may impact flooding at the site.

It has been stated in a response to the above comment that the Allt a Bhealaich is very steep upstream of the A827 and the A827 structure is a high masonry arch bridge. It has been noted that the model has been extended to 18m upstream of the A827 structure. The model does not predict flow out of bank upstream of the A827, with a flood level of 150.39mAOD at the upstream face of the structure. It has been noted that due to health and safety the bed of the burn was not able to be surveyed therefore has been estimated.
estimated.
estimated.

This confirms the A827 does not cause a constriction. However, the model does not extend far enough upstream to capture the potential spill from the burn and overland flow path into the manmade channel as shown on SEPA flood Maps.
Therefore, please provide commentary on this overland flow path shown as on SEPA flood maps. For example, the likelihood of spill here and if there was overland spill here what would the overland flow route be, and would it spill into the manmade channel or would the overland flow route be routed elsewhere. The commentary may determine that the model needs extended.

- *Please provide commentary on overland flow path into the man-made channel.*

Millard Response
Upstream of the A827 the Allt a Bhealaich is generally in a well formed valley, and hence flow would not be expected to leave the channel and flow across the slope during a flood event. There may however be potential for limited floodwater to flow from a tributary to the south west of the Allt a Bhealaich, downslope towards the A827, from approximately 100m upstream of its confluence with the Allt a Bhealaich. Should this occur the floodwater would flow downslope towards the A827. A proportion of this floodwater could enter the catchment of the man-made channel, however during a significant event floodwater could also

flow onto the A827 and then in a north easterly direction along the road, returning to the catchment of the Allt a Bhealaich. The flow which could reach the man-made channel to the north of the A827 would be limited by a culvert which runs beneath the A827 some 80m south west of the Allt a Bhealaich. The aforementioned culvert is an old stone feature with an irregular cross section, measured approximately as being 0.75m wide x 0.45m high at its downstream end.

The additional flow entering the man-made channel would be limited. Should there be any overland flow from the culverted section of the man-made channel this would flow through the golf course and return to the man-made channel where it is open in the vicinity of the south western corner of Zone 4.

Please refer to our response to point 3.31 for further information on potential additional flow.

AECOM Comment

3.18 As noted within the FRA, the turning head of the access road is within the 200yr+CC floodplain. Guidance states that there should be no development within the functional floodplain.

It has been stated there will be no raised ground levels as part of the development, therefore there will be no adverse impact on flood storage. However, on plans provided they show that this will be an access route to future properties. This proposed road cannot be used as an access road to new properties as it does not provide safe access.

Therefore, please confirm that the proposed road within the Tay floodplain will not be used for access.

It has been stated that following a discussion with PKC, PKC have accepted the turning head being within the floodplain on the following
conditions:
- Drainage should be separated from rest of development, to ensure flooding does not affect the wider network
- The turning head should be built with no land raising
- The turning head should not be used for access for future applications.

It has been confirmed by the applicant that there will be no raising and another application has been submitted for a ring road which will link from the turning head to the west access. However, this will not be used as the main access.

The applicant has also stated that should the turning head be flooded the surface water which remains in the trenches would simply flow into the flooded area. The statement goes on to say that given the flow in the trenches would only be a fraction of the flood flow in the Tay, this would not exacerbate flood risk, while the remainder of the drainage system sitting on higher ground would operate as normal.

However, although this may only be a fraction of the flood flow, it is not in line with PKC and SEPA guidance as flow into the watercourse must be limited to at least greenfield runoff rates.

In combination with the issues above and the issues noted in comment 3.31, it is advised that this road is moved outwith the floodplain.

- *Please update road design to be in line with policy. It is advised that this road is moved outwith the floodplain.*

Millard Response

John Williamson at Perth and Kinross Council has confirmed he is comfortable with the turning head being within the Tay floodplain on the basis that it is not on the main access route to Zone 4 properties, and there is an extant consent for properties in place.

AECOM Comment

3.19 If the turning head road is to be used as an access route, it needs to be made clear to residents that this is not the main access route and that it may be flooded in a flood event. This could be through flood evacuation plan.
evacuation plan.

However as noted in comment 3.18 and 3.31 it is advised that this road is moved outside the floodplain.

- *Please provide commentary on how flood risk to the road will be communicated to residents*

Millard Response
It is proposed that a Flood Evacuation Plan be prepared. John Williamson at Perth and Kinross Council has confirmed this can be secured by a condition being applied to the planning consent.

AECOM Comment
3.21 Please provide clear plans and description of the current man-made channel.

A plan has been provided of the current channel. However, this is only in the vicinity of the site. Please provide full details of channel upstream of Zone 4 to approximately the A827.

- *Please provide clear plans and description of the current man-made channel.*

Millard Response
Please find attached drawing 17264/21/406, which shows the route of the man-made channel from the vicinity of Zone 4, up to the A827. A significant length of the channel is now culverted through the golf course, as was part of the proposals for the redesign of the golf course.

AECOM Comment
3.22 It has been stated that the channel and culverts are not currently suitably sized for the 200yr+CC event. Therefore, new channel and structures are proposed. A plan has been provided showing part of the current channel, but no description of the existing channel has been provided. However, it does appear that this is a significant alteration to the current arrangement, particularly upstream of the site where it is proposed that the watercourse is culverted for around 560m. Currently this stretch of channel is open watercourse. Therefore, there may be parts of the catchment (around the golf course) which once drained to the watercourse which now won't be able to. Please provide commentary on how the golf course will be drained.

- *Please provide details on how the golf course will be drained.*

Millard Response
Previously addressed under previous AECOM comments Item 3.21 ***"Golf Course Drainage is being installed to suit final course gradings. A number of connection pipes have been agreed with the golf team and allowed for in the culvert / open channel design, with maximum flows restricted by specifying pipe diameters".***

AECOM Comment
3.28 No information has been provided on what downstream boundary was used.

A statement has been provided stating that given the different catchment sizes, the peaks of both watercourses won't coincide. Given they won't coincide, the downstream boundary was set to a level of 106.26mAOD, which is the predicted QMed level in the River Tay.

Please provide additional details of how sensitive the model is to the downstream boundary as per SEPA guidance.

- *Please provide details on downstream boundary of the model*

Millard Response
Table 1 overleaf provides results of a sensitivity analysis on the downstream boundary level on the man-made channel. The downstream level has been increased and decreased by 0.5m.

Location (manmade channel)	200yr + CC Flood Water Level (m AOD)	200yr + CC Flood Water Level with downstream boundary +0.5m (m AOD)	200yr + CC Flood Water Level with downstream boundary -0.5m (m AOD)
0.06	106.52	106.76*	106.52
0.076	107.99	108.00	108.00
0.08	108.09	108.10	108.09
0.09	108.11	108.12	108.11
0.1	108.12	108.13	108.12
0.2	108.11	108.12	108.11
0.4	109.1	109.1	109.10
0.5	109.12	109.12	109.12
0.6	110.23	110.23	110.23
0.7	110.25	110.25	110.25
0.8	110.57	110.57	110.57

Table 1 – Sensitivity analysis on downstream boundary level
(- slight dip in profile at 0.06 with level of 106.69m reported by HECRAS – level stated is that of next downstream section (0.05 - most downstream section))*

As can be seen from the above table, the adjustment in downstream level does not have a significant impact upstream during a 1 in 200 year + climate change flood event in the man-made channel.

AECOM Comment
3.31 It has been noted that the proposed downstream box culverts have not been sized to accommodate the 200yr+CC. This is due to significant restrictions in the vicinity of the culvert. With the area being within the River Tay floodplain ground levels cannot be raised. Additionally, there is a water main which needs 0.9m cover.

Please provide justification on why this stretch is to be culverted. Guidance states that ideally watercourse should be left as natural as possible. This proposed culvert is within the Tay floodplain therefore there should be no new development here.

It has been stated that this section will be culverted to take the watercourse underneath the existing core path and the aforementioned new road which is proposed from the northwestern corner of Zone 4.

However, this culvert is not in line with policy. Firstly, the culvert is located within the River Tay floodplain. Guidance states that there should be no new development within the functional floodplain.

Secondly the culvert has not been sized to accommodate the 200yr+CC flow of the manmade burn.

Therefore, this culvert does not comply with policy. It is therefore advised that this road and culvert are moved outside the floodplain and sized appropriately for the 200yr+CC event.

- *Please amend culvert and road design to be in line with policy. It is advised that this road and culvert are moved outside the floodplain*

Millard Response
The culvert needs to take the watercourse beneath the new road and core path hence it cannot be moved outwith the floodplain. Having reconsidered the proposals however, including the required clearances above, there is an opportunity to size the culvert to accommodate the full 1 in 200 year + climate change flood flow in the manmade channel. Amending the culvert to 2No. box sections, 2m wide x 1m high (buried beneath the bed to have 0.25m of substrate and 0.75m open) provides capacity to accommodate the full 1 in 200 year + climate change flood flow. This is on the basis that no blockage, in addition to the 0.25m substrate, occurs and water levels in the River Tay are such that there is no backing up into the culvert from the Tay reducing its capacity.

The potential for additional flow from the tributary to the south west of the Allt a Bhealaich to reach this culvert has been considered. The catchment of the tributary to the Allt a Bhealaich has been estimated as 0.192km^2, and a 1 in 200 year + climate change flood flow of 1.17m^3/s has been estimated using the FEH Rainfall Runoff method. Catchment descriptors for the Allt a Bhealaich upslope of the A827 have been applied, with the AREA and DPLBAR descriptors adjusted to 0.192 and 0.405 respectively. It has been assumed that 50% of the flow would continue along the main course of the channel, while the other 50% would leave the channel and reach the aforementioned box culvert. With an additional flow of 0.6m^3/s, the culvert still conveys the 1 in 200 year + climate change flood flow without flooding being predicted on the new road.

HECRAS output from the adjusted model including the larger box culvert sections is attached, as well as an amended drawing showing a revised culvert proposal.

AECOM Comment

3.34 As discussed previously, SEPA flood maps show that the Allt a Bhealaich back up upstream of the A827 and flows into the manmade channel.

Modelling for the Allt a Bhealaich should be extended upstream to include this area or other evidence should be provided to confirm there is no spill overland into the manmade butn from the Allt a Bhealaich. If there is spill into the manmade burn, the hydrology would need updated to account for this.

As mentioned in a previous comment the model upstream of the A827 which shows this this structure does not cause a constriction. However, the model does not extend far enough upstream to capture the potential spill from the burn and overland flow path shown on SEPA flood maps. Therefore, please see comment 3.13.

- *Please see comment 3.13*

Millard Response

Please refer to our response to point 3.13.

HECRAS Output

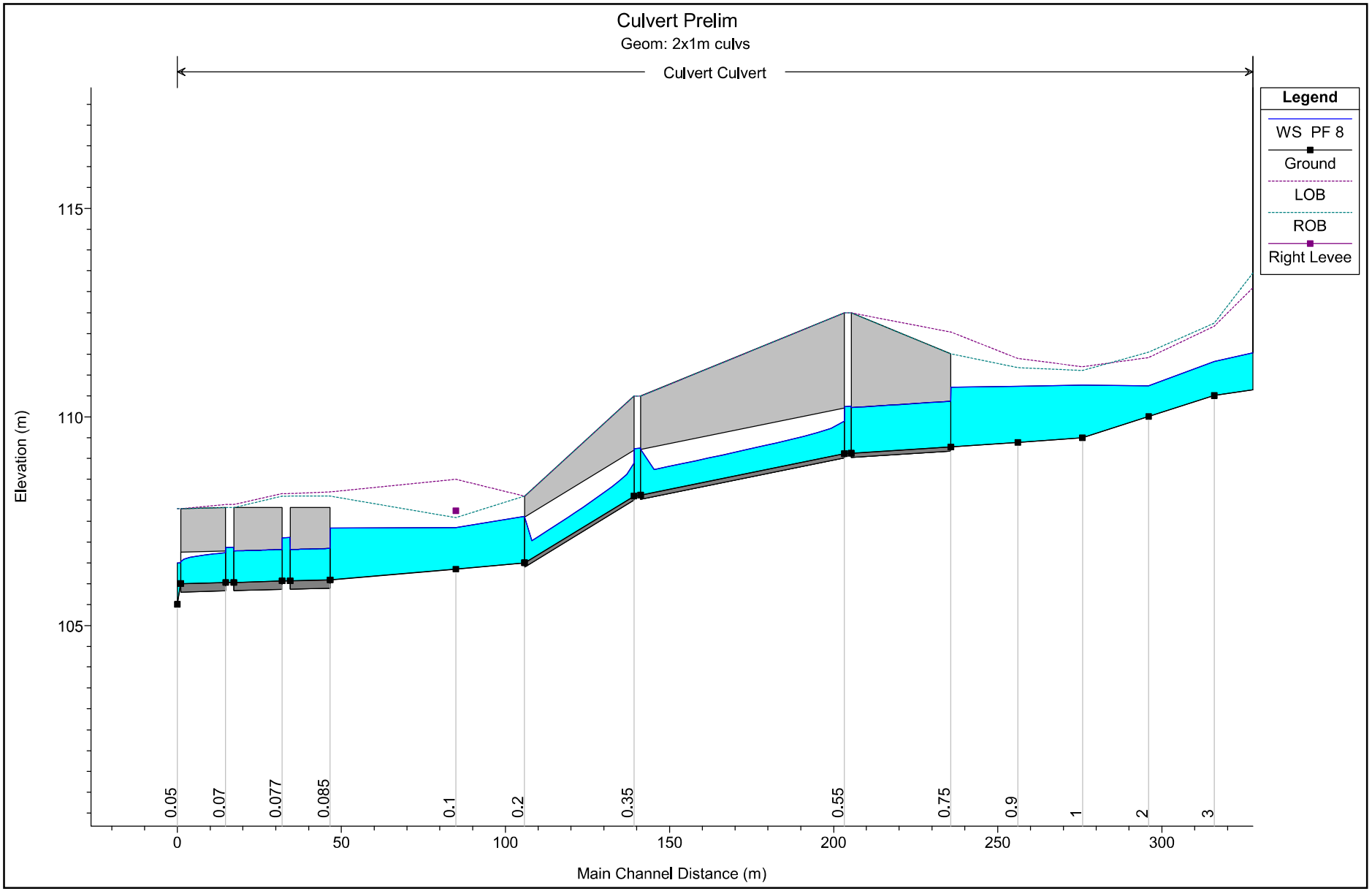
2m x 1m box culverts modelled beneath proposed road and core path

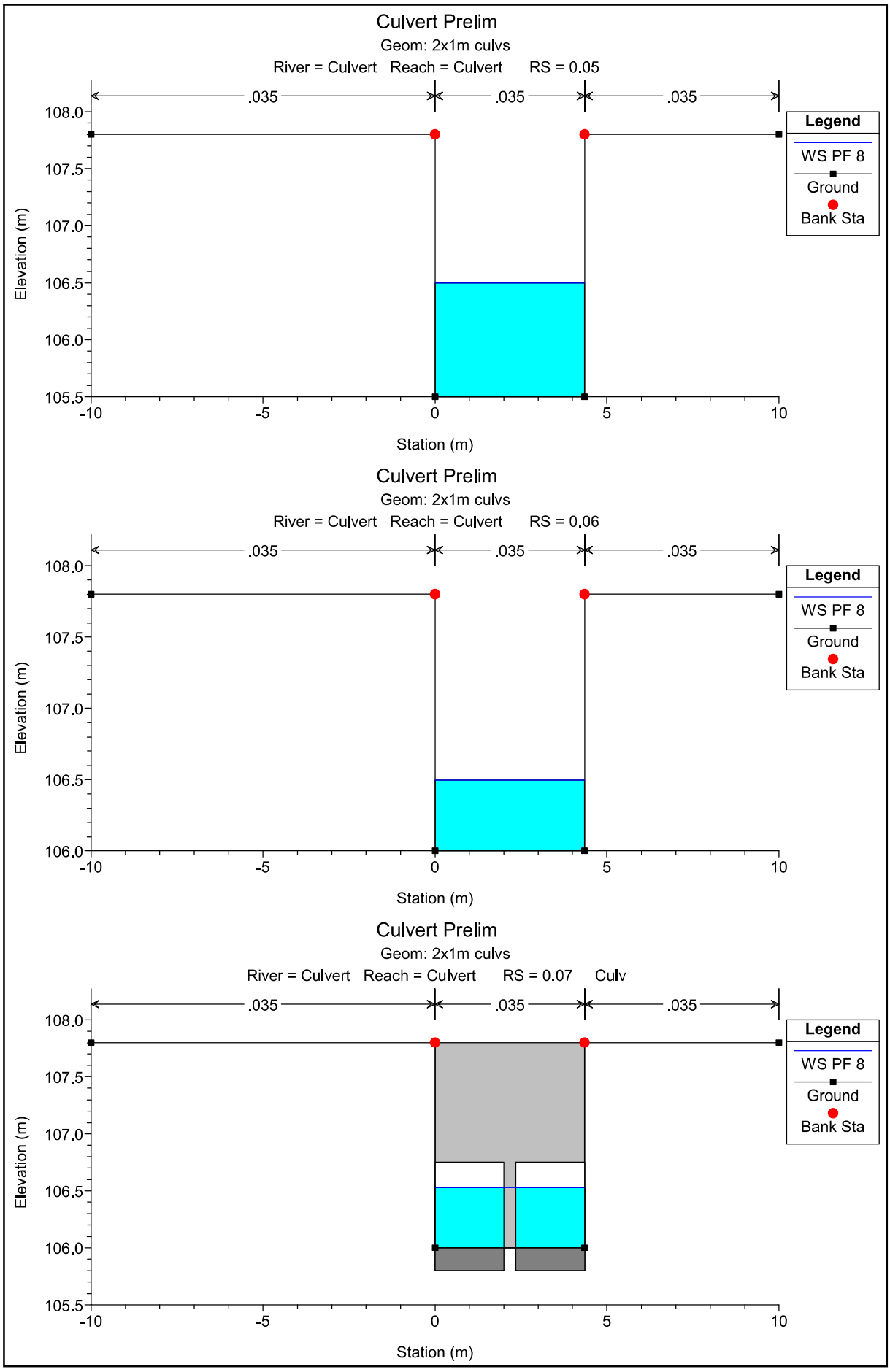
HEC-RAS Plan: Plan 63 River: Culvert Reach: Culvert Profile: PF 8

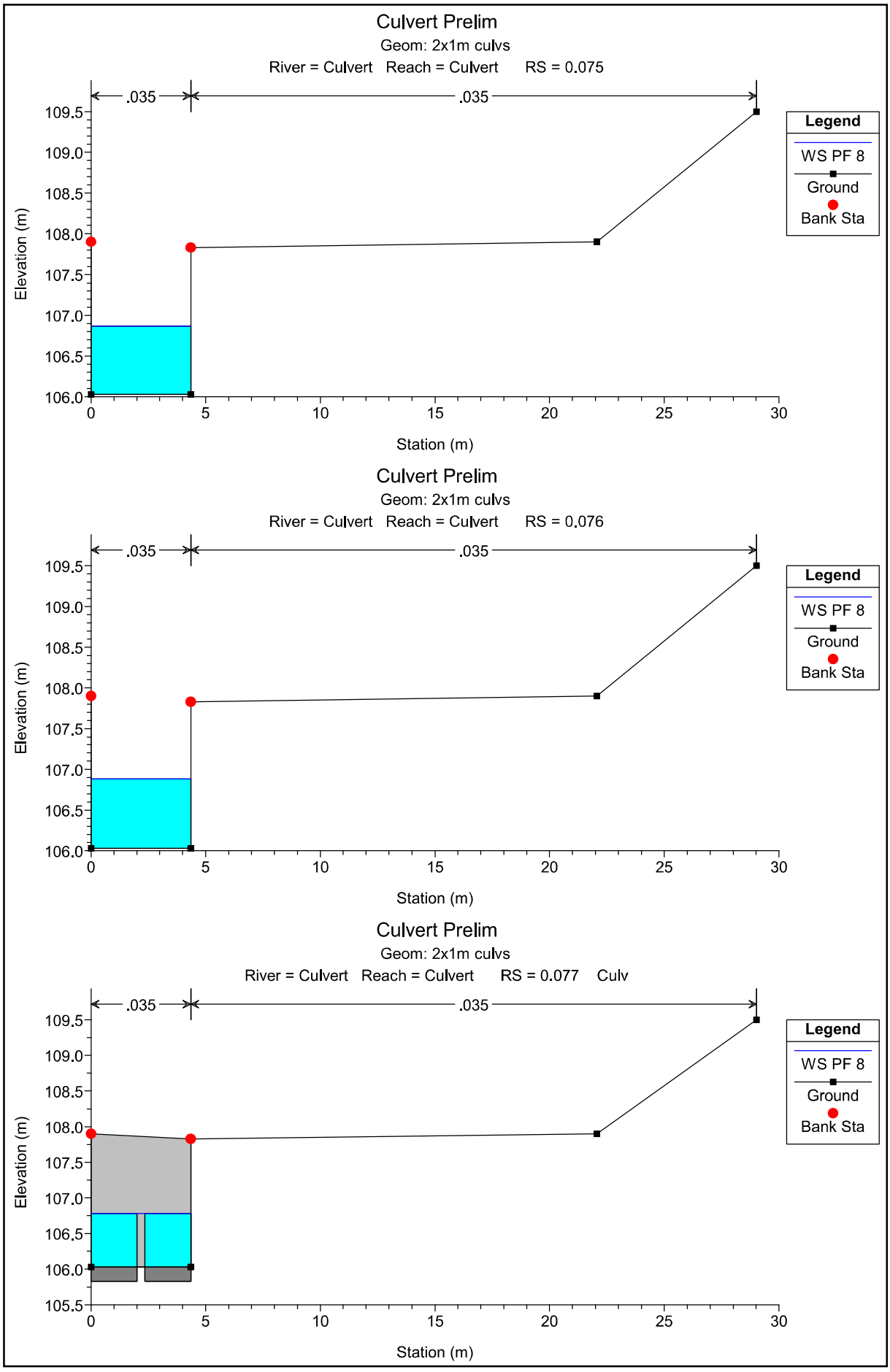
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Culvert	18	PF 8	1.07	143.42	143.82	143.82	143.94	0.027482	1.56	0.69	2.84	1.01
Culvert	17	PF 8	1.07	137.80	137.86	138.07	140.79	0.454119	7.58	0.14	2.40	10.00
Culvert	16.5		Culvert									
Culvert	16	PF 8	1.07	125.79	128.80		128.80	0.000005	0.15	7.22	2.40	0.03
Culvert	15	PF 8	2.47	125.48	128.79	125.96	128.80	0.000019	0.31	7.96	2.40	0.05
Culvert	14.5		Culvert									
Culvert	14	PF 8	2.47	123.88	126.96		126.97	0.000023	0.33	7.40	2.40	0.06
Culvert	13	PF 8	2.47	123.77	126.96	124.25	126.97	0.000021	0.32	7.66	2.40	0.06
Culvert	12.5		Culvert									
Culvert	12	PF 8	2.47	121.51	125.57		125.57	0.000012	0.25	9.74	2.40	0.04
Culvert	11	PF 8	2.50	121.46	125.57	121.94	125.57	0.000012	0.25	9.86	2.40	0.04
Culvert	10.5		Culvert									
Culvert	10	PF 8	2.50	120.41	123.51		123.52	0.000023	0.34	7.44	2.40	0.06
Culvert	9	PF 8	2.50	120.35	123.51	120.83	123.52	0.000022	0.33	7.59	2.40	0.06
Culvert	8.6		Culvert									
Culvert	8.5	PF 8	2.52	117.10	120.18		120.19	0.000056	0.45	5.55	1.80	0.08
Culvert	8.4	PF 8	2.52	117.10	120.18	117.68	120.19	0.000056	0.45	5.55	1.80	0.08
Culvert	8.3		Culvert									
Culvert	8	PF 8	2.52	113.90	117.34		117.35	0.000018	0.30	8.26	2.40	0.05
Culvert	7	PF 8	2.84	113.85	117.34	114.37	117.35	0.000023	0.34	8.37	2.40	0.06
Culvert	6.5		Culvert									
Culvert	6	PF 8	2.84	111.40	114.62		114.63	0.000027	0.37	7.73	2.40	0.07
Culvert	5	PF 8	2.84	111.34	114.62	111.86	114.63	0.000026	0.36	7.88	2.40	0.06
Culvert	4.5		Culvert									
Culvert	4	PF 8	2.84	110.77	111.71		111.76	0.003530	0.98	2.90	6.11	0.45
Culvert	3	PF 8	4.80	110.51	111.33	111.33	111.56	0.017673	2.12	2.26	5.01	1.01
Culvert	2	PF 8	4.80	110.01	110.74	110.82	111.08	0.030859	2.58	1.86	4.68	1.31
Culvert	1	PF 8	4.80	109.50	110.76	110.32	110.81	0.002090	0.99	4.85	6.77	0.37
Culvert	0.9	PF 8	4.80	109.39	110.73		110.77	0.001542	0.89	5.42	7.10	0.32
Culvert	0.8	PF 8	4.80	109.28	110.71	110.09	110.74	0.001115	0.79	6.10	7.48	0.28
Culvert	0.75		Culvert									
Culvert	0.7	PF 8	4.80	109.12	110.26		110.41	0.006971	1.69	2.84	2.50	0.51
Culvert	0.6	PF 8	4.80	109.11	110.25	109.83	110.39	0.007064	1.70	2.83	2.50	0.51
Culvert	0.55		Culvert									
Culvert	0.5	PF 8	4.80	108.12	109.25		109.39	0.007154	1.70	2.82	2.50	0.51

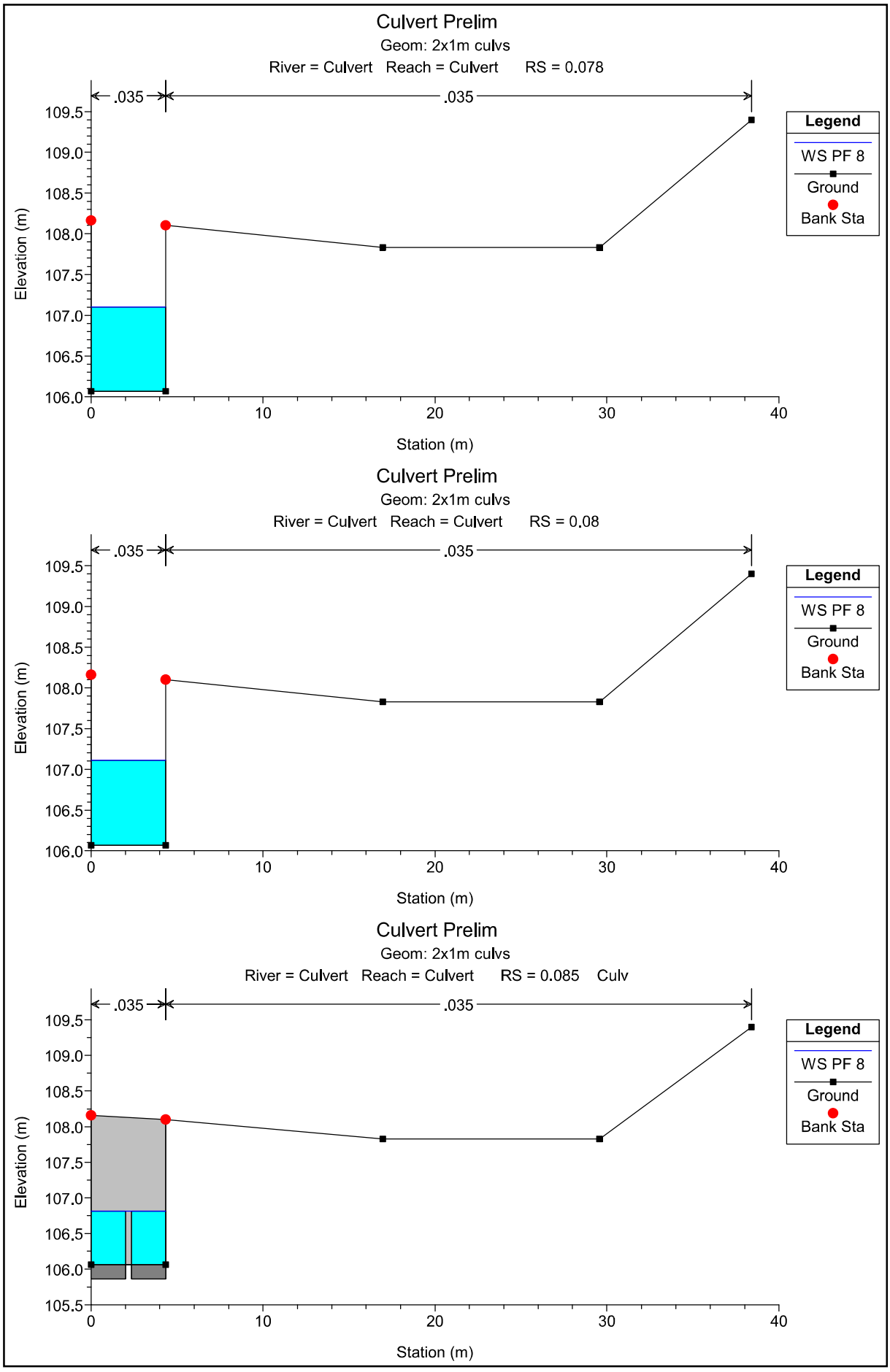
HEC-RAS Plan: Plan 63 River: Culvert Reach: Culvert Profile: PF 8 (Continued)

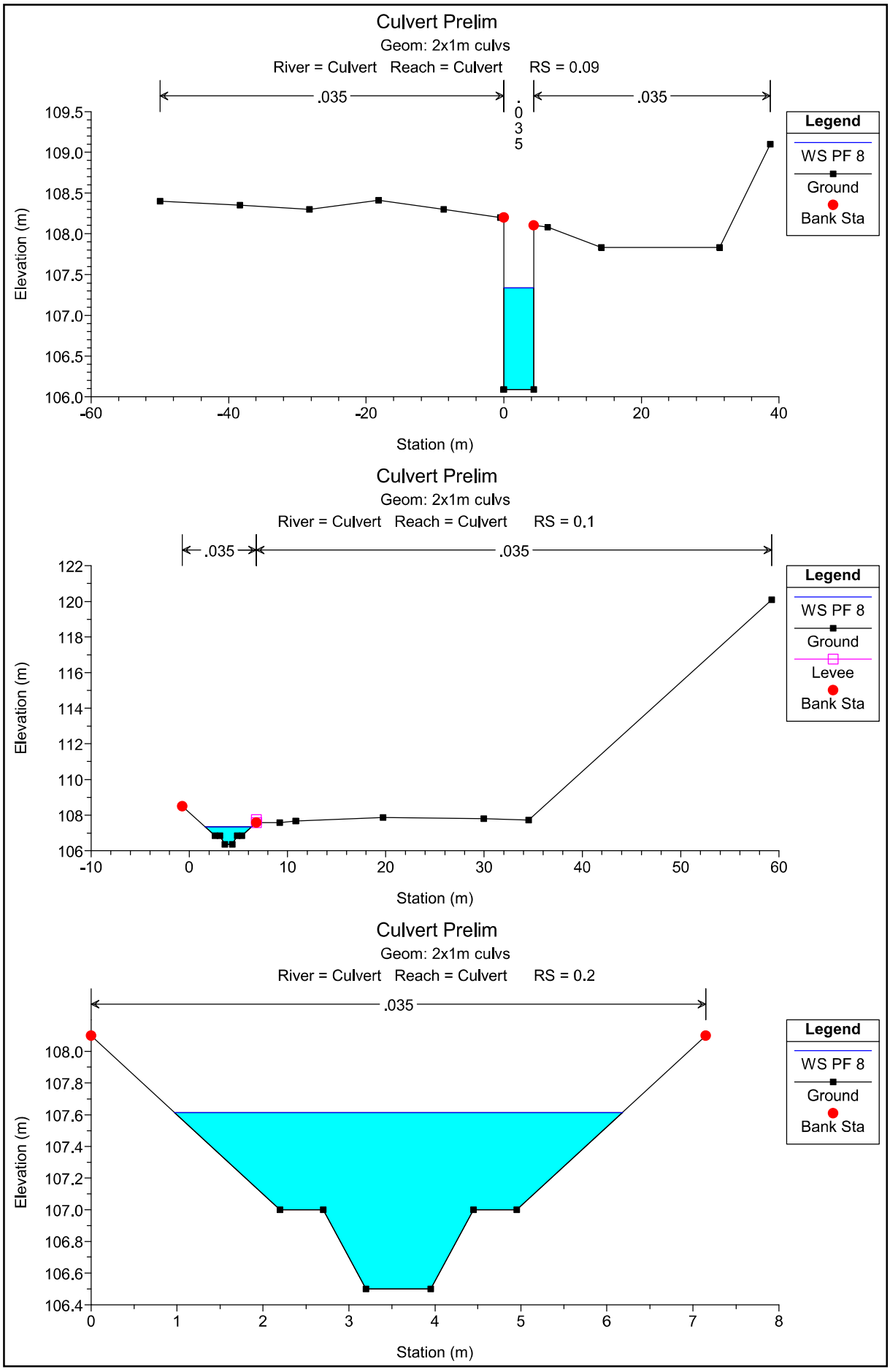
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Culvert	0.4	PF 8	4.80	108.10	109.23	108.82	109.38	0.007057	1.70	2.83	2.50	0.51
Culvert	0.35		Culvert									
Culvert	0.2	PF 8	4.80	106.50	107.62		107.74	0.007147	1.56	3.07	5.21	0.65
Culvert	0.1	PF 8	4.80	106.35	107.35	107.28	107.54	0.012880	1.93	2.48	4.73	0.85
Culvert	0.09	PF 8	4.80	106.09	107.34	106.59	107.38	0.001311	0.89	5.42	4.35	0.25
Culvert	0.085		Culvert									
Culvert	0.08	PF 8	4.80	106.06	107.11		107.17	0.002173	1.06	4.55	4.35	0.33
Culvert	0.078	PF 8	4.80	106.06	107.10	106.56	107.16	0.002213	1.06	4.52	4.35	0.33
Culvert	0.077		Culvert									
Culvert	0.076	PF 8	4.80	106.03	106.88		106.97	0.003943	1.29	3.71	4.35	0.45
Culvert	0.075	PF 8	4.80	106.03	106.87	106.53	106.96	0.004121	1.31	3.65	4.35	0.46
Culvert	0.07		Culvert									
Culvert	0.06	PF 8	4.80	106.00	106.50	106.50	106.75	0.020256	2.22	2.16	4.35	1.01
Culvert	0.05	PF 8	4.80	105.50	106.50	106.00	106.56	0.002472	1.10	4.35	4.35	0.35

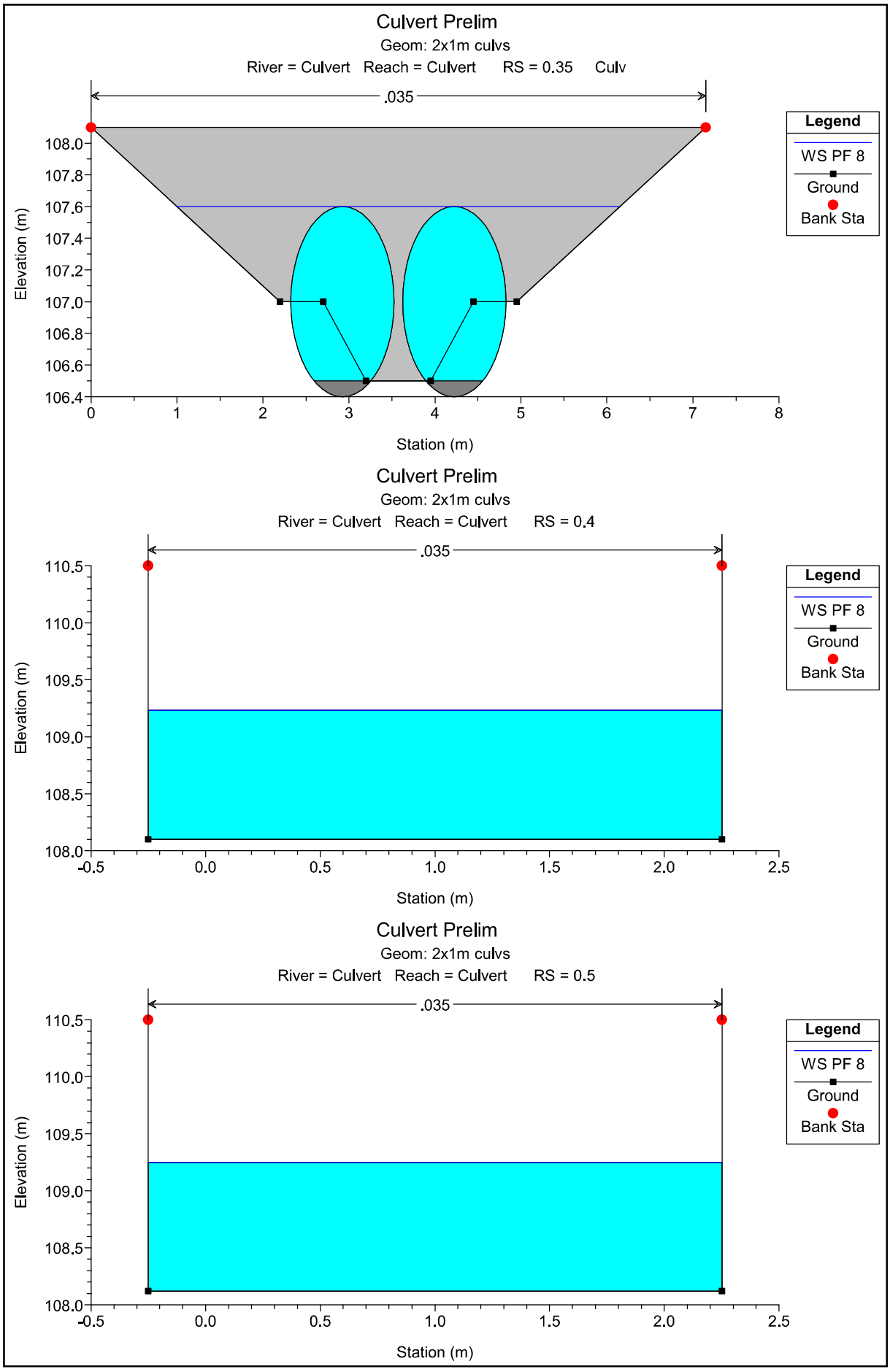

Culvert Prelim
Geom: 2x1m culvs
Culvert Culvert
Legend
WS PF 8
Ground
LOB
ROB
Right Levee
Elevation (m)
115
110
105
0.05
0.07
0.077
0.085
0.1
0.2
0.35
0.55
0.75
0.9
1
2
3
0
50
100
150
200
250
300
Main Channel Distance (m)

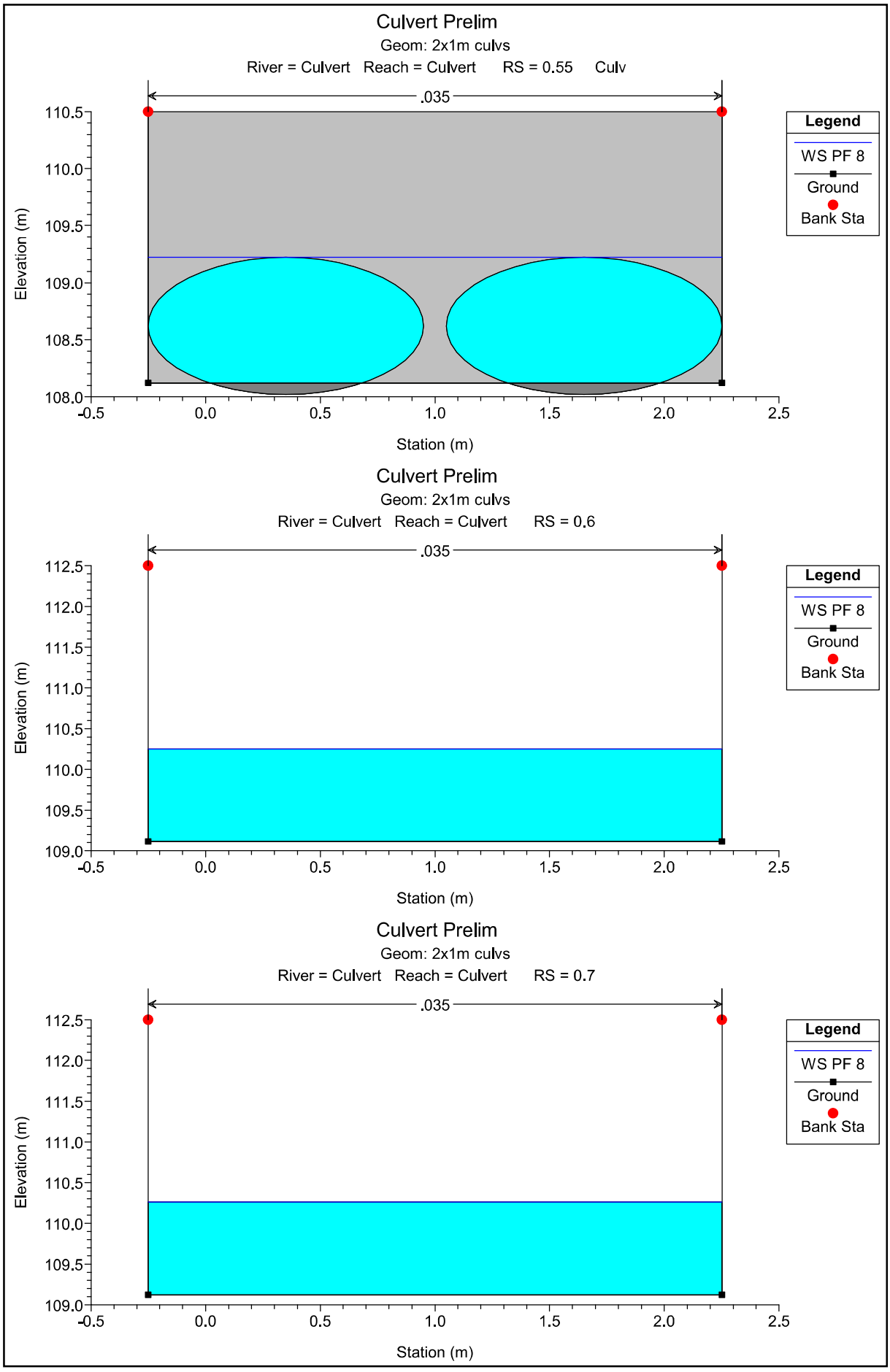

Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.05
.035
.035
.035
108.0
107.5
107.0
106.5
106.0
105.5
Elevation (m)
-10
-5
0
5
10
Station (m)
Legend
WS PF 8
Ground
Bank Sta
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.06
.035
.035
.035
108.0
107.5
107.0
106.5
106.0
Elevation (m)
-10
-5
0
5
10
Station (m)
Legend
WS PF 8
Ground
Bank Sta
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.07 Culv
.035
.035
.035
108.0
107.5
107.0
106.5
106.0
105.5
Elevation (m)
-10
-5
0
5
10
Station (m)
Legend
WS PF 8
Ground
Bank Sta

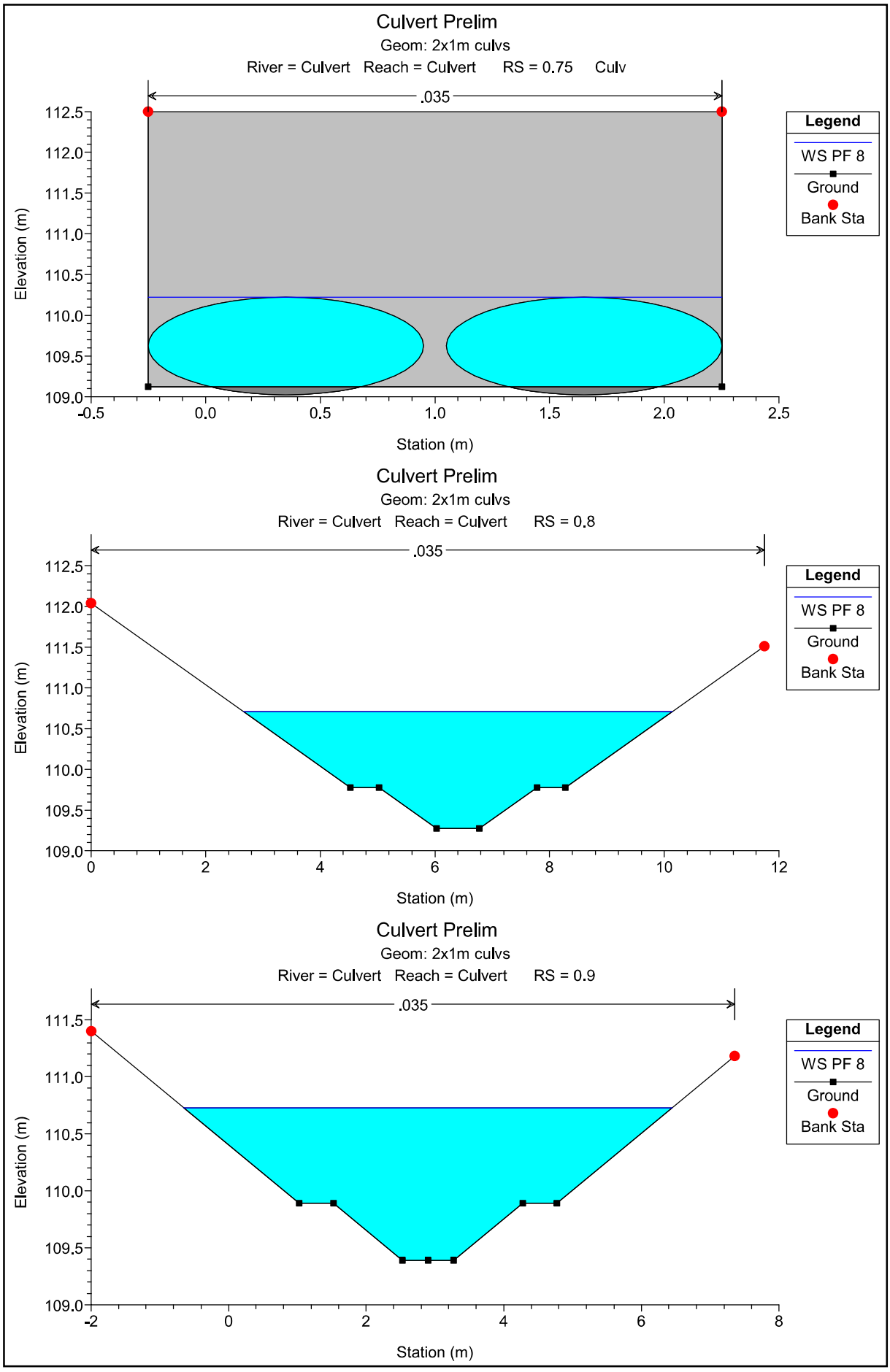

Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.075
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.076
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.077 Culv
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)

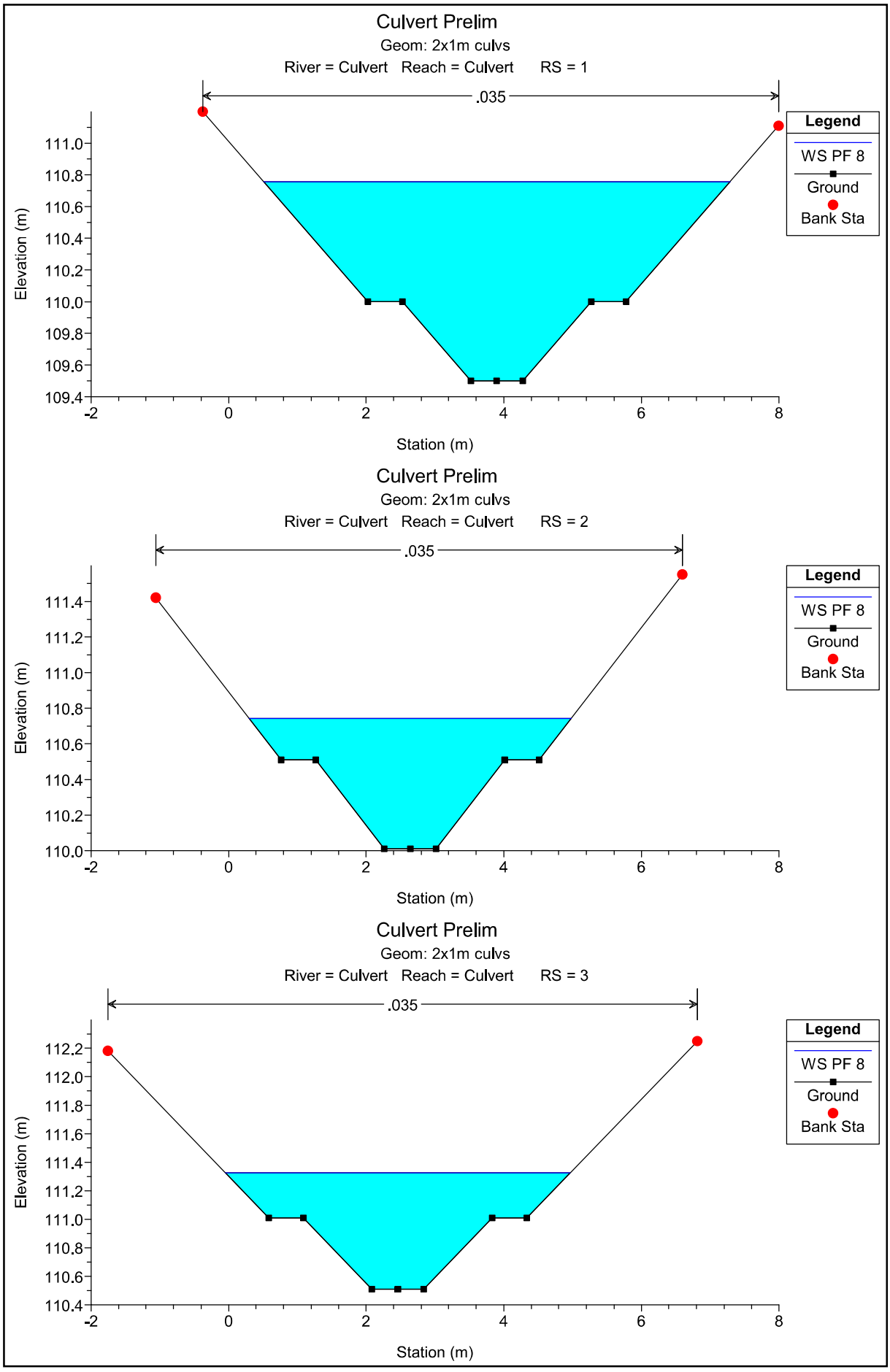

Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.078
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.08
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.085 Culv
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)

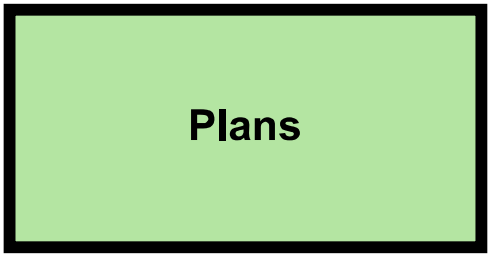

Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.09
.035
.035
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.1
.035
.035
Legend
WS PF 8
Ground
Levee
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.2
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)

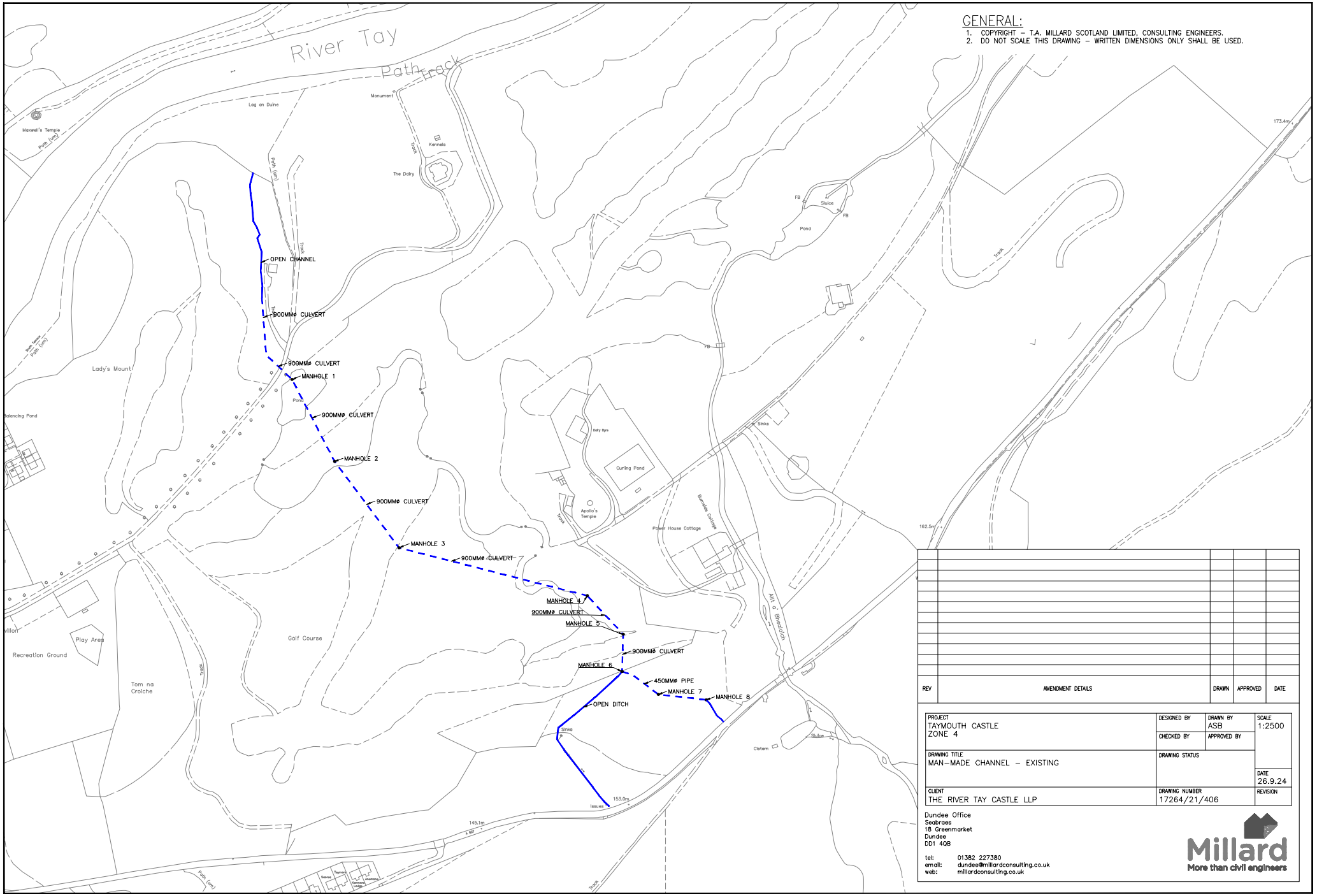

Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.35 Culv
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.4
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.5
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)


Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.55 Culv
.035
Elevation (m)
Station (m)
Legend
WS PF 8
Ground
Bank Sta
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.6
.035
Elevation (m)
Station (m)
Legend
WS PF 8
Ground
Bank Sta
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.7
.035
Elevation (m)
Station (m)
Legend
WS PF 8
Ground
Bank Sta


Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.75 Culv
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.8
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 0.9
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)


Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 1
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 2
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)
Culvert Prelim
Geom: 2x1m culvs
River = Culvert Reach = Culvert RS = 3
.035
Legend
WS PF 8
Ground
Bank Sta
Elevation (m)
Station (m)


Plans



GENERAL:

1. COPYRIGHT – T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.

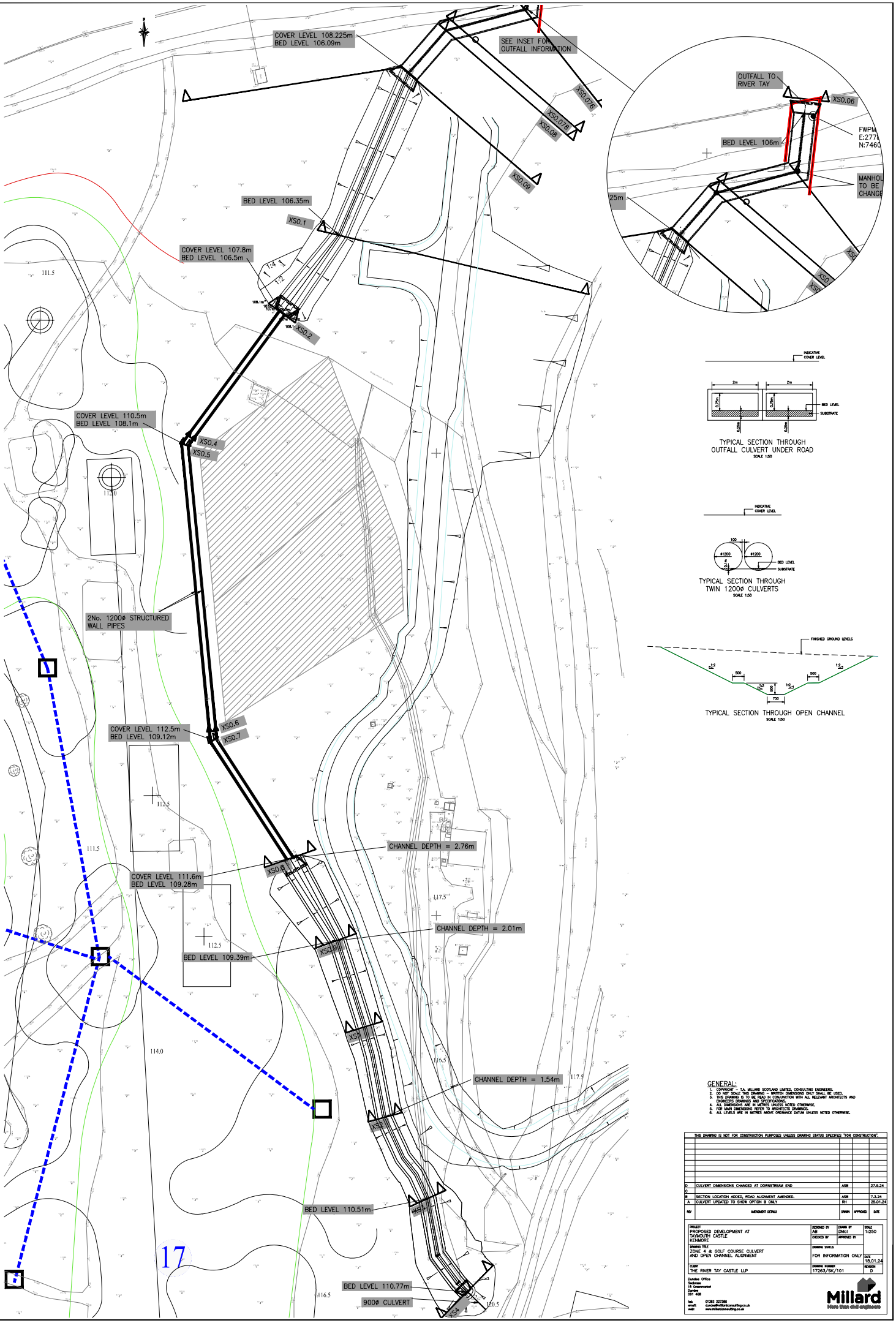
REV	AMENDMENT DETAILS	DRAWN	APPROVED	DATE

PROJECT TAYMOUTH CASTLE ZONE 4	DESIGNED BY	DRAWN BY ASB	SCALE 1:2500
	CHECKED BY	APPROVED BY	
DRAWING TITLE MAN–MADE CHANNEL – EXISTING	DRAWING STATUS		DATE 26.9.24
CLIENT THE RIVER TAY CASTLE LLP	DRAWING NUMBER 17264/21/406		REVISION

Dundee Office
Seabraes
18 Greenmarket
Dundee
DD1 4QB

tel: 01382 227380
email: dundee@millardconsulting.co.uk
web: millardconsulting.co.uk

Millard
More than civil engineers



GENERAL:

1. COPYRIGHT - T.A. MILLARD SCOTLAND LIMITED, CONSULTING ENGINEERS.
2. DO NOT SCALE THIS DRAWING – WRITTEN DIMENSIONS ONLY SHALL BE USED.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND OTHER CONSULTANTS' DRAWINGS.
4. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
5. FOR MAIN DIMENSIONS REFER TO ARCHITECTS DRAWINGS.
6. ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.

THIS DRAWING IS NOT FOR CONSTRUCTION PURPOSES UNLESS DRAWING STATUS SPECIFIES "FOR CONSTRUCTION".

REV	AMENDMENT DETAILS	DRWN	APPROVED	DATE
D	CULVERT DIMENSIONS CHANGED AT DOWNSTREAM END		ASB	27.9.24
C				
B	SECTION LOCATION ADDED, ROAD ALIGNMENT AMENDED.		ASB	7.3.24
A	CULVERT UPDATED TO SHOW OPTION B ONLY		RH	25.01.24

PROJECT: PROPOSED DEVELOPMENT AT TAYMOUTH CASTLE KENMORE	DESIGNED BY: ASB	DRAWN BY: DMcI	SCALE: 1:250
	CHECKED BY:	APPROVED BY:	
DRAWING TITLE: ZONE A & GOLF COURSE CULVERT AND OPEN CHANNEL ALIGNMENT	DRAWING STATUS: FOR INFORMATION ONLY		DATE: 18.01.24
CLIENT: THE RIVER TAY CASTLE LLP	DRAWING NUMBER: 17263/SK/101		REVISION: D

Dundee Office
Seabraes
18 Greenmarket
Dundee
DD1 4QB
tel: 01382 227360
email: dundee@millardconsulting.co.uk
web: www.millardconsulting.co.uk

Millard
More than civil engineers

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response

PKC Planning Application References:
23/01228/FLL, 23/01112/FLL, 23/01512/FLL, 23/01113/FLL, 23/01114/FLL

Ref: **18613AO**

Date: 23 July 2024

Subject: Taymouth Castle – Zone 4

This statement addresses comments received from AECOM on behalf of Perth and Kinross Council dated 4 June 2024 and received by Scott Hobbs Planning 11th June 2024. For ease of reference, each relevant section of the Planning Consultation is copied in the table below with corresponding response by Millard Consulting.

