Mid Wales Commercial Property Investment Fund
Design Strategy – Rev 2

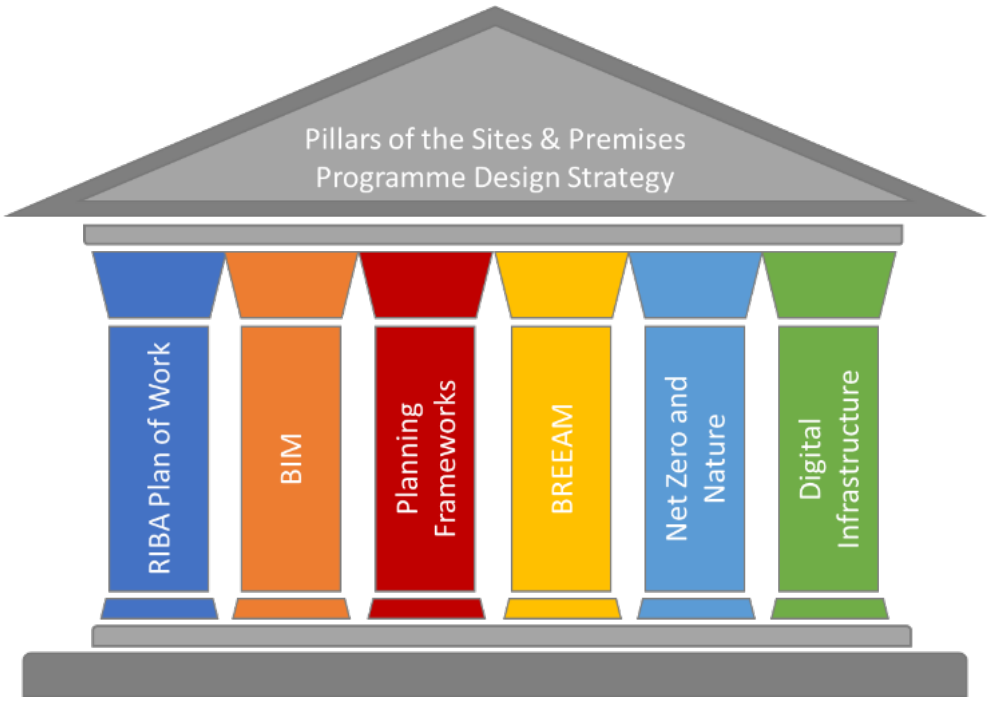
Construction 2025

The Sites and Premises Programme will be delivered in the context of the UK Government's "Industrial Strategy : Construction 2025" which expresses an intent to put construction at the heart of a future low carbon, resource efficient, modern and globally competitive economy by addressing three strategic priorities to underpin sustained growth:

- Smart construction and digital design
- Low carbon and sustainable construction
- Improved trade performance.

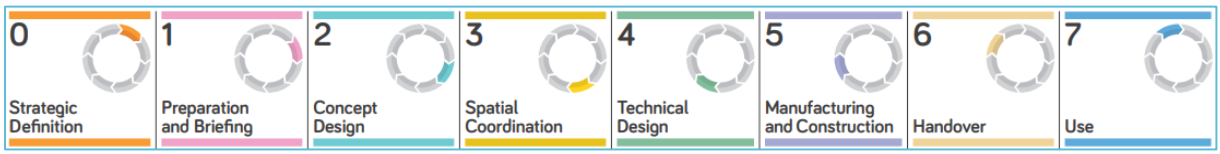
Success in these priority areas depends on having a skilled, motivated and diverse workforce, so the Sites and Premises Programme will encourage Project Sponsors to work closely with the Growing Mid Wales Regional Skills Partnership to optimise opportunities to enhance the skills-base locally wherever possible.

The Sites and Premises Design Strategy (or Quality Standard) is premised on the adoption of industry-standard processes to guide project delivery across the following six pillars.



