

Contextual Background Paper to Proposed Amendment No. 8

Building Height & Density Review,

including Related & Ancillary Amendments

(Urban Design, Green Infrastructure, Amended Appendix E Tufa Springs Mitigation Requirements , New Appendix H Indicative Street Sections showing Proposed Maximum Building Heights and New Appendix I Guidance with regard to Sunlight and Daylight Assessment of Proposed Developments).

To

Cherrywood Planning Scheme 2014

(as amended)

May 2021



1.0 INTRODUCTION

Proposed Amendment No. 8 to the Cherrywood Planning Scheme primarily relates to the following:

- **A review of the building heights** in the Cherrywood Planning Scheme and proposals to alter these building heights where appropriate in response to **SPPR 3 of the Urban Development and Building Height: Planning Guidelines for Planning Authorities, DHPLG, 2018.**
- **An Urban Design Report** which provides an evidence-based rationale for the increased building heights proposed as part of this Amendment - **LOCI Background Technical Guidance Document.**
- **An infrastructure review** having regard to the carrying capacity of the physical and social infrastructure to serve Cherrywood.
- **A review of the SEA and AA Screening Reports** having regard to the environmental sensitivities in the Planning Scheme area .
- **Amendments to Map 2.3 Building Heights** indicating where additional height may be accommodated and showing an increase in height from 3 to 4 floors on 4 school sites. No other changes are proposed to this map. This map reflects **Amendment No. 7 of the Cherrywood Planning Scheme 2014 (as amended) -Beckett Road Re-alignment and Ancillary Amendments as approved by An Bord Pleanála on the 14th of April 2021, ABP Case Number: ABP-308753-20.**
- **A review of the density ranges,** resulting in an increase in the maximum permissible density for each range in the Cherrywood Planning Scheme. This results in an increase in the maximum permissible number of dwellings in the Planning Scheme area to circa 10,500 dwellings noting that the Apartment Guidelines 2015 and 2018 resulted in reduced gross and net apartment floor areas from those used in the original Planning Scheme.
- It is **not proposed to increase the permissible floor area quantum of high intensity employment, commercial uses, retail or non-retail services as part of this amendment.** It is proposed to increase the building heights on 4 of the 6 school sites which will in turn allow for greater classroom capacity to support the proposed increase in residential density in the Planning Scheme area. DAPT have consulted with the Department of Education and Skills . Please refer to the letter of support as part of this Amendment submission.
- **An update to Table 5.1:** Main Classification of Open Space, under Chapter 5 of the Planning Scheme **to reflect an increase in the maximum figure for Class 1 Open space from 29.5 ha to 32 ha** (as permitted by planning application DZ16A/0570).
- **A review of policy relating to urban design** in the Planning Scheme in relation to **Section 2.8 Urban Form** to support the changes proposed to density and building height.
- **Amendments and additions to Section 2.9 Building Heights** including:
 - Amendments to section 2.9 Building Height to include text on maximum residential and commercial floor to ceiling heights and allowing for greater flexibility in roof design and architectural expression.
 - Amendments to Map 2.3 Building Heights.

- The deletion of Table 2.11: Building Height Ranges.
- New Section 2.9.1 Criteria for Assessing Building Height
- **Consequential Amendments to a number of tables throughout the Planning Scheme relating to residential development quanta and building height.**
- **Amendments to Appendix E: Phase 1 Hydrogeology Assessment of the Cherrywood SDZ** to include the results of a hydrogeological study carried out on behalf of DLRCC by JBA Consulting in relation to the Catchment Sensitivity Zone of Tufa Spring No. 5 and the addition of supporting policy for the development of sites within this Catchment Sensitivity Zone in Development Area 1 Lehaunstown, Development Area 4 Domville and Development Area 8 Tully.
- **Insert New Appendix H: Indicative Street Sections showing Proposed Maximum Building Heights.**
- **Insert New Appendix I: Guidance with regard to Sunlight and Daylight Assessment of Proposed Developments** noting the proposed increases in building height and residential density as part of the proposed amendment.

2.0 BUILDING HEIGHT IN THE CHERRYWOOD PLANNING SCHEME

The review of the Building Heights in the Cherrywood Planning Scheme is in response to the provisions of the new Planning Guidance ,Urban Development and Building Height: Planning Guidelines for Planning Authorities, DHPLG, 2018. In this regard SPPR 3 (Part B) of the Guidelines require the following:

'It is a specific planning policy requirement that where;

(B) In the case of an adopted planning scheme the Development Agency in conjunction with the relevant planning authority (where different) shall, upon the coming into force of these guidelines, undertake a review of the planning scheme, utilising the relevant mechanisms as set out in the Planning and Development Act 2000 (as amended) to ensure that the criteria above are fully reflected in the planning scheme. In particular the Government policy that building heights be generally increased in appropriate urban locations shall be articulated in any amendment(s) to the planning scheme.

Loci, who specialise in urban design and planning, were commissioned by Dun Laoghaire Rathdown County Council to carry out an independent review of the Building Heights in the Cherrywood Planning Scheme from an urban design perspective and to prepare a Background Technical Guidance Document on Building Heights in the Cherrywood Planning Scheme.

Loci carried out the review having regard to the specific characteristics of Cherrywood and other relevant ministerial guidelines and statutory provisions and best practice, including, inter alia, the following:

- The National Planning Framework, 2018;
- The Urban Development and Building Heights Planning Guidelines, December 2018;
- The Sustainable Urban Housing: Design Standards for New Apartments, March 2018;
- The Cherrywood Planning Scheme, 2014 (CPS), as amended in 2018;
- The Cherrywood Town Centre Urban Form Development Framework (UFD); and
- Best practice urban design principles (Urban Design Manual, 2009, Design Manual for Urban Roads and Streets, 2013 etc.).
- Quality Housing for Sustainable Communities: Best Practice Guidelines for Delivering Homes, Sustaining Communities, DCLG, 2007;

The Background Technical Guidance Document prepared by Loci provides:

- A robust methodology to enable a systematic approach for review of building heights;
- Outlines the Key Governing Principles for Building Heights to apply across the Cherrywood Planning Scheme;
- Reviews the capacity of the 4 no. Town Centre Quadrants to accommodate additional height and the impact this may have on the UFD.
- Gives consideration and design guidance for the Village Centres.
- Makes recommendations are possible locations for additional building height.

The Loci Background Technical Guidance Document concludes that whilst the building height ranges in the approved Planning Scheme are in accordance with National, Regional and Local Policy, it recommends that some increases in building heights could be considered on urban design grounds where such additional height would not impact on existing surrounding development, particularly existing residential development within and surrounding the Planning Scheme area and where such building height increase would not impact on sensitive sites (protected structures, sites with

protected fauna or flora) and would retain the protected views as outlined under Section 2.11 of the Planning Scheme.

