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To: John Keating, Senior Planner

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Our Ref: EM 13418

Re: Report on the Landscape & Arboricultural Aspects of the Bray to City Centre Core Bus Corridor (CBC) Scheme

The proposed development has very significant impacts on the existing landscape character of the environs it will be constructed in. There is a huge impact alone in the proposed loss of high value amenity trees which is envisaged at many locations along the length of the CBC.

This report follows the route from the N11 to Bray and the issues are addressed in this order. Recommended conditions are outlined and generally apply to the entire project unless specific to a particular area or location.

1. N11/Stillorgan Road

1.1 The row of standard trees in the central median on the N11 needs to be continued. *Carpinus betulus* (Hornbeam) has been planted on the N11 median in the past and improves the visual amenity as well as performing other ecological and environmental functions. The continuation of this median tree planting on the N11 is required, partly to mitigate against the extensive loss of trees throughout this development and to improve the vista along the N11. This is very achievable as the margin is of sufficient width for the most part – median width to accommodate tree planting is 3m. The precise details of this planting are to be agreed with DLR Parks.

1.2 Furthermore the underplanting of these trees with successional bulb planting for the entire length of the median (not already planted with bulbs) should be an

objective as this intervention facilitates the public acceptance of long grass and vegetation for a considerable period of time and therefore greatly benefits pollinator species as well as being appreciated for its amenity value.

1.3 Minimum width of grass margin/median to be no less than 500mm, anything narrower to be incorporated into the pavement/hardscape as not maintainable with conventional machinery.

1.4 **The dlr Tree Strategy - A Climate for Trees –2023-2030 (to be published October 2023)** (extracts below in italics) embraces the challenges posed by climate change and the following policies are critical and need to be taken on board within this development;

Policy 16 The Council will endeavour to plant 'The Right Tree in The Right Place'.

Policy 17 The Council will encourage planting a diversity of tree species, sizes and ages to build resilience in the urban forest carefully selecting native tree species as appropriate to ensure we do not adversely impact on our ecosystems and biodiversity, and non native trees as street trees or specimen trees in parks.

1.5 Until recently it has been practice to plant mono-cultures to achieve uniformity and formality along streets and road, i.e. the same tree variety planted along the median or in grass verges. However due to climate change, trees are experiencing more stress and disease now than in the past- e.g Ash die-back is very prevalent resulting in all trees in a plantation or along a road dying over a season or two. (other diseases of concern here are Oak Processionary moth – which has severely impacted oaks in London and other UK and European cities, Bleeding canker of Horse Chestnut etc). Therefore to prevent loss of entire avenues of trees more diversity in tree species, sizes and age is being recommended.

This is achieved as follows:

10-20-30 Rule: The rule suggests an urban tree population should include no more than 10% of any one species, 20% of any one genus, or 30% of any family.

Height to First Branch: The distance from the ground to the first branches of the tree canopy creates the visual and physical pathway that we view or walk under. By keeping this space equal between trees, the walking or viewing experience appears uniform between trees.

Tree size and shape: Planting similar sized trees and similar shaped trees beside each other will provide a uniform view.

1.6 Condition: Tree planting to be maximized throughout the route corridor in lieu of existing mature trees being lost due to the proposed development. This should include road verges & central medians. Where space is limited, construction details consisting of CU Soils & extended growing area beneath footpaths / roads should be considered. Where underground services pose a constraint to tree planting, root barrier solutions shall be utilized to redirect future tree root expansion away from services, but this should not prevent tree planting from occurring i.e. N11 central median.

1.7 Condition: Appropriate sections along the central median along entire length of Stillorgan road should be considered for incorporating a BioSwale, collecting the surface run-off from the adjacent carriageways. Existing services can be incorporated within the construction detail of the bioswale – refer to NTA 'Greening & Nature-Based SuDS for Active Travel Schemes Advice Note.

