FAO: An Bord Pleanala (Strategic Infrastructure Division)

Re. Planning Application by the National Transport Authority for the construction of the Belfield / Blackrock to City Centre Core Bus Corridor Scheme.

The Submission from Dun Laoghaire Rathdown County Council regarding the Belfield / Blackrock to City Centre Core Bus Corridor Scheme is set out hereunder.

From: Dun Laoghaire – Rathdown County Council,

Marine Rd, Dun Laoghaire, Co. Dublin, A96 K6C9.

Main Contact: John Keating, SEP, Traffic Section and BusConnects Liaison, DLRCC

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This submission is set out under the following headings:

Section 1

Introduction and Planning Policy

Introduction

The BusConnects Core Bus Corridors infrastructure projects present a major opportunity for transformative improvements to both cycling and public transport infrastructure within DLRCC and the wider Dublin area. DLRCC is therefore very supportive of the proposed Belfield / Blackrock to City Centre Core Bus Corridor scheme and welcomes this opportunity to make a submission to An Bord Pleanala in respect of the proposed development. DLRCC considers it essential to optimise all opportunities for improvements to public transport and cycling infrastructure, so that we can maximise the shift to sustainable mobility modes over the critical years ahead. DLRCC believes that the recommendations set out below in this submission will add further value to the CBC scheme and help to maximise the move to sustainable travel across the city. DLRCC therefore requests An Bord Pleanala to give due consideration to the Council's recommendations.

DLRCC County Development Plan 2022 - 2028

The DLRCC County Development Plan 2022 – 2028 is supportive of the implementation of this Core Bus Corridor. The County Development Plan is underpinned by 5 overarching Strategic County Outcomes.

1. Creation of a Climate Resilient County
2. Creation of a Compact and Connected County
3. Creation of a Network of Liveable Towns and Villages
4. Creation of an Inclusive and Healthy County
5. Creation of a Vibrant Economic County

Each of the five Strategic County Outcomes outlined above are entirely interrelated and in combination can deliver the overall Development Plan Vision over the lifetime of the Plan. Creation of a liveable, connected and compact County will in turn lead to a climate resilient County which will create the opportunities for economic growth. Modal shift is essential to the creation of a compact, connected and climate resilient County and the provision of enhanced public transport and cycling facilities will greatly assist with hastening this change.

The more detailed transport policy approach is set out in Chapter 5 of the County Development Plan and it favours the Avoid - Shift- Improve (ASI) model which is based on avoiding or reducing the need to travel, shifting to more environmentally friendly modes and improving the energy efficiency of transport. The aim is to reduce congestion, create more liveable cities and reduce greenhouse gas emissions. A greater uptake of active travel and public transport through the provision of improved infrastructure is key to the model and to promoting modal change.

Chapter 5 of the County Development Plan 2022 – 2028 sets out a number of detailed policy objectives. Those set out below are relevant:

Policy Objective T3: Delivery of Enabling Transport Infrastructure sets out that:

"It is a Policy Objective to support the delivery of enabling transport infrastructure to allow development take place in accordance with the Core Strategy of this Plan and the settlement strategy of the RSES. (Consistent with RPO 4.40, 10.2, 10.3, 10.11, 10.16 of the RSES)". Bus connects is one such piece of enabling infrastructure identified in the County Development Plan under Policy Objective T3.

Policy Objective T4: Development of Sustainable Travel and Transport sets out that:

" It is a Policy Objective to promote, facilitate and cooperate with other transport agencies in securing the implementation of the transport strategy for the County and the wider Metropolitan Area as set out in Department of Transport's 'Smarter Travel A Sustainable Transport Future 2009 –2020', and subsequent updates and the NTA's 'Transport Strategy for the Greater Dublin Area 2016-2035' and subsequent updates, the RSES and the MASP. (Consistent with NPOs 26, 64 of the NPF and RPOs 5.2, 5.3, 8.4, 8.7, 8.8 and 8.9 of the RSES)." Bus service and cycle facility upgrades are a key part of the current NTA strategy.

Policy Objective T5: Public Transport Improvements sets out that:

*"*It is a Policy Objective to expand attractive public transport alternatives to car transport as set out in 'Smarter Travel, A Sustainable Transport Future' and subsequent updates; the NTA's 'Transport Strategy for the Greater Dublin Area 2016-2035' and the NTAs 'Integrated Implementation Plan 2019-2024' and subsequent updates, by optimising existing or proposed transport corridors, interchanges, developing new park and rides, taxi ranks and cycling network facilities at appropriate locations. (Consistent with NPO64 of the NPF, RPO 4.40, 5.2, 8.3 and 8.8 of the RSES)"

Policy Objective T6: Quality Bus Network/Bus Connects sets out that:

"It is a Policy Objective to support the implementation of the bus network measures as set out in the NTA's 'Greater Dublin Area Transport 2016-2035' and 'Integrated Implementation Plan 2019-2024' and the Bus Connects Programme". The Belfield/Blackrock to City Centre Core Bus Corridor infrastructure works are specifically mentioned under this policy objective.

Blackrock Local Area Plan 2015 - 2025

Policy Objective BK12 sets out that:

"It is Council Policy to promote the principles of sustainable travel both to/from and within the Blackrock Local Area Plan Boundary". The proposed CBC scheme will bring about a significant uplift in sustainable travel infrastructure within the Blackrock area.

Having regard to the above highlighted policy objectives, it is considered, that the provision of the proposed Core Bus Corridor infrastructure, is a core policy objective of the DLRCC County Development Plan 2022 – 2028 and is key to achieving the Strategic County Outcomes underpinning the County Development Plan.

Section 2

Traffic and Active Travel Recommendations

General Comments

The Board is requested to:

- **Ensure that all bus stops are adequately set back from junctions to avoid buses potentially backing up and blocking traffic and to also ensure that visibility of junction traffic signal heads for oncoming traffic is not impeded.**

- **Ensure that adequate stacking space for cyclists is provided, especially at protected junctions, to accommodate cyclists waiting to cross the road and to take into account the anticipated increase in cycle traffic over the years ahead.**

Traffic Signal Phasing

The Junction Design Report (Appendix A6.1 Sub Appendix 2) shows signal phasing and timings for the signalised junctions along the route. The Council has concerns regarding the design approach at a number of junctions.

The cycle times have been extended to 120 seconds "to maximise the throughput of people through the junction". In fact, increasing the cycle time increases the throughput of cars only. Pedestrians, cyclists and buses do not benefit from longer cycle time. Pedestrians, cyclists and buses need minimum (or minimal) green time to clear the queues which have arisen during the red phase. It is only cars which require longer green times to clear the queues which have arisen during the red phase.

Where there is a conflict between straight through cyclists, buses and left-turning cars, a number of junctions have separate stages for each mode (presumably for perceived safety reasons). This means that straight through cyclists and buses have red signals while straight through and left-turning cars have green. Typically, in a cycle time of 120 seconds, the cyclist stage would be 7 seconds green, the bus stage would be 10 seconds green and the car stage would be between 20 and 50 seconds. Cyclists would have green for less than 6% of the cycle and buses for less than 9% of the cycle. This would be a very significant reduction in green time for cyclists and buses in comparison with the current situation, where cyclists and buses have green at the same time as cars.

The Council has a particular concern with the phase where straight through cyclists are on red while straight through cars are on green (typically for 20-50 seconds per cycle). The Council is concerned that the level of compliance by cyclists with such a phasing would be very low and that non-compliance would lead to significant safety issues.

