

Perth West - The Site

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3.1 Site Description

The site is approximately 285 ha in size. It is bounded by the A9/Broxden Roundabout along the eastern and southern perimeters, the A85 to the north, and a combination of shelterbelt and woodlands to the west which stretch from Lamberkine Wood in the south to the Tibbermore Road in the north along the eastern boundary of Blackruthven House.



3.2 Land Ownership

The site comprises of 4-6 land owners as identified within Figure 3. The major landowners are the John Dewar Lamberkin Trust (JDLT) and Muir Homes (MH). JDLT owns the majority of the land within the south and east of the plan area, while Muir Home's ownership extends mainly along the central portion of the plan area. MH and JDLT land ownership enables initial stages of development to proceed from the Broxden underpass, with emergency access provided through the Burghmuir Bridge, which connects directly to MH land. There are a limited number of existing dwellings and farmhouses located within different parts of the plan area. Historic maps also identify the presence of a variety of farmhouses within the plan area.

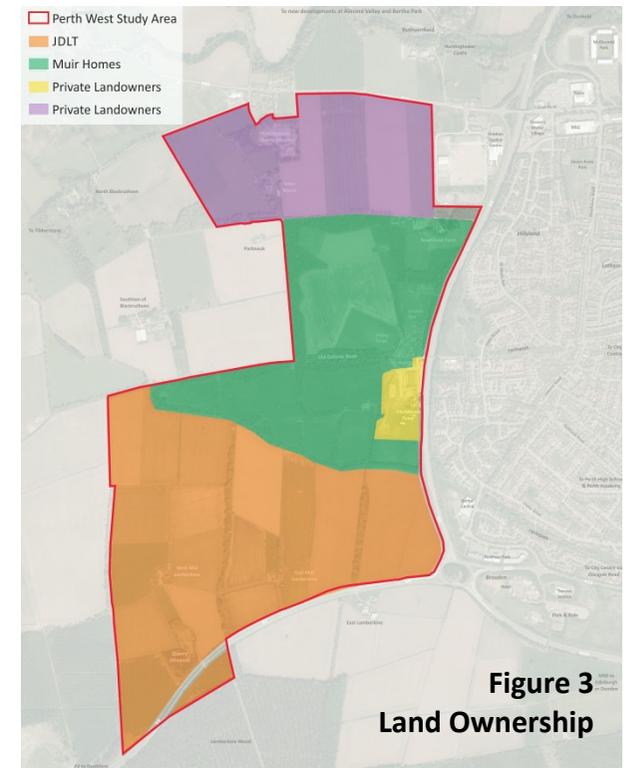


Figure 3
Land Ownership

3.3 Topography & Vegetation

The site contains large amounts of agricultural land with scattered areas of woodlands, and scrub grassland mainly located along field boundary lines and adjacent to existing properties, as identified in Figure 4. The lowest lying portion of the site exists along the northern boundary of the plan area adjacent to the A 85. There is a rise of approximately 65 metres from the lowest point of the site to the highest point (Figure 5), which is located along the southern boundary of the site adjacent to the A9. A high point also exists in the vicinity of the Gallows Road entrance along the eastern boundary of the plan area. The topography grades are pretty consistent in an east west direction for the most part throughout the site with the slope directed in a mainly north south orientation.



Figure 4

Existing Woodlands & Green Networks

The mature woodland forming West Lamberkine, Lamberkine and Broxden are commercial plantations comprising a mix of traditional species including spruce, birch, Douglas fir and larch, as shown on Figure 4. Much of this was planted in the 1970 under a different forestry regime and all areas will be replanted under the approved forestry plan with the same species mix.

3.4 Geology and Ground Conditions

A report previously completed for the site identifies the superficial deposits as mainly Till Devensian, and a limited

