CHAPTER 6

LANDSCAPE AND VISUAL IMPACT

6.0 LANDSCAPE AND VISUAL IMPACT

6.1 INTRODUCTION

Mitchell + Associates was commissioned to prepare a Landscape and Visual Impact Assessment (LVIA) for the proposed development, for which a seven year permission is sought, at Fosterstown North, Dublin Road/R132, Swords, Co. Dublin. The assessment and Chapter have been prepared by Dave Kirkwood, BSc (Hons), Dip. Env. Man., CMLI, MILI. Dave has served as President of the Irish Landscape Institute and is currently Managing Director of Mitchell + Associates, Landscape Architects and Urban Designers. He has over 35 years' experience working in Landscape and Visual Impact Assessment, for a broad range of proposals and for various types and scales of development, including large-scale residential developments.

This LVIA forms the basis of this Chapter of the Environmental Impact Assessment Report (EIAR) and summarises the impact of the proposed development on the landscape character and visual amenity of the current site and on the contiguous area and the site environs.

Figure 6.1: Site location and context. (Source: Google maps with Mitchell + Associates text overlay).

It considers these in the context of the site, on the southern edge of Swords in north Co. Dublin. It describes the landscape character of the subject site and its hinterland, together with the visibility of the site from significant viewpoints in the locality. It includes an outline of the methodology utilised to assess the impacts and descriptions of the receiving environment (baseline) and of the potential impacts of the development.

Mitigation measures introduced to ameliorate or offset impacts are considered and the resultant predicted (residual) impacts outlined.

This Chapter of the EIAR should be read with reference to the verified view montages prepared by 3D Design Bureau (Nicholas Polley, B. Eng), which are contained in Appendix 6.1 of this EIAR and in a separate A3 report, also submitted with the planning application.

6.2 METHODOLOGY

6.2.1 INTRODUCTION

This assessment was carried out between December 2019 and April 2022. Landscape and Visual Impact Assessment (LVIA) includes consideration of two main aspects:

Landscape Character Impact – the assessment of effects on the character of the landscape arising from the insertion of the proposed development into the existing landscape context. The 'landscape' aspect of assessment is relatively subjective and can be described broadly as the human, social and cultural experience of one's surroundings. These combined impacts will elicit responses whose significance will be partially dependent on how people perceive a particular landscape and how much the changes will matter in relation to other senses as experienced and valued by those concerned. Despite the extremely large part played by our visual experience in forming our views on landscape, one's perception and indeed memory also play an important part if the changes brought about in landscape character are to be fully understood. It is clear therefore that different people doing different things will experience the surrounding landscape in different ways. Such sensitivities and variations in response, including where and when they are likely to occur, are taken into consideration in the assessment.

Visual Impact – the assessment of effects of the proposed development on the visual environment and visual amenity as evidenced by the comparison of baseline (existing) images and photomontages illustrating the proposed development in context. This second aspect is somewhat less subjective in that direct 'before and after' comparisons can be made. Visual impact occurs by means of visual intrusion and/or visual obstruction and the distance between subject and viewpoint has a bearing on the scale of such impact.

It is appropriate that aspects of architectural context and design approach are addressed when assessing impact of proposed development on the landscape. In this regard, aspects of the architectural design rationale and the specific architectural responses to the site and context, are referred to within this report.

The standard evaluation methodology used in the preparation of the Landscape and Visual Impact Assessment (LVIA) for Environmental Impact Assessment Reports (EIAR) is utilised. The evaluation methodology is therefore based on the following:

- 'Guidelines for Landscape and Visual Impact Assessment', prepared by the Landscape Institute and the Institute of Environmental Assessment, published by Routledge, 3rd Edition 2013.
- Reference is also made to the DRAFT 'Revised guidelines on the information to be contained in Environmental Impact Statements' - Environmental Protection Agency (EPA), September 2015
- The DRAFT 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' - Environmental Protection Agency (EPA), August 2017.

This preliminary Landscape and Visual Impact Assessment involved:

- Visiting the area in January 2020 and March 2022 and preparing a photographic record of the main landscape features;

- Undertaking a desk study of the subject site and its immediate environs in relation to its local and broader significance using the information gathered from site visits, studying aerial photography, historic and Ordnance Survey mapping;
- Establishing and describing the receiving environment in terms of the existing landscape, its visual amenity and its significance;
- Assessing the nature, scale and quality of the proposed development through examination of the design team's drawings, illustrations, reports and descriptions of the proposed scheme;
- Assessing potential viewpoints, choosing and agreeing those which could be considered most important and most representative in terms of visual impact; and
- Assessing the landscape and visual impacts of the proposed development through consideration and interpretation of the prepared photomontages.

6.2.2 PHOTOMONTAGE METHODOLOGY

The primary method adopted for Visual Impact Assessment relies largely on a comparative visual technique whereby accurate photomontages incorporating the proposed development are compared to the existing corresponding baseline photograph so that an assessment of impact can be made. These 'before' and 'after' images are prepared for a number of selected viewpoints. The general methodology for the preparation of photomontages, including site photography, 3D computer modelling and rendering of views, is outlined in Appendix 6.1.

6.2.3 SELECTION OF VIEWS

In recognition of the sensitivities of this location and to enable a full and detailed assessment of the proposal, a total of 13 views were selected for photomontage preparation.

Figure 6.2: Selected viewpoints (Source 3D Design Bureau)

Figure 6.2 above, illustrates the viewpoint locations, indicated in red, where photomontages are submitted with this preliminary assessment report.

The views were chosen to represent the greatest likely visual impact from a variety of directions around the site, allowing sufficient distance to see the proposed development within its landscape context.

In accordance with the guidelines, views from the public domain were given priority, particularly those from main thoroughfares and public places. The Guidelines for Landscape and Visual Impact Assessment (LI and IEA, 2013) also advise that the proposed development should be considered in context and that photomontages illustrate the proposed development with sufficient context for proper assessment. The views submitted are considered to be the most important and representative, having regard to the requirement to examine the likely significant impacts.

The photomontages prepared are also used to assess the design and to inform the design team of any advisable amendments – this is an iterative process and offers an opportunity for the design team to adjust the design or for the location of viewpoints to be adjusted to be sure of illustrating maximum impact.

6.2.4 METHODOLOGY FOR RATING OF IMPACTS

An assessment is made in respect of the significance, scale or magnitude of predicted impacts which is set against an assessment of the quality/sensitivity of the impact. For each view, the scale/magnitude of impact is related to the simple quantum of change within the field of view and to the nature and sensitivity of such change in respect of the respective receptors, in the context of the existing (receiving) environment. Therefore, whilst the significance or scale of impact may range from 'imperceptible' to 'profound' and these may in part be related to distance and proximity, it should be remembered that the nature of the change and the sensitivities of the viewers also play a part in this aspect of assessment for each view.

