

Memo

To: John Moran, Mayor.

From: Stephane Duclot, Director, Planning & Ryder Cup

Date: 14/11/2025

Re: Part 8 proposal, Reference PT8LL283– The development will consist of 22 dwelling units, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park; all of which are provided with own door access.

The proposed development also includes: Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6no. cycle parking spaces and adjustment to road junctions; Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces; and Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains at Cosgrave Park, Moyross, Limerick.

Dear Mayor,

Please find attached for your consideration report prepared in accordance with Section 179 of the Planning and Development Act 2000 (as amended) in respect of a proposal for the development of 22 dwelling units, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park; all of which are provided with own door access. The proposed development also includes: Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6 no. cycle parking spaces and adjustment to road junctions; Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces; and Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains at Cosgrave Park, Moyross, Limerick

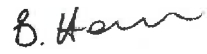
The proposal prepared by the Regeneration Directorate Section has been evaluated taking into consideration all submissions received. It is concluded that the proposed development is in accordance with the objectives of the Limerick Development Plan 2022 – 2028, and the proper planning and sustainable development of the area.

It is recommended that the proposed development should be proceeded with as proposed to the Elected Members of Limerick City & County Council.

Signed: 
Ella O'Brien, Executive Planner

Signed: 
Gráinne O'Keeffe, Senior Executive Planner

Signed: 
Gráinne O'Keeffe, Senior Executive Planner

Signed: 
Barry Henn, Senior Planner, Planning

Signed: 
Stephane Duclot, Director, Planning & Ryder Cup

**MAYOR'S REPORT & RECOMMENDATION IN ACCORDANCE
WITH SECTION 179 3(a) OF THE PLANNING & DEVELOPMENT
ACT 2000 (AS AMENDED)**

Re: Part 8 Proposal for the following:

The development will consist of 22 dwelling units, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park; all of which are provided with own door access. The proposed development also includes upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6no. cycle parking spaces and adjustment to road junctions; Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces; and Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains at Cosgrave Park, Moyross, Lime

1.0 Introduction

This report has been prepared pursuant to Section 179 of the Planning & Development Act 2000 (as amended), and Part 8 of the Planning & Development Regulations 2001 (as amended).

2.0 Description of the nature and extent of the proposed development

The proposed development consists of 22 dwelling units comprising:

- A three-storey terraced block fronting onto Moyross Road, Sarsfield Gardens and Cosgrave Park and
- A two-storey block, consisting of a two-bedroom four-person maisonette and two one-bedroom two-person apartments, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park.

The application site consists of two infill / brownfield plots measuring 0.2805 and 0.6928684 respectfully with Cosgrave Park Road, known locally as 'Holy Road' intersecting the site. The subject site is located within the central area of Moyross, located on the western perimeter of the Cosgrave Park housing estate.

The proposed development also includes:

- Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6no. cycle parking spaces and adjustment to road junctions.
- Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces.
- Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains.



2.1 Public Consultation:

The plans and particulars were placed on public display from the 25th of August 2025 up to and including 22nd of September 2025. Submissions and observations were invited up to the 7th of October 2025.

3.0 Submissions with respect to the proposed development

No written submissions or observations were received in relation to the proposed development.

4.0 Habitats Directive Project Screening Assessment

An Appropriate Assessment Screening Report has been undertaken by Ash Ecology & Environmental for the proposed development. Five designated sites are within 12.6km of the site however four of these sites have been screened out as they are outside of the zone of influence. The Lower River Shannon SAC (Site code 002165) is located approximately 275m from the proposed development. The AA Screening report determined that *The potential risk to water quality during the construction phase of the proposed works e.g. silt and harmful substances becoming entrained in surface water run-off is ruled out as there are no watercourses or drains on the site. There is no direct pathway to the River Shannon which would cause water pollution during construction phase and best practice guidelines will be implemented in the CEMP.* Foul water from the proposed development will connect to the existing foul water network. A pre-connection enquiry was lodged with Irish Water in relation to the proposed development. Irish Water confirmed that there is capacity to accept the proposed connection to the network, see Appendix B. The Limerick Wastewater Treatment Plant (WWTP D0013) was confirmed to be at 'Green' capacity as of July 28th, 2024.

