Cardiff’s Local Development Plan proposes to make provision for a range and choice of new homes and jobs. To deliver the 41,100 new dwellings and 40,000 new jobs in Cardiff, a number of large strategic brownfield and greenfield sites have been proposed for development.

Strategic sites are defined as being sites of 500 homes or more and/or with significant employment/mixed uses and which have the potential to deliver significant benefits for the city. The scale of these sites enables more comprehensive solutions to be delivered which can bring about significant infrastructure improvements for the wider city and city-region.

A total of 8 strategic sites have been proposed delivering approximately 13,950 of the required new dwellings together with a range and choice employment opportunities, and a significant amount of supporting infrastructure and community facilities.

In order to more effectively manage the form, uses, transportation solutions, phasing and appearance of new development, a ‘masterplanning approach’ has been developed which will provide greater certainty to developers, the public and all other interested parties.

The master planning approach will ensure that Cardiff’s new communities are sustainable, well designed and integrated into the existing neighbourhoods. Disconnected urban sprawl would be discouraged. Figure 1 opposite illustrates these points. Sustainable neighbourhoods are explained further in the introduction to section 1.
This document aims to set out a broad framework for the strategic sites which will provide an overarching context for more detailed design and implementation work to follow.

The document is split into three sections:

1. **Masterplanning General Principles**
   10 General Principles have been developed based on different themes considered essential to create new sustainable neighbourhoods. These principles relate to all sites, big or small, greenfield or brownfield. These were approved by Cabinet on 16th May 2013.

2. **Strategic Schematic Framework**
   To provide a link between the General Principles and Site Specific Framework, 3 county-wide plans together with supporting text provide a spatial context relating to landscape, movement and neighbourhood factors.

3. **Site-Specific Frameworks**
   For each of the strategic sites, a spatial indication of land uses, transportation measures and key open space corridors has been set out together with information on proposed densities, infrastructure and phasing of the strategic sites allocated in the Deposit LDP.

**Area-based Masterplans**
Detailed masterplans will be worked up by the landowners / developers within the context of the Council’s Masterplanning Framework. These will contain a greater level of detail than the site specific framework and provide a context for the phased submission of planning applications for development sites.

To develop this masterplanning framework, considerable effort has been made to gather feedback. This has included:
- Specific questions about masterplanning in the Preferred Strategy consultation;
- Exploration of relevant best practice;
- Corporate Officer Workshops to work up draft principles;
- Dialogue and Day Workshop with the Design Commission for Wales;
- Dialogue and engagement with stakeholders including developers/landowners;
- Dialogue and engagement with the wider public as part of a focussed engagement exercise in March 2013 including questionnaire responses and 2 public drop-in sessions attracting over 200 participants;
- Sustainability Appraisal of general principles; and
- Task & Finish Scrutiny Inquiry of the general principles.
Section 1
Masterplanning General Principles
Ten General Principles have been developed based on different themes considered essential to create new sustainable neighbourhoods:

1. **Masterplanning approach** - Development schemes that are planned in a comprehensive and integrated manner reflecting partnership working and setting out the phasing of development along with timely provision of supporting infrastructure. Masterplans will need to encompass the whole of a development area regardless of land ownership patterns, and this will require partnership working, involving all relevant parties.

2. **Development density** - High density residential and mixed-use development is focused along public transport corridors and in neighbourhood centres with lower densities provided elsewhere to deliver an overall range and choice to meet different needs.

3. **Sustainable transport corridors** - Dedicated sustainable transport corridors including provision for public transport, cycling and walking which will form key elements of the overall master plan and effectively link into the wider network.

4. **Sustainable travel choices** - Walking, cycling and public transport will be attractive, practical and convenient travel choices for all.

5. **Neighbourhood centres** - Provision of a full range of social and community facilities will be concentrated within mixed use neighbourhood centres located along public transport corridors and easily accessed walking and cycling.

6. **High Quality Sustainable Design and Distinctive Character** - The masterplanning process effectively responds to the local context and the context of climate change, to create new well designed neighbourhoods with a distinctive character which residents will be proud of.

7. **Integrating with Neighbouring Areas** - New development responds to local deficiencies and provides good connectivity to adjoining areas and is informed by feedback from existing communities.

8. **Connected strategic green open spaces** - Multi-functional and connected green open spaces form strategically important links to the surrounding area to provide routes for people and wildlife and open spaces for sports, recreation and play.

9. **Landscape, biodiversity and heritage** - Sympathetically integrate existing landscape, biodiversity and historic features of the site into the development taking opportunities to protect, enhance and manage important features along with mitigation and enhancement measures to provide satisfactory compensatory measures.

10. **Resource efficiency** - Innovative and creative energy, management of surface water and waste management solutions are adopted to make new developments more environmentally sustainable.

The Council will use these general principles through the planning and design process to work with developers to design masterplans that create Sustainable Neighbourhoods.
Introduction

Layers of a Sustainable Neighbourhood
Each of the 10 Masterplanning General Principles is illustrated with a layer from the Sustainable Neighbourhoods Diagrammatic Concept below.
This diagram represents the several important layers of the built and natural environment, which need to be applied to sites to create sustainable neighbourhoods where people enjoy living, working and visiting.

Figure 2. Cardiff: Designing Sustainable Neighbourhoods
1 Masterplanning Approach

Development schemes that are planned in a comprehensive and integrated manner reflecting partnership working and setting out the phasing of development along with timely provision of supporting infrastructure. Masterplans will need to encompass the whole of a development area regardless of land ownership patterns, and this will require partnership working, involving all relevant parties.

What are the benefits?
- Building cohesive and inclusive communities, not just houses.
- Prevents piecemeal developments which lack coherence and waste the full development potential of sites.
- Ensures that the development of strategic sites is phased in an orderly manner.
- Secures the provision of infrastructure requirements (in particular public transportation) ahead of occupation of each phase of development.
- Facilitates higher standards of urban design.
- Builds in community involvement at the outset so solutions can be informed by local needs and secure community ‘buy in’ to the development.
- Helps build places where people want to live and enable people to lead healthy and sustainable lifestyles.
- Creates sustainable neighbourhoods from the outset with less need to adapt and retro fit in later years.

What this means

Masterplan preparation
At the outset developers / landowners must prepare an overall masterplan for each site. The masterplan must demonstrate how the proposals accord with and deliver the Council’s Masterplanning Framework namely the:
- Masterplanning general principles
- County wide context maps
- Site specific principles and schematic frameworks
The masterplan should show the overall layout as well as illustrating land uses, densities and transportation solutions.

Partnership working
Partnership engagement is integral to preparing and taking forward the development of the overall masterplan to guide future development. It is important that:
- From the outset the Council and other stakeholders work closely with landowners/developers to inform their proposals
- The local communities are engaged from the outset and their feedback informs the landowners / developers proposals

Phasing and deliverability
All stages of development will need to demonstrate accordance with the masterplan. In particular, early phases will need to accord with the masterplan to avoid prejudicing future opportunities and/or undermine the orderly comprehensive development of the area. Clear mechanisms must be in place to ensure that there is:
- orderly phasing of development across the entire site
- phased provision of:
  - Infrastructure, in particular public transport (refer to General Principle (GP) 3)
  - Social and community facilities (refer to GP5)
  - Local employment (refer to GP5)
  - Off-site facilities to integrate with existing neighbourhoods (refer to GP7)
  - Strategic green open spaces (refer to GP8)
  - Biodiversity mitigation and compensation measures (refer to GP9)
- Explicit explanation of the proposed mechanisms in place to ensure that timely delivery of infrastructure and facilities (refer to bullet above) is directly linked to the phased completion of new homes and other uses.

Future Management and Maintenance
The future management and maintenance of any new infrastructure (GP3), social and communities facilities (GP5 and 7), strategic green open spaces and mitigation measures (GP8 and 9) needs to be agreed prior to development and appropriate funding put in place.
2 Development Density

High density residential and mixed-use development is focused along public transport corridors and in neighbourhood centres with lower densities provided elsewhere to deliver an overall range and choice to meet different needs.

What are the benefits?

- Provides a critical mass of people to support a full range of local facilities and regular public transport.
- Higher density developments help to make public transport commercially viable and encourage walking and cycling.
- Creates vibrant, self-sufficient and sustainable neighbourhoods.
- Develops neighbourhoods which provide for every stage of a person’s life.
- Creates communities and development types that can change and adapt to different needs over time.
- Ensures efficient use of land.
- Supports creation of legible, attractive places to live.