Adoption of RIBA Plan of Work

The RIBA POW will be deployed to guide and control design/project outputs. This organises the process of briefing, designing, delivering, maintaining, operating and using a building into eight stages. It is a framework for all disciplines on construction projects and provides guidance for the preparation of detailed professional services and building contracts.



Stage 0: outlining project brief, identifying defining criteria and design ambition

Stage 1: assembling the project team, defining the structure, team roles and responsibilities

Stage 2: the main design stage – concept design, visualisations, initial proposals for structural design, building services and specifications

Stage 3: spatial coordination, more advanced structural/services design and finalised cost information

Stage 4: technical design (refinement of existing design) to prepare tender documents, including approaching specialist sub-contractors (e.g. glazing, joinery, etc.), resulting in a contractor being selected and employed by the client

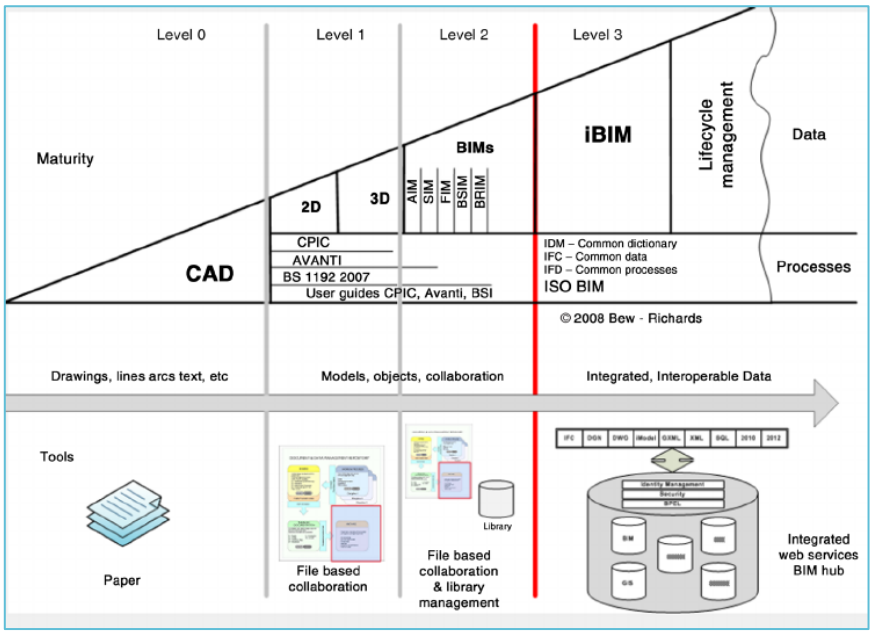
Stage 5: signifies the start of construction (design complete), with contractor taking possession of the site and carrying out works as listed in the Schedule of Work and building contract

Stage 6: handover phase, concluding all aspects of the building contract and where appropriate building commissioning. Includes a 'defects liability period'

Stage 7: aftercare (if required), including maintenance, energy certification, letting queries, general management of facilities

Building Information Modelling (BIM)

Further to the above strategy the UK Government has mandated compliance with BIM Level 2 digital design on public sector construction projects. In the context of the Sites and Premises Programme this would imply adherence to PAS 1192-2: 2013, which deals with construction (or CAPEX) design activity.



Planning Frameworks Approach

Project Sponsors will adopt the Programme's approach in creating these documents to help inform landowners, developers and stakeholders of the necessary steps and actions required to bring forward development at sites that will potentially be included in Programme scope. The Frameworks will set out the direction of travel in Planning policy terms which will need to be considered and complied with, some of which will have a direct bearing on design solutions for the developments being proposed.

The intent is to strengthen the concept proposals for such developments to provide more certainty and assurance of a project's merits to decision makers, potential occupiers, investors and developers alike as design solutions come forward and are progressed through the Planning system.

The Region's Local Planning Authorities (LPAs) will review and guide their preparation. To ensure flexibility and innovation in detailed design the Planning Frameworks will not be formally endorsed by the LPA as planning policy or guidance. However, they will provide developers and investors with guidance typical of a pre-application consultation process with regard to key principles and signposting to key, relevant policies.