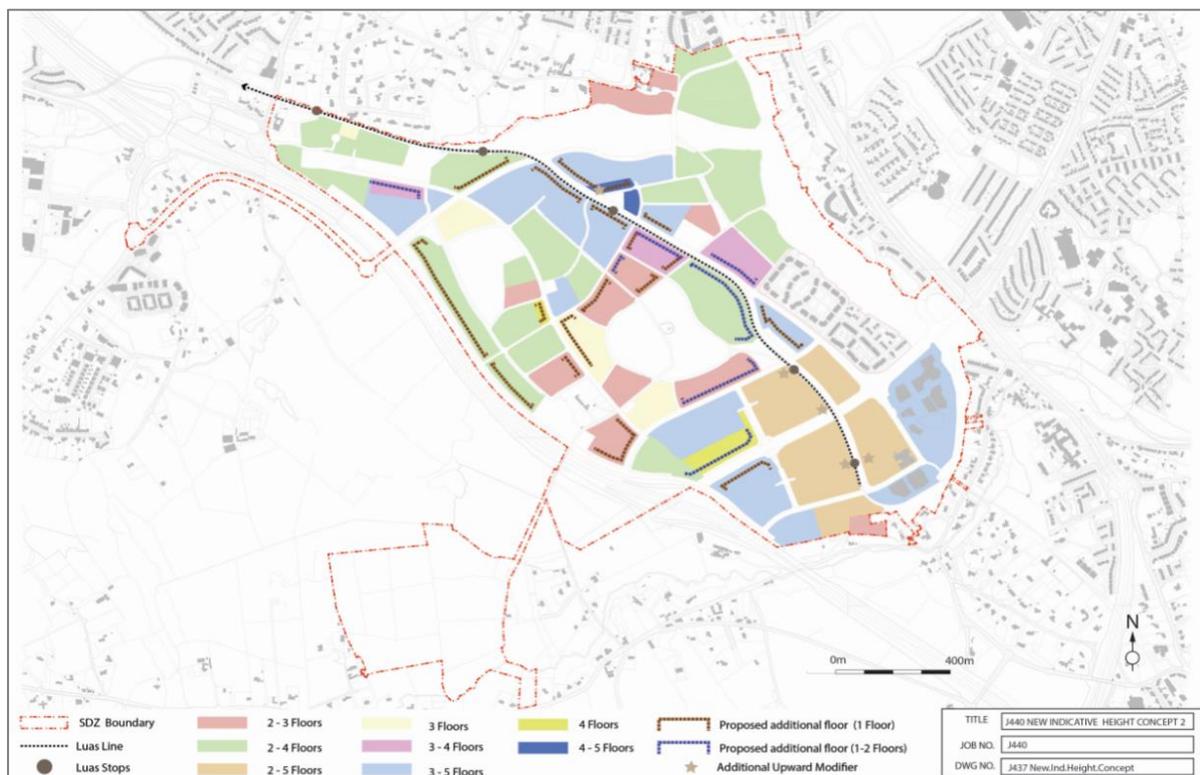
Chris Shackleton Consulting (CSC) were commissioned to carry out a Skylight, Daylight and Sunlight Review of the Town Centre Quadrants to investigate what increases in height on these sites would do to the private, communal and public open spaces associated with these sites based on their most up to date masterplans. A copy of the CSC report, Cherrywood Town Centre Building Height Review, Skylight, Sunlight and Shadow Analysis.

JBA Consulting were also commissioned to carry out a review and update of Appendix E of the Planning Scheme which refers to Hydrogeology and the protection of Tufa Springs in the Planning Scheme area. JBA carried out extensive site investigations on the catchment area of Tufa Spring No. 5 in Spring 2019. Based on the findings of these site investigations, it is now required to update Appendix E of the Planning Scheme and a number of associated Specific Objectives in the Planning Scheme document. The report on the site investigations carried out by JBA, dated May 2019, is included as part of this amendment package for information purposes.

2.1 Loci REPORT – RECOMMENDATION FOR ADDITIONAL HEIGHT

Map 1 below shows the locations where the Loci Background Technical Guidance Document recommends that additional building height may be accommodated in the Planning Scheme Area. The Loci Document recommends that the base building height map as illustrated under Map 2.3 of the Planning Scheme to remain as approved with additional height located in the areas indicated by brown and blue dotted lines to allow for better street enclosure and improved urban design.

Map 1: Proposed Additional Building Height in the Cherrywood Planning Scheme.



The building heights illustrated on this map will only be permitted where it is demonstrated as part of a planning application that they accord with the new Criteria for Assessing Building Height in the Planning Scheme which will be inserted under a new section 2.9.1 which is also proposed to be inserted into the Planning Scheme main text as part of this proposed amendment.

Please refer to the full Loci Background Technical Document included as part of this Amendment package for full detail on this independent review of the building heights in the Cherrywood Planning Scheme and the full rationale behind the locations for proposed increases in building height.

The Loci document also includes a number of street sections showing proposed additional height in relation to the streets and roads it is proposed along. These street sections will be included in the Planning Scheme under a new appendix. Please refer to the Loci Background Technical Guidance Document and Amendment Document for detail.

The amendment Map 2.3 Building Heights, in the Amendment Document including as part of this Amendment Pack, reflects Amendment No. 7 of the Cherrywood Planning Scheme 2014 (as amended) -Beckett Road Re-alignment and Ancillary Amendments as approved by An Bord Pleanála on the 14th of April 2021, ABP Case Number: ABP-308753-20.

2.2 CHERRYWOOD TOWN CENTRE

2.2.1 Loci Background Technical Guidance Document

It is noted that the Loci Background Technical Guidance Document recommends no additional height for the 4 no. Town Centre Quadrants for the following reasons:

- The development of the Town Centre is subject to the **UFD (Urban Form Development Framework)** which was a pre-requisite of An Bord Pleanála when the Planning Scheme was approved in 2014. In this regard please refer to Appendix 1 of this document: Modification No. 1 of the Bord Order approving the Cherrywood Planning Scheme.
- The UFD for Cherrywood Town Centre was the subject of a 2 year long collaborative process between the Cherrywood Development Agency Project Team and the Landowners of the Town Centre sites at the time. It was approved in 2017 and the first planning application for the Town Centre was lodged in September of the same year. The design and layout were subject to detailed proposals and studies with regard to environmental and amenity aspects but particularly with regard to microclimate, sun lighting and daylighting impacts. In this regard please refer to the **Cherrywood Town Centre Building Height Review -Skylight, Sunlight and Shadow Analysis, carried out by Chris Shackleton Consulting (CSC)** on behalf of the DAPT. This document examines and illustrates the impact increased height would have on the private and communal open spaces associated with residential development, as well as the impacts on light in some apartments in the Town Centre.
- 3 of the 4 quadrants of the Town Centre, namely TC1, TC2 and TC3 have permitted planning applications on them. **TC2 and TC4 are currently under construction and are well advanced, while excavation has started on the TC1 site.** These 3 sites have been granted planning permission close to the maximum quanta and plot ratio (circa 1: 2.3) permissible for these sites and it is considered that any further development quanta on these sites would be limited, even if building heights were increased as it is likely that amenity would decrease in such a scenario or permitted building heights would need to be reduced on the southern sides of these permitted urban blocks to allow an acceptable level of sunlight and daylight into amenity spaces and apartments.
- Planning permission has also been granted on the southern part of **TC3** under Reg. Ref. DZ20A/0052 for 194 Build to Rent Apartments and 13,475 sq.m of High Intensity Employment Floor Area.
- In this regard the building height review does not make specific recommendations for changes to building height controls **where it is clear that substantial baseline environmental and amenity studies would need to be carried out as would be the**

case for the Town Centre. It is noted on P.30 of the Loci Background Technical Guidance Document , which is submitted as part of this amendment pack, states that *"the analysis suggests that any increase in building height in the Town Centre based on the current street and space network and block layout would result in a deterioration in sun lighting and daylighting conditions. A substantial and comprehensive review of the street and space network and the sizing and shaping of urban blocks, streets and spaces would, therefore, be required before additional height could be considered in the Town Centre"*. This would require a complete review of the UDF for Cherrywood Town Centre which was a prerequisite of the Planning Scheme inserted by An Bord Pleanála.

- Building Heights in the permitted **Town Centre** currently range from **3-9 storeys**.
- The Loci Background Technical Guidance Document has assessed the UDF against the Criteria outlined in the **Building Height Guidelines** for increased height and concludes that the **Town Centre is already in line with these Guidelines**.

