

Development Framework

Barrhead South



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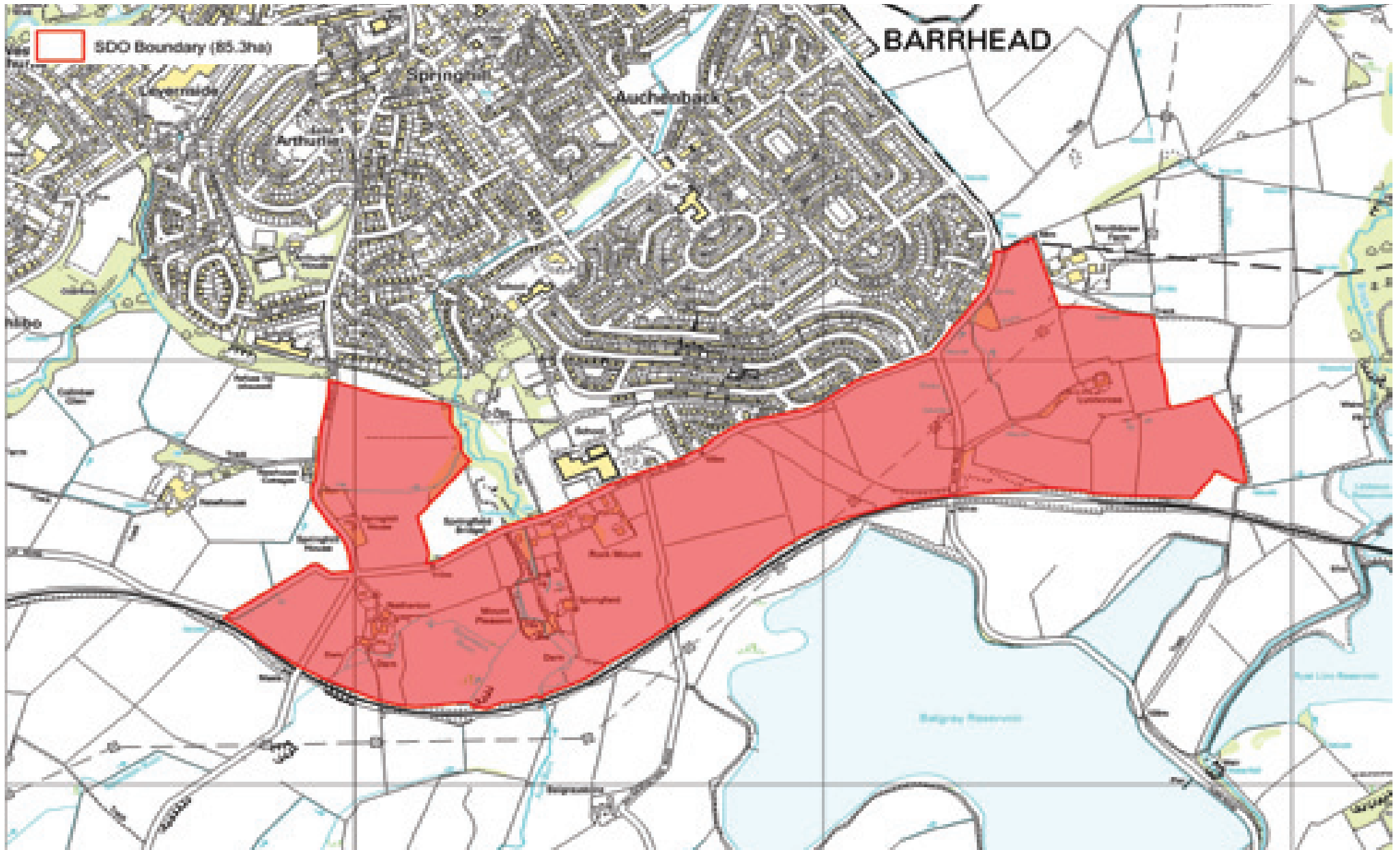
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Site Location

1.1 Background to Barrhead South

The Barrhead South Strategic Development Opportunity (Barrhead South) is allocated in the East Renfrewshire Local Development Plan.

The site extends to over 85ha and is located on the southern urban edge of Barrhead.

The site is located within the defined M77 corridor (policy M2 of the Proposed Local Development Plan) which includes Dams to Darnley Country Park, which is one of the area's most important recreational resources. It is a fundamental part of the Council's M77 Strategic Development Opportunity where the Council supports planned growth at the M77 as defined on the Proposals Map in accordance with Policy M1 and Policies M2.1 and M2.2.

This Development Framework sets out the development principles for Barrhead South (Policy M2.2) and considers links between Barrhead and the Dams to Darnley Country Park.

The framework sets out the process to be followed, leading toward a detailed masterplan for the area that will be taken forward as Supplementary Planning Guidance (SPG). The framework has been prepared to both assist the Reporters during the course of the Local Development Plan Examination and also to inform the preparation of the masterplans for the subsequent SPG.

1.2 Client and Project Team

This Development Framework has been prepared for the Council to support its development strategy as allocated in the emerging Local Development Plan (LDP) and will inform the development of Supplementary Planning Guidance.

The members of the project team who have helped prepare this Development Framework are:

Geddes Consulting	Master planning and landscape appraisal
T Lawrie & Partners	Engineering
Atkins	Transport
GUARD	Cultural heritage
JDC	Ecology

Its preparation is a collaboration between East Renfrewshire Council, Avant Homes, Miller Homes, and Wallace Land Investment and Management (Wallace Land), who all have land interests within the site.



View from Springfield Road looking north over Miller Homes site.



Aerial Photograph of Barrhead South

1.3 Aims and Purpose

This Development Framework supports East Renfrewshire Council's development strategy as set out in the Local Development Plan.

The Council's Development Strategy has its focus on growth and housing delivery, but also provides the opportunity for the incorporation of uses which contribute to achieving environmental, social and economic benefits.

It also addresses other factors that make places attractive and distinctive as well as sustainable and successful.

This Development Framework will help to shape the kind of place that Barrhead will be in the future, balancing the needs of existing and future residents.

The Barrhead South Development Framework presents design and development guidance to allow a coherent and co-ordinated development approach to the delivery of all proposals. This guidance will inform the preparation of a detailed masterplan for the area that will be taken forward as SPG.

The Development Framework interprets the briefing requirements set out in Policy M2.2: *M77 Strategic Development Opportunity - Barrhead South – Springhill, Springfield, LyonCross*.

Policy M2.2 states:

Development within the area South of Barrhead as defined on the Proposals Map will be permitted in accordance with Policy M1 and M2, to be defined further through the preparation of a comprehensive master plan.

The master plan will be prepared by the Council in partnership with landowners, developers and key agencies and will be adopted by the Council as Supplementary Planning Guidance. The Council will not consider any applications favourably prior to the adoption of the master plan (M2.2) to ensure a co-ordinated approach to delivery.

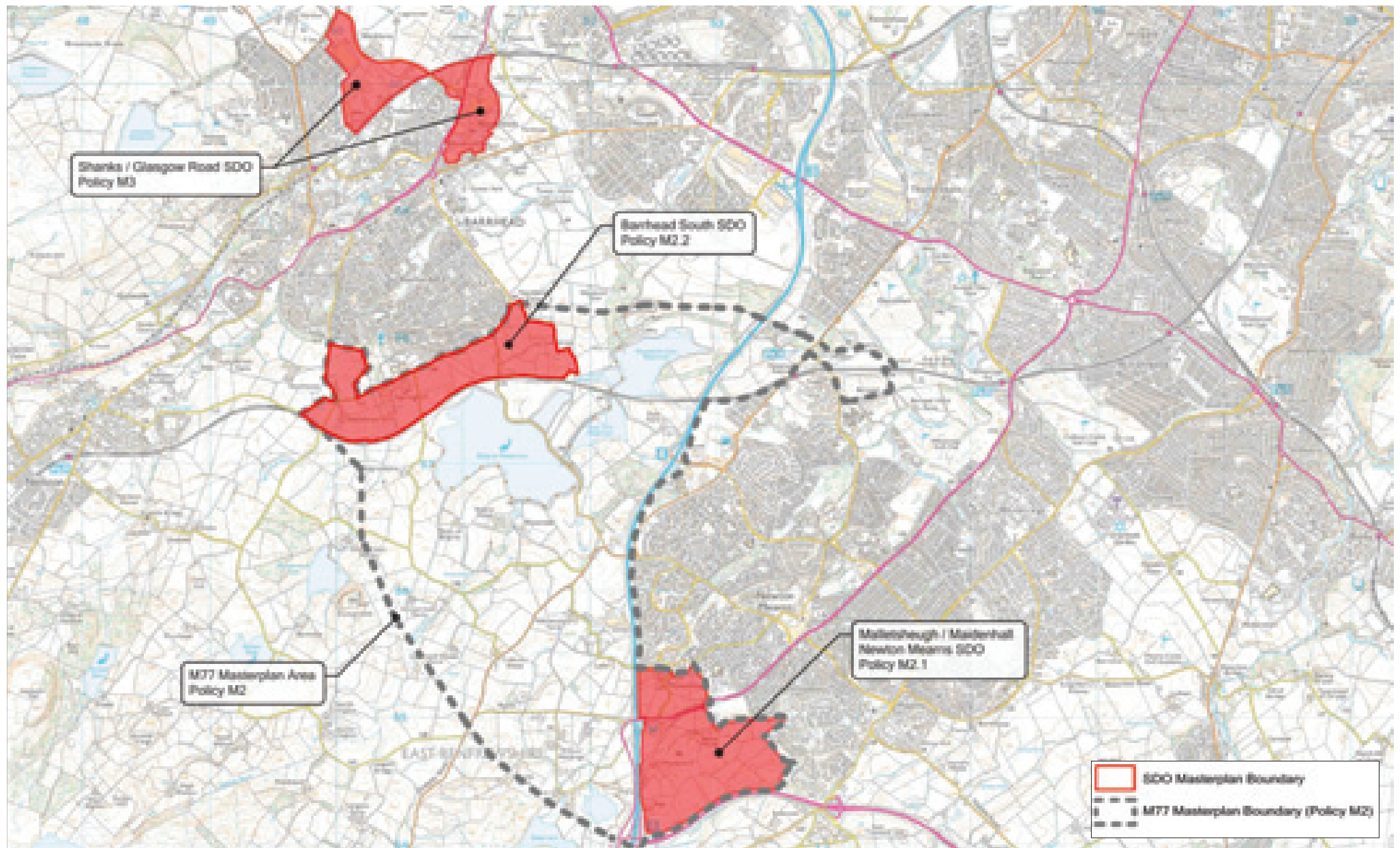
The whole area will be removed from the green belt and identified as a master planned area on the Proposals Map. The detailed phasing and delivery of sites will be determined through the preparation of the master plan.

In addition the master plan will have to address the following requirements:

- *Integration of areas at Springhill, Springfield and Lyoncross as a sustainable urban expansion with Barrhead accommodating:*

- *Mixed housing comprising a range of house types and tenures including affordable;*
 - *A high quality environment that will attract a variety of employment generating uses including high tech businesses and the potential for live/work units to assist with the creation of a dynamic and competitive local economy, boost local job and improve inward investment opportunities;*
 - *Neighbourhood scale retail;*
 - *Community/leisure facilities (including allotments and a potential site for a religious facility);*
 - *Education facilities – Provision of pre-five education facility required as an early priority. Capacity can be managed within other schools subject to provision of appropriate development contributions.*
- *Approximately 1050 homes to be phased 470 homes by 2025 and 580 homes post 2025;*
 - *Provision for a sustainable transport strategy comprising:*
 - *Public transport upgrades;*
 - *Provision of a new rail station at Springfield is investigated and land safeguarded;*
 - *Upgrades to Aurs Road, Barrhead to Crookfur Road / M77 link road; and*
 - *Investigate improvements to connectivity between Barrhead and Newton Mearns including the 'Balgray Link' route.*
- *Enhancement of the Dams to Darnley Country Park by improving access, tourism activity and by encouraging appropriate commercial and leisure activity on key sites.*

All of the above requirements have been addressed in this Development Framework.



Local Development Plan (2013) Strategic Development Opportunity Areas

1.4 Planning Context

The Council's development strategy has identified three major areas for change (known as Strategic Development Opportunities), capable of accommodating new housing, employment, community/leisure facilities and other development linked to public transport improvements up to 2025 and beyond.

These three SDOs (as shown on the plan) are the primary focus of growth with development and delivery controlled through a master planning, phasing and infrastructure requirement approach defined in Policy M1 of the LDP.

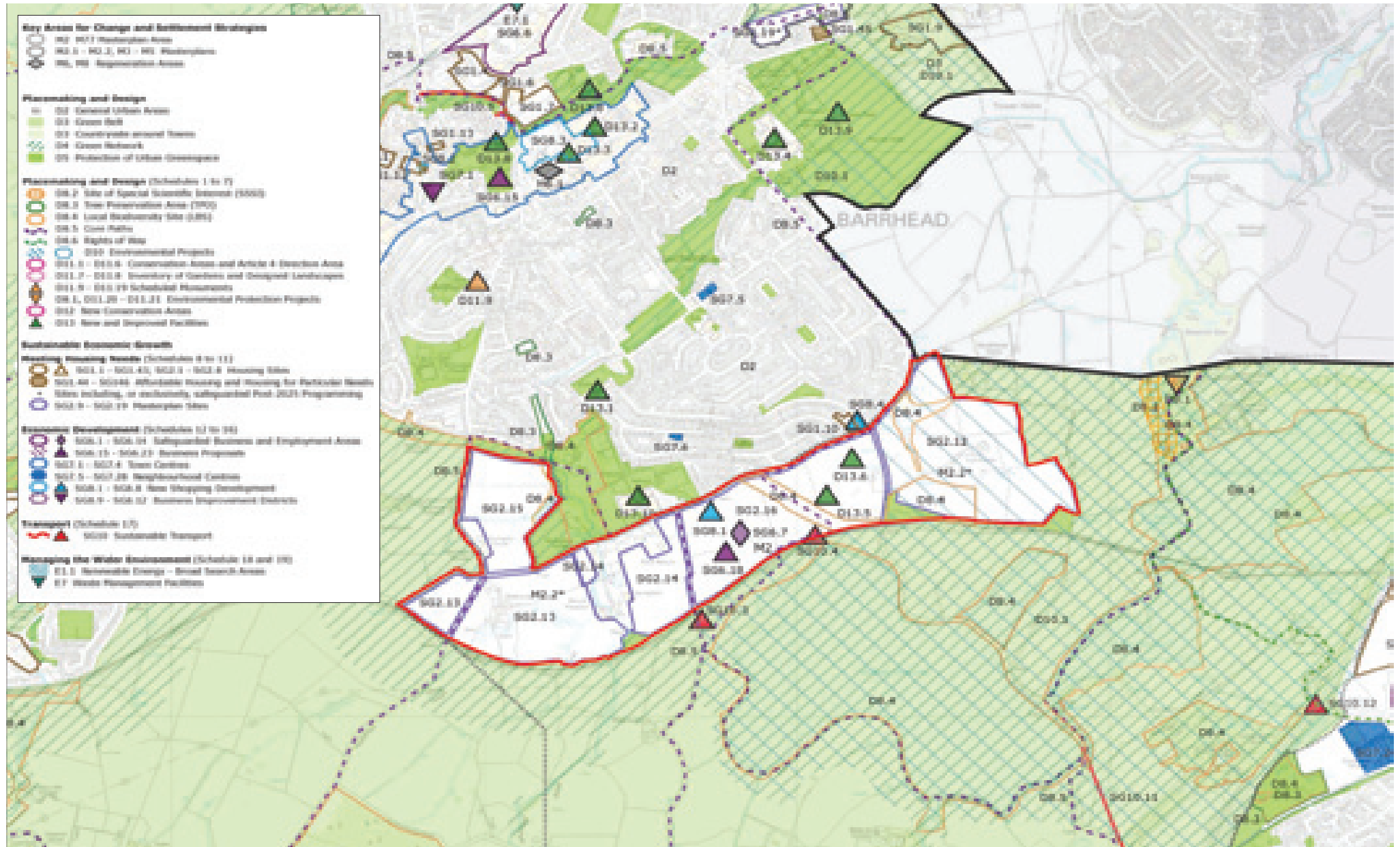
Growth will predominantly be delivered in three main areas as set out in Strategic Policy 1: *Development Strategy*. These major areas are urban expansion at Malletsheugh/Maidenhill Newton Mearns Strategic Development Opportunity (Policy M2.1) and Barrhead South – Springhill, Springfield, Lyoncross Strategic Development Opportunity (Policy M2.2); along with a major regeneration proposal at Glasgow Road/Shanks Park Barrhead Strategic Development Opportunity (Policy M3).

The proposals for the Barrhead South will need to meet the policy requirements set out in Strategic Policy 2: *Assessment of Development Proposals*.

This together with Policy M2.2 and Policy D1 effectively completes the brief for this Development Framework.

Proposals for new development, other than smaller scale proposals (such as applications for single houses, householder or shop frontage alterations), will be assessed against relevant criteria below as well as Policy D1:

1. *Application of a sequential approach which gives priority to the use of brownfield sites within the urban area then to greenfield land within the urban area and finally to land adjacent to the urban area. Sites within the green belt will only be considered where it has been demonstrated that a suitable site does not exist within the urban area;*
2. *Provision of a mix of house types, sizes and tenures to meet housing needs and accord with the Council's Local Housing Strategy and the Glasgow and Clyde Valley Strategic Housing Need and Demand Assessment;*
3. *Resulting positive community and economic benefits;*
4. *The impact on the landscape character as informed by the Glasgow and Clyde Valley and the East Renfrewshire Landscape Character Assessments, the character and amenity of communities, individual properties and existing land uses;*
5. *The impact on existing and planned infrastructure;*
6. *The impact upon existing community, leisure and educational facilities;*
7. *The transport impact of the development on both the trunk and local road network and the rail network, taking into account the need for a transport assessment and the scope for green transport and travel plans;*
8. *The impact on the built and natural environment, including the green belt and green network taking into account the need for an Environmental Impact Assessment and the requirement for proposals to provide a defensible green belt boundary and links to the green network;*
9. *The impact on air, soil, including peat and water quality;*
10. *The potential for remedial or compensatory environmental measures including temporary greening;*
11. *The contribution to energy reduction and sustainable development.*
12. *The impact on health and well being;*
13. *The cumulative impact of the development;*
14. *The impact of proposals on other proposals or designations (including the Town and Neighbourhood Centres in Schedule 14) set out in the Local Development Plan;*
15. *The suitability of proposals when assessed against any relevant Adopted Supplementary Planning Guidance.*



Local Development Plan (2013) Proposed Plan

The other key policy in the LDP is Policy D1: *Detailed Guidance for all Development*, which states the following:

Proposals for development should be well designed, sympathetic to the local area and demonstrate that the following criteria have been considered, and, where appropriate, met. In some cases, where the criteria have not been met, a written justification will be required to assist with assessment.

