Our Case Number: ABP-317660-23



Metro South West Group c/o Pauline Foster 39 Whitehall Road Terenure Dublin 12 D12 N265

Date: 15 December 2023

Re: Bus Connects Kimmage to City Centre core bus corridor scheme

Kimmage, Dublin

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 accept this letter as a receipt for the fee of €50 that you have paid.

Please note that the proposed road development shall not be carried out unless the Board has approved it or approved it with modifications.

The Board has also received an application for confirmation of a compulsory purchase order which relates to this proposed road development. The Board has absolute discretion to hold an oral hearing in respect of any application before it, in accordance with section 218 of the Planning and Development Act 2000, as amended. Accordingly, the Board will inform you in due course on this matter. The Board shall also make a decision on both applications at the same time.

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

Metro South West Group, 39 Whitehall Road, Terenure, Dublin D12 N265.

These are the observations of the Metro South West Group on the *BusConnects* Application to An Bord Pleanála regarding the Kimmage to City Corridor. Reference: 317660

Assessment of the Passenger Capacity of *BusConnects* in South West Dublin

Including Consideration of:

- <u>All</u> of the *BusConnects* Planning Applications which have been submitted to An Bord Pleanála
- The Draft Dublin City Development Plan 2023



Metro South West Group
October 2023



Assessment of the Passenger Capacity of the *BusConnects* Corridors in South West Dublin

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Assessment of the Passenger Capacity of the *BusConnects* Corridors in South West Dublin

Preface

The Metro South West Group has campaigned for the continuation of MetroLink from Saint Stephens Green to South West Dublin. The basis for this is that buses on their own cannot provide sufficient capacity due to the narrow roads in South West Dublin.

Two recent developments are highly relevant here:

- <u>All</u> of the BusConnects Planning Applications have been submitted by the National Transport Authority and Transport Infrastructure Ireland to An Bord Pleanála
- The Draft Dublin City Development Plan 2023, September 2023, NTA and Dublin City Council, has been published.

This Report analyses the implications of these two developments.

In our view, it is inappropriate to view the Kimmage to City scheme in isolation. Rather, it is necessary to view <u>all</u> of the proposed corridors in South West Dublin to understand how well the proposals meet the public transport needs of the population of South West Dublin. Accordingly, this Report covers more than the Kimmage corridor. It seeks to determine if there is sufficient public transport capacity in South West Dublin.

This Report demonstrates for the first time, <u>based on the NTA/TII passenger forecasts</u> for all the corridors, which are contained in their applications to An Bord Pleanála, that buses on their own will fall far short from being able to supply sufficient public transport to meet the needs of those living in South West Dublin.

The analysis provides substantial further evidence that the continuation of MetroLink to South West Dublin is required.

The vital analysis, which is contained in this Report could not have been produced before now as the necessary material was not available. Accordingly, it is necessary for An Bord Pleanála to include this Report in its consideration of:

- Kimmage to city corridor
- Templeogue/Rathfarnham to city corridor
- Tallaght/Clondalkin to city corridor
- MetroLink Estuary to Charlemont.

Metro South West Group

December 2023



Assessment of the Passenger Capacity of the *BusConnects* Corridors in South West Dublin

1 Introduction

1.1 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. 352,000. Unlike other areas of Dublin, it has no high capacity, high speed public transport. The 'corridors' into the city have long extended sections where only one vehicle can pass in each direction.

Figure 1: Population and Public Transport

Metro South West

The need for sustainable public transport in SW Dublin



Narrow streets on bus corridors in SW Dublin: only metro can deliver capacity and speed

1.2 The original case for continuing *MetroLink* to South West Dublin was based on the inability of buses *on their own* to provide sufficient capacity to provide for the transport needs of those living in South West Dublin¹.

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)

1.3 Walker's final proposal for South West Dublin is summarised in Table 1.

¹ The Case for Continuing MetroLink to South West Dublin, Metro South West Group, August 2020 https://documentcloud.adobe.com/link/review?uri=urn:aaid:scds:US:eb90ca39-fff8-4acd-9fe5-c1e92f4fb93e



Table 1: Summary of Four Bus Corridors identified by the NTA/Walker

Number of Buses and Passenger Capacity in-bound to the City in the 7am to 8am Peak Hour

from Specific Locations on the Corridors in South West Dublin

Bus corridor	Current Current maximum		BusConnects	BusConnects max.
	No. of Buses	Passenger Capacity	No. of Buses	Passenger Capacity
Kimmage-City	9		18	
Centre	(3X54a; 6X9)	720	(6XF1; 6XF2; 6XF3)	1,440
(at Mount Argus)				
Tallaght-	19		10	
Terenure (at Terenure College)	(12X15; 4X49; 2X65; 1X65b)	1,520	(5XA1; 5XA3)	800
Rathfarnham-	12		18	
City Centre (at junction with Rathdown Park)	(6X15b; 6X16)	960	(5XA2; 5XA4; plus 2X74; 6X85))	1,440
Greenhills-City	23		24	
Centre (at Crumlin Hospital)	(6X27; 1X56a; 5X77a; 1X77x; 6X123; 4X151)	1,840	(4XD1; 4XD2; 4XD3; 2XD4; 2XD5 plus 2X72; 6X73)	1,920
Totals	63	5,040	70	5,600

Sources: New Dublin Area Bus Network, NTA, September 2020 and contemporaneous bus timetables

This table was produced by the Metro South West Group (MSWG), representing 40 residents associations in South West Dublin. The proposal to provide only 7 additional buses in the peak morning hour would do little to address the need to promote much greater use of public transport in South West Dublin.