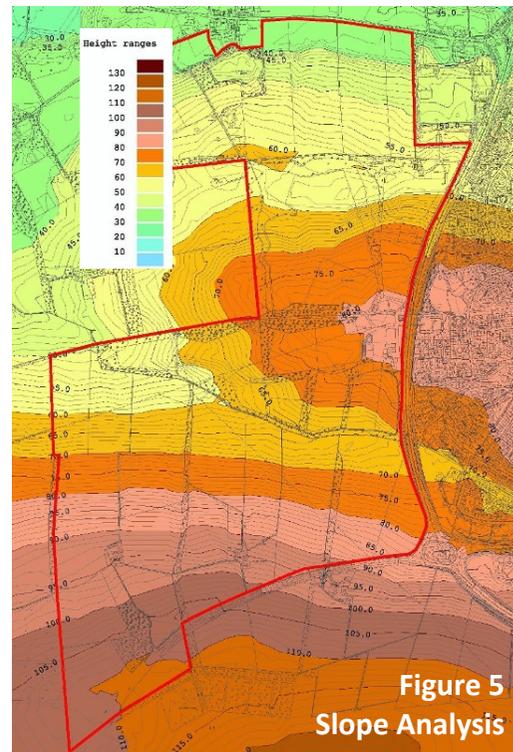


Figure 5

Slope Analysis

amount of Glaciofluvial Sheet Deposits located within the north of the plan area. The solid geology underlying the area comprises Scone Sandstone of the early Devonian Age. There are outcrops of Central Scotland Late Carboniferous Tholeiitic Dyke Swarm of the type quartz-microgabbro of the Silesian Age evident within the sandstone. The strata are bisected by a northwest to southeast trending fault.

3.5 Site Constraints

Mining and Quarrying

There is a disused quarry in the north western corner of the site bound by two smaller areas of quarrying to the south west of the large quarry. Early cartographic sources reveal that the quarry was operational during the early to mid 19th century; a map produced in 1866 indicated the quarry was in operation, while a map dated 1901 illustrates that work at the quarry had ceased. During the late 20th century the quarry was used as a landfill site finally capped circa. 1995.

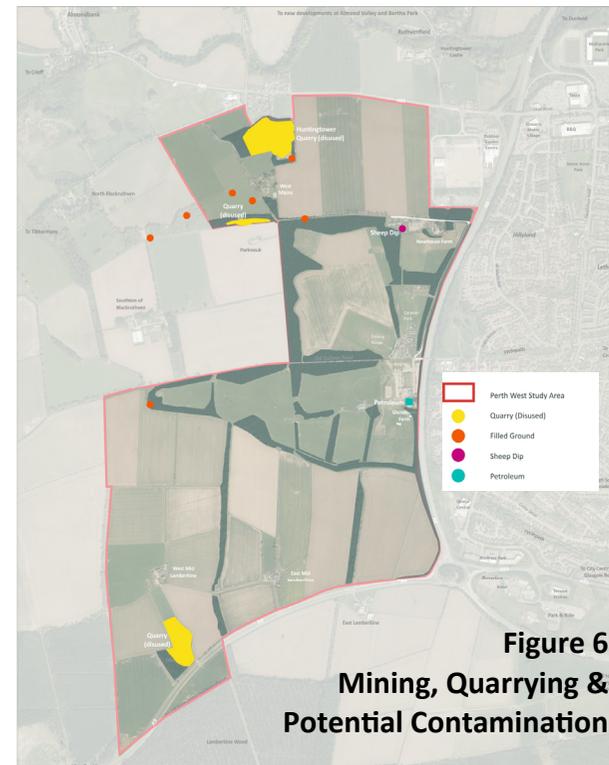


Figure 6
Mining, Quarrying & Potential Contamination

The ground stability data for the area notes that the area is at very low risk from both compressible and collapsible ground stability hazards. The risks of landslide and ground dissolution are also noted as very low. The potential for running sand and shrinking or swelling clay is noted to be very low.

Potential Contamination

Perth and Kinross identified a number of areas of potential contamination located within the plan area (Figure 6). A geo-environmental audit will be required at the more detailed design stage to determine the level of contamination and remediation requirements for these areas. These include mainly former quarry sites, a petroleum storage tank, an underground chemical storage tank within the Noah's Ark site, and a former sheep dipping station. Mineral workings such as sand and gravel quarries are considered to be low risk in terms of contamination. Perth and Kinross Council have indicated that the Huntingtower Quarry is being



actively filled in with controlled inert material, with the other quarries having been previously in-filled, details of which are not available at this time.

3.6 Landscape Analysis

Landscape Character

The site offers a high quality agricultural landscape of distinctive character and with an interesting cultural heritage associated with historical activity and landscape management. There are no Landscape Designations on the site. The Perth West (H70) site straddles two landscape character types in SNH's Tayside Landscape Character Assessment (1999):

- To the south and west the Lowland Hills LCT: Gask Ridge
- To the north and east the Lowland River Corridors LCT: Glen Almond

The Lowland Hills are a medium scale lowland agricultural landscape with the following key characteristics:

- low ridges and hills separating lowland straths and adjoining the nearby uplands
- composed of soft, red sandstones
- transitional character with pastures on lower slopes, giving way to rough grazing and even open moorland
- evidence of several phases of historic settlement
- extensive woodland, including forestry plantations
- influence of modern development

The Gask Ridge is the lowest of the Lowland Hills areas. The areas show abundant signs of settlement over past millennia but existing built development is low key: mainly in the form of farms, castles and villages. Influences of more modern infrastructure and development include electricity transmission lines, the A9 Perth bypass and new housing in the western suburbs of Perth.