The key policies that are expected to significantly shape designer's approach to sites are Future Wales and Planning Policy Wales, outlined in headline terms below.

Future Wales

Future Wales at Policy 2 contains a series of strategic placemaking principles which relate to large scale urban growth and regeneration so only at a high level will, in part, be relevant to the consideration of the design of Proposed Development given the existing allocation / proposed use of the Site. However, it is relevant to development in the Regional Growth Areas.

Planning Policy Wales (PPW)

PPW sets out a series of national sustainable placemaking principles which should be used to inform the assessment of development proposals and are the starting point for decision takers. PPW notes that not every development will be able to demonstrate that they can meet all the outcomes (repeated at Figure 6), but they still are expected to be considered in the development management process.

PPW also sets out a series of objectives of good design and meeting them should be the aim of all those involved in the development process and applied to all development proposals, at all scales. These objectives are categorised into 5 key aspects of good design, shown right.

Figure 8: Objectives of Good Design

Employment Site Categories / Quality Standards

The Local Development Plans of each Local Authority in the Region set down some qualitative characteristics associated employment land use. Established sites and future allocations are assigned one of the following Employment Use Categories and it will be necessary to reflect these characteristics in any respective proposals submitted for consideration at Planning:

Employment Use Categories:

- **Prestige Sites**: Strategically located sites in the regional context offering medium to large scale employment opportunities for primarily B1 Uses (such as offices, research and development centres for products and processes and light industry) and characterised by a high quality environment.
- **High Quality Sites**: Smaller sites of regional significance offering small to medium sized employment opportunities for B1, B2 and B8 Uses in high quality surroundings that are well positioned in relation to the County's main road and transport infrastructure.
- **Local Sites**: Sites for B1, B2 and B8 Uses providing a varied industrial and / or employment setting with minimised visual impact (for example, screening) yet located within close proximity to the main road and transport infrastructure as well as centres of population. These sites primarily serve a local market and may include local office developments.
- **Neighbourhood Sites**: Typically suited to a smaller or local operation and located in a very mixed environment within or in close proximity to existing built up areas or small towns.
- **Mixed Use Sites**: Sites where employment led mixed use proposals are supported in order to stimulate private sector investment and development.

BREEAM

It is proposed to adopt the common, industry-standard BRE environmental assessment methodology, BREEAM to promote the Net Zero and Nature credentials, and the design development and delivery of projects included in the Sites and Premises Programme.

The BRE have recently launched a consultation exercise (BREEAM Version 7 or V7) to help shape next generation green building standards, so designers will be expected to be alert to the changes to the assessment methodology that emerge as the new standard is introduced.

Net Zero and Nature Pillar

The Sites and Premises Programme will adhere to the Mid Wales Growth Deal "Strategic Statement on Net Zero and Nature", this is attached at **Appendix 1**.

Construction Standards and Approach to Net Zero Design

For each project, the Net Zero Public Sector Buildings Standard will be adopted for use to promote the use of emergent best practice to:

achieve a Net Zero Operational (NZ-OE)
build-standard* that "goes beyond BREEAM Excellent"

** As defined by UKGBC*

This objective is aspirational, **NOT** mandated, but all Project Sponsors will be tasked with progressing their design solutions for new premises as close to the NZ Standard as possible.

Notwithstanding the above, the WG Sustainable Building Standards **for commercial premises** sets out Policy requirements based on floor area:

Building floor area	Policy Requirement
<=250m2	Exempt
251-1,000m2	No BREEAM Required Part L+10%* Required
1001-2000m2	BREEAM 'Very Good' With 'Excellent' for Energy Credits (ENE01)
2001+m2	BREEAM 'Excellent'

*Part L +10%' refers to a 10% improvement over the Target Emission Rate (TER) for current Part L of the Building Regulations

The table represents the minimum performance requirements that **must** be met on any project working in the Sites & Premises Programme environment.