What this means

- Providing different types of housing in terms of size, price and tenure across the site to meet different community needs.
- Providing higher density residential developments close to the neighbourhood centres (with retail, business and social and community facilities) and adjacent to the main sustainable transport corridors. Within these areas development should be:
  - a minimum of 45-50 dwellings per hectare but with opportunities taken to go well above this.
  - Designing 4/5 storey dwellings to create strong urban form and add to dwelling mix.
- Providing a gradient of lower densities with different character (e.g., 2-3 storey, terraced, semi-detached and detached housing) further away from the neighbourhood centres.
- Ensuring that higher density does not compromise design quality but provides an opportunity for innovative, high quality design and detailing which enhances the area and adds strong legibility.
### Sustainable Transport Corridors

Dedicated sustainable transport corridors including provision for public transport, cycling and walking which will form key elements of the overall master plan and effectively link into the wider network.

#### What are the benefits?
- Uses the transport network more efficiently and increases the people carrying capacity of key public transport corridors and enables a significant shift to public transport, walking and cycling for daily journeys.
- Reduces and minimises dependency on the private car.
- Enables people without access to a car to access employment and essential services and provides travel options for all.
- Reduces and minimises emissions from car travel that contribute to climate change.
- Improves public health by reducing transport-related pollution and increasing physical activity through more people walking and cycling.
- Reduces congestion on the road network and helps ensure it can be kept within manageable limits.
- Reduces journey times.
- Avoids the need to retrofit public transport infrastructure.

#### What this means
- Designing developments in a way which optimises the integration with key sustainable transport corridors and networks serving them.
- Working with public transport providers to develop high quality public transport infrastructure which enables all residents to easily access (within a 5 minute walk), frequent, fast and reliable services which link to the city centre, neighbourhood centres and employment sites.
- Providing strategic walking and cycle corridors which are easily accessible to all residents via safe, attractive and convenient on road and off road routes.
- Designing the sustainable transport corridors in such a way that they form attractive and prominent features within the development area and fully integrate different sustainable modes of travel.
- Creating a core ‘spine corridor’ with other sustainable transport routes logically linking in.
- Developing effective linkages between the sustainable transport corridors and the wider public transport network, strategic cycle/walking network and maximising pedestrian permeability into surrounding areas.
- Safeguarding land to facilitate the effective delivery of sustainable transport corridors.
- Phasing of the development in a way which secures provision of essential public transport, cycling and walking infrastructure and makes it available for use when the site is first occupied.
Designing a layout which will incorporate a permeable network of safe, attractive and convenient on and off road walking and cycling routes.

Designing streets to give priority to pedestrians and cyclists over general traffic.

Creating internal road networks with 20 mph speed limits and design features to control traffic speeds.

Ensuring all homes are within a 10 minute (800 metre) walk via safe, attractive and convenient routes to essential shops and social and community facilities.

Ensuring all homes are within a 5 minute (400 metre) walk via safe, attractive and convenient routes to public transport services.

Minimising car parking provision in order to manage demand for car travel and help encourage travel by sustainable modes.

Incorporating the generous provision of safe and secure cycle parking.

Providing infrastructure to enable easy interchanging between cycling and public transport.

Incorporating opportunities for car-free residential zones and spaces for Car Clubs into the design for the area.

Supporting developments by comprehensive Travel Plans complimented by the provision of appropriate on-site infrastructure and investment in non-physical measures to encourage the uptake of sustainable travel options.

What are the benefits?

- Reduces and minimises dependency on the private car and enables a significant shift to public transport, walking and cycling for daily journeys.
- Enables people without access to a car to access employment and essential services and provides travel options for the less affluent.
- Provides all residents with safe and convenient access to employment, shopping, medical, educational and other essential services and community facilities by a choice of walking, cycling and public transport.
- Reduces and minimises emissions from car travel that contribute to climate change.
- Improves public health by reducing transport-related pollution and increasing physical activity.
- Reduces congestion on the road network and helps ensure it can be kept within manageable limits.
- Creates a healthier and safer environment with less risk of pedestrian and cyclist road casualties.
- Avoids the need for retrofitting sustainable travel solutions.

What this means

- Designing a layout which will incorporate a permeable network of safe, attractive and convenient on and off road walking and cycling routes.
- Designing streets to give priority to pedestrians and cyclists over general traffic.
- Creating internal road networks with 20 mph speed limits and design features to control traffic speeds.
- Ensuring all homes are within a 10 minute (800 metre) walk via safe, attractive and convenient routes to essential shops and social and community facilities.
- Ensuring all homes are within a 5 minute (400 metre) walk via safe, attractive and convenient routes to public transport services.
- Minimising car parking provision in order to manage demand for car travel and help encourage travel by sustainable modes.
- Incorporating the generous provision of safe and secure cycle parking.
- Providing infrastructure to enable easy interchanging between cycling and public transport.
- Incorporating opportunities for car-free residential zones and spaces for Car Clubs into the design for the area.
- Supporting developments by comprehensive Travel Plans complimented by the provision of appropriate on-site infrastructure and investment in non-physical measures to encourage the uptake of sustainable travel options.
5 Neighbourhood Centres

Provision of a full range of social and community facilities will be concentrated within mixed use neighbourhood centres located along public transport corridors and easily accessed by walking and cycling.

What are the benefits?

- Locates everyday social and community facilities where they can be easily reached by walking, cycling and public transport.
- Requires fewer trips, shorter trips and trips which can be undertaken by forms of sustainable transport.
- Allows people to undertake more tasks in a single trip / increased potential for multi-tasking.
- Creates centres which promote community interaction and integration resulting in enhanced vitality.
- Encourages improved patronage and commercial viability by locating centres along public transport routes.
- Ensures greater value for money and economies of scale by delivering a range of services in one building.
- Ensures greater efficiency in the use of land.

What this means

- Creating vibrant neighbourhood centres with a clear sense of identity and encouraging community interaction.
- Designing these key areas in a flexible and future-proof way that allows for the growth and evolution of neighbourhood centres to accommodate changing needs throughout the long lifespan of the wider neighbourhood.
- Developing mixed used neighbourhood centres incorporating all or a selection of office, industrial, leisure, retail, community / social, residential uses.
- Locating local employment opportunities within the neighbourhood centres, where appropriate.
- Locating a wide range of key quality social and community facilities (including educational provision, health services, sports and leisure facilities and religious facilities), centrally within neighbourhood centres.
- Co-locating social and community facilities and services which are open to the public potentially all day everyday.
- Providing neighbourhood centres where they can be easily accessed by all residents by attractive, frequent and reliable public transport and high quality walking and cycling routes.
- Accommodating higher densities closer to the neighbourhood centres and adjacent to the public transport corridors.
- Locating neighbourhood centres in close proximity to parks and connected strategic green open spaces.
- Interconnecting a network of green and blue infrastructure into the design of neighbourhood centres such as green roofs, trees, swales, green space corridors.
- Delivering high quality public spaces and landscaping to enhance the attractiveness of centres.
- Setting out a clear programme for phased delivery so that necessary supporting facilities can be provided as soon as reasonably viable and relate to the beneficial occupation of different phases of development.
6 High Quality Sustainable Design and Distinctive Character

The masterplanning process effectively responds to the local context and the context of climate change, to create new well designed neighbourhoods with a distinctive character which residents will be proud of.

What are the benefits?
- Distinctive and memorable neighbourhoods will improve people's quality of life and engender a sense of community and pride.
- Gives the neighbourhood a clear and legible identity and is easy for all to get around.
- Promotes community interaction, improves health and reduces energy demand.
- Enables walking and cycling to become the preferred method of travel.
- Provides a more 'future proofed' neighbourhood with adaptable design solutions which can be responsive to future community needs and the impact of climate change.
- Design that reinforces local distinctiveness and enhances biodiversity.

What this means
- Creating a clear “hierarchy” of streets, high quality landmarks and public space, to give areas within the development a clear identity and make it easy to get around.
- Providing cohesion between new development and existing communities in terms of street connectivity, built form, activities and urban landscape.
- Ensuring that existing site features and characteristics, including historic assets and trees influence and form key features in the design.
- Designing from the outset and delivering high quality public realm and spaces incorporating public art features, landscaping and tree planting to add quality to the environment and in terms of the latter ensuring sufficient room for growth without adversely affecting properties.
- Ensuring that new development reduces the opportunities for crime and disorder and contributes towards the creation of safer communities.
- Creating good quality, inclusive, safe and attractive public and private streets and spaces with an emphasis on design for the pedestrian and cyclist.
- Accommodating parking needs without cars dominating the street scene.
- Using innovative design and non conventional solutions to ensure that buildings and spaces are designed to cope effectively with extremes of weather, reduces energy use and meets national standards for sustainable design.
- Utilising integrated design solutions (eg. Landscape solutions integrating sustainable drainage and green corridor links).
- Ensuring that the design and layout contributes to sustainable waste management.
- Providing a diverse range of housing forms, tenure types and sizes across the site.
- Utilising design that can adapt to meet future community and lifestyle needs (eg. buildings that can readily change use).
- Ensuring that a multi-disciplinary design team is established and retained through site development, to work collaboratively to achieve these principles.
## What are the benefits?