The Council understands that a trial of similar junction layouts and signal phasing has been carried out in the Dublin City Council area, but at a junction with low cyclist traffic volumes,

and other trials are being considered. The results of any such trials should be used to decide on the final detailed design of the junction layouts and the signal phasing for the Belfield/Blackrock CBC.

DLRCC requests that the Board include a condition requiring the NTA to implement and monitor a trial junction layout and phasing at a location (or locations) where there are significant volumes of cyclist and car traffic. A permission for the Belfield/Blackrock CBC should allow sufficient flexibility for the results of any such trials to be used to decide on the final detailed design of the junction layouts and the signal phasing and should require the NTA to agree the final detailed design of the junction layouts and the traffic signal phasing with DLRCC.

Traffic Reassignment

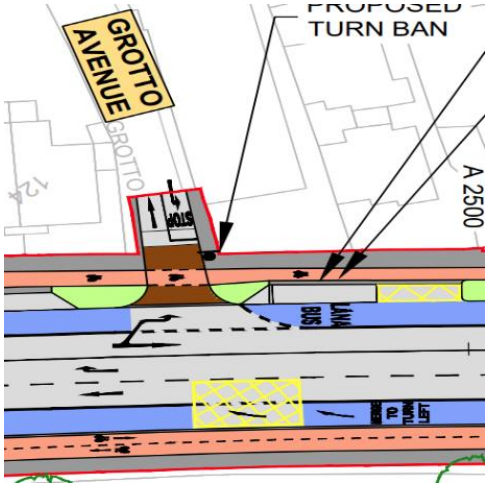
Chapter 6 of the EIR deals with Traffic and Transport. Section 6.4.6.2.8.3 deals with differences in traffic flows on links in the study area. Diagram 6.27 shows the AM peak hour in 2028. It shows significant increases in traffic along Stillorgan Park Road and Grove Road. The Council is currently considering Active Travel measures along Stillorgan Park Road and in the area of Grove Road and nearby Avoca Road. The Council believes that traffic is more likely to reassign (i.e. re-route) to Stillorgan Park Road and the Stillorgan Road between Stillorgan Village and Mount Merrion Avenue, especially when our Active Travel measures are implemented. The Diagram also shows increased car traffic along all other sections of the Bray/Stillorgan Road from White's Cross to the City Centre. The Council is of the view that the best way to mitigate the impacts of such car traffic reassignment would be to expedite the approval and construction of the Bray Core Bus Corridor, thereby providing a sustainable travel option for people in the general area.

Treatment of Junctions with side roads (non-signalised)

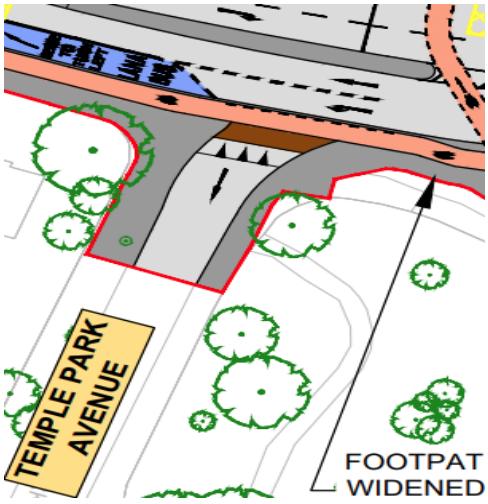
In the interest of pedestrian and cyclist safety, DLRCC has a requirement, where feasible, for the provision of continuous pedestrian and cycle facilities across side roads, similar in design to that proposed under the CBC scheme at Grotto Avenue (example 1 below). At other side road locations across the CBC scheme however, the cycle lane is at grade with the general traffic lane and not accommodated on the raised table (example 2 below).

DLRCC requests that the Board include a condition requiring prior engagement and agreement with DLRCC regarding the final design of the pedestrian and cycle facilities at junctions with side roads in order to ensure an approach which is consistent with the requirements of the Council.

Example 1



Example 2

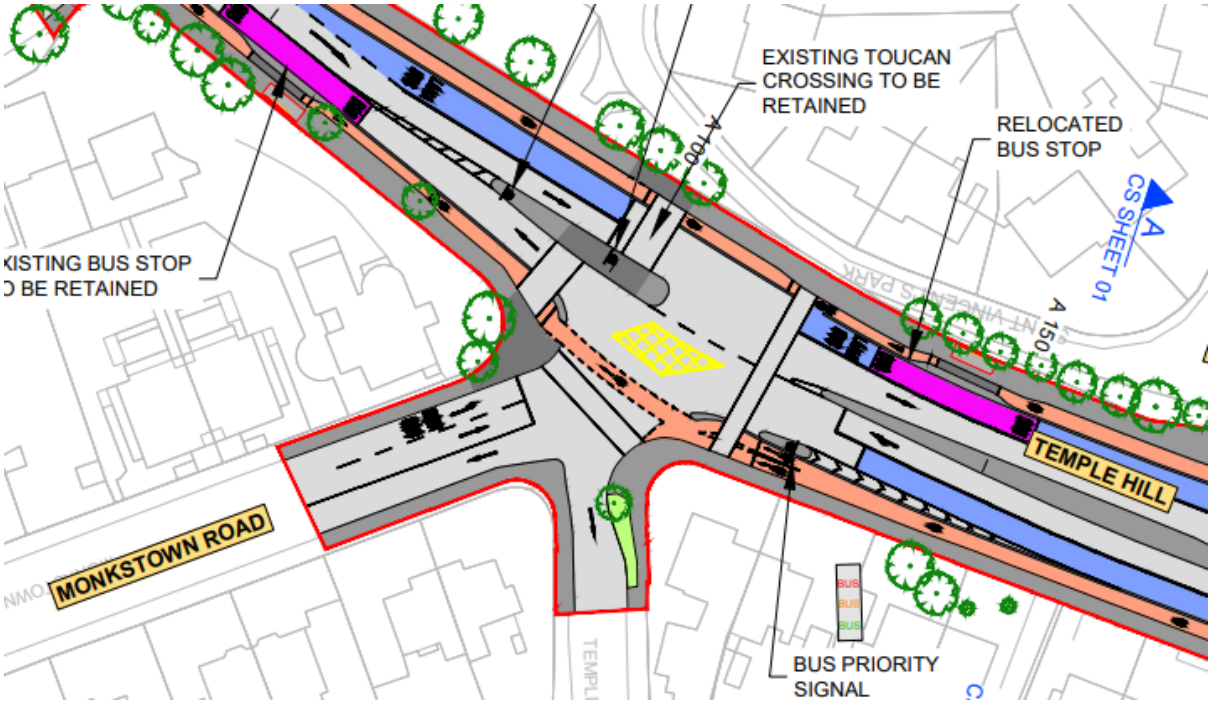


Specific Comments

Segregated Cycle Facilities at Temple Hill – Monkstown Rd Junction

The CBC scheme proposes segregated cycle facilities on the city bound cycle lane as it passes through the junction of Temple Hill and Monkstown Rd. While DLRCC generally favours segregated facilities, there is a concern at this location, that the segregated design could impede cyclists coming from Monkstown Rd and wishing to continue straight through the junction and access the city bound cycle lane directly (rather than alighting and using the Toucan Crossing).

DLRCC requests that the Board considers a minor design amendment at this junction, to allow for safe access to the city bound cycle lane through the junction for cyclists coming from Monkstown Road.



