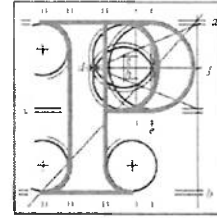


Our Case Number: ABP-316272-23



**An
Bord
Pleanála**

Orwel Park (Templeogue) Residents Association
c/o Betty Collard
23 Orwel Park View
Templeogue
Dublin 6W

Date: 24 April 2024

Re: Bus Connects Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme
Templeogue/Rathfarnham to City Centre

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above-mentioned proposed road development and will take it into consideration in its determination of the matter.

Please note, as stated in the Board's letter to you dated 23rd February 2024, that you were not required to pay a fee to make this submission. Accordingly, a refund for the €50 fee that you have paid will issue to the debit/credit card used to make the payment.

If you have any queries in relation to this matter, please contact the undersigned officer of the Board at laps@pleanala.ie

Please quote the above-mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Eimear Reilly
Executive Officer
Direct Line: 01-8737184

HA02A

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64 Sráid Maoilbhríde	64 Marlborough Street
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Orwell Park Templeogue Residents Association (OPTRA)

c/o 23 Orwell Park Rise

Templeogue

Dublin 6W

Re *BusConnects* Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme

ABP-316272-23

Dear Sir /Madam

We are in receipt of your letter from Eimear Reilly, dated 23 February, wherein it is stated that An Bord Pleanála has decided to determine this application without the benefit of an oral hearing. The letter goes on to invite us to make a submission in relation to the submission dated 20 December 2023 from the National Transport Authority.

OPTRA is disappointed that An Bord Pleanála has decided to dispense with an oral hearing. Furthermore, we consider it to be unreasonable to expect OPTRA to provide you with a comprehensive submission by 28 March. OPTRA has been fully occupied (as a member of the Metro South West Group - MSWG) with the (related) *MetroLink* application which is also before An Bord Pleanála. MSWG made an oral presentation on *MetroLink* to An Bord Pleanála on 25 March, i.e. a mere three days before your deadline for the 'A' corridor.

I attach (A) our necessarily short and circumscribed observations on NTA's response to our submission. Also our recommendations (B) to An Bord Pleanála.

We also support the observations of the WORK Residents Association on the A corridor.

Yours sincerely

Betty Collard
Secretary
Orwell Park Templeogue Residents Association

A Observations on Response of the NTA to the OPTRA submission on the BusConnects Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme (ABP-316272-23)

In their response to our submission (3.195.195) the NTA referred to our analysis which showed that buses on their own cannot provide sufficient capacity for the public transport needs of those who will wish to use the A corridor.

The NTA response leans heavily on a 'sensitivity analysis' which they carried out on Aungier St for the A corridor. However, this response is very weak and merely underlines the validity of our analysis.

NTA's Sensitivity Analysis

In the response to our analysis, some resilience testing is reported¹. This is one place in the BusConnects Templeogue/Rathfarnham application to An Bord Pleanála where the number of buses is quantified.

This response shows what would happen if the projected number of buses on Aungier St were increased by 10 from 46 per hour to 56 in 2028. (While not specified, presumably this relates to in-bound buses in the peak hour.) The results of this sensitivity analysis show only a slight increase in bus journey times and the conclusion is:

"This highlights the benefit that the Proposed Scheme infrastructure improvements can provide in protecting bus journey time reliability and consistency, as passenger demand continues to grow into the future."

However, this resilience analysis has a strange feature. The main problem lies with the assumption that the base case involves just 46 buses in-bound in the peak morning hour. In Rathmines Rd Lower, the NTA's projections for in-bound peak morning bus passengers are 4,000 for 2028 (page 116) and 4,500 for 2043 (page 120). According to our calculations this would require 67- 100 buses in 2028, depending on occupancy, and 75 to 113 buses in 2043².

We know from Walker (September 2020) that approximately 79% of buses on Lr Rathmines Road enter Aungier St³. For 2028, this would imply 53-79 buses entering Aungier Street in the peak morning hour from Lr Rathmines Road. For 2043, this would imply 59-89 buses entering Aungier St in the peak morning hour from Lr Rathmines Road. In addition, Walker shows a further 10 buses entering Aungier St from Merrion Square and Cuffe St⁴. **Thus, based on the NTA passenger forecasts, the range of buses which will be required in-bound in 2028, depending on occupancy, will be 63-89. For 2043 there will be a requirement for 69-99 buses.**

¹ Replicated from EIAR, Vol 2 of 4 Main Report, Chapter 6, page 148.