- Ensures new facilities address the needs of both existing and new communities.
- Addresses shortfalls in provision by providing opportunities for existing communities with no/little current facilities.
- Understands the need to support and make the best of existing facilities and services where appropriate before providing new ones that may compete adversely thus maximising resource efficiency.
- Provides good connectivity between neighbourhoods.
- Understands community boundaries rather than administrative boundaries.
- Engages with existing communities to allow them to understand and influence development.
- Takes the opportunity to learn from other communities/cities.

## What this means

- Gaining feedback from local communities to help inform the masterplanning of new development areas.
- Ensuring that new development integrates well with existing neighbourhoods around the site, in order to make both places work better and more efficiently.
- Maximising the positive contribution which new developments can bring to surrounding areas by fully exploring opportunities to resolve existing deficiencies and bring forward new facilities to benefit existing residents.
- Locating key community and social facilities to ensure that the concept of the walkable neighbourhood becomes ingrained and there are good links to surrounding areas.
- Creating safe, accessible, attractive and well designed pedestrian / cycle connections to and from existing neighbourhoods with the aim of increasing permeability between areas.
- Ensuring that green open space corridors on the site link well to the wider existing public rights of way network and to the wider countryside.
- Creating connections and green space corridors which provide continuity and a gateway between new and existing communities.
Providing green spaces that can accommodate a wide variety of uses (including biodiversity, sustainable urban drainage, sports, play, allotments and recreation) and address the needs of different users, but can adapt over time.

Ensuring that Cardiff’s biodiversity resource including Site of Special Scientific Interest and Sites of Importance for Nature Conservation is appropriately integrated into the new developments.

Designing in mitigation measures necessary to help reduce biodiversity impact and effectively respond to issues relating to the protection and long term favourable management of protected species.

Providing habitat connectivity within the site and between the site and its wider landscape.

Providing a range of accessible sports, allotments and play areas near to other community facilities with good surveillance.

Providing varied green open spaces (including water based facilities) with some areas focused on encouraging public access and recreational usage whilst others may be managed for biodiversity.

Providing all residents with easy access to a network of safe, accessible and well managed off road paths/trails for cycling and walking which link to local community facilities and the wider countryside.

Maximising opportunities to provide well overlooked and safe places where people can feel comfortable walking.

Ensuring that the green open space corridors relate well to the development area as a whole and enable good access to key facilities.

Considering future management and maintenance requirements from the outset.

What are the benefits?

- Maximises use of land for a range of purposes including sports and recreation, biodiversity enhancement, sustainable urban drainage solutions and food provision.
- Promotes healthier active lifestyles.
- Enhances mental and physical well-being.
- Improves efficiency of grounds maintenance.
- Preserves areas of biodiversity value which provide connectivity to enable the movement of wild species.
- Promotes ecosystems approach to biodiversity protection and enhancement.
- Preserves significant landscape features.
- Helps improve air quality.

What this means

- Providing green spaces that can accommodate a wide variety of uses (including biodiversity, sustainable urban drainage, sports, play, allotments and recreation) and address the needs of different users, but can adapt over time.
- Ensuring that Cardiff’s biodiversity resource including Site of Special Scientific Interest and Sites of Importance for Nature Conservation is appropriately integrated into the new developments.
- Designing in mitigation measures necessary to help reduce biodiversity impact and effectively respond to issues relating to the protection and long term favourable management of protected species.
- Providing habitat connectivity within the site and between the site and its wider landscape.
- Providing a range of accessible sports, allotments and play areas near to other community facilities with good surveillance.
- Providing varied green open spaces (including water based facilities) with some areas focused on encouraging public access and recreational usage whilst others may be managed for biodiversity.
- Providing all residents with easy access to a network of safe, accessible and well managed off road paths/trails for cycling and walking which link to local community facilities and the wider countryside.
- Maximising opportunities to provide well overlooked and safe places where people can feel comfortable walking.
- Ensuring that the green open space corridors relate well to the development area as a whole and enable good access to key facilities.
- Considering future management and maintenance requirements from the outset.
What are the benefits?

- Creates a unique identity and landmarks for the development.
- Adds maturity and high visual amenity to the new development area.
- Retains existing features within the new development area, protecting and enhancing important elements and improving accessibility.
- Enables the planning for the long term survival of important species and habitats.
- Provides the opportunity to link existing habitats and prepare long term management plans which keep features in a favourable condition.
- Creates an environment which supports a good quality of life and promotes better mental and physical health for residents.
- Supports habitat diversity and wildlife amenity.
- Performs local role as ‘green lungs’ and carbon sinks.
- Conserves and sets an appropriate context for historic features such as Listed Buildings and Scheduled Ancient Monuments which add cultural interest and a sense of place to new developments.

What this means

- Ensuring that existing site features (such as landscape, biodiversity and heritage features) influence and form key features in the design and masterplanning process.
- Identifying important natural landscape features within the site and effectively integrating them into the development.
- Actively pursuing the protection and enhancement of the nature conservation value of the site as an integral part of the development by:
  - Recognising the relative worth of international, national and local nature conservation sites;
  - Providing an adequate biodiversity evidence-base;
  - Avoiding those habitats which cannot easily be replaced or compensated for;
  - Mitigating adverse effects on European Protected Species which arise from the development to ensure Favourable Conservation Status;
  - Providing compensatory habitats, where important existing habitats are lost as a result of development activities to ensure Favourable Conservation Status;
  - Restoring or enhancing a species population or habitat, where appropriate; and
  - Ensuring appropriate management and maintenance of areas of importance for nature conservation.
- Actively pursuing the preservation and enhancement of historic assets (including but not limited to locally and statutory Listed Buildings, Scheduled Ancient Monuments, Conservation Areas, features listed on the Historic Environment Record and sites included in the Register of Historic Parks, Gardens and Landscapes in Wales) within and adjoining the site, effectively integrating them into the development, providing an appropriate setting and enabling access to them where appropriate.
Mitigating against flood risks by managing surface water storage and avoiding development in areas of unacceptable flood risk.

Demonstrating how the development is designed to minimise energy demand and maximise energy efficiency.

Demonstrating how buildings are designed to cope with predicted future increases in global temperatures and heatwave incidents without the need for energy intensive air conditioning.

Through the layout and design of the area, creating an overall environment which is more resilient to climate change.

Actively incorporating the latest technologies for renewable and sustainable energy, (eg. Solar, wind, hydro, biomass and district heating).

Actively incorporating high standards of insulation and constructing with energy conservation as a key priority including the use of appropriate materials.

Designing layouts which maximise benefits achieved through effective orientation, south facing properties.

Minimising waste water discharge through reduction in consumption, green roofs, water permeable parking and grey water recycling initiatives.

Incorporating into the design facilities to enable community reuse, recycling and composting initiatives to minimise waste production and maximise recycling from the development.

Innovative and joined up management of energy, water and waste.
Section 2
Strategic Schematic Framework
Introduction

The city wide Strategic Schematic Framework sets out a spatial overview of what exists in Cardiff in terms of the landscape, movement and neighbourhood factors. It provides a strategic spatial context for considering the masterplanning framework for the strategic sites.

These particular themes have been highlighted as they are the key aspects that each site needs to address to link them to the city context. Addressing these key themes will ensure that the sites work well as new communities and benefit new and existing residents throughout the city.

The details of the 3 factors include:

1. Landscape – showing spatially Cardiff’s important landscapes including the 4 strategic green corridors and Special Landscape Areas as well as existing public open spaces
2. Movement – showing existing transport hubs and the existing rail network together with the proposed new rapid transit routes, new transport hubs and improvements to existing bus routes.
3. Neighbourhood – showing existing district and neighbourhood centres across the city as well as identifying new neighbourhood centres within the strategic sites.
**Key features**

- Cardiff has a high quality landscape providing a distinctive setting of the city. In particular this includes; St Fagans Lowlands and Ely Valley, Garth Hill and Pentyrch Ridges, Fforest Fawr and Caerphilly Ridge, Wentloog Levels and Flat Holm.

- There are 4 continuous strategic green corridors linking Severn Estuary to the countryside beyond the urban edge, namely: Ely, Taff, Nant Fawr and Rhymney.

- There is an extensive city wide network of public open space at the heart of communities.

