

Tornagrain

A Planned Town for the Highlands

Stage 3 Exhibition

September 2008



Artist's illustration of Tornagrain High Street looking west to the main square

Welcome to the final Exhibition, prior to submission of the planning application for the proposed new town at Tornagrain. An outline planning application will be made shortly, and so this Exhibition provides an opportunity to understand the contents of that application prior to submission.

The first exhibition in November 2007, provided information on the planning application process and the accompanying Environmental Impact Assessment (EIA).

The second Exhibition in March 2008 looked at the evolution of the masterplan taking account of the technical EIA studies and community feedback. The Exhibition also introduced the Design Code.

This Exhibition will show the final masterplan, having taken account of technical and other issues. It will also explain the content of the application including the Environmental Impact Assessment and the Design Code, which will provide the framework of regulation

to ensure fundamental aspects of the masterplan are properly implemented.

This Exhibition has therefore been designed as a presentation of the material to be submitted. The core aspects of the submission are now finalised and we hope you will find the opportunity to view this summary of the application material in advance, helpful. As at previous Exhibitions, we welcome your views and hope you will be able to see how the engagement process to date has influenced the plan.

As before, this Exhibition has been reproduced as a brochure. We will, of course, also welcome any comments you would like to make at the Exhibition.

John Doune – Moray Estates

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The Process So Far

The submission of the planning application for Tornagrain is the culmination of an extensive planning and consultation process which commenced in earnest four years ago.

In 2004, The Highland Council appointed F G Burnett to identify how best to deliver future growth of the Inverness and Nairn Area – the A96 Corridor. This area had been identified in the Highland Structure Plan as the most suitable to accommodate growth over the coming 30 years. F G Burnett initiated a public engagement process entitled “Collaboration for Success” which involved a series of meetings held for all stakeholders in the A96 Corridor.

A number of options for accommodating growth were examined and assessed in these meetings. In response to this process Moray Estates commissioned Pollard Thomas and Edwards Architects to help develop a vision and proposals for land owned by the Estate in the Corridor. The result of this work was a proposal for a new community based on the principles of new or traditional urbanism adjacent to the proposed Inverness Airport Business Park.

F G Burnett reported in early 2005 proposing growth be accommodated in Inverness, Nairn, existing communities and in two new communities, Tornagrain and Whiteness. The Highland Council considered those proposals at joint Inverness and Nairn Area Committees in June and at the Planning Development Europe and Tourism Committee (PDET) in August 2005.

The August 2005 PDET Committee approved the proposals and agreed to further investigations of the delivery and infrastructure consequences of F G Burnett’s proposals. The committee also asked for further work to be carried out on the growth of Inverness and Nairn.

In 2006, Halcrow was appointed to undertake this additional work including the production of development frameworks for East Inverness and Nairn.

Following extensive research into successful communities, Moray Estates appointed Andrés Duany of Duany Plater-Zyberk & Co to assist in the ongoing consultation process.

In September 2006, a Charrette was organised to allow participation of the local community and statutory consultees in a design workshop encouraging discussion and the contribution of ideas. The culmination of the Charrette was a presentation of the outputs by Andrés Duany at the end of the exercise. The work was then published for the community in the form of a Post Charrette Paper, issued in February 2007.

2004	THC appoint FG Burnett to assess options of delivering growth. Public engagement process called “Collaboration for Success”.
June 2005	FG Burnett proposals approved by Inverness and Nairn Area Committees
August 2005	Proposals approved by Planning Development Europe and Tourism (PDET) Committee. Further work agreed on delivery and examination of growth in East Inverness and Nairn – “polar growth”
2006	THC appoint Halcrow to undertake the next stage of work.
November 2006	Development frameworks for East Inverness and Nairn reported to PDET Committee.
March 2007	A96 Growth Corridor Framework including final development frameworks and protocol for infrastructure delivery approved by PDET Committee and given Interim Guidance status.
September 2007	PDET Committee approve A96 Growth Corridor Framework including its Strategic Environmental Assessment.

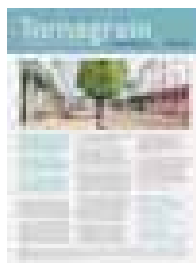


Above: A96 Corridor Masterplan (July 2006 version)

Below: Pollard Thomas Edwards architects produced the original master plan for the Tornagrain site



Above: Public workshop at Tornagrain Charrette – September 2006



Left: Post Charrette Paper – Feb 2007





A96 Corridor Green Framework with development Frameworks imposed.

Top: September 2007 A96 Growth Corridor Development Framework document. Bottom: November 2007 and March 2008 exhibition brochures

The product of Halcrow's work on the East Inverness and Nairn development frameworks was reported to the PDET Committee in November 2006, and together with a protocol for the delivery of infrastructure in the A96 Corridor approved at the PDET Committee in March 2007.

The A96 Growth Corridor Development Framework together with its Strategic Environmental Assessment was approved by The Highland Council in September 2007.

In October 2007, Moray Estates announced their intention to submit a planning application for a new town at Tornagrain which forms part of the approved A96 Corridor framework.

As with the Charrette process, the Estate was keen to continue to engage with local communities and take on board their views. The Estate organised exhibitions in November 2007 and March 2008 to allow locals to examine the Tornagrain proposals, comment on them and consider the planning application as it was being developed.

This exhibition forms the final part of the pre application consultation process.

The Estate has also sought to engage with communities in other ways to encourage involvement. A Community Consultative Forum was established in 2005 to allow a two way dialogue between local Community Councils, other stakeholders in the Corridor and the Estate. From 2007, a separate



forum of local Tornagrain residents has also met with the Estate in the same way.

In 2006, Andres Duany of DPZ gave a UHI lecture in Inverness to encourage consideration of the issues that we all face and the options for accommodating future growth. In April 2008, Andres again lectured at the UHI, this time on the role of Design Codes – an important element in improving the quality of urban design and its delivery. Community representatives also attended Design Code workshops, which were designed to increase the understanding of the role of the Design Code, and allow the Estate to obtain feedback on those design issues important to the local community.

The Estate have chosen to involve local communities in the proposal for Tornagrain from the project's conception. We believe this approach will pay dividends in the quality of planning seen throughout the A96 Corridor.

The views expressed by local communities during the Charrette and subsequent events have been far from uniform. Some are very positive, others have understandable concerns and anxieties.

Below are some of the issues raised and which we have sought to address or comment on:

- The location of the proposal with questions raised as to whether further growth in Inverness and Nairn would be more appropriate.
- Concerns expressed over potential impact on local services such as health and education.
- The need for infrastructure improvements prior to development was frequently expressed.
- Concerns that the assumed population growth would not materialise.
- Concerns over impact on neighbouring communities, their services and sense of identity.
- Many however have been impressed by the vision, and the design approach.
- A number of participants expressed concerns over the decline in the quality of local services in their own communities and were interested in the role that urban / town planning may have had in that decline.
- Sustainability, energy requirements and efficiency were of interest to many participants.
- The opportunity to comment and engage was welcomed even by those not well disposed to the proposal.
- Suggestions were made for additional facilities including leisure facilities and allotments.

An Evolving Masterplan

1 The masterplan that emerged from the Charrette in September 2006 has evolved as the planning process has progressed.

However, it's basic character of three neighbourhood centres, a town centre, a central park, green belts between neighbourhoods and the realignment of the A96 remains very much intact.



2 The February 2007 plan in the post Charrette Paper refined the original Charrette plan and added more variety to block types.



We have found the robustness and durability of the Charrette masterplan quite remarkable. This must be a testament to the major advantages of the charrette approach itself – which despite great speed produces work of a very high quality and integrity.