2.2.2 CSC (Chris Shackleton Consulting)Cherrywood Town Centre building Height Review, Skylight , Sunlight and Shadow Analysis

- The Background Technical Report prepared by **CSC** also sets out an evidenced-based rationale to restrict additional height in the Town Centre having regard to **micro-climate analysis and modelling of scenarios for additional floors on each of the Town Centre Quadrants**.
- The Report advises that that the design and layout of the permitted blocks on **TC1, TC2 and TC4** maximised the height and plot ratio of these sites to the limit and any **increases in height would impact on the quality of ground level amenity spaces** which would be in shade for much of the year resulting in substandard communal open space.
- In terms of **TC3**, the findings indicate that in common with the analysis for TC1, 2 & 4 additional floors have a **negative impact on the penetration of sunlight to the amenity spaces at ground level** and it would appear that most recent design for this site had iterated the design to balance height and amenity constraints with achieving the maximum development quantum for this site.
- Overall, the CSC Report notes that **the design and building heights as permitted to date under the Town Centre Application DZ17A0862 for TC1, TC2 and TC4, and currently proposed under DZ20A/0052 for TC3, have already been well iterated** at the design stage to achieve the maximum height and density/plot ratio while maintaining the minimum required light at ground level.
- The CSC report concludes that **the provision of additional height in the Town Centre is therefore not recommended** as it would appear from their preliminary analysis of the permitted and proposed residential blocks that this would impact on the ground level amenity spaces resulting in them been largely in shade for much of the year and therefore resulting in an amenity space serving these apartments which would be substandard and contrary to the UDF and relevant Government Guidelines. Additionally, the **lower-level apartments in these blocks already had a number of apartments with low ADF and sunlight (living rooms and balconies) and they would likely be similarly impacted**.
- CSC assisted in writing a short technical guidance note which is proposed to be inserted under a new **Appendix I : Guidance with regard to Sunlight and Daylight Assessment of Proposed Developments** noting the proposed increases in building height and residential density as part of the proposed amendment

2.2.3 DAPT Analysis – Approved Amendments 1-4 to the Cherrywood Planning Scheme

Furthermore, DAPT wish to advise that the Town Centre sites received a circa **28% uplift** in dwelling numbers under **Amendment 1-4 which was approved by An Bord Pleanála in 2017**. This uplift was in response to the Apartment Guidelines 2015 which resulted in a reduced minimum gross and net floor area for apartment, from that which was used in the original Planning Scheme. The 3 no. Village centres also received an uplift in dwelling numbers of circa 25-30% each as part of the same approved amendment, however the Loci Background Technical Guidance Document recommends that **some of the Village Centre sites could still benefit from increased height on urban design grounds** and also noting that none of these sites have been developed to date. The floor area of residential development in the Village Centres has therefore been increased to reflect this.

3.0 DENSITY REVIEW

The carrying capacity of the infrastructure in the Cherrywood Planning Scheme is underpinned by a series of traffic studies and the Cherrywood Common Infrastructure Implementation Plan. The provision of social infrastructure such as schools and Class 1 open space is also based on the maximum residential population of the Planning Scheme and any increases in residential quanta and residential population requires an incremental increase in the provision of this social infrastructure so as to ensure that Cherrywood evolves as a sustainable community.

The Draft Planning Scheme had a carrying capacity for circa 10,000 dwellings and up to 350,000sq.m of High Intensity Employment floor area (1 employee per 20sq.m) based on an ambitious modal split of 45% private car to 55% sustainable travel modes (public transport, walking, cycling, car share).

The carrying capacity of the surface water and foul drainage infrastructure was also based on this carrying capacity as well as social infrastructure such as parks and schools, noting that the schools will also use these adjacent parks as part of their open space.

However, due to the economic climate at the time of the drafting of the Planning Scheme (2010 - 2012) a number of submissions were made, including from landowners at the time, requesting that densities be significantly reduced in the Planning Scheme.

DLRCC took note of these submissions and reduced the densities in the Draft Planning Scheme by circa 20% to circa 8,200 dwellings but did not reduce the maximum or minimum proposed densities any further as it would have resulted in a level of residential development which was not sustainable having regard to the level of public investment already made in Cherrywood with regard to the provision of the LUAS through the Planning Scheme and also with regard to the level of social and physical infrastructure proposed to serve this newly emerging residential and mixed use area. It was also noted that the build out of the Cherrywood Planning Scheme would outlast the economic recession at the time and would be subject to a number of economic cycles during its lifetime.

With the introduction of the new **Apartment Guidelines in March 2018** it is now proposed to increase the residential densities in the Planning Scheme, primarily on Res 3 and Res 4 sites which will accommodate predominantly apartment type development. This would be in line with Government Guidelines and Policy and would result in a maximum net density across the residential zoned lands in Cherrywood of circa 102 dph.

In this regard the following changes (text in red) to the 4 no. residential density ranges in the Cherrywood Planning Scheme are proposed:

Density Type	Land Area HA	% Split	Min Density Range*	Max Density Range*	Min Units	Max Units
Res 1	3.9	5%	35	50 55	137	195 215
Res 2	44.5	58.5%	45	70 75	2,003	3,073 3,338
Res 3	21.8	28.5%	65	100 145	1,417	2,130 3,161
Res 4	5.9	8%	85	125 175	502	738 1,033
Mixed Use Areas	N/a	N/a	N/a	N/a	Circa 1,596	Circa 2,050 2,160
Developed to date	N/a	N/a	N/a	N/a	600	600
TOTALS	76	100%	-	-	Circa 6,255	Circa 8,786 10,500

It is noted that the increase in residential densities on the Res 1 and Res 2 sites is smaller than that proposed on the Res 3 and Res 4 sites for the following reasons:

- The Res 1 sites of which there are 3, are either located adjacent to sensitive sites such as protected structures or valleys, have difficult terrain, and coincide with protected view designations or were partially developed at the time of the making of the Planning Scheme but were required to provide an access point/link into the Planning Scheme area from the surrounding environs. The Res 1 sites account for just 3.9 ha/5% of the residential zoned lands in Cherrywood.
- The Res 2 sites will accommodate lower density development when compared to Res 3 and 4 sites to ensure a wide range of housing typologies including traditional housing forms, while still accommodating some higher density apartment or duplex development noting that a mix of dwelling types are required to ensure that Cherrywood evolves as an inclusive and sustainable community.
- In addition, many of the Res 2 sites are located within the view corridor/transects of protected views and vistas and present challenges with regard to terrain or proximity to development sensitive sites.
- Res 3 and Res 4 sites are located directly adjacent to Luas stops and services located in the Town and Village Centres. These higher density sites are relatively flat compared to many other sites in Cherrywood therefore making them suitable for higher density development.
- Furthermore, the Res 3 and 4 sites are located away from more development sensitive sites such as schools, protected structures, National Monuments and sites which are located within the view corridor/transects of the protected views and vistas listed under Section 2.11 of the Cherrywood Planning Scheme. A copy of these views and transects are included in the Loci Report.

In terms of apartment sizes, Amendment 1-4 which were approved by An Bord Pleanála in June 2017 (noted above and below) and the current proposed amendment have reduced the average gross and net floor area of apartments in line with Government Guidelines from a gross apartment size of 120 sq.m which was utilised in the drafting of the original Planning Scheme approved in 2014, to a gross apartment size of 94sq.m based on the Design Standards for New Apartments 2018. This is reflected in the densities now proposed in the Planning Scheme.

To note, Amendments 1-4 to the Cherrywood Planning Scheme, has already provided an uplift of circa 28% in the number of dwellings which could be accommodated in the Town and Village Centre sites while maintaining the maximum proposed residential floor area and overall maximum plot ratios of these sites. This was due to the introduction of the new Apartment Guidelines in 2015 which allowed for smaller minimum apartment sizes (as noted above) and an increase in the number of dwellings which could be accessed from each stair/lift core.

It is not proposed to further increase the number of dwellings proposed for the Town Centre Quadrants. An increase is proposed in the 3 Villages Centre sites which reflects additional height and a subsequent potential increase in the maximum residential floor area which may be accommodated on these sites.

The following table shows the level of development currently permissible on the 4 no. Town Centre sites in terms of residential density in addition to the level of non-residential development permissible on these sites. It is considered that these sites have been calibrated to meet their maximum development potential given this is a suburban location and having regard to the design process leading to the publication of the Cherrywood Town Centre UDF. This is also supported by the Loci Background Technical Guidance Report and the Skylight, Sunlight and Shadow Analysis Report for Town Centre Quadrants prepared by CSC Consulting, both of which do not recommend any increase in height within the Town Centre.

Town Centre Site	Max Development Quanta under the Approved Planning Scheme	Maximum Plot Ratio
TC1	80 dph + 64,500 sq.m non-residential development.	1:2.3
TC2	183 dph + 11,800 sq.m non-residential development.	1:2.3
TC3	66 dph + 88,900 sq.m non-residential development.	1:2.3
TC4	119 dph + 47,709sq.m non-residential development.	1:2.2

This current proposed Amendment allows the maximum permissible number of dwellings in the Planning Scheme to increase to 10,500. The figure of 10,500 dwellings units has been considered in the AA and SEA scoping carried out by CAAS Ltd for the purposes of this amendment and results in an uplift of circa 24% in the number of dwellings which may be accommodated on the residential zoned sites in Cherrywood which is reflective of the 22% decrease in gross apartment floor areas.