AECOM REF	COMMENT	UPDATE	STATUS	MILLARD CONSULTING RESPONSE 18/07/24
1.1	This application is one of a series of applications for the proposed housing development at Taymouth Castle for Zone 4 (Z4). This wider development includes the construction of dwellings, access road and includes the renovation and conversion of The Dairy to provide a golf clubhouse with associated buggy park.	*<BLANK>*	For information	No response required
1.2	The comments within this response refer to the following below applications. 23/01228/FLL – Z4-01 23/01112/FLL – Z4-02 23/01512/FLL – Z4-03 23/01113/FLL – Z4-04 23/01114/FLL – Access Road This is because the same DIA and FRA has been submitted for each application Therefore, this response is for Zone 4 as a whole. Any specific comments relating to each application has been noted within its corresponding application response.	*<BLANK>*	For information	No response required

1.3	Z4 is in total approximately 6.24ha in size and located at the northwestern end of the estate.	*<BLANK>*	For information	No response required
1.4	Z4 is bound by the River Tay to the north, and the golf course to the east, south and west.	*<BLANK>*	For information	No response required
1.5	Pre and post development topography has been provided for the site within the FRA. It shows levels are generally unchanged across the site. Site levels generally fall in a northern direction with properties within Z4-04 being located on higher ground (approximately 125mAOD). Properties within Z4-01 are located on the lowest lying ground in Zone 4 (at approximately 117-119mAOD).	*<BLANK>*	For information	No response required
2.1	A drainage strategy has been provided for the development. It has been stated that surface water runoff from the roads will be collected by filter trenches which will be conveyed to the River Tay. Roof water will be collected in underground geocellular storage attenuation system before being discharged into the roadside filter trench.	*<BLANK>*	For information	No response required
2.2	There are existing roads within the site boundary which are to be retained as part of this development. Please provide details on the existing drainage within the proposed development	Please provide details of existing drainage	Update/Response Required	Refer to Section 6.2 of Millard Consulting Report Reference 17864/WH/970
2.3	It has been noted that the road drainage system will restrict runoff to the predevelopment greenfield runoff rate or at a rate agreed with PKC. However, the drainage strategy also notes that surface water from each plot is to be restricted to 0.5l/s up to the 200yr event with an allowance for climate change and	Please provide greenfield runoff and drainage calculations	Update/Response Required	Refer to Section 6.11 and Appendix C of Millard Consulting Report Reference 17864/WH/970

	urban creep. The discharge rate from the development should be limited to greenfield runoff rates as per PKC guidance and calculations should be provided showing that this discharge rate has been met.			
2.4	No drainage calculations have been provided. Drainage calculations should be provided showing no surcharging at the 30yr and no flooding at the 100yr event	Please provide drainage calculations	Update/Response Required	Refer to Appendix C of Millard Consulting Report Reference 17864/WH/970
2.5	A drainage layout plan has been provided showing the drainage for the entire zone 4 development. However, the drainage layout only shows the route of the road drainage. It does not show the locations of the SuDS features such as filter trenches and geocellular storage attenuation systems	Please provide detailed drainage layout drawings showing locations of SuDS	Update/Response Required	Refer to Appendix B of Millard Consulting Report Reference 17864/WH/970
2.6	The drainage layout drawing shows the location of the proposed surface water outfall on the River Tay, which is located to the north west of Z4-01	*<BLANK>*	For information	No response required
2.7	No detailed drawings have been provided of SuDS features (location, connectivity and size)	Please provide detailed drawings of all SuDS features	Update/Response Required	Refer to Appendix B of Millard Consulting Report Reference 17864/WH/970
2.8	No details have been provided on the level of treatment of surface water on the site. The Simple Index Approach (SIA) should be followed to provide evidence that the correct level of treatment is provided	Please provide SIA to ensure adequate treatment is provided.	Update/Response Required	Refer to Section 6.13 of Millard Consulting Report Reference 17864/WH/970
2.9	No information on contaminated soil has been provided	*<BLANK>*	PKC to review	No response required
2.10	No information has been provided on how surface water will be managed during construction	*<BLANK>*	PKC to review	No response required
2.11	Please provide pre and post development overland flow routes for the site.	Please provide pre and post development	Update/Response Required	Refer to accompanying Drawing 17864/02/003

		overland flow routes for the site.		
2.12	**It has been noted in the FRA that the plot at the western corner of Zone 4 (GC-9) is at risk from overland flow. It notes that the solum level of this plot should be no lower than 115.7mAOD and ground levels fall away from the proposed dwelling.** **This property is within application 23/01112/FLL. An FFL of 118mAOD is shown for this property, based on the cross section of this dwelling, ground levels are the rear of the property appear to fall towards the property. Please provide commentary on how this condition in the FRA has been addressed.** **It has been stated that a response to this comment will be addressed within the DIA.**	Please provide commentary within the Drainage Impact Assessment regarding the overland flow risk to GC-9.	Update/Response Required	Addressed under Item 3.20 of previous AECOM comments
3.1	A flood risk assessment has been provided specifically for the zone 4 development	*<BLANK>*	For information	No response required
3.2	There are three watercourses located near or within the site. Directly to the north of the site is the River Tay. The Allt Bhealaich flows from the south of the site into the golf course (to the south of zone 4). Once at the golf course it is routed north eastwards though the course before discharging into the River Tay. The final watercourse is a manmade river channel which isn't shown on OS mapping. This channel is shown to originate within the golf course and flow northwards along the western boundary of Zone 4 before discharging into the River Tay.	*<BLANK>*	For information	No response required

3.3	SEPA flood maps indicates that there is no flooding on the site, however the floodplain of the River Tay and the manmade burn are very close to the site boundary. Flow from the Allt Bhealaich is indicated to overtop the A827 and flow into the manmade drain. The flow route appears to flow near to zone 4. Overland flow also appears to impact the east and west access points.	*<BLANK>*	For information	No response required
3.4	Flood History has been provided for the Taymouth estate. The worst in recent times being in 1993, where an outbuilding to the northeast of the castle was flooded to a depth of 0.4m. The FRA states that using the SEPA gauge at Taymouth Castle, this equates to a level of 100.4mAOD for the 1993 event. However, the maximum recorded flood level at this gauge is 102.93mAOD	*<BLANK>*	For information	No response required
3.5	The FRA states that as part of the proposed golf course development, the manmade meandering channel is to be culverted for a significant proportion of its length. Drawings however have not been provided showing this development. Drawings have only been provided for Zone 4. These show that this man-made watercourse is to be culverted twice under new proposed roads. No details have been provided on these culverts to ensure they have been adequately sized. **Please see the section below discussing the flood risk of the new manmade channel.**	*<BLANK>*	For information	No response required
3.6	Catchment descriptors have been provided for the River Tay. The River Tay has shown	*<BLANK>*	For information	No response required

	to have a low FARL value of 0.76 and a catchment area of 598.28km2. Allt a Bhealaich catchment descriptors have not been provided, however notes that the watercourse has a catchment area of 8.25km2 to the confluence with the Tay. **The applicant has referred to the Zone 1 FRA which includes catchment descriptors for the Allt a Bhealaich. As stated in the Zone 4 FRA the catchment areas are slightly different due to differences in model extent.** **Ideally a comparison would be made between catchment descriptors for the two different catchments to confirm that a scaled approach is appropriate. However, given the increase in area is less than 5%, it is assumed the catchment descriptors wouldn't have changed significantly.**			
3.7	FEH statistical method was used to calculate flows for the River Tay. The SEPA flood gauge was used to determine the AMAX for The River Tay, which states a peak flood flow of 336.5m3/s. Using a pooled group method, the peak flow for the 200yr event was calculated to be 481.7m3/s. No details have been provided on the original and amended pooling group. **The pooling group details have been provided within the FRA. It has been noted that no adjustments were made to the pooling group, however additional weighting towards the River Tay at**	*<BLANK>*	For information	No response required

	Kenmore station was applied.			
3.8	Flow for the Allt a Bhealaich was estimated for a recent FRA for Zone 1 of the development. This Zone 1 FRA has not been submitted with this application. In this assessment a 200yr flow of 22.59m3/s was calculated based on a catchment size of 7.91km2. Within this FRA the flow has been increased proportionally to cover the catchment area of 8.25km2. This gives a peak 200yr flow of 23.6m3/s. Please provide additional details on the previous hydrology calculated, such as date when the assessment was carried out, reasoning for the method used and a comparison of the flows from the different hydrology methods. **The Zone 1 FRA has been submitted with this application which provides details on how the initial hydrology was calculated. This was undertaken in December 2023. The Allt a Bhealaich hydrology was calculated using the statistical method given it gave the most conservative flows compared to the REFH2 method. This flow was then scaled proportionally based on the increase in catchment area.** **It should be noted that the statistical method usually is not appropriate for small catchments of this size. However, given they provide conservative results, they are acceptable.**	*<BLANK>*	For information	No response required
3.9	A 53% climate change uplift has been applied to the flow for the River Tay. A 39% climate change	*<BLANK>*	For information	No response required

	uplift on rainfall has been applied for the Allt a Bhealaich.			
3.10	No testing has been undertaken for joint probability or coincident peaks. Please provide justification for starting hydrographs at same time. **It has been stated that the catchments are significantly different in size and scale, therefore unlikely that the watercourses would be subject to a 200yr event at the same time. This approach is considered appropriate.**	*<BLANK>*	For information	No response required
3.11	A linked 1D/2D model was constructed in Floodmodeller. Both watercourses have been modelled in 1D, with 2D floodplain only modelled in the vicinity of the castle.	*<BLANK>*	For information	No response required
3.12	No information has been provided on the survey sections. Such as when the survey was undertaken and the extents of the survey/model. **Cross sections were surveyed in August 2022 by WSP, with spacing of between 30m-240m.**	*<BLANK>*	For information	No response required
3.13	**It appears that only a small section of the Allt a Bheaich has been modelled, starting from the middle of the golf course. However, as shown by SEPA flood maps, this burn is shown to have a possible overland flow route near to the site which flows into the manmade burn. Please provide commentary on why the model does not extend upstream to capture this overland low route** **It has been stated that in the Zone 1 application that the Allt**	Please provide evidence that there is no overtopping upstream of the A827	Update/Response Required	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"

	a Bheaich was modelled a significant distance upstream and no overland flow route was predicted through the site. **However, as stated within the review of the Zone 1 applications, this extent does not extend far enough upstream in order to capture any overland flow over the A827.** **The SEPA flood maps show significant overtopping here which flows across the Taymouth estate into the unnamed/manmade burn and into the Tay. Evidence should be provided that there won't be any overtopping upstream which may impact flooding at the site.**			
3.14	It has been noted that the Mannings roughness of the main channel is 0.04, with the roughness on the floodplain varying between 0.03-0.1.	*<BLANK>*	For information	No response required
3.15	A validation run has been undertaken, using a peak flow of 336.1m3/s at the gauge station (largest recorded flow). This gave a modelled flood level of 103.1mAOD. It has been noted that this level is slightly conservative, given the recorded level was 102.93mAOD. It was concluded that the model was producing verifiable results.	*<BLANK>*	For information	No response required
3.16	Sensitivity tests have been undertaken including a 20% uplift on the flow and a 20% uplift on the manning's n. They show that when the flow increases by 20% the water level rises a maximum of 0.63m. When roughness is increased by 20% the water level increases by a maximum of 0.82m.	*<BLANK>*	For information	No response required
3.17	The results in the appendix show that the	*<BLANK>*	For information	No response required

	water level in the River Tay adjacent to zone 4 is all within the 1D domain. Therefore, no 2D zone here required.			
3.18	As noted within the FRA, the turning head of the access road is within the 200yr+CC floodplain. Guidance states that there should be no development within the functional floodplain. **It has been stated there will be no raised ground levels as part of the development, therefore there will be no adverse impact on flood storage. However, on plans provided they show that this will be an access route to future properties. This proposed road cannot be used as an access road to new properties as it does not provide safe access. Therefore, please confirm that the proposed road within the Tay floodplain will not be used for access.**	Please ensure there is no development within the 200yr+CC floodplain	Specific Requirement for 23/01228/FLL	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"
3.19	**An additional separate model has been built of the new manmade channel. The new channel will have three culverted sections of watercourse throughout the Taymouth estate, with daylighting between each culvert before discharging into the Tay. A drawing of the proposed watercourse is shown in the appendix of the FRA.**	*<BLANK>*	For information	No response required
3.20	**Please provide clear plans and description of the current man-made channel.**	Please provide clear plans and description of the current man-made channel.	Update/Response Required	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"
3.21	**It has been stated that the channel and culverts are not currently suitably sized**	Please provide details on how the golf	Update/Response Required	Golf Course Drainage is being installed to suit final course gradings. A number of connection pipes have

	for the 200yr+CC event. Therefore, new channel and structures are proposed. **A plan has been provided showing part of the current channel, but no description of the existing channel has been provided. However, it does appear that this is a significant alteration to the current arrangement, particularly upstream of the site where it is proposed that the watercourse is culverted for around 560m. Currently this stretch of channel is open watercourse. Therefore, there may be parts of the catchment (around the golf course) which once drained to the watercourse which now won't be able to. Please provide commentary on how the golf course will be drained.**	course will be drained.		been agreed with the golf team and allowed for in the culvert / open channel design, with flows restricted by specifying pipe diameters
3.22	**The catchment area of the manmade channel is 0.87km2. the catchment area has been provided in the FRA. Given the small nature of the catchment it has been noted that the catchment does not appear on FEH webservice, therefore the catchment descriptors of the Allt a Bhealaich have been used. The AREA and DPLBAR were adjusted.**	*<BLANK>*	For information	No response required
3.23	**Both REFH2 and rainfall runoff methods were used and compared. REFH2 calculated a flow of 2.71m3/s, whereas the Rainfall Runoff method calculated a flow of 3.03m3/s at the 200yr event. Therefore, the Rainfall Runoff Method was used given it provide more conservative results.**	*<BLANK>*	For information	No response required
3.24	**A climate change uplift of 39% was applied to**	*<BLANK>*	For information	No response required

	the rainfall as per SEPA guidance.			
3.25	**A 1D HECRAS model has been built of the channel. A drawing has been provided showing the extent of the model, showing that the model starting just to the north of the A827.**	*<BLANK>*	For information	No response required
3.26	**A roughness value of 0.035 has been applied for the open channel and 0.013 applied for the pipe roughness**	*<BLANK>*	For information	No response required
3.27	**No information has been provided on what downstream boundary was used**	Please provide details on downstream boundary of the model.	Update/Response Required	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"
3.28	**All open channel sections have been taken to have the same shape, with a base width of 750mm and side slopes of 1:2, with a 500mm inset in the middle of the slope.**	*<BLANK>*	For information	No response required
3.29	**There are three structures within the model extent, the first is the long 0.9m diameter culvert which runs underneath the golf course for approximately 560m, the second is the proposed twin 1.2m diameter culverts (bottom 0.1m is substrate) with a length of 130m, and the final structure is the proposed culvert made up from three adjacent box culverts (all with opening 0.8m high x 0.7m wide) which discharges into the River Tay.**	*<BLANK>*	For information	No response required
3.30	**It has been noted that the proposed downstream box culverts have not been sized to accommodate the 200yr+CC. This is due to significant restrictions in the vicinity of the culvert. With the area being within the River Tay floodplain ground levels cannot be raised.**	Please provide justification on why the final stretch is culverted.	Update/Response Required	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"

	Additionally, there is a water main which needs 0.9m cover. Please provide justification on why this stretch is to be culverted. Guidance states that ideally watercourse should be left as natural as possible. This proposed culvert is within the Tay floodplain therefore there should be no new development here.			
3.31	**The results therefore show that the channel is sized for the 200yr+CC event excluding the final downstream culvert. A review of levels show that any spill would flow overland into the Tay and FFL's are located on much higher ground.**	*<BLANK>*	For information	No response required
3.32	**Sensitivity tests have been provided on the roughness value and blockages. The results show that increasing roughness has minimal impact on the results. It was found that for the twin 1.2m diameter pipes, any blockage more than 34% would result in them overtopping. If there was blockage on the 0.9m diameter would be potential overland flow across the golf course. It has been stated that these overland paths would not adversely impact properties in zone 4.**	*<BLANK>*	For information	No response required
3.33	**As discussed previously, SEPA flood maps show that the Allt a Bhealaich back up upstream of the A827 and flows overland into the manmade channel. Modelling for the Allt a Bhealaich should be extended upstream to include this area or other evidence should be provided to confirm there is no spill overland into the manmade burn from the**	Please confirm whether there is any spill from the Allt a Bhealaich into the man-made burn.	Update/Response Required	Please refer to accompanying "Zone 4 - All apps - Further Flooding response to AECOM - 22 07 24"

	Allt a Bhealaich. If there is spill into the manmade burn, then the hydrology would need updated to account for this.			
3.34	SEPA flood maps show that the site is not at risk of pluvial flooding	*<BLANK>*	For information	No response required

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response
Flooding – Zone Z4

Ref: Applications 23/01112/FLL, 23/01228/FLL, 23/01113/FLL and 23/01114/FLL

Date: 22nd July 2024

Subject: Taymouth Castle Zone 4, response to AECOM (PKC) Drainage and Flooding Review

---

This statement addresses comments received from AECOM on behalf of Perth and Kinross Council Flooding Section in relation to flood risk, dated 4th June 2024. Each relevant section of the Planning Consultation is copied below in *italics*, with the Design Team's response below. Queries relating to the Drainage Impact Assessment will be responded to in a separate document.

Flood Risk

AECOM Comment
3.13 It appears that only a small section of the Allt a Bhealaich has been modelled starting from the middle of the golf course. However, as shown by SEPA flood maps, this burn is shown to have a possible overland flow route near to the site which flows into the manmade burn. Please provide commentary on why the model does not extend upstream to capture this overland flow route. It has been stated that in the Zone 1 application that the Allt a Bhealaich was modelled a significant distance upstream and no overland flow was predicted through the site. However, as stated within the review of the Zone 1 applications, this extent does not extend far enough upstream in order to capture any overland flow over the A827. The SEPA flood maps show significant overtopping here which flows across the Taymouth Estate into the unnamed/manmade burn and into the Tay. Evidence should be provided that there won't be any overtopping upstream which may impact flooding at the site.

AECOM request – Please provide evidence that there is no overtopping upstream of the A827.

Response
The course of the Allt a Bhealaich upstream of the A827 is very steep, while the bridge on the watercourse which takes the A827 across is a high masonry arch with significant capacity. Please see photographs 1 and 2 below which show the upstream side of the bridge.



Photograph 1 – a view of the upstream side of the masonry arch bridge taking the A827 over the allt a Bhealaich.



Photograph 2 – looking downstream towards the upstream side of the bridge taking the A827 across the Allt a Bhealaich.

Access has been granted to obtain survey data on the Allt a Bhealaich upstream of the A827 and an extended model has been prepared. The following cross sections show predicted 1 in 200 year + climate change flood levels at the upstream side of the bridge on the A827 over the Allt a Bhealaich, and approximately 18m upstream. Bed levels on the Allt a Bhealaich immediately upstream of the bridge were estimated due to health and safety concerns with entering the watercourse at this location, and road traffic if trying to survey bed levels from above.

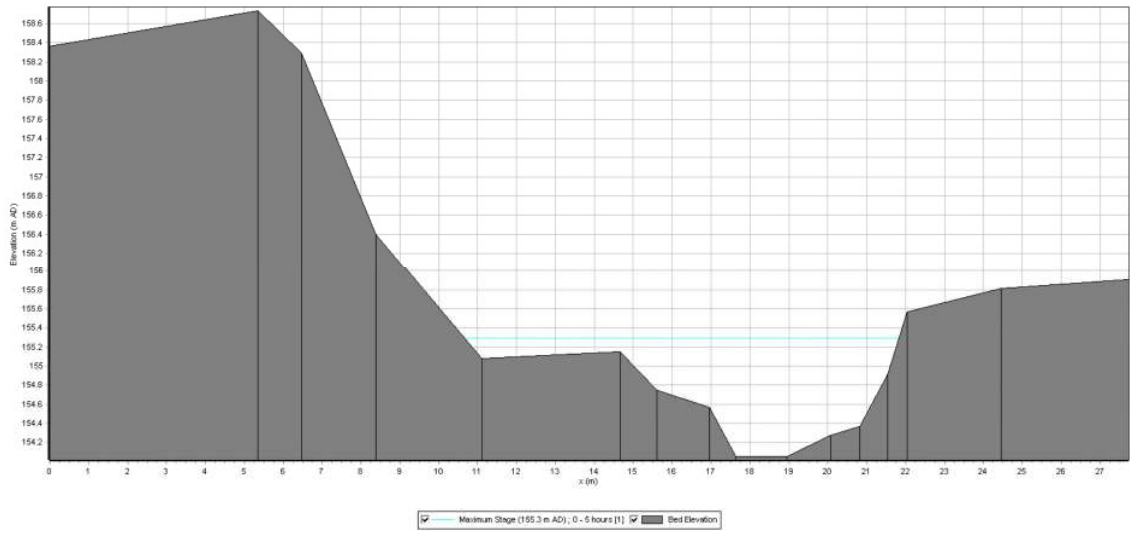


Figure 1 – Predicted 200yr+CC Flood level 18m upstream of A827 on the Allt a Bhealaich

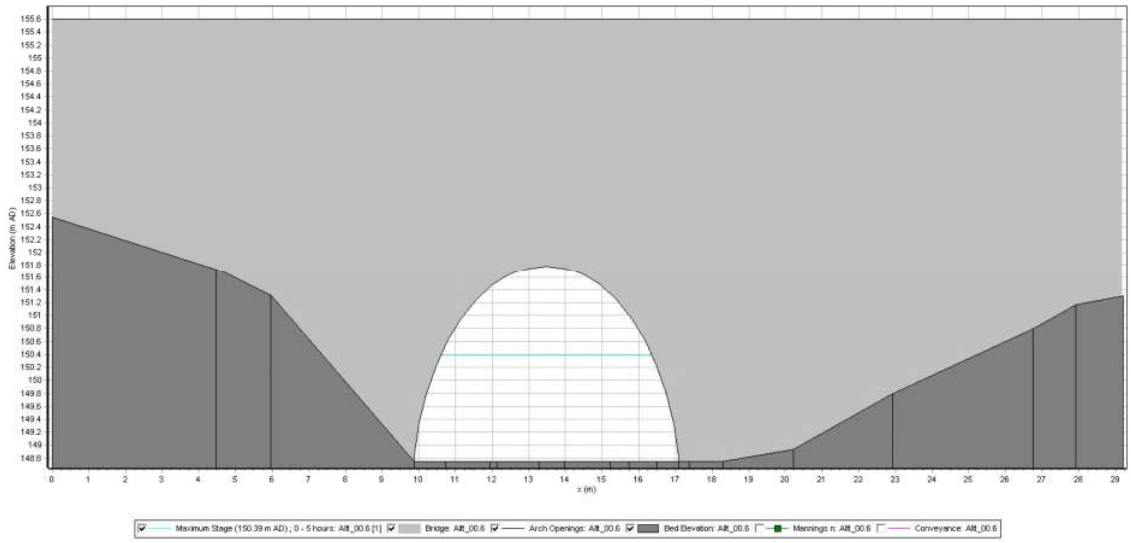


Figure 2 – Predicted 200yr+CC Flood level at upstream side of the bridge at the A827 on the Allt a Bhealaich

Based on the size of the bridge opening and the modelled levels, floodwater is not predicted to flow out of bank upstream of the A827 on the Allt a Bhealaich and potentially impact Zone 4.

AECOM Comment

3.18 As noted within the FRA, the turning head of the access road is within the 200yr+CC floodplain. Guidance states that there should be no development within the functional floodplain.

It has been stated that there will be no raised ground levels as part of the development, therefore there will be no adverse impact on flood storage. However, on plans provided they show that this will be an access route to future properties. This proposed road cannot be used as an access road to new properties as it does not provide safe access. Therefore, please confirm that the proposed road within the Tay floodplain will not be used for access.

AECOM request – Please ensure there is no development within the 200yr+CC floodplain.

Response

The above comments are contradictory in the sense that one requests confirmation that the proposed road within the Tay floodplain will not be used for access, while the other requests that there is no development within the 200yr+CC floodplain. Our opinion is that providing the road does not reduce flood storage and is not the only route of vehicular access, it should be acceptable.

We have discussed the turning head being within the floodplain with Mr Craig Harvey of Perth and Kinross Council (PKC), and PKC has confirmed it would be content with the construction of the turning head in the floodplain, with the following caveats:

- The roads drainage for the turning head, more specifically the area of this which will sit within the floodplain, should be separated/isolated from the roads drainage for the rest of the development to ensure any flooding from the River Tay does not affect the wider network.
- The turning head should be built at level – no land raising should take place.
- The turning head should not be used for access for future sections of development.

Confirmation was requested that the turning head will not be adopted by PKC, and we can confirm the road will remain within private ownership.

With respect to the three bullet points above, we can advise the following:

A series of infiltration trenches are proposed to take surface water from the development, utilising infiltration into the subsoil as far as practicable. Should the turning head area be flooded due to a significant flood event, what surface water remains within the trenches when they reach that area would simply flow into the flooded area and make its way into the Tay as the flood receded. Given that any flow in the trenches would be a tiny fraction of the flood flow in the Tay, this would not exacerbate flood risk, while the remainder of the surface water drainage system sitting higher than the flood level, would be able to operate as normal.

The road within the predicted flood extent is being designed to be no higher than existing ground levels.

Since submission of the Zone 4 planning application, a further planning application has been submitted for a road running from the northern end of the turning head at the north western corner of Zone 4, alongside the River Tay in a south westerly direction. Should both applications be approved then the road at Zone 4 (currently shown as a turning head) would link to the road from the west access which was previously permissioned. This road would not however be a main route to access further housing zones, and the main vehicular access link to Zone 4 would remain as per the Zone 4 planning application.

AECOM Comment
3.20 Please provide clear plans and description of the current man-made channel.

AECOM request – please provide clear plans and description of current man-made channel.

Response
The pre-development form of the channel as it passes Zone 4 is shown in Figure 3 below overleaf. The channel is very small and shallow, and it flows overland in the vicinity of the north western part of Zone 4, across the core path, discharging into the River Tay. As can be seen the pre-development channel runs in close proximity to the Scottish Water borehole and through consented development plots.

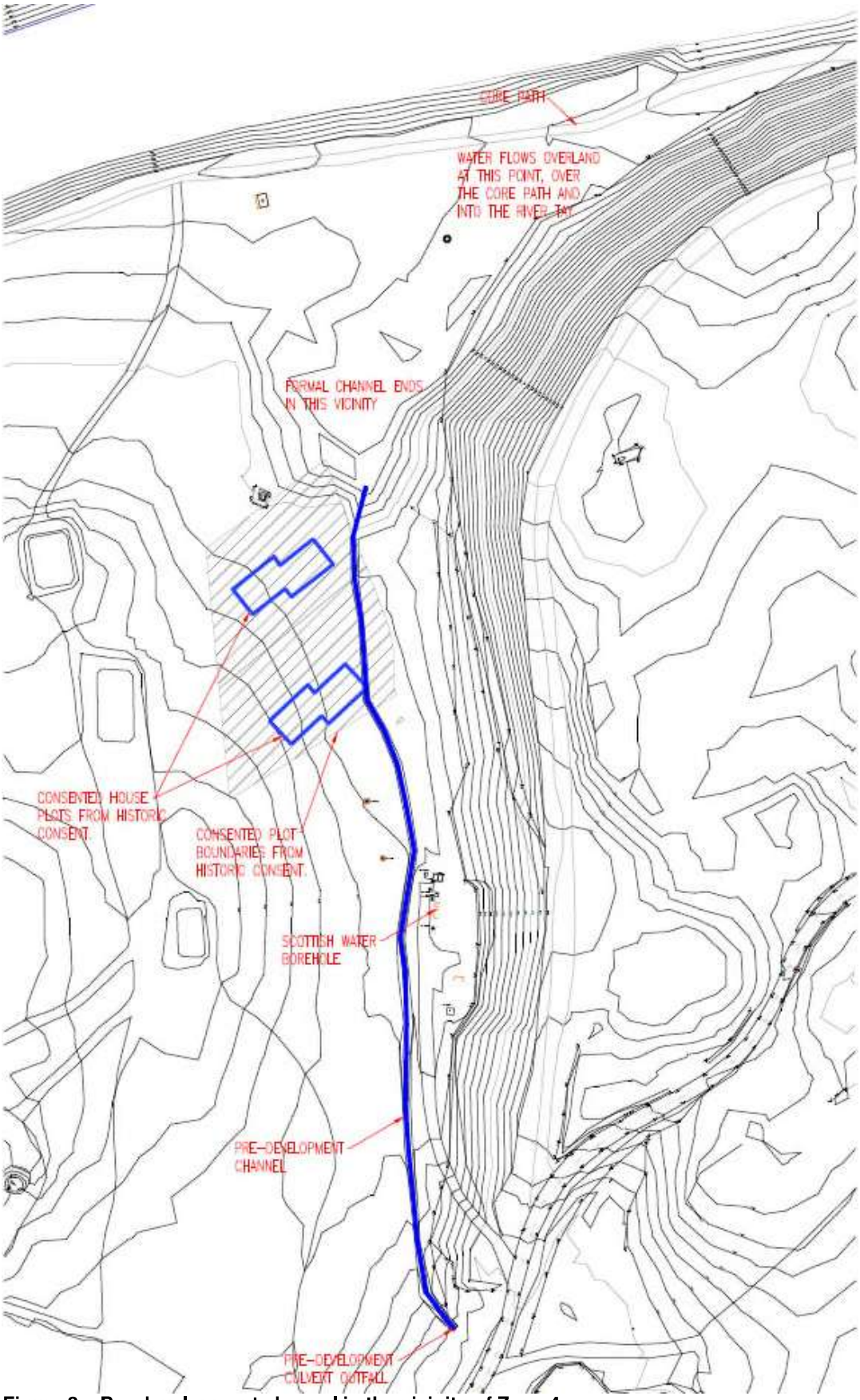


Figure 3 – Pre-development channel in the vicinity of Zone 4.

AECOM Comment
3.27 No information has been provided on what downstream boundary was used.

AECOM request – please provide details on downstream boundary of the model.

Response
The downstream boundary has been set as a level of 106.26m, which is the predicted QMed level in the River Tay at the location of the outfall.

AECOM Comment
3.30 It has been noted that the proposed downstream box culverts have not been sized to accommodate the 200yr+CC. This is due to significant restrictions in the vicinity of the culvert with the area being within the River Tay floodplain ground that cannot be raised. Additionally, there is a water main which needs 0.9m cover.

Please provide justification on why this stretch is to be culverted. Guidance states that ideally watercourse should be left as natural as possible. This proposed culvert is within the Tay floodplain therefore there should be no new development here.

AECOM request – please provide justification on why the final stretch is culverted.

Response
The final stretch of the watercourse is culverted to take the watercourse beneath the existing core path, and the aforementioned new road which is proposed from the north western corner of Zone 4, running generally in a south westerly direction.

AECOM Comment
3.33 As discussed previously, SEPA flood maps show that the Allt a Bhealaich backs up upstream of the A827 and flows overland into the manmade channel.

Modelling for the Allt a Bhealaich should be extended upstream to include this area or other evidence should be provided to confirm there is no spill overland into the manmade burn, then the hydrology would need updated to account for this.

AECOM request – please confirm whether there is any spill from the Allt a Bhealaich into the man-made burn.

Response
The model has been extended upstream of the A827, confirming that there is no predicted spill from the Allt a Bhealaich into the man-made channel.

TABLE OF CONTENTS

1. Introduction
2. Scope
3. General Description of Existing Site and Proposed Development
4. Water Supply
5. Treatment and Disposal of Waste Water
6. Surface Water and SuDS
7. Drainage Maintenance Responsibilities
8. Construction Phase SuDS
9. Health and Safety Risk Assessments
10. Conclusions

LIST OF APPENDICES

Appendix A External Works Layout
Appendix B Surface Water Calculations

Proposed Residential Development (Zone 4) at Taymouth Castle, Kenmore

DRAINAGE ASSESSMENT

July 2024

REPORT REFERENCE: 17864/WH/970

CLIENT: The River Tay Castle LLP

ENGINEER: Millard Consulting
Seabraes
18 Greenmarket
Dundee
DD1 4QB

Tel: 01382 227 380

Report Prepared By:
[redacted]
.....
Walter Hayes – Principal Engineer

Report Checked By:
[redacted]
.....
Fraser Petrie – Associate Director

COPYRIGHT

The contents of this document must not be copied or reproduced in whole or part without the written consent of Millard Consulting or the Client.

REGISTRATION OF AMENDMENTS

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By

1. Introduction

1.1. Millard Consulting have been appointed by The River Tay Castle LLP to prepare a Drainage Assessment in support of a full Planning Application to vary an existing consented full Planning Application (PKC ref 03/00250/PPLB & 11/00533/FLM) for a residential development at Taymouth Castle.

1.2. This report is confidential to the Client for the purpose of submission to the Local Authority. Millard Consulting accepts no responsibility whatsoever to other parties to whom this report, or any part thereof, is made known. Any such other parties rely upon the report at their own risk.

2. Scope

2.1. The scope of this report is to identify a suitable drainage strategy serving the proposed development and to demonstrate that the proposed development can be effectively drained with no detrimental impact to surrounding properties or land.

2.2. This report has been prepared broadly in accordance with "Water Assessment and Drainage Assessment Guide" produced by the Sustainable Urban Drainage Scottish Working Party (SUDSWP) and Perth and Kinross Council's document "Flood Risk and Flood Risk Assessments (adopted March 2021)".

2.3. Provision of SuDS serving the development has also been assessed against "CIRIA C753 – The SuDS Manual", and SEPA document "Regulatory Method (WAT-RM-08) V6.4, July 2019" whilst taking cognisance of the proportionate scale of this development, which lies within the larger Taymouth Castle estate.

3. General Description of Existing Site and Proposed Development

3.1. The site within Taymouth Castle Estate is located to the east of the village Kenmore in Perth and Kinross, and the site boundary is shown indicatively in red within Figure 1 below. The Ordnance Survey grid reference for the centre of the site is approximately NN 7790 4592.



Figure 1: Site Location Plan

3.2. The site is irregular in shape and is to be split into 4 phases totalling approximately 6.24ha in size. The site is currently estate grounds. Land use in the area within the site boundary generally comprises woodland, bound to the north by the River Tay and elsewhere by golf course. The Dairy building is located within the site boundary and is subject to refurbishment as part of the planning application.

3.3. Refer to the architect's drawings on the Planning Portal which indicate that the site has a gradual fall towards the River Tay.

3.4. The proposed development comprises the construction of 18no plots, with associated driveways, private shared accesses and drainage infrastructure along with refurbishment of the Dairy building and

provision of associated golf buggy storage building. Refer to the architect's drawings on the Planning Portal for latest site layout drawings.

4. Water Supply

4.1. Scottish Water have existing water supply infrastructure within Taymouth Castle Estate.

4.2. Water supply is outwith Millard Consulting's scope of works. At the time of preparing this report, the clients design team were in discussions with Scottish Water to agree necessary infrastructure to serve the development.

5. Treatment and Disposal of Waste Water

5.1. The development is not in a sewered catchment. Therefore, private foul water drainage infrastructure is proposed.

5.2. Subject to SEPA approval, a specialist treatment plant will be provided to accommodate the proposed foul loadings from the development, together with providing the required quality of effluent for discharge to the River Tay.

5.3. Foul water from individual plot disconnection chambers, including from the refurbished Dairy building will be collected and conveyed by foul water drains to a shared private foul water treatment plant. Treated foul water would be conveyed by drains to a new outfall into the River Tay, in the vicinity of National Grid Reference NN 7791 4603.

5.4. SEPA have been consulted and have confirmed that SEPA authorisation would be required for the treatment plant and discharge into the River Tay.

5.5. NatureScot were also consulted regarding provision of an outfall to the River Tay. The location of the outfall has been agreed in order to minimise any impact on protected species.

5.6. Consultation was also undertaken with an Arborist to minimise impact on trees with respect to the outfall to the River Tay.

5.7. The private foul water drainage system has generally been designed in accordance with the current version of Scottish Water's document "Sewers for Scotland", with the packaged treatment plant sized in accordance with the current version of British Water's document "Flows & Loads".

5.8. The site levels dictate that foul water will require to be pumped to the packaged treatment plant. The pumping station and rising main have been designed by a specialist, with 24 hours emergency storage in case of power or mechanical failures. It is understood that the Client is arranging procedures with the specialist supplier to ensure a programme of routine maintenance and that any emergency repairs are carried out as quickly as possible.

5.9. The location of key foul drainage components are shown on drawing number 17864/02/001'C in **Appendix A.**

6. Surface Water and SuDS

6.1. It is proposed to treat runoff generated by the development before returning this to the water environment.

6.2. Appropriate SUDS will be provided with consideration of the site context within the Taymouth Castle Estate landscape. The existing estate access roads do not have a formal drainage system, with surface water runoff from the access roads generally discharging over-the-edge into verges or burns.

6.3. Key surface water drainage components are shown on drawing number 17864/02/001'C in **Appendix A.**

6.4. Site investigations comprising trial pits and infiltration testing have been carried out at numerous locations across the wider Taymouth Caste Estate. The investigations indicated that the site is generally favourable for disposal of surface water via soakaways. This should be confirmed prior to construction of the works.

6.5. Surface water runoff from shared access roads will be collected by road-side filter trenches and conveyed by collector drains to the River Tay. The filter trenches will be lined with a geotextile rather than an impermeable membrane in order to maximise the opportunity for runoff to infiltrate into the subsoil. A slotted collector pipe in the base of the filter trench will convey runoff to an outfall into the River Tay to ensure the site is adequately drained.

6.6. A similar drainage strategy will be applied for existing access roads to be retained and upgraded as part of this application with formalised drainage in the form of a road-side filter trenchs.

6.7. There is insufficient space available within individual plot boundaries to provide surface water soakaways in accordance with current Building Standards requirements, with tree root protection zones further constraining provision of soakaways. Therefore, roof water from individual plots including the refurbished Dairy building will be collected and conveyed to underground geocellular storage attenuation systems before discharging from plot disconnection chambers into the road-side filter trench collector drains. Surface water discharge from each plot will be restricted to 0.5l/s up to the critical 1:200 year storm event (including additional allowance for current climate change and additional 10% dwelling roof area for future extensions), with treatment provided by stone filled treatment/disconnection chambers.

6.8. The proposed golf buggy garage associated with the refurbished Dairy building will incorporate a green roof system for disposal of roof water which will be designed by a specialist. An emergency overflow from the green roof system into the road-side filter trench will be provided to ensure adequate drainage is provided during adverse weather events.

6.9. Driveways will comprise free draining material. Should ground conditions indicate that subsoil is not favourable for free draining driveways, then the underground geocellular storage attenuation systems within plots should be increased in size to accommodate driveway runoff.

6.10. The roof water attenuation systems have be sized to accommodate up to the critical 1 in 200 year storm event (including 39% allowance for climate change and additional 10% roof area for future extensions). Refer to **Appendix B** for calculations.

6.11. The site area for Zone 4 measures approximately 6.24ha. Using the Wallingford Greenfield Estimation tool, the Greenfield Runoff rates have been estimated

Area (ha)	Greenfield Runoff Rates (l/s)	
	1 in 30 year	1 in 200 year
6.24	65.1	82.79

6.12. As noted in paragraph 6.7 above, post-development runoff from building roofs including the refurbished Dairy building will be restricted to 0.5l/s per plot up to the critical 1:200 year storm event (including additional allowance for current climate change and additional 10% dwelling roof area for future extensions). As Zone 4 comprises 18 plots and the refurbished Dairy building, the total post-development attenuated runoff equates to 9.5l/s. It is anticipated that runoff from shared access roads will infiltrate into the substrata via road-side filter trenches. However, to ensure adequate drainage is provided during adverse weather conditions, as noted above, a slotted collector pipe in the base of the filter trench will convey runoff to an outfall into the River Tay to ensure the site is adequately drained. The outfall drain into the River Tay will be sized to ensure discharge does not exceed the 1 in 30 year Pre-Development Greenfield Runoff Rate of 65.1l/s. This can be achieved by limiting the outfall pipe into the River Tay to a 225mm diameter at a maximum gradient of 1:70 over it's final length (based on Wallingford's publication "Tables for the Hydraulic Design of Pipes and Sewers".

6.13. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the shared access roads are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
General access roads	Low	0.5	0.4	0.4

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Shared access roads	Road-side filter trench	0.4	0.4	0.4
	Underlying soil with good contaminant attenuation potential of at least 300mm in depth	0.4 x ½	0.3 x ½	0.3 x ½
Comparison		0.6>0.5	0.55>0.4	0.55>0.4
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for shared access roads is considered to be sufficient.

6.14. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the plot driveways are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
General access roads	Low	0.5	0.4	0.4

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Individual plot driveways	Permeable gravel pavement	0.4	0.4	0.4
	Underlying soil with good contaminant attenuation potential of at least 300mm in depth	0.4 x ½	0.3 x ½	0.3 x ½
Comparison		0.6>0.5	0.55>0.4	0.55>0.4
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for individual plot driveways is considered to be sufficient.

6.15. In accordance with CIRIA C753 Table 26.2, the pollution hazard indices for the building roofs are:

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Building roofs	Very low	0.2	0.2	0.05

In accordance with CIRIA C753 Table 26.3 & 26.4, the pollution mitigation indices are:

Element	Type of SUDS Component	Total Suspended Solids (TSS)	Metals	Hydro-carbons
Residential roofs including Dairy building	Stone filled treatment chamber	0.4	0.4	0.4
Comparison		0.4>0.2	0.4>0.2	0.4>0.05
Summary of Mitigation Provided		Exceeds	Exceeds	Exceeds

The above demonstrates that the proposed mitigation for roof water is considered to be sufficient.

7. Drainage Maintenance Responsibilities

7.1. The following table sets out drainage maintenance responsibilities:

Element	Maintenance Responsibility	Approval Mechanism
Foul Water		
In curtilage foul drainage infrastructure	Estate	Building Warrant
Foul water drains, inspection chambers, manholes and outlet structures	Estate	Building Warrant
Foul Water Packaged Pump Station and Rising Main	Estate	Building Warrant, SEPA
Outfall to the River Tay	Estate	Building Warrant, SEPA, NatureScot
Surface water		
In curtilage surface water drainage infrastructure including attenuation system and permeable driveways	Estate	Building Warrant
Road-side filter trenches and associated drainage infrastructure	Estate	Building Warrant

8. Construction Phase SuDS

8.1 The site lies in close proximity to the River Tay, which is designated as a Special Area of Conservation (SAC). Special measures will be required to prevent mobilisation of silts during construction together with other pollution risks.

8.2 The site also lies in close proximity to Scottish Waters abstraction boreholes for potable water. In consultation with Scottish Water site specific measures will be required to ensure no risk of pollution arising from the construction works.

8.3 The Contractor will be required to develop a construction phase Method Statement to deal with surface water to suit their programme of works. If suitable pre-treatment is provided, it may be acceptable to use a section of the finished SuDS scheme for temporary drainage during Construction works.

8.4 The Contractor will also be required to assess and mitigate risks associated with traffic movements, the storage of materials and fuels etc to protect the water environment.

9. Health and Safety Risk Assessments

9.1 Other than the potential pollution risks during construction noted in Section 8, there are not considered to be any Health and Safety Risks associated with the drainage infrastructure which a competent Contractor would not be aware of.

9.2 The Contractor will be requested to provide Method Statements which address the risks associated with the construction, ongoing maintenance requirements and potential decommissioning of the SuDS elements.

10. Conclusions

10.1 Millard Consulting have carried out an assessment of foul and surface water drainage principles serving the proposed residential development.

10.2 SEPA and NatureScot have been consulted on foul drainage proposals, with an application for a CAR Licence to be applied for. No formal consultation has taken place on surface water drainage as the proposed SuDS will be covered under General Binding Rule 10 of The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended).

10.3 This report demonstrates appropriate treatment, and disposal of foul and surface water runoff generated by the development can be provided.

10.4 Maintenance responsibilities and final approval mechanisms are identified to ensure the effective ongoing operation of the drainage infrastructure.

10.5 The drainage infrastructure is proposed to be monitored and maintained by Taymouth Castle Estate.

10.6 Submission of detailed design in support of the Building Warrant application will ensure the infrastructure is designed, constructed and maintained to appropriate standards.

APPENDICES

APPENDIX B

Surface Water Calculations

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 294 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.324	0.324	0.0	0.3	0.3	6.5	O K
30 min Summer	0.471	0.471	0.0	0.4	0.4	9.4	O K
60 min Summer	0.638	0.638	0.0	0.5	0.5	12.7	O K
120 min Summer	0.676	0.676	0.0	0.5	0.5	13.5	O K
180 min Summer	0.681	0.681	0.0	0.5	0.5	13.6	O K
240 min Summer	0.678	0.678	0.0	0.5	0.5	13.5	O K
360 min Summer	0.677	0.677	0.0	0.5	0.5	13.5	O K
480 min Summer	0.675	0.675	0.0	0.5	0.5	13.5	O K
600 min Summer	0.671	0.671	0.0	0.5	0.5	13.4	O K
720 min Summer	0.666	0.666	0.0	0.5	0.5	13.3	O K
960 min Summer	0.656	0.656	0.0	0.5	0.5	13.1	O K
1440 min Summer	0.624	0.624	0.0	0.5	0.5	12.5	O K
2160 min Summer	0.581	0.581	0.0	0.5	0.5	11.6	O K
2880 min Summer	0.534	0.534	0.0	0.4	0.4	10.7	O K
4320 min Summer	0.440	0.440	0.0	0.4	0.4	8.8	O K
5760 min Summer	0.368	0.368	0.0	0.4	0.4	7.3	O K
7200 min Summer	0.314	0.314	0.0	0.3	0.3	6.3	O K
8640 min Summer	0.273	0.273	0.0	0.3	0.3	5.4	O K
10080 min Summer	0.240	0.240	0.0	0.3	0.3	4.8	O K
15 min Winter	0.364	0.364	0.0	0.4	0.4	7.3	O K
30 min Winter	0.530	0.530	0.0	0.4	0.4	10.6	O K
60 min Winter	0.719	0.719	0.0	0.5	0.5	14.3	O K
120 min Winter	0.766	0.766	0.0	0.5	0.5	15.3	O K
180 min Winter	0.777	0.777	0.0	0.5	0.5	15.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	6.7	18
30 min Summer	105.600	0.0	9.9	33
60 min Summer	73.829	0.0	13.8	62
120 min Summer	42.000	0.0	15.7	122
180 min Summer	30.263	0.0	17.0	180
240 min Summer	24.063	0.0	18.0	208
360 min Summer	17.584	0.0	19.8	270
480 min Summer	14.172	0.0	21.2	338
600 min Summer	12.040	0.0	22.6	406
720 min Summer	10.572	0.0	23.8	476
960 min Summer	8.671	0.0	26.0	616
1440 min Summer	6.581	0.0	29.6	882
2160 min Summer	5.060	0.0	34.1	1280
2880 min Summer	4.186	0.0	37.7	1672
4320 min Summer	3.133	0.0	42.3	2420
5760 min Summer	2.543	0.0	45.8	3168
7200 min Summer	2.169	0.0	48.8	3888
8640 min Summer	1.906	0.0	51.5	4584
10080 min Summer	1.711	0.0	53.9	5336
15 min Winter	142.665	0.0	7.5	18
30 min Winter	105.600	0.0	11.0	33
60 min Winter	73.829	0.0	15.5	62
120 min Winter	42.000	0.0	17.6	118
180 min Winter	30.263	0.0	19.0	174

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.776	0.776	0.0	0.5	0.5	15.5	O K
360 min Winter	0.768	0.768	0.0	0.5	0.5	15.3	O K
480 min Winter	0.762	0.762	0.0	0.5	0.5	15.2	O K
600 min Winter	0.753	0.753	0.0	0.5	0.5	15.0	O K
720 min Winter	0.741	0.741	0.0	0.5	0.5	14.8	O K
960 min Winter	0.717	0.717	0.0	0.5	0.5	14.3	O K
1440 min Winter	0.660	0.660	0.0	0.5	0.5	13.2	O K
2160 min Winter	0.583	0.583	0.0	0.5	0.5	11.6	O K
2880 min Winter	0.512	0.512	0.0	0.4	0.4	10.2	O K
4320 min Winter	0.386	0.386	0.0	0.4	0.4	7.7	O K
5760 min Winter	0.299	0.299	0.0	0.3	0.3	6.0	O K
7200 min Winter	0.240	0.240	0.0	0.3	0.3	4.8	O K
8640 min Winter	0.198	0.198	0.0	0.3	0.3	4.0	O K
10080 min Winter	0.167	0.167	0.0	0.2	0.2	3.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	20.2	228
360 min Winter	17.584	0.0	22.1	284
480 min Winter	14.172	0.0	23.8	362
600 min Winter	12.040	0.0	25.3	438
720 min Winter	10.572	0.0	26.6	514
960 min Winter	8.671	0.0	29.1	664
1440 min Winter	6.581	0.0	33.1	952
2160 min Winter	5.060	0.0	38.2	1360
2880 min Winter	4.186	0.0	42.2	1756
4320 min Winter	3.133	0.0	47.3	2508
5760 min Winter	2.543	0.0	51.3	3232
7200 min Winter	2.169	0.0	54.6	3960
8640 min Winter	1.906	0.0	57.6	4664
10080 min Winter	1.711	0.0	60.3	5352

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.025

Time (mins) From:	To:	Area (ha)
0	4	0.025

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	21.0	21.0	0.800	21.0	36.2	0.801	0.0	36.2

Orifice Outflow Control

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 310 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.315	0.315	0.0	0.3	0.3	6.7	O K
30 min Summer	0.459	0.459	0.0	0.4	0.4	9.8	O K
60 min Summer	0.622	0.622	0.0	0.5	0.5	13.3	O K
120 min Summer	0.661	0.661	0.0	0.5	0.5	14.1	O K
180 min Summer	0.669	0.669	0.0	0.5	0.5	14.3	O K
240 min Summer	0.667	0.667	0.0	0.5	0.5	14.3	O K
360 min Summer	0.667	0.667	0.0	0.5	0.5	14.3	O K
480 min Summer	0.666	0.666	0.0	0.5	0.5	14.2	O K
600 min Summer	0.664	0.664	0.0	0.5	0.5	14.2	O K
720 min Summer	0.661	0.661	0.0	0.5	0.5	14.1	O K
960 min Summer	0.653	0.653	0.0	0.5	0.5	14.0	O K
1440 min Summer	0.625	0.625	0.0	0.5	0.5	13.4	O K
2160 min Summer	0.585	0.585	0.0	0.5	0.5	12.5	O K
2880 min Summer	0.542	0.542	0.0	0.4	0.4	11.6	O K
4320 min Summer	0.450	0.450	0.0	0.4	0.4	9.6	O K
5760 min Summer	0.379	0.379	0.0	0.4	0.4	8.1	O K
7200 min Summer	0.326	0.326	0.0	0.3	0.3	7.0	O K
8640 min Summer	0.284	0.284	0.0	0.3	0.3	6.1	O K
10080 min Summer	0.251	0.251	0.0	0.3	0.3	5.4	O K
15 min Winter	0.354	0.354	0.0	0.4	0.4	7.6	O K
30 min Winter	0.516	0.516	0.0	0.4	0.4	11.0	O K
60 min Winter	0.701	0.701	0.0	0.5	0.5	15.0	O K
120 min Winter	0.749	0.749	0.0	0.5	0.5	16.0	O K
180 min Winter	0.763	0.763	0.0	0.5	0.5	16.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	6.9	18
30 min Summer	105.600	0.0	10.2	33
60 min Summer	73.829	0.0	14.4	62
120 min Summer	42.000	0.0	16.4	122
180 min Summer	30.263	0.0	17.7	180
240 min Summer	24.063	0.0	18.7	216
360 min Summer	17.584	0.0	20.6	276
480 min Summer	14.172	0.0	22.1	340
600 min Summer	12.040	0.0	23.5	410
720 min Summer	10.572	0.0	24.7	478
960 min Summer	8.671	0.0	27.0	616
1440 min Summer	6.581	0.0	30.8	894
2160 min Summer	5.060	0.0	35.5	1296
2880 min Summer	4.186	0.0	39.2	1672
4320 min Summer	3.133	0.0	44.0	2424
5760 min Summer	2.543	0.0	47.6	3168
7200 min Summer	2.169	0.0	50.7	3888
8640 min Summer	1.906	0.0	53.5	4584
10080 min Summer	1.711	0.0	56.0	5344
15 min Winter	142.665	0.0	7.7	18
30 min Winter	105.600	0.0	11.5	33
60 min Winter	73.829	0.0	16.1	62
120 min Winter	42.000	0.0	18.3	118
180 min Winter	30.263	0.0	19.8	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.764	0.764	0.0	0.5	0.5	16.3	O K
360 min Winter	0.757	0.757	0.0	0.5	0.5	16.2	O K
480 min Winter	0.754	0.754	0.0	0.5	0.5	16.1	O K
600 min Winter	0.746	0.746	0.0	0.5	0.5	16.0	O K
720 min Winter	0.737	0.737	0.0	0.5	0.5	15.8	O K
960 min Winter	0.717	0.717	0.0	0.5	0.5	15.3	O K
1440 min Winter	0.665	0.665	0.0	0.5	0.5	14.2	O K
2160 min Winter	0.593	0.593	0.0	0.5	0.5	12.7	O K
2880 min Winter	0.525	0.525	0.0	0.4	0.4	11.2	O K
4320 min Winter	0.401	0.401	0.0	0.4	0.4	8.6	O K
5760 min Winter	0.314	0.314	0.0	0.3	0.3	6.7	O K
7200 min Winter	0.253	0.253	0.0	0.3	0.3	5.4	O K
8640 min Winter	0.210	0.210	0.0	0.3	0.3	4.5	O K
10080 min Winter	0.177	0.177	0.0	0.2	0.2	3.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	21.0	228
360 min Winter	17.584	0.0	23.0	288
480 min Winter	14.172	0.0	24.7	364
600 min Winter	12.040	0.0	26.3	442
720 min Winter	10.572	0.0	27.7	518
960 min Winter	8.671	0.0	30.3	666
1440 min Winter	6.581	0.0	34.5	954
2160 min Winter	5.060	0.0	39.8	1364
2880 min Winter	4.186	0.0	43.9	1760
4320 min Winter	3.133	0.0	49.2	2512
5760 min Winter	2.543	0.0	53.3	3240
7200 min Winter	2.169	0.0	56.8	3968
8640 min Winter	1.906	0.0	59.9	4672
10080 min Winter	1.711	0.0	62.8	5440

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.026

Time (mins) From:	To:	Area (ha)
0	4	0.026

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	22.5	22.5	0.800	22.5	37.7	0.801	0.0	37.7

Orifice Outflow Control

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 414 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.295	0.295	0.0	0.3	0.3	7.6	O K
30 min Summer	0.431	0.431	0.0	0.3	0.3	11.1	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	15.1	O K
120 min Summer	0.637	0.637	0.0	0.4	0.4	16.3	O K
180 min Summer	0.654	0.654	0.0	0.4	0.4	16.8	O K
240 min Summer	0.661	0.661	0.0	0.4	0.4	16.9	O K
360 min Summer	0.664	0.664	0.0	0.4	0.4	17.0	O K
480 min Summer	0.669	0.669	0.0	0.4	0.4	17.2	O K
600 min Summer	0.672	0.672	0.0	0.4	0.4	17.2	O K
720 min Summer	0.675	0.675	0.0	0.4	0.4	17.3	O K
960 min Summer	0.677	0.677	0.0	0.4	0.4	17.4	O K
1440 min Summer	0.667	0.667	0.0	0.4	0.4	17.1	O K
2160 min Summer	0.644	0.644	0.0	0.4	0.4	16.5	O K
2880 min Summer	0.611	0.611	0.0	0.4	0.4	15.7	O K
4320 min Summer	0.529	0.529	0.0	0.4	0.4	13.6	O K
5760 min Summer	0.460	0.460	0.0	0.4	0.4	11.8	O K
7200 min Summer	0.407	0.407	0.0	0.3	0.3	10.4	O K
8640 min Summer	0.362	0.362	0.0	0.3	0.3	9.3	O K
10080 min Summer	0.326	0.326	0.0	0.3	0.3	8.4	O K
15 min Winter	0.331	0.331	0.0	0.3	0.3	8.5	O K
30 min Winter	0.484	0.484	0.0	0.4	0.4	12.4	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	17.0	O K
120 min Winter	0.719	0.719	0.0	0.5	0.5	18.4	O K
180 min Winter	0.742	0.742	0.0	0.5	0.5	19.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.7	19
30 min Summer	105.600	0.0	11.4	33
60 min Summer	73.829	0.0	16.0	62
120 min Summer	42.000	0.0	18.2	122
180 min Summer	30.263	0.0	19.7	182
240 min Summer	24.063	0.0	20.9	240
360 min Summer	17.584	0.0	22.9	308
480 min Summer	14.172	0.0	24.6	370
600 min Summer	12.040	0.0	26.1	434
720 min Summer	10.572	0.0	27.5	502
960 min Summer	8.671	0.0	30.1	642
1440 min Summer	6.581	0.0	34.3	922
2160 min Summer	5.060	0.0	39.6	1320
2880 min Summer	4.186	0.0	43.7	1728
4320 min Summer	3.133	0.0	49.0	2504
5760 min Summer	2.543	0.0	53.1	3232
7200 min Summer	2.169	0.0	56.6	3968
8640 min Summer	1.906	0.0	59.7	4680
10080 min Summer	1.711	0.0	62.5	5448
15 min Winter	142.665	0.0	8.6	18
30 min Winter	105.600	0.0	12.8	33
60 min Winter	73.829	0.0	18.0	62
120 min Winter	42.000	0.0	20.4	120
180 min Winter	30.263	0.0	22.1	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.753	0.753	0.0	0.5	0.5	19.3	O K
360 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
480 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
600 min Winter	0.762	0.762	0.0	0.5	0.5	19.5	O K
720 min Winter	0.761	0.761	0.0	0.5	0.5	19.5	O K
960 min Winter	0.757	0.757	0.0	0.5	0.5	19.4	O K
1440 min Winter	0.728	0.728	0.0	0.5	0.5	18.7	O K
2160 min Winter	0.679	0.679	0.0	0.4	0.4	17.4	O K
2880 min Winter	0.622	0.622	0.0	0.4	0.4	16.0	O K
4320 min Winter	0.503	0.503	0.0	0.4	0.4	12.9	O K
5760 min Winter	0.412	0.412	0.0	0.3	0.3	10.6	O K
7200 min Winter	0.344	0.344	0.0	0.3	0.3	8.8	O K
8640 min Winter	0.292	0.292	0.0	0.3	0.3	7.5	O K
10080 min Winter	0.252	0.252	0.0	0.3	0.3	6.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	23.4	232
360 min Winter	17.584	0.0	25.7	338
480 min Winter	14.172	0.0	27.6	386
600 min Winter	12.040	0.0	29.3	460
720 min Winter	10.572	0.0	30.9	540
960 min Winter	8.671	0.0	33.7	692
1440 min Winter	6.581	0.0	38.4	994
2160 min Winter	5.060	0.0	44.4	1424
2880 min Winter	4.186	0.0	48.9	1840
4320 min Winter	3.133	0.0	54.9	2632
5760 min Winter	2.543	0.0	59.5	3392
7200 min Winter	2.169	0.0	63.4	4112
8640 min Winter	1.906	0.0	66.9	4840
10080 min Winter	1.711	0.0	70.0	5552

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.029

Time (mins) From:	To:	Area (ha)
0	4	0.029

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.8	0.801	0.0	43.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 466 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.294	0.294	0.0	0.3	0.3	8.4	O K
30 min Summer	0.430	0.430	0.0	0.3	0.3	12.2	O K
60 min Summer	0.588	0.588	0.0	0.4	0.4	16.8	O K
120 min Summer	0.639	0.639	0.0	0.4	0.4	18.2	O K
180 min Summer	0.660	0.660	0.0	0.4	0.4	18.8	O K
240 min Summer	0.670	0.670	0.0	0.4	0.4	19.1	O K
360 min Summer	0.676	0.676	0.0	0.4	0.4	19.3	O K
480 min Summer	0.682	0.682	0.0	0.4	0.4	19.4	O K
600 min Summer	0.688	0.688	0.0	0.4	0.4	19.6	O K
720 min Summer	0.692	0.692	0.0	0.4	0.4	19.7	O K
960 min Summer	0.698	0.698	0.0	0.4	0.4	19.9	O K
1440 min Summer	0.694	0.694	0.0	0.4	0.4	19.8	O K
2160 min Summer	0.678	0.678	0.0	0.4	0.4	19.3	O K
2880 min Summer	0.649	0.649	0.0	0.4	0.4	18.5	O K
4320 min Summer	0.570	0.570	0.0	0.4	0.4	16.2	O K
5760 min Summer	0.502	0.502	0.0	0.4	0.4	14.3	O K
7200 min Summer	0.447	0.447	0.0	0.4	0.4	12.7	O K
8640 min Summer	0.402	0.402	0.0	0.3	0.3	11.5	O K
10080 min Summer	0.364	0.364	0.0	0.3	0.3	10.4	O K
15 min Winter	0.329	0.329	0.0	0.3	0.3	9.4	O K
30 min Winter	0.483	0.483	0.0	0.4	0.4	13.8	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	18.9	O K
120 min Winter	0.721	0.721	0.0	0.5	0.5	20.6	O K
180 min Winter	0.748	0.748	0.0	0.5	0.5	21.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	8.5	19
30 min Summer	105.600	0.0	12.5	33
60 min Summer	73.829	0.0	17.7	62
120 min Summer	42.000	0.0	20.1	122
180 min Summer	30.263	0.0	21.7	182
240 min Summer	24.063	0.0	23.1	240
360 min Summer	17.584	0.0	25.3	324
480 min Summer	14.172	0.0	27.2	382
600 min Summer	12.040	0.0	28.8	446
720 min Summer	10.572	0.0	30.4	512
960 min Summer	8.671	0.0	33.2	654
1440 min Summer	6.581	0.0	37.8	926
2160 min Summer	5.060	0.0	43.7	1340
2880 min Summer	4.186	0.0	48.2	1732
4320 min Summer	3.133	0.0	54.1	2512
5760 min Summer	2.543	0.0	58.6	3288
7200 min Summer	2.169	0.0	62.5	4032
8640 min Summer	1.906	0.0	65.9	4752
10080 min Summer	1.711	0.0	68.9	5448
15 min Winter	142.665	0.0	9.5	19
30 min Winter	105.600	0.0	14.0	33
60 min Winter	73.829	0.0	19.8	62
120 min Winter	42.000	0.0	22.5	120
180 min Winter	30.263	0.0	24.4	178

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.762	0.762	0.0	0.5	0.5	21.7	O K
360 min Winter	0.774	0.774	0.0	0.5	0.5	22.1	O K
480 min Winter	0.776	0.776	0.0	0.5	0.5	22.1	O K
600 min Winter	0.780	0.780	0.0	0.5	0.5	22.2	O K
720 min Winter	0.783	0.783	0.0	0.5	0.5	22.3	O K
960 min Winter	0.784	0.784	0.0	0.5	0.5	22.3	O K
1440 min Winter	0.764	0.764	0.0	0.5	0.5	21.8	O K
2160 min Winter	0.723	0.723	0.0	0.5	0.5	20.6	O K
2880 min Winter	0.671	0.671	0.0	0.4	0.4	19.1	O K
4320 min Winter	0.554	0.554	0.0	0.4	0.4	15.8	O K
5760 min Winter	0.461	0.461	0.0	0.4	0.4	13.1	O K
7200 min Winter	0.390	0.390	0.0	0.3	0.3	11.1	O K
8640 min Winter	0.335	0.335	0.0	0.3	0.3	9.5	O K
10080 min Winter	0.291	0.291	0.0	0.3	0.3	8.3	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	25.8	234
360 min Winter	17.584	0.0	28.3	342
480 min Winter	14.172	0.0	30.4	432
600 min Winter	12.040	0.0	32.3	470
720 min Winter	10.572	0.0	34.0	548
960 min Winter	8.671	0.0	37.2	702
1440 min Winter	6.581	0.0	42.3	1008
2160 min Winter	5.060	0.0	48.9	1444
2880 min Winter	4.186	0.0	54.0	1848
4320 min Winter	3.133	0.0	60.6	2640
5760 min Winter	2.543	0.0	65.6	3408
7200 min Winter	2.169	0.0	69.9	4176
8640 min Winter	1.906	0.0	73.8	4920
10080 min Winter	1.711	0.0	77.2	5648

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.032

Time (mins) From:	To:	Area (ha)
0	4	0.032

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	30.0	0.800	30.0	47.6	0.801	0.0	47.6

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 652 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.264	0.264	0.0	0.3	0.3	10.5	O K
30 min Summer	0.387	0.387	0.0	0.3	0.3	15.4	O K
60 min Summer	0.532	0.532	0.0	0.4	0.4	21.2	O K
120 min Summer	0.585	0.585	0.0	0.4	0.4	23.3	O K
180 min Summer	0.611	0.611	0.0	0.4	0.4	24.4	O K
240 min Summer	0.627	0.627	0.0	0.4	0.4	25.0	O K
360 min Summer	0.645	0.645	0.0	0.4	0.4	25.7	O K
480 min Summer	0.654	0.654	0.0	0.4	0.4	26.1	O K
600 min Summer	0.662	0.662	0.0	0.4	0.4	26.4	O K
720 min Summer	0.669	0.669	0.0	0.4	0.4	26.7	O K
960 min Summer	0.683	0.683	0.0	0.4	0.4	27.3	O K
1440 min Summer	0.694	0.694	0.0	0.4	0.4	27.7	O K
2160 min Summer	0.697	0.697	0.0	0.4	0.4	27.8	O K
2880 min Summer	0.682	0.682	0.0	0.4	0.4	27.2	O K
4320 min Summer	0.622	0.622	0.0	0.4	0.4	24.8	O K
5760 min Summer	0.564	0.564	0.0	0.4	0.4	22.5	O K
7200 min Summer	0.516	0.516	0.0	0.4	0.4	20.6	O K
8640 min Summer	0.474	0.474	0.0	0.4	0.4	18.9	O K
10080 min Summer	0.438	0.438	0.0	0.4	0.4	17.5	O K
15 min Winter	0.296	0.296	0.0	0.3	0.3	11.8	O K
30 min Winter	0.434	0.434	0.0	0.3	0.3	17.3	O K
60 min Winter	0.598	0.598	0.0	0.4	0.4	23.9	O K
120 min Winter	0.659	0.659	0.0	0.4	0.4	26.3	O K
180 min Winter	0.690	0.690	0.0	0.4	0.4	27.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	10.5	19
30 min Summer	105.600	0.0	15.4	34
60 min Summer	73.829	0.0	22.1	64
120 min Summer	42.000	0.0	25.1	122
180 min Summer	30.263	0.0	27.1	182
240 min Summer	24.063	0.0	28.7	242
360 min Summer	17.584	0.0	31.5	360
480 min Summer	14.172	0.0	33.8	440
600 min Summer	12.040	0.0	35.9	496
720 min Summer	10.572	0.0	37.8	558
960 min Summer	8.671	0.0	41.2	690
1440 min Summer	6.581	0.0	45.9	966
2160 min Summer	5.060	0.0	54.6	1384
2880 min Summer	4.186	0.0	60.2	1788
4320 min Summer	3.133	0.0	67.5	2596
5760 min Summer	2.543	0.0	73.2	3352
7200 min Summer	2.169	0.0	78.1	4112
8640 min Summer	1.906	0.0	82.3	4848
10080 min Summer	1.711	0.0	86.1	5640
15 min Winter	142.665	0.0	11.7	19
30 min Winter	105.600	0.0	17.1	33
60 min Winter	73.829	0.0	24.7	62
120 min Winter	42.000	0.0	28.1	120
180 min Winter	30.263	0.0	30.4	178

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.710	0.710	0.0	0.4	0.4	28.3	O K
360 min Winter	0.735	0.735	0.0	0.5	0.5	29.3	O K
480 min Winter	0.748	0.748	0.0	0.5	0.5	29.9	O K
600 min Winter	0.755	0.755	0.0	0.5	0.5	30.1	O K
720 min Winter	0.760	0.760	0.0	0.5	0.5	30.3	O K
960 min Winter	0.774	0.774	0.0	0.5	0.5	30.9	O K
1440 min Winter	0.777	0.777	0.0	0.5	0.5	31.0	O K
2160 min Winter	0.764	0.764	0.0	0.5	0.5	30.5	O K
2880 min Winter	0.732	0.732	0.0	0.5	0.5	29.2	O K
4320 min Winter	0.637	0.637	0.0	0.4	0.4	25.4	O K
5760 min Winter	0.553	0.553	0.0	0.4	0.4	22.1	O K
7200 min Winter	0.485	0.485	0.0	0.4	0.4	19.3	O K
8640 min Winter	0.428	0.428	0.0	0.3	0.3	17.1	O K
10080 min Winter	0.381	0.381	0.0	0.3	0.3	15.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	32.2	236
360 min Winter	17.584	0.0	35.3	348
480 min Winter	14.172	0.0	37.9	458
600 min Winter	12.040	0.0	40.2	558
720 min Winter	10.572	0.0	42.3	584
960 min Winter	8.671	0.0	46.0	732
1440 min Winter	6.581	0.0	50.6	1040
2160 min Winter	5.060	0.0	61.1	1492
2880 min Winter	4.186	0.0	67.4	1932
4320 min Winter	3.133	0.0	75.6	2764
5760 min Winter	2.543	0.0	82.0	3568
7200 min Winter	2.169	0.0	87.4	4328
8640 min Winter	1.906	0.0	92.2	5096
10080 min Winter	1.711	0.0	96.5	5848

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.040

Time (mins) From:	To:	Area (ha)
0	4	0.040

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	42.0	42.0	0.800	42.0	62.8	0.801	0.0	62.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 385 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.296	0.296	0.0	0.3	0.3	7.0	O K
30 min Summer	0.432	0.432	0.0	0.3	0.3	10.3	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	14.0	O K
120 min Summer	0.634	0.634	0.0	0.4	0.4	15.1	O K
180 min Summer	0.650	0.650	0.0	0.4	0.4	15.4	O K
240 min Summer	0.653	0.653	0.0	0.4	0.4	15.5	O K
360 min Summer	0.656	0.656	0.0	0.4	0.4	15.6	O K
480 min Summer	0.659	0.659	0.0	0.4	0.4	15.6	O K
600 min Summer	0.661	0.661	0.0	0.4	0.4	15.7	O K
720 min Summer	0.662	0.662	0.0	0.4	0.4	15.7	O K
960 min Summer	0.662	0.662	0.0	0.4	0.4	15.7	O K
1440 min Summer	0.647	0.647	0.0	0.4	0.4	15.4	O K
2160 min Summer	0.620	0.620	0.0	0.4	0.4	14.7	O K
2880 min Summer	0.584	0.584	0.0	0.4	0.4	13.9	O K
4320 min Summer	0.500	0.500	0.0	0.4	0.4	11.9	O K
5760 min Summer	0.431	0.431	0.0	0.3	0.3	10.2	O K
7200 min Summer	0.378	0.378	0.0	0.3	0.3	9.0	O K
8640 min Summer	0.335	0.335	0.0	0.3	0.3	8.0	O K
10080 min Summer	0.299	0.299	0.0	0.3	0.3	7.1	O K
15 min Winter	0.332	0.332	0.0	0.3	0.3	7.9	O K
30 min Winter	0.486	0.486	0.0	0.4	0.4	11.5	O K
60 min Winter	0.663	0.663	0.0	0.4	0.4	15.8	O K
120 min Winter	0.717	0.717	0.0	0.5	0.5	17.0	O K
180 min Winter	0.738	0.738	0.0	0.5	0.5	17.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.2	19
30 min Summer	105.600	0.0	10.6	33
60 min Summer	73.829	0.0	14.9	62
120 min Summer	42.000	0.0	17.0	122
180 min Summer	30.263	0.0	18.4	180
240 min Summer	24.063	0.0	19.5	240
360 min Summer	17.584	0.0	21.3	298
480 min Summer	14.172	0.0	22.9	360
600 min Summer	12.040	0.0	24.3	426
720 min Summer	10.572	0.0	25.7	494
960 min Summer	8.671	0.0	28.1	634
1440 min Summer	6.581	0.0	31.9	910
2160 min Summer	5.060	0.0	36.9	1320
2880 min Summer	4.186	0.0	40.7	1704
4320 min Summer	3.133	0.0	45.6	2468
5760 min Summer	2.543	0.0	49.4	3224
7200 min Summer	2.169	0.0	52.7	3960
8640 min Summer	1.906	0.0	55.6	4672
10080 min Summer	1.711	0.0	58.2	5440
15 min Winter	142.665	0.0	8.0	18
30 min Winter	105.600	0.0	11.9	33
60 min Winter	73.829	0.0	16.7	62
120 min Winter	42.000	0.0	19.0	120
180 min Winter	30.263	0.0	20.6	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.746	0.746	0.0	0.5	0.5	17.7	O K
360 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
480 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
600 min Winter	0.748	0.748	0.0	0.5	0.5	17.8	O K
720 min Winter	0.745	0.745	0.0	0.5	0.5	17.7	O K
960 min Winter	0.737	0.737	0.0	0.5	0.5	17.5	O K
1440 min Winter	0.702	0.702	0.0	0.4	0.4	16.7	O K
2160 min Winter	0.647	0.647	0.0	0.4	0.4	15.4	O K
2880 min Winter	0.587	0.587	0.0	0.4	0.4	13.9	O K
4320 min Winter	0.468	0.468	0.0	0.4	0.4	11.1	O K
5760 min Winter	0.378	0.378	0.0	0.3	0.3	9.0	O K
7200 min Winter	0.313	0.313	0.0	0.3	0.3	7.4	O K
8640 min Winter	0.264	0.264	0.0	0.3	0.3	6.3	O K
10080 min Winter	0.226	0.226	0.0	0.2	0.2	5.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	21.8	232
360 min Winter	17.584	0.0	23.9	334
480 min Winter	14.172	0.0	25.7	378
600 min Winter	12.040	0.0	27.3	454
720 min Winter	10.572	0.0	28.7	534
960 min Winter	8.671	0.0	31.4	684
1440 min Winter	6.581	0.0	35.7	982
2160 min Winter	5.060	0.0	41.3	1404
2880 min Winter	4.186	0.0	45.6	1816
4320 min Winter	3.133	0.0	51.1	2592
5760 min Winter	2.543	0.0	55.4	3344
7200 min Winter	2.169	0.0	59.0	4040
8640 min Winter	1.906	0.0	62.2	4760
10080 min Winter	1.711	0.0	65.2	5544

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.027

Time (mins) From:	To:	Area (ha)
0	4	0.027

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	25.0	25.0	0.800	25.0	41.0	0.801	0.0	41.0

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Half Drain Time : 414 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	0.295	0.295	0.0	0.3	0.3	7.6	O K
30 min Summer	0.431	0.431	0.0	0.3	0.3	11.1	O K
60 min Summer	0.589	0.589	0.0	0.4	0.4	15.1	O K
120 min Summer	0.637	0.637	0.0	0.4	0.4	16.3	O K
180 min Summer	0.654	0.654	0.0	0.4	0.4	16.8	O K
240 min Summer	0.661	0.661	0.0	0.4	0.4	16.9	O K
360 min Summer	0.664	0.664	0.0	0.4	0.4	17.0	O K
480 min Summer	0.669	0.669	0.0	0.4	0.4	17.2	O K
600 min Summer	0.672	0.672	0.0	0.4	0.4	17.2	O K
720 min Summer	0.675	0.675	0.0	0.4	0.4	17.3	O K
960 min Summer	0.677	0.677	0.0	0.4	0.4	17.4	O K
1440 min Summer	0.667	0.667	0.0	0.4	0.4	17.1	O K
2160 min Summer	0.644	0.644	0.0	0.4	0.4	16.5	O K
2880 min Summer	0.611	0.611	0.0	0.4	0.4	15.7	O K
4320 min Summer	0.529	0.529	0.0	0.4	0.4	13.6	O K
5760 min Summer	0.460	0.460	0.0	0.4	0.4	11.8	O K
7200 min Summer	0.407	0.407	0.0	0.3	0.3	10.4	O K
8640 min Summer	0.362	0.362	0.0	0.3	0.3	9.3	O K
10080 min Summer	0.326	0.326	0.0	0.3	0.3	8.4	O K
15 min Winter	0.331	0.331	0.0	0.3	0.3	8.5	O K
30 min Winter	0.484	0.484	0.0	0.4	0.4	12.4	O K
60 min Winter	0.662	0.662	0.0	0.4	0.4	17.0	O K
120 min Winter	0.719	0.719	0.0	0.5	0.5	18.4	O K
180 min Winter	0.742	0.742	0.0	0.5	0.5	19.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	142.665	0.0	7.7	19
30 min Summer	105.600	0.0	11.4	33
60 min Summer	73.829	0.0	16.0	62
120 min Summer	42.000	0.0	18.2	122
180 min Summer	30.263	0.0	19.7	182
240 min Summer	24.063	0.0	20.9	240
360 min Summer	17.584	0.0	22.9	308
480 min Summer	14.172	0.0	24.6	370
600 min Summer	12.040	0.0	26.1	434
720 min Summer	10.572	0.0	27.5	502
960 min Summer	8.671	0.0	30.1	642
1440 min Summer	6.581	0.0	34.3	922
2160 min Summer	5.060	0.0	39.6	1320
2880 min Summer	4.186	0.0	43.7	1728
4320 min Summer	3.133	0.0	49.0	2504
5760 min Summer	2.543	0.0	53.1	3232
7200 min Summer	2.169	0.0	56.6	3968
8640 min Summer	1.906	0.0	59.7	4680
10080 min Summer	1.711	0.0	62.5	5448
15 min Winter	142.665	0.0	8.6	18
30 min Winter	105.600	0.0	12.8	33
60 min Winter	73.829	0.0	18.0	62
120 min Winter	42.000	0.0	20.4	120
180 min Winter	30.263	0.0	22.1	176

©1982-2017 XP Solutions

Summary of Results for 200 year Return Period (+39%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
240 min Winter	0.753	0.753	0.0	0.5	0.5	19.3	O K
360 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
480 min Winter	0.759	0.759	0.0	0.5	0.5	19.5	O K
600 min Winter	0.762	0.762	0.0	0.5	0.5	19.5	O K
720 min Winter	0.761	0.761	0.0	0.5	0.5	19.5	O K
960 min Winter	0.757	0.757	0.0	0.5	0.5	19.4	O K
1440 min Winter	0.728	0.728	0.0	0.5	0.5	18.7	O K
2160 min Winter	0.679	0.679	0.0	0.4	0.4	17.4	O K
2880 min Winter	0.622	0.622	0.0	0.4	0.4	16.0	O K
4320 min Winter	0.503	0.503	0.0	0.4	0.4	12.9	O K
5760 min Winter	0.412	0.412	0.0	0.3	0.3	10.6	O K
7200 min Winter	0.344	0.344	0.0	0.3	0.3	8.8	O K
8640 min Winter	0.292	0.292	0.0	0.3	0.3	7.5	O K
10080 min Winter	0.252	0.252	0.0	0.3	0.3	6.5	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
240 min Winter	24.063	0.0	23.4	232
360 min Winter	17.584	0.0	25.7	338
480 min Winter	14.172	0.0	27.6	386
600 min Winter	12.040	0.0	29.3	460
720 min Winter	10.572	0.0	30.9	540
960 min Winter	8.671	0.0	33.7	692
1440 min Winter	6.581	0.0	38.4	994
2160 min Winter	5.060	0.0	44.4	1424
2880 min Winter	4.186	0.0	48.9	1840
4320 min Winter	3.133	0.0	54.9	2632
5760 min Winter	2.543	0.0	59.5	3392
7200 min Winter	2.169	0.0	63.4	4112
8640 min Winter	1.906	0.0	66.9	4840
10080 min Winter	1.711	0.0	70.0	5552

©1982-2017 XP Solutions

Rainfall Details

Rainfall Model	FEH	Winter Storms	Yes
Return Period (years)	200	Cv (Summer)	0.750
FEH Rainfall Version	2013	Cv (Winter)	0.840
Site Location	GB 277891 745893 NN 77891 45893	Shortest Storm (mins)	15
Data Type	Point	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+39

Time Area Diagram

Total Area (ha) 0.029

Time (mins) From:	To:	Area (ha)
0	4	0.029

©1982-2017 XP Solutions

Model Details

Storage is Online Cover Level (m) 1.300

Cellular Storage Structure

Invert Level (m) 0.000 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	27.0	27.0	0.800	27.0	43.8	0.801	0.0	43.8

Orifice Outflow Control

Diameter (m) 0.016 Discharge Coefficient 0.600 Invert Level (m) 0.000

©1982-2017 XP Solutions

DUNDEE
Seabraes, 18 Greenmarket
Dundee, Angus
DD1 4QB

t 01382 227 380

dundee@millardconsulting.co.uk

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response
Drainage

PKC Planning Application References:
23/01228/FLL, 23/01112/FLL, 23/01512/FLL, 23/01113/FLL, 23/01114/FLL

Ref: **18613AO**

Date: 15 October 2024

Subject: Taymouth Castle – Zone 4

This statement addresses comments received from AECOM on behalf of Perth and Kinross Council dated 15 August 2024 and received by Scott Hobbs Planning 22 August 2024. For ease of reference, each relevant section requiring a Millard Consulting response is copied in the table below.

