THORNTON O'CONNOR
TOWN PLANNING

Development Plan Submission

Submission to *Draft Kildare County Development Plan 2023–2029*

In respect of lands at the junction of Main Street (R402) and Johnstown Road in Johnstownbridge, Co. Kildare

Submitted on behalf of
Johnstown Bridge Spire Ltd

May 2022

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Planning Office
Kildare County Council
Áras Chill Dara
Naas
Co. Kildare

Monday, 23rd May 2022

Dear Sir/Madam,

RE: SUBMISSION IN RESPECT OF THE *DRAFT KILDARE COUNTY DEVELOPMENT PLAN 2023–2029* RELATING TO A SITE IN JOHNSTOWNBRIDGE, CO. KILDARE

1.0 INTRODUCTION

Johnstown Bridge Spire Ltd have retained Thornton O'Connor Town Planning to prepare this Submission to Kildare County Council in respect of the *Draft Kildare County Development Plan 2023–2029* (Draft Plan). The Submission relates to a site of 2.46 Ha site at the junction of Main Street (R402) and Johnstown Road in Johnstownbridge, Co. Kildare.

The Draft Plan was published on 14th March 2022 and the final day for submissions on this phase of public consultation is 24th May 2022.

It should also be noted that Johnstown Bridge Spire Ltd are the Applicants on a live planning application currently being assessed by Kildare County Council. This application – Reg. Ref. 22/488 – proposes a development that comprises 68 No. residential units and a retail unit / café. Clearly, they intend to develop the site and make this zoning request as a practical means to support housing delivery, rather than as a speculative exercise.

1.1 Purpose of this Submission

The principal purpose of this Submission is to request, and demonstrate the rationale for, amendments to the rezoning of the subject site as proposed in the Draft Plan. Specifically, the Submission seeks the continuance of the zoning configuration of the site as detailed in the *Kildare County Development Plan 2017–2023* (Current Plan): 'A – Village Centre' along the front of the site (north) and 'C – New Residential' in the rear portion of the site (south).

Please refer to Section 3 for details of the subject site location and Section 4 for further elaboration of the request of this Submission.

1.2 Structure of this Submission

This Submission continues in 7 No. further sections, as set out below. The key purpose – 'the request' – of this Submission is set out in Section 4. The full rationale and justification to support same is detailed in Sections 5, 6, 7 and 8.

Section 2 – Executive Summary
Section 3 – Site Context, Location and Description
Section 4 – Key Purpose of this Submission
Section 5 – Compact Growth and Sequential Development
Section 6 – Critical Mass, Social Infrastructure, Service Provision and Supporting Local Business
Section 7 – Developer Intent
Section 8 – Addressing Flood Risk Concerns
Section 9 – Conclusion

2.0 EXECUTIVE SUMMARY

Purpose of this Submission

- This Submission seeks the continuance of the zoning configuration of the site as detailed in the *Kildare County Development Plan 2017–2023* (Current Plan): 'A – Village Centre' along the front of the site (north) and 'C – New Residential' in the rear portion of the site (south). (i.e. a reversion from that currently proposed in the *Draft Kildare County Development Plan 2023–2029*)

Site Details

- The subject site has an area of approximately 2.46 Ha and is located in Johnstownbridge, Co. Kildare.
- It is optimally located for development, noting the prospect of sustainably infilling and consolidating the settlement, in accordance with planning policy.
- The site is primely located in the centre of the village, immediately adjacent to a range of local services and amenities.
- It is proximate to the town of Enfield, which benefits from a host of public transport services (rail and bus) and the M4 motorway.

Live Planning Application

- A live planning application (Reg. Ref. 22/488) for development at the site is currently being assessed by Kildare County Council. The proposal principally includes 68 No. residential units and a retail unit / café.

Compact Growth and Sequential Development

- National, regional and local policy all advocate for the compact growth and sequential development of the State's urban centres, prioritising the development of more central locations and sustainable increases in densities.
- The zoning of the subject site to accommodate new development would wholly comply with the principles of supporting compact growth in a sequential manner as the subject site is located in the very core of the village.
- An 'accessibility assessment' undertaken by Thornton O'Connor compared a select series of zoned sites and concluded that the subject site was the most appropriately located and connected
- However, the findings of the above assessment conflict with the Council's decision to zone a series of new sites for development that are notably less accessible, connected and central.
- Zoning other less sequentially appropriate sites for development and dezoning most of the subject site contradicts the principles of compact growth and sequential development and lacks a robust basis.

Critical Mass, Local Services and Local Business

- The *Social Infrastructure Audit* prepared in support of Reg. Ref. 21/117 (at appeal stage) and Reg. Ref. 22/488 indicated that there are adequate social and community services and infrastructure in the environs of the subject site.
- Additional local population will support the viability and feasibility of providing new social and community services and new local businesses.

- It is understood that the owners, managers and representatives of several of Johnstownbridge's main businesses and community groups have also made submissions to the Draft Plan, seeking a change to the subject site's land-use zoning designation to residential to facilitate its prompt development, thereby demonstrating strong local support.

Developer Intent

- The Developer has demonstrated their clear intention to deliver development at the subject site, as evidenced by 2 No. planning applications thereat.
- The most recent application at the site has addressed the previous reasons for refusal and will yield much needed housing in this part of Kildare.
- The dezoning of the subject site by the Council will stymie development in the village that may include an important 68 No. residential units.

Addressing Flood Risk Concerns

- The changes to the zoning configuration appear to be in part as a result of implied flood risk concerns in Johnstownbridge.
- However, the subject site is wholly located in Flood Zone C and is not deemed to be at significant risk of flooding.
- Its inclusion in the 'Flood Risk Assessment' area simply requires the preparation of a Site-Specific Flood Risk Assessment to be included with a planning application for development thereon.
- Such a Site-Specific Flood Risk Assessment was prepared and included as part of the Reg. Ref. 22/488 planning application and concluded that the site was at very minimal risk of flooding.
- Therefore, given the low risk of flooding at the site, its location in Flood Zone C and its central location that accords with the principles of compact growth and sequential development, there is no basis for it to be dezoned.

3.0 SITE CONTEXT, LOCATION AND DESCRIPTION

The following Section sets out the subject site's context and location within the existing settlement of Johnstownbridge in Kildare and relative to key infrastructure, landmarks and other settlements.

3.1 Site Context

The village of Johnstownbridge is nestled between the '*Blackwater River*' to the north and the '*Fear English River*' to the south. Located close to the Kildare and Meath County border, the settlement of Johnstownbridge is close to the M4 motorway and the small town of Enfield. This cross-border relationship provides access to the regional road network, the Sligo/Longford Railway line and the Royal Canal. The subject site's location and Johnstownbridge's context are detailed in Figure 3.1.

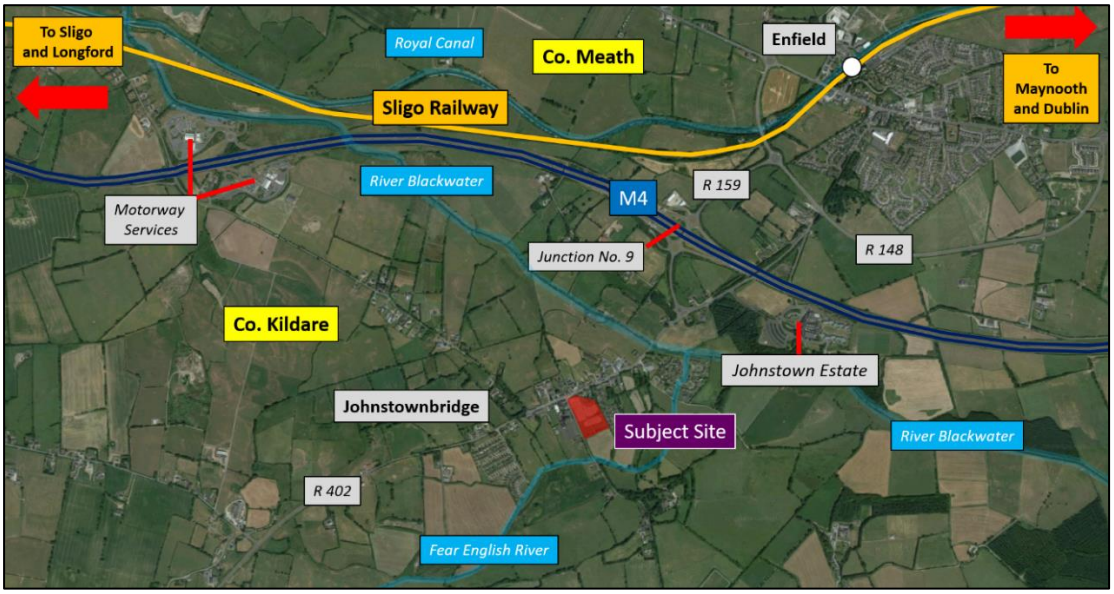

Figure 3.1: Context of the subject site in Johnstownbridge

Source: Google Earth, annotated by Thornton O'Connor Town Planning, 2022

3.2 Site Location and Description

The subject site is located in the very centre of the Johnstownbridge settlement, identified by the Draft Plan as a 'Village' in the Settlement Hierarchy. The site itself has an area of approximately 2.46 Ha and is principally bound to the north by the R402 (main road through the village), to the east by the Bridgewell residential development, to the south by undeveloped lands and to the west by Johnstown Road (across which is the Hamlet Court Hotel) (Figure 3.2).

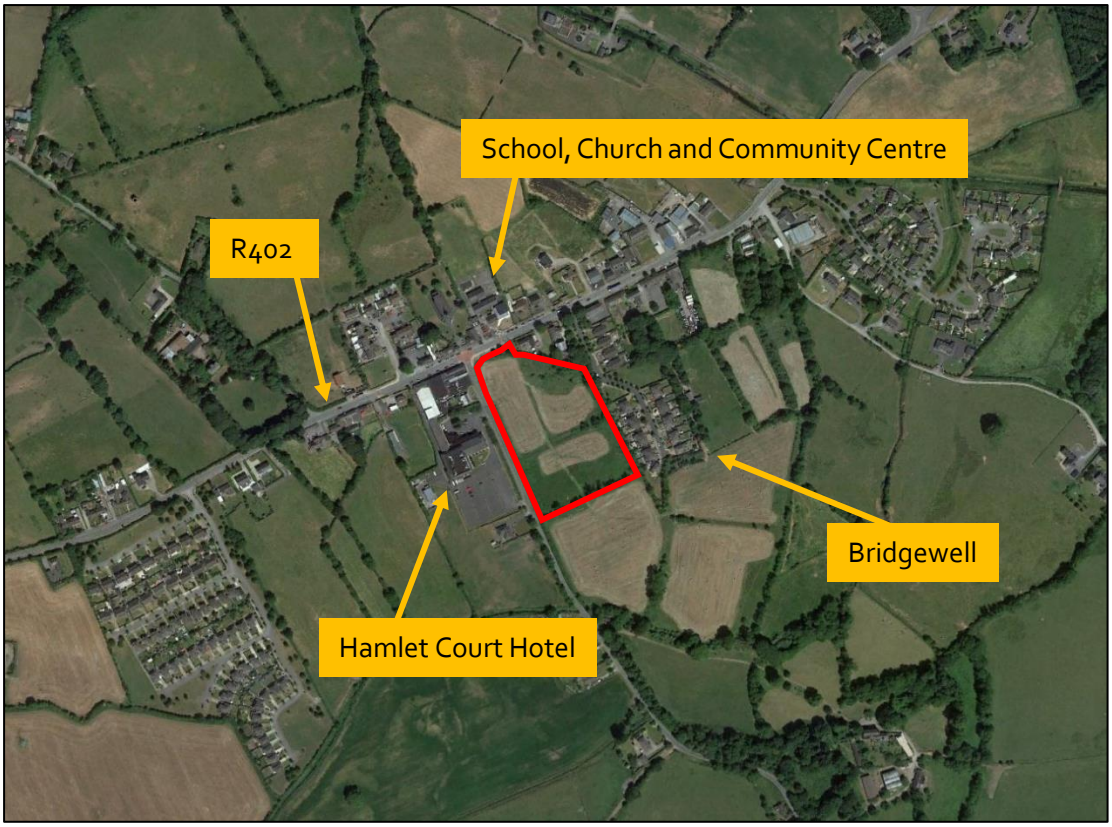

Figure 3.2: **Location of the subject site (indicatively outlined in red) in the centre of Johnstownbridge, Co. Kildare**

Source: **Google Earth, annotated by Thornton O'Connor Town Planning, 2022**

3.3 Access and Connectivity

The location and centrality of the subject site are evident from the Sub-Sections above and the analysis contained in Section 5. However, beyond its immediate environs, the site and Johnstownbridge are accessible and well connected via existing infrastructure and public transport services.

The subject site is located close to the M4 motorway, the main Dublin-to-Sligo road. This motorway connects with the N5 to Westport and the M6 to Galway. The village of Johnstownbridge is located adjacent to Junction No. 9 of the M4 motorway, located 890 m to the north of the subject site. This junction is shared with Enfield and is 35.5 km (25 minutes) from the M50 Dublin ring road. The M4 toll is located approximately 8 km to the east of the village. M4 road services are located approximately 2 km to the north-west of the village.

The Enfield train station is located 2.6 km (a 5-minute drive) to the north-east of the subject site. This station is served by commuter and long-distance services to Longford and Sligo. A number of morning services from Longford and Sligo stop at Enfield on their way into Dublin, terminating at Pearse and Connolly Stations.

Enfield is also very well served in terms of bus services, with the following routes operating stops in the centre of the town, within reasonable distance of Johnstownbridge:

- 115 (and 115C) – Mount Merrion, Dublin to Mullingar, via Connolly Station, Heuston Station, Maynooth and Kilcock;

- 120C – Tullamore to Enfield, via Rhode and Edenderry;
- 763 – Galway City to Dublin Airport, via Loughrea, Ballinasloe, Athlone, Moate, Kinnegad, Lucan, Heuston Station and Dublin City.
- 820 – Enfield to Edenderry;
- 845 – Birr to Donnybrook, Dublin, via Tullamore. Kilbeggan, Kinnegad and Dublin City; and
- 847 – Portumna to Dublin City, via Birr, Tullamore, Kinnegad and Maynooth.

4.0 KEY PURPOSE OF THIS SUBMISSION

Whilst the Draft Plan proposes that the front portion of the site currently zoned as 'A – Village Centre' retains this zoning designation, the rear portion is identified to be dezoned (see Figure 4.1 below). This is in contrast with several other sites (outlined in blue) that now benefit from a new zoning designation.

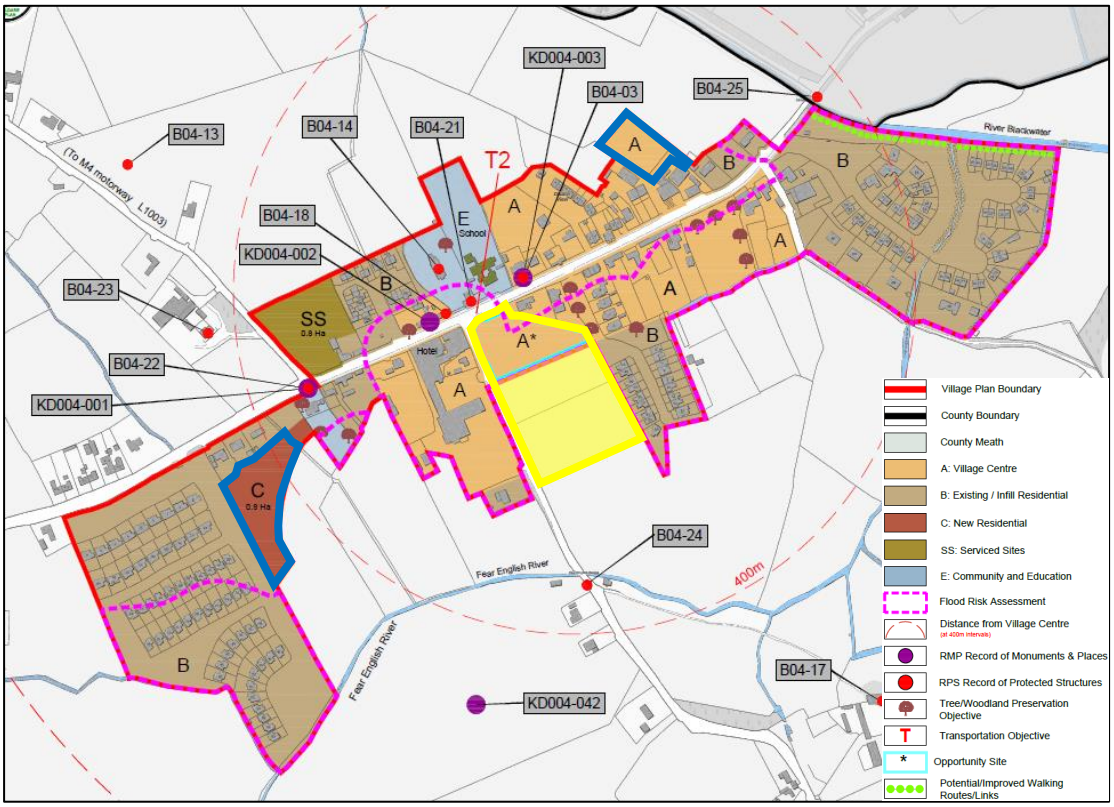

Figure 4.1: **Proposed land-use zoning of Johnstownbridge per the Draft Plan, with the subject site indicatively outlined in yellow (dezoned portion filled in yellow) and newly zoned sites outlined in blue (A and C)**

Source: ***Kildare County Development Plan 2023–2029*, annotated by Thornton O'Connor Town Planning, 2022**

The purpose of this submission is ultimately to seek the continuance of the zoning configuration of the site as detailed in the Current Plan: 'A – Village Centre' along the front of the site (north) and 'C – New Residential' in the rear portion of the site (south). This is set out in Figure 4.2, below.