In this regard, potential impacts on the Lower River Shannon SAC were further assessed in the report, including the following:

- Habitat Loss/Alteration
- Disturbance and/or Displacement of Species
- Habitat /Species Fragmentation
- Changes in Population Density

- Impacts to Water Quality
- Introduction of Invasive Species
- Air Quality and Climate Change Impacts
- In Combination Effects of Plans & Projects

The report concludes as follows:

“In conclusion, upon the examination, analysis and evaluation of the relevant information including, in particular, the nature of the proposed works and the likelihood of significant effects on any European site, in addition to considering possible in-combination effects, and applying the precautionary principles, it is concluded by the author of this report that, on the basis of objective information, the possibility may be excluded that the proposed works will have a significant effect on any of the European sites below:

- Lower River Shannon SAC
- Glenomra Wood SAC
- Danes Hole, Poulnalecka SAC
- Askeaton Fen Complex SAC
- Ratty River Cave SAC
- River Shannon and River Fergus Estuaries SPA

These complete, precise and definitive findings, based on the best available scientific evidence, remove all reasonable scientific doubt that the proposed works will have any significant impacts on the European sites detailed above; and it is therefore concluded that there will be no likely significant negative impacts caused to any European sites as a result of the proposed works. A Natura Impact Statement (NIS) is not required.”

The Council’s Ecologist has reviewed the AA Screening and is satisfied with the findings.

Overall, it is considered that having regard to the scale of the development and the distance of the development from any SAC and SPA, the development as proposed should not exercise a significant effect on the conservation status of any SAC or SPA either alone or in combination with other plans or projects and therefore a Stage 2 NIS is not necessary.

5.0 Environmental Impact Assessment Screening

An EIA screening report has been undertaken by Ash Ecology & Environmental for the proposed development. The EIA Screening Assessment has determined that a sub-threshold EIAR is not required for this development. This conclusion is based on the scale and nature of the development that are in keeping with the residential nature of the area (22 units on 0.45 ha), the absence of significant ecological features, and the implementation of appropriate mitigation measures. The proposal falls substantially below relevant mandatory EIA thresholds, and there are no potential cumulative effects likely to arise. With the implementation of the detailed mitigation measures for biodiversity and adherence to general good practices for environmental protection, it is concluded that the proposed development will not result in significant effects on the environment.

The Council’s Ecologist has reviewed the EIA Screening report and considers the findings of this report is acceptable.

The proposed development is considered sub-threshold as per the Screening Report and does not fall within the mandatory requirements for an EIA as specified in Section 5 of the Planning and Development Regulations 2001 (as amended). Taking into account the size of the development and its location within a modified environment, it has been determined that there

is no real likelihood of significant effects on the environment arising from the proposed development a full Environmental Impact Assessment is not required for this project.

6.0 Key Policy Provisions

Limerick Development Plan 2022-2028:

The Development Plan sets out the following policies and objectives with respect to acceptable development at the location in question:

Zoning: Existing Residential

Objective: To provide for residential development, protect and improve existing residential amenity.

Purpose: This zone is intended primarily for established housing areas. Existing residential amenity will be protected while allowing appropriate infill development. The quality of the zone will be enhanced with associated open space, community uses and where an acceptable standard of amenity can be maintained, a limited range of other uses that support the overall residential function of the area, such as schools, crèches, doctor's surgeries, playing fields etc.

Policy HO P1 Implementation of the Housing Strategy, including the Housing Need Demands Assessment

It is a policy of the Council to facilitate the implementation and delivery of the Housing Strategy and Housing Need Demand Assessment (HNDA) 2022 – 2028, to meet the increasing projected population, changing household size and housing needs, including social and affordable housing requirements of Limerick over the lifetime of the Plan

Objective HO O1 Social Inclusion

It is an objective of the Council to ensure that new developments are socially inclusive and provide for a wide variety of housing types, sizes and tenure, in suitable locations, throughout Limerick, to cater for the demands established in the Housing Strategy and the Housing Need Demand Assessment.