1. *The development should not result in a significant loss of character or amenity to the surrounding area;*
2. *The proposal should be of a size, scale, massing and density that is in keeping with the buildings in the locality and should respect local architecture, building form, design, and materials;*
3. *The amenity of neighbouring properties should not be adversely affected by unreasonably restricting their sunlight or privacy. Additional guidance on this issue is available in the Daylight and Sunlight Design Guide Supplementary Planning Guidance;*
4. *The development should not impact adversely on landscape character or the green network, involve a significant loss of trees or other important landscape, greenspace or biodiversity features;*
5. *Developments should incorporate green infrastructure including access, landscaping, greenspace, water management and Sustainable Urban Drainage Systems at the outset of the design process. Where appropriate, new tree or shrub planting should be incorporated using native species. The physical area of any development covered by impermeable surfaces should be kept to a minimum to assist with flood risk management. Further guidance is contained within the Green Network and Environmental Management Supplementary Planning Guidance;*
6. *Development should create safe and secure environments that reduce the scope for anti-social behaviour and fear of crime;*
7. *Developments must be designed to meet disability needs and include provision for disabled access within public areas;*
8. *The Council will not accept 'backland' development, that is, development without a road frontage;*
9. *Parking and access requirements of the Council should be met in all development and appropriate mitigation measures should be introduced to minimise the impact of new development. Development should take account of the principles set out in 'Designing Streets';*
10. *Development should minimise the extent of light pollution caused by street and communal lighting and any floodlighting associated with the development;*
11. *Developments should include provision for the recycling, storage, collection and composting of waste materials;*
12. *Where possible, all waste material arising from construction of the development should be retained on-site for use as part of the new development;*
13. *Where applicable, new development should take into account the legacy of former mining activity; Development should enhance the opportunity for and access to sustainable transportation, particularly walking and cycle opportunities including cycle parking and provision of facilities such as showers/lockers, where appropriate. The Council will not support development on railways solums or other development that would remove opportunities to enhance pedestrian and cycle access unless mitigation measures have been demonstrated;*

14. *The Council requires the submission of a design statement for national and major developments. Design statements must also be submitted in cases where a local development relates to a site within a conservation area or Category A listed building in line with Planning Advice Note 68: Design Statements.*

1.5 Summary of Other Main Contextual Documents

Adopted Supplementary Planning Guidance (SPG), Particularly on Affordable Housing and Development Contributions. These are adopted Council documents and set out the Council's requirements for each topic. The Affordable Housing SPG has been updated as part of the Proposed Local Development Plan and has been the subject of consultation. The provisions in both these documents should be considered carefully when developing the master plans.

Supplementary Planning Guidance (SPG) has been prepared as part of the Proposed Local Development Plan process. Most relevant to the masterplans are the Supplementary Planning Guidance on Green Infrastructure, Energy Efficient Design and on the Green Network and Environmental Management. These supplement the policies and proposals of the Proposed Local Development Plan. The finalised Supplementary Planning Guidance will be a material consideration in the determination of planning applications until such times as the proposed Local Development Plan is adopted when it will form part of the Local Development Plan.

This Development Framework therefore has been prepared in accord with the policy requirements of the LDP and the Council's Supplementary Guidance.



1.6 National Design Guidance and Best Practice

Scottish Planning Policy (SPP 2010) sets out Scottish Governments policy and design agenda for new residential development.

Two key publications emphasise the importance of creating places which are attractive locations to live in and use, these are:

Designing Places (2008). This identifies six key qualities of successful places:

- Distinctive;
- Safe and pleasant;
- Easy to get to and move around;
- Welcoming;
- Adaptable; and
- Resource efficient.

Designing Streets (2010). This re-prioritises the design of residential streets from the car to the pedestrian:

- Street design must consider place before movement;
- Street design guidance can be a material consideration in determining planning applications and appeals;
- Street design should meet the six qualities of successful places, as set out in *Designing Places*;
- Street design should be based on balanced decision-making and must adopt a multidisciplinary collaborative approach; and
- Street design should run planning permission and Road Construction Consent (RCC) processes in parallel.

These documents form the foundation for the design proposals contained in this proposal as well as the further masterplanning policy and guidance from the Council.

Further guidance on design is also found in the Scottish Government Planning Advice Notes.

PAN 65 *Planning and Open Space* provides advice on the role of the planning system in protecting and enhancing existing open spaces and providing high quality new spaces.

PAN 67: *Housing Quality* sets out how high quality housing can be secured through the design and planning process and includes an urban design toolkit.

PAN 68: *Design Statements* focuses on advice regarding the structure and consistency of approach to ensure that Design Statements are used more effectively to create places of lasting quality.

This Development Framework has been informed by the structure and principles established in PAN 68, and will provide the foundation for further stages in the design development of Barrhead South.

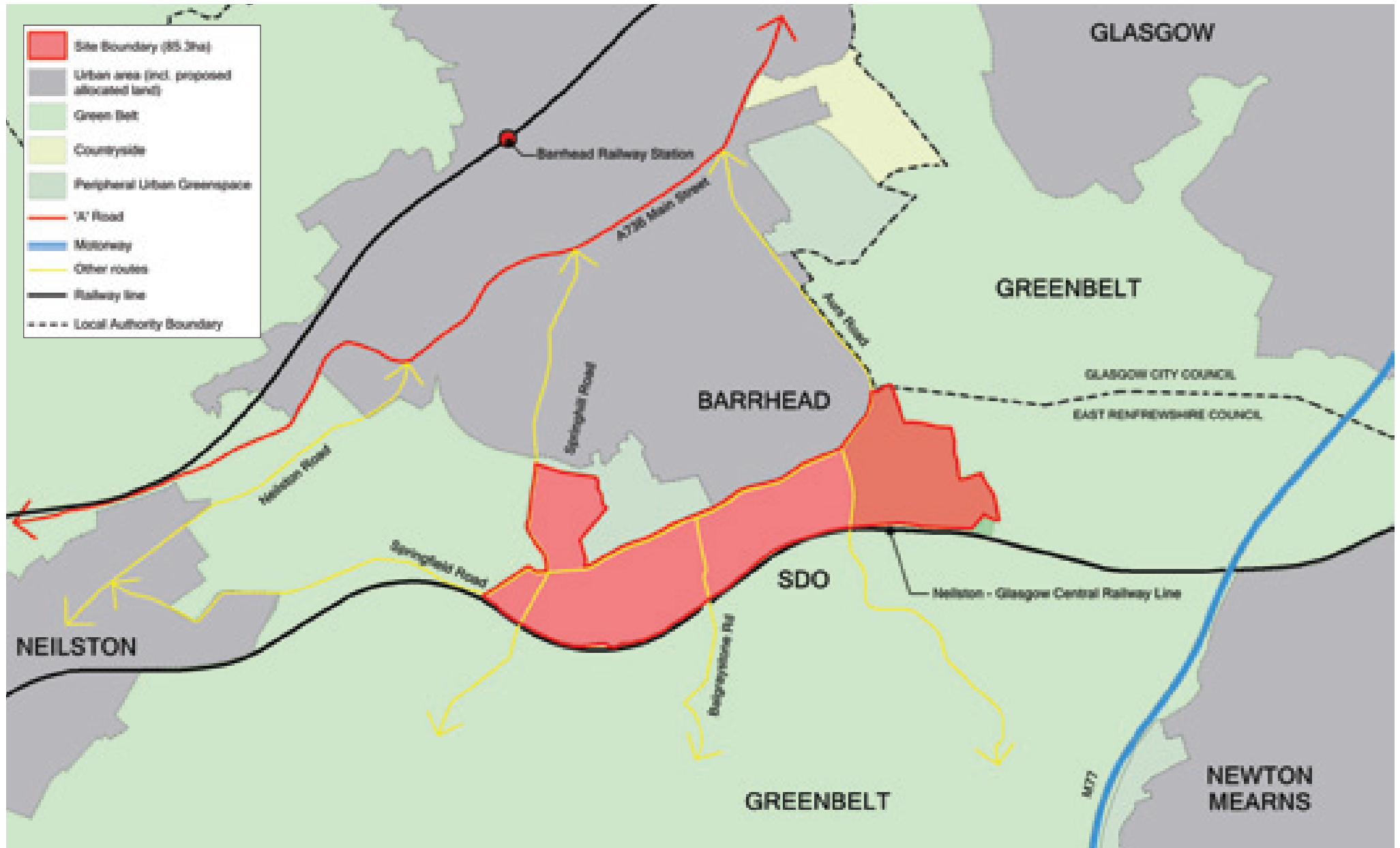
PAN 75: *Planning for Transport* aims to create greater awareness of how linkages between planning and transport can be managed. It highlights the roles of different bodies and professions in the process and points to other sources of information.

PAN 77: *Designing Safer Places* aims to ensure that new development can be located and designed in such a way that helps to discourage antisocial and criminal behaviour.

Pan 78: *Inclusive Design* focuses on the need for new developments to accord with the Disability Discrimination Act (DDA) 2005 and to provide accessible environments.

PAN 83: *Masterplanning* aims to promote the use of masterplanning to create better places, achieve more effective masterplanning and more consistency in the presentation of masterplans, encouraging good practice through a range of exemplar case studies.

The proposals in this Development Framework take account of and apply all of this guidance. This is demonstrated in Chapters 3 and 4.



Barrhead South within its urban context

2.1 Location and Description

Barrhead is a town of approximately 20,000 people in East Renfrewshire, situated approximately 13km to the southwest of Glasgow. The site is located on the southern edge of Barrhead approximately 1.2km from the town centre.

The site extends to 85.3 hectares. The majority of the site is greenfield land. These fields are grasslands, many in agricultural use with some unmanaged. These unmanaged fields are principally in the central to east parts of the site. Fields to the west are currently in use for grazing horses and other livestock.

The site's northern boundary abuts the built edge of Barrhead, and the southern boundary is the Neilston to Glasgow rail line.

The unclassified Aurs Road connects Barrhead to Newton Mearns, and crosses the east of the site.

The Dams to Darnley Country Park is located to the south of the railway line and east of Aurs Road. A section of the site is located within the country park.

The established neighbourhoods of Springhill and Auchenback are situated immediately to the north of the site.

A number of existing residential properties are located within the site along Springfield Road. Mature planting at the rear of these properties provides a series of strong boundary edges.

The site is situated close to Springhill & Auchenback Primary School, and St Mark's Primary School. St Luke's High School is immediately adjacent to the northern boundary of the site. Barrhead High School is located approximately 1600m from the site.

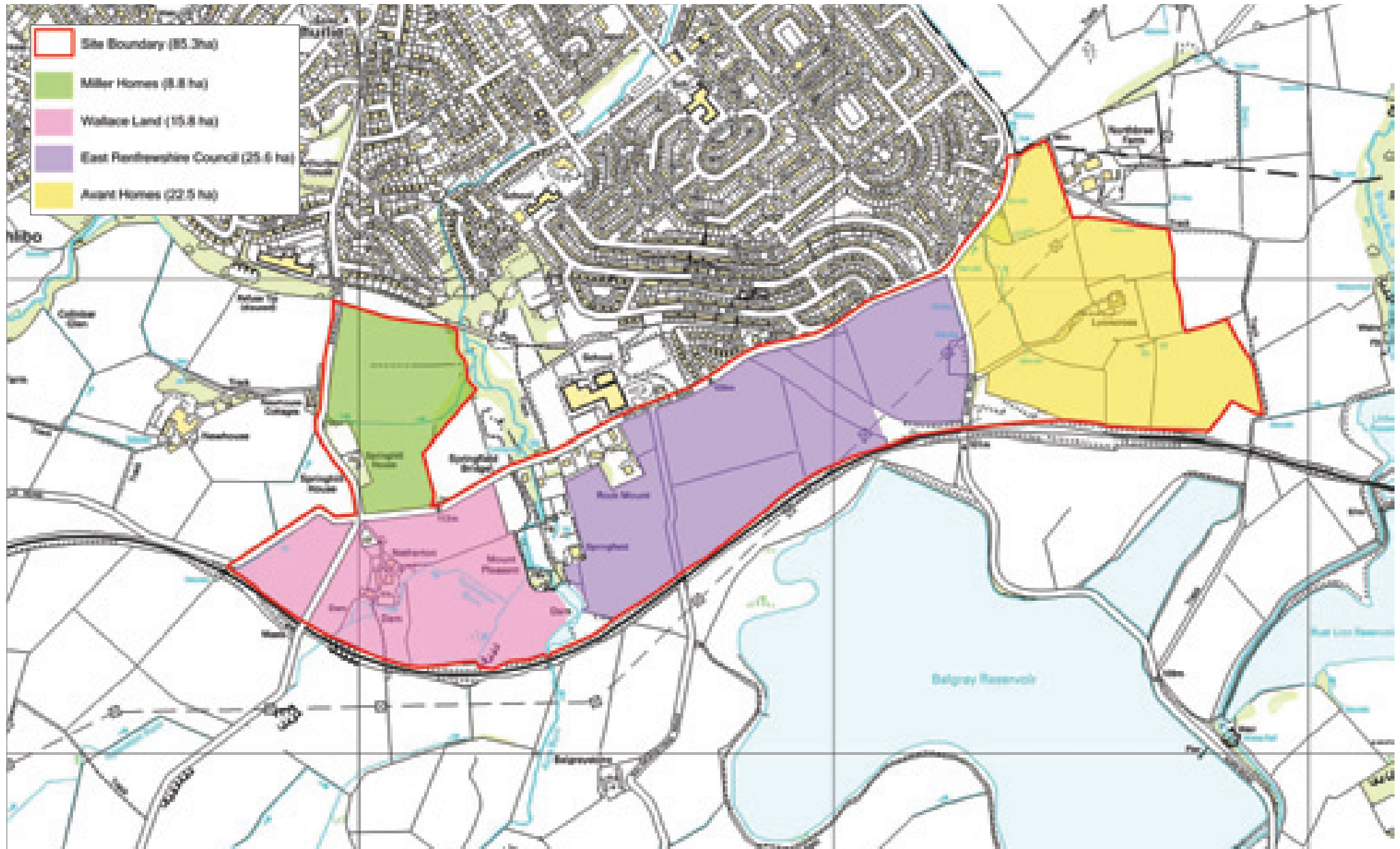
The eastern boundary of the site is a field boundary, consisting of a series of hedgerows with several large hedgerow trees.

The site is undulating with a general slope down from the southern site boundary towards the north.

The site can be accessed from Aurs Road in the eastern portion of the site, via Springhill Road toward the west of the site and at a number of locations along Springfield Road.



View from Springfield Road looking south east.



Land Ownership and Control

2.2 Land Control and Ownership

The site area extends to 85.3ha. Land ownership and control is currently with three developers / house builders and East Renfrewshire Council as follows:

- Miller Homes 8.8 ha
- Wallace Land 15.8 ha
- East Renfrewshire Council 25.6 ha
- Avant Homes 22.5ha

These parties have been involved in the preparation of this Development Framework.



View from Springfield Road looking south west.



Key Plan: Character of Surrounding Area



1. Braeside Drive looking east



2. Bourock Square looking south



3. Springfield Road / Oakbank Drive looking east



4. Divernia Way looking west

2.3 Character of Surrounding Area

Barrhead was founded around 1773 and was formed when a series of small villages, including Arthurlie and Grahamston, expanded to form one town.

The Auchenback and Springhill areas of Barrhead about the northern boundary of the site. Part of the Auchenback neighbourhood was built by the late 1950s. Much of this area comprises of two storey semi-detached dwellings, some of which are lower and upper cottage flats. There are also some two storey terraces comprising of up to four dwellings. The area is mostly typical of post-war housing.

The formal street layout includes small squares, such as Bourock Square, which form pockets of open space through the neighbourhood.

Other parts of Auchenback were largely completed by the early 1970s. This area is dominated by two storey terraces of up to four dwellings with some three storey blocks of flats.

Fenwick Drive, Newton Avenue and Divernia Way generally follow the topography, which is particularly steep in this area. As a consequence, the three storey buildings, such as those on Fenwick Drive are visually prominent.

Some of this area has been redeveloped, including the western part of Divernia Way and parts of Newton Avenue.

The dwellings on Oakbank Drive and Maple Crescent overlook Springfield Road and the site. The eastern end of the site is also overlooked by houses on Aurs Drive. The majority of the houses in this area are harled, some with areas of brick, and tiled roofs. The newer properties comprise of render and brick.



5. Flats on Fenwick Drive looking east



6. Newton Avenue looking west



7. Newton Avenue looking west



8. Recent development on Divernia Way looking west



9. Tinto Drive looking west



10. Tinto Drive / Pentland Drive



11. Springfield Road looking east



12. Recent development on Springfield Road



13. Springfield Grove



14. Lyoncross

Springfield Grove, a cul-de-sac accessed from Springfield Road, was built post 1990 and comprises of mostly two storey detached dwellings, which back onto Springfield Road. Most of these buildings are brick with some areas of render, with tiled roofs.

To the north west of the site is the Springhill neighbourhood, which was built by the 1970s. This area comprises of a mixture of one and two storey detached and semi-detached houses.

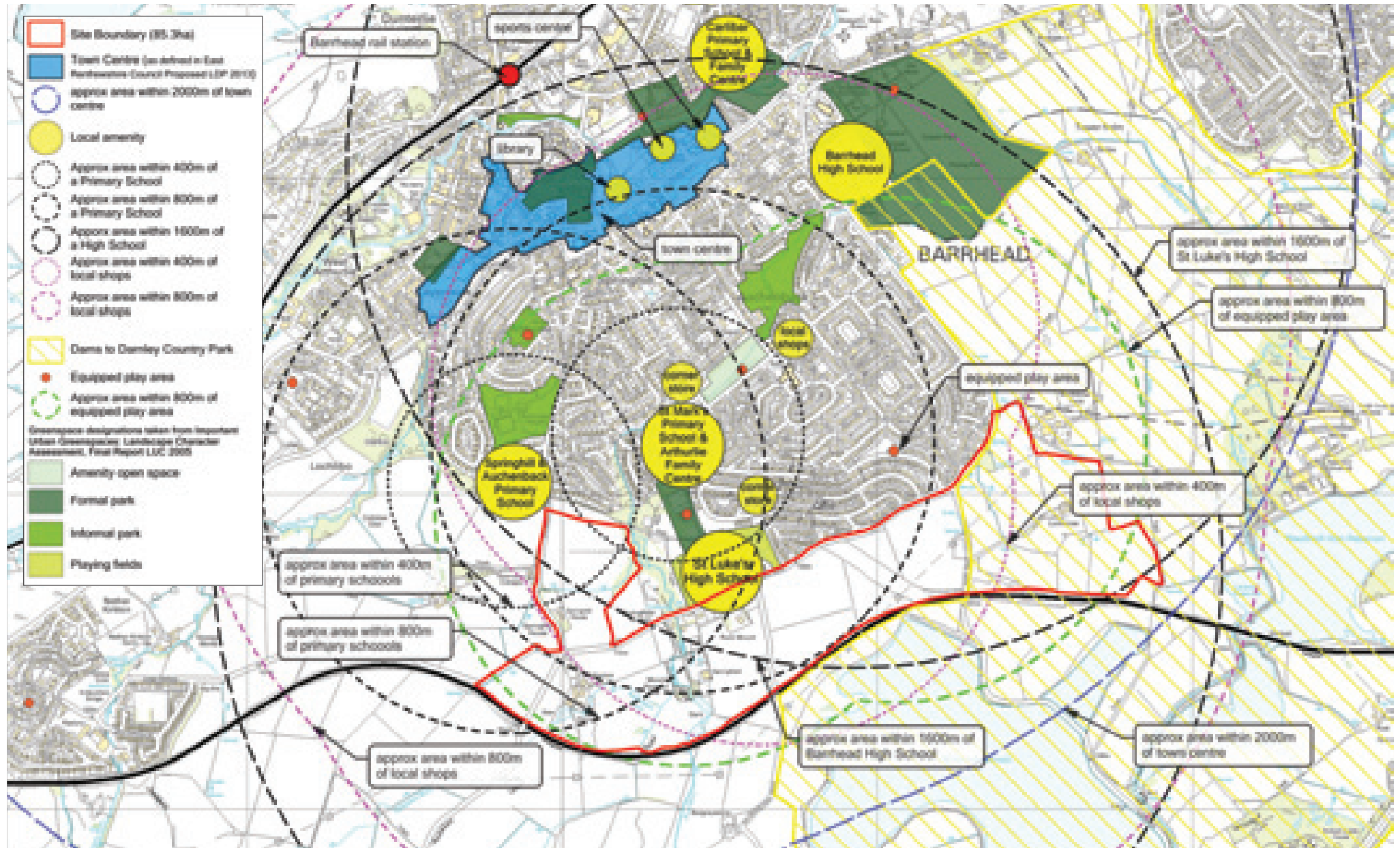
Within the site there are two groupings of farm buildings at Netherton and Lyoncross.