The quality of impact can be assessed as 'positive' or 'negative' depending on whether the change is considered to improve or reduce the quality of the landscape character or visual environment. The quality of impact may also be assessed as 'neutral' if the quality of the environment is unchanged. The assessment of quality in particular, needs to consider and weigh-up a range of issues and potentially conflicting standpoints. The nature of the proposed change, its context, appropriateness, quality of design and the sensitivities of the viewers are all important considerations for this aspect of assessment.

This latter issue of sensitivity can however create emotive responses which often have little or no regard for the appropriateness and/or design of the proposal and the assessment needs to be considered in that context. For example, in this case of a residential development proposed for marginal agricultural lands, the interests or concerns (sensitivities) of say, a farmer in the area may differ greatly to those of an existing local resident or potential house-buyer. The reconciliation of such sensitivities could potentially be considered unlikely, in which case, issues of appropriateness and design quality become more influential in the assessment. The quantum, scale and proximity of proposed development are important aspects to be considered in terms of the carrying capacity of any sensitive landscape. The scheme design of the whole development (buildings, roads, planting etc) and the subtleties of detail design in such circumstances are important in mitigating potentially negative impacts and ultimately, in determining appropriateness.

The duration of impact is a third aspect of assessment to be considered and may range from temporary to permanent. In this case, the proposed housing is likely to be long term, however the effectiveness of existing and proposed planting in assimilating the scheme into the existing landscape context or in totally screening it will presumably develop and mature over time. The temporary/short term impacts during the construction of the proposed development are also considered.

The significance criteria used for landscape and visual assessment are based on those given in the EPA DRAFT 'Guidelines on the information to be contained in Environmental Impact Assessment Reports' - Environmental Protection Agency (EPA), August 2017 (Section 3, pp 50-52). For this LVIA Chapter they are further described as follows:

Degree or magnitude of effects (significance)

Imperceptible / Not Significant: The development proposal is either distant or screened by existing landform, vegetation or built environment.

Slight Effects: The development proposal forms only a small element in the overall panorama / field of view, or there is substantial intervening screening by the existing landform, topography and/or vegetation. The view or character of the landscape is noticeably changed but without affecting its sensitivities.

Moderate Effects: An appreciable segment of the existing view is affected by the proposed development or the development creates visual intrusion in the foreground. The view or the character of the landscape is altered but in a manner that is consistent with existing and emerging baseline trends.

Significant Effects: Effects which, by their character, magnitude, duration or intensity alter a sensitive aspect of the landscape/ view.

Very Significant Effects: Effects which, by their character, magnitude, duration or intensity alter most of a sensitive aspect of the landscape/view.

Profound Effects: Effects which obliterate sensitive characteristics of the landscape and/or view.

Quality of effects

The quality of potential visual and landscape effects are assessed according to EPA guidelines as follows: Positive Effects: Changes which improve the quality of the landscape/view.

Neutral Effects: Changes which do not affect the quality of the landscape/view.

Negative Effects: Changes which adversely affect the character of the landscape or reduce the quality of the visual environment.

Duration of effects

Potential effects arising from a proposed development may also be considered in terms of duration as described in the EPA Guidelines:

Momentary/Brief: Effects lasting less than a day

Temporary: Effects lasting less than one year

Short-term: Effects lasting one to seven years

Medium-term: Effects lasting seven to fifteen years

Long-term: Effects lasting fifteen to sixty years

Permanent: Effects lasting over sixty years

6.3 OUTLINE DESCRIPTION OF RECEIVING ENVIRONMENT

6.3.1 Site Location and Landscape Context

The site for proposed development occupies lands (approx. 4.6ha) on the southern fringes of Swords, sitting approx. 1km distant from the existing town centre. It is essentially a greenfield site with hedgerows, shrubs and trees. The Gaybrook Stream which runs along the northern boundary of the subject site is a tributary of the Gaybrook River.

The subject site is currently open, marginal agricultural grassland. It is essentially one field which slopes down gently, northwards towards the stream at the northern site boundary. The edges of the site are lined by hedgerows and vegetation of varying density and height, which partially screens the site from the R132 road running along the eastern boundary and the Boroimhe housing areas to the south and west.

The character of the area surrounding the site is primarily 2-storey residential, with the housing estates of Boroimhe, Ridgewood and River Valley lying to the south, west and north-west of the site. A small number of commercial outlets are integrated with these housing areas. The major commercial outlets of the Airside Retail Park are located to the east of the site.

6.3.2 PLANNING CONTEXT

The current planning context is set out in detail within the Planning Report and Statement of Consistency prepared by John Spain Associates and included with this application.

National Planning Policy

Irish national policy of particular relevance to the assessment of Landscape and Visual Impacts is the Urban Development and Building Heights Guidelines for Planning Authorities (December 2018, Department of Housing, Planning and Local Government). This is rooted in the National Planning Framework 2018 (‘the NPF’), which sets out National Policy Objective 13, which states "In urban areas, planning and related standards, including in particular building height and car parking will be based on performance criteria that seek to achieve well-designed high-quality outcomes in order to achieve targeted growth. These standards will be subject to a range of tolerance that enables alternative solutions to be proposed to achieve stated outcomes, provided public safety is not compromised and the environment is suitably protected."

The Urban Development and Building Heights Guidelines, at paragraph 3.1, state that *"In relation to the assessment of individual planning applications and appeals, it is Government policy that building heights must be generally increased in appropriate urban locations. There is therefore a presumption in favour of buildings of increased height in our town/city cores and in other urban locations with good public transport accessibility."*

Section 3.2 of the Urban Development and Building Height Guidelines sets out a series of guiding principles (‘Development Management Criteria’) for good urban design and architectural standards where increased building height is proposed, including:

At the scale of the relevant city/town;

- The site is well served by public transport with high capacity, frequent services and good links to other modes of transport.
- Development proposals incorporating increased building height, including proposals within architecturally sensitive areas, should successfully integrate into / enhance the character and public realm of the area, having regard to topography, its cultural context, setting of key landmarks, protection of key views.

- On larger urban redevelopment sites, proposed developments should make a positive contribution to place-making, incorporating new streets and public spaces, using massing and height to achieve the required densities but with sufficient variety in scale and form to respond to the scale of adjoining developments and create visual interest in the streetscape.

At the scale of district/ neighbourhood/ street;

- The proposal responds to its overall natural and built environment and makes a positive contribution to the urban neighbourhood and streetscape
- The proposal is not monolithic and avoids long, uninterrupted walls of building in the form of slab blocks with materials / building fabric well considered.
- The proposal enhances the urban design context for public spaces and key thoroughfares and inland waterway/ marine frontage, thereby enabling additional height in development form to be favourably considered in terms of enhancing a sense of scale and enclosure while being in line with the requirements of "The Planning System and Flood Risk Management – Guidelines for Planning Authorities" (2009).
- The proposal makes a positive contribution to the improvement of legibility through the site or wider urban area within which the development is situated and integrates in a cohesive manner.
- The proposal positively contributes to the mix of uses and/or building/dwelling typologies available in the neighbourhood.