AECOM REF	COMMENT	UPDATE	STATUS	MILLARD CONSULTING RESPONSE 15/10/24
2.2	Given it has been stated that the main discharge will be through infiltration within the trenches, evidence should be provided that the ground conditions are appropriate for infiltration. The BRE Digest 365 should be undertaken to confirm ground conditions are appropriate.	The BRE Digest 365 should be undertaken to confirm ground conditions are appropriate.	Update/Response Required	Due to the existing significant tree cover within Zone 4, it is currently not possible to carry out sitewide infiltration testing. Should Planning Permission be granted, consideration will be given to carrying out testing once the trees identified for removal have been cleared. In the meantime, we confirm no plot-specific infiltration testing has been carried out and the surface water calculations have been updated to provide attenuation for proposed roofs and new road construction. A short section of Road Z4 RD1, Chainage 590 to 650 is proposed to drain to an infiltration trench, following the successful testing for adjacent application reference 24/00618/FLL. A further section of Road Z4, Chainage 1050 to 1280 comprises upgrade of existing roads, currently with no formal drainage. Roadwater currently drains over the edge, effectively treated by roadside filter strip before infiltrating to ground. Drainage for this section of road will be upgraded to provide a roadside infiltration trench, based on the lowest rate tested under Planning Application reference 24/00618/FLL. No infiltration testing is required for this section and the proposals are considered as an upgrade to the existing drainage regime. Refer to Appendix B of updated Drainage Assessment Report 17864/WH/970B. Refer also to Item 2.6 below
2.3	There are existing roads within the site boundary which are to be retained as part of this development. Please provide details on the existing drainage within the proposed development. It has been stated that existing estate access roads do not have any formal drainage system, with surface water generally discharging over the edge into verges or burns. No modifications are being made to the access road however traffic movements may be increased. Therefore, please refer to the SIA approach to confirm there is appropriate treatment and provide commentary on road levels showing access will be maintained in a flood event.	Please provide commentary and details on why current road drainage arrangement is acceptable for the access road	Update/Response Required	PKC have agreed with the strategy of providing an access road within the flood plain for secondary access, with no land-raising. For existing roads being upgraded, as noted above, roadwater currently drains over the edge, effectively treated by a grassed roadside filter strip before infiltrating to ground. Drainage for these sections of road will be upgraded to provide a roadside infiltration trench, based on the lowest rate tested under Planning Application reference 24/00618/FLL. Section 6.2 of Drainage Assessment Report 17864/WH/970B has been updated to confirm this.
2.5	No drainage calculations have been provided. Drainage calculations should be provided showing no surcharging at the 30yr and no flooding at the 100yr event.			

AECOM REF	COMMENT	UPDATE	STATUS	MILLARD CONSULTING RESPONSE 15/10/24
	Drainage calculations have been provided for the 200yr+CC event. On review of the calculations, it shows a number of separate storage calculations for individual plots. On each plot, the calculations show that there will be an orifice (flow control) with a diameter of 16mm. Guidance states that minimum flow control diameter should be 75mm, to limit the likelihood of blockage. Also please provide ustification why flow control has only been considered at plot scale. Best practise is to provide one flow control at downstream extent of network, to allow a larger flow control.	Please amend flow control in line with current guidance and provide justification on why flow controls are provided at plot scale.	Update/Response Required	Scottish Water state minimum 75mm diameter orifice plate on adoptable systems. This is a private system. Perth and Kinross Council do not specify a minimum diameter. CIRIA C753, Section 10.2.2 confirms orifice diameters as small as 15mm can be acceptable if protected from blockage. The proposed upstream stone-filled disconnecter chambers for treatment will act as a suitable filter to reduce risk of blockages. All proposed plot attenuation systems incorporate minimum 16mm diameter orifices. Ultimate discharge from Zone 4 to the water environment is now proposed to be controlled by a hydrobrake and tank sewer at Road Z4 RD1, Chainage 655 approx. Flow controls are provided at plot scale for a number of reasons. Firstly, in line with SuDS philosophy, attenuation is provided at source where possible, rather than collecting the entire hardstanding to one location. This minimises flows and associated surface water pipe diameters through the development. Secondly, as has already been the case on Zone 1 of the wider development, Planning Approvals for 2no amended housetypes have already been granted. If designed as only one attenuation system and one flow control, this would result in every house change requiring an updated design for a site-wide attenuation system. By restricting each plot to a discharge rate, this allows the designer of each house to amend proposed plot attenuation in line with the surface water principles of the development.
2.6	The drainage calculations show that the flow from each plot will be limited to 0.5l/s at the 200yr+CC event. With 18 buildings and the refurbished Dairy Building this equates to a total of 9.5l/s. However, calculations have not been provided for the road areas and infiltration has not been accounted for. Therefore, there is little detail to determine what the likely discharge into the River Tay will be during a flood event. As noted within the drainage strategy, flow from the entire site discharging into the River Tay should be limited to greenfield runoff rate. Therefore, evidence should be provided that either all runoff from roads will be able to infiltrate or provide calculations showing final discharge into the Tay from the entire site. Note that any flow control would need to be located outwith the floodplain.	Please provide additional details on infiltration and discharge into the River Tay.	Update/Response Required	No infiltration is currently allowed for within plots. Plots discharge at 0.5l/s to a roadside filter drain. No infiltration is accounted for in calculations from new roadside filter drains, although this expected to be significant. Infiltration testing is currently not feasible as described in response to Item 2.2 above. Sections of upgraded existing roads, and a short section of new road are proposed to drain to roadside infiltration trenches described in response to Item 2.2 above. Ultimate discharge to the River Tay is controlled by a site-wide flow control device located approximately Road Z4 RD1, Chainage 655. Greenfield run-off for the proposed drainable area has been calculated and it is proposed to restrict flows during M200 plus climate change rainfall events. Attenuation is proposed in a box culvert below the proposed access road. Refer to Appendices A and B of updated Drainage Assessment Report 17864/WH/970B
2.8	Additionally, it has been noted that a 10% allowance has been included allow for urban creep as per PKC guidance. However, there are no details on how this has been applied within the drainage calculations.	Please provide commentary on how the 10% allowance for urban creep has been applied within the drainage modelling	Update/Response Required	Sections 6.7 and 6.10 of the submitted DIA confirms **an additional 10% roof area** has been included in the attenuation calculations to account for urban creep. A summary table of measured roof areas, together with 10% allowance has been included in Appendix B of updated Drainage Assessment Report 17864/WH/970B
2.11	No detailed drawings have been provided of SuDS features (location, connectivity and size). Detailed drawings of the attenuation systems have been provided. They show that the system will be a polystorm system with two access turrets. However no detailed drawings have been provided for the filtration trenches.	Please provide detailed drawings of all SuDS features.	Update/Response Required	Drawing 17862/02/004 has been added to include additional details. Please refer to Appendix A of Drainage Assessment Report 17864/WH/970B

AECOM REF	COMMENT	UPDATE	STATUS	MILLARD CONSULTING RESPONSE 15/10/24
2.12	No details have been provided on the level of treatment of surface water on the site. The Simple Index Approach (SIA) should be followed to provide evidence that the correct level of treatment is provided. The simple index approach has been followed for access road, plot driveways and roof areas. They show that the access road will be served via a filter trench and infiltration, the driveway plot will be served by permeable paving and infiltration and the roof areas will be via a stone filled treatment chamber. They show that there is adequate treatment. However there has been no mention of permeable paving, and this has not been shown on drawings. Therefore, please either update drawings showing locations of permeable paving or update SIA to be in line with drawings.	Please update DIA with details of permeable paving	Update/Response Required	Exact driveway finishes are unknown but agreed as "free-draining". The SIA table in Section 6.14 of the DIA refers to "Permeable **Gravel** Pavement", using similar mitigation to a filter trench. As noted in the table, this is significantly lesser mitigation than a formal permeable block paving surface would provide. Should the final Client wish to install an impermeable driveway surface, the plot attenuation should be upsized accordingly, and this could be verified under the subsequent Building Warrant application. Section 6.9 of the Drainage Assessment Report 17864/WH/970B has been updated to reflect this.
2.15	Please provide pre and post development overland flow routes for the site. Overland flow routes have been provided. However, no information has been provided to determine whether this is pre or post development and it is not clear from the key what the different colours represent. If there is no change in overland flow paths, please provide commentary stating this.	Please provide pre and post development overland flow routes for the site.	Update/Response Required	Updated drawing 17864_02_003_A is included in Appendix C of updated Drainage Assessment Report 17864/WH/970B. Pre and post overland flow patterns will largely be the same, with the exception of the new access roads intercepting an element of runoff
3.22	It has been stated that the channel and culverts are not currently suitably sized for the 200yr+CC event. Therefore, new channel and structures are proposed. A plan has been provided showing part of the current channel, but no description of the existing channel has been provided. However, it does appear that this is a significant alteration to the current arrangement, particularly upstream of the site where it is proposed that the watercourse is culverted for around 560m. Currently this stretch of channel is open watercourse. Therefore, there may be parts of the catchment (around the golf course) which once drained to the watercourse which now won't be able to. Please provide commentary on how the golf course will be drained.	Please provide details on how the golf course will be drained.	Update/Response Required	Previously addressed under previous AECOM comments Item 3.21 ***"Golf Course Drainage is being installed to suit final course gradings. A number of connection pipes have been agreed with the golf team and allowed for in the culvert / open channel design, with maximum flows restricted by specifying pipe diameters"***

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Zone 4 – AECOM/PKC Comments

Ref: **17864**

Date: **11 November 2024**

Subject: **Zone 4 Planning Applications**

Introduction

John Williamson email 31 October 2024

- Craig Harvey email of 31 October 2024 with comments on AECOM responses to recent Millard Consulting submissions

PKC Comments on AECOM Responses

24/00618/FLL P02, comment 2.5 – *The section of the proposed infiltration trench for the proposed access road at chainages 440m to 590m sits within flood plain of the River Tay. We agree that it is advisable that's SUDs should not be within the flood plain. Have all options been assessed to provide drainage out with flood plain?* **<MC 11/9/24: We agree that, where possible, SUDS should be located outwith the floodplain. However, in this instance, to position drainage outwith the flood plain would require pumping of surface water. As part of such a system, any flood water would also be pumped>**

If these must be within the flood plain then, as requested by Aecom, please provide commentary on how these will perform during flood events. **<MC 11/9/24: During a flood event, the infiltration trench will effectively become part of the flood storage environment. Once river levels abate, the system is predicted to drain down as intended>**

Are these to be maintained as part of any proposed SUDs maintenance particularly post flood event? **<MC 11/9/24: As with any system, maintenance is likely to be required post flood event. This may include clearing any material blocking the surface of the trench, re-instating any washed out / contaminated filter material or even full reconstruction of the trench as noted in Section 7.3 of Millard Consulting Drainage Assessment Report reference 17864/WH/970_B>**

- **Zone 4 Responses P05, comment 2.2 –** *BRE365 testing is proposed to be carried out within Zone 4 after required tree removal has taken place. This should be carried out at the location of any proposed infiltration system. We would be happy to apply this as a condition to the application in this instance, perhaps as a pre-commencement condition (DR00 and DR01).* **<MC 11/9/24: Happy to accept infiltration testing as a Condition however cannot be pre-commencement as it requires trees to be cleared in advance of testing>**

- **Zone 4 Responses P05, comment 2.5 –** *CIRIA C753, Section 10.2.2 states orifices (flow controls) as small as 15mm are acceptable given they are downstream of pervious surfaces or a suitable, cleanable filter. In this case it is proposed that the stone filled disconnector chambers upstream of the orifices will act as a filter and reduce the risk of blockages. Although PKC do not specify a minimum diameter, 15mm diameter orifices will be extremely susceptible to blockages.* **<MC 11/9/24: Concerns noted. To maintain the individual plot discharges, it is possible to provide vortex flow controls such as Hydrobrakes. The effective opening sizes would be similar to orifices, with the advantage of having a bypass door to clear attenuated water in the event of a blockage>**

  Are the proposed stone filled chambers to be inspected and maintained regularly as part of any proposed SUDs maintenance to ensure they remain an effective filter? **<MC 11/9/24:**

Maintenance of the filter system is noted Section 7.2 of Millard Consulting Drainage Assessment Report reference 17864/WH/970_B>

If not, this will also put the onus on the homeowner to maintain and so further increase the likelihood of blockages. **<MC 11/9/24: The homeowner is not expected to carry out any maintenance of the property. We understand DLC carry out regular maintenance internally and externally on behalf of the homeowners. This would include drainage systems such as inspection of pipework, filter systems, foul drainage etc>**

- **Zone 4 Responses P05, comment 2.12 –** *Acceptability of gravel driveways. We would prefer that the attenuation at each plot be designed from the outset to assume impermeable surfaces to ensure the system is suitably sized for worst case.* **<MC 11/9/24: Noted. Millard Consulting have updated the individual plot attenuation calculations to incorporate the area of gravel driveway within the system. The exercise has been carried out separately on both orifice plates and Hydrobrakes. Rather than increase the size of attenuation tanks, we have assumed that any excess water from the attenuation system will be stored below the driveways in a stone reservoir, similar to a permeable paving system, to comply with the Simple Index Approach. The maximum depth of stone reservoir within the driveway to accommodate the exceedance flow from the attenuation tank during an M200 plus 39% climate change event is only 250mm, which is well within the minimum recommended stone reservoir depth>**

Flood Risk

AECOM Responses to Zone 4 Applications requiring comment from Millard

- **Point 3.13**

Update Required

Please see comment 3.31. And please provide the level on the road that could control the split of flow into the site vs onto the road.

Millard Response

See response to 3.31 overleaf. No specific level on the road, but centreline of the road is higher than channel by 0.05m at location of Channel 2 and the road falls in a north easterly direction.

- **Point 3.21**

Update Required

Please link the planning application for the golf course design with this site. Un-culverted watercourses are preferred as they are not constricted and limit altering mechanisms up and downstream.

Millard Response

PKC to link golf course application.

- **Point 3.31**

Update Required

It is advised that this road and culvert are moved outside the floodplain, however in line with other comments PKC to review. Please provide further detail on the catchment and the determination of the 50/50 split between road and watercourse flow.

Millard Response

PKC to review the fact that the culvert and road are in the floodplain. Maximum additional flow that can flow through the culvert at the A827 before flooding onto the road is approximately 0.6m^3/s.

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response
Flooding – Zone Z4

Ref: Applications 23/01112/FLL, 23/01228/FLL, 23/01113/FLL and 23/01114/FLL

Date: 11th March 2023

Subject: Taymouth Castle Zone 4, response to AECOM (PKC) Drainage and Flooding Review

---

This statement addresses comments received from AECOM on behalf of Perth and Kinross Council Flooding Section in relation to flood risk, dated 12th December 2023. Each relevant section of the Planning Consultation is copied below in *italics*, with the Design Team's response below. Queries relating to the Drainage Impact Assessment will be responded to in a separate document.

Flood Risk

AECOM Comment
3.5 The FRA states that as part of the proposed golf course development, the manmade meandering channel is to be culverted for a significant proportion of its length. Drawings however have not been provided showing this development. Drawings have only been provided for Zone 4. These show that this man made watercourse is to be culverted twice under new proposed roads. No details have been provided on these culverts to ensure they have been adequately sized.

AECOM request – Please provide details on proposed culverts showing that they are appropriately sized

Response
Please refer to the attached, updated flood risk assessment which includes design proposals for the new channel and culverts.

AECOM Comment
3.6 Catchment descriptors have been provided for the River Tay. The River Tay has shown to have a low FARL value of 0.76 and a catchment area of 598.28km^2. Allt a Bhealaich catchment descriptors have not been provided, however notes that the watercourse has a catchment area of 8.25km^2 to the confluence with the Tay.

AECOM request – Please provide Allt a Bhealaich catchment descriptors

Response
Please refer to the attached flood risk assessment prepared for Zone 1 which includes catchment descriptors for the Allt a Bhealaich.

AECOM Comment
3.7 FEH statistical method was used to calculate flows for the River Tay. The SEPA flood gauge was used to determine the AMAX for the River Tay, which states a peak flood flow of 336.5m3/s. Using a pooled group method, the peak flow for the 200yr event was calculated to be 481.7m3/s. No details have been provided on the original and amended pooling group.

AECOM request – Please provide details on original and amended pooling group

Response
Please refer to the attached, updated flood risk assessment which includes information on the River Tay pooling group within Section 4.

AECOM Comment
3.8 Flow for the Allt a Bhealaich was estimated for a recent FRA for Zone 1 of the development. This Zone 1 FRA has not been submitted with this application. In this assessment a 200yr flow of 22.59m³/s was calculated based on a catchment size of 7.91km². Within this FRA the flow has been increased proportionally to cover the catchment area of 8.25km². This gives a peak 200yr flow of 23.6m3/s.

AECOM request – Please provide additional details on the previous hydrology calculated, such as date when the assessment was carried out, reasoning for the method used and a comparison of the flows from different hydrology methods.

Response
Please refer to the attached Zone 1 flood risk assessment which provides the requested information. In its planning consultation response for the Zone 1 application SEPA accepted the 1 in 200 year flow estimate.

AECOM Comment
3.10 No testing has been undertaken for joint probability or coincident peaks. Please provide justification for starting hydrographs at the same time.

AECOM request – Please provide justification for starting hydrographs at the same time.

Response
The watercourse catchments are significantly different in size and scale. As such the watercourses will react differently to the same rainfall event and it can be said that it's very unlikely both watercourses would be subjected to a 1 in 200 year flood event at the same time. The flood peak on the Allt a Bhealaich will arrive significantly earlier than that of the Tay.

AECOM Comment
3.12 No information has been provided on the survey sections. Such as when the survey was undertaken and the extents of the survey/model.

AECOM request – Please provide details on the extent of the model, including the spacing between sections. Additionally, please provide details of the survey information.

Response
The cross sections were surveyed by WSP in August 2022, with a spacing of between 30m and 240m. For model extent, please refer to the attached, updated flood risk assessment.

AECOM Comment
3.13 It appears that only a small section of the Allt a Bhealaich has been modelled, starting from the middle of the golf course. However, as shown by SEPA flood maps, this burn is shown to have a possible overland flow route near to the site which flows into the manmade burn. Please provide commentary on why the model does not extend upstream to capture this overland flow route.

AECOM request – Please provide commentary on model extent.

Response
In the Zone 1 flood risk assessment (attached) the Allt a Bhealaich was modelled a significant distance further upstream. No overland flow route was predicted through modelling for the Zone 1 FRA. Upstream of the modelled extend the watercourse flows through a steep, well defined channel.

AECOM Comment
3.18 As noted in the FRA flood risk from the manmade channel should be discussed in more detail. The FRA notes that the route of the watercourse should be designed to ensure no overland flow could impact the proposed or existing developments. As noted above, SEPA flood maps indicate a possible overland flow route from the Allt a Bhealaich which flows into this manmade burn. This flow route is shown to impact access to the site.

AECOM request – Further investigation should be undertaken to determine the flood risk to the site from this watercourse.

Response
Please refer to the updated Zone 4 flood risk assessment (attached) for design and modelling information for the new channel.

AECOM Comment
3.19 As noted within the FRA, the turning head of the access road is within the 200yr+CC floodplain. Guidance states that there should be no development within the functional floodplain.

AECOM request – Please ensure there is no development within the 200yr+CC floodplain

Response
Although the proposals show the turning head within the floodplain of the River Tay it will be ensured that no ground levels are raised in this area as part of the development, hence there will be no adverse impact on flood storage.

AECOM Comment
3.20 It has been noted in the FRA that the plot at the western corner of Zone 4 (GC-9) is at risk from overland flow. It notes that the solum level of this plot should be no lower than 115.7m AOD and ground levels fall away from the proposed dwelling. This property is within application 23/01112/FLL. An FFL of 118m AOD is shown for this property, based on the cross section of this dwelling, ground levels at the rear of the property appear to fall towards the property.

AECOM request – Please provide some commentary on how this condition in the FRA has been addressed.

Response
The architects drawings show no solum. The proposed floor level of 118m AOD is significantly higher then the minimum level required, and hence is acceptable with respect to flood risk.

The comment regarding finished ground levels falling away from the building was to ensure that finished ground levels were not left in such a way that surface water could run from the golf course into the plot. Given the finished floor level and proposed golf course levels adjacent this will not occur. Additionally the cross section for GC-9 confirms ground levels will fall from the building to the south west.

AECOM Comment
3.22 Please provide pre and post development overland flow routes for the site.

AECOM request – Please provide pre and post development overland flow routes for the site.

Response
A response to this request will be provided within the response to the Drainage Impact Assessment queries.

Taymouth Castle
Housing 4
Aberfeldy

Discovery Land Company







Ecological Assessment

NIGEL RUDD ECOLOGY

Nigel Rudd
BSc CBiol MRSB CMLI

August
2022

Nigel R Rudd

Nigel Rudd Ecology
15 Birch Crescent
Penicuik
Midlothian
EH26 0FW

Mobile 07976 954 642

Email nigel@nigelruddecology.co.uk

CONTENTS

	SUMMARY	**3**
1.0	**INTRODUCTION**	**4**
2.0	**LEGISLATION & POLICY**	**4**
3.0	**THE SURVEY**	**7**
	Desk Study	**7**
	Field survey	**7**
4.0	**BASELINE ECOLOGICAL CONDITIONS**	**8**
	Designated sites	**8**
	Habitats	**9**
	Species	**9**
5.0	**ECOLOGICAL IMPACTS, OPPORTUNITIES and RECOMMENDATIONS**	**10**
	Designated sites	**11**
	Habitats	**11**
	Species	**11**
	Summary	**12**

Bibliography

Figure 1	Location Plan
Figure 2	Phase 1 Habitat Survey Plan
Appendix 1	Personnel
Appendix 2	Feature Evaluation Table
Appendix 3	Species inspections
Appendix 4	Plant species list
Appendix 5	Sites

SUMMARY

Nigel Rudd Ecology was commissioned by Discovery Land Company to undertake a Phase 1 Habitat Survey extended to include protected species, badgers and bats, and designated sites over their land on the Taymouth Castle Estate, Aberfeldy.

The survey is required to inform proposals to develop the land for residential use in respect of potential ecological impacts of the proposals. The outline proposals include construction of five detached houses and associated infrastructure.

The August 2022 survey was designed to establish the ecological status of the land which is located on a mound supporting open woodland/scattered trees. The trees are surrounded by open ground formerly supporting rhododendron.

The field survey was complemented by inspection of biological records for the Site and the surrounding area to a radius of 5km. In addition, potential effects on designated sites within a radius of 2.5km were considered.

There was found to be no potential adverse effect on international, UK Statutory, or locally designated sites, albeit no records were obtained for locally designated sites.

The Phase 1 Survey involved a walkover of the land noting habitats and plant communities and sought evidence of use of the land by badgers and bats.

The habitat on the land is an unexceptional example of its type.

No evidence was found of badgers using the land, there are opportunities for sett excavation, but low-grade foraging resource for the species. There is no record of the species close to the land.

No significant potential bat roost feature was identified on the land. One tree exhibited a low BRP. It is acknowledged that bats forage over the Site and the river to the north.

A small amount of rhododendron is growing on the land. Large areas have been removed from the area to accommodate development and improve biodiversity opportunity.

There will be negligible adverse impact on biodiversity from the loss of unexceptional habitats.

It is anticipated development of the estate will incorporate management of the developed site for biodiversity benefit resulting in a positive effect on biodiversity.

1.0 INTRODUCTION

1.1 This report is commissioned by Discovery Land Company in respect of proposals for residential development of land at Taymouth Castle Estate, Aberfeldy (NN778459). The proposals comprise a small development of houses for leisure use, and the installation of associated infrastructure.

1.2 The land is approximately 6km west of Aberfeldy to the west of the A827 between Aberfeldy and Kenmore. The land is in the east of the estate, which is bounded at this location by the River Tay to the west, the A827 to the east and south, and to the west by Kenmore, which is located on the east end of Loch Tay.

1.3 The site is irregularly shaped aligned north south and is located on a west-facing slope. The land is in the west of the Taymouth Castle grounds bounded to the north by the River Tay and on the east, south and west by the golf course. The west drive to the castle passes through the site.

1.4 The site comprises a small hill which supports scattered trees/open woodland with some clearings. The land has been cleared of very dense rhododendron cover. There is one building in the east of the site.

1.5 There is one European designated ecological site within 2.5km of the land; The River Tay SAC (Special Area of Conservation). One UK statutory site, River Lyon Bank SSSI (Site of Special Scientific Interest), is within 2.5km of the land. No records were obtained for locally designated sites.

1.6 It is important development as proposed is achieved with no adverse impact on biodiversity. The purpose of the survey is to ensure the wellbeing of protected species is safeguarded during construction and operation of the development and to ensure there is no adverse effect of development on designated sites.

1.7 The report will set out the survey methods, the findings of the survey, an assessment of the impact of development and recommendations for planting and habitat creation. The report also sets out explicit preliminary measures for enhancement of wildlife opportunities, which will be incorporated in the buildings and/or landscape on the site, should that be appropriate.

2.0 LEGISLATION & POLICY

2.1 The following legislation and policies are relevant to the current assessment:

- The Wildlife & Countryside Act 1981 as amended;
- The Wildlife and Natural Environment (Scotland) Act 2011;
- The Conservation (Natural Habitats &c) Regulations 1994
- The Nature Conservation Scotland Act 2004;
- The Protection of Badgers Act 1992;
- Scottish Planning Policy 2014;

- Perth and Kinross Local Development Plan 2 (2019); and
- Tayside LBAP (Local Biodiversity Action Plan)

2.2 The Wildlife & Countryside Act 1981 as amended - The Act consolidated and amended existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain, Council Directive 79/409/EEC which was updated by Directive 2009/147/EC.

2.3 The Act is one of the most important pieces of environmental legislation in Britain. The Act provides for the protection of wild animals, birds and plants as well as the protection of areas of natural heritage value and the designation of protected areas including, Sites of Special Scientific Interest (SSSIs), National Nature Reserves, (NNRs) and Marine Nature Reserves (MNRs).

2.4 The Act has been variously amended over the years by legislation including the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment Act 2011.

2.5 Wildlife and Natural Environment (Scotland) Act 2011 – The Act makes changes to existing legislation covering deer management, game management, species licensing, muirburn, snaring, badgers, invasive non-native species and protected areas; SSSIs and ASPs.

2.6 The Conservation (Natural Habitats &c) Regulations 1994 – The Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (The Habitats Directive) into national law. The Regulations have been amended several times in Scotland, the most recent of which was 2012. Irrespective of the amendments, the purpose of the Regulations has remained the same; containing five Parts and four Schedules, the Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

2.7 The Nature Conservation Scotland Act 2004 – The Act imposes a wide-ranging duty on the Scotland's public sector to conserve biodiversity and protect the nations natural heritage. The Act strengthens protection of SSSIs and increases maximum fines for deliberate or reckless damage to Scotland's important natural land and wildlife habitat from £5,000.00 to £40,000.00.

2.8 The Protection of Badgers Act 1992 – The Act protects badgers by making it an offence to: wilfully kill, injure, take or attempt to kill a badger; possess a dead badger or any part of a dead badger; cruelly ill-treat a badger; use badger tongs in the course of killing, taking or attempting to kill a badger; dig for a badger; possess, sell or offer for sale any live badger; or mark, tag or ring a badger.

2.9 It is also a crime to interfere with a badger sett by intentionally or recklessly causing or allowing: damage to a sett or any part of it; destruction of it; sett access to be obstructed, or any entrance of it; a dog to enter it; disturbance to a badger when it is occupying it.

2.10 There is provision in the Act for licensing any otherwise illegal activity if it can be demonstrated this is in pursuit of a legitimate purpose.

2.11 Scottish Planning Policy 2014 – SPP sets out its principles for safeguard of Scotland's Natural Heritage. They are:

- facilitate positive change while maintaining and enhancing distinctive landscape character;
- conserve and enhance protected sites and species, taking account of the need to maintain healthy ecosystems and work with the natural processes which provide important services to communities;
- promote protection and improvement of the water environment, including rivers, lochs, estuaries, wetlands, coastal waters and groundwater, in a sustainable and co-ordinated way;
- seek to protect soils from damage such as erosion or compaction;
- protect and enhance ancient semi-natural woodland as an important and irreplaceable resource, together with other native or long-established woods, hedgerows and individual trees with high nature conservation or landscape value;
- seek benefits for biodiversity from new development where possible, including the restoration of degraded habitats and the avoidance of further fragmentation or isolation of habitats; and
- support opportunities for enjoying and learning about the natural environment.

2.12 Planning authorities are required to adhere to the principles by preparing Development Plans and Development Management Plans, The Development plans should identify International, national and locally designated sites and afford them protection appropriate to their level of designation.

2.13 Perth and Kinross Local Development Plan – Policies 38(a), 38(b) and NE1C cover protection of international, national and local designated sites stating that development will not be permitted which adversely affects these sites, unless there is overriding public interest in development affecting international and national sites, or the benefits from development outweigh the biodiversity value of locally designated sites.

2.14 Policies 40A and 40B relate to trees and woodland supporting applications which retain or protect existing woodland and trees or seek to establish new woodland and tree planting, in advance of development in line with the guidance in the Perth and Kinross Forestry and Woodland Strategy. The policies also require that tree surveys undertaken by a competent person should support the application where there are trees on the site and the nature of the surveys should be agreed with the council before being carried out.

2.15 Policy 41 provides for protection and enhancement of all wildlife and their habitats, whether designated/protected or not. It states the council will apply the principles of the Tayside Biodiversity Partnership development guidance as well as wildlife legislation in making determinations on applications received.

2.16 The policy also states that development that would adversely affect a species protected by European legislation would not be permitted unless:

- There is overriding public need and no satisfactory alternative; and
- The development is required for reasons of public health or safety or other overriding reason of public interest or of benefit to the environment.

- and if it is established that the European protected species are present, and the development is not detrimental to the maintenance of the species at a favourable conservation status.

2.17 Planning permission will not be granted for development which would have a negative on a protected species unless it can be justified under the relevant protected species legislation.

2.18 Policy 42 requires that all new development contributes to the creation, protection, enhancement and management of green infrastructure. This is to be achieved by incorporation of green infrastructure into new developments, using high standards of environmental design, protecting the countryside from inappropriate development, and protection and enhancement of open spaces and links between open spaces and the wider countryside. In addition, it sets out the need for protection, enhancement and management of existing habitats and the creation of new bio-resources. In particular, the policy makes reference to the protection, enhancement and management of water courses, waterbodies and other elements of the blue network and stressed provision should be made to link the with the green networks.

2.19 The Tayside BAP – The plan addresses the need for co-ordination of work across habitat types in the promotion of biodiversity opportunity. The plan recognises the importance of the built environment to some rarer species. The relationship between built and natural environment is considered important in terms of water management, flooding and pollution.

2.20 The plan also seeks to influence aspects such as development proposals, open space management, rural areas, woodland management, and greening of the built environment.

3.0 THE SURVEY

3.1 Desk Study

3.2 The desk study comprised:

- Acquisition of biological data from the National Biodiversity Network Atlas (Scotland) (NBN Atlas);
- Acquisition of information on designated sites within 2.5km of the land from NatureScot (Sitelink);
- Aerial imagery from Google Earth
- Consulting the Tayside Biodiversity Action Plan; and
- Consultation of historical maps of the land and its surroundings.

3.3 Field Survey

3.4 The survey was undertaken by Nigel Rudd Ecology (Appendix 1) in August 2022.

3.5 The survey area extended to the site boundary (Fig1) and an area 50m beyond the boundary, where accessible. The weather was dry and bright with average seasonal temperatures.

3.6 The survey comprised a walkover of the land consistent with Phase 1 Habitat Survey methodology (JNCC 2016), noting habitat structure and component plant species, augmented by assessment for potential for use by, or inspection for signs of the presence of, species protected under legislation listed above.

3.7 The species sought were badgers, otters, red squirrels and roosting bats, there was no significant suitable habitat for water voles, or great crested newts on the land.

3.8 The findings of the survey are set out below.

3.9 The survey findings are complemented by consideration of recorded data available from the NBN Atlas (Scotland), and the author's experience of the estate gained over ten years of surveys).

4.0 BASELINE ECOLOGICAL CONDITIONS

4.1 **Designated sites**

4.2 *International/ National sites*

4.3 There is one European designated site within 2.5km of the land; the River Tay SAC.

4.4 This SAC consists of running and standing water features with small areas of bog, marsh, fen and water fringe habitats. The qualifying features comprise both habitats and species. The habitats are *oligotrophic to mesotrophic standing water with vegetation of the Littorelleta uniflorae and/or Isoieto-Nanojuncetea*.

4.5 The species which is the primary reason for selection of this site is Atlantic salmon *Salmo salar.* The River Tay is constantly in the top 3 salmon fishing rivers in Scotland, presenting habitats that support the full range of salmon life-history types found in Scotland. Salmon enter the River Tay to spawn throughout the year.

4.6 Other species which are qualifying features of the SAC, but not a primary reason for site selection. They are sea lamprey *Petromyzon marinus*, brook lamprey *Lampetra planeri*, river lamprey *Lampetra fluviatilis*, and otter *Lutra lutra*.

4.7 The qualifying species are distributed throughout the SAC catchment.

4.8 The SAC approaches to within 30m of the south-west boundary of the site.

4.9 There is one UK Statutory site within 2.5km of the land; River Lyon Bank SSSI.

4.10 There is one UK statutory site within 2.5km of the Taymouth Castle site: River Lyon Bank SSSI (Site of Special Scientific Interest).

4.11 River Lyon Bank is a small biological SSSI, the notified feature of which is whorled Solomon's-seal *Polygonatum verticillatum*. The site is a narrow strip of riverside woodland noted for its rear vascular plant species including the nationally rare whorled Solomon's seal.

4.12 No record was obtained of local nature conservation sites within 1km of the Site.

4.13 Woodlands on the Estate are listed in the Ancient Woodland Inventory of Scotland.

4.14 **Habitats**

4.15 The land proposed for development is in the grounds of Taymouth Castle with its associated parkland golf course set in a mosaic of tree, shrub, herbaceous and grassland habitats. The composite of habitats will be described, and the overall habitat value assessed. The site exhibits open woodland/scattered trees on a mound. The site is divided by the west drive to the Castle. The mound is to the north of the drive and there are more trees to the south,

4.16 Tree cover comprises several tree species of varying ages and condition. Species include beech, cypress, lime, sycamore, chestnut, spruce, holly and oak. The tree cover comprises groups of trees of various sizes and individual specimens.

4.17 The trees are set within areas of areas of open ground left by the clearance of rhododendron. Bracken, nettle, bramble, woodrush, violet, wood sorrel, some rhododendron and bilberry are represented in the field and ground layer.

4.18 The tree cover is not exceptional, this habitat has **site value.**

4.19 The building in the site is undergoing renovation, with refurbished stone walls a slate roof and new windows.

4.20 The River Tay flows west-east on the north of the Site.

4.21 In summary, the Site exhibits very restricted habitat opportunities, the existing habitats are simple in structure, their plant communities are species poor and there are invasive plant species present that detract from their value.

4.22 **Species**

4.23 The only protected species anticipated as resident on the land were badgers and bats. Inspection of the land revealed no significant habitat potential for otters, great crested-newts, red squirrels or water voles.

4.24 *Badgers*

4.25 The ecology of badgers *Meles meles* is outlined in Appendix 3. The survey extended to a radius of 50m beyond the Site boundary, where accessible.

4.26 The land was inspected for evidence of use by badgers (Appendix 3). **No evidence was found of the species using the Site.** There was neither historical nor recent sign of use by badgers was identified on the Site.

4.27 The NBN Atlas has records of the species 2.0km from the Site.

4.28 **The Site presents suitable habitat for sett excavation and low value forage resource**, but there is no record of the species local to the Site.

4.29 It is not anticipated badgers use the Site and that the Site has **no value** for the species.

4.30 *Bats*

4.31 The ecology of bats *Chiroptera* is outlined in Appendix 3. There is one building on the site and mature trees.

4.32 The trees were inspected for roost potential. No tree exhibited roost potential.

4.33 The NBN Atlas (Scotland) holds records of common and soprano *Pipistrellus pipistrellus and P. pygmaeus,* and brown long eared *Plecotus auritus* bats within 5km of the land. The author has recorded pipistrelle species local to the land.

4.34 There is one building on the site; the Dairy. This building has slate roofs and pointed stone walls. It is undergoing restoration, comprising replacing the roof, cleaning and repointing the stone walls and installation of doors and windows. The building is currently surrounded with scaffolding and affording no roost opportunity.

4.35 There is no potential for bat roosting on the site, but extensive forage opportunity on and around the Site, over the trees and along the river.

4.36 It is anticipated the site will have **negligible value** for bats.

4.37 *Other species*

4.38 Otters *Lutra lutra* and red squirrels *Sciurus vulgaris* are found on or adjacent to this Site, but no evidence was found of either species on or adjacent to the site, during the survey. The habitats presented on the site are sub optimal for both species. It is assumed otters use the River Tay adjacent to the Site.

4.39 *Rhododendron ponticum* is growing on the land. The species is listed in Schedule 9 of the Wildlife & Countryside Act 1981 as amended because they are non-native invasive species with the capacity to smother native plant communities to the detriment to local biodiversity. It is an offence to cause these species to grow in the wild.

5.0 ECOLOGICAL IMPACTS, OPPORTUNITIES and RECOMMENDATIONS

5.1 The proposal is to develop the Housing 4 land for leisure residential use and conversion of the Dairy to a golf club house.

5.2 The proposed development land is scattered trees/open woodland within a country estate that has not been managed in recent years, albeit there has been extensive rhododendron removal recently.

5.3 The potential impacts of the proposed development are identified below, and where appropriate mitigation measures are proposed.

5.4 **Designated sites**

5.5 *International designated sites*

5.6 There is one international designated site within 2.5km of the of the land; the River Tay SAC. The SAC is valued for fish species it supports and the development of the land will put in place measures to ensure there will be no adverse effects on the river originating from the development of the land as proposed.

5.7 There is potential for enhancement of surface water runoff to enter the river, adversely affecting the qualifying species of the SAC, thereby compromising the conservation status of the SAC.

5.8 **It is proposed that surface water will be collected and directed to a treatment facility where the water will be left to infiltrate into the ground ensuring there will be no direct discharge of surface water to the river.**

5.9 **It is considered there will be no adverse effect on the SAC. This matter was addressed at the time of the original development consent and there will be no compromise of the accepted drainage treatment method.**

5.10 *UK designated sites*

5.11 River Lyon Bank SSSI is remote from and not connected to the D1 land. Development as proposed will not affect the SSSI.

5.12 *Local designated sites*

5.13 No locally designated site was noted during this study.

5.14 **Habitats**

5.15 The development will be located in longstanding scattered tree cover which has plantation origins. The understorey of the tree cover was almost entirely dense rhododendron cover. The rhododendron has been cleared leaving tall trees within open ground. **The habitat has site value, and their loss would result in no significant adverse impact on biodiversity.**

5.16 The habitats lost will be replaced by new build with new tree and shrub planting and extensive retention of existing habitats, which will be brought under management for biodiversity benefit. **These changes present positive impacts of development as proposed.**

5.17 **Species**

5.18 There was no evidence of badgers using the site, and there is no risk to the wellbeing of badgers during the construction process, but building construction raises potential threats to wildlife. **Development will not have an impact on the species, but a precautionary approach is recommended, putting measures in place to ensure small mammals**

do not come to harm during construction; open pipes should be closed up at the end of each working day, and trenches should be covered, or a ramp provided to permit animals that fall in a means of exit, to prevent animals becoming trapped. Chemicals and materials should be stored securely.

5.19 No significant bat roost potential was recorded on the land. It is anticipated that bats forage over the Site. There will be no significant reduction of forage opportunity because the forage resource lost to development is insignificant in the context of local forage opportunity. The Taymouth Castle Estate presents extensive high quality forage opportunities. **Development of the land with the associated tree and shrub planting represents a possible positive impact on local bat populations.**

5.20 There will be clearance of low value semi-natural habitat to make way for development. Clearance of vegetation has the potential to adversely affect nesting birds. Nevertheless, **it is recommended that clearance is carried out outside the bird nesting season; March to August, such that no adverse effect on nesting birds arises. If this is an obstacle to development, it is important that no clearance is undertaken before the land is inspected for nesting birds by a suitably qualified ecologist.**

5.21 There is a small amount of rhododendron in the area. **There is a programme of rhododendron removal on the estate which has been implemented on this Site brining biodiversity enhancement opportunities. The Site will be monitored for rhododendron recovery and new growth will be eradicated, resulting in a long-term effect on biodiversity.**

5.22 **Summary**

5.23 Development of the Housing 4 land will result in the loss of low value semi-natural habitat to development. There will be negligible adverse impact on biodiversity from the loss of unexceptional habitats and it is **anticipated there will be a positive effect on biodiversity as a consequence of implementation of development as proposed.**

5.24 There will be no impact on designated or protected sites.

5.25 There will be no impact on badger populations, but precautionary measures should be put in place to safeguard small mammals during construction.

5.26 There will be no impact on bat populations.

5.27 There has been a reduction of the extent of rhododendron on the land which will have a positive impact on biodiversity.

5.28 **It is anticipated that there will be a positive effect on biodiversity as a consequence of redevelopment as proposed.**

5.29 **It is proposed to prepare a Biodiversity Strategy for the Taymouth Castle Estate, which would involve creation of new habitat opportunities, and enhancement and management of existing habitats to increase the biodiversity status of the estate. In addition, consideration will be given to installation of features which would artificially enhance wildlife opportunities across the estate.**

Bibliography

Collins, J. (ed) (2016), *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition)*. The Bat Conservation Trust, London.

JNCC, (2016), *Handbook for Phase 1 Habitat Survey - a technique for environmental audit*, ISBN 0 86139 636 7

Figure 1

Location Plan

Figure 1



Taymouth Castle Hsg.4
Aberfeldy

Location Plan
August 2022

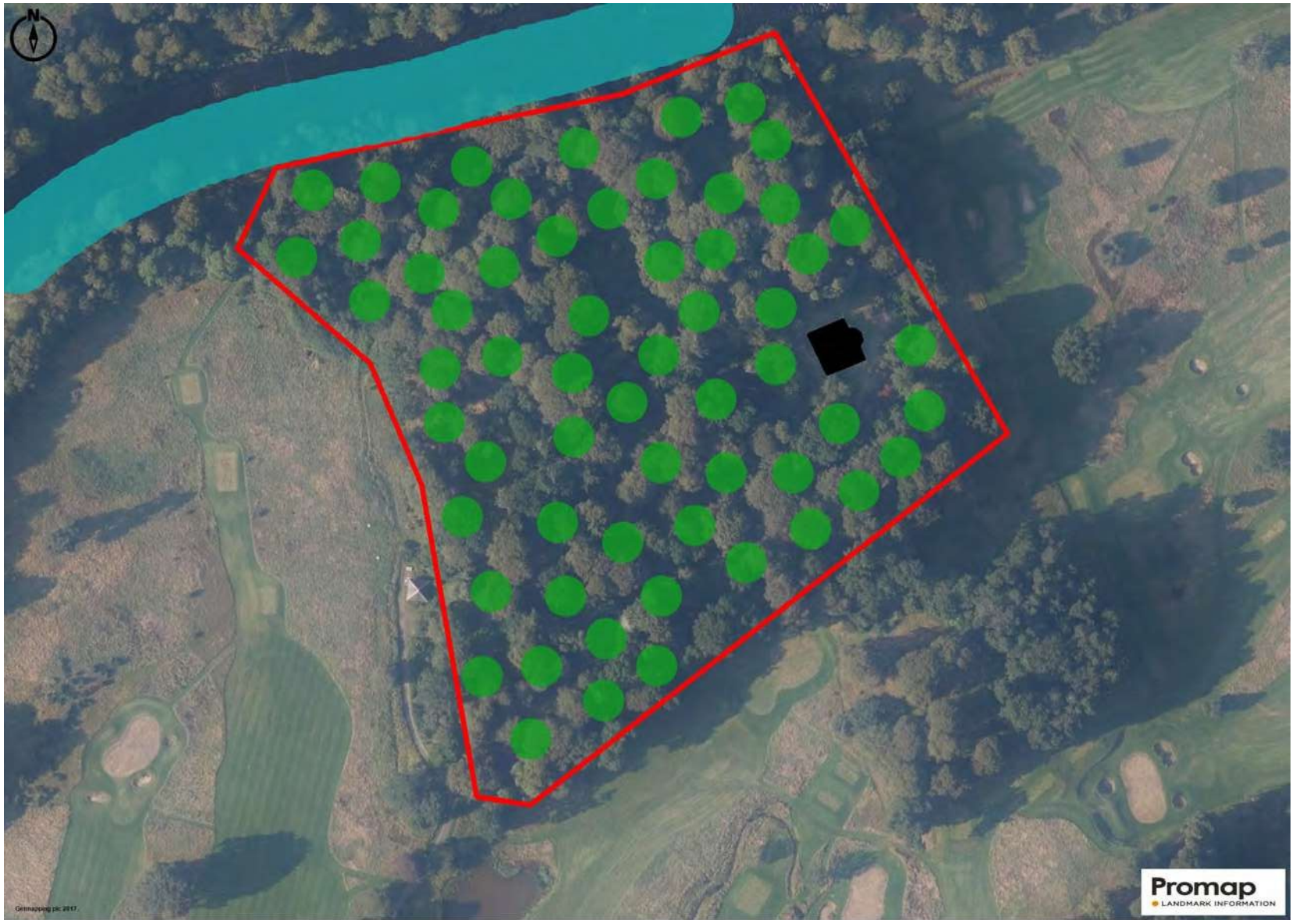
NIGEL RUDD ECOLOGY
15 Birch Crescent
Penicuik EH26 0FW

nigel@nigelruddedology.co.uk

Figure 2

Phase 1 Habitat Plan

Figure 2



Scattered trees

Running water

Building

Taymouth Castle Hsg 4
Aberfeldy

Habitat Plan
August 2022

NIGEL RUDD
ECOLOGY

15 Birch Crescent
Penicuik EH26 0FW

nigel@nigelruddedology.co.uk

Appendix 1

Personnel

Nigel Rudd BSc CBiol MRSB CMLI

Consultant ecologist with forty-two years-experience. Twenty-three years part-time and nineteen full time. Over twenty-five years-experience in Phase 1 Habitat Survey, twenty in bat, otter, and badger survey and fifteen years in reptile, and formal great crested newt surveys.

Graduated in Applied Biology – Honours Ecology in 1976. (Liverpool Polytechnic)

Three years' research in estuarine algae Heriot Watt University. Lectured Ecology to Landscape students at Edinburgh College of Art/Heriot Watt University 1979-2002, Dean of Faculty Environmental Studies 1998-2000.

Chartered Biologist – Member of the Royal Society of Biology since 1976
Chartered Landscape Architect – member since 1986

Clients – Major house builders, Local and Central Government, non-governmental organisations. Provided survey, EA and BREEAM reports. Professional witness. Co-authored policy and methodology reports.

Appendix 2

Feature Evaluation Table

Nature Conservation Value	*Example of Selection Criteria*
International	A site designated, or identified for designation, at the international level e.g., World Heritage Site, Special Protection Area (SPA), Special Area of Conservation (SAC) and/or RAMSAR site. A sustainable area of habitat listed in Annex 1 of the Habitats Directive, or smaller areas of such habitat that is essential to maintain the viability of a greater whole. Any regularly occurring population of an internationally important species e.g., UK Red Data Book Species, which is listed as occurring in 15 or fewer 10km squares in the UK, and that is identified as having unfavourable conservation status in Europe or global conservation concern in the UKBAP.
UK	A site protected by national designations e.g., Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR), or Marine Protected Area or a site considered worthy of such designation. A sustainable area of any priority habitat identified in the UK BAP, or smaller areas of such a habitat that is essential to maintain the viability of a larger whole. A feature identified as of critical importance in the UK BAP. A sustainable population of a nationally important species (species listed in Schedules 1, 5 and 8 of the Wildlife & Countryside Act 1981 as amended), which is threatened or rare in the District. Any regularly occurring population of a nationally important species that is threatened or rare in that region of the country and for which the LBAP identifies the need to protect all remaining sites.
National Scotland	Sustainable area of key habitat identified in the UK BAP or smaller areas of such habitat that is essential to maintain the viability of a larger area. Non-statutory sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves. Some non-statutory designated sites (Ancient Woodland, TPOs). Any regularly occurring, locally important population of a species listed in a Regional Red Data Book or LBAP on account of its national rarity or localisation.
District	Some designated sites (e.g., Local Nature Reserve) Some non-statutory designated sites (including SLNCI/CWS) A viable area of habitat identified in a District BAP. Sustainable populations of a species that is rare or scarce within a District, or listed in a District BAP. A viable area of a habitat that is uncommon in the District/district or a degraded example of a habitat identity in a District BAP. Sites or populations that appreciably enrich the District/district habitat resource.
Local	Area of internationally or nationally important habitats, which are degraded and have little potential for restoration. Areas within the site or locally, or populations, that appreciably enrich the habitat/species resource within the locality, e.g., species-rich hedgerow.
Within zone of influence **Site Value**	Common and widespread species. Areas of heavily managed or modified vegetation of low intrinsic interest and low value to species of nature conservation interest that do not appreciably enrich the site or locality.

Appendix 3

Species inspections

Badgers

Background – The badger is the largest member of the Mustelidae in Britain weighing up to 20kg and reaching a length of 1m. Badgers are strong animals, adapted to digging, have good hearing and a well-developed sense of smell.

Badgers live in setts. A sett is a network of underground tunnels, which can have a total length of several hundred metres, although individual tunnels reach only 15m. The tunnels incorporate nesting and sleeping chambers, which are usually lined with dry plant material.

Setts are recognised by the large volume of soil and rock deposited at their entrances and the shape of the opening, usually an oval/arch wider than it is high. Plant debris from the bedding is often found close to the entrances. Setts are only excavated where the soil is deep enough and dry.

The setts vary. Main setts are large and in continuous use and on average have ten to twelve entrances. Often close to a main sett (up to 150m away) there may be an Annexe sett linked to the main sett by established paths. Annexe setts have an average of eight entrances and may not be in continuous use. Subsidiary setts are close to the main sett and are not connected by a clear path and not continuously active the average number of entrances is four. The fourth kind of sett is an Outlying sett. These can be distinguished by having little associated spoil, no approach path and are seldom used. Often, they can be occupied by other species such as foxes and rabbits. The average number of holes is two.

The badger diet is mainly earthworms but also includes fruit, berries, small mammals, birds, carrion, insects and other invertebrates. Usually, the badgers find the earthworms in areas of short grass, the most important forage resource used.

Badgers live in extended families or clans with up to 6 adults. They are territorial, often marking the boundary of their territory with latrines. The latrines can be used to establish the size of badger territories in bait marking exercises. The territory can extend to 120 hectares in areas with plenty of improved grassland. Where the forage resource is poorer the territory can be much larger.

Badgers mate at any time of the year and births are most common between December and June.

Badgers and the Law

Badgers are protected by the Protection of Badgers Act 1992, which is designed to protect the species against cruelty and incidental effects of lawful activity that might harm badgers.

Under the legislation it is an offence to wilfully or recklessly:

kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so
Interfere with a sett by damaging or destroying it
Obstruct access to, or any entrance of, a badger sett
Disturb a badger when it is occupying a sett.

> A person is not guilty of an offence if the act was '*the incidental result of a lawful operation and could not have been reasonably avoided*'; what is reasonable often has to be determined by the courts.

A badger sett is defined as '*any structure or place which shows signs of current use by a badger*', including culverts, pipes, holes under sheds, piles of boulders, old mines and quarries.

Current does not mean current occupation but applies to any sett in an area of current badger activity. This applies if the sett is used for only short periods in the year.

The Act makes provision for the issue of licences permitting otherwise illegal operations. Scottish Natural Heritage (SNH) is the licence issuing authority for the purposes of development.

The Survey - The inspection was carried out in August 2022 and involved inspection the land for evidence of use by badgers.

In addition to setts, there are a number of signs that indicate badger activity. These include hair on fences; paths or runs; footprints; latrines; snuffle holes in the ground; day nests and scratch marks on trees.

The site and surrounding accessible land to a radius of 50m was assessed for badger activity. A constant search method was employed in a thorough walkover of the land.

No evidence was found of badgers using the land.

Low value potential forage habitat was found on the Site.

NBN Atlas (Scotland) holds records of badgers 2.0km from the Site. It is unlikely the species visits the Site.

Bats

Background - Bats are mammals. They are the only mammals capable of true flight and feed at night, on insects.

During the active seasons of the year bats require a reliable source of insect food, and therefore habitat rich in insects is good for bats. The preferred feeding habitats are well vegetated, moist, sheltered and warm areas such as mixed woodland, freshwater and hedgerow.

Bats roost during the day in a range of places. In summer females form nursery colonies mainly in buildings, especially houses. Males and non-breeders will use a variety of crevice-type locations, including under slates, gaps in masonry, hollows in trees and bridges, and some species also use these sites for nursery roosts.

Distance travelled to feed varies with species, the pipistrelle is known to travel 3 to 5km radius from the roost, while long-eared bats only travel about 1km as a maximum. Bats use linear features of the landscape: rivers, hedges, woodland edge, to commute from their roost and between feeding areas. These linear features are also feeding routes.

Bats are true hibernators, that is, they are able to survive the winter with little food by lowering their body temperature and surviving on stored fatty deposits built up in the autumn. They use a variety of sites for hibernation: hollow trees, caves, old mines, or more superficial sites (depending on species) like crevices in buildings and bridges, old rubble-filled stone walls, even under roof slates or tiles. Most species require a stable cool temperature for hibernation and generally the deeper and more sheltered the space, the more stable is the temperature. Unlike some other hibernators, bats may be active at any time during the winter, particularly on mild nights. They will slowly arouse from hibernation and become active when disturbed, and so are particularly vulnerable in winter when becoming active will possibly exhaust their stored energy supply.

Evidence of bats using crevices and holes in trees and buildings on a regular basis includes; urine and grease stains, droppings, food remains, individual animals and evidence of disturbance of spiders' webs.

Acoustic detectors can be employed to identify bat activity in conjunction with dusk and dawn observations.

Inspection

The Site presents scattered trees, and one building.

The trees on the site were inspected from the ground for bat roost potential in August 2022. The conditions were ideal for this survey because the weather was clear sky and no rain. The scale of the site meant this survey was straightforward.

One tree was assessed as having **low bat roost potential**, this was a dead tree exhibiting upright dead timber with no voids but some raised bark.



Dead tree south of the Drive.

The roost potential of both the trees and the building are made using criterial set out in Table A, below.

Table A - Roost potential classification

Classification Of Feature	Category description and associated features	Possible further survey work Depending on context
Confirmed Roost	Evidence of roosting bats; live/dead bats, droppings, urine stains, grease staining.	If the structure/tree is to be affected by development, a disturbance licence must be obtained from SNH for the proposed work. The licence application would need to be supported by close inspection findings and those of activity surveys. Building/tree work should be supervised in accordance with good practice guidance. Where the roost site is **unaffected** by the proposal, it is likely a precautionary working method statement or mitigation proposals will be required.
High Potential	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Buildings – Three visits at least one dusk and one dawn activity survey between May – September. Trees – Closer/Aerial assessment by roped access bat worker (if appropriate) **and/or** nocturnal survey as above between May – August. Additional assessments may result in up or down grading the building/tree, based on findings. If upgraded, and the building/tree is to be affected by development it will be necessary to obtain a licence as described above. If there is no upgrading after consideration of findings a precautionary method statement may be required.
Moderate potential	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Buildings – Two visits one dusk and one dawn activity survey between May – September. Trees – Closer/Aerial assessment by roped access bat worker for a tree (if appropriate) **and/or** nocturnal surveys as above between May – August. Additional assessments may result in up or down grading the tree, based on findings. If upgraded, and the building/tree is to be affected by development it will be necessary to obtain a licence as described above. As above there may be a need for acquisition of a licence or preparation of a precautionary method statement.
Low potential	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and / or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Buildings – One dusk or dawn activity survey between May – August. Trees – No further survey work required, but a precautionary working method statement may be appropriate.
Negligible/No potential	Negligible habitat features on site likely to be used by roosting bats.	None.

There is one building, the Dairy. This is a small two storey building which presents a 'rustic' character of rough pointed-stone walls slate roof elements with lead flashing and very deep mineral board soffits, and a flat metal sheet roof on the upper floor.

The inspection involved close scrutiny of the walls either by eye or using close-focus binoculars, for crevices, holes , droppings, grease and urine stains

The pointing was intact. The joint between the soffit and the wall head was pointed with mortar and intact. The window recesses were intact presenting no roost potential.



East elevation



West elevation



Deep overhang with pointed junction with wallhead



Pointed walls and slate roof.

No bat roost potential was noted. There is forage available across the land but the extent of forage on the estate makes resource adjacent on the land insignificant to local bat populations.

The NBN Atlas (Scotland) holds records of common *Pipistrellus pipistrellus* and soprano pipistrelle *P. pygmaeus*, and brown long eared *Plecotus auritus* bats within 2.5km of the Site. Pipistrelle bats have been recorded on the estate by the author.

In light of the assessment, it is considered the renovation can continue without the need for further survey work.

Otters

Background - Otters are carnivorous mammals that require access to fresh water, living on the banks of rivers, lakes and seacoasts. Their riverside home range can extend to 25km, and they mark their territory with spraints or droppings. They have slick, oily fur and very thick tails. Their diet is primarily fish, but they will eat small birds, small mammals and frogs.

Otters have a series of holts, usually short burrows into the ground, within their range, one of which a maternity holt is protected by an underwater entrance.

The young otters stay with their mothers for over a year. They thrive on little disturbance and prefer clean water habitats with reed and tree cover for seclusion. The animals are inquisitive and can tolerate disturbance within their territory. The species is recorded on watercourses in many towns and cities.

For many years, otter populations were in decline but there is evidence that they are experiencing a renaissance. The primary threats to otters have been the extensive use of biocides and industrial pollution. Both problems are now more rigorously controlled. The developing population is now under threat from the expanding human population and in particular the construction of new roads and the use of road vehicles. Otters are increasingly being killed crossing roads where new roads are built within their territories.

Otters and the Law

Otters in the UK are protected by a raft of legislation, both European and UK that underlines international and national obligations.

Statutory Obligations

Annex II and IV of European Communities Directive on the Conservation of Natural Habitats and Wild Flora and Fauna. (ECH2, 4)
Appendix II of Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats). (BC2)
Appendix 1 of Convention on International Trade in Endangered Species of Wild Fauna and Flora. (CITES 1)
Schedule 5 and 6, Wildlife and Countryside Act 1981 (and later amendments). (WCA5,6)

ECH2, 4 is transposed into UK legislation by the Conservation (Natural Habitats, etc) Regulations 1994 and is generally known as the Habitats Directive. Under this Directive it is an offence to:

Damage or destroy an Otter shelter, whether intentionally or not; and
To deliberately disturb an Otter.

WCA5, 6 states that it is a criminal offence, in most circumstances, to:

Intentionally kill, take or injure an Otter;
Intentionally disturb an Otter in its place of shelter; and
Intentionally damage, destroy or obstruct access to a place of shelter.

Other obligations

NPP14 advises that the presence of a protected species is a material consideration in the assessment of development proposals.
Otters are a priority species in the UK Biodiversity Action Plan and are therefore included as a priority species in local Biodiversity Action Plans.
Statutory protection for biodiversity is entrenched in the Nature Conservation (Scotland) Act 2004. Under this Act every public body has a duty to conserve biodiversity when executing their duties. Scottish Ministers have also published a Scottish Biodiversity Strategy to create a framework for the next 25 years which will target priority species, including Otter.

Licences

Statutory advice states that an Otter Disturbance Licence will be required for all works within 20 metres of an Otter resting place or 30 metres of a holt. The details of any licence requirements must be agreed with SNH and SEERAD.

Licences will only be granted under the Conservation (Natural Habitats, Etc) Regulations 1994 if SEERAD are satisfied that:

There is no satisfactory alternative and
The action authorised will not be detrimental to the maintenance of the population of the species at a favourable conservation status in their natural range.

<u>Survey</u>

The survey was undertaken in August 2022

The survey comprised an inspection of the riverbank and immediately adjacent habitats 100m up and down stream of the Site, where accessible, for evidence of use by the species for both forage and shelter. Signs sought included: individual animals; tracks; shelters or lay ups; food remains or spraints (faeces).

A desk survey was undertaken to consult recorded biological data for a radius of 5m of the Site.

There will be no disturbance of the riverbank as a consequence of development as proposed.

No evidence was found of otters on the adjacent riverbank. NBN Atlas (Scotland) holds records of the species local to the Site.

It is considered there will be no adverse effect on otters from implementing development as proposed.

Red squirrels

The red squirrel (Sciurus vulgaris) has experienced a reduction in its distribution over the last half century, mainly because of competition from alien, grey squirrels (S. carolinensis) but also possibly because of habitat fragmentation and disease. Throughout most of Scotland the red squirrel populations are regarded as vulnerable.

Red squirrels are protected under the Wildlife and Countryside Act 1981 that makes it an offence to intentionally or recklessly kill, injure, take or sell an animal, or damage, destroy or obstruct access to its nesting place.

Without human intervention, it is recognised that where red and grey squirrels both live in an area after a period of roughly fifteen years the greys will oust the red population. It is recognised that management can be introduced to control the grey squirrel populations of areas, thus protecting the red population, but that once introduced management must continue indefinitely and that this may involve the co-ordination of the work of a number of different landowners.

In the pursuit of red squirrel conservation identification of priority and potential areas of conservation have been identified. Areas of conifers between 2000-5000ha are considered ideal for the conservation of a population with a high degree of success but areas as small as 200-300ha have potential to support a viable population with appropriate habitat management and grey squirrel control. Even with appropriate management smaller areas have little prospect of success without the involvement of all landowners in a co-ordinated programme.

The Forestry Commission in their Practice Note 5 sets out a number of recommendations for the conservation of red squirrels that might apply to Woodland Grant Scheme applications. These recommendations represent a considered framework of the principles applicable to red squirrel conservation. The factors are:

- Red squirrel reserves should be separated from a grey-dominated area by a buffer zone of at least 1km and consist of a habitat unsuitable for greys comprising conifer forest, broadleaved woodland comprising small-seeding species, arable land or moorland.