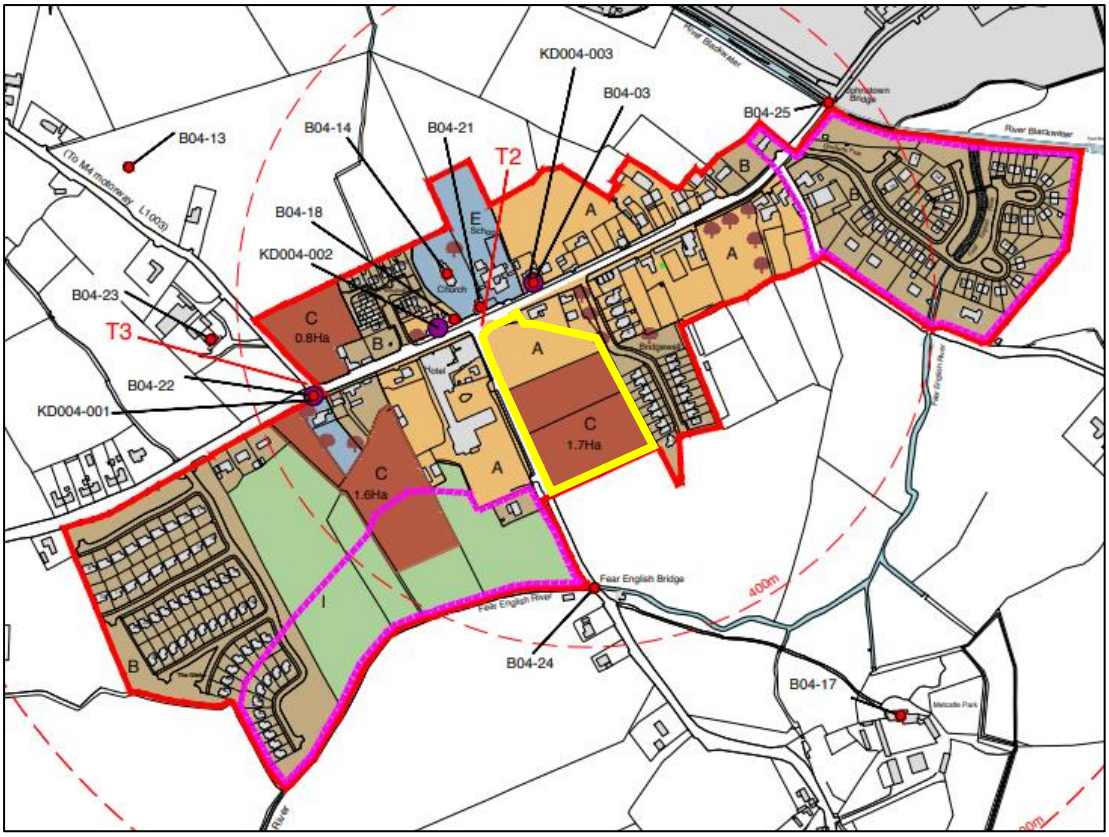

Figure 4.2: **Land-use zoning of Johnstownbridge per the Current Plan, with the subject site outlined in yellow**

Source: ***Kildare County Development Plan 2017–2023*, annotated by Thornton O'Connor Town Planning, 2022**

The action of reverting the subject site's land-use zoning to the configuration set out in the Current Plan is logical, pragmatic and sustainable. The full rationale and justification to support the subject site's zoning as 'A – Village Centre' along the front (north) and 'C – New Residential' in the rear (south) are detailed in the following Sections.

5.0 COMPACT GROWTH AND SEQUENTIAL DEVELOPMENT

At the core of contemporary planning and development policy is the principle of 'compact growth', which seeks to prioritise development within existing built-up areas across the State.

5.1 *Project Ireland 2040: National Planning Framework*

Project Ireland 2040: National Planning Framework (NPF) is the overarching planning policy document for the State. It seeks to strategically define the spatial planning and development of Ireland, doing so in a sustainable and viable way, cognisant of the negative impacts that poorly planned development can have on society, the economy and the environment. In many respects, it tries to remedy many of the failings of recent decades in terms of land-use and transportation.

At the core of this, the NPF identifies 'compact growth' as its primary 'National Strategic Outcome' (NSO). In short, the principle of compact growth is to prioritise the development of locations within existing built envelopes, seeking to develop and use land more densely and more intensely. This is achieved by: limiting development on the edge and outside of existing settlements; redeveloping brownfield sites; developing/utilising infill sites; and increasing buildings heights. Ultimately, this can be described as 'building in and up, rather than out'.

This approach is evidenced by the National Policy Objectives (NPOs) set by the NPF. The following are considered to be of particular relevance to the subject site and the prospect of facilitating its development in the future.

> **NPO 3a –** *"Deliver at least 40% of all new homes nationally, within the built-up footprint of existing settlements."*
>
> **NPO 4 –** *"Ensure the creation of attractive, liveable, well designed, high quality urban places that are home to diverse and integrated communities that enjoy a high quality of life and well-being."*
>
> **NPO 5 –** *"Develop cities and towns of sufficient scale and quality to compete internationally and to be drivers of national and regional growth, investment and prosperity."*
>
> **NPO 11 –** *"In meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth."*
>
> **NPO 35 –** *"Increase residential density in settlements, through a range of measures including reductions in vacancy, reuse of existing buildings, infill development schemes, area or site-based regeneration and increased building heights."*

The NPF recognises this further, remarking the following:

> *"Combined with a focus on infill development, integrated transport and promoting regeneration and revitalisation of urban areas, pursuing a compact growth policy at*

national, regional and local level will secure a more sustainable future for our settlements and for our communities."

Reverting to the zoning configuration at the subject site of 'A – Village Centre' along the front of the site (north) and 'C – New Residential' in the rear portion of the site (south) is considered to be a practical action that wholly aligns with the NPF in terms of compact growth within the existing settlement of Johnstown. On 3 No. of its 4 No. sides, the site is bound by the existing development and built-form of the village; the R402 (main road through the village) to the north, the Bridgewell residential development to the east and Johnstown Road (across which is the Hamlet Court Hotel) to the west.

5.2 *Development Plans: Guidelines for Planning Authorities*

The draft guidance set out in *Development Plans: Guidelines for Planning Authorities* provides clear instruction with respect to how Planning Authorities should proceed with respect to the preparation of Development Plans. On the matter of sequential development, this is given notable priority. Section 6.2.3 states that:

"…in undertaking the zoning function for new residential development at individual settlement scale, planning authorities are required to adopt a sequential approach which reflects the compact growth, utilisation of existing infrastructure and town regeneration national policy objectives of the NPF, furthering developing the Tiered Approach."

Of specific relevance to the linear pattern of development in Johnstownbridge, is the Guidelines' recognition that historic patterns of development of this type are ultimately unsustainable and need to be remedied. The Guidelines remark:

"The spatial pattern of the growth of settlements, often along radial access routes, characterised by ribbon and low density development, has served to 'lock-in' extremely high levels of car dependence and render settlements too spread out and incoherent to comfortably get around on foot or by bicycle.

In many cases, undeveloped lands and sites have been left idle, even though they may be relatively centrally located with good access and availability of services infrastructure to enable development. This pattern of development has contributed to the decline of town centres and has resulted in a neglected appearance to many towns and other urban areas.

This spatial growth pattern can be changed toward a more compact growth approach through the prioritisation of lands closest to the centres of settlements. Planning authorities are therefore required to utilise a ***sequential approach*** *when considering proposals for land-use zoning, in particular for residential development."* ***[emphasis is original]***

Therefore, the Guidelines require Kildare County Council to carefully consider and zone its settlements in a manner that aligns with the principles of the sequential approach.

5.3 *Regional Spatial and Economic Strategy for the Eastern and Midlands Region*

The *Regional Spatial and Economic Strategy for the Eastern and Midlands Region* (RSES) applies the principles that underpin the sustainable planning and development of the NPF across the Eastern and Midlands Region. Similar to the NPF, 'compact growth' is identified

as being of paramount importance. Regional Strategic Outcome (RSO) 2 is 'Compact Growth and Urban Regeneration'. Specifically, the RSES states that it is to:

> *"Promote the regeneration of our cities, towns and villages by making better use of under-used land and buildings within the existing built-up urban footprint and to drive the delivery of quality housing and employment choice for the Region's citizens."*

The RSES states that local authorities must prepare their core strategies and settlement hierarchies in accordance with a series of 'growth enablers', amongst which is 'Compact Sustainable Growth'. With respect to this, the RSES remarks:

> *"Promote* ***compact, sequential and sustainable development of urban areas from large to small*** *to realise targets of at least 50% of all new homes to be built, to be within or contiguous to the existing built up area of Dublin city and suburbs, and a target of at least 30% for other urban areas. Support co-ordination across local authorities and agencies to promote active land management and better use of under-utilised, brownfield and public lands."*

Therefore, the Council is mandated to facilitate a sequential approach to the planning and development of its urban area, focusing new development in more central locations. The benefit to this approach is the urban regeneration of settlement cores, the creation of critical mass to sustain local business and services, a reduction in private car use, an increase in public and active transport use and the protection of natural environments.

An action by the Council to amend the zoning to revert it to the configuration of the Current Plan would wholly align and support the principles espoused by the RSES.

5.4 *Draft Kildare County Development Plan 2023–2029*

The *Draft Kildare County Development Plan 2023–2029* itself recognises the importance of compact growth and sustainable development, drawing from both the NPF and the RSES the objective *"…to increase the density of development in all built up areas, in order to achieve the indicated population targets in a compact and sustainable manner."*

The Policy and Objectives extracted from the Draft Plan and provided below are simple examples of the Council's intention to support more sustainable and efficient use of urban land, aligning with the principle of compact growth.

> **Objective CSO 1.5 –** *"Promote compact growth and the renewal of towns and villages through the development of underutilised town centres and brownfield sites, maintaining a 'live' baseline dataset and to monitor the delivery of population growth on existing zoned and serviced lands to achieve the sustainable compact growth targets of 30% of all new housing within the existing urban footprint of settlements."*
>
> **Policy HO P6 –** *"Promote and support residential consolidation and sustainable intensification and regeneration through the consideration of applications for infill development, backland development, re-use/adaptation of existing housing stock and the use of upper floors, subject to the provision of good quality accommodation."*
>
> **Objective HO O8 –** *"Promote, where appropriate and sensitive to the characteristics of the receiving environment, increased residential density as part of the Council's*

development management function and in accordance with the Sustainable Residential Development in Urban Areas – Guidelines for Planning Authorities and the accompanying Urban Design Manual, DEHLG, May 2009."

Objective HO O9– "*Support new housing provision over the Plan period to deliver compact and sustainable growth in the towns and villages in the County, and supporting urban renewal, infill and brownfield site development and regeneration, to strengthen the roles and viability of the towns and villages, including the requirement that at least 30% of all new homes in settlements be delivered within the existing built-up footprint."*

It is firmly asserted that reverting the subject site's land-use zoning is a logical action that aligns with the Policy of the Draft Plan and will support the Council's attainment of its own Objectives. The omission of the subject site from the zoned lands of Johnstownbridge, with other edge of centre and farther from the centre sites identified for residential and mixed-use development, is considered to be contrary to the overarching principles of focusing development in existing built-area in a compact manner. Furthermore, it risks the prompt and easy delivery of additional housing delivery in the village, which the landowner is actively seeking to provide.

5.5 Delivering Compact Growth and Sequential Development and Ensuring Connectivity and Accessibility

Having reviewed the policy basis – at all levels – for supporting compact growth and the sequential development of settlements, the following Sub-Section details how zoning, and the supporting the development of, the subject site accords with these principles.

Figure 5.1 shows a series of concentric circles, representing distances of 100m, 200m and 400m from the centre of Johnstownbridge, as defined by the Draft Plan and the *Draft Johnstownbridge Urban Renewal Plan* (June 2021). The centre appears to fall at the entrance to the Bridgewell residential development, **immediately to the north-east of the subject site.** Clearly, the subject site is centrally located within the village, thereby justifying its zoning to facilitate development.

A reversion of the zoning at the subject site to reincorporate a residential component is logical as a means to consolidate the village's growth, recognising that the site is bound by existing development on 3 No. of 4 No. sides; north, east and west. Its 'infilling' will facilitate a compact expansion of the village, shifting development away from solely being along the prevailing (and less sustainable) east-west axis, to incorporate growth in a central location along a north-south axis; thereby balancing growth.

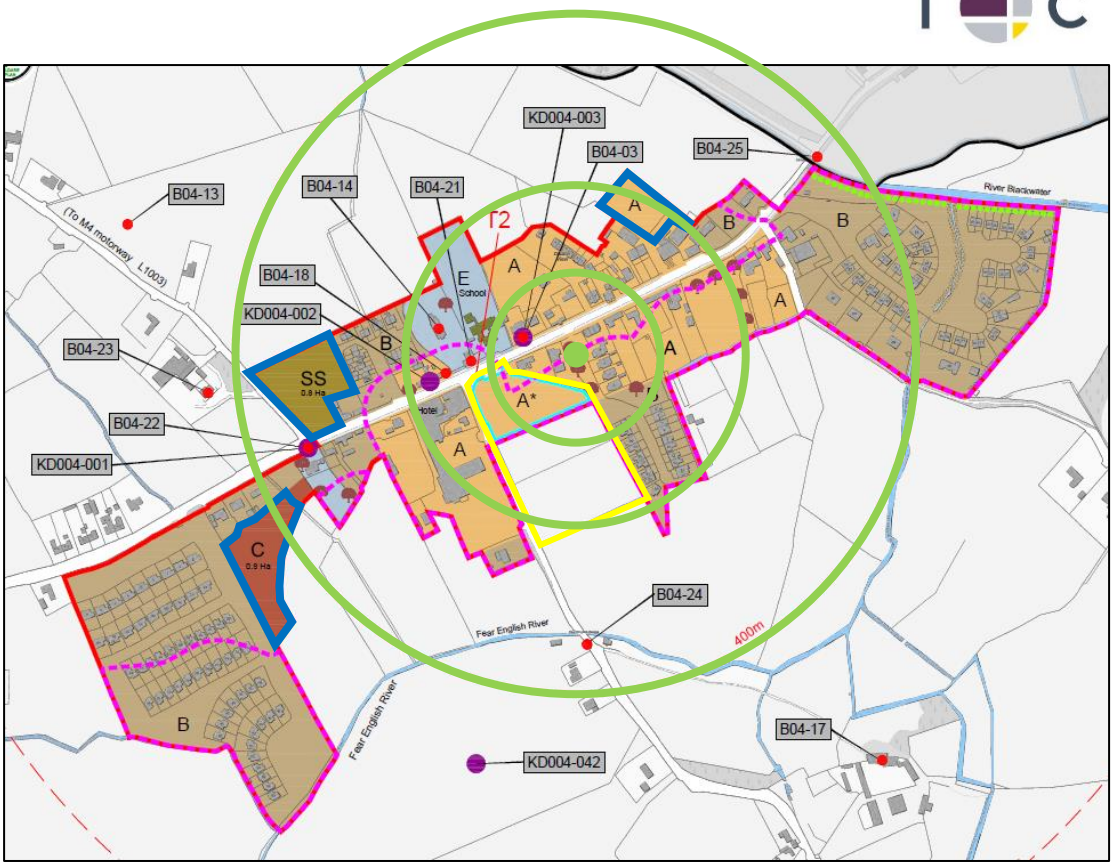

Figure 5.1: **Distance band of 400m from the village centre, as defined in the *Draft Kildare County Development Plan 2023–2029*, with additional distance bands of 100m and 200m**

Source: ***Draft Kildare County Development Plan 2023–2029*, annotated by Thornton O'Connor Town Planning, 2022**

Further to the above, as a central site within the village core, it is not a backland location, rather it is a prime site with 2 No. notable road frontages, ripe for development. This contrasts markedly with several other zoned sites in Johnstownbridge which are clearly backland in nature, lack access opportunities or road frontages and are dependent on other development or redevelopment projects coming forward to facilitate their own realisation (see discussion below).

Figure 5.2, extracted from the *Draft Johnstownbridge Urban Renewal Plan*, illustrates the subject site's centrality within the settlement, with the map demarcating the clustering of local services within the heavy black dashed line. As is evident, the site is optimally located within the village core, adjacent to a school, community centre, local shop, church and hotel (employment and dining).

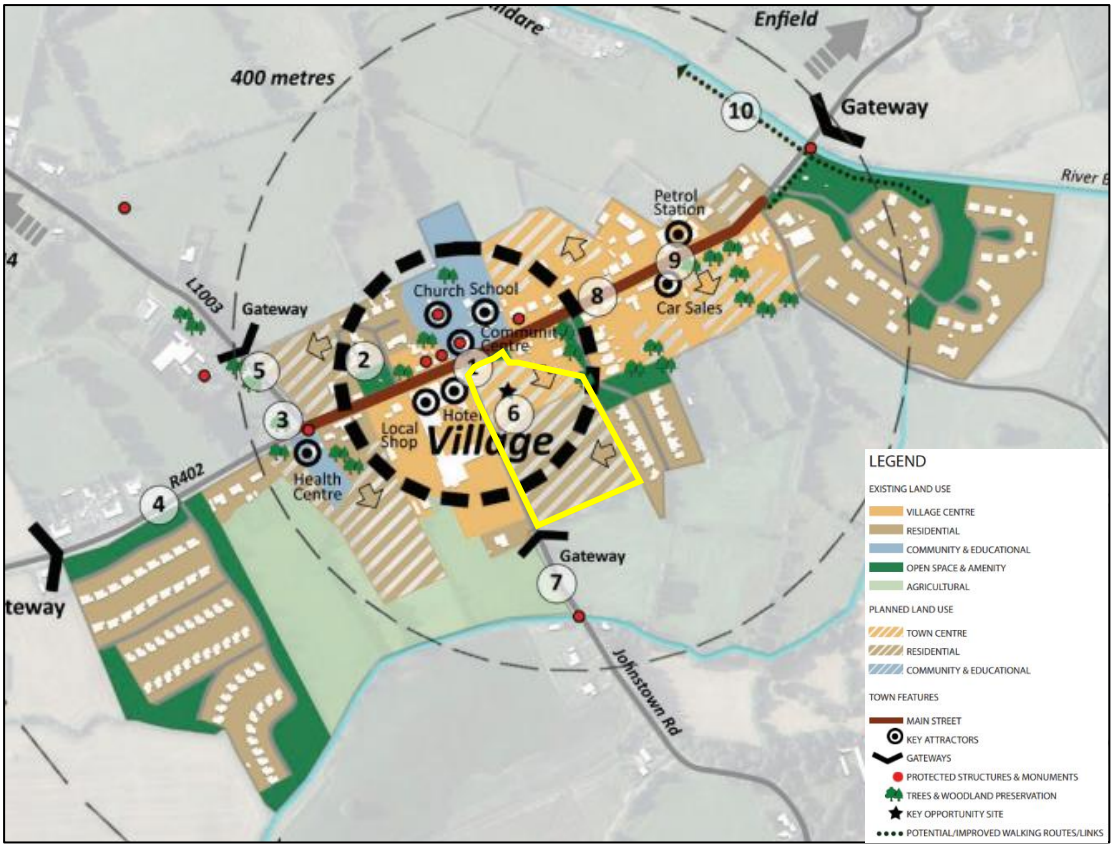

Figure 5.2: **Opportunity Areas map from the *Draft Johnstownbridge Urban Renewal Plan*, demonstrating the subject site's centrality, proximity to local services and identification for village centre and residential development**

Source: ***Draft Johnstownbridge Urban Renewal Plan***

What is also noteworthy about the map in Figure 5.2 is that it represented the 'Opportunity Areas' of Johnstownbridge. Consequently, it is relevant that the *Draft Johnstownbridge Urban Renewal Plan* demarcated the subject site as intended for town centre[1] and residential uses. Clearly the Council recognised the merit of having the site available for a combination of mixed-use and residential development, drawing on its centrality and prospects to consolidate the village's growth.