² Assumed occupancy levels of 75% and 50%: see under Methodology below.

³ Total on Lr Rathmines Rd $6X80+20XA+4X81+3X82=33$ buses
Of these entering Aungier St $6X80+20XA=26$ or 79%

⁴ From Merrion Square $3X23+3X24=6$ buses. From Cuffe St $2X71+2X72=4$ buses.

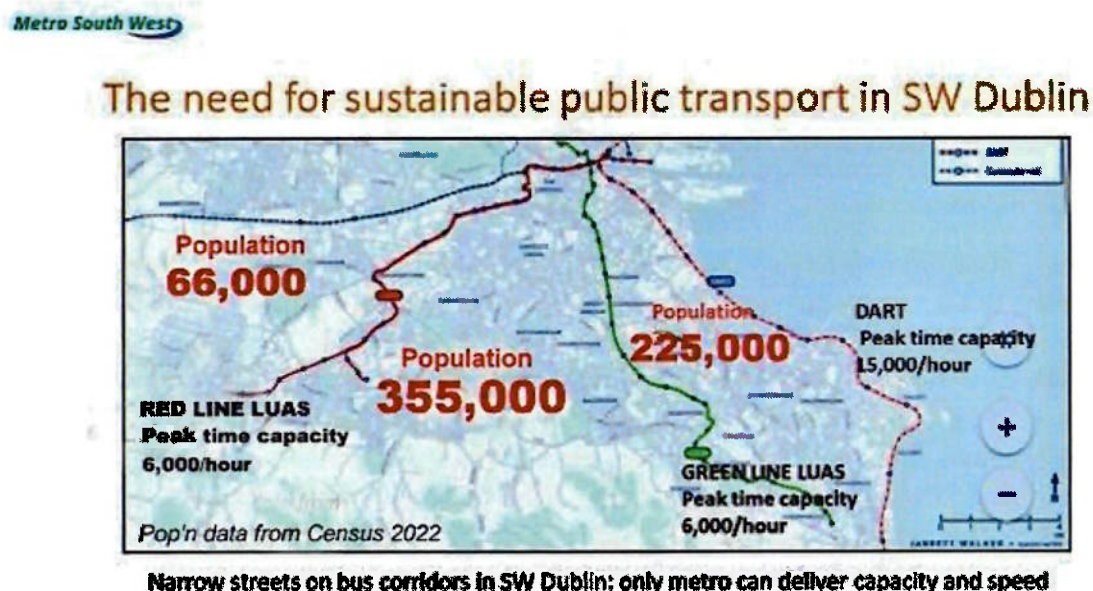
Conclusion on resilience testing

The 'resilience testing' which is reported by the NTA in its response to our submission is not onerous, for the numbers of buses tested (56) is below the minimum projected number of buses. This resilience testing does nothing to support the hypothesis that buses on their own are capable of providing sufficient passenger capacity for South West Dublin. Our updated analysis (below) also underpins this conclusion.

Overview of our updated analysis

South West Dublin is the area between the Red and Green Luas lines. It has a large population. From Census 2022, the population is c. 355,000. Unlike other areas of Dublin, it has no high capacity, high speed public transport. The 'corridors' into the city have long narrow sections where only one vehicle can pass in each direction.

Figure 1: Population and Public Transport



The *BusConnects* proposal was devised by a US-based consultant, Jarret Walker, on behalf of the National Transport Authority. Walker did not carry out a demand analysis and the scope of his analysis was confined to buses. As a result,

"The service frequency levels proposals in both the 2018 and the 2019 proposals are reflecting the current passenger demand level" (NTA letter to Minister Murphy, 2 December 2019)

The Walker plan projected that 30 buses would enter Terenure Road East in the peak morning hour (8-9am)⁵. This is far higher than the current inflow of buses (20)⁶ and would present considerable difficulty.

⁵ 20XA; 6XS4; 4X81.

⁶ 10X15; 1X65; 1X65b; 4X15a; 4XS4.