The SEA & AA Screening Assessment both conclude that this proposed amendment would not likely result in significant environmental effects or give rise to any effect on the ecological integrity of any European sites alone or in combination with any other plans, programmes, projects etc and consequently a Stage 2 AA is not required to be undertaken for this Proposed Amendment. However, if Cherrywood were to be developed beyond 10,500 dwellings, a revised SEA and AA would need to be undertaken, as well as a comprehensive review with regards to the carrying capacity of the physical and social infrastructure to support an emerging sustainable community as well as a comprehensive review of the environmental studies which also underpin and support the current Planning Scheme. The DAPT consider that any additional increases in development quantum beyond what is now proposed would also require extensive engagement with a number of relevant statutory agencies (inter alia, NTA, TII, DES, IW, NPWS, NMS, OPW).

Planning permission has been granted on a number of sites in Cherrywood to date for residential development and a review of permissions indicate that not all applicants/developers are seeking to achieve the maximum density permissible on their respective landholdings.

A variance in densities, typologies and design responses across the Planning Scheme is welcomed by the DAPT as it affords flexibility to developers and allows for design variation and a wider variety of home types and development characteristics across the Planning Scheme area. This will make Cherrywood a rich, diverse and inclusive neighbourhood with homes provided for all types of household formations at all stages of life.

4.0 CARRYING CAPACITY OF PHYSICAL AND SOCIAL INFRASTRUCTURE IN CHERRYWOOD

The Planning Scheme is currently approved for up to circa 8,878 dwellings and 350,000sq.m of HIE. The DAPT are very cognisant that the physical infrastructure to support the development of the Planning Scheme area could accommodate just over circa 10,000 dwellings and 350,000 sq.m HIE, as per at the time of the preparation of the Draft Planning Scheme.

Residential and High Intensity Employment are the two land uses which are the main trip generators on roads and public transport as well as been the 2 main users of social infrastructure in an area. The carrying capacity of the physical infrastructure in the Planning Scheme area was derived from the traffic modelling studies to establish the carrying capacity of roads and public transport infrastructure in the area. Similarly, the green infrastructure and social infrastructure was calculated to ensure an appropriate and commensurate level to support the emerging population so as to ensure the sustainable development of the Planning Scheme Area.

The following section provides a background to the calculation of the carrying capacity of the Physical and Social Infrastructure proposed to serve the Cherrywood Planning Scheme and an overview of the densities now proposed as part of this amendment.

4.1 PHYSICAL INFRASTRUCTURE

This section will focus on the physical infrastructure in the Planning Scheme Area consisting of Roads, Surface Water, Water Supply and Foul Surface Water Drainage Infrastructure

4.1.1 ROADS INFRASTRUCTURE

4.1.2 MOUCHEL PARKMAN TRAFFIC MANAGEMENT PLAN 2007

In May 2005 DLRCC commissioned Mouchel Parkman to prepare a Traffic Management Plan (TMP) for the Cherrywood-Rathmichael Area the purpose of which was:

- to guide how the capacity of the existing road network would be optimised and managed,
- to determine the need for new transport infrastructure to facilitate predicted development growth and;
- to define the maximum scale of development that would be sustainably supported by transportation infrastructure.

Following consideration of the surrounding road network capacity, the upgrade potential of the public transport network and the predicted characteristics of the residential and employment populations, the Mouchel Parkman TMP (January 2007) recommended a maximum development quantum of 14,700 residential units and a maximum employment quantum of 293,000 m² for Cherrywood.

However, a number of concerns were raised with regard to the Mouchel Parkman study not only by the landowners but also by the NRA (National Roads Authority) at the time with regard to the M50 and limited capacity of the Carrickmines Interchange and the inability to upgrade it in the future due to archaeology in the area.

There were also concerns with regard to problems with queuing at the Lehaunstown interchange and the N11/M11 merge.

4.1.3 THE CHERRYWOOD COMMON INFRASTRUCTURE IMPLEMENTATION PLAN 2008

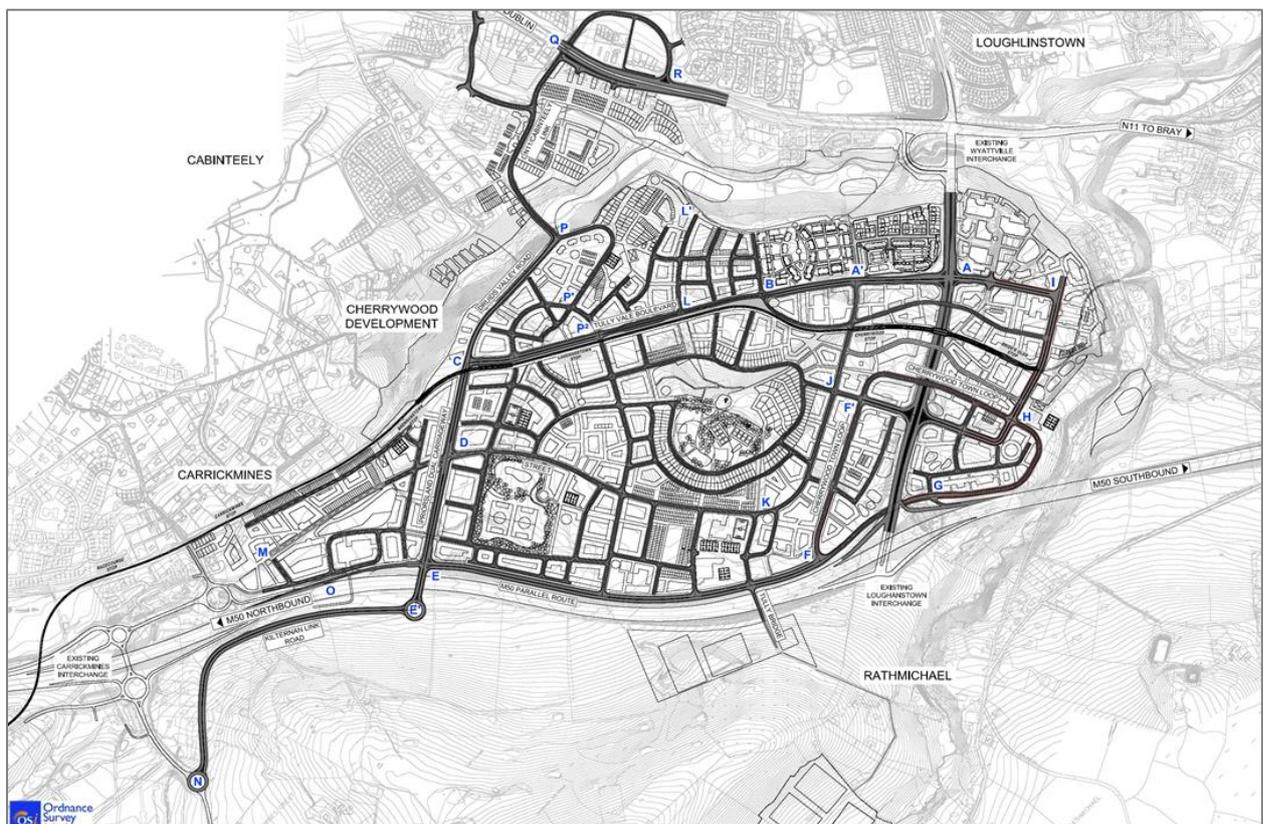
In March 2008 DLRCC commissioned RPS Consulting Engineers to assist in developing a Cherrywood Common Infrastructure Implementation Plan (CIIP) that would ensure a strategic approach to the development of the Cherrywood area.

The CIIP Plan included supporting elements such as schools, retail, parks, churches and community buildings but the main focus was on the carrying capacity of the roads infrastructure to support residential and high intensity employment development given these are the biggest trip generators and users of physical and social infrastructure.