Removal of Staggered Toucan Crossing at Temple Hill – Monkstown Rd Junction

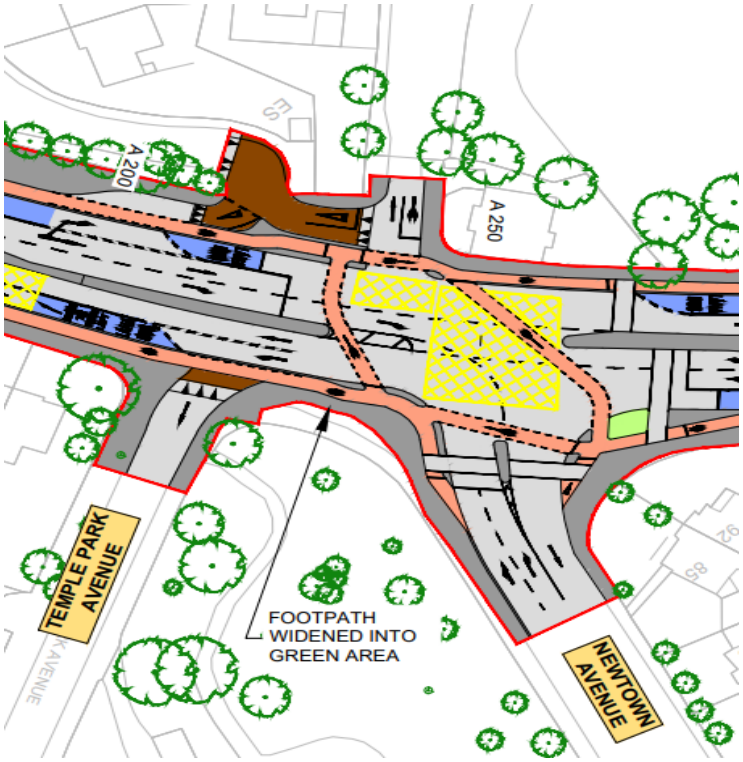
This junction includes a straight through pedestrian crossing on the Blackrock side. When this crossing runs, the only other movements that can run are the left turn out of Monkstown Rd and the priority right turn for buses coming off Temple Hill (from the Stradbrook Rd side). DLRCC considers it may be preferable to have an all red phase at this junction, which would allow the removal of the staggered toucan crossing and result in improved pedestrian facilities.

The Board is requested to consider this amendment and to also consider if a fully protected junction solution for cyclists might be more appropriate at this location and more consistent with the designs proposed at other junctions. The Board is requested to include a condition as appropriate requiring prior engagement and agreement with DLRCC regarding any changes to the final design and layout of this junction.

Cycle facilities at Temple Hill – Temple Rd – Newtown Ave Junction

The proposed junction design at this location (shown below) results in a poorer layout for cyclists than pertains with the existing layout. Currently, cyclists coming from Newtown Ave, can move through the junction and join the city bound cycle lane directly. DLRCC has concerns that the proposed layout results in a poorer solution and reduced priority for cyclists.

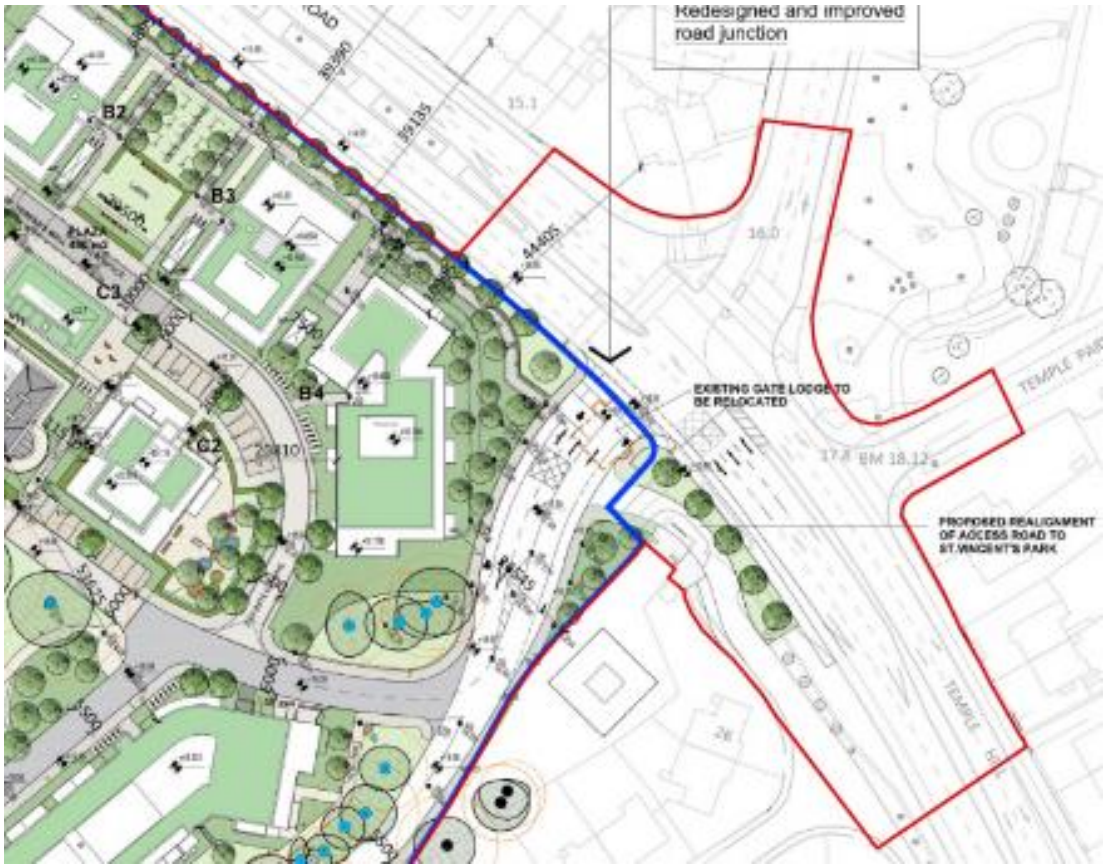
Proposed Junction at Temple Hill, Temple Rd and Newtown Ave



Objective R18, as stated in Section 4.2.3 of the Blackrock Local Area Plan 2015 – 2025, indicates that it is an objective of the Council to facilitate the future upgrade of this junction at Temple Hill/Newtown Ave/St Vincent's Park in tandem with the redevelopment of the St Teresa's and Dunardagh's landholdings, in accordance with objective DS15 (St Teresa's and Dunardagh Site Framework Strategy). In this regard it is highlighted that under ABP31232521, permission has been granted as part of a Strategic Housing Development on nearby lands at St Teresa's, for the relocation of St. Teresa's Lodge and the redesign of this junction as per the layout shown below. This approved layout may accommodate an improved solution for cyclists at this junction.

DLRCC requests the Board to include a condition requiring prior engagement and agreement with DLRCC regarding the final design and layout of this junction in order to ensure it is consistent with the requirements of the Council and emerging development in the area.

Approved Junction at Temple Hill, Temple Rd and Newtown Ave (ABP31232521)



Proposed Traffic Control Measures on George's Ave

The proposal to restrict general vehicular traffic egress from George's Ave onto Frascati Rd is noted. DLRCC are presently examining options for active travel routes in this area and are concerned that the proposed measures on George's Ave may compromise or restrict potential options for the wider network. DLRCC considers that it would be prudent not to proceed with the proposed measures in the first instance and to instead allow for a post works completion monitoring period for George's Ave, following which, traffic control measures could be brought forward as required in consultation with DLRCC and with the mobility needs of the wider area taken into account.