Objective HO O2 Density of Residential Developments

It is an objective of the Council to:

- a) Promote, where appropriate, increased residential density in the exercise of its development management function and in accordance with Table 2.6 Density Assumptions per Settlement Hierarchy in Chapter 2: Core Strategy and the Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities and the accompanying Urban Design Manual, DEHLG, May 2009.
- b) Encourage increased densities that contribute to the enhancement of a town or village by reinforcing street patterns or assisting in re-development of backlands and centrally located brownfield sites.

Objective HO O3 Protection of Existing Residential Amenity

It is an objective of the Council to ensure a balance between the protection of existing residential amenities, the established character of the area and the need to provide for sustainable new development.

Policy CS P2 Compact Growth

It is a policy of the Council to support the compact growth of Limerick City Metropolitan Area, towns and villages by prioritising housing and employment development in locations within and contiguous to existing City and town footprints where it can be served by public transport and walking and cycling networks, to ensure that development proceeds sustainably and at an appropriate scale, density and sequence, in line with the Core Strategy Table 2.7.

Policy CGR P1 Compact Growth and Revitalisation

It is a policy of the Council to achieve sustainable intensification and consolidation, in accordance with the Core Strategy, through an emphasis on revitalisation and the delivery of more compact and consolidated growth, integrating land use and transport, with the use of higher densities and mixed-use developments at an appropriate scale on brownfield, infill, backland, state-lands and underutilised sites within the existing built footprint of Limerick's City, Towns and Villages.

Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities, 2024.

SPPR 2 - Minimum Private Open Space Standards for Houses It is a specific planning policy requirement of these Guidelines that proposals for new houses meet the following minimum private open space standards: 1 bed house 20 sq.m 2 bed house 30 sq.m 3 bed house 40 sq.m 4 bed + house 50 sq.m

Quality Housing for Sustainable Communities, 2007

Table 5.1: Space provision and room sizes for typical dwellings

Objective RA O1 Regeneration Opportunity Areas

It is an objective of the Council to:

- a) Support the social, economic and physical regeneration of Moyross, St. Mary's Park/King's Island, Ballincurra Weston and Southill.
- b) Support and facilitate the physical, economic and social framework strategies for the Regeneration Areas in accordance with the Limerick Regeneration Framework Implementation Plan. All developments in the Regeneration Areas will be assessed in accordance with the principles and objectives for each area, as set out in this section. All proposed developments within these areas will be assessed in the context of the impact on the local area and on the City as a whole.
- c) Integrate Regeneration Areas and communities into the mainstream social, economic and community life of the City through a long-term commitment to support social, economic and physical regeneration of the most deprived areas.
- d) Improve the tenure diversity within the Regeneration Areas.
- e) Deliver the Social, Physical and Economic Framework Strategies of the adopted Limerick Regeneration Framework Implementation Plan.
- f) Undertake an annual Monitoring Report of the adopted Limerick Regeneration Framework Implementation Plan to establish key trends emerging and measure progress.
- g) Actively support the implementation of the Key Local Objectives set out in the Physical Framework Strategy for each of the Regeneration Areas.

7.0 Appraisal

Principle of Development:

This Part 8 application consists of 22 dwelling units, comprising:

- A three-storey terraced block fronting onto Moyross Road, Sarsfield Gardens and Cosgrave Park comprising: ten three-bedroom, five-person, own-door maisonettes, two of which are designed to Universal Design Standards; and nine two-bedroom, three-person apartments.
- A two-storey block, consisting of a two-bedroom four-person maisonette and two one bedroom two-person apartments, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park.

The proposed development also includes:

- Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6no. cycle parking spaces and adjustment to road junctions.

- Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces.
- Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains.

The site is zoned existing residential under the provisions of the Limerick Development Plan 2022-2028. The proposed development is acceptable in principle subject to normal planning considerations.

Policy CGR P1 Compact Growth and Revitalisation seeks to activate underutilised sites within the existing built footprint of Limerick City. This site is a brownfield infill city site that is currently vacant and underutilised. The proposed development would provide the delivery of more compact and consolidated growth, which is to be welcomed. Having regard to the above, the proposal is considered acceptable in principle.

Density

The density for the proposal is 78.5 units per hectare and this is deemed appropriate for a brownfield site at this location. The application site previously had 7 no. houses but have since been demolished. The increase in density is a welcome development at this location and is in compliance with both local, regional and national policy.

Layout and Design

The proposed scheme forms part of the overall redevelopment of the Cosgrave Park estate, the majority of which have recently reached completion under Phase 1. The site is located circa 160m to the southwest of the recently approved railway station which was granted under pl. Ref 2560866 and is located to the rear of Corpus Christi Primary School, the Moyross Community Enterprise Centre, Moyross Avenue, and to the rear of Corpus Christi Church, Sarsfield Gardens.

The proposed development is envisaged as a continuation of the materiality and built form of the recent developments lining the eastern perimeters of Moyross Road notably Cliona Park phase (iii). The proposed design responds to the sites existing context and site conditions.

The 22 no dwelling units comprise as follows:

- A three-storey terraced block fronting onto Moyross Road, Sarsfield Gardens and Cosgrave Park comprising: ten three-bedroom, five-person, own-door maisonettes, two of which are designed to Universal Design Standards; and nine two-bedroom, three-person apartments.
- A two-storey block, consisting of a two-bedroom four-person maisonette and two one bedroom two-person apartments, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park.

The three-storey development fronting onto Moyross Road, Sarsfield Gardens and Cosgrave Park defines a strong perimeter to Cosgrave Park. The gently curved façade to Moyross Road compliments the curvature of the revised road layout. The vertical building line is in direct response to the ground level, a gradually angled parapet slopes down from the south-east corner to the natural low point at the northern elevation to Cosgrave Park.

Corner dual aspect terraces have been provided at first and second floor levels in conjunction with Juliet balconies to all second-floor apartments which further enhances passive surveillance. All proposed units are provided with own door access, private amenity space in excess of the applicable standard and are all dual aspect, maximising access to daylight and passive ventilation. Seven of the nine proposed second-floor apartments are also provided with generous private amenity spaces at ground level, directly accessed through each unit's stairwell. Adequate separation distance is maintained between the proposed development and the existing dwellings within Cosgrave Park. The two storey element of the proposal which is fronting onto

Sarsfield Gardens is similar in design but smaller in scale. Each unit has their own individual private amenity space which complies with National and Local Policy.

An area of public open space is located to the south of the site. Galvanised steel entry gates and railings border the site. Elevations are designed to incorporate juliet balconies to enhance passive surveillance of this open space area and considered acceptable.

The proposed development comprises of a variety of dwelling types in response to local housing need:

- Two. three-bed / five-person UD maisonettes (9%)
- Nine. two-bed / three-person Apartments (41%)
- Eight. three-bed / five-person Maisonettes (36%)
- One. two-bed / four-person Maisonette (5%)
- Two. one-bed / two-person Apartments (9%)

Buff colour clay facing brickwork, with timber/aluminium frame composite windows and doors are proposed. Galvanised steel entry gates & railings are also proposed. The finish of the proposed units is in keeping with the existing development within Cliona Park and is considered acceptable. All units will be provided with individual secure bin store areas, located within the privacy strip at the front of the units or to the side.



Figure 1: Proposed Site layout

Impact on Residential Amenity

The orientation of the proposed development will ensure that there is no loss of residential amenity on the existing dwelling houses within Cosgrave Park. Consideration has been given to separation distances to ensure that there will be no undue overlooking on neighbouring properties. The proposal is considered acceptable.