Compact growth and a sequential approach to development in a settlement such as Johnstownbridge is especially important given the concentration of services and amenities within the centre of the village. To demonstrate that the foregoing argument regarding the subject site's centrality are not arbitrarily based, an 'accessibility assessment' was undertaken by Thornton O'Connor Town Planning. This assessment estimated the approximate distances of the subject site and 3 No. other select sites (zoned A, C and SS – outlined in blue in Figure 5.1) to 5 No. key 'destinations' within the town to determine their relative centrality, accessibility and proximity. These destinations have been selected as the identified village centre (entrance to Bridgewell), school, community centre, local shop and health centre; all of which are vital services that would be used frequently (if not daily) by residents.

[1] Although the Current and Draft Plans refer to Johnstownbridge as being a village, the *Draft Johnstownbridge Urban Renewal Plan* refers to the northern part of the site as being intended for "town centre" use.

The distances are shown in Table 5.1 (and rankings shown in Table 5.2), with the estimations originating from the frontages or closest frontages along the R402 running through the village.

Destination	Proximity to (in m):					Total Distance	Rank
	Village Centre	School	Community Centre	Local Shop	Health Centre		
Subject Site	100	20	20	90	230	460	1
A	200	280	300	400	550	1,730	4
C	350	290	270	170	30	1,110	3
SS	290	210	170	100	40	810	2

Table 5.1: Proximity (in m) of the subject site and 3 No. other select sites from key destinations within Johnstownbridge

Source: Thornton O'Connor Town Planning, 2022

Destination	Rank to:					Total Score	Rank
	Village Centre	School	Community Centre	Local Shop	Health Centre		
Subject Site	1	1	1	1	3	7	1
A	2	3	4	4	4	17	4
C	4	4	3	3	1	15	3
SS	3	2	2	2	2	11	2

Table 5.2: Overall ranking rankings of the analysis from Table 5.1

Source: Thornton O'Connor Town Planning, 2022

Notwithstanding the above estimations (which are taken from the various sites' closest points at the R402 / Main Street), the Council's attention is brought to the fact that the sites zoned A and C are backland in nature and do not have direct road access, which will significantly reduce their future development potential. The prospect that they will be developed appears to be dependent on other lands coming forward for development in the first instance, thereby facilitating them with some form of access. Only the subject site and the site zoned SS appear to have existing road frontages and opportunities for easy access arrangements.

5.6 Concluding Remarks – Compact Growth and Sequential Development

As Tables 5.1 and 5.2 demonstrate, the subject site is the best ranked site in terms of accessibility and proximity to key services in Johnstownbridge. In fact, the findings in Table 5.1 illustrate that the total distance of the second-best ranked site (SS) is almost twice that of the subject site. **Consequently, it is firmly asserted that the subject site is the best connected and most accessible of the assessed sites within the village.**

Ultimately, the assessment and review of zoned lands also calls into question the rationale that underpinned the Council's decisions to (a) dezone the majority of the subject site and (b) the zone/rezone new and additional less central and sequentially appropriate lands. **It is firmly asserted that <u>these zoning decisions are contrary to the principles of compact growth and sequential development</u> that are espoused by national, regional and local policy and must adhered to in the preparation of Development Plans.**

Informed by the foregoing, the Council is respectfully requested to heed the above observations and findings of the assessment and act to revert the site's zoning to 'A – Village Centre' along the front of the site (north) and 'C – New Residential' in the rear portion of the site (south).

6.0 CRITICAL MASS, SOCIAL INFRASTRUCTURE, SERVICE PROVISION AND SUPPORTING LOCAL BUSINESS

The discussion in Section 5 principally focused on the need to facilitate the compact growth and sequential development of Johnstownbridge in a spatial sense. Allied to this is the benefit associated with the creation of 'critical mass'. Zoning the subject site as 'A – Village Centre' along the front of (north) and 'C – New Residential' in the rear (south) will accommodate new population by way of development.

Additional population will support the creation of 'critical mass' that is vital to supporting and justifying the provision of local services and supports as they are then more easily and viably delivered. It also aids businesses in the village, such as the local shop and hotel, which would benefit from the resulting uplift in local demand and expenditure.

With respect to social and community services and infrastructure, the detailed *Social Infrastructure Audit* (SIA) prepared by KPMG Future Analytics (included in the Reg. Ref. 22/488 planning application pack and included herein as Appendix A) concluded that *"the social infrastructure provision within proximity to the subject site is capable of serving the population."* It identified a variety of social infrastructure services that cater to the population of Johnstownbridge and environs (as well as Enfield in Co. Meath). However, it is firmly asserted that although the SIA asserted that there was adequate capacity in the existing infrastructure and services, it is also necessary to consider the role of new population being required to sustain them and to justify the provision of further infrastructure and services. Therefore, there are two separate aspects that must always be considered in relation to social infrastructure.

It is also noteworthy that the Enfield Community College in Enfield, Co. Meath has been established and has started an intake of students. It will expand gradually at its current location in the former ESB Building in the centre of Enfield, before moving to a new purpose-built campus to the north-east of the town in the next three years (proposed under Meath County Council Reg. Reg. TA201224). Therefore, there will be a significant increase in schools place capacity in the immediate environs of Johnstownbridge in the coming years (and approximately at the same time as the development proposed by Johnstown Bridge Spire Ltd is completed and occupied should a grant of planning permission be issued).

Related to the above, it is understood that owners, managers and representatives of several of Johnstownbridge's main businesses and community groups have also made submissions to the Draft Plan, seeking a change to the subject site's land-use zoning designation. **Therefore, there is strong local support for a reversion of the site's zoning to residential to facilitate its prompt development.**

7.0 DEVELOPER INTENT

Johnstown Bridge Spire Ltd. have actively sought to engage with the Council to deliver high-quality mixed-use development at the subject site. Their intent to realise the potential of the site is evidenced by 2 No. recent planning applications for development thereat.

Therefore, the request of this Submission to retain the 'A – Village Centre' zoning and to reinstate the 'C – New Residential' zoning is genuine and not a speculative undertaking. It is also a pragmatic matter on the grounds that there is a current planning application at the site being assessed by the Council. Importantly, this application has the benefit of having addressed the 3 No. reasons set out by Kildare County Council and the single reason for refusal prescribed by An Bord Pleanála following the first-party appeal.

7.1 Reg. Ref. 21/117

Reg. Ref.	**21/117 (PL09.310050)**
Applicant	Johnstown Bridge Spire Limited
Lodgement Date	03/02/2021
Address	*"Junction of R402 and Johnstown Road, Johnstownbridge, Co. Kildare"*
Description of Development	*"Development at a c. 2.4 Ha site at the junction of the R402 and Johnstown Road, Johnstownbridge. The site is bounded by existing residential to the north-east and east, the R402 to the north with St. Patrick's Church and School beyond, Johnstown Road to the west with the Hamlet Court Hotel and existing residential beyond and agricultural land to the south. The development will consist of: the provision of 68 No. residential units comprising 59 No. houses (10 No. 2 bed, 31 No. 3 bed and 18 No. 4 bed) and 9 No. maisonette apartments (8 No. 1 bed and 1 No. 2 bed) and a retail unit/café measuring 72.2 sqm with heights ranging from two storeys to two storeys with attic accommodation over. The development also proposes a new vehicular entrance off Johnstown Road, ancillary car-parking; cycle parking; a pump station and a temporary on-site wastewater treatment plant; hard and soft landscaping; lighting; balconies; solar panels; boundary treatments; bin store; ESB substation; and all associated site development works above and below ground."*
KCC Decision	Refuse Permission (3 No. Reasons)
Decision Date	29/03/2021
ABP Decision	Refuse Permission (1 No. Reason)
Decision Date	11/10/2021

The development proposed at the subject site under Reg. Ref. 21/117 sought planning permission for the construction of a mixed-use development, principally comprised of 68 No. residential units and a retail/café unit with an area of approximately 72.2 sq m. Principal access was proposed via Johnstown Road, along the east of the site.

In terms of the Council's assessment of the development, the Case Planner concluded in their Report that the principle of the development was acceptable in the at the site. However, the Council made a decision to refuse planning permission for 3 No. reasons, **which ultimately did not relate to the core aspects, principles or merits of the proposed development**:

1 – *"The proposed development is premature pending the proposed upgrade of the Enfield Wastewater Treatment Plant which is currently undated. The temporary nature of the wastewater treatment proposal would set an undesirable precedent for similar development within the County. The proposed development would therefore be prejudicial to the public health and contrary to the proper planning and sustainable development of the area."*

2 – *"The proposed development, if permitted, would contravene policy WW10 of the Kildare County Development Plan 2017–2023 which seeks to refuse residential development that requires the provision of private wastewater treatment facilities. The proposed development would therefore be contrary to the proper planning and sustainable development of the area."*

3 – *"Having regard to the scale and location of the proposed development, policy VRS9 of the Kildare County Development Plan 2017–2023 seeks a Social Infrastructure Assessment, due to the lack of same within the planning application, the Planning Authority is not satisfied that, it is considered that the proposed development would be contrary to the proper planning and sustainable development of the area."*

7.2 Reg. Ref. 22/488

Reg. Ref.	**22/488**
Applicant	Johnstown Bridge Spire Limited
Lodgement Date	28/04/2022
Address	*"Junction of R402 and, Johnstown Bridge Road, Johnstown Bridge, Co. Kildare."*
Description of Development	*"The Provision of 68 No residential units comprising 59 No houses (10 No. 2 bed, 31 No. 3 bed and 18 No. 4 bed) and 9 No. maisonette apartments (8 No. 1 bed and 1 No. 2 bed) and a retail unit/cafe measuring 77.2 sq m, with heights ranging from two storeys to tow storeys with attic accommodation over. The development also proposes a new vehicular entrance off Johnstown Road, ancillary car-parking; cycle parking; a pump station; hard and soft landscaping; lighting ;balconies; solar panels; boundary treatments; bin storage; ESB substation and all associated site works above and below ground."*
KCC Decision	Pending
Decision Date	Due: 22/06/2022

The most recent planning application for development at the site was lodged on 28th April 2022, under Reg. Reg. 22/488. It is noted as being effectively the same Reg. Ref. 21/117, with the previous reasons for refusal having been addressed as part of the development or else as part of wider contextual changes.

The Planning Application pack submitted with Reg. Ref. 22/488 included explanatory narrative detailing that Irish Water's Wastewater Treatment Capacity Register is indicated online as showing the Enfield Wastewater Treatment Plant as having *"available capacity"* (March 2022). In relation to upgrade works and increasing capacity, the Enfield Wastewater Treatment Plant is in the process of being upgraded having been granted planning permission in May 2021 under Reg. Ref. 21/439. These upgrades are expected to be completed and fully operational by 2024/2025, which would align with when the proposed development will be completed and potentially first occupied.

On-site, the previously proposed temporary on-site wastewater treatment plant has been removed. Therefore, this directly addresses the Council's reason for refusal No. 1, which cited Policy WW 10 of the *Kildare County Development Plan 2017–2023*; *"Refuse residential development that requires the provision of private waste water treatment facilities, other than single house systems."*

A Social Infrastructure Audit was prepared by KPMG Future Analytics and first furnished with the First-Party Appeal to An Bord Pleanála (it is also included in the Reg. Ref. 22/488 planning application pack). The Inspector, in their Report, remarked that:

> *"A detailed Social Infrastructure Audit has been submitted as part of the grounds of appeal. This concludes that there are a range of 36 no. social services and facilities contributing to quality of life within and bordering the 2km study area, which includes Johnstownbridge and most of Enfield. The largest is sports and recreation, followed by health, and childcare and education. It is stated 'a sufficient provision of social infrastructure to support the population of the area was identified … the social infrastructure provision within proximity to the subject site is capable of serving the population …'*
>
> *I consider submission of this Audit, and its conclusion, is sufficient to comply with Policy VRS 9 and addresses the planning authority's third reason for refusal."*

Therefore, it is asserted that the third reason for refusal has been actively addressed by the Applicant.

7.3 Developer Intent to Deliver Much Needed Housing

Informed by the Applicant's active efforts to allay the concerns of the Council and to remedy the reasons for refusal, **it is contested that the proposed development is a high-quality scheme that will successfully augment and enhance the existing housing stock of the settlement**. In this light, and with the prospect that the proposed development may be granted and delivered, **it would be a practical and pragmatic action by the Council to revert the zoning of the subject site to its current configuration of 'A – Village Centre' to the north and 'C – New Residential' to the south.**

It is worth reiterating the important fact that **this zoning request is not a speculative exercise but is grounded in a genuine intent to deliver much needed housing for the County and the settlement of Johnstownbridge.** Operating under their umbrella entity (Ashcroft Developments), Johnstown Bridge Spire Ltd have – at great financial and time expense – sought to develop the subject site, as evidenced by the referenced planning applications. Their experience and expertise as active Developers includes projects such as: Mayfield House in Chapelizod, Dublin 20 (9 No. units); Bereford in Duleek, Co. Meath (102 No. units); Eastham Square in Bettystown, Co. Meath (47 No. Units); Eastham Heights in Bettystown, Co. Meath (5 No. units) and New Road, Clondalkin (21 No. Units).

The zoning of the subject site to facilitate additional residential development will, therefore, ensure consistency between the position of the Council and the Developer in this instance.

Vitally, the Council is encouraged to acknowledge that removing the residential zoning at the subject site will actively stymie the urgent delivery of housing at an appropriate location in the County. This is contrary to the various principles that underpin the Draft Plan's Core Strategy and the principles of Objective CSO 1.4: *"Ensure that sufficient zoned and*

adequately serviced lands are available to meet the planned population and housing growth of settlements throughout the county in line with the Core Strategy and the Settlement Hierarchy."

8.0 ADDRESSING FLOOD RISK CONCERNS

Having reviewed and compared the land-use zoning maps of the Current and Draft Plans, it appears that the Council has dezoned any undeveloped residential-zoned lands along the southern stretch of the village that fall within what the Draft Plan defines as being 'Flood Risk Assessment'. New residential opportunities appear to be concentrated north of the 'Flood Risk Assessment' boundary (see the sites zoned A, C and SS discussed and assessed above). For clarity, this designation does not necessarily mean that lands therein are at an explicit risk of flooding, but that there is simply a requirement to prepare a Site-Specific Flood Risk Assessment in support of any planning application for development.

It is recognised and accepted that a key principle of sequential planning is to manage flood risk and to ensure that development in areas at risk of flooding is avoided. However, the blanket approach of shifting development to the north is contrary to sustainable and sequential planning and development, and fails to acknowledge the actual flood risk in the area.

The CFRAM flood risk mapping (Map No. E07 JOH_EXFCD_fo_02) as well as the *Strategic Flood Risk Assessment of the Draft Kildare County Development Plan 2023-2029*'s (SFRA) mapping (Figure 8.1) **clearly indicate that the subject site is located in Flood Zone C.** Consequently, it is not necessary to undertake the Development Plan Justification Test specific to Flood Risk Assessments (as outlined in Section 3.7 of the draft plan SFRA), as the site is not within either Flood Zone A or B. This contrasts markedly with other sites in the Johnstownbridge settlement which had to undergo the Justification Test due to their vulnerable residential uses.

The subject site is clearly situated within Flood Zone C, where the probability of flooding from fluvial and tidal/coastal sources is low (less than 0.1% or 1-in-1000 for both). Flood Zone C covers all areas of the Draft Plan which are not in zones A or B. Therefore, it cannot be justified to remove residential zoning from the subject site on, or partly on, the grounds of the Flood Risk Assessment line given the broader benefits of sustainable development that can be achieved by appropriately zoning the site (see Section 5).

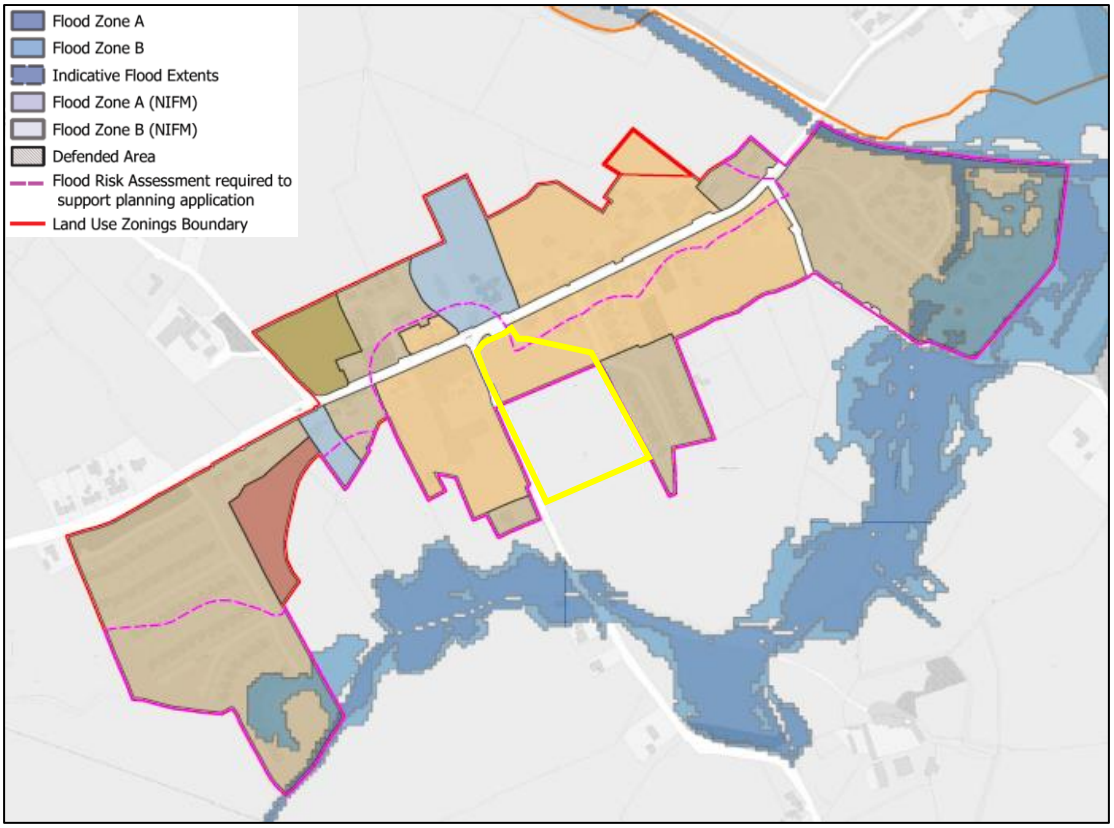

Figure 8.1: ***Johnstownbridge Flood Zone Map*****, extracted from the** ***Strategic Flood Risk Assessment of the Draft Kildare County Development Plan 2023-2029*****, with the subject site outlined in yellow and clearly in Flood Zone C**

Source: ***Strategic Flood Risk Assessment of the Draft Kildare County Development Plan 2023-2029***

To further bolster the foregoing observations, the *Flood Risk Assessment* (FRA) submitted with the application proposed under Reg. Ref. 22/488 has been included in Appendix B. This FRA thoroughly assessed the risks of flooding associated with tidal, fluvial, pluvial, groundwater and human/mechanical error sources. The primary conclusions of the FRA have been adapted and included in Table 8.1 below. Ultimately, the FRA concluded:

> *"As indicated in the above [below] table, the various sources of flooding have been reviewed, and the risk of flooding from each source has been assessed. Where necessary, mitigation measures have been proposed. As a result of the proposed mitigation measures, the residual risk of flooding from any source is low."*

Specifically with respect to Fluvial flooding, which is understood to be the principal concern of the Council in this location, **the assessment determined that the likelihood of flooding at the site from this source is 'low', the risk from this source is 'extremely low' and the residual risk after the development's completion will be 'extremely low'.**

Source	Receptor	Likelihood	Risk	Mitigation Measure Proposed in Reg. Ref. 22/488	Residual Risk
Tidal	*Proposed development*	*Extremely low*	*Negligible*	*None*	Negligible
Fluvial	*Proposed development*	*Low*	*Extremely Low*	*levels, overland Setting of floor flood outing*	Extremely Low
Pluvial	*Proposed development, downstream properties and roads*	*Ranges from high to low*	*Ranges from high to low*	*Appropriate drainage, SuDS and attenuation design, setting of floor levels, overland flood routing*	Low
Ground Water	*Underground services, ground level of buildings, roads*	*Moderate*	*Moderate*	*Appropriate setting of floor levels, flood routing, damp proof membranes*	Low
Human/ Mechanical Error	*Proposed development*	*High*	*High*	*Setting of floor levels, overland flood routing, regular inspection of SW network*	Low

Table 8.1: **Adapted version of Table 5 of the FRA submitted with Reg. Ref. 22/488, 'Summary of the Flood Risks from the Various Components'**

Source: ***Flood Risk Assessment*** **prepared by Waterman Moylan and included with the planning application pack Reg. Ref. 22/488**

9.0 CONCLUSION

This Submission to the Draft Plan has sought to illustrate the significant merit attributed to zoning the subject site as 'A – Village Centre' along its front (north) and 'C – New Residential' and in its rear (south). This represents a continuance of the existing zoning designation of the site per the Current Plan.