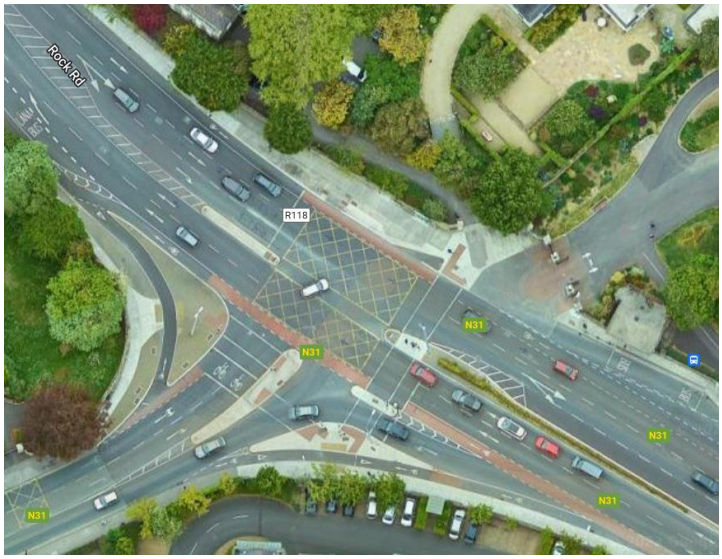
DLRCC requests the Board to include a condition, requiring a post works completion monitoring period for George's Ave, following which, traffic control measures will be brought forward for the street, if considered necessary, in consultation and agreement with DLRCC and with the mobility needs of the wider area taken into account.

Proposed Junction at Mount Merrion Avenue and Rock Road

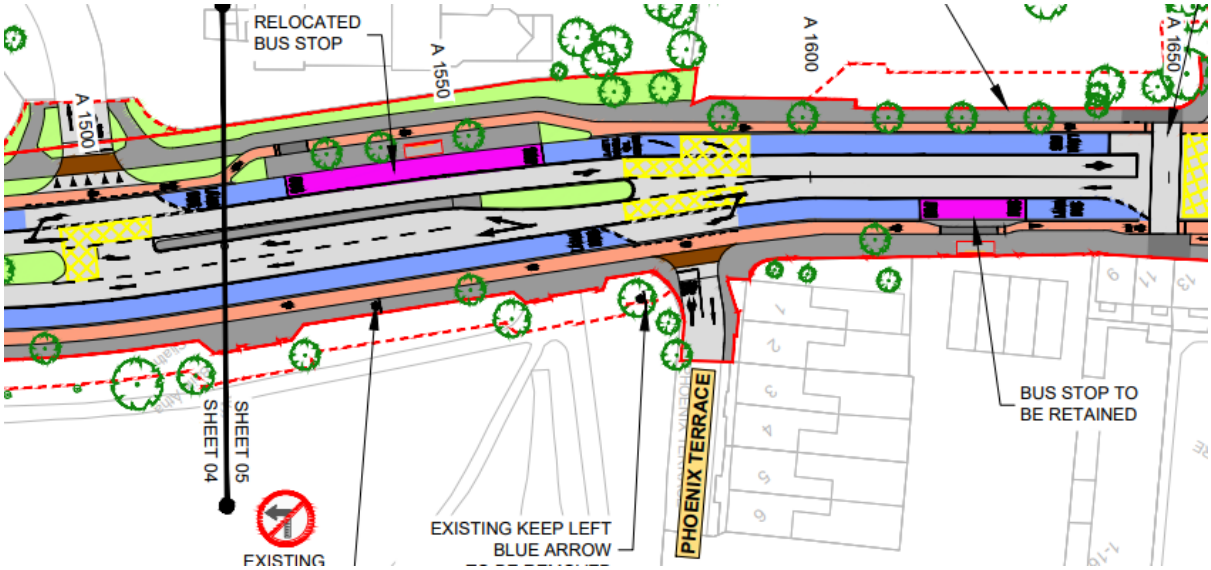
DLRCC has concerns that the proposed cycle lane on Mount Merrion Avenue leading to Rock Road is quite narrow for such a busy route. In addition, there are concerns that the proposed junction design, which omits the existing left turn cycle slip lanes leading from Mount Merrion Ave. to Rock Rd and from Rock Road to Mount Merrion Ave, will result in a reduced level of service for cyclists. DLRCC requests the left turn cycle facilities (as currently exist) be incorporated into the proposed junction design to improve convenience for cyclists and avoid unnecessarily bringing cyclists through the signalised junction. DLRCC considers that ample space is available to safely accommodate these amendments and give extra priority for cyclists.

DLRCC requests the Board to include a condition requiring the amendment of this junction design to include a wider cycle lane on Mount Merrion Ave leading to the junction and to incorporate the left turn cycle facilities (as currently exist). The final layout and design of this junction to be submitted for the prior agreement of DLRCC.

Existing Junction Layout at Mount Merrion Ave. and Rock Road



Right Turn Filter Lane on Rock Rd for access to Castledawson and Westfield



DLRCC is concerned that the proposed right turn filter lane on Rock Rd for access to Castledawson and Westfield, is excessive and could be reduced with the planted median extended or incorporated into a SUDS solution. This would also help to soften the public realm at this busy traffic location. In addition, DLRCC notes that there is a strong pedestrian desire line across the Rock Rd at this location leading from the Castledawson and Westfield residential estates to/from Blackrock Park. The nearest pedestrian crossing facilities at either Mount Merrion Avenue or Blackrock Clinic are not convenient and the Board is requested to consider including a requirement for a pedestrian crossing facility to be included in this vicinity with location and design to be subject to prior engagement and agreement with DLRCC.

DLRCC requests the Board to consider reducing the length of this right turn filter lane and allowing for an extended planted median at this location together with the provision of a pedestrian crossing in the vicinity with the layout and design of any amendments to be subject to prior engagement and agreement with DLRCC.

Blackrock Clinic Entrance

ABP-312908-22 refers to a planning application currently under appeal. The application relates to planning permission for the relocation of the main vehicular entrance to Blackrock Clinic, together with the relocation of the associated signalised junction on the Rock Road. Depending on the outcome of this appeal there may be a requirement for revisions to the proposed CBC scheme design at this location.

DLRCC requests the Board to include a condition requiring prior engagement and agreement with DLRCC regarding the final design and layout of any revisions to the scheme design at this location in order to ensure it is consistent with the requirements of the Council and emerging development in the area.

Traffic Queues on approach to the Core Bus Corridor

The reallocation of traffic lanes to bus lanes along Temple Hill, Temple Rd and Frascati Rd is likely to give rise to traffic queues on the approach roads to the corridor along Monkstown Rd and Stradbrook Rd – Temple Hill, particularly during the initial post completion phase as the new traffic layouts and improved public transport and active mobility options take effect. DLRCC has concerns that traffic congestion could impede buses accessing the corridor and requests the Board to give due consideration to how this issue is addressed and mitigated in the proposed scheme.

DLRCC requests the Board to include a condition requiring appropriate post works completion traffic monitoring with suitable mitigation measures to be put in place in consultation and agreement with the Council.

Section 3

Landscape, Public Realm and Architectural Conservation Recommendations

Proposed Soft Landscaping

There is an array of trees and groundcover being proposed throughout the scheme and DLRCC has concerns that this may impede the achievement of a coordinated landscape design response.