In their Implementation Guide "Delivering Low Carbon Buildings Towards Net Zero", the Welsh Government's Property Team offer specific guidance on designing for Net Zero.

It confirmed that all buildings should aim to reach the industry standard target of 55 kWh/m2 for occupied spaces where comfort conditions are provided. All projects should also address the following priorities during design development:

1. Maximising fabric performance - insulation and airtightness
2. No on-site fossil fuels - all heating to be electric
3. Maximising on-site solar PV generation capacity

The guide will be shared with all Project Sponsors. Sponsors' attention is specifically drawn to the advice contained on pages 22 to 27 of the guide inclusive. The best practice measurement of operational and embodied carbon is discussed on pages 15, 16, 18 and 19.

The guide also sets out the principal milestones to be achieved at each RIBA Stage, as summarised below.

RIBA Stage	Action	Check
Stage 0-1	Define the ambition for the project using this guide, expectation on the base principles and set an energy use target to 55 kWh/m² for occupied spaces where comfort conditions are provided.	❑ Has this guide been referenced in the project brief? ❑ Does the project brief specify the base principles and set an energy use target?
Stage 2	Ensure an assessment of the projects embodied and operational carbon has been completed with opportunities identified to reduce and that the base principles are incorporated into concept design.	❑ Has on-site renewable generation been maximised? ❑ Is the proposed heating system all-electric? ❑ Is the proposed fabric and insulation have as high a specification as feasible (see Appendix A)? ❑ What is the residual carbon balance for the project?
Stage 3-4	Ensure embodied and operational carbon proformas are completed based on detailed design and that the ITT includes a thorough energy assessment and sustainability criteria.	❑ Have the proformas in Appendix B been completed? ❑ Have the base principles all been followed? ❑ Does the ITT include a scoring criteria for energy and sustainability with assessment requirements for future RIBA stages detailed?
Stage 5	Review any design changes that undermine energy and carbon performance of building and define handover and aftercare procedures.	❑ Have the proformas in Appendix B been completed? ❑ Does the contactor design align (or improve) with the tendered design for energy and carbon performance?
Stage 6	Ensure users and facilities managers are provided with operation information, inductions and training. Review tender design energy and carbon targets with what was achieved at the end of construction.	❑ Have the users and facilities managers received operation information, inductions and training? ❑ Have the reporting metric being captured and performance benchmarked based on the as-built design?

Building Life Cycle Assessments

The Programme will promote the use of a BREEAM common 'whole building energy modelling' methodology which will include the provision of Life Cycle Assessments, using the BRE Mat 01 Embodied Carbon Reporting (IMPACT) Tool to secure a BS.EN 15978-compliant report format.

The Six-Point Compliance Plan

The Sites and Premises Programme proposes a 'Six-Point Compliance Plan' for Project Sponsors to demonstrate that the life cycle environmental impact of any building has been appropriately considered as an integral part of Project design and construction processes:

1. Sponsors **must** have undertaken an in depth analysis of the elemental and component parts of the proposed building, identifying specific materials, products and lifespans, to generate a carbon baseline and low carbon alternatives to that baseline together with some identified carbon reduction targets for the development (expressed either a percentage or absolute value). This should all be set out in a "Project-Specific Net Zero Objectives" statement.
2. At "Concept Design Stage" Sponsors **must** undertake an initial project Life Cycle Assessment (LCA) with a BS.EN 15978:2011-compliant reporting format (Modules A, B and C and all sub-sets thereof, but not B6 and B7).
3. The LCA tool of choice **must** have been previously evaluated by BRE Global (BREG) as suitable for the purpose. It is recommended that Sponsors adopt an Integrated Material Profile and Costing Tool (IMPACT) - see www.IMPACTwba.com
4. The LCA **must** include:
    - at least the mandatory building elements indicated in the 'Materials assessment scope' section of the BREEAM International Mat 01 calculator (where present in the building)
    - the mandatory requirements identified in the 'Materials assessment tool, method and data' section of the that calculator must be met. Materials must be classified in line with the New Rules of Measurement classification system
    - supplementary EPD certificates where relevant that are valid at the point of specification and compliant with ISO 14025, ISO 21930 or EN 15804.
5. The outcomes of the LCA **must** be set down in a "Project Concept Design Stage Verification Plan".
6. The Concept Design Stage LCA **must** be fully reviewed and updated with additional design data at "Technical Design" stage and again at "Final Post-Construction" stage (with as-built data).