Details regarding the level of social infrastructure (schools, parks, services) required to serve the future population were not refined at this stage with the focus been on physical infrastructure, particularly roads.

The transportation infrastructure identified in the CIIP gave practical expression to the TMP prepared by Mouchel Parkman and is detailed on drawing DG0006 reproduced below.

FIGURE 1: Roads Layout in the Cherrywood Infrastructure Implementation Plan



The headline figures of development which could be supported were as follows:

- 12,451 new residential dwellings
- 356,493 sq.m HIE floor area

4.1.4 CHERRYWOOD TRAFFIC STUDY – UPDATE OF TRAFFIC MODEL 2010

DLRCC subsequently appointed RPS in October 2008 to update the Cherrywood local area SATURN model and to conduct various scenario testing to verify that the existing and proposed road

infrastructure would be adequate to cater for the phased development of Cherrywood as set out in the Cherrywood Common Infrastructure Implementation Plan.

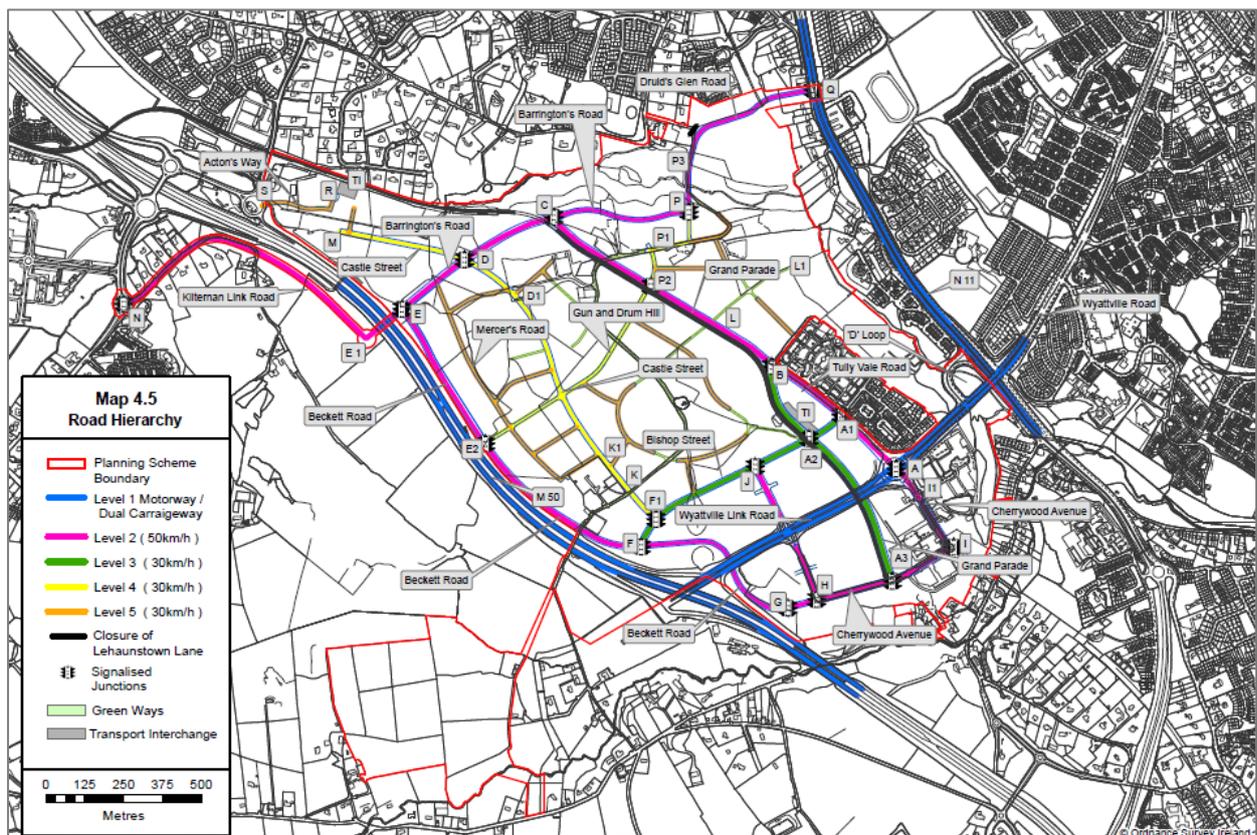
The results of this traffic modelling work are documented in the “Cherrywood Traffic Study – Update of Traffic Model” completed by RPS in May 2010.

The Cherrywood Traffic Study -Update Traffic Model 2010 made a series of recommendations with regard to the road’s infrastructure (including layout and cross sections), as well as public transport, modal split, cycling etc.

The traffic modelling studies carried out by RPS on behalf of DLRCC prior to the drafting of the Planning Scheme, indicated that the transportation infrastructure proposed, including public transport infrastructure, had a carrying capacity for the number of trips that would be generated by circa 10,000 dwellings and up to 350,000sq.m of High Intensity Employment floor area based on a modal split of 45% private car to 55% sustainable travel modes (public transport, walking, cycling, car share).

Map 4.5 below is taken from the Planning Scheme and shows a refinement of the roads infrastructure provision from what was presented in the CIIP, based on the recommendations from the updated RPS Traffic Model from 2010. This map reflects Amendment No. 7 of the Cherrywood Planning Scheme 2014 (as amended) -Beckett Road Re-alignment and Ancillary Amendments as approved by An Bord Pleanála on the 14th of April 2021, ABP Case Number: ABP-308753-20.

FIGURE 2: Map 4.5 Roads Hierarchy in the Approved Cherrywood Planning Scheme.



The following is a non-exhaustive list of road infrastructure that was reduced in cross-section or omitted entirely from the Implementation Plan into the adopted planning scheme.

- Brennanstown Link Road

- N11 Grade Separated Interchange at Q
- M50 Southbound off-ramp to E
- M50 Southbound on-ramp from Beckett Road (between F and G)
- Cherrywood Town Loop F-F'-H
- Reduction to cross-section/ number of lanes on Grand Parade, Barrington's Road and Beckett Road
- Reduction in the number of Streets / Neighbourhood Roads

This refinement of the road's infrastructure was carried to balance the cost of this proposed infrastructure with the development quantum carrying capacity it would provide and also to ensure that Cherrywood was not overengineered in terms of roads provision.

4.1.4.1 Public Transport - Sustainable Transport

As noted under Section 4.1.4 above and as outlined under Chapter 4 of the Cherrywood Planning is predicated on the premise of sustainable transportation modes such as walking, cycling, Luas, busconnects etc. The Planning Scheme seeks to constrain work related commuting so as to achieve a transport modal split of a maximum of 45% of trips by car drivers and a minimum of 55% of trips by sustainable modes.

Table 7.3 of the Planning Scheme sets of the phasing and sequencing of Transportation Infrastructure to support development in Cherrywood and includes specific provision for improved Pedestrian and Cycle Infrastructure across all 8 of the Development Areas which collectively make up the Cherrywood Planning Scheme area. No changes are proposed to Table 7.3 of the modal split as outline under Section 4.1.4 of the Planning Scheme.

To note, DAPT have consulted with the NTA and TII with regard to this proposed Amendment. Please refer to letters of support which accompany this Amendment submission.

4.1.5 WATER SUPPLY:

At the time of the drafting of the Cherrywood Planning Scheme, the area was reliant on the existing reservoir at Rathmichael which could provide adequate local storage to service the full development of Cherrywood as envisaged in the Draft and Approved Planning Scheme (350,000 sq.m HIE and 10,000 dwellings). However, it was noted at the time that the supply to the reservoir was reliant on the Roundwood/Vartry Water Treatment Works. The ongoing Development of Cherrywood was therefore always dependent on upgrade of the Vartry Reservoir.

Irish Water have confirmed with the Cherrywood Development Agency Project Team that this upgrade is currently in progress and is likely to be completed in the third quarter of 2021. Given the increase in dwellings numbers from the time of the Draft Planning Scheme at circa 10,000 dwellings to what is now proposed under this current amendment and the concurrent Beckett Road Re-alignment amendment which results in a 5% increase in dwelling numbers, it is considered that the water supply for Cherrywood will be adequate and is at a similar provision requirement as at the time of the drafting of the Planning Scheme and now with the benefit that the upgrade of the Vartry Reservoir is now in progress and due for completion within the next 12 months.