Fingal Development Plan 2017-2023

The Fingal Development Plan 2017-2023 (refer to Figure 6.3, below) sets out the broad planning objectives for the County and within this, for the subject site and its environs. It indicates the objective/zoning for the site as RA – Residential Area (pale brown). The objective is to "Provide for new residential communities subject to the provision of the necessary social and physical infrastructure". Just north of the site across the stream, the existing fields are similarly zoned, with the lands beyond this zoned 'MT – Major Town Centre' (red). West and south of the site lie existing residential areas with open space/recreational amenities (brown and green respectively). To the east, beyond the MetroLink route and the R132 road, the lands are zoned HT – High Technology (pale pink) and Retail Warehousing (pink and blue hatch).

The subject site occupies the southern part of the lands outlined by the black and yellow chequered line in Figure 6.3 (above) which forms the Fosterstown Masterplan Area (MP 8.I), the main elements of which are outlined in the Fingal Development Plan as follows:

- Provide for required road improvements including: the construction of the Fosterstown Link Road; realignment and improvements to the Forest Road and improvements to the R132 (including Pinnock Hill) as part of the phased development of the Masterplan Lands.
- Provide for a vehicular connection to the adjoining MC zoned lands to the north.
- In order to protect existing residential amenities, where development immediately adjoins existing residential development, the heights of such development shall be restricted to 2-3 storeys.
- Future development shall provide a strong urban edge with attractive elevations which satisfactorily address, overlook and provide a high degree of informal supervision of the R132, the Forest Road and the Fosterstown Link Road.

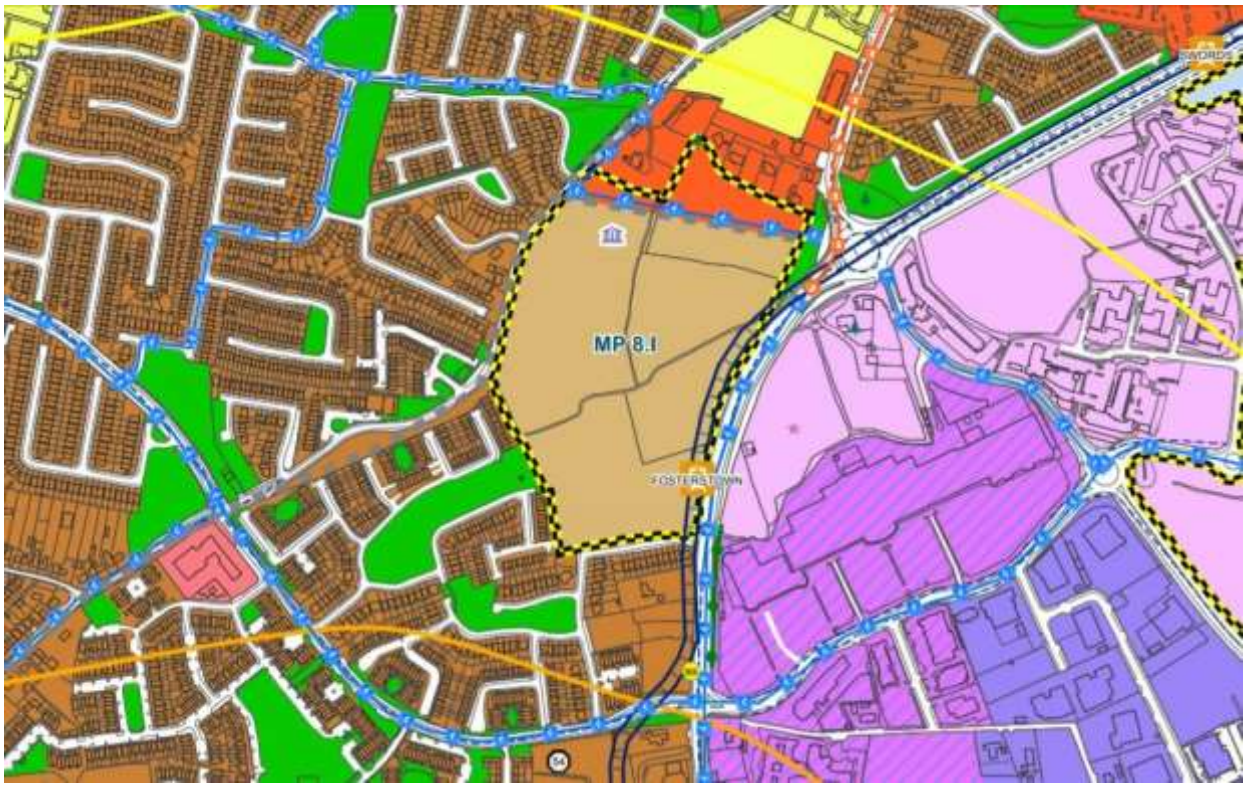

Figure 6.3: Extract from Fingal Development Plan 2017-2023 (Sheet no.8)

- Consider the provision of a hotel at a suitable location at Cremona within the Fosterstown Masterplan Lands. Facilitate the indicative route for new Metro North through these lands and an appropriate relationship with the indicative route for new Metro North at this location.
- The existing stream which crosses the lands shall be maintained within a riparian corridor. The majority of the public open space shall be provided along the stream and it shall link into the existing public open space at Boroimhe [to the south].

It should be noted that the main elements listed refer to the area addressed in the Fosterstown Masterplan 2019 as a whole, and therefore not all aspects are applicable to the subject site.

One Protected Structure (866), a mid-18th Century triangular milestone, sits at the western edge of the R132, some 150 metres south of the site. East of the site, beyond the R132, one Recorded Monument (a pit) sits within the area zoned for High Tech development. Both are unlikely to be affected by the proposed development.

6.4 CHARACTERISTICS OF THE PROPOSED DEVELOPMENT

6.4.1 Introduction

A full description of the proposed development is included in Chapter 2 - Project Description and Alternatives. A comprehensive description of the design for the proposed residential development is also contained in the Architectural Design Statement prepared by Arrow Architects and the Landscape Design Report prepared by Mitchell + Associates. Please refer also to the design layout drawings and sections included with the submission.

The development for which a seven year permission is sought will consist of the following:

The proposed development comprises a Strategic Housing Development of 645 no. residential units (comprising of 208 no. 1 bedroom units, 410 no. 2 bedroom units, and 27 no. 3 bedroom units), in 10 no. apartment buildings, with heights ranging from 4 no. storeys to 10 no. storeys, including undercroft / basement levels (for 6 no. buildings). The proposals include 1 no. community facility in Block 1, 1 no. childcare facility in Block 3, and 5 no. commercial units (for Class 1-Shop, or Class 2- Office / Professional Services or Class 11-Gym or Restaurant / Café use, including ancillary takeaway use) in Blocks 4 and 8. The proposal includes all associated and ancillary development.