- The core of the most suitable sites should be identified, and management proposed that provides a suitable mix of food and cover and provide the opportunity for red squirrels to expand into less suitable areas.
- Tree age classes should vary with a third of the trees <15 years old, one third 15-30 years and the remainder >30 years old.
- Scots pine, larch, Norway spruce, lodgepole pine, firs, yew and hawthorn should be incorporated into the canopy particularly at the edges to promote seeding and fruiting. Birch, rowan, ash, willow, aspen and alder should be planted for general conservation as they do not promote grey squirrels.
- Thinning should be tailored to increase the number of insolated edges to promote
- seeding.
- Planting of oak, chestnut, beech and hazel should be avoided as they encourage
- greys and mature trees of these species should be removed as they seed readily.
- Extensive clear felling should be avoided to allow movement between canopies.
- The planning should maximise production by the following – extending south - facing aspects, creating irregular shapes to increase edge habitat, aligning rides east-west to create south-facing edges, delaying felling large crown trees, avoiding clear-felling, creation of uneven aged woodland and varying tree species.

The most important aspect of promotion of red squirrels is the control of the grey population. This can be achieved by shooting or trapping. Neither system is without its problems. Shooting is relatively ineffective and risks the shooting of red squirrels by mistake whereas live trapping is more effective but also risks trapping the wrong species. In addition, both systems are costly to implement in terms of man hours and materials.

Survey

The survey was undertaken in August 2022

No evidence was found of red squirrels on the Site, but there are records of the species within 100m of the Site to the east. No grey squirrel was seen during the walkover.

There will be no adverse effect on red squirrels from implementing development as proposed. Development of the Site can be effected in a way that promotes opportunities for red squirrels to recolonise the Site.

A further inspection should be carried out before felling trees on the site.

Appendix 4

Plant species list

Taymouth Castle Housing 2 East
Aberfeldy

Plant Species

Beech	*Fagus sylvatica*
Bent grass	*Agrostis tenuis*
Birch	*Betula pendula*
Bilberry	*Vaccinium myrtillus*
Bracken	*Pteridium aquilinum*
Bramble	*Rubus fruticosus*
Holly	*Ilex aquifolium*
Lime	*Tilia platyphyllos*
Lawson's cypress	*Chamaecyparis lawsoniana*
Nettle	*Urtica dioica*
Oak	*Quercus petraea*
Redwood	*Sequoia sempervirens*
Spruce	*Picea sp.*
Sweet chestnut	*Castanea sativa*
Sycamore	*Acer pseudoplatanus*
Violet	*Viola canina*
Woodrush	*Luzula sylvatica*
Wood sorrel	*Oxalis acetosella*

Appendix 5

Sites

River Tay

Designated Special Area of Conservation (SAC)	
Country	Scotland
Unitary Authority	Eastern Scotland, Highlands and Islands
Centroid*	NN818481
Latitude	56.56666667
Longitude	-4.083333333
SAC EU Code	UK0030312
Status	Designated Special Area of Conservation (SAC)
Area (ha)	9461.63

* This is the approximate central point of the SAC. In the case of large, linear or composite sites, this may no represent the location where a feature occurs within the SAC.



Location of River Tay SAC

General site character

- Shingle, Sea cliffs, Islets (0.5%)
- Inland water bodies (Standing water, Running water) (95%)
- Bogs, Marshes, Water fringed vegetation, Fens (4.5%)

Download the Standard Data Form for this site as submitted to Europe (PDF <100kb)

Note When undertaking an appropriate assessment of impacts at a site, all features of European importance (both primary and non-primary) need to be considered.

Annex I habitats that are a primary reason for selection of this site

- Not Applicable

Annex I habitats present as a qualifying feature, but not a primary reason for selection of this site

- **3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea**

Annex II species that are a primary reason for selection of this site

- **1106 Atlantic salmon** *Salmo salar*
  The River Tay supports a high-quality **Atlantic salmon** ***Salmo salar*** population, with rod catch returns showing that the Tay is consistently one of the top three salmon rivers in Scotland. In 1999 the catch was 7230 fish, over 10% of the Scottish total. The Tay drains a very large catchment, and has the greatest flow of all UK rivers. There is considerable ecological variety in the Tay catchment, resulting in the Tay supporting the full range of salmon life-history types found in Scotland, with adult salmon entering the River Tay throughout the year to spawn in different parts of the catchment.

Annex II species present as a qualifying feature, but not a primary reason for site selection

- **1095 Sea lamprey** *Petromyzon marinus*
- **1096 Brook lamprey** *Lampetra planeri*
- **1099 River lamprey** *Lampetra fluviatilis*
- **1355 Otter** *Lutra lutra*

Many designated sites are on private land: the listing of a site in these pages does not imply any right of public access.

ABOUT US

- About JNCC
- Careers
- Procurement

OUR WORK

CITATION

RIVER LYON BANK
SITE OF SPECIAL SCIENTIFIC INTEREST
Perth and Kinross

Site Code: 1362

NATIONAL GRID REFERENCE: NN 782487

OS 1:50,000 SHEET NO: Landranger Series 52
1:25,000 SHEET NO: Explorer Series 379

AREA: 1.18 hectares

NOTIFIED NATURAL FEATURES:

Biological: Vascular plants: Whorled solomon's-seal *Polygonatum verticillatum*

DESCRIPTION

River Lyon Bank Site of Special Scientific Interest (SSSI) lies approximately 7 kilometres west of Aberfeldy on the northern bank of the River Lyon, to the north west of its confluence with the River Tay. The site comprises a narrow strip of mixed riverside woodland and is notified for its rare vascular plant species, in particular a single colony of the nationally rare whorled solomon's-seal *Polygonatum verticillatum*.

The woodland is a mix of alder, ash, rowan, bird cherry, sycamore and wych elm. Its rich ground flora includes typically woodland species such as ramsons *Allium ursinum*, giant bellflower *Campanula latifolia* and wood anemone *Anemone nemorosa* along with some uncommon species such as moschatel *Adoxa moschatellina*, toothwort *Lathraea squamaria* and mountain melick M*elica nutans*.

NOTIFICATION HISTORY

First notified under the Wildlife and Countryside Act 1981: 15 December 1983

Reviewed under the Nature Conservation (Scotland) Act 2004: 10 December 2010

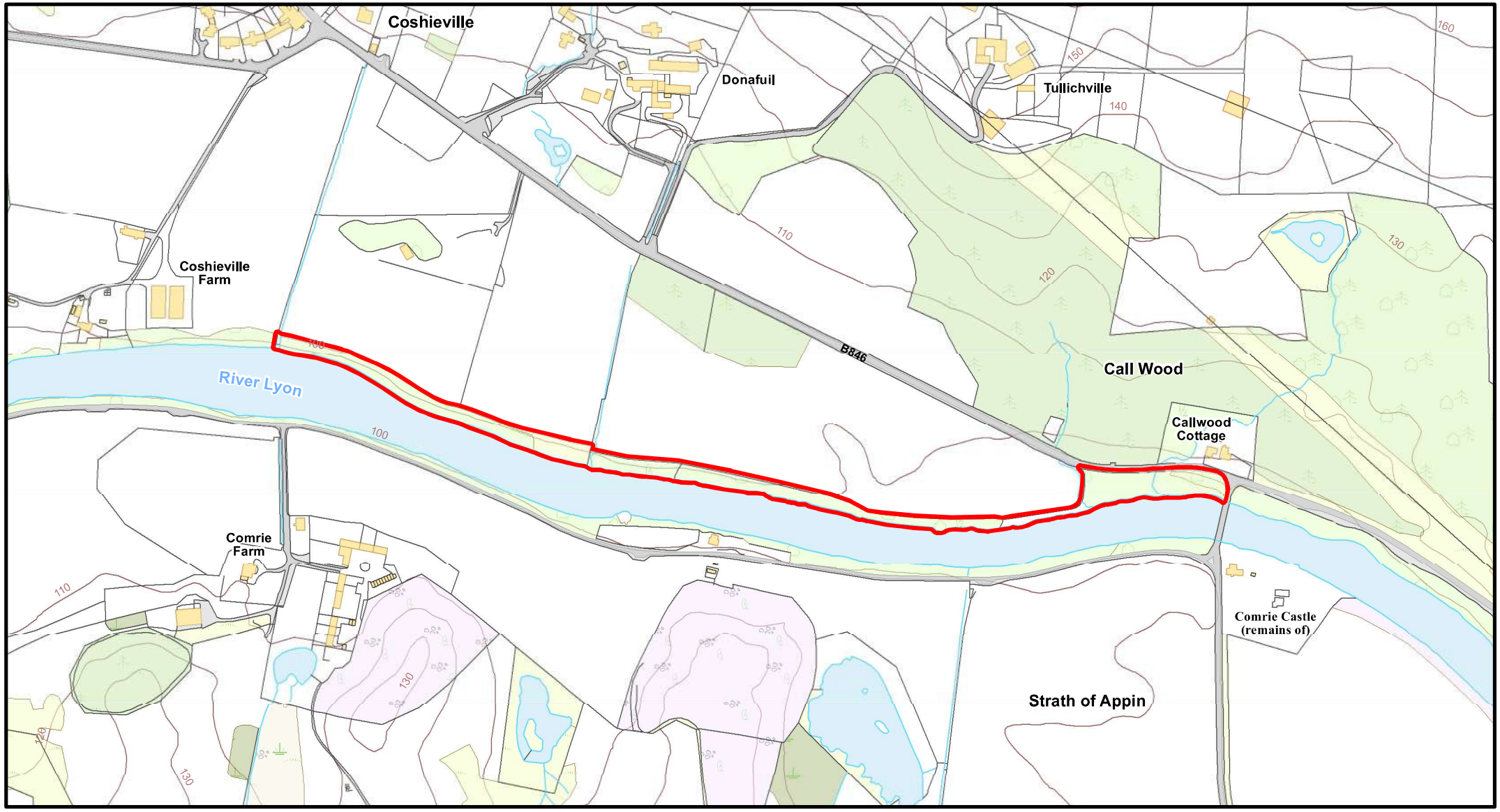
REMARKS

Measured area of site corrected (from 1.2 ha).

River Lyon Bank SSSI overlaps part of the River Tay Special Area of Conservation which is designated for the habitat and species listed below.

Habitat: Clear-water lakes or lochs with aquatic vegetation and poor to moderate nutrient levels

Species: Atlantic salmon *Salmo salar*
Brook lamprey *Lampetra planeri*
Otter *Lutra lutra*
River lamprey *Lampetra fluviatilis*
Sea lamprey *Petromyzon marinus*



River Lyon Bank

Site of Special Scientific Interest

Site Code: 1362

Site boundary follows the inside edge of the boundary line shown

Produced by: Geographic Information Group, SNH, 2009
© Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2009. All rights reserved. Ordnance Survey Licence number SNH 100017908.

This is an updated representation of the notified site boundary. Any apparent small differences are due to changes to the OS backdrop.

Scale 1:5,000

Millard Consulting – Dundee Office
www.millardconsulting.co.uk

Planning Consultation Response
Flooding – Zone Z4-04

Ref: Applications 23/01113/FLL

Date: 11th March 2023

Subject: Taymouth Castle Zone Z4-04, response to SEPA

This statement addresses comments received from SEPA in relation to flood risk for the above planning applications, dated 6th December 2023. Each relevant section of the Planning Consultation is copied below in *italics*, with the Design Team's response below.

SEPA Comment

SEPA paragraph 1.5:

"However, we are concerned the cross-sections and levels presented in Tables 5.1 and 5.2 are not necessarily those that are most relevant to the site. What has been provided are cross-sections Tay 26 to Tay 37, when what should have been presented is Tay 13 to Tay 30. This would ensure that the whole boundary of Zone IV bordered by the River Tay is considered. We therefore request the FRA is updated to reflect this in order to provide an appropriate baseline to assess flood risk to the proposed development and allow us to advise on the potential impacts."

Response

Cross sections Tay_13 to Tay_28 have been included in an updated version of our Zone 4 flood risk assessment, attached. Cross sections Tay_29 to Tay_37 were provided in the original FRA report and are again included in the update. Figure 1 below shows the predicted 1 in 200yr + CC flood extent from the 2D element of the hydraulic model in the vicinity of Taymouth Castle.

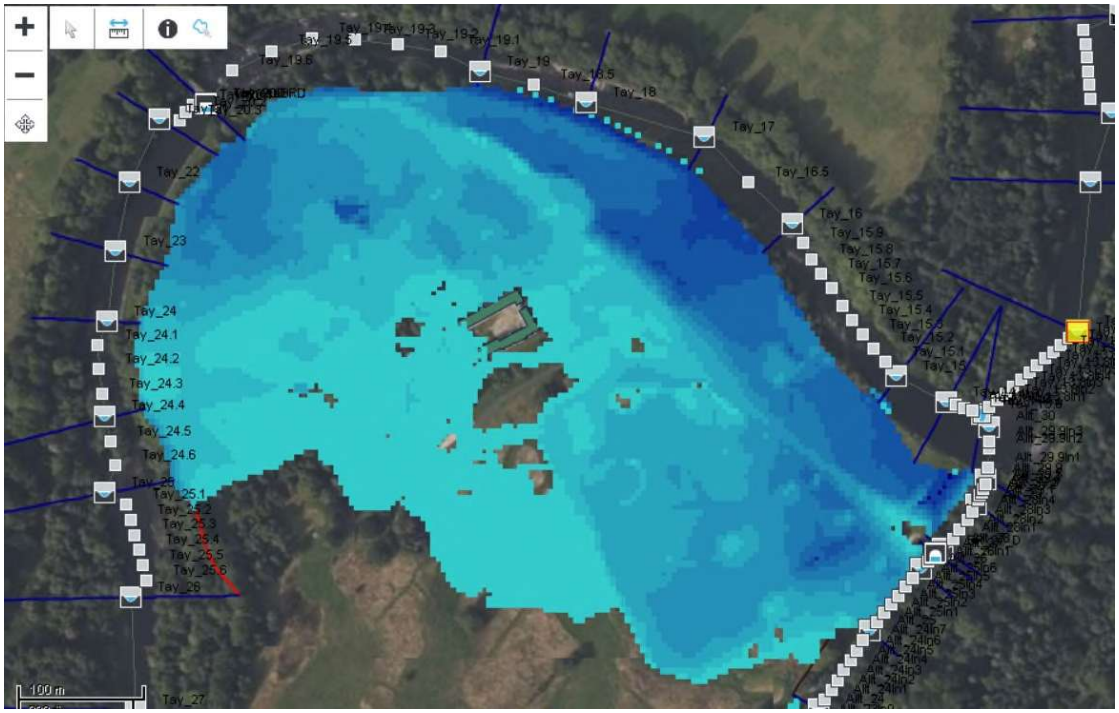


Figure 1 – Predicted 1 in 200yr + CC 2D flood extent in vicinity of Taymouth Castle

SEPA Comment

SEPA paragraph 1.7:

"…we consider that key information is currently missing required to fully determine whether parts of Zone IV will remain at flood risk from the 'man-made channel'. Our Future Flood Maps (which currently underestimating risk) show flooding through the middle of Zone IV. As such, the FRA requires to be updated once final information is available regarding the proposed relocation and nature of the man-made channel."

Response

The proposed alterations to the man-made channel in the vicinity of Zone 4 have now been designed, and the flood risk assessment report has been updated to include these proposals.

SEPA Comment

SEPA Paragraph 1.8:

"Policy 22a of NPF4 indicates that development proposals in a flood risk area will only be supported in certain instances. Unless advised otherwise by the planning authority, our position is provided on the basis that Parts i – iv of Policy 22a do not apply to the development and therefore flood avoidance as a first principle applies to the proposals. On that basis we would not support the use of an 'upstand' or land raising to enable development. The updated FRA and associated site layout should demonstrate no estate properties are proposed in the flood risk area."

Response

We have not proposed the use of an upstand or landraising to facilitate development.

No proposed properties in Zone 4 are within the established flood risk area.

0131 226 7225
slb@scotthobbsplanning.com
www.scotthobbsplanning.com

24a Stafford Street
Edinburgh
EH3 7BD

26 February 2025

Planning and Development Management
Perth and Kinross Council
By ePlanning Only

Dear Sir/Madam,

Submission of Supporting Heritage Impact Assessment for Housing Zone 4, Taymouth Castle, Application Ref: 23/01113/FLL (Zone 4 – 04)

Introduction

This cover letter is submitted on behalf of River Tay Development Ltd ('the Applicant') and supports the application for two estate properties, and associated works within Z4-04 at Taymouth Castle.

Previous applications relating to the wider Zone 4 housing applications were submitted to Perth and Kinross Council under Planning References 23/01112/FLL, 23/01228/FLL, 23/01117/LBC, and 23/01114/FLL. All were approved in July 2024 (Clubhouse) and November 2024 (Housing). The Category A Listed Dairy Building sits prominently within the overarching Zone 4 masterplan area, as such site layouts have been amended throughout the process to ensure that the scale and proximity of development does not impact on the setting of The Dairy.

This Covering Letter is supported by the following:
-Taymouth Zone 04 Heritage Impact Assessment
-HZ04 Views 1-7

History

There is an extant planning permission across Taymouth Estate for a total of 167 estate properties which was granted in 2005 and 2011 (03/02250/PPLB and 11/00533/FLM). These permissions have been implemented and as such the estate properties as approved under those permissions could continue to be implemented.

The 2023 approvals for amendments to zone 4 consisted of Z4-01 (9 properties, reduced to 7) (reference: 23/01228/FLL), Z4-02 (7 properties, reduced to 5) (reference: 23/001112/FLL), Z4-03 alterations to the dairy to form a clubhouse (references: 23/01117/LBC and 23/01114/FLL).

The zone 4 properties (GC-17 and GC-18, the focus of this application) were subjected to condition 51 of the 2011 consent which stated:

"*The estate properties located in Zone 7 (drwg ref: 11/00533/8) and on the masterplan (B-20-03, B-21-03, B-22-03) are not approved. Estate properties B-21-10 and B-22-10 shall be relocated to Zone 2 (drwg ref: 11/00533/3) adjacent to B-01-03 and B-11-03. A revised masterplan and Zone 2 and 7 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones.*"

It is noted the decision notices for Z4-01 and Z4-02 assess the proposals cumulatively. The assessment for plots GC-17 and GC-18 states that "*properties GC-17 and GC-18 which are subject to application 23/01113/FLL are located on a part of the estate where condition 51 of permission 11/00533/FLM made it clear that no development was permitted in this location due to the potential impact development in this area would have on the setting of the category A listed Dairy Building when viewed from the east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. Any properties in this location were considered to be visually prominent. Therefore, the proposal for two units does not accord within the findings of the original assessment of development in this location and therefore these are unlikely to be supported given this background*."

The Heritage Impact Assessment and HZ04 Views submitted with this letter support the Applicant's position that the proposed dwellings (plots GC-17 & GC-18) will not interrupt any of the key and important views, and that any impact on the Category A Listed Dairy building is negligible. What is not considered to be negligible is the economic impact of the loss of these two plots as part of the wider Taymouth Estate redevelopment.

As outlined, the current planning proposals across all the zones are seeking a reduction in the total number of units to be constructed across the estate. The Zone 4 applications have already seen a significant loss of plots (four removed as part of the planning process, as well as a reduction in the number approved in 2011). The retention of the two plots to which the current application relates will support the long-term vision and viability of the Taymouth Estate revival, whilst supporting benefits in the local economy.

The Key Planning Policies of relevance are referenced below.

National Planning Framework 4 (2023)

Policy 7 – Historic Assets and Places *c) Development proposals affecting the setting of a listed building should preserve its character, and its special architectural or historic interest. i) Development proposals affecting nationally important Gardens and Designed Landscapes will be supported where they protect, preserve or enhance their cultural significance, character and integrity and where proposals will not significantly impact on important views to, from and within the site, or its setting. m) Development proposals which sensitively repair, enhance and bring historic buildings as identified as being at risk locally or on the national Buildings at Risk Register, back into beneficial use will be supported.*

Policy 17 – Rural Homes *a) Development proposals for new homes in rural areas will be supported where the development is suitably scaled, sited and designed to be in keeping with the character of the area and development: is an appropriate use of a historic environment asset or is appropriate enabling development to secure the future of historic environment assets.*

Policy 25 – Community Wealth Building *a) Development proposals which contribute to local or regional community wealth building strategies and are consistent with local economic priorities will be supported.*

Policy 29 – Rural Development *a) Development proposals that contribute to the viability, sustainability and diversity of rural communities and local rural economy will be supported, including: diversification of existing businesses; appropriate use of a historic environment asset.*

Policy 30 – Tourism *b) Proposals for tourism related development will take into account: the contribution made to the local economy.*

Perth and Kinross Local Development Plan (2019)

Policy 8 – Rural Business and Diversification *Proposals for new tourism-related developments, and the expansion of existing facilities, will be supported where it can be demonstrated that they improve the quality of new or existing visitor facilities, allow a new market to be exploited, or attend the tourism season.*

Policy 27a - Listed Buildings *There is a presumption in favour of the retention and sympathetic restoration, correct maintenance and sensitive management of listed buildings to enable them to remain in active use, and any proposed alterations or adaptations to help sustain or enhance a building's beneficial use should not adversely affect its special architectural or historic interest.*

Policy 29: Gardens and Designed Landscapes *Gardens and designed landscapes make a significant contribution to the character and quality of the landscape in Perth and Kinross. The Council will seek to manage change in order to protect and enhance the integrity of those sites included on the current Inventory of Gardens and Designed Landscapes*

The proposed development has been carefully designed to ensure that the character and historic interest of the structures and setting is retained. The Dairy Building is a designated heritage asset of high significance; however, the proposals are proportionate, appropriate and integrate well into the surrounding character in comparison to the extant consent (11/00533/FLM). The significance of The Dairy Building will remain unharmed.

Rural revitalisation is one of the six overarching spatial principles included within NPF4 and encourages sustainable development in rural areas, recognising the need to grow and support rural communities. The proposed dwellings ensure that the operations of the Taymouth Castle Estate which include enabling the restoration of Taymouth Castle, and the several buildings at risk within the wider estate can be secured for the future. As noted within the EKOS report, the cumulative proposals will encompass a direct investment of c.£370 million, with a further £360 million in private sector investment throughout the construction period, as well as an additional £30 million of capital expenditure in locality improvements. The full EKOS report can be found (here).

On this basis the proposed two house plots are acceptable in the context of Policies 25 and 29 of NPF4 and Policy 8 of the adopted LDP, all of which support proposals which make a significant economic development contribution to rural communities.

Whilst the current proposals already comprise a reduction on proposed dwellings across the estate compared to the extant planning permissions, it is not economically viable for the applicant to continue to reduce these numbers further; the cumulative impact of zone 4 has been reduced through the recent removal of four plots forming part of the Z4-01 and Z4-02 applications.

There is no policy basis to support the refusal of plots GC-17 and GC-18. As noted within the Heritage Impact Statement, the proposals are in accordance with Historic Environment Scotland's Guidance on Setting and Designed Landscapes, meet the Policy 7 requirements of NPF4 and LDP Policy 29. The masterplan for Zone

4 supports a significant scheme of repairs, securing the future use of the at-risk Dairy building, and will protect, preserve and enhance the cultural significance, character and integrity of the designed landscape.

We trust the attached information will allow you to grant permission for the proposed development. However, if you have any queries regarding the submission, please do not hesitate to contact me.

Yours sincerely,

[redacted]

Sharon-Lee Bow MSc BSc (Hons) MRTPI CIHCM
Senior Planner

Scott Hobbs Planning

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	23/01112/FLL	**Comments provided by**	Diane Barbary
Service/Section	Conservation	**Contact Details**	[redacted]
Description of Proposal	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)		
Address of site	Taymouth Castle, Kenmore		
Comments on the proposal	Comments are on the basis of a revised scheme in relation to Zone 4 housing (Zone 2 in the previously approved proposal 11/00533/FLL). Removal of the proposed plots immediately west and south west of the category A listed Dairy is welcomed. Nevertheless the two proposed properties to the south (GC-17 and GC-18) are considered to present an unacceptable visual intrusion on both the listed building and the designed landscape setting. The two substantial properties are discrete from the wider Z4 group, and landscape screening is likely to be insufficient to prevent an undue adverse impact in wider views.		
Recommended planning condition(s)			
Recommended informative(s) for applicant			
Date comments returned	20/03/2025		

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	23/01228/FLL 23/01113/FLL 23/01112/FLL	**Comments provided by**	Diane Barbary
Service/Section	Conservation	**Contact Details**	[redacted]
Description of Proposal	Erection of estate properties and associated works (Zone Z4)		
Address of site	Taymouth Castle, Kenmore		
Comments on the proposal	The 3 current applications for Zone 4 propose 18 estate properties to the west of the category A listed Dairy, in the grounds of Taymouth Castle. The site is designated as a Historic Garden and Designed Landscape. It is separately proposed to restore and convert the Dairy to a golf clubhouse (23/01114/FLL, 23/01117/LBC). The Dairy is constructed of white quartz and sited on top of a knoll, clearly designed to be prominent in its immediate setting and wider views. Relative to the previously consented scheme, the current applications propose siting the Z4 housing development closer to the Dairy, on sloping, wooded ground to the west. Although the landscape setting of the Dairy has changed since its construction in the 1830s, the scale and proximity of the proposed development is likely to detract from its significance as a rustic landscape feature within the historic designed landscape. While consideration is being given to tree retention and protection in the course of development, residential development in close proximity to trees is often problematic in the long term due to issues around light, leaf fall and perceived risk from falling branches etc. It's not clear from the submission that consideration has been given to long-term tree management and the potential impact on the character of the designed landscape resulting from the intended scale of construction within the policy woodland. The proposed new houses are generally larger than those previously approved with a more solid appearance due to changes to the footprint, glazing and roof design. The location within the woodland may reduce overall visibility within the landscape – and I note that the overall number has reduced from 22 – but the four properties closest to the Dairy (GC13, GC14 in 23/01228/FLL and GC15 and GC16 in 23/01112/FLL) present a significant intrusion on the setting of a category A listed building. These buildings would		

	be in direct conflict with the original design intention of the Dairy to be the most visually prominent element in the landscape. The Dairy is one of the key components of the historic landscape setting of Taymouth Castle. The current Zone 4 proposals do not meet requirements set out in NPF4 Policy 7 and LDP2 Policies 27A and 29 whereby change should be managed to appropriately preserve and enhance heritage assets.
Recommended planning condition(s)	
Recommended informative(s) for applicant	
Date comments returned	19/12/2023

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to:
Developmentmanagement@pkc.gov.uk

Perth and Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our case ID: 300069401
Your ref: 23/01113/FLL
12 January 2024

Dear Perth and Kinross Council

Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013
Taymouth Castle Kenmore Aberfeldy PH15 2NT - Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)

Thank you for your consultation which we received on 13 November 2023. We have assessed it for our historic environment interests and consider that the proposals affect the following:

Ref	Name	Designation Type
GDL00354	TAYMOUTH CASTLE	Garden and Designed Landscape
LB12091	TAYMOUTH DAIRY AND TERRACE ON WEST	Listed Building
LB12093	TAYMOUTH CASTLE	Listed Building

You should also seek advice from your archaeology and conservation service for matters including unscheduled archaeology and category B and C listed buildings.

Our Advice

This application is an amendment to a previously consented scheme for housing within the Inventory Garden and Designed Landscape of category A listed Taymouth Castle (your ref 11/00533/FLM). This current proposal is for Zone Z4-04, a compartment of the previously approved housing proposals (Zone 7 in 11/00533/FLM).

This proposal would see an increase to the previously approved sizes of dwellings and some changes to their siting within this compartment. The revised design of the buildings

include changes to proposed roof profiles, scale and massing, which have the potential to have a greater impact on the designed landscape than the consented scheme of 2011.

In our 2011 advice we recommended the removal of proposed development in the Tom More area to the south of the Dairy (Zone 7) because we considered that development here would reduce an appreciation and understanding of the designed landscape. While our preference remains for no buildings in this area, we accept that the principle of development has been consented and welcome the reduction of proposed houses in this area from 3 to 2.

Planning authorities are expected to treat our comments as a material consideration, and this advice should be taken into account in your decision making. Our view is that the proposals do not raise historic environment issues of national significance and therefore we do not object. However, our decision not to object should not be taken as our support for the proposals. This application should be determined in accordance with national and local policy on development affecting the historic environment, together with related policy guidance.

Further Information

This response applies to the application currently proposed. An amended scheme may require another consultation with us.

Guidance about national policy can be found in our 'Managing Change in the Historic Environment' series available online at www.historicenvironment.scot/advice-and-support/planning-and-guidance/legislation-and-guidance/managing-change-in-the-historic-environment-guidance-notes/. Technical advice is available through our Technical Conservation website at www.engineshed.org.

Please contact us if you have any questions about this response. The officer managing this case is Devon DeCelles who can be contacted by phone on 0131 668 8075 or by email on Devon.DeCelles@hes.scot.

Yours faithfully

Historic Environment Scotland

HISTORIC ENVIRONMENT SCOTLAND | ÀRAINNEACHD EACHDRAIDHEIL ALBA

By email to:
Developmentmanagement@pkc.gov.uk

Perth and Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

Longmore House
Salisbury Place
Edinburgh
EH9 1SH

Enquiry Line: 0131-668-8716
HMConsultations@hes.scot

Our case ID: 300069401
Your ref: 23/01113/FLL
19 March 2025

Dear Perth and Kinross Council

Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013
Taymouth Castle Kenmore Aberfeldy PH15 2NT - Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)

Thank you for your consultation which we received on 13 November 2023. We have assessed it for historic environment matters on which we have an advice-giving role and consider that the proposals affect the following heritage assets:

Ref	Name	Designation Type
LB12091,	TAYMOUTH DAIRY AND TERRACE ON WEST.,	Listed Building,
LB12093,	TAYMOUTH CASTLE,	Listed Building,
GDL00354	TAYMOUTH CASTLE	Garden and Designed Landscape

Your archaeology and building conservation advisers will also be able to offer advice on impacts on the historic environment. This may include matters covered by our advice-giving role, and other matters such as unscheduled archaeology, category B and C listed buildings, and conservation areas.

Our Advice

We have considered the information received and do not have any comments to make on the proposals. Our decision not to provide comments should not be taken as our support for the proposals. This application should be determined in accordance with national and local policy on development affecting the historic environment, together with related policy guidance.

Further Information

This response applies to the current proposal. An amended scheme may require another consultation with us, which should be sent to HMConsultations@hes.scot.

Decisions that affect the historic environment should take the Historic Environment Policy for Scotland (HEPS) into account as a material consideration. Our series of Managing Change in the Historic Environment Guidance Notes supports national policy on the historic environment, including HEPS, and explains how it should be applied. Technical advice is available through our Technical Conservation website at www.engineshed.org.

Yours faithfully

Historic Environment Scotland

NatureScot
Scotland's Nature Agency
Buidheann Nàdair na h-Alba

Planning
Perth & Kinross Council
Pullar House
35 Kinnoull Street
Perth
PH1 5GD

18 December 2023

Our ref: SIT/SAC/River Tay/ASS
Your ref: 23/01112/FLL, 23/01113/FLL, 23/01114/FLL & 23/01228/FLL

Dear Sir

The Town and Country Planning (Scotland) Act 1997 as amended by Planning etc (Scotland) Act 2006

Consultation on applications at Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT:

Erection of 9 estate properties, formation of access roads & associated works (Zone Z4-01)
Erection of 7 estate properties, formation of access roads & associated works (Zone Z4-02),
Change of use & alterations to dwellinghouse to form clubhouse, formation of outdoor seating area, access track & parking area & installation of private foul water treatment plant, The Dairy (Zone Z4-03)
Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)

Thank-you for the opportunity to comment on these planning applications and for granting an extension to the deadline. This is a combined response for the four applications.

Summary

River Tay Special Area of Conservation (SAC)

These proposals could affect internationally important natural heritage interests and **we therefore object until further information is obtained from the applicant.** This is set out in our appraisal below. Once this information has been provided, we will be able to give this proposal further consideration.

Freshwater Pearl Mussel

We provide advice below regarding potential impacts to freshwater pearl mussels.

Appraisal of the Impacts of the proposal and advice

River Tay Special Area of Conservation (SAC)

The proposed development lies adjacent to the River Tay SAC, designated for its populations of Atlantic salmon, sea, river and brook lamprey species, otter and clearwater lochs. Atlantic salmon, lampreys and otters have all been recorded in the River Tay adjacent to the Taymouth Estate.

The site's status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended (the "Habitats Regulations") apply. Consequently, Perth and Kinross Council is required to consider the effects of these proposals on the SAC before it can be consented (commonly known as Habitats Regulations Appraisal). A summary of Scottish Government policy is available on our website: The Habitats Directive and Habitats Regulations | NatureScot

Our advice is that there is insufficient information to determine whether these proposals are likely to have a significant effect on the Atlantic salmon and lamprey interests of the River Tay SAC. In order for this to be determined, we recommend that the following additional information is obtained:

- The proposed foul drainage arrangement is not presented consistently within the applications. We advise that the details are clarified.

Annex A contains full details and reasoning for this requirement.

If you are minded to grant planning permission against this advice, you must notify Scottish Ministers.

Please note, we have not been consulted on the discharge at Newhall Bridge mentioned in the Drainage Strategy document. We would appreciate if you could advise if this is currently the subject of a planning consultation.

Protected Species

Freshwater Pearl Mussels

Although mussels are not currently a qualifying interest of the River Tay SAC, they are a protected species under Schedule 5, Section 9 (1), (2) and (5) of the Wildlife & Countryside Act 1981 (as amended). It is an offence to intentionally or recklessly kill, injure take or disturb mussels, or to damage their habitat.

Mussels are sedentary filter feeders and pass considerable amounts of water through their digestive system, making them extremely vulnerable to water pollution and the release/disturbance of sediments. Juvenile mussels tend to live entirely buried within the river substrate, which makes them considerably more vulnerable to any increase in silt or suspended solids which could smother the gravel bed.

The survey undertaken earlier in the year found mussels in the vicinity of the proposed combined surface water and foul drainage outfall. However, it is not clear if the error found with some of the mussel records that were rectified for the 22/01882/FLL application also affects these records. We advise the following information should be provided:

- Accurate mussel records
- A map detailing the location of the proposed outfalls and the mussels

If this application is approved without consideration of this information, an offence under the Wildlife and Countryside Act (1981), as amended, may occur.

We will provide further advice on the implications of the proposal once the information outlined above has been provided.

If you have any queries, please contact Nicki McIntyre on 07717 541521 or Nicki.mcintyre@nature.scot

Yours sincerely,

Via email

Chris Donald
Head of Operations, Central Highland
Chris.donald@nature.scot

The advice in this letter is provided by NatureScot, the operating name of Scottish Natural Heritage

Annex A - SNH Appraisal of the Proposals

Appraisal of the likely impacts to the River Tay Special Area of Conservation (SAC)
Information regarding the SAC qualifying interests and Conservation Objectives are available on the Sitelink section of our website at SiteLink - River Tay SAC

The site's SAC status means that the requirements of the Conservation (Natural Habitats, &c.) Regulations 1994 as amended, (the 'Habitats Regulations') apply.

These proposals are not directly connected with, or necessary to, conservation management of the site.

These proposals are for eighteen dwellings, an access road and conversion of The Dairy to a golf clubhouse.

The River Tay catchment supports a significant Atlantic salmon population. Estimates from catch returns show that the Tay is consistently one of the top three salmon rivers in Scotland, accounting for approximately 8% of the total Scottish catch. Although the River Tay catchment has lower lamprey densities than rivers such as the Endrick and Spey, it is likely to contain a very large lamprey population, making it one of the most important lamprey populations in Scotland.

We seek clarification of the proposed foul drainage arrangement to enable us to provide advice regarding the impact to the protected interests. The application forms state the foul drainage will be dealt with through the installation of a New/Altered septic tank and discharge to a soakaway. However, the Masterplan shows a treatment plant and combined foul and surface water discharge to the River Tay, plus a second surface water discharge further upstream. Construction of the latter option could lead to localised pollution of the River Tay. If sediment, building materials or fuel were to enter the river, this could lead to fish being smothered and their migration impeded. We, therefore, advise that, should the proposed development be approved, a detailed Construction Method Statement should be submitted to Perth and Kinross Council prior to work commencing. We are content for you to finalise the details with the applicant without further reference to us.

To:	John Williamson, Planning Officer
From:	Grace Woolmer-White, Historic Environment Officer
Tel:	01738 477056
Email:	GWoolmer@pkht.org.uk
Date:	20th December 2023

23/01113/FLL | Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04) | Taymouth Castle Kenmore Aberfeldy PH15 2NT

Thank you for consulting PKHT on the above planning application. The development site is considered to be archaeologically sensitive, both in terms of archaeology associated with the development of Taymouth Castle, and in terms of prehistoric archaeology. Taymouth Castle Estate is renowned for its designed landscape, which includes many outstanding buildings and garden features. Gardens, buildings and services associated with the Castle and possibly its predecessor, Balloch Castle, may survive within the proposed development site. There is also potential for buried prehistoric archaeology within the proposed development site. Prehistoric archaeology tends to be focused within straths (as for example, within the neighbouring straths of Glenlyon and Appin of Dull) and there is existing evidence of prehistoric activity at Taymouth.

In light of the above, the development area was flagged as archaeological sensitivity in an earlier wider application 11/00533/FLM, under Site 6 The Dairy. According to our records the Terms of Reference document agreed for this area of this development site has not been dealt with. Additionally, there have been changes to the previously agreed design. As a number of the proposed properties are located nearby to the Category A Listed Dairy (LB12091), these are likely to have an impact upon the setting of this building and Historic Environment Scotland and PKC Conservation Officers should be consulted for comment with regards to this.

However, given the above, should the application be granted consent and in accordance with the prior agreed methodology, we would recommend that a negative suspensive condition for a programme of archaeological works be attached to any planning consent. The scope of approach should be discussed in advance with PKHT and be agreed in a WSI to be submitted to PKHT and PKC for approval. This should include all areas where ground-breaking and landscaping works are proposed, including the proposed properties, associated infrastructure and access roads etc.

Recommendation: In line with the National Planning Framework 4's historic environment section (Policy 7, Historic Assets and Places, pages 45-47) it is recommended that the following conditions for a programme of archaeological works should be attached to consent, if granted:

HE25A *Development shall not commence until the developer has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Archaeological Investigation (WSI) which has been submitted by the developer and agreed in writing by the Council as Planning Authority, in consultation with Perth and Kinross Heritage Trust (PKHT). Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented including that all excavation, preservation, recording, recovery, analysis, publication and archiving of archaeological resources within the development site is undertaken. Should the archaeological works, as required by the WSI, identify a requirement for post-excavation analysis, the development as approved shall not be occupied or brought into use until a Post-Excavation Research Design (PERD) has been submitted to and agreed in writing by the Council as Planning Authority, in consultation with PKHT. The PERD shall be carried out in complete accordance with the approved details. Furthermore, the developer shall afford access at all reasonable times to PKHT or a nominated representative and shall allow them to observe work in progress.*

Notes:

1. **Should consent be given, it is important that the developer, or their agent, contact me as soon as possible. I can then explain the procedure of works required and, if necessary, prepare for them written Terms of Reference.**

2. This advice is based on information held on the Perth and Kinross Historic Environment Record. This database of archaeological sites and historic buildings is regularly updated

Comments to the Development Management & Building Standards Service Manager on a Planning Application

Planning Application ref.	23/01113/FLL	**Comments provided by**	Lucy Sumner
Service/Section	Planning & Housing Strategy	**Contact Details**	**Development Contributions Officer:** Lucy Sumner Email: TESDevelopmentContributions@pkc.gov.uk
Description of Proposal	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)		
Address of site	Taymouth Castle Kenmore Aberfeldy PH15 2NT		
Comments on the proposal	The proposed units are already consented under a previous planning reference. I have no comments to make on this proposal in terms of the Developer Contributions and Affordable Housing Supplementary Guidance.		
Recommended planning condition(s)			
Recommended informative(s) for applicant			
Date comments returned	04 December 2023		

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

John Williamson
Planning Department
Perth & Kinross Council

By email only to: DevelopmentManagement@pkc.gov.uk

Our Ref: 11181
Your Ref: 23/01113/FLL

SEPA Email Contact:
planning.south@sepa.org.uk

06 December 2023

Dear John

Town and Country Planning (Scotland) Acts
Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)
Taymouth Castle Kenmore Aberfeldy PH15 2NT

Thank you for consulting SEPA on 17 November 2023 in relation to the above application and clarifying you require flood risk advice.

Advice for the planning authority

Following our review of the planning application and the associated Flood Risk Assessment (FRA) (dated November 2023) we submit a **holding objection** due to a lack of information in relation to flood risk. In summary we require the:

- FRA to provide information on all cross-sections bordering the site;
- FRA to be updated once the final information is available regarding the proposed relocation and nature of the man-made channel such that flood risk from this source can be accurately assessed; and
- Proposals are designed to meet with the requirements of Policy 22 of NPF4.

Therefore, we request that determination is deferred until this information has been provided for our assessment. Please note our further detailed advice below.

1. Flood risk

1.1 In line with NPF4 (Policy 22) a precautionary approach to flood risk should be adopted by avoiding development in flood risk areas defined as land or built form with an annual probability of being flooded of greater than 0.5% which must include an appropriate allowance for future climate change.

1.2 We note the proposal forms part of Zone IV of the Taymouth Master Plan (dated October 2023) and is one of several sites in the grounds of Taymouth Castle where estate properties are proposed.

Living Wage Employer
UKAS TESTING 1327

Chairman
Bob Downes

CEO
Nicole Paterson

Angus Smith Building
6 Parklands Avenue
Eurocentral
Holytown
North Lanarkshire
ML1 4WQ

Tel: 03000 99 66 99
www.sepa.org.uk

1.3 The wider Zone IV is located close to the bank of the River Tay and staddles the current route of a man-made channel, created to aid drainage of the golf course. Zone Z4-04, subject to this application, lies in the route of or very close to the man-made channel.

1.4 We have reviewed the FRA and accept the 200-year estimate of 481.7 cumecs used in the assessment. As per NPF4, the flood risk area is defined as a 200-year event plus an appropriate allowance for future climate change. As set out in our Climate change allowances for FRA in land use planning, the peak flow climate change uplift for the Tay basin is 53%. This gives a 200+CC design flow of 737 cumecs and we note this is what was used in the FRA. Notably, this is more than double the rank 1 event at our Kenmore Gauging Station in 1993, which was 336.1 cumecs. The 200+CC level increases shown in Table 5.2 (based on 737 cumecs), do not seem that large for such an increase in flow.

1.5 However, we are concerned the cross-sections and levels presented in Tables 5.1 and 5.2 are not necessarily those that are most relevant to the site. What has been provided are cross-sections Tay 26 to Tay 37, when what should have been presented is Tay 13 to Tay 30. This would ensure that the whole boundary of Zone IV bordered by the River Tay is considered. We therefore request the FRA is updated to reflect this in order to provide an appropriate baseline to assess flood risk to the proposed development and allow us to advise on the potential impacts.

1.6 Additionally, Section 6 includes the following statements:

- Potential flood risk from the man-made channel, which is to be altered as part of the golf course development, should be considered. At the time of writing the proposed alterations to the channel have not yet been finalised. The proposed development should be suitably designed to ensure no overland flow could adversely impact the development due to either surface water runoff or overtopping of the man-made channel or proposed culverts. The design of the channel alterations should fully consider flood risk to both proposed and existing development and ensure the proposals do not increase flood risk.
- From inspection of the proposed golf course layout, it can be said that overland flow paths in the vicinity of Zone 4 will in general remain as they are currently.
- To mitigate against the potential risk of adverse impact from overland flow it should be ensured that all properties are constructed with a suitable upstand above surrounding ground to the lowest floor level.

1.7 Given the above statements, we consider that key information is currently missing required to fully determine whether parts of Zone IV will remain at flood risk from the 'man-made channel'. Our Future Flood Maps (which currently underestimating risk) show flooding through the middle of Zone IV. As such, the FRA requires to be updated once final information is available regarding the proposed relocation and nature of the man-made channel.

1.8 Policy 22a of NPF4 indicates that development proposals in a flood risk area will only be supported in certain instances. Unless advised otherwise by the planning authority, our position is provided on the basis that Parts i – iv of Policy 22a do not apply to the development and therefore flood avoidance as a first principle applies to the proposals. On that basis we would not support the use of an 'upstand' or land raising to enable development. The updated FRA and associated site layout should demonstrate no estate properties are proposed in the flood risk area.

2. Foul drainage

2.1 We understand the site is to be served by a private package treatment plant with an outfall for treated foul water to the River Tay. This requires a licence from SEPA under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (CAR). We recommend the applicant engage in pre-CAR application discussions with our Water Permitting Team (waterpermitting@sepa.org.uk) as soon as possible.

2.2 Please note the River Tay is designated as a Special Area of Conservation and we will require to carry out an assessment during the CAR application stage. We also understand there are Freshwater Pearl Mussels (FWPM) in the River Tay however these are not listed as a protected species for the designation therefore we recommend that the applicant to corresponds directly with NatureScot with regards to FWPM.

2.3 In line with our SEPA triage framework: guidance for planning authorities and SEPA, we cannot guarantee whether consent for private foul drainage systems will be granted until the submission and determination of the relevant authorisation. We consider it to be at the applicant's commercial risk if planning permission is granted for a development/process which cannot gain authorisation from us, or if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising.

3. Other planning matters

3.1 For all other planning matters, please see our triage framework and standing advice which are available on our website: www.sepa.org.uk/environment/land/planning/.

Advice for the applicant

4. Regulatory advice

4.1 Details of regulatory requirements and good practice advice, for example in relation to private drainage, can be found on the regulations section of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the local compliance team at: FASP@sepa.org.uk.

If you have queries relating to this letter, please contact us at planning.south@sepa.org.uk.

Yours sincerely

Simon Watt
Senior Planning Officer
Planning Service

Ecopy to: johnwilliamson@pkc.gov.uk

Disclaimer: This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages - www.sepa.org.uk/environment/land/planning/.

Thursday, 16 November 2023

Local Planner
Planning and Development
Perth and Kinross Council
Perth
PH1 5GD

Development Operations
The Bridge
Buchanan Gate Business Park
Cumbernauld Road
Stepps
Glasgow
G33 6FB

Development Operations
Freephone Number - 0800 3890379
E-Mail - DevelopmentOperations@scottishwater.co.uk
www.scottishwater.co.uk

Dear Customer,

Zone Z4-04 Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT
Planning Ref: 23/01113/FLL
Our Ref: DSCAS-0098486-GKY
Proposal: Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)

Please quote our reference in all future correspondence

Audit of Proposal

Scottish Water has no objection to this planning application; however, the applicant should be aware that this does not confirm that the proposed development can currently be serviced. Please read the following carefully as there may be further action required. Scottish Water would advise the following:

Water Capacity Assessment

Scottish Water has carried out a Capacity review and we can confirm the following:

- There is currently sufficient capacity in the Kenmore Water Treatment Works to service your development. However, please note that further investigations may be required to be carried out once a formal application has been submitted to us.

Waste Water Capacity Assessment

- This proposed development will be serviced by Kenmore STW Waste Water Treatment Works. Unfortunately, Scottish Water is unable to confirm capacity currently so to allow us to fully appraise the proposals we suggest that the applicant completes a Pre-Development Enquiry (PDE) Form and submits it directly to Scottish Water via our Customer Portal or contact Development Operations.

- Please note the nearest public waste water main is 1k from your site.

Please Note

- The applicant should be aware that we are unable to reserve capacity at our water and/or waste water treatment works for their proposed development. Once a formal connection application is submitted to Scottish Water after full planning permission has been granted, we will review the availability of capacity at that time and advise the applicant accordingly.

Surface Water

For reasons of sustainability and to protect our customers from potential future sewer flooding, Scottish Water will not accept any surface water connections into our combined sewer system.

There may be limited exceptional circumstances where we would allow such a connection for brownfield sites only, however this will require significant justification from the customer taking account of various factors including legal, physical, and technical challenges.

In order to avoid costs and delays where a surface water discharge to our combined sewer system is anticipated, the developer should contact Scottish Water at the earliest opportunity with strong evidence to support the intended drainage plan prior to making a connection request. We will assess this evidence in a robust manner and provide a decision that reflects the best option from environmental and customer perspectives.

General notes:

- Scottish Water asset plans can be obtained from our appointed asset plan providers:
    - Site Investigation Services (UK) Ltd
    - Tel: 0333 123 1223
    - Email: sw@sisplan.co.uk
    - www.sisplan.co.uk
- Scottish Water's current minimum level of service for water pressure is 1.0 bar or 10m head at the customer's boundary internal outlet. Any property which cannot be adequately serviced from the available pressure may require private pumping arrangements to be installed, subject to compliance with Water Byelaws. If the developer wishes to enquire about Scottish Water's procedure for checking the water pressure in the area, then they should write to the Customer Connections department at the above address.

- If the connection to the public sewer and/or water main requires to be laid through land out-with public ownership, the developer must provide evidence of formal approval from the affected landowner(s) by way of a deed of servitude.

- Scottish Water may only vest new water or waste water infrastructure which is to be laid through land out with public ownership where a Deed of Servitude has been obtained in our favour by the developer.

- The developer should also be aware that Scottish Water requires land title to the area of land where a pumping station and/or SUDS proposed to vest in Scottish Water is constructed.

- Please find information on how to submit application to Scottish Water at our Customer Portal.

Next Steps:

All Proposed Developments

All proposed developments require to submit a Pre-Development Enquiry (PDE) Form to be submitted directly to Scottish Water via our Customer Portal prior to any formal Technical Application being submitted. This will allow us to fully appraise the proposals.

Where it is confirmed through the PDE process that mitigation works are necessary to support a development, the cost of these works is to be met by the developer, which Scottish Water can contribute towards through Reasonable Cost Contribution regulations.

Non Domestic/Commercial Property:

Since the introduction of the Water Services (Scotland) Act 2005 in April 2008 the water industry in Scotland has opened to market competition for non-domestic customers. All Non-domestic Household customers now require a Licensed Provider to act on their behalf for new water and waste water connections. Further details can be obtained at www.scotlandontap.gov.uk

Trade Effluent Discharge from Non-Domestic Property:

- Certain discharges from non-domestic premises may constitute a trade effluent in terms of the Sewerage (Scotland) Act 1968. Trade effluent arises from activities including; manufacturing, production and engineering; vehicle, plant and equipment washing, waste and leachate management. It covers both large and small premises, including activities such as car washing and launderettes. Activities not covered include hotels, caravan sites or restaurants.
- If you are in any doubt as to whether the discharge from your premises is likely to be trade effluent, please contact us on 0800 778 0778 or email TEQ@scottishwater.co.uk using the subject “Is this Trade Effluent?".

Discharges that are deemed to be trade effluent need to apply separately for permission to discharge to the sewerage system. The forms and application guidance notes can be found here.

- Trade effluent must never be discharged into surface water drainage systems as these are solely for draining rainfall run off.
- For food services establishments, Scottish Water recommends a suitably sized grease trap is fitted within the food preparation areas, so the development complies with Standard 3.7 a) of the Building Standards Technical Handbook and for best management and housekeeping practices to be followed which prevent food waste, fat oil and grease from being disposed into sinks and drains.
- The Waste (Scotland) Regulations which require all non-rural food businesses, producing more than 5kg of food waste per week, to segregate that waste for separate collection. The regulations also ban the use of food waste disposal units that dispose of food waste to the public sewer. Further information can be found at www.resourceefficientscotland.com

I trust the above is acceptable however if you require any further information regarding this matter please contact me on **0800 389 0379** or via the e-mail address below or at planningconsultations@scottishwater.co.uk.

Yours sincerely,

Ruth Kerr.
Development Services Analyst
PlanningConsultations@scottishwater.co.uk

Scottish Water Disclaimer:

"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	**23/01113/FLL et al**	**Comments provided by**	Joanna Dick Tree and Biodiversity Officer
Service/Section	Strategy and Policy	**Contact Details**	Phone 75377 Email biodiversity@pkc.gov.uk
Description of Proposal	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)		
Address of site	Taymouth Castle Kenmore Aberfeldy PH15 2NT		
Comments on the proposal	The below relates to the following applications: • 23/01228/FLL • 23/01112/FLL • 23/01114/FLL • 23/01117/LBC • 23/01113/FLL **Policy 41: Biodiversity** The Council will seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes in the area. Planning permission will not be granted for development likely to have an adverse effect on protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. The submitted Ecological Assessment by Nigel Rudd dated 24th January 2024 for Zone 4 collates information of previous surveys and observation during time spent on site and provides additional information requested in February 2024. This provides a baseline picture of the site and indicates presence of protected species required mitigation measures. <u>Biodiversity Enhancement</u> NPF4 requires local planning applications to include appropriate measures for biodiversity enhancement that are proportionate to the nature and scale of the development. All actions in the previously agreed Biodiversity Strategy must be adhered to in full. <u>Conclusion</u> The submitted information is in accordance with legislation, policy and guidance.		
Recommended planning condition(s)	If you are minded to approve this application then I recommend the following conditions be included in any approval: • **NE00** The conclusions and recommended action points within the supporting biodiversity survey submitted and hereby approved (document(s) INSERT relates) shall be fully adhered to, respected and undertaken as part of the construction phase of development, to the satisfaction of the Council as Planning Authority.		

	• **NE02 edited** Updated ecology survey will be required prior to the commencement of works, if works have not commenced within 24 months of the date of the ecology survey approved as part of this permission. The updated survey shall be submitted to the Council as Planning Authority for written agreement and works shall not commence until after such written agreement has been issued by the Council. • Measures to protect animals from being trapped in open excavations and/or pipe and culverts shall be implemented for the duration of the construction works of the development hereby approved. The measures may include creation of sloping escape ramps for animals, which may be achieved by edge profiling of trenches/excavations or by using planks placed into them at the end of each working day and open pipework greater than 150 mm outside diameter being blanked off at the end of each working day
Recommended informative(s) for applicant	**BIOS** Trees and scrub are likely to contain nesting birds between 1st March and 31st August inclusive. Trees and scrub are present on the application site and are to be assumed to contain nesting birds between the above dates. The applicant is reminded that, under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning permission for a development does not provide a defence against prosecution under this Act. **BION** Existing buildings or structures may contain nesting birds between 1st March and 31st August inclusive. The applicant is reminded that, under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning permission for a development does not provide a defence against prosecution under this Act.
Date comments returned	21 March 2024

Scottish Environment Protection Agency
Buidheann Dìon Àrainneachd na h-Alba

John Williamson
Planning Department
Perth and Kinross Council

By email only to: DevelopmentManagement@pkc.gov.uk

Our Ref: PCS-20000955
Your Ref: 23/01113/FLL

SEPA Email Contact:
planning.south@sepa.org.uk

02 April 2024

Dear John

Town and Country Planning (Scotland) Acts
Erection of 2 estate properties and garages, formation of access road connecting to existing estate road (Zone Z4-04), Taymouth Castle Kenmore Aberfeldy PH15 2NT

Thank you for reconsulting SEPA on 21 March 2024 in relation to the above application.

Advice for the planning authority

Following the provision of further information, we are now in a position to **withdraw our objection** to this application. Please note the advice provided below.

1. Flood risk

1.1 We previously provided advice on this planning application (dated 06 December 2023 under Ref. 11181) and requested further information in relation to flood risk. In summary we requested the:

- Flood Risk Assessment (FRA) to provide information on all cross-sections bordering the site;
- FRA to be updated once the final information is available regarding the proposed relocation and nature of the man-made channel such that flood risk from this source can be accurately assessed; and
- Proposals are designed to meet with the requirements of Policy 22 of NPF4.

1.2 We have reviewed the updated FRA (Rev D dated March 2024) and can confirm, in relation to Zone Z4-04, we are satisfied with the assessment and what has been done to address the requirements we set out previously.

All cross sections have been provided and all properties are outwith the flood risk area. It has been updated to reflect proposals for the diversion of the man-made channel and the altered route now addresses the potential risk to Z4-04 and it sits lower than the proposed level of all houses in any part of Zone 4. We acknowledge each house is to be sited on land already higher than the 200+CC level from any source and understand the upstand does not refer to landraising, but the development platform the houses require to sit on.

Living Wage Employer
UKAS TESTING 1327

Chair
Lisa Tennant

CEO
Nicole Paterson

SEPA
Unit 6
4 Parklands Avenue
Holytown
Motherwell
ML1 4WQ

Tel: 03000 99 66 99
www.sepa.org.uk

2. Other planning matters

2.1 For all other planning matters, please see our triage framework and standing advice which are available on our website: www.sepa.org.uk/environment/land/planning/

Advice for the applicant

3. Regulatory advice

3.1 We recommend that the applicant continues to discuss the regulatory requirements associated with the development (including in relation to the alteration of the man-made channel) with our regulatory function.

3.2 Details of regulatory requirements and good practice advice can be found on the regulations section of our website. If you are unable to find the advice you need for a specific regulatory matter, please contact a member of the local compliance team at FASP@sepa.org.uk.

If you have queries relating to this letter, please contact us at planning.south@sepa.org.uk including our reference number in the email subject.

Your sincerely,

Simon Watt
Senior Planning Officer
Planning Service

Ecopy to: JohnWilliamson@pkc.gov.uk

Disclaimer: This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our website planning pages - www.sepa.org.uk/environment/land/planning/

Comments to the Development Quality Manager on a Planning Application

Planning Application ref.	23/01113/FLL	**Comments provided by**	Calum Bachell
Service/Section	Community Greenspace	**Contact Details**	Cbachell@pkc.gov.uk Tel 01738 475258
Description of Proposal	Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)		
Address of site	Taymouth Castle Kenmore Aberfeldy PH15 2NT		
Comments on the proposal	Access along core paths KENM/133 and KENM/132 should not be obstructed or deterred during construction or on completion of these works, other than what has currently been agreed on a temporary basis. The proposed route for surface water outfall overlaps core path KENM/133, and the access road shares part of the route KENM/132. If further temporary closures are required to accommodate these works, agreement should first be reached with PKC Community Greenspace.		
Informative	Note that if there is any proposal to alter a route of an existing core path or right of way a further legal procedure is required. The granting of planning permission does not stop the continued right of public access along the existing core path or right of way. An order under the Town and Country Planning (Scotland) Act 1997, Section 208 or an amendment of the Core Path Plan under the Land Reform (Scotland) Act 2003 should be sought.		
Recommended planning condition(s)			
Date comments returned	06/12/2023		

M e m o r a n d u m

To Development Management & Building Standards Service Manager

From Regulatory Services Manager

Your ref 23/01113/FLL

Our ref KIM

Date 12 December 2023

Communities

Pullar House, 35 Kinnoull Street, Perth, PH1 5GD

Consultation on an Application for Planning Permission
23/01113/FLL RE: Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04) at Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT for River Tay Development Ltd

I refer to your email dated 17 November 2023 in connection with the above application and have the following comments to make.

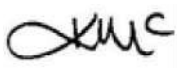
Contaminated Land

Comments

A Stage 1 Geoenvironmental Risk Assessment, dated April 2023, produced by Millard Consulting was submitted with this application. It has not identified any potential sources of contamination likely to impact upon the proposed development site and there is no further information held by the Authority to indicate that the application area has been affected by contamination. However, it shall be the responsibility of the applicant to satisfy themselves that the ground conditions are suitable for the development for which planning consent has been granted.

Recommendation

I have no adverse comments to make on the application.



Comments to the Development Quality Manager on a Planning Application

<table>
<tr><td>Planning Application ref.</td><td>23/01113/FLL</td><td>Comments provided by</td><td>Lachlan MacLean
Project Officer – Transport Planning</td></tr>
<tr><td>Service/Section</td><td>Transport Planning</td><td>Contact Details</td><td>TransportPlanning@pkc.gov.uk</td></tr>
<tr><td>Description of Proposal</td><td colspan="3">Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04)</td></tr>
<tr><td>Address of site</td><td colspan="3">Taymouth Castle, Kenmore, Aberfeldy, PH15 2NT</td></tr>
<tr><td>Comments on the proposal</td><td colspan="3">The applicant is proposing to erect two dwellinghouses and a two detached garages. The properties will be accessed along a route previously agreed in application 11/00533/FLM, connecting to the A827 public road network at the East Gate into Taymouth Castle.

The development will consist of the following dwellinghouses:

<table>
<tr><td>Plot</td><td>Bedrooms</td><td>Parking Required</td><td>Garage</td><td>Sufficient Plot Parking</td></tr>
<tr><td>GC-17</td><td>6</td><td>3</td><td>Yes</td><td>Yes</td></tr>
<tr><td>GC-18</td><td>6</td><td>3</td><td>Yes</td><td>Yes</td></tr>
</table>

The applicant has detailed that one visitor parking place is to be provided.

The applicant has provided a number of passing places for the estate access route. The passing places shall be in place, prior to the commencement of construction to allow suitable passing for construction traffic. A condition is recommended.

The route from the public road network to the site, forms part of the core path network, therefore a condition should be added to any consent about the route not being obstructed during building works or completion. A condition is recommended.

The applicant has previously advised that for the management of waste, the waste will be collected by the housekeeping team and transported to a central sorting location by an electric buggy. The central location in the correspondence from the applicant has not been identified in the information submitted.

Discussions have taken place regarding the provision of bus stop facilities, and it was agreed that the applicant shall provide bus stop provision on the A827, prior to occupation of the first dwellinghouse, with the location to be agreed. A condition is recommended for the installation of bus stop infrastructure where the vehicle access connects with the public road network.

The applicant has advised that a foul waste water system will be installed to deal with the foul waste water from the properties. Details have been</td></tr>
</table>

	provided to show that the tanker could turn within the site. Insofar as the Roads matters are concerned, I have no objections to this proposal on the following conditions.
Recommended planning condition(s)	Prior to commencement of any construction on site, the passing places as shown on the approved drawings shall be implemented and thereafter maintained. Reason - In the interests of road safety; to ensure suitable passing places for construction traffic and residents Prior to the occupation of the first dwellinghouse, the developer shall provide and install on appropriate hard stand asphalt areas on the A827 with suitable dropped kerb crossing facilities linked with footways to the development site, with 3 bay cantilever bus shelter(s) supplied and installed with passenger information board, LED spotlights (one per bay), a 28in Ultra-Wide Display Screen for Real Time Passenger Information installed on the approach side of the shelter and a 24/7 electrical power supply to a Haldo pillar adjacent to the shelter to provide power for the LED lighting and Real Time Passenger Information display. The design and specification shall be to the satisfaction of the Council as Planning Authority, in consultation with Perth & Kinross Council's Public Transport Unit. Reason: In the interest of sustainable travel. The core path which forms part of the access track to the site must not be obstructed during building works or on completion. Any damage done to the core path and associated signage during building works shall be made good before occupation of the dwellinghouse. Any temporary restrictions to public access required to facilitate works on site must be agreed in writing first with the Access Officer. Reason - In the interests of public access along the core path.
Recommended informative(s) for applicant	The site shall be served by the existing private vehicle access, as such the vehicle access will not be maintained by Perth & Kinross Council, nor be adopted by Perth & Kinross Council unless constructed to an adoptable standard.
Date comments returned	22 December 2023

M e m o r a n d u m

To Development Management & Building Standards Service Manager

From Regulatory Services Manager

Your ref 23/01113/FLL

Our ref DAT

Date 08 December 2023

Tel No 01738 476481

Communities

Pullar House, 35 Kinnoull Street, Perth PH1 5GD

Consultation on an Application for Planning Permission
23/01113/FLL RE: Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04) Taymouth Castle Kenmore Aberfeldy PH15 2NT

I refer to your letter dated 22 November 2023 in connection with the above application and have the following comments to make.

Environmental Health

Recommendation
I have no objection in principle to the application but recommend the under noted condition and informative be included on any given consent.

Comments
The applicant is proposing the erection of 2 estate properties on land within the estate grounds known as zone Z4-04. The design statement advises that the properties may be fitted with air source heats pumps (ASHP's) and biomass stove appliances.

Noise

Whilst there is no supporting information supplied with the application stating the make and model of the ASHP's to be installed, I would expect these to be domestic sized, which typically have a measured sound pressure level in the region of 45dB(A) – 60dB(A) at 1m dependant on the exact model installed.

The World Health Organisation (WHO) issued guidance in 1999 in relation to noise, at which time it was recommended that the following sound levels should be maintained: Leq50-55dB(A) in outdoor living areas, Leq35dB(A) in internal living areas and Leq30dB(A) in bedrooms. This guidance is consistent with BS8233:2014 which recommends the following sound level ranges: Leq30-40dB(A) in living areas and Leq30-35dB(A) in bedrooms.
Given the distance attenuation to neighbouring properties these levels should be achievable for airborne noise allowing for 10-15dB reduction by a partially open window.
The sound levels recommended in the guidance does not take into account the relative noise level at octave frequency bands. Fixed plant of this type can create noise which has characteristics that are not adequately quantified by means of a Leq limit. I therefore recommend that an additional condition, based on Noise Rating, be included on any given consent to protect residential amenity.

Odour

Perth and Kinross Council have a duty to assess biomass boilers for capacity within the range of 50kW to 20MW in terms of nitrogen dioxide and particulate matter based on their effect on air quality in the area. Whilst there is no information supplied with the application, I would expect these to be domestic sized stoves and therefore I have no adverse comments to make with regards to air quality.

Another matter pertaining to stoves which could cause an issue is the potential for smoke or odour disamenity. This Service has seen an increase in complaints with regards to smoke and odour due to the installation of biomass appliances. This can be caused due to poor installation and maintenance of the biomass appliances and also inadequate dispersion of emissions due to the inappropriate location and height of a flue with regards to surrounding buildings. Given the distance between the proposed properties, provided that the stoves are installed and operated in line with the manufacturer's recommendations, I do not foresee smoke and/or odour affecting residential amenity.

Therefore, I would have no objections to this development but would recommend the following condition and informative be attached to any given consent.

Condition

EH10 All plant or equipment shall be so enclosed, attenuated and/or maintained such that any noise therefrom shall not exceed Noise Rating 35 between 0700 and 2300 hours daily, or Noise Rating 25 between 2300 and 0700 hours daily, within any neighbouring residential property, with all windows slightly open, when measured and/ or calculated and plotted on a rating curve chart.

Informative

- The approved stove system shall be installed and thereafter operated and maintained in accordance with the manufacturer's recommendations, such that smoke is not exhausted into or escape into any neighbouring dwellings. Failure to do so may result in an investigation and possible action by Environmental Health under the Environmental Protection Act 1990.



Sharon-Lee Bow

From: Nicki McIntyre <Nicki.McIntyre@nature.scot>
Sent: 31 October 2024 15:11
To: John Williamson
Subject: RE: Taymouth Castle - Zone 4 (23/01112/FLL) (23/01113/FLL) (23/01114/FLL) (23/01228/FLL)
Attachments: Taymouth Castle - 24/00865/FLL Zone 4 Outfall application

CAUTION: This email originated from an external organisation. Do not follow guidance, click links, or open attachments unless you have verified the sender and know the content is safe.

Hi John,

Thank you for your email regarding the above consultations.

I can confirm that due to the information provided in application 23/01228/FLL (our response attached), we withdraw our objection to applications 23/01112/FLL, 23/01113/FLL and 23/01114/FLL.

Please let me know if you require anything further from us.

Kind regards,

Nicki

Nicki McIntyre | Operations Officer, Central Highland

NatureScot | Battleby | Redgorton | Perth | PH1 3EW | **t:** 07717 541521
nature.scot | @nature_scot | *Scotland's Nature Agency* | *Buidheann Nàdair na h-Alba*

This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the system manager or the sender.
Please note that for business purposes, outgoing and incoming emails from and to NatureScot may be monitored.

Tha am post-dealain seo agus fiosrachadh sam bith na chois dìomhair agus airson an neach no buidheann ainmichte a- mhàin. Mas e gun d' fhuair sibh am post-dealain seo le mearachd, cuiribh fios dhan manaidsear-siostaim no neach- sgrìobhaidh.
Thoiribh an aire airson adhbharan gnothaich, 's dòcha gun tèid sùil a chumail air puist-dealain a' tighinn a-steach agus a' dol a- mach bho NàdarAlba.