Walker projected that 32 buses would enter Terenure Road East in the period which he regarded as the peak morning hour (7-8am). MSWG pointed out that this is far higher than the current inflow of buses (19) and would present considerable difficulty. The limited potential of some city centre streets – such as Dean Street and Dawson Street – to absorb increased numbers of buses was highlighted.

1.4 In response to the MSWG analysis, the NTA asserted – without either evidence or analysis – that the proposed bus corridors could carry 'multiples' of the numbers of buses that were proposed by Jarret Walker². Neither the size of the multiples nor where they might be applied were specified.

Rathmines Road Lower

1.5 According to the *Transport Strategy for the Greater Dublin Area*, 2022-2042, potential passenger demand on Lower Rathmines Road would be 9,300 passengers in the peak hour in-

² Letter NTA to Minister Eoghan Murphy, 2 December 2019



bound. This was reduced in the *Strategy* to a "plausible future demand estimate" of 2,400 "which can be accommodated on the public transport schemes currently in planning"³. Now we see in the *Templeogue Rathfarnham BusConnects Scheme*, which has been submitted to An Bord Pleanála, that this "plausible demand" figure has been almost doubled to 4,500⁴. There is no indication given regarding how "plausible demand" has shot up nor how buses on Lower Rathmines Road could transport these passenger numbers.

- 1.6 In the *Transport Strategy for the Greater Dublin Area 2022-2042*, the only provision for public transport in South West Dublin for the next 20 years is buses. MSWG's primary concern with *BusConnects* is that <u>its corridors cannot provide sufficient public transport capacity in South West Dublin.</u>
- 1.7 The NTA/TII made individual applications to An Bord Pleanála (ABP) for the different bus corridors. Now that all of the applications are with ABP, there is an opportunity to consider:

How many buses are required to pass in-bound through 3 narrow roads in the peak morning hour under the Walker BusConnects proposals and under the BusConnects proposals made by NTA/TII to An Bord Pleanála?

2 Methodology

- 2.1 In the recent submissions for *BusConnects* to An Bord Pleanála, the applicants the National Transport Authority and Transport Infrastructure Ireland 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/TII are silent on the numbers of buses which they propose will carry these passengers on the different corridors. Clearly, however, the forecast numbers of passengers imply that NTA/TII have followed through on their 'multiples' approach (see para 1.4 above). 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/TII passenger forecasts? In Sections 3-5, we tease out the answers and pose the question: How could the implied number of buses travel through the following corridors:
 - Terenure Road East
 - Dawson Street
 - Bachelors Walk.
- 2.2 In their applications to An Bord Pleanála, the applicants propose standard double deck buses with seating for c. 80 passengers⁵. In this MSWG paper, it is assumed that the capacity of these buses is 90 passengers, including some standees.
- 2.3 Walker had counted the number of buses which he intended to put onto the corridors throughout the day, including in the peak morning hour, which he regarded as 7-8am. He

³ Strategy Development and Modelling Report, NTA, 2021, pages 89 and 106.

⁴ Environmental Impact Assessment Report (EIAR) Volume 2 of 4 Main Report, page 120

⁵ BusConnects Templeogue/Rathfarnham Core Bus Corridor Scheme, EIAR Volume 2 of 4, Main Report, Chapter 3, page 6.



indicated that the numbers of buses could vary depending on passenger demand. Walker's numbers are shown in the analysis with reference to three narrow roads: Terenure Road East, Dawson Street and Bachelors Walk (part of the North Quays).

- 2.4 The applications to An Bord Pleanála by NTA/TII do not detail the numbers of buses on the corridors⁶. 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 and they assume the morning peak is from 8-9am rather than the 7-8am peak, which was assumed by Walker. 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.
- 2.5 While the theoretical capacity of a conventional double deck bus is approximately 90 passengers, in reality assuming an average load of 90 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 times⁷.
- 2.6 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 assumption would be to anticipate average peak hour bus loadings to lie close to 50% and typically not higher than 75%.
- 2.7 In the analysis, we use two assumptions for average bus occupancy: 75 per cent and 50 per cent. We apply these factors to the highest patronage shown by NTA/TII on each corridor for 2028 and 2043.
- 2.8 The applications to An Bord Pleanála do not show how buses will make their way through the city centre streets.

⁶ However, see Section 6: Sensitivity Analysis.

⁷ 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.



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 for the *BusConnects* corridors leave 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?

- 2.9 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? The applications to An Bord Pleanála do not tell us, 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.
- 2.10 For our analysis, some estimation informed by professional and local knowledge is required as to how it is intended that the various corridors join up. In the estimation, 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.



3 Terenure Road East

3.1 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

- 3.2 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 Kimmage Road West or the KCR. There they could go to town via Crumlin (Stannaway and Clogher Roads) or they could 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 ALDI 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.
- 3.3 Table 2 shows the number of buses entering the southern end of Terenure Road East from 8-9am.