Netherton appears on maps dating from the 1860s. This grouping of buildings consists of a two storey farmhouse and a number of large outbuildings.

Lyoncross farmhouse located in the eastern part of the site was built circa 1780. It is Category C listed and is the only listed property within the site boundary.

Within the site, there are also a number of houses accessed directly from Springfield Road. Mount Pleasant can be seen on maps dating from the 1860s and Rock Mount from circa 1900. Other houses in this area are more recent and all of these properties vary in size and style.

St Luke's High School is the largest building in the vicinity of the site. The two storey brick building was constructed in the late 1970s.



Local Amenities

2.4 Local Amenities

Local Services

There are a number of local shops located on Aurs drive including a post office and convenience store. There are two other corner stores located close to the site on Arthurlie and Newton Avenue. All of the site is within a 10 minute walk (800m) of local shops.

Schools

Springhill & Auchenback Primary School is located to the north west of the site, which is within a 10 minute walk (800m) of approximately one third of the site. Approximately half of the site is within a 10 minute walk of St Mark's Primary School located north of the site on Roebank Drive.

St Luke's High School is located adjacent to the northern boundary of the site on Springhill Road. All of the site is within walking distance (1600m) of this school. Barrhead High School is located approximately 1km north of the site on Aurs Road. This is within walking distance of approximately two thirds of the site.



Barrhead Health & Care Centre, Main Street

Barrhead Town Centre

The town centre is approximately 1.2km north of the site and has a range of shops and amenities.

Barrhead Health and Care Centre is located on Main Street. This has three GP practices and two dental practices.

Barrhead Sports Centre is also located on Main Street and includes a swimming pool, gym and games hall.

Barrhead library is situated on Glen Street.

All of the site is within 2km of the town centre.

Recreation / Open Space

Aurs Glen / Gerry Park is the closest formal park to the site, approximately 150m from the site boundary. This park contains an equipped play area. There is also an equipped play area on Fenwick Drive. Most of the site is within a 10 minute walk (800m) of both of these play areas.



Amenity Open Space & Play Area, Aurs Drive

There are two areas of informal open space, Arthurlee House and Woodside Crescent, which are within reasonable walking distance (1600m) of the site. An area of amenity open space on Aurs Drive is also within walking distance of all of the site.

The site is adjacent to Dams to Darnley Country Park which was formed in 2006. The country park covers 550ha between the urban areas of Glasgow and Barrhead and is managed in a joint agreement between both Councils. Within the park there are a wide range of leisure opportunities and features of interest with approx 12km of walk / cycleways around the reservoirs, a local nature reserve, a Site of Specific Scientific Importance (geology), listed structures and organised education, volunteering and events through the park ranger service. The access to the Country Park is limited and not well signposted.

Public transport

Barrhead train station is located approximately 1.5km north of the site.

A bus route runs along Springfield Road providing a limited service to St Luke's High School. The closest bus stop for other services is located on Oakbank Drive, just to the north east of the site.

A proposed new rail station within Barrhead South forms part of the sustainable transport strategy for the area and a key priority for the Council.



Urban Context & Topography

2.5 Landscape Context and Topography

The site generally falls from the southern boundary down towards Springfield Road.

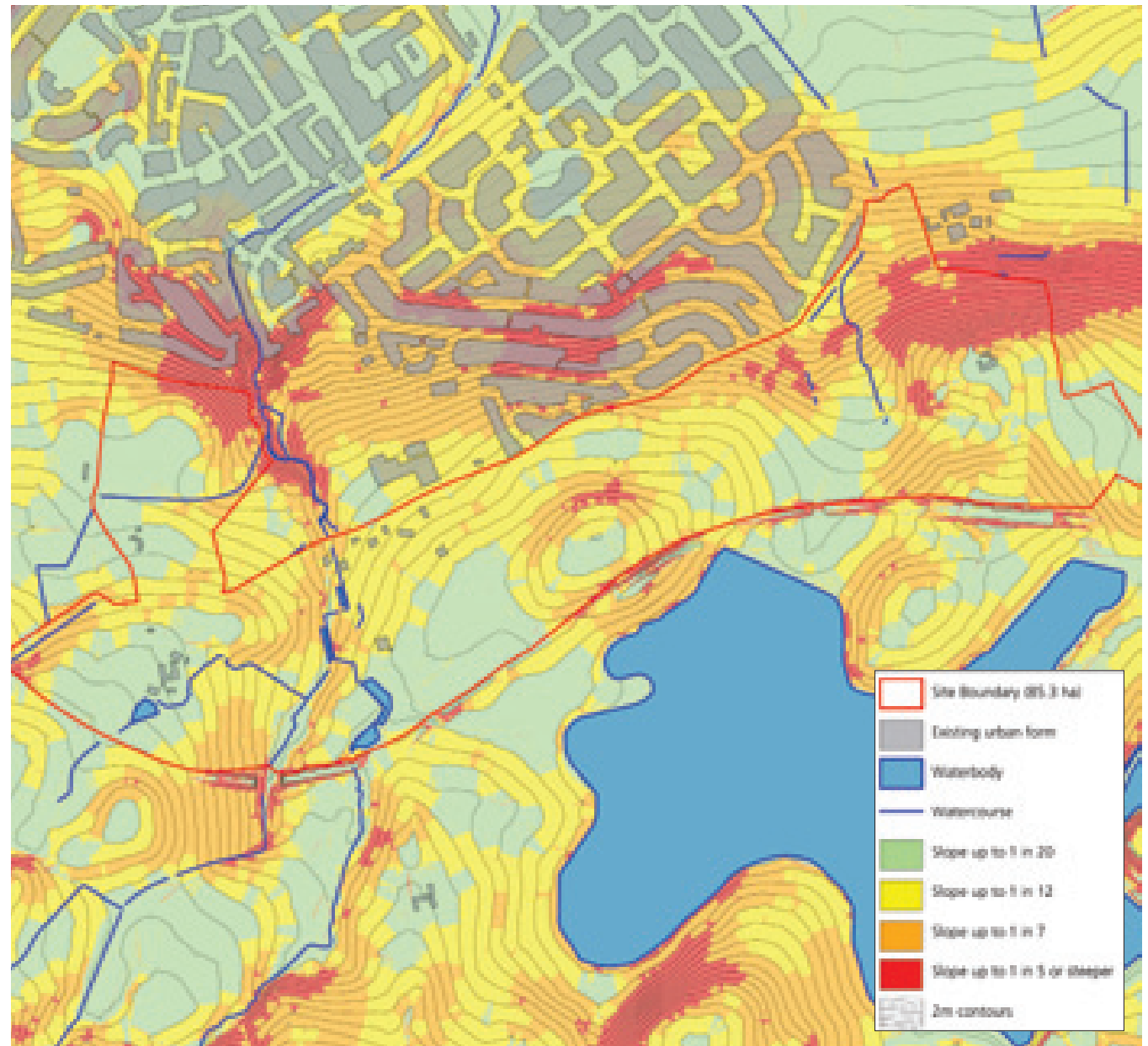
The highest point of the site is at the western end of the southern boundary at approximately 122m AOD. From this point the land slopes down towards the Spierston and Aurs Burns and Springfield Road. The western bank of the Spierston / Aurs Burn is relatively steep with an approximate slope of 1:12 and 1:10. North of Springfield Road, the land falls more steeply towards the burn in the northern part of the site with a gradient of approximately 1:5.

Within the centre of the site, to the north of the Balgray Reservoir is a prominent knoll, the highest point of which is 120m AOD.

The highest point in the eastern part of the site around Lyoncross is approximately 114m AOD. From this point there is a prominent ridge and at its northern end sits Lyoncross. East of this ridge, the land slopes down towards an unnamed watercourse. To the north of Lyoncross the land falls steeply towards the northern boundary with a gradient of approximately 1:5. The lowest point in the eastern part of the site is approximately 62m AOD.

The slope analysis of the existing topography illustrates that although there are some parts of the site which have a 1 in 7 slope and above, much of the southern part of Auchenback immediately to the north of the site is built on land with this gradient. with Fenwick Drive, Newton Avenue and Divernia Way following the line of the existing contours.

Some ground modelling will be required to develop parts of the site.



Slope Analysis



Existing Greenspace

2.6 Existing Greenspace

The majority of the site is currently in agricultural use. The land is classed as 4² under the Macaulay Land Capability for Agriculture and is not prime quality. It is primarily used for grazing.

There are a number of substantial hedgerows across the site which define existing field boundaries. There are also a number of mature trees located along some of the field boundaries.

Existing trees and hedgerows also line parts of Springfield Road, Springhill Road, Balgraystone Road and Aurs Road. These hedgerows vary in size and quality.

There is a large area of woodland around the Aurs Burn and in particular between the site boundary and St Luke's High School. Part of this area is also a Local Biodiversity Site under Policy D.8 of the Proposed LDP.

The area east of Aurs Road contains several significant areas of woodland, particularly around Lyoncross farmhouse.

There is also an area of woodland around an unnamed watercourse. This is also classed as a Local Biodiversity Site under Policy D.8 of the LDP. An area adjacent to the southern boundary next to Aurs Road is also a Local Biodiversity Site.

The area around the site is defined as Green Network under Policy D.4 of the LDP.

The Neilston to Glasgow Central railway line forms the southern boundary of the site, providing a strong edge to the development area.

South of the railway line is the Dams to Darnley Country Park which encompasses Balgray Reservoir and extends to Balgraystone Road. The eastern part of the site beyond Aurs Road is within the Country Park.



Existing trees and hedgerow along Springfield Road



Existing trees along Springhill Road



Existing hedgerows and trees along roads and field boundaries



Landscape Context

2.7 Landscape and Visual Assessment

The location of part of the site within the Dams to Darnley Country Park raises the sensitivity of the landscape and visual resource, as does the site boundary with the Glasgow Green Belt. These designations need to be taken into account when assessing the landscape and visual impacts.

A Landscape and Visual Impact Assessment (LVIA) has been carried out. It has identified those areas within the site which are most sensitive to potential landscape and visual impacts. This process has informed the emerging development proposals.

The key sensitivity is the relationship of Barrhead South to the Country Park, and in particular the outer edges of the Avant Homes site (referred to as "Lyoncross North and Lyoncross East"). These are visible from across the Country Park (and Green Belt) from Darnley, and visible from the core areas of the Country Park. This core area of the Country Park is the Waulkmill Glen and the Reservoirs. These are considered to be of high sensitivity.

The landscape of the core area is in good condition. Due to the enclosed topography and dense tree cover of the Glen and open nature of the Reservoirs, it is considered to have a sense of relative remoteness for an area in such close proximity to a large population mass.

Furthermore, there are well-used Core Path routes that circulate through these core areas. Other areas of the Country Park, including those parts within the site, are less accessible, less intact, and consequently less sensitive. These less sensitive parts of the Country Park are considered capable of accommodating some development, subject to appropriate mitigation.

In addition to these visually sensitive areas at Lyoncross North and Lyoncross East, other visually sensitive areas have also been identified, comprising a south facing slope to the east of Balgraystone Road, immediately north of the railway line (referred to as "Balgraystone"). This area is visible across Balgray Reservoir.

To a lesser extent, the west facing slope to the west of Springhill Road ("Springhill Road West") is visually sensitive. This is visible at close range from Springfield Road, from within the Green Belt separating Barrhead and Neilston.

The boundary of the site with Barrhead is not visually sensitive. The existing settlement forms an abrupt edge to both the Country Park and the wider countryside to the south west of Barrhead. This edge of settlement housing is of mixed visual quality. Through development at Barrhead South, there is an opportunity to soften this edge and to create a more appropriate transition from urban to rural.

Following assessment of the existing landscape and visual baseline and initial site appraisals, the following primary mitigation is recommended:

Lyoncross East

Built development should be limited to avoid the visually sensitive area located to the east of the ridgeline that runs south from Lyoncross Farmhouse. Associated development, provided it limits visual intrusion and safeguards the character of the core part of the Country Park, is acceptable, for example infrastructure such as SUDS pond, car parking as well as sensitively designed buildings supporting Country Park activities

Additional tree planting is recommended along the existing hedgerow along the ridgeline. It is proposed that this be planted in the first phase of development, so this new tree belt can become well established. New connections can be created to improve vehicular and pedestrian access into this part of the Country Park.

Lyoncross North

To the north of Lyoncross Farmhouse (Lyoncross North), development has been restricted to avoid steep topography. This avoids the need to create development platforms and also restricts visual impact from the north east, where this slope is visible from Darnley.

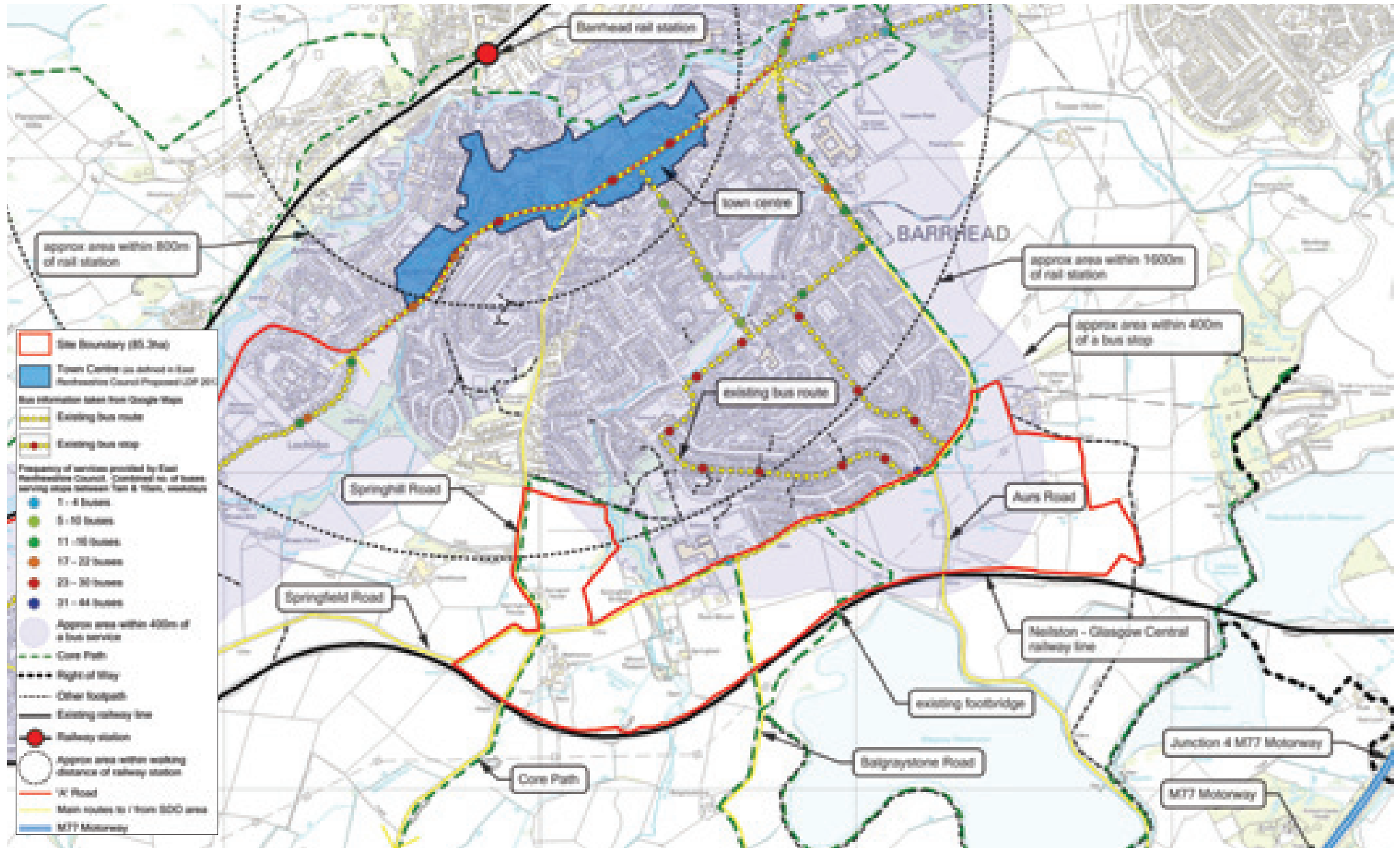
Balgraystone

Within the centre of the site, immediately to the north of the railway line, it is recommended that built development is limited to reduce impacts on this visually sensitive area.

This limits potential visual intrusion into the existing character of the Dams to Darnley Country Park from the Core Path that loops around Balgray Reservoir, and in views from Balgraystone Road from the south. This area could be retained for greenspace use, will incorporate part of the relocated Site of Importance for Nature Conservation (Local Biodiversity Site). The existing oak belt along the ridgeline will be retained.

Springhill Road West

Within the visually sensitive area to the south west of the site, development has been limited to retain views directly ahead from Springfield Road when travelling from the west. Although development will still take place within this part of the site, this vista will be retained.



Movement and Connections

2.8 Movement and Connections

Site Access

Springfield Road runs along much of the northern site boundary, bisecting the site towards its western end. This road provides a route to Neilston, which is approximately 1km west of the site. Springfield Road narrows to single track east of Springfield Bridge which crosses the Aurs Burn.

The unclassified Aurs Road runs through the eastern part of the site, connecting Barrhead to Newton Mearns. The road passes under the Neilston to Glasgow Central Railway line. The bridge height is restricted to 4.4m.

Balgraystone Road, a single track minor road, runs north to south through the middle of the site, connecting Springfield Road to the B769 to the south, passing under a low bridge carrying the railway line.

Springhill Road, forms part of the western boundary of the site, connecting the site to Barrhead town centre, passing over the railway line at the southern boundary of the site.

The M77 is approximately 1km west of the site. Junction 4 is the closest junction to the site and is accessed via Aurs Road and the B769/ Stewarton Road in Newton Mearns.

Public Transport

The Neilston to Glasgow Central railway line runs along the southern boundary of the site. The closest station on this line is Patterton Station on the north side of Newton Mearns, which is 1.7km east of the site. Neilston Station is 1.9km west of the site. Services run from these stations to Glasgow Central approximately half hourly.

The site is ideally located to take advantage of this existing rail network. A new rail halt forms part of the sustainable transport strategy for the area and is a key priority for the Council

Barrhead rail station is approximately 1.6km north of the site. Services run to Glasgow Central and Kilmarnock approximately every half hour.

Existing bus services run along Newton Avenue and Oakbank Drive then turning onto Firbank Terrace. The closest bus stop to the site is located on Oakbank Drive.

A number of bus services are available from stops on Oakbank Drive and Newton Avenue as follows:

- Service 101 - Braehead via Paisley - approx every 10 minutes
- Service 3 - Neilston to Glasgow - approx half hourly
- Service 103 - Barrhead to Glasgow - Evenings & Sunday mornings only.

A limited bus service operates along Springfield Road serving St Luke's High School.

The existing public transport network includes bus stops within the recommended 400m walk for the majority of the site.

Core Paths and Rights of Way

Springhill Road and Springfield Road provide the main access routes linking the site with the surrounding urban area. Both roads benefits from the provision of 2m wide footways which for the majority of the route are continuous and lit.