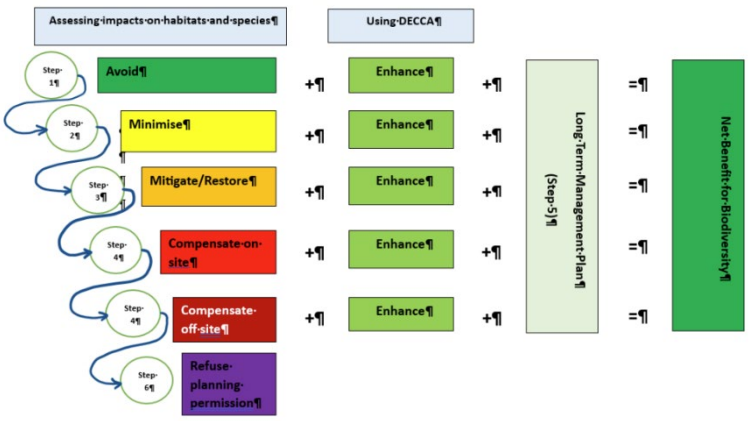
Net Benefit for Biodiversity

Planning Policy Wales (PPW12), Chapter 6 provides a mandatory framework assessing for Net Benefit for Biodiversity in Wales, using the Stepwise Approach and DECCA[1] assessment framework.

Local Planning Authority Green Infrastructure Assessments (GIAs) monitor and develop ecosystem provision, biodiversity and resilience within their geographic area. All Planning Applications need to be accompanied by Green Infrastructure Statements which consider how proposals align with respective GIAs. The GIAs can also be used to identify suitable locations for securing off-site compensation where needed.

A Stepwise Approach (see Figure 1X) should be adopted when developing proposals, to maintain and enhance biodiversity, build resilient ecological networks and deliver net benefits for biodiversity by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for.

Figure 1X: Summary of the Step-Wise Approach



In order to appropriately assess the impact of development, it is imperative that baseline ecological survey data for site is provided (proportionate to the scale and nature of the development being proposed). All development must endeavour to deliver a net benefit for biodiversity and ecosystem resilience from this baseline state. Even if the biodiversity value has been maintained, a pro-active process to look for enhancements must be demonstrated.

New development must not cause significant loss of habitats or populations of species (not including non-native invasive species), locally or nationally, and must work alongside nature to demonstrate an improvement, or enable an improvement, to local ecosystems.

Landscape features which provide links from one habitat to another can make an important contribution to developing resilient ecological networks, securing a net benefit for biodiversity in doing so, improving the quality of the local place and its ability to adapt to climate change.

Any proposed compensation must follow the DECCA Framework and integrate appropriate ecological advice from Local Authority Ecologists, NRW and/or suitably qualified ecologists.

[1] The DECCA Framework - NRW Guidance: **D**iversity between and within ecosystems, the **E**xtent or scale of ecosystems, the **C**ondition of ecosystems including their structure and functioning, the **C**onnections between and within ecosystems, and **A**daptability of ecosystems including their ability to adapt to, resist and recover from a range of pressures likely to be placed on them through climate change for example.