To achieve a more coordinated response, DLRCC requests the Board to include a condition requiring the submission of comprehensive soft landscaping details for the prior agreement of DLRCC. These landscaping details should take account of the general and specific recommendations as set out hereunder:

General Recommendations:

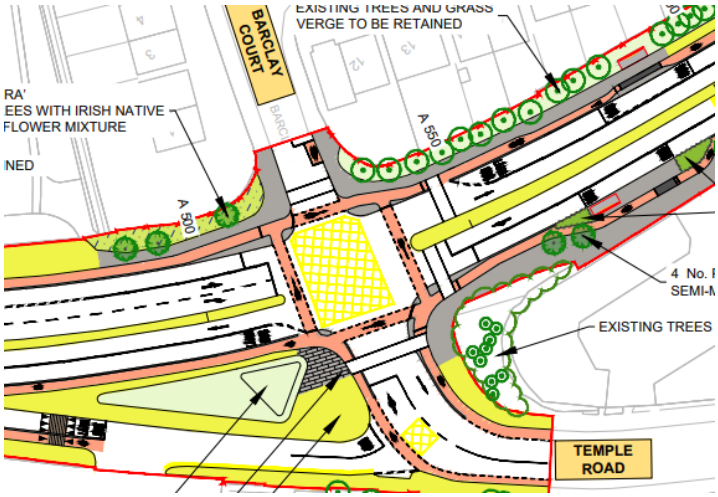
- Fewer species are required to establish a coherent uniformity, which will tie the entire road scheme together. Junctions and other key locations can be targeted to incorporate different species and a defined rationale should be provided for all planting choices.
- The coastal nature of the route needs to be addressed with all planting choices, especially from Mount Merrion Avenue to Booterstown Marsh.
- It may be necessary to eliminate small pockets of planting as they will not have the scale to justify long term maintenance. Small pockets may also be perceived as piece-meal.
- Soft areas should be considered for SUDS.
- There will be a requirement for a 24 month establishment period for all soft landscaping.
- 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.

Specific Recommendations:

Barclay Court

A feature tree such as a fastigiate purple beech should be considered for either side of the estate entrance to Barclay Court (shown below) to frame the entry while a woodland perennial mix and bulb planting should be considered for beneath existing and proposed roadside trees also at this location (either side of the entrance to Barclay Court).

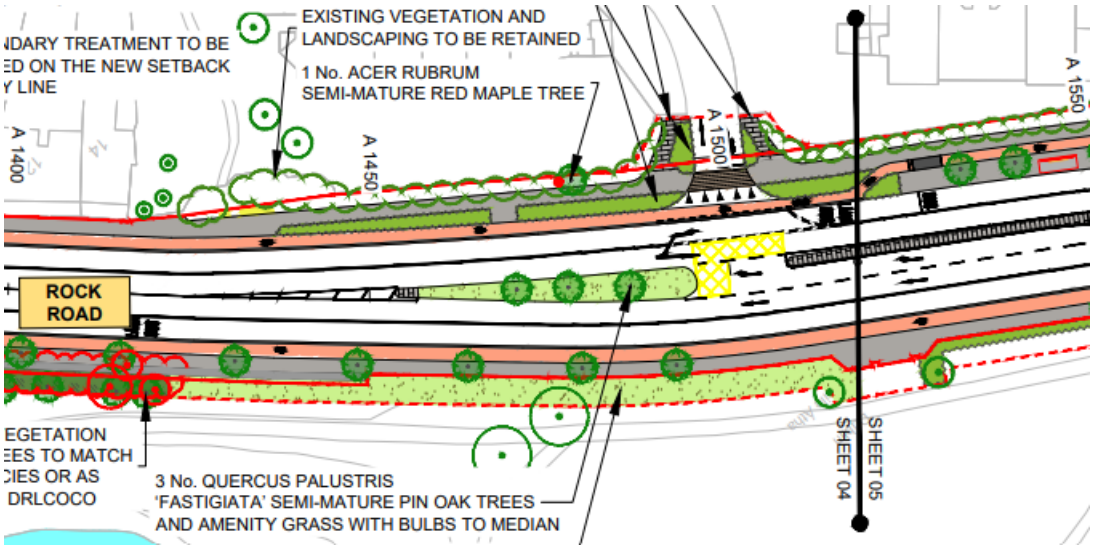
Barclay Court



Castledawson and Blackrock Park

The large green areas shown below opposite Blackrock Park and adjacent to the entrance to the Castledawson estate, have the potential to incorporate trees. DLRCC considers trees essential along this stretch of carriageway, which is wide and in an exposed coastal location.

Entrance to Castledawson and Opposite Blackrock Park

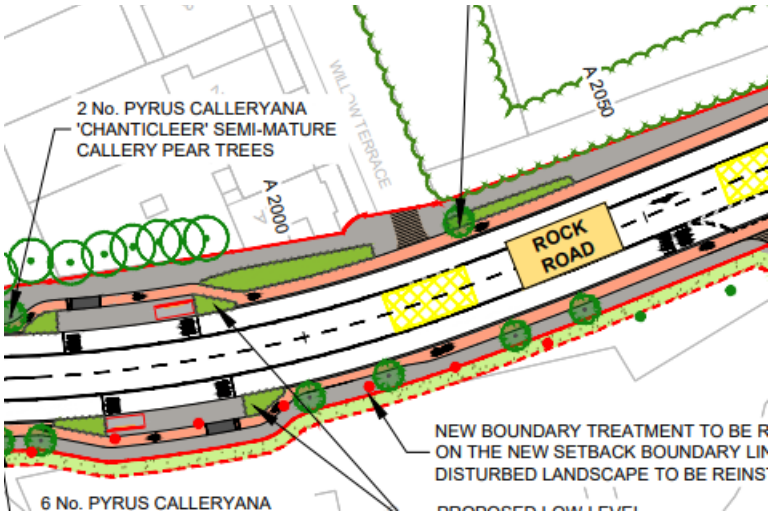


Trees, however, may not be possible within the narrow footpath section adjacent to Blackrock Park and shown above. DLRCC questions the need for the kick in the footpath making it narrower at this location.

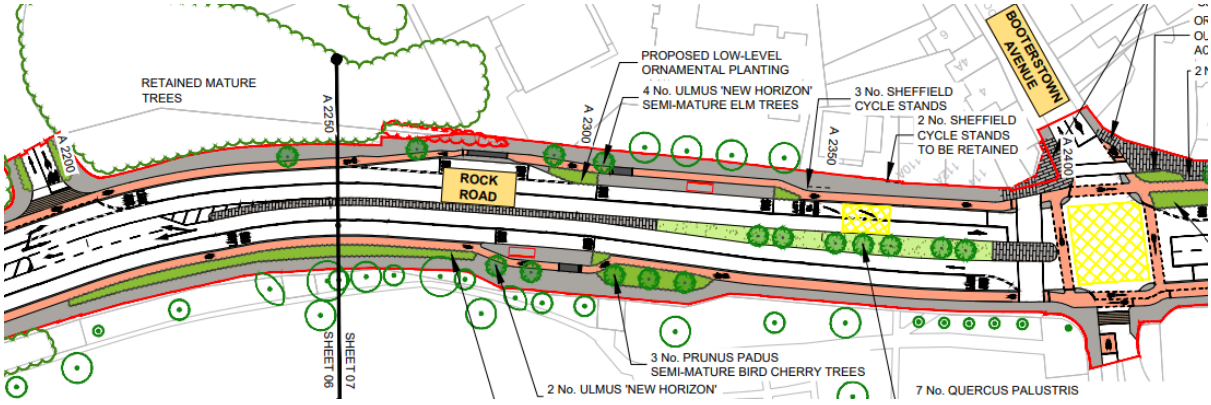
Willow Terrace

The green areas shown below adjacent to the entrance to Willow Terrace and adjacent to Blackrock Park, have the potential to incorporate trees. DLRCC considers trees essential at these locations, where the carriageway is wide and in an exposed coastal area.