Overview of Application

Subject: Taymouth Castle – Zone 4	AECOM Drainage and Flooding Review	Project Number 60711860
Planning Reference: 23/01228/FLL, 23/01112/FLL, 23/01902/FLL, 23/01113/FLL, 23/01114/FLL	Package: 10	Category: Complex
Consultation Type: Full Local Planning Application		
Perth and Kinross Contact Details:	David Stephens DStephens@pkc.gov.uk	Rory Stuart RIStuart@pkc.gov.uk
Location: Taymouth Castle	NGR: NN 78058 45982	
Author: S Struthers	Approver: M Hutton	

Revision History

Issue	Issue date	Details	Authorized	Name
P01	12/12/23	P01	Yes	M Hutton
P02	20/05/24	P02 after FRA updates	Yes	M Hutton
P03	04/06/24	P03	Yes	M Hutton
P04	**15/08/24**	**P04**	**Yes**	M Hutton

Documents Reviewed

Issue	Documents Reviewed
1.	- Masterplan - Phasing Plan - Drainage Strategy - Flood Risk Assessment - Location Plan - Existing site plan - Proposed site plan
2.	- Zone 4 FRA - Zone 1 FRA - Zone 4 response to AECOM comments
3.	- Planning Consultation Response
4.	- **Planning Consultation Response**

Key

Text	Previous Comments / Actions
Update/Response Required	An update or response is required by the applicant
PKC to review	Perth and Kinross Council to review information
Note for full application	Should be noted for when applying for a full planning application.
For Information	Provides information about application. No additional details required

Summary	Status

Background Information	For information
Drainage Impact Assessment	Update/Response Required
Flood Risk Assessment	Update/Response Required

Review of Application – Zone 4

Category	Comments	Update	Status
1.0 Background Information	1.1. This application is one of a series of applications for the proposed housing development at Taymouth Castle for Zone 4 (Z4). This wider development includes the construction of dwellings, access road and includes the renovation and conversion of The Dairy to provide a golf clubhouse with associated buggy park.		For information
	1.2. The comments within this response refer to the following below applications. - 23/01228/FLL – Z4-01 - 23/01112/FLL – Z4-02 - 23/01512/FLL – Z4-03 - 23/01113/FLL – Z4-04 - 23/01114/FLL – Access Road This is because the same DIA and FRA has been submitted for each application Therefore, this response is for Zone 4 as a whole. Any specific comments relating to each application has been noted within its corresponding application response.		For information
	1.3. Z4 is in total approximately 6.24ha in size and located at the northwestern end of the estate.		For information
	1.4. Z4 is bound by the River Tay to the north, and the golf course to the east, south and west.		For information
	1.5. Pre and post development topography has been provided for the site within the FRA. It shows levels are generally unchanged across the site. Site levels generally fall in a northern direction with properties within Z4-04 being located on higher ground (approximately 125mAOD). Properties within Z4-01 are located on the lowest lying ground in Zone 4 (at approximately 117-119mAOD).		For information
2.0 Drainage Impact Assessment	2.1. A drainage strategy has been provided for the development. It has been stated that surface water runoff from the roads will be collected by filter trenches which will be conveyed to the River Tay. Roof water will be collected in underground geocellular storage attenuation system before being discharged into the roadside filter trench. **A more detailed drainage plan has been provided for the site. It shows that roof areas will be routed into an underground storage area for each plot before discharging into filter**		For information

Category	Comments	Update	Status
	trenches. Discharge into the filter trench will be constricted via an orifice and the filter trenches will allow infiltration to take place. **Two outfalls into the River Tay are shown on the plan, one at the turning head and another connecting into the foul outfall. It has been noted in the drainage strategy that that these outfalls will be used in adverse weather conditions.**		
	2.2. **Given it has been stated that the main discharge will be through infiltration within the trenches, evidence should be provided that the ground conditions are appropriate for infiltration. The BRE Digest 365 should be undertaken to confirm ground conditions are appropriate.**	**The BRE Digest 365 should be undertaken to confirm ground conditions are appropriate.**	**Update/Response Required**
	2.3. There are existing roads within the site boundary which are to be retained as part of this development. Please provide details on the existing drainage within the proposed development. **It has been stated that existing estate access roads do not have any formal drainage system, with surface water generally discharging over the edge into verges or burns.** **No modifications are being made to the access road however traffic movements may be increased. Therefore, please refer to the SIA approach to confirm there is appropriate treatment and provide commentary on road levels showing access will be maintained in a flood event.**	**Please provide commentary and details on why current road drainage arrangement is acceptable for the access road.**	**Update/Response Required**
	2.4. It has been noted that the road drainage system will restrict runoff to the predevelopment greenfield runoff rate or at a rate agreed with PKC. However, the drainage strategy also notes that surface water from each plot is to be restricted to 0.5l/s up to the 200yr event with an allowance for climate change and urban creep. The discharge rate from the development should be limited to greenfield runoff rates as per PKC guidance and calculations should be provided showing that this discharge rate has been met. **Greenfield runoff rates have been provided. They show that for the 200yr event the greenfield runoff rate is 82.79l/s (based on site area of 6.24ha).**		**For Information**
	2.5. No drainage calculations have been provided. Drainage calculations should be provided showing no surcharging at	**Please amend flow control in line with current guidance and provide justification**	**Update/Response Required**

Category	Comments	Update	Status
	the 30yr and no flooding at the 100yr event. **Drainage calculations have been provided for the 200yr+CC event.** **On review of the calculations, it shows a number of separate storage calculations for individual plots. On each plot, the calculations show that there will be an orifice (flow control) with a diameter of 16mm.** **Guidance states that minimum flow control diameter should be 75mm, to limit the likelihood of blockage.** **Also please provide justification why flow control has only been considered at plot scale. Best practise is to provide one flow control at downstream extent of network, to allow a larger flow control.**	**on why flow controls are provided at plot scale.**	
2.6.	**The drainage calculations show that the flow from each plot will be limited to 0.5l/s at the 200yr+CC event. With 18 buildings and the refurbished Dairy Building this equates to a total of 9.5l/s.** **However, calculations have not been provided for the road areas and infiltration has not been accounted for. Therefore, there is little detail to determine what the likely discharge into the River Tay will be during a flood event.** **As noted within the drainage strategy, flow from the entire site discharging into the River Tay should be limited to greenfield runoff rate. Therefore, evidence should be provided that either all runoff from roads will be able to infiltrate or provide calculations showing final discharge into the Tay from the entire site. Note that any flow control would need to be located outwith the floodplain.**	**Please provide additional details on infiltration and discharge into the River Tay.**	**Update/Response Required**
2.7.	**Within the drainage calculations the applicant has used FEH13 rainfall model with a climate change uplift of 39%, in line with current SEPA guidance.**		**For information**
2.8.	**Additionally, it has been noted that a 10% allowance has been included allow for urban creep as per PKC guidance. However, there are no details on how this has been applied within the drainage calculations.**	**Please provide commentary on how the 10% allowance for urban creep has been applied within the drainage modelling**	**Update/Response Required**
2.9.	A drainage layout plan has been provided showing the drainage for the entire zone 4 development. However, the drainage layout only shows the		**For information**

Category	Comments	Update	Status
	route of the road drainage. It does not show the locations of the SuDS features such as filter trenches and geocellular storage attenuation systems. **A plan has been provided showing locations of SUDS features.**		
	2.10 The drainage layout drawing shows the location of the proposed surface water outfall on the River Tay, which is located to the northwest of Z4-01.		For information
	2.11 No detailed drawings have been provided of SuDS features (location, connectivity and size) **Detailed drawings of the attenuation systems have been provided. They show that the system will be a polystorm system with two access turrets. However no detailed drawings have been provided for the filtration trenches.**	**Please provide detailed drawings of all SuDS features**	**Update/Response Required**
	2.12 No details have been provided on the level of treatment of surface water on the site. The Simple Index Approach (SIA) should be followed to provide evidence that the correct level of treatment is provided **The simple index approach has been followed for access road, plot driveways and roof areas. They show that the access road will be served via a filter trench and infiltration, the driveway plot will be served by permeable paving and infiltration and the roof areas will be via a stone filled treatment chamber.** **They show that there is adequate treatment.** **However there has been no mention of permeable paving, and this has not been shown on drawings. Therefore, please either update drawings showing locations of permeable paving or update SIA to be in line with drawings.**	**Please update DIA with details of permeable paving**	**Update/Response Required**
	2.13 No information on contaminated soil has been provided.		PKC to review
	2.14 No information has been provided on how surface water will be managed during construction		PKC to review
	2.15 Please provide pre and post development overland flow routes for the site. **Overland flow routes have been provided. However, no information has been provided to determine whether this is pre or post development and it is not clear from the key what the different colours represent. If there is no change in**	**Please provide pre and post development overland flow routes for the site.**	**Update/Response Required**

Category	Comments	Update	Status
	overland flow paths, please provide commentary stating this.		
	2.16 It has been noted in the FRA that the plot at the western corner of Zone 4 (GC-9) is at risk from overland flow. It notes that the solum level of this plot should be no lower than 115.7mAOD and ground levels fall away from the proposed dwelling. This property is within application 23/01112/FLL. An FFL of 118mAOD is shown for this property, based on the cross section of this dwelling, ground levels are the rear of the property appear to fall towards the property. Please provide commentary on how this condition in the FRA has been addressed. It has been stated that a response to this comment will be addressed within the DIA. **It has been noted that surface water from the golf course would not impact the plot. This is confirmed from the overland flow route drawing which shows that overland flow is routed away from GC-09.**		**For information**
3.0 Flood Risk Assessment (Fluvial – Tay and Allt A Bhealaich)	3.1. A flood risk assessment has been provided specifically for the zone 4 development.		For information
	3.2. There are three watercourses located near or within the site. Directly to the north of the site is the River Tay. The Allt Bhealaich flows from the south of the site into the golf course (to the south of zone 4). Once at the golf course it is routed north eastwards though the course before discharging into the River Tay. The final watercourse is a manmade river channel which isn't shown on OS mapping. This channel is shown to originate within the golf course and flow northwards along the western boundary of Zone 4 before discharging into the River Tay.		For information
	3.3. SEPA flood maps indicates that there is no flooding on the site, however the floodplain of the River Tay and the manmade burn are very close to the site boundary. Flow from the Allt Bhealaich is indicated to overtop the A827 and flow into the manmade drain. The flow route appears to flow near to zone 4. Overland flow also appears to impact the east and west access points.		For information
	3.4. Flood History has been provided for the Taymouth estate. The worst in recent times being in 1993, where an outbuilding to the northeast of the castle		For information

Category	Comments	Update	Status
	was flooded to a depth of 0.4m. The FRA states that using the SEPA gauge at Taymouth Castle, this equates to a level of 100.4mAOD for the 1993 event. However, the maximum recorded flood level at this gauge is 102.93mAOD.		
	3.5. The FRA states that as part of the proposed golf course development, the manmade meandering channel is to be culverted for a significant proportion of its length. Drawings however have not been provided showing this development. Drawings have only been provided for Zone 4. These show that this man-made watercourse is to be culverted twice under new proposed roads. No details have been provided on these culverts to ensure they have been adequately sized. Please see the section below discussing the flood risk of the new manmade channel.		For information
	3.6. Catchment descriptors have been provided for the River Tay. The River Tay has shown to have a low FARL value of 0.76 and a catchment area of 598.28km^2. Allt a Bhealaich catchment descriptors have not been provided, however notes that the watercourse has a catchment area of 8.25km^2 to the confluence with the Tay. The applicant has referred to the Zone 1 FRA which includes catchment descriptors for the Allt a Bhealaich. As stated in the Zone 4 FRA the catchment areas are slightly different due to differences in model extent. Ideally a comparison would be made between catchment descriptors for the two different catchments to confirm that a scaled approach is appropriate. However, given the increase in area is less than 5%, it is assumed the catchment descriptors wouldn't have changed significantly.		For information
	3.7. FEH statistical method was used to calculate flows for the River Tay. The SEPA flood gauge was used to determine the AMAX for The River Tay, which states a peak flood flow of 336.5m^3/s. Using a pooled group method, the peak flow for the 200yr event was calculated to be 481.7m^3/s. No details have been provided on the original and amended pooling group. The pooling group details have been provided within the FRA. It has been noted that no adjustments were made to the pooling group, however additional		For information

Category	Comments	Update	Status
	weighting towards the River Tay at Kenmore station was applied.		
	3.8. Flow for the Allt a Bhealaich was estimated for a recent FRA for Zone 1 of the development. This Zone 1 FRA has not been submitted with this application. In this assessment a 200yr flow of 22.59m^3/s was calculated based on a catchment size of 7.91km^2. Within this FRA the flow has been increased proportionally to cover the catchment area of 8.25km^2. This gives a peak 200yr flow of 23.6m^3/s. Please provide additional details on the previous hydrology calculated, such as date when the assessment was carried out, reasoning for the method used and a comparison of the flows from the different hydrology methods. The Zone 1 FRA has been submitted with this application which provides details on how the initial hydrology was calculated. This was undertaken in December 2023. The Allt a Bhealaich hydrology was calculated using the statistical method given it gave the most conservative flows compared to the REFH2 method. This flow was then scaled proportionally based on the increase in catchment area. It should be noted that the statistical method usually is not appropriate for small catchments of this size. However, given they provide conservative results, they are acceptable.		For information
	3.9. A 53% climate change uplift has been applied to the flow for the River Tay. A 39% climate change uplift on rainfall has been applied for the Allt a Bhealaich.		For information
	3.10 No testing has been undertaken for joint probability or coincident peaks. Please provide justification for starting hydrographs at same time. It has been stated that the catchments are significantly different in size and scale, therefore unlikely that the watercourses would be subject to a 200yr event at the same time. This approach is considered appropriate.		For information
	3.11 A linked 1D/2D model was constructed in Flood Modeller. Both watercourses have been modelled in 1D, with 2D floodplain only modelled in the vicinity of the castle.		For information
	3.12 No information has been provided on the survey sections. Such as when the survey was undertaken and the extents of the survey/model.		For information

Category	Comments	Update	Status
	Cross sections were surveyed in August 2022 by WSP, with spacing of between 30m-240m.		
	3.13 It appears that only a small section of the Allt a Bheaich has been modelled, starting from the middle of the golf course. However, as shown by SEPA flood maps, this burn is shown to have a possible overland flow route near to the site which flows into the manmade burn. Please provide commentary on why the model does not extend upstream to capture this overland low route. It has been stated that in the Zone 1 application that the Allt a Bheaich was modelled a significant distance upstream and no overland flow route was predicted through the site. However, as stated within the review of the Zone 1 applications, this extent does not extend far enough upstream in order to capture any overland flow over the A827. The SEPA flood maps show significant overtopping here which flows across the Taymouth estate into the unnamed/manmade burn and into the Tay. Evidence should be provided that there won't be any overtopping upstream which may impact flooding at the site. **It has been stated in a response to the above comment that the Allt a Bhealaich is very steep upstream of the A827 and the A827 structure is a high masonry arch bridge. It has been noted that the model has been extended to 18m upstream of the A827 structure. The model does not predict flow out of bank upstream of the A827, with a flood level of 150.39mAOD at the upstream face of the structure.** **It has been noted that due to health and safety the bed of the burn was not able to be surveyed therefore has been estimated.** **This confirms the A827 does not cause a constriction. However, the model does not extend far enough upstream to capture the potential spill from the burn and overland flow path into the manmade channel as shown on SEPA flood Maps. Therefore, please provide commentary on this overland flow path shown as on SEPA flood maps. For example, the likelihood of spill here and if there was overland spill here what would the overland flow route be, and would it spill into the manmade channel or would the overland flow route be routed elsewhere. The commentary may**	**Please provide commentary on overland flow path into the man-made channel.**	**Update/Response Required**

Category	Comments	Update	Status
	determine that the model needs extended.		
	3.14 It has been noted that the Mannings roughness of the main channel is 0.04, with the roughness on the floodplain varying between 0.03-0.1.		For information
	3.15 A validation run has been undertaken, using a peak flow of 336.1m^3/s at the gauge station (largest recorded flow). This gave a modelled flood level of 103.1mAOD. It has been noted that this level is slightly conservative, given the recorded level was 102.93mAOD. It was concluded that the model was producing verifiable results.		For information
	3.16 Sensitivity tests have been undertaken including a 20% uplift on the flow and a 20% uplift on the manning's n. They show that when the flow increases by 20% the water level rises a maximum of 0.63m. When roughness is increased by 20% the water level increases by a maximum of 0.82m.		For information
	3.17 The results in the appendix show that the water level in the River Tay adjacent to zone 4 is all within the 1D domain. Therefore, no 2D zone here required.		For information
	3.18 As noted within the FRA, the turning head of the access road is within the 200yr+CC floodplain. Guidance states that there should be no development within the functional floodplain. It has been stated there will be no raised ground levels as part of the development, therefore there will be no adverse impact on flood storage. However, on plans provided they show that this will be an access route to future properties. This proposed road cannot be used as an access road to new properties as it does not provide safe access. Therefore, please confirm that the proposed road within the Tay floodplain will not be used for access. **It has been stated that following a discussion with PKC, PKC have accepted the turning head being within the floodplain on the following conditions:** - **Drainage should be separated from rest of development, to ensure flooding does not affect the wider network** - **The turning head should be built with no land raising** - **The turning head should not be used for access for future applications.**	**Please update road design to be in line with policy. It is advised that this road is moved outwith the floodplain.**	**Specific Requirement for 23/01228/FLL and PKC to Review**

Category	Comments	Update	Status
	It has been confirmed by the applicant that there will be no raising and another application has been submitted for a ring road which will link from the turning head to the west access. However, this will not be used as the main access. **The applicant has also stated that should the turning head be flooded the surface water which remains in the trenches would simply flow into the flooded area. The statement goes on to say that given the flow in the trenches would only be a fraction of the flood flow in the Tay, this would not exacerbate flood risk, while the remainder of the drainage system sitting on higher ground would operate as normal.** **However, although this may only be a fraction of the flood flow, it is not in line with PKC and SEPA guidance as flow into the watercourse must be limited to at least greenfield runoff rates.** **In combination with the issues above and the issues noted in comment 3.31, it is advised that this road is moved outwith the floodplain.**		
	3.19 **If the turning head road is to be used as an access route, it needs to be made clear to residents that this is not the main access route and that it may be flooded in a flood event. This could be through flood evacuation plan.** **However as noted in comment 3.18 and 3.31 it is advised that this road is moved outside the floodplain.**	**Please provide commentary on how flood risk to the road will be communicated to residents**	**Update/Response Required**
3.0 Flood Risk Assessment (new channel)	3.20 An additional separate model has been built of the new manmade channel. The new channel will have three culverted sections of watercourse throughout the Taymouth estate, with daylighting between each culvert before discharging into the Tay. A drawing of the proposed watercourse is shown in the appendix of the FRA.		For information
	3.21 Please provide clear plans and description of the current man-made channel. **A plan has been provided of the current channel. However, this is only in the vicinity of the site. Please provide full details of channel upstream of Zone 4 to approximately the A827.**	**Please provide clear plans and description of the current man-made channel.**	**Update/Response Required**
	3.22 it has been stated that the channel and culverts are not currently suitably sized for the 200yr+CC event. Therefore, new channel and structures are proposed. A plan has been provided showing part of the current channel, but no	Please provide details on how the golf course will be drained.	Update/Response Required

Category	Comments	Update	Status
	description of the existing channel has been provided. However, it does appear that this is a significant alteration to the current arrangement, particularly upstream of the site where it is proposed that the watercourse is culverted for around 560m. Currently this stretch of channel is open watercourse. Therefore, there may be parts of the catchment (around the golf course) which once drained to the watercourse which now won't be able to. Please provide commentary on how the golf course will be drained.		
	3.23 The catchment area of the manmade channel is 0.87km2. the catchment area has been provided in the FRA. Given the small nature of the catchment it has been noted that the catchment does not appear on FEH webservice, therefore the catchment descriptors of the Allt a Bhealaich have been used. The AREA and DPLBAR were adjusted.		For information
	3.24 Both REFH2 and rainfall runoff methods were used and compared. REFH2 calculated a flow of 2.71m3/s, whereas the Rainfall Runoff method calculated a flow of 3.03m3/s at the 200yr event. Therefore, the Rainfall Runoff Method was used given it provide more conservative results.		For information
	3.25 A climate change uplift of 39% was applied to the rainfall as per SEPA guidance.		For information
	3.26 A 1D HECRAS model has been built of the channel. A drawing has been provided showing the extent of the model, showing that the model starting just to the north of the A827.		For information
	3.27 A roughness value of 0.035 has been applied for the open channel and 0.013 applied for the pipe roughness		For information
	3.28 No information has been provided on what downstream boundary was used **A statement has been provided stating that given the different catchment sizes, the peaks of both watercourses won't coincide. Given they won't coincide, the downstream boundary was set to a level of 106.26mAOD, which is the predicted QMed level in the River Tay.** **Please provide additional details of how sensitive the model is to the downstream boundary as per SEPA guidance.**	**Please provide details on downstream boundary of the model.**	**Update/Response Required**
	3.29 All open channel sections have been taken to have the same shape, with a base width of 750mm and side slopes of		For information

Category	Comments	Update	Status
	1:2, with a 500mm inset in the middle of the slope.		
	3.30 There are three structures within the model extent, the first is the long 0.9m diameter culvert which runs underneath the golf course for approximately 560m, the second is the proposed twin 1.2m diameter culverts (bottom 0.1m is substrate) with a length of 130m, and the final structure is the proposed culvert made up from three adjacent box culverts (all with opening 0.8m high x 0.7m wide) which discharges into the River Tay.		For information
	3.31 It has been noted that the proposed downstream box culverts have not been sized to accommodate the 200yr+CC. This is due to significant restrictions in the vicinity of the culvert. With the area being within the River Tay floodplain ground levels cannot be raised. Additionally, there is a water main which needs 0.9m cover. Please provide justification on why this stretch is to be culverted. Guidance states that ideally watercourse should be left as natural as possible. This proposed culvert is within the Tay floodplain therefore there should be no new development here. **It has been stated that this section will be culverted to take the watercourse underneath the existing core path and the aforementioned new road which is proposed from the northwestern corner of Zone 4.** **However, this culvert is not in line with policy. Firstly, the culvert is located within the River Tay floodplain. Guidance states that there should be no new development within the functional floodplain.** **Secondly the culvert has not been sized to accommodate the 200yr+CC flow of the manmade burn.** **Therefore, this culvert does not comply with policy. It is therefore advised that this road and culvert are moved outside the floodplain and sized appropriately for the 200yr+CC event.**	**Please amend culvert and road design to be in line with policy. It is advised that this road and culvert are moved outside the floodplain**	**Update/Response Required and PKC to Review**
	3.32 The results therefore show that the channel is sized for the 200yr+CC event excluding the final downstream culvert. A review of levels show that any spill would flow overland into the Tay and FFL's are located on much higher ground.		For information
	3.33 Sensitivity tests have been provided on the roughness value and blockages. The results show that increasing roughness has minimal impact on the results. It was found that for the twin		For information

Category	Comments	Update	Status
	1.2m diameter pipes, any blockage more than 34% would result in them overtopping. If there was blockage on the 0.9m diameter culvert through the golf course there would be potential overland flow across the golf course. It has been stated that these overland paths would not adversely impact properties in zone 4.		
	3.34 As discussed previously, SEPA flood maps show that the Allt a Bhealaich back up upstream of the A827 and flows overland into the manmade channel. Modelling for the Allt a Bhealaich should be extended upstream to include this area or other evidence should be provided to confirm there is no spill overland into the manmade burn from the Allt a Bhealaich. If there is spill into the manmade burn, then the hydrology would need updated to account for this. **As mentioned in a previous comment the model has been extended upstream of the A827 which shows that this structure does not cause a constriction. However, the model does not extend far enough upstream to capture the potential spill from the burn and overland flow path shown on SEPA flood Maps. Therefore, please see comment 3.13.**	**please see comment 3.13**	**Update/Response Required**
3.0 Flood Risk Assessment (Pluvial)	3.35 SEPA flood maps show that the site is not at risk of pluvial flooding.		For information

Overview of Application

Subject: Z4-04	AECOM Drainage and Flooding Review	Project Number 60711860
Planning Reference: 23/01113/FLL	Package: 10	Category: High
Consultation Type: Full Local Planning Application		
Perth and Kinross Contact Details:	David Stephens DStephens@pkc.gov.uk	Rory Stuart RIStuart@pkc.gov.uk
Location: Taymouth Castle – Z4-04	NGR: NN 78058 45982	
Author: S Struthers	Approver: M Hutton	

Revision History

Issue	Issue date	Details	Authorized	Name
P01	12/12/23	P01	Yes	M Hutton
P02	20/05/24	P02 after FRA updates	Yes	M Hutton

Documents Reviewed

Issue	Documents Reviewed
1.	- Masterplan - Phasing Plan - Drainage Strategy - Flood Risk Assessment - Location Plan - Existing site plan - Proposed site plan
2.	- **Zone 4 FRA** - **Zone 1 FRA** - **Zone 4 response to AECOM comments**

Key

Text	Previous Comments / Actions
Update/Response Required	An update or response is required by the applicant
PKC to review	Perth and Kinross Council to review information
Note for full application	Should be noted for when applying for a full planning application.
For Information	Provides information about application. No additional details required

Summary	Status
Background Information	**Update/Response Required**
Drainage Impact Assessment	**Update/Response Required**
Flood Risk Assessment	**Update/Response Required**

Review of Application – Z4-04

Category	Comments	Update	Status
1.0 Background Information	1.1. This application is one of a series of applications for the proposed housing developments at Taymouth Castle for Zone 4 (Z4). This wider development includes the construction of dwellings, access road and includes the renovation and conversion of The Dairy to provide a golf clubhouse with associated buggy park. In particular this application only looks at Z4-04, which comprises of 2 dwellings within southern portion Zone 4.		For information
	1.2. Given the same drainage and flooding documents have been submitted for all zone 4 applications, please refer to the response attached below which reviews zone 4 as a whole.	Please ensure all DIA and FRA queries within Zone 4 review have been addressed.	**Update/Response Required**
2.0 Drainage Impact Assessment	2.1. There are no specific DIA queries which relate to this application alone which do not apply to the rest of Zone 4. Therefore, refer to Zone 4 review attached below which provides response for whole of Zone 4.	Please ensure all DIA queries within Zone 4 review have been addressed.	**Update/Response Required**
3.0 Flood Risk Assessment (Fluvial)	3.1. There are no specific FRA queries which relate to this application alone which do not apply to the rest of Zone 4. Therefore, refer to Zone 4 review attached below which provides response for whole of Zone 4.	Please ensure all FRA queries within Zone 4 review have been addressed.	**Update/Response Required**

Overview of Application

Subject: Z4-04	AECOM Drainage and Flooding Review	Project Number 60711860
Planning Reference: 23/01113/FLL	Package: 10	Category: High
Consultation Type: Full Local Planning Application		
Perth and Kinross Contact Details:	David Stephens DStephens@pkc.gov.uk	Rory Stuart RIStuart@pkc.gov.uk
Location: Taymouth Castle – Z4-04	NGR: NN 78058 45982	
Author: S Struthers	Approver: M Hutton	

Revision History

Issue	Issue date	Details	Authorized	Name
P01	12/12/23	P01	Yes	M Hutton
P02	20/05/24	P02 after FRA updates	Yes	M Hutton
P03		Main Zone 4 response updated. No updates made to this specific response.		
P04	**15/08/24**	**Main Zone 4 response updated. No updates made to this specific response.**	**Yes**	**M Hutton**

Documents Reviewed

Issue	Documents Reviewed
1.	- Masterplan - Phasing Plan - Drainage Strategy - Flood Risk Assessment - Location Plan - Existing site plan - Proposed site plan
2.	- Zone 4 FRA - Zone 1 FRA - Zone 4 response to AECOM comments
3	- Planning Consultation Response
4	- **Planning Consultation Response**

Key

Text	Previous Comments / Actions
Update/Response Required	An update or response is required by the applicant
PKC to review	Perth and Kinross Council to review information
Note for full application	Should be noted for when applying for a full planning application.
For Information	Provides information about application. No additional details required

Summary	Status
Background Information	**Update/Response Required**

Drainage Impact Assessment	**Update/Response Required**
Flood Risk Assessment	**Update/Response Required**

Review of Application – Z4-04

Category	Comments	Update	Status
1.0 Background Information	1.1. This application is one of a series of applications for the proposed housing developments at Taymouth Castle for Zone 4 (Z4). This wider development includes the construction of dwellings, access road and includes the renovation and conversion of The Dairy to provide a golf clubhouse with associated buggy park. In particular this application only looks at Z4-04, which comprises of 2 dwellings within southern portion Zone 4.		For information
	1.2. Given the same drainage and flooding documents have been submitted for all zone 4 applications, please refer to the response attached below which reviews zone 4 as a whole.	Please ensure all DIA and FRA queries within Zone 4 review have been addressed.	**Update/Response Required**
2.0 Drainage Impact Assessment	2.1. There are no specific DIA queries which relate to this application alone which do not apply to the rest of Zone 4. Therefore, refer to Zone 4 review attached below which provides response for whole of Zone 4.	Please ensure all DIA queries within Zone 4 review have been addressed.	**Update/Response Required**
3.0 Flood Risk Assessment (Fluvial)	3.1. There are no specific FRA queries which relate to this application alone which do not apply to the rest of Zone 4. Therefore, refer to Zone 4 review attached below which provides response for whole of Zone 4.	Please ensure all FRA queries within Zone 4 review have been addressed.	**Update/Response Required**

Sharon-Lee Bow

From: Craig Harvey
Sent: 12 November 2024 12:40
To: John Williamson; Russell Stewart
Subject: RE: Taymouth Zone 4

Forgot to add the following to the comment below:

Zone 4 Responses P05, comment 2.2 – PKC commented that any risk sits with the developer if the results of the required and conditioned BRE365 testing in Zone 4 means that the proposed drainage systems and designs must be altered following these.

Regards,

Craig Harvey

Engineer (Flooding)

Perth & Kinross Council
Pullar House
35 Kinnoull Street,
Perth
PH1 5GD

M: 07545704210

E: charvey@pkc.gov.uk

Everyone is responsible for protecting themselves and their property from flooding. People can take steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. The following places offer help with taking steps to protect yourself:

https://www.pkc.gov.uk/flooding

https://www.floodre.co.uk/

https://www.biba.org.uk/current-issues/flood-insurance/

https://floodlinescotland.org.uk/

https://scottishfloodforum.org/

Responsible Authorities (such as Perth & Kinross Council) and SEPA will continue to develop the understanding of flood risk to communities and promote measures to help individuals and businesses to reduce their risk.

From: Craig Harvey
Sent: 12 November 2024 12:34
To: John Williamson <JohnWilliamson@pkc.gov.uk>; Russell Stewart <RSStewart@pkc.gov.uk>
Subject: RE: Taymouth Zone 4

Hi John,

Please see our comments following our discussions with Millards today regarding their responses for these applications for Zone 4. Let me know if you think I missed anything and probably worth running past Millard to check that they are in agreement that what was discussed is covered fully in my comments.

24/00618/FLL P02, comment 2.5 – PKC accept that this section of the road and associated roads drainage is to be within the floodplain of the River Tay. Drainage outwith the floodplain would require pumping of surface water and so would not be viable. Millards confirmed to PKC that the roads drainage will be maintained, including post flood event, by the on-site maintenance team in line with Section 7.3 of the Millard Consulting Drainage Assessment Report reference 17864/WH/970_B. No further comment on this.

Zone 4 Responses P05, comment 2.2 – Millards confirmed to PKC that testing in line with BRE365 has been carried out site wide and the results suggests that the outcomes for these in Zone 4 would be similar. PKC Planning to draft and apply a condition to ensure this testing is carried out at the required locations within Zone 4 post tree clearance but prior to construction commencing.

As an aside I would also suggest adding the standard drainage conditions to this to ensure all infiltration systems are designed properly and then checked by us following these tests being carried out.

Zone 4 Responses P05, comment 2.5 – Millards confirmed to PKC that the stone filled chambers upstream of the proposed orifices are to be inspected and maintained by the on-site maintenance team in line with Section 7.3 of the Millard Consulting Drainage Assessment Report and that the homeowner is not to expected to maintain these. PKC accept the smaller diameter orifices given the aforementioned inspection and maintenance provisions. No further comment on this.

Zone 4 Responses P05, comment 2.12 – Millards confirmed that the design of the system has been suitably updated to assume worse case as per PKC suggestions and include additional storage in the form of stone reservoirs below the driveways. PKC confirmed that this is acceptable. No further comment on this.

Flood Risk comments 3.13, 3.21 and 3.31 – Millards and PKC Planning raised that these comments have been addressed as part of previous planning applications for the proposed golf course and have been reviewed and accepted by SEPA and PKC. PKC Planning to confirm. If this is correct, then no further comment on this.

Regards,

Craig Harvey

Engineer (Flooding)

Perth & Kinross Council
Pullar House
35 Kinnoull Street,
Perth
PH1 5GD

M: 07545704210

E: charvey@pkc.gov.uk

Everyone is responsible for protecting themselves and their property from flooding. People can take steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. The following places offer help with taking steps to protect yourself:

https://www.pkc.gov.uk/flooding

https://www.floodre.co.uk/

https://www.biba.org.uk/current-issues/flood-insurance/

https://floodlinescotland.org.uk/

https://scottishfloodforum.org/

Responsible Authorities (such as Perth & Kinross Council) and SEPA will continue to develop the understanding of flood risk to communities and promote measures to help individuals and businesses to reduce their risk.

From: John Williamson <JohnWilliamson@pkc.gov.uk>
Sent: 11 November 2024 16:22
To: Craig Harvey <CHarvey@pkc.gov.uk>; Russell Stewart <RSStewart@pkc.gov.uk>
Subject: FW: Taymouth Zone 4

Hi Craig/Russell

Apologies for the short notice (I was on leave at the end of last week) but do you both happen to have availability tomorrow between 11-3 to discuss Zone 4. Millards have provide some comments on the Aecom Zone 4 comments for discussion at the meeting as requested.

If you can't do tomorrow could you let me know what other availability you have for this week please?

Thanks very much

Kind Regards

John Williamson
Planning Officer
Economy, Development and Planning
Development Management
Perth and Kinross Council
Pullar House, 35 Kinnoull Street
Perth
PH1 5GD

☎ 01738 475 360
✉ johnwilliamson@pkc.gov.uk
e www.pkc.gov.uk

From: Sharon-Lee Bow <slb@scotthobbsplanning.com>
Sent: 11 November 2024 10:57

To: John Williamson <JohnWilliamson@pkc.gov.uk>
Subject: RE: Taymouth Zone 4

Following up on the below?

Thanks

Sharon-Lee Bow MSc BSc (Hons) CIHCM MRTPI
Senior Planner

Scott Hobbs Planning

a. 24a Stafford Street, Edinburgh, EH3 7BD
t. 0131 226 7225 m. 07309402520
www.scotthobbsplanning.com

Follow us on Twitter: **@ScottHobbsPlan**

Registered in Scotland No. SC338885

From: Sharon-Lee Bow <slb@scotthobbsplanning.com>
Sent: 07 November 2024 12:33
To: John Williamson <JohnWilliamson@pkc.gov.uk>
Subject: Re: Taymouth Zone 4

Hi,

Please ignore the above - available Tuesday 11-3.

Let me know if that works for you

Best

Sent from Outlook for iOS

From: Sharon-Lee Bow
Sent: Thursday, November 7, 2024 9:45:42 AM
To: John Williamson <JohnWilliamson@pkc.gov.uk>
Subject: RE: Taymouth Zone 4

Good Morning,

Wednesday 13th any time between 11 and 2 would suit best – does that work for your team?

Sharon-Lee Bow MSc BSc (Hons) CIHCM MRTPI
Senior Planner

Scott Hobbs Planning

a. 24a Stafford Street, Edinburgh, EH3 7BD
t. 0131 226 7225 m. 07309402520
www.scotthobbsplanning.com

Follow us on Twitter: **@ScottHobbsPlan**

Registered in Scotland No. SC338885

From: John Williamson <JohnWilliamson@pkc.gov.uk>
Sent: 06 November 2024 16:16
To: Paul Scott <ps@scotthobbsplanning.com>; Sharon-Lee Bow <slb@scotthobbsplanning.com>; Niamh Toner <nt@scotthobbsplanning.com>
Cc: Ken Pirie <ken.pirie@millardconsulting.co.uk>
Subject: FW: Taymouth Zone 4

Afternoon All

I've had a discussion with Craig and he has indicated that himself and Russell Stewart would be content to meet over teams to discuss the responses. Next week works for us (other than Fri 15th as I am on leave) if you could let us know what dates/time would suit?

It would be helpful if you could prepare a detailed agenda a day or two before the call with points and topics you want to cover so Craig and Russell can be as prepared as possible and make sure as much progress as possible can be made.

Look forward to hearing from you on possible times/dates.

Kind Regards

John Williamson
Planning Officer
Economy, Development and Planning
Development Management
Perth and Kinross Council
Pullar House, 35 Kinnoull Street
Perth
PH1 5GD

☎ 01738 475 360
✉ johnwilliamson@pkc.gov.uk
e www.pkc.gov.uk

From: John Williamson
Sent: 31 October 2024 15:05
To: 'Paul Scott' <ps@scotthobbsplanning.com>; Sharon-Lee Bow <slb@scotthobbsplanning.com>; Niamh Toner <nt@scotthobbsplanning.com>
Cc: Ken Pirie <ken.pirie@millardconsulting.co.uk>
Subject: FW: Taymouth Zone 4

Afternoon Paul et al

I have received the attached responses from the Flood team regarding Zone 4 and I have asked Craig for his availability for a meeting so we can run through the comments and hopefully tie everything up quickly. I am sending these in the first instance to allow you to view them and prepare responses for a meeting.

I will come back to you asap on likely meeting dates once I have heard from Craig.

Kind Regards

John Williamson
Planning Officer
Economy, Development and Planning
Development Management
Perth and Kinross Council
Pullar House, 35 Kinnoull Street
Perth
PH1 5GD

☎ 01738 475 360
✉ johnwilliamson@pkc.gov.uk
e www.pkc.gov.uk

From: Craig Harvey <CHarvey@pkc.gov.uk>
Sent: 31 October 2024 13:00
To: John Williamson <JohnWilliamson@pkc.gov.uk>
Cc: David Stephens <DStephens@pkc.gov.uk>
Subject: RE: Taymouth Zone 4

Hi John,

Please see Aecom's comments on the Zone 4 applications and our further comments where required.

24/00618/FLL P02, comment 2.5 – The section of the proposed infiltration trench for the proposed access road at chainages 440m to 590m sits within flood plain of the River Tay. We agree that it is advisable that's SUDs should not be within the flood plain. Have all options been assessed to provide drainage out with flood plain? If these must be within the flood plain then, as requested by Aecom, please provide commentary on how these will perform during flood events. Are these to be maintained as part of any proposed SUDs maintenance particularly post flood event?
Zone 4 Responses P05, comment 2.2 – BRE365 testing is proposed to be carried out within Zone 4 after required tree removal has taken place. This should be carried out at the location of any proposed infiltration system. We would be happy to apply this as a condition to the application in this instance, perhaps as a pre-commencement condition (DR00 and DR01).
Zone 4 Responses P05, comment 2.5 – CIRIA C753, Section 10.2.2 states orifices (flow controls) as small as 15mm are acceptable given they are downstream of pervious surfaces or a suitable, cleanable filter. In this case it is proposed that the stone filled disconnector chambers upstream of the orifices will act as a filter and reduce the risk of blockages. Although PKC do not specify a minimum diameter, 15mm diameter orifices will be extremely susceptible to blockages. Are the proposed stone filled chambers to be inspected and maintained regularly as part of any proposed SUDs maintenance to ensure they remain an effective filter? If not, this will also put the onus on the homeowner to maintain and so further increase the likelihood of blockages.
Zone 4 Responses P05, comment 2.12 – Acceptability of gravel driveways. We would prefer that the attenuation at each plot be designed from the outset to assume impermeable surfaces to ensure the system is suitably sized for worst case.

Any questions let me know and happy to discuss.

Regards,
Craig Harvey
Engineer (Flooding)
Perth & Kinross Council

Pullar House
35 Kinnoull Street,
Perth
PH1 5GD
M: 07545704210
E: charvey@pkc.gov.uk
Everyone is responsible for protecting themselves and their property from flooding. People can take steps to reduce damage and disruption to their homes and businesses should flooding happen. This includes preparing a flood plan and flood kit, installing property flood resilience measures, signing up to Floodline, engaging with their local flood group, and ensuring that properties and businesses are insured against flood damage. The following places offer help with taking steps to protect yourself:
https://www.pkc.gov.uk/flooding
https://www.floodre.co.uk/
https://www.biba.org.uk/current-issues/flood-insurance/
https://floodlinescotland.org.uk/
https://scottishfloodforum.org/
Responsible Authorities (such as Perth & Kinross Council) and SEPA will continue to develop the understanding of flood risk to communities and promote measures to help individuals and businesses to reduce their risk.

From: John Williamson <JohnWilliamson@pkc.gov.uk>
Sent: 16 October 2024 11:41
To: Sharon-Lee Bow <slb@scotthobbsplanning.com>; Craig Harvey <CHarvey@pkc.gov.uk>
Cc: EPL Flooding Development Control <FloodingDevelopmentControl@pkc.gov.uk>; Rick Haynes <RHaynes@pkc.gov.uk>
Subject: RE: Taymouth Zone 4

Thanks Sharon-Lee

Craig, look forward to receipt of the response once Aecom have considered.

Thanks

Kind Regards

John Williamson
Planning Officer
Economy, Development and Planning
Development Management
Perth and Kinross Council
Pullar House, 35 Kinnoull Street
Perth
PH1 5GD

☎ 01738 475 360
✉ johnwilliamson@pkc.gov.uk
e www.pkc.gov.uk

From: Sharon-Lee Bow <slb@scotthobbsplanning.com>
Sent: Tuesday, October 15, 2024 1:56 PM
To: Craig Harvey <CHarvey@pkc.gov.uk>
Cc: John Williamson <JohnWilliamson@pkc.gov.uk>; EPL Flooding Development Control <FloodingDevelopmentControl@pkc.gov.uk>; Rick Haynes <RHaynes@pkc.gov.uk>
Subject: Taymouth Zone 4
Importance: High

CAUTION: This email originated from an external organisation. Do not follow guidance, click links, or open attachments unless you have verified the sender and know the content is safe.

Good Afternoon Craig,

Please find attached the remainder of the Z4 response to AECOM.

I'm uploading this to e-planning this afternoon but in John's absence can you please issue this to AECOM in advance?

Thank you

Sharon-Lee Bow MSc BSc (Hons) CIHCM MRTPI
Senior Planner

Scott Hobbs Planning

a. 24a Stafford Street, Edinburgh, EH3 7BD
t. 0131 226 7225 m. 07309402520
www.scotthobbsplanning.com

Follow us on Twitter: @ScottHobbsPlan

Registered in Scotland No. SC338885

The information in this email is solely for the intended recipients.

If you are not an intended recipient, you must not disclose, copy, or distribute its contents or use them in any way: please advise the sender immediately and delete this email.

Perth & Kinross Council does not warrant that this email or any attachments are virus-free and does not accept any liability for any loss or damage resulting from any virus infection. Perth & Kinross Council may monitor or examine any emails received by its email system.

The information contained in this email may not be the views of Perth & Kinross Council. It is possible for email to be falsified and the sender cannot be held responsible for the integrity of the information contained in it.

General enquiries to Perth & Kinross Council should be made to enquiries@pkc.gov.uk or 01738 475000.

REPORT OF HANDLING

DELEGATED REPORT

Ref No	**23/01228/FLL**	
Ward No	**P4- Highland**	
Due Determination Date	**8th January 2024 Extended to 10th January 2025**	
Draft Report Date	**13th November 2024**	
Report Issued by	**John Williamson**	**Date 13 November 2024**

PROPOSAL: Erection of 7 estate properties, formation of access roads and associated works (Zone Z4-01)

LOCATION: Taymouth Castle Kenmore Aberfeldy PH15 2NT

SUMMARY:

This report recommends **approval** of the application as the development is considered to comply with the relevant provisions of the Development Plan and there are no material considerations apparent which outweigh the Development Plan.

BACKGROUND AND DESCRIPTION OF PROPOSAL

Full planning permission is sought for the erection of 7 estate properties and the formation of an access road within Taymouth Castle Estate, Kenmore. This application is one of three applications submitted for a section of the estate named as "Zone 4" within the planning submission which is located on the north side of the estate next to The Dairy, bound by the River Tay to the north.

This application was initially for a total of 9 estate properties but 2 properties have now been omitted from the plans following concerns being expressed by the Planning Authority and Historic Environment Scotland. Therefore, a total of seven are now proposed. Four of these are proposed to be located to the south of the existing access track located to the south of The Dairy with one further property proposed to the north of the access. These properties, whilst close to The Dairy sit at a substantially lower topography than the Dairy.

There is extant planning permission within the estate for a total of 167 estate properties granted in 2005 and 2011 (03/02250/PPLB and 11/00533/FLM). Each of these applications have been implemented and are extant. Therefore, the estate properties as approved under these permissions could be implemented.

A total of three applications have been received for Zone 4, referred to as Z4-01 (9 properties- reduced to 7) (ref:23/01228/FLL), Z4-02 (7 properties- reduced to 5) (ref:23/01112/FLL) and Z4-04 (2 properties) (23/01113/FLL). Therefore, a total of 14 properties are now proposed.

A total of 22 estate properties were approved in this part of the estate under application 11/00533/FLM. This includes six properties to the south and south west of The Dairy, five to the immediate north west and 11 further properties extending to the west wrapping around the golf course layout. The proposal is now to omit the properties extending to the west, which is now proposed to be part of the golf course design. The Zone 4 development is now proposed to be more nucleated focussed within a more compact grouping around The Dairy with a total of 14 properties.

This particular application refers to 7 properties (Z4-02) (GC-01 to GC-07). A total of five properties have been approved in this part of the estate via the extant permission, all of which are located to the north west of The Dairy. These are larger in footprint than those now proposed. The proposed properties generally sit in a similar location to the approved properties with only property GC-7 sitting slightly further south than the footprint of the furthest south approved property.

The application generally seeks to make minor amendments to the design and footprint of each of the properties in this location. These are effectively to replace the five properties granted in this location as part of application 11/00533/FLM. The submission indicates that the intention is for applications for each of these zones to come forward over the coming months to make similar amendments, with applications for Zone 2 and 3 currently under consideration elsewhere on the estate.

These particular properties are located on the north western edge of the Zone 4 grouping. Planning permission exists in this location for a total of five properties (B-12-02, B-13-02, B-14-02, B-15-05 and B-16-05). These were approved as part of application 11/00533/FLM. This included a new access track from the existing access located to the south of the The Dairy. This new application also seeks to form a new access but with a slightly different route to the consented meaning it is slightly shorter. The proposed plots are generally in the same location on the west and north west side of the proposed access. They are proposed to sit down slope from The Dairy building.

This application is accompanied by a Planning Statement, Design Statement, Flood Risk Assessment, Drainage Assessment, Ecology Assessment and Tree Survey. The submission also includes information to demonstrate how this proposal links to the wider implementation of works within both the category A listed Taymouth Castle, other listed buildings and the wider estate which is a designated Historic Garden and Designed Landscape.

Planning permission and listing building consent has also recently been granted within Zone 4 to convert The Dairy into a golf club house (ref:23/01114/FLL and 23/01117/LBC).

SITE HISTORY

03/02250/PPLB Redevelopment of Taymouth Castle Estate to include restoration of Castle to form hotel, extension to incorporate 72 hotel suites, erection of spa within Newhall Kennels. Construction of 63 lodges and 26 new fractional ownership houses, conversion of existing buildings to form 7 fractional ownership houses, erection of 16 staff houses, erection of equestrian centre, infra structure and engineering works including sewage treatment works and associated landscaping and maintenance proposals 9 March 2005 Application Approved

11/00533/FLM Erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of castle 1 July 2011 Application Approved

23/01112/FLL Erection of 5 estate properties, formation of access roads and associated works (Zone Z4-02) - Pending consideration

23/01113/FLL Erection of 2 estate properties and garages, formation of access road connecting to existing estate road and associated works (Zone Z4-04) - Pending consideration

23/01114/FLL Change of use and alterations to dwellinghouse to form clubhouse, formation of outdoor seating area, access track and parking area and installation of private foul water treatment plant 31 July 2024 Application Approved

24/00618/FLL Extension to access road – Pending consideration

24/00865/FLL Installation of foul water treatment plant, outfall and headwall, formation of access road and associated works 29 July 2024 Application Approved

PRE-APPLICATION CONSULTATION

Pre application Reference: None

DEVELOPMENT PLAN

The Development Plan for the area comprises National Planning Framework 4 (NPF4) and the Perth and Kinross Local Development Plan 2 (2019) (LDP2).

National Planning Framework 4

The National Planning Framework 4 (NPF4) is the Scottish Government's long-term spatial strategy with a comprehensive set of national planning policies. This strategy sets out how to improve people's lives by making sustainable, liveable and productive spaces.

NPF4 was adopted on 13 February 2023. NPF4 has an increased status over previous NPFs and comprises part of the statutory development plan.

The Council's assessment of this application has considered the following policies of NPF4 :

Policy 3: Biodiversity

Policy 4: Natural Places

Policy 6: Forestry, Woodland and Trees

Policy 7: Historic Assets and Places

Policy 13: Sustainable Transport

Policy 14: Design, Quality and Place

Policy 15: Local Living and 20 Minute Neighbourhoods

Policy 22: Flood Risk and Water Management

Policy 23: Health and Safety

Policy 29: Rural Development

Policy 30: Tourism

Perth and Kinross Local Development Plan 2 – Adopted November 2019

The Local Development Plan 2 (LDP2) is the most recent statement of Council policy and is augmented by Supplementary Guidance.

The principal policies are:

Policy 1A: Placemaking

Policy 1B: Placemaking

Policy 2: Design Statements

Policy 8: Rural Business and Diversification

Policy 15: Public Access

Policy 26B: Scheduled Monuments and Archaeology: Archaeology

Policy 27A: Listed Buildings

Policy 29: Gardens and Designed Landscapes

Policy 38A: Environment and Conservation: International Nature Conservation Sites

Policy 39: Landscape

Policy 40B: Forestry, Woodland and Trees: Trees, Woodland and Development

Policy 41: Biodiversity

Policy 47: River Tay Catchment Area

Policy 52: New Development and Flooding

Policy 53B: Water Environment and Drainage: Foul Drainage

Policy 53C: Water Environment and Drainage: Surface Water Drainage

Policy 60B: Transport Standards and Accessibility Requirements: New Development Proposals

Statutory Supplementary Guidance

- Supplementary Guidance - Air Quality (adopted in 2020)
- Supplementary Guidance - Delivering Zero Waste (adopted in 2020)
- Supplementary Guidance - Developer Contributions & Affordable Housing (adopted in 2020)
- Supplementary Guidance - Flood Risk and Flood Risk Assessments (adopted in 2021)
- Supplementary Guidance - Forest & Woodland Strategy (adopted in 2020)

- Supplementary Guidance - Green & Blue Infrastructure (adopted in 2020)
- Supplementary Guidance - Housing in the Countryside (adopted in 2020)
- Supplementary Guidance - Landscape (adopted in 2020)
- Supplementary Guidance - Open Space Provision for New Developments (adopted in 2021)
- Supplementary Guidance - Placemaking (adopted in 2020)

OTHER POLICIES

Non Statutory Guidance

- Planning Guidance - Delivery of Development Sites
- Planning Guidance - Loch Leven SPA, the Dunkeld-Blairgowrie Lochs SAC and the River Tay SAC
- Planning Guidance - Planning & Biodiversity
- Supplementary Guidance - Renewable & Low Carbon Energy (draft)

NATIONAL GUIDANCE

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

Planning Advice Notes

The following Scottish Government Planning Advice Notes (PANs) and Guidance Documents are of relevance to the proposal:

- PAN 40 Development Management
- PAN 51 Planning, Environmental Protection and Regulation
- PAN 61 Planning and Sustainable Urban Drainage Systems
- PAN 68 Design Statements
- PAN 69 Planning and Building standards Advice on Flooding
- PAN 75 Planning for Transport
- PAN 77 Designing Safer Places

National Roads Development Guide 2014

This document supports Designing Streets and expands on its principles and is considered to be the technical advice that should be followed in designing and approving of all streets including parking provision.

CONSULTATION RESPONSES

EXTERNAL

Historic Environment Scotland – initial concerns regarding properties GC15 and 16 which have been resolved via deletion of these properties from the plans

Scottish Environment Protection Agency – initial objection regarding flood risk now addressed via submission of additional information

Kenmore Community Council – no comments

NatureScot – initial objection addressed via submission of separate application for private treatment plant

Perth And Kinross Heritage Trust – condition recommended

Scottish Water – no objection

INTERNAL

Transportation And Development – no objection

Development Contributions Officer – no contribution required given extant permissions

Community Waste Advisor - Environment Service – no objection

Biodiversity/Tree Officer - initial concerns have been addressed via submission of additional information. Conditions are recommended to ensure the findings of the ecology report are adhered to as part of the development.

Conservation Team – initial concerns regarding properties GC15 and 16 which have been resolved via deletion of these properties from the plans

Environmental Health (Contaminated Land) – no objection

Community Greenspace – appropriate conditions are recommended to ensure the core path network is not impacted upon by the development.

Environmental Health (Noise Odour) – conditions recommended regarding noise

Flooding – following extensive discussions and correspondence the flooding and drainage arrangements for Zone 4 are considered to be acceptable subject to conditions relating to land raising and infiltration testing

REPRESENTATIONS

Two representations have been received both of which object to the application and raise the following issues:

- Inappropriate housing density
- Over intensive development
- Inconsistent submission
- Clarity on masterplan and phasing plan
- Biodiversity management
- Scale and visual impact
- Lack of walking/cycling and public transport links or electric car charging facilities
- Occupation type
- No social housing

The above issues are addressed within the appraisal below. Furthermore, amended documents have been submitted to address any issues previously identified.

Additional Statements Received:

Screening Opinion	Undertaken and on file dated 20 November 2023
Environmental Impact Assessment (EIA): Environmental Report	Not Required – see Screening Opinion
Appropriate Assessment under Habitats Regulations	Habitats Regulations AA Completed and on file
Design Statement or Design and Access Statement	Submitted
Report on Impact or Potential Impact eg Flood Risk Assessment	Submitted

APPRAISAL

Sections 25 and 37 (2) of the Town and Country Planning (Scotland) Act 1997 require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. The Development Plan comprises NPF4 and the Perth and Kinross Local Development Plan 2019. The relevant policy considerations are outlined in the policy section above and are considered in more detail below. In terms of other material considerations, involving considerations of the Council's other approved

policies and supplementary guidance, these are discussed below only where relevant.

In this instance, section 14(2) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 places a duty on planning authorities in determining such an application as this to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. Section 64(1) of the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997 is relevant and requires planning authorities to pay special attention to the desirability of preserving or enhancing the character or appearance of the designated conservation area.

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

Principle

The principle of developing this site for estate properties has been established through the extant consents. Details of which can be found in the Committee Reports for applications 03/02250/PPLB and 11/00533/FLM.

Design and Layout

Policies 1A and B relate to placemaking and require new development to respect the character and visual amenity of the area and Policy 14 of NPF4 seeks to deliver well designed development and applying the place principle. Furthermore Policy 39 of the LDP2 states that the existing landscape should be capable of accommodating the new development. Further guidance is also provided within the associated Placemaking Supplementary Guidance. Policy 29 of LDP2 and Policy 7 Historic Assets and Places of NPF4 references Historic Gardens and Designed Landscapes (HGDL) and seeks to ensure that any change protects the integrity of the site.

As indicated above, there is extant permission on this site for 5 estate properties and therefore that requires to be considered as the baseline for development on this site. Therefore, it is necessary to consider whether the changes to the footprint, design and heights of the estate properties to the north west of The Dairy will be appropriate or not whilst considering the general visual amenity of the area, together with the sites location within the Taymouth Castle HGDL. The materials for the estate properties are broadly similar to the consented development and include a standing seam metal roof, natural stone walls, exposed timber to be painted grey, timber frame windows all of which are considered to be acceptable in the context of the extant permission for four properties on this part of the estate.

The topography and existing tree cover in this location will ensure that these properties will not have any significant impact on either the setting of the Dairy

or the wider HGDL. Some trees are proposed for removal to accommodate these properties but the extensive tree cover already provided in this area will compensate for the tree removal proposed as will compensatory planting. The properties will sit within a a woodland setting to the north west of The Dairy, relatively hidden from the open views of the parkland elements of the HGDL.

The limited increase in height and alterations to footprint will not alter the extent of impact on the wider visual amenity of the area nor upon the HGDL.

Plot GC-7 is a newly positioned property which is proposed to be sited at the southern end of the curved grouping of properties. This property is proposed to be sited parlty on the footprint of an approved property but will extend the built development by approximately 14 metres. It is proposed to have a finished floor level (FFL) of 122.36 which is approximately 8 metres lower than The Dairy. This additional property is considered to have a similar landscape and visual impact as the extant properties and will sit as part of the grouping of properties to the north. It is also located a sufficient distance from property GC-08 (55 metres) to the south to ensure there is a sufficient gap and not to impact on key views from the west towards The Dairy.

There are a total of 11 estate properties approved to the west of Zone 4 in what was referred to as Zone 2 in the 2011 masterplan (11/00533/FLM) (B-01-03 to B-11-03). The application makes reference to this current proposal being a reduction in the extent of development within this part of the estate from 22 to 14 and indicates that it is no longer the intention to development properties B-01-03 to B-11-03 as these will be replaced by an amended golf course layout which was approved under condition 42 of planning permission 11/00533/FLM.

A letter has been received from a solicitor acting on behalf of a person who retains an interest in two of these properties B-11-03 and B-10-03 and states that the arguments and assessments made within the planning submission are flawed and that they should not be based upon the assumption that the development of approved plots B-01-03 to B-11-03 will not proceed. They also state that amending the golf course layout should not have been agreed under condition 42 of 11/00533/FLM. The amendments to the golf course layout under condition 42 of the permission is considered to be a competent means of agreeing changes to the golf course layout. The changes agreed are not considered to revoke or remove planning permission for any of these plots and it is appreciated that this person is simply protecting their interests. The amendments to the golf course layout are underway and it will be for the current developer to come to some sort of agreement with the interested party regarding these plots. This is a private civil matter between the parties involved and not a matter which the Planning Authority can become directly involved in.

Therefore, it should be noted that the Planning Authority's determination of this application is not based upon the findings of the planning submission and this assessment is undertaken in conjunction with the possible

implementation of properties B-01-03 to B-11-03 within the former Zone 2. This area was considered to be appropriate for development as it cannot be seen from wider views of the HGDL. This area of land slopes downwards away from the main east-west access drive which leads to the Castle and as such the visual impact of the units is not considered to be significant. The new development proposed within Zone 4 is considered to be appropriate even when considered in conjunction with the possible development of plots B-01-03 to B-11-03, however unlikely that may now be at this stage given the changes made to the golf course layout.

Whist this particular application is for seven estate properties, there is a requirement to consider this application in cumulation with the two other applications within Zone 4, for a total of 14 estate properties.

When considering the proposal cumulatively, there was an original proposal for a total of 18 properties within Zone 4. As noted in the submission The Dairy is designed to be prominent in its immediate setting and wider views and the initial proposals for 18 properties brought the estate properties closer to The Dairy, on the sloping wooded ground to the west than the extant permissions. The Tom More hillock was an important viewpoint within the designed landscape's deer park with views to the east and west. The mound is now covered with trees, which obscure these views but it remains an important feature in the designed landscape. There were concerns with the scale and proximity of the proposed development adjacent to The Dairy and the impact which this would have on the setting of The Dairy. There were also concerns with the impact which the proposal will have on the character of the Designed Landscape (HGDL) because it would obscure and disrupt views of The Dairy from the south west, one of the key views within the HGDL. The responses received from both the Council's Conservation Officer and Historic Environment Scotland (HES) highlighted these concerns particularly with units GC13, GC14 (23/01228/FLL - this application) and GC15, GC16 (23/01112/FLL). There were also concerns with the revised design of the buildings including the change to the roof profiles, scale and massing which results in the properties having a greater impact than the consented scheme which accentuates the impact which the four identified properties above will have.

The Dairy is one of the key components of the historic landscape setting of Taymouth Castle. Therefore, it was important to ensure that amendments were made to the layout to maintain this historic setting meet NPF4 Policy 7 and LDP2 Policies 27A and 29. The applicant was advised to omit these particular properties from the above applications to reduce the extent of impact on the HGDL and The Dairy. After extensive discussions the applicant has now agreed to omit these properties.

Furthermore properties GC-17 and GC-18 which are subject to application 23/01113/FLL are located on a part of the estate where condition 51 of permission 11/00533/FLM made it clear that no development was permitted in this location due to the potential impact development in this area would have on the setting of the category A listed Dairy building when viewed from the

east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west key views between the Deer Park in the east and Kenmore Park in the west. Any properties in this location were considered to be visually prominent. Therefore, the proposal for two units does not accord within the findings of the original assessment of development in this location and therefore these are unlikely to be supported given this background. This takes the total number of properties in Zone 4 to 12 which is considered to be capable of being accommodated appropriately within this part of the estate. The topography and existing tree cover in this location will ensure that these properties will not have any significant impact on either the setting of the Dairy or the wider HGDL.

The changes to the layout, footprint and design of each of the units within this particular zone and the newly positioned property GC-07 are considered to be acceptable and to accord with the requirements of Policies 1A and B, 29 and 39 of the LDP2 and Policies 7 and 14 of NPF4 relating to placemaking, design and HGDL and are not considered to result in any more of an impact than the extant scheme which retains key views across the HGDL which was identified as a key consideration of the 2005 and 2011 permissions.

Key Views

The key views throughout the HGDL are identified in the Environmental Statement (EIA) for the previous applications and include a number of both short and long views across the estate. The views which are most apparent are those from Kenmore across the parkland estate towards The Fort. There will no alteration to this key view when compared with the extant permission.

Cultural Heritage

As part of the consultation process for Zone 1 Historic Environment Scotland (HES) raised concerns regarding how applications for further development within both Taymouth Castle and the wider HGDL would impact on the delivery of development of cultural heritage features within the estate. Following receipt of these comments from HES a discussion was undertaken with the applicant's agent and further information was received which outlines the timescales for implementation of these conservation works across the estate. This includes a phasing plan for the works which indicated that the intention was to complete all works to the west wing and main tower of Taymouth Castle by December 2023 with an application for the east wing of the castle having now been approved. The works to the main and west wing have the castle have now been completed after a substantial initial investment from the applicant which is welcomed. The applicant's agent also previously agreed to a condition which restricted occupation of any of the estate properties until after all works to the main and west wing of the castle, as have been previously consented to date, are completed in full. As these works have now been completed it is no longer necessary to apply the same condition to this particular application or any other applications within Zone 4.

A Schedule of Conservation Works has been submitted which outlines the intentions for all listed structures, building and folleys within the estate and proposes a timescale for implementation of these works. It should be recognised that some of these works may require further listed building consent and planning permission in their own right but this document provides an overview of the intentions at this moment in time and the recommended condition requires for this to be updated on a quarterly basis (every 3 months) and submitted to the Planning Authority. A Strategic Planning Framework and phasing/masterplan are also submitted to outline the intentions for the wider estate which also require to be updated every 3 months and submitted. These documents are also being updated as further applications are made for zones elsewhere on the estate, including the current applications within Zones 2 and 3.

The proposed conditions would effectively allow the Council and HES (when required) to monitor work progressing across the estate upon each submission for upcoming zones for other housing elements and it would be for the developer to demonstrate the extent of progress that has been made on the ground and through updates to the Schedule of Conservation Works which explicitly shows what recent works have been undertaken. The Council would therefore retain control over matters as it would be for the developer to demonstrate appropriate progress with the conservation works as part of each future zone submission. Should it be the case that limited progress was being made or timescales are not being met it may be the case that the Council would hold off on issuing any permissions for future zones until this progress is demonstrated. Given the extent of work which is progressing on site at this time, and the extensive completed works to the main and west wing of the castle, the completed works at the listed east gate which is evidenced during recent site visits, the intentions of the applicant are not doubted and it is clear that extensive work within the estate and castle is currently progressing and the Planning Authority would like to encourage that, however, it is important to ensure that the enabling development within Zone 4 is explicitly tied to the conservation works within wider estate and that the Council retains some control over the implementation and it would be for the applicant to demonstrate progress with these every 3 months as required by the recommended conditions.

In terms of Zone 4, the proposed conditions would ensure agreed timescales for implementation of the other conservation works throughout the estate. An updated Landscape Management and Woodland Replenishment Plan (for the whole estate) based upon the previously approved LMP but updated to reflect current circumstances with wording to ensure timescales and implementation has also been delivered as part of the Zone 1 permissions.

This therefore also secures the ongoing management of the HGDL in accordance with the requirements of the original permission and Policy 29 of the LDP2 and Policy 7 of NPF4.

Trees

Policy 40B of LDP2 relates to trees and woodland and requires a tree survey accompany proposals where there are existing trees which may be affected. Polic6 of NPF4 is relevant in this instance.

The LDP2 and NPF4 seek to ensure that all new sites have a suitable landscape framework which can absorb the development proposed and that development contributes positively to the surrounding built and natural environment. It this respect it is considered that the site has a suitable landscape framework in the form of the existing trees, woodland and topography.

The submission includes a Tree Survey which covers the entirety of Zone 4, with all three sites referenced above. The report explains that the original planting on this part of the estate dates to the late part of the 18th century with occasional planting events and self set tree establishment taking place since. It explains that the trees have sustained damage in adverse weather events over the years including storm Arwen in November 2021 which saw several trees fall and others lose limbs.

Each tree has been assessed for its arboricultural, landscape, cultural and conservation value. The Tree Survey also references the approved 2004 Landscape Management Plan for this part of the estate which recommends retaining historic specimens, removing vegetation, trees and shrubs that obscures important views.

Within this particular site there are sixteen category U trees are identified for removal. A further seven category A trees, twenty-five category B trees and fourteen category C trees are also to be felled.

This requires to be considered in the context of the felling proposed elsewhere within Zone 4 which equates to the following:

Z4-02 (23/01112/FLL) Four category U trees are identified for removal. The development proposals require the removal of a further eight category A trees, twenty-four category B trees and nine category C trees.

Zone Z4-03 (23/01114/FLL) Eight category U trees are identified for removal. The development proposals require the removal of a further three category A trees, four category B trees and two category C trees. This application has been approved.

Zone Z4-04 (23/01113/FLL). The development proposals require the removal of a one category A tree, six category B trees and two category C trees.

Across Zone 4, in relation to the development proposals only, a total of twenty-eight category U trees are identified for removal. The development proposals over the whole of Zone 4 require the removal of a further nineteen category A trees, fifty-nine category B trees and twenty-seven category C trees.

The development proposals require the removal of 105 trees that would otherwise be retained. The site has sufficient ground to accommodate appropriate replacement tree planting to provide a sustainable arboricultural amenity for the long term. This also requires to be considered in the context of the approvals previously granted on site which are extant and enabled tree felling. It was accepted that felling would be necessary to ensure the relevant enabling development could be accommodate on site whilst still respecting the character of the HGDL, the setting of The Dairy and the key views within the estate. Whilst felling is regrettable it is considered to be appropriate in this context. The tree loss which is taking place can be compensated for through replacement planting which can be secured by condition.

The tree survey also makes recommendations regarding tree protection.

The Tree Survey mentions how servicing should be accommodated on the site whilst respecting trees and that this should be routed around root protection areas (RPAs). This demonstrates that the drainage can be installed without impacting upon trees.

A condition is also recommended to show the location of the protective fencing proposed to protect the retained trees.

Landscape and Woodland Management

The 2005 and 2011 permissions includes a Landscape and Woodland Management Plan to ensure wider management of the tree and landscaping resource across the estate. It is important to ensure the requirements of this remain as part of this permission and therefore it has been agreed with the applicant's agent that an updated Landscape and Woodland Management Plan is submitted for approval as part of this application. The same condition would be applied to any applications for future zones. This, again, will ensure the Planning Authority retains control over the implementation of landscape and woodland management across the Designed Landscape. The condition requires this document to be submitted and implemented as part of the ongoing estate development and updated every 12 months to reflect conditions on the estate at that time. The same condition will be applied to all zones across the estate.

Residential Amenity

Given that the estate properties are in a similar location to the approved development there are not considered to be any concerns relating to residential amenity in terms of overlooking and overshadowing. The layout has been designed to match the extant permission on the most part with each estate property being part of a wider estate management landscape. The properties will not therefore have designated/fenced private garden areas which will enable the openness of the HGDL to be retained.

Access and Traffic

The site is proposed to be accessed from the east gate of the estate which is to be the guest entrance. A new access track is proposed to the north of the castle or alternatively Zone 4 can be accessed to the south of the castle. The access is proposed to be maintained by the applicant.

The agent has advised that for the management of waste, the waste will be collected by the housekeeping team and transported to a central sorting location by an electric buggy. There is a condition on permission 11/00533/FLM which requires submission of this information.

A bus stop has been delivered at the new west gate to cater for staff associated with the operation of the estate to encourage sustainable transport use.