Table 2: Number of in-bound buses entering Terenure Road East 8-9am⁸

Current Situation and Walker Proposal 2020

	Current situation	BusConnects Walker 2020		
Route	Quantity of buses	Route	Quantity of buses	
15	10	A1	5	
65	1	A2	5	
65b	1	A3	5	
15a	4	A4	5	
		S4	6	
		81	4	
Total	16	Total	30	

Currently, Terenure Road East receives 16 in-bound buses in the 8-9am peak hour and is highly congested9.

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 hour. This is a bus every 2 minutes, in addition to cars, vans, taxis, bikes etc. To almost double the number of buses in the peak hour, as proposed in Walker's *BusConnects*, would be a very formidable challenge and may not be practical.

3.4 In their application to ABP, NTA/TII have 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 are¹⁰:

Year	Passengers
2028	3,750
2043	4,250

3.5 For our analysis, these passenger forecasts are translated into numbers of buses, assuming 50 per cent and 75 per cent average bus occupancy (see para. 2-4-2.7 above). Table 3 shows the results.

Table 3: Number of Buses Implied by Passenger Forecasts for Terenure Road East,
Peak Hour 8-9am in-bound 2028 and 2043

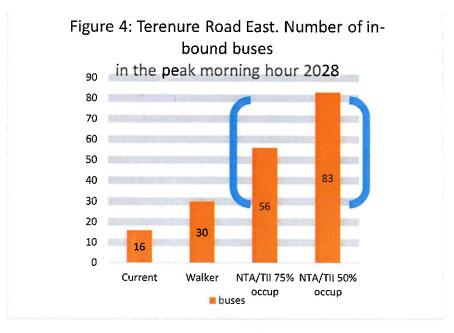
Year	No. of passengers	50% occupancy	75% occupancy
2028	3,750	83	56
2043	4,250	94	63

 $^{^8}$ Walker's peak morning hour is 7-8am whereas the NTA/TII peak is 8-9am. The 8-9am period is shown here to facilitate comparison with NTA/TII.

⁹ 10X15; 1X65; 1X65b; 4X15a.

 $^{^{10}}$ EIAR, Vol 2 of 4, Main Report, Chapter 6: Traffic and Transport, Diagrams 6.11 and 6.15

The <u>minimum</u> projection in Table 3 is that the number of buses would be <u>more than treble</u> the current situation. Figure 4 shows the data in diagrammatic form for 2028.



Excess buses 1

If Walker's projected number of buses in the peak hour (30) was difficult and challenging, what are we to make of the fantastic figures in the last two columns – at a minimum 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 on the corridor. Is it the case that the buses which are in excess of Walker (shown in blue on Figure 4) are simply impractical?

3.6 If it is possible to implement Walker's throughput of buses, then Table 4 shows how much of the passenger demand (3,750) will be met in 2028, using two occupancy factors – 50 per cent and 75 per cent.

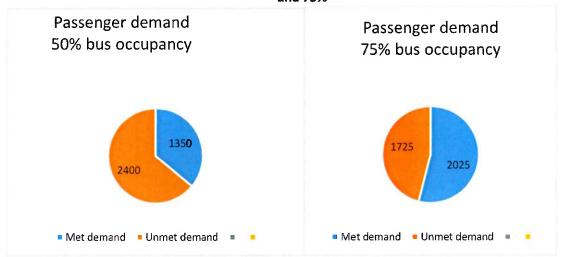
Table 4: Terenure Road East, Met and Unmet Passenger Demand on the Corridor in 2028 Based on NTA/TII Demand Forecasts, Walker's projected Buses and Average Bus Occupancy rates of 50% and 75%

Bus Occupancy	Met Demand	Unmet Demand	Total Demand	
50% (45 passengers)	1,350	2,400	3,750	
75% (67 passengers)	2,025	1,725	3,750	

Figure 5 shows this in diagrammatic form.



Figure 5: Terenure Road East: Met and Unmet Passenger Demand on the Corridor in 2028 Based on NTA/TII Demand Forecasts, Walker's projected Buses and Average Bus Occupancy rates of 50% and 75%



Even on the most optimistic assumptions — that Walker's 30 buses can pass through Terenure Road East and that buses will be 75 per cent occupied — the level of unmet demand is very high.

Conclusion of Section 3: Terenure Road East

3.5 Under the NTA/TII *BusConnects* proposal, the 'A' corridor is incapable of supplying sufficient capacity to meet the demand for public transport in South West Dublin



4 Dawson Street

4.1 Similarly when we get to Dawson Street we get a similar result. Dawson Street is narrow with Luas tracks in both directions and general traffic is not permitted. Buses, trams etc. must pass through 4 sets of traffic lights on Dawson Street¹¹. There is a Luas stop at Hodges Figgis bookshop and there is a bus stop also. A feature to note is that if a vehicle stops at any of the above lights or stops, any other vehicles which are close behind must stop also. For cyclists heading towards the city centre, the gap between the kerb and the Luas rail is very narrow in some places; this means that many cyclists occupy the space between the Luas tracks. Here is a picture of Dawson Street.

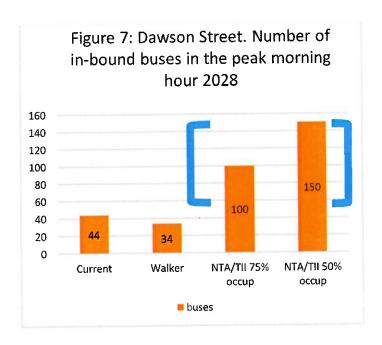


Figure 6: Dawson Street

 $^{^{11}}$ Traffic lights are at the junctions with St Stephens Green, South Anne St, Duke St and Dawson St.