- The new Strategic Sites provide opportunities for new connected strategic green open spaces, (as outlined in Masterplanning General Principle 8), linking new and existing communities to the wider countryside details are shown in Section 3.
Key features

- Rapid Transit infrastructure will provide frequent and reliable services that cater for the needs of residents, employees and visitors. The provision of a Rapid Transit Network to be within LDP Strategic Sites will improve links to these and the wider region.
- Other rapid transit improvements will serve the city as a whole.
- Bus network improvements include road space reallocation and traffic signal priority.
- Provide new transport hubs which offers safe and convenient interchange between different modes of transport.
- Strategic walking and cycling network improvements providing attractive end-to-end journeys and access to the public transport network.

ARUP report to Cardiff Council ‘Rapid Transit for Cardiff LDP 2006 - 2026 Strategic Transport Infrastructure April 2013’

Reference: Transportation Supporting Document For Illustarative purposes only  Do not Scale.
Cardiff has a range of District and Local Neighbourhood Centres throughout the city of different sizes and with different functions.

Some of these centres are thriving and incorporate a complex mix of uses and provide a community focus, (e.g. Albany Rd/Wellfield Road, Whitchurch and Cowbridge Road East).

Others are more car-based and fill more of a specific retail need, rather than a diverse community focus (Thornhill).

New Strategic Sites should provide new neighbourhood centres with a mix of uses and a community focus, (as outlined in Masterplanning General Principle 5). The most viable locations and the design of such centres will need ongoing collaborative masterplanning work, along with location of additional important neighbourhood facilities.
Section 3
Site Specific Frameworks
8 Strategic Sites have been allocated in the Deposit Local Development Plan namely:

**Brownfield Strategic Sites:**
A  Cardiff Central Enterprise Zone and Regional Transport Hub
B  Former Gas Works, Ferry Road

**Greenfield Strategic Sites:**
C  North West Cardiff
D  North of Junction 33 on M4
E  South of Creigiau
F  North East Cardiff (West of Pontprennau)
G  East of Pontprennau Link Road
H  South of St Mellons Business Park (Employment only)

Site Specific Frameworks have been produced for each of the Strategic Sites which relate directly to the general principles. They give a spatial indication of land uses, sustainable transportation measures and key open space corridors together with information on the indicative densities, infrastructure and phasing of these sites. They are designed to provide a high level framework for the future development of more detailed masterplans which will include more detailed matters including specific road layouts, density details and exact locations of facilities.

The schematic frameworks are intended to act as a starting point for further design collaboration in the future, to be rigorously tested and modified accordingly in line with the general principles. It is proposed that the Council will develop Supplementary Planning Guidance for the strategic sites in accordance with the masterplanning framework.

Each Site Specific Framework includes site facts, city location plan, aerial photograph, constraints plan, schematic framework and site specific principles.
Strategic Site A : Cardiff Central Enterprise Zone and Regional Transport Hub

Site Facts

Proposed Use: Major employment-led initiative including a Regional Transport Hub together with other mixed uses in Cardiff city centre in order to fulfill Cardiff’s role as economic driver of the city-region, provide major employment opportunities focused on financial and business services and maximise the advantages of its location adjacent to the Central Station and Cardiff Bus Station.

Site Area (ha): 78.8 ha

Wards: Adamsdown, Butetown, Cathays
• Significant Gateway to the city
• Major transport intersection for the city
• River Taff frontage
• Railway line acts as a barrier
**Site Specific Principles**

1. **Master Planning Approach**
   - A new Integrated transport system is central to the successful delivery of the Central Enterprise Zone.
   - Integration with the city centre and improved links to Cardiff Bay.
   - Potential for Design Code.
   - Travel Planning as part of all Development Proposals.
   - Surface Water Management Plan.
   - Ensure areas are reserved for key employment uses.
   - Make provision for:
     - Increasing the capacity of existing primary and secondary schools to accommodate planned population growth.
     - Primary healthcare facilities to be considered within the neighbourhood centre.

2. **Development Density**
   - Maximise densities to make efficient use of city centre land.
   - High rise, high density developments at appropriate locations, well served by public transport and walking and cycling routes.
   - Provide sufficient Grade A office accommodation to meet existing and future requirements.
   - Provide a range and choice of sites to meet all business needs including start-up businesses, creative workshops and incubation.

3. **Sustainable Transport Corridor**
   - Provide central public transport hub providing interchange between North West, North East, Southern and Eastern Corridor rapid transit services and local bus services.
   - Provide easy pedestrian and cycle access between north and south sides of main railway line.
   - Enhance and extend Canal Park as a cycling and walking route, creating of a new green corridor linking the bay waterfront, centre and beyond.

4. **Sustainable Travel Choices**
   - Improve existing bus routes and services including bus priority measures between Cardiff Enterprise Zone (CEZ), Site I (Porth Teigr), other parts of the and Cardiff Bay.
   - Integrate CEZ with the Strategic Cycle Network Enfys including Routes, 1, 2, 3 and 4 and the Bay Trail;
   - Integrate the development of a ‘cycle hub’ providing secure cycle parking and associated facilities in a location which encourages cycling to the city centre and supports integration of cycling with public transport services.
   - Recognise and enhance the Taff Trail and Canal Park as a walking, cycling and recreational route.

5. **Neighbourhood Centres**
   - Improve routes to and from Loudoun Square as a community “hub”.
   - Integrate Havana Quay sensitively with other new developments and established residential communities.
   - New neighbourhood centre, forming a new ‘high street’ along Dumballs Road.
   - Create natural play areas to benefit the wider community.

6. **High quality, sustainable design and distinctive character**
   - Develop Callaghan Square as Wales’ premier business location.
   - Create destination spaces with active uses which complement the business offer
     - Central Square: New public piazza with active ground floor uses.
     - Southern Gateway: New Public space south of Central Station.
     - Callaghan Square: Greening of spaces whilst maintaining a “civic” presence.
   - Improvements to Arena area with links to Queen Street Station.
   - The street furniture and colour palette should be consistent with the approved Public Realm Manual.
   - Incorporate wayfinding and clearly define pedestrian routes to key destinations and attractions.
   - Enhance railway underpasses to address physical and psychological barriers to southern expansion.
7. Integration with neighbouring areas
- Support the Butetown Regeneration by improving connections to, and provision of, community facilities and services.
- Create new pedestrian and cycle bridge connecting Capital Quarter with Pellet Street.
- Develop improved connections to Millennium Stadium including Gate 5.
- Opportunities to upgrade and/or environmentally enhance site gateways, railway bridges, underpasses and public realm.
- Create new pedestrian and cycle bridge over River Taff between Havannah Quay and Grangetown.
- Strengthen East-West connections between Butetown and Grangetown, especially for walking and cycling.

8. Connected strategic green open spaces
- Extend and widen Canal Park as continuous route to Callaghan Square.
- Enhance Canal Park to include recreational, leisure and community infrastructure.
- Create continuous river walk on Taff east bank.

9. Landscape, biodiversity and heritage
- Maximise recreation, amenity, nature conservation and biodiversity asset of river frontage.
- Preserve the setting of listed buildings and historic features including bridges, railways and former dock-related infrastructure.
- Integrate public art and heritage interpretation as part of new development proposals.
- Develop opportunities for natural green spaces to create an urban parkland setting.
- Seek to widen Canal Park as part of new development proposals.

10. Resource efficiency
- Develop opportunities for on-site waste management as part of new developments.
- Investigate opportunities for new developments in Dumballs Road could have a separate drainage system, running surface water to the river and integrating landscaped areas.
- Look to lift/ divert DCWW surface water drains to facilitate/maximise the development potential of Callaghan Square.
- Develop opportunities for SUDS to relate/extend the “Greener Grangetown” scheme.
- Develop smart buildings through Buildings Information Management (BIM).
- Investigate potential for exemplar schemes to showcase best practice in environmental design and management including BREEAM “outstanding” ambitions.
- Maximise opportunities District Heating and combined heat and power.
Strategic Site B: Former Gas Works, Ferry Road

Site Facts
Proposal: Housing-based scheme of 500 homes and other associated community uses.
Site Area (ha): 9.9 ha
Wards: Grangetown
Site Constraints / Opportunities

- Links to Cardiff retail park (providing facilities for the site)
- River Ely frontage and links to Ely Trail
- Listed Building (gas holder) on site
- Railway link to west of the site
- Surrounding commercial / large scale retail to north east of the site
- Telecom masks requiring relocation on the site.
- Burners on the Grangemoor Park site to release methane – potential for combined heat and power on the site.