3 The March 2008 plan saw some more noticeable refinements, taking account of the topography of the High Street area, existing trees, adjustments to the number and location of schools, wetland areas and the protection of badgers.

These changes were a result of significant technical assessment through the Environmental Impact Assessment process and public input from the November 2007 exhibition.



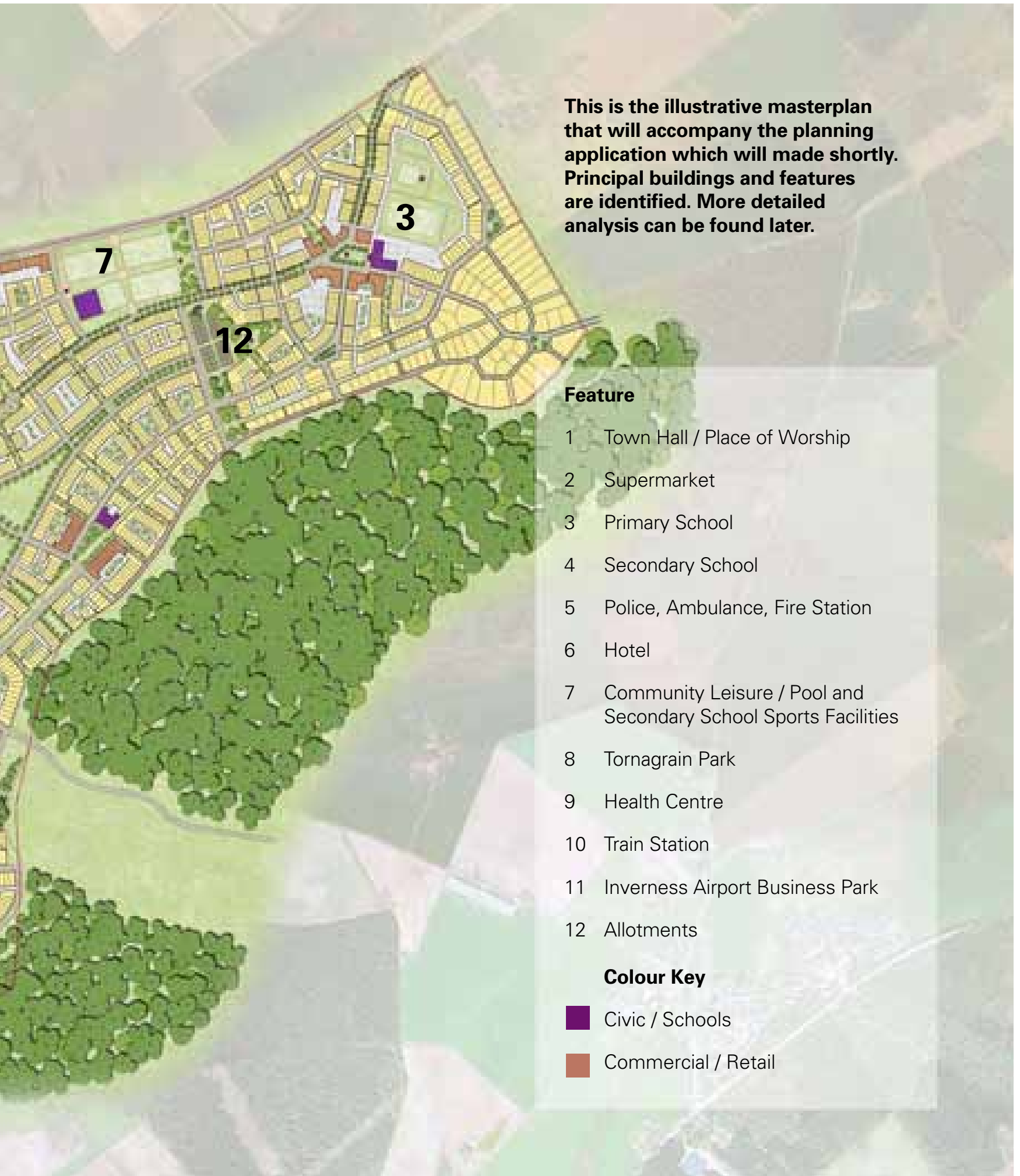
4 The subsequent refinements have necessarily been more subtle reflecting the later stages of the design process. The main adjustments have been to reflect the road crossing requirements for the oil pipeline through the site. Some adjustments to block alignments and a reduction in crossing numbers have been incorporated into the plan.

Also included following public input at the March exhibition are two areas of allotments in green areas between neighbourhoods.



The Masterplan







This is the illustrative masterplan that will accompany the planning application which will be made shortly. Principal buildings and features are identified. More detailed analysis can be found later.

Feature

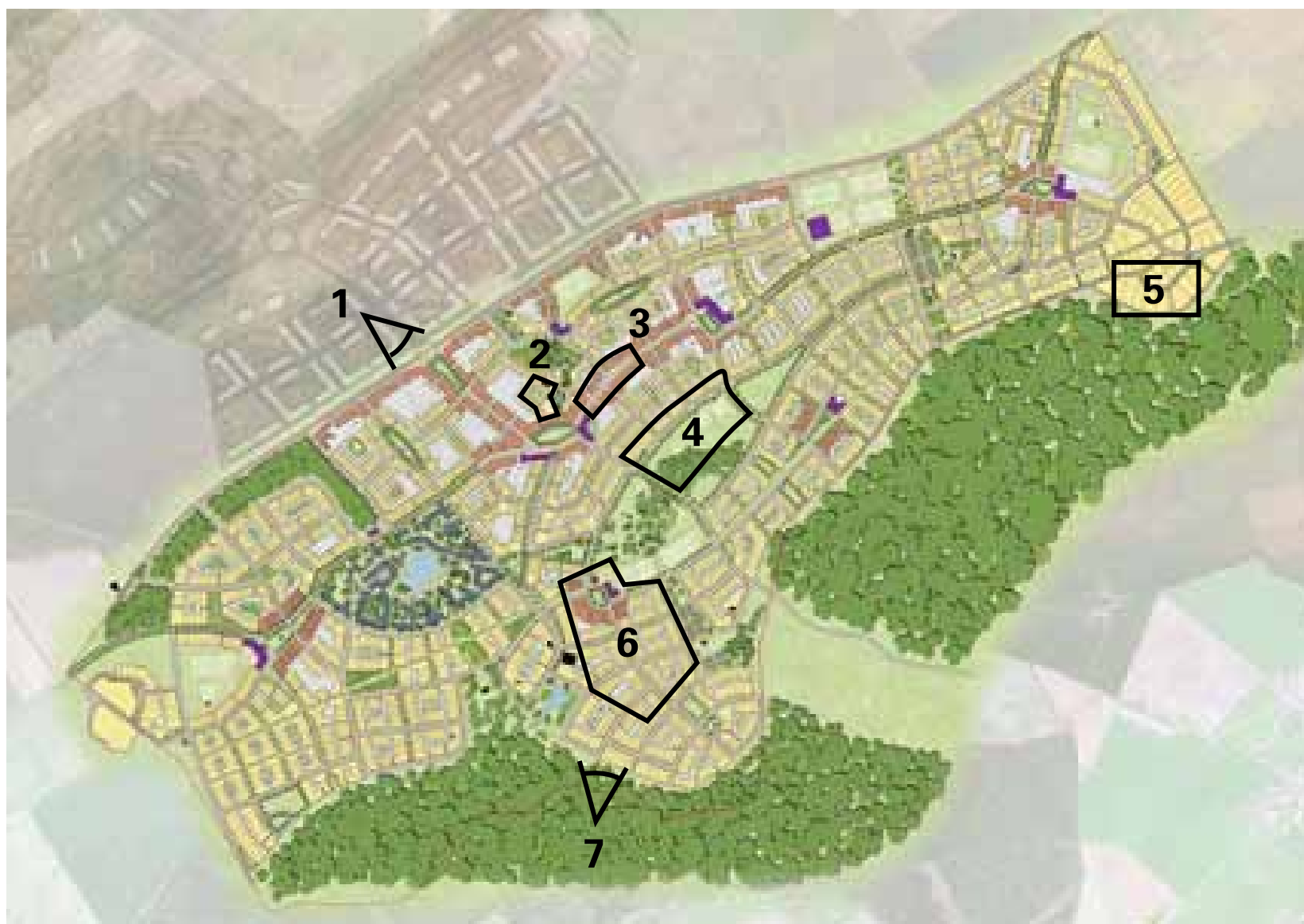
- 1 Town Hall / Place of Worship
- 2 Supermarket
- 3 Primary School
- 4 Secondary School
- 5 Police, Ambulance, Fire Station
- 6 Hotel
- 7 Community Leisure / Pool and Secondary School Sports Facilities
- 8 Tornagrain Park
- 9 Health Centre
- 10 Train Station
- 11 Inverness Airport Business Park
- 12 Allotments