Business Case Statements

A number of templated forms have been devised by Mid Wales Growth Deal to capture the above-mentioned outputs in summary terms and these must be completed at respective Business Case submission stages:

Design Strategy Requirement	Templated Forms for Submission
Project-Specific Net Zero Objectives Statement	1. Carbon Guidance and Form (at SOC and OBC stage)
Project Concept Design Stage Verification Plan	2. Carbon Life Cycle Assessment Form (at OBC stage only)
Project Net Biodiversity Benefits Statement	3. Biodiversity Assessment Form (at OBC stage only)

Digital Infrastructure

The Sites and Premises Programme will adopt the Mid Wales Growth Deal "Digital Connectivity Standards" for its projects and programmes of work. This is attached at **Appendix 2**.

Appendix 1 - Strategic Statement on Net Zero & Nature

The Mid Wales Growth Deal seeks to support projects which will help tackle the climate change and nature emergencies facing the world today. All projects should reference carbon and biodiversity within the development of their business cases and endeavour to take action to mitigate impact and undertake positive change.

Below sets out the aspirations we hope that projects will seek to match:

#	Aspiration	Detail
1	Align with Growing Mid Wales strategic objectives	**All projects should seek to align with the following objectives:** • Prioritise retrofitting existing buildings over construction of new buildings. • Prioritise sustainable transport options (e.g. active travel, public transport, electric vehicle) • Embed sustainability within procurement strategies • Support the decarbonisation of businesses & agriculture in Mid Wales • Support the general public to decarbonise • Increase the provision of net-zero skills in Mid Wales. • Deliver net benefit for biodiversity • Deliver innovation solutions (e.g. smart local energy systems, natural based solutions)
2	Create net zero carbon emissions when in operation	**New build projects** • Achieve a Net Zero Operational build-standard that goes beyond BREEAM Excellent (subject to floor area) • Use of BREEAM 'whole building energy modelling' methodology including undertaking life cycle assessments **Retrofit projects** • Retrofit should aim to maximise the feasible performance and aim for as close to new-build net zero carbon compatible performance as possible (i.e. BREEAM Excellent) • Use of BREEAM 'whole building energy modelling' methodology including undertaking life cycle assessments **All projects** • Identify how carbon emissions can be minimised
3	Minimise carbon emissions during construction	
4	Align with regional and national policies and strategies	**All projects should seek to align with the following strategies:** - Net Zero Strategy - Net Zero Wales - Environment (Wales) Act - Nature Recovery Action Plan for Wales - Mid Wales Energy Strategy

Growing Mid Wales recognises the challenges associated with meeting some of these ambitions. In particular, how constraints on the grid make achieving net-zero in operation difficult in Mid Wales.

We encourage project sponsors to engage with the Distribution Network Operators (DNOs) early to understand grid constraints in the locality, potential solutions to reduce costs (e.g. battery storage, shifting energy demand, nearby energy consumers off-taking additional energy generation).

Please fill out the following three forms: -

1. MWGD Carbon Life Cycle Assessment v1_Nov 2023
2. If necessary, update the MWGD Carbon Guidance and Form_v1 Nov 2023 submitted at SOC stage.
3. MWGD Biodiversity Assessment v1 Nov 2023

All of this information should be available at OBC stage as the operational design work will have been completed.

Appendix 2 - Digital Connectivity Standards

Introduction

Modern, reliable mobile telecommunications and fast broadband services are essential to our everyday lives, with digital communications infrastructure being crucial to the future success and economic competitiveness of Wales's businesses, whilst supporting community and individual needs, including access to key services and facilities.

Little or no coverage in some locations disadvantages businesses, communities and individuals, both economically and socially, and can contribute to deprivation, social isolation and lack of well-being. Despite digital connectivity and telecommunications still being a reserved matter for which the Welsh Government is not responsible and receives no devolved funding, the Welsh Government are committed in supporting the public sector, businesses and homes in Wales to receive the connectivity they need to engage in digital activities in support of their wider Digital Strategy for Wales[2], and their Mobile Action Plan[3] which highlights actions being taken to improve mobile provision across Wales

The Welsh Government has also developed Future Wales: The National Plan 204024 which seeks to address the key national priorities through the planning system, and which sets out 36 policies including regional connectivity, supporting digital communication, prioritising both broadband and mobile provision across Wales. The Welsh Government has also established their own barrier busting taskforce focused on making Wales a more attractive place to invest in all forms of digital infrastructure and are working on addressing a number of barriers through this taskforce[4].