Methodology

In the recent submissions for *BusConnects* to An Bord Pleanála, the applicants show the numbers of passengers which they forecast will be on the buses at various points on the corridors during the peak hours of the day in 2028 and 2043. **However, NTA is silent on the numbers of buses which they propose will carry these passengers on the different corridors.** Now that all of the corridors have been submitted to An Bord Pleanála, it is appropriate to ask: How many buses are implied in the NTA passenger forecasts? Below, we tease out the answers and pose the question: How could the implied number of buses travel through:

- Terenure Road East
- Bachelors Walk.

In their applications to An Bord Pleanála, the applicants propose standard double deck buses with seating for c. 80 passengers⁷.

The applications to An Bord Pleanála by NTA does not detail the numbers of buses on the corridors⁸. However, forecasts are supplied showing the numbers of passengers which are forecast to be on board buses during the peak hour at defined points on each corridor. These forecasts relate to 2028 and 2043. In estimating the numbers of buses that will be required to service these passengers, it is necessary to make assumptions regarding the average occupancy of buses during the morning peak.

While the theoretical capacity of a conventional double deck bus is approximately 80 passengers, in reality assuming an average load of 80 passengers per bus is unrealistic. In all likelihood such a number would prevent efficient operation of services with headways of 1 minute or less. This is not least because of the dwell times that would become evident with people trying to board and alight from already very crowded vehicles including the challenge of sustaining efficient use of the stairs to/from the upper deck. Buses would bunch and speeds and punctuality would inevitably suffer. Moreover, this takes no account of intending passenger behaviour. Finally, a significant number of bus users avoid travelling in the upper deck which causes even more crowding on the lower deck and extended dwell times⁹. We assume that a full bus can carry 90 passengers, with 10 standees.

Based on observation of bus operating practice and travel patterns in the real world in Ireland and the UK, where double deck operation is widespread in urban areas, a more realistic planning assumption would be to anticipate average peak hour bus loadings to lie close to 50% and typically not higher than 75%.

In the analysis, we use two planning assumptions for average bus occupancy: 75 per cent and 50 per cent. We apply these factors to the highest patronage shown by NTA on each corridor for 2028 and 2043.

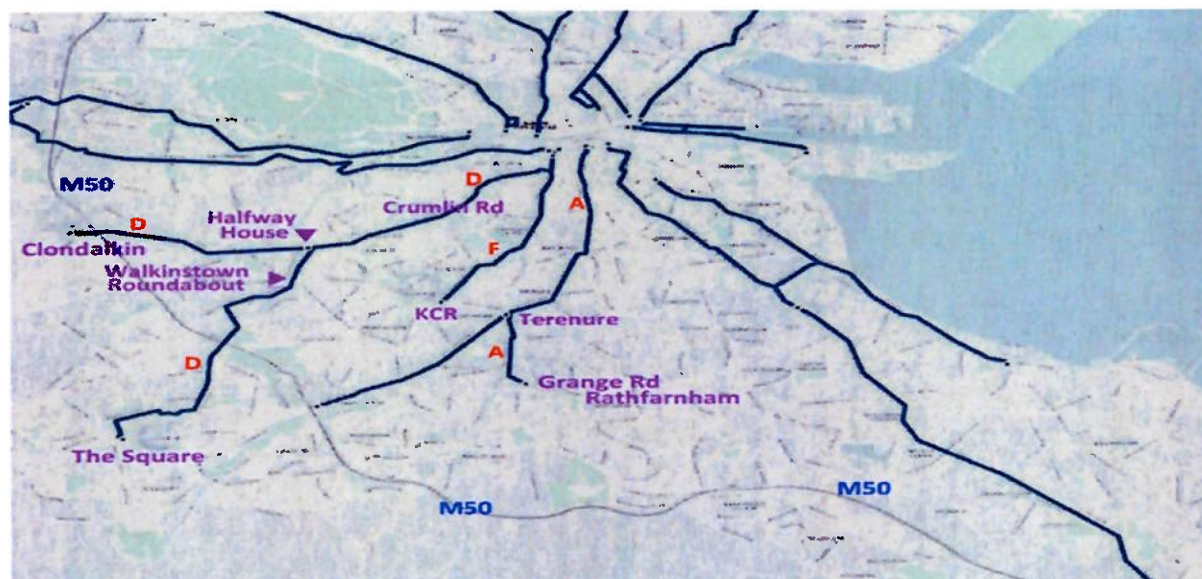
⁷ *BusConnects Templeogue/Rathfarnham Core Bus Corridor Scheme, EIAR Volume 2 of 4, Main Report, Chapter 3, page 6.*

⁸ However, see Section 6: Sensitivity Analysis.