Applicants/developers for proposed new developments in the Planning Scheme which require a new water connection must demonstrate direct engagement with Irish Water in the form of a pre connection enquiry and confirmation of feasibility as part of their planning application. Developers will also need to secure final approval for a water supply connection from Irish Water prior to the commencement of their permitted development. The DAPT will also continue to have regular engagement with Irish Water noting that Irish Water are the responsible body for water supply and maintenance of the water supply network.

4.1.6 SURFACE WATER:

With regard to surface water, the attenuation and surface water drainage infrastructure has been designed and calibrated to accommodate development in Cherrywood which achieves a maximum run off of 1 litre per second per hectare. In this regard, all development must achieve a maximum run off of 1 litre per second per ha. This is stated under Specific Objective PI 8 of the Approved Planning Scheme.

This must be demonstrated as part of planning applications and conditioned as part of any granted permissions and this requirement remains unchanged as part of this proposed amendment which it is noted includes a proposed increase in residential density, particularly on Res 3 and Res 4 sites

The use of SuDs measures throughout the Planning Scheme area is also required under Specific Objective PI 6 of the Planning Scheme and this remains unchanged as part of this proposed amendment.

4.1.7 FOUL DRAINAGE

The Shanganagh Wastewater Treatment Plant services Cherrywood. The main pipes associated with Foul Drainage were laid as part of Roads Phase 1 development. Applicants/developers for proposed new developments in the Planning Scheme which require a new wastewater connection must demonstrate direct engagement with Irish Water in the form of a pre connection enquiry and confirmation of feasibility as part of their planning application. Developers will also need to secure final approval for a wastewater supply connection from Irish Water prior to the commencement of their permitted development. The DAPT will also continue to have regular engagement with Irish Water noting that Irish Water are the responsible body for wastewater infrastructure network and maintenance of the same.

4.2 SOCIAL INFRASTRUCTURE

Social infrastructure is to the fore of the ethos of the Cherrywood Planning Scheme. The Planning Scheme provides valuable social infrastructure such as green infrastructure, schools, retail and non-retail and community facilities. The following is noted with regard to this current amendment for each of these elements of social infrastructure.

4.2.1 Green Infrastructure

At the time of the drafting of the Planning Scheme, the Dún Laoghaire Rathdown County Development Plan at the time (2010-2016) divided public open space into Class 1 Open Space and Class 2 Open Space which are described as follows:

Class 1 Open Space: provides for active recreation in the form of playing fields and sports ground (these require a critical mass of population/development, usually found in large residential developments to accommodate recreational facilities). At the time of the Approval of the Planning Scheme (2014), the quantum of Class 1 Open Space was calculated based on a rate of 0.8-1.6ha/1000 population. This current Amendment would result in a rate of provision of 1.25 ha per 1000 population of Class 1 Open Space provision. This includes the open space provision for the schools to serve Cherrywood.

Class 2 Open Space: These are more common and are located in and around residential areas providing opportunities for informal recreation, play and nature.

The level of Class 1 Open Space in the Planning Scheme is therefore defined by the projected population for the Planning Scheme area.

In this regard the following table provides a summary of the projected residential population for the Planning Scheme Area from the Draft Planning Scheme to the current proposed Amendment:

	Draft Planning Scheme	Approved Planning Scheme	Building Height/Density Amendment + Recently Approved Road Amendment
Max No. Dwellings	10,073	8,786	10,500
Max Res Population	Circa 25,000	Circa 24,000 (23,722)	Circa 26,000
Household Size	2.5	2.7	2.5

With regard to household size, it is noted that the 2011 Census went against the trend of previous Censuses of decreased household size where there was an increase from 2.5 to 2.7. This was possibly due to the recession at the time and difficulty for people forming new households as a result. It is assumed that average household size will again decline towards 2.5 due to current wider demographic trends, such as lower fertility rates, an aging population plus the coming on stream of new homes. It is likely that the build out of Cherrywood will coincide with a decline in average household size. Therefore, the population estimate based on build out of c.10,500 dwellings is circa 26,000 persons. A Population increase of circa 9.6 % from the permitted Planning Scheme and circa 5% from the Draft Planning Scheme.

When the proposed maximum number of dwellings in the Draft Planning Scheme was reduced under to Approved Planning Scheme, so too was the level of Class 1 Open Space provision.

In this regard it is noted that Ticknick Park has been permitted and constructed slightly larger than originally planned due to the need to avoid archaeology that was previously undetected and therefore can accommodate this additional area of Class 1 Open Space. As a result it is proposed to update Table 5.1 of the Planning Scheme, Main Classification of Open Space, to reflect this increase in Class 1 Open Space from 29.7 to 32.5 ha, an increase of 9.4 % and is a provision of 1.25 ha per 1000 planned residential population, including the open space provision for the schools to serve Cherrywood.

Since the Planning Scheme was approved by An Bord Pleanála in 2014, there has also been a greater emphasis on the development of greenways for walking and cycling and the promotion of ecology/green corridors which enhance not just the environmental health of an area but also look towards improving the physical and mental health of its human population by encouraging walking and cycling.

URDF Funding was secured by the DAPT in November 2018 for the development of the following:

- Tully Park Phase 2 – completion of the remaining 6.6 hectares of this flagship park at the centre of the Planning Scheme area.
- Linear Park (Druid’s Glen Buffer and Lehaunstown Valley) – the upgrading of 32 hectares of natural greenspace.
- Development of circa 6km of greenways and cycleways in the Planning Scheme area.
- The development of 2 major regional attenuation ponds known in the Planning Scheme as Pond 2A and Pond 5A.

The NTA are also supplying funding towards and number of projects for cycle and pedestrian routes which will link Cherrywood with its surrounding environs including the:

- Brides Glen (Cherrywood -Shankill bridge) which forms part of a planned pedestrian and cycle route between Cherrywood and Shankill.

- Cherrywood -Sandyford Greenway.
- Carrickmines (The Park) to Cherrywood Cycle Route.

Collectively all of these routes will become active recreational and commuter routes connecting places within Cherrywood itself and also connecting Cherrywood to the existing surrounding communities.

All of these elements will further compliment the proposed provision of Class 1 Open Space in the Planning Scheme area. In this regard it should therefore be noted that the greenways and their associated pocket parks and village squares in Lehaunstown Village and Tully Village never formed part of the calculation for the public open space provision to serve the future population of Cherrywood, but rather, there were in addition to the planned level of Class 1 Open Space and circa 32 ha of additional natural green space (including the linear park) as illustrated on Map 5.1 of the Planning Scheme.

In addition, each residential development on residential zoned lands in the Planning Scheme must provide quality communal open space including play areas and seating areas. Again, this is in addition to the level of Class 1 Open space provided in the Planning Scheme. With increased densities proposed under this Amendment, the development of quality open space for future residents is all the more important.

4.2.2 Schools

It is also proposed to increase the building heights on 4 out of the 6 school sites in Cherrywood. The Primary School in Priorsland already had a max height of 4 floors and this was considered enough at this location while the Primary School directly adjacent to Tully Park is within the protected view line between Tully Church and its Environs and Lehaunstown Park House and an increase in height at this location would obscure this view.

To note, the level of provision of education facilities was not reduced between the Draft Planning Scheme and the Approved Planning Scheme in line with the reduction of residential dwellings, as flexibility was already built into the size/capacity of the schools which could be accommodated on these sites. The proposed increased height on 2 of the Primary and the 2 Post Primary Schools will allow for an increase in the capacity of these school sites if required, in line with the proposed increased number of new homes proposed in the Planning Scheme as part of this Amendment. It will also serve to give these buildings the opportunity to create a civic focal point.

These amendments to the school sites have been subject to consultation with the DES (Department of Education and Skills) who are satisfied that there is sufficient school capacity in Cherrywood to cater for the proposed increased numbers of dwellings and the resultant increase in the estimated maximum residential population envisaged for Cherrywood.