There is no policy requirement to deliver electric car charging points for the site but home owners would have the opportunity to install this should they wish to do so.

Traffic levels are not considered to be any greater than the extant permission on the site.

The proposal is therefore considered to be acceptable in terms of traffic and transportation and complies with the criteria contained within Policy 60B of the LDP2 and Policy 13 of NPF4.

Ecology

Policy 41 of the LDP2 and 3(a) of NPF4 states that development should seek to protect and enhance all wildlife and habitats, whether formally designated or not, considering natural processes in the area. Planning permission will not be granted for development likely to have an adverse effect on protected species unless clear evidence can be provided that the ecological impacts can be satisfactorily mitigated. The River Tay is designated as part of The River Tay Special Area of Conservation (SAC) and therefore Policy 38A of the LDP2 and 4(b) of NPF4 are applicable.

An Ecology Report has been submitted for the application. The Bio Diversity Officer identified some concerns with the findings which had been put forward and following discussions with the developer and the ecologist additional information was submitted to address the concerns identified. The Bio Diversity Officer has now confirmed that the submitted information address the initial concerns and is satisfied with the information submitted. Conditions are recommended to ensure the findings of the report are adhered to as part of the development. Bio Diversity enhancement and management across the estate is also to be delivered via the Bio Diversity Strategy which has previously been approved as part of the Zone 1 permissions but will be updated as part of this permission via a suitably worded condition.

It should be noted that following discussions with Nature Scot there was some concern with the outfall location of the originally proposed foul treatment plan and the impact which it may have on protected species within the River Tay Special Area of Conservation. Following this, the foul treatment plant and outfall has been removed from this proposal and is now subject to a separate application with revised outfall positions which has recently been approved (24/00865/FLL). A condition is recommended to ensure that the properties subject to this application connect to this approved treatment plant.

Occupancy

The existing planning consent does not expressly restrict the occupation of the consented properties within the Estate however there is a condition which states the following:

"Prior to the occupation of any estate property, the applicant shall submit full details of the management/title deeds which links every estate property to the wider Taymouth Castle Estate. These details shall be submitted and agreed in writing with the Planning Authority prior to the occupation of any of the estate properties. Every estate property on the application site shall enter into this management agreement and be subject to these title deeds. This agreement between the Estate and each estate property shall be maintained in perpetuity."

Ultimately the purpose of the condition is to ensure that the estate properties always remain linked to the estate in terms of their ongoing management/servicing etc rather being completely removed from the overall management of the estate and being lived in as private residential units with no link at all to the wider estate. The applicant's agent has advised that they would be content with the same condition being applied to these units and the same condition has also been attached to the approval's within Zone 1. This is the same condition applied to the permission by the Development Management Committee during assessment of the previous application and therefore for consistency purposes it is considered important to ensure that it is applied to these new permissions.

Permitted Development

The proposed estate properties are to sit within an open landscape and therefore for the avoidance of doubt a condition is recommended to ensure that permitted development rights are removed to avoid any occupier or the estate erecting new boundary fencing or outbuildings which could substantially alter the character of the estate to its detriment. This would enable the Council to retain control over development of this nature.

Core Path Network

Policy 15 of the LDP2 and Policy 13 of NPF4 requires that new development should not obstruct or impact on existing core path networks and should mitigate any impact. There is a core path network which runs through

Taymouth Castle Estate and there is a condition on permission 11/00533/FLM which requires the developer to agree temporary diversions to the core path network to facilitate construction operations. There is currently an agreed plan in place for this (doc ref:11/00533/637-639). The core path runs along the northern side of Zone 4 and remains open at this time to allow access along the River Tay bank towards the castle.

For the avoidance of any doubt a condition is recommended on this permission to ensure agreement is reached on any temporary diversions which are required to facilitate the construction of these particular estate properties and the associated works including culverting and position of the surface water outfall. This will ensure compliance with Policy 15 of the LDP2 and Policy 13 of NPF4. There will therefore be appropriate waking and cycle routes across the estate, with diversions in place to enable safe construction.

Archaeology

Ongoing archaeological works are progressing on site at this time. Perth and Kinross Heritage Trust have offered no objection to this proposal but have advised that the entire site has significant archaeological activity. In that regard it is recommended that a condition requiring an archaeological investigation to be carried out.

Foul Drainage

Policy 53B of the LDP2 and Policy 22 of NPF4 requires new development to be served by a private drainage system where there is no public system available. This application originally included a foul treatment plant but following discussions with Nature Scot on the location of the outfalls this has been omitted from this application and a new application with amended outfall locations has been submitted for the foul treatment plant (ref:24/00865/FLL). This application has recently been approved. A condition is recommended to ensure that the development is not occupied until the new treatment plant infrastructure becomes available.

Surface Water

In terms of surface water on the new access roads, this will be connected via filter trenches and conveyed to the River Tay. Roof water is to be collected via underground geo cellular storage before being discharged into roadside filter trenches.

Policy 53C of LPD2 and Policy 22C of NPF4 require surface water drainage to be managed by a Sustainable Urban Drainage System (SUDS). The Drainage Report indicates that SUDS will be accommodated within the site which is considered to accord with Policy 53C. A detailed surface water drainage layout for the wider Zone 4 has also been submitted to demonstrate how surface water across all three applications is to be catered for. Further correspondence from the drainage engineer has also been submitted to address queries raised by the Council's Flood Team in terms of run off

calculations, maintenance and capacity of the system. The agent has confirmed that there will be a maintenance team on the estate who will deal with any maintenance requirements of the surface water drainage systems. Responsibility will also fall on plot owners. Following a meeting with the developer's engineers the surface water drainage arrangements are now considered to be acceptable and the Flood Team have confirmed that the information received is sufficient subject to a condition which requires infiltration testing to be carried out. This cannot be carried out until the tree felling on site has been undertaken and therefore a condition is recommended to reflect this. A further condition is also recommended to ensure the SUDS system meets best management practises. The additional information which has been submitted is considered to comply with the requirements of Policy 53C of the LDP2.

Fluvial Flood Risk

Policy 52 of the LDP2 and Policy 22 of NPF4 states that there is a presumption against proposals for built development or land raising on flood plains. A Flood Risk Assessment accompanies the application and the estate properties,

SEPA initially objected to the application requesting additional information in the form of an updated FRA to reflect cross sections of the River Tay, further information on the proposed relocation and nature of the man made channel which traverses the new golf course layout and to demonstrate that all properties are outwith the flood risk area. Further information was submitted which SEPA have now concluded is sufficient to demonstrate that the properties subject to this application are outwith flood risk areas as they are sited on land already higher than the 200+Climate change level from any source. It should be noted that the drainage associated with the golf course was agreed as part of the submissions made under condition 42 of permission 11/00533/FLM and this involved discussions with both SEPA and the Council's Flood Team.

There have also been extensive discussions with the Council's Flooding and Drainage Team with regard to modelling, overland flow routes, the position of a turning head to the north west corner of Zone 4 which is proposed to link into a new access track which is subject to application 24/00618/FLL and the size of a culvert to accommodate a 200 year + CC event

The proposed access track and turning head are located within the 200yr + CC flood plain. No land raising is proposed to accommodate the access track and turning head and this requires to be considered in the context of the extant permission for a new access road in this location under application 11/00533/FLM. Whilst a new access is proposed here it is not proposed to be the sole access for the new properties. The main access to Zone 4 properties will be from the east from the east gate. The new track is solely to provide a link through the estate and will not be the main means of access for occupiers of Zone 4. On that basis there is a safe means of access and egress from Zone 4 to the east during a flood event. A Flood Evacuation Report and Plan

was approved as part of application 11/00533/FLM in 2015. However, due to the change on ownership of the estate this is likely to be out of date and therefore an updated report can be requested by condition. This can ensure that occupiers aware of any evacuation procedures during a flood event.

Following consideration of additional information and a meeting between the applicant's flooding and drainage consultant and the Council's Flood Team the information regarding flood risk is now considered to be acceptable.

The applicant has indicated that the culvert needs to take the watercourse beneath the new road referenced above and under the core path so therefore requires to be within the functional flood plain. It has now been re-sized to accommodate a 200 year + CC event. The Council's flood team have stated that this is now acceptable

Additional information has been presented regarding the overland flow routes and modelling which has also now been accepted by the Council's Flood Team.

PKC Flooding and Drainage Team and SEPA have therefore now offered no objection to the application regarding fluvial flood risk.

Subject to this condition the proposal is considered to comply with Policy 52 of the LDP2 and Policy 22 of NPF4.

Land Ownership

A letter states that there is an error in the land ownership certificate and states that the owners of plots B-11-03 and B-10-03 should have been served with a notification of this proposal. The applicant has clarified the location of these plots which, whilst being close to the development within Zone 4, are not located within the red line site boundary and therefore do not require to be served with a land ownership notification.

Masterplan

Concerns with the cumulative impact of various applications which have been submitted across the estate have been raised. On that basis the applicant agent has been asked to prepare a masterplan showing the extent of smaller scale developments across the estate. Whilst this is not included with this application it has been submitted as part of the current applications on Zone 3 and 4 on the estate. This will become an appendix to the consented Strategic Planning Framework (SPF), masterplan and phasing plan for the wider estate. This helps to demonstrate the intended development across the estate in conjunction with the housing zones. Given this, there is considered to be no impediment to determining this application.

Developer Contributions

The Developer Contributions Guidance is not applicable to this application and therefore no contributions are required in this instance.

Economic Impact

The development is part of enabling works to fund the regeneration of listed buildings and the designed landscape and therefore there is considered to be economic benefit associated with this development.

Affordable and Social Housing

As mentioned elsewhere there is extant permission on the site for housing which was granted as enabling development to enable the regeneration of Taymouth Castle and the Designed Landscape. There is no requirement to deliver social housing as part of this application given the extant permission which is in place. The proposals seeks to amend the layout and design of a consented development.

VARIATION OF APPLICATION UNDER SECTION 32A

This application was varied prior to determination, in accordance with the terms of section 32A of the Town and Country Planning (Scotland) Act 1997, as amended. The variations incorporate changes to

PLANNING OBLIGATIONS AND LEGAL AGREEMENTS

None required.

DIRECTION BY SCOTTISH MINISTERS

None applicable to this proposal.

CONCLUSION AND REASONS FOR DECISION

To conclude, the application must be determined in accordance with the Development Plan unless material considerations indicate otherwise. In this respect, the proposal is considered to comply with NPF4, and the adopted Local Development Plan 2 (2019). Account has been taken of the relevant material considerations and none has been found that would justify overriding the Development Plan.

Accordingly the proposal is approved subject to the following conditions.

Conditions and Reasons

1 The development hereby approved must be carried out in accordance with the approved drawings and documents, unless otherwise provided for by conditions imposed by this decision notice.

Reason - To ensure the development is carried out in accordance with the approved drawings and documents.

2 This planning permission will last only for three years from the date of this decision notice, unless the development has been lawfully started within that period.

Reason - This is a Planning Permission in terms of Section 58 of the Town and Country Planning (Scotland) Act 1997, as amended by Section 32 of the Planning (Scotland) Act 2019.

3 Prior to the commencement of the development hereby approved an updated Bio Diversity Strategy for Taymouth Castle Estate shall be submitted to and approved in writing by the Council as Planning Authority. This can be based upon the Bio Diversity Strategy approved as part of the Zone 1 permissions on the estate but should be updated to reflect current circumstances on site. The Bio Diversity Strategy shall demonstrate ongoing management of bio diversity resource on the estate together with bio diversity enhancement measures. The Bio Diversity Strategy, as approved in writing, shall be fully implemented as part of the ongoing estate development and updated as required with all updates agreed in writing, in advance, with the Planning Authority.

Reason - To ensure appropriate ongoing management of bio diversity on the site in accordance with the requirements of the Perth and Kinross Local Development Plan 2019 and NPF4.

4 Prior to the commencement of the development hereby approved a detailed Woodland Replenishment and Landscape Management Plan (WLMP) for the Taymouth Castle Estate shall be submitted to and approved in writing by the Council as Planning Authority in consultation with Historic Environment Scotland (HES). This shall be based upon the WLMP which was approved as part of the Zone 1 permissions on the estate but should be updated to reflect current circumstances on site and the requirement to delivery compensatory planting as a result of the felling within Zone 4. This WLMP shall be based upon the Landscape Management Plan approved as part of permission 11/00533/FLM contained within Appendix 5.3 of the Environmental Impact Assessment. The Woodland and Landscape Management Plan, as approved in writing, shall be fully implemented as part of the ongoing estate development and updated every 12 months with all updates agreed in writing, in advance, with the Planning Authority.

Reason - To ensure appropriate ongoing management of the landscape woodland resource and the Taymouth Castle Historic Garden and Designed Landscape and to accord with the requirements of the Perth and Kinross Local Development Plan 2019and NPF4.

5 Prior to the commencement of the development hereby approved an updated Taymouth Estate Heritage Features: Schedule of Conservation Works for all listed structures, buildings and folleys with the Taymouth Castle Estate, including detailed timescales for implementation of the works to each structure shall be submitted to and approved in writing by the Council as Planning Authority in consultation with Historic Environment Scotland (HES). This shall be based upon the Schedule of Conservation Works submitted with this application (doc ref: 95). The Schedule of Conservation Works shall include details and timescales for the restoration of the East Wing of Taymouth Castle. All works shall proceed in accordance with the timescales and detail indicated within this document, subject to all appropriate listed building consents being obtained. The Schedule of Conservation Works shall be updated and submitted every 3 months to the Planning Authority, beginning on the date of the planning permission which is hereby approved.

Reason - To ensure that the conservation works to these listed structures are fully implemented as part of the ongoing development of Taymouth Castle Estate.

6 All works within the wider Taymouth Castle estate shall proceed in accordance with the timescales outlined within the masterplan and phasing documents included in the submitted Strategic Planning Framework (SPF) (doc ref: 77, 89 and 96), and the SPF shall be updated and submitted to the Planning Authority every 3 months beginning on the date of the planning permission which is hereby approved.

Reason - To ensure timeous implementation of the proposed development.

7 Prior to the commencement of the development hereby approved, proposed measures to outline the temporary diversion of core paths to facilitate the development shall be submitted to and approved in writing by the Planning Authority. This shall include a report to detail the temporary diversion/closure arrangements, reasons and timescales, together with plans showing in detail the existing core path network and the proposed temporary diversion/closure arrangements which will facilitate construction. This information shall be based upon the detail approved as part of permission 11/00533/FLM, approved documents 11/00533/637, 638 and 639 and any subsequent approved amendments to these. Any changes to the temporary diversion arrangements shall be agreed in writing with the Planning Authority and all routes marked on the approved plans as diversions shall remain available for use at all times.

Reason - To ensure continued public access to the estate and in the interests of public safety within the site.

8 Prior to the occupation of any estate property, the applicant shall submit full details of the management/title deeds which links every estate property to the wider Taymouth Castle Estate. These details shall be submitted and agreed in writing with the Planning Authority prior to the occupation of any of the estate properties. Every estate property on the application site shall enter into this management agreement and be subject to these title deeds. This agreement between the Estate and each estate property shall be maintained in perpetuity.

Reason - To ensure the suitable occupancy and management of the estate properties.

9 Development shall not commence until the developer has secured the implementation of a programme of archaeological work in accordance with a Written Scheme of Archaeological Investigation (WSI) which has been submitted by the developer and agreed in writing by the Council as Planning Authority, in consultation with Perth and Kinross Heritage Trust (PKHT). Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented including that all excavation, preservation, recording, recovery, analysis, publication and archiving of archaeological resources within the development site is undertaken. Should the archaeological works, as required by the WSI, identify a requirement for post-excavation analysis, the development as approved shall not be occupied or brought into use until a Post-Excavation Research Design (PERD) has been submitted to and agreed in writing by the Council as Planning Authority, in consultation with PKHT. The PERD shall be carried out in complete accordance with the approved details. Furthermore, the developer shall afford access at all reasonable times to PKHT or a nominated representative and shall allow them to observe work in progress.

Reason - The site lies adjacent to an area of archaeological interest.

10 Prior to the commencement of the development hereby approved, a 1:200 site plan which identifies the Construction Exclusion Zone (CEZ) shall be submitted for the written agreement of the Council as Planning Authority. This plan shall ensure all fencing adheres to BS 5837 2012: Trees in Relation to Design, Demolition and Construction. The CEZ as subsequently agreed shall be strictly adhered to during construction of the development.

Reason - To ensure the protection of retained trees on the site.

11 Prior to the occupation of the estate properties hereby approved the developer shall submit a Flood Evacuation Plan for the written approval of the

Planning Authority which demonstrates appropriate evacuation procedures in the event that the access to the site be cut off during a flood event. The Flood Evacuation Plan, as approved in writing, shall be adhered to for the lifetime of the development.

Reason - To ensure appropriate evacuation measures are in place during a flood event.

12 No development or extensions, whether or not permitted by virtue of Schedule 1, Part 1, Class 1A, 1B, 3A, 3AA, 3B, 3C, 3D, 3E and 7 of the Town and Country Planning (General Permitted Development)(Scotland) Order, 1992 or any Order revoking and re-enacting that Order, shall be erected on the site hereby approved.

Reason - In the interests of visual amenity and to ensure a satisfactory standard of local environmental quality; to reserve the rights of the Planning Authority and to protect the character of the Taymouth Castle Historic Garden and Designed Landscape.

13 Prior to the commencement of the development hereby approved, a detailed landscaping and planting scheme for the site to compensate for the proposed felling on site shall be submitted to and approved in writing by the Planning Authority. This shall relate to the submission of the WLMP referred to in condition 4 of this permission. The scheme shall include details of the species, height, size and density of trees and shrubs to be planted. The scheme as subsequently approved shall be carried out and completed within the first available planting season (October to March) after the completion or bringing into use of the development, whichever is the earlier, and the date of Practical Completion of the landscaping scheme shall be supplied in writing to the Council as Planning Authority within 7 days of that date. The scheme as agreed and implemented shall thereafter be maintained to the satisfaction of the Council as Planning Authority.

Reason - In the interests of visual amenity and to ensure a satisfactory standard of local environmental quality and to protect the character of the Taymouth Castle Historic Garden and Designed Landscape.

14 The conclusions and recommended action points within the supporting biodiversity survey submitted and hereby approved (document 97 relates) shall be fully adhered to, respected and undertaken as part of the construction phase of development, to the satisfaction of the Council as Planning Authority.

Reason - In the interests of protecting environmental quality and of biodiversity.

15 An updated ecology survey will be required prior to the commencement of works, if works have not commenced within 24 months of the date of the ecology survey approved as part of this permission. The updated survey shall be submitted to and subsequently approved in writing by the Planning Authority and works shall not commence until after such written agreement has been issued by the Planning Authority.

Reason - In the interests of protecting environmental quality and of biodiversity.

16 Measures to protect animals from being trapped in open excavations and/or pipe and culverts shall be implemented for the duration of the construction works of the development hereby approved. The measures may include creation of sloping escape ramps for animals, which may be achieved by edge profiling of trenches/excavations or by using planks placed into them at the end of each working day and open pipework greater than 150 mm outside diameter being blanked off at the end of each working day

Reason - In the interests of protecting environmental quality and of biodiversity.

17 All plant or equipment shall be so enclosed, attenuated and/or maintained such that any noise therefrom shall not exceed Noise Rating 35 between 0700 and 2300 hours daily, or Noise Rating 25 between 2300 and 0700 hours daily, within any neighbouring residential property, with all windows slightly open, when measured and/ or calculated and plotted on a rating curve chart.

Reason - In the interests of residential amenity; to ensure a satisfactory standard of local environmental quality.

18 Prior to commencement of any development on site, the passing places as shown on the approved drawings shall be implemented and thereafter maintained.

Reason - To ensure suitable ability for passing traffic including construction vehicles.

19 The properties subject to this approval shall connect to the foul drainage treatment plant approved under application 24/00865/FLL. No property shall be occupied until the connection to this operational treatment plant is completed in full. The servicing of the site via this treatment plant shall be maintained in perpetuity.

Reason - To ensure the estate properties connect to an appropriate private drainage treatment and in the interests of protecting the River Tay Special Area of Conservation.

20 Prior to the commencement of any development on site a Construction Method Statement (CMS) shall be submitted to and approved in writing by the Planning Authority. The CMS must identify measures to prevent harmful materials entering the River Tay SAC, which could reduce water quality and lead to a damaging impact on the salmon, otter and lamprey interests. The CMS should include the following:

(a) pollution prevention safeguards including drainage arrangements and the possible use of siltation traps, settlement tanks and bunds

(b) storage and disposal of materials including the siting of stock piles, use of buffer strips and disposal methods

(c) construction site facilities including extent and location of construction site huts, vehicles, equipment, fuel, chemicals and materials compound

(d) timing, duration and phasing of construction particularly in relation to salmon and lamprey migration/spawning.

The CMS and mitigations as agreed shall be fully implemented as part of the planning permission.

Reason - To protect the qualifying features and interests of the River Tay Special Area of Conservation.

21 Prior to the commencement of any development on site but following the felling of trees as outlined within the approved tree report (doc ref: 105) and the approved tree removal plan (doc ref:121) an infiltration test must be carried out to determine the permeability and suitability of the soil for sustainable drainage purposes. The test shall be conducted in accordance with the relevant British Standards and best practice guidelines. A full report of the findings, including any recommendations, must be prepared by a qualified professional and submitted to and subsequently approved in writing by the Planning Authority. The details, as approved in writing shall be strictly adhered to.

Reason - To ensure appropriate surface water drainage on site.

22 Storm water drainage from all paved surfaces, including the access, shall be disposed of by means of suitable Sustainable Urban Drainage Systems to meet the requirements of best management practices.

Reason - To ensure the provision of effective drainage for the site.

Justification

The proposal is in accordance with the Development Plan and there are no material reasons which justify departing from the Development Plan.

Informatives

1 Under section 27A of the Town and Country Planning (Scotland) Act 1997 (as amended) the person undertaking the development is required to give the planning authority prior written notification of the date on which it is intended to commence the development. A failure to comply with this statutory requirement would constitute a breach of planning control under section 123(1) of that Act, which may result in enforcement action being taken. Please use the form attached herewith.

2 As soon as practicable after the development is complete, the person who completes the development is obliged by section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended) to give the planning authority written notice of that position. Please use the form attached herewith.

3 No work shall be commenced until an application for building warrant has been submitted and approved.

4 Trees and scrub are likely to contain nesting birds between 1st March and 31st August inclusive. Trees and scrub are present on the application site and are to be assumed to contain nesting birds between the above dates. The applicant is reminded that, under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning permission for a development does not provide a defence against prosecution under this Act.

5 Existing buildings or structures may contain nesting birds between 1st March and 31st August inclusive. The applicant is reminded that, under the Wildlife and Countryside Act 1981, as amended (section 1), it is an offence to remove, damage or destroy the nest of any wild bird while that nest is in use or being built. Planning permission for a development does not provide a defence against prosecution under this Act.

6 The approved stove system shall be installed and thereafter operated and maintained in accordance with the manufacturer's recommendations, such that smoke odours are not exhausted into or escape into any neighbouring dwellings. Failure to do so may result in an investigation and possible action by Environmental Health under the Environmental Protection Act 1990.

7 This planning permission is granted subject to conditions, some of which require further information to be submitted to Development Management either before works can start on site or at a certain time. The required information must be submitted via the ePlanning portal if your original application was lodged that way, otherwise send it to us at developmentmanagement@pkc.gov.uk. Please be aware that a fee is payable in respect of each request made, though there is no limit to the number of conditions that can be discharged in a single request. The Fees Charter is available on our website www.pkc.gov.uk.

The Council has two months to consider the information. You should therefore submit the required information more than two months before your permission expires. We cannot guarantee that submissions made within two months of the expiry date of your permission will be able to be dealt with before your permission lapses.

8 Engineering activities in the water environment may require authorisation under The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) (CAR). Details of regulatory requirements and good practice advice can be found at https://www.sepa.org.uk/regulations/

Procedural Notes

Not Applicable.

PLANS AND DOCUMENTS RELATING TO THIS DECISION

97

01

02

03

04

05

06

07

08

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

52

49

50

51

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

77

78

79

80

81

83

90

87

89

91

92

93

94

95

96

101

119

97

98

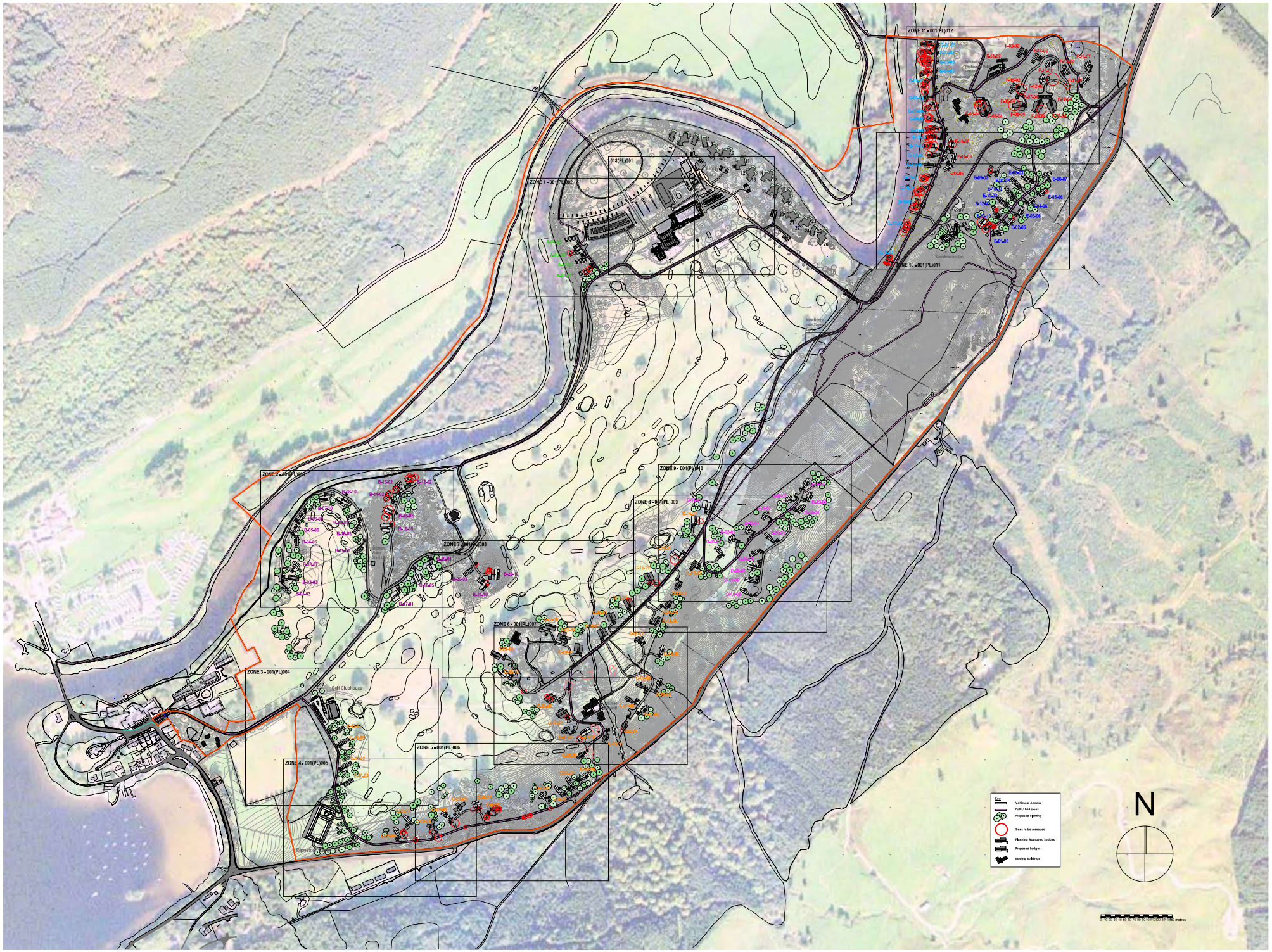
99

100

105

108

All Dimensions Are In Millimetres



REV	DESCRIPTION:	DATE:	DRAWN BY:

All Contents Copyright / All Rights Reserved

Malcolm Hendrie Associates
21 Bank Street Alnwick
Northern NH15 2BB
t: 01887 829220
21 Oxnie Street Chief
Hebden NH1 4AX
t: 01764 910410

JOB TITLE:
Taymouth Castle Development
Masterplan

DRAWING TITLE:
ESTATE MASTERPLAN

JOB NUMBER:	MODEL TYPE:
800.001	

DRAWING NUMBER:	REVISION:
001(PL)001	

DRAWING STATUS:	DRAWN BY: CHECKED BY:
PLANNING	TF ES

SCALE:	DATE:
1:2500@A0	Feb / March 2011

PERTH AND KINROSS COUNCIL

Taymouth Castle Estates Limited/Taymouth Estate Ltd
Turley Associates
(fao Neil Martin)
No 2 Multrees Walk
Edinburgh
EH1 3DQ

Pullar House
35 Kinnoull Street
PERTH
PH1 5GD

Date 24 June 2011

Town and Country Planning (Scotland) Acts.

Application Number **11/00533/FLM**

I am directed by the Planning Authority under the Town and Country Planning (Scotland) Acts currently in force, to grant your application registered on 5th April 2011 for planning permission for Taymouth Castle Kenmore PH15 2NT subject to the undernoted conditions.

Development Quality Manager

Conditions Referred to Above

1. The development shall be begun within a period of three years from the date of this consent.

2. The proposed development must be carried out in accordance with the approved plans and Supplementary Environmental Statement, unless otherwise provided for by conditions imposed on the planning consent.

3. Within 18 months of the date of this approval or prior to the occupation of the Riverside Lodges (marked 1-26 on the submitted masterplan), whichever is the sooner, all works to the Main and West Wing of the Castle shall be completed. These completed works shall include all internal and external work up to and including initial fit out to enable this part of the Castle to be operated as a 12 suite boutique hotel. All of the above shall be to the satisfaction of the Council as Planning Authority in consultation with Historic Scotland.

4. The remaining conservation works to the Castle (Main building and West Wing) shall be completed in their entirety to the satisfaction of the Planning Authority in consultation with Historic Scotland by 31 December 2011. These works consist of:

   - The completion of the main services infrastructure, pipe work, wiring, ductwork and fire protection within the Castle; and
   - The completion of the renovation and/or restoration of the Principal Rooms on the first floor of the Castle.

The detail of the above works shall be agreed in writing with the Planning Authority in consultation with Historic Scotland prior to any further works taking place. The details shall be as per the discussions at the meetings of 18 May and 24 May 2011.

5. The occupation of the new North Wing as indicated on the masterplan (11/00533/1), is not permitted until the works to the East Wing approved under application 11/00531/LBC and this consent are completed in their entirety and the East Wing becomes operational.

6. The internal areas of the entire Castle shall be inspected for any remaining internal historic features, including fireplaces, plasterwork, joinery details, doors, shutters and plasterwork prior to the commencement of development in this area and the Planning Authority shall be informed of any historic elements found. Any historic elements found shall be retained and accommodated within the new development.

7. An updated fabric survey (based on the 2005 Conservation Plan Appendix 4 Fabric Survey) submitted as part of application 03/02250/PPLB to demonstrate what external repair issues are still outstanding shall be submitted prior to the Castle being brought into use as a 12 suite boutique hotel.

8. The landscaping scheme around the castle is not approved. Prior to the commencement of any landscaping a revised scheme based upon the discussions at the meeting of 24 May 2011 shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland. The landscaping scheme as approved shall be completed in its entirety prior to the Castle being operated as a 12 suite boutique hotel. For the avoidance of doubt the landscaping shall refer to both hard and soft landscaping.

9. A detailed specification for the fenestration proposed within the original clock face area on the internal courtyard side of the south range of the East Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. These details shall be submitted prior to the suite which this window serves being brought into use. The details as approved shall be implemented during the development of the site.

10. The glazing proposed at ground floor level on the internal side of the south range of the East Wing is not approved. A revised fenestration arrangement for this area shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland to ensure that these ground floor openings are filled entirely with glazing. The details shall be submitted prior to any works to this suite commencing. The details as approved shall be implemented during the development of the site.

11. The primary face of the main boiler which is retained on site shall be conserved and re-built as a display element within the public areas of the East Wing. Details of its proposed location shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland prior to any of the East Wing being brought into use.

12. The basement vaulting which is to be removed at the west end of the internal courtyard on the East Wing shall be surveyed, photographed and recorded prior to its demolition and details of this survey work shall be submitted for the records of the Planning Authority.

13. The cast iron cellar wine racks within the lower ground floor cellars shall be retained in-situ to the satisfaction of the Council as Planning Authority.

14. The new windows on the north elevation of the East Wing shall be installed within existing openings and no alterations to these openings is permitted, other than the alterations to the doorways. The design detail of these windows is not approved. The design of these windows shall be as per the original profile with 4 panes in the top sash and 6 panes in the bottom sash with a horizontal emphasis known as a “lying pane”. Detailed plans for these windows based upon the above shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland prior to the installation of any windows on this elevation.

15. The six windows on the north facing courtyard of the south range of East Wing adjacent to the swimming pool area as indicated on drawing Section C-C (drwg ref: 11/00533/20) are not approved and a revised elevation showing the re-use of the existing window openings shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development.

16. Any stonework removed shall be re-used in any alteration works within the East Wing.

17. The new opening proposed between the cart shed arches on the internal south facing elevation of the East Wing as indicated on drawing Section D-D (drwg ref 11/00533/21) is not approved. The cart shed arch shall be utilised as the main entrance to this suite and a revised Section D-D drawing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland to show this. The details as approved shall be implemented as part of the site development.

18. The glass roof over the corridor on the north range of the east wing as indicated on drawing Section D-D (drwg ref: 11/00533/21) and Roof Plan drawing (drwg ref: 11/00533/17) is not approved. A revised Section D-D and Roof Plan shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland omitting this glass roof. The details as approved shall be implemented as part of the site development.

19. Prior to works commencing on the East Wing a specification of the lime render to be used on the East Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented during the site development.

20. No elevation for the courtyard side of the east range of the East Wing has been submitted. A detailed, scaled elevation plan for this part of the East Wing shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland prior to the commencement of any works on the East Wing.

21. The plans submitted for the lift in the West Wing are not approved. Revised plans showing the reduction in height of the lift shaft and link structure and the reduction in scale of the steel frame based upon the discussions at the meeting between the Council, Historic Scotland and the applicant's agent on 24 May 2011 shall be submitted. The above shall be agreed in writing with the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

22. A specification and colour detail of the steel work within the lift shaft and glazed link within the West Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

23. A detailed specification of the hand rails and external stair element at the lift area shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

24. The removal of stonework within the central area of the 2nd floor Breadalbane Suite in the West Wing to allow access to the main living space is not approved and a revised layout retaining this stonework shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland. This layout shall be based upon the details submitted in the e-mail dated 2 June 2011 from McKenzie Strickland Associates. The curved steps proposed to access the main living area are not considered appropriate and the revised layout should omit this. The above information shall be submitted prior to any internal alterations within the Breadalbane Suite. The details as approved shall be implemented during the development of the site.

25. A detailed Red Squirrel strategy based upon the draft strategy submitted as part of the Red Squirrel Survey prepared by Nigel Rudd Ecology shall be submitted for the further written approval of the Planning Authority prior to the commencement of any development. This strategy shall ensure that Appendices 1 and 2 are updated so the first line reads "Deliberately or recklessly capture, injure or kill any red squirrel". The strategy as approved shall be strictly adhered to during all development on the application site and to the full satisfaction of the Planning Authority.

26. No works or development within any zone (1-11) shall take place until a pre- construction survey for otters is carried out within that zone. This survey shall be carried out 100m upstream and downstream of any development area which is within 50m of a watercourse. If any otter activity is found the construction operations in that area shall cease and suitable mitigation measures put in place. The mitigation measures shall be agreed in writing with the Planning Authority prior to being implemented. Between the end of October and the end of March (winter time) any construction adjacent to a watercourse is restricted to 0700 to 1900 to avoid potential disturbance.

27. Prior to the commencement of construction in each development zone (1-11), a full detailed construction method statement (CMS) for that zone, giving details of measures to prevent harmful materials entering the River Tay SAC shall be submitted and agreed in writing by the Council as Planning Authority. The details shall include

- Pollution prevention safeguards, including drainage arrangements and the possible use of siltation traps, settlement tanks and bunds, their locations, operation and management.
- Storage and disposal of materials, including the siting of stock piles, use of buffer strips and disposal methods.
- Construction site facilities, including extent and location of construction site huts, vehicles, equipment and materials compound.
- Timing, duration and phasing of construction, particularly in relation to salmon and lamprey migration/spawning.
- 5 metre exclusion zones where possible to ensure work does not take place too close to the SAC.

The approved CMS shall be adhered to during the development of the site to the satisfaction of the Council as Planning Authority. This CMS can be based upon the CMS approved for applications 11/00145/FLL and 11/00146/FLL.

28. Prior to the commencement of development within a zone in the estate, an ecological review shall be submitted to confirm that no adverse impacts on bio-diversity will arise from development progressing in that zone. The review shall assess the presence of nesting birds, bats, red squirrels and otter. The review shall also contain measures to ensure no adverse impacts will occur on other habitats which may be present in that zone. The above details shall be agreed in writing with the Planning Authority prior to the commencement of any development in that zone.

29. The recommendations contained within Section 4 of the Bat Survey submitted by e-mail on 2 June 2011 shall be strictly adhered to at all times all to the satisfaction of the Council as Planning Authority. The details of these recommendations shall be carried out within each zone prior to the commencement of work in that particular zone and the details shall be submitted to the Planning Authority for their records.

30. Prior to the commencement of any development within any zone (1-11) marked on the approved Masterplan a full tree survey of that particular zone shall be submitted to and agreed in writing by the Planning Authority. The tree survey shall also include any access routes to that particular zone. The tree survey shall include:

- A scaled plan which indicates the tree boles and tree canopies plotted in relation to existing buildings and proposed development
- Trees should be identified by a tree number using proprietary tree tags which correspond with survey details
- All tree measurement details including crown spread, tree height and stem diameter
- Tree species, tree health, condition, vitality, distinguishing features, safe useful life expectancy and categories stated in accordance with BS 5837:2005
- Arboricultural recommendations, e.g. felling, crown cleaning, bracing
- Details of mitigation measures to reduce the impact of development on retained trees
- Root protection areas (RPA) shall be clearly shown on a scaled plan, together with details of all tree protection measures to be provided in accordance with BS 5837:2005
- The Tree survey should take account of BS 3998:2010 Recommendations for Tree Works and BS5837:2005 Trees in Relation to Construction
- Details of any trees proposed for felling
- Trees identified for removal shall be inspected for ecological potential
- Dead, dying or decaying trees should also be identified and some retained based upon their ecological value.

Any estate properties found to be within RPAs shall be repositioned accordingly to a location outwith the RPA provided that location is not more than 2 metres in any direction from the original location. Any property required to be moved more than 2 metres will be subject to a new application.

31. No works or development within any zone (1-11) shall take place until a scheme for the protection of retained trees referred to in the condition above has been agreed in writing with the Planning Authority. This plan shall refer to the tree survey in the condition above. This protection plan shall include the following:

- A plan to a scale and level of accuracy appropriate to the proposal that shows the position, crown spread and Root Protection Area (para 5.2.2 of BS5837) of every retained tree on site and on neighbouring or nearby ground to the site in relation to the approved plans and particulars. The positions of all trees to be removed shall be indicated on this plan.
- The details of each retained tree as required at para. 4.2.6 of BS5837 2005 in a separate schedule.
- A schedule of tree works (if any is required) for all the retained trees, specifying pruning and other remedial or preventative work, whether for physiological, hazard abatement, aesthetic or operational reasons. All tree works shall be carried out in accordance with BS3998 2010, Recommendations for Tree Work.
- Written proof of the credentials of the arboricultural contractor authorised to carry out the scheduled tree works.
- The details and positions (shown on the plan referred to above) of the Root Protection Areas (section 9.3 of BS5837 2005),

- The details and positions (shown on the plan referred to above) of the Tree Protection Barriers (section 9.2 of BS5837 2005), identified separately where required for different phases of construction work (eg demolition, construction, hard landscaping). The Tree Protection Barriers must be erected prior to each construction phase commencing and remain in place, and undamaged, for the duration of that phase. No works shall take place on the next phase until the Tree Protection barriers are repositioned for that phase.
- The details and positions (shown on the plan referred to above) of the construction Exclusion Zones (section 9 of BS5837).
- The details and positions (shown on the plan referred to above) of the underground service runs (section 11.7 of BS5837).
- The details of any changes in levels or the position of any proposed excavations within 5 metres of the Root Protection Area (para. 5.2.2 of BS5837) of any retained tree, including those on neighbouring or nearby ground.
- The details of any special engineering required to accommodate the protection of retained trees (section 10 of BS5837), (e.g. in connection with foundations, bridging, water features, surfacing).
- The details of the working methods to be employed with the demolition of buildings, structures and surfacing within or adjacent to the RPAs of retained trees.
- The details of the working methods to be employed for the installation of drives and paths within the RPAs of retained trees in accordance with the principles of "No-Dig" construction.
- The details of the working methods to be employed with regard to the access for and use of heavy, large, difficult to manoeuvre plant (including cranes and their loads, dredging machinery, concrete pumps, piling rigs, etc) on site.
- The details of the working methods to be employed with regard to site logistics and storage, including an allowance for slopes, water courses and enclosures, with particular regard to ground compaction and phytotoxicity.
- The details of the method to be employed for the stationing, use and removal of site cabins within any RPA (para. 9.2.3 of BS5837)
- The details of tree protection measures for the hard landscaping phase (sections 13 and 14 of BS5837).
- The timing of the various phases of the works or development in the context of the tree protection measures.

32. No works or development shall take place until a scheme of supervision for the arboricultural protection measures has been approved in writing by Perth and Kinross Council. This scheme will be appropriate to the scale and duration of the works and shall include details of:

- Induction and personnel awareness of arboricultural matters.
- Identification of individual responsibilities and key personnel.
- Statement of delegated powers.
- Timing and methods of site visiting and record keeping, including updates.
- Procedures for dealing with variations and incidents.

Perth and Kinross Council will require the scheme of supervision to be administered by a qualified arboriculturist approved by them but instructed by the applicant. A regular report should be provided on all active areas of development for the duration of the construction period. The report should confirm that the relevant conditions as detailed above are being fully adhered to.

33. Within six months from the date of this decision, the applicants shall confirm the network of public paths which will be provided within the estate and agree the public use of these paths (i.e. for walking, cycling and equestrian use). This shall include the required upgrade works to the Chinese Bridge. That agreed network shall be maintained and continue to be available throughout the construction and operation of the hotel resort/estate properties unless temporary cessation is required. In such a situation any restrictions shall be notified to the Council in writing in advance of that cessation and discussed with the local community except in the case of urgent health and safety situations or emergency situations.

34. Prior to the site becoming operational as a 12 suite boutique hotel, the applicants shall agree the form and content of an information board at the Kenmore Gate with Perth and Kinross Council and Perth and Kinross Heritage Trust. This information board shall include information on the available path network throughout the site and a history of the site and the important natural heritage features present throughout the site. The information board shall be erected in a location to be agreed next to the Kenmore Gate prior to the site becoming operational as a 12 suite boutique hotel.

35. All plant or equipment including ventilation systems associated with operation of the commercial areas of the development shall be enclosed, attenuated and/or maintained such that any noise therefrom shall not exceed Noise Rating 35 between 0700 and 2300 hours daily, or Noise Rating 25 between 2300 and 0700 hours daily, within any neighbouring properties with windows slightly open, when measures and/or calculated and plotted on a rating curve chart.

36. An effective ventilation system commensurate with the nature and scale of cooking to be undertaken shall be installed, operated and maintained within the Smokehouse Restaurant areas, such that cooking odours are not exhausted into or escape into any neighbouring properties.

37. No form of public entertainment (including music amplified or otherwise) shall be permitted outside on the terrace area of the Smokehouse Restaurant between 2200 hours and 1000 hours unless otherwise agreed in writing with the Planning Authority.

38. Prior to the occupation of any part of the development site the applicants shall provide full details and specification for the design and implementation of works to advance signage, internal roads, parking areas and junctions all to the satisfaction of the Council as Planning Authority.

39. Prior to the occupation of any part of the development site details of the proposed means of external lighting of the site shall be submitted and approved in writing by the Planning Authority. The completed development shall strictly accord with those details approved and shall be so retained at all times thereafter unless otherwise agreed.

40. All recommendations within the “Management Programme” for each compartment detailed in the Landscape Management Plan submitted as part of this application and included within Appendix 5.3 of the Supplementary ES shall be strictly adhered to, all to the satisfaction of the Council as Planning Authority.

41. The planting proposed along the A827 shall be planted to ensure that views afforded from this road across the entire valley estate are retained as much as possible and details of the specific arrangements for this planting shall be submitted for the further written approval of the Planning Authority prior to the commencement of development within Zones 4, 5, 6, 8 and 9. The details as approved shall be implemented as part of the development of the site.

42. Prior to the commencement of development works (for example new tees, bunkers and greens) within the golf course, detailed scaled sections and site plans of all new development referred to as “Type 2 and 3” in the applicant’s document dated 19 May 2011, shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development.

43. Full details of the surfacing materials for the main drive, access tracks and all car parking areas throughout the estate shall be provided for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development and prior to the castle being operated as a 12 suite boutique hotel.

44. Prior to any re-alignment of the existing driveway, full details of the proposed revised main drive position to the west of the Castle shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland and the details as approved shall be implemented as part of the site development. These details shall demonstrate the impact on topography and trees which the new drive position to the west of the Castle will have.

45. Prior to the commencement of development of the Scandinavian Spa, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

46. Prior to the commencement of development, details and specifications of all proposed finishing materials for the estate properties shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

47. Prior to the commencement of development of the equestrian centre, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

48. The estate properties proposed in Zone 1 on the masterplan (A-01-03, A-02-03, A03-03, A-03-04) are not approved.

49. A revised layout for the equestrian centre shall be submitted prior to development commencing in that area to ensure a vehicle parking area is provided.

50. Prior to the commencement of development of the golf clubhouse, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

51. The estate properties located in Zone 7 (drwg ref: 11/00533/8) and on the masterplan (B-20-03, B-21-03, B-22-03) are not approved. Estate properties B-21-10 and B22-10 shall be relocated to Zone 2 (drwg ref: 11/00533/3) adjacent to B-01-03 and B-11-03. A revised masterplan and Zone 2 and 7 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones.

52. The formal car parking areas proposed on the eastern side of the access track serving properties G-01-03 to G-10-03 in Zone 10 and 11 (drwg ref: 11/00533/11, 11/00533/12) are not approved and these shall be revised to less formal gravel parking areas. A revised masterplan and Zone 10 and 11 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones. The details as approved shall be implemented as part of the site development.

53. The details of the new bridge over the Taymouth Burn are not approved. Prior to the commencement of any works within Zone 8 (drwg ref: 11/00533/9) and Zone 9 (drwg ref: 11/00533/10) a revised design shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The revised design shall utilise a timber balustrade and shall be based upon that discussed at the meeting of 24 May 2011.

54. No development shall take place within the development site as outlined in red on the approved plan (11/00531/1) for those elements approved under this consent until the developer has secured the implementation of a programme of archaeological work in accordance with a written scheme of archaeological investigation which has been submitted by the applicant, agreed by Perth•and Kinross Heritage Trust and approved by the Planning Authority. Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority in agreement with Perth and Kinross Heritage Trust.

55. The finished floor levels of estate properties C-15-01, C-14-01 and D-11-01 as identified on the masterplan and within site plan Zone 8 (drwg ref: 11/00533/9) shall be (C-15-01 114m), (C-14-01 112.6m), (D-11-01 111.1m). The mitigation measures outlined within the Flood Risk Assessment prepared by Millard Consulting dated March 2011 and contained within the Supplementary Environmental Statement shall be strictly adhered to.

56. Prior to the occupation of any estate property, the applicant shall submit full details of the management/title deeds which link every estate property to the wider Taymouth Castle Estate. These details shall be submitted and agreed in writing with the Planning Authority prior to the occupation of any of the estate properties. Every estate property on the application site shall enter into this management agreement and be subject to these title deeds. This agreement between the estate and each estate property shall be maintained in perpetuity.

57. Prior to the occupation of any of the approved development the applicants shall submit a Hotel Resort Operations Management Plan to address:

- flood risk management
- waste management and recycling measures
- major event traffic management/parking
- guest parking and internal/short distance travel arrangements
- security measures.

All of the above shall be submitted for the written approval of the Planning Authority. The details as approved shall be strictly adhered to during the operation of the development hereby approved.

58. Prior to the occupation of the any of the estate properties the geometry of the access at the Main Gate to the east of the site onto the A827 public road shall be upgraded to a standard to be agreed with the Council as Planning Authority. The details of this shall be submitted for the written approval of the Planning Authority.

59. Prior to the commencement of works on the development, the applicant shall submit for the written approval of the Planning Authority a Construction Traffic Management Scheme (TMS) which shall include the following:

(a) restriction of construction traffic to approved routes and the measures to be put in place to avoid other routes being used;
(b) timing of construction traffic to minimise impact on local communities particularly at school start and finishing times, on days when refuse collection is undertaken, on Sundays and during local events;
(c) a code of conduct for HGV drivers to allow for queuing traffic to pass;
(d) arrangements for liaison with the Roads Authority regarding winter maintenance;
(e) emergency arrangements detailing communication and contingency arrangements in the event of vehicle breakdown;
(f) arrangements for the cleaning of wheels and chassis of vehicles to prevent material from construction sites associated with the development being deposited on the road;
(g) arrangements for cleaning of roads affected by material deposited from construction sites associated with the development;
(h) arrangements for signage at site accesses and crossovers and on roads to be used by construction traffic in order to provide safe access for pedestrians, cyclists and equestrians;
(i) details of information signs to inform other road users of construction traffic;
(j) arrangements to ensure that access for emergency service vehicles are not impeded;
(k) co-ordination with other major commercial users known to use roads affected by construction traffic;
(l) traffic arrangements in the immediate vicinity of temporary construction compounds;

(m) the provision and installation of traffic counters at the applicant's expense at locations to be agreed prior to the commencement of construction;
(n) monitoring, reporting and implementation arrangements; and
(o) arrangements for dealing with non-compliance.

The TMS as approved shall be strictly adhered to during the entire site construction programme all to the satisfaction of the Council as Planning Authority.

60. Prior to the site becoming operational as a 12 suite boutique hotel, a Green Travel Plan Framework (GTPF) for staff across the hotel resort shall be prepared by the applicant and agreed in writing with the Planning Authority. The framework shall specify options for increasing sustainable transport usage. As part of this framework a Travel Plan Survey shall be carried out within 6 months of operations commencing. A finalised Travel Plan, based upon the findings of this survey, shall then be produced to include a target for percentage of staff travelling by means other than private car. This Travel Plan shall be submitted no more than 12 months from the site becoming operational as a 12 suite boutique hotel. That target percentage and Travel Plan shall be agreed in writing with the Planning Authority. This Travel Plan shall be reviewed annually for five years following the commencement of operations.

Reasons for Conditions

1. In accordance with the terms of Section 58 of the Town and Country Planning (Scotland) Act 1997 as amended by Section 20 of the Planning etc (Scotland) Act 2006.

2. To ensure that the development is carried out in accordance with the plans approved.

3-5. To confirm the applicant's commitment to the necessary restoration and conservation works to the castle.

6-24. To protect the character of the Category A listed building.

25. To ensure the protection of red squirrels.

26. To ensure the protection of otters.

27. To protect the water quality of the River Tay SAC.

28. To ensure the protection of protected species.

29. To ensure the protection of bats.

30. To ensure the protection of trees on site and to protect the character of the Taymouth Castle Designed Garden and Landscape.

31. To ensure the suitable protection of all retained trees and to protect the character of the Taymouth Castle Designed Garden and Landscape.

32. To ensure the arboricultural protection measures are adequately supervised.

33. To ensure continued public access throughout the site.

34. To provide a suitable information board with details of the site.

35-37. In the interests of residential amenity and to ensure an adequate standard of local environmental quality.

38-48. In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of listed buildings.

49. To ensure adequate vehicle parking provision to serve the equestrian centre.

50-52. In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of listed buildings.

53. To ensure the replacement bridge relates to the design detail of the historic bridge in this location.

54. In order to safeguard any archaeological interests of the site.

55. To ensure the properties are above flood risk level.

56. To ensure the suitable occupancy of the estate properties.

57. To ensure that all issues relating to the operation of the hotel resort and estate properties have been considered and appropriate measures in place to deal with any realist contingency.

58. To ensure suitable access to the site.

59. To ensure construction traffic does not disrupt the existing road network.

60. In the interests of sustainability and to minimise the use of the private car when travelling to work.

Justification

The proposal is considered to comply with the Development Plan and there are no other material considerations that would justify a departure therefrom.

Notes

1 Under Section 27A of the Town and Country Planning (Scotland) Act 1997 (as amended) the person undertaking the development is required to give the Planning Authority prior written notification of the date on which it is intended to commence the development. A failure to comply with this statutory requirement would constitute a breach of planning control under section 123(1) of that Act, which may result in enforcement action being taken.

2 This development will require the 'Display of notice while development is carried out', under Section 27C(1) of the Town and Country Planning Act 1997, as amended, and Regulation 38 of the Development Management Procedure (Scotland) Regulations 2008. The form of the notice is set out in Schedule 7 of the Regulations and a draft notice is included for your guidance. According to Regulation 38 the notice must be:

- Displayed in a prominent place at or in the vicinity of the site of the development
- Readily visible to the public
- Printed on durable material.

3 As soon as practicable after the development is complete, the person who completes the development is obliged by Section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended) to give the Planning Authority written notice of that position.

4 This is approval of your application Ref No 11/00533/FLM for planning permission only. It does not include any approval for your related application for Listed Building Consent Ref No (11/00531/LBC). You should therefore not commence work until you have received Listed Building Consent. Carrying out alterations without Listed Building Consent is an offence.

5 No work shall be commenced until an application for building warrant has been submitted and approved.

6 The applicant is advised that the granting of planning consent does not guarantee a connection to Scottish Water's assets. The applicant must make a separate application to the Scottish Water Planning & Development Services team for permission to connect to the public wastewater system and/or water network and all their requirements must be fully adhered to.

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

Plan Reference

11/00533/1-26 (Inclusive)

11/00533/28

11/00533/30-38 (Inclusive)

11/00533/42-60 (Inclusive)

11/00533/62-500 (Inclusive)

Perth and Kinross Council

NOTICE OF INITIATION OF DEVELOPMENT

The Planning etc. (Scotland) Act 2006
The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008

A person who has been granted planning permission (including planning permission in principle) and intends to start development must, once they have decided the date they will start work on the development, inform the planning authority of that date as soon as is practicable and, in any case, before the development commences. This ensures that the planning authority is aware that development is underway, and can follow up on any suspensive conditions attached to a planning permission. Failure to do so will be a breach of planning control under section 123(1) of the Planning (Scotland) Act. 1997

Before any work starts on site please complete the form below and return it to:

Development Management
The Environment Service
Perth and Kinross Council
Pullar House
35 Kinnoull Street
Perth PH1 5GD

Application Reference Number	**11/00533/FLM**
Date of issue of consent	24 June 2011
Date works are to commence	
Name & address of developer	
Name & address of landowner (if a different person)	
Name & address of site agent	

Perth and Kinross Council

NOTICE OF COMPLETION OF DEVELOPMENT

The Planning etc. (Scotland) Act 2006
The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008

A person who completes a development for which planning permission (including planning permission in principle) has been given must, as soon as practicable after doing so, give notice of completion to the planning authority. If the planning consent is for a phased development, notice of the completion of each phase must be notified to the planning authority.

As soon as the development (or phase of development) is completed please therefore complete the form below and return it to:

Development Management
The Environment Service
Perth and Kinross Council
Pullar House
35 Kinnoull Street
Perth PH1 5GD

Application Reference Number	**11/00533/FLM**
Date of issue of consent	24 June 2011
Date works were completed	
Name & address of developer	
Name & address of landowner (if a different person)	
Name & address of site agent	

NOTICE

Under Regulation 38 of The Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008

Development at Taymouth Castle Kenmore PH15 2NT

Notice is hereby given that planning permission has been granted subject to conditions.

The development comprises Erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of castle.

Further information regarding the planning permission including the conditions, if any, on which it has been granted can be obtained during office hours at Pullar House, 35 Kinnoull Street, Perth, PH1 5GD; by telephoning the Council's Customer Service Centre on 01738 475300; or at any time by emailing DevelopmentManagement@pkc.gov.uk or viewing the planning application details online at http://www.pkc.gov.uk

Socio-Economic Impact Assessment: Taymouth Castle Estate

For Discovery Land Company

Final report | April 2024



Please consider the environment before printing this document

Contents

1	Introduction	1
1.1	Proposed Development	1
1.2	Approach	2
1.3	Report Structure	3
2	Socio-Economic Baseline	4
2.1	Introduction	4
2.2	Population	5
2.3	Business and Employment Base	8
2.4	Claimant Count	10
2.5	Earnings and Value-Add Activities	11
2.6	Tourism Performance	12
2.7	Key Points from the Baseline Data	12
3	Socio-Economic Impact Assessment	13
3.1	Method of Assessment	13
3.2	Impact Assessment	15
3.3	Financial Impacts	22
4	Wider Socio-Economic Benefits	24

EKOS Ltd

Established in 1993, EKOS is a leading consultancy practice specialising in economic and social research. Working across a broad portfolio, we help our clients to deliver economic growth and promote social well-being.

We support clients across the UK and our work includes providing a range of technical and specialist research services, including economic impact assessment, business case development and evaluation. Importantly, we are an independent company which allows us to bring transparency, rigour, and objectivity to our work.

We are aware of the wider interest in the emerging development proposals from the media and groups that are both for, and opposed to, the proposals. The following report has been carried out in a non-partisan way based on HM Treasury Green Book appraisal guidance and informed by data provided by the client team and EKOS' professional judgment. Neither EKOS nor the report make a position on either supporting or opposing the development proposals with the core focus of the research to present the forecast economic and social value that could be delivered if the project proposals are developed and occupied as outlined.

Executive Summary

This report has been prepared by EKOS Ltd, who have been commissioned by Discovery Land Company to assess the potential economic and social value impacts that could be generated from the proposals for Taymouth Castle Estate in Kenmore, Perth and Kinross.

Project Proposal

The site was purchased in 2018 by Discovery Land Company with the proposal to develop a residential community on the site, called Taymouth Castle Estate. The proposal will encompass a direct investment of around £370 million from Discovery Land Company and will deliver the following:

- The renovation of 19th century Taymouth Castle to create 23 suites; 2 restaurants; multiple bars and gym facilities.
- Construction of a new North Wing at Taymouth Castle to house purpose-built spa facilities.
- Six housing zones encompassing approximately 145 homes.
- Construction of 'Golf House' (a new restaurant/bar).
- Renovation of Taymouth Golf Course.
- The restoration of the historic East gatehouse.
- Construction of an on-site equestrian centre.

The developers also anticipate leveraging a further circa £360m[1] in private sector investment during construction of the 145 homes earmarked for the site. The Taymouth Castle Estate business model allows prospective homeowners to buy a plot of land on the site, and then develop, construct, and furnish the property.

There will also be an additional £30 million of capital expenditure spent by Discovery Land Company on developing/renovating assets they own in the village of Kenmore, including the Kenmore Hotel, village shop, Taymouth trading (restaurant) and various residential village properties/cottages. These assets are located outside the grounds of the Taymouth Castle Estate and are therefore not modelled as part of the quantitative economic analysis; however, further details are noted within Section 4 of the main report.

[1] It is anticipated that a further circa £60m could be spent by homeowners on furnishing/fitting out the homes.

Economic Impacts

The economic impacts of the Taymouth Castle Estate have been measured against five key receptors, namely:

1. **Capital/construction impacts** – the physical build and construction activity associated with the Taymouth Castle Estate development.
2. **Operational on-going impacts** – the on-going operation and staffing of the estate e.g., castle, restaurant, golf course, spa etc.
3. **Off-site spend impacts** – visitors/guests of the Taymouth Caste Estate spending money within the wider economy during their visit e.g., at local visitor attractions, cafes, restaurants, shops etc.
4. **Household spend impacts** – spend from households furnishing and fitting-out their homes on the site.
5. **Financial impacts** – taxes generated through the purchase, capital expenditure and on-going operation of the site.

All economic impacts have been calculated as per HM Treasury Green Book Guidance for economic appraisal, and are contingent on the development being built, occupied, and operated as outlined.

The economic impacts are measured as gross impacts, which describes the direct impacts created through the capital investment (construction impacts) and ongoing operations/activities of the development (on-going activities, off-site spend, household spend). These gross impacts are then calculated as net-direct impacts, which focuses on the outturn of the gross impacts, taking account of displacement (the impact the development is estimated to have on other businesses and the labour market), leakage (the proportion of impacts that will benefit those outside the defined spatial area i.e., Perth and Kinross, and Scotland) and multiplier effects (the positive spin-off benefits generated within the wider economy from on-site activity).

A summary of the estimated economic impacts under each of the receptors is presented in **Table E.1** below.

Table E.1: Summary of Economic Impacts

Measure	Gross Impacts	Net-Direct Impacts	
		Perth and Kinross	Scotland
One-off Capital/Construction Impacts			
Total Jobs	4,970	2,620	4,510
GVA (£m)	302	160	275
Wages (£m)	134	70	121
The construction activity on the Taymouth Castle Estate site is expected to create **2,620 one-off construction jobs** in Perth and Kinross, generating **£70 million in wages** and contributing **£160 million of GVA** to the local economy.			
On-going Operational Annual Impacts			
Measure	**Gross Impacts**	**Perth and Kinross**	**Scotland**
FTE Jobs	250	200	270
GVA (£m)	17	14	19
Wages (£m)	10	8	11
The on-going net direct impact generated through the operations at the Taymouth Castle Estate are estimated at **200 FTE jobs**, **£8 million in salaries/wages** and a **GVA contribution of £14 million** per annum to the Perth and Kinross economy.			
Off-site Spend Annual Impacts			
Measure	**Gross Impacts**	**Perth and Kinross**	**Scotland**
FTE Jobs	110	55	75
GVA (£m)	3.0	1.5	2.0
Wages (£m)	2.0	1.0	1.5
Off-site spending by those staying at the Taymouth Castle Estate, will have net direct effects in Perth and Kinross in creating **55 FTE jobs**, with associated wages of **£1.0 million** while contributing **£1.5 million of GVA to the local economy**, annually.			
One-off Household Spend Impacts Impact			
FTE Jobs	380	200	280
GVA (£m)	23	12	17
Wages (£m)	10	5	7
One-off spend by households moving into and furnishing/fitting out houses on the Taymouth Castle Estate site will support **200 one-off FTE jobs** in Perth and Kinross, supporting **£5 million in wages** and **£12 million in GVA** to the local economy.			

In assessing the potential long-term impacts of the development (over a 25-year period)[2], we have identified that the cumulative one-off construction, ongoing on-site operations, off-site spend and

[2] HM Treasury Green Book identifies that appraisals should be undertaken for the anticipated lifetime of the new asset, up to 25 years.

one-off household spending associated with the development will generate net direct GVA and wages for Perth and Kinross as well as Scotland, as presented in **Table E.2.**

Table E.2: Cumulative 25-year Net Direct Present Value Impacts[3]

Measure	Perth and Kinross	Scotland
GVA	£390m	£590m
Wages	£210m	£320m
Over 25 years the proposed Taymouth Castle Estate development is estimated to generate **£390 million of GVA** for the Perth and Kinross economy, whilst supporting **£210 million in local wages.**		

We further anticipate that the project will generate tax receipts for local and national government via:

- **Land and Buildings Transaction Tax** – generated through the purchase of the land and the on-site buildings.
- **Income Tax and National Insurance** – generated from on-site employees' salaries.
- **Council Tax** – generated via the 145 houses occupied on site.
- **Non-domestic rates** – generated through the on-going operation of the Taymouth Castle Estate business (these have not been modelled in this analysis due to on-going assessments into the level that the development would be subject to).

The financial impacts from the Taymouth Castle Estate are presented in **Table E.3** below.

Table E.3: Financial Impacts

Financial Impact	Annual (£)	25-year period - Discounted
Land and Buildings Transaction Tax	£3,200,000 *(one-off)*	
Income Tax and National Insurance	£3.1m	£55m
Council Tax	£0.6m	£11m
Over a 25-year period the Taymouth Castle Estate will generate **£55million in income tax and national insurance receipts**, as well as **£11million in council tax.**		

Note on Findings

It should be noted that these are preliminary estimates of the potential economic impact of the development proposals for Taymouth Castle Estate in Kenmore, Perth and Kinross. The analysis

[3] The values within this table represent the estimated GVA and salaries generated via the one-off construction investment as well as the continuous operational jobs, off site spend and on-off household spend. They exclude the financial impacts e.g., income tax, council tax etc. These impacts have been discounted at 3.5% (HM Treasury's Social Time Preference Rate) for a period of 25 years to reflect the Present Value (PV).

and calculations are based on project-specific data (as noted above) and current market conditions, as well as using HM Treasury Green Book best practise guidance for economic appraisal. Therefore, as the project continues to develop and be refined, the assessment may be subject to change.

Further information on the methodology used to calculate the economic and financial impacts are detailed in Section 3 of the report.

1 Introduction

EKOS has been commissioned by Discovery Land Company to carry out a Socio-Economic Impact Assessment (SEcIA) of Taymouth Castle Estate, a mixed-use development in Kenmore, Perth and Kinross, Scotland. The aim of the document is to measure and quantify the potential economic and social impact that could be generated from the development.

1.1 Proposed Development

The proposed mixed-use development, located in Kenmore, includes an extensive refurbishment of Taymouth Castle (which has been largely unused since the 1980s) and golf course, alongside the creation of new estate properties, as well as the construction of a variety of other new amenities e.g. a spa and equestrian centre.

Based on the masterplan documents as well as discussions with Discovery Land Company, the Taymouth Castle Estate development includes the following deliverables:

- **Renovation of Taymouth Castle** - creating 23 suites; 2 restaurants; multiple bars; and gym facilities.
- **Spa** – construction of spa facilities as part of the new 'North Wing' of Taymouth Castle.
- **Six housing zones** – with a total of 145 houses proposed.
- **'Golf House'** - a new restaurant/bar to be built on-site.
- **18-hole golf course** – renovation of the James Braid designed Taymouth Golf Course.
- **East Gatehouse** – restoration of gatehouse entrance to the castle site.
- **Glenlyon Estate** – purchase of mixed sporting estate at Glenlyon (circa 3 miles north of Loch Tay).
- **Equestrian Centre** – details are still to be finalised therefore currently excluded from economic assessment.

The development represents one of the largest private sector investments in Perth and Kinross' history, with Discovery Land Company planning to directly invest in the region of £370 million on refurbishment, renovation, engineering, sales and marketing, and enabling infrastructure works at the site.

The project is also expected to entail a further circa £420 million in private sector investment during the construction, fit-out and furnishing of the private owner-occupied properties proposed for the Estate. The total estimated value of the development is £790m.

Construction has already started on various elements of the development, including castle and golf course renovations, as well as much of the enabling infrastructure, with an anticipated completion date of year-end 2029 for everything on-site to be fully operational.

Outside of the Taymouth Castle Estate, Discovery Land Company also own a number of properties in Kenmore, including the Kenmore Hotel, village shop, residential cottages and Taymouth Trading, as well as the Moness Resort in Aberfeldy, all of which are to be subject to extensive renovations – somewhere in the region of £30-40 million. These aren't included within the formal economic impact assessment, however, are considered as part of the Wider Socio-Economic Benefits section (**Section 4**).

Note on Project Data

The socio-economic analysis has been informed by several information sources, including the development masterplan and accompanying planning application documents, primary data supplied by Discovery Land Company and Scott Hobbs Planning (The Planning Consultant Lead), as well as wider secondary socio-economic data from official data sources such as Scottish Annual Business Statistics (SABS), Skills Development Scotland (SDS) and the Office for National Statistics (ONS).

1.2 Approach

The study takes the form of four distinct work streams:

Firstly, a desk-based review of local and national socio-economic indicators to set the context in which the project will be delivered. We have identified and highlighted relevant:

- Economic and social data, including demographics, employment, value add activities and tourism performance.

Secondly, an Economic Impact Assessment (EIA) of the Taymouth Castle Estate development to identify the gross and net effects (direct, indirect, and induced) of the:

- Employment.
- Salaries/wages.
- Gross Valued Added (GVA).

Thirdly, an assessment of the wider financial impact, through the generation of various tax receipts, including:

- Land and Buildings Transaction Tax (LBTT).
- Income Tax.
- Council Tax.

