



Core Bus Corridor 6: Lucan - Preliminary Submission

1.0 Introduction

Dublin Cycling Campaign is the advocacy group for cycling in Dublin. Dublin Cycling Campaign is the leading member of Cyclist.ie, the Irish Cycling Advocacy Network (ICAN), and wants to make Dublin a safe and friendly place for everyone of all ages to cycle.

We are extremely disappointed in the proposals for the Lucan to City Centre CBC. The proposals fail to deliver any meaningful upgrade of existing poor cycling facilities or propose much new cycling infrastructure. The proposals fail to achieve the scheme objectives to provide cycling facilities that match the GDA Cycle Network Plan's quality-of-service level, or even basic standards of the NTA's National Cycle Manual. Serious work needs to be done to improve these proposals as they are unsafe and of poor quality.

We look forward to future engagement with the NTA to ensure that this route will meet the five needs of a cyclist and the standards of the National Cycle Manual.

2.0 Observations

2.1 Use Two-Way Cycle Tracks

This is one of the trickiest Core Bus Corridors to get right for cyclists. The N4 is a dual carriageway with a hard median with both high speed limits and high average annual daily traffic (AADT). Crossing the N4 is impossible except at a limited number of crossing points. In order to meet the five needs of cyclists (manual section 1.2) it would be best to provide a two-way cycle track on both sides of the N4 between Ballydowd Interchange and the Liffey Valley Interchange.

Two-way cycle tracks on both sides of the road will allow cyclists to make more direct and coherent journeys (two of the cyclist’s five needs). For example, with the current proposals a cyclist leaving the city towards Lucan village will travel along Old Lucan Road. Then be forced to pass under the Liffey Valley Interchange to the other side of the N4 and then cross back over again at the Ballydowd Interchange. All of these crossings, detours and delays can be avoided by providing a two-way cycle track on the northside of the N4.

Another example, a cyclist leaving Ballyowen Lane heading towards the city, would be forced to take a 1.6km detour towards Lucan in order to use the cycle track legally. No sane person would make this detour, they will cycle the wrong way down the cycle track on southside of the N4 as far as Liffey Valley. This behaviour should be expected and accommodated in the design by providing a two-way cycle track on the southside of the N4.

2.2 Primary Cycle Route Width

This CBC will deliver Primary Route 6 and a section of Secondary Route 6A of the GDA Cycle Network Plan (CNP). The target quality of service for primary routes in CNP is A+/A. Below is an extract from section 2.3 of the Written Report of CNP, which outlines the desired width of primary cycle routes as 2.5m for a one-way cycle track. We recommend a minimum of 3-3.5m for a two-way cycle track.

Basis for Target Quality of Service

ROUTE TYPE	PRIMARY / NATIONAL	PRIMARY	SECONDARY
Cycle Volume Existing (3 hour peak period)	n/a	200 -1000	100-500
Target QoS - Width Factor	A+ Two abreast + overtaking Width = 2.5m	A+/A Two abreast + overtaking Width = 2.5m	A/B Single file + overtaking Width = 1.75m
Target QoS - Other Factors	A	B	B

There are many locations along the proposed route where the required width is poor. For example map 3 and map 4 the cycle track is less than 1.4m wide beside a high wall and with no buffer space. The two-way cycle track on map 8 and map 9 is hardly wide enough to be a one-way cycle track at 1.65m. These facilities need to be upgraded dramatically to meet the quality-of-service required in the scheme objectives.