In terms of social infrastructure capacity, particularly with regard to schools and the provision of Class 1 Green Infrastructure, the provision of residential quantum beyond the now proposed 10,500 dwellings would require a review of the social infrastructure to be provided to support the Planning Scheme.

4.2.3 Retail and Non-Retail

Cherrywood Town Centre is designated as a District Centre under the Retail Strategy for the Greater Dublin Area, the 2016-2022 Dún Laoghaire Rathdown County Development Plan and the Draft Dún Laoghaire Rathdown County Development Plan 2022-2028. Having regard to the projected increase in the residential population of Cherrywood proposed as part of this Amendment, combined with

the current changing trends in retail, it is considered not necessary to increase the level of retail and non-retail development in the Planning Scheme area as part of this amendment. It is considered that the quantum of retail and non-retail development in the Planning Scheme area can still support the retail needs of the catchment population of the area despite a proposed increase in the maximum number of dwellings in the area.

Any modification to the level of retail provision in Cherrywood Town Centre would warrant an evidenced-based assessment. The DAPT are conscious that the retail sector is currently evolving and experiencing unprecedented challenges due to a number of reasons, including but not exclusive to Covid 19. Other factors include, inter alia, consumer patterns, online shopping and consumer desire to combine retail with leisure experiences. The DAPT are prepared to revisit this matter in the near future and /or when guidance issues at a national and/or regional level.

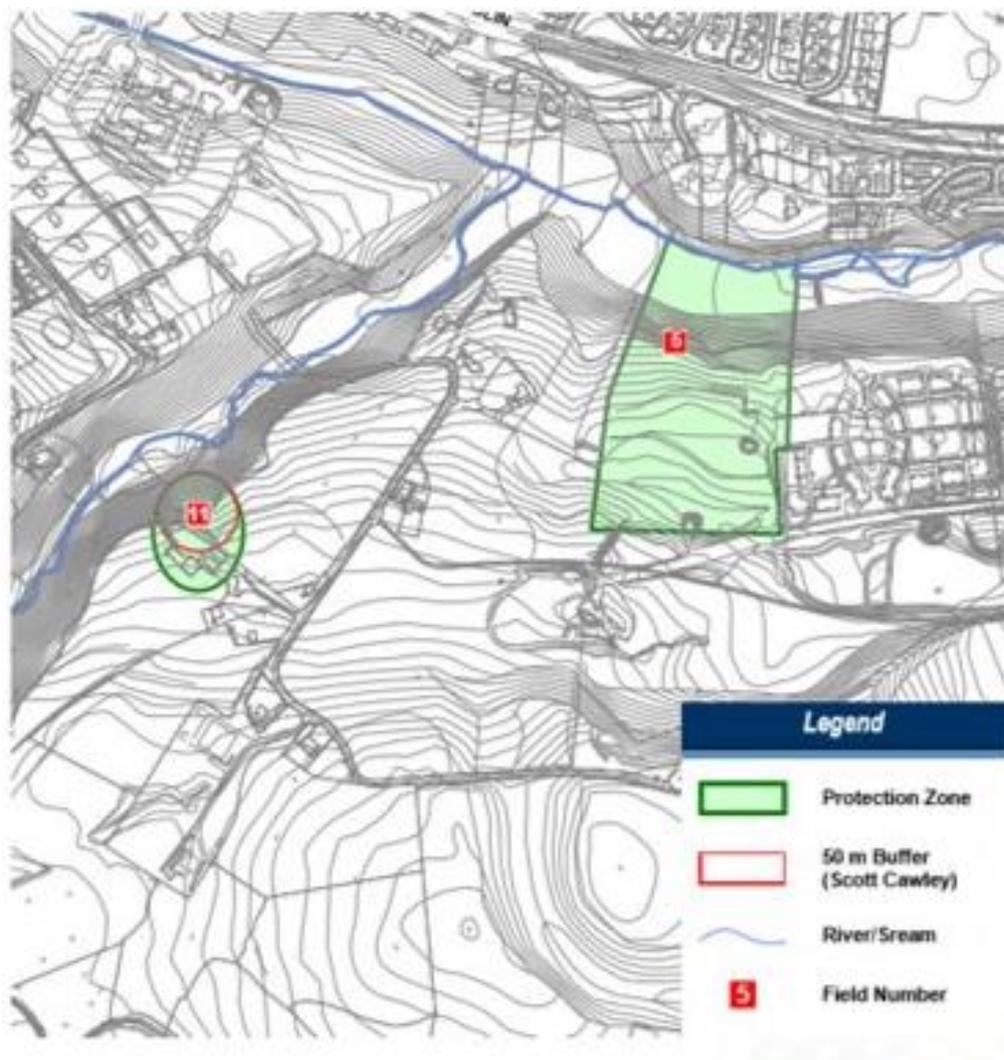
5.0 UPDATED APPENDIX E -HYDROGEOLOGY

As part of the Ecology Baseline Study carried out during the drafting of the Planning Scheme between 2010 and 2012, 2 sets of Tufa Springs were discovered known as Tufa Spring No. 5 and Tufa Spring No. 11.

Guidance regarding the location and protection of these Tufa Springs is outlined in the Approved Planning Scheme under Appendix E: Phase 1 Hydrogeology Assessment of the Cherrywood SDZ.

Phase 1 studies were carried out on these Tufa Springs by RPS on behalf of Dún Laoghaire Rathdown County Council. An indicative protection zone for each Tufa Spring was outlined and illustrated on the Protection Zone Map under Appendix E. Section 7.2 of Appendix E outlined recommendations with regard to the future protection of the Tufa Springs and noted that if development were to occur in the identified protection zones of the Tufa Springs, further targeted Hydrogeological Site Investigations would need to be carried out on the sites to get a better understanding of the hydrogeological system feeding these springs.

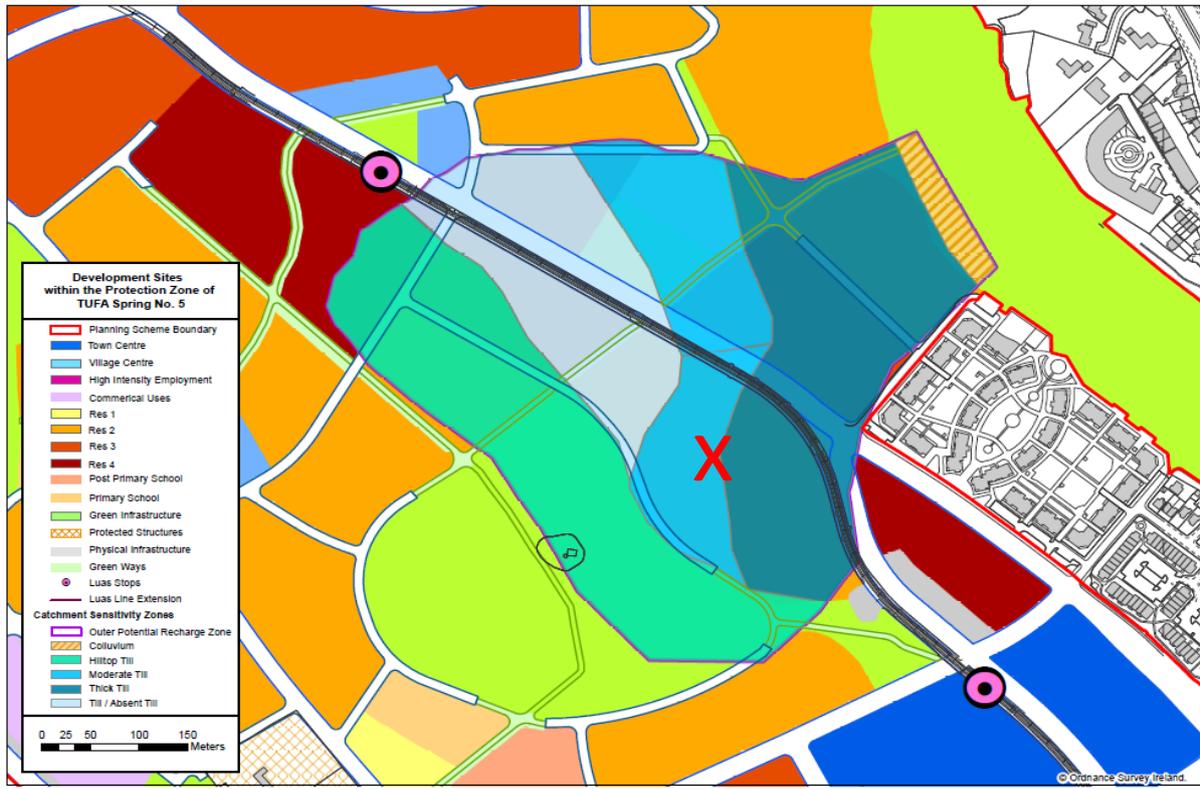
Protection Zones of Tufa Springs No. 5 and No. 11 Under Approved Appendix E of the Cherrywood Planning Scheme.