⁹ Similar points were made 23 years ago by the Dublin Transportation Office, a forerunner to the NTA, in *A Platform for Change*, Dublin Transportation Office, 2001, page 25.

Neither Walker (September 2020) nor the NTA (applications to An Bord Pleanála) show how buses will make their way through the city centre streets.

Figure 2: The 'Hole in the Middle' of Dublin



So, how will buses make their way across the city through the 'hole in the middle' of the *BusConnects* network? All maps of the *BusConnects* network have a hole in the middle. For example, the 'A' corridor (Rathfarnham/Templeogue to City Centre) exists also on the North side of Dublin (Swords to City Centre). Buses on this 'A' corridor go right through the centre of the city and out to an extremity (terminus) on the other side. But how do the buses go through the centre?

The Rathfarnham/Templeogue Application to An Bord Pleanála finishes at the bottom of South Great Georges Street. The Swords Application finishes in Parnell Square. But how do buses go over and back between these two places? Unfortunately, Jarret Walker went back to the USA without giving us this information for any of the corridors. And the applications to An Bord Pleanála do not tell us either, as the north side and south side applications are separate. As we all know, the city centre is the most congested and contested part of the city. It is not at all clear, that driving unknown numbers of buses on unknown routes is possible or viable in the city centre.

For our analysis, some guesswork is required as to how it is intended that the various corridors join up. In the guesswork, some clues contained in Walker are followed. Also, it is assumed that the draft *Dublin City Centre Transport Plan* (NTA, Dublin City Council, September 2023) will be implemented. This draft Plan provides, *inter alia*, that Dame Street, from South Great Georges Street to College Green, will be closed to traffic. The draft Plan also provides that Parliament Street will be closed to traffic.

Terenure Road East

Here is a photo of the Southern entrance to Terenure Road East, which is located 5kms from the city centre. This shows that the road is very narrow, with room for only one lane of traffic in each direction.

Figure 3: Terenure Road East



Under *Busconnects*, some buses would turn right from Rathfarnham Road into Terenure Road East. That road would also receive buses and general traffic from Terenure Place, which is right opposite Terenure Road East. Terenure Place would receive buses from Templeogue Road, which would only contain buses and bikes. General traffic which now uses Templeogue Road would be diverted at Spawell, Templeogue Bridge and Templeville Road to the KCR. There they could go to town via Crumlin (Stannaway and Clogher Roads) or they could turn right and access Terenure via Terenure Road West: no doubt, many motorists would choose this option. Some 130m beyond the entrance to Terenure Road East, there is a large supermarket on the left hand side with parking for c. 100 cars. A signalised pedestrian crossing links this supermarket with a school and church on the Eastern side of the road.

Currently, Terenure Road East receives 20 in-bound buses in the morning peak¹⁰.

¹⁰ 10X15; 1X65; 1X65b; 4X15a; 4XS4

Under Walker's *BusConnects* proposal, in addition to receiving 20 'A' buses in the peak hour, Terenure Road East would be expected to also receive 6 'S4' orbital buses and 4 '81' buses via Terenure Road West, giving a total of 30 buses in the peak hour¹¹. This is a bus every 2 minutes, in addition to cars, vans, taxis, bikes etc. To increase the number of buses in the peak hour, as proposed in Walker's *BusConnects*, would be a very formidable challenge and may not be possible.

In their application to ABP, NTA has provided forecasts for the numbers of passengers which are expected to be on board in-bound buses in Terenure Road East from 8-9am. The forecasts are¹²:

Year	Passengers
2028	3,750
2043	4,250

For our analysis, these passenger forecasts are translated into numbers of buses, assuming 50 per cent and 75 per cent average bus occupancy. Table 1 shows the results.

Table 1: Number of Buses Implied by Passenger Forecasts for Terenure Road East, Peak Hour 8-9am in-bound 2028 and 2043

Year	No. of passengers	50% occupancy	75% occupancy
2028	3,750	83	56
2043	4,250	95	63

The minimum projection in Table 1 is that the number of buses would almost treble compared to the current situation.