The zoning request has a logical, practical and sustainable basis, founded upon the principles of compact growth and the sequential development of the State's existing urban centres. The zoning of the subject site will actively accommodate the appropriate development and consolidation of Johnstownbridge.

Importantly, the facilitation of additional residential development can be supported by the existing social infrastructure provision; in fact, the additional critical mass will assist in the maintenance and expansion of these and new services and in sustaining local businesses.

The landowner has actively sought to develop the subject site, as demonstrated by planning applications thereat. A live application is currently being assessed by the Council. This is clear evidence that Johnstown Bridge Spire Ltd are not seeking a speculative amendment to the zoning of the site, but a practical change to facilitate prompt delivery of high-quality housing and village centre uses in Johnstownbridge.

Therefore, it is respectfully requested that Kildare County Council act to revert the subject site's land-use zoning designations to the configuration prescribed by the Current Plan; 'A – Village Centre' along the front (north) and 'C – New Residential' in the rear (south).

Yours faithfully,

Patricia Thornton

Patricia Thornton
Director
Thornton O'Connor Town Planning

APPENDIX A – SOCIAL INFRASTRUCTURE AUDIT

Social Infrastructure Audit

Prepared in respect of a proposed development on a site at the junction of the R402 and Johnstown Road, Johnstownbridge, Co. Kildare

On behalf of: Johnstown Bridge Spire Limited

April 2021

Document review and approval

Revision history

Version	Author	Date	Revision
1	KMcK	19.04.2021	v1.0
2			
3			
4			
5			

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1.0 Introduction

This Social Infrastructure Audit has been prepared by KPMG Future Analytics, 1 Stokes Place, St. Stephen's Green, Dublin 2 (Chartered Town Planning and Development Consultants), on behalf of Johnstown Bridge Spire Limited, in respect of a proposed development on a site at the junction of the R402 and Johnstown Road, Johnstownbridge, Co. Kildare. This report provides a detailed review of the statutory, strategic and policy context that relates to the provision of social infrastructure with the aim to:

- Outline the existing range of social infrastructure within the vicinity of the subject site;
- Determine if the existing social infrastructure provision supports the needs of the existing population; and
- Offer insights into the likelihood of the capacity of the existing services and facilities to support future residents.

1.1 Social Infrastructure

Social infrastructure includes a wide range of services and facilities that contribute to quality of life. It is a key part of the fabric of an area, not just in terms of wellbeing, but also in terms of sense of place, a part of the local identity.

For the purpose of this report, the array of services and facilities defined as social infrastructure have been categorised into the following typologies:

- **Health** – Hospitals, Health/Medical Centres, General Practitioner (GP) Practices, Dental Practices, Counselling Services, Physiotherapy Services, Medical Specialists, Pharmacies and Nursing Homes.
- **Childcare and Education** – Childcare Facilities, Primary Schools, Post-Primary Schools and Third Level Institutions.
- **Community** – Banks/Credit Unions, Post Offices, Community Centres, Youth Services and Libraries.
- **Sports and Recreation** – Fitness/Leisure Centres, Sports Clubs and Parks/Forests/Trails.
- **Faith** – Churches/Places of Worship.
- **Emergency** – Fire Stations and Garda Stations.

1.2 Subject Site and Study Area

The subject site is located within the village of Johnstownbridge, Co. Kildare, close to the boundary with Co. Meath. The site is bound by existing residential to the north-east and east, the R402 to the north with St. Patrick's Church and National School beyond, Johnstown Road to the west with the Hamlet Court Hotel and existing residential beyond and agricultural land to the south. It benefits from good accessibility with its close proximity to the M4 motorway, as well as proximity to Enfield Train Station (a five-minute drive from the subject site).

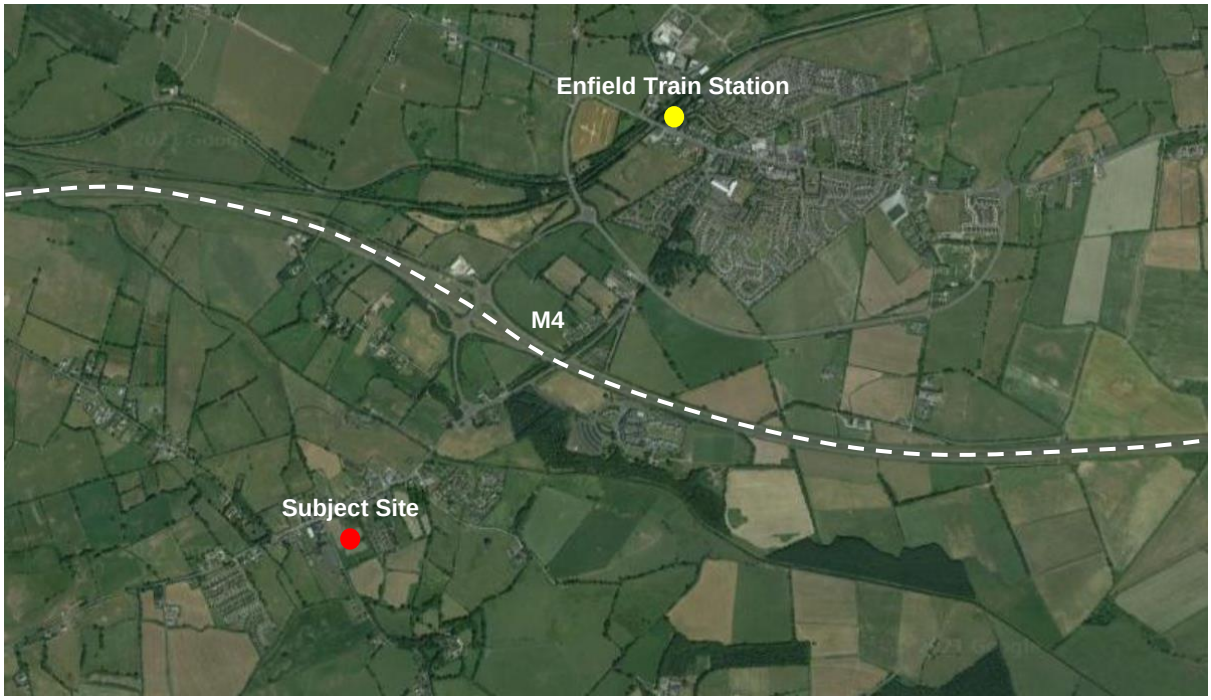


Figure 1.1: Site Context Map.

The catchment area for this study is defined by a 2 km radius of the subject site which comprises both Johnstownbridge and Enfield (Figures 1.2 and 1.3). Given that the subject site is surrounded by a considerable quantum of undeveloped land, this catchment area forms a logical area of study for this Social Infrastructure Audit. While the Study Area is defined by a 2 km radius of the subject site, it should be noted that the proximity of the subject site to the M4 compounds a significant extension of reach for the population and consequently an additional array of services and facilities.

1.3 Proposed Development

The development will consist of: the provision of 68 no. residential units comprising 59 no. houses (10 no. 2-bed, 31 no. 3-bed and 18 no. 4-bed) and 9 no. maisonette apartments (8 no. 1-bed and 1 no. 2-bed) and a retail unit/café measuring 72.2 sq.m, with heights ranging from two storeys to two storeys with attic accommodation over.

The development also proposes a new vehicular entrance off Johnstown Road; ancillary car parking; cycle parking; a pump station and a temporary on-site wastewater treatment plant; hard and soft landscaping; lighting; balconies; solar panels; boundary treatments; bin store; ESB substation; and all associated site development works above and below ground.

1.4 Report Structure

This report will comprise of a further five sections.

Section 2 reviews national, regional and local level planning policy relating to social infrastructure.

Section 3 presents the changing demographic profile of the area.

Section 4 sets out the current position with respect to social infrastructure provision within the Study Area.

Section 5 provides a detailed assessment of the capacity of the existing social infrastructure to support the needs of the current population and the likelihood of the capacity of the existing services and facilities to support future residents.

Section 6 provides an overview of the analysis of social infrastructure provision.

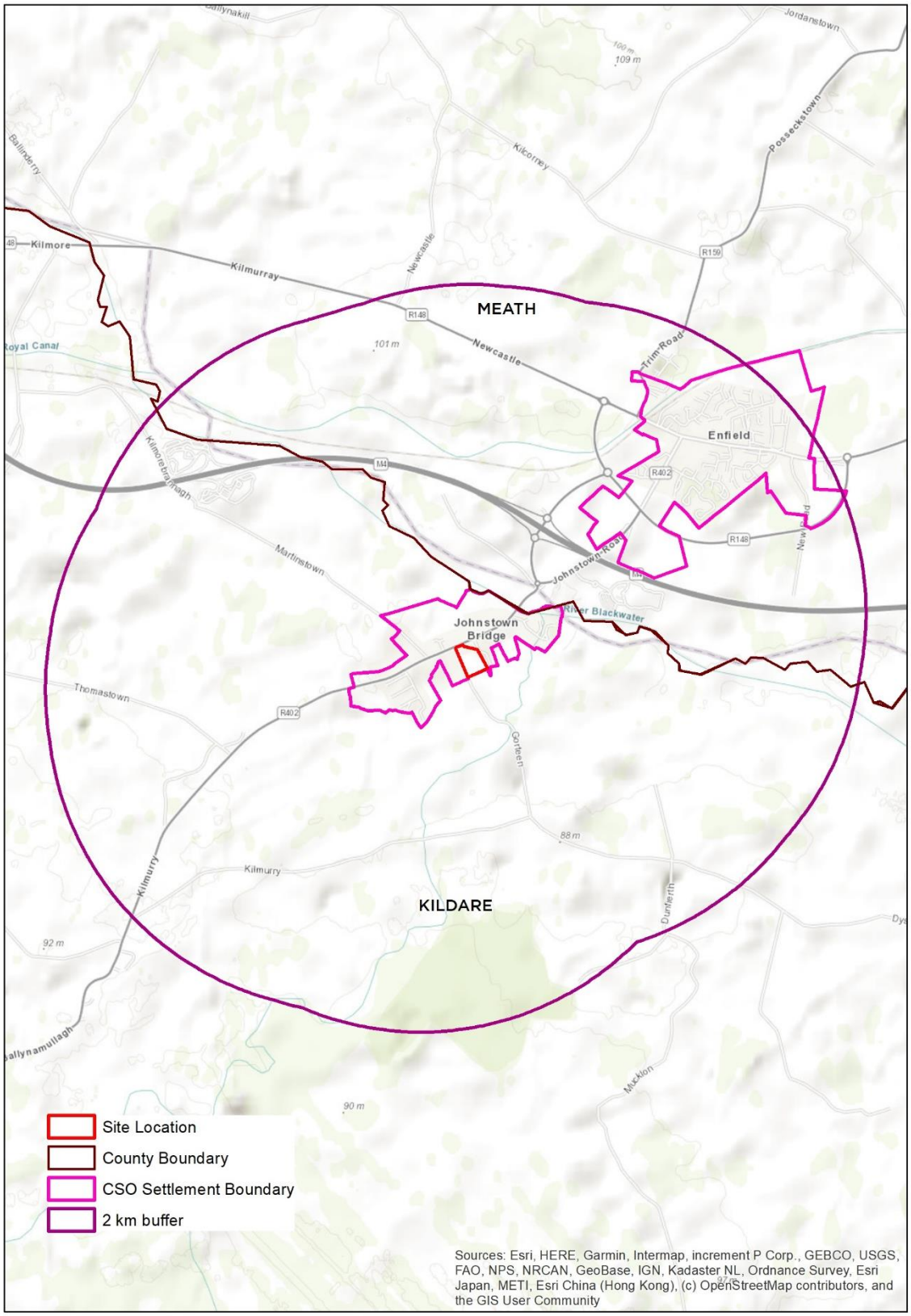


Figure 1.2: Map of Study Area.

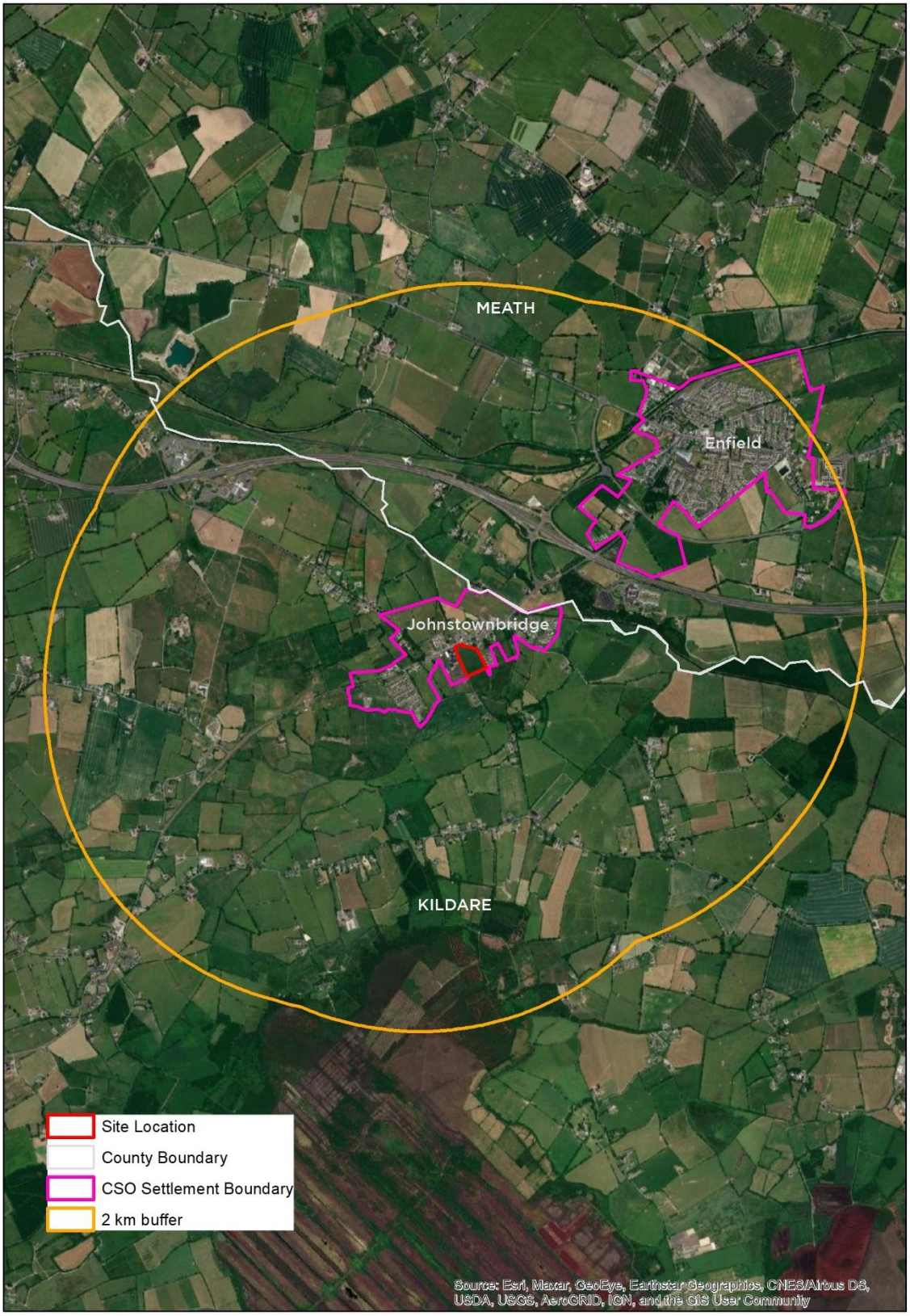


Figure 1.3: Aerial View of Study Area.

2.0 Policy Context

For the purpose of this Social Infrastructure Audit, national, regional and local level planning policy relating to social infrastructure have been reviewed. The subject site, while located within the administrative area of Kildare County Council, is within proximity to the administrative area of Meath County Council which forms a portion of the Study Area. Thus, specific regard to the policies relating to social infrastructure in the Kildare County Development Plan 2017-2023 and the Meath County Development Plan 2013-2019 has been had. The key points relating to this study, as derived from each policy document, will be highlighted in this section.

2.1 National Planning Framework

The National Planning Framework (NPF), under Project Ireland 2040, forms the overarching framework for the spatial development of Ireland to 2040. A key focus of the NPF is on sustainable and compact development within pre-existing urban areas and the provision of accessible services and facilities for all communities.