- 4.2 Currently 44 in-bound buses enter the Southern end of Dawson Street in the peak morning hour and all of them proceed onto Nassau Street¹².
- 4.3 For Dawson Street, Walker sends in buses from the 'F' corridor (Kimmage) and the 'E' corridor (Bray/Stillorgan), in all 34 buses in-bound in the peak morning hour¹³, which is fewer than the current inflow of buses. The reason for this is unknown.
- 4.4 However, for 2028, depending on the assumptions used, NTA/TII are *implicitly* proposing 100 to 150 buses in the peak hour. The details are in Appendix B. To these numbers of buses must be added Luas trams (projected to increase to 24 long trams in the peak hour), provincial buses, hop-on hop-off, tour buses, taxis, bicycles. The <u>minimum</u> forecast for 2028 is that the number of buses would be <u>more than double</u> the current level. This appears to be impractical.

Figure 7 shows the data in diagrammatic form for 2028.



4.5 For 2043, depending on the assumptions used, NTA/TII are *implicitly* proposing 101 to 152 buses in the peak hour. The details are in Appendix B. To these numbers must be added approximately 24 long Luas trams, provincial buses, hop-on hop-off, tour buses, taxis, bicycles.

¹² 3X155; 6X145; 8X46a; 1X46e; 2X39; 6X39a; 2X70; 2X11; 3X37; 2X38; 3X38a; 1X7b; 5X26.

¹³ Details are in Appendix B.

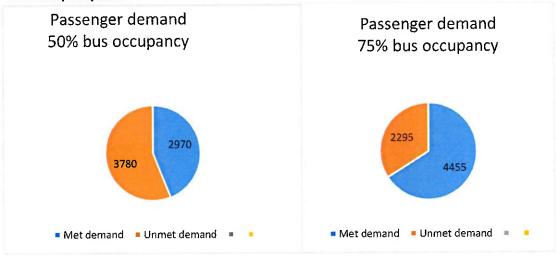
- 4.6 What is the maximum number of buses which can travel down Dawson Street? Walker is of little help as he sends in fewer than the current number of buses. Suppose, arbitrarily, we make the optimistic assumption that the maximum is likely to be around the current level plus 50 per cent? Then it would be the case that the buses which are in excess of this (shown in blue on Figure 7) are simply impractical?
- 4.7 If it is possible to implement the current throughput of buses plus 50 per cent, then Table 5 shows how much of the passenger demand (6,750) will be met in 2028, using two occupancy factors 50 per cent and 75 per cent.

Table 5: Dawson Street, Met and Unmet Passenger Demand in 2028 on the Corridor Based on NTA/TII Forecast Demand and Average Bus Occupancy Rates of 50% and 75%

Bus Occupancy	Met Demand	Unmet Demand	Total Demand
50% (45 passengers)	2,970	3,780	6,750
75% (67 passengers)	4,455	2,295	6,750

Figure 8 shows this in diagrammatic form.

Figure 8: Dawson Street, Met and Unmet Passenger Demand in 2028 on the Corridor Based on NTA/TII Demand Forecasts and Maximum Capacity of Current Buses plus 50 per cent and Average Bus Occupancy Rates of 50% and 75%



Even on the most optimistic assumptions — that current throughput of buses can be increased by 50 per cent and that buses will on average be 75 per cent occupied — the level of unmet demand will be very high at 2,295 potential passengers.

4.8 Buses serving South West Dublin constitute the majority (53 per cent) of the buses in-bound on Dawson Street in the peak morning hour¹⁴. However, as both the 'E' and 'F' corridors enter Dawson Street, we don't know how the lack of service will be apportioned between them.

Conclusion of Section 4: Dawson Street

4.7 The corridor under the NTA/TII *BusConnects* proposal is incapable of supplying sufficient capacity to meet the demand for public transport in South West Dublin.

¹⁴ Based on Walker's presumed bus routes and numbers of buses through the city. The NTA/TII applications to ABP don't identify bus routes and the numbers of buses on them.



5 Bachelors Walk

5.1 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.

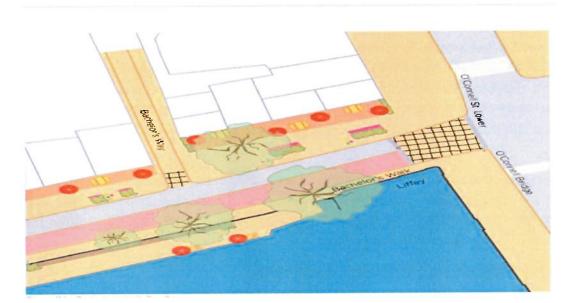


Figure 9: Bachelors Walk per Draft Dublin City Centre Transport Plan 2023

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.

- 5.2 Currently, 67 in-bound buses enter Bachelors Walk in the peak morning hour¹⁵.
- 5.3 In the plan_for Bachelors Walk, which was produced in 2020, Walker sent 88 buses inbound along this corridor in the peak morning hour 16. 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 which we saw heading northwards in Dawson Street will be passing by 17. Fourthly, many cyclists turning to and from the cycle lanes on Bachelors Walk will require protection from traffic

¹⁵ 5X26; 5X37; 4X39;8X39a; 3X70, 6X145; 3X151; 1X51d; 5X83; 1X25; 1X30; 1X69; 1X52; 4XC1; 4XC2; 1XC3; 2XC4; 1X60; 5XG2; 5XG1, 1X25.