Green Areas Adjacent to Entrance to Willow Terrace



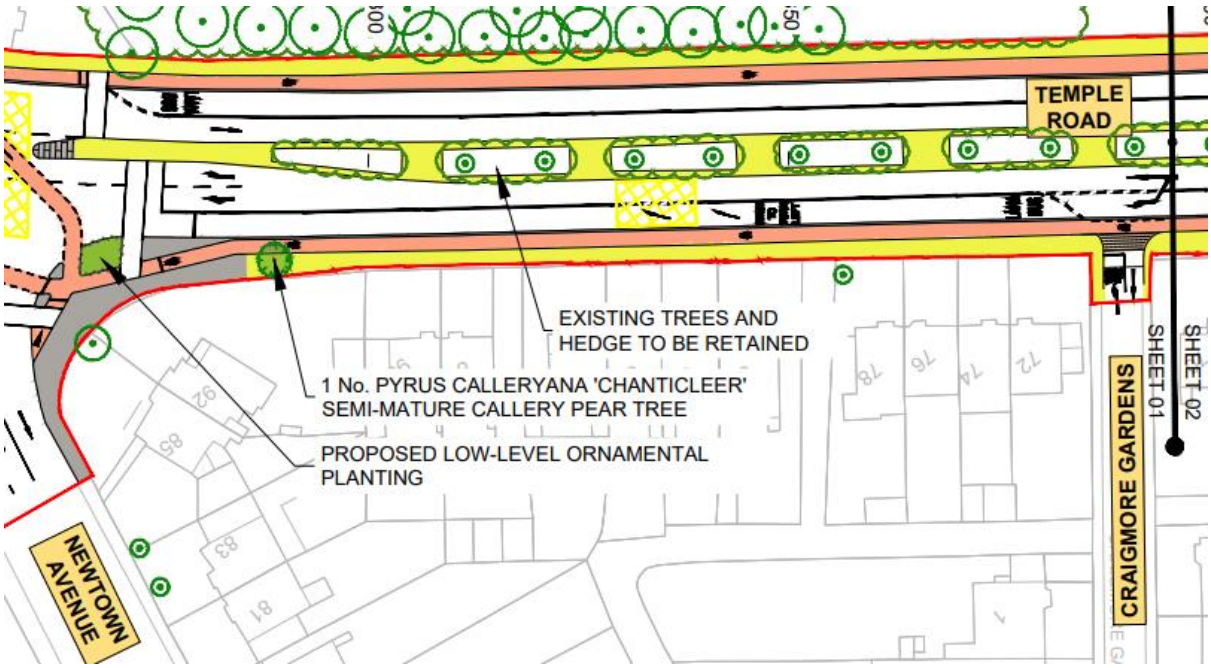
Green Strip Adjacent to Blackrock Park



Existing Landscaping

In the interest of achieving a coordinated and coherent landscape response across the proposed corridor, DLRCC requests that the landscaped median on Temple Rd, shown below, be included in the landscape design for the scheme with the existing Buxus groundcover to be replaced with a herbaceous mix with all soft landscaping to be amalgamated into one large bed and extended out to the kerb lines.

Landscaped Median on Temple Road



Proposed Hard Landscaping

Various hard landscaping elements are being proposed throughout the scheme and DLRCC has concerns that this may impede the achievement of a coordinated landscape design response, especially if proposals are not sufficiently coordinated with public realm works being carried out by the Council at locations which interface with the CBC scheme.

To achieve a more coordinated response, DLRCC requests the Board to include a condition requiring the submission of comprehensive hard landscaping details for the prior consideration and agreement of DLRCC. These landscaping details and treatments should take into account the following recommendations:

- DLRCC are presently considering public realm improvements in Blackrock village, including Carysfort Ave, Georges Ave, and Rockhill. Further hard landscape improvements are proposed for boundary treatments at Blackrock Park and Temple Hill Park (green area between Newtown Ave and Temple Park Avenue). To ensure a coherent design approach at the interface between DLRCC's proposals and the CBC

scheme's proposals, coordination and prior engagement and agreement on landscaping and public realm treatments is required with the Council.

- Coordination is required with DLRCC on proposed street furniture including public seating and bicycle stands with the design, scale and colour to be considered in the broader context of the area. Best practice in design is required regarding the needs of older people and those with mobility issues.
- Full details of all proposed new or relocated roadside boundary walls and treatments, along the scheme extents within DLRCC, including the roadside boundaries to Blackrock Park and Blackrock College, need to be submitted for prior agreement with the Council.
- Coordination with DLRCC is required regarding the creation and treatment of new landing areas at the main entrance to Blackrock Park opposite Mount Merrion Avenue and at the pedestrian entrance to the park adjacent to the junction of Rock Rd and Rock Hill. Paving and surfacing design at both entrances to Blackrock Park immediately to the west of Phoenix Terrace also need to be submitted for prior agreement with DLRCC.

Cantilever Signal Poles

A number of proposed cantilever signal poles are proposed at locations close to Protected Structures, ACAs and Candidate ACAs. As stated in Volume 2, Chapter 16: Architectural Heritage (EIAR) these will have an indirect or visual impact on the setting of the built heritage.

DLRCC requests the Board to include a condition requiring prior engagement and agreement regarding the necessity for, location and design of any proposed Cantilever Signal Poles.

Blackrock College

The protected dressed granite piers, plinth and wrought iron railings and main entrance gates to the boundary of Blackrock College (DLR RPS 99), are to be repositioned to accommodate a bus and cycle lane. The demesne will also be slightly reduced under the proposal. The EIAR sets out Mitigation Measure which include the recording of the existing boundaries in position prior to the works, labelling the affected railings and granite plinths, granite piers, gates and other ironwork, prior to their careful removal to safe storage and reinstatement on the new line. Works to historic fabric will be carried out in accordance with the methodology provided in Appendix A16.3 Methodology for Works Affecting Sensitive and Historic Fabric in Volume 4 of this EIAR. The Mitigation Measures and the Methodology as set out in the EIAR are deemed appropriate.

DLRCC requests the Board to include a condition requiring engagement and agreement with DLRCC at the detailed design stage for these works to relocate the granite piers, gates, railings, and the proposed materials, surface treatments to be used at the main entrance and boundary of Blackrock College.

Age-Friendly County

DLRCC is an age-friendly county, and it is a requirement that public realm interventions are in accordance with Age Friendly Ireland Guidelines, Accessibility Guidelines and best practice. Any proposed seating shall be in accordance with Age Friendly Ireland Seating Guide. Such interventions should be suitable for use by the entire community, supporting people of all abilities and ages in accessing all their local community has to offer.

DLRCC requests the Board to include a condition requiring that public realm interventions are in accordance with Age Friendly Ireland Guidelines, Accessibility Guidelines and best practice requirements for such works.