Figure 4 shows the number of buses entering the southern end of Terenure Road East from 8-9am in 2028.

¹¹ A1/A2/A3/A4: 5 each; S4=6; 81=4; 74=2.

¹² EIAR, Vol 2 of 4, Main Report, Chapter 6: Traffic and Transport, Diagrams 6.11 and 6.15

Figure 4: Number of buses, current, Walker, Implied in NTA forecast

**Terenure Road East: 8-9am peak hour in-bound 2028
Demand 3,750 passengers (NTA): Required Buses**



If Walker's projected number of buses in the peak hour – 30 – was difficult and challenging, what are we to make of these fantastic figures – almost three times the current level – which are implied in the passenger forecasts which have been supplied to An Bord Pleanála? And these buses will be mixed with cars, vans, lorries and bikes. The excess buses – over Walker – are shown in blue in Figure 4.

The consequences for passengers and public transport are shown in Figure 5.

Figure 5: Consequences for passengers and public transport

The systematic under provision of public transport has consequences

**In 2028, 3,750 people will want to be on buses serving Terenure Road East (NTA).
But buses which fit on the road (30) will hold a maximum of 2,700 passengers.**

Consequences for passengers:

<u>Excluded</u>	1,050 ...over one in four of potential passengers.
<u>Discouraged</u>	All passengers who have difficulty getting a bus.
Result:	The suppression of passenger demand, so that Passenger demand will SHRINK to meet insufficient supply.

Conclusion on Terenure Road East

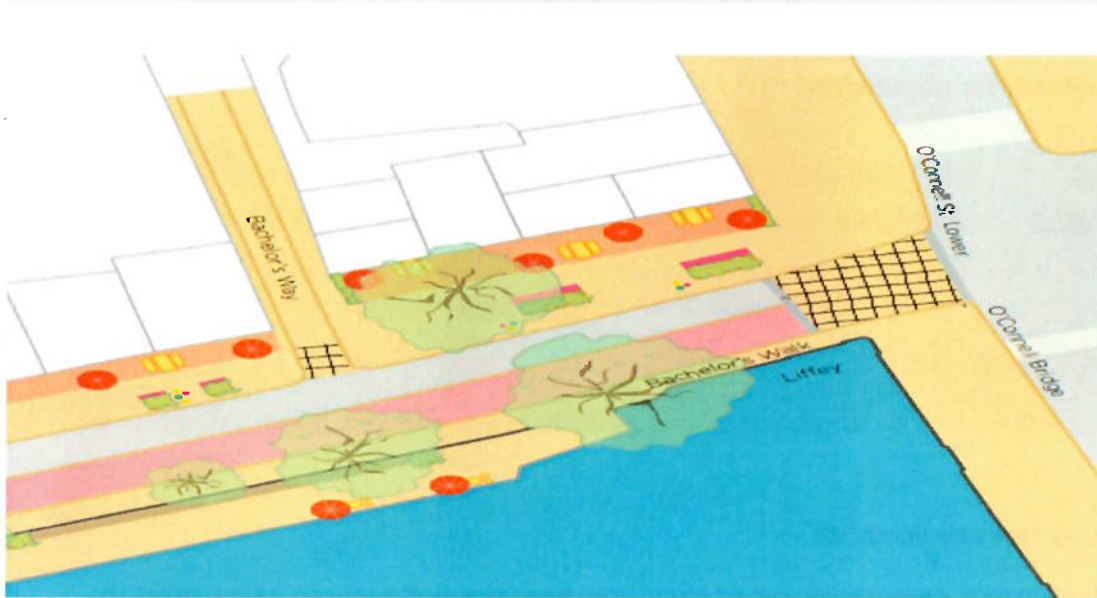
The NTA *BusConnects* proposal will fall far short from supplying sufficient capacity to meet the demand for public transport.

Bachelors Walk

Currently, there are two bus lanes on Bachelors Walk, together with a lane for general traffic.

Here is a picture of Bachelors Walk at its junction with O'Connell Street after the draft *Dublin City Centre Transport Plan* (NTA, Dublin City Council, September 2023) is implemented.