2.3 Buffer Space

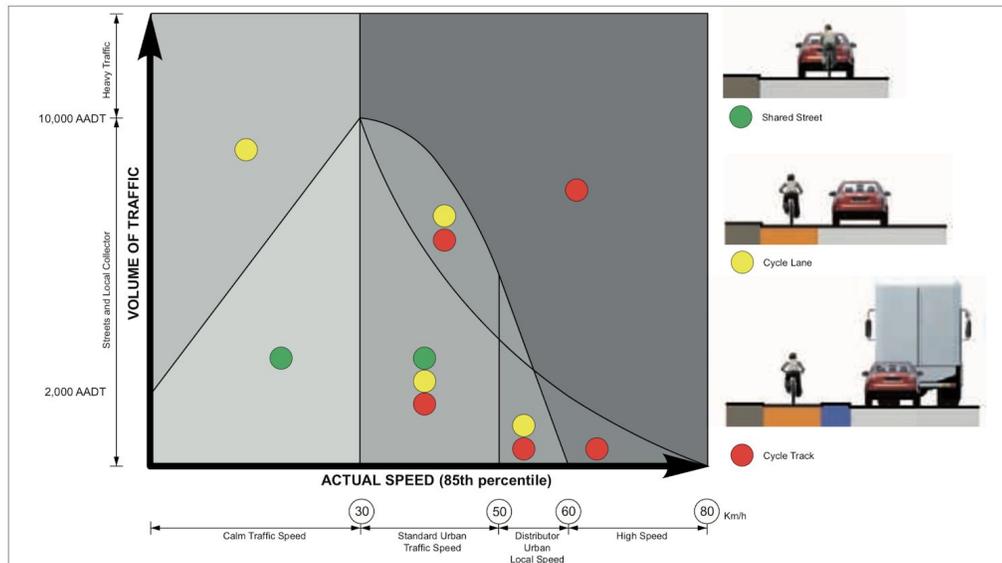
The NTA’s National Cycle Manual (NCM), section 1.7.4, requires that there is a buffer space of either a hard paved area or grass verge between the cycle track and the

roadway when the AADT and 85th percentile speeds are both high, such as the N4 or St. John's Road West.

This buffer space increases the comfort level for cyclists (one of the five needs of a cyclist). It also allows for overtaking using the full width of the cycle track, without partially overhanging the adjacent lane.

We encourage the design team to, where possible, match the design of "Cycle Track Behind Verge" on page 67 of the NCM, which has grass/planted buffer between the cycle track and the road.

1.7.4 Guidance Graph



There is no guidance within the NCM for the size of this buffer space (the area marked in blue in the cycle track image above). However, this design guidance from the UK maybe useful:

Speed Limit (km/h)	Desirable Minimum Horizontal Separation (m)	Absolute Minimum Horizontal Separation (m)
50	0.5	N/A
60	1.0	0.5
80	2.0 (including any hard strip)	1.5 (including any hard strip)
100	2.5 (including any hard strip)	2.0 (including any hard strip)
120	3.5 (including any hard strip)	3.0 (including any hard strip)

UK Interim Advice Note 195/16 for Cycle Traffic and the Strategic Road Network

This is of particular concerns along the first section of the route along the N4, which has high AADT and a 80km/h speed limit. Another area of concern is Con Colbert Road and St John’s Road West where there is also a high AADT and a 60km/h speed limit.

Without this buffer space the quality-of-service of this route will be a quality-of-service D, because of the high HGV influence.

2.4 Slip Lanes

There were no slip lane turns removed along the route and nine existing slip lane turns have been retained. Providing cycle lanes across slips lanes is not recommended by the NTA’s National Cycle Manual (section 4.4.4). These slip lanes should be removed (DMURS 4.4.3) or converted into pocket turns without splays where complete slip lane removal isn’t possible. Slip lanes encourage drivers to take corners at speed just when they should be slowing down. Examples on maps 1, 28, and 31.