The Lowland River Corridors are a small-medium scale semi-enclosed lowland landscape with the following key characteristics:

- well-defined river corridors in broader lowland landscapes
- meandering, often incised course through softer sandstones
- semi-natural woodland on steeper slopes
- rapids, weirs and mills where harder rocks cross the valley

The Glen Almond corridor is significantly smaller in scale than the Tay to the northwest. Settlement is mainly in the form of mill villages and country house estates. To the northwest it quickly becomes a narrow glen. However in the vicinity of Perth it more resembles the wider Tay valley. Close to Perth it is crossed by the A9 Perth bypass and by electricity transmission lines. Close into Perth the flat area between the Almond and Tay is developed for industrial and business use and within the bypass the football stadium and housing areas are located.

Woodland, Trees and Shelter Belts

The landscape contextual appraisal identified three distinctive areas of landscape character within the locality. These reflect the urban form of Perth and the topography, valley catchments and hydro-geomorphology of the wider Earn and Almond valley systems. Key elements include:

- The western edge of Perth which forms an abrupt transition between the urban area and the surrounding rural land further reinforced by the A9 dual carriageway.
- The farmland of the broad valley of the River Almond characterised by open fields with mature hedgerow trees, stone walling, scattered woodland and historic features.
- Open upland landscape framed by commercial woodland plantations on the high ground between the valleys of the Almond and the Earn.
- There is distinct rectangular boundary of fields, shelterbelts, and drainage channels reinforced by green networks which help to create a local distinctiveness.

A number of studies and assessments have been made of the landscape character and quality that highlight the need to give consideration to:

- Creation of a new outer western edge which links shelterbelts and woodlands, and incorporates new tree planting, providing a transition between town and country. This will be reinforced by the West Lamberkine Wood commercial forest. This will help define the long term western boundary of the city.

- The opportunity presented by the MF is to integrate and reinforce this woodland on the western and southern boundary of the site, create a robust and defensible long term boundary to the City of Perth, reflecting the Scottish Planning Policy objectives on place making and the role of the green belt. Land between the site and this commercial forestry (which is designated green belt), is the location for a proposed upgraded A9 junction and associated transport infrastructure. Including this land within the MF will reflect this anticipated land use change and enable the management of these large areas of forestry to be integrated with the MF.
- Extend and strengthen the existing structure of woodlands, hedgerow trees, and shelterbelts to create contained areas of development within the site.
- Incorporate the powerline rights of way to create a secondary green network, and incorporate these networks with potential SUDS ponds.
- Enhance the green corridor along the A9 to control outward views where appropriate and provide a quality of driver experience.
- Ensure road and footpath connections are enhanced and created between the Masterplan Framework area and existing development located to the east, and to areas located to the north and south of the plan area.



3.7 Hydrology

Watercourses and Drainage

The Groundwater Vulnerability Map indicates a major or highly permeable aquifer i.e. highly permeable strata usually with a known or probable presence of fracturing. The superficial soils are recorded mainly as soils of intermediate leaching potential.

Flooding

The SEPA Flood Extent Map indicates that the site is not at risk of river flooding from a 1 in 200 (1:200) year return period event. However, there are small pockets within the site which are identified as low (1:1000) and medium (1:200) risk to surface water flood risk. The nearest river water flooding areas are located 400m to the west of the site boundary, with the affected water course being at a lower elevation than the plan area. There is also a watercourse shown 400m northwest of the plan boundary, which is also at a lower elevation to the plan area. The Flood Map does not show flood risk for catchments of less than 3km². Therefore it should be noted that there will be a functional flood plain at medium to high risk of flooding associated with the small tributary of the burn that runs through the site, which should be safeguarded.

Surface water flooding was recorded in 2011 on the A85 and adjacent to properties due to surface water runoff from the site. The development of this site should be considered holistically with other proposals in the area taking into account infrastructure projects, the flood prevention scheme and Almond Valley development.

Surface Water Drainage

Analysis of the height band, slopes and site contours indicates that the site subdivides into three or four sub-catchments (Figure 7). Regional SUDS treatment would be located along the western boundary of the site linking with the existing watercourses. The surface water runoff from the development will be attenuated and treated using sustainable drainage systems (SUDS), prior to discharge. The discharge locations will require to be investigated at the feasibility/detailed design stage of the development, and is likely to include outfalls to local watercourses.