¹⁶ Details are in Appendix B.

¹⁷ No doubt much fewer than the exaggerated numbers, 100-150, which are implied by the NTA/TII.

signals. Fifthly, traffic and pedestrians on the Eastern carriageway of O'Connell Street need to be catered to.

It is a very difficult and challenging prospect to send 88 buses along one bus lane on the Bachelors Walk corridor¹⁸.

5.4 <u>If Walker were to update his proposal in 2023</u>, he would have to take account of the following development:

The proposed pedestrianisation of Dame Street from South Great Georges Street to College Green 19.

Walker's 2020 proposal appeared to have all of the 'A' buses turning right at the bottom of South Great Georges Street. Also, his buses 73 and 85 would use this part of Dame Street. No doubt, in 2023, Walker would have to redirect these buses by some alternative route to the North side of Dublin. This would most likely mean that these re-directed buses would travel along Bachelors Walk. This supposed updating of Walker's proposal to 2023, would increase the throughput of buses from 88 (his original proposal) to 120 (Walker's proposal updated to 2023)²⁰.

5.5 For 2028, depending on the assumptions used, NTA/TII are *implicitly* proposing 166 to 249 buses in the peak hour, plus provincial buses, hop-on hop-off, tour buses, taxis. The <u>minimum</u> forecast for 2028 is that the number of buses would be <u>two and a half times</u> the current level. This appears to be impractical.

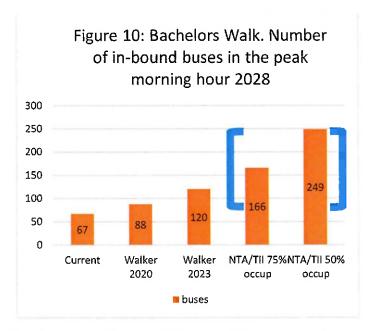
Figure 10 shows the data in diagrammatic form for 2028.

¹⁸ It is worth noting that Jarret Walker may not have been aware of the intention to restrict Bachelors Walk to one bus lane.

¹⁹ As proposed by the NTA and Dublin City Council. Not only is this proposal contained in the draft *Dublin City Centre Transport Plan* (NTA, Dublin City Council, September 2023) but a planning application for this is currently being prepared and an international architecture competition (co-funded by the NTA and DCC) is underway to decide the best design.

²⁰ The details are in Appendix B. If as an alternative, Walker in 2023 would redirect the 'A' buses via Dawson Street, this alternative would come up against the inability of Dawson Street to take any more buses. (See Chapter 4 above.)





If we make the optimistic assumption that Walker's 2020 number of buses is just about possible, then the excesses, shown in blue in Figure 10, are simply impractical.

- 5.6 For 2043, depending on the assumptions used, NTA/TII are *implicitly* proposing 175 to 263 buses in the peak hour, plus provincial buses, hop-on hop-off, tour buses, taxis. This appears to be impractical.
- 5.7 If it is possible to implement the <u>original (2020)</u> Walker proposed throughput of buses (88), then Table 6 shows how much of the passenger demand (11,200) will be met in 2028, using two occupancy factors 50 per cent and 75 per cent.

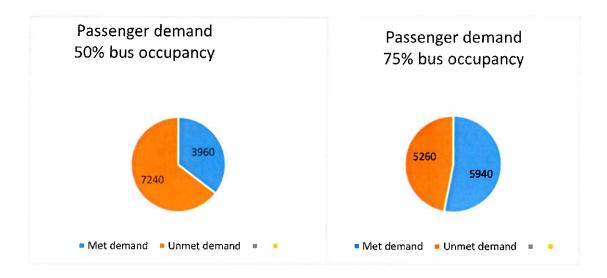
Table 6: Bachelors Walk, Met and Unmet Passenger Demand in 2028 Based on NTA/TII Forecast Demand on the Corridors feeding into Bachelors Walk, Walker's 2020 Proposal and Average Bus Occupancy Rates of 50% and 75%

Bus Occupancy	Met Demand	Unmet Demand	Total Demand
50% (45 passengers)	3.960	7,240	11,200
75% (67 passengers)	5,940	5.260-	11,200

Figure 11 shows this in diagrammatic form.



Figure 11: Bachelors Walk, Met and Unmet Passenger Demand in 2028 Based on NTA/TII Forecast Demand on the Corridors feeding into Bachelors Walk, Walker's 2020 Proposal and Average Bus Occupancy Rates of 50% and 75%



Even on the most optimistic assumptions – that Walker's 2020 proposed throughput of buses is possible and that buses will on average be 75 per cent occupied – the level of unmet demand will be very high at 5,260 potential passengers.

- 5.8 Buses serving South West Dublin, including the 'A' and 'D' corridors, constitute the majority (54 per cent) of the buses in-bound on the Bachelors Walk corridor in the peak morning hour.
- 5.9 Under *BusConnects*, many corridors and other buses enter Bachelors Walk; we don't know how the lack of service will be apportioned between the several passengers on these corridors and bus routes.