2.5 Junction Design

Many of the proposed junctions on this Core Bus Corridor do not meet the criteria in the NTA’s National Cycle Manual. There is a widespread use of streaming lanes (an orphaned cycle lane between two traffic lanes) at junctions along this route. Including:

- Ballydowd Interchange/Grange Castle Road (map 1)
- Kennelsfort Road (map 14)
- Con Colbert Road/Chapelizod Bypass (map 25)
- Con Colbert Road/South Circular (map 28)
- St John’s Road West/Victoria Quay (map 31)

In section 4.4.4, on junction approaches the manual states that:

- *Streaming cycle lanes can only be used in low traffic speed environments where there is minimal speed differential between cyclists and adjacent traffic*
- *Streaming is not suitable along HGV routes*
- *The permitted weaving area for traffic to cross the cycle lane must be clearly indicated and limited to no more than 10.0m long so as to reduce vehicular speed, and profiled line markings should be considered for the solid white line beyond the weaving area*
- *Streaming cycle lanes should only be used beside right or left hand pockets (i.e. distinct lanes dedicated to turning movements) and should not exceed 30.0m in length*

This is a HGV route with heavy traffic. The use of streaming lanes, particularly the incredibly long streaming lanes throughout this design are both against the National Cycle Manual and utterly dangerous for cyclists. The only safe option is to provide segregated junctions for cyclists, where no cyclists and traffic are mixed at junctions.

2.6 Integration with the wider GDA Cycle Network Plan

This route intersects with a number of other cycle routes included in the GDA Cycle Network Plan. Where possible, the tail ends of cycle lanes of these routes should be constructed as part of the Core Bus Corridor. That will ensure that these junctions don't need to be re-designed when future cycle projects are progressed. In places there are existing cycle lanes that don't connect to this route.

Routes that intersect are:

- South Circular Road, Primary SO1
- Kylemore Road, Secondary Route SO4
- Liffey Valley Interchange, Secondary Route 7A
- Grand Castle Road, Secondary SO6

2.7 Bus Stop Bypasses

There are only 4 bus stops out of 19 on this route that have a cyclist bypass. Bus stop bypasses are recommended by the NTA's National Cycle Manual given the frequency of buses along this route.

We encourage the design team to look into all possible options for including bus stop bypasses, either through CPO or through relocating the bus stops.

In particular we'd encourage the design team to find a solution for the outbound bus stop on map 30. This bus stop is not only used by Dublin Bus but also by national and regional buses stopping with long set-down times beside Heuston station. All of the lane behind that bus stop is state-owned by OPW. Directly behind the bus stop is the car park of the Revenue Data Centre. Finding a bus stop bypass solution for this bus stop will not be easy but is a must.

We also question the need for inline bus stops on map 29. Who do they serve? There are high walls and no nearby access to these stops. Residents in Heuston South Quarter (HSQ) will use the stops at Hueston, as the stops on map 29 would be hard to access. These stops are also a little far from Kilmainham and the high-density residential developments at Clancy Quay. These stops should be deleted.

2.8 Old Lucan Road (West of M50)

This section (map 6-8) is an integrated cycling environment, where cyclists and motor traffic mix. This can be done in such a way as to provide a high-quality of service, however the current proposals are not the integrated cycling environment required by the NTA's National Cycle Manual.

This road is low-traffic but it is not low-speed. There is a 50km/h speed limit and the road is not designed for low-speed either. The carriageway is 8-12m wide in locations, far outside the 5.5m to 7m maximum in the National Cycle Manual (pg 55). There is also almost no traffic calming on the road, except for one speed ramp.

The NTA's National Cycle Manual states that the low speed environment must be self-evident, self-enforcing and self-explanatory in order to create a legible shared cycling environment. The current proposals are far outside the two link type designs for either narrow or wide shared streets (pg 54 & 55) of the National Cycle Manual. This

section must be actively designed to be safe rather than just painting bike logos in the middle of the road.

Because of the width of the carriageway, particularly near the entrance to King's Hospital School, there is a large amount of informal car parking. We suspect mostly from commuters who leave their car here and head for the bus.

There are two options here. Either narrow the carriageway to 5.5m - 6m. This would allow for wider footpaths and tree planting. The other option is to standardise the width to 8m and create the "Advisory Cycle Lane" design on page 58 of NCM. Narrowing the carriageway is probably more feasible.