Figure 6.4: Aerial view from south, indicating the main block layout (Source: Design Statement, Arrow Architects with text overlay by Mitchell + Associates)

Individual block heights will be as follows:

- Block 1; 4 storeys (with pitched roof)
- Block 2; 4 storeys (with pitched roof)
- Block 3; 4 storeys (with pitched roof)
- Block 4; part 7/part 8/part 9 storeys (with an undercroft level)
- Block 5; part 6/part 7/part 8 storeys (with an undercroft level)
- Block 6; part 8/part 9 storeys (with an undercroft level)
- Block 7; part 7/part 8/part 9 storeys (over a basement level)
- Block 8; part 6/part 7/part 8/part 9 storeys (over a basement level)
- Block 9; part 7/part 8/part 9/part 10 storeys (over a basement level)
- Block 10; part 9/part 10 storeys.

The development includes a total of 363 no. car parking spaces (63 at surface level and 300 at undercroft / basement level). 1,519 no. bicycle parking spaces are provided at surface level, undercroft / basement level, and at ground floor level within the blocks / pavilions structures. Bin stores and plant rooms are located at ground floor level of the blocks and at undercroft / basement level. The proposal includes private amenity space in the form of balconies / terraces for all apartments. The proposal includes hard and soft landscaping, lighting, boundary treatments, the provision of public and communal open space including 2 no. playing pitches, children's play areas, and an ancillary play area for the childcare facility.

The proposed development includes road upgrades, alterations and improvements to the Dublin Road / R132, including construction of a new temporary vehicular access, with provision of a new left in, left out junction to the Dublin Road / R132, and construction of a new signalised pedestrian crossing point, and associated works to facilitate same. The proposed temporary vehicular access will be closed upon the provision of permanent vehicular access as part of development on the lands to the north of the Garybrook Stream. The proposal includes internal roads, cycle paths, footpaths, vehicular access to the undercroft / basement car park, with proposed infrastructure provided up to the application site boundary to facilitate potential future connections to adjoining lands.

The development includes foul and surface water drainage, green roofs and PV panels at roof level, 5 no. ESB Substations and control rooms (1 no. at basement level and 4 no. at ground floor level within Blocks 2, 4, 7 and 8), services and all associated and ancillary site works and development.

6.4.2 Context and broad design characteristics

Whilst issues of scale present considerable visual contrasts between the existing local landscape and the proposed scheme, the designed scheme seeks to harmonise and integrate the development within the existing landscape, particularly in terms of integration of social functions at ground level. The design rationale and details employed seek to mitigate negative effects on the landscape character and upon visual amenity of the area – these are outlined in more detail in Section 6.6.2 Mitigation – Operational Phase.

6.5 POTENTIAL IMPACTS OF THE PROPOSED DEVELOPMENT

A development such as this proposal has the potential to impact significantly upon the landscape and visual aspects of the existing environment in a number of ways, at both construction and operational stages. Effects can be short or long term; temporary or permanent. The purpose of this section of the report is to describe the potential effects of such proposed development; upon the visual and landscape aspects of the immediate area, and further afield, where relevant.

6.5.1 Construction Phase

Potential visual impacts during the construction phase are related to temporary works, site activity, and vehicular movement within and around the subject site. Vehicular movement may increase in the immediate area, and temporary vertical elements such as cranes, scaffolding, site fencing, gates, plant and machinery etc., will be required and put in place. All construction impacts will be temporary, and may include the following:

- Site preparation works and operations
- Site excavations and earthworks
- Site infrastructure and vehicular access
- Construction traffic, dust and other emissions
- Temporary fencing/hoardings, site lighting and site buildings (including office accommodation)
- Cranes and scaffolding

6.5.2 Operational Phase

The proposed development will consist of the insertion of new residential buildings, road infrastructure and associated ancillary elements onto the subject site and will replace the existing agricultural field currently covering the site. It should be noted that despite the proximity of the proposed development to existing residential development to its south and west, the location and effectiveness of existing field boundary hedgerows where retained, assist in restricting and screening existing views into the site from the adjacent housing whilst also retaining a degree of privacy for said housing. The potential impact of the proposed

development, however, could initially be negative, particularly if the existing boundary vegetation is damaged or degraded. Some aspects of the proposed landscape scheme design are included specifically to respond to such issues and any associated concerns.

6.5.3 The 'Do Nothing' Approach

If the proposed development were not to proceed, the site would presumably (in terms of its landscape impact), remain in its present form for a period. In such circumstances the current land uses would also presumably continue. All existing boundary hedgerows and trees would presumably continue to grow and mature, subject to their maintenance and management by the site occupiers and adjoining landowners. The existing nature of the site and its associated visual amenity would prevail.

6.6 MITIGATION (AVOIDANCE/REMEDIAL/REDUCTIVE MEASURES)

6.6.1 Construction Phase

The following mitigation measure is recommended.

LVIA CONST 1: Construction and Environmental Management Plan

The building site including a site compound with site offices, site security fencing, scaffolding and temporary works will be visible during the construction phase. This is generally viewed as a temporary and unavoidable feature of construction in any setting.

Other mitigation measures proposed during this delivery stage of the development, revolve primarily around the implementation of appropriate site management procedures during the construction works – such as the control of lighting, storage of materials, placement of compounds, control of vehicular access, and effective dust and dirt control measures, etc. Such mitigation is set out in the Construction and Environmental Management Plan prepared for the scheme by Waterman Moylan Consulting Engineers. This is a working document which will be continually reviewed and amended to ensure effective mitigation throughout the construction period. The Construction and Environmental Management Plan specifically references the following construction phase mitigation measures as relevant to the assessment of Landscape and Visual impact:

- Site hoarding will be erected to restrict views of the construction activity e.g., standard 2.4m high construction hoarding;
- Though limited on this site, the establishment of tree protection measures as required and as set out in the Arboricultural Method Statements contained in the Arboricultural Report, as prepared by Charles McCorkell and accompanying this submission (tree protection; access facilitation pruning; temporary surfaces etc within zones of protection);
- A post-construction re-assessment of retained trees/hedgerows shall be carried out.

6.6.2 Operational Phase

The design rationale and details employed seek to mitigate negative effects on the landscape character and upon visual amenity of the area by:

- Incorporating the smaller scaled blocks closer to the existing adjacent residential developments to the south and west, whilst introducing density, height and landmark qualities in appropriate locations, closer to the town centre;

- Employing variation of tone, colour and texture across the facades, particularly where the buildings can be seen from a greater distance and the use of use of appropriate and harmonising colour, tones and materials throughout the development;

- Retaining existing vegetation where possible and introducing appropriate planting to further screen and absorb the buildings over time;

- Rationalisation of all services elements and any other potential visual clutter and its incorporation internally within building envelopes (as far as practically possible);

- The provision, maintenance and management of a sensitively considered soft landscape design for the development, which assists in the integration and screening of the buildings within the existing landscape, particularly at the lower levels;

- Including public open spaces within the design which link with and relate appropriately to existing adjacent open spaces.

As the above are incorporated into the scheme design, further mitigation measures during the construction phase are not required.