Conclusion on Section 5: Bachelors Walk

5.10 Under the NTA/TII *BusConnects* proposal, several corridors feed into Bachelors Walk, including two from South West Dublin, the 'D' and 'A' corridors. The analysis shows that they are incapable of supplying sufficient capacity to meet the demand for public transport in South West Dublin.



6 Sensitivity Analysis

- 6.1 In the *BusConnects* Templeogue/Rathfarnham application to ABP, some resilience testing is carried out²¹. This is one place in the *BusConnects* Templeogue/Rathfarnham application to An Bord Pleanála where the number of buses is quantified.
- 6.2 This section of the application to ABP 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."

- 6.3 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 on this corridor 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 2043²².
- 6.4 We know from Walker (September 2020) that approximately 79% of buses on Lr Rathmines Road enter Aungier St²³. 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 Lower Kevin St²⁴. Thus, based on the NTA/TII 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 69-99 buses.

Conclusion on resilience testing

6.5 The 'resilience testing' is not onerous, for the numbers of buses tested (56) is below the <u>minimum</u> 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.

²¹ In EIAR, Vol 2 of 4 Main Report, Chapter 6, page 148.

²² Assumed occupancy levels of 75% and 50%.

²³ Total on Lr Rathmines Rd 6X80+20XA+4X81+3X82=33 buses

Of these entering Aungier St 6X80+20XA=26 or 79%

²⁴ From Merrion Square 3X23+3X24=6 buses. From Upper Kevin St 2X71+2X72=4 buses.



7 Feasibility of Continuing MetroLink to South West Dublin

Walker's proposal vs NTA/TII applications to An Bord Pleanála

- 7.1 The above analysis shows some striking shortcomings of the NTA/TII submissions on *BusConnects* compared to the Walker proposals.
- 7.2 The Walker proposals (September 2020) covered the whole of Dublin.

<u>By contrast</u>, the NTA/TII applications to An Bord Pleanala relate to individual corridors and there is no over-arching submission, which would seek to capture the overall implications of the set of proposals.

7.3 Walker detailed the numbers of buses that he proposed for all of the routes and on all of the corridors.

By contrast, the NTA/TII applications to An Bord Pleanála do not detail the numbers of buses on the various routes and the corridors.

7.4 As we have seen in Table 1 (above), Walker's proposals for South West Dublin contained provision for only 7 additional buses in-bound in the peak morning hour for the whole of South West Dublin. This paltry provision would be unable to allow a significant modal shift from cars to public transport. Walker's proposals also included a sharp increase (almost a doubling) in buses travelling along Terenure Road East, which would be very difficult and challenging. Various prior iterations of the Walker proposals were the subject of public consultations, which were convened by the NTA.

By contrast, the NTA/TII applications to An Bord Pleanála envisage vastly increased numbers of passengers on the corridors. For any kind of rigour, these large numbers of passengers must be translated into the numbers of buses, which will be required to carry them on these corridors. It is clear from Sections 3-5 above that the numbers of buses which are implied in the NTA/TII applications are far beyond anything that Walker proposed or analysed.

The conclusion from Sections 3-5

7.5 From the evidence of Terenure Road East, Dawson Street and Bachelors Walk, it is clear that the NTA/TII *BusConnects* proposals will fail to deliver the impractical numbers of buses which are implied in their proposals on the corridors which serve South West Dublin, viz. the 'A' corridor from Templeogue/Rathfarnham; the 'D' corridor from Tallaght/Clondalkin and the 'F' corridor from Kimmage. The proposals contain many imaginary buses and passengers. Accordingly, these proposals will fall far short from supplying sufficient capacity to meet the demand for public transport in South West Dublin.



The need for metro

- 7.6 South West Dublin suffers from major deficits in public transport and road infrastructure²⁵. Following analysis and campaigning by the Metro South West Group, and prior to the last general election, all of the political parties promised that the feasibility of continuing *MetroLink* to South West Dublin would be evaluated.
- 7.7 In response, the NTA, together with Jacobs produced the *Metro to Knocklyon Feasibility Study, 2021*. This Summary Report 138 pages²⁶ rejected the continuation of *MetroLink* to South West Dublin. However, the Report had many flaws, including²⁷:
 - The Study was not independent;
 - Continuing MetroLink directly from St Stephens Green to South West Dublin was excluded from the analysis²⁸;
 - Continuing MetroLink to Tallaght was excluded from the analysis²⁹;
 - The radius around stations assumes that only walkers would use the metro³⁰;
 - o There was no provision for Park and Ride, Cycle and Ride nor feeder buses³¹;
 - There was no provision for capturing traffic from the N81 and the M50;
 - o Direct use should have been made of POWSCAR data;
 - o Environmental benefits were excluded from the analysis.

²⁵ "Corridor E – N81 Settlements – South Tallaght – Rathfarnham – to Dublin City Centre: Corridor E is made up of generally suburban residential development and is not defined on the basis of a major transport route, road or public transport service. It presents a challenge in that respect as it is more difficult to serve with high capacity public transport than other corridors, which are defined by multi-lane roads and / or dual carriageways, and contain existing or proposed rail lines." Transport Strategy for the Greater Dublin Area 2016-2035, NTA, page 56.

²⁶ vs c. 5,000 pages for each of the proposed bus corridors.