Heritage

Taking a cue from the built, natural and cultural features along the route of the CBC, opportunities should be taken to incorporate creative, integrated and suitable-to-context interpretive elements at key thresholds, including appropriate horizontal/vertical surfaces and new street furniture design. Any interpretive elements should be in line with the DLRCC County Heritage Plan 2021-2025, available at:

dun_laoghaire-rathdown_county_heritage_plan_2021-2025_final_screen.pdf (dlrcoco.ie)

The Council's Heritage Officer can be consulted on detailed proposals.

DLRCC requests the Board to include a condition requiring that public realm interventions, hard landscaping and street furniture are in accordance with the DLRCC County Heritage Plan 2021 – 2025.

Section 4

Environment and Biodiversity Recommendations

Ecological Data

DLRCC's Biodiversity Officer has highlighted that the Council holds ecological data sets on biodiversity within the county, including surveys relating to otters, breeding birds and wintering birds. DLRCC can share this information with An Bord Pleanala, should it be of any assistance in the assessment of the planning application.

DLR Biodiversity Plan

Section 12.3.3 of the EIAR refers to the DLR Biodiversity Plan. The Board is advised that the second DLR Biodiversity Plan has now been published – DLR Biodiversity Action Plan 2021-2025, and is available at: https://www.dlrcoco.ie/en/biodiversity/biodiversity-plan

Invasive Alien Species

With respect to Section 12.4.3.1.1.4 of the EIAR, DLRCC's Biodiversity Officer requests that the presence of Japanese Knotweed in the vicinity of Booterstown Marsh and Blackrock Park be considered and addressed. In addition, there is a concern that the any works in the vicinity of the Three-Cornered Garlic (leek) may cause the spread of seeds that are contained within the soil. It is unclear how this has been considered in the EIAR and IAS Management Plan and is unclear what investigations have been carried out to ensure that any soil disturbance does not result in the spread of this invasive alien species.

DLRCC requests the Board to consider these issues and address as appropriate to ensure the effective control of invasive alien species.

Monitoring of Ecological Mitigation Measures

The EIAR Biodiversity chapter does not provide details of the monitoring of ecological mitigation measures and how the monitoring will be implemented. While it is noted that monitoring in relation to landscape elements is proposed, this does not cover ecological monitoring.

DLRCC requests the Board to require that monitoring of mitigation measures by a suitably qualified ecologist is carried out for those mitigation measures that are related to potential significant impacts of the EIAR.

Similarly, the NIS does not provide details of the monitoring of the ecological mitigation measures outlined for both construction and operation phases and how these will be implemented.

DLRCC requests the Board to require that monitoring of mitigation measures is carried out for those mitigation measures that are related to potential significant impacts of the NIS

and to ensure that clear and transparent monitoring details (to be carried out by a suitably qualified ecologist) are required, given the extensive list of mitigation measures outlined in the NIS.

Recommended Conditions:
DLRCC requests the Board to include the following conditions in relation to environmental management and biodiversity:

1. Prior to the commencement of development, the developer shall engage the services of a qualified ecologist, from the commencement of construction and for the duration of the implementation of mitigation measures. The developer shall inform the Planning Authority in writing of the appointment and name of the ecologist, prior to the commencement of development. The ecologist shall ensure the implementation of all the mitigation measures and recommendations in the submitted Biodiversity Chapter and related chapters of the EIAR, the NIS, Invasive Species Management Plan and CEMP.
   Reason: To protect Biodiversity and to ensure the implementation of mitigation measures and monitoring for Biodiversity.

2. All mitigation measures relating to Biodiversity, outlined in the EIAR and planning application documents will be provided in a single Biodiversity Mitigation Plan document and will be implemented and recorded by a suitably qualified ecologist and will be reported by a suitably qualified ecologist directly to the Planning Authority.
   Reason: To protect Biodiversity and to ensure the implementation of mitigation measures and monitoring for Biodiversity.

3. The programme for the monitoring and implementation of the mitigation measures both during construction and operation, by a suitably qualified ecologist, shall be submitted for agreement with the Planning Authority, at least 5 weeks in advance of site clearance and site works commencing.
   Reason: To protect Biodiversity and to ensure the implementation of mitigation measures and monitoring for Biodiversity.

4. Prior to the commencement of development, the developer shall submit to the Planning Authority a letter from their ecologist, that they are satisfied that the final design of the external illumination proposed for the development, is to the required specification recommended by a suitably experienced ecologist and that they are satisfied that biodiversity and landscape features for bats and other sensitive species are not illuminated.
   Reason: To mitigate the potential impact of increased nocturnal illumination at the proposed development on bats, which are afforded a regime of special protection under the European Habitats Directive and on other sensitive species.

5. Prior to the commencement of development, the developer shall submit to the Planning Authority a Final Landscape Plan, which will be completed in consultation with the ecologist, to incorporate details, including (but not exclusively):
    - Green/Biodiverse roof on at least one of the bus shelters associated with this proposed route within DLR area: full details of the roof type, structure and design details; the origin and composition of soils/compost to be used; the choice and composition of plant species (including the origin of same) and maintenance and monitoring programme for bus shelter.
    - Planting enhancement: planting including treelines and hedgerows.
    - Planting for pollinators and other invertebrates (eg. for bats and birds).
    - Foraging areas for bats with consideration of the lighting plan.

    Reason: To protect Biodiversity and to ensure the implementation of mitigation measures and monitoring for Biodiversity.

6. Prior to the commencement of development, the developer shall submit to the Planning Authority a Habitat and Species Management Plan which will include a monitoring programme for habitats and species during construction and operation phases. This will be provided for agreement with DLR's Biodiversity Officer.
    Reason: To protect Biodiversity and to ensure the implementation of mitigation measures and monitoring for Biodiversity.

7. The developer shall submit a report from the ecologist to the Planning Authority after the installation of the external lighting, at the proposed development, confirming that it is operating according to specification.
    Reason: To ensure that the installation of the external lighting is installed and operating according to specification.

8. A detailed site-specific Final Construction and Environment Management Plan (CEMP) will be submitted for agreement with the Planning Authority at least 5 weeks prior to the commencement of the proposed works. The CEMP will include input from a suitably qualified ecologist for biodiversity elements and will include the following:
    - All of the mitigation and enhancement measures relating to biodiversity set out in the EIAR and NIS.
    - The CEMP will include a detailed monitoring programme for agreement with the Planning Authority.
    - A suitably qualified project ecologist / ecological clerk of works will be retained to ensure that the necessary measures of the CEMP are implemented. Monitoring schedule and reporting will be provided for agreement with DLR's Biodiversity Officer.
    - The Management Plans for relevant IAS will be included in the CEMP.
    - The CEMP will include the details of the primary responsibilities of the Project Ecologist (PE) as follows:
        - Act as the contact for the Planning Authority and agree the frequency and number of site inspections and monitoring programme for the

implementation of the Biodiversity related mitigation of the updated EIAR, NIS, CEMP and the objectives and actions of the Habitat Management Plan;

- Act as the primary on-site ecological contact for the Project Coordinator (PC) and Site Manager (SM) regarding implementation of the Biodiversity related mitigation of the updated EIAR, NIS, CEMP and the objectives and actions of the Habitat Management Plan;
- Ensure compliance with all Biodiversity related mitigation of the EIAR, NIS and CEMP and also the objectives and actions of the Habitat Management Plan;
- Request relevant records and documentation from the SM where necessary;
- Attend routine meetings with the SM;
- Keep detailed records of any ecological incidents and the remedies required and implemented. Report these to the PC and Planning Authority;
- The PE shall produce the staged monitoring reports in agreement with the Planning Authority on the implementation of Biodiversity related mitigation of the EIAR, NIS and CEMP; The PE shall submit these directly to the Planning Authority and to the PC.
- The PE shall also act as overall technical advisor to the PC and SM regarding the implementation of all Biodiversity related mitigation of the EIAR, NIS and CEMP and the objectives.