GMW Digital Connectivity Standards

As highlighted, strong digital connectivity is essential for economic growth, social inclusion, and sustainable development. To ensure that both our business and communities thrive in the digital age, it is proposed that the Mid Wales Growth Deal and the projects developed through its fund set minimum connectivity standards for these new developments in line with the standards set by both UK Government and Welsh Government. By establishing these standards, it will be possible to prevent the creation of connectivity 'not-spots' in new developments and ensure that our communities are digitally enabled and future-proofed, with developments encompassing the following aspect:

1. Full Fibre Connections

   As stated in Policy 13 of 'Future Wales: The National Plan 20240[5]. New developments should include the provision of Gigabit (1Gbps) capable broadband infrastructure from the outset. To ensure that properties will be able to manage future demand, it is recommended that all-new commercial developments enable the ability of 10Gbps fibre connections.

   The developer will be required to install underground ducting to allow the communications provider to install fibre to connect easily with businesses. These standards negate the need to retro-fit developments in the near future to accommodate fibre or any new technologies that arise.

2. Mobile connectivity

   It is suggested that the developers of new property across Mid Wales engage with Mobile Network Operators (MNO's) to establish Open Access Agreements (OAA), as recommended by the Department for Science, Innovation and Technology[6]. This will provide the ability for MNO's to make

[2] Digital strategy for Wales [HTML] | GOV.WALES
[3] Mobile Action Plan (gov.wales)
[4] Barrier Busting Taskforce: report [HTML] | GOV.WALES
[5] Update to Future Wales - The National Plan 2040 (gov.wales)
[6] Guidance on access agreements - GOV.UK (www.gov.uk)

use of developments to place small cell technologies upon infrastructure to improve localised mobile connectivity for both 4G and 5G technologies in and around the development.

3. Access to Advanced Services

   New developments should be designed in order to enable opportunities to implement private 5G networks to minimise the necessity to retro-fit developments in future. This will be particularly important with developments associated within manufacturing, healthcare and logistics where there is an increasing demand upon efficient automation and the technology to support this. Consideration must be made upon fibre deployment within and across the development to enable 5G devices, and the locations of these devices to ensure coverage across the development, including fibre deployed to individual 'units' as a means of backhaul.

   In addition to this, where developments are considered for the use of tourism and the general public, it is recommended that

   consideration be provided to ensure the deployment of public wi-fi, and if necessary steps being taken to ensure mobile coverage through the deployment of small cells.

4. Infrastructure for Smart Towns

   The infrastructure should be designed to support smart city concepts, including sensors, IoT (Internet of Things), and data analytics, contributing to a more connected and efficient economic environments.

Alignment with Wider Policy

Mandating connectivity standards aligns with the Welsh Government's commitment to cohesive digital infrastructure. It supports the goals outlined in Future Wales and other plans as highlighted, where digital connectivity plays a pivotal role in achieving other targets. Furthermore, the enablement of digital connectivity will support the overall objectives of the Mid Wales Growth Deal, and in turn ensures that Wales remains competitive in attracting investment and talent, strengthening its position on the global stage.

Conclusion

In conclusion, setting connectivity standards is crucial for Wales' digital growth, not just a convenience. The Digital Strategy for Wales[7] shows the importance of these standards for economic growth, social inclusion, and environmental sustainability, which are key goals of the Welsh Government. The current connectivity issues that are evident across Mid Wales highlight the wider need for solid digital connectivity standards. By implementing clear guidelines, it will ensure that GWM are able to set a standard for others within the Region to follow and replicate, assisting to improve Wales' digital connectivity both Regionally and Nationally. Consequently, working towards a better-connected, more efficient, and prosperous Wales, where no community is left behind.

[7] Digital strategy for Wales [HTML] | GOV.WALES