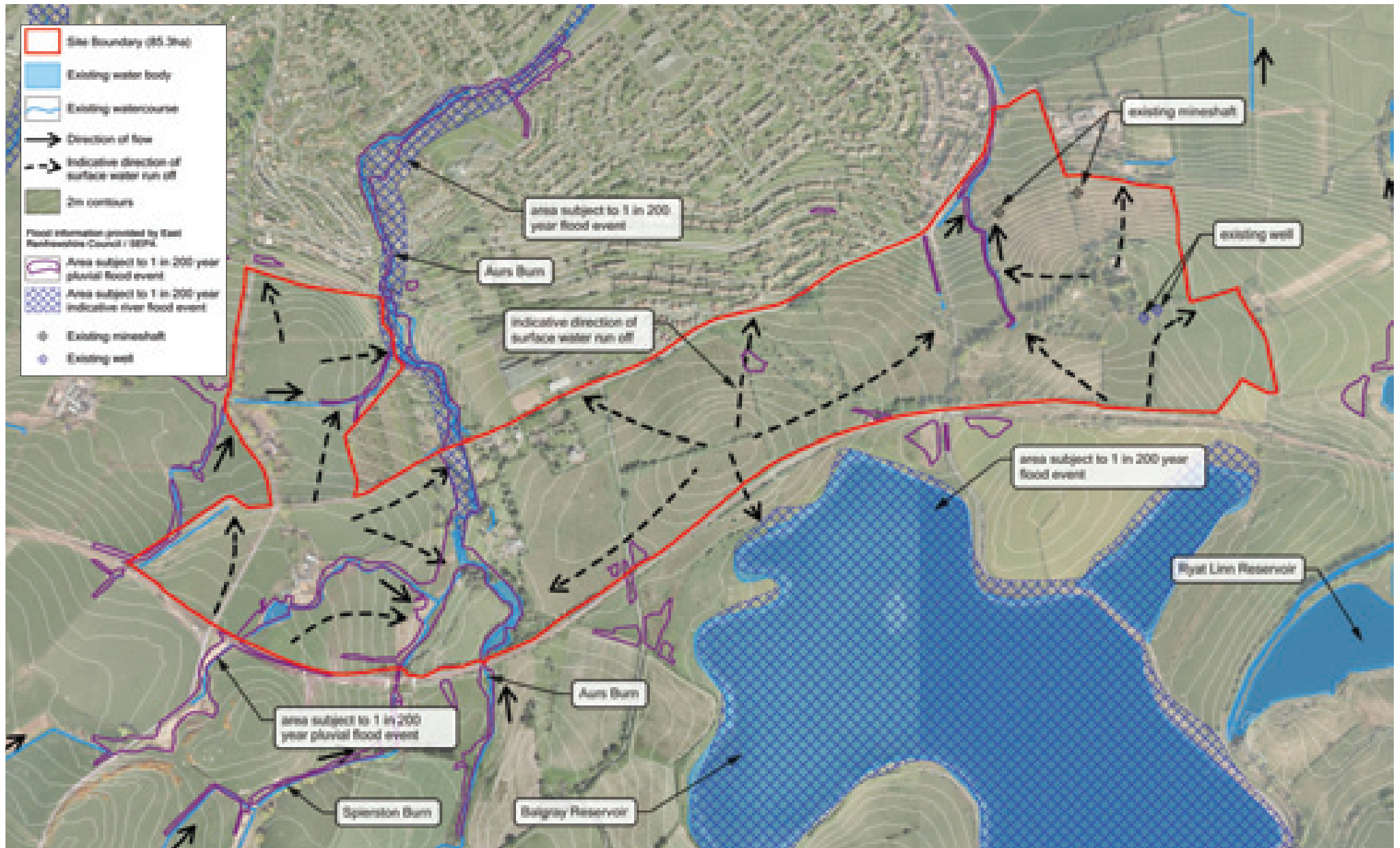
Balgraystone Road, Springhill Road and parts of Springfield Road / Aurs Road form part of the Core Path Network, providing connections to the wider path network.

A Core Path also bisects the site from Springfield Road along the route of an old railway line. This connects with the Core Path which encircles much of Balgray Reservoir via an existing footbridge providing access to Dams to Darnley Country Park.

It is recognised that connectivity between Barrhead to the Country Park needs to be improved.



Springhill Road



Hydrology and Flood Risk

2.9 Hydrology and Flood Risk

Existing Surface Water

Surface water runoff from the site is drained by way of a number of watercourses traversing through various areas of the site. The largest of these is the Aurs Burn which flows within the western third of the site. Three smaller watercourses lie to the west of the Aurs Burn, discharging to it at various locations, which drain the western third of the site.

The central area falls to the southern boundary and whilst no watercourses are present at this location surface water drainage flows south towards the Balgray reservoir at the railway underpass.

The eastern site area is served by two watercourses the largest of which is culverted below Aurs Road to the north. The smaller watercourse is located to the south east corner of Lyoncross which accepts flows from the lower lying area in this vicinity.

Existing Foul Water

An assessment of existing Scottish Water record plans indicates no existing apparatus within the site boundary with the nearest infrastructure shown within the eastern area of Springfield Road and further north west on Springhill Road.

A preliminary view suggests that the existing off site infrastructure would be required to be upgraded to increase its capacity.

Flood Risk

From an examination of the watercourses during site visits, and an assessment of the topography, it is considered unlikely there are any flooding constraints to the development. This conclusion is supported by the SEPA flood map which does not indicate any known flooding within the site.

Surface water flows into the site, via the watercourses, have their capacity controlled by the existing culverts and there are no restrictions to flows exiting the site.

Further confirmation of flood risk may be necessary by way of a Flood Risk Assessment

2.10 Geology and Ground Conditions

A desktop study has been undertaken to establish the geological, mining and environmental conditions on the site

Made Ground

Given the greenfield history of the site, it is considered likely that made ground will only be encountered in the areas of the existing buildings and former railway. Any contamination will be dealt with by appropriate environmental capping.

Natural superficial deposits

The relevant BGS sheet indicates the underlying natural superficial deposits to comprise glacial till of unspecified thickness.

Rock Strata

The underlying rock strata are indicated to be both igneous and sedimentary strata. Some rock outcropping is visible on site and shallow rock is considered to be a constraint in some areas.

Quarrying

There is no indication of quarrying having taken place within the site.

Mining

It is known that the coal and limestone has been mined to the east of the site. There are two abandoned mineshafts within the site, although these are not shown on historical maps.

It is considered there is a potential mining constraint for a limited area of the site and further intrusive investigation is required.

Earthworks / Site Levels

With respect to likely shallow rock, this needs to be taken into account at the detailed layout stage to minimise excavations into this strata where possible. With respect to earthworks, ground modeling will be required to create development platforms across the site. It is proposed to minimise cut where possible and at all times maintain a materials balance within each of the four development areas.

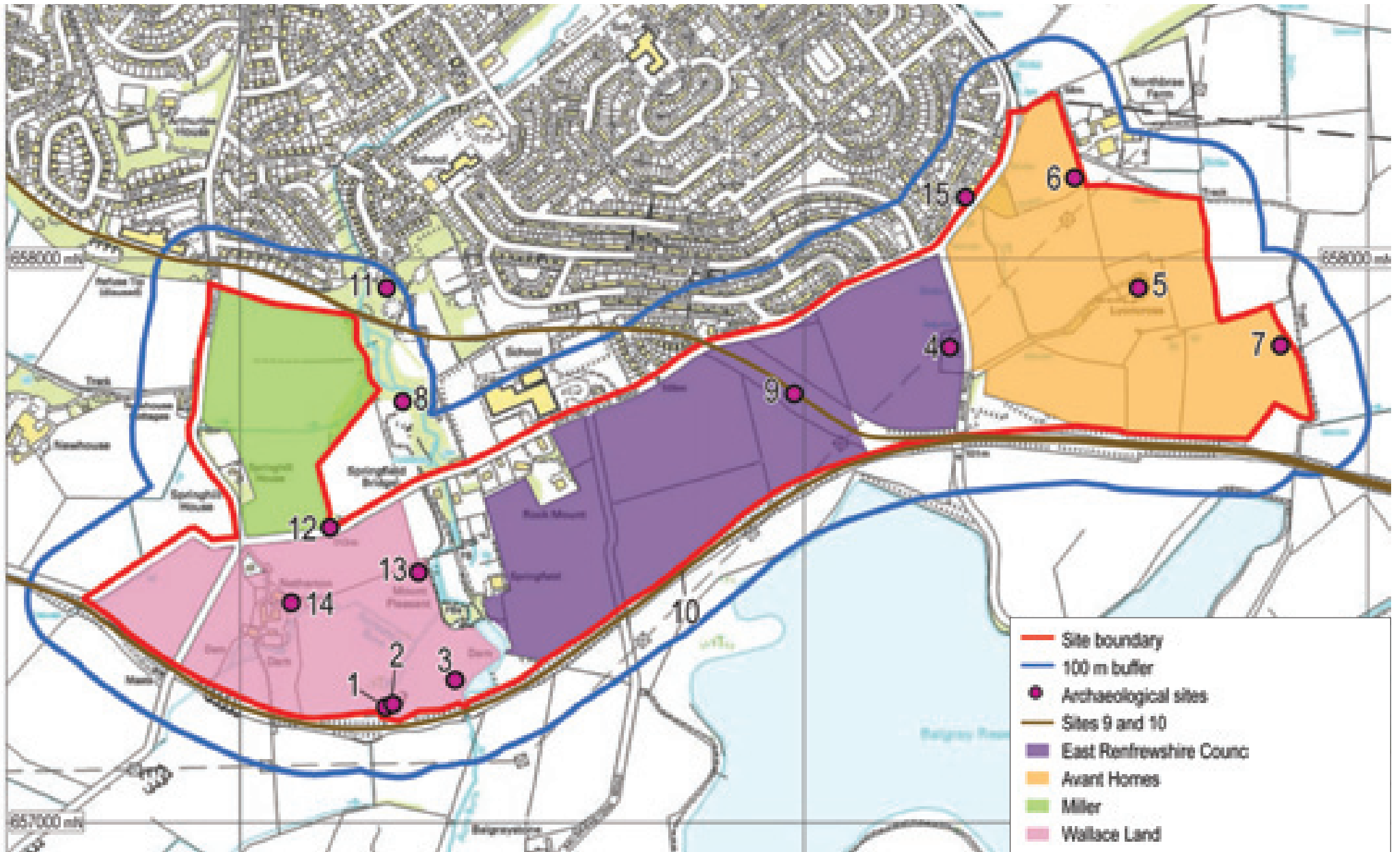
A number of areas within the development boundary are in excess of 8% gradients. This is the maximum permitted for residential roads. Earthworks across these areas would be proposed to create acceptable gradients to appropriate parameters.

Summary

As noted above, there are some engineering constraints on the site. These can be overcome by appropriate groundworks taking account of emerging housing layouts.

It is also likely that the current foul drainage system will be required to be upgraded off site. This will be confirmed in discussions with Scottish Water.

As such, there are no identified engineering constraints which would preclude the development of the site.



Cultural Heritage - (GUARD Archaeology - Figure 1)

2.11 Cultural Heritage

Key to Cultural Heritage Sites in plan opposite:

1. Netherton - No Significance . Possible earthworks and enclosure
2. Field Survey: Netherton - No significance. Possible earthworks and enclosure
3. Netherton, Barrhead - No significance. Fragments of earthworks / enclosure
4. Gorbals Water Works, Balgray Filter and Tank - Lesser Significance. Site of former filter and tank.
5. Lyoncross by Auchinback Barrhead - Local Significance - Category C Listed Building. 2 storey farmhouse, probably circa 1780 with extensive additions circa 1900
6. North Brae - Lesser significance. Windpump
7. Lyoncross - Lesser significance. Farmstead annotated as Littleton, a ruin comprising one unroofed building shown on the 1st edition OS 6-inch map.
8. Springfield. Lesser significance. Bleach works
9. Paisley and Barrhead Line - Lesser significance. Railway line.
10. Lanarkshire and Ayrshire railway line - Lesser significance. Railway line also known as London Midland and Scottish Railway
11. South Arthurlie Printworks - Lesser significance.
12. Springfield House - Lesser significance.
13. Mount Pleasant - Lesser significance. Garden or landscaped area
14. Netherton - Lesser significance. Well or farmstead
15. Auchinback/ Auchinback - Lesser significance. Well and farmstead.

An assessment of the evidence for past human use on the site, its archaeological sensitivity and the potential impact of the development upon the archaeological resource has been carried out.

There are twelve cultural heritage sites recorded within the proposed development area itself, with a further three cultural heritage sites recorded within its immediate surrounding area - 15 in total.

The use of the site has been agricultural since at least the mid eighteenth century, with the only known intrusion into the land being the railway lines that were built during the early twentieth century.

This Cultural Heritage Assessment indicates that while the proposed development area is not particularly archaeologically sensitive, there is some potential for the survival of sub-surface archaeological remains within undisturbed parts of the site.

Given the potential, albeit low, for the survival of archaeological remains within the proposed site, it is advised that a programme of archaeological mitigation works may be required.

The requirement and scope of any archaeological mitigation work, will be considered during the preparation of the masterplan and in consultation with the relevant authorities.



Ecological Assessment - (JDC Ecology)

2.12 Ecology

Key to Habitat Sites in plan opposite:

1. Mature trees and hedge along the road
2. Yard area, linked to house. Mature trees
3. Farm Pond
4. Watercourse and hedgerow
5. Japanese knotweed
6. Aurs Glen - LBS 4
7. Japanese knotweed
8. Broadleaved plantation woodland
9. Japanese knotweed
10. Japanese knotweed
11. De-silted watercourses
12. Raised ground, largely rock
13. Estate/large house and grounds.
14. Old otter spraint
15. Burn with good conditions
16. Largely ungrazed and uncut grassland
17. Vegetated railway
18. Small field with developing flora
19. Access route to Dams to Darnley Country Park
20. Springfield Disused Railway – LBS 99. Japanese knotweed
21. Unmanaged field
22. 18 mature trees
23. Japanese knotweed
24. Japanese knotweed
25. Site of former house now scrubbed over
26. Lyoncross – LBS 77. Mature oak woodland.
27. Lyoncross – LBS 77 Field and area of scrub
28. Tree line track to farm.
29. Marshy field with good mix of species

The ecological assessment identified the habitats across the site and presence or potential for notable and protected habitats and species, making recommendations for further surveys work. The habitats create several distinct wildlife corridors throughout the site.

There are statutory designations in or adjacent to the site. Three local biodiversity sites (LBS) are in the site: LBS 4, LBS 77 and LBS 99.

LBS 2 and LBS 5, and Dams to Darnley Country Park lie adjacent to the site.

The site is predominantly a series of grasslands now partly unmanaged. Fields to the west are used for grazing. The site contains two woodland blocks: semi-natural oak to the east; young broadleaved plantation to the west. Road and track networks are lined with mature trees and hedgerows, and hedgerows are established along the field boundaries.

Species were recorded at the three LBS in the site. Plant lists will need to be revisited at appropriate months. There are a few species notable to East Renfrewshire Council in the LBS Report.

Japanese knotweed is present at the west end of the site and along LBS 99. This should be eradicated. LBS 99 would be affected by Japanese knotweed removal, potentially damaging the butterfly orchid. Survey is needed to determine the extent of the orchid and decide if loss is acceptable or can be compensated for by translocation to suitable conditions either on site or elsewhere.

No plant species of note were recorded in the southern grasslands of LBS 77. These grasslands will be removed, and an area of grassland will be retained elsewhere (marshy grasslands) to mitigate for this loss. The marshy grasslands have more diversity than the existing neutral grasslands within LBS 77.

Otters are present in the wider area and could access the site, mainly at the west end. There are presently no holts or lying up places in the site or within 30m. This will need to be kept under review.

Bats are likely to be present foraging and commuting, and buildings (Netherton and Lyoncross) and many of the mature trees present suitable opportunities for bats to roost. Survey will be required.

The presence of a pond at Netherton presents breeding opportunities for great crested newts (GCNs) and amphibians in general. A survey will be needed to determine whether this pond is retained or not.

No evidence of water vole was found within or local to the site. Some sections of the water channels are suitable, and survey will be needed at the appropriate season.

No evidence of badgers was found in the site or in the 50m buffer zone. The nearest scoped sett to the survey area is at least 750m away. However, a 500m buffer survey would be recommended.

There is a wide range of opportunities for birds to nest, roost, and forage within the area. Breeding Bird Survey is recommended.

There are options to retain, enhance, and create opportunity for biodiversity. These include retaining existing wildlife corridors and edge habitats, enhancing these with additional planting and wildlife management of edge grasslands. Retaining the marshy grassland at the east end should be considered.

The addition of new woodland and scrub blocks, hedgerows, wetlands (appropriately designed SUDS ponds), and species-rich grassland zones, all linked to existing habitats will create robust corridors around and through the site.



Opportunities and Constraints

2.13 Opportunities and Constraints

Opportunities

- The co-operation of the developers, landowners and the Council provides an opportunity to deliver a series of integrated proposals across the site.
- The areas of ownership can be delivered independently of each other.
- Zones of development created throughout the site by the site conditions and ownership can form the basis of new character areas.
- Opportunity for integrating the development into the town and enhancing the existing greenspace network.
- The site is in a sustainable location, adjacent to existing public transport services and is within walkable distance from Primary and Secondary Schools.
- Opportunity to provide an integrated sustainable transport solution including a new rail halt, creating a public transport hub.
- The site forms part of the entrance to Barrhead from the south providing an opportunity to enhance the sense of arrival to the town.
- Multiple accesses into the site are available from Aurs Road, Springfield Road and Springhill Road which promotes connectivity.
- Ground engineering to form development platforms across the site is feasible.
- The educational estate has capacity to accommodate pupils from the development with the provision of new pre-5 facilities.
- The provision of new homes to meet local need and demand also supports local amenities and facilities.
- Opportunities for the safeguarding, improvement and creation of natural habitats as a series of connected wildlife corridors. Opportunities to retain existing trees and hedgerows on site.
- Potential for the enhancement of existing road infrastructure, on and off site.
- The site has views over the Dams to Darnley Country Park and adjacent farmland with the potential to improve path linkages and car parking in Lyoncross.
- Potential to enhance access to and leisure opportunities within Dams to Darnley Country Park, with a high quality green network encouraging healthy lifestyles
- Opportunity for meaningful community engagement to help shape the type of place that local people desire.

Constraints

- Topography on the site presents some limited challenges to development.
- Visual sensitivities in specific areas will require mitigation and may limit land available for development in the east.
- Some of the non participating ownerships within the site will limit east-west accessibility.
- Geology and ground conditions limit the feasibility of excavation in some areas.
- The presence of mine workings may restrict development.
- The site is crossed by substantial overhead 133kV power cable which it is not considered economically viable to divert underground. Although no specific guidance is provided by Scottish Power, with regard to standoffs it is considered 30m either side of the centre line is appropriate.
- Due to the presence of Japanese Knotweed the site of LBS 99 will be significantly adversely affected and mitigation is required including reinstatement off site

3.1 Vision

The vision for this site is to create a place which people are proud to call their home, a place they enjoy living in. This place will reflect the six qualities of successful places set out in *Designing Places*:

- Distinctive
- Safe and Pleasant
- Ease of Movement
- Welcoming
- Adaptable
- Resource Efficient

The key components of the proposal demonstrate the vision which the Council and the development partners have for the site, and aligned with local and national policy.

3.2 Distinctive

The co-operation of the landowners provides opportunity to deliver a series of integrated proposals incorporating distinctive neighbourhoods.

A range of new homes can be developed utilising a range of materials and details to provide each neighbourhood with its own clear identity.

The site's features and topography allows for the creation of both well contained spaces and distant views to the surrounding areas. Views, vistas and glimpses will be formed in the proposed layout to take advantage of the site's features.

There is an opportunity to retain existing trees and hedgerows where possible. These existing landscape features will be supplemented with new trees and other planting.