Surface water drainage for development of the site would be designed to the requirements of both SEPA and Scottish Water and provide levels of treatment appropriate to a residential/ mixed use development for which two stages of treatment are considered appropriate. Employment land areas would require 3 or 4 stages of treatment. In addition to treatment, attenuation to green field run off equivalents will be required through surface water features, basins, swales, wetlands, pipe storage, filter drains and other recognised surface water management train features.

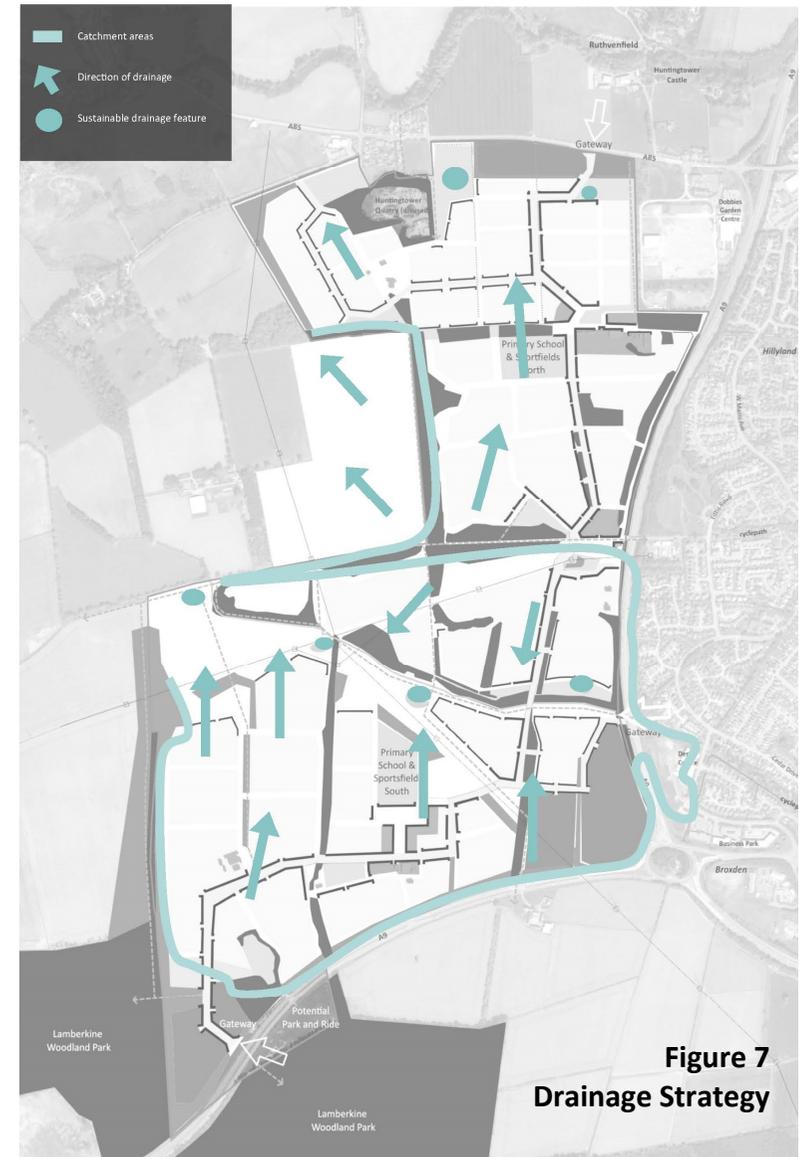


Figure 7
Drainage Strategy

3.8 Existing Utilities

Reasonable Cost Contributions for each housing unit will be provided for foul, surface water and drinking water based on rates set out by Water Industry Commissions. The details of these infrastructure costs and contributions will be explored at the more detailed Masterplan stage. Figure 8 identifies the various site constraints.

Water Supply

An asset capacity check online of Scottish Water records shows that a water supply capacity of 2000 residential unit equivalents currently exists within the local water treatment works. Suitable connection point(s) within the Scottish Water system will be identified following detailed water impact assessment work. Given the size and nature of the development it is likely upgrading will be required to the existing network. A previous development enquiry with Scottish Water in 2012 identified that there is sufficient capacity to service the demands from the proposed development, but there is insufficient infrastructure capacity to serve the site. A full network model and WEIA is required to assess impact and possible ways to serve the development.