Colour Key

-  Civic / Schools
-  Commercial / Retail

The Masterplan in Detail

During the design process we have used illustrations to indicate how the town might work and look



1. This image shows the entrance to Tornagrain from the current Mid Coul / Airport roundabout. The “boulevard” old A96 is framed by both Tornagrain and Inverness Airport Business Park. At the top of the slope leading into Tornagrain, is the new square at the west end of the High Street. The view up the street is terminated by a landmark civic building - probably the Town Hall. The image also shows how parking in the town centre can be dealt with behind the on street buildings.



2. The existing traditional buildings and mature trees at Mid Coul are an attractive feature. The masterplan has been refined to incorporate these into the plan, to produce an intimate square immediately to the north of the High Street. The buildings on the left are “live-work” units, which could provide lower cost retail or other business opportunities just off the High Street.



3. This image illustrates how the Town Hall terminates the view of the square from the High Street. The pavement of the south facing side of the High Street is wider to allow use of this attractive sunny space. The width of the High Street is not uniform creating variety and interest. The artist has used more substantial colonades on some of the buildings on the south side of the street providing cover for pedestrians and creating extra space above the pavement. Parking is provided on street and behind the buildings accessed from the High Street.



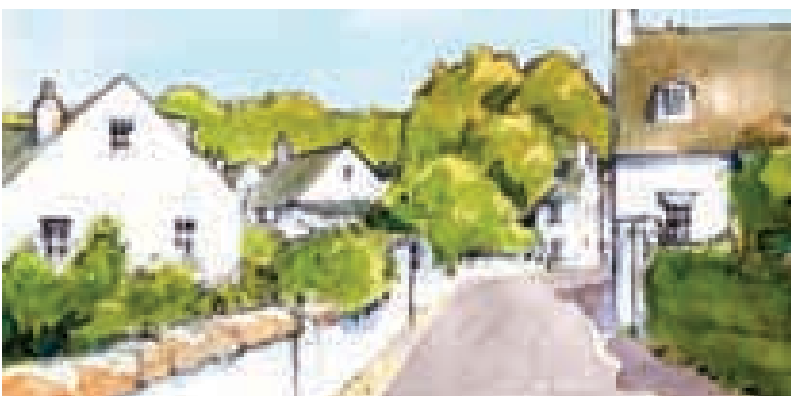
6. This elevated view illustrates the centre of the first neighbourhood. The small green square is framed on the left by a primary school with playing fields behind and at the bottom left of the image, by a community hall which would be the principal community hall in the first phases of Tornagrain's growth. The remaining buildings are houses and flats with the potential for a modest amount of retail and commercial space, around the neighbourhood centre. The rear lane on the right hand side of the image shows how cars can be kept from the front of houses in rear garages, some with studios or other space above. Rear lanes can also be attractive with selective planting and design of the garages.



4. A major feature of Tornagrain is the extensive park in the centre of the town. This image illustrates how houses on the north side might address the park. The park is surrounded by public roads, though none are main thoroughfares, ensuring the park is available to all. The absence of front gardens in these properties reflect the fact that this area is still close to the town centre, whilst contrasting also with the open landscape of the park.



7. This image looks at the first neighbourhood from the south west to examine how the character of the neighbourhood changes towards the edge of the town. The largely terraced and semi detached dwellings in the neighbourhood centres give way to more detached and larger family homes towards the woodland edge. Despite reducing density and more informality certain features still remain. Houses still face the street to maintain the street scape and cars are still parked at the rear to maintain the architectural integrity of the street and preserve the appearance of the public realm.



5. This image shows how the rural edge to the town may be accommodated. Houses are predominantly detached with larger gardens and more irregular in layout. This minor street has no pavements; with low levels of traffic the road surface can be shared by all users.

The Planning Application – Outline Application

In October, Moray Estates intend to submit an Outline Planning Application to The Highland Council for the following:

New Town comprising up to 4,960 Housing Units and supporting Community Facilities, Retail, Business, General Industry, Storage and Distribution, Hotels, Residential Institutions, Leisure, Petrol Stations and associated Landscaping, Open Space, Infrastructure and Services.

Outline Application

The forthcoming application will be in 'outline' only. Unlike detailed planning permissions, 'outline' planning consents only grant permission for the principles of development.

Outline planning permission is often sought for large and complex schemes which will be constructed over a relatively long timeframe. It provides the local planning authority with the ability to consider such proposals in a holistic and comprehensive manner, without requiring so much detail as to make the schemes prohibitively large to prepare or consider.

As such, an outline planning permission does not permit the applicant to commence construction; reserved matters planning applications for the outstanding details have to be subsequently submitted and approved.

The Tornagrain application is seeking permission for the following key principles of development:

- Site location and site boundary
- Amount and type of development
- General scale or height of development
- Distribution of land use
- Phasing of development
- Strategic on-site infrastructure

Accordingly, the application will not comprise details such as proposed building elevations, construction materials or highway engineering details. These will be submitted at a later date as part of detailed submissions or reserved matters for individual phases of the scheme.

Although the masterplan layout for the site is being submitted as part of the application, it is only 'indicative'. So, whilst many of the key principles for which permission is being sought are defined by the masterplan layout, the exact details may vary as the scheme progresses and as further information emerges over the life of the development. The Design Code – which will form part of the application – will however limit the scope for variation to ensure the masterplan will always remain intact.

Therefore the application provides both sufficient details about the key characteristics of the proposal to allow effective consideration of the scheme by The Highland Council and the local community, but also sufficient flexibility to accommodate unforeseen changes in circumstances over the life of the development.

Site location and Site Boundary

As with all planning applications, a location plan defining the site boundary must be submitted and all development must be accommodated within this identified site boundary.

The application site comprises 259 ha in total. This includes a thin strip of land to the north of the A96 which has been specifically included to accommodate any highway alterations required to the A96 to improve access and connectivity.

The application site does not include the potential route of the dualled and realigned A96 as this does not comprise part of this application. Although the development of Tornagrain will contribute financially to the upgrading of the A96, the works will be undertaken by Transport Scotland and as such will need to comprise a separate application.

The site location



The site boundary



The Planning Application – Principles of Development

Amount and Type of Development

The defining principle of the outline application is the amount and type of development proposed. A vibrant and vital mix of uses is one of the key characteristics of the town's masterplan and essential to the town's future success as a sustainable community. Accordingly, a broad mix of land uses is proposed within the town. These key figures are explicitly expressed on the application form in the description of development and development schedule which specifies the amount of development proposed within each Use Class.

