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landscape architecture

ARBORICULTURAL IMPACT ASSESSMENT

Incorporating a

TREE PROTECTION STRATEGY

For

CREAGH, GOREY

CO. WEXFORD

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1. Introduction

The purpose of this assessment is to provide an analysis of the impact of the proposed development on the existing trees and hedgerows. This report should be read with reference to the findings summarised and recorded in the Tree and Hedgerow Assessment report, conducted on 19th January 2018 and 17th July 2018. The report should also be read in conjunction with the following drawings:

- Tree and Hedgerow Survey (REF: 1706_TS_P_01);
- Arboricultural Impact and Tree Protection Drawing: (REF. 1706_TS_P_02);
- Tree Protection Fencing (REF: 1706_TS_P_03);

2. General Description of Trees and Hedgerows

A total of 28no individual trees and five hedgerows/boundary conditions were surveyed on site and described within the tree survey report. Although much of these fall outside the development site boundary, some recommendations are necessary to provide a valid arboricultural impact of these landscape elements because of the potential extent of the root protection area and the present state of both trees and immediate hedges. These recommendations are necessary so that the hedgerows/boundaries, and their bio-diversity, can be a healthy and aesthetically-fit asset to the future housing development.

Except for the hedgerows and trees adjacent to Fort Road to the North-West and South-West and the Oak tree boundary to the North-East of the site, all the trees were located within hedgerows or on boundaries of the future development area.

The quality of the trees is consistent with an agricultural environment. There has been very limited pro-active tree management undertaken in recent times with management confined to the removal of dead and dying trees where they pose a hazard only.

Category for tree quality assessment	Number of trees
A	5
B	11
C	10
U	2

Table 1. Category of the Trees surveyed (BS 5837:2012, Item 4.5 Tree categorization method).

The site is bounded by dense hedgerows with different signs of management. This ranges from the well managed hedge at the South-West boundary adjacent to Fort Road, with the remaining hedgerows having been neglected for some time with various levels of maintenance. This has resulted in overgrown native and pioneer vegetation colonising the boundaries and some large discrepancies on the growth and expansion of the tree canopy. Large gaps also exist in some of the hedgerows, especially to the northern boundary with the existing arable field. The boundary with Fort Road could not be considered a hedgerow, rather an earth embankment with overgrown understorey vegetation beneath the existing trees on the bank.

The hedgerows are generally of Bracken (*Pteridium aquilinum*), Bramble (*Rubus* sp.), Gorse (*Ulex europaeus*), Hawthorn (*Crataegus monogyna*), Holly (*Ilex aquifolium*) and Ivy (*Hedera helix hibernica*), interspersed with semi-mature to mature specimen of Ash (*Fraxinus excelsior*), Lime (*Tilia x europaea*) and Oak (*Quercus robur*). Included in the group of existing hedgerows/boundaries to the south, there can also be found several young self-seeding multi-stemmed Alder (*Alnus glutinosa*) within the mature row of Cypress

(*Cupressus* sp.), close to the urban fringe of Gorey town centre. The only hedge that shows signs of maintenance is the one located South-East of the site, near Fort Road and Hunter's Green, composed of *Griselinia* (*Griselinia* sp.) with no tree specimens present.

3. Impact of Proposed Development

The design of the proposed development has allowed for the retention of considerable portions of the existing hedgerows. Within the development there are a proposed 302no. new trees planted within the open spaces and along the boundaries. They are specified as native tree species. The pioneer species within the internal site (Alder, Birch, Hazel) will also be removed due to construction.

Vegetation proposed to be removed due to the development include the *Leylandii* (*Cupressus* sp.) located South-East of the site bordering Ashwood Grove, inaccessible due to the deep embankment located east of the boundary and overgrown shrubs and ferns to the South, therefore hindering the survey. This dense border of *Leylandii* trees extends approximately for 120 metres.

A portion of existing overgrown boundary vegetation to the north is also proposed to be removed to allow for construction. This consists of several young Cherry (*Prunus* sp.) trees with associated overgrown understorey vegetation of Bramble and Ivy.

The existing *Griselinia* hedgerow (Hedge 5) to the southern portion of the site on adjacent to Fort Road is also proposed to be removed. This is to facilitate the construction of a new pedestrian footpath and verge along the roadway.

In total there are 22no. trees to be removed due to construction. 15no. of these are located along the boundary to Fort Road. Two are to be removed due to the new access road to the development. These are an Oak (*Quercus robur* – Tree 271) and an Ash (*Fraxinus excelsior* – Tree 272). (The remaining trees 13no. to be removed on this boundary are to facilitate the new footpath and verge to Fort Road.) The remaining 7no. trees are to be removed (tree 291 through to tree 298) are within the hedgerow boundary to the north, adjacent to the neighbouring development site. This is to facilitate the rear garden of the adjacent residential units.