Given its focus on sustainable development, the NPF includes a number of points related to social infrastructure inclusive of 'National Strategic Outcome 10: Access to Quality Childcare, Education and Health Services' which seeks to provide good accessibility to quality health services and childcare and education facilities, supported by compact growth in urban areas.

Furthermore, Chapter 6 of the NPF states that the *"ability to access services and amenities, such as education and healthcare, shops and parks, the leisure and social interactions available to us and the prospect of securing employment"* is intrinsic to providing a good quality of life for new and existing communities. Chapter 6 additionally includes a Hierarchy of Settlements and Related Infrastructure that indicates the services and facilities necessary within settlements of different size to serve their populations (Figure 2.1).

Figure 2.1: Hierarchy of Settlements and Related Infrastructure.

2.2 Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009)

The Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) (2009) outline the key principles which should be considered in the establishment of new residential developments. They recognise the significance of social infrastructure to quality of life and state that new development should take into consideration the social infrastructural needs of the community and the existing provision of same.

The Guidelines specify that one childcare facility (equivalent to a minimum of 20 child places) should be provided for every 75 no. residential units. However, it further elaborates that the threshold for such provision should be established having regard to the existing geographical distribution of childcare facilities and the emerging demographic profile of the area, in consultation with the Childcare Committee. The Guidelines additionally outline that an assessment of existing schools within the vicinity of the subject site to cater for such demand should accompany applications for substantial residential development. Furthermore, they detail that the provision of health and community facilities should be determined according to the particular circumstances of the area.

The Guidelines notably stipulate the significance of a local assessment of the need to provide social infrastructure in the provision of such services and facilities.

2.3 Regional Spatial and Economic Strategy for the Eastern and Midland Region

The Regional Spatial and Economic Strategy for the Eastern and Midland Region (RSES) sets out a 12-year strategic development framework for the Eastern and Midland Region. Supportive of the implementation of the NPF, the RSES reflects its focus on the provision of accessible services and facilities for communities within the Eastern and Midland Region.

Section 9.1 of the RSES details that the availability of, and access to, services and facilities, inclusive of healthcare services, education facilities and community/recreational facilities is key to creating healthier places. This is supported by Regional Policy Objective 9.14 which calls for Local Authorities to *"support the planned provision of easily accessible social, community, cultural and recreational facilities and ensure that all communities have access to a range of facilities that meet the needs of the communities they serve"*.

2.4 Kildare County Development Plan 2017-2023

The Kildare County Development Plan 2017-2023 provides the overarching planning policy that applies to the subject site and its immediate environs. A key priority of the Development Plan is to create sustainable neighbourhoods. Section 11.1 of the Development Plan recognises that the provision of social infrastructure is key to fostering sustainable communities:

> *"Access to education, health and community support services, amenities, leisure services and a good quality built environment is a prerequisite for the creation of sustainable communities."*

Given the aforementioned key priority of the Council, the Development Plan includes a suite of policies relating to the provision of social infrastructure:

Policy HS 2 – *"Support and co-operate with promoters or operators of public and private health care facilities by facilitating and encouraging the provision of improved health care facilities in appropriate locations."*

Policy EF 1 – *"Work in conjunction with the relevant education authorities to promote and support the provision of primary and post-primary schools in the county and to support the Department of Education and Skills School Building Programme by planning for future schools based on forecast need."*

Policy BG 3 – *"Support and facilitate the development of places of worship and multi-faith facilities at appropriate locations, such as town and village centres."*

Policy LBO 2 – *"Support the development of the county's library services and the implementation of the objectives and actions set out in the Kildare Library Service Plan 2015-2019 (and any future Plan) in delivering educational, cultural, training and learning centres across the county."*

2.5 Meath County Development Plan 2013-2019

The Meath County Development Plan 2013-2019 sets out the planning policy that applies to a portion of the Study Area. With regard to social infrastructure, the overarching aim of the Development Plan is to support the provision of community facilities and services, and to ensure that all communities have access to a range of services and facilities to meets their needs.

Furthermore, the importance of the provision of community facilities and services in positively contributing to social wellbeing is recognised in the Development Plan, with Chapter 5 containing a suite of policies relating to the provision of said facilities and services, inclusive of but not limited to:

Policy SOC POL 18 – *"To ensure that adequate lands and services are zoned and reserved to cater for the establishment, improvement or expansion of primary and post-primary educational facilities in the County. The Council support the concept of multi-campus educational facilities."*

Policy SOC POL 21 – *"To encourage, promote and facilitate the provision of quality affordable childcare facilities in accordance with national policy and relevant guidelines."*

Policy SOC POL 35 – ***"****To cater for the sporting and recreational needs of all sectors and ages of the community and promote the integration of those with special needs into the sporting and recreational environment."*

Policy SOC POL 43 – *"To continue to expand and improve the library service to meet the needs of the community, in line with the objectives and priorities of the Library Development Plan and subject to the availability of finance."*

2.6 Village Plan for Johnstownbridge

The Village Plan for Johnstownbridge sets out the strategy for Johnstownbridge and consists of specific objectives to ensure the sustainable development of the village over the plan period. As regards social infrastructure, it is noted therein that *"Johnstownbridge has a good level of social and community infrastructure serving the village and its hinterland"*.

While the Council acknowledges that Johnstownbridge is well catered for with community services and facilities, they will seek to expand and improve such services and facilities as considered necessary. In regard to the provision of community services and facilities, the Village Plan contains two specific objectives:

Objective CE 1 – *"Assess the need for educational facilities in the village in line with changing population numbers."*

Objective AM 1 – *"Investigate the possibility of providing a riverside walk along the River Blackwater to the north of the village."*

3.0 Demographic Trends

As previously detailed, the catchment area for this study is defined by a 2 km radius of the subject site which comprises both Johnstownbridge and Enfield and their rural hinterlands. Having regard to the foregoing, the demographic data used in this report is based on the Central Statistics Office's (CSO's) settlement boundary for Johnstownbridge and Enfield. The following section will outline the demographic profile of the area.

3.1 Population and Age Profile

Table 3.1 outlines the population of the area as recorded during the Census 2011 and 2016, as well as the percentage change in population during this period to highlight overall residential patterns.

Table 3.1: Population Change 2011-2016.

2011 (Number)	2016 (Number)	2011-2016 Change (Number)	2011-2016 Change (%)
3,579	3,922	343	9.6%

As illustrated in Table 3.1, the area experienced a population increase between 2011 and 2016. Over the five-year period, the population rose from 3,579 to 3,922, representative of an increase of 9.6%.

Tables 3.2 and 3.3 provide a breakdown of the recorded population, categorised by age to allow a more detailed overview of the specific cohorts that have experienced the greatest change. Different age cohorts of a population have different requirements, with young families in need of childcare and educational facilities, a strong working age population requiring employment opportunities, and those of retirement age in need of care and health services. Thus, it is imperative to gain an understanding of the specific age cohorts that are experiencing the most significant change to ensure that there is an adequate provision of services and facilities.

Table 3.2: Population by Age 2011.

Age Group	2011 (Number)	Percentage of Total
0-14	1,072	29.9%
15-64	2,375	66.4%
65+	132	3.7%
Total	3,579	100.0%

As illustrated in Table 3.2 above, the area had a predominantly working age structure in 2011, with 66.4% of its population aged between 15 and 64 years and 29.9% of its population aged under 14 years and only 3.7% of its population over the age of 65 years.

Table 3.3: Population by Age 2016.

Age Group	2016 (Number)	Percentage of Total
0-14	1,283	32.7%
15-64	2,442	62.3%
65+	197	5.0%
Total	3,922	100.0%

As highlighted in Table 3.3 above, the area similarly had a predominantly working age structure in 2016. Noticeably, the number of people within the young age cohort of 0-14 years, the working age cohort of 15-64 years and the old age cohort of 65 years and over increased between 2011 and 2016. Over the five-year period, the young age cohort, working age cohort and old age cohort experienced a respective increase of 211 persons, 67 persons and 65 persons. As a result of the considerable increase in the number of people within the young and old age cohorts (in comparison to the number recorded in 2011),

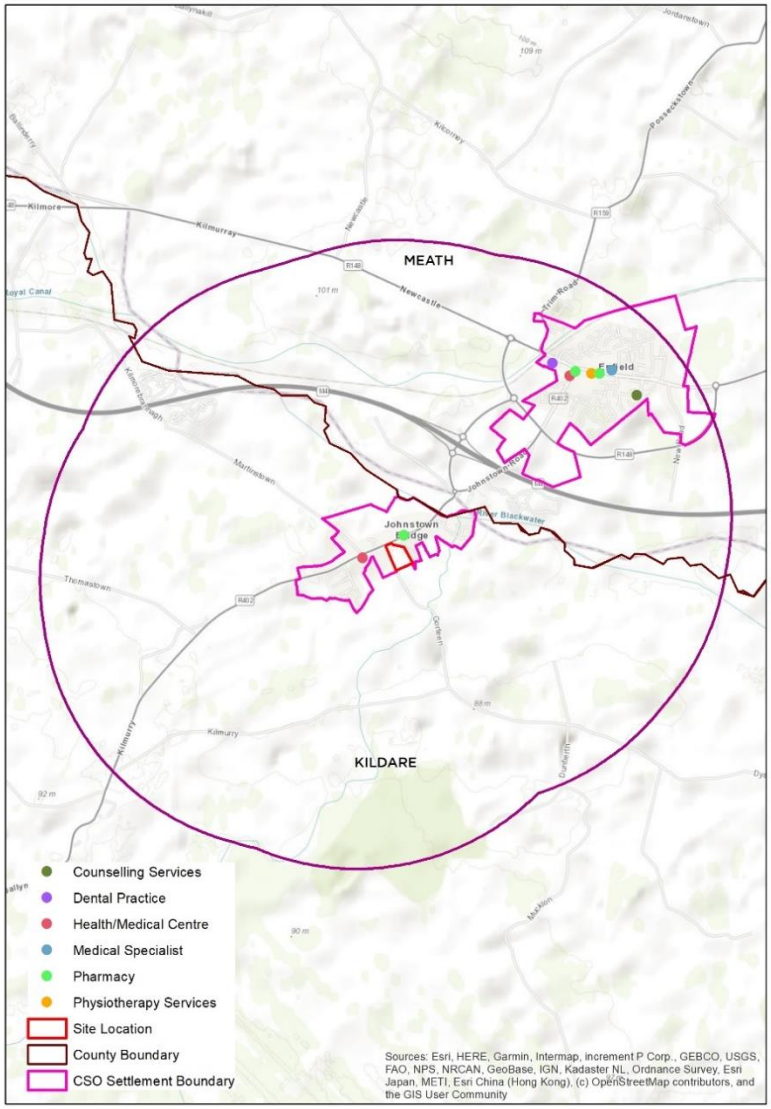
those aged between 15 and 64 years as a percentage of the total population decreased from 66.4% to 62.3%

4.0 Existing Services and Facilities

Health Services and Facilities

The baseline study undertaken identified a total of nine health services and facilities within the Study Area, inclusive of two health/medical centres, one dental practice, one counselling service, one physiotherapy service, one medical specialist, namely an opticians, and three pharmacies.

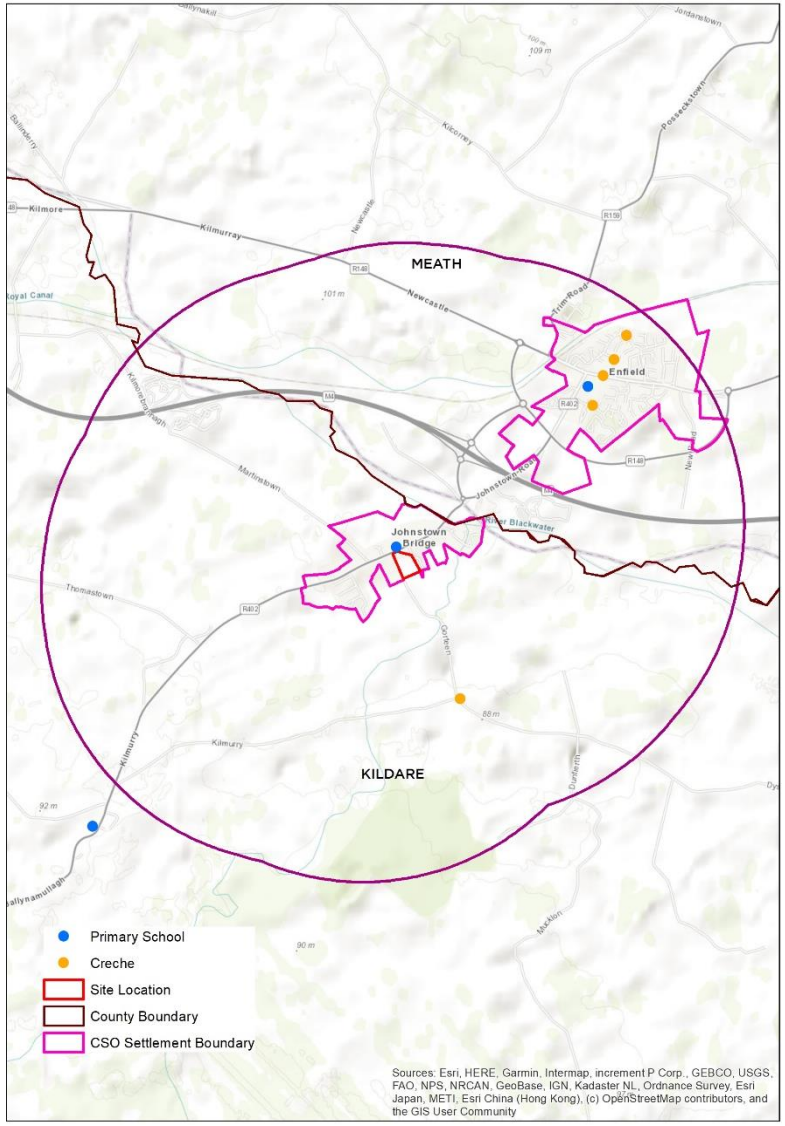
The location of each of these assets is identified on the map to the right and an inventory has been placed in Appendix I of this document.



Childcare and Education Facilities

A total of eight childcare and education facilities, namely five registered childcare facilities and three primary schools, were identified within and bordering the Study Area during the baseline survey.

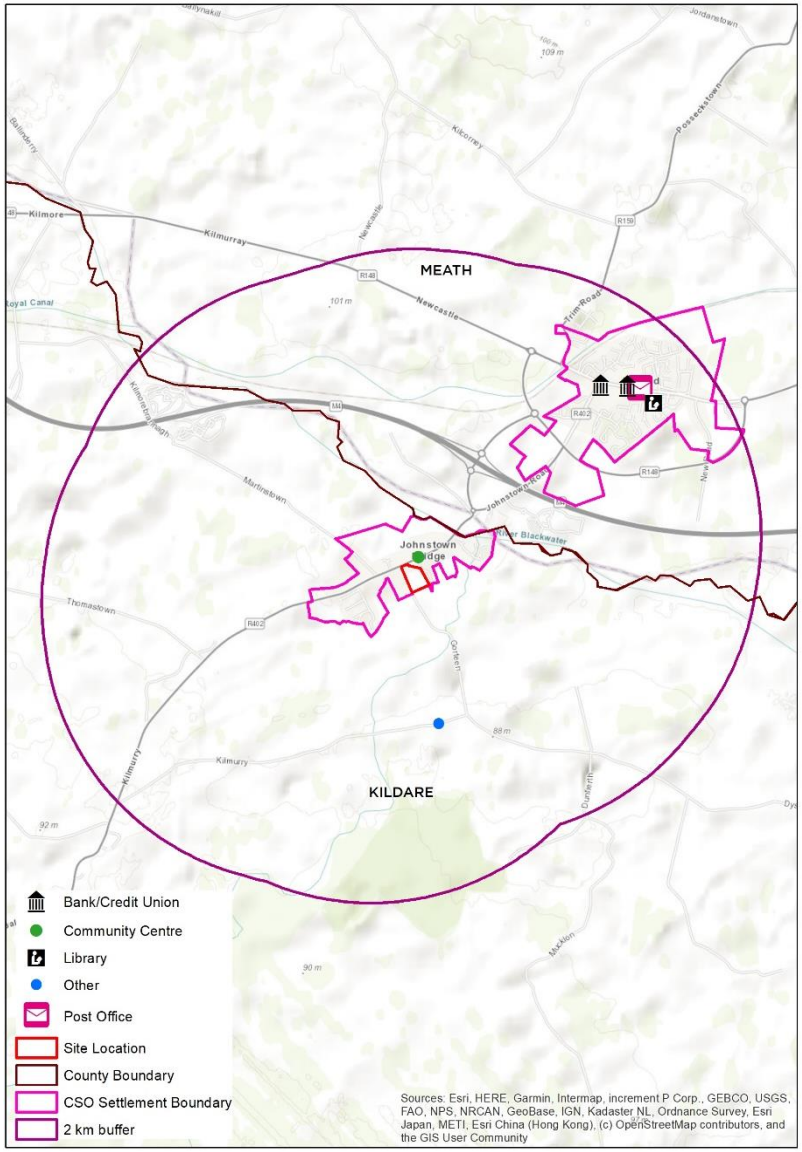
The location of each of these assets is identified on the map to the right and an inventory has been placed in Appendix I of this document.



Community Services and Facilities

The baseline study undertaken identified six community services and facilities in the Study Area. These comprise of two banks/credit unions, one post office, one community centre, one community library and one other community service/facility, namely a men's shed.