3.3 Safe and Pleasant

All streets and open spaces will be overlooked to ensure a safe and pleasant environment.

The movement around the development will be prioritised for pedestrians.

Shared surfaces will be provided where possible, and street design will slow traffic and encourage interaction between homes and streets.



Creating places



Distinctive neighbourhoods



Safe and pleasant places

3.4 Ease of Movement

A clear movement hierarchy will be created which allows ease of movement through the development.

Movement around the development is focussed on providing pedestrian and cycle access to the greenspaces within the development, the wider green network and to the public transport links.

All parts of the development have easy walking distance to the bus service along Springfield Road.

Shared surfaces, will be incorporated into the residential areas giving pedestrians priority over vehicles and naturally slowing traffic.

Interventions along Springfield Road such as traffic signals and crossing points will control the speed of traffic along this distributor road.



Shared surfaces promoting pedestrian movement

3.5 Welcoming

The approach to Barrhead from the south is distinctive due to its proximity to Balgray Reservoir with the rail bridge forming a gateway to Barrhead. This approach within the site can be enhanced

The access routes into the site from Springfield Road and Springhill Road will be overlooked by new homes.

New vistas and glimpsed views will be created into the site and to the wider landscape beyond to enhance the welcoming nature of the spaces created.

All parts of the development will be in close proximity to quality open space, with pedestrian links to the countryside and the adjacent urban area.



Welcoming places

3.6 Adaptable

The proposed development is for approximately 1034 homes of which 173 homes will be affordable along with associated greenspaces, infrastructure and ancillary uses.

The development will include a variety of dwelling types, tenures and sizes. It will meet the needs of a variety of different households and will be socially inclusive. This includes affordable homes in accord with the Council's requirements and priority need.

Affordable homes will be adaptable to the future needs of residents.

The incorporation of flexible live/work homes will be encouraged to allow the flexibility for residents to work from home.

The provision of local neighbourhood retail opportunities will be encouraged to allow local services.



Affordable homes

The movement hierarchy will maximise permeability, providing an adaptable network of streets and spaces.

The land uses proposed will be compatible with the surrounding area and are well positioned for pedestrian, cycle, public transport and vehicular connections. The site is close to existing local amenities and has access to the town centre.

The development has a strong greenspace framework. This provides a variety of different types of habitats and open spaces suitable for recreation, amenity (including allotments) and biodiversity. These open spaces can adapt to future requirements.

3.7 Resource Efficient

Location

Bus services already operate along Oakbank Drive and Newton Avenue. There is an opportunity to provide an extended bus route through the site along Springfield Road, and Springhill Road.

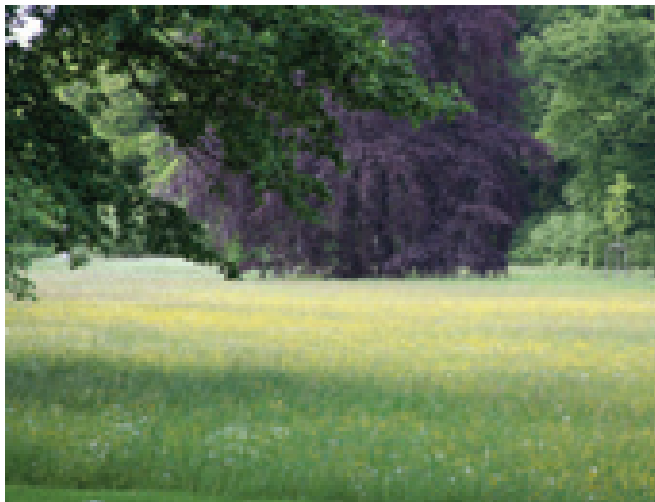
The proximity of the adjacent rail line provides an opportunity to integrate the proposed rail halt with the site and provide direct access to Dams to Darnley Country Park. The probable location and spatial requirements of the new rail halt have been incorporated in the development framework. Detailed studies will be undertaken to ascertain the exact location a design.

A car park has been incorporated adjacent to the site of the potential rail halt to provide a park & ride facility.

Access to this rail halt through the development will be on a road sufficient in size to accommodate a bus route. This provides an integrated and sustainable transport hub at the rail halt.

Additionally, shared surfaces will be incorporated prioritising pedestrian movement.

The site's location near to schools should also reduce the need for reliance on the car as a mode of transport.



Strong network of quality greenspace



Access to public transport



Flexibility for the incorporation of a new rail halt

Energy Efficiency & Resource Use

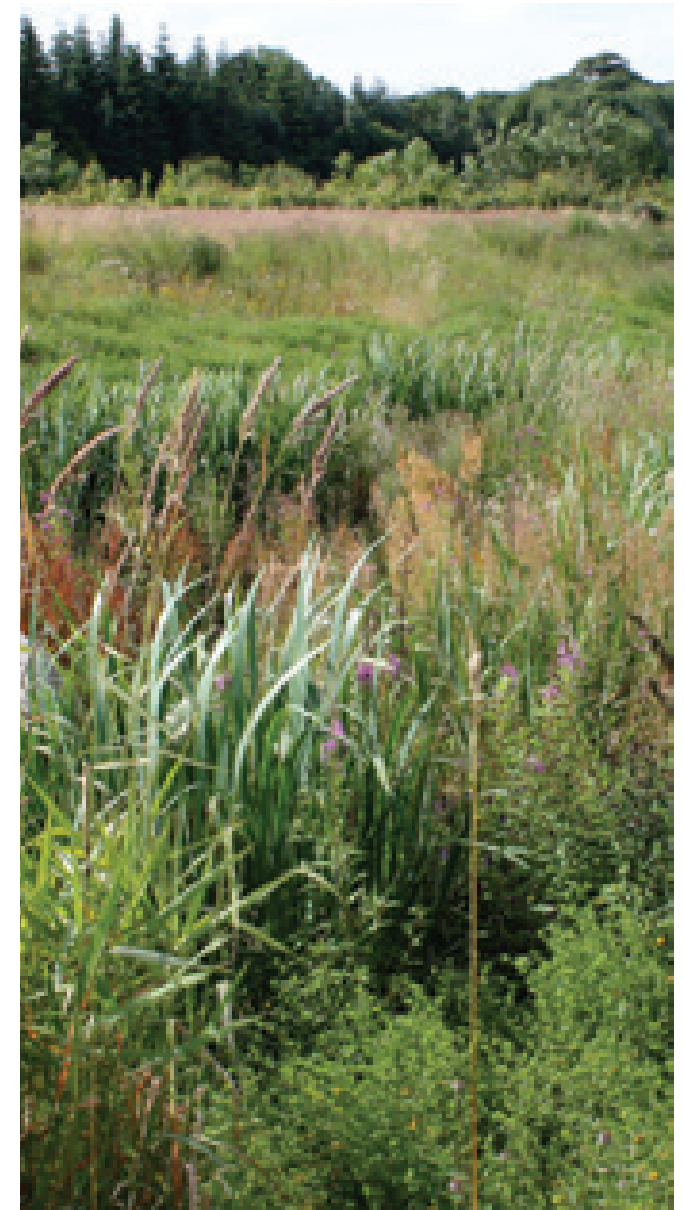
Existing and additional structure planting will provide shelter from the prevailing wind. In particular, the established woodland belts throughout the site will be enhanced with additional planting.

As this proposal is subject to more detailed design future applications will need to secure Planning Permission and building warrants once the detail of the proposals are known.

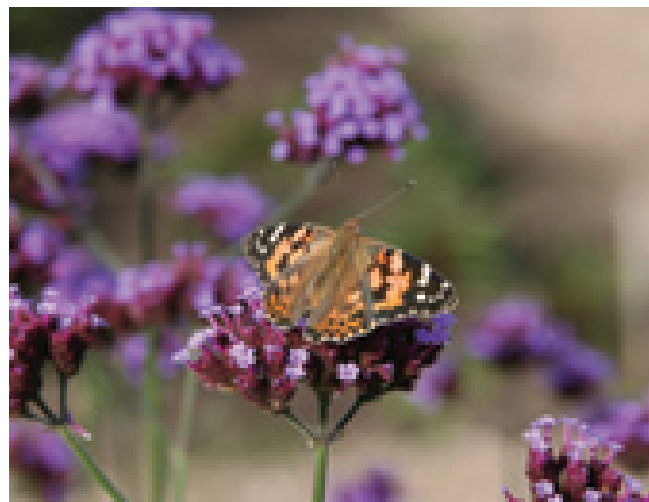
SUDS

A SUDS strategy is proposed for the site. This will provide the required level of treatment of surface water prior to discharge to the surrounding watercourses.

SUDS will be designed to provide amenity and biodiversity benefits where possible. Detention ponds are proposed to maintain surface water discharges to greenfield levels.



Sustainable energy features integrated into new homes



Enhancing biodiversity

Sustainable Urban Drainage Systems



Development Framework

4.1 Principles

The approach being taken to deliver this strategic development opportunity provides the prospect of delivering sustainable growth to Barrhead.

The approach to the site's design principles are based on an understanding of the physical characteristics of the site its context, and the principles established in planning guidance at both national and local levels.

The design principles are as follows:

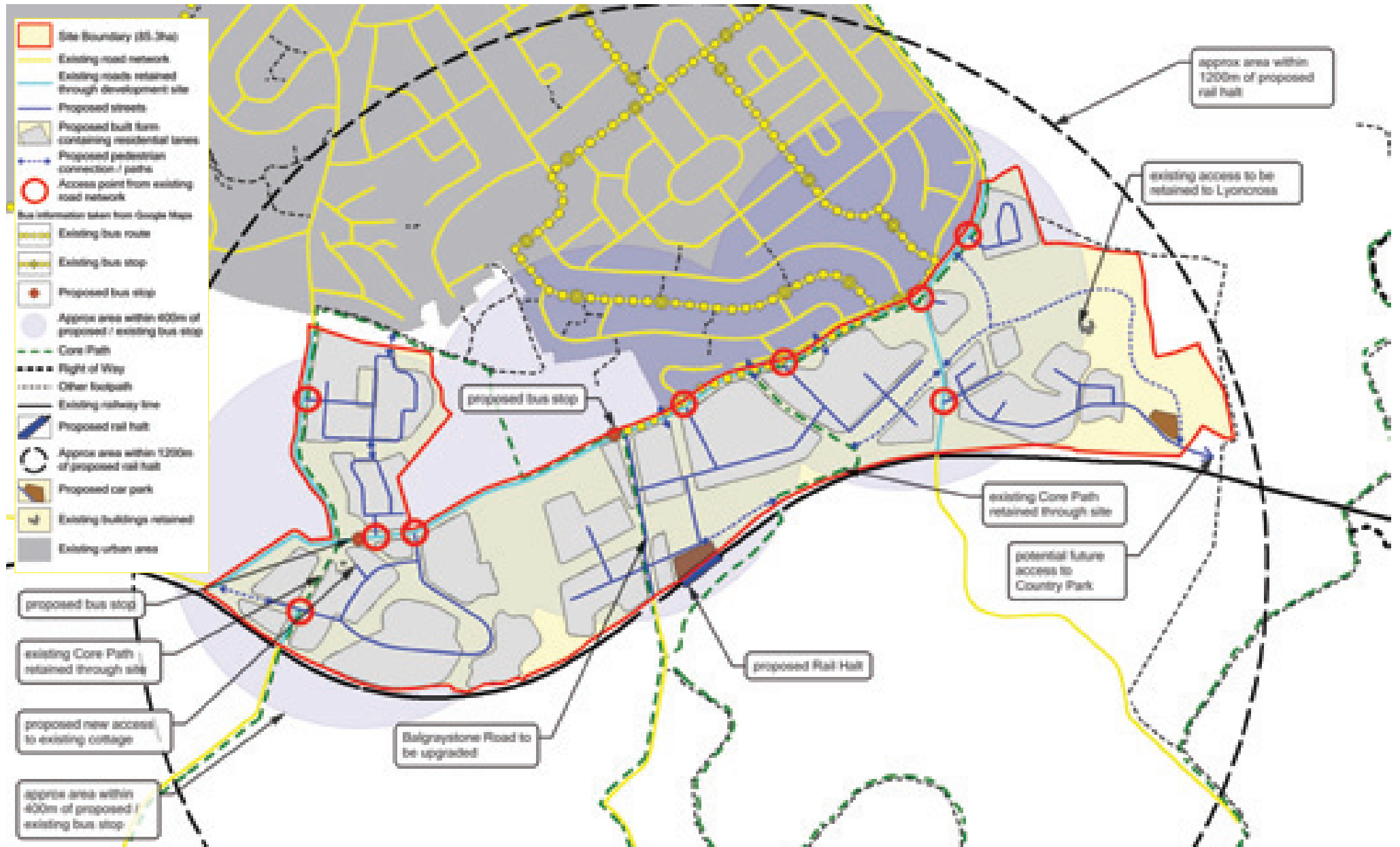
- Movement and Accessibility
- Greenspace Strategy
- Sustainable Urban Drainage System
- Engineering and Infrastructure
- Land Use and Built Form
- Development Framework

The following technical appraisals, as referenced in Section 2: Site and Area Appriasal, have informed the proposal's development principles in order to ensure the site's development feasibility:

- Landscape Visual Impact Assessment
- Archaeological
- Ecological
- Transportation and Access
- Services
- Ground Conditions



An example of new homes and streets



Movement & Access

4.2 Movement and Accessibility

Good street design can promote a better quality of living for everyone. This statement in *Designing Streets* illustrates a key principle of this proposal. It focuses on creating good places in which people want to live.

The proposals maximise integration and connectivity with the existing network of routes adjacent to and within the site. Particular attention has been made to connecting the site and existing urban area to the Dams to Darnley Country Park.

The streets in this proposal will be arranged in such a way as to promote a positive sense of place encompassing:

- local distinctiveness;
- visual quality; and
- potential to encourage social and economic activity

The access strategy will ensure that each land ownership is deliverable as a discrete development.



Springfield Road

Existing Road Network & Mitigation

The site is bounded to the west by Springhill Road which is a c.7.3m wide single carriageway. To the north, the site is bounded by Springfield Road, which over the majority of its length is a c.7.3m wide single carriageway with footways and street lighting.

A section of Springfield Road to the west between the bridge over Aurs Burn and the junction with Springhill Road is c.6m wide single carriageway with no footways or street lighting.

This section restricts bi-directional traffic flow and requires drivers to give way. To manage this more effectively, either a Vehicle Actuated (VA) traffic signal system could be installed to assist in managing the future traffic demand associated with the site. Alternatively the carriageway could be widened to 7.3m. More detail at the masterplan stage will confirm an appropriate design solution.

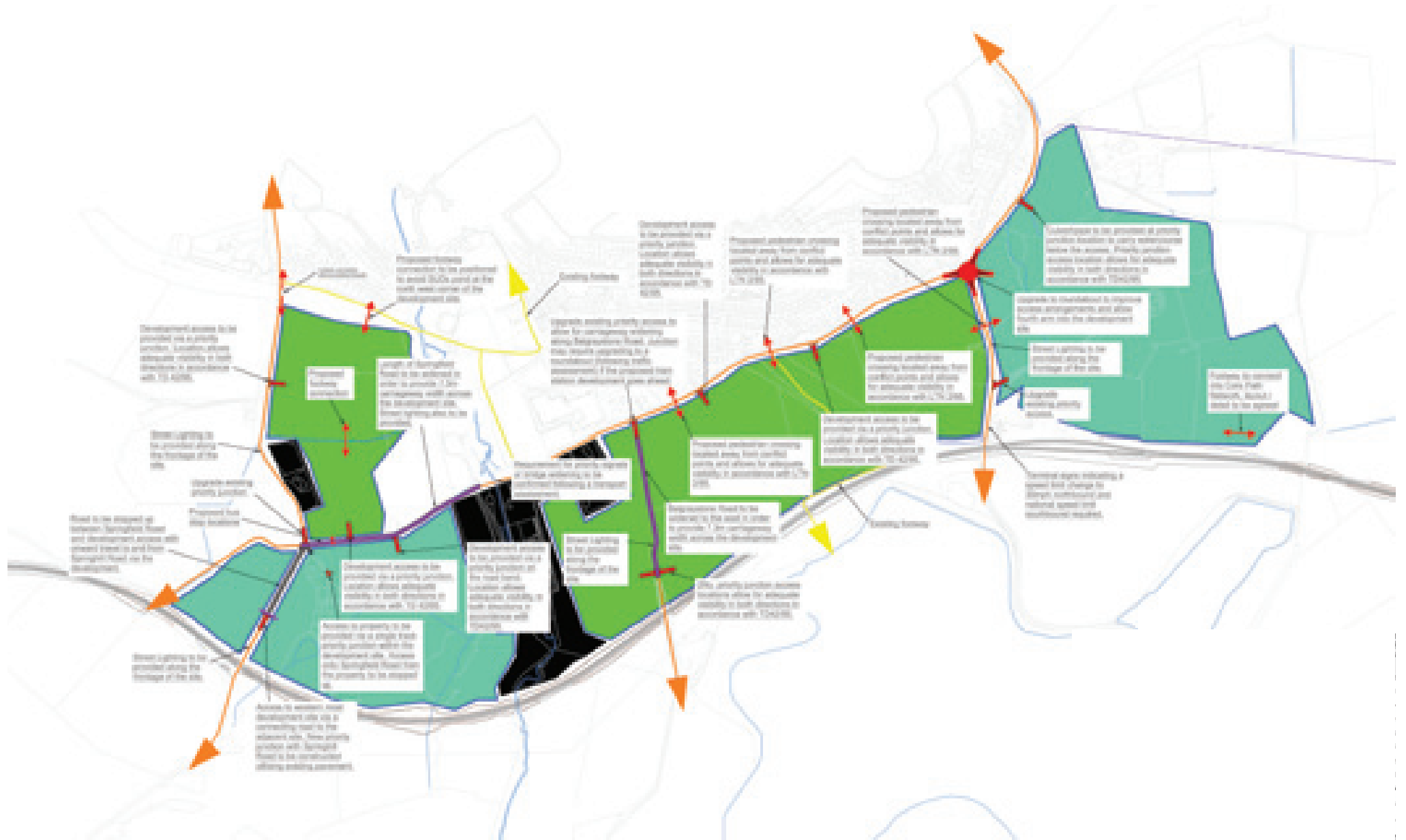
The widening of the remainder of Springfield Road to the junction with Springhill Road would be required, with widening to the north to avoid the use of third party land. This widening would enable bi-directional traffic flow without the requirement to give-way.

Footway provision (c.2m wide) will be required on both sides of the widened carriageway. Some local realignment of footway on Springhill Road is also recommended.

The junction arrangement of Springhill Road with Springfield Road is substandard. It is recommended that Springhill Road in due course needs to be stopped up from a point mid way into the south western portion of the site and the junction with Springfield Road.



Restricted width section of Springfield Road



Proposed Access Arrangements (Atkins - Dwg 5127269/000 Rev 0)

It is envisaged that the stopped up section of Springhill Road would be utilised as part of a walking and cycling route and be wide enough to provide an emergency service access if required.

These recommendations support the full development of the south western area.

The site is accessed via Balgraystone Road in the centre and Aurs Road to the east. Balgraystone Road is a surfaced c.3m wide single track unlit road, accessed via Springfield Road. Aurs Road is a c.7.3m wide, unlit single carriageway with no footway provision. Both roads provide key routes serving the Barrhead area.

To facilitate access to the proposed rail halt and support access to the site by public transport, Balgraystone Road could be widened on its eastern edge to provide a c.7.3m wide design if required.

The junction of Balgraystone Road with Springfield Road will require upgrading to ensure design compliance although the type of the junction is expected to remain unchanged.