Fourthly, an analysis of the wider socio-economic impacts of the development, including:

- The use of local contractors
- The use of local suppliers.
- Moness Resort.
- Kenmore Village Assets.

1.3 Report Structure

The report is structured as follows:

- Chapter 2: Socio-Economic Baseline.
- Chapter 3: Economic and Financial Impact Assessment.
- Chapter 4: Wider Socio-Economic Benefits.

2 Socio-Economic Baseline

2.1 Introduction

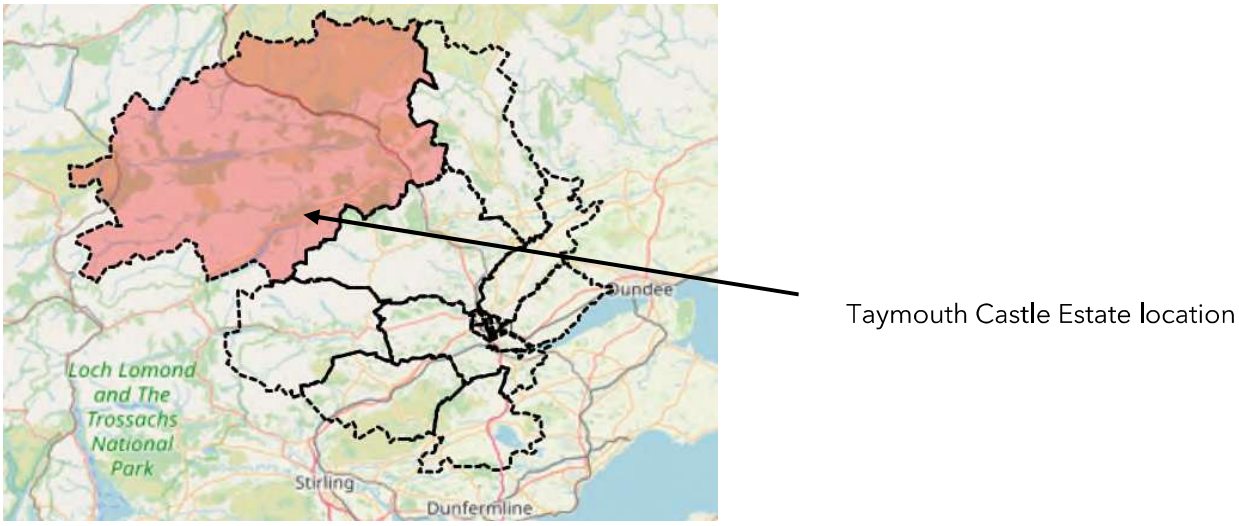
This chapter sets out the socio-economic data used to establish the baseline. The baseline is a reference point reflecting the current underlying market conditions and performance of the local economy.

Having an understanding and appreciation of the baseline conditions will help contextualise the scale and scope of the economic impacts that the Taymouth Castle Estate development is anticipated to deliver. It should also provide the reader with a greater understanding of some of the socio-economic challenges and opportunities currently facing the local area and wider region. Within the assessment, a short analysis of the potential impact in which the development may have to each baseline element is provided.

Context - The Location

Before analysing the data, it's important to set out the geographic location of the development, which is located within the 'Highland' ward of the Perth and Kinross local authority. This area encompasses the largely rural North-West of the region, with the ward encompassing the village of Kenmore as well as the settlements of Aberfeldy, Dunkeld, Blair Atholl, Pitlochry, and Kinloch Rannoch. For this socio-economic baseline, the Highland ward will be used as the local reference point when reviewing data across the Perth and Kinross region, which is highlighted in red within **Figure 2.1** below.

Figure 2.1: Map of Perth and Kinross data zones *(Highland in red)*



Source: NOMIS, 2023

2.2 Population

Overview

The population of the local area (Highland ward) has increased by 1.3% over the past 10 years (2011 to 2021), lower than the rate of growth recorded at both a regional (Perth and Kinross) and national (Scotland) level, as shown in **Table 2.1** below.

Table 2.1: Population Change (2011 to 2021)

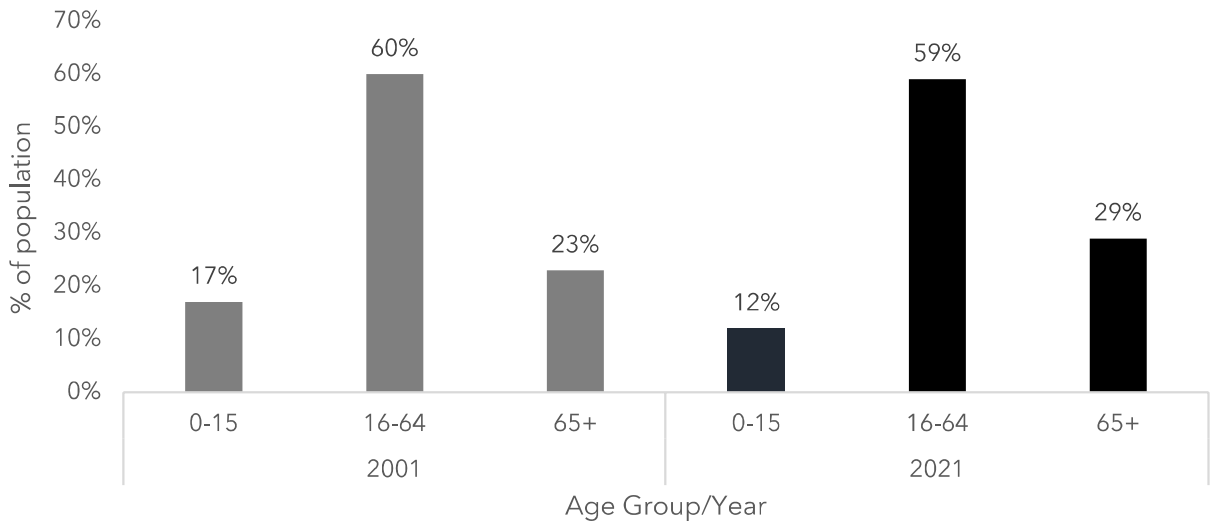
Area	2011	2021	Change (%)
Highland Ward *(Local Level)*	9,245	9,363	**+1.3%**
Perth and Kinross *(Regional Level)*	146,850	153,810	**+4.7%**
Scotland *(National Level)*	5,299,900	5,479,900	**+3.4%**

Source: National Records of Scotland (2022)

Local Level

Like much of Scotland, the population of the local area has also grown older over the past 20 years, with the proportion of the population aged 65+ increasing from 23% in 2001 to 29% in 2021, while the proportion of the population aged under 16 has reduced from 17% to 12%, **Figure 2.2**. Although Scotland's overall population has aged over the same period, the proportion of people aged 65+ is considerably lower, at 20% in 2021 (compared to 29% in the Highland ward).

Figure 2.2: Proportion of population by age category – Highland ward

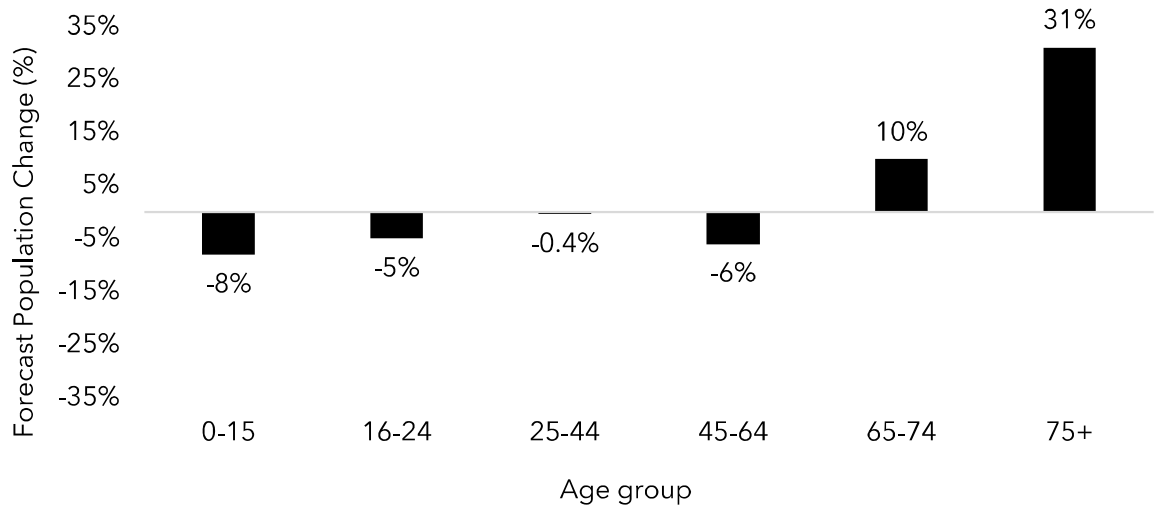


Source: National Records of Scotland (2023)

Regional Level

At a regional level, the demographic profile of Perth and Kinross is expected to get older over the coming decade, with those aged 65 to 74 and 75+, expected to increase over the period (2018 to 2028). In turn, the working age population (16-64 years old) and those under 16 is expected to decrease, as shown in **Figure 2.3**.

Figure 2.3: Forecast (%) change in Population of Perth and Kinross by Age Group (2018 to 2028)



Source: National Records of Scotland (2023)

Dependency Ratio

Under current projections, Perth and Kinross is expected to see a large increase in its dependency ratio, which considers the ratio of non-working age population (0-15 and 65+) to working age population, from 66% in 2018 (well above the Scottish rate of 56%) to 76% by 2043.

A 76% dependency ratio signifies that for 100 working age people there will be 76 of non-working age. This contrasts with a much smaller increase that is expected across Scotland, 56% in 2018 rising to 60% in 2043 (SDS RSA Data Matrix, 2023).

In 20 years' time under current conditions there is forecast to be a notably smaller working age population within Perth and Kinross, **Table 2.2**.

Table 2.2: Dependency Ratio

Year	2018	2043 *(Predicted)*	ppt change
Perth and Kinross	66%	76%	+10%
Scotland	56%	60%	+4%

Source: SDS RSA Data Matrix (2023)

An ageing population alongside an increasing dependency ratio puts additional pressures on demand for public services such as healthcare and other services, whilst also impacting local economic activity and productivity rates.

The high and increasing dependency ratio in Perth and Kinross can likely be attributed to multiple factors, including: a lack of inward migration of young/working age people, increasing rates of outward migration (particularly of young people) as well as an ageing local population.

Impact of investment on local population

The Taymouth Castle Estate will create a range of employment opportunities both directly (construction, hotel, commercial, hospitality etc) as well as within the wider supply chain (e.g., the logistics and transportation of goods to and from the site). With an estimated 250 FTE jobs (gross) based on-site at the peak of its operation.

These new jobs located in the Kenmore area could contribute towards re-dressing some of the demographic challenges facing the local area, both by attracting working age people to live and work in the region and by providing job opportunities for local young people - reducing the likelihood of them leaving the area to access employment opportunities elsewhere. Though, there is no guarantee that jobs on-site will go to people already living locally.

In addition, some of the new workers are likely to have children that will enrol in the local schools. The number of children under the age of 16 has declined locally by almost one-third over the period of 2001 to 2021, from 1,528 to 1,079 (National Records of Scotland, 2023). The in-migration of workers and their families could help contribute towards addressing the wider issue of falling school rolls in the local area.

Although a number of the new staff are likely to be young and therefore may not have children, it's likely that the development will at least in-part help create a more sustainable demographic profile for the local area going forward.

2.3 Business and Employment Base

Business

In terms of the local business base, the proportion of businesses by employment size band tends to be relatively similar at a local level in comparison to Perth and Kinross and Scotland, with a marginally higher proportion of micro and small businesses locally (99% of business count) than the Scottish average (98%), **Table 2.3**.

Table 2.3: Business Count – Enterprises by employment size band

Business Size	Measure	Rannoch and Aberfeldy*	Perth and Kinross	Scotland
Micro (0-9)	%	85%	88%	87%
	Count	300	5,360	149,665
Small (10-49)	%	14%	11%	11%
	Count	50	650	18,170
Medium-sized (50-249)	%	1%	2%	2%
	Count	5	95	2,820
Large (250+)	%	0%	0.3%	0.4%
	Count	0	20	700

Note: *Data was not available at 'Highland' level but was available at a more granular local level (Rannoch and Aberfeldy). Percentages do not add up for Perth and Kinross due to rounding.

Employment

In terms of employment, the total number employed within the local 'Highland' ward is 3,995 but has decreased by over 5% since 2016, which is quite a notable contrast given that employment has grown across Perth and Kinross (+0.8%) and nationally (+1.6%) over the same period.

The largest levels of employment in the local area (by number of employees) are in the categories of 'Accommodation and food services', 'retail', and 'Arts, entertainment recreation and other services', which demonstrates the importance of the tourism/visitor economy to the local area, **Table 2.4**.

Table 2.4: Total Employment and % change between 2016 and 2021

Industry	Highland Ward – Perth and Kinross		Perth and Kinross		Scotland	
	Employment (2021)	% Change since 2016	Employment (2021)	% Change since 2016	Employment (2021)	% Change since 2016
Agriculture, forestry and fishing	50*	0%	4,000	+33%	46,000	+28%
Mining, quarrying and utilities	100	-20%	4,500	+80%	62,000	-6%
Manufacturing	150	0%	5,000	+43%	176,000	0%
Construction	250	+43%	4,000	0%	151,000	+13%
Motor trades	20	-43%	1,500	-33%	41,000	-13%
Wholesale	20	0%	1,250	-38%	64,000	-16%
Retail	800	+14%	7,000	+17%	254,000	+9%
Transport and storage	50	0%	1,750	-13%	104,000	-3%
Accommodation and food services	1,000	-20%	7,000	0%	189,000	+3%
Information and communication	25	-29%	700	0%	77,000	+5%
Financial and insurance	5	-75%	1,500	0%	77,000	-6%
Property	150	-14%	1,250	+25%	37,000	+6%
Professional, scientific and technical	150	20%	3,000	-14%	162,000	-5%
Business admin and support services	225	0%	2,500	-38%	199,000	+9%
Public admin and defence	150	+50%	4,000	+14%	164,000	+6%
Education	250	+11%	5,000	0%	216,000	+14%
Health	250	-17%	7,000	-13%	396,000	-2%
Arts, entertainment, recreation and other services	350	-22%	2,500	-29%	105,000	-18%
Total	**3,995**	**-5.1%**	**63,450**	**+0.8%**	**2,520,000**	**+1.6%**

Source: BRES (2022)

*This figure excludes farm agriculture

Impact of investment on local business and employment

The Taymouth Castle Estate can help address and replace some of the losses in employment that have been witnessed within the local area over the last 5 years. Based on the economic impact modelling, Taymouth Castle Estate (if developed as outlined) could contribute to an uplift of just over 6% in the number of local jobs. This can also help to support additional indirect and induced jobs within the wider supply chain.

As can be noted above, 'Accommodation and food services' as well as 'Arts, entertainment, recreation and other services' are sub-sectors that comprise the wider tourism sector and have both seen significant (proportionate) declines in employment over the period 2016-2021, falling by -20% and -22%, respectively, equating to some 350 jobs. Part of this decline will be a result of the Covid-19 pandemic and cost of living crisis. The Taymouth Castle Estate development will increase employment within these sub sectors and replace some of these lost jobs.

Further, the construction capital activity associated with the development will provide local companies the opportunity to bid for construction contracts - building upon the strong growth witnessed within this sector over the past 5 years.

This can have other knock-on effects to the local economy, for example, an increase in the number of construction workers in the local area, who will stay in local hotels/B&Bs and spend money in local businesses.

2.4 Claimant Count

The claimant count describes the proportion of people of working age claiming unemployment related benefits. The figures for the Highland Ward (Local), Perth and Kinross (Regional) and Scotland (National) are presented in **Table 2.5** below. It can be noted that the local area generally performs better on this measure than the regional and national average, although this could be explained by the larger older population living locally (retirees) who are not counted in this measure as they are above 'working age'.

Table 2.5: Claimant Count - % of 16 to 64-year-olds

Gender	Highland	Perth and Kinross	Scotland
Total	1.7%	2.2%	3.0%
Male	1.8%	2.7%	3.6%
Female	1.5%	1.7%	2.3%

Source: Office for National Statistics (2023)

Impact of investment on claimant count

The development is unlikely to have any notable impact at the local level given the relatively small number of claimants. At the regional level, the impact can be more significant if the development were to employ people who are currently unemployed and receiving unemployment benefits.

2.5 Earnings and Value-Add Activities

The Perth and Kinross area generally performs well in comparison to the national average when considering Gross Value Add (GVA) per job (a metric for productivity) and gross weekly earnings, **Table 2.6**.

Table 2.6: GVA and Earnings

Measure	Perth and Kinross	Scotland
GVA per Job	£59,700	£54,100
Gross Weekly Earnings (Median)	£659	£640

Source: Office for National Statistics (2022)

It should be noted however, that the city of Perth is likely to skew the wider Perth and Kinross data given the presence of large well-paying employers, such as SSE and Aviva.

Impact of investment on local earnings

The mean GVA per job at the Taymouth Castle Estate is estimated at circa £65,000 (approximately 9% above the regional average, and 20% above the Scottish average), with several jobs on the estate to be highly skilled and senior roles, including the golf operations director, director of agronomy, operations manager, IT director and finance VP - all of which (amongst many others) have average salaries of more than £60,000 a year.

These high value jobs can provide opportunities for people to develop successful and rewarding careers in rural Perthshire without the need to relocate to the cities (e.g., Edinburgh, Glasgow, etc), where most of Scotland's higher paid jobs are located – access to higher wages is a noted driver for out-migration of young people from rural/semi-rural areas.

2.6 Tourism Performance

At present the average length of stay for visitors to Perth and Kinross is 2.9 nights, which is 0.5 nights less than the average across Scotland. Where Perth and Kinross does outperform the national average is on spend per visit, with visitors to the area tending to spend more money than the average visitor across Scotland.

Table 3.7: Visitor Data (2019)

Area	Average length of stay	Average spend per day	Average spend per visit
Perth and Kinross	2.9 nights	£81	£237
Scotland	3.4 nights	£69	£232

Source: VisitScotland (2019)

Impact of investment on tourism

Owners of property on the Taymouth Castle Estate, as well as visitors/guests to Taymouth Castle, will generate economic impacts through their spend while visiting Scotland. Guests/visitors of the estate visiting local attractions, restaurants, shops, café etc should help positively contribute towards raising total visitor spend in the area - which is modelled in Section 3.2.3.

2.7 Key Points from the Baseline Data

The socio-economic baseline data shows that Perth and Kinross and the local area around Kenmore face some challenges, particularly regarding demographics, with the population increasing at a much slower rate than the regional and national average, whilst it's also ageing faster. If unaddressed, this could cause significant challenges for economic activity and productivity in the local economy.

Employment levels locally have also been declining (specifically in important areas such as tourism), with employment levels down -5% in the local area over the last 5 years (2016-21). On economic value add and salaries, Perth and Kinross performs relatively well in comparison to the national average, with the development likely to further strengthen this position through the provision of well-paid and high value add roles.

The data helps demonstrate there is potential benefit to be had from attracting large-scale inward investment and development activity to the local area.

3 Socio-Economic Impact Assessment

The following section presents the findings of the socio-economic impact assessment, which is based on five key receptors, namely:

1. **Capital/construction** – The construction activity associated with the Taymouth Castle Estate development.
2. **Operational On-going activities** – The on-going operations of the entire site e.g., castle, restaurant, golf course, spa etc.
3. **Off-site spend** – Consumer/visitor spend outside the development, by those either staying in the homes or at Taymouth castle.
4. **Household spend** – The spend from households furnishing and fitting out their homes on-site.
5. **Financial Impact** – The taxes generated through the purchase, capital expenditure and on-going operation of the site.

3.1 Method of Assessment

We have used several technical terms when describing the likely social and economic impacts:

Employment

- **Full Time Equivalent (FTE) jobs** – used to measure the direct employment created as a result of the project, considered to be an equivalent post that is contracted to 30+ hours per week for a period of 10 years. It is assumed that 2 part-time jobs equal 1 full-time job.
- **Person Year Equivalent (PYE) jobs** – this method allows the number of people on-site over the whole construction period (which will vary over the period between full-time, part-time, permanent, temporary and contract) to be estimated as an annual (or yearly) equivalent job – job years. PYEs are also used to measure the employment impacts from one-off spend on home furnishing/interior design.

Economic Contribution

- **GVA** – a measure of economic output that considers the value of goods and services produced before allowing for depreciation or capital consumption. GVA measures the income generated by businesses after the subtraction of input costs, but before costs such as wages and capital investment.

- **Wages** - (gross) financial remuneration paid to employees.

Impacts

- **Gross impacts** – the direct impacts created through the capital investment and ongoing operations/activities of the development (on-going activities, off-site spend, household spend).
- **Net-direct impacts** – the out-turn of the gross impacts (both on- and off-site) taking account of:
    - the impact the development is estimated to have on other businesses and the labour market (**displacement**).
    - the proportion of impacts that will benefit those outside the defined spatial area (**leakage** outside of the Perth and Kinross and Scotland regions).
    - the positive spin-off benefits generated through income and supplier **multiplier effects** – the indirect and induced effects.
- **Net cumulative discounted impacts** – the total quantified value of the net direct GVA and wages over a 25-year period taking account of the construction works, the date at which the development will be completed and occupied, and the time value of money (i.e., £1 today is worth more than £1 next year). Impacts are discounted at the HM Treasury Social Time Preference Rate (3.5%).

Note on Rounding

To avoid 'spurious accuracy' data has been rounded as follows:

- Construction impacts: Jobs are rounded to the nearest 10 jobs, while GVA and wages are rounded to the nearest £1 million.
- On-going economic impacts: Jobs are rounded to the nearest 10 jobs, while GVA and wages to the nearest £1 million.
- Off-site spend impacts: Jobs are rounded to the nearest 5 jobs, while wages and GVA rounded to the nearest £500K.
- Household spend impacts: Jobs are rounded to the nearest 10, while wages and GVA rounded to the nearest £1million.

The socio-economic impacts are presented at a Perth and Kinross and Scotland level.

3.2 Impact Assessment

3.2.1 Capital Expenditure/Construction Impacts

Overview

The construction element of the project will generate one-off economic impacts, from the site preparation, remediation works and physical construction/renovation of the castle/residential/golf course/housing etc. The economic impacts of the construction are derived using Scottish Annual Business Statistics data, which provides up-to-date statistics for the construction sector in Perth and Kinross.

Method

To calculate the number of jobs in the wider construction sector, we have used the capital spend estimate of circa £370 million[4], which Discovery Land Company is committed to investing on the development, as well as the circa £360 million[5] that is expected to be leveraged from the private sector in constructing the homes on site. There is also estimated to be a further circa £60 million leveraged from the private sector in furnishing/fitting out the homes, which is analysed later in **Section 3.2.4** - Household Spend Impacts.

To date, Discovery Land Company have already invested £45million on land and building acquisition, which is not included within the £370 million figure above as it is a 'sunk cost', but is assessed, in its contribution towards raising significant Land and Buildings transaction taxes for government - discussed in further detail in **Section 3.2.6**.

The analysis is based on financial data provided by Discovery Land Company, which captures cost estimates for future work as well as costs that are either committed or have already been spent on the project. To calculate jobs, the construction spend figure above was divided by the average Scottish construction industry turnover/capital expenditure ratio of £153,321, which estimates the spend required to sustain one construction job for a period of one year – a Person Year Equivalent (PYE) job.

[4] Investment includes: Infrastructure, castle and golf course renovation/construction, offsites, soft costs, sales/marketing/admin, Club/HOA subsidies and a contingency budget. It excludes the £45million that has been spent acquiring the land.
[5] Investment includes home construction costs (excludes fit-out/furnishing of home).

The ratio is derived from Scottish Annual Business Statistics (SABS) data and averaged across the period of 2018-2021. The data has then been adjusted to reflect present day prices using the Office for National Statistics (ONS) GDP Deflator[6].

Impacts

The gross construction impacts by investment are presented in **Table 3.1** below.

Table 3.1: Gross Construction Impacts

Group	Measure	Total
Discovery Land Company Investment (£370m)	PYE Jobs	2,610
	GVA	£159m
	Wages	£71m
Private Sector Leveraged Investment (£360m)	PYE Jobs	2,360
	GVA	£143m
	Wages	£63m

Note: These impacts are one-off and only occur during the construction period

As highlighted in **Section 3.1**, the gross impacts are then calculated as a net direct impact, which involves applying a displacement and leakage rate to the figures, as well as applying local and national multipliers to account for the wider indirect and induced economic impacts at both a Perth and Kinross and a Scottish level, **Table 3.2**.

Table 3.2: Net-direct Construction Impacts (Discovery Land Company + Leveraged Investment)

Region	Measure	Total
Perth and Kinross	PYE Jobs	2,620
	GVA	£160m
	Wages	£70m
Scotland	PYE Jobs	4,510
	GVA	£275m
	Wages	£121m

Note: These impacts are one-off and only occur during the construction period

[6] ONS GDP Deflator, available here: GDP_Deflators_Spring_Statement_March_2022_update.xlsx (live.com)

The construction activity on the Taymouth Castle Estate site is expected to create **2,620 one-off construction jobs** in Perth and Kinross, generating **£70 million in wages** and contributing **£160 million of GVA** to the local economy.

3.2.2 Operational On-going impacts

Overview

On completion of the infrastructure and wider capital works, the Taymouth Castle Estate development will contain a variety of different mixed-use operations, as set out in **Section 1.1** – the castle (operating as visitor accommodation), housing, restaurants, spa, golf course and Glenlyon farm and field activities. These will create and generate on-going economic benefits in the form of jobs, salaries/wages, and GVA to the local and national economy. Staff are likely to live relatively nearby, therefore for modelling purposes we can assume a fairly low leakage rate, with staff living and likely to be spending their wages within relatively close proximity of the site (helping to circulate and retain wealth locally).

Method

EKOS' assessment of gross and net impacts was informed by financial and employment data provided by Discovery Land Company (annual FTE employment and salaries) as well as utilising phasing data set out in the development masterplan document. To calculate GVA, an average GVA/Salary co-efficient of 60% for the Perth and Kinross region (taken from Scottish Annual Business Statistics[7]) was applied to the salary data, which was then converted to 2024 prices using Office for National Statistics (ONS) deflators.

Impacts

The gross impacts associated with the on-going running of the Taymouth Castle Estate when the development is fully operational is presented in **Table 3.3** below.

Table 3.3: Gross Onsite on-going Impacts

Measure	Total
FTE Jobs	250
GVA	£17m
Wages	£10m

[7] https://www.gov.scot/publications/scottish-annual-business-statistics-2021/

Note: These impacts are on an annual, on-going basis.

Considering displacement, leakage and multiplier effects, the net-direct impacts at both a Perth and Kinross and Scotland level are presented in **Table 3.4** below.

Table 3.4: Net-direct Onsite on-going Impacts

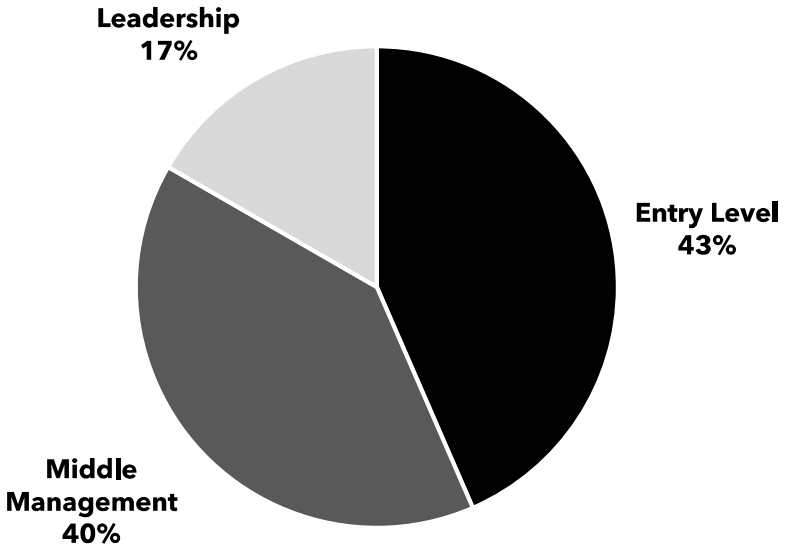
Region	Measure	Operational
Perth and Kinross	FTE Jobs	200
	GVA	£14m
	Wages	£8m
Scotland	FTE Jobs	270
	GVA	£19m
	Wages	£11m

Note: These impacts are on an annual, on-going basis.

The on-going net direct impact generated through the operations on the Taymouth Castle Estate are estimated at **200 FTE jobs**, **£8 million** in salaries/wages and a **GVA contribution of £14 million** per annum to the Perth and Kinross economy.

Of the aforementioned jobs, the split across seniority i.e., entry level, middle/management and leadership, is presented in **Figure 3.1** below. There is a mix of roles across levels of seniority, with a number of entry level positions available for those without formal training or those early in their careers, as well as senior and highly skilled roles for those building their careers or for those with significant industry experience.

Figure 3.1: Proportion of headcount by role level



The job roles can be categorised into the below 14 categories (**Table 3.5**), with the majority of roles falling under either culinary, food and beverage or residential services.

Table 3.5: Jobs on-site by category

Job Category	Proportion of headcount (%)
Culinary	21%
Food and Beverage	17%
Residential Services	13%
Facilities	8%
Member Services	8%
Security	7%
Golf Operations	6%
Gardens	5%
Farm and Field Sports	5%
Admin and General	5%
Development and Construction	2%
Spa and Fitness	2%
Outdoor Pursuits	1%
Sales and Marketing	1%

Source: Discovery Land Company

3.2.3 Off-site Spend

Overview

The proposed Taymouth Castle Estate includes accommodation offerings for members/visitors, including Taymouth Castle (23 suites) and the housing development (145 homes). This accommodation provision (attracting visitors to the local area) will generate an 'off-site spend' impact within the economy. Examples of this could be members/guests visiting local cafes/restaurants, spending money in shops or visiting local tourist attractions. This expenditure can (in large part) be attributed to the development itself, which has provided the accommodation provision for people to stay overnight, visit the area and spend money in the local economy.

Method

Impacts from off-site spend were informed by discussions with Discovery Land Company on the likely indicative spend patterns of visitors to Taymouth Castle Estate.

Spend patterns are modelled upon an indicative occupancy rate provided by Discovery Land Company, which is based on both the seasonality of the estate, i.e., likely to be primarily a summertime/holiday residence, as well as occupancy rates across other comparable Discovery Land Company estates.

The average spend data used in the analysis assumes an average per day per person spend of £100. The assumed off-site spend has been scaled up for the expected total number of visitors (based on the occupancy rate and assumed visiting group sizes) to give a total visitor spend. The visitor spend is divided by the average turnover per FTE across the 'Food and Beverage', and 'Arts and Entertainment' sectors of £53,000 - which is estimated using Scottish Annual Business Statistics.

Impacts

The gross impacts of the off-site spend are presented in **Table 3.6** below.

Table 3.6: Gross Off-site spending Impacts

Measure	Total
FTE Jobs	110
GVA	£3.0m
Wages	£2.0m

Considering leakage, displacement and multiplier effects, the net-direct impacts at both a Perth and Kinross and Scotland level are presented in **Table 3.7** below.

Table 3.7: Net-direct Off-site spending impacts

Region	Measure	Impacts
Perth and Kinross	FTE Jobs	55
	GVA	£1.5m
	Wages	£1.0m
Scotland	FTE Jobs	75
	GVA	£2.0m
	Wages	£1.5m

Off-site spending by those staying at the Taymouth Castle Estate, will have net direct effects in Perth and Kinross in creating **55 FTE jobs**, with associated **wages of £1.0 million** while contributing **£1.5 million of GVA** to the local economy, annually.

3.2.4 Household Spend

Overview

The 'household spending' covers the furnishings and internal appliance kit-out of the 145 proposed homes on the Taymouth Castle Estate. Spending impacts account for an initial one-off spend (i.e., furnishing/decorating the house) which will create jobs in the likes of the retail and wider construction industries.

Method

The one-off spend impacts have been calculated using spend forecast data provided by Discovery Land Company, which estimates an average spend of £80 per square foot on an average home size of 5,000 square foot. This figure has been scaled up for the 145 homes and applied to a weighted turnover per FTE ratio of £154,321 for a 'basket of household spend goods/services'. This spend data has been used to calculate job creation, wages and GVA generated in the local (Perth and Kinross) and national (Scotland) economy.

Impacts

The gross impacts of the household spend are presented in **Table 3.8** below.

Table 3.8: Gross one-off household spend impacts

Measure	Total
FTE Jobs	380
GVA	£23m
Wages	£10m

The net direct impacts associated with the initial one-off household spend, accounting for displacement, leakage, and multiplier effects, are presented in **Table 3.9** below.

Table 3.9: Net Direct one-off household spend impacts

Region	Measure	One-off Household Spend Impacts
Perth and Kinross	FTE Jobs	200
	GVA	£12m
	Wages	£5m
Scotland	FTE Jobs	280
	GVA	£17m
	Wages	£7m

Note: These impacts are one-off and only occur on initial furnish/kit-out of the property.

One-off spend by households moving into and furnishing houses on the Taymouth Castle Estate site will support **200 one-off FTE jobs** in Perth and Kinross, supporting **£5 million in wages** and **£12 million in GVA to the local economy.**

3.2.5 Long Term Net Impacts

In assessing the potential long-term impacts of the development (over a 25-year period)[8], we have identified that the cumulative one-off construction, ongoing on-site operations, off-site spend and one-off household spending associated with the development will generate a significant level of net direct GVA and wages for Perth and Kinross as well as Scotland, as presented in **Table 3.10.**

Table 3.10: Cumulative 25-year Net Direct Present Value Impacts[9]

Measure	Perth and Kinross	Scotland
GVA	£390m	£590m
Wages	£210m	£320m

Over 25 years the proposed Taymouth development is estimated to generate **£390 million of GVA** for the Perth and Kinross economy, whilst supporting **£210 million in local wages**.

3.3 Financial Impacts

Apart from the economic benefits, the Taymouth Castle Estate will generate both one-off and on-going tax receipts, namely:

Land and Buildings Transaction Tax (LBTT)

Through the purchase of land, accommodation, and buildings as part of the development, Discovery Land Company will pay LBTT on all purchases. LBTT data was provided directly by Discovery Land Company.

[8] HM Treasury Green Book identifies that appraisals should be undertaken for the anticipated lifetime of the new asset, up to 25 years.

[9] The values within this table represent the estimated GVA and salaries generated via the one-off construction investment as well as the continuous operational jobs, off site spend and on-off household spend. They exclude the financial impacts e.g., income tax, council tax etc. These impacts have been discounted at 3.5% (HM Treasury's Social Time Preference Rate) for a period of 25 years to reflect the Present Value (PV).

Income Taxes and National Insurance

The on-going taxes generated and paid by staff working on the Taymouth Castle Estate site. These were calculated using the salary information provided by Discovery Land Company and then applied to the marginal Scottish tax rate[10]. This calculated the income tax and national insurance contributions on an annual basis.

Council Tax

The local taxation system administered by Perth and Kinross council that will be applied to the domestic properties on-site. The 145 properties on site are assumed to be within council tax band H (the highest banding) which has an annual charge of £4,444 a year[11]. We have assumed that residents will pay the full 100% charge throughout their ownership.

Non-Domestic Rates

Discovery Land Company are in discussions on assessing the level of non-domestic rates payable on the estate. At present it is too early to confirm the amount but given the scope and scale of the completed development these are likely to be significant.

Overall Impacts

The financial and tax impacts deriving from the Taymouth Caste Estate development are detailed in **Table 3.11** below.

Table 3.11: Financial and Tax impacts - £s

Financial Impact	Annual (£)	25-year period - Discounted
Land and Buildings Transaction Tax	£3,200,000 *(one-off)*	
Income Tax and National Insurance	£3.1m	£55m
Council Tax	£0.6m	£11m

Over a 25-year period the Taymouth Castle Estate development will generate **£55million in income tax and national insurance receipts**, as well as **£11million in council tax**.

[10] See https://www.mygov.scot/income-tax-rates-and-personal-allowances
[11] See https://www.pkc.gov.uk/Counciltaxbanding

4 Wider Socio-Economic Benefits

While the Economic Impact Assessment provides evidence as to the economic activity that potentially could be delivered by the Taymouth Castle Estate development, it is important that consideration is also made of the wider (often less tangible) impacts that could be realised through the development.

Below we have considered the wider benefits in terms of:

- Local Contractors.
- Local Suppliers.
- Kenmore Village Assets

Local Contractors

The developers anticipate using local contractors as much as possible during the construction phase of the development. This includes the use of local architects/engineers, suppliers, and labour.

Several local businesses have already been contracted to carry out various elements of work, a selection of the services used and their location within Perth and Kinross is shown in **Table 4.1** below.

Table 4.1: Local Contractors Used[12]

Service	Business Location
Civil Engineering	Aberfeldy
Electrical Services	
Plumbing/Heating	
Joinery	
Cleaning	
Architecture Services	
Agricultural Engineer	
Painters/Decorators	Perth
Fire Training/medical training and HSE reviews	
Cost Consultants	
Environmental Consultants	
Archaeological Services	
Security Manpower	Perth and Kinross
Tree Management Services	
Plumbing/Heating	Blairgowrie

Source: Discovery Land Company

On top of the use of local contractors, any contractors travelling to work on-site from further afield have been staying in accommodation in the local area (predominantly in Aberfeldy), including:

- Moness Country Resort, Aberfeldy.
- Schiehallion Hotel, Aberfeldy.
- Breadalbane Hotel, Aberfeldy.
- Ailean Chraggan Hotel, Weem.

Two local homes have also been rented to house the contracted security team.

The use of local hotels/accommodation during construction - which will continue to scale up as the development progresses - will generate indirect and induced supply chain benefits to the local area, with contractors spending money in local businesses e.g., shops, restaurants etc, while on site.

[12] A number of contractors from elsewhere in Scotland have also been utilised, although the table is intended to just show those local to the development site.

Local Suppliers

As captured earlier in the report, the scale of the project will generate benefits for businesses within the supply chain (captured as part of the multipliers used). Several local businesses have already been used by the Taymouth Castle Estate, with many continuing to be used. This will help to retain and circulate wealth with the local and regional economy.

The developers are keen to use local suppliers as much as possible and help retain expenditure in the local economy. A selection of some of the local services already used during construction are shown in **Table 4.2**.

Table 4.2: Local Suppliers used[13]

Service	Location
Building Merchants	Perth
Biomass Units	Aberfeldy
Guiding services for guests	Aberfeldy
Guiding service, bike servicing and provision of biking equipment	Comrie
Supply of mountain bikes and equipment)	Perth
Construction of outdoor activity adventure courses	Aberfeldy
Supply of Haglofs outdoor clothing	Perth
Land-based training courses	Perth
Accommodation	Aberfeldy
Provision of all staff food on site – daily	Aberfeldy
Provision of fire extinguishers	Perthshire
Provision of lunches for estate employees	Aberfeldy
Use of local Gillies and Shooting instructor	Kenmore
Tyre work on all company vehicles	Perth

Source: Discovery Land Company

[13] A number of suppliers from elsewhere in Scotland have also been utilised, although the table is intended to just show those local to the development site.

Moness Resort

The Moness Resort in nearby Aberfeldy was recently purchased by an affiliate company, with approximately £10million invested in the facility so far. The resort continues to operate, with plans for considerable further renovations and investment to be made over the coming years to enhance and modernise the resort. It's anticipated that the resort can/will also be utilised as staff accommodation for the Taymouth Castle Estate.

Kenmore Village Assets

Although not assessed as part of the economic impact assessment, affiliate companies own properties in the village of Kenmore that have, or will be, significantly renovated and refurbished. At present these include the following: Kenmore Hotel, the village shop, Taymouth Trading, Brae Cottages, Am Fasgadh and Gatehouse, Paper Boat, Police House, St. Margaret's and Willowbank, Nurses Cottage, and the Boathouse cottages.

The Kenmore Hotel closed in March of 2022 and is undergoing significant renovation works, including to the hotel's plumbing and electrical systems to bring it up to modern standards. It's anticipated that the fully renovated hotel will be re-open again in 2026. The village shop will be open again in 2024 after the renovation works are completed. Taymouth Trading is planned to be re-opened as a restaurant/pub and will be open to the public for meals and drinks.

In total, there is estimated to be approximately £30 million spent on capital works across the various village properties. Based on the construction co-efficient used to model the CAPEX impacts within the Taymouth Castle Estate, the investment would support in the region of 200 additional (gross) one-off construction jobs, as well as wages and GVA of circa £5m and £12m respectively, over the renovation period. We have excluded the on-going operational benefits from the report due to the fact that the Kenmore Hotel and Village shop were running prior to acquisition.

Perth and Kinross Council
Development Control Committee – 22 June 2011
Report of Handling by Development Quality Manager

Erection of 71 estate properties, formation of spa facilities, erection of restaurant, erection of bridge, alterations to golf course and modification to existing consent (03/02250/PPLB) for change of house type of 89 estate properties, relocation of 14 estate properties, relocation and amendments of equestrian centre and golf clubhouse, revised proposals within the east wing of castle to form health and beauty spa and 14 apartment suites and formation of hotel suite and external lift access in west wing of castle at Taymouth Castle, Kenmore, PH15 2NT

Ref. No: 11/00533/FLM
Ward No: 4– Highland

Summary

This report recommends approval of the application for the above as the development will contribute significantly to the economy of Highland Perthshire and further strengthen Scotland's position as a high quality tourism destination. The proposal also allows for the restoration of the Category A Listed Taymouth Castle and the re-development and re-use of a number of important listed buildings and the enhancement and management of the Taymouth Castle Designed Landscape.

BACKGROUND AND DESCRIPTION

1 Taymouth Castle is located in Highland Perthshire approximately 1.5km north east of the village of Kenmore. The castle is a Category A Listed Building which sits within an extensive estate which is designated as a Designed Garden and Landscape. There are a number of other Listed Buildings and structures within the estate which are outlined in detail within the application documents. The River Tay runs from the south west corner of the estate in a north easterly direction past Taymouth Castle. The A827 public road which links Kenmore with Aberfeldy to the east is situated to the south east of the application site. The village of Kenmore is located directly adjacent to the south west boundary of the application site.

2 Planning and Listed Building consent was granted for development on the site in March 2005 (ref:03/02250/PPLB). Development commenced through the implementation of the consents in late 2005, however, work ceased in late 2006 when the company undertaking the works went into administration. All essential repair works had been undertaken to the castle and it was made wind and water tight.

3 The estate was placed on the market by the administrators and new owners secured in late 2010. It became clear that the only means for a viable project to be achieved was to extend the work approved in 2005 and for a new application to be made for additional development to secure a sustainable future for the estate.

4 This new application proposes a revised mix of accommodation within the estate, some additional ancillary elements, revisions to the existing planning and listed building consents.

5 The approved development established by the 2005 Planning and Listed Building consent involved the following elements:

- Convert and extend (by constructing new North Wing) the A listed Taymouth Castle to form a 81 key (room) 5 star hotel
- Convert and extend the B Listed Newhall Kennels to form a 5 star spa/health club
- Construct 26 new estate properties and convert the Sawmill, Sawmill cottages (2), Newhall Cottages (2), Dairy (A Listed) and Dairy Byre (B Listed) into estate properties
- Construct 63 properties adjacent to the River Tay to the east of the Castle and at Newhall Kennels
- Construct 3 properties adjacent to Kenmore Village
- Construct a new golf club house and maintenance facility, equestrian centre and private wastewater treatment facility.

6 Through the second half of 2005 and through 2006, the permission was implemented through the commencement of works at Taymouth Castle. Those works involved:

- Removal of contemporary built elements within the castle (1950s partition walls etc)
- Removal of areas of rot and infestation
- Stabilisation of structures within the Main Castle (roofs, walls, floors etc)
- Replacement of lead roof on the Main Castle building and slate roof on parts of the East Wing
- Replacement of windows within the Main Castle and East Wing
- Setting out of service routes within the ground floor of the Main Castle
- Creation of opening within the north wall of the East Wing
- Work also commenced to start the lengthy process of warming and drying the building.

7 In addition to the approved development, the currently proposed development under consideration here comprises:

- The erection of a further 71 estate properties in various locations throughout the estate
- The introduction of a new access arrangement (lift) to the upper floor of the West Wing of the Castle

- The construction of 3 spas (Scandinavian Spa to north east of the estate, Family Spa to the north east of the Castle next to the approved North Wing and a Health and Beauty Spa within the East Wing of the Castle)

- The erection of a new Smokehouse Restaurant at the north of the Estate between the East Gate and the River Tay

- The restoration and re-ordering of the James Braid designed Golf Course

- Reconstruction of a vehicular bridge over Taymouth Burn to the west of the east drive

- Alterations to the main drive approaching the castle and landscaping around main castle entrance.

8 The proposals also seek revisions to:

- The internal layout of the Castle's East Wing to accommodate the Health and Beauty Spa and provide 14 hotel suites

- Relocation of the equestrian centre to the south west corner of the Estate

- Relocation of the Golf Clubhouse to the west of the site adjacent to the Main Drive and access from Kenmore

- Relocation of some of the approved Estate Properties and revised design for all Estate Properties.

9 A Masterplan has been submitted to accompany the application which is available to view on Public Access. A detailed description of all new elements of the proposal is available within the Supporting Planning Statement which is also available to view on the Council's Public Access site.

10 Members should be aware that there is an associated application for Listed Building Consent (11/00531/LBC) which relates to the revisions to the East Wing of the Castle to form the Health and Beauty Spa and 14 apartment suites and the external lift access to the upper floor of the West Wing and internal alterations to the upper floor Breadalbane Suite.

11 There is also an application for the deletions of Conditions 4 and 5 of planning consent 03/02250/PPLB, the details of which will be outlined within the Committee Report for that application. The above applications are also under consideration at this Committee.

Major Application

12 Due to the size of the application site, which is over 2 hectares, this proposal is classed as a Major Application as defined in the Town and Country Planning (Hierarchy of Development) (Scotland) Regulations 2009 and as such the applicant has carried out a pre-application public consultation exercise, details of which are included within the Supplementary Environmental Statement (ES).

Environmental Impact Assessment (E.I.A.)

13 The need for an EIA at this site was identified following a screening exercise undertaken by the Council under the EIA (Scotland) Regulations 1999 dated 18 January 2011.

14 EEC Directive (No 2003/35/EC) requires an authority giving a planning consent for particular large scale projects (the 'competent authority', and in this case Perth and Kinross Council) to make its decision in the knowledge of any likely significant effects on the environment. The Directive therefore sets out a procedure that must be followed for certain types of project before they can be given 'development consent'. This procedure, known as Environmental Impact Assessment (EIA), is a means of drawing together, in a systematic way, an assessment of a project's likely significant environmental effects. This helps to ensure that the importance of the predicted effects, and the scope for reducing any adverse effects, are properly understood by the public and the relevant competent authority before it makes its decision.

15 An Environmental Impact Assessment supports the planning application and is a key part of the submission. The Environmental Statement examines environmental matters of likely significance associated with the development of the site for a supermarket and the engineering works associated with flood risk.

16 Following the adoption of the screening opinion a scoping exercise was carried out to identify the scope of content for the EIA. This involved discussion with a number of consultees. It was agreed that given the presence of a full EIA which was submitted for the application approved in 2005 that a Supplementary Environmental Statement could be submitted which focused on particular issues which may have changed since the original application was approved.

17 The key issues of environmental concern identified through the scoping opinion and discussions are:

- Archaeology
- Built Heritage
- Historic Landscape
- Landscape and Visual Character
- Ecology/Natural Heritage
- Flooding
- Transportation.

NATIONAL POLICY AND GUIDANCE

Scottish Planning Policy 2010

18 This SPP is a statement of Scottish Government policy on land use planning and contains:

- the Scottish Government's view of the purpose of planning,
- the core principles for the operation of the system and the objectives for key parts of the system,
- statutory guidance on sustainable development and planning under Section 3E of the Planning etc. (Scotland) Act 2006,
- concise subject planning policies, including the implications for development planning and development management, and
- the Scottish Government's expectations of the intended outcomes of the planning system.

19 Of relevance to this application are:

- Paragraphs 45 - 51 which relate to Economic Development
- Paragraphs 92 - 97 which relate to Rural Development
- Paragraphs 110 - 124 which relate to the Historic Environment
- Paragraphs 113 - 114 which relate to Listed Buildings
- Paragraphs 118 - 119 which relate to Scheduled Monuments & Designated Wrecks
- Paragraph 122 which relates to Gardens & Designed Landscapes
- Paragraph 123 which relates to Archaeology
- Paragraphs 125 - 148 which relate to Landscape & Natural Heritage
- Paragraphs 134 - 136 which relate to International Designations (SPA's & SAC's)
- Paragraphs 142 - 145 which relate to Protected Species
- Paragraphs 146 - 148 which relate to Trees & Woodland
- Paragraphs 165 - 181 which relate to Transport
- Paragraphs 196 - 211 which relate to Flooding and Drainage.

DEVELOPMENT PLAN

20 The Development Plan for the area consists of the Approved Perth and Kinross Structure Plan 2003 and the Adopted Highland Area Local Plan 2000.

Perth and Kinross Structure Plan 2003

21 The principle relevant policies are in summary:

Sustainable Economy Policy 3

22 Support will be given to measures which promote an integrated flexible and innovative approach to rural development which encompass economic, social and environmental considerations subject to specific criteria.

Sustainable Economy Policy 9 Tourism Industry

23 Encouragement is given to the sustainable development of the tourist industry, supporting proposals that: extend the tourist season, improve facilities, offer local employment, are suitable for residents as well as tourists, maximise public transport, promote 'green' tourism and do not significantly damage the natural or built heritage.

Sustainable Economy Policy 13

24 There will be a presumption against development which would adversely affect strategic or local cycle routes and footway networks; identified park and ride sites.

Sustainable Communities Policy 2

25 Requires new development to be accessible to public transport with facilities for pedestrians and to be supported by a transport assessment. Developers are also required to meet the costs of infrastructure improvements.

Sustainable Communities Policy 9

26 Local Plans will ensure that new development: makes a positive contribution to the identity, character and quality of the built and historic environment; contributes to sustainable development through energy conservation; efficiency through design; site layout and, where possible, the use of local materials; assists urban renewal community regeneration by encouraging the appropriate re-use of vacant and derelict buildings and land.

Sustainable Communities Policy 12 Countryside Access

27 The Council will promote countryside access for all including disabled identifying 'core' path networks and safeguarding and improving them.

Environment and Resources Policy 1

28 Support will be given to measures which promote an integrated flexible and innovative approach to rural development which encompass economic, social and environmental considerations and which:

- Maintain or enhance local employment opportunities.
- Promote diversification.
- Help sustain viable rural communities and services.
- Introduce new technologies to rural areas (including information and telecommunications technology and renewable energy schemes)."

Environment and Resources Policy 2 Conservation of wildlife habitats and other natural features

29 The protection and conservation of wildlife, habitats and other natural features will be supported. Development affecting areas designated as being of international or national importance will only be permitted where it can be demonstrated that:

- the objectives of designation and the overall integrity of the area will not be damaged
- there are no alternative solutions
- there are imperative reasons of over-riding public interest including social or economic considerations.

Environment and Resources Policy 4 Tayside Landscape Character Assessment.

30 Requires that the Tayside Landscape Character Assessment be a material consideration in the consideration of the development proposals.

Environment and Resources Policy 8

31 The Council will seek to ensure that the rich and varied cultural heritage resources of Perth and Kinross are recognised, recorded, protected and enhanced as appropriate. New development which would adversely affect Listed Buildings, Conservation Areas, Scheduled Ancient Monuments, Historic Gardens and Designed Landscapes or their settings will not be permitted unless there is a proven public interest where social, economic or safety considerations outweigh the cultural interest in the site.

Environment and Resources Policy 9 Flood risk areas

32 There is a presumption against development in areas where there is a significant probability of flooding. Where there is any probability of flooding the flood risk assessments must be satisfactorily completed.

Environment and Resources Policy 10 Sustainable Drainage

33 The use of sustainable drainage solutions to regulate run-off will be required as part of development proposals to control the rate and quality of run-off as close to its source as possible.

Highland Area Local Plan 2000

34 The principal relevant policies are in summary:

Policy 1 Sustainable Development

35 The Council will seek to ensure, where possible, that development within the Plan area is carried out in a manner in keeping with the goal of sustainable development. Where development is considered to be incompatible with the pursuit of sustainable development, but has other benefits to the area which outweigh this issue, the developer will be required to take whatever mitigation measures are deemed both practical and necessary to minimise any adverse impact. The following principles will be used as guidelines in assessing whether projects pursue a commitment to sustainable development: -

(a) The consumption of non-renewable resources should be at levels that do not restrict the options for future generations.
(b) Renewable resources should be used at rates that allow their natural replenishment.
(c) The quality of the natural environment should be maintained or improved.
(d) Where there is great complexity or there are unclear effects of development on the environment, the precautionary principle should be applied.
(e) The costs and benefits (material and non-material) of any development should be equitably distributed.
(f) Biodiversity is conserved.
(g) The production of all types of waste should be minimised thereby minimising levels of pollution.
(h) New development should meet local needs and enhance access to employment, facilities, services and goods.

Policy 2 Development Criteria

36 Provides criteria by which all developments will be judged. In particular, that the development should have a landscape framework, should have regard to the scale, form, colour and density of development within the locality and should not result in a significant loss of amenity to the local community.

Policy 3 Landscape

37 Development proposals should seek to conserve landscape features and sense of local identity, and strengthen and enhance landscape character. The Council will assess development that is viewed as having a significant landscape impact against the principles of the Tayside Landscape Character Assessment produced by Scottish Natural Heritage.

Policy 4 Landscape

38 Details of landscape treatment should be submitted with development proposals including, where appropriate, boundary treatment, treatment of settlement edges, and impact on key views.

39 Developers will be required to demonstrate that satisfactory arrangements will be made, in perpetuity, for the maintenance of areas of landscaping.

Policy 5 Design

40 The Council seeks high standards of design throughout the plan area for all development. In particular, encouragement will be given to: -

(a) The use of appropriate and high quality materials.
(b) Innovative modern design incorporating energy efficient technology and materials.
(c) Avoidance of the use of extensive underbuilding on steeply sloping sites.
(d) Ensuring that the proportions of any building are in keeping with its surroundings.
(e) Ensuring that the development fits its location.

Policy 7 Flood Risk

41 Development in areas liable to flood, or where remedial measures would adversely affect flood risk elsewhere, will not normally be permitted. For the purposes of this policy flood risk sites will be those which are judged to lie within:-

(a) Areas which flooded in January 1993.
(b) Sites which lie within a flood plain.
(c) Low lying sites adjacent to rivers, or to watercourses which lead to categories (a) and (b) above.

Policy 13 Nature Conservation

42 Development will only be permitted on a site designated or proposed under the Habitats or Birds Directives (Special Areas of Conservation and Special Protection Areas) or a Ramsar Site where the appropriate assessment indicates that the following criteria can be met:

- The development will not adversely affect the integrity of the site.
- There are no alternative solutions.
- There are imperative reasons of over-riding public interest.

Policy 16 Nature Conservation

43 The Council will not normally grant consent for any development which would have an adverse effect on sites of local nature conservation and geological interest and will seek to protect the integrity of such sites.

Policy 17 Nature Conservation

44 The Council will seek to protect and enhance habitats of local importance to nature conservation including grasslands, wetlands, peatlands and habitats which support endangered species.

Policy 19 Designated Landscapes

45 The Council will protect and seek to enhance the Historic Gardens and Designed Landscapes identified on proposals Map 1 and Inset Maps 8 and 15.

Policy 23 Trees

46 Existing tree cover should be protected as far as is practicable in any development proposals and the Council will seek the implementation of appropriate planting schemes.

Policy 25 Archaeology

47 The Council will safeguard the settings and archaeological landscapes associated with Scheduled Ancient Monuments (protected under the Ancient Monuments and Archaeological Areas Act 1979), in the absence of reasons of over-riding proven public interest.

Policy 26 Archaeology

48 The Council will seek to protect unscheduled sites of archaeological significance and their settings.

Policy 28 Listed Buildings

49 There will be a presumption against the demolition of Listed Buildings and against works detrimental to their essential character. There will be a presumption in favour of consent for development involving the sympathetic restoration of a Listed Building, or other buildings of architectural value. The setting of Listed Buildings will also be safeguarded.

Policy 30 Tourism and Recreation

50 New tourist related development will be supported where it can be demonstrated that it:

(a) Meets a new market or extends the season.
(b) Will not adversely affect landscape or nature conservation interests.
(c) Will only generate traffic appropriate to its location.
(d) Offers the potential to generate additional employment opportunities.
(e) Makes good use of the public transport network, particularly rail.

51 Encouragement will be given to development which improves the quality of existing tourist facilities providing it is consistent with other Local Plan policies.

Policy 34: Public Access and Informal Recreation

52 The Council directly, in association with Perth and Kinross Countryside Trust, will seek to improve public access to the countryside and informal recreation provision for a wide range of users including people with disabilities, cyclists, walkers and horse riders throughout the Plan area.

Policy 37 Water Uses

53 The Council will encourage appropriate use of lochs and rivers in the Plan area and in particular:

- In the case of development involving the construction of a new access or slipway to a loch or river, the water borne traffic from the development must not create unreasonable conflict with existing water users.
- Will seek improvement to the existing public access points to the River Tay, but discourage the formation of any new public access points.

OTHER POLICIES

54 An Inventory of Designed Landscapes in Scotland Volume 4: Tayside, Central and Fife.

SITE HISTORY

55 **98/01673/LBC** Installation of water main at Chinese Bridge, Taymouth Castle – Withdrawn.

56 **99/00238/FUL** Conversion of existing building (former civil defence lecture hall) into a salmon hatchery - Approved

57 **00/00293/FOR** Mixed working of 152.4 hectares - Approved

58 **03/02250/PPLB** Redevelopment of Taymouth Castle Estate to include restoration of Castle to form hotel, extension to incorporate 72 hotel suites, erection of spa within Newhall Kennels. Construction of 63 lodges and 26 new fractional ownership houses, conversion of existing buildings to form 7 fractional ownership houses, erection of 16 staff houses, erection of equestrian centre, infra structure and engineering works including sewage treatment works and associated landscaping and maintenance proposals - Approved

CONSULTATIONS

Scottish Natural Heritage (SNH)

59 Objection in regard to impact on River Tay SAC but can be suitably mitigated by condition. Also raised impact upon protected species and surveys awaited.

SEPA

60 No objections to proposed new lodges adjacent to Taymouth Burn. Mentioned the approved lodges adjacent to the River Tay and an understanding that these will be retained by a management company which should ensure the agreed flood alleviation measures are provided and maintained over the lifetime of the development.

Historic Scotland

61 Concerns regarding some elements of the proposal including Tom More properties, properties to west of castle, phasing of the development needs to be considered, some areas of layout, details of infrastructure, realignment of entrance drive, new bridge over Taymouth Burn, repairs to other bridges, views.

Kenmore Community Council

62 See letters of representation below:

Aberfeldy Community Council

63 No response within statutory period.

Scottish Water

64 No objection.

Perth and Kinross Heritage Trust

65 No objection subject to condition.

Forestry Commission

66 Concerns regarding impact on trees.

SCOTTISH GOVERNMENT CONSULTATION

67 Under the Environmental Impact Assessment (Scotland) Regulations 1999 Scottish Government is a statutory consultee to any submitted EIA. The comments detailed below are presented only in relation to the Environmental Statement and are not consultation responses on the appropriateness or otherwise of the submitted development proposal:

- Health and Safety Executive (HSE) – no comments.
- Historic Scotland – Content with majority of findings – concerns regarding Tom More development and proposed properties to west of Taymouth Castle and indication that effects would be minor.
- Air Quality and Noise – no comments.
- JMP Consultants – consultants for Transport Scotland – no concerns.

REPRESENTATIONS

68 Total of 11 letters of representation have been received including one from the Kenmore Community Council. There is some general support for the application but also specific issues of concern.

69 Representations have raised the following relevant issues:

- Impact on setting of listed buildings
- Impact on Designed Garden and Landscape
- Impact on fabric of listed buildings
- Overdevelopment
- Lack of child facilities
- Car parking
- Staff Accommodation
- Transportation
- Economic development/job creation
- Drainage capacity
- Ecology/natural heritage
- Description of "estate properties"
- Lack of detail of golf course changes
- Design of estate properties
- Equestrian centre layout
- Use of golf course, spas and other recreational facilities for public use
- Flooding
- Estate boundary walls
- Sustainability/carbon targets
- Education requirements/affordable housing
- Financial security of developer – not a material consideration
- Broadband internet availability – not a material consideration.

These issues are all raised in the Appraisal section of this report.

ADDITIONAL STATEMENTS

70

Environment Statement	Supplementary to 2003 ES required
Screening Opinion	On file
Environmental Impact Assessment	Supplementary to 2003 ES required
Appropriate Assessment	On file
Design Statement / Design and Access Statement	Yes
Report on Impact or Potential Impact	None submitted.

APPRAISAL

Content And Adequacy Of The EIA

71 Part II, Schedule 4 of the Environmental Impact Assessment (Scotland) Regulations 1999 outlines the information which is to be required in an EIA. The content of the Supplementary Environmental Statement is considered to meet the requirements of the Regulations.

72 Planning officers and key consultees identified through a scoping opinion the information required to be considered within the Supplementary Environmental Statement. The contents of the statement are considered to meet these requirements.

Policy

73 Sections 25 and 37(2) of the Town & Country Planning (Scotland) Act 1997 (as amended) requires the determination of the proposal to be made in accordance with the provisions of the Development Plan, unless material considerations indicate otherwise. The determining issues here are whether the proposals comply with Development Plan policy or if there are other material considerations which justify a departure from policy. The most relevant policies of the Development Plan and other material considerations are listed in the policy section above. It should be noted that the principle of a tourism-based development in this location was established as part of the previous approval and this application relates to the assessment of whether the additional development proposed on-site is appropriate.

Estate Properties/Impact Upon Designed Garden and Landscape and Listed Buildings

74 This application proposes to erect a total of 71 new estate properties in addition to the 89 new build properties approved under application 03/02250/PPLB. It is also proposed to relocate 12 of the 89 approved properties. The development previously approved also involves the re-use of existing properties on the site to allow for an additional 7 properties. A total of 167 properties are therefore now proposed. This part of the appraisal will assess the likely impact new development will have on the character of the HGDL and will assess this on a zone by zone basis and then provide an assessment of the cumulative impact of the proposal focusing particularly on the key views apparent throughout the estate. It is accepted that the estate is capable of accommodating additional development in principle. However, this part of the report will provide an assessment of the proposed development in each area of the estate.

75 The ES approved under the 03/02250/PPLB application identifies a number of principal views over the entire estate and these are available to view within the application documents. The applicant has attempted to locate the units outwith these principal views and in my view this has been achieved subject to some variations.

76 It should be noted that the Supplementary ES provides an assessment of the effects the development will have on the landscape utilising the approved ES as a baseline to establish the impact which the new development will have but also the impact the new development will have cumulatively with the approved development.

<u>Design</u>

77 A total of 10 different house types are proposed which range from larger footprint single storey properties which are proposed on more open, golf course related elements of the site to larger two storey properties which are proposed to be located on hillside areas such as to the north of the site in and around the Newhall area. The

design of each house type is relatively contemporary in style but utilises high quality finishing materials. The finishing materials include stone cladding (local Whinstone), western red cedar timber cladding, off white smooth render and aluminium clad windows. The roofs of each property are to be finished in aluminium with a dark grey finish and balcony areas are to be glazed with hidden fixings. The contemporary style design of the units and high quality materials is considered to be appropriate for the Designed Landscape and the design of each particular house type is considered to relate well to the specific location where that house type is proposed. It should also be noted that none of the estate properties are intended to have private amenity space or garden ground associated with them and will simply be "dropped" into the existing landscape. The landscape around the site will be maintained by the estate.

Zone 1 – North Lawn Area

78 Zone 1 refers to the area immediately to the west of Taymouth Castle. It is proposed to locate 4 detached estate properties (A-01-03 to A-04-03) in this location. This area is known as the North Lawn compartment and is dominated by formal tree plantings which make up the "Bow" and "Berceau" walks. Historic Scotland has identified this area to be part of the earliest formal planting features which survive within the Historic Garden and Designed Landscape (HGDL), dating back to the early 17th century. Two rows of lime trees echo the curve of the River Tay and form a strong D-shape with the straight line of the Berceau. The apparent age and stature of some of the existing trees indicate that original tree plantings still exist, giving this area enormous historic, ecological and amenity value. There is concern that the development of four units in this important and sensitive area of the HGDL will adversely affect the wider setting of the Castle and the landscape character of this important part of the HGDL. Historic Scotland has indicated that they are seeking the removal of these 4 units and the Council's Conservation Officer has also sought their removal. The applicant was asked to submit further information regarding the relocation of these units or a justification for the current location.

79 This justification states that these units will be well screened by existing and proposed landscaping and will have a visual relationship with the approved car parking area to the east and flood bund to the north. Another justification is that a key part of the financial viability of the scheme is the importance of having a number of exclusive high value properties located close to the Castle and its spa facilities. Whilst I can understand this viewpoint, there are already these types of units located to the east of the Castle.

80 The applicant argues that the introduction of a car park and some infrastructure in this area (approved as part of the previous application) has fundamentally altered the landscape in this area. I would contend that a car park and some minor infrastructure elements are much smaller in scale and impact than four large detached properties.

81 Whilst it may be possible to screen these units and reduce their immediate visual impact it is their overall landscape impact, not just visual impact, on this important part of the HGDL as a whole which is of concern and it remains my view, the Conservation and Regeneration Officer's and Historic Scotland's that the principle of

development in this location is not acceptable regardless of how the units are slightly re-positioned or screened.

82 It is my view that that the "exclusivity" and commercial value of these four properties in the context of the entire site does not outweigh the important landscape value of this part of the site as outlined above.

83 The minor re-positioning of these units does not alter my view that the principle of units in this location is unacceptable. There are clearly alternative, less sensitive sites within the estate where these units could be located and the applicant's agent has been made aware of this. The encirclement of the Castle with the approved Riverside Lodges to the east and these four properties is not acceptable and given the scope for relocation and the fact that a considerable increase in units has been accepted elsewhere on the site it is felt a key element of this recommendation is that these four units are not approved.

Zone 2 - Tom More

84 Zone 2 refers to the area immediately to the west of the category A listed Dairy building. It is proposed to erect 5 estate properties (B12-02 to B16-05) on the hillside to the west of the Dairy. The topography and existing tree cover in this location will ensure that these properties will not have any significant impact on either the setting of the Dairy or the wider HGDL. Some trees are proposed for removal to accommodate these units but I am satisfied that the extensive tree cover already provided in this area will compensate for the tree removal proposed. The detailed tree survey requirement referred to elsewhere in this report will also ensure the tree removal is appropriate. It is also proposed to erect a total of 10 estate properties in a "horseshoe" type layout further west. Having visited the site it is considered that this area of the HGDL can accommodate additional development as it cannot be seen from wider views of the HGDL. This area of land slopes downwards away from the main east-west access drive which leads to the Castle and as such the visual impact of the units is not considered to be significant. The 03/02250/PPLB consent proposes the equestrian centre in this location, however, this is now proposed to be located to the south west of the application site within zone 4 and will be considered further below.

Zone 3 - Kenmore Park South

85 Zone 3 is located to the south west of the application site and is located to the south of the main east west access drive from Kenmore village towards the Castle. There is an access track which travels along the eastern part of this zone and is proposed to travel southwards and turn in an easterly direction to serve properties located further east. This area of the site was originally to accommodate a golf clubhouse area. The golf clubhouse is still proposed in this area but has now been relocated further north closer to the main drive. The position of the clubhouse is considered to be appropriate as it is well screened from the west by existing mature tree cover. Its position has been altered from the position discussed at pre-application stage to move it away from the drive to reduce its visual impact when approaching the site from the west. The clubhouse design is minimalist and is single storey in

appearance with a monopitch roof design. I am satisfied that the scale and position of the clubhouse will have no significant impact on the landscape character of the HGDL. Historic Scotland has also indicated that they have no concerns regarding this aspect of the proposal. The finishing materials of the clubhouse will be agreed by condition.