Key

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Schematic Framework

Key

- Existing Residential
- Existing School
- Existing Retail Area
- Existing Open Space
- Existing Employment
- Listed Building
- Protected Woodland
- Strategic Green Open Spaces
- Residential
- Mixed Use
- Employment
- Neighbourhood Centre
- Secondary School
- Primary School
- Strategic Rapid Transport Hub
- Strategic Rapid Transport Corridor
- Cycle Footpath/Route
- Park and Ride

Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.
Site Specific Principles

1. Master Planning Approach
   - Make provision for the following:
     • New primary school or increasing the capacity of existing primary schools depending on the composition of dwelling coming forward on the site.
     • Increase capacity of existing secondary schools.
     • Primary healthcare facilities considered within neighbourhood hubs.
     • Boundary for strategic site excludes operational land including the Listed Former Gas Holder.
   - Relative small scale site, it is not envisaged a detailed phasing plan would be necessary.

2. Development Density
   - Provide high density residential accommodation of at least 50dph.

3. Sustainable Transport Corridor
   - Provide more direct and more frequent bus services to the city centre and Cardiff Bay areas.
   - Improve pedestrian access from the site to the bus stop on South Clive Street.

4. Sustainable Travel Choices
   - Provide easy access from the site to the Ely Trail and Grangemoor Park.
   - Enhance the existing path networks to provide walking and cycling links through Grangemoor Park to link the site with Cardiff Bay Retail Park.

5. Neighbourhood Centres
   - Develop flexible accommodation on the ground floor providing opportunities for a small parade of community facilities / small scale retail (deficient from/in the local area) along the main pedestrian and vehicular route through the site or within a focused public square.

6. High quality, sustainable design and distinctive character
   - Maximise the relationship between the site and River Ely and Grangemoor Park.
   - Ensure the site is effectively designed to prevent scramblers entering Grangemoor Park.
   - Development at the northern end of the site should be of an appropriate layout and scale relative to the adjacent Ikea building.
   - Consider how any development within the site would relate to the railway line running to the west.
   - Explore opportunities for site design characteristics either being drawn from surrounding neighbourhoods or creating an entirely new form of development which still meets good design principles.
   - Minimise the acoustic impact of the railway line running to the west of the site.
   - Incorporate the existing off road cycle route linking the Ely Trail to Ferry Road effectively within the development ensuring it is safe and overlooked.
   - Ensure that the Listed gas holder is integrated into the new development rather than being obsolete.

7. Integration with neighbouring areas
   - Provide accessible pedestrian and cycle links to the neighbouring retail park.
   - Provide good links from the site to the east to enable easy access to Channel View Centre.

8. Connected strategic green open spaces
   - Extend Grangemoor Park along the river frontage to create a riverside park with informal pay opportunities.

9. Landscape, biodiversity and heritage
   - Mitigate and compensate for reptiles and bats.
   - Enhance the buffer of the trees along the railway corridor (north west boundary of site).
   - Ensure an adequate buffer from the River Ely Site of Importance for Nature Conservation to protect the river bank and associated vegetation.
   - Provide a systematic assessment of the character and setting of listed buildings, their curtilage structures and other heritage assets within and adjoining the site, in order to understand their significance and demonstrate how the proposals preserve or enhance those assets and their setting; in particular the Grade 2 listed gas holder (LB ref: 14067).
   - Ensure a landscape & visual impact study is undertaken to inform the design of development.

10. Resource efficiency
    - Explore the potential to use a method such as biomass to create electricity and use the heat created to heat the site’s buildings.
    - Explore collecting the methane gas from Grangemoor Park to create a combined heat and power system.
    - Consider the potential for flooding and associated mitigation within the proposed development layout for the site.
    - Consider opportunities for green roofs instead of gardens due to contamination.

Strategic Site B: Former Gas Works, Ferry Road
Strategic Site C: North West Cardiff

Site Facts
Proposal: Approx 7,500 homes, (5,000 over the plan period to 2026) mixed use with a range of community facilities
Site Area (ha): 346.2 ha
Wards: Creigiau St Fagans/Radyr/Fairwater

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Strategic Site C : North West Cardiff

Site Constraints / Opportunities

- Pylons east to west across the site
- Retention of woodlands, significant hedgerows and landmark trees
- Ponds with Great Crested Newts situated to east of the site.
- Disused railway lines divides the site
- Llantrisant Road acts as a barrier
- Setting of St Fagans village and National Museum Wales
- Listed buildings on or adjacent to the site.

Key

- Strategic Site Outline
- Pylon
- Power Line
- High Pressure Gas Main
- Intermediate Pressure Gas Main
- Public Right of Way
- Woodland
- Special Landscape Area
- Open Space
- Listed Building
- Site of Importance for Nature Conservation
- Site of Special Scientific Interest
- Flooding Area C1 and C2

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Schematic Framework

Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.
Site Specific Principles

1. Master Planning Approach
- Organise and phase the development around delivery of transport routes and neighbourhood centres.
- Provide public transport improvements to support each development phase.
- Ensure frequent public transport provision in place prior to residential occupation of the site.
- Enable master plan to accommodate potential future expansion to west of site.
- Make provision for:
  - New library facility.
  - Extensions to existing primary / secondary schools as part of the initial phases.
  - 4 x 2 form entry primary schools.
  - 1x8 form entry secondary school, (including 6th form provision).
  - Primary healthcare facility within the larger neighbourhood centre.
  - Enhanced local sports pitch provision.
  - New 3G football pitch.
  - Enhance Fairwater Leisure Centre.
  - New household Waste Recycling Centre including satellite street cleansing vehicle depot.
  - Sites for recycling of household waste.
- Phasing:
  - Initial phases of development on land adjacent to Radyr, Danescourt and Pentrebane.
  - Middle phases of development on land towards the centre of the site including the large neighbourhood centre.
  - Latter phases of development on land to the west of the site.

2. Development Density
- Provide high density mixed use development around shops/ neighbourhood centres along the rapid transit corridor.
- Provide high density along Llantrisant Road and areas which are within easy walking distance to the neighbourhood centres.
- Provide lower density to the west of the site.

3. Sustainable Transport Corridor
- Integrate development with rapid transit corridor (including potential options for rail, tram-train and bus transit) forming part of a strategic corridor linking the City Centre / Central Enterprise Zone and growth areas in Rhondda Cynon Taf (North West Rapid Transit Corridor). Note exact line of rapid transit corridor yet to be determined.
- Integrate development of site and rapid transit corridor with development sites north of M4 Junction 33 / south of Creigiau.
- Explore opportunities to link the rapid transit corridor into Rhondda Cynon Taff.

4. Sustainable Travel Choices
- Extend bus network and services to serve site with public transport options for a wide range of local journeys.
- Facilitate interchange between bus and rapid transit services.
- Provide bus lanes 400m before any junction on Llantrisant Road.
- Provide a recreational cycling and walking route along the disused railway line to provide an east / west link through the site.

5. Neighbourhood Centres
- Provide links to existing facilities in surrounding areas such as Fairwater, Pentrebane, Danescourt and Radyr and undertake improvements where necessary.
- Provide a centrally located large neighbourhood centre, including a larger range of retail, business, social and community facilities, in the centre of the site adjacent to the rapid transit corridor.
- Employment land uses should be located in appropriate locations where they are on sustainable travel routes and in the vicinity of neighbourhood centre.
- Provide a new multi-functional community facility to accommodate a range of services and may include a GP and primary health facility, religious facility, sports/ leisure / community play facility, library provision, after-school activity and lifelong learning, and community hall.
- Locate the new secondary school within close proximity to the large neighbourhood centre with provision for accessible play, indoor and outdoor sports.
Site Specific Principles

6. High quality, sustainable design and distinctive character
- Utilise the topography of the site and consider protecting views where appropriate and feasible (e.g. creating a linear open space on the ridge of the land north of Llantrisant Road).
- Potential for the site to have a new/ individual character and urban form, however where adjacent to existing communities consideration should be given to scale, form, layout and general design.
- Incorporate any easements for electricity or gas infrastructure into the development of the site from the outset (e.g. creating safe, attractive and overlooked public open space.)
- Preserve and enhance the setting of St Fagans village and National Museum Wales by strengthening the tree buffer between site and village.
- Provide an appropriate but subtle design features to ensure public safety along the length of any rapid public transport corridor.
- Ensure the appropriate integration / redevelopment of the existing farms on the sites e.g. Maes-y-Llech Farm.
- Create an active frontage onto Pentrebane Road.
- Create an active frontage onto Llantrisant Road (at point where potential development on both sides of the road) in order to passive reduce vehicular speeds along it while creating an appropriate pedestrian environment along it.

7. Integration with neighbouring areas
- Strengthen the cycling/walking links between the site and the existing local centres at Pentrebane, Danescourt and Radyr.
- Create a pedestrian/cycling link from St Fagan Road to the large neighbourhood centre.
- Create a pedestrian/cycling link from the proposed Taff/ Ely link to the large neighbourhood centre.
- Create a pedestrian/cycling link from Llanristant Road to the large neighbourhood centre.