1.8 Condition: Tree species selection shall be determined by scale appropriateness, environmental conditions, and ground/ substrate conditions. Tree

schedule on drawing needs to be reviewed & agreed with Dlr Parks prior to proceeding to construction.

1.9 Condition: All landscape works shall have a 36 month, post planting maintenance period to ensure establishment. This shall form part of the contract for the landscape contractor appointed to carry out the installation of the landscape works.

1.10 Condition: Care needs to be taken to ensure that any new landscaping or tree planting does not impede visibility of traffic signal heads at junctions and pedestrian crossings.

1.11 Condition: All tree planting construction details shall incorporate route barriers to line tree pit trenches/pits to protect both services and adjacent surfaces. Growing substrate, aeration & irrigation details to be developed in collaboration with Dlr Parks. Tree planting details to be agreed & signed off by Dlr Parks prior to proceeding to construction phase.

2. Arboriculture

2.1 The Arboricultural Assessment and Method Statements Report is very comprehensive, however the challenge will be in the protection of the root zones when under construction not to lose more than the 410 trees anticipated. In the first instance at detailed design, it is essential that further consideration be given to some of the Category A (30 trees) & B (135 trees) whose removal is planned and outlined in the Preliminary Design Tree Removal Plan which is based on the current layout. **There may be localised interventions that could aid the retention of these important trees which have taken the best part of a century or more to mature and have a very high value in terms of their**

contribution to climate mitigation, biodiversity, local heritage and landscape character . An example is T0135, a Horse Chestnut (Category A tree) in Shanganagh Park where a pinch point in the width of the path/cycleway could facilitate it's retention. There are several others throughout the scheme.

2.2 Condition: Chapter 6 of the Arboricultural Impact Assessment & Method Statement Bray 20-079 Report must be strictly adhered to.

2.3 Condition: There must be a qualified arborist on site on a daily basis where site preparation, site clearance work and construction works is being implemented in the vicinity of trees to be retained on site in order to ensure the Root Protection Zone is appropriately fenced and protected during site works as this is the greatest period of risk to the trees. Also their presence is required to advise on sensitive works adjacent to trees as they unfold during the construction period.

2.4. The greatest unnecessary loss of trees happens as a result of the Root Protection Zones not being properly enforced, trees subsequently being damaged and tree safety being ultimately compromised.

2.5 Condition: The Arboricultural Consultant must be involved in the detailed design stage as well as the construction stage to identify opportunities for retention of significant trees.

2.6 Condition: There should be a tree bond of €1.5 million applied to protect the trees which are to be retained to ensure their safe retention. This is reflective of the importance and value of the trees located within the project area.

2.7. The tree bond is an effective method of ensuring greater likelihood of adequate protection and supervision to ensure retention.

2.8. The majority of the trees scheduled for removal are significant in terms of maturity and it is essential that appropriate numbers of tree replacements are planted. This is covered by the dlr Tree Strategy - A Climate for Trees – Tree Strategy 2023-2030 (extracts below in italics) which details the importance of retaining the existing tree canopy in the first instance as the replacement trees take many years to attain the levels of environmental functions lost when mature trees are removed. Detailed below are the relevant extracts from the Strategy:

2.9 Replacement tree planting

Compensatory or replacement planting is required when a tree in land is sought to be removed or damaged due to development or utility works. However, this should not be the first step, the starting point should be AVOID removal of trees which is best at the project planning stage, if this is not possible then Minimisation of the impacts by development or construction should be introduced. If neither of these is an option, then restoration should be considered and finally replacement or compensatory planting should be proposed.