The application also provides a broad breakdown of the types of residential units that are proposed in the town. The break down reflects the aspiration to deliver a town, which caters for a broad range of housing needs and requirements, in order to create a mixed and balanced community.

The application also comprises more detailed information regarding the size and type of community facilities proposed, as these facilities are central to the successful functioning of the town as self sufficient settlement.

In addition the application specifies the amount, type and location of open space proposed. The open space proposed is one of key characteristics of the masterplan and is central to town's design. The application quantifies this as one of the key principles of the development.



Parks	37.4 ha
Green Corridor/Green Way	5.2 ha
Playing Pitches/Sports Fields	12.9 ha
Total Public Open Space	55.5 ha
Natural/Semi Natural Open Space	23.9 ha
Inverness Airport Business Park and land adjacent to the A96	11.3 ha
Total Non-Developable Area	90.7 ha
Total Developable Area	168.4 ha
■ Including Amenity Green Space	
TOTAL AREA	259.1 ha

Class	Use	Sub-Group %	GFA m2 (units)
1-3	Retail		20,000
		Shops	12,800
		Finance/Professional Services	1,200
		Food & Drink	6,000
4	Business		7,000
5	General Industrial		1,000
6	Storage & Distribution		1,000
7	Hotels		4,000
8	Residential Institutions		5,000
9	Residential		578,088 (4,960)
		Detached (25)	192,200 (1,240)
		Semi (17)	118,048 (843)
		Terrace (30)	163,680 (1,488)
		Flat (28)	104,160 (1,389)
10	Non-Residential Institutions		18,222
		Primary Schools	6750
		Secondary School	8522
		Community Hall	700
		Place of Worship	250
		Libraries	400
		Adult Education	600
		Healthcare	400
		Emergency Services	600
11	Assembly & Leisure		1,900
	Sui Gen		1,500
		Petrol Filling Station (2)	
			637,710

Right: Detailed summary of Development Area

Right: Summary of non developed area

Non Developed Area (breakdown)							
	OPEN SPACE				UNDEVELOPED		TOTAL
	Park	Corridor	Sports	TOTAL	Natural	IABP	
Phase 1	4.5	3.9	2.4	10.8			
Phase 2	1.9	0.6	0	2.5			
Phase 3	6.8	0.5	0	7.3			
Phase 4	3.0	0.2	0.8	4.0			
Phase 5	11.5	0	0	11.5			
Phase 6	3.7	0	7.0	10.7			
Phase 7	6.0	0	2.6	8.6			
TOTAL	37.4	5.2	12.9	55.5	23.9	11.3	90.7

The Planning Application – Principles of Development

Scale and Height of Development

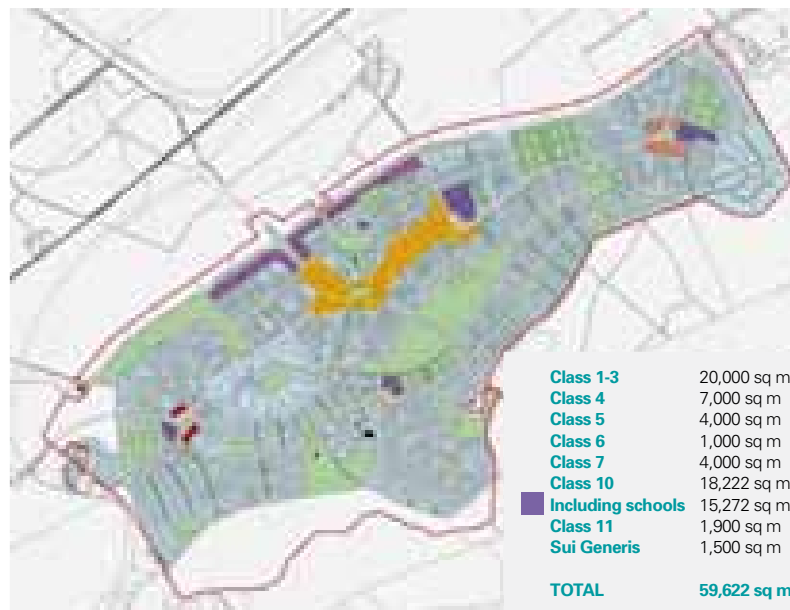
Although the exact details of building elevations will not be proposed, the outline application will specify the maximum heights of buildings in different parts of the town. It is necessary to specify the scale and height of the development to allow for an effective assessment of visual impact. Subsequent reserved matters applications will not be able to exceed the heights specified by the Outline Planning Permission.



- Five Storey Maximum
- Four Storey Maximum
- Three Storey Maximum

Distribution of Land Uses

Having identified the mix of land uses that will be accommodated within the site as part of the description of development, the application also identifies how these uses will be distributed within the site. To avoid being over prescriptive about exact location, the Plan identifies zones within which a specified mix of uses will be accommodated. For example, the town centre will accommodate half of the proposed retail and all of the community facilities, whilst the commercial zone will accommodate all the general industry and storage and distribution.



- Residential 4960 Units
- Open Space 55.5 ha
- Neighbourhood Centre 1 2,000 sq m
 - Class 1-3 1,500 sq m
 - Class 4 500 sq m
- Neighbourhood Centre 2 4,000 sq m
 - Class 1-3 3,000 sq m
 - Class 4 1,000 sq m
- Neighbourhood Centre 3 3,000 sq m
 - Class 1-3 2,250 sq m
 - Class 4 750 sq m
- Commercial Centre 10,350 sq m
 - Class 1-3 3,250 sq m
 - Class 4 3,600 sq m
 - Class 5 1,000 sq m
 - Class 6 1,000 sq m
 - Sui 1,500 sq m
- Town Centre 20,000 sq m
 - Class 1-3 10,000 sq m
 - Class 4 1,150 sq m
 - Class 7 4,000 sq m
 - Class 10 2,950 sq m
 - Class 11 1,900 sq m

Class 1-3	20,000 sq m
Class 4	7,000 sq m
Class 5	4,000 sq m
Class 6	1,000 sq m
Class 7	4,000 sq m
Class 10	18,222 sq m
Including schools	15,272 sq m
Class 11	1,900 sq m
Sui Generis	1,500 sq m
TOTAL	59,622 sq m

Phasing

The phasing plan indicates the order and number of houses that are proposed at each stage of the project. These figures are consistent with those published in the A96 Corridor Masterplan.



Planning application proposal		
		cumulative
Phase 1 2010–16	344	
Phase 2 2016–21	507	851
Phase 3 2021–26	780	1631
Phase 4 2026–31	885	2516
Phase 5 2031–36	960	3476
Phase 6 2036–41	1100	4576
Phase 7	384	4960

Strategic On-Site Infrastructure

Accompanying the development of Tornagrain will be sufficient infrastructure to accommodate the needs of the town as it grows and develops. To illustrate how new roads, sewers and surface water drainage will be provided in a coordinated and efficient manner, the appropriate infrastructure consultants have prepared plans indicating the routes and phasing of the major infrastructure services on site.

A96 Corridor Masterplan		
		cumulative
Phase 1201 - 16	350	
Phase 2 2016 - 21	500	850
Phase 3 2021 - 26	750	1600
Phase 4 2026 - 31	900	2500
Phase 5 2031 - 36	950	3450
Phase 6 2036 - 41	1000	4450

The Planning Application – Submissions

The outline planning application will comprise the following productions:

Planning Statement

This document provides a comprehensive overview of the scheme by quantifying and defining the key principles of the development. The proposal has been assessed against all relevant national, regional and local planning policy.

Landscape Framework

The Landscape Framework will set out the landscaping strategy for the site including details of existing tree retention and loss, as well as details of the proposed planting programme across the site. In addition, the framework will analyse the existing landscape and set out how the landscaping for the town will be integrated within this context.