6.7 PREDICTED LANDSCAPE CHARACTER IMPACT OF THE PROPOSED DEVELOPMENT

In assessing the landscape character impacts specifically, there are three main inter-related aspects to be addressed in considering the impact of the development proposals, namely:

- The landscape as a resource, i.e., its physical components, which may include: topography; vegetation; built elements etc;

- The perceived character of the landscape, its condition, the way it is experienced, and the value placed on it, and;

- Impacts of the proposed development on social and cultural amenity;

The landscape change from open agricultural field, bounded by hedgerow to residential development up to 10 storeys in height, is significant. However, the proposed development will impact on the landscape to varying degrees in terms of its perceived nature and scale. These impacts are tempered and conditioned by sensitivities associated with the receptor, however the adjacent and surrounding land uses are also generally residential in character so adverse sensitivity, on the basis of the nature of the development, would not be expected. The scale, height and massing of the proposed buildings is likely to be of some concern, primarily to adjacent residents, however as outlined in 6.6.2 above, the smaller blocks are located to the site edges adjacent to existing residential areas and the taller blocks are located further away from such sensitivities and closer to the town centre.

The duration of such impacts is determined by the design life of the proposed development as tempered by the mitigating effect of the maturing designed landscape proposed as an integral part of the development. In this case the development has an expected life of up to 60 years. Impacts on landscape character are therefore deemed to be of long-term duration in this instance.

6.7.1 Construction Phase

Initially the erection of site hoarding and tree protection fencing will be completed, site access points established, and site accommodation units placed. Early in the construction period, topsoil stripping and

excavations for building foundations will commence. Removal and/or storage of excavated materials from site and the delivery of construction materials will generate increased traffic within, to and from the site.

As construction progresses over the construction period, impacts will vary, with the on-going business of construction - delivery and storage of materials, the erection of the buildings, etc. Mitigation measures have been proposed as per Section 6.6.1 to minimise the impact of the construction works on the site environs.

People living in the existing housing estates to the west and south of the site will be impacted negatively to a slight extent by the construction of the proposed development. Impacts are likely to vary from slight and neutral to moderate and negative, depending on the stage of construction, and the intensity of site activity. The construction impacts will be of short-term duration.

6.7.2 Operational Phase

Whilst the term 'landscape character' is generally held to involve more than simply appearances, there is little doubt that a place's visual qualities contribute most to its character. Generally speaking this is particularly so for say, visitors whose experience is often fleeting. In the context of the proposed development, impacts will typically be felt by people who live nearby, who may no longer enjoy a prospect of the green fields beside them, rather a view (albeit filtered by retained hedgerows and new plantings) of a housing scheme similar in some respects to that in which they live. The loss of hedgerow habitat and its connectivity to the few other similar features in the locality is offset somewhat by the proposed soft landscape proposals included within the proposed development, particularly those related to the Garybrook River.

One might surmise that the current landscape character of this area is perceived largely by local people as essentially an open, remnant agricultural field, bounded by a hedgerow, located in the north Dublin suburbs. However, the actual visual penetration into the site from the main public access routes is somewhat limited due largely to the presence of existing intervening hedgerows – this has an effect in limiting impact to those residing more closely to the site.

It is clear that the insertion of any proposed development into this existing open area will alter the landscape context of the area, however for this particular site, existing full clear views into the site are somewhat limited and this will limit associated impacts. The inclusion of a number of taller residential blocks does however introduce a changed characteristic within this local landscape which will be visible particularly from the busy R132 road but also from further afield.

The existing site with limited access into it, offers little in the way of an amenity resource for the local populace. The proposed development will not greatly alter that but will provide open space amenities which don't currently exist locally. The scheme design also provides linkage into and through the scheme as appropriate, for both vehicles and pedestrians.

6.8 PREDICTED VISUAL IMPACT OF THE PROPOSED DEVELOPMENT

6.8.1 Introduction

The assessment of visual impact is determined through the comparison of 'before' and 'after' photomontages – it is therefore, perhaps, a little less subjective than an assessment of landscape character. It too is inevitably influenced to some extent by the standpoint of the viewer (the receptor). The assessment of visual impacts created by the proposed development includes a consideration of the visual impacts on the visual environment likely to be impacted. A total of 13 viewpoints were selected for which photomontages were prepared - these are included in Appendix 6.1 of this EIAR. The photomontages are also contained in a separate A3 report prepared by 3D Design Bureau, submitted with the planning application documents for the

proposed development. In the A3 photomontage report, the existing view from each viewpoint is shown together with the proposed development as seen from the same viewpoint.

Because the expected life of the proposed development is up to 60 years, the duration of predicted visual impacts is assessed as long term, as is the case for predicted landscape character impacts (as outlined in Section 6.7.2, above).

The assessment of visual impacts through the use of comparative photomontages serves to identify impacts upon the visual environment. The photomontages are important in illustrating the impact of the proposed scheme from the more sensitive viewpoints. In this instance, they also serve to support and illustrate an aspect of the landscape character impact assessment.

It is important to remember that whilst photomontages are a useful tool in illustrating comparative visual impact, they are recognised as having their limitations and potential dangers. The guidelines for their use in assessment advocate their use in the context of a site visit to the viewpoint locations and point out that photomontages alone should not be expected to capture or reflect the complexity underlying the visual experience (refer to the GLVIA, 3rd Edition and the Landscape Institute's Technical Guidance Note 06/19).

6.8.2 Assessment of views

View 1

This is a view from a location on the Dublin Road, Swords, looking south-westwards towards the junction with the main R132 Swords by-pass road. This is the original main route into Swords from the Dublin city direction. It is now effectively a fairly broad tree-lined street with single-storey bungalows on one side and a mix of development including 3-storey apartments, retail and a school on the other.

A part of the proposed development is visible in the background beyond a group of existing trees and at this distance is in apparent scale with the existing residential development in the foreground. It does not appear overbearing from this location and occupies a fairly small portion of the field of view.

The visual impact from this viewpoint is **slight and neutral**.

View 2

This is a view from the R132 road at a location north-east of the Pinnock Hill roundabout. The dominant road surface and markings, the nature of the planting, the grass verges and lack of footpath confirms this as a vehicle-oriented environment and as such this view from the northbound carriageway is not the more commonly seen, however this angle does open up the greater potential impact of the proposed development. Whilst it is generally green and pleasant for road-users, it is fairly bland with no visual interest or focus. In addition, there is no visual clue or reference to the existence of Swords town beyond the planting to the right of view.

In the 'proposed' view, the proposed development can now be seen in the distance, beyond the roundabout. It is an appropriately scaled composition of buildings which together have landmark qualities, which provide a focal point in the view but do not overly-dominate. The arrangement of simple building forms coupled with an interesting mix of subtle, harmonious colours, is effective in reducing any potential massing effect. At this distance the buildings occupy a relatively small portion of the field of view, occupying the gap within a well-established frame of roadside tree planting.

The visual impact from this viewpoint is **moderate and positive**.

View 3

This view is taken from the western edge of the Pinnock Hill roundabout looking south-westwards along the R132 Swords Road in the direction of Dublin city. The subject site is an open field lying behind the relatively low and somewhat broken planting along the right side of the road, which contrasts negatively with the matured roadside planting in the foreground, left and right of view.