The proposed scheme has taken into account the sites constraints and has been designed with each dwelling type designed to maximise overlooking of public areas. Elevations are designed to incorporate corner windows to enhance passive surveillance of the landscaped areas. Each unit's floor area and internal spaces are in accordance with the Planning Design Standards for Apartments Guidelines for Planning Authorities, 2025 and the Quality Housing for Sustainable Communities, 2007.

The proposal is considered acceptable.



Landscaping and Boundary Treatments

The existing block boundary walls located to the west of no. 82 and 91 Cosgrave Park will be reinstated. Galvanised steel entry gates & railings are also proposed which is considered acceptable. Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping is also proposed. Drawing no. 2331 / PA / 916 / B annotates the proposed landscaping arrangements within the front gardens and the area of public planted space along the northern and southern elevations respectfully. The design combines quality, durable material for the landscaping finishes which will include street furniture, street lighting and paving. Soft landscaping, paving and high quality public lighting is proposed within the perimeter of the site. Landscape areas have been included in private open space where possible to reduce exposure and vulnerability of existing rear boundaries. The proposal is considered acceptable.

Access and Traffic Safety

9no. Parking spaces, including two universal spaces have been provided as part of the proposed development. It is a specific planning policy requirement of the guidelines that car parking ratios should be reduced at all urban locations, and should be minimised, substantially reduced, or wholly eliminated at locations that have good access to urban services and to public transport. In terms of Cosgrave Park, sites within 1,000 metres of existing or proposed high quality public transport – an accessible location – are required to be provided with a maximum of 1.5 parking spaces per dwelling. The provision of 0.82 car parking spaces per dwelling is considered appropriate due to the proximity to the Cosgrave Park high frequency bus stop, increased provision of cycle parking above the development standard requirements and recorded low car ownership rate within the Moyross area.

6 no. visitor bicycle parking spaces will be provided as per the requirements of the Limerick Development Plan 2022- 2028 and for each unit, bicycle parking can be provided en-curtilage. The proposal is considered acceptable.

Furthermore, the site has excellent public transport links given the sites location in relation to the recently approved railway station and the recently relocated bus stop which is located 70m southwest of the site located on Moyross Avenue.

Conservation

The site is not located within or adjacent an ACA. The proposal will not have any undue impact on an Area of Conservation.

Archaeology

The site is not within a Zone of Notification of any archaeological monument. Therefore, there will be no would unwarranted archaeological impact.

Lighting

A public lighting drawing has been submitted showing the proposed public lighting along Moyross Road, Sarsfield Gardens and Cosgrave Park Road. An Outdoor Lighting Report has been prepared by CBS Consulting Engineers and submitted by the applicant. The Roads Department has reviewed the proposal and is satisfied with the information submitted.

Services

The proposed water supply to the development will be in accordance with the previous grant of permission (planning ref: 158003) with an extension of the existing watermain infrastructure from Moyross Road and Sarsfield Gardens Road. The proposed wastewater system is a gravity system with effluent conveyed by a gravity feed to the existing outfall on site. Due to site levels and the extent of the existing wastewater network, wastewater from units No. 1 & 2, and unit No. 20, 21 & 22 will discharge into the existing 225mm combined sewer network within Cosgrave Park. It is also proposed that Units 3 - 19 will be collected via a local network extension and discharged into the existing 300mm foul sewer on Moyross Road.

Surface Water and Sustainable Urban Drainage Systems (SuDS)

As per LDP policy on surface water drainage, a sustainable urban drainage system will be incorporated into the design to manage surface water across the site. Due to the proposed site layout and nature of the site, it is proposed to provide rainwater butts to the rear of all units with permeable paving to Unit 22 prior to discharge to the stormwater system and attenuation. The Roads Department has reviewed the proposal and is satisfied with the information submitted.