Design Statement

This Statement will explain the design rationale behind the scheme, identifying the key design concepts which have defined the Tornagrain masterplan. The statement also summarises the site analysis undertaken by DPZ to explain how the key design concepts have been applied to the particular conditions of the site.

Design Code

The Design Code will regulate how the town will be built by setting out a regulatory framework for the entire development. The code will be submitted as part of the application and enforced through a legal agreement.

Environmental Statement

An environmental impact assessment for the scheme has been prepared and will be submitted as part of the application in accordance with Environmental Impact Assessment (Scotland) Regulations 1999.

Construction Environmental Management Plan

A plan outlining the methods for managing and controlling the impacts of the construction of Tornagrain will also be submitted in support of the application.

Access Management Plan

A plan explaining how public access to, and across the site has been prepared; the plan reflects and delivers The Highland Council's aspirations for access to the countryside.

Sustainability Statement

A statement explaining the overall strategy for delivering a sustainable development will also be submitted, illustrating compliance with specific standards and emerging Government sustainability requirements.

Energy Strategy

A strategy explaining the high level approach to delivering renewable energy and minimising carbon dioxide emissions, will also be submitted. This strategy outlines the most suitable option for delivering sustainable development in terms of energy consumption over the lifetime of the development.

Statement of Community Involvement

In accordance with the emerging requirements of the Planning etc. (Scotland) Act 2006 and, in light of guidance contained within Planning Advice Note 81 (Community Engagement – Planning with People), a Statement of Community Involvement will be submitted with the application. The Statement of Community Involvement will summarise the comprehensive programme of pre-application community engagement which has been undertaken by the Estate and has informed the development of the scheme.

The Environmental Statement – The EIA Process

The development has been the subject of an environmental impact assessment (EIA) in accordance with the Environmental Impact Assessment (Scotland) Regulations, 1999. The findings of the assessment will be presented in the form of an Environmental Statement (ES).

EIA is a structured process for identifying the potential environmental effects of a development. The main steps in the process are as follows:

- defining the scope;
- consulting relevant parties;
- carrying out baseline studies;
- predicting the potential effects;
- assessing the significance of those effects;
- identifying and incorporating mitigating measures;
- assessing the residual effects; and
- preparing the ES.

Consultation

Consultation has been undertaken with a wide range of agencies/officers, including THC, the Scottish Environmental Protection Agency (SEPA), Scottish Natural Heritage (SNH) and Transport Scotland. In addition, the EIA has been informed by feedback from public consultation, notably the two previous exhibitions.

Policy Influences

The EIA has taken account of environmental policy at various levels, including:

- international statutes such as the EU Habitats, Birds and Landfill directives;
- national statutes such as the Nature Conservation (Scotland) Act, 2004, and the Environment Act, 1995;
- regulations such as the Water Environment (Controlled Activities) (Scotland) Regulations, 2005, and the Air Quality (Scotland) Regulations, 2000;
- National Planning Policy Guidance (NPPG) such as those relating to Natural Heritage and Transport;
- Scottish Planning Policies (SPPs) such as those relating to Flooding;
- Planning Advice Notes (PANs) such as those relating to Noise, Transport and Sustainable Urban Drainage;
- agency policies, such as those of SEPA;
- the Highland Structure Plan, 2001; and
- the Inverness Local Plan, 2006.

Mitigation

Where adverse effects are likely to arise, mitigation measures have been proposed to avoid or minimise them. Such measures will be incorporated into the scheme (e.g. via the Design Code) or will be the subject of specific provisions to be agreed with relevant parties and implemented by planning condition. For example, construction effects will be controlled through adherence to a Construction Environmental Management Plan (CEMP), the contents of which will be agreed with THC.

Scope

The following topics have been addressed in the EIA:

Topic	Scope of Work
Agricultural Land	<ul style="list-style-type: none"> • Soil survey and classification based on MLURI National Land Classification System (LCS). • Verification and refinement of LCA maps. • Assessment of impact on prime land.
Air Quality	<ul style="list-style-type: none"> • Baseline study using data from THC local air quality management regime, relevant monitoring etc. • Site visit to identify receptors. • Qualitative assessment of construction dust risk. • Prediction of traffic emissions using DMRB method based on AADT flows from transport assessment.
Cultural Heritage	<ul style="list-style-type: none"> • Desktop study based on site visits, SMR etc, to identify areas of interest within site + 3km radius. • Targeted site investigation. • Assessment of impact based on masterplan, extent of ground disturbance etc. • Outline mitigation to form basis of Written Scheme of Investigation (post-application).
Ecology	<ul style="list-style-type: none"> • Phase 1 habitat survey/map. • Over-wintering and breeding bird surveys. • Bat activity survey + inspection of relevant buildings/trees. • Walkover badger + bait-marking surveys; preparation of protection plan. • Amphibian, otter, water vole + red squirrel surveys.
Geo-Environment and Waste	<ul style="list-style-type: none"> • Desktop study of geology + groundwater vulnerability, abstractions etc. • Historic map regression to identify any previous sources of contamination. • Predicted impacts on groundwater + contamination risk. • Review of local/regional waste management regime/disposal constraints. • Calculation of waste streams arising during construction + operation. • Impact on disposal regime, with proposed management strategy.
Landscape + Views	<ul style="list-style-type: none"> • Landscape character appraisal based on SNH approach, Inverness/Inner Moray Firth landscape assessment + local characterisation. • Computer-generated zone of theoretical visibility (ZTV) + viewpoint survey. • Assessment of impacts on landscape character + visual amenity. • Preparation of landscape framework.
Noise + Vibration	<ul style="list-style-type: none"> • Baseline study, including site visit and monitoring. • Assessment of construction noise on basis of BS5228. • Assessment of traffic noise using IMMI 5.3 noise mapping.
Socio-Economics	<ul style="list-style-type: none"> • Baseline study to identify structure of local economy, demographics etc. • Assessment of impacts on labour supply, housing market and social infrastructure.
Surfacewater Drainage and Flood Risk	<ul style="list-style-type: none"> • Topographic survey of Mid Coul Burn. • Flood risk assessment compliant with SPP7. • Stormwater runoff calculation and outline drainage strategy compliant with SUDS principles as per CIRIA C697. • Qualitative assessment of potential impacts on surfacewater quality.
Transport	<ul style="list-style-type: none"> • Agreement of study area with THC and Transport Scotland. • Traffic generation based on TRICS 2007(b) database. • Assessment of strategic traffic impact using VISSUM modelling. • Assessment of junction capacity impact using VISSIM micro-simulation modelling. • Qualitative assessment of impact on non-car modes. • Identification of any physical mitigation requirements and preparation of outline Travel Plan.

The Environmental Statement – The Predicted Effects

Agricultural Land

The development would necessitate the removal from agricultural use of about 26 hectares of prime land. The policy tests relating to prime land take account of whether alternative sites are available. Since much of the A96 Corridor is prime quality land, it is unlikely that a development of this scale could be accommodated anywhere else without giving rise to a similar impact.

Air Quality

Residential properties within Tornagrain, together and others in the surrounding area, are sufficiently close to the site to be potentially affected by fugitive dust emissions during construction. However, with the adoption of mitigation and monitoring as part of the CEMP, any such risk is considered to be low.

Development traffic using the A96 will give rise to increased emissions of fine particulates (PM10) and nitrogen dioxide (NO₂). However, the order of increase will nowhere be greater than 3%, and concentrations of these pollutants are predicted to remain comfortably below the limit values prescribed under the Air Quality Strategy.

Construction traffic will represent a very small proportion of development traffic. As a result, its effect on air quality will be negligible, even allowing for the higher proportion of HGVs.