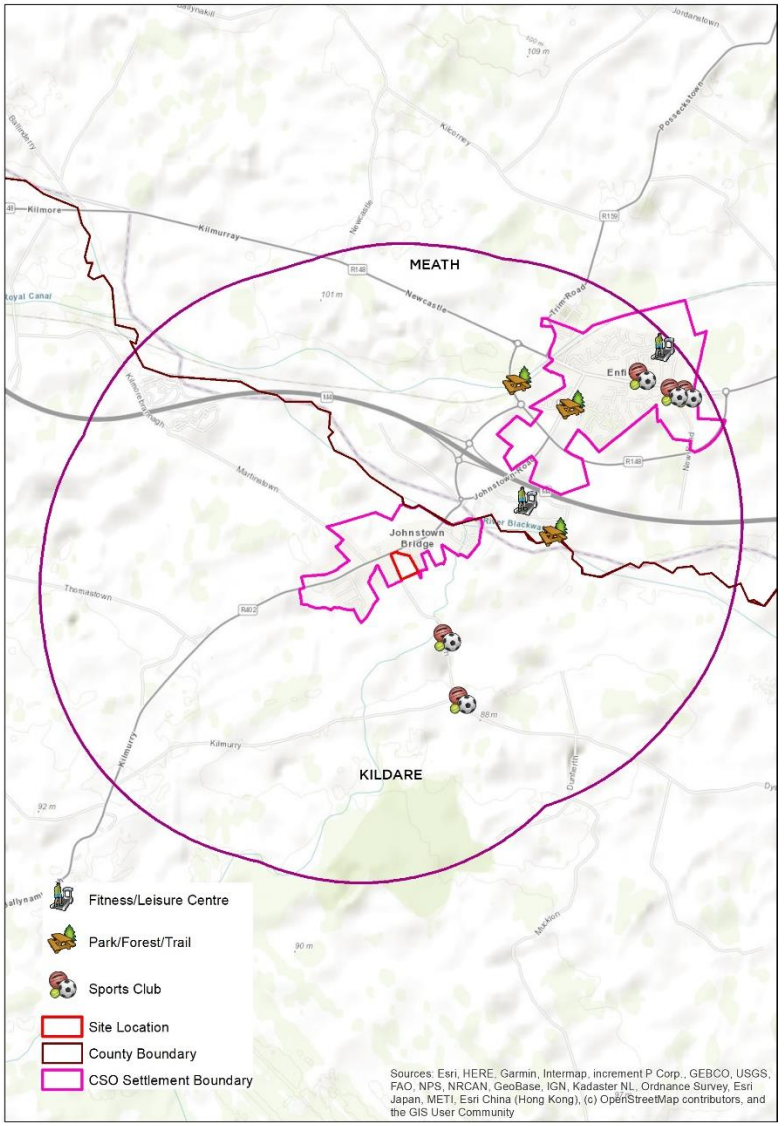
The location of each of these assets is identified on the map to the right and an inventory has been placed in Appendix I of this document.



Sports and Recreation Facilities

A total of ten sports and recreation facilities were identified in the Study Area during the baseline survey which include two fitness/leisure centres, five sports clubs and three parks/forests/trails.

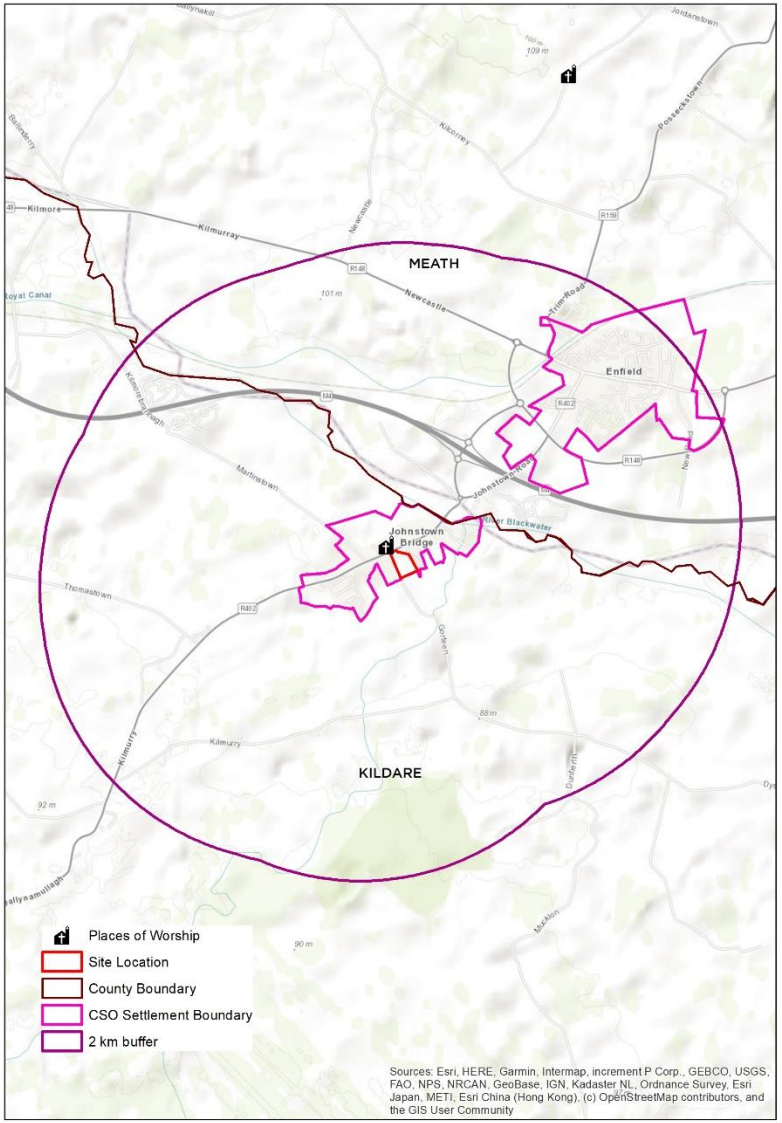
The location of each of these assets is identified on the map to the right and an inventory has been placed in Appendix I of this document.



Faith Facilities

The baseline study undertaken identified two churches/ places of worship in and bordering the Study Area.

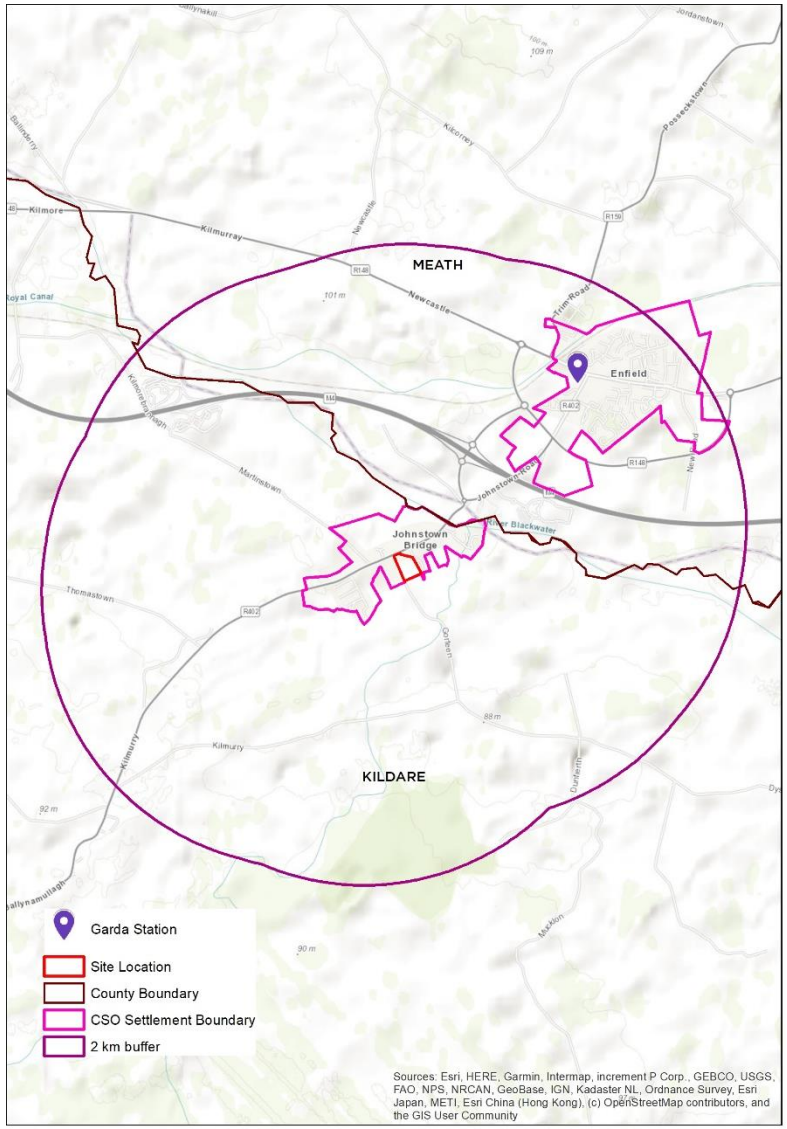
The location of each of these assets is identified on the map to the right and an inventory has been placed in Appendix I of this document.



Emergency Related Infrastructure

One emergency related infrastructure, namely a Garda Station, was identified within the Study Area during the baseline survey.

The location of this asset is identified on the map to the right and an inventory has been placed in Appendix I of this document.



5.0 Assessment of Need(s)

This section assesses the capacity of the social infrastructure to support the needs of the current population, as well as the likelihood of the capacity of the services and facilities to support future residents. It is noteworthy to reiterate that the proximity of the subject site to the M4 compounds a significant extension of reach for the population and consequently an array of additional services and facilities to those identified in this study.

5.1 Health Services and Facilities

Supported and facilitated by Local Authorities, access to quality health services and facilities is a key element to creating sustainable neighbourhoods. A total of nine health services and facilities, comprising two health/medical centres, one dental practice, one counselling service, one physiotherapy service, one medical specialist, namely an opticians, and three pharmacies, were identified in the Study Area during the baseline survey.

Two health/medical centres, namely Johnstownbridge Health Centre and Enfield Health Centre, are located within proximity to the subject site which provide a range of healthcare services. Collectively, the number of GPs in these health/medical centres results in a ratio of 0.51 GPs per 1,000 residents which is above the recommended ratio of 0.29 GPs per 1,000 residents. Furthermore, there are a number of other health facilities which solely provide dental, counselling, physiotherapy and eyecare services, as well as several pharmacies (a total of three pharmacies were identified during the baseline survey which results in a ratio of 0.76 pharmacies per 1,000 residents which is above the recommended ratio of 0.26 pharmacies per 1,000 residents) located in the Study Area.

As the demographic profile of the area continues to change, it will be critical to ensure that the provision of health services and facilities takes into consideration not only the needs of the existing population but future demand for such services and facilities. As highlighted in Section 3.1, the old age cohort of 65 years and over is increasing, with a net increase of 65 persons observed between 2011 and 2016. If this demographic change continues, there may be a specific requirement for additional practitioners within existing practices or in new locations.

Irrespective of demographic change, the population increase that would occur as a result of the proposed development (calculated as 5.7% based on the proposed number of residential units and the average household size in Johnstownbridge determined using the Census 2016) would not place any undue stress on the health services and facilities available within the Study Area.

5.2 Childcare and Education Facilities

The timely provision of childcare and education facilities is vital to ensuring the needs of communities are met. The baseline survey undertaken identified a total of eight childcare and education facilities, namely five registered childcare facilities and three primary schools, within and bordering the Study Area.

Childcare Facilities

Adequate provision of childcare facilities is essential to ensuring the childcare demand generated by existing and future residents is met. In total, five childcare facilities which can enrol at least 212 pupils and collectively offer a range of services (full day, part-time and sessional) were identified within the Study Area during the baseline survey[1] (Table 5.1).

[1] Under the Child Care Act 1991, a person minding more than three pre-school children (children under six years of age) from different families is obliged to notify the HSE of their childminding service. Childcare services minding three or less pre-school children are therefore not included in the Tusla dataset. Thus, there may be additional childcare services in and bordering the Study Area.

Table 5.1: Existing Childcare Facilities.

Childcare Facility	Eircode	Service Type	Tusla Enrolment/ Number of Children
Blossoms Pre-School Enfield	A83 AV26	Part-Time and Sessional	88
Blossoms Pre-School Johnstown Bridge	A83 HY99	Sessional	35
Touchwood Playschool	A83 T883	No Information	No Information
Angel Faces Crèche	A83 WF74	Full Day and Sessional	89
Claire's Playschool	A83 K822	No Information	No Information
Total			**212**

Based upon the proposed unit mix and form of the development (excluding all one-bed maisonette apartments), the persons per unit proposed (determined by the proposed development and the average household size in Johnstownbridge) and the proportion of the population of Johnstownbridge within the 0-6 years age cohort, 21 children aged 0-6 years may reside in the proposed development (Table 5.2).

Table 5.2: Methodology for Estimating the Number of Children Aged 0-6 Years in the Proposed Development.

Total Units*	Average Household Size**	Residents (Number)	0-6 Years (% of Population)**	0-6 Years (Number)
60	3.3	198	10.8%	21

* Excluding All One-Bed Maisonette Apartments[2] ** Average Household Size and Percentage of 0-6 Year Olds in Johnstownbridge

Although the analysis indicates that the proposed development may accommodate 21 children aged 0-6 years, the type of childcare utilised is an important factor to consider that will influence how this is expressed as demand for childcare spaces. The CSO's Quarterly National Household Survey (QNHS) Q3 2016[3] illustrates that the majority of pre-school children in the Mid-East Region are cared for by their parents or partners of their parents, while 14% of pre-school children attend a childcare facility compared to 19% nationally.

While it is reasonable to assume that the CSO's QNHS is an accurate and representative measure of the population, it is acknowledged that the observed percentage of pre-school children who attend a childcare facility may be considered to be conservative and as such a scenario where 28% of pre-school children attend a childcare facility (double the observed percentage) is also considered herein. Of the 21 children aged 0-6 years that may be resident in the proposed development a demand for only three childcare spaces is likely to exist based on the QNHS's figure of 14%, while six childcare spaces would be required under the scenario where 28% of the 0-6 year old residents attend a childcare facility.

Having regard to the childcare provision in the Study Area and the low demand for childcare places generated by the proposed development, it is considered that there will be sufficient childcare capacity and availability within the existing facilities to accommodate said likely demand.

It should be noted that the quantitative modelling of projected demand presumes that all children will need childcare places within or bordering the Study Area; however, regard should be had to accessibility and the consideration of other locations (such as employment locations) as preferred childcare locations.

[2] The recently revised Sustainable Urban Housing: Design Standards for New Apartments (2020) state that studio and one-bedroom apartments should not generally be considered to contribute to a requirement for any childcare provision and this may also apply in part or whole, to units with two or more bedrooms. As such, all one-bedroom maisonette apartments have been excluded from this calculation.

[3] The QNHS is released by the CSO each quarter and surveys a random sample of the population. This is the most recent one on childcare take-up:
https://pdf.cso.ie/www/pdf/20170706100048_QNHS_Childcare_Quarter_3_2016_full.pdf

Schools

With regard to the provision of schools, close engagement with the Department of Education and Skills (DES) regularly takes place to ensure any need for school places is met. Based on current population and anticipated additional growth based on residentially zoned land, individual sites for primary and post-primary schools are reserved in consultation with the DES if deemed to be required.

Primary Schools

A total of three primary schools were identified within and bordering the Study Area during the baseline survey. A review of the enrolment numbers associated with each of the primary schools in and within proximity to the Study Area over the last five years revealed that in comparison with each of the primary school's peak enrolment, 39 pupils less were enrolled in the primary schools in the 2020-2021 academic year which would indicate that there is available capacity within the existing primary schools (Table 5.3).

Table 5.3: Existing Primary Schools.

School	Eircode	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
St. Mary's Primary School	A83 X316	564	572	585	601	622
St. Patrick's National School	A83 KD59	131	126	121	124	117
S N Scoil Treasa	A83 PC95	134	131	134	113	109
Total		**829**	**829**	**840**	**838**	**848**

Determined based on current population and forecasted additional growth, no need for additional primary school places within the vicinity of the subject site has been identified, with no new large-scale projects planned to be delivered within the Study Area under the School Building Programme.

Based on the composition of the proposed development including unit mix (excluding all one-bed maisonette apartments), the persons per unit proposed (determined by the proposed development and the average household size in Johnstownbridge) and the proportion of the population expected to present for primary education (assumed by the DES to be 12%), the likely demand for primary school places generated by the proposed development is anticipated to be 24 (Table 5.4).

Table 5.4: Projected Primary School Demand.

Total Units*	Average Household Size**	Residents (Number)	Projected Primary School Population (12%)
60	3.3	198	24

* Excluding All One-Bed Maisonette Apartments[4] ** Average Household Size in Johnstownbridge

Having regard to the foregoing, the existing primary schools can cater for the demand generated by the proposed development.

It should be noted that the quantitative modelling of projected demand presumes that all children will need school places within or close to the boundary of the Study Area; however, regard must be had to accessibility and the consideration of other locations as preferred school locations.

Post-Primary Schools

Determined based on current population and forecasted additional growth, a need for post-primary school places within the area has been identified. A new post-primary school is notably planned to be delivered in Enfield under the School Building Programme. According to the latest version of the

[4] One-bedroom units do not need to be included in any count that estimates the number of minors in a development and as such all of the one-bedroom maisonette apartments have been excluded from the calculation of likely demand generated by the proposed development.

'Current Status of Large Scale Projects Being Delivered Under the School Building Programme' published by the DES, the current status of its delivery is listed as follows:

- School opened in September 2020 in interim start-up accommodation. Site acquisition process. Stage 2b (Detailed Design).

Once constructed and fully operational, the post-primary school will create considerable capacity in the locality.

Based upon the proposed unit mix and form of the development (excluding all one-bed maisonette apartments), as well as the persons per unit proposed (determined by the proposed development and the average household size in Johnstownbridge) and the proportion of the population of Johnstownbridge within the 12-18 years age cohort, the proposed development will generate a demand for 23 post-primary school places (Table 5.5).

Table 5.5: Projected Post-Primary School Demand.

Total Units*	Average Household Size**	Residents (Number)	12-18 Years (% of Population)**	12-18 Years (Number)
60	3.3	198	11.4%	23

* Excluding All One-Bed Maisonette Apartments[5] ** Average Household Size and Percentage of 12-18 Year Olds in Johnstownbridge

Having regard to the foregoing, it is considered that the post-primary school demand generated by the proposed development could be accommodated within the new post-primary school currently being delivered under the School Building Programme.

It is important to reiterate that the quantitative modelling of projected school demand presumes that all young people will require school places in or within close proximity to the Study Area; however, regard ought to be had to accessibility and the consideration of other locations as preferred school locations.

5.3 Community Services and Facilities

Access to quality community services and facilities can have a significant bearing on the quality of life and health and wellbeing of a community, by encouraging social interaction, promoting learning and providing support services for those living, working and visiting an area. The baseline study undertaken identified six community services and facilities, namely two banks/credit unions, one post office, one community centre, one community based project, namely a men's shed, and one community library in the Study Area.

As identified in the baseline survey, there are a range of community services and facilities within the Study Area which collectively provide a multitude of services. For instance, Breda Centre situated in Johnstownbridge offers an array of services, inclusive of but not limited to citizen information and a community employment scheme, while Johnstown Bridge Men's Shed provides a range of activities for men.

As regards the provision of community services and facilities, the Kildare County Development Plan 2017-2023 and the Meath County Development Plan 2013-2019 contain policies and objectives to support the development, improvement and provision of a wide range of community facilities.

[5] One-bedroom units do not need to be included in any count that estimates the number of minors in a development and as such all of the one-bedroom maisonette apartments have been excluded from the calculation of likely demand generated by the proposed development.

5.4 Sports and Recreation Facilities

The availability of, and access to, affordable sports and recreation facilities that are within easy reach by walking, cycling and public transport is of considerable importance. In total, ten sports and recreation facilities were identified in the Study Area during the baseline survey which include two fitness/leisure centres, five sports clubs ranging from GAA to boxing, and three parks/forests/trails.