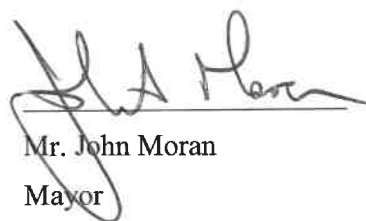
Flooding

The site is not within a flood zone as per the Council's GIS database.

8.0 Conclusion

Overall, the proposal is in accordance with the relevant policies and objectives of the Limerick Development Plan 2022-2028 as it will activate an underutilised city site and provide additional housing units within an existing residential area. This is an infill site which is suitable for residential development, and overall, it is considered that the proposal will have a positive benefit for this location.

Having regard to the foregoing evaluation and the reasons and considerations as set out, the proposal is considered to be in accordance with the objectives of the Limerick Development Plan, 2022 - 2028 and the proper planning and sustainable development of the area. Pursuant to Section 179(3)(a) of the Planning and Development Act 2000 (as amended) the proposed development is recommended to be proceeded with as proposed in the report to the Elected Members of Limerick City & County Council.



Mr. John Moran

Mayor

Limerick City & County Council

Date: _____

Appendix 1 – Internal Reports



Planning Application Internal Report

Planning Ref: PT8LL283
Applicant: Part 8
Development Address: Cosgrave Park, Moyross, Limerick

Development Description: The development will consist of 22 dwelling units, comprising: A three-storey terraced block fronting onto Moyross Road, Sarsfield Gardens and Cosgrave Park consisting of; ten three-bedroom, five-person maisonettes, two of which are designed to Universal Design Standards, and nine two-bedroom, three-person apartments; and a two-storey block, consisting of a two-bedroom four-person maisonette and two one-bedroom two-person apartments, on the corner site fronting onto Sarsfield Gardens and Cosgrave Park; all of which are provided with own door access. The proposed development also includes: Upgrades to the Sarsfield Gardens / Cosgrave Park public realm in the form of hard landscaping, provision of 9 no. on-street parking spaces, provision of 6 no. cycle parking spaces and adjustment to road junctions; Inclusion of two universal access parking spaces to Moyross Road in lieu of existing standard spaces; and Provision of services and utilities upgrade to facilitate the proposed development including: water, electricity and comms supplies; new foul sewage and storm water connections to the public mains at Cosgrave Park, Moyross, Limerick.

Report Prepared By: Tony Carmody
Date: 05.11.2025

Comments:

The Road Section has assessed the proposed Part 8 Application under the following criteria:

1. Roads & Footpaths
2. Lighting Arrangements
3. Surface Water & SuDs Management

The Road Section confirms that we are satisfied with the information submitted.

Signed



Tony Carmody

Date: 05.11.2025

Planning Application Internal Report (Part 8)

Planning Ref: Part VIII, Cosgrave Park, Moyross,

Applicant: LCCC

Development Description:

The applicant, Limerick City and County Council proposes to develop a 20-unit housing development at Cosgrave Park, Moyross, Limerick. The project represents Phase 2 of a larger 50-unit housing development, with Phase 1 (30 units) already completed.

The development will consist of:

- A three-storey block comprising 19 units, typically consisting of single-storey apartments over two-storey dwelling units. This block will form a defined edge fronting onto Moyross Road.
- One separate two-storey dwelling.

Report Prepared By: Seán Doyle, MSc., BSc. Hons - Ecologist.

Comments:

An AA and EIA screening were submitted as part of this proposal.

The AA screening screens out the project for potential impacts to European sites. This is considered an appropriate and accurate conclusion. The proposal is suitably ecologically separated from the SAC and SPA habitats.

The EIA screening screens out the proposal for full EIA. It is considered that there is no ecological reason for this proposal to trigger full EIA.

Recommendation:

There is no ecological reason to refuse planning permission for this proposal.

The use of swift bricks and other biodiversity enhancement measures would be a welcome inclusion in the final output of the proposal.

Signed: Seán Doyle MSc., BSc. Hons. - Ecologist **Date:** 07/11/2025