Most of the proposed development facing onto the R132 (Blocks 8, 9 and 10) can be seen from this location and being perched above the viewpoint emphasises the height and scale of the nearer 8-10 storey elements. However, given the location close to the broad main road and the major roundabout junction behind, this never feels overbearing. The variation in the angled roofline along the roadside façade, coupled with the colour and tonal treatment of the building facades, assists in breaking down the building mass and mitigates the visual impact in that respect. The buildings also impart a landmark quality and convey a sense of arrival into the town, coming from the Dublin side.

The visual impact from this location will be **significant and neutral**.

View 4

This is a view from a location on the R132 Swords Road adjacent to the Airside Retail Park, looking northwards along the line of the road. As the road falls away heading north, the openness of the subject site is exposed by a lack of roadside planting, in contrast to the fairly mature planting in the foreground around existing 2-storey residential properties. The existing broad road surface with its markings and narrow footpaths, totally dominates in the view.

The proposed development whilst of substantial mass is appropriately scaled to the main road. The road dropping away, coupled with the more distant location of the taller building elements has a tendency to foreshorten and flatten the appearance of the ensemble. Again, as for View 3, the deliberately non-regimental design approach, with the angled roofline along the roadside elevation, coupled with the colour and tonal treatment of the building façades, assists in breaking down the building mass and mitigates the visual impact in that respect. This is an appropriately-scaled, rhythmic and harmonious arrangement along the R132.

Visual impact from this viewpoint is **significant and neutral**.

View 5

This is a view from the southern edge of the Airside Retail Park, looking northwards across the Retail Park car park. The retail park buildings are on the right of view and the subject site lies beyond the fairly low roadside planting beyond in the centre of view. The view is of fairly poor quality with the rather drab, exposed and expansive car park dominating.

A substantial part of the proposed development is visible in the distance. Its scale is appropriate in this context and creates a positive visual focus which adds a harmonising quality to the overall view. The variation in roofline, coupled with the harmonious colour and tonal variations across the development, are particularly effective in reducing the potential massing effect and overall scale of the development. The proposed colouring links well with the existing buildings in the locality and assists in allowing the proposed development to visually recede in the view.

The visual impact from this viewpoint is **moderate and positive**.

View 6

This view is from a location on the R132 approaching the Airside Retail Park and the Pinnock Hill roundabout beyond it, to the north. The subject site occupies the centre of view, beyond the evergreen trees and the lower planting beyond these. This view is totally dominated by the road and the adjacent petrol station and its associated signage on the left.

A small part of the proposed development pops up in the distance, a substantial portion of it being screened by trees both left and right of the road. It provides a small visual focus along the line of the road and thereby heralds one's imminent arrival into Swords.

The visual impact from this viewpoint is **slight and positive**.

View 7

This view is taken from Boroimhe Oaks in the Boroimhe residential estate to the south of the subject site, looking north. The 2-storey red brick housing with gardens front and rear and rather substantial grass areas, is fairly typical of the layout of this estate. The rather ragged hedge at the far end of the road in this view, marks the boundary between this estate and the subject site beyond.

The proposed development is clearly of contrasting scale, style, finish and content, however its distance and the separating planting maintain a visual separation of one from the other. The proposed materials and colouring, together with the pitched roofs of Blocks 1, 2 and 3, link well with the existing foreground buildings and provide an appropriately scaled fringe which is effective in visually bridging between the existing and the proposed development. Whilst the context for the existing housing is changed, the proposed larger scale development to the north, never appears to dominate and the essential qualities of the existing residences remain intact.

The visual impact from this location will be **moderate and neutral**.

View 8

This view is taken from Boroimhe Birches in the Boroimhe residential estate to the west of the subject site, looking east. As for View 7, the 2 and 3-storey red brick residential development featuring substantial grass areas, is fairly typical of the layout of this estate. Again, the rather ragged planting at the far end of the road and grass mound, marks the boundary between this estate and the subject site beyond.

The proposed development occupies a visual gap between built elements in the existing housing estate and is again clearly of contrasting scale, style, finish and content. However again, as for view 7, its distance and the separating planting maintain a degree of visual separation of the proposed development from the existing. The variation in height and façade treatment across the visible elevation also provide a satisfying composition and the lower Block 3 with its pitched roofs, appropriately references the existing housing beyond the large grass space in the foreground. Whilst the context for the existing residential estate is changed, the proposed larger scale development to the east, never appears to dominate and the essential qualities of the existing residences remain intact.

The visual impact from this location will be **moderate and neutral**.

View 9

This view is taken from Boru Court, an existing residential estate to the north-west of the subject site. The site lies beyond the intervening Forest Road (marking the far edge of this housing estate) and an agricultural field

beyond the road (also zoned within the County Development Plan for residential development). This estate is characteristically 2-storey, red brick and render, semi-detached residential properties with small front and rear gardens.

In a similar vein to views 7 and 8, the proposed development, whilst of a different scale and type, appears in the distance between the existing buildings, but beyond and clearly separate from this existing estate. It does not impact negatively on the existing residential environment or its visual amenity. The design of the proposed development appears well-considered, with simple but appropriately detailed variations in height and colour across the facades, creating an interesting and pleasing composition in this view.

The visual impact from this location will be **moderate and neutral**.

View 10

This view is taken from a very similar viewpoint to View 3 on the R132, looking south-westwards, however the closer viewpoint requires a wider angle to ensure sufficient landscape context is provided. The broad road with its associated lighting columns and road markings, visually dominate in the view and the adjacent roadside planting is rather fragmented and is limited in countering this dominance.

The assessment of impact for this view is much as for View 3 and is largely repeated here for convenience. A part of the proposed development facing onto the R132 (Blocks 8, 9 and 10) can be seen from this location and being perched above the viewpoint emphasises the height and scale of the 8-10 storey elements. However, given the location close to the broad main road and the major roundabout junction behind, this never feels overbearing. The variation in the angled roofline along the roadside façade, coupled with the colour and tonal treatment of the building facades, assists in breaking down the building mass and mitigates the visual impact in that respect.

The visual impact from this location will be **moderate and neutral**.

View 11

This view is taken from a viewpoint just west of View 7 (at Boroimhe Maples), looking north-eastwards. The existing residential development is characterised by 2-storey red brick housing with gardens front and rear and a rather substantial open grass area with sparse tree planting between the access roads, to the front.

A part of the proposed development is visible in the gap between the houses in the centre of view and rises marginally above the existing roofline. The scale of the proposed development is not out of keeping in this view with the pitched roofs of Blocks 1, 2 and 3, echoing those prevalent within the existing residential development. The proposed finishes and colouring tends to merge the proposed buildings with the existing, leading to a net effect of the proposed development visually receding to the background. Whilst the context for the existing housing is slightly changed, the proposed larger scale development to the north, never appears to dominate and the essential qualities of the existing residences remain intact.

The visual impact from this location will be **slight and neutral**.