Figure 6: Bachelors Walk per Draft Dublin City Centre Transport Plan 2023



There will be two cycle lanes, coloured pink, on the southern side of the street and one bus lane, coloured grey, on the northern side for buses and taxis. According to the draft *Plan*, general traffic will not be permitted to enter Bachelors Walk.

Currently, 66 in-bound buses enter Bachelors Walk in the peak morning hour¹³.

For Bachelors Walk, Walker sends 114 buses in-bound in the peak morning hour. To these must be added, provincial buses, hop-on hop-off buses, tour buses and taxis. The junction of Bachelors Walk and O'Connell Street is very busy. Firstly, there are large numbers of pedestrians crossing over and back the mouth of Bachelors Walk. Secondly, there will be approximately 24 Luas trams heading northwards to O'Connell Street. Thirdly, most of the large number of buses heading northwards in Nassau Street will be passing by¹⁴. Fourthly, many cyclists turning to and from the cycle lanes on Bachelors Walk will require protection from traffic signals. Fifthly, traffic and pedestrians on the Eastern carriageway of O'Connell Street need to be catered to. It is a very challenging prospect, and may well be impossible, to send 114 buses onto one bus lane on Bachelors Walk.

Walker had proposed that A buses and some other in-bound buses would turn right at the bottom of South Great Georges St. However, it is now proposed (if not yet agreed by Dublin City Council) that most of Dame St will be closed to all traffic. The A buses will have to cross the Liffey somehow to proceed on towards Swords; almost inevitably they will be re-routed along Bachelors Walk. Figure 7

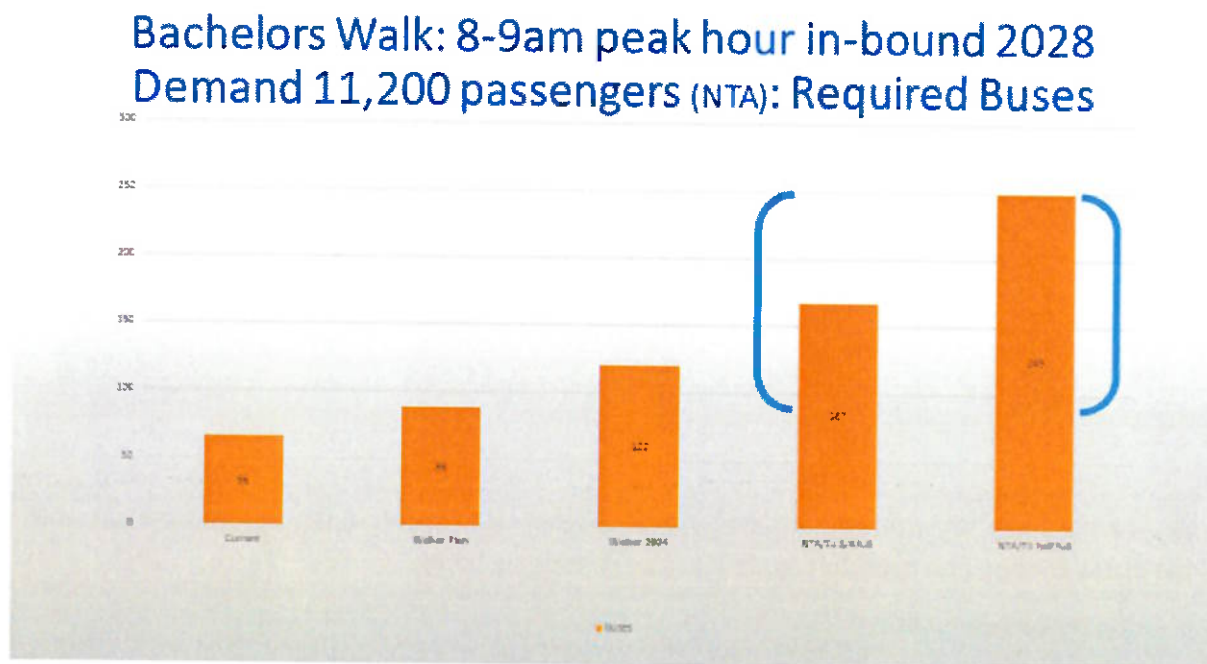
¹³ 5X26; 5X37; 4X39; 8X39a; 3X70, 6X145; 3X151; 1X51d; 5X83; 1X25; 1X30; 1X69; 1X52; 4XC1; 4XC2; 1XC3; 2XC4; 1X60; 5XG2; 5XG1.