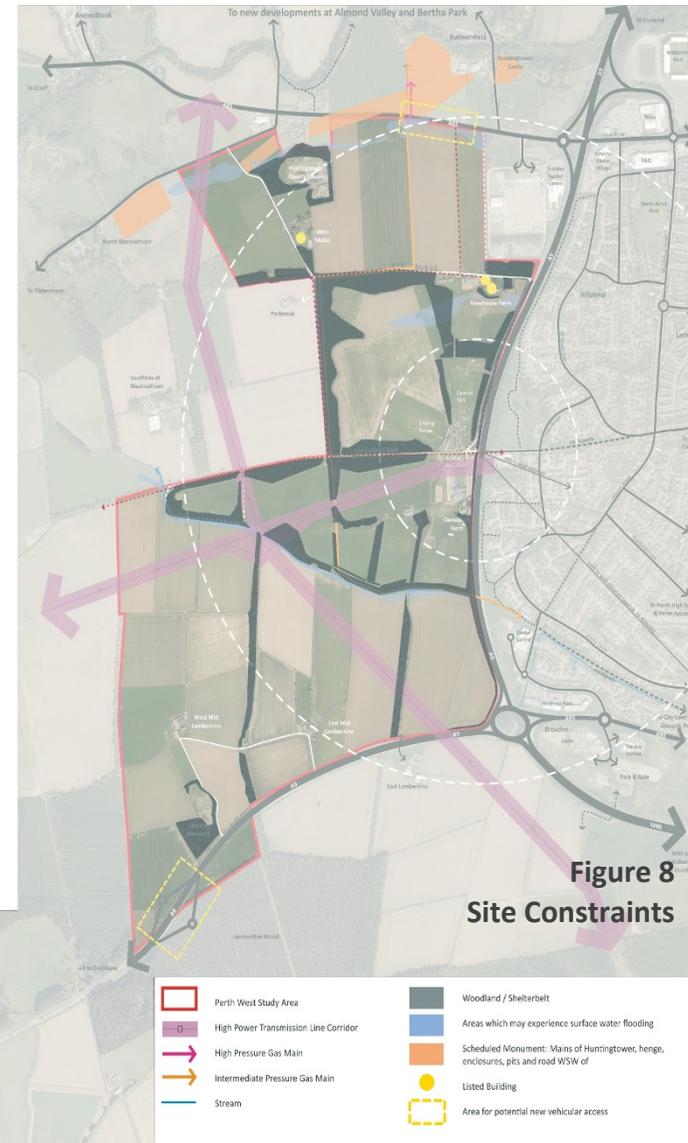
Foul Drainage

The existing foul drainage system will be investigated and integrated as part of the plan area foul drainage solution. It is anticipated that the foul drainage solution for the site will comprise a combination of gravity and pumped solutions. This is dependent on the existing Scottish Water network within the locality. It is anticipated that it may be necessary to pump foul drainage from the western boundary to an existing network located to the east. The scale of the proposed development will necessitate a Drainage Impact Assessment (DIA) study in order to assess the impacts of the development on the existing sewer network. It is anticipated that upgrades to the existing network and treatment works will be required as a result of the proposed development. Scottish water is obliged to fund network upgrades to their Part 4 assets in the event of a consented development demand. A previous enquiry to Scottish Water in 2012 identified that there is sufficient capacity in the Perth City Waste Water Treatment Works to service the demands from the development for foul only.

Electricity and Gas

A network of large transmission overhead electricity cables traverse the site. A 132kV overhead cable bisects the site from west to east and terminates at the Burghmuir Supergrid Substation located near Glendevon Farm. A high voltage overhead line runs along the western site boundary in the northern part of the site area, in the south this cable bisects the site from northwest to southeast. A lower voltage overhead system exists within the plan area which serves the local farms and properties. An intermediate pressure gas main operating in excess of 7 bar runs through the centre of the site from the A85. Low pressure mains serve the local farms. A fibre optic telecommunication network is attached to the 132kV overhead pylon system. The various site constraints can be seen in Figure 8.

Detailed analysis of existing networks and any diversion requirements would take place through the design process for the site. Due to the size of development it is likely that off site upgrades will be required to service the potential scale of new development. It may prove challenging to provide a gas network and district heating system, if the district heating system is deemed a viable option within the site.



3.9 Cultural Heritage

Battlefields

The Battle of Tippermuir is identified within Historic Scotland's Inventory of Battlefields as a nationally significant battlefield. Part of the Perth West Masterplan Framework area is within this battlefield area.