The DAPT commissioned JBA Consulting to carry out further details site investigations on the Protection Zone of Tufa Spring No. 5 in Spring 2019. The site investigations and accompanying report were finalised in May 2019. The results of these site investigations found that

the catchment and protection zone of Tufa Spring No. 5 was much larger and that there was also an underground karst valley feeding Tufa Spring No. 5. The image below shows the extent of the revised protection zone and identified catchment for Tufa Spring No.5. The colours represent the level of sensitivity of the catchment of the Spring. The sites in the Green and Grey areas are the most sensitive with sensitivity decreasing in the blue areas.

Catchment Sensitivity Classification Overlaid with Map 2.2: Scale of Density taken from the Planning Scheme.



Further Additional height has been assigned to some of these sites for 2 reasons.

- Firstly, to provide better frontage onto Grand Parade/Tullyvale Road and;
- Secondly to allow for some additional flexibility on these sites in terms of development options noting that the design of developments on these sites may require well designed podium/above ground car parking as significant excavation for basements may not be possible.

In this regard, the design and layout of these sites will be informed by the site investigations and testing to be carried out by the applicant/landowner of these sites as outlined in the proposed amended Appendix E of the Planning Scheme. This should be done prior to or in the early design stage of any development on these sites. Thorough testing as required under Appendix E of the Planning Scheme and Amended Specific Objectives DA 9, DA 30 and additional Specific Objective DA 57 will inform the most optimum site layout, design and development potential of these sites.

The Cherrywood DAPT has retained the services of JBA to further guide the development of the sites identified above.

It is not possible to confirm that the maximum densities in the Planning Scheme for these sites are achievable, however the DAPT are confident that development within the specified density range of these sites can be achieved subject design according with the requirements set out in Appendix E.

6.0 CONSULTATION

6.1 Non-Statutory 'Have Your Say'.

Dún Laoghaire-Rathdown County Council, in its role as Development Agency for Cherrywood Planning Scheme, and as part of the review of the building heights for proposed development across the Planning Scheme area invited submissions/observations from interested parties as part of a non-statutory 'Have Your Say' to help inform the review of building heights within Cherrywood Planning Scheme area. This non-statutory consultation extended for 5-week period from the 30th of June - 4th of August 2020.

23 no. submissions were received from landowners/developers and interested parties.

For transparency and clarity, a soft copy of all of the submissions made as part of the non-statutory consultation is included as part the supporting documentation for this Amendment.

All submissions received were reviewed and considered in full by the Cherrywood Development Agency Project Team (DAPT) as part of the Planning Scheme Building Height Review, having regard to the specific characteristics of Cherrywood, relevant ministerial guidelines and statutory provisions and best practice, including, inter alia, the following:

- The Urban Development and Building Heights Planning Guidelines, December 2018;
- The Sustainable Urban Housing: Design Standards for New Apartments, March 2018;
- The Cherrywood Planning Scheme, 2014 (CPS), as amended in 2018;
- The Cherrywood Town Centre Urban Form Development Framework (UFDF); and
- Best practice urban design principles (Urban Design Manual, 2009, Design Manual for Urban Roads and Streets, 2013/2019 etc.).

A written summary overview of each submission received as outlined above, and a recommendation from the DAPT, is also included as part the supporting documentation for this Amendment.

6.2 Consultation with Statutory Bodies

DAPT have undertaken consultation with TII, NTA and DES whose support has been essential in progressing this amendment. Letters of support from these Statutory Bodies are included as part of this Amendment submission.

7.0 CONCLUSION.

Taking cognisance of the above the it is evident that the Cherrywood DAPT have undertaking a comprehensive review of the building heights in Cherrywood in response to SPPR 3 of the Urban Development and Building Height 2018. As a result of this comprehensive and evidence based review, DAPT recommend additional building height and residential density in Cherrywood to increase the supply of new homes in a plan-led manner based on good urban design principles, quality streets and civic spaces and quality residential amenity for the emerging community with sufficient supporting physical and social infrastructure and all having regard to the proper planning and sustainable development of the area.

APPENDIX 1

Modification No. 1 of the Bord Order approving the Cherrywood Planning Scheme.

The following text shall be added after "Future Form" and before "Specific Objectives" on Page 67:

"Urban Form Development Framework

Achieving a successful urban form in the Cherrywood town centre is critical. The town centre crosses different landownerships and incorporates a variety of opportunities and constraints, including the crossing of the Wyattville Link Road. To ensure a comprehensive approach to the layout and urban form of the Cherrywood town centre, it is a pre-requisite to the approval of any planning applications for the town centre that, following consultation with the relevant landowners, an Urban Form Development Framework be prepared by the Development Agency in accordance with the Cherrywood SDZ Planning Scheme.

The purpose of the Urban Form Development Framework is to provide clarity and to assist the assessment of whether planning applications are consistent with the objectives of the Planning Scheme. Any development permitted in the town centre shall be in accordance with the Urban Form Development Framework.

The preparation of the Framework shall take cognisance of the design approach set out in the submissions received by An Bord Pleanála on the 27th day of February 2014 from BMA Planning and Scott Tallon Walker Architects on behalf of Cherrywood Properties, and from McCutcheon Halley Walsh and MÓLA Architecture on behalf of Dún Laoghaire Rathdown Properties Limited.

The level of detail provided by the Framework shall be at least that provided in the submission to An Bord Pleanála by Scott Tallon Walker Architects on behalf of Cherrywood Properties, on the 27th day of February 2014, which related to quadrant TC3.

The Framework shall address the area identified as 'town centre' (TC 1 – 4) on Map 6.2 'Development Area 2 Cherrywood' and shall, at a minimum, include the following:

(a) identification of:

- the principal focus and civic core of the town centre,*
- the principal retail focus for quadrant TC1, and*
- the relationship between quadrant TC1 and Grand Parade, and their respective urban identities,*

(b) a block layout for the town centre, illustrating urban blocks and urban grain,

(c) height, scale and massing, and building typologies,

(d) finished floor levels for buildings, including identification of entrance level(s), and finished levels for roads and footways, and in particular, the horizontal and vertical connections between Grand Parade and the surrounding streets/buildings,

(e) the location, design and treatment of squares, civic spaces, pocket parks, and the public realm generally,

(f) provision for facilities including a community facility, places of worship, a library, and a primary care unit, in accordance with Objective DA 11,

(g) the treatment of the Grand Parade generally, including the proposed approach to the crossing of the Wyattville Link Road, demonstrating how an attractive and welcoming urban environment can be maintained, having regard to its important transport function as set out in the Planning Scheme,

(h) provision for a separate pedestrian/cycle bridge across the Wyattville Link Road, connecting quadrants TC1 and TC3, as shown in Map 6.2 'Development Area 2 Cherrywood', and provision for the sequencing of this development.

(i) identification of vehicular and pedestrian routes within the town centre, and associated finished levels and access points, including car park access points, including section drawings, and

(j) identification of the car parking spaces to be provided, the location, access to and usage of car parks, including shared use car parks, and any on-street parking.

The Framework shall not materially alter the Planning Scheme.

In the event of disagreement between the parties on any matters within the Framework, the matter in question shall be referred to An Bord Pleanála for determination."

Reason: *In the interest of clarity, and to ensure the high-quality development of the town centre, in accordance with the Urban Form Development Framework that is to be prepared.*