Cultural Heritage

A written scheme of investigation (WSI) for archaeological features will be agreed with THC by way of planning condition, and will be carried out prior to construction. The results of the investigation will confirm any need for specific mitigation such as watching briefs or in-situ preservation.

Ecology

The development will result in the loss of all agricultural land within the site, and more than half of the coniferous plantations. Whilst these habitats are of limited importance, Tornagrain Wood possesses elevated botanical and ecological interest compared to less mature plantations. These impacts would be mitigated in the long-term by the enhanced biodiversity achieved by the proposed landscape strategy.

There is a risk of effects on the adjoining Kildrummie Kames SSSI due to trespass during construction or to uncontrolled access by new residents. Impacts during construction will be avoided by the enforcement of a

fenced buffer zone adjoining the SSSI, whilst long-term access would be permitted only as part of an Access Management Plan.

Slavonian grebe have been recorded on an irrigation pond within the site, whilst a disused quarry face supports a relatively large colony of Sand Martin. The pond will be monitored to confirm their presence; if so, a replacement water body will be created off-site. A new cliff face or nesting boxes will provide replacement breeding sites for Sand Martin.

Otter are known to commute regularly along the burns within the site, but no evidence of breeding or resting sites has been found. Potential effects on otters will be minimised by retaining certain features.

Small numbers of Red Squirrel and Common Pipistrelle Bat have been found within Tornagrain Wood, which is also suspected to lie within the hunting territory of a pair of Goshawk. The construction programme will be adjusted if necessary to avoid any such impact as far as possible.

Buildings at Mid Coul Farm support a mixed species bat roost. These buildings are to be retained; conversion work on them will be carried out under licence and will avoid disturbance to roosting sites wherever possible.

The site falls within the territories of five separate social groups and includes one main sett. A Badger Protection Plan will be agreed with SNH. Key elements of this plan include the delineation of buffer zones during construction, retention of the main sett, provision of green corridors through the built-up area and enhancement of habitats both on- and off-site to improve their foraging value.

Geo-Environment and Waste

Site investigations have revealed no evidence of ground contamination. Measures will be implemented as part of the CEMP to ensure that groundwater and soils are protected from potential sources of pollution such as oil spills.

The development has the potential to give rise to substantial volumes of waste both during construction and following the completion of each phase. Construction wastes will be managed as part of the CEMP. The management of household waste is primarily a matter for THC; however, it is anticipated that the development will incorporate features such as segregated storage and neighbourhood composting at the detailed stage.

Landscape and Views

The development will represent a fundamental change to the character of the site, including key characteristics of the Forest Edge Farming and Intensive Farming landscape character types in which it is located. A range of views are likely to be affected, including those from nearby residential properties, the A96, the surrounding countryside and more distant locations such as the Black Isle and Fort George. The main impacts on such views will relate to the loss of woodland and the introduction of a substantial area of built development, together with night-time lighting.

The masterplan and the landscape strategy seek to mitigate adverse impacts by retaining key features wherever possible, as part of a coherent network of open space (e.g. most of High Wood), and by creating landscaped buffer zones along the most visible edges of the site (e.g. the A96).

Noise and Vibration

Residential properties closest to the site could experience some disturbance due to noise during the construction phase. However, noise control measures based on best practicable means will be agreed as part of the CEMP, with the aim of ensuring that the risk of disturbance is minimised.

Noise from development traffic is predicted to give rise to increases of no more than 1.0dB over future baseline levels at most locations; such increases are negligible.

Surface Water Drainage and Flood Risk

The development will represent a fundamental change in the runoff characteristics of the site, giving rise to a potential increase in the volume of stormwater discharged into local catchments, notably the Mid Coul Burn. This increase is undesirable and will be mitigated through the implementation of a sustainable drainage strategy. The precise elements of this strategy are likely to comprise a combination of soakaways, swales and attenuation ponds.

Potential pollution risks to watercourses during construction will be avoided through adherence to the CEMP.

Socio-economic Assessment

The socio-economic studies undertaken by DTZ are a key part of the Environmental Impact Assessment. The studies have produced population projections, examined the local economy and its key sensitivities and quantified the social infrastructure such as schools and healthcare that will be needed in Tornagrain.

As reported in the November 2007 exhibition DTZ has modelled three population growth scenarios for the Inverness – Nairn area using General Registry Office for Scotland (GROS) data, but crucially also examining the impact of different in-migration outcomes. This model has recently been reviewed with the latest GROS data and extended to 2046 to match the expected length of the Tornagrain development process.

The model shows ‘high case’, ‘low case’ and ‘ideal case’ scenarios. The high case assumes in migration (which is both from the rest of the UK and overseas) continuing at recent high levels. The low case assumes migration falls to very low levels and below the level at which it offsets an ageing and shrinking population. Neither outcome is considered by DTZ to be likely. The ideal case assumes migration levels are reduced from current levels but remain relatively buoyant (they are supported by recent employment trends). As can be seen this scenario also supports policy makers assessments of a population in the Inverness – Nairn area over the next 30 years or so of in excess of 100,000.

DTZ has also looked at how this translates into household requirements. Because of falling household size significant increases in household numbers are expected in all scenarios. Requirements exceed 18,000 for the Inverness – Nairn area in the ‘ideal case’.

The socio-economic report makes clear that for the Inverness – Nairn area to continue to prosper the area needs to maintain focus on economic diversification and strengthening the local economy. The local economy remains focused on the service sector and the public sector.

However, DTZ point to positive moves such as Inverness Airport Business Park, the proposed UHI Beechwood Campus and the Centre for Health Science as clear examples of change.

The extent of required social infrastructure has also been quantified. DTZ indicate that a single stream primary school is required from the outset with continual expansion of capacity (additional streams and schools) to four double stream primary schools. The secondary school is not forecast to be required until the 2030s but this timescale will need to be debated further in order to clarify uncertainty over capacity of other schools in the area and the pace of growth of Whiteness.

The first General Practice health facility is forecast by 2015 with again a continual expansion to a possible ‘super’ practice with community nursing by project completion.

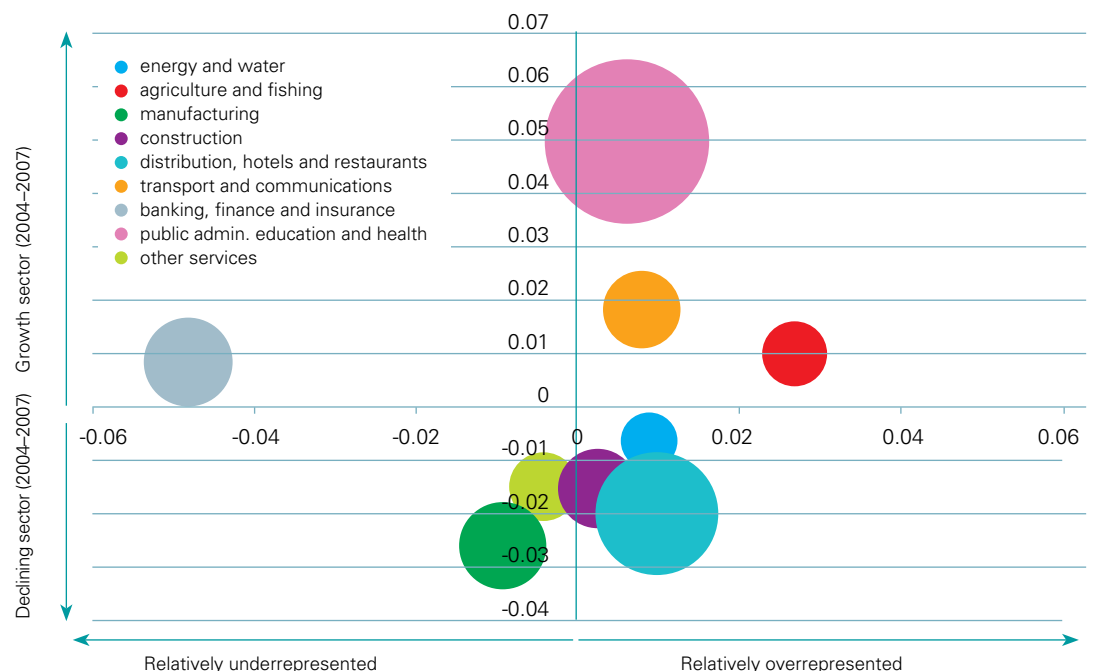
DTZ has also carried out a retail assessment of the project to assist in quantifying the level of retail required to support the needs of the community but not impacting on other communities. As well as comparative assessments with communities around Scotland, detailed assessments of Nairn and Forres have been undertaken being similar sized communities in the settlement hierarchy. This work has informed the extent and category of retail capacity planned.