86 It is proposed to locate a total of 4 estate properties (C-40-03 to C43-03) to the south of the golf clubhouse. Prior to the submission of this application it was proposed to locate new properties in a linear fashion along the entire length of this access track leading south and then east. The applicant was advised this would not be considered appropriate particularly given the key view out of the designed landscape which exists when looking west towards Loch Tay. The number of units in this area has now been reduced and the view out of the site is now being maintained. The four units to the south of the golf clubhouse are being located in the area which was originally proposed to accommodate the clubhouse. It is therefore considered that the principle of development in this location is already established and considered to be appropriate. Furthermore these units are all proposed to be single storey units which will help to reduce their overall visual impact, particularly when viewed from the east. The backdrop of trees also provides these houses with a reasonable landscape setting.

Zone 4 – Kenmore Park South

87 Zone 4 is located to the south and south east of zone 3 in the south west corner of the application site. There is existing consent for the erection of 3 units in the eastern part of this zone. The proposal now is to introduce an additional 4 units (C-36-07 to C-39-08) interspersed with these existing approved units. It is also proposed to relocate the equestrian centre to this location. The equestrian centre is proposed to be located in an open field which currently allows views out of the estate towards Loch Tay. The single storey scale of the equestrian centre will help to maintain these important views.

88 Concern was raised during pre-application discussions regarding the linear and ribbon type development which was evident in this location. This has now been broken up to a certain extent by removing some of the lodges which were originally proposed in this location. This has allowed for a cluster of development around the existing 3 approved lodges and a separate cluster adjacent to the golf clubhouse. These areas of development will be further broken up by existing tree cover, which is particularly apparent next to the 6 units located to the east of the equestrian centre.

Zone 5 – Kenmore Park South

89 Zone 5 overlaps with zone 4 and includes some of the 6 units referred to above. Further east is the Sawmill/Powerhouse area of the estate where a number of existing approved units are to be located. Four additional units (C-32-06 to C-35-07) are proposed to the south west of the Sawmill adjacent to the Kenmore to Aberfeldy public road (A827). These four units are proposed to sit on the hillside above the main golf course area. These units are located relatively close to the public road and whilst there is some existing landscaping in the area between the road and the units

they are likely to be visible from the public road. They will, however, sit on the hill below the road and as such any views into the estate from the road will be over the rooftops of these units. I am therefore satisfied that these units will not have any significant impact on the landscape character of the HGDL and views into the HGDL from the A827.

Zone 6 – Temple Plantation/Powerhouse/Sawmill

90 Zone 6 is an area where a significant amount of approved development is located. The category B listed Dairy Byre building and the B listed Apollo's Temple are located within this area. The approved development is located around the existing powerhouse/sawmill area, around The Dairy Byre and also extending east bound along the access track. Five new units (C-27-10 to C-31-06) are proposed within this area, together with the relocation of some approved units. The principal of development within this area was established through the 03/02250/PPLB consent and the minor relocation of units and addition of five units is not considered to have any significant further detrimental impact on the HGDL or the listed buildings in this area.

Zone 7 – Tom More South

91 Zone 7 again overlaps with zone 6 and therefore the above assessment also applies to this zone. The remainder of development is located on the Tom More hillock which sits between two very different elements of the HGDL. Concern was raised regarding any development in this area prior to the submission of the application. This concern was due to the potential impact development in this area would have on the setting of the category A listed Dairy building when viewed from the east and also the fact that development here would interfere with the visual and spatial relationship between the two very distinct elements (woodland and parkland) of the HGDL and would interfere with important east-west views between the Deer Park in the east and Kenmore Park in the west. This area also sits above the majority of other elements of the golf course in this location which will mean any units will be visually prominent. After further discussion with the applicant it was agreed that two of the units (B-21-10 & B-22-10) are to be removed from this area and relocated to the less sensitive "horseshoe" layout area in zone 2. The relocation of these units is considered to be appropriate as the new location is considered to be an area of less significance in terms of the HGDL. This aspect will be addressed through a condition.

92 One unit (B-20-03) still remains in the Tom More area and its proposed location causes concern. Some further discussion took place regarding this unit and the possibility for it being relocated closer to the units B17-B19 and therefore giving it more of a visual relationship with these units. The applicant's agent has considered this issue and was advised to consider the potential impact on trees and upon the setting of the category A listed Dairy which moving this unit would have. A revised location has been submitted in draft but would appear to significantly impinge on important trees in this area. The original site plan indicated a number of trees in this location and from my site visits it was evident that there was a large group of trees in this location. The revised site plan does not indicate these trees. I am therefore

concerned that the revised location for unit B-20-03 will involve the considerable removal of trees in this location to the detriment of the landscape character of the area and as such I am not willing to accept the revised location for this unit and therefore still intend to condition the consent to ensure this unit is not approved.

Zone 8 & 9 – South Slopes Park

93 Zones 8 and 9 are characterised by expanses of open hillside which sit below the A827. Some units approved under the existing consent are proposed along the access track in this location. It is proposed to provide a further 3 units adjacent to the access track (C14-01, C-15-01 and D-11-01) and also provide 13 units (D-01-08 to D-14-08, excluding D-11-08)) on the hillside between the access track and the public road. Similar to the development proposed in Zone 5, development in this area will not be highly visible from the public road as views from the road will be over the rooftops of these units. Views from the Castle itself will also be mitigated by the existing mature planting in this area. Having visited the site this area of the HGDL is not considered to be the most significant part of the site in terms of landscape quality and is capable of accommodating additional development. The units proposed in this location are a continuation of the development proposed adjacent to the powerhouse and sawmill areas. There is some concern that the additional development here does create an element of linear, ribbon style development along the access track. However, there is no further development proposed for a considerable distance to the north east and as such it is my view that this area of development can be considered as a larger grouping associated with the properties proposed and approved to the south west. I am satisfied that the landscape containment provided by the existing trees will help to mitigate against the linear nature of this part of the site and I am therefore willing to accept it.

Zone 10 – South Slope Park/Newhall

94 Zone 10 includes a number of units adjacent to the River Tay which were approved under the existing consent (G-01-03 to G-18-02). There are some variations to the design of these units and some variation to their locations, however, the general principal of development along this riverbank and the associated tree removal has already been established by the existing consent. There is some concern regarding the nature of the parking areas to the east side of the access track to serve these properties (G-01-03 to G-10-03) and the formal nature of the layout. It is considered that more informal gravel-based parking areas would be more appropriate in this location to reduce the impact on the landscape character of the HGDL. The detail of these car parking areas will be covered by a suitable condition. Three properties (F-16-06 to F-18-06) are proposed on the eastern side of the access track which serves the riverside properties. These are proposed to sit slightly above the riverside properties but will be screened by the topography and mature landscaping in this area. They are not considered to have any significant visual or landscape impact.

95 A total of 13 new properties are proposed in this zone further east from the river (E-01-06 to E-13-10), together with a “Scandinavian Spa”. The main vehicular approach to the castle from the Main Gate is proposed within this area and there are a series of manipulated views to conceal and reveal the Castle and river to heighten the

experience of reaching the Castle. Some of these views have been lost through lack of landscape management but are to be re-instated as part of the Landscape Management Plan referred to elsewhere in this report. This area of the estate is heavily undulating and entirely different in character from the western part of the HGDL. The 13 properties are located on a relatively flat area of land which sits between the public road to the south east and the main access track to the Castle to the north west. This area is relatively well screened by existing topography and trees to ensure that development here will not have a significant impact on the main approach to the Castle and the key features of the HGDL. I am satisfied that there is scope to accommodate additional accommodation development in this area given the topography and existing landscape containment. Property E-09-02 is located remote from the remainder of the properties in this area and will be served by its own access. There may be a possibility for this unit to be visible from the Main Drive and therefore the existing tree cover which helps to screen the site will be important here and should be retained. This can be addressed through the tree surveys which are referred to elsewhere in this appraisal.

96 The Scandinavian Spa is proposed to meander down a hillside to the west of the 13 units referred to above. This spa will sit to the south east of the main drive and will be made up of a number of individual buildings which will be linked together by a network of footpaths. An area outdoor is proposed centrally. Each building within this area is proposed to step down the steep hillside. The buildings are all relatively modest in size which will help to reduce the overall bulk and massing of development in this location. The materials will be consistent with those across the estate, however, it is proposed to give each building a slightly different style. The arrangement of the buildings has been developed to minimise the removal of trees but there is scope for minor variations to the locations of individual buildings to ensure minimal tree removal. This aspect is linked to the recommendations made within the trees section of this appraisal. This particular area of the estate is not highly visible from other areas and therefore the visual impact is considered to be negligible.

Zone 11 – Newhall/Riverside

97 Similar to zone 10, there are a number of units proposed on the land adjacent to the River Tay. The category B listed Newhall Kennels is also located within this zone. Consent currently exists for the conversion of this building into a spa but this is no longer the intended use. The development of this building is likely to come forward as part of a further future application and is not part of this application. There are some variations to the design of these units and some variation to their locations, however, the general principal of development along this riverbank and the associated tree removal has already been established by the existing consent. There were 12 units located to the east of the river which were approved under the existing consent and made up of semi-detached properties. It is now proposed to reduce this number to 10. Some minor variations to the location of units is also proposed in this area. Seven new units (F-11-06 to F-15-02 and F-19-02 to F-20-07) are proposed within the undulating topography to the east of the riverside lodges. The key consideration here is the potential views of these lodges from the East Gate and the main vehicular access into the estate. As outlined above the topography is

heavily undulating in this area and as such there is scope to accommodate additional units which are outwith views from the East Gate and main access into the site.

98 A new restaurant building (known as the Smokehouse Restaurant) is proposed in the western part of Zone 11 next to the riverside lodges. This is a single storey building which is to be built into the existing hillside meaning its visual impact will be relatively minor. A large glazed area will occupy the west elevation. Given the restaurant's location built into an existing hillside its visual impact will be minimal. The design of the restaurant will also ensure it relates well with the undulating natural landscape in this part of the site.

Impact on Key Views

99 The key views throughout the HGDL are identified in the Supplementary ES and include a number of both short and long views across the estate. The views which are most apparent are those to and from the Castle, towards areas such as Kennel's Tower and The Fort to the south and the Surprise Walk located below The Fort. All of these views are being maintained and no development is proposed in these areas. The views will be improved by the implementation of the Landscape Management Plan referred to elsewhere in this report. There are other longer views, particularly towards the west of the estate towards Kenmore. Some of these views, including that from Kennel's Tower towards Apollo's temple will be partially interrupted by the development already approved in these areas (Zone 6). The views from Kennel's Tower will, however, be over the rooftops of the proposed and already approved properties in this location. Other key views, including those from the Category A listed Dairy, will also be retained and improved.

100 Whilst there is considered to be a significant level of development proposed, having visited the site on numerous occasions it is considered that there is scope within the landscape framework to accommodate the number of properties proposed without significant detriment and importantly to allow the proper and careful management of the Designed Landscape which has unfortunately been neglected for a number of years. Concern has been raised regarding specific elements of the proposal which have been conditioned as not approved. It is considered that both the Council and Historic Scotland have been very reasonable in the assessment of the number of estate properties and the key areas of concerns are the site at Tom More and the four properties proposed to the west of the Castle. It is therefore considered to be very important that these areas are not approved, particularly as it is considered that there is no reasonable justification for the inclusion of these units in these locations.

Works Around the Castle

Family Spa

101 A North Wing extension to the castle was approved under the 03/02250/PPLB consent but no work has commenced to date. The spa is proposed to wrap around the south and east sides of the L-shaped approved West Wing. This spa will be accessed from the south behind the East Wing. This spa will be entirely single storey with a flat roof which will help to keep its visual mass and bulk to a minimum.

This will also mean it sits as a subservient structure to the much larger approved North Wing and the existing East Wing. The finishing materials include a cast stone frame to match the stone on the Castle and a local whinstone. The family spa is considered to be relatively small scale and an appropriate addition to the larger approved West Wing and is not considered to have any significant impact on the nearby East Wing of the castle.

Landscaping

102 A landscaping scheme has been submitted to formalise the approaches to the Castle and this forms part of the current application. The proposal is to form a turning area in front of the main entrance to allow vehicles to enter and leave the drive. It is also proposed to form a seating area at the bottom of the existing external staircase on the West Wing in a semi-circular shape defined by low formal hedging.

103 Concern has been expressed regarding the use of a very formal large turning circle area which has little relationship to the historic character of the Castle and the gravel border around the footprint of the Castle.

104 The semi-circular seating area next to the West Wing is to be defined by low formal hedging. The use of permanent formal hedging is not considered to be appropriate as it will change the key views of this elevation of the Castle. It has been suggested that this area could be defined by some formal planters which are put in place during certain events and then removed when the area is not in use. This technique has been used elsewhere in the UK in regard to important listed buildings. Taking account of the above I intend to attach a condition which states that this landscaping plan is not approved and that a revised plan is submitted for approval which considers the comments raised above.

Revised Drive Position

105 It is proposed to alter the position of the existing access drive. Currently the drive approaches from the West with views to the rear of the Castle and then sits directly adjacent to the West Wing. Concern was raised by Historic Scotland regarding the lack of consideration for the historic context of the position of the driveway here.

106 It is now proposed to move the track to the West drive further south and re-position it away from the castle. This will allow for a larger area adjacent to the West Wing to be used for marquees and other outside entertainment associated with the use of the Principal Rooms within the West Wing and larger events such as golf tournaments. It will also ensure that anyone approaching from Kenmore will not have a direct view of the rear service area which is proposed to serve the hotel and will instead view the West Wing of the Castle on approach.

107 The repositioning of the drive to the east of the Castle will also allow for a larger grassed area in front of the East Wing which again will also allow more outside space for outdoor events etc. The re-positioning also allows for views to the Castle to be opened up as these are currently limited given the drive's position so close to the Castle.

108 There is some concern regarding the position of the drive to the west of the Castle and moving it further south and the impact this may have on the topography and trees in this area to the west of the Castle. In that respect I intend to attach a condition to ensure that exact details of the drive re-alignment, including any impact on topography and trees, is provided prior to development commencing on this element. A condition will also be attached to ensure full details of the road surfacing materials are provided prior to works on the drive commencing.

Works to the Castle

109 Whilst this is covered by the Listed Building Consent application (11/00531/LBC), given the connection between the two applications and for ease of reference, I have included the assessment of this element within this report.

West Wing - Lift

110 The second floor of the West Wing is currently consented to be used as office space associated with the hotel. The applicant, however, has now advised that there is no longer a requirement for this amount of office space in the hotel and the proposal is now to utilise this second floor area as a single hotel suite (referred to as the Breadalbane Suite in the submission). Currently, this second floor area is accessed by a narrow staircase from the ground floor kitchen service corridor or from the Spikes Bar at ground floor level and from the Library at first floor level. The submitted documentation states that the use of this staircase to serve a high end suite would not be appropriate. The submitted documents state that the use of the "back of house" areas would not create the correct perception of luxury and it is considered that this would not be appropriate in terms of the functionality of the hotel. I agree with this assessment. The staircase can also be accessed at first floor level via the Library or Victoria Room. The Library will be regularly used by the hotel for public functions and the Victoria Room is also to serve as a meeting room. It is therefore accepted that the accesses to this luxury suite through either back of house or areas of the hotel where functions/weddings may be taking place would not be appropriate.

111 The applicant's agent considered the possibility of inserting a lift adjacent to the existing stair between ground and/or first floor and second floor, however, this would involve the removal of elements of the interior which are considered to be of exceptional historic significance.

112 The landings and door alcoves off the existing stairs were also considered as a location for accommodating a lift but these were not large enough for even a small platform lift without making significant alterations to the structural masonry and this was therefore discounted.

113 The proposal as submitted is to extend the existing approved lift which serves the West Wing up to first floor level. This approved lift is accessed at ground floor level from the reception area of the hotel. The lift shaft is now proposed to project out of the roof at the rear of the West Wing as a glazed lift shaft. A glazed link is then

proposed from the lift to access the Breadalbane Suite through a window on the north elevation. Full details of the proposed lift are available to view on public access.

114 This glazed element will be seen partially from the west and north sides of the Castle particularly when travelling along the drive from Kenmore and it is therefore important to ensure that the visual impact of this element is suitably mitigated. It is also important to ensure that it does not have a detrimental impact on the historic fabric of the Castle.

115 During pre-application discussions the applicant's agent was advised that a lift element in this location would only be considered appropriate should it be a very light structure and predominantly glazed.

116 Concern was raised regarding the mass of the steel structure which is within the glazed lift shaft and link and the agent was asked to investigate the possibility of reducing the visibility and bulk of this steel structure. The applicant prepared some revised visualisations to demonstrate that this reduction could be achieved. The height of the lift shaft and glazed link has also been reduced by approximately 500mm which will help to reduce the visual impact of this element when viewed from the west and north. The agent has submitted draft plans to demonstrate the changes referred to above and these draft plans are considered to be acceptable. These draft plans were not formally submitted as part of the application but were prepared for discussion and agreed in principle and it has been agreed that the exact detail of these changes can be dealt with by a condition on any consent given. I also intend to request a specification of the steel work and hand rails by planning condition.

117 Whilst this proposal is a clearly contemporary addition to a Category A listed building, I am satisfied, after discussions with both the Council's Conservation Officer and Historic Scotland that it is justified to ensure the suitable functionality of this element of the hotel and the amendments carried out to the design and scale of the lift are suitable to ensure minimal impact on the character of the building. Furthermore the entire build element can be reversed to a certain extent should this lift no longer be required at some point in the future which would allow the original form of the Castle in this location to be reinstated.

<u>West Wing – Layout of Breadalbane Suite</u>

118 The submitted plans show some alteration to the layout within the Breadalbane Suite which involves the removal of some more recent partitions which is considered to be appropriate. An area of stonework behind the window to be used for the lift link will also require to be removed to accommodate the access through this window. This removal is considered to be appropriate as it is the only way the access link can be suitably accommodated. It is also proposed to remove an element of stone work centrally within the suite to provide a larger access area into the living space. There is also a cupboard space next to this stonework which is to be removed. This removal is not strictly necessary and is only being proposed to improve the flow and circulation of the suite. There is not considered to be any robust justification from a

built heritage point of view or otherwise for the removal of this original masonry element and therefore I intend to attach a condition to ensure this element is not removed. A revised layout has been submitted by the applicant for comment which retains the majority of the masonry within the suite and this is considered to be appropriate. Some new partitions are proposed to create additional bedrooms, bathrooms and en-suite areas and there are no objections to these proposals.

119 Subject to conditions the alterations to the layout within the Breadalbane Suite are considered to be acceptable.

East Wing - General

120 The current approval for the courtyard designed East Wing is for the courtyard to be entirely in filled with a large ballroom. The applicant has now advised that a large ballroom is no longer required and a revised more sympathetic approach to the East Wing is now proposed.

121 The detailed elements proposed in the East Wing are outlined earlier in this report and within the report for the listed building consent application. The western part of the courtyard of the east wing is to accommodate the spa area and this will be achieved by forming a glazed roof structure over part of the courtyard. This roof will be affixed directly to the masonry on the walls and therefore does not require any significant structural elements. This will help to ensure that the original courtyard form is retained in the new design.

122 The eastern side of the courtyard is to be outside courtyard space and this space will be separated from the swimming pool internal courtyard element by a new building which has been designed to relate to the built form and appearance of the east wing. The glazed and new build element within the courtyard will sit below the ridge height of the remainder of the east wing and therefore will not be visible from outwith the courtyard, other than when viewed from the east where there is a small opening within the east elevation.

123 It is proposed to lime render the entire inner courtyard which is currently made up of a mixture of stone work and block work and is not in a particularly good condition. The new build element will also be lime rendered. I am satisfied that the scale and proportions of this new build element within the courtyard are considered appropriate.

East Wing Detail

124 The existing consent included a condition to ensure the re-use of the original clock face which is located on the south elevation of the East Wing. The plans now submitted include the installation of the original clock face on the external facing south elevation and this is welcomed. The opposite (north) side of this part of the building on the internal courtyard also includes a similar position for a clock face, however, no face exists for this north side. It is proposed to position a window in this area to serve the master bedroom of one of the 14 units within the east wing and I intend to request specific details of this window element by condition.

125 Three large openings exist on the internal side of the south range of the east wing at ground floor level. It is proposed to partially infill these openings with glazing but not entirely. After discussion with the applicant it was agreed that these openings should be entirely filled with glazing in order to more clearly define the original openings. This will therefore be covered by condition.

126 It is proposed to alter the fenestration on the internal north facing elevation of the courtyard which faces the proposed swimming pool area (shown on drawing Section C-C). Currently the window openings on this part of the elevation are varied in size and position and help to demonstrate the historical development of this part of the Castle. The proposal is to formalise the window positions and it is considered that better use of the existing window openings, sizes and positions could be achieved here. I therefore intend to attach a condition to ensure that these new openings are not approved and that a revised elevation showing better use of the existing openings is submitted for approval.

127 The face of the boiler which was within the East Wing is conditioned to be re-used in part of the Castle. This boiler face is still on site, however, there is no indication of its re-use within the detailed plans for the Castle and therefore for the avoidance of doubt I recommend that a similar condition is attached to any consent given here to ensure this boiler face is re-used in the new development.

128 The proposals involve the removal of a section of basement vaulting which projects into the courtyard. The applicant's agent has indicated that this will be surveyed, photographed and recorded. This will be covered by condition.

129 There is some concern that the new windows proposed on the external north elevation are not entirely within the existing openings and therefore for the avoidance of doubt I intend to attach a condition to ensure that the windows are entirely located within the existing openings, other than the proposed alterations to the doorways. The design details of the windows to be installed here also do not relate to the historic window pattern and this will also be conditioned.

130 There is a new door opening to serve one of the new suites between the two cart shed arches on the internal south facing elevation on the East Wing as shown on drawing Section C-C. This opening would involve the removal of a large area of original historic stonework and is not considered to be appropriate. The existing cart shed arch could be used to serve this suite and that is considered to be a more appropriate solution to maintain the historic fabric of the east wing and a condition will ensure this.

131 A length of roof windows is proposed on the internal courtyard roof of the north range of the East Wing. This glazed roof is a completely new opening formed within the roof and is not considered to be appropriate as it would involve the alteration to the original roof of the East Wing. There is no justification submitted for its inclusion and they only serve to provide light to a corridor which is already served by windows. After discussions with Historic Scotland I intend to attach a condition to ensure this glazed roof is not approved.

132 Despite the soft strip carried out within the east wing in 2005 under the existing consent it is noted that some original elements within the internal areas of the East Wing may still be present including fireplaces, plasterwork, etc and there may be scope to retain these elements within the renovated East Wing. I therefore intend to attach a condition to ensure any original features within this wing are maintained and details of these elements are submitted for the written approval of the Planning Authority in consultation with Historic Scotland.

133 It has been noted that no internal courtyard elevation of the east range of the East Wing has been submitted and therefore this will be requested by condition.

Trees

134 The trees on site contribute significantly to the landscape character and visual amenity of the Historic Garden and Designed Landscape (HGDL). The submitted masterplan and zoned areas provides an indicative plan of the existing trees on site and also an indication of the trees likely to require removal to accommodate the proposed new development. In order to accurately assess the likely impact of the development on existing trees on-site a full tree survey is required. It has been agreed after discussions between the applicant's agent, the planning department and the Council's Tree and Woodland Officer that these tree survey details can be addressed through a suitably worded planning condition. This will be worded to ensure that a full tree survey of each development zone area is submitted prior to the commencement of any development within that particular development zone. This tree survey will outline those trees proposed for both retention and felling and clearly demonstrate the Root Protection Area (RPA) of every retained tree to ensure the new development proposed does not encroach into these RPAs. The condition will also allow for minor repositioning of units if any are found to be within RPAs.

135 It is also recommended that strict conditions regarding tree protection and working practices also form part of any consent given to ensure all contractors on site are aware of the importance of trees. The Council's Bio-Diversity Officer has also asked that some dead, decaying trees are retained as they contribute significantly to biodiversity in the area and this will be included within the condition. It should be noted that the trees on site are of significant importance and are a key element of the HGDL and require to be treated as such hence the very thorough conditions recommended for this application.

Ecology/Natural Heritage

<u>European Protected Species</u>

136 European Protected Species surveys were carried out as part of the previous application, however, these only have a certain lifespan. In this submission the applicant provided an outline of how they intended to address this issue. Red squirrel, bat and otter surveys have now been submitted by the applicant and have been forwarded to the Council's Bio-Diversity Officer for comments.

Red Squirrels

137 The red squirrel survey identifies two areas of particular importance within the estate, around the Dairy and Tom More and within the woodland to the south of Newhall. There is also evidence of red squirrel elsewhere and throughout the estate. It is normal for red squirrels to be aware of construction operations and move accordingly. The survey suggests that an adverse impact on red squirrel surveys can be mitigated by the preparation of a red squirrel strategy. A draft strategy has been included as part of the survey. I intend to recommend a condition to ensure a full strategy is submitted. The Council's Bio-Diversity Officer has also stated that it would be advantageous for feeding stations to be provided throughout the site to encourage sighting of the red squirrels and this will also be covered by a condition.

Otters

138 The report identifies otter activity all along the banks of the River Tay that are part of the estate and the potential for disturbance during construction. Paragraphs 4.4 and 4.5 of the report provide a basis for suggested conditions to limit the possible impact on otters. After discussion with the Council's Bio-Diversity Officer it has been agreed that pre-construction surveys should be carried out 100m upstream and downstream of any proposed construction area or where construction is within 50 metres of a watercourse. And also that between the end of October and the end of March (winter time) any construction adjacent to a watercourse is restricted to 0700 to 1900 to avoid potential disturbance. It is considered that the above is sufficient to mitigate the potential impact on otters in line with the relevant Development Plan policies and Scottish Government guidance.

Bats

139 A bat survey has been requested and has been submitted by the applicant. The Council's Bio-Diversity Officer has advised that he is content with the recommendations and findings within the report. I intend to attach a condition to ensure the recommendations within the bat survey are strictly adhered to during the development of the site.

River Tay SAC

140 Scottish Natural Heritage (SNH) has objected to the application due to the potential impact on the water quality of the River Tay Special Area of Conservation (SAC). The impact on the SAC can be suitably mitigated if construction operations are carried out in compliance with suitable mitigation measures. In that regard a condition will be attached to ensure a Construction Method Statement (CMS) is submitted to demonstrate how the water quality of the SAC will not deteriorate. The Council's Bio-Diversity Officer has also requested that 5m exclusion zones are included where possible to ensure works do not take place too close to the SAC. An agreement on this was reached during the assessment of applications 11/00145/FLL and 11/00146/FLL for two show houses within the site and these will form a basis for the requirements for the whole site. In regard to the above an Appropriate Assessment has been carried out and is on file.

Occupancy/Description as "Estate Properties"

141 The existing planning consent does not expressly restrict the occupation of the consented properties within the Estate other than some of the units being referred to as "Fractional Ownership".

142 The applicant has advised that applying a condition which states that the occupancy of the estate properties is restricted to holiday use only and shall not be occupied as the sole or main residence of any occupier would be overly restrictive in that it would make it very difficult for a purchaser to obtain a mortgage on any of the properties. The applicant has stated that it is fundamental to their finance model that no holiday occupancy restriction exists. This situation is similar to that which was evident at Mains of Taymouth to the west of the application. It was agreed, in that instance, by the Development Control Committee that a holiday occupancy condition be removed and replaced with a condition which linked each property to the management and letting arrangements which were controlled by Mains of Taymouth estate.

143 The applicant has indicated that the intention for the units is for them to be sold as individual properties and then the estate retains management over the units on behalf of the owners. In that regard it has been agreed with the developer that a mechanism of control for the units would be to ensure they are tied to the estate in terms of management and through their title deeds, similar to the agreement reached at Mains of Taymouth. This can be covered by a planning condition and the title deeds and management agreement and shall include issues such as the following:

- Ensuring that the properties are let only through the Estate Company
- Ensuring the owners of each estate property pay an equitable share of the cost of maintaining the common property (access tracks/landscaping etc)
- Proprietors should maintain their property in a good state of repair
- No external alterations or alterations to the colour scheme of the estate properties is permitted
- No trees, shrubs within the landscape around each estate property shall be lopped, felled or altered in anyway.

144 It should also be noted that it is the intention for each estate property not to be provided with any garden ground or private amenity space around the property which should help to discourage permanent occupancy.

Flooding

145 The Scottish Environment Protection Agency (SEPA) and the Council's Flood Prevention Officer have been consulted on the proposal and have offered no objection. An assessment has been made of the likely flood risk apparent at the Taymouth Burn where some development is proposed. Specific finished floor levels (FFL) for these units (C15-01, C14-01 and D11-01) have been indicated by the applicant's engineer within the Flood Risk Assessment (FRA) and accepted by SEPA as being suitable to prevent flood risk of these units. I intend to attach a condition to ensure that each of these 3 units are built at a finished floor level as outlined within

Millard Consultants FRA and that all the mitigation measures outlined in the FRA are strictly adhered to.

146 SEPA have also stated that they raised concern regarding the lodges adjacent to the River Tay in their comments on application 03/02250/PPLB. Although permission is being sought for revised designs of these units the principle of erecting lodges along the River Tay has already been established by the existing consent and therefore I do not consider it to be reasonable to revisit this issue again. The estate properties will be covered by an overall management plan which is conditioned as part of the existing consent which will cover flood alleviation/evacuation measures. The same condition will be applied to this consent for the avoidance of doubt. SEPA have also stated that whilst they have not objected they have stated that the applicant should be aware that the Scottish Government and Association of British Insurers (ABI) have made a joint statement which states that there is no commitment to provide flooding insurance cover for new properties built in the floodplain after 1 January 2009 and that if the estate properties are found to be uninsurable it may not be possible for potential purchasers to secure loans to buy them. The applicant has been copied SEPA's response and is aware of this issue. The areas of new development proposed are considered to be acceptable in terms of flood risk and as such comply with the relevant Development Plan policies in that regard.

Taymouth Burn Bridge

147 It is proposed to re-build this bridge which is currently in a state of disrepair. The proposal is to utilise stone similar to other bridges in the estate. However Historic Scotland has advised that historic evidence suggests that this bridge previously had a timber balustrade rather than stone. The applicant's agent has been made aware of this and supplied with the detail of the historic evidence of this bridge. I intend to attach a condition to ensure this bridge is developed based upon this historic evidence and that revised plans are submitted to demonstrate this.

Other Listed Buildings and Structures Within Estate

148 The original planning consent included a condition to ensure that suitable stabilisation and restorations works were carried out to the other numerous listed buildings, bridges, follies, structures and walls within the estate and therefore the works to these structures is secured by this condition and does not require to be re-assessed as part of this application. A report on this issue has been submitted now by the applicant and is currently being considered by the Planning Authority in consultation with Historic Scotland. The re-development of the Newhall Kennels in Zone 11 is not intended to come forward at this time and therefore I intend to ensure this building is included within the report referred to above.

Alterations to the Golf Course

149 It is proposed to extend the golf course by approximately 7000 yards and works are currently taking place to repair existing tee, greens and bunker formations as a number of these have suffered from a lack of maintenance and drainage over the past few years. A plan has been submitted, at the request of the planning officer, to

determine where new works to the golf course are proposed. Many of the existing elements of the golf course are to be retained. A detailed description of the reasons for the alterations to the golf course is provided within the applicant's agent's letter dated 19 May 2011. This indicates that there are three types of operations required on the golf course. Type 1 relates to localised remodelling of existing features which is not considered to require planning consent and is taking place on the course at the moment. Type 2 involves forming new features requiring modest earthworks such as tees and fairway bunkers and type 3 relates to new features requiring larger scale earthworks such as green complexes and streams both of which require planning consent. The level of works indicated in types 2 and 3 cumulatively have the potential to significantly alter the landscape character of the HGDL. The 1:5000 plan submitted demonstrates the locations of these new areas but no details, including sections and site plans to demonstrate the extent of the works, have been submitted and without that information it is difficult to make an assessment what impact the works will have. In that regard I intend to request full details of the works outlined as Type 2 and 3 on this plan as a condition of any consent given.

Planting

150 A Landscape Management Plan (LMP) was approved as part of the 03/02250/PPLB consent and a condition required this Plan to be reviewed annually in discussion with the Council and Historic Scotland. This included proposals for each important compartment within the estate. This Plan has been updated and reviewed as part of this submission and is included within the Supplementary ES. The principles of the LMP have been accepted as part of the previous application and they are considered to be suitable for this revised proposal and will form part of the approved plans. Again I intend to attach a condition to ensure this document is reviewed annually to ensure, up until the development is completed, that the Council and Historic Scotland maintain an element of control over the improvements to the HGDL.

151 Some concern has been raised regarding the planting which is proposed along the A827. When travelling along the A827 some fleeting glimpses of the estate are available and this is one of the few locations which provide a view of the estate in its entire valley setting. The masterplan submitted with the application indicates that planting is proposed to screen this view. It is considered important to ensure that at least some of these views are maintained and not planted and I intend to request details of this by condition.

Traffic/Transport

152 The site is accessed by two existing access points. One at the Main Gate in the north east corner of the site which is off the A827 and another access through the West Gate located on the eastern edge of the Kenmore Village Square. A detailed description of the accesses is available with the Supplementary ES.

153 The applicant has indicated that all of the internal roadways will be maintained and operated by the estate and are not to be adopted and a condition will be added to determine their surfacing.

154 The existing planning permission includes an approved proposal to adjust the geometry of the access road at the Main Gate to the east of the site. For the avoidance of doubt I intend to attach a condition to ensure that the access is upgraded to a suitable standard as required by my colleagues in Transport Planning. The West access gate is located within Kenmore which has a 30mph speed limit and is considered suitable to accommodate the level of traffic associated with the development. It should be noted that the main access serving the site will be that from the east utilising the Main Gate and therefore use of the Kenmore gate is likely to be limited.

155 Transportation issues were considered within the Environmental Statement approved as part of the 03/02250/PPLB. An update of this has been included with the Supplementary ES submitted as part of this application. A Transport Assessment has been carried out and has been considered by my colleagues in Transportation and they have stated that the details are not indicating any anticipated traffic movement concerns.

156 There is, however, a requirement to provide a Construction Traffic Management Plan to ensure construction traffic is directed to the correct areas, to ensure adequate signage and minimise disruption to local residents. This will be addressed by a condition.

Car Parking

157 There is a large car park approved as part of the original consent to be built to the west of the Castle to provide parking for users of the hotel and spa facilities. Each estate property is also to be provided with car parking facilities. Separate parking is also to be provided for the other facilities throughout the estate including the Scandinavian Spa, Smokehouse Restaurant and Golf Club House. No parking is provided at the Equestrian Centre and it is my view that at least some parking will be required here. I therefore intend to attach a condition to ensure that some is provided. My colleagues in Transport Planning have offered no objection to the level of car parking proposed.

Drainage

158 The application approved in 2005 (03/02250/PPLB) included the provision of a private waste water treatment plant. The applicant has now indicated that the intention is to connect the proposed development to the recently completed Scottish Water Waste Water Treatment Works (WWTW) in Kenmore. The applicant has stated that they have discussed this with Scottish Water and have evidence from them which states that there is sufficient capacity to serve the development. I am yet to receive these details from the applicant. Nevertheless there is a separate application process which the applicant will require to go through with Scottish Water to allow a connection to their assets. I therefore intend to include an informative note on any consent given to make the applicant aware of this.

Access/Footpaths/Recreation

159 The applicant has made it clear in the submission that they are aware of the public access rights which exist over the entire estate. There are a number of proposed Core Paths in the estate. An indication of all public access routes throughout the estate has been provided within the submitted Design and Access Statement. The proposed development allows for improvements to be made to these access routes around the estate and the applicant has indicated that they are seeking to develop a concordat with the local community to promote responsible access through the estate for walkers, cyclists and horse riders. In general terms it is considered that the development will contribute positively to public access for various users throughout the entire estate. It is noted, however that there may be periods where restrictions on public access are necessary, both during construction and potentially during larger scale events on the golf course or within the castle. The applicant has indicated that through the concordat with the local community such requirements would be discussed in advance and the period of time for such restrictions minimised as much as is practical.

160 After discussions with the applicant's agent it was agreed that an interpretation board is to be erected at the entrance to the estate to provide information on the history of the castle and estate and to provide an indication of public access routes throughout the estate and this will be covered by a condition.

161 The applicant's agent has advised that the recreational facilities including the spas within the estate will be available to members of the public either on a day rate or annual membership and that this will be further established once a hotel operator is appointed. Access to the golf course for the local community has been discussed with the Taymouth Golf Club Captain and Secretary and access to the Curling Pond is also to be discussed with the local curling club.

Economic Development

162 In terms of economic development the Taymouth Castle proposal presents a substantial opportunity for sustainable development in this rural area and dovetails with the Scottish Government's priorities for tourism and its importance is recognised in the Perthshire Tourism Strategy and Action Plan. The economic impact assessment shows excellent impacts in terms of direct and indirect economic and employment opportunities arising out of the completed development and is based on sound assumptions in terms of accommodation occupancy in the current marketplace. The financial forecasts have taken cognisance of the change in the economic climate and have reflected this by identifying the need to adapt the previous model in terms of residential provision in order to lever private sector investment. This is coupled with information on the proposed phasing of the development in line with sales targets for the houses allowing the hotel and other developments in the estate to be completed.

Phasing

163 The financial model for the development of the estate is based upon the assumption that the works on the Main Castle and West Wing will be completed up to the stage before final fit out by August 2011 (subject to agreement with Historic Scotland and

Perth and Kinross Council regarding final details). It is assumed that the works to the East Wing will commence in March 2012 with completion (up to the stage of pre final fit out) by August 2012. Work to the North Wing is assumed to commence in March 2013 and complete in February 2014. Programming for work can only be taken to the stage prior to final fit out as that next stage will be defined by the appointed hotel operator.

164 Upon completion of the East Wing, the hotel within the Castle will have a total of 25 suites, 11 within the Main and West Wing and 14 within the East Wing. Completion of the North Wing will add a further 72 suites.

165 The construction timeline for the estate properties is based on the assumption that 2 show homes will be built initially and then the remaining properties are built in blocks of 15 properties at a time over a 6 month period (which allows for weather delays). Blocks will run concurrently, with a second block of 15 starting as one block is 50% complete. This will provide for a completion of 15 units every 3 months. The above scenario would allow completion of all estate properties by November 2014.

166 An application (11/00530/FLM) has been submitted for the deletion of Conditions 4 and 5 of the planning permission for the original consent (03/02250/PPLB) which relate to the phasing of the development. Further discussion on the proposed phasing can be seen within the Committee Report for that application which is also under consideration at this Committee. In short, the conditions have been revised to reflect the existing economic climate more appropriately but also ensure that the redevelopment of the Castle is delivered prior to certain elements of development within the remainder of the estate.

Staff Accommodation

167 The existing planning consent includes the erection of 4 staff accommodation properties directly adjacent to Kenmore. The information submitted with the application indicates that the intention is for these properties to be occupied by more senior staff. There is not proposed to be any additional accommodation provided on site for staff. The applicant's agent has indicated that a number of staff members will live further away from the site than nearby Kenmore and Aberfeldy. It is likely that a number of members of staff will live in Perth and other surrounding settlements. It should be noted that the level of travel associated with staff being located a considerable distance from the application site is not particularly sustainable. In that regard after discussion with the applicant's agent it has been agreed that a Green Staff Travel Plan can be prepared to outline more sustainable methods of transport for staff travelling to and from the application site. The applicant's agent has indicated that the exact details of this Travel Plan will be based upon the site operator's preferences and therefore only broad principles can be outlined at this time. I am therefore satisfied that the submission of this document can be agreed by a condition on any consent given to ensure adequate methods of transport to and from the site are provided other than the private car.

Archaeology

168 Perth and Kinross Heritage Trust have offered no objection to the proposal but have advised that the entire site has significant archaeological activity. In that regard it is recommended that a condition requiring a watching brief to be submitted prior to any development commencing is submitted.

Education

169 This application is a holiday based development and each approved estate property will be linked to the Taymouth Castle Estate by way of their title deeds and a suitably worded management agreement which is referred to elsewhere in this report. The estate properties are not being assessed as permanent residential accommodation and are being considered under the tourism policies of the Development Plan. As such there is no requirement to provide a contribution towards education infrastructure.

Affordable Housing

170 This application is a holiday based development and each approved estate property will be linked to the Taymouth Castle Estate by way of their title deeds and a suitably worded management agreement which is referred to elsewhere in this report. The estate properties are not being assessed as permanent residential accommodation and are being considered under the tourism policies of the Development Plan. As such there is no requirement to comply with the Council's policy regarding affordable housing.

Noise/Plant

171 There is potential for noise and odour to be associated with the restaurant, spa facilities and equestrian centre and as such Environmental Health have recommended that conditions are attached to any consent given in order to ensure suitable plant and equipment is installed to control noise and odour and that music is controlled at certain times of day.

Reinstatement Bond

172 The provision of a Reinstatement Bond has been raised in letters of representation to ensure that if trading ceases at the development site that remediation measures are carried out on site, particularly in regard to the estate properties. The applicant has provided an economic justification of the proposed development, indicating staff levels and general economic benefit and this is discussed in more detail in the paragraph on Economic Development above. My colleagues in the Enterprise Team have also offered their support to the application. A significant capital investment is being made by the developers on this site and has already been made and although there can never be a guarantee as to the success of the business I do not believe that a Reinstatement Bond to ensure site remediation is required in this instance.

DIRECTION BY SCOTTISH MINISTERS

173 Under the Town and Country Planning (Development Management Procedure) (Scotland)Regulations 2008, regulations 30 – 32 there have been no directions by the Scottish Government in respect of an Environmental Impact Assessment screening opinion, call-in or notification relating to this application.

CONCLUSION AND REASONS FOR RECOMMENDATION

174 There is a mutual desire to see this development get under way as quickly as reasonably possible. This has meant a number of issues remain unresolved but I am confident these can be addressed by condition.

175 It is considered that this tourism-based development is a key development for Highland Perthshire and Scotland and it has been demonstrated that the proposal will provide significant investment to the area. The development of the site will also ensure the appropriate and successful re-use and restoration of the Category A listed Taymouth Castle. The new operator is also required to comply with the conditions of the previous consent regarding the upgrade and re-use of other listed buildings and structures within the estate. The proposal will also allow for the appropriate upgrade and enhancement of the HGDL. I am satisfied that the proposal complies with the relevant provisions of the Development Plan in relation to various aspects and can find no material considerations which would outweigh the Development Plan in this instance. The application is therefore recommended for approval subject to the conditions outlined below.

RECOMMENDATION

A Approve the application subject to the following conditions:

(Where stated the masterplan referred to is drawing reference 11/00533/1)

Standard

1 The development shall be begun within a period of three years from the date of this consent.

2 The proposed development must be carried out in accordance with the approved plans and Supplementary Environmental Statement, unless otherwise provided for by conditions imposed on the planning consent.

Timescale/Phasing

3 Within 18 months of the date of this approval or prior to the occupation of the Riverside Lodges (marked 1-26 on the submitted masterplan), whichever is the sooner, all works to the Main and West Wing of the Castle shall be completed. These completed works shall include all internal and external work up to and including initial fit out to enable this part of the Castle to be operated as a 12 suite boutique hotel. All of the above shall be to the satisfaction of the Council as Planning Authority in consultation with Historic Scotland.

4 The remaining conservation works to the Castle (Main building and West Wing) shall be completed in their entirety to the satisfaction of the Planning Authority in consultation with Historic Scotland by 31 December 2011. These works consist of:

- The completion of the main services infrastructure, pipe work, wiring, ductwork and fire protection within the Castle; and
- The completion of the renovation and/or restoration of the Principal Rooms on the first floor of the Castle.

The detail of the above works shall be agreed in writing with the Planning Authority in consultation with Historic Scotland prior to any further works taking place. The details shall be as per the discussions at the meetings of 18 May and 24 May 2011.

5 The occupation of the new North Wing as indicated on the masterplan (11/00533/1), is not permitted until the works to the East Wing approved under application 11/00531/LBC and this consent are completed in their entirety and the East Wing becomes operational.

Castle

6 The internal areas of the entire Castle shall be inspected for any remaining internal historic features, including fireplaces, plasterwork, joinery details, doors, shutters and plasterwork prior to the commencement of development in this area and the Planning Authority shall be informed of any historic elements found. Any historic elements found shall be retained and accommodated within the new development.

7 An updated fabric survey (based on the 2005 Conservation Plan Appendix 4 Fabric Survey) submitted as part of application 03/02250/PPLB to demonstrate what external repair issues are still outstanding shall be submitted prior to the Castle being brought into use as a 12 suite boutique hotel.

8 The landscaping scheme around the castle is not approved. Prior to the commencement of any landscaping a revised scheme based upon the discussions at the meeting of 24 May 2011 shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland. The landscaping scheme as approved shall be completed in its entirety prior to the Castle being operated as a 12 suite boutique hotel. For the avoidance of doubt the landscaping shall refer to both hard and soft landscaping.

East Wing of Castle

9 A detailed specification for the fenestration proposed within the original clock face area on the internal courtyard side of the south range of the East Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. These details shall be submitted prior to the suite which this window serves being brought into use. The details as approved shall be implemented during the development of the site.

10 The glazing proposed at ground floor level on the internal side of the south range of the East Wing is not approved. A revised fenestration arrangement for this area shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland to ensure that these ground floor openings are filled entirely with glazing. The details shall be submitted prior to any works to this suite commencing. The details as approved shall be implemented during the development of the site.

11 The primary face of the main boiler which is retained on site shall be conserved and re-built as a display element within the public areas of the East Wing. Details of its proposed location shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland prior to any of the East Wing being brought into use.

12 The basement vaulting which is to be removed at the west end of the internal courtyard on the East Wing shall be surveyed, photographed and recorded prior to its demolition and details of this survey work shall be submitted for the records of the Planning Authority.

13 The cast iron cellar wine racks within the lower ground floor cellars shall be retained in-situ to the satisfaction of the Council as Planning Authority.

14 The new windows on the north elevation of the East Wing shall be installed within existing openings and no alterations to these openings is permitted, other than the alterations to the doorways. The design detail of these windows is not approved. The design of these windows shall be as per the original profile with 4 panes in the top sash and 6 panes in the bottom sash with a horizontal emphasis known as a "lying pane". Detailed plans for these windows based upon the above shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland prior to the installation of any windows on this elevation.

15 The six windows on the north facing courtyard of the south range of East Wing adjacent to the swimming pool area as indicated on drawing Section C-C (drwg ref: 11/00533/20) are not approved and a revised elevation showing the re-use of the existing window openings shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development.

16 Any stonework removed shall be re-used in any alteration works within the East Wing.

17 The new opening proposed between the cart shed arches on the internal south facing elevation of the East Wing as indicated on drawing Section D-D (drwg ref 11/00533/21) is not approved. The cart shed arch shall be utilised as the main entrance to this suite and a revised Section D-D drawing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland to show this. The details as approved shall be implemented as part of the site development.

18 The glass roof over the corridor on the north range of the east wing as indicated on drawing Section D-D (drwg ref: 11/00533/21) and Roof Plan drawing (drwg ref: 11/00533/17) is not approved. A revised Section D-D and Roof Plan shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland omitting this glass roof. The details as approved shall be implemented as part of the site development.

19 Prior to works commencing on the East Wing a specification of the lime render to be used on the East Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented during the site development.

20 No elevation for the courtyard side of the east range of the East Wing has been submitted. A detailed, scaled elevation plan for this part of the East Wing shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland prior to the commencement of any works on the East Wing.

West Wing of Castle

21 The plans submitted for the lift in the West Wing are not approved. Revised plans showing the reduction in height of the lift shaft and link structure and the reduction in scale of the steel frame based upon the discussions at the meeting between the Council, Historic Scotland and the applicant's agent on 24 May 2011 shall be submitted. The above shall be agreed in writing with the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

22 A specification and colour detail of the steel work within the lift shaft and glazed link within the West Wing shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

23 A detailed specification of the hand rails and external stair element at the lift area shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The above information shall be submitted prior to the commencement of any works on the proposed lift shaft and glazed link element. The details as approved shall be implemented during the development of the site.

24 The removal of stonework within the central area of the 2nd floor Breadalbane Suite in the West Wing to allow access to the main living space is not approved and a revised layout retaining this stonework shall be submitted for the written approval of the Planning Authority in consultation with Historic Scotland. This layout shall be based upon the details submitted in the e-mail dated 2 June 2011 from McKenzie Strickland Associates. The curved steps proposed to access the main living area are not considered appropriate and the revised layout should omit this. The above information shall be submitted prior to any internal alterations within the Breadalbane

Suite. The details as approved shall be implemented during the development of the site.

Natural Heritage

25 A detailed Red Squirrel strategy based upon the draft strategy submitted as part of the Red Squirrel Survey prepared by Nigel Rudd Ecology shall be submitted for the further written approval of the Planning Authority prior to the commencement of any development. This strategy shall ensure that Appendices 1 and 2 are updated so the first line reads *"Deliberately or recklessly capture, injure or kill any red squirrel"*. The strategy as approved shall be strictly adhered to during all development on the application site and to the full satisfaction of the Planning Authority.

26 No works or development within any zone (1-11) shall take place until a pre-construction survey for otters is carried out within that zone. This survey shall be carried out 100m upstream and downstream of any development area which is within 50m of a watercourse. If any otter activity is found the construction operations in that area shall cease and suitable mitigation measures put in place. The mitigation measures shall be agreed in writing with the Planning Authority prior to being implemented. Between the end of October and the end of March (winter time) any construction adjacent to a watercourse is restricted to 0700 to 1900 to avoid potential disturbance.

27 Prior to the commencement of construction in each development zone (1-11), a full detailed construction method statement (CMS) for that zone, giving details of measures to prevent harmful materials entering the River Tay SAC shall be submitted and agreed in writing by the Council as Planning Authority. The details shall include

- Pollution prevention safeguards, including drainage arrangements and the possible use of siltation traps, settlement tanks and bunds, their locations, operation and management.
- Storage and disposal of materials, including the siting of stock piles, use of buffer strips and disposal methods.
- Construction site facilities, including extent and location of construction site huts, vehicles, equipment and materials compound.
- Timing, duration and phasing of construction, particularly in relation to salmon and lamprey migration/spawning.
- 5 metre exclusion zones where possible to ensure work does not take place too close to the SAC.

The approved CMS shall be adhered to during the development of the site to the satisfaction of the Council as Planning Authority. This CMS can be based upon the CMS approved for applications 11/00145/FLL and 11/00146/FLL.

28 Prior to the commencement of development within a zone in the estate, an ecological review shall be submitted to confirm that no adverse impacts on bio-diversity will arise from development progressing in that zone. The review shall assess the presence of nesting birds, bats, red squirrels and otter. The review shall also contain

measures to ensure no adverse impacts will occur on other habitats which may be present in that zone. The above details shall be agreed in writing with the Planning Authority prior to the commencement of any development in that zone.

29 The recommendations contained within Section 4 of the Bat Survey submitted by e-mail on 2 June 2011 shall be strictly adhered to at all times all to the satisfaction of the Council as Planning Authority. The details of these recommendations shall be carried out within each zone prior to the commencement of work in that particular zone and the details shall be submitted to the Planning Authority for their records.

Trees

30 Prior to the commencement of any development within any zone (1-11) marked on the approved Masterplan a full tree survey of that particular zone shall be submitted to and agreed in writing by the Planning Authority. The tree survey shall also include any access routes to that particular zone. The tree survey shall include:

- A scaled plan which indicates the tree boles and tree canopies plotted in relation to existing buildings and proposed development
- Trees should be identified by a tree number using proprietary tree tags which correspond with survey details
- All tree measurement details including crown spread, tree height and stem diameter
- Tree species, tree health, condition, vitality, distinguishing features, safe useful life expectancy and categories stated in accordance with BS 5837:2005
- Arboricultural recommendations, e.g felling, crown cleaning, bracing
- Details of mitigation measures to reduce the impact of development on retained trees
- Root protection areas (RPA) shall be clearly shown on a scaled plan, together with details of all tree protection measures to be provided in accordance with BS 5837:2005
- The Tree survey should take account of BS 3998:2010 Recommendations for Tree Works and BS5837:2005 Trees in Relation to Construction
- Details of any trees proposed for felling
- Trees identified for removal shall be inspected for ecological potential
- Dead, dying or decaying trees should also be identified and some retained based upon their ecological value.

Any estate properties found to be within RPAs shall be repositioned accordingly to a location outwith the RPA provided that location is not more than 2 metres in any direction from the original location. Any property required to be moved more than 2 metres will be subject to a new application.

31 No works or development within any zone (1-11) shall take place until a scheme for the protection of retained trees referred to in the condition above has been agreed in writing with the Planning Authority. This plan shall refer to the tree survey in the condition above. This protection plan shall include the following:

- A plan to a scale and level of accuracy appropriate to the proposal that shows the position, crown spread and Root Protection Area (para 5.2.2 of BS5837) of every retained tree on site and on neighbouring or nearby ground to the site in relation to the approved plans and particulars. The positions of all trees to be removed shall be indicated on this plan.
- The details of each retained tree as required at para. 4.2.6 of BS5837 2005 in a separate schedule.
- A schedule of tree works (if any is required) for all the retained trees, specifying pruning and other remedial or preventative work, whether for physiological, hazard abatement, aesthetic or operational reasons. All tree works shall be carried out in accordance with BS3998 2010, Recommendations for Tree Work.
- Written proof of the credentials of the arboricultural contractor authorised to carry out the scheduled tree works.
- The details and positions (shown on the plan referred to above) of the Root Protection Areas (section 9.3 of BS5837 2005),
- The details and positions (shown on the plan referred to above) of the Tree Protection Barriers (section 9.2 of BS5837 2005), identified separately where required for different phases of construction work (eg demolition, construction, hard landscaping). The Tree Protection Barriers must be erected prior to each construction phase commencing and remain in place, and undamaged, for the duration of that phase. No works shall take place on the next phase until the Tree Protection barriers are repositioned for that phase.
- The details and positions (shown on the plan referred to above) of the construction Exclusion Zones (section 9 of BS5837).
- The details and positions (shown on the plan referred to above) of the underground service runs (section 11.7 of BS5837).
- The details of any changes in levels or the position of any proposed excavations within 5 metres of the Root Protection Area (para. 5.2.2 of BS5837) of any retained tree, including those on neighbouring or nearby ground.
- The details of any special engineering required to accommodate the protection of retained trees (section 10 of BS5837), (eg in connection with foundations, bridging, water features, surfacing).
- The details of the working methods to be employed with the demolition of buildings, structures and surfacing within or adjacent to the RPAs of retained trees.
- The details of the working methods to be employed for the installation of drives and paths within the RPAs of retained trees in accordance with the principles of “No-Dig” construction.
- The details of the working methods to be employed with regard to the access for and use of heavy, large, difficult to manoeuvre plant (including cranes and their loads, dredging machinery, concrete pumps, piling rigs, etc) on site.
- The details of the working methods to be employed with regard to site logistics and storage, including an allowance for slopes, water courses and enclosures, with particular regard to ground compaction and phytotoxicity.
- The details of the method to be employed for the stationing, use and removal of site cabins within any RPA (para. 9.2.3 of BS5837)
- The details of tree protection measures for the hard landscaping phase (sections 13 and 14 of BS5837).

- The timing of the various phases of the works or development in the context of the tree protection measures.

32 No works or development shall take place until a scheme of supervision for the arboricultural protection measures has been approved in writing by Perth and Kinross Council. This scheme will be appropriate to the scale and duration of the works and shall include details of:

- Induction and personnel awareness of arboricultural matters.
- Identification of individual responsibilities and key personnel.
- Statement of delegated powers.
- Timing and methods of site visiting and record keeping, including updates.
- Procedures for dealing with variations and incidents.

Perth and Kinross Council will require the scheme of supervision to be administered by a qualified arboriculturist approved by them but instructed by the applicant. A regular report should be provided on all active areas of development for the duration of the construction period. The report should confirm that the relevant conditions as detailed above are being fully adhered to.

Paths/Recreation

33 Within six months from the date of this decision, the applicants shall confirm the network of public paths which will be provided within the estate and agree the public use of these paths (i.e for walking, cycling and equestrian use). This shall include the required upgrade works to the Chinese Bridge. That agreed network shall be maintained and continue to be available throughout the construction and operation of the hotel resort/estate properties unless temporary cessation is required. In such a situation any restrictions shall be notified to the Council in writing in advance of that cessation and discussed with the local community except in the case of urgent health and safety situations or emergency situations.

34 Prior to the site becoming operational as a 12 suite boutique hotel, the applicants shall agree the form and content of an information board at the Kenmore Gate with Perth and Kinross Council and Perth and Kinross Heritage Trust. This information board shall include information on the available path network throughout the site and a history of the site and the important natural heritage features present throughout the site. The information board shall be erected in a location to be agreed next to the Kenmore Gate prior to the site becoming operational as a 12 suite boutique hotel.

Noise/Odour

35 All plant or equipment including ventilation systems associated with operation of the commercial areas of the development shall be enclosed, attenuated and/or maintained such that any noise therefrom shall not exceed Noise Rating 35 between 0700 and 2300 hours daily, or Noise Rating 25 between 2300 and 0700 hours daily, within any neighbouring properties with windows slightly open, when measures and/or calculated and plotted on a rating curve chart.

36 An effective ventilation system commensurate with the nature and scale of cooking to be undertaken shall be installed, operated and maintained within the Smokehouse Restaurant areas, such that cooking odours are not exhausted into or escape into any neighbouring properties.

37 No form of public entertainment (including music amplified or otherwise) shall be permitted outside on the terrace area of the Smokehouse Restaurant between 2200 hours and 1000 hours unless otherwise agreed in writing with the Planning Authority.

Landscaping/Golf Course/Buildings within Estate

38 Prior to the occupation of any part of the development site the applicants shall provide full details and specification for the design and implementation of works to advance signage, internal roads, parking areas and junctions all to the satisfaction of the Council as Planning Authority.

39 Prior to the occupation of any part of the development site details of the proposed means of external lighting of the site shall be submitted and approved in writing by the Planning Authority. The completed development shall strictly accord with those details approved and shall be so retained at all times thereafter unless otherwise agreed.

40 All recommendations within the "Management Programme" for each compartment detailed in the Landscape Management Plan submitted as part of this application and included within Appendix 5.3 of the Supplementary ES shall be strictly adhered to, all to the satisfaction of the Council as Planning Authority.

41 The planting proposed along the A827 shall be planted to ensure that views afforded from this road across the entire valley estate are retained as much as possible and details of the specific arrangements for this planting shall be submitted for the further written approval of the Planning Authority prior to the commencement of development within Zones 4, 5, 6, 8 and 9. The details as approved shall be implemented as part of the development of the site.

42 Prior to the commencement of development works (for example new tees, bunkers and greens) within the golf course, detailed scaled sections and site plans of all new development referred to as "Type 2 and 3" in the applicant's document dated 19 May 2011, shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development.

43 Full details of the surfacing materials for the main drive, access tracks and all car parking areas throughout the estate shall be provided for the further written approval of the Planning Authority in consultation with Historic Scotland. The details as approved shall be implemented as part of the site development and prior to the castle being operated as a 12 suite boutique hotel.

44 Prior to any re-alignment of the existing driveway, full details of the proposed revised main drive position to the west of the Castle shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland and the details as approved shall be implemented as part of the site development. These details shall demonstrate the impact on topography and trees which the new drive position to the west of the Castle will have.

45 Prior to the commencement of development of the Scandinavian Spa, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

46 Prior to the commencement of development, details and specifications of all proposed finishing materials for the estate properties shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

47 Prior to the commencement of development of the equestrian centre, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

48 The estate properties proposed in Zone 1 on the masterplan (A-01-03, A-02-03, A03-03, A-03-04) are not approved.

49 A revised layout for the equestrian centre shall be submitted prior to development commencing in that area to ensure a vehicle parking area is provided.

50 Prior to the commencement of development of the golf clubhouse, details and specifications of all proposed finishing materials shall be submitted for the written approval of the Planning Authority. The details as approved shall be implemented as part of the site development.

51 The estate properties located in Zone 7 (drwg ref: 11/00533/8) and on the masterplan (B-20-03, B-21-03, B-22-03) are not approved. Estate properties B-21-10 and B22-10 shall be relocated to Zone 2 (drwg ref: 11/00533/3) adjacent to B-01-03 and B-11-03. A revised masterplan and Zone 2 and 7 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones.

52 The formal car parking areas proposed on the eastern side of the access track serving properties G-01-03 to G-10-03 in Zone 10 and 11 (drwg ref: 11/00533/11, 11/00533/12) are not approved and these shall be revised to less formal gravel parking areas. A revised masterplan and Zone 10 and 11 site plan shall be submitted for the written approval of the Planning Authority prior to the commencement of development in either of these zones. The details as approved shall be implemented as part of the site development.

53 The details of the new bridge over the Taymouth Burn are not approved. Prior to the commencement of any works within Zone 8 (drwg ref: 11/00533/9) and Zone 9 (drwg ref: 11/00533/10) a revised design shall be submitted for the further written approval of the Planning Authority in consultation with Historic Scotland. The revised design shall utilise a timber balustrade and shall be based upon that discussed at the meeting of 24 May 2011.

Archaeology

54 No development shall take place within the development site as outlined in red on the approved plan (11/00531/1) for those elements approved under this consent until the developer has secured the implementation of a programme of archaeological work in accordance with a written scheme of archaeological investigation which has been submitted by the applicant, agreed by Perth·and Kinross Heritage Trust and approved by the Planning Authority. Thereafter, the developer shall ensure that the programme of archaeological works is fully implemented and that all recording and recovery of archaeological resources within the development site is undertaken to the satisfaction of the Planning Authority in agreement with Perth and Kinross Heritage Trust.

Flooding

55 The finished floor levels of estate properties C-15-01, C-14-01 and D-11-01 as identified on the masterplan and within site plan Zone 8 (drwg ref: 11/00533/9) shall be (C-15-01 114m), (C-14-01 112.6m), (D-11-01 111.1m). The mitigation measures outlined within the Flood Risk Assessment prepared by Millard Consulting dated March 2011 and contained within the Supplementary Environmental Statement shall be strictly adhered to.

Management

56 Prior to the occupation of any estate property, the applicant shall submit full details of the management/title deeds which link every estate property to the wider Taymouth Castle Estate. These details shall be submitted and agreed in writing with the Planning Authority prior to the occupation of any of the estate properties. Every estate property on the application site shall enter into this management agreement and be subject to these title deeds. This agreement between the estate and each estate property shall be maintained in perpetuity.

57 Prior to the occupation of any of the approved development the applicants shall submit a Hotel Resort Operations Management Plan to address:

- flood risk management
- waste management and recycling measures
- major event traffic management/parking
- guest parking and internal/short distance travel arrangements
- security measures.

All of the above shall be submitted for the written approval of the Planning Authority. The details as approved shall be strictly adhered to during the operation of the development hereby approved.

Transportation

58 Prior to the occupation of the any of the estate properties the geometry of the access at the Main Gate to the east of the site onto the A827 public road shall be upgraded to a standard to be agreed with the Council as Planning Authority. The details of this shall be submitted for the written approval of the Planning Authority.

59 Prior to the commencement of works on the development, the applicant shall submit for the written approval of the Planning Authority a Construction Traffic Management Scheme (TMS) which shall include the following:

(a) restriction of construction traffic to approved routes and the measures to be put in place to avoid other routes being used;
(b) timing of construction traffic to minimise impact on local communities particularly at school start and finishing times, on days when refuse collection is undertaken, on Sundays and during local events;
(c) a code of conduct for HGV drivers to allow for queuing traffic to pass;
(d) arrangements for liaison with the Roads Authority regarding winter maintenance;
(e) emergency arrangements detailing communication and contingency arrangements in the event of vehicle breakdown;
(f) arrangements for the cleaning of wheels and chassis of vehicles to prevent material from construction sites associated with the development being deposited on the road;
(g) arrangements for cleaning of roads affected by material deposited from construction sites associated with the development;
(h) arrangements for signage at site accesses and crossovers and on roads to be used by construction traffic in order to provide safe access for pedestrians, cyclists and equestrians;
(i) details of information signs to inform other road users of construction traffic;
(j) arrangements to ensure that access for emergency service vehicles are not impeded;
(k) co-ordination with other major commercial users known to use roads affected by construction traffic;
(l) traffic arrangements in the immediate vicinity of temporary construction compounds;
(m) the provision and installation of traffic counters at the applicant's expense at locations to be agreed prior to the commencement of construction;
(n) monitoring, reporting and implementation arrangements; and
(o) arrangements for dealing with non-compliance.

The TMS as approved shall be strictly adhered to during the entire site construction programme all to the satisfaction of the Council as Planning Authority.

60 Prior to the site becoming operational as a 12 suite boutique hotel, a Green Travel Plan Framework (GTPF) for staff across the hotel resort shall be prepared by the applicant and agreed in writing with the Planning Authority. The framework shall specify options for increasing sustainable transport usage. As part of this framework a Travel Plan Survey shall be carried out within 6 months of operations commencing. A finalised Travel Plan, based upon the findings of this survey, shall then be produced to include a target for percentage of staff travelling by means other than private car. This Travel Plan shall be submitted no more than 12 months from the site becoming operational as a 12 suite boutique hotel. That target percentage and Travel Plan shall be agreed in writing with the Planning Authority. This Travel Plan shall be reviewed annually for five years following the commencement of operations.

REASONS

1 In accordance with the terms of Section 58 of the Town and Country Planning (Scotland) Act 1997 as amended by Section 20 of the Planning etc (Scotland) Act 2006.

2 To ensure that the development is carried out in accordance with the plans approved.

3-5 To confirm the applicant's commitment to the necessary restoration and conservation works to the castle.

6-25 To protect the character of the Category A listed building.

26 To ensure the protection of red squirrels.

27 To ensure the protection of otters.

28 To protect the water quality of the River Tay SAC.

29 To ensure the protection of protected species.

30 To ensure the protection of bats.

31 To ensure the protection of trees on site and to protect the character of the Taymouth Castle Designed Garden and Landscape.

32 To ensure the suitable protection of all retained trees and to protect the character of the Taymouth Castle Designed Garden and Landscape.

33 To ensure the arboricultural protection measures are adequately supervised.

34 To ensure continued public access throughout the site.

35 To provide a suitable information board with details of the site.

36-38 In the interests of residential amenity and to ensure an adequate standard of local environmental quality.

39-49 In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of listed buildings.

50 To ensure adequate vehicle parking provision to serve the equestrian centre.

51-53 In the interests of visual amenity and to protect the Taymouth Castle Designed Garden and Landscape and the setting of listed buildings.

54 To ensure the replacement bridge relates to the design detail of the historic bridge in this location.

55 In order to safeguard any archaeological interests of the site.

56 To ensure the properties are above flood risk level.

57 To ensure the suitable occupancy of the estate properties.

58 To ensure that all issues relating to the operation of the hotel resort and estate properties have been considered and appropriate measures in place to deal with any realist contingency.

59 To ensure suitable access to the site.

60 To ensure construction traffic does not disrupt the existing road network.

61 In the interests of sustainability and to minimise the use of the private car when travelling to work.

B JUSTIFICATION

The proposal is considered to comply with the Development Plan and there are no other material considerations that would justify a departure therefrom.

C PROCEDURAL NOTES

None.

D INFORMATIVES

1 Under Section 27A of the Town and Country Planning (Scotland) Act 1997 (as amended) the person undertaking the development is required to give the Planning Authority prior written notification of the date on which it is intended to commence the development. A failure to comply with this statutory requirement would constitute a breach of planning control under section 123(1) of that Act, which may result in enforcement action being taken.

2 This development will require the 'Display of notice while development is carried out', under Section 27C(1) of the Town and Country Planning Act 1997, as amended, and Regulation 38 of the Development Management Procedure (Scotland) Regulations 2008. The form of the notice is set out in Schedule 7 of the Regulations and a draft notice is included for your guidance. According to Regulation 38 the notice must be:

- Displayed in a prominent place at or in the vicinity of the site of the development
- Readily visible to the public
- Printed on durable material.

3 As soon as practicable after the development is complete, the person who completes the development is obliged by Section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended) to give the Planning Authority written notice of that position.

4 This is approval of your application Ref No 11/00533/FLM for planning permission only. It does not include any approval for your related application for Listed Building Consent Ref No (11/00531/LBC). You should therefore not commence work until you have received Listed Building Consent. Carrying out alterations without Listed Building Consent is an offence.

5 No work shall be commenced until an application for building warrant has been submitted and approved.

6 The applicant is advised that the granting of planning consent does not guarantee a connection to Scottish Water's assets. The applicant must make a separate application to the Scottish Water Planning & Development Services team for permission to connect to the public wastewater system and/or water network and all their requirements must be fully adhered to.

Nick Brian
Development Quality Manager

Background Papers: 11 letters of representation
Contact Officer: John Williamson – Ext 75360
Date: 8 June 2011



Taymouth Castle | Taymouth Master Plan

Kenmore, Scotland December 8, 2023

2 min. walk

0 50 100 150 200 250 m

1 : 2,500 at 36" x 48"

HART HOWERTON