The identified variety of sports and recreation facilities within the Study Area can cater to the needs of children, adults and the elderly. All of these facilities seem to be of good quality and there are no known capacity issues at present.

With regard to the provision of sports and recreation facilities, the Kildare County Development Plan 2017-2023 states that the Council will support the work of Kildare Sports Partnership through the provision of recreational and sports amenity space. Similarly, the Meath County Development Plan 2013-2019 outlines that the Council will support the provision of sports and recreation facilities.

5.5 Faith Facilities

The timely provision of faith facilities is of considerable importance to ensuring the religious needs of the existing and future population is met. A total of two churches/places of worship which relate to the primary faith of the population, namely Catholicism[6], were identified within and bordering the Study Area during the baseline survey. These faith facilities appear to be in good condition and there are no reported capacity constraints at present.

However, the changing cultural profile of Ireland means that Local Authorities may need to facilitate the development of additional places of worship to accommodate different religions in the future. In relation to the provision of faith facilities, the Kildare County Development Plan 2017-2023 outlines that the Council will support and facilitate the development of places of worship and multi-faith facilities. Similarly, the Meath County Development Plan 2013-2019 states that the Council will support the provision of such facilities.

5.6 Emergency Related Infrastructure

The ability of emergency related infrastructure to support the needs of existing and future residents is of paramount importance. One emergency related infrastructure, namely a Garda Station, was identified within the Study Area during the baseline survey which is sufficient to support the needs of current and future residents.

While no Fire Station is located within the Study Area, County Kildare has six Fire Stations (at Newbridge, Naas, Athy, Maynooth, Monasterevin and Leixlip) which collectively provide a 24 hour fire and emergency response service to the citizens of County Kildare. With regard to the provision of said services, the Kildare County Development Plan 2017-2023 states that the Council will seek to ensure that this service is maintained and improved to meet the needs of all citizens in the county.

[6] CSO statistics record that 79.1% of the Study Area's population are Catholic, while 9.1% of the population have no religion.

6.0 Conclusion

This Social Infrastructure Audit has identified and established the capability of the existing provision of social infrastructure in and bordering Study Area to support the needs of the existing population and offered insights into the likelihood of the capacity of the existing services and facilities to support future residents.

The baseline study undertaken identified a range of services and facilities which contribute to quality of life within close proximity to the subject site. Overall, 36 social services and facilities were identified within and bordering the Study Area. The largest area of which is sports and recreation, followed by health and childcare and education.

While a sufficient provision of social infrastructure to support the population of the area was identified, it is important to continually ensure good accessibility to quality services and facilities, inclusive of but not limited to health services and facilities, education facilities, community services and facilities and sports and recreation facilities.

In conclusion, the social infrastructure provision within proximity to the subject site is capable of serving the population; however, the Councils in association with relevant stakeholders must continually ensure the quality of social infrastructure is maintained at a high level.

Appendix I Inventory of Facilities

Health Services and Facilities

Name	Class
Cahill Counselling (MIACP)	Counselling Service
The James Clinic	Dental Practice
Enfield Health Centre	Health/Medical Centre
Johnstownbridge Health Centre	Health/Medical Centre
Enfield Opticians	Medical Specialist
Keane's CarePlus Pharmacy	Pharmacy
Martin's Pharmacy	Pharmacy
Walker's Chemist	Pharmacy
Compass Physio Enfield	Physiotherapy Service

Childcare and Education Facilities

Name	Class
Blossoms Pre-School Enfield	Childcare Facility
Blossoms Pre-School Johnstown Bridge	Childcare Facility
Touchwood Playschool	Childcare Facility
Angel Faces Crèche	Childcare Facility
Claire's Playschool	Childcare Facility
St. Mary's Primary School	Primary School
St. Patrick's National School	Primary School
S N Scoil Treasa	Primary School

Community Services and Facilities

Name	Class
Bank of Ireland	Bank/Credit Union
Enfield Credit Union	Bank/Credit Union
Breda Centre	Community Centre
Little Free Library	Community Library
Enfield Post Office	Post Office
Johnstown Bridge Men	Other

Sports and Recreation Facilities

Name	Class
Enfield Fitness & Martial Arts Academy	Fitness/Leisure Centre
Johnstown Estate Hotel & Spa Leisure Centre	Fitness/Leisure Centre
An Choill	Park/Forest/Trail
Glen Abhainn Forest	Park/Forest/Trail
Royal Canal Way	Park/Forest/Trail
Enfield Celtic	Sports Club
Johnstownbridge GAA Club	Sports Club
Na Fianna GAA Club	Sports Club
South Meath Boxing Club	Sports Club
Yeong-Gam Taekwon-Do	Sports Club

Faith Facilities

Name	Class
St. Patrick's Church	Church/Place of Worship
Church of Assumption	Church/Place of Worship

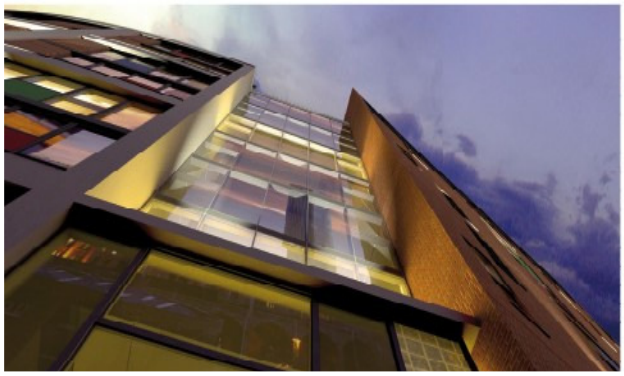
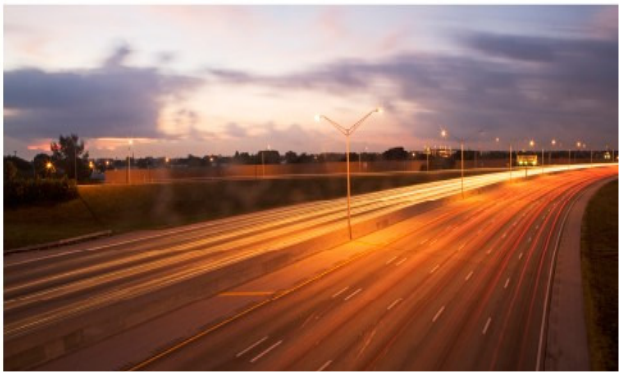
Emergency Related Infrastructure

Name	Class
Enfield Garda Station	Garda Station

APPENDIX B – FLOOD RISK ASSESSMENT

Waterman Moylan
Engineering Consultants



Flood Risk Assessment

Residential Development at Johnstown Bridge

April 2022

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Engineering Consultants

Client Name: Johnstown Bridge Spire Ltd.
Document Reference: 20-068r.002 Flood Risk Assessment
Project Number: 20-068

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015 and BS EN ISO 14001: 2015)

Issue	Date	Prepared by	Checked by	Approved by
1	2 February 2021	Robert Walpole	Richard Miles	
2	21 April 2022	Sona Nahas	J. Gibbons	

Comments

Waterman Moylan
Engineering Consultants

Disclaimer

This report has been prepared by Waterman Moylan, with all reasonable skill, care and diligence within the terms of the Contract with the Client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the Client.

We disclaim any responsibility to the Client and others in respect of any matters outside the scope of the above.

This report is confidential to the Client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at its own risk.

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1. Introduction

This Flood Risk Assessment has been prepared by Waterman Moylan as part of the planning documentation in support of a proposed residential development in lands at Johnstown Bridge, Co. Kildare.

This Flood Risk Assessment has been carried out in accordance with the *DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management* published in November 2009. This assessment identifies the risk of flooding at the site from various sources and sets out possible mitigation measures against the potential risks of flooding. Sources of possible flooding include coastal, fluvial, pluvial (direct heavy rain), groundwater and human/mechanical errors. This report provides an assessment of the subject site for flood risk purposes only.

1.1 Site Description

The site is located adjacent at Johnstown Bridge Village, with the R402 on its northern boundary and the Johnstown Road to the west. To the south is agricultural land with residential developments along the eastern boundary. The proposed site entrance is from the Johnstown Road.

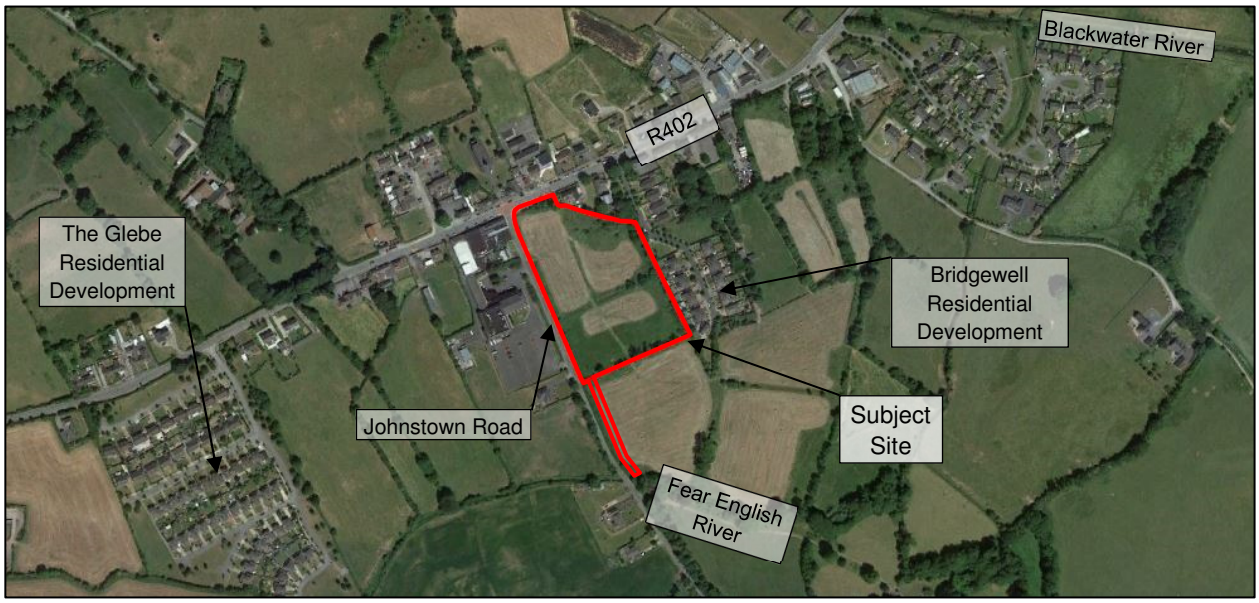


Figure 1 | *Site Location (Source: Google Maps)*

The site is currently defined as greenfield and is used for agricultural purposes.

A topographic survey (OD Malin) of the area indicated that the site falls from north to south, from a high point of 75.15m to a low point of 72.85m. The northern portion of the site slopes from the high point southwards for a distance of approximately 60m to a lower height of 73.66m, this equates to an average gradient of 1/40 however this is steeper at the north and the gradient lessens further south. The remainder of the site continues the trend of a lessening gradient as it progresses southwards with an average gradient of 1/185

There are existing static surface water ditches on the site, these are quite flat and only generally convey water during heavy rainfall events. These ditches generally tend to drain westerly to the site boundary where they collect and then flow southwards, through the adjacent greenfield site, to outfall at the Fear English River. The Fear English River flows northeast and joins the River Blackwater which ultimately outfalls to the River Boyne.

1.2 Proposed Development

The proposed development will consist of 68 residential units, comprising No. 9 apartments & No. 58 2-storey houses and also No. 1 commercial unit, intended to either be a café or grocery store, with a floor area of 77.2m².

The breakdown of the proposed development is set out in the Schedule of Accommodation below:

Description	1-Bed	2-Bed	3-Bed	4-Bed	Total
Houses	-	10	31	18	59
Apartments	8	1	-	-	9
Total	**8**	**11**	**31**	**18**	**68**

Table 1 | *Schedule of Accommodation*

The development includes all associated site works, boundary treatments, drainage and service connections.

1.3 Background to the Report

This Flood Risk Assessment report follows the guidelines set out in the *DEHLG/OPW Guidelines on the Planning Process and Flood Risk Management* published in November 2009. The components to be considered in the identification and assessment of flood risk are as per Table A1 of the above guidelines:

- Tidal – flooding from high sea levels
- Fluvial – flooding from water courses
- Pluvial – flooding from rainfall / surface water
- Groundwater – flooding from springs / raised groundwater
- Human/mechanical error – flooding due to human or mechanical error

Each component will be investigated from a Source, Pathway and Receptor perspective, followed by an assessment of the likelihood of a flood occurring and the possible consequences.

The likelihood of flooding falls into three categories of low, moderate and high, which are described in the OPW Guidelines as follows:

Flood Risk Components	**Likelihood: % chance of occurring in a year**		
	Low	***Moderate***	***High***
Tidal	*Probability < 0.1%*	*0.5% > Probability > 0.1%*	*Probability > 0.5%*
Fluvial	*Probability < 0.1%*	*1% > Probability > 0.1%*	*Probability > 1%*
Pluvial	*Probability < 0.1%*	*1% > Probability > 0.1%*	*Probability > 1%*

Table 2 | *From Table A1 of "DEHLG/OPW Guidelines on the Planning Process and Flood Management"*

For groundwater and human/mechanical error, the limits of probability are not defined and therefore professional judgment is used. However, the likelihood of flooding is still categorized as low, moderate and high for these components.

From consideration of the likelihoods and the possible consequences a risk is evaluated. Should such a risk exist, mitigation measures will be explored, and the residual risks assessed.

1.3.1 Assessing Consequence

There is not a defined method used to quantify a value for the consequences of a flooding event. Therefore, in order to determine a value for the consequences of a flooding event, the elements likely to be adversely affected by such flooding will be assessed, with the likely damage being stated, and professional judgement will be used in order to determine a value for consequences. Consequences will also be categorized as low, moderate, and high.

1.3.2 Assessing Risk

Based on the determined 'likelihood' and 'consequences' values of a flood event, the following 3x3 Risk Matrix will then be referenced to determine the overall risk of a flood event.

		Consequences		
		Low	***Moderate***	***High***
Likelihood	**Low**	*Extremely Low Risk*	*Low Risk*	*Moderate Risk*
	Moderate	*Low Risk*	*Moderate Risk*	*High Risk*
	High	*Moderate Risk*	*High Risk*	*Extremely High Risk*

Table 3 | *3x3 Risk Matrix*

2. Tidal

2.1 Source

Tidal flooding occurs when normally dry, low-lying land is flooded by seawater. The extent of tidal flooding is a function of the elevation inland flood waters penetrate, which is controlled by the topography of the coastal land exposed to flooding.

2.2 Pathway

The site is approximately 42km west of the nearest coastline at Dublin Bay. The Dublin Coastal Protection Project indicated that the 2002 high tide event reached 2.95m OD Malin. The lowest proposed finished floor level at the development is to be constructed at 73.20m OD Malin, well above the historic high tide event.

The maps available on the OPW's National Flood Information Portal have been consulted as part of this assessment. These maps include tidal flood mapping, which outlines existing and potential flood hazard and risk areas which are being incorporated into a Flood Risk Management Plan. An extract of Tidal Flood Extent Map is shown in the Figure below:

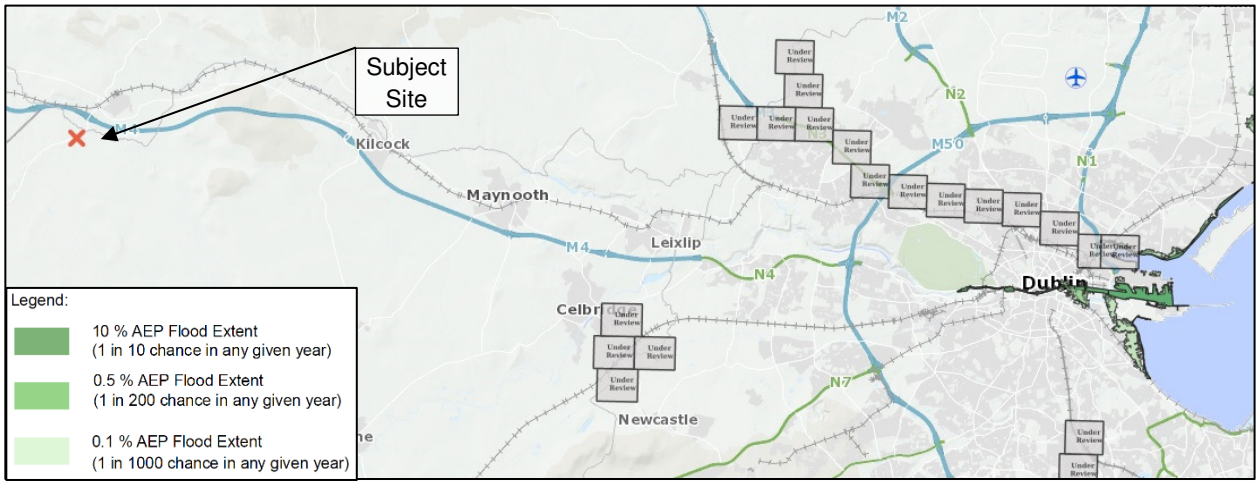


***Figure 2** | Extract from the Tidal Flood Extents Map*

High probability flood events, are defined as having approximately a 1-in-10 chance of occurring or being exceeded in any given year (10% Annual Exceedance Probability), medium probability flood events are defined as having an AEP of 0.5% (1-in-200 year storm), while low probability events are defined having an AEP of 0.1% (1-in-1,000 year storm). The above map indicates that the subject development is not at risk of flooding for the 1-in-1,000 year event.

Given that the site is located 42km kilometres inland from the Irish Sea, that there is at large level difference between the proposed buildings and the high tide and given that the site is outside of the 1-in-1,000 year flood plain, it is evident that a pathway does not exist between the source and the receptor. A risk from tidal flooding is therefore extremely low and no flood mitigation measures need to be implemented.

3. Fluvial

3.1 Source

Fluvial flooding occurs when a river's flow exceeds its capacity, typically following excessive rainfall, though it can also result from other causes such as heavy snow melt and ice jams.