8. Connected strategic green open space
- Create a connected green open space through the site linking Fairwater with Rhydlafar.
- Retain woodland buffer around St Fagans village and extend buffer along Pentrebane Road and southern part of Crofft y Genau Road.
- Utilise the existing PROW network on the site.

9. Landscape, biodiversity and historic features
- Undertake visual impact assessment of the landscape for both local and strategic views into and out of the site, including topography.
- Retain the former Llantrisant No 1 Branch Line SINC as a biodiversity corridor.
- Create a biodiversity corridor linking protected woodlands namely, Coed y Trenches, Coed y Gof and Waterhall Plantation to the disused railway lines providing a buffer of around of 15m around all semi-ancient natural woodland.
- Retain the two ponds (Pentrebane Cottages SINC) and improve Great Crested Newt connectivity to the south west of the site by providing for 2 additional new ponds.
- Integrate into the development the landmark specimen trees.
- Provide a systematic assessment of the character and setting of listed buildings and other heritage assets within and adjoining the site, in order to understand their significance and demonstrate how the proposals preserve or enhance those assets and their setting: in particular Ty Bronna (LBC Ref: 13790 – Grade 2), Rhydlafr Farmhouse and The Old Byre Listed Buildings (LBC Ref: 13910 – Grade 2) and Pentrebane Farm (LBC refs: House: 82247 – Grade 2), the Barn (LBC refs: Barn: 13925 – Grade 2) and the Wall (LBC refs: Wall 13924 – Grade 2) and the 3 listed properties adjacent to the site.
- Preserve the site of the Battle of St Fagans.
- Preserve the Llandaff-Penrhys pilgrimage route.

10. Resource efficiency
- Explore the potential of district heating system / wind turbines on the site.
- Ensure development of the area does not increase risk of flooding elsewhere.
- Investigate the potential SUD’s, ponds or areas of landscape value where water is naturally retained in pools within the site.
Strategic Site D and E: Land at J33 / South of Creigiau

Site Facts

Proposal:
- J33: Mixed use development of approximately 2,000 homes, employment, community uses and strategic park and ride site.
- South of Creigiau: Housing-based scheme of approximately 650 homes representing a southern extension of the existing village.

Site Area (ha): 141.3 ha
Wards: Creigiau / St Fagans
Candidate Site Reference Numbers: 82 & 47

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Site Constraints / Opportunities

- Llantrisant Road dividing the 2 areas.
- Robin Hill, south east of Creigiau prominent elevated area of land.
- Semi ancient woodland in the centre of the land south of Creigiau.
- Marshy area immediately south of Creigiau and north of Castell-y-Mynach ancient woodland.
- Rocky outcrops visible around junction 33.
- Lack of facilities in Creigiau.
- Poor public transport from Creigiau to the city centre.
Schematic Framework

Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.

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Strategic Site D and E: Land at J33 / South of Creigiau

Site Specific Principles

1. Master Planning Approach
   - Integrate development and phasing (including development of rapid transit corridor) with development of land north west of Cardiff and links to the north into Rhondda Cynon Taf.
   - Ensure frequent public transport provision in place prior to residential occupation of the site.
   - Plan the 2 sites together and address the issue of barrier of Llantrisant Road separating the 2 communities.
   - Make provision for:
     - Primary healthcare facilities within the neighbourhood centre.
     - New library facility within the neighbourhood centre.
     - 1x2 forms of entry primary school, (including nursery provision) as part of initial phases of development.
     - 1x2 forms of entry primary school, (including nursery provision) after completion of 1400 homes.
     - Extension to secondary schools as part of initial phases of development.
     - Sites for recycling of household water.
   - Phasing:
     - Initial phases of development on land to south of Creigiau, provision of park and ride and public transport provision.
     - Middle phases of development on business development, land around the new neighbourhood centre northwards to Llanristant Road.
     - Latter phases of development on land to the west of the site.

2. Development Density
   - On land at J33 develop a new community with:
     - highest density residential around the neighbourhood centre to the south of the site.
     - medium density residential on the land to the west of the site.
     - lower density residential on the land close to Llantrisant Road.
   - On the land south of Creigiau provide a village extension with:
     - medium density residential to the west of the site.
     - lower density residential along the elevated area to the east and south.

3. Sustainable Transport Corridor
   - Integrate the development with a strategic rapid transit corridor and services (including potential options for rail, tram-train and bus transit) linking the site with Central Cardiff and growth areas in Rhondda Cynon Taf (North Western Rapid Transit Corridor).
   - Provide a public transport interchange in close proximity to the employment site to the south of the site and neighbourhood centre.
   - Improve bus services along Llantrisant Road through increased frequencies and bus priority measures, where practical.

4. Sustainable Travel Choices
   - Integrate provision of strategic park and ride facility linked to rapid transit corridor.
   - Exclude access onto the M4 from the site except for the park and ride and business area situated immediately adjacent to Junction 33 and to the south of the rapid transit corridor.
   - Provide access to the Park and Ride from M4 only.
   - Exclude through-traffic between both sites.
   - Extend bus network and services to serve the site with public transport options for a wide range of local journeys.
   - Facilitate interchange between local bus and rapid transit services.
   - Provide an off road cycling and walking link utilising the disused railway line between the 2 sites to provide links to the new neighbourhood centre from the north.
   - Improve pedestrian / cycling links from the site to the Creigiau Primary School.
5. Neighbourhood Centres
- Locate the neighbourhood centre to the north of the business land and adjacent to the rapid public transport interchange.
- Locate the business land adjacent to Junction 33 to provide lower density campus style development for high value service and knowledge based sectors, utilising the strategic location around the motorway interchange.
- Improve the facilities in the existing neighbourhood centre in Creigiau to provide new facilities for the existing and new residents.
- Within the new neighbourhood centre provide a new multi-functional community facility to accommodate a range of services and may include a GP and primary health facility, library provision and community hall.

6. High quality, sustainable design and distinctive character
- Improve the junction between Llantrisant Road and Cardiff Road to provide the key vehicular junction between the two sites.
- Provide a landscape buffer between employment land (office based, industrial or other) and residential areas.
- Provide planting along the boundary of the M4 to screen for noise, air and light pollution and reduce visual impact.
- Ensure development fronts onto the former railway line and other green corridors within the site to maximise surveillance of the new cycling / walking routes.
- Create a seamless transition between the 2 sites in terms of layout, built form, architecture.
- Incorporate any easements within the site into the development of the site from the outset (e.g. use as safe, attractive and overlooked public open space).

7. Integration with neighbouring areas
- Provide safe, convenient and inclusive pedestrian/ cycle links between the site and Creigiau village in particular through the existing cul-de-sacs adjacent to the site.
- Extend the Public Right of Way (Footpath 10 - Peterstone Super Ely) northwards connecting into the existing built area in the southern end of Creigiau.
- Provide a safe crossing of Llantrisant Road to maximise cycling / walking links between the 2 sites.

8. Connected strategic green open space
- Create an ecological corridor through the centre of the south Creigiau site incorporating the Castell y Mynach ancient woodlands and the marshy area to the north.
- Create a green buffer from Coed Gwenybwlau linking to the Former Llanristant Branch SINC and Pencoed Woods.
- Enhance the disused railway line (Former Llanristant Branch line SINC) as cycling/ walking/ ecological corridor.
- Create an east – west connection between Public Rights of Way / footpaths 10 (Peterstone Super Ely) and 18 Capel Llanilterne.

9. Landscape, biodiversity and heritage
- Undertake visual impact assessment of the landscape for both local and strategic views into and out of the site, including topography.
- Protect the Castell-y-Mynach, Coed Gwenybwlau and Pencoed Woods woodlands with a buffer zone of 15m.
- Develop sensitively around the M4 J33 Spoit Tip SINC.
- Mitigate appropriately for Dormice.
- Provide buffer zone around the streams (Nant Henstaff SINC and Nant-y-Glaswg SINC).
- Provide a systematic assessment of the character and setting of listed buildings, their curtilage structures and other heritage assets within and adjoining the site, in order to understand their significance and demonstrate how the proposals preserve or enhance those assets and their setting; in particular Pencoed House (LB Ref: 13608 - Grade 2*), the Church of St Elldeyrn (LB Ref: 22832 – Grade 2) and the Old Forge (22824).

10. Resource efficiency
- Explore potential for district heating across the sites.
- Manage flood risk to avoid increasing the risk elsewhere which will need to be incorporated into any plans.
Strategic Site F: West of Pontprennau (North East Cardiff)

Site Facts

Proposal: Comprehensive development of approx 4,500 residential units/employment and associated community uses.