Population and household projections for the Study Area, 2006-2046

	2006	2011	2016	2021	2026	2031	2036	2041	2046
High Case									
Population	80,836	88,158	95,808	103,450	110,870	117,899	124,545	130,703	136,589
No. of households	36,744	41,389	46,284	51,213	56,279	61,088	64,531	67,772	70,772
Ideal Case									
Population	80,836	84,628	88,566	92,364	95,873	98,968	101,688	103,954	106,09
No. of households	36,744	39,732	42,785	45,725	48,666	51,279	52,688	53,862	54,927
Low Case									
Population	80,836	81,419	81,982	82,287	82,239	81,757	80,909	79,637	78,208
No. of households	36,744	38,225	39,605	40,726	41,745	42,361	41,922	41,263	40,522

Source: DTZ

Job growth, decline and specialisation by sector, Highland Council 2004-2007



Source: ABI data adapted by DTZ

Transportation Assessment

Savell Bird and Axon is the consultancy responsible for providing Transportation advice on the outline planning application for Tornagrain. Their assessment has been at three different levels:

- A quantitative assessment of the traffic generated by the development proposals looking at its impact throughout the town and beyond in terms of the car as well as other modes of transport.
- High level modelling of specific stages of the development to assess the impact arising from the development proposals on the surrounding road network at a strategic level.
- Detailed modelling of the impact arising from the development on the local road network.

The A96

The A96 west of Inverness Airport currently carries around 1,400 vehicles in the peak hour, while the section east of the airport carries around 1,000 vehicles in the peak hour.

Over time, the traffic on the A96 and the other roads within the A96 corridor will increase as proposed development within the corridor comes forward. The proposed level of development over the next 30 years is provided within the A96 Growth Corridor Development Framework, which includes 16,500 new residential units and some 700,000 sqm of employment, leisure & community facilities. The proposed development at Tornagrain is included in these figures.

The level of development that is finally delivered will be strongly influenced by market forces, which will drive demand for the facilities. Thus, it is difficult to predict with certainty, the transport infrastructure that will be required to support the level of future development within the A96 corridor.

The Highland Council commissioned Faber Maunsell to undertake strategic modelling work of the highways infrastructure within the corridor until 2041. This modelling work considered the worst case traffic scenario based on the proposed level of development discussed above.

Development at Tornagrain has been evolved assuming an “off-line” upgrade of the A96 as a long term solution, which would allow long distance (through traffic)

and local traffic to be separated. This will enable Tornagrain to be better integrated with the existing facilities in the area, namely Inverness Airport and Dalcross Industrial Park, as well as the proposed development at Inverness Airport Business Park (IABP).

Sustainable Transport

The off-line A96 option enables a more sustainable community to be created. Emphasis has been placed on promoting walking and cycling opportunities both within the scheme and on links to the business park and the airport. The planned rail halt at Dalcross is within walking distance of the residents of Tornagrain and this will offer an additional travel mode for journeys to Inverness and Nairn. There are also proposals to improve short distance and long distance bus services between Tornagrain and its neighbouring centres.

The mix of land-use within Tornagrain means that many of resident’s everyday needs will be within walking distance of their homes, thus reducing the number of trips that need to be undertaken to areas outside of Tornagrain. Inevitably, external trips will be made and the impact of these on the wider transportation network has being carefully assessed.

Local Highway Infrastructure

The local highway infrastructure that is required to support the level of development proposed at Tornagrain (and taking account of Inverness Airport Business Park) has been developed. The modelling suggests that a much improved A96 alignment at Mid Coul will be needed by 2021 and that at that stage there will be an emerging requirement for the “off line” alignment. However, these conclusions must be considered in the context of uncertainty about the rate of background traffic growth. In practice, the pace of growth could be considerably slower.

Over the long term, the aim is that through traffic (the majority of traffic on the A96 in the future year scenarios) will by-pass the proposed residential settlement thus reducing delay on these journeys, while vehicles with a local destination (including Inverness Airport, Dalcross Industrial Estate, the proposed IABP and Tornagrain) will use the “downgraded” A96 road to access their destination.



The Design Code

The Tornagrain Code is intended to govern the development of the town of Tornagrain, and to enable the town's built form to follow the principles articulated in the master plan.

The Code is transect based, meaning that it categorises elements of the town's built environment using a tool called the Transect Zone. The transect explicitly defines different characteristics of a place, and is split into six T zones moving from rural to urban with T1 being the natural zone, and T6 the urban core. This pattern of zoning has underpinned the exercise of producing a code to regulate the development of the masterplan for Tornagrain, although it is important to note that not all zones will be present in the town.

Aim

The Tornagrain Code will

- Enable the construction of the new town of Tornagrain as delineated in the master plan
- Ensure appropriate town planning both at a town-wide level, down to the community scale, and onwards to the individual plots.
- Integrate the design process across professional disciplines
- Provide compatible architectural, environmental, signage, lighting and visitability standards for the town as a whole
- Utilise the 'transect zone' design tool, which classifies the condition of the built environment from urban to rural
- Encourage and protect development patterns which are mixed-use and pedestrian friendly
- Encourage efficient administrative building approval
- Enable architects and master planners to continue to follow the plan for decades to come

Authority and Application

The Code will be a part of any planning permission obtained for Tornagrain. The Highland Council will therefore use the code as a tool for decision-making on all subsequent detailed planning applications or reserved matters submissions for the development of the town in phases over time. A commitment to the adoption and status of the code will therefore be included in the section 75 planning agreement attached to any outline planning permission.

The guidance set out within the code is activated by "shall" when it is required; "should" when recommended; and "may" when optional.

It is also the intention that the guidance contained in the code shall take precedence in situations where there is a conflict with other codes, ordinances, regulations and standards. The exception being with Building Regulations.



T1 Natural

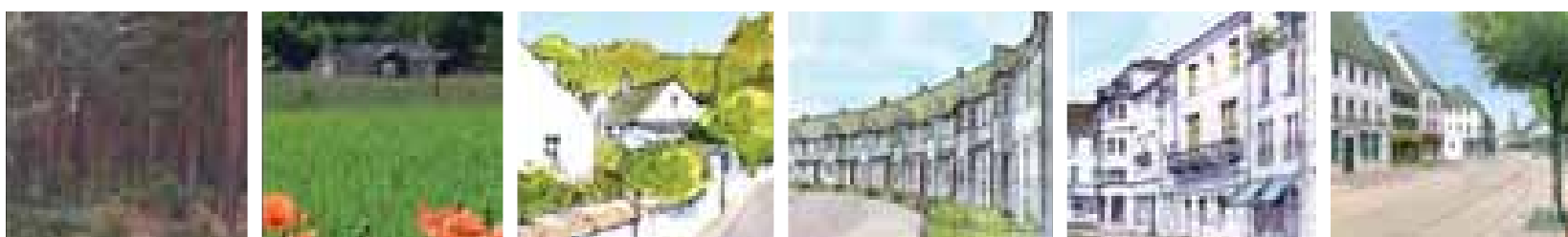
T2 Rural

T3 Sub-urban

T4 General urban

T5 Urban centre

T6 Urban core



T-1 Natural Zone consists of areas approximating or reverting to a wilderness condition, including lands unsuitable for settlement due to topography, hydrology or vegetation.