View 12

This view is taken from a viewpoint at Cherry Park (off Rathingle Road), some 540m distant, looking eastwards. The junction of Rathingle Road and Forest Road is located to the right of centre, just beyond the large grass space in the foreground.

The outer profile of the proposed development is indicated by the red line in the ‘proposed’ image.

The visual impact of the proposed development from this location will be **imperceptible**.

View 13

This view is taken from a viewpoint looking south along Hawthorn Park (off Forest Road), some 350m north of the subject site.
The proposed development, indicated by the red line in the 'proposed' image is substantially screened by the existing hedgerow vegetation along Forest Road, to the left of view. A very small part of the development will be visible but makes no noticeable impact.

The visual impact from this location will be **imperceptible**.

[In respect of cumulative effects (refer to 6.10 below), it should be noted that the permitted development north of the subject site and just east of Forest Road (Planning ref. ABP 308366-20), will be of similar height/scale to the proposed development and will in any case, effectively screen the proposed development from this view].

6.8.3 Summary of Visual impacts

In 11 of the 13 views provided, the proposed development is visible and registers a visual impact. Of these, 3 views are positive and the remainder neutral (i.e., the proposed development improves or does not affect the quality of the view. From the perspective of visual impact on surrounding views, the proposed scheme is well considered, designed and detailed, and this is instrumental in eliminating negative impacts and indeed providing a degree of positive impact – this is particularly so for views along the R132.

6.9 MONITORING

The retention of the existing boundary hedgerows and planting, where possible and proposed, coupled with the effective use of new planting to screen and integrate the built elements of the proposal into the existing landscape, are important aspects of the proposed scheme design. The success of the proposed scheme is dependent on both operations being properly executed. Effective hedgerow protection measures must be established in advance of construction work commencing and an approved system of monitoring the on-going health and vigour of both existing and proposed planting will be necessary. The timely planting and the maintenance and management required to successfully establish new planting with the projected rates of growth and general performance required, needs a significant and effective input from professionals with the necessary expertise to ensure it is effectively delivered. The monitoring of the planting performance and suitably appropriate responses to ensure same will be essential to the success of the development as proposed.

6.10 CUMULATIVE EFFECTS

6.10.1 Introduction

Current guidelines suggest that a determination should be made as to whether cumulative effects are likely to occur – these are outlined in the current GLVIA guidelines (3rd edition) as '*additional effects caused by the proposed development when considered in conjunction with other proposed developments of the same or different types'*. The EPA Guidelines on Information to be contained in Environmental Impact Assessment Reports (draft, 2017) defines 'Cumulative Effects' as *"The addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects."*

It is required that such a determination needs to be made as to whether any permitted development of a similar nature will have any bearing on the assessment of the proposed development, and this is subject to the assessor's judgement in the matter.

6.10.2 Cumulative Effects related to the proposed development

The Local Authority's planning strategy for this area includes for further residential development on other sites nearby, most notably that to the north of the subject site.
There are three currently permitted developments within a 500m radius of the subject site which could potentially be relevant in terms of cumulative landscape and visual impact, as follows:

A. ABP Ref.: 308366-20, Ph. 1 lands, Townlands of Fosterstown North and Cremona – 278 residential units plus a childcare facility, retail unit and associated site works. This is located just north of the subject site, east of Forest Road.
B. Reg. Ref.: F18A/0306, Lands at Fosterstown North, Boroimhe Link Road – 36 residential units. This is a relatively low-rise development, approx. 300m south of the subject site, on the southern side of the Boroimhe Link Road (L2300);
C. ABP Ref.: 310145-21, the R132 Connectivity Project consisting of road alteration works (only partially within the 500m radius of the subject site).

Only permitted development 'A' above is considered to have any bearing on the impacts assessed within this report. The permitted scheme is a residential development of significant scale with buildings of comparable height to those included in the proposed development. It is located just to the north of the subject site, north of the Gaybrook Stream and will occupy the western part of the neighbouring agricultural field. As such, the permitted scheme reduces the quantum of open land in this area, replacing a part of it with significant residential development – it therefore changes the context into which the proposed development is placed. Whilst the permitted development is also likely to have a bearing on the views assessed within this report, it can also be surmised that it is more likely to diminish the direct visual impacts of the subject proposal upon at least one of the views assessed (View 13), than increase them.

The cumulative impacts of the proposed development in combination with other relevant permitted projects, therefore, do not give rise to additional significant effects on the landscape character or visual environment in this area.

6.11 INTERACTIONS

Interactions in respect of the landscape and visual aspects of the proposed development relate to the architectural design of the proposed development and the landscape proposals for the site, as summarised in the design-related mitigation measures in Section 6.6 above.

The landscape proposals also relate to biodiversity on the site, both existing and proposed, in that they seek to protect and conserve habitat of value, most notably along the Gaybrook stream, and to enhance biodiversity within the new planting proposals across the proposed scheme.

6.12 DIFFICULTIES ENCOUNTERED

No difficulties were encountered in the preparation of this Chapter of the EIAR.

6.13 CONCLUSIONS

The proposed residential development is consistent with the landscape policy context as set out in the Urban Design and Building Heights Guidelines for Planning Authorities Dec. 2018, the Fingal County Development Plan 2017-2023, and the Fosterstown Masterplan (Area MP 8.I).

This Landscape and Visual Impact Assessment satisfies the relevant criteria of Section 3.2 and the Specific Planning Policy Requirement SPPR3 of the Urban Design and Building Heights Guidelines relating to assessment of landscape and visual impacts. This conclusion is drawn from the following specific elements of the assessment:

At the scale of the relevant city/town;

- The site is well served by public transport with high capacity, frequent services and good links to other modes of transport.
- The development proposals incorporating increased building height, include proposals which successfully integrate into / enhance the character and public realm of the area, having regard to topography and its cultural context.
- The proposed development will make a positive contribution to place-making, incorporating new streets and public spaces, using massing and height to achieve the required densities but with sufficient variety in scale and form to respond to the scale of adjoining developments and create visual interest in the streetscape.

At the scale of district/ neighbourhood/ street;

- The proposal responds to its overall natural and built environment and makes a positive contribution to the urban neighbourhood and streetscape
- The proposal is not monolithic and avoids long, uninterrupted walls of building in the form of slab blocks with materials / building fabric well considered.
- The proposal enhances the urban design context for public spaces and key thoroughfares, thereby enabling additional height in development form to be favourably considered in terms of enhancing a sense of scale and enclosure.
- The proposal makes a positive contribution to the improvement of legibility through the site and wider urban area within which the development is situated and integrates in a cohesive manner.
- The proposal positively contributes to the mix of uses and/or building/dwelling typologies available in the neighbourhood.

The proposed development is considered appropriate to the area and includes both design and mitigation measures that successfully address localised potential adverse impacts.