The number of trees required to compensate for loss of existing trees depends upon the size of the trees to be lost. This is set out in the following table:

<i>Trunk Diameter of Tree lost to development (cm measured at 1.5 metres above ground level)</i>	<i>Number of Replacement Trees</i>
<i>Less than 15</i>	<i>1</i>
<i>15 – 19.9</i>	<i>2</i>
<i>20 – 29.9</i>	<i>3</i>
<i>30 – 39.9</i>	<i>4</i>
<i>40 – 49.9</i>	<i>5</i>
<i>50 – 59.9</i>	<i>6</i>
<i>60 – 69.9</i>	<i>7</i>
<i>70 – 79.9</i>	<i>8</i>

80+	9+
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Policy 7 When consistent with planning objectives and conditions, the Council will use its powers, under the Planning and Development Act 2000, to ensure maximum and robust retention, conservation and management of trees, woodlands and hedgerows.

Policy 9 An Arboricultural report is required for any planning application where there are trees, shrubs or hedges on site or outside the boundary within 20m of any construction works.

Policy 10 The council encourage new and replacement planting of trees on development sites and recommend that new plantings are in line with the above table or attempt to achieve a target of 18% canopy cover along with government and council canopy cover targets.

Policy 11 Where a tree of category A, B or C is to be removed then replacement trees should be proposed, replacement trees should increase biodiversity, be an appropriate species for the location, and have a mature canopy spread equivalent to, or greater than, the tree(s) removed. The replacement tree should be no smaller than dbh 6.5cm.

Policy 12 Where a loss of trees occurs a contribution towards offsite planting may be considered where it is shown that the site cannot accommodate replanting. This is to be developed as part of the supplementary planning publication on planning and trees.

Policy 13 Protection of County value hedgerows and the provision of native hedgerows as part of

the landscaping plan should be included in a development proposal. The consideration of how the hedgerows link to the surrounding landscape and enhance the Ecological Network should also be included in any development proposal.

2.10 Condition: The Arboricultural Assessment must take into account the Policies listed in the dlr Tree Strategy - A Climate for Trees – Tree Strategy 2023-2030.

2.11 The section of the route that navigates through Shankill Village has a significant negative impact on the existing mature tree population. The proposed juvenile tree replacements fail to adequately compensate for the local amenity, biodiversity, and environmental loss. Carbon sequestration associated with the mature tree population will be diminished considerably, with the replacement juvenile trees & species unable to meet the same sequestration for a min. 60-80yrs, if at all (species selection related). For much of Shankill Village and the roads serving the village, the CDP has identified many of the trees stands for protection – refer to the CDP maps.

2.12 The removal of healthy mature trees directly contradicts many of Dlr’s policies set out in the CDP – chapters 4, 8 & 14, the Climate Change Action Plan, Biodiversity Action Plan, & the Tree Strategy and the dlr Tree Strategy - A Climate for Trees – Tree Strategy 2023-2030.

2.13 The proposal to remove a large stand of mature Category A & B trees on either side of the Woodbrook development will have a serious detrimental effect on the sylvan nature and biodiversity of this section of the road. These trees are of very high quality and huge effort has been made to date with the developer of Woodbrook to successfully retain the trees here. **Every effort should be made to retain the trees at Woodford, and consideration should be given to the provision of a signal-controlled bus priority and/or other appropriate**

measures to avoid the provision of a continuous bus lane in both directions as proposed.

2.14 Condition: Alternative design solutions must be explored to enable the retention of the high quality trees on either side of the Woodbrook Development.

2.15 Condition: Detail of Shanganagh Cemetery boundary wall to consist of low stone wall & railing top. Liaise with Dlr Parks for approval on detail at detailed design stage.

A new pedestrian entrance to cemetery at the southern most corner of the boundary wall (53°13'12.7"N 6°07'12.3"W) along the Dublin Rd., connecting the footpath into cemetery should also be provided, details to be agreed with DLR Parks.

3. Specific Recommendations and Conclusion

3.1 Refer to attached Appendix for recommendations on specific locations along the route corridor.

3.2 In conclusion, the proposals should exhaust every avenue to retain the maximum number of healthy mature trees, while planting new trees at every available opportunity. The associated front loading of costs to achieve this, will over time prove to be prudent forward planning to help tackle the Climate Change emergency.