The Battle of Tippermuir was fought on the 1st of September 1644 between the Royalists under James Graham, the 1st Marquis of Montrose, on behalf of Charles I and the Covenanters, led by Lord Elcho. It was the first victory of an extraordinary campaign led by Montrose to seize Scotland from the Covenanter government of Scotland who had allied themselves with the English Parliamentarians and entered into the English Civil War earlier in the year. The battle is remarkable as despite their lack of cavalry and artillery, the Royalists inflicted a devastating defeat on a much larger Covenanter army.

The boundary of the Battlefield as defined by the Inventory is shown on Figure 9a. The Inventory suggests Montrose deployed in an area north of West Lamberkine Wood and southeast of Tibbermore, with the Covenanters lines located to the west of Glendevon Farm. There is ongoing discussion as to the exact events and location of the battle however the Inventory identifies the following areas, some of which are located inside the Masterplan Framework area:

- Old Gallows Road - likely to have formed the focus of both deployments.
- The village of Tibbermore through which the Royalists advanced to deploy.
- The high ground of the Lamberkine Ridge and West Lamberkine Wood that Montrose took on the Royalist right flank.
- The area around West Lamberkine Farm where most of the fighting it thought to have occurred.
- The area west of Glendevon Farm, where the Covenanter army initially deployed.

The Old Gallows Road was the key westerly route in and out of Perth up until the 18th century. It survives as farm track and public right of way within the Perth West area. Described by a contemporary source as a

'broad open plain' (Wishart 1647), the battlefield is now predominantly enclosed farmland with little impact from suburban development, industrial activity or forestry. There is currently no monument to commemorate the battle and its existence and significance is relatively unknown locally (pers. comm. Perth and Kinross Heritage Trust).