3.2 Pathway

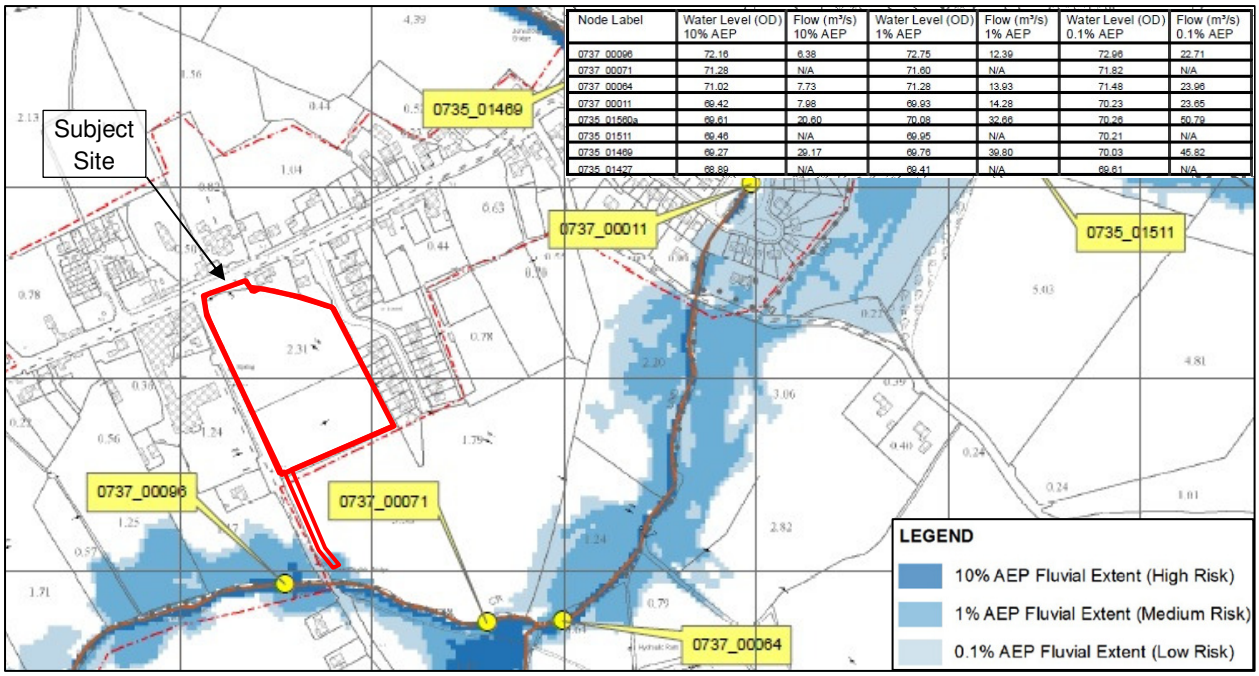
The subject site is located within the Fear English River Catchment. The static ditch system serving the site outfalls via the ditch system of the adjacent site to this river, which flows to the Blackwater river which ultimately outfalls to the River Boyne.

A review of the available historic records included as *Figure 3* below, obtained via the OPW's National Flood Hazard Mapping database, does not indicate that there have been any known instances of flooding at the site or in the surrounding area. The nearest recorded event is located approximately 2km away at Enfield.

Figure 3 *| OPW's National Flood Hazard Mapping, Historic Flood Event Extract*

While there has been no recorded historic flood events in the vicinity of the site, the OPW's National Flood Information Portal, via flood map reference number: e07joh_exfcd_f0-02, an extract of which is shown in *Figure 4* overleaf, indicates the areas nearby potentially at risk of flooding for up to the 0.1% AEP (1-1000 year) flood event. These areas at risk of flood are external to the site, with no flooding projected internal to the site boundary.

The nearest upstream node point in relation to the site boundary is identified as: 0737_00096. The height of flood waters for the 1-1000 year event has been calculated to reach 72.96m. The lowest proposed FFL is 73.20, 240mm above the worst case scenario projected level.



Node Label	Water Level (OD) 10% AEP	Flow (m³/s) 10% AEP	Water Level (OD) 1% AEP	Flow (m³/s) 1% AEP	Water Level (OD) 0.1% AEP	Flow (m³/s) 0.1% AEP
0737_00096	72.16	6.38	72.75	12.39	72.96	22.71
0737_00071	71.28	N/A	71.60	N/A	71.82	N/A
0737_00064	71.02	7.73	71.28	13.93	71.48	23.96
0737_00011	69.42	7.98	69.93	14.28	70.23	23.65
0735_01560a	69.61	20.60	70.08	32.66	70.26	50.79
0735_01511	69.46	N/A	69.95	N/A	70.21	N/A
0735_01469	69.27	29.17	69.76	39.80	70.03	45.82
0735_01427	68.89	N/A	69.41	N/A	69.61	N/A

Figure 4 *| Extract from the OPW's Fluvial Flood Extents Map (e07joh_exfcd_f0_02)*

3.3 Likelihood

Given that the site is outside of the 1-in-1,000 year flood plain, the likelihood of fluvial flooding is low.

3.4 Consequence

The consequence of fluvial flooding would be some minor damage to open spaces. Therefore, the consequences of fluvial flooding occurring at the proposed development is considered low.

3.5 Risk

There is an extremely low risk of fluvial flooding as the likelihood is low and the consequence is low.

3.6 Flood Risk Management

The finished floor levels throughout the development have been set least 200mm above the level of the adjacent road drainage channel line.

Should fluvial flooding occur, surface water can flow overland via open areas and road surfaces, away from residential dwellings, as shown in the flood routing figure overleaf. This image has been extracted from drawing number: 20-068-P1050, included as part of the application package.

Figure 5 | *Overland Flood Route*

3.7 Residual Risk

The residual risk of fluvial flooding is considered extremely low.

4. Pluvial

4.1 Source

Pluvial flooding occurs when heavy rainfall creates a flood event independent of an overflowing water body. Pluvial flooding can happen in any urban area, including higher elevation areas that lie above coastal and river floodplains.

4.2 Pathway & Receptors

During periods of extreme prolonged rainfall, pluvial flooding may occur through the following pathways:

	Pathway	Receptor
1	Surcharging of the proposed internal drainage systems during heavy rain events leading to internal flooding	Proposed development – properties and roads
2	Surcharging from the existing surrounding drainage system leading to flooding within the subject site by surcharging surface water pipes	Proposed development – properties and roads
3	Surface water discharging from the subject site to the existing drainage network leading to downstream flooding	Downstream properties and roads
4	Overland flooding from surrounding areas flowing onto the subject site	Proposed development – properties and roads
5	Overland flooding from the subject site flowing onto surrounding areas	Downstream properties and roads

Table 4 | *Pathways and Receptors*

4.3 Likelihood

The likelihood of each of the 5 pathway types are addressed individually as follows:

4.3.1 Surcharging of the proposed on-site drainage systems:

The proposed on-site surface water drainage sewers have been designed to accommodate flows from a 5-year return event, which indicates that on average the internal system may surcharge during rainfall events with a return period in excess of five years. Therefore, the likelihood surcharging of the on-site drainage system is considered high.

4.3.2 Surcharging from the existing surrounding drainage system:

The OPW's National Flood Hazard Map, refer to section 3.2, has been consulted to identify recorded instances of flooding in the vicinity of the site. The nearest recorded flood event occurred approximately 2km northeast of the site in, with no recorded flooding in the immediate vicinity of the site.

With no history of flooding in the area due to surcharging, the likelihood of such flooding occurring is considered low.

4.3.3 Surface water discharge from the subject site:

Due to the increase in hard standing area as a result of the proposed development, there is an increased likelihood of surface water discharge from the site leading to downstream flooding. As such, the likelihood can be considered moderate.

4.3.4 Overland flooding from surrounding areas:

With no recorded flood events in the immediate area that could have an impact on the subject site, as per the OPW records, and the site location being outside the 0.1% AEP flood plain, both discussed earlier, it is considered that there is a low likelihood of flooding from surrounding areas.

4.3.5 Overland flooding from the subject site:

Due to the increase in hard standing area as a result of the proposed development, there is an increased likelihood of overland flooding from the site leading to downstream flooding. As such, the likelihood can be considered moderate.

4.4 Consequence

Surface water flooding would result in damage to roads and landscaped areas, and could impact the ground floor levels of buildings. The consequences of pluvial flooding are considered moderate.

4.5 Risk

The risk of each of the 5 pathway types is addressed individually as follows:

4.5.1 Surcharging of the proposed on-site drainage systems:

With a high likelihood and moderate consequence of flooding the site from surcharging the on-site drainage system, the resultant risk is high.

4.5.2 Surcharging from the existing surrounding drainage system:

With a low likelihood and moderate consequence of flooding the site from the existing surface water network, the resultant risk is low.

4.5.3 Surface water discharge from the subject site:

With a moderate likelihood and moderate consequence of surface water discharge from the subject site, the resultant risk is moderate.

4.5.4 Overland flooding from surrounding areas:

With a low likelihood and moderate consequence of overland flooding from the surrounding areas, the resultant risk is low.

4.5.5 Overland flooding from the subject site:

With a moderate likelihood and moderate consequence of overland flooding from the subject site, the resultant risk is moderate.

4.6 Flood Risk Management

The following are flood risk management strategies proposed to minimise the risk of pluvial flooding for each risk:

4.6.1 Surcharging of the proposed on-site drainage systems:

The risk of flooding is minimised with adequate sizing of the on-site surface water network and SuDS devices. Open grassed areas with low level planting and will ensure that these areas act as soft scape and will significantly slow down and reduce the amount of surface water runoff from the site. Permeable paving in private driveways and parking courts and filter drains will provide some treatment volume, with underlying perforated pipes connecting to the storm water sewer network.

These proposed source and site control devices will intercept and slow down the rate of runoff from the site to the on-site drainage system, reducing the risk of surcharging.

Furthermore, a hydro-brake will limit runoff to the equivalent greenfield rate. Excess storm water from the site is to be attenuated in the Dry Detention Basin with sufficient volume for the 1-in-100 year storm (accounting for a 20% increase due to climate change), to limit the runoff from the site and minimise the discharge rate into receiving waters.

As a result of these proposed measures, the likelihood of surcharging of the proposed on-site drainage systems is low.

4.6.2 Surcharging from the existing surrounding drainage system:

The risk of flooding due to surcharging of the existing surface water network is minimised with overland flood routing (refer to the Overland Flood Routing figure in Section 3.6). The risk to the surrounding buildings is mitigated by setting finished floor levels at least 200mm above the adjacent road channel line.

4.6.3 Surface water discharge from the subject site:

Surface water discharge from the subject site is intercepted and slowed down through the use of source control devices, as described in Section 4.6.1, minimising the risk of pluvial flooding from the subject site. Sufficient attenuation storage is provided for the 1-in-100 year storm, accounting for a 20% increase due to climate change.

4.6.4 Overland flooding from surrounding areas:

The risk from overland flooding from surrounding areas is low. Overland flood routing and raised finished floor levels will provide protection for the proposed buildings, as described in Section 4.6.2 above.

4.6.5 Overland flooding from the subject site:

The risk of overland flooding from the subject site is minimised by providing SuDS features to intercept and slow down the rate of runoff from the site to the existing surface water sewer system, as described in Section 4.6.1 above. Sufficient attenuation is provided for the 1-in-100 year storm, accounting for a 20% increase due to climate change. Thus, even under extreme storm conditions, the surface water can be attenuated without causing flooding downstream.

4.7 Residual Risk

As a result of the design measures detailed above in Section 4.6, there is a low residual risk of flooding from each of the surface water risks.

5. Groundwater

5.1 Source

Groundwater flooding occurs when the water table rises above the ground surface. This typically happens during periods with prolonged rainfall which exceeds the natural underground drainage system's capacity.

5.2 Pathway

The pathway for groundwater flooding is from the ground. Note that although groundwater flooding is typically considered to be when the water table rises above the ground surface, underground services and building foundations could also be affected by high water tables that do not reach the ground surface.

5.3 Receptor

The receptors for ground water flooding would be underground services, roads and the ground floor of buildings.

5.4 Likelihood

Geological Survey Ireland (GSI) produces a wide range of datasets, including groundwater vulnerability mapping. From the GSI groundwater vulnerability map, extracted below, the site lies within an area with moderate groundwater vulnerability.

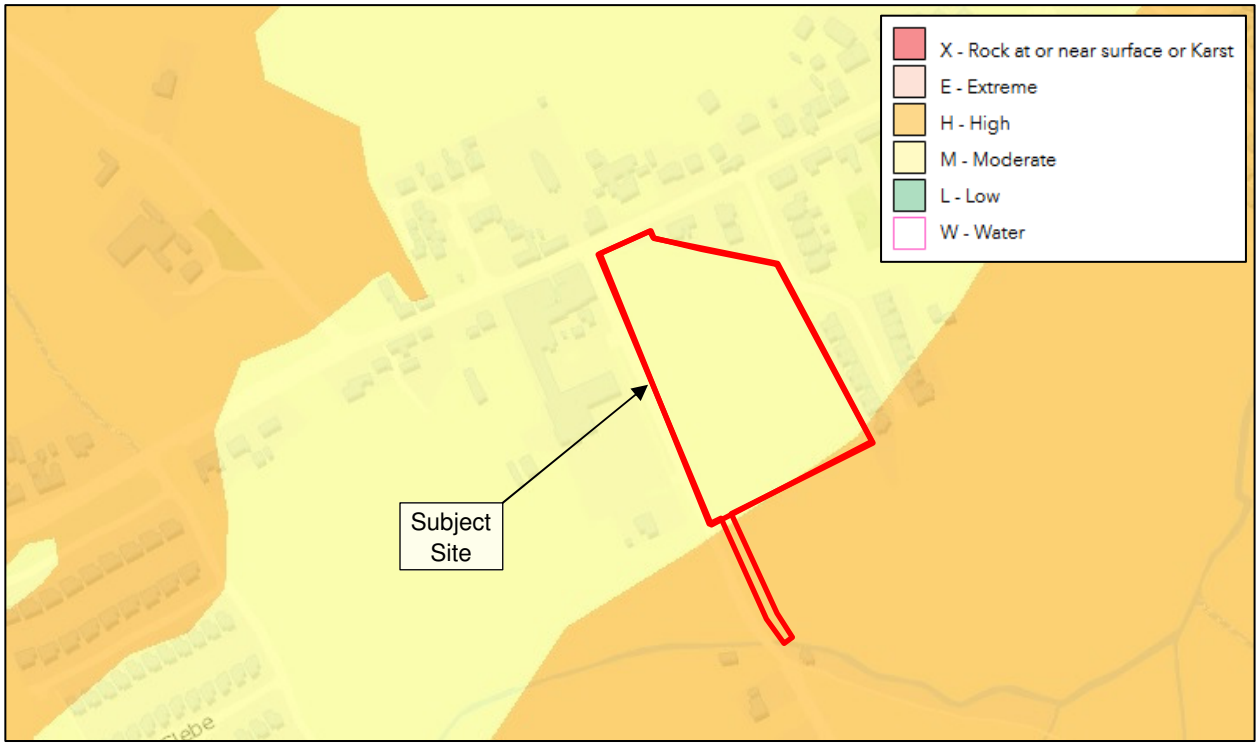


Figure 6 | *Extract of Groundwater Vulnerability Map*

With the site falling within an area with moderate groundwater vulnerability, the likelihood of groundwater rising through the ground and causing potential flooding on site during prolonged wet periods is moderate.

5.5 Consequence

The consequence of ground water flooding would be some minor temporary seepage of ground water through the ground around the proposed buildings. Underground services could be inundated from high water tables. Therefore, the consequence of ground water flooding occurring at the proposed development is considered moderate.

5.6 Risk

With a moderate likelihood and moderate consequences of flooding due to groundwater, the risk is considered moderate.

5.7 Flood Risk Management

Finished floor levels have been set above the road levels, as described in Section 3.6, to ensure that any seepage of ground water onto the development does not flood into the buildings. In the event of ground water flooding on site, this water can escape from the site via the overland flood routing, also described in Section 3.6.

The buildings' design will incorporate suitable damp proof membranes to protect against damp and water ingress from below ground level.

5.8 Residual Risk

There is a low residual risk of flooding from ground water.

6. Human/Mechanical Errors

6.1 Source

The subject site will be drained by an internal private storm water drainage system, which discharges to the existing natural surface water network. This local ditch system outfalls to the Fear English River, which is a tributary of the River Blackwater, which in turn is a tributary of the River Boyne.

The internal surface water network is a source of possible flooding were it to become blocked.

6.2 Pathway

If the proposed private drainage system blocks this could lead to possible flooding within the private and public areas.

6.3 Receptor

The receptors for flooding due to human/mechanical error would be the ground floor levels of buildings, the roads and the open landscaped areas around the site.

6.4 Likelihood

There is a high likelihood of flooding on the subject site if the surface water network were to become blocked.

6.5 Consequence

The surface water network would surcharge and overflow through gullies and manhole lids. It is, therefore, considered that the consequences of such flooding are moderate.

6.6 Risk

With a high likelihood and moderate consequence, there is a high risk of surface water flooding should the surface water network block.

6.7 Flood Risk Management

As described in Section 3.6, finished floor levels have been designed to be generally above the adjacent road network, which will reduce the risk of flooding if the surface water network were to block. In the event of the surface water system surcharging, the surface water can still escape from the site by overland flood routing, as described in Section 3.6, without causing damage to the proposed buildings.

The surface water network (drains, gullies, manholes, AJs, attenuation basin) will need to be regularly maintained and where required cleaned out. A suitable maintenance regime of inspection and cleaning should be incorporated into the safety file/maintenance manual for the development.

6.8 Residual Risk

As a result of the flood risk management outlined above, there is a low residual risk of overland flooding from human / mechanical error.

7. Conclusions and Recommendations

The subject lands have been analysed for risks from tidal flooding from the Irish Sea and the local Fear English River stream, fluvial flooding from Fear English River, pluvial flooding, ground water and failures of mechanical systems. Table 5, below, presents the various residual flood risks involved.

Source	Pathway	Receptor	Likelihood	Consequence	Risk	Mitigation Measure	Residual Risk
Tidal	*Irish Sea (Dublin Bay)*	*Proposed development*	*Extremely low*	*None*	*Negligible*	*None*	Negligible
Fluvial	*Fear English River (tributary of the River Blackwater)*	*Proposed development*	*Low*	*Low*	*Extremely Low*	*Setting of floor levels, overland flood routing*	Extremely Low
Pluvial	*Private & Public Drainage Network*	*Proposed development, downstream properties and roads*	*Ranges from high to low*	*Moderate*	*Ranges from high to low*	*Appropriate drainage, SuDS and attenuation design, setting of floor levels, overland flood routing*	Low
Ground Water	*Ground*	*Underground services, ground level of buildings, roads*	*Moderate*	*Moderate*	*Moderate*	*Appropriate setting of floor levels, flood routing, damp proof membranes*	Low
Human/ Mechanical Error	*Drainage network*	*Proposed development*	*High*	*Moderate*	*High*	*Setting of floor levels, overland flood routing, regular inspection of SW network*	Low

Table 5 | *Summary of the Flood Risks from the Various Components*

As indicated in the above table, the various sources of flooding have been reviewed, and the risk of flooding from each source has been assessed. Where necessary, mitigation measures have been proposed. As a result of the proposed mitigation measures, the residual risk of flooding from any source is low.

UK and Ireland Office Locations