¹⁴ No doubt much fewer than the exaggerated numbers, 113-171, which are implied by the NTA.

shows the original Walker proposal along with his revised proposal (assuming Dame St is pedestrianised) and also the implied NTA forecasts. For 2028, depending on the assumptions used, NTA is *implicitly* proposing 187 to 280 buses in the peak hour, plus provincial buses, hop-on hop-off, taxis, bicycles. The minimum forecast for 2028 is that the number of buses would be almost three times the current level. This appears to be impossible.

Figure 7 shows the data in diagrammatic form for 2028.

Figure 7: Number of buses, current, Walker, Implied in NTA forecast



The consequences for passengers and public transport are shown in Figure 8.

Figure 8: Consequences for passengers and public transport

The systematic under provision of public transport has consequences

**In 2028, 11,200 people will want to be on buses serving Bachelors Walk (NTA).
But buses which fit on the road (88) will hold a maximum of 7,920 passengers.**

Consequences for passengers:

<u>Excluded</u>	3,280 ...almost one in three of potential passengers.
<u>Discouraged</u>	All passengers who have difficulty getting a bus.
Result:	The suppression of passenger demand, so that Passenger demand will SHRINK to meet insufficient supply.

Buses serving South West Dublin (including the A corridor) will constitute the majority (54 per cent) of the buses in-bound on Bachelors Walk in the peak morning hour.

Conclusion on Bachelors Walk

The NTA *BusConnects* proposal is incapable of supplying sufficient capacity to meet the demand for public transport.

B Our recommendations to An Bord Pleanála

- 1 As the Rathfarnham/Tempoogue Application stands, our analysis shows that progress of the projected number of buses through Terenure Road East is impossible.
- 2 As the Application stands, our analysis shows that the progress of the projected number of passengers and buses through Bachelors Walk is impossible.
- 3 The Applicant has failed to properly examine the leading alternative proposal, i.e. the continuation of *MetroLink* from St Stephens Green to South West Dublin. This would fundamentally alter the functionality and routing of buses throughout South West Dublin. It would also inform decisions now about “Do we really need to spend enormous sums of money on extravagant construction and land-take for an ineffective outcome, knowing that metro will enable capacity and speed issues to be resolved?”
- 4 The recent Audit of the NTA/Jacobs *Metro to Knocklyon Feasibility Study*, which was carried out by Professor Austin Smyth, is now available. It was presented to the ABP Oral Hearing on *MetroLink* on 25 March 2024 and a copy was left with the Inspector. That Audit reported that the Jacobs Study was highly deficient in many respects and that the Benefit to Cost ratio would likely lie in the range 1.6 to 2.2, rather than the 0.8, which was reported by Jacobs.

Supply of critical information

- 5 In order to evaluate the Tempoogue/Rathfarnham Application, and in light of the above analysis, An Bord Pleanála should require the Applicant to provide critical information to include the following:
 - How many buses are forecast in the peak hour on the A corridor?
 - Explain how these buses will be able to proceed through the city centre and set out the measures that will be required.
 - Explain how these buses will be able to proceed through Terenure Road East and set out the measures that will be required.
 - What will be the impact of these measures?

6 This new information, which does not appear to have been supplied, will have to be evaluated. As a general approach, given

- The uncertain and limited benefits for public transport (capacity and time savings)
AND
- The unspecified (for this corridor) but inevitably high cost
AND
- The severe disruption for car users
AND
- The discouragement of travel

We recommend that An Bord Pleanála either:

REFUSE the Application

OR

APPROVE the Application with the following conditions:

- Remove the fares process from all buses.
- Replace bus gates by bus priority.
- Limit construction and land-take to curtail expenditure.
- Preserve existing cycle lanes.
- Reduce penalisation of motorists by reducing bans on right hand turns.
- NTA to immediately initiate a proper and transparent study of continuing *MetroLink* from St Stephens Green to South West Dublin – to resolve capacity and speed for public transport, and provide less penalisation of motorists.

**Orwell Park (Templeogue) Residents Association
March 2024**