4. Mitigation

It is not considered that the loss of identified trees will be significant in landscape terms as the number to be removed are relatively low and none are of major significance in terms of their arboricultural/historic values. There will be extensive planting as part of the landscape proposals within the development. There are a proposed 302no. new trees planted within the open spaces and along the boundaries. They are specified as native tree species.

Regarding the hedgerows, there is additional planting of c. 134 metres (431 sq.m.) of new and replacement native hedgerow within the development along the boundary with Fort Road, and approximately 316 metres of new native hedgerow to the boundary with Ramsfort Park Forest. The northern boundary hedgerow will also be rehabilitated and enhanced with new native species along its 387 metre length. This will ultimately increase diversity in the terms of tree and hedgerow species and improve the habitat for a wide range of species, both plant and animal.

Boundary treatments to the rear of some proposed properties bordering the existing Ashwood Grove development (Approximately 130 metres of Hedge 4,) are such that the existing vegetation is proposed to be removed. A solid rendered block wall (2m height) construction is proposed in these locations.

Overall, the proposed new tree, hedgerow and native shrub planting would substantially increase the planting resource and quality in the area. There are approximately 302no. new native trees proposed within the development. Although 120 metres of existing

boundary vegetation is proposed to be removed, this is primarily made up of overgrown Leylandii trees with little landscape value. In conclusion, 527 linear metres of existing hedgerow will be rehabilitated and enhanced with new native hedgerow planting, while there is 316 metres of new native hedgerow. This totals 837 linear metres of native hedgerow within the development.

5. Future Management

The tree survey provides a basis for the ongoing management of trees on the site. It is recommended that following the development of the site that the trees are re-assessed with a view to maintaining suitable specimens with replacement of those particularly within category C which may have deteriorated over time.

6. Tree Protection Strategy

Key Issues

- Appointment of an arborist (Site Arborist) to oversee all works relevant to trees;
- Establishment of tree protection (refer to Drawing **1706_TS_P_03**);
- Monitoring of tree protection (adherence to the Tree Protection Code of Practice);
- Supervision of works in the vicinity of trees;
- Post construction re-assessment of retained trees.

7. Preservation of Trees

Trees that are to be retained should be protected so that soil disturbance and changes in soil levels do not occur. The construction exclusion zone surrounding a tree should contain sufficient rooting volume to ensure the survival of the tree. The location and erection of protective fences is as specified in accordance with BS 5837:2012 "Trees in relation to Construction" and on the drawings (see drawing no. **1706_TS_P_02**).

Where hard surfaces are proposed within the Root Protection Area (RPA) a strict no dig design excavation must be adhered to, avoiding unnecessary root loss. In the event where excavation is essential a hand dig system must be undertaken under arborist supervision. The hard surface must be permeable to allow the roots moisture infiltration and gaseous diffusion. Structurally, the hard surface should be designed to avoid localised compaction, by evenly distributing the carried weight. The sub base will consist of a three-dimensional cellular confinement system with the build up to the engineer's detail and approved by the arborist.

7.1 Contractors obligations

The Contractor shall take all precautions to ensure that any trees which are not required to be taken down under the contract shall remain undisturbed and undamaged. The Contractor must appoint a qualified arboricultural contractor to undertake all tree works subject to approval by the Consulting Arborist. The Contractor shall undertake no works to trees unless instructed by the Contract Administrator. Five working days' notice of intention to undertake works to be given.

7.2 Setting out: Protected Tree Zone/Construction Exclusion Zone

The tree protection zone shall be set out as per drawing no. **1706_TS_P_02**. A notice 'Construction Exclusion Zone' shall be placed on tree protection fencing at regular intervals along the protective fencing. This notice shall include contact details for the Site Arborist. Strictly no access should be permitted to this zone unless instructed by the Site Arborist.

The Contractor is to maintain the protective fencing in good condition to the satisfaction of the Site Arborist for the duration of the contract. Any damage to fencing is to be reported to the Site Arborist immediately. Damaged fencing is to be repaired within 2 hours of the damage occurring. All works within the vicinity of the damaged fencing are to be suspended until the fencing is repaired.

7.3 Maintenance of Protected Tree Zone

The Site Arborist should be given 5 days' notice of any works within or access required to this zone. The 'Protected Tree Zone' should under no circumstances be used for storage of materials, equipment, or site debris. No fires should be lit within the "Protected Tree Zone", or equipment washed or cleaned.

All operations to be in accordance with BS 5837:2012 Trees in relation to design, demolition and construction -Recommendations.