The informal car parking on Old Lucan Road should be considered in the design. Either the car parking should be removed entirely or it should be formalised. The formalised car parking should be separated by tree pits or the like in order to formalise the narrowing of the carriageway in this area. Otherwise when there are no/few cars parked the carriageway will be 2-3m wider encouraging speeding.

2.9 Lucan Road (East of M50)

The Lucan Road east of the M50 suffers from similar problems to the west side of the M50. The carriageway width is quite inconsistent changing from 6m up to 11m in places, though the speed limit is 30km/h. The carriageway width must be constrained and standardised in order to encourage a self-enforcing low-speed environment. The corner radii of many adjoining roads and entry treatment should be examined.

The carriageway should be narrowed by increasing the width of the footpath. A low speed environment should be encouraged through all appropriate measures in section 4.1.2 of DMURS.

There is a significant amount of car parking along Lucan Road. In some locations a rationalisation of car parking should take place, and space should be reallocated to pedestrians and cyclists. In other locations the car parking should be formalised in order to keep the carriageway width low.

There is also a large car parking entrance to the Palmerstown house pub/restaurant with high traffic volume, Stewarts hospital/waterstown park entrance (Map 13) and shopping entrance to Lidl (Map 12)

The Lucan Road from Kennelsfort Road east sees higher traffic volumes. Traffic and speed counts should be undertaken to ensure that an integrated cycling environment is suitable for this area.

The shared pedestrian path/Cycle path from Chapelizod joins the old lucan road beside the Circle K petrol station on the border between Palmerstown and Chapelizod. Cars travelling along this section of road travel quite fast and there is not very clear markings/signage for cyclists heading west. (Map 15)

2.10 Kennelsfort Road

Kennelsfort Road (map 14) needs a complete redesign. There is a large amount of car parking inside of the cycle track, it should be the other way around. Cars should not cross the cycle track to park. The perpendicular (nose-first) car parking on Kennelsfort Road encourages cars to back out into the cycle lane, which is utterly dangerous. There is also little protection afforded to cyclists near the entrance to Mattress.ie industrial retail warehouses.

The cycle lanes across the N4 do not line up with each other on either side of the junction. Simple coherence (one of the five needs of a cyclist) should be expected for all cycle lanes.

2.11 Con Colbert Road / South Circular Road Junction

This junction is a messy and car dominated. The current design is unsafe for cyclist and breaches many NTA National Cycle Manual recommendations such as streaming lanes, slip lanes. Cyclists need to be segregated through this junction. There is too much traffic moving up to 60km/h to mix cyclists and motor traffic. We're also very disappointed that nothing has been done to improve the cyclist facilities on South Circular Road, which is Primary Route SO1.

2.12 Side Roads

There are a number of side roads where it isn't clear that cyclists have priority over them. Particularly Ballyowen Lane (map 3), the entrance to St Loman's hospital (map 4), and the entrance to the Hermitage Clinic (map 6).

2.13 Route Directions

The route for cyclists isn't exactly intuitive in all locations. Care should be given to design the route so that it is self-evident where cyclists should go next. This might

include redesigning the hidden access point to the M50 overpass on map 8 or adding signage at the appropriate locations.

2.14 Opportunity for Multimodal Travel

Multi-modal travel between bike and bus could be encouraged as these designs progress. A first step would be to provide sheltered sheffield stands near bus stops along this route. Given the CBC will host a super high-frequency bus route the desire for people to cycle to the CBC makes multimodal travel likely if correctly encouraged.

4.0 Conclusion

We trust that our observations will be taken into account as the design for this scheme progresses from a concept design to a preliminary design. We look forward to engaging with the NTA as the design progresses.

Kevin Baker/Colm Ryder
Dublin Cycling Campaign
% Tailor's Hall,
Back Lane,
Dublin 8

Dublin Cycling Campaign,
Registered Charity Number (RCN): 20102029