6.14 REFERENCES

- Guidelines on the information to be contained in Environmental Impact Statements prepared by the Environmental Protection Agency (EPA) 2002.
- Revised guidelines on the information to be contained in Environmental Impact Statements - Environmental Protection Agency (EPA), DRAFT, September 2015.
- DRAFT ‘Guidelines on the information to be contained in Environmental Impact Assessment Reports’ - Environmental Protection Agency (EPA), August 2017.
- Advice Notes on Current Practice in the preparation of Environmental Impact Statements - Environmental Protection Agency (EPA), September 2003.
- Guidelines for Landscape and Visual Impact Assessment, prepared by the Landscape Institute and the Institute of Environmental Assessment, published by Routledge, 3rd Edition 2013.

- Visual Representation of Development Proposals: Technical Guidance Note 06/19, Landscape Institute UK (LI) September 2019.
- Fingal Development Plan 2017-2023.
- Fosterstown Masterplan 2019.

APPENDIX 6.1: VERIFIED VIEW MONTAGES AND PRESENTATION / CGI IMAGES BROCHURE PREPARED BY 3D DESIGN BUREAU

3D DESIGN
BUREAU

Creative & Technical 3D Solutions
Design | Planning | Marketing

Fosterstown North SHD

Verified View Montages and Presentation / CGI Images Brochure

Applicant: J. Murphy (Developments) Limited

April 2022

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Methodology for Verified View Montages

1. Overview.
This summarised methodology has been prepared by 3D Design Bureau Ltd (3DDB) to explain the production of Verified View Montages (VVM). The preparation and presentation of reliable verifiable visual information is a key component to the writing of Landscape Visual Impact Assessment reports. It should be noted that VVMs are technical images and should be produced and used in a technically appropriate manner. Note: A full version of this methodology can be supplied in PDF upon request.

2. What Is A Verified View Montage (Vvm)?
Verified View Montages work by using the correct geospatial insertion of accurate 3d models in the existing landscape (photo) allowing for a photorealistic view of the planned model in its intended location.

3. Methodology

3.1 Project Planning
Following appointment a full list of suggested views are drawn up for review prior to visiting site between 3DDB, the client and the planning consultant. Note: If a LVIA report is being written by a 3rd Party planning consultant, the medium to long range views will be guided by them. After obtaining a full list, it is analysed and a plan for the taking of baseline photographs is put in place. Note: 3D modelling of the proposed scheme can, and usually is, commenced prior to the photographic site visit.

3.2 High resolution Baseline Photography
Every baseline photograph is captured in raw settings using a high-resolution digital SLR camera. This allows for the maximum possible information to be retained in the digital file. It also avoids the file from being altered by any internal camera processing definitions, allowing us to retain the maximum control and fidelity on the end results.
The focal lengths used depend on the surrounding context and proximity to the desired area. We use high quality lenses with focal lengths that allow us to capture enough surrounding context without compromising quality and fidelity, by avoiding excessive barrelling, distortion or aberrations. All shots are taken horizontally with the use of a 50mm lens (where possible). Note: Although the 50mm focal length represents the perceived scale of the human eye, it does NOT represent the human field of view and therefore should not necessarily be used to show the proposed development in its context.
On site and back in the studio, each photo location is correctly recorded and marked as follows
On-Site:

- The tripod location on site is paint marked and photographed in relation to existing elements.
- The location of each photo is manually marked on a printed map while on site.
- The camera height is recorded.

Upon completion of the baseline photo site visit all photographs go through post processing back in the studio. The full set of photos along with a viewpoint location map are issued to the client for review and to choose the best shots that will demonstrate the visual impact that the proposed scheme may/may not have**.**

3.3 Baseline Photo Surveying
When all baseline photos for the VVMs are chosen, each one is marked up in studio. The fixed reference points within each photo are coloured coded and all ‘marked up’ baseline photos are issued to our qualified topographical surveyor for surveying purposes.
The survey team records the camera/tripod position using GPS & Total Station to an accuracy of +-1cm Northing & Easting and to an accuracy of 2cm Elevation. The ‘marked up’ fixed reference points identified in each photo are then surveyed to establish exact orientation of the view and to verify the photomontage process.

Methodology for Verified View Montages

3.4 3D Modelling & Visualisation.

Modelling

An accurate digital 3D model of the 'proposed' development is produced in Revit. This is carried out from a combination of the 3rd Party architectural, engineering and landscape drawings. All proposed model information is contained in the one file and it is ALWAYS positioned relative to the existing survey information.

The 'marked up' fixed reference points which have been surveyed, are also modelled along with any other relevant survey information from the supplied topo survey drawing/s. As stated above, the proposed model and survey model information are geospatially positioned relative to one another. This is imperative to ensure the accurate positioning / camera matching of the proposed digital 3D model within each chosen photo.

Visualisation

Once the digital 3D Revit model is complete, our 3D visualisation team take over the project for the visualisation process. This involves the matching of textures, lighting conditions and asset population. This ensures that the 3D model is visually as close as possible to the intended future 'As Built' development.

Software used for the visualisation process is called 3D Studio Max. This is accepted as the industry standard for architectural visualisation work and production of VVMs.

3.5 Camera Matching / Rendering / Post Production

Following the completion the 3D visualisation process (but in some instances prior to this) the following methodology is applied in order for views to be verifiable.

Camera Matching

All of the information recorded at the time of the baseline photographic site visit, that is, camera co-ordinates, angle of view, and direction of view, is programmed into the virtual camera within our 3D software package of choice - 3D studio Max. Insertion of digital cameras within the software with matching attributes of the physical camera is carried out. This careful method ensures that the size, position and height, of the proposed development in each VVM is correct to an accuracy of 0.33% i.e. +/- 1mm on an A3 print.

Rendering

Following the camera matching and visualisation process the view is 'rendered' at high resolution and is superimposed onto its matching baseline photograph using Adobe Photoshop software. The mathematical accuracy is then double checked and verified by ensuring that existing 'marked up' fixed reference point features which were also rendered line up exactly in the photo.

Post Production

Next, the VVM specialist establishes, which existing features, such as buildings, landscape and trees, are in the foreground of the proposed development and those that are in the background, i.e. which features will mask the development and which ones will appear behind the development. When it is found that the development is not visible due to foreground features, its extremities will be indicated with a red outline.

4. RESULTS

The resulting VVM having gone through this extensive procedure is an accurate and verifiable representation of the proposed development as viewed from the selected camera positions. This shows as closely as possible any future impact the proposed development may have on the surrounding environment and existing buildings, presenting a truly valuable tool for planning purposes.

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Viewpoint Location Map
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 1
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 1
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 2
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 2
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 3
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 3
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 4
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 4
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 5
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 5
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 6
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 6
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 7
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 7
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 8
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 8
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 9
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 9
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 10
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 10
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 11
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 11
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 12
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 12
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Baseline VVM 13
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Proposed VVM 13
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: Presentation View P1
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: CGI 1
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: CGI 2
	CGI & VVMs by 3D DESIGN BUREAU	Tel: 01 288 0186 www.3ddesignbureau.com info@3ddesignbureau.com

Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: CGI 3
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Project Title: Fosterstown North SHD	Applicant Name: J. Murphy (Developments) Limited	Image Title: CGI 4
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