T-2 Rural Zone consists of sparsely settled areas in open or cultivated states. These include woodland, agricultural land, grassland, and irrigable desert. Typical buildings are farmhouses, agricultural buildings, cabins, and villas.

T-3 Sub-Urban Zone consists primarily of lower density residential areas, that has some mixed use. Home occupations and outbuildings are allowed. Planting is naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.

T-4 General Urban Zone consists of a mixed use but primarily residential urban fabric. It may have a wide range of building types: single, Semi-detached, and Terrace houses. Setbacks and plantings are variable. Streets with kerbs and Footpaths define medium-sized blocks.

T-5 Urban Centre Zone consists of higher density mixed use building that accommodate retail, offices, Terrace houses and apartments. It has a tight network of streets, with wide Footpaths, steady street tree planting and buildings set close to the Footpaths.

T-6 Urban Core Zone consists of the highest density and height, with the greatest variety of uses, and civic buildings of regional importance. It may have larger blocks; streets have steady street tree planting and buildings are set close to wide Footpaths. Typically only large towns and cities have an Urban Core Zone.



Left: The Regulating Plan
Above: Extract of street design from the Design Code

Intent

The intent and purpose of this code is to enable, encourage and qualify the implementation of the following policies:

The Neighbourhood

- Neighbourhoods should be compact, pedestrian-orientated and of mixed use.
- A district specialising in a single use should be the exception.
- The ordinary activities of daily living should be within walking distance of most dwellings.
- Interconnected networks of thoroughfares should be designed to disperse traffic and reduce the length of car trips.
- A range of housing types and price levels should be provided to accommodate a diverse community.
- An appropriate range of building densities and land uses should be provided within walking distance of public transport links.
- Civic, institutional and commercial activity should be focused within core urban areas.
- Schools should be sized and located to enable children to walk or cycle to them.
- A range of open space including parks, squares and play areas should be appropriately distributed within neighbourhood areas.

The Block and the Building

- Buildings and planting should contribute to the physical definition of thoroughfares as civic places.
- Development should respect the role of the pedestrian and importance of public space whilst also accommodating the car.
- The design of streets and buildings should reinforce safe environments.
- The architecture and landscape design of Tornagrain should relate to the characteristics of the site and history of best practice design and building of the Highland region.
- The buildings should make use of energy efficient methods in construction and operation.
- Civic buildings and public spaces should reinforce community identity.
- Civic buildings should be distinctive from other buildings that constitute the fabric of the community.

The Regulating Plan

The Regulating Plan for Tornagrain assigns the different transect zones across the town. For Tornagrain – and having regard to the explanation of each zone as set out earlier - these are T3, T4, and T5. Each transect zone has specified within the Building Regulations the type of development that is permitted.

Street Hierarchy

The Code sets out a Street Hierarchy Plan for Tornagrain and this provides guidance for the design of public thoroughfares across the town. This hierarchy has a direct relationship with the building regulations provided for the blocks, and development within these blocks, across the town. This hierarchy brings together the detailed descriptions and dimensions provided for each of the different thoroughfare types. An example of the Vehicular Thoroughfare dimensions is set out above by way of illustration.

Building Regulations

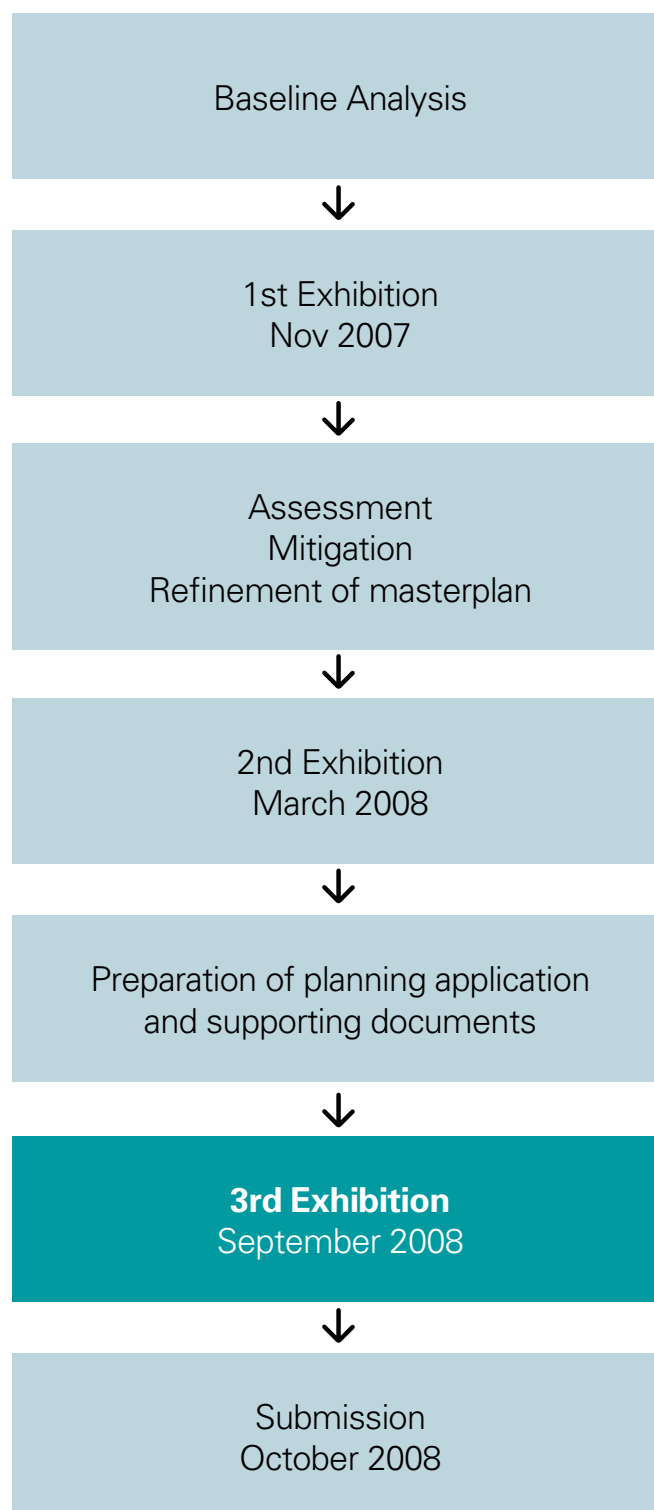
The layout and design of plots and buildings located within Tornagrain shall be governed by the Code. To this end, the code provides detailed guidance for developers contemplating the layout of a plot and design of a building, in terms of:

- The location of a building on a plot.
- The configuration of a building on a plot.
- The function of a building.
- Parking layout and location.
- Landscape.
- Signage.
- Lighting standards.
- Architectural standards – in terms of roofs, walls and openings.
- Environmental standards.

Next Steps

Thank you for taking the time to visit this exhibition and we hope you have found it informative.

As you can see, work on the planning application is largely complete and we expect to be lodging the application during October 2008. The submission will then proceed through the statutory process with the Highland Council. Notwithstanding this, we welcome the opportunity for continued debate and we continue to be pleased to answer any specific queries that you may have.



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