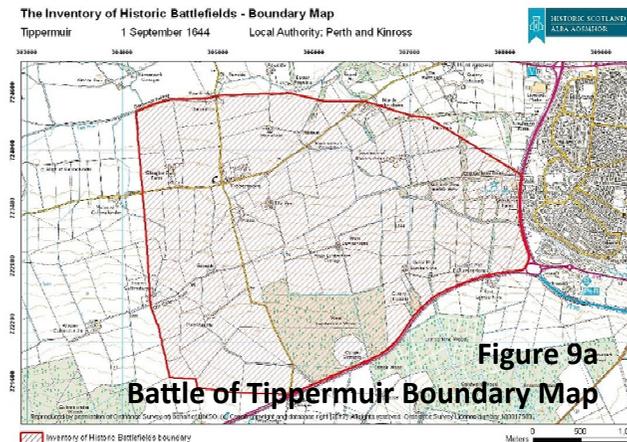


Figure 9a
Battle of Tippermuir Boundary Map

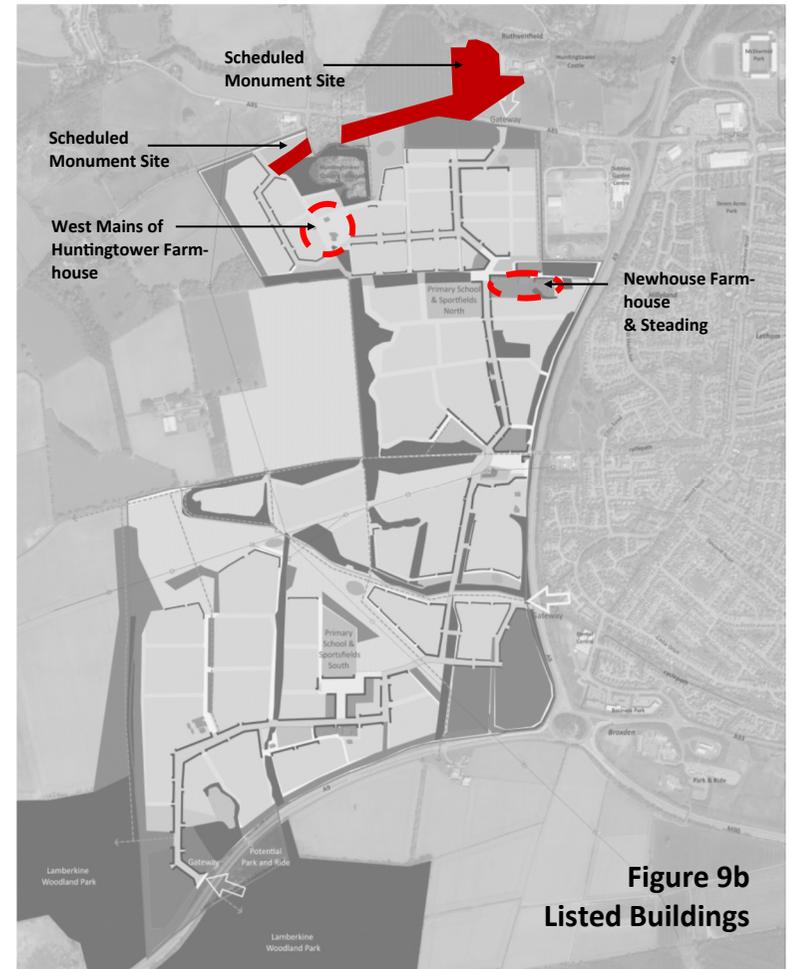


Figure 9b
Listed Buildings

A Conservation Masterplan, which will be completed prior to the detailed masterplan stage, will provide detailed information in relation to the battlefield, how it can be protected and enhanced within the development and agree any mitigation to lessen the development's impact. It will also consider opportunities for converting the existing farm steadings, potential community involvement in battlefield research, and enhancement of historic features such as the Old Gallows Road.

Listed Buildings and Monuments

There are a range of listed buildings located within the parish of Tibbermore. Within the boundaries of the plan area there are the following listed buildings (which are incorporated into the MF):

- West Mains of Huntingtower Farmhouse (Category B) (Reference:18313)
- Newhouse Farmhouse (Category B) (Reference: 18312)
- Newhouse Steading (Category C) (Reference: 19872)

A Scheduled Monument identified as "Mains of Huntingtower, henge, enclosures, pits and road" (Index Number 3630), traverses the site in a north easterly to north westerly direction adjacent to the A85. This area is preserved within the development to protect the archaeological remains of a Roman Road and associated pits. Any development proposed within a scheduled monument area will require consent from Historic Scotland.

Known heritage assets within the Masterplan Framework area include an early Bronze Age cist burial, a cup and ring marked stone, a Roman watchtower, a Roman camp and sites relating to medieval and later rural settlement. The potential for sub-surface archaeological deposits is considered to be moderate to high. Future investigation will be required to refine areas of archaeological sensitivity.

3.10 Access and Connectivity

Site Access

The key strategic routes in the vicinity of Perth West are the A85 to the north of the site and the A9 to the south and east. A rural lane/pedestrian connection (The Old Gallow's Road) traverses the middle of the site extending from Perth in a westerly direction over the A9. Footpath connections (access paths /core paths /cycleways /bridleways) typically follow historical routes and lines or field boundaries and are well used, clearly way-marked and a key asset for both local communities and the site. Severance due to the A9 is high with a key point of connectivity formed by the single carriageway bridge at Noah's Ark. The upgrades to the A9/A85 interchange will increase capacity within the overall transportation network.

Public Transport and Linkages

Bus service numbers 14, 15, 155 and 647 operate along the A85 to the north of the site providing sustainable transport links to the existing uses i.e. Dobbies, Travel Lodge, Tesco and B & Q. These bus services could be extended to Perth West through a public transportation strategy offering frequent public transport opportunities to the new development. Bus service number 19 to Stirling runs along the A9 to the south. In addition, a series of bus routes run throughout the established residential areas to the east of the A9 and these will be easily accessible on foot and bicycle from the plan area by the new and upgraded transportation links.

Perth Railway Station is located within the city centre approximately 5km from the site. There are regular services to and from Stirling, Dundee and Pitlochry, with a journey time of around 30 minutes. Trains run directly to and from Edinburgh approximately every two hours. From Edinburgh, the journey currently takes one hour and 25 minutes. The direct train to Perth from Glasgow, runs hourly from Queen Street and takes approximately one hour. The Broxden Park and Ride will provide easy access to various public transport routes, promoting the Smart City Strategy and TayEco Valley initiative.



Path Network and Rights of Way

There are no 'on road' designated cycling facilities or networks within the site boundaries or in the immediate surrounding area. Perth and Kinross Council adopted their Core Paths Plan in January 2012, fulfilling their responsibilities under the Land Reform (Scotland) Act 2003 to describe a system of paths sufficient for the purpose of giving the public reasonable access through their area. A number of core paths (Figure 10) are present on site:

- Core path METH/148 enters the site at the northwest corner and runs in a south easterly direction before linking with core paths METH/16 and METH/21.
- Core path METH/16 runs from east to west in the northern section the site and links core path Meth/148 with core path METH/15.
- Core path METH/21 runs from north to south within the central section of the site and adjoins core path METH/148 with core paths METH/131 and METH/13.
- Core path METH/131 runs from the western site boundary in an easterly direction before joining METH/13 which continues east to the eastern site boundary. METH/13 exits the site and crosses the A9 trunk road before continuing into a residential area.
- Finally core path METH/15 travels along a section of the eastern site boundary from Old Gallow's Rd to the A85 Crieff Rd.