²⁷ More detail is contained in the observations of the Metro South West Group to An Bord Pleanála regarding the *MetroLink* proposal.

²⁸ MSWG proposes that *MetroLink* would go directly from St. Stephens Green to the highly populated and attraction-rich areas of Portobello/Rathmines, rather than duplicating the Luas Green Line, as proposed by NTA/TII, by going to Charlemont and burying the Tunnel Boring Machine under Ranelagh. See *Indications for an Economic Appraisal of MetroLink from Estuary to Firhouse*, Metro South West Group, September 2020. https://documentcloud.adobe.com/link/review?uri=urn:aaid:scds:US:4fd7a227-2e08-4c40-94ba-272842eb1aca

²⁹ Highly populated and rich in attractions. Email confirming that consideration was excluded by the NTA dated 19 November 2020: NTA to MSWG.

³⁰The Report South West Dublin and the Continuation of MetroLink: Improvement in Commuting Times, Metro South West Group, September 2020, shows that substantial time savings would be achieved by cycling to a metro station and completing the journey by metro.

https://documentcloud.adobe.com/link/review?uri=urn:aaid:scds:US:4013503d-9fe7-4f65-b8d1-a380eafdb0c7

³¹ This Report shows also that substantial time savings would accrue for city-bound motorists on the M50 and N81 who would use Park and Ride and complete their journey by metro.



MSWG had offered to assist in the drawing up of the terms of reference for this study. This could have obviated many of the flaws. The Department of Transport refused the offer³².

The need for a proper feasibility study

- 7.8 BusConnects will fall far short from providing sufficient public transport in South West Dublin³³. Accordingly, it is the interests of:
 - The general public/taxpayers,
 - Residents and businesses of South West Dublin,
 - Visitors to South West Dublin,
 - Residents and businesses along the proposed BusConnects corridors.

that the flaws in the NTA/Jacobs Study are addressed in the near future. Under pressure from public representatives and the Minister for Transport, the NTA has agreed to revisit the issue of where *MetroLink* should go in South Dublin.....but only in six years' time³⁴! By then, many important transport decisions will have been made and major projects will be underway or completed.

7.9 Accordingly, MSWG has engaged a renowned expert in transport economics and planning to undertake a review of the NTA/Jacobs *Metro to Knocklyon Feasibility Study, 2021*.

³² At a meeting with the Department of Transport on 12 November 2020. This was documented in an email from MSWG to the Department on 19 November 2020.

³³ See also the MSWG submission to An Bord Pleanála:

https://drive.google.com/file/d/1BXVC3hNq0Cl27riDSnJGz-wKS9lrTZ5g/view?usp=sharing

³⁴ Transport Strategy for the Greater Dublin Area (GDA) 2022-2042, page 147.

8 Conclusions

- 8.1 From the above analysis of all of the NTA/TII *Connects* applications to An Bord Pleanála, and the *Draft Dublin City Centre Transport Plan 2023*, it is evident that the proposed bus corridors will have insufficient capacity to cater for the forecast demand for public transport in South West Dublin. Accordingly, buses on their own will fall very far short from being able to meet the demand for public transport in South West Dublin.
- 8.2 The *BusConnects* proposals for South West Dublin are not congruent with the *Draft Dublin City Centre Transport Plan* in that many people, who wish to use public transport to access the city centre, will not be able to do so as the *BusConnects* offerings will be insufficient to accommodate them.
- 8.3 Given the narrow streets in South West Dublin, from the city centre far into the suburbs, a solution which is not <u>exclusively</u> street-based will be essential to provide sufficient public transport capacity and to facilitate the required modal shift from cars to public transport.
- 8.4 The above analysis provides substantial support for the MSWG request to An Bord Pleanála to allow *MetroLink* to come no further south than St. Stephens Green so as to preserve the possibility of continuing from St. Stephens Green to Portobello/Rathmines pending a proper evaluation of the continuation of *MetroLink* to South West Dublin.

Pauline Foster.

Secretary,

Metro South West Group

December 2023



Appendix A

List of Residents Associations and Groups Participating in the Metro South West Group.

- 1. Association of Residents of Terenure. ART
- 2. Butterfield Residents Association.
- 3. Fortfield and Templeville Residents Association.
- 4. Hermitage Residents Association.
- 5. Kimmage Road West Residents Association.
- 6. Knocklyon Network.
- 7. Mount Argus and Church Park Residents Association.
- 8. Mount Argus Residents Association.
- 9. Orwell Park Residents Association, Templeogue. OPTRA
- 10. Perrystown Manor Estates Residents Association.
- 11. Rathfarnham Road Residents Association.
- 12. Rathgar Residents Association.
- 13. Rathgar Road Residents Group.
- 14. Recorders Residents Association.
- 15. St. Anne's Residents Association.
- 16. Shanid Road Residents Association.
- 17. Temple Manor and Wilkins Residents Association.
- 18. Templeogue Tidy Towns Group.
- 19. Templeogue Wood Residents Association.
- 20. Terenure Residents Association.
- 21. Terenure Road East Residents Group.
- 22. Terenure West Residents Association.
- 23. WORK Residents Association.
- 24. Woodstown Residents Association
- 25. Woodfield Residents Association
- 26. Lansdowne Residents Association
- 27. Beechdale Residents Association
- 28. Firhouse & Bohernabreena Group