A new internal access road through the site will enable access to the rail halt and its park and ride facility with c.80 new parking spaces. This provides access to the rail halt by bus services - creating a transport hub at the centre of the development.

The Aurs Road / Springfield Road junction would be upgraded to provide a new 32m 4 arm ICD roundabout. This provides an effective method of managing traffic demand at this location whilst accommodating pedestrian and cyclist crossing movements. It also enables larger goods and public service vehicles to negotiate the junction.

Servicing and access arrangements to existing properties along Springfield, Springhill and Aurs Roads will be maintained. In some cases realignment of accesses within the land ownership of the development partners will be required.



Springhill Road / Springfield Road junction



Typical Rail Halt

Access by Public Transport

To support travel by sustainable travel modes, further bus stops should be located in the following locations:

- A bus stop including lay-by, shelter and flag to be located on both sides of Springfield Road, near to the Balgraystone Road / Springfield Road junction;
- A bus stop including lay-by, shelter and flag to be located on both sides of Springfield Road, located between the proposed vehicular access to the northwest portion of the site and the junction of Springfield Road / Springhill Road.

This enables the majority of the development site to be within the recommended 400m walking catchment of a bus stop and therefore in compliance with current development guidelines.

Provision of a new rail station forms part of the sustainable transport strategy for the site and is a key priority for the Council. An appropriate site has been identified and safeguarded within this Development Framework.

Further consideration with regards to the detail of the new rail stations delivery including phasing will be considered in the SPG. When the proposed rail halt within the site be realised, then all parts of the site are within 20 minutes walking distance.

The provision of an internal road layout to the rail halt will enable access by buses to this transport hub.

Access by Pedestrian / Cyclists

Pedestrian access to Barrhead South is relatively well catered through the provision of a number of existing footways.

There are opportunities for improvements. These are identified on the adjacent plan and include:

- Provision of a footway / cycle connection, across the watercourse on Miller Homes site, to enhance connectivity and cohesion. This should be sufficiently wide to enable access by emergency vehicles if required.
- Provision of a pedestrian link to the north east boundary of Wallace Land's site to link into an existing footway / cycle path providing access onwards to Barrhead town centre and St Luke's High School.

- Extension of the current footway provision on the north side of Springfield Road to the junction with Springhill Road and provision of a c.2m wide footway on the south side of Springfield Road along the frontage of the site.
- Provision of three pedestrian / cycle crossing points at key locations on Springfield Road that will enable access into the existing Barrhead urban area. These crossing facilities will likely require minor localised road widening and the provision of central refuge islands.
- Promotion of pedestrian and cycle access between the development and the existing recreational footpath network in the Country Park bounding Avant Homes site. This would be supported by the provision of a new visitor carpark improving public access to the Country Park.



New bus stops will be provided on Springfield Road



Typical Rail Halt

- Promotion of a pedestrian and cycle route extending the core path to the north of the Miller Homes site around the south western edge of Barrhead linking to the housing development at Kelburn Street.

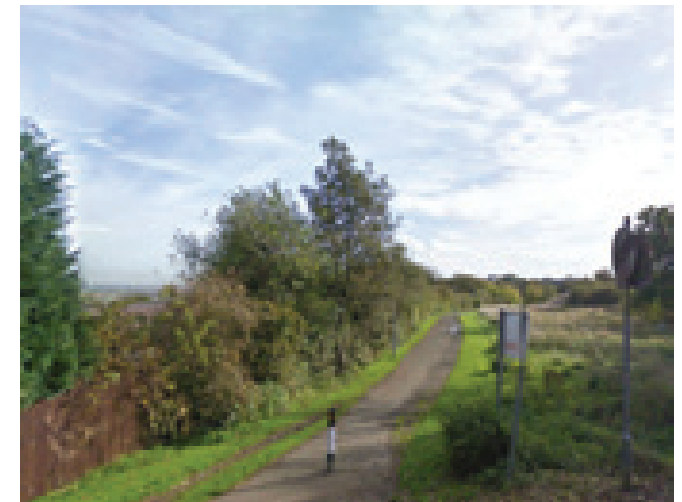
The layout proposed for all paths is feasible in terms of creating appropriate gradients which are compliant with DDA requirements and Fieldfare Trust Standards.

The pedestrian routes proposed will integrate with the existing urban pattern ensuring a fully integrated network of routes and spaces. Signage for these routes will be consistent with the Barrhead Smarter Choices Strategy.

Pedestrian routes will also improve access to the wider countryside and Country Park.



Existing footpath connections



Existing footpath from Springhill Road north of the site

Hierarchy of Streets and Spaces

A hierarchy of roads, streets, lanes and paths will be formed throughout the proposed development providing easy access for a range of modes of transport.

The four route typologies proposed will be designed in accordance with East Renfrewshire Councils design standards and *Designing Streets*.

The proposed street hierarchy will aid legibility and help create a sense of place.

Roads

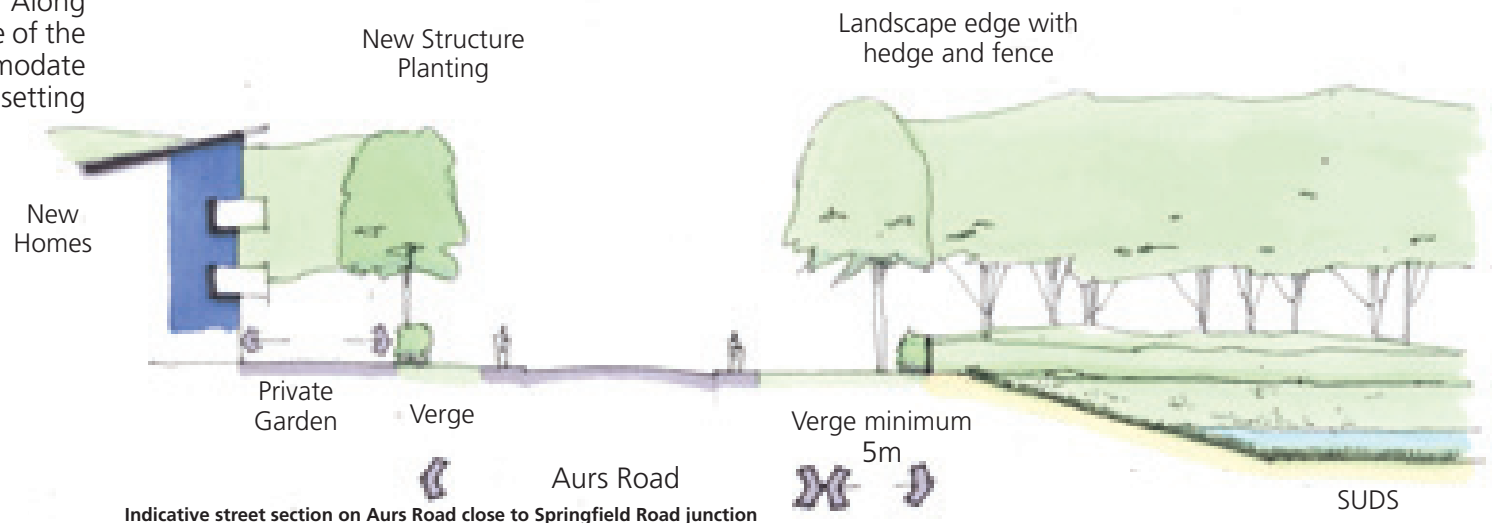
Aurs Road, Springhill Road and Springfield Roads will form the primary vehicular routes through the development and provide a public transport route.

Footpaths and formal tree planting on these roads will create attractive tree lined roads, providing access and improving the amenity for pedestrians and cyclists.

Roads will have 2m footways on both sides. Along the tree lined avenue. Where possible one side of the road will have a 3m wide footway to accommodate cyclists and consideration will be given to setting footway back from the road behind tree line.



Springfield Road with existing pedestrian / cycle provision



Indicative street section on Aurs Road close to Springfield Road junction

Residential Streets

The carriageway of residential streets will generally be 5.5m wide, with 2m footpaths to either side.

It is envisaged that short sections of these streets could incorporate shared surfaces to minimise traffic speeds.

Shared surfaces can also be used to distinguish focal points within the development such as at key junctions, providing a transition from residential street to shared surface lane.



Example of a Residential Street



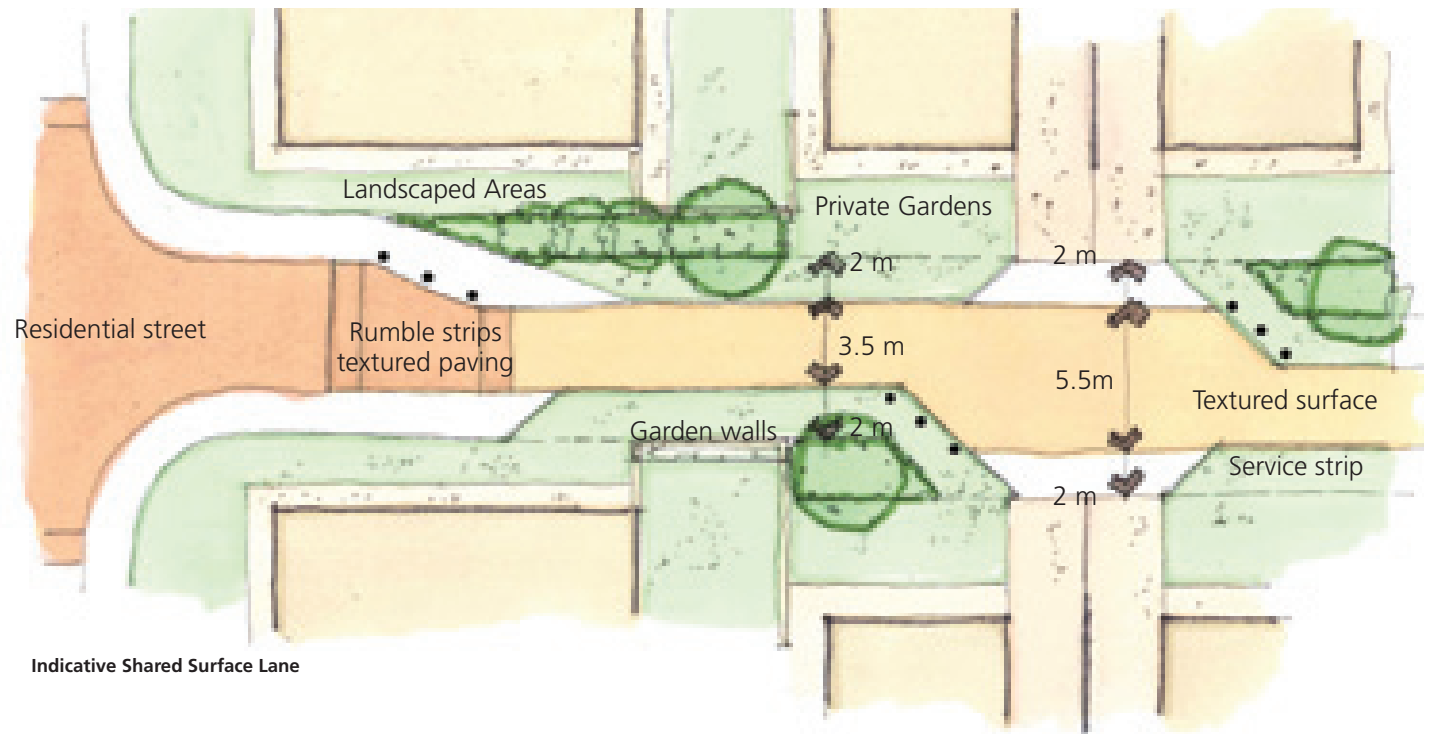
Indicative Residential Street

Shared surface lanes

Shared surface lanes will prioritise pedestrian and cycling over vehicular movement.

The lanes will form a series of informal linked spaces, creating an attractive connection between residential streets.

These lanes will be designed to minimise traffic speeds through the positioning of buildings, landscaping and on-street car parking to naturally reduce vehicle speeds.



Indicative Shared Surface Lane



Example of a Shared Surface Lane



Example of a Shared Surface Lane

Paths

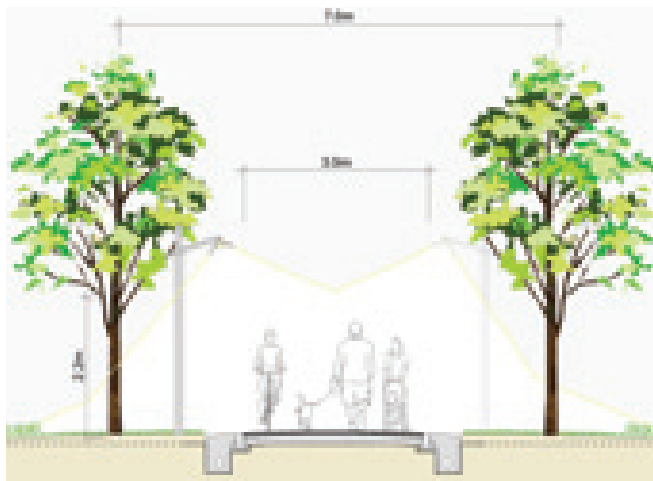
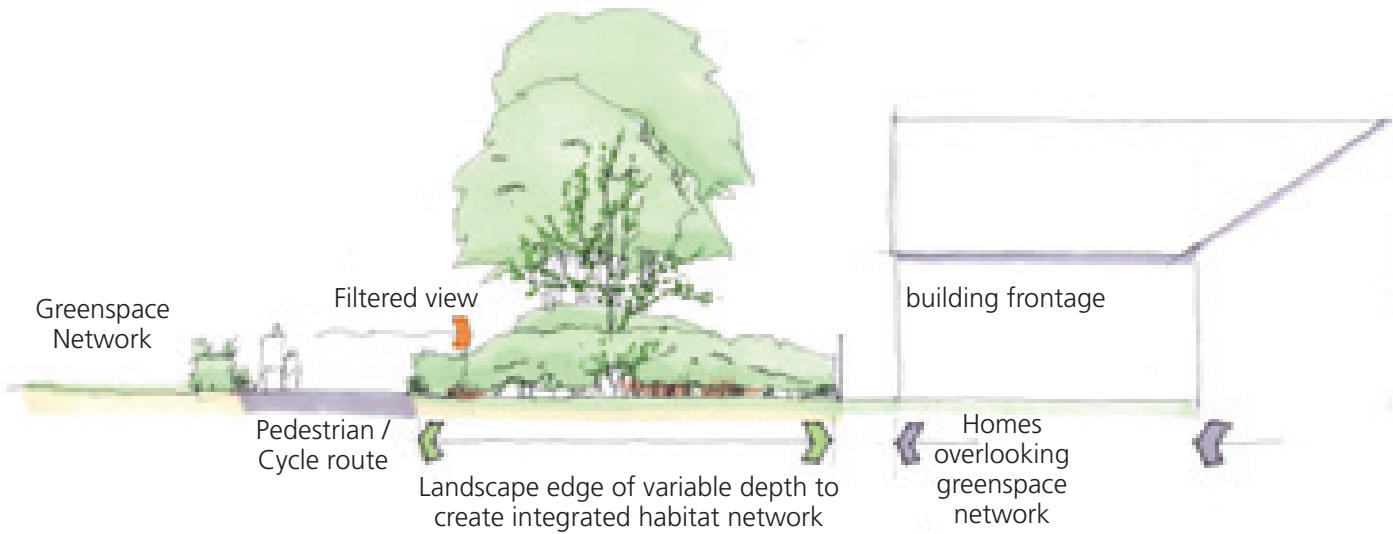
Routes and paths will provide permeability through Barrhead South. These will be located alongside streets and roads and the greenspace network.

These routes will connect all areas of the site and allow a through link connecting the greenspace network with the surrounding countryside.

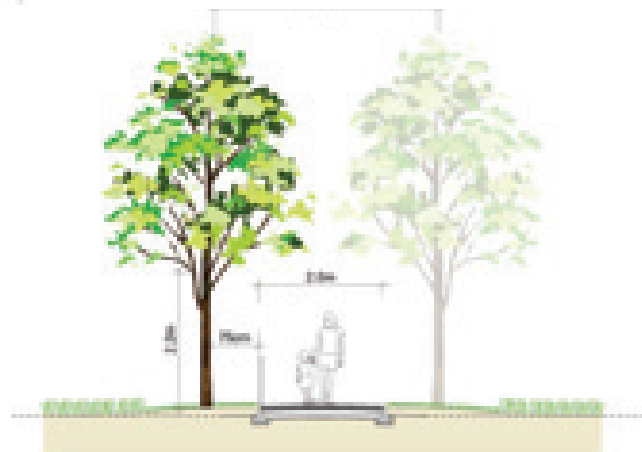
Paths are planned to be convenient, direct and provide pedestrians with a choice of routes. Slopes will be DDA compliant.

Homes fronting these routes and spaces will ensure natural surveillance throughout. Extended fence lines along path routes, particularly where in close proximity to the paths or at key frontages, will not be acceptable.

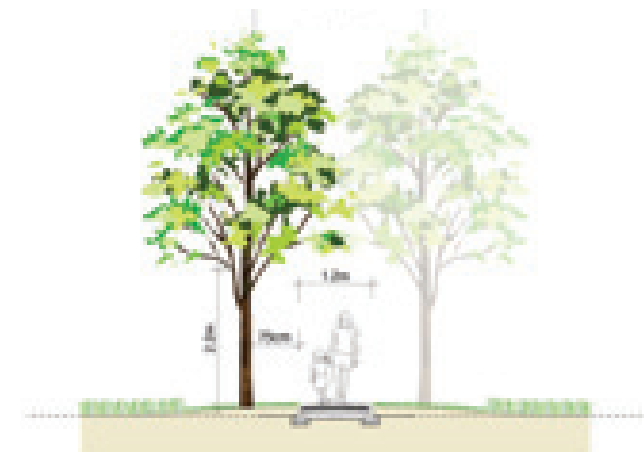
The existing Core Paths through the site are retained with very minor deviations, and connectivity greatly improved through to the Country Park



Example of a 3.0m wide footpath / cycleway



Example of a 2.0m wide footpath



Example of a 1.2m wide footpath



Greenspace Strategy

4.3 Greenspace Strategy

The proposals for Barrhead South represent a sensitive extension to Barrhead to form an attractive transition between the town and country, integrated with the wider green space network.

The quantity of greenspace provision meets ERC's requirements as set out in Supplementary Planning Guidance: *Green Network and Environmental Management*.

The greenspace proposals for this development accords with the requirements of East Renfrewshire LDP Policy D7: *Green Infrastructure and Open Space Provision within in New Development*.

The greenspace provision has been designed to ensure that development within each of the four land owners' parcels meets requirements in terms of qualitative and quantitative greenspace provision.

Open space is provided as a series of corridors through the development creating a multi-purpose green network. This provides leisure opportunities within areas of biodiversity interest that will function as wildlife corridors between the existing established green network.



Providing greenspace corridors

The greenspace strategy is based on the following elements:

1. Probable reduction loss of LBS 99 due to Japanese knotweed eradication with mitigation provided through enhancement of green network established in centre of site. Similarly the possible reduction/loss of LBS 77 due to development with mitigation through enhancement of green network in northern section of Lyoncross. These mitigation strategies provides the opportunity to create an accessible green network of biodiversity and educational value that form a transition between built environment and the countryside edge. The new links created will join up with existing path network in the Dams to Darnley Country Park.
2. A network of parks will be provided across the proposal within which active play facilities will be provided. It is intended that these areas of play will be integrated with the green network.
3. Where practicable existing hedgerows and trees will be retained and brought into active management. This will contribute to the transitional character from town to countryside, and maintain biodiversity. Enhanced structure planting and new tree belts will promote connectivity of habitats. Areas of existing meadow will also be retained to encourage biodiversity.