3.11 Existing Land Uses and Activities

The area of land covered by the site is currently used for a range of different purposes with agriculture/ livestock grazing being a predominant land use within the site. In addition:

- The Huntingtower Livestock Market was formerly located to the north eastern corner of the site at the junction of the A9 and the A85. The site has since been cleared and a previous planning application submitted for a Sainsbury's Supermarket and petrol station, was withdrawn. The site is currently on the market with potential for Mixed Use activities.
- Immediately to the south of the former livestock market building there is the Dobbie's Garden Centre, while immediately to the west there is a Travel Lodge Hotel and separate restaurant.
- The Noah's Ark children's play centre, golf driving range and caravan site complex are located along the eastern boundary of the plan area.
- East Mid and West Mid Lamberkine farm sit to the south of the site adjacent to the A9 whilst the Newhouse Farm buildings and West Mains of Huntingtower are located to the north of the site.
- There is a disused quarry in the north western corner of the site which it is understood was capped circa. 1995 and currently used to facilitate recycling services in the local area.
- Commercial forestry plantations are located along the southern and western boundaries.

3.13 Key Issues, Opportunities, and Constraints informing the Masterplan Framework

The Pre-Charrette Assessments, Contextual Analysis and the Charrette process have all helped to inform and shape an understanding of the key issues, opportunities and constraints of the site. These understandings have been aligned with the Local Development Plan and planning considerations, including comments and observations from Council Members and officers. Key issues include:

Planning:

- Provision of 3,000+ residential units.
- Total employment land of 25 ha.
- Two new primary schools.
- Two local centres.
- 2+ sports fields, open space dedication for formal and informal activities, and an area for a future cemetery.

Site Assets:

- Existing shelterbelt and woodland networks including Lamberkine Woodland. Existing and proposed planting will enhance the natural protection of buildings, trail connectivity and biodiversity within the area.
- Historic stone walls and the Core Path network.
- Old Gallows Road and the historic battlefield.
- Listed buildings at Newhouse Farm and Huntingtower, and the scheduled monument located along a portion of the north boundary of the site adjacent to the A85.
- Rolling topography and extended views from the site to the mountains and surrounding countryside.
- Scouring Burn blue/green corridor.

Infrastructure:

- Strategic access is required to suitable sites identified through a phasing strategy. These include west of Broxden Roundabout at the future A9 interchange, and appropriate locations along the A85 Crieff Road. Internal connectors will be designed within the parameters of Designing Streets.

- Strategic utilities will require network analysis (DIA / WIA / Local Network Assessment) with all services available locally and substantially capable of effective site servicing (foul/surface water drainage/electricity/gas/ digital).
- Drainage outfalls will occur into the local burn that flows to the west, with sustainable urban drainage (SUDS retention/ detention and treatment) located at low points within the site to meet existing greenfield discharge levels.
- Explore the feasibility of providing a combined heating and power system (CHP) at the detailed Masterplan stage.

Design & Placemaking:

- Incorporate design policies and strategies identified within Designing Places and Creating Places to ensure a development prevails which is unique and reflects the historic elements of Perth West.
- A variety of housing tenures and affordable housing to ensure mixed demographics.
- Integrated local centres, schools and enterprise opportunities to help establish a “heart” and town centre feel to the new development. Care must be taken not to undermine the Town Centre First Principle, as Perth City will remain the primary centre for retail and commercial activity.
- Integrated trails, green networks and drainage facilities will ensure strong place identity and enhanced biodiversity and ecology.
- Use of appropriate materials and architectural styles that complement the unique setting of the site, and strengthen the gateway feel into Perth.
- Provide a variety of street types, in line with criteria identified within Designing Streets.
- The opportunity exists to plan strategically for the future uses of woodland blocks to create a long term, robust western boundary for the City. This would include aligning forestry with development phases, extending planting to the north and south of West Lamberkine wood, structuring a felling programme to tie in with maintaining and strengthening boundaries and views to the City, and facilitating wider public amenity use linked to themes arising from the charrette such as a battlefield heritage trail and Forestry Commission trails in and around towns programme.



Existing Shelterbelts



Existing Core Path Network