Reason: To protect Biodiversity during the construction phase.

9. The developer shall submit monitoring reports from their ecologist to the Planning Authority at intervals agreed with the Planning Authority, relating to measures included in the Ecological Impact Assessment report, the Habitat and Species Management Plan and CEMP and will confirm that the measures have been implemented according to specification. Actions required to be undertaken by the developer as a result of the recommendations of monitoring will be reported to the Planning Authority.

Reason: To monitor biodiversity and to undertake any remedies if required.

Section 5

Drainage, Road Maintenance, Public Lighting and Pollution Control Recommendations

Drainage Comments

SuDs

DLRCC's Drainage Section advises that in accordance with best practice, the requirements for SuDs should be thoroughly investigated to ensure that adequate space is provided and that utility checks are undertaken to confirm the feasibility of SuDs proposals. DLRCC is happy to see areas that are currently paved being changed to landscaped areas. However, not all of these areas appear to be utilised for SuDS, and this should be addressed where feasible.

The Board is requested to consider this issue and address as appropriate.

Trees

A lot of new trees are proposed but it is not clear why all of these have not been specified as tree pits for surface water run-off. Redirecting existing footpaths/carriageway to these tree pits could aid in relieving any localised pluvial flooding and provide interception/treatment of this run-off for water quality improvement.

The Board is requested to consider this issue and address as appropriate.

Hardstanding

It is unclear why all new hardstanding is not specified as permeable/porous surfacing. This scheme presents an ideal opportunity to trial such surfaces in less trafficked areas such as the proposed footpaths/cycle paths. It would reduce the requirement for gully gratings in cycle paths (which in themselves can be a hazard to cyclists, even the "cycle friendly" ones), reducing surface water run-off and risk of icy surfaces in winter.

The Board is requested to consider this issue and address as appropriate.

Existing Landscaped Areas

There appear to be some existing landscaped areas that could be altered as part of this scheme to provide biodetention basins (as an alternative or in addition to the oversized attenuation pipes referenced in the report) for surface water run-off, improving water quality, biodiversity and the public realm as a whole. As alternation works are already

proposed in the vicinity it would be remiss of both the NTA and DLRCC not to take this opportunity to improve drainage and the public realm in the area.

The Board is requested to consider this issue and address as appropriate.

Recommended Conditions:
DLRCC requests the Board to include the following conditions in relation to Surface Water and Drainage:

1. Prior to the commencement of development, the developer shall submit to the Planning Authority for its written agreement, full details of the drainage proposals for the entire scheme. These proposals must demonstrate that SuDS potential has been maximised across the scheme. This should not be limited to proposed increase in hardstanding areas but provided across all sections of the scheme. Where possible, all trees should be specified as tree pits and biodetention areas incorporated where space is available, such as at junctions. All proposed hardstanding areas must be permeable/porous or drain to an appropriately designed SuDS measure. It should be noted that oversized pipes are not considered SuDS measures.

2. Prior to the commencement of development, the developer shall submit full dimensioned construction details of the proposed SuDS measures to the Planning Authority for its written agreement. Details shall include a construction plan and a post-construction maintenance specification and schedule. Contractors with specialist training in SuDS should be used. Thereafter, the works shall be carried out in accordance with the agreed details. The SuDS measures shall be designed in accordance with The SUDS Manual (C753).

3. Prior to the commencement of development, the developer shall submit to the Planning Authority for its written agreement a construction management plan and programme of works that amongst other items provides for interception, containment and treatment of construction runoff. No construction runoff should be diverted to proposed SuDS measures. Any surface water sewer pipes used to convey construction runoff should be thoroughly cleaned before subsequent connection to SuDS elements.

4. If total infiltration of surface water run-off generated by the scheme is not possible then, prior to the commencement of development, the applicant is requested to submit a design with discharge rate for the scheme limited to Qbar (calculated using site specific data) or 2l/s/ha, whichever is greater, subject to the orifice size of the flow control device not being less than 50mm in diameter. The submission shall include detailed calculations, including modelling results, of the proposed system during all required storm events.

Road Maintenance Comments

DLRCC's Road Maintenance Section requests the Board to include the following conditions:

1. A pre and post PSCI survey shall be carried out by the developer for the access roads along the Core Bus Corridor with active monitoring of the road condition to include sufficient tie in road surface area and effective remediation measures to rectify any potential damage caused by construction traffic.

2. The developer shall submit for prior agreement with DLRCC, detailed design for all elements of the scheme including but not limited to footpaths, cycle lanes, kerb separators between modes, pavement treatment options, drainage details, tree pits etc.

3. The developer shall submit for prior agreement with DLRCC a detailed pavement treatment plan based on the PMS structural evaluation FWD Level 1 analysis and Level 2 report recommendations.

4. The developer shall submit for prior agreement with DLRCC, a detailed ironworks drawing to include the mastic requirement for the existing and new ironworks. Ironworks shall be reinstated with mastic surrounds in accordance with CC-PAV-04012 as follows:
    a. Where they are in the wheel tracks of a lane
    b. Gullies in the vicinity of bus stops i.e., approximately 5 no. gullies on either side of a bus stop
    c. Where the existing ironworks are in poor condition; and
    d. At any other location identified by the Resident Engineer.

Pollution Control Comments

DLRCC's Pollution Control Section requests the Board to include the following condition:

1. The appointed contractor for the scheme construction, shall engage with the Council's Pollution Control Section, in advance of construction works commencing, to agree the relevant details of the Construction and Environmental Management Plan and the Surface Water Management Plan in relation to the construction compound.

DLRCC's Pollution Control Section notes that no petrol interceptors appear to be included in the proposals.

The Board is requested to consider this issue and address as appropriate.

Public Lighting Comments

Street lighting along DLRCC's section of the CBC corridor has all been upgraded to LED lighting in the past few years and the columns and brackets are in good condition. The addition of trees will have to take account of those light locations and ensure that the light levels on the road and footpath surface are not negatively impacted. Any alteration of the light column locations should be done under a complete lighting design.

The Board is requested to consider this issue and address as appropriate.

Summary

DLRCC believes that the proposed Core Bus Corridor scheme presents a major opportunity for transformative change to both public transport and active travel facilities along this strategic transport corridor. The Council is fully committed to working with the NTA to ensure that the scheme achieves its full potential and to this end, we have highlighted in our submission, a number of items for the Board to consider and which we believe, will strengthen the overall outcomes of the project for sustainable travel.

Specifically, with regard to the design and layout of the scheme and the new junction designs as proposed, DLRCC is particularly keen to collaborate with the NTA on the items raised within Section 2 of this submission. We believe that the successful implementation of the scheme design will ultimately require good engagement and collaboration between the Local Authority and the NTA.

The Core Bus Corridor works will also impact on the public realm with potential impacts on landscape, conservation, heritage and amenity assets, all of which are highly valued within the county. DLRCC considers that a key determinant of the success of the Core Bus Corridor scheme will be how these assets have been safeguarded with value added to the overall public realm along the route. To this end, we would ask the Board to give due consideration to the items raised in Sections 3, 4 and 5 of this submission and would again highlight that the achievement of a quality outcome for the public realm will ultimately require good engagement and collaboration between the Local Authority and the NTA.