4. Aurs Road is the main route into Barrhead from the south. Development will be set back from Aurs Road with landscaping to the road enhancing the existing green corridor in keeping with its character.

This greenspace strategy connects to the existing network of open spaces in the adjacent urban area and link through the development to the Dams to Darnley Country Park. Footpath links connect to the Country Park south and east of the site.

The greenspace strategy will also provide an attractive edges to the development with open views to the countryside beyond.

At present, the southern edge of Springfield Road is lined by a number of mature trees and a low hedgerow. Where possible, these elements will be retained. Additional tree and shrub planting will be incorporated along the southern edge of Springfield Road.

Local Biodiversity Site (LBS) 99 is known to have Japanese Knotweed which will be removed. As part of these mitigation works, it is proposed that an alternative greenspace is created closer to Balgraystone Road. The existing hedgerow and mature trees which run perpendicular to Balgraystone Road will be retained along with the hedgerow along one side of Balgrayston Road.

The new network of pedestrian paths will be softened with planting to provide an appropriate softening of the urban form.



Integrating equipped play facilities

The aspiration is for a more creative approach to play provision, through the placing of equipment throughout the site associated with greenspaces, to generate a more exploratory experience rather than one fenced off play area.

Active Open Space can comprise a local equipped area for play and / or a multi-use games area and /or an area with no equipment which can be used for a variety of informal activities.

The greenspace in the development will fulfil both social and biodiversity goals.

All communal open space will be easily accessible to all residents.



Indicative open space overlooked by new homes



Integrating exploratory experience play facilities

4.4 Sustainable Urban Drainage System (SUDS)

The SUDS Strategy considers the requirements of the Council, Scottish Water and SEPA with respect to quantity and quality of the resultant flows. As required by these organisations, the following considerations will be incorporated:

1. The 1 in 30 post year development critical storm shall be attenuated to a 1 in 200 year greenfield release.
2. The difference between the 1 in 30 year and 1 in 200 year (plus 10% uplift for climate change) is to be accommodated within the site with no detriment to properties within or outwith the application site.
3. Where flooding is indicated to occur under critical storm events, the finished floor levels of dwellings adjacent must be a minimum of 300mm above predicted levels.
4. The site should ensure the development can be accessed and egressed by emergency vehicles during flood events in accordance with SPP.

Assessment of the site topography indicates that a number of detention basins will be required to accommodate the site catchment. These will discharge to the existing watercourses at appropriate locations via suitably designed flow control devices. The location of these facilities is indicated on the adjacent plan.

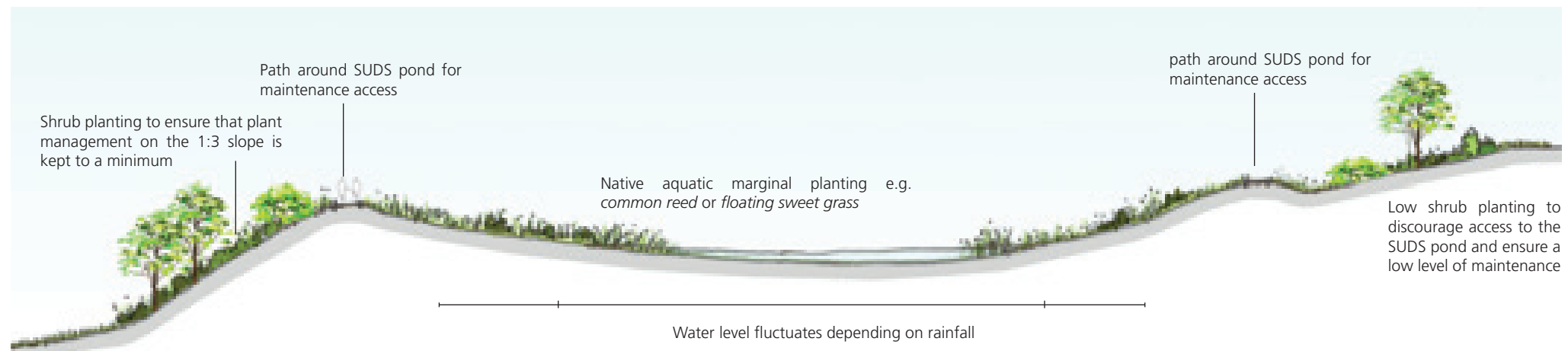
Detention ponds located throughout the site will drain to the burns within or adjacent to the site via new outfall pipes.

These ponds will be fenced, which is necessary for safety and to meet Scottish Water requirements. This will increase its biodiversity value by minimising disturbance from humans and pets.

The finalisation of this SUDS strategy will be carried out with the Council and Scottish Water, together with SEPA. These proposals meet Sewers for Scotland 2 requirements. The detention ponds will be adopted and managed by Scottish Water.



SUDS Pond



Indicative SUDS Pond

4.5 Engineering & Infrastructure

Ground engineering & level changes

Desk top studies have indicated that the presence of shallow rock in some areas of the site is likely. The location and depth of rock head will be assessed and taken account of at the detailed layout stage. Future proposals will minimise excavations into this strata where possible.

It is proposed to minimise excavation and achieve a cut/fill balance across the site where possible. A number of areas within the development boundary are in excess of 8% gradients, the maximum permitted for residential roads, and fill across these areas would be proposed to relax gradients to appropriate development parameters.

Foul Drainage

An assessment of existing Scottish Water record plans indicate no existing apparatus within the site boundary with the nearest infrastructure shown within the eastern area of Springfield Road and further north west on Springhill Road.

Foul drainage discharge will be by way of new gravity sewers within Springfield Road and Springhill Road. A foul pumping station will be required to drain the south west of the site.

Confirmation with respect to the existing network capacity and the extent of any augmentation works required to facilitate the development is awaited from Scottish Water. The extent of the required works will be confirmed by a Drainage Impact Assessment.

Scottish Power

SP Energy Networks records indicate a 33kV cable running the length of Springfield Road, on the northern kerbline and also south along Balgraystone



Road. A smaller 11kV overhead cable is indicated traversing north from Netherton through the west of the site.

Supply to the development will, most likely, be taken from the 33kV cable linked to a number of new sub-stations.

Scotia Gas Networks

Limited record information provided by SGN indicates the presence of a 125mm diameter PE main within Springfield Road. It is unlikely this will provide sufficient capacity for the development and service will require to be extended to larger apparatus lying to the north.

Water

The nearest apparatus to the site is a 250mm diameter water main running along the north of Springfield Road. This main extends west, just past St Luke High School, where it reduces down to 200mm and then 100mm in diameter. A small unsized main also extends north from Netherton Cottages within the site boundary at the west.

Supply to the proposed development site will, most likely, be from the 250mm diameter main however confirmation will be gained by way of Water Impact Assessment at the appropriate time.

Telecoms

British Telecom indicates a number of existing apparatus which will be suitable to provide service to the development.

Broadband

Aspiration for broadband within all new developments.



Land Use and Built Form

4.6 Land Use and Built Form

The initial design work demonstrates that the development has the capacity to deliver approximately 1034 new homes within the vision of a sustainable and accessible urban quarter. The table below highlights the estimated housing capacities between the four development areas.

It also highlights the tenure split between market homes for sale and affordable homes. It should be noted that 8.5% of the overall sight capacity will be entry level homes for sale. These homes are defined as affordable homes for policy purposes. They are also included in the balance of private homes.

The net area of development within the site is circa 38.5ha. Within the site, a variety of densities, property types and tenure will be provided to provide a range of homes. This level of detail will be considered in the preparation of the master plan SPG.

The majority of the site will provide a range of family homes. 172 homes will be family housing at affordable prices (including entry level homes for sale) and at locations throughout the site.

Urban Form

The urban form responds to the location of the site and its surroundings.

Within the site a network of streets and spaces will provide the accessibility required to allow the proposed residential development to be successful. Proposals will accord with *Designing Places* and *Designing Streets*, This framework incorporates good permeability to allow a clear hierarchy of streets and spaces to be established.

A series of development parcels have been established across the site and these are illustrated in the plan opposite.

The form of these parcels has been generated in response to the existing site constraints.

Topography & Geology

This has limited the development capacity of some areas within the site and driven the most feasible locations for creating an appropriate SUDS proposal.

Power transmission line

The site is crossed by a substantial overhead 133kV power cable a standoff of has been incorporated 30m either side of the centre line.

Visual sensitivities

In specific areas the visual sensitivity of the site has limited land available for development, and primary mitigation measures have been incorporated into the site.

Housing Tenure	Miller Homes	Wallace Land	Avant Homes	Council	Total
Site Capacity	132	300	196	406	1034
Balance of Private Homes (including entry level homes for sale)	121	276	180	374	951
Social Rent (4%)	6	12	8	16	42
Intermediate (4%)	5	12	8	16	41
Entry Level for Sale (8.5 %)	11	26	17	35	89
Total on site affordable homes	22	50	33	67	172

Land Use: New Homes

New homes will front onto public spaces and streets. This is key to creating a safe and active place and positive and appropriate edges to the development.

In key locations such as the corridor along Aurs and Springfield Road, development will be set back from and where possible will front the road with landscaping enhancing the existing character of the approach into Barrhead

The main route for the development is along Springfield Road. It will be interspersed with focal points. These will be formed by the streetscape character of key junctions. Focal points will also offer views to the greenspace network within the site.

The built form adjacent to the greenspace has been designed so that can accommodate an informal and formal uses such as kick about area and an equipped play area.

Frontages are provided along proposed routes and spaces. Houses will only back onto contained boundaries, such as against the existing homes, woodland and field boundaries. Extended fence lines bounding path networks will not be acceptable.

The qualities of Springfield Road will be strengthened and enhanced. Existing mature trees will be maintained along the site's northern boundary where possible.

The built form has been developed to overlook the public realm, and provide clear delineation of public and private space.



Indicative new homes

Variety in the street frontages is created through a mix of house types and varying plot arrangements. A variation in house types will create formal and more informal spaces to correspond to the proposed hierarchy of streets and spaces.

The majority of the site will provide a range of house types for both private and affordable homes.

These homes will be delivered by a number of house builders throughout the period of the development - potentially up to four builders on site concurrently

The homes will be accessed via a network of streets and lanes providing permeability to the development.

Given the location of the site on the countryside edge, there is an opportunity to orientate homes to utilise this site asset. Views across areas of public greenspace and countryside will be a key feature of these properties.

The streets and spaces adjacent to these homes will also provide visual connection to areas of countryside.

The opportunity to deliver slightly lower densities grading the edge condition of the development at its interface with the countryside along with a materials palette appropriate to the countryside creates a softer edge to the development.

Higher density development would be limited to a small number of key locations across the site in specific locations where a focus or containment of the streetscape is required.

The appropriate type and tenure of affordable housing has been agreed with the developers.

Land Use: Live/work units

Other uses such as live work units providing flexible employment opportunities will be promoted within the site. The location of these will be defined at the masterplan stage.

Land Use: Other

The inclusion of a neighbourhood scale retail provision will be encouraged within the site. The position and viability of this will be defined during the preparation of masterplan proposals. It is likely however that this would be centrally located and could provide provision for both new and existing communities if located on Springfield Road.



New homes



Development Framework

4.7 Development Framework

The Development Framework demonstrates the broad development principles to guide development of the site and form a place that matches the Council vision for the area

The proposed development will form an attractive and logical extension to the southern edge of Barrhead

New homes will be set in an attractive new streetscape incorporating guidance promoted in the Scottish Governments guidance contained in *Designing Streets*.

The provision of a mixture of house types, parking solutions and the integration of greenspaces will create a varied character.

The movement hierarchy around the site will provide priority for pedestrians and cyclists over the car with good connections and permeability.

The provision of additional bus stops on Springfield Road and the safeguarding for a potential connection with the rail halt encourages the use of sustainable modes of transport linking the bus route to the proposed rail halt will enhance the sustainability of the location.

The proposal incorporates paths along a network of routes. This ensures the creation of an attractive environment and promotes access to outdoor recreational space.

The urban form provides a permeable and hierarchical layout. It includes a number of shared-surface lanes to promote pedestrian and cycle movement over the car.

All routes and areas of open space within the development will be overlooked for passive surveillance.

The greenspace, SUDS strategy and structure planting provides an appropriate transition between the edge of the town and the countryside to the south. The greenspace proposals have also been designed to enhance biodiversity through the inclusion of native planting and where possible by maintaining existing planting.

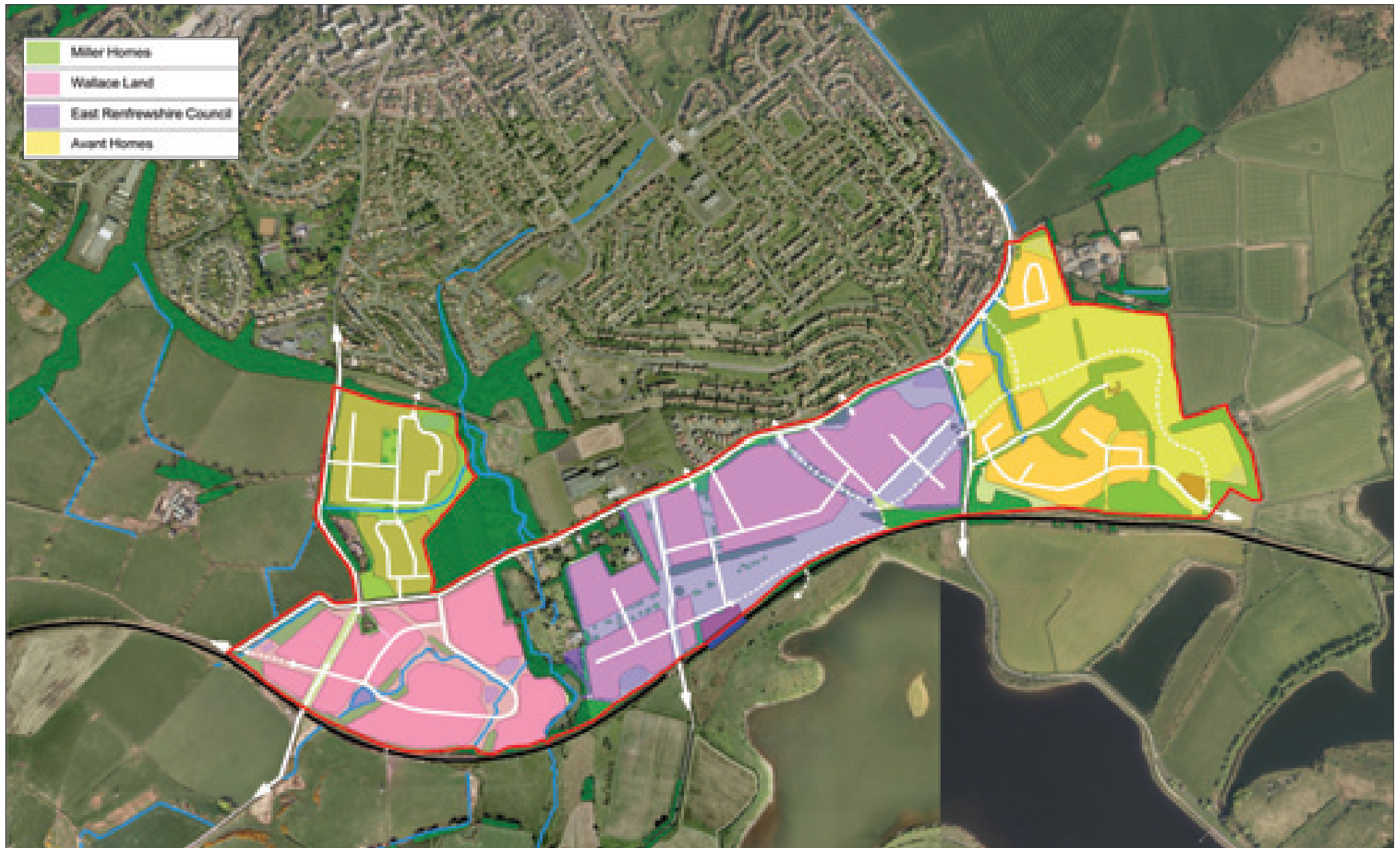
A tree-lined gateway forms the main entry along Aurs Road, creating a welcoming gateway into Barrhead. The landscape treatment along Aurs Road has been designed to maintain and enhance the green corridor into Barrhead.

Existing mature trees and hedgerows will be retained where possible. Additional trees and planting are included throughout the development area.

The main greenspace features of the development are integrated throughout the site. These provide the potential to connect to the existing greenspace network that lies to the north and south of the site. The proposed greenspace network also creates an appropriate edge to the east and west of the development area.

The main routes through the development can incorporate a number of focal points along their length at key junctions, where streets lead down to parks, offering views towards the countryside beyond.

Future detailed proposals will comply with national and local design guidance and policy together with this Development Framework as part of Supplementary Guidance.



Character Areas

5.1 Affordable Housing Requirements

The Council’s affordable housing policy is detailed within Proposed Policy SG5 of the Proposed Local Development Plan (December 2012) and its supporting SPG on affordable housing. These documents, along with the Council’s Local Housing Strategy and the Strategic Housing Need and Demand Assessment provide the guidance for the scale and tenure of the affordable housing to be provided at Barrhead South.

In recognition of this guidance; the regeneration aims of the Council; and the initial viability information presented by developers, a specific tailored approach to affordable housing has been agreed for Barrhead South.

One of the regeneration requirements of Barrhead is to increase tenure choice; accordingly, the Council is seeking a balanced mix of affordable homes across the whole of the tenure range – social rented; intermediate homes for sale; and entry level homes for sale. This will help retain and attract first time buyers, young professionals and families essential to East Renfrewshire’s prosperity.

The 25% policy requirement will be split as follows: 8% of the total site capacity will be for social rented and intermediate for sale homes, with intermediate sales prices of circa £90,000 (2013 values). The split between these categories is envisaged to be 50:50 in numbers subject to the availability of funding from Scottish Government. These homes will be subsidised and will not contribute to any development contributions.

8.5% of the total site capacity will be smaller entry level homes for sale limited to 800sqft in size. These homes are unsubsidised and will contribute towards any development contributions. Consideration will be given to Council and RSL tenants being given priority to purchase any entry level home. This will be addressed through the master plan SPG.

The remainder of the affordable housing requirement (8.5%) will be exercised as commuted payments. In line with the Proposed Affordable Housing SPG, the final commuted payment required will be valued by the District Valuer. An initial valuation indicates that the value of the commuted payments will be no more than £10,000 for each serviced plot.

The payment of the commuted payment will be programmed over the site’s development period. The phasing will be agreed and detailed within the legal agreement.

It is proposed that the affordable homes will be located proportionately across the site as shown in the respective development areas. The Council’s site specific requirements are summarised in the table below.

The phasing of the affordable housing units will be agreed through the masterplanning process and secured through legal agreement. This will take account of both development cash flow and availability of funding for the affordable units.

If development viability is an issue which impacts on the deliverability of Barrhead South then a reduction of commuted payments may be acceptable subject to undertaking a development viability assessment.

Housing Tenure	Miller Homes	Wallace Land	Avant Homes	Council	Total
Site Capacity	132	300	196	406	1034
Social Rent / Intermediate (8%)	11	24	16	32	83
Entry Level for Sale (8.5 %)	11	26	17	35	89
Commuted Payments (8.5%)	11	26	17	35	89
Maximum Value of commuted payment of £10K	£110,000	£260,000	£170,000	£350,000	£890,000
Total on site affordable homes	22	50	33	67	172



Miller Homes

5.2 Phasing and Infrastructure Requirements

The strategy for the development of Barrhead South allows each of the separate land owner parcels to be brought forward independently of one another.

Each site will provide its own open space, servicing, infrastructure and engineering requirements.