Site Area (ha): 237.1 ha

Wards: Lisvane/Pontprennau Old St Mellons
Strategic Site F: West of Pontprennau (North East Cardiff)

Site Constraints / Opportunities

- Diverse and divided landownership.
- Network of streams across the site.
- Mature hedgerows and dormice across the site.
- Ty Draw Road barrier to permeability from the site to Pontprennau.
- Number of existing farm buildings on the site to be integrated into the development.
- Pylons to the north east of site.
- Existing 'rat run' along St Mellons Road.

Key

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Strategic Site F: West of Pontprennau (North East Cardiff)

Schematic Framework

Key
- Existing Residential
- Existing School
- Existing Retail Area
- Existing Open Space
- Existing Employment
- Listed Building
- Protected Woodland
- Strategic Green Open Spaces
- Residential
- Mixed Use
- Employment
- Neighbourhood Centre
- Secondary School
- Primary School
- Strategic Rapid Transport Hub
- Strategic Rapid Transport Corridor
- Cycle Footpath/Route
- Park and Ride

Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.
Strategic Site F: West of Pontprennau (North East Cardiff)

Site Specific Principles

1. Master Planning Approach
   - Site needs to be considered in the context of the East of Pontprennau Strategic Site.
   - Require a managed consortium approach with all the landowners to ensure that the area is successfully designed as a connected series of places.
   - Incorporate all landownerships into the master plan (not leaving holes in the site).
   - Develop a village green at the heart of the development to identify a sense of place.
   - Ensure green infrastructure in place and established at an early stage.
   - Ensure frequent public transport provision in place prior to residential occupation of the site.
   - Make provision for:
     - 4/5 x 2 form entry primary schools and a new 1800 place secondary school within the site to be located in close proximity to the sustainable transport corridors.
     - Extensions to existing primary / secondary schools as part of the initial phases.
     - Primary healthcare facility within the larger neighbourhood centre.
     - Upgrade Pontprennau Community Hall.
     - Enhanced local sports pitch provision and new 3G football pitch.
     - Enhanced leisure centres at Llanishen and Pentwyn.
     - Bring sites for recycling of household waste
   - Phasing:
     - Initial phases of development on land to west of site.
     - Middle phases of development on land towards the centre and south of the site including the district centre.
     - Latter phases of development on land to the north and east of the site.

2. Development Density
   - Provide lower densities around the edge of Lisvane.
   - Provide medium density immediately around the edge of Pontprennau and to the north of the site.
   - Provide high density in the centre of the site near to the new neighbourhood centre(s) and along public transport routes.

3. Sustainable Transport Corridor
   - Review the functions of existing highways through the site to accommodate rapid transit options, bus network improvements and manage highway pressures.
   - Provide rapid public transport links serving both eastern and western portions of the site via North East and Eastern Rapid Transit Corridors. Note exact line of rapid transit corridor yet to be determined.
   - Provide combination of limited stop and local bus services including additional east west services.
   - Provide public transport link and facilitate transfer to Rhymney Line rail services at Llanishen Rail Station (North East Corridor) and Thornhill Station.
   - Provide Bus Rapid Transit corridor and services linked to development site east of the A4232 (East of Pontprennau) (North East Rapid Transit Corridor) and connecting to Eastern Rapid Transit Corridor.
   - Provide interchange facilities between sustainable travel modes in neighbourhood centres.
   - Improve interchange facilities at Llanishen and Lisvane stations.

4. Sustainable Travel Choices
   - Close St. Mellons Road to through traffic and use for sustainable transport.
   - Incorporate the recreational routes along the green corridors into the wide cycling and walking network.
   - Facilitate sustainable transport access between the site and Cardiff Gate Business Park.

5. Neighbourhood Centres
   - Provide a new centrally located larger neighbourhood (district) centre with a high street (with potentially a small / medium sized supermarket) centrally within the site and linking into the sustainable transport corridor.
   - Provide a new multi-functional community facility to accommodate a range of services which may include a GP and primary health facility, religious facility, sports/leisure/community play facility, after-school activity and lifelong learning, and community hall.
   - Provide a range of employment opportunities including:
     - an extension to Cardiff Gate Retail Park.
     - a mixed-use corridor with employment uses (e.g. offices) which links along the sustainable transport corridor the eastern employment area to the larger neighbourhood centre.
6. High quality, sustainable design and distinctive character
- Preserve the character of Lisvane core and ensure any main vehicular traffic route is not routed through the centre of the village.
- Introduce measures to reduce impact of noise from the M4.
- Ensure that those buildings which are in the site area but not part of the development are integrated thoughtfully.
- Locate employment in places where residential development might not be as attractive, such as near the M4 or near the pylons.
- Ensure that housing does not directly back onto the mature hedgerows being retained.
- Ensure that there is a sensitive design to protect the biodiversity value of the stream network.

7. Integration with neighbouring areas
- Retain and enhance the Public Right of Way network to provide accessible cycling / walking routes from Pontprennau and Lisvane to the wider countryside north of the M4.
- Create and improve existing links with the surrounding areas including the Nant Fawr Corridor, Lisvane, Cardiff Gate Business Park and Pontprennau (particularly along the existing Ty Draw Road).

8. Connected strategic open green spaces
- Utilise the existing stream network (particularly the Nant Ty Draw, Nant Gladulais and Nant y Draenog) to create connected green open spaces for recreation routes as well as biodiversity connectivity.
- Protect and enhance the Nant Fawr corridor.
- Retain the area to the north of the reservoirs as open space.
- Create a connected green open space from the Nant Fawr to the Nant Glandulais.

9. Landscape, biodiversity and heritage
- Undertake visual impact assessment of the landscape for both local and strategic views into and out of the site, including topography.
- Retain green buffer around the SSSI (around Llanishen Reservoir).
- Retain a buffer around the Nant Glandulais SINC, Nant Ty draw SINC and Nant y Draenog SINC to protect the water quality.
- Maintain mature hedgerows where possible and compensate for loss.
- Retain wildlife corridors for dormice by protecting Malthouse woodlands and retaining hedgerows.
- Provide opportunities to plant up new woodlands to enhance dormice habitat eg the land immediately south of the motorway.
- Develop a masterplan which allows subsequent development to proceed without compromising the favourable conservation status of European Protected Species.
- Provide a systematic assessment of the character and setting of listed buildings and other heritage assets within and adjoining the site, in order to understand their significance and demonstrate how the proposals preserve or enhance those assets and their setting: in particular Panteg Cottage.

10. Resource efficiency
- Investigate district energy opportunities joined with the strategic site East of Pontprennau.
- Avoid development in the flood risk areas/river valley area around Nant Glandulais.
- Incorporate the flood zone into the public open space.
- Design streets that employ water sensitive urban design, such as swales which work sensitively with the topography and existing stream network.
Strategic Site G: East of Pontprennau Link Road

Site Facts
Proposal: Housing-based scheme of approximately 1,300 homes with associated community uses
Site Area (ha): 80.7 ha
Wards: Pontprennau/ Old St Mellons

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• Isolated site severed by the M4, A4232 and River Rhymney
• Poor links to surrounding communities – Pontprennau, Old St Mellons and Llanrumney
• Fast traffic speeds along the A4332.
• ‘Rat run’ along Bridge Road.
• Existing buildings (Church, pub, farm buildings and existing housing) on the site to be integrated into the masterplan
• Flood risk on the River Rhymney
• European Protected Species

Key

- Strategic Site Outline
- Pylon
- Power Line
- High Pressure Gas Main
- Intermediate Pressure Gas Main
- Public Right of Way
- Woodland
- Special Landscape Area
- Open Space
- Listed Building
- Site of Importance for Nature Conservation
- Site of Special Scientific Interest
- Flooding Area C1 and C2

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Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.
Site Specific Principles

1. Master Planning Approach
   - Site needs to be considered in the context of the North East Cardiff Strategic Site.
   - Ensure frequent public transport provision in place prior to residential occupation of the site.
   - Make provision for:
     - 1x2 forms of entry primary school, (including nursery provision) in initial phase.
     - Extensions to 2 existing primary schools, (including nursery provision) after completion of 1400 homes.
     - Extension to existing secondary schools as part of initial phases of development (CC Schools).
     - Primary Healthcare facilities within Neighbourhood Centre.
     - Enhanced local sports pitch provision.
     - Enhanced leisure centres at Llanishen and Pentwyn.
     - Upgrade Pontprennau community hall.
     - Bring sites for recycling of household waste.
   - Phasing:
     - Initial phases of development on land to south of site.
     - Middle phases of development on land towards the centre.
     - Latter phases of development on land to the north and east of the site.

2. Development Density
   - Provide high density development alongside public transport corridors towards centre of the site
   - Provide medium density development to the north of the site.
   - Provide lower density development alongside the Riverside park.