Miller Homes

Miller homes site occupies a site to the north western portion of Barrhead South. Its boundaries are formed by Aurs Glen to the east, Springfield Road to the south, Springhill Road (a core path) and an existing residential property (Springhill House) to the west and a former rail line containing a core path to the north. A small unnamed burn bisects the site west to east through the centre of the site.

The site will be developed in two phases, to the north and south of the burn bisecting the site. The northern phase will accommodate approximately 92 homes and the southern phase approximately 40 homes.

Access

Site access will be taken from Springhill Road for the northern parcel and from Springfield Road for the southern portion. Both of these will be priority junctions formed onto the existing road network.

The second phase of development is likely to require the widening of part of Springfield Road and the improvement of the Springfield Road / Springhill Road junction. This junction improvement may require the use of part of the Miller Homes site to accommodate the improved road geometry. The signalisation of a portion of Springfield Road at the existing bridge or alternatively the widening of the bridge over Aurs Burn may also be required. The development of the 215th home across Miller Homes and Wallace Land is likely to require these improvements.

Site Preparation & Ground Modelling

The existing topography and ground conditions will require earthworks to form developable platforms. This will include some cut with the import of additional material to minimise cut into shallow rock. A retaining structure will be required to the north of the site.

SUDS Strategy

The SUDS strategy will require the creation of a SUDS pond in the north east corner of the site together with a retaining structure to provide a level change between the development phases to the south and the SUDS pond to the north.

Servicing

The construction of a new 225mm foul gravity sewer will be required to service the site. This may require a new sewer along Springhill Road.

Greenspace requirement and play areas

The site provides enough open space to serve the needs of the residents within that area. Greenspaces will be created to the centre of the northern site, along the line of the burn bisecting the site and toward the south west corner adjacent to the junction of Springfield and Springhill Roads.

The location and provision of equipped play facilities across Barrhead South, including the opportunity to integrate facilities within the green network will be considered through the preparation of the masterplan SPG.

Phasing

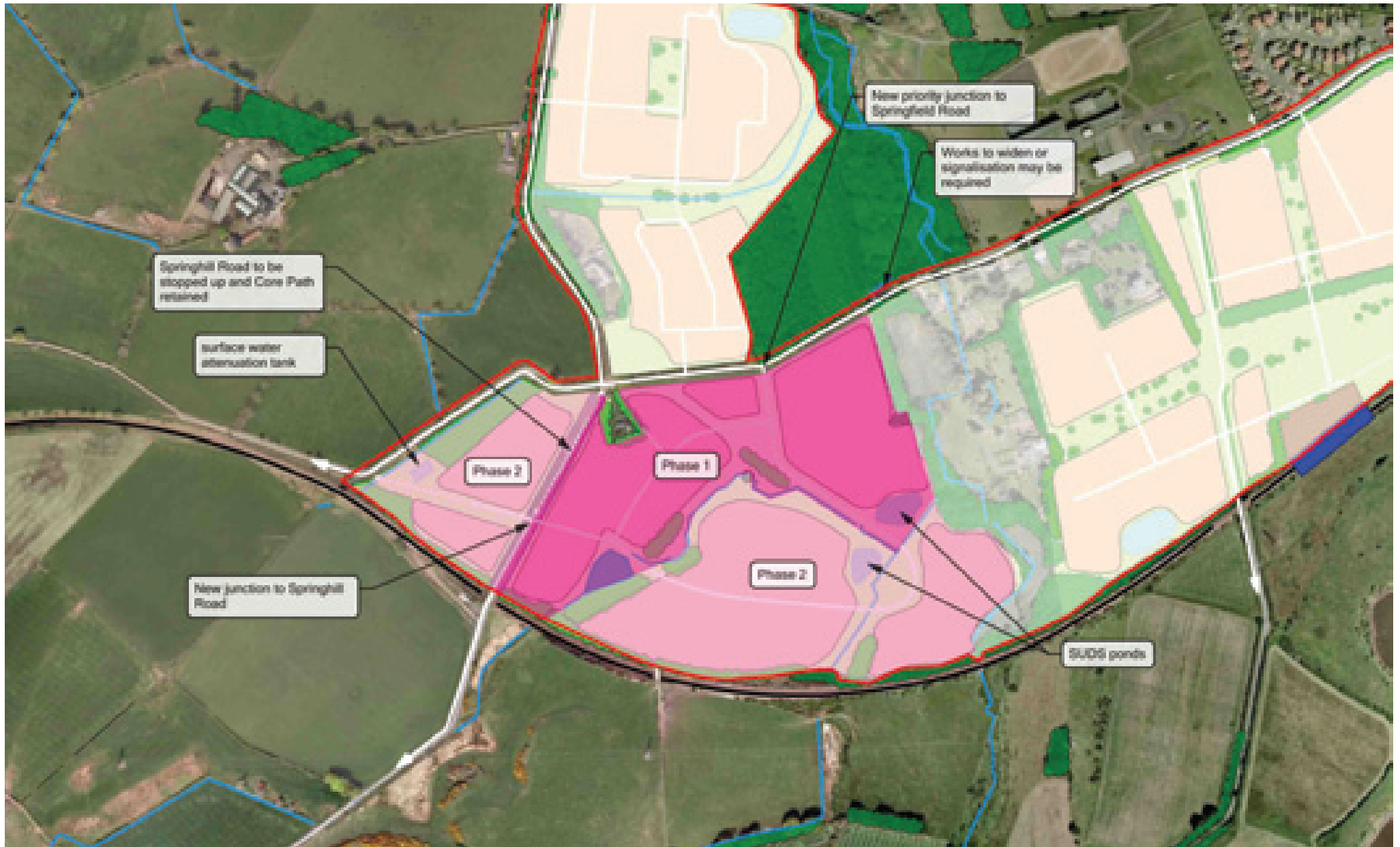
The delivery of the site will take place in two phases, with the northern phase first followed by the southern phase.

Other Works

In addition the infrastructure requirements to deliver each area within the development, there may be further off site works required.

Further detailed studies including but not limited to a Drainage Impact Assessment (DIA) and a Transport Assessment (TA).

Works to Springfield Road may require the widening of the existing bridge over Aurs Burn or the installation of traffic signals.



Wallace Land

Wallace Land

Wallace Land’s site is on the south western portion of Barrhead South. Its boundaries are formed by land associated with an existing residential property (Mount Pleasant) and Aurs Burn to the east, the Neilston to Glasgow Central rail line to the south, Springfield Road to the north and west. Springhill Road (a core path) bisects the site north to south through the western portion of the site.

Phasing

The delivery of the site is likely to be in two phases of 150 homes. The first phase will be to the north followed by the south western and south eastern areas.

Access

Site access will be taken from Springfield Road for the first phase of approximately 150 homes.

The second phase of development of 150 homes will require the existing junction between Springfield Road and Springhill Road to be upgraded. This requires a portion of Springhill Road to be stopped up and diverted through the site to the priority junction constructed as part of the phase 1 development. These accesses will be priority junctions formed onto the existing road network. Phase 2 of development may require the widening of part of Springfield Road. The development of the 215th home across Miller Homes and Wallace Land is likely to require these improvements.

Site Preparation & Ground modelling

The existing topography and ground conditions will require earthworks to form developable platforms. This will include some cut with the import of additional material to minimise cut into shallow rock.

As detailed proposals are developed there will be a need to take into account of the presence of shallow rock strata to minimise the need for cut through rock.

SUDS Strategy

The SUDS strategy for the site will require the creation of two SUDS ponds in the eastern portion of the site. These can be delivered as development progresses.

Improvements to an existing watercourse on site may be required. This may include the removal of an existing pond on site, subject to ecological constraints.

A surface water attenuation tank is required to the west of the site.

Servicing & Drainage

The construction of a new 225mm foul gravity sewer will be required to service the site. This may require a new sewer along Springhill Road.

A pumped rising main may be required to drain the later phases of development to the south east of the site.

Greenspace requirement and play areas

The site will provide enough open space to serve the needs of the residents within that area. A network of greenspaces will be created throughout the site, along the line of the existing burns and adjacent to the junction of Springfield Road in the west of the site.

The location and provision of equipped play facilities across Barrhead South, including the opportunity to integrate facilities within the green network will be considered through the preparation of the masterplan SPG.

Other works

In addition the infrastructure requirements to deliver each area within the development, there may be further off site works required.

Further detailed studies including but not limited to a drainage Impact Assessment (DIA) and a Transport Assessment (TA).

The requirement for new traffic signals or the widening of Springfield Road at Springfield Bridge over Aurs Burn is to be confirmed and will require further detailed studies and agreement with the Council.



East Renfrewshire Council

East Renfrewshire Council

The Council's site occupies a central position in Barrhead South. Its boundaries are formed by Aurs Road to the east, the Neilston to Glasgow Central rail line to the south, land associated with an existing residential properties (Mount Pleasant, Springfield and Rockmount) and Aurs Burn to the west, Springfield Road (a core path) to the north. Both Balgraystone Road and a former rail line (core paths) bisects the site north to south.

Phasing

The delivery of the site is likely to take place in three phases. The eastern phase (150 homes) and central phase (150 homes) followed by the western phase (106 homes).

Access

Site access will be taken from Springfield Road for all three phases of development.

The sequence of these phases is flexible but the central and eastern phases are likely to be developed first. Within each phase, construction will occur sequentially from new priority junctions formed on to Springfield Road. The first two phases will contain approximately 300 homes.

The second phase of development would require the upgrading of the junction of Aurs Road and Springfield Road to form a new four armed roundabout. This may be required after the 540th home is delivered across the whole of the Barrhead south development.

As the third phase of development progresses, the existing priority junction between Springfield Road and Balgraystone Road will require upgrading along with improvements including the widening of Balgraystone Road.

The improvements to Balgraystone Road will provide future access to the new rail halt associated carpark. There maybe a requirement to advance the access to the rail halt should its delivery be in advance of phase three.

Site Preparation & Ground Modelling

The existing topography and ground conditions will require earthworks to form developable platforms. This will include some cut with the import of additional material to minimise cut into shallow rock.

As detailed proposals are developed, they will need to take account of the presence of shallow rock strata on the site to minimise the need for cut through rock.

SUDS Strategy

The SUDS strategy for the site will require the creation of two SUDS ponds at the eastern and western ends of the site. These can be delivered as phasing of development progresses.

The north east SUDS pond will require an engineered slope to allow a level changes on site.

The construction of a new surface water drain to Balgray Reservoir will be required from the western end of this site.

Servicing & Drainage

The construction of a new foul gravity sewer will be required to service the site. This may require a new sewer along Springfield Road and Aurs Road.

Greenspace requirement and play areas
The site will provide enough open space to serve the needs of the residents within that area.

The location and provision of equipped play facilities across Barrhead South, including the opportunity to integrate facilities within the green network will be considered through the preparation of the masterplan SPG.

Other Works

In addition the infrastructure requirements to deliver each area within the development, there may be further off site works required.

Further detailed studies including but not limited to a drainage Impact Assessment (DIA) and a Transport Assessment (TA).

The requirement for traffic signals or the widening of Springfield Road at Springfield Bridge over Aurs Burn is to be agreed and will require further detailed studies and agreement with the Council. T

The site will provide the land required for the provision of the new rail halt.



Avant Homes

Avant Homes

Avant Homes' site is on the east of the Barrhead South within the Dams to Darnley Country Park. Its boundaries are formed by agricultural land forming part of the Dams to Darnley Country Park to the north and east, the Neilston to Glasgow Central rail line to the south, Aurs Road to the west and north west. An existing residential property (Lyoncross Farm) occupies the centre of the site.

Phasing

The delivery of the Avant Homes site is likely to take place in two phases with the southern phase of 135 homes first followed by a second phase of 61 homes in two development plots.

Access

Site access will be taken from Aurs Road for all phases of development. Accesses will be formed in three locations, two priority junctions and one leg of a new roundabout at the junction of Aurs Road and Springfield Road.

Due to the sites location within the country park this site will deliver pedestrian and possibly vehicular access links to the country park.

The first phase of development to the southern end of the site would include up to 135 homes accessed from a new priority from Aurs Road. This phase will deliver vehicular / pedestrian access to the eastern most field which has been identified as a possible location for a car park serving the country park.

The first phase will also deliver a footpath network linking to the green path network through the wider site (to the north of the central tree belt).

The second phase of development would take place in two parcels. One of the sites will require the construction of a new roundabout at the junction of Aurs Road and Springhill Road. This may be required after the 540th home is delivered across the whole of the Barrhead south development. A second priority junction would be required for the most northerly development parcel in the Avant Homes site.

Site Preparation & Ground Modelling

The existing topography and ground conditions will require earthworks to form developable platforms. This will include some cut with the import of additional material to minimise cut into shallow rock.

As detailed proposals are developed the presence of shallow rock strata on the site will need to be taken into account to minimise the need for cut through rock.

Two potential mine workings and two wells are present on this site. Their location does not effect the proposed built development. As detailed proposals progress, the precise location of these features will be ascertained to ensure appropriate design solutions are prepared.

SUDS Strategy

The SUDS strategy for the site will require the creation of three SUDS ponds. Two of these are adjacent to Aurs Road and a third in the eastern portion of the site. These can be delivered as phasing of development progresses.

Servicing & Drainage

The construction of a new foul gravity sewer will be required to service the site. This may require a new sewer along Aurs Road.

Greenspace requirement and play areas

The site will provide enough open space to serve the needs of the residents within that area. A network of greenspaces will be created throughout the centre of the site, along the line of the existing pylons and adjacent to existing farmland to the east of the site.

The location and provision of equipped play facilities across Barrhead South including the opportunity to integrate facilities within the green network will be considered through the preparation of the masterplan SPG.

Other Works

In addition the infrastructure requirements to deliver each area within the development, there may be further off site works required.

Further detailed studied including but not limited to a Drainage Impact Assessment (DIA) and a Transport Assessment (TA).

5.3 Infrastructure & Development Contributions

The Local Development Plan makes it clear that this strategic development opportunity will have to ensure delivery of key infrastructure requirements that will be required to support development and ensure the development delivers significant environmental, social and economic benefits to the wider community.

The preparation of this development framework has allowed an initial assessment of the infrastructure and development contribution requirements arising from the development with the following key infrastructure requirements being identified: -

- Education – Provision of pre-five educational facility required as an early priority. Capacity within other schools can be managed subject to appropriate development contributions

- Sustainable Transport Strategy
 - The provision of a new rail halt has been identified as a key part of the sustainable transport strategy for the area. Land has been allocated within the Council owned section of the site which is the most appropriate location in terms of place making and technical delivery of the station. Development contributions will be required towards the funding of the station. Further detailed analysis will be undertaken at the masterplanning stage.
 - Potential for a subsidised bus route through the site following completion of a certain number of homes. Further assessment is required with SPT to ascertain whether this route extension will require subsidy and this will be undertaken at the masterplanning stage.
- Path Networks – Improved path networks connecting the site and the new rail halt to Barrhead and its services is required.
- Dams to Darnley Country Park – Enhancement of the country park is considered a fair method of mitigating the loss of this green belt land. It is a major leisure facility adjacent to and within which a section of the release is located. A study of the future of the park and a business plan will contribute to the scope of works required within the park. The development of this site and improved facilities within the park will make the park more accessible to the residents of the site and the residents of Barrhead.

Overall Payment	Miller Homes	Wallace Land	Avant Homes	Council	Total
Site Capacity	132	300	196	406	1034
Affordable Homes – Subsidised (8%)	11	24	16	32	83
Balance of Private Homes including entry level homes for sale	121	276	180	374	951
Payment for Planning Obligation	£1,210,000	£2,760,000	£1,800,000	£3,740,000	£9,510,000

- Community Facilities – The provision of new facilities on site has not been considered necessary however contributions to mitigate the impact of increased residents on existing facilities will be required. This contribution will be calculated using the Development Contributions Supplementary Planning Guidance.
- Sports Facilities – The provision of new facilities on site has not been considered necessary however contributions to mitigate the impact of increased residents on existing facilities will be required. This contribution will be calculated using the Development Contributions Supplementary Planning Guidance.
- Parks & Open Space - The provision of new facilities on site has not been considered necessary however contributions to mitigate the impact of increased residents on existing facilities will be required. This contribution will be calculated using the Development Contributions Supplementary Planning Guidance.

The priority objective of the Councils Economic Strategy 'Place to Grow' is to create a vibrant and sustainable local economy.

A development of this scale will generate significant inward investment during its construction stage creating an opportunity to support a dynamic and competitive local economy providing local jobs and creating further inward investment opportunities.

Through the Place to Grow strategy the Council offers comprehensive business support with a full recruitment service, training opportunities, funding and grant access and procurement support. Support is also provided to local individuals to develop their skills to match specific opportunities. Developers are required to engage with the Place to Grow strategy at the earliest stage to maximise the community benefits to be realised by the strategy.

The cost of the planning obligations is set by the impacts arising from the development and the cost of mitigation required. These are set by the policy requirements in the Local Development Plan together with Supplementary Guidance subject to compliance with the five tests in Circular 3/2012.

The Council recognises that the overall cost of the planning obligations could impact on the development's viability and has sought to introduce flexibility to manage both overall viability and development cash flow requirements. On the basis of an initial viability assessment of the development framework the maximum development contribution including funding of commuted payments that the development can sustain whilst remaining commercially viable is £10,000 per private home.

It is agreed that the tenure mix of affordable homes to be provided on site (8% subsidised and 8.5% unsubsidised) has been set to reduce adverse impacts on the project's development cash flow and viability.

The Indicative apportionment of the cost of planning obligations across each land holding is as detailed in the table opposite.

Payment of funds will be based on housing completions and funds transferred to the Council on an agreed periodic basis.

This approach allows the Council to prioritise its own capital investment programme for Barrhead South and seek additional funding sources to supplement this income stream. The Council will be able to use this income stream to investigate front funding initiatives should it wish.

The detailed work to be undertaken at the masterplan SPG stage should allow the project's overall development viability to be robustly tested and the level of development contributions to be agreed.



New Homes

5.4 Maintaining Viability

Large scale housing regeneration projects need to be supported by a sound financial plan as well as inspirational design proposals.

Maintaining viability requires a common understanding between the Council as planning authority and the project's development partners on a set of principles which govern Barrhead South's future development.

In order to facilitate the prompt delivery of Barrhead South, a number of principles have been agreed. These are:

1. Landowners and developers to work together and co-ordinate the early delivery of the proposal.
2. Landowners and developers to jointly fund the infrastructure costs through a payment mechanism to the Council based on annual completions of private homes.
3. Each of the four development parcels are expected to meet their proportionate share of affordable housing; greenspace requirements and other planning requirements or obligations.
4. The development partners work together to create a socially inclusive community through the provision of a range of affordable housing including entry level homes for sale.

Further mutually agreed principles for funding development contributions including meeting affordable housing requirements are as follows:

- The maximum cost of planning obligations will be agreed through the master planning process and detailed within the SPG when detailed information regarding site delivery will be known. On the basis of the development framework viability the maximum value would be £10,000 for every private home built and sold in Barrhead South – a total payment of £9,510,000 over the project's development period;
- The Council is to determine the priority for this investment on the projects necessary to deliver the required mitigation measures;
- Infrastructure requirements will be based on a programme which enables an initial phase of housing to be completed for each land owner with up-front investment minimised.

These costs are in addition to the abnormal site development costs which need to be met directly by each developer. The effectiveness of the site has been established through the development framework that has carried out first stage site assessments, identified infrastructure requirements and tested the development viability.

Subject to future market demand, it is anticipated that the development will deliver the unit numbers allocated within the LDP comfortably within the phasing suggested. Further detail with regards to build rates and infrastructure requirements will be known through the preparation of the masterplan which will inform the detailed phasing plan.