3. Sustainable Transport Corridor
   - Integrate development with the transport solution(s) for North East Cardiff Strategic Site.
   - Provide rapid public transport links via North East and Eastern Rapid Transit Corridors to serve the site and integrate it with existing development in Pontprennau and proposed development on North East Cardiff Strategic Site - west of A4232.
   - Provide combination of limited stop and local bus services.
   - Provide a bus only route along Bridge Road providing east / west sustainable links from St Mellons to Pontprennau.
   - Provide public transport link and facilitate transfer to Rhymney Line rail services at Llanishen Rail Station (North East Corridor).
   - Investigate downgrading and re-modelling the Pentwyn Link Road to fully address the severance effect of the A4232 (CSA).

4. Sustainable Travel Choices
   - Introduce changes to the environment of A4232 to provide, safe, attractive and convenient crossing(s) and connecting routes to facilitate walking and cycling between the site and key facilities and employment in Pontprennau, Cardiff Gate Retail Park and Cardiff Gate Business Park.
   - Undertake works to improve junction of Church Road and A4232 to improve walking and cycling access.
   - ‘Stop up’ Bridge Road (south) to through traffic to facilitate walking and cycling between this site and Old St Mellons.
   - Enhance the Rhymney Trail (including improving the link between Church Road and Mill Lane) to provide safe, attractive and convenient connection for walkers and cyclists from Rumney through the site to the wider countryside.

5. Neighbourhood Centres
   - Locate flexible and future proof accommodation adjacent to the new school and other community facilities including play provision.
   - Ensure new facilities have good connections to St Edeyrn’s Church and the Unicorn Public House and are located along the public transport corridor.
6. High quality, sustainable design and distinctive character
- Preserve village character around the Unicorn pub and St Edeyrn’s Church.
- Integrate the existing buildings to be retained including the Church, pub and farm buildings into the masterplan.
- Protect the views to St Ederyn’s Church from the A48.
- Integrate the existing clusters of low density houses around St Julian’s Manor and St Julian’s House in a holistic way.
- Use sensitive roof materials on the southern part of site adjacent to the A48 and northern part of the site adjacent to the M4 as these are highly visible areas.

7. Integration with neighbouring areas
- Address pedestrian / cycling links to Pontprennau including the retail park across the link road.
- Address pedestrian / cycling links to Llanrumney by enhancing the subway under the A48.
- Improve pedestrian / cycling links to the Pentwyn Park and Ride and Pentywyn Leisure Centre by improving the Rhymney Trail between Church Road and Mill Lane.
- Enhance Public Rights of Way links along the Rhymney Trail into the wider countryside, to within the site and neighbouring areas.

8. Connected strategic green open spaces
- Protect and enhance the Rhymney River Corridor and associated cycling / walking trails on both sides of the River.
- Incorporate the PROW network within the site into the connected green space corridor including strengthening the link along St Julians Lane.
- Create a Riverside Park which makes provision for sports, recreation and integrates opportunities for Sustainable Urban Drainage.
- Integrate appropriate land uses, such as allotments and sports fields could be integrated into some areas of the flood zone and river corridor.
- Retain the green buffer along the A4232.

9. Landscape, biodiversity and heritage
- Undertake visual impact assessment of the landscape for both local and strategic views into and out of the site, including safeguarding views to the listed St Edeyrn’s Church.
- Locate development on land of the lowest agricultural grade.
- Protect dormice habitat by providing 5m buffers either side of existing hedgerows and woodlands.
- Provide dormice habitat compensation by planting appropriate habitat on the southern and eastern boundaries of the site.
- Provide a buffer and enhance the water courses including the River Rhymney and Nant Mwlan to protect water quality.
- Address issues with Japanese Knotweed on the site particularly along the River Corridor.
- Provide a systematic assessment of the character and setting of listed buildings and other heritage assets within and adjoining the site, in order to understand their significance and demonstrate how the proposals preserve or enhance those assets and their setting in particular: the Unicorn Inn Public House, Church of St Edeyrn, Bridge Farm House, St Julian’s Manor House and associated cartilage structures eg. barns.

10. Resource efficiency
- Investigate district heating system linked to Strategic Site F - North East Cardiff.
- Avoid flood risk areas to the eastern side of the site.
- Incorporate the flood zone along the river into the Riverside Park.
Strategic Site H : South of St Mellons Business Park

Site Facts

Proposal : Strategic employment site
Site Area (ha) : 96.2 ha
Wards : Trowbridge
**Strategic Site H : South of St Mellons Business Park**

**Site Constraints / Opportunities**

- Special Landscape Area – Landscape of Outstanding Historic Interest.
- Archaeologically Sensitive Area.
- Gwent Levels SSSI.
- No surface run off into the reens.
- European protected species bats, otters and reptiles.
- Flood risk zone – C1 flood area.
- Issues with Sea Wall defences – area may need raising to develop this site.
- Easements required for 2 high pressure mains on site.
- Currently car based area.

**Key**

- Strategic Site Outline
- Pylon
- Power Line
- High Pressure Gas Main
- Intermediate Pressure Gas Main
- Public Right of Way
- Woodland
- Special Landscape Area
- Open Space
- Listed Building
- Site of Importance for Nature Conservation
- Site of Special Scientific Interest
- Flooding Area C1 and C2
Schematic Framework

Diagramatic only. Do not Scale. Conceptual diagram to be rigorously tested and modified during future design collaboration in line with masterplanning principles.
Strategic Site H: South of St Mellons Business Park

Site Specific Principles

1. Master Planning Approach
   - Develop a vision for the area which reinforces Wentloog as a principal destination for business / transport hub for the city region and beyond.
   - Ensure frequent public transport provision in place prior to residential occupation of the site.
   - Potential phasing from the north of the site southwards. Development around the station (if and when funding is secured) is a priority.

2. Development Density
   - Campus style low density development similar to existing Business Park, to provide hybrid business space for high value knowledge sectors, research and development.

3. Sustainable Transport Corridor
   - Provide a transport interchange with a station for bus and rail users.
   - Provide rapid transit links on the relief lines between Central Cardiff, Newport and east of Newport connecting to the city centre and Cardiff Airport, as well as links to London.
   - Provide rapid link bus service along the A48 to the city centre.
   - Provide bus priority improvements to routes serving the site.
   - Provision of a park and ride.

4. Sustainable Travel Choices
   - Provide additional rapid transit and bus services to provide public transport access to the site from other parts of the city.
   - Provide high quality walking and cycling facilities to maximise local access to the site from neighbouring communities including Trowbridge and St Mellons.

5. Neighbourhood Centres
   - Develop a mixed-use hub comprising of appropriate uses, such as shops, a hotel, cafes and other facilities around a central piazza which are accessible by walking, cycling and public transport.
   - Create good links to the hub from within site and the wider St Mellons area.

6. High quality, sustainable design and distinctive character
   - Integrate any landscape natural features, such as reens to the design.
   - Utilise existing roads and pedestrian routes to minimise impact of development.
   - Orientate commercial buildings to face neighbourhood centres to improve integration both day and night.

7. Integration with neighbouring areas
   - Improve cycling and pedestrian linkages between the site and surrounding areas, such as Trowbridge and St Mellons.

8. Connected strategic green open spaces
   - Provide green links to Hendre Lake Park which respond to the natural landscape value in the area.
   - Retain the area of land to the east of Cypress Drive and Faendre Reen as green space (potential extension to the adjacent park).

9. Landscape, biodiversity and heritage
   - Protect the value of the Gwent Levels SSSI with development being a minimum of 12.5m from main reens and 7m from field ditches.
   - If the infilling of any main reen or field ditch is unavoidable, the realign it around the perimeter of the development or a compensatory length of ditch should be case elsewhere within the site.
   - Respect the intricate reen network and hedgerow structure resulting in smaller discreet plots.
   - Survey for the Shrill Carder Bee, and if found provide appropriate compensation.
   - Protect European Protected Species (bats, otters and reptiles).
   - Protect Marshfield SINC.
   - Protect the Wentloog Levels Archaeologically Sensitive Area and registered Landscape of Outstanding Historic Interest.

10. Resource efficiency
    - Address the flood risk which poses a significant challenge due to its location within Zone C1 and containing a large number of drainage reens.
    - All surface run-off from roads, car parks and roofing should not be routed directly to the reen system.
    - Provide a range of flood protection measures to bring the site into use by:
      - Raising the existing coastal defences at Sluice Farm.
      - Raising site levels.
      - Constructing flood compensatory flood storage facilities to mitigate any off-site increase in fluvial flood risk.
      - Providing details of flood storage arrangement and the use of a multi cell system.