- 29. Parkwood Residents Association
- 30. Scholarstown Wood Residents Association.
- 31. Dodderbrook Residents Association
- 32. Boden Park Residents Association
- 33. Knocklyon Woods Residents Association.
- 34. Oakdale Residents Association
- 35. Knockfield, Orlagh, Beverly Residents Association KOBRA
- 36. Moyville Residents Association
- 37. Glendown Residents Association
- 38. Hellfire Masseys Residents Association
- 39. Daletree Residents Association
- 40. Harolds Cross Village Community Council
- 41. College and Wainsfort Residents Association



Appendix B

1

How many buses are required to pass through Dawson Street in the peak morning hour according to the Walker *BusConnects* proposals (2020)

How many buses are required to pass through Bachelors Walk in the peak morning hour according to the Walker *BusConnects* proposals (2020)

How many buses are required to pass through Bachelors Walk in the peak morning hour according to the Walker *BusConnects* proposals *as updated to 2023*

2

How many buses are required to pass through Dawson Street and Bachelors Walk in the peak morning hour in 2028 and 2043 according to the NTA/TII BusConnects proposals that are with An Bord Pleanála

How many buses are re			iarrow roads	
in the peak morning ho	ur (8-9am) in Wa	lker BusConnects		
Description	Bus	Dawson St	Bachelors	Bachelors
in ABP	Spine/	in-bound	Walk	Walk
application	Route	ii - bouild	Walk	Walk
аррисация	noute	Walker	Walker	Walker
		Sep-20	Sep-20	2023
		7-8a m	8-9a m	8-9a m
Temp/Rath-city	Α			20
Belfield-city	В		16	16
Lucan-city	С		20	20
Tall/Clon-city (2)	D		16	16
Bray-city	E	16		
Kimmage-city	F	18		
Liffey Val-city	G		10	10
Howth-city	Н			
Radials	6			
	8			
	10			
	19			
	20			
	21			
	22			
	23		3	3
	24		3	3
	34			
	35			
	36			
	37			
	48			
	52		1	1
	58		1	1
	60		1	1
	71		2	2
	72		2	2
	73		_	6
	74		2	2
	80		4	4
	81		4	4
	82 85		3	3
				6
	86 87			
	88			
	రర			



How many buses are	required to pass	in-bound through 2 r	narrow roads				
in the peak morning h	our (8-9am) in f	NTA/TII applications t	o ABP				
		Dav	wson Street				
		<<<	<<<<<< <<2028>>>>>	>>>>	<<<	<<<<<<<<<><>>>>>>	>>>>>>
Description	Bus	ABP			ABP		
n ABP	Spine/	Peak			Peak		
application	Route	1 0011	75% occup	50% occup		75% occup	50% occup
эррисация	noute		75% decap	2011 00001		1270 11114	
		Passengers	Buses reg'd	Buses reg'd	Passengers	Buses req'd	Buses req'd
		8-9am	8-9am	8-9am	8-9am	8-9am	8-9am
Temp/Rath-city	A		0	0		0	0
Belfield-city	В		0	0		0	0
Lucan-city	c		0	0		0_	0
Tail/Clon-city (2)	Đ		0	0		0	0
Bray-city	E	4500	67	100	4500	67	100
Kimmage-city	F	2250	33	50	2350	35	52
Liffey Val-city	G		٥	0		0	0
Howth-city	н		0	0		0	0
TOTALS			100	150		101	152
		Bac	helors Walk				
			<<<<<<<<<<>>>>>>	>>>>>		<<<<<<<<<<><>>>>>	>>>>>>
Description	Bus	ABP			ABP		
in ABP	Spine/	Peak			Peak		
application	Route		75% occup	50% occup		75% occup	50% оссир
		Passengers	Buses req'd	Buses req'd	Passengers	Buses req'd	Buses reg'd
		8-9am	8-9am	8-9am	8-9am	8-9am	8-9am
Temp/Rath-city	A	4000	59	89	4500	67	100
Belfield-city	В	900	13	20	1250	19	28
Lucan-city	с	3400	so	76	2600	39	58
Tall/Clon-city (2)	D	1800	27	40	1600	24	36
Bray-city	E		0	o		0	0
Kimmage-city	F		0	0		0	0
Liffey Val-city	G	1100	16	24	575	9	13
			0	0		0	0
Howth-city	н						



How many buses are	required to pa	ss in-bound through	2 narrow roads				
in the peak morning	hour (8-9am) in	NTA/TII application	ns to ARP				
			is not				
			Dawson Street				
Description	-		<<<<<<<<<<<<<><>>>>>	>>>>>	<<	<<<<<<<<<<><<<><<>>>>	·>>>>>
	8us	ABP			ABP		
in ABP	Spine/	Peak			Peak		
application	Route		75% occup	50% occup		75% occup	50% оссир
		Passengers	Buses reg'd	Buses req'd	Passengers	Buses reg'd	Buses reg'd
		8-9am	8-9am	8-9am	8-9am	8-9am	8-9am
							0-3411
Temp/Rath-city	A		0	a		0	
Belfield-city	В		0	0		0	0
Lucan-city	c		0	0			0
Tall/Clon-city (2)	D		0	0		0	0
Bray-city	E	4500	67	100		0	0
Kimmage-city	F	2250	33		4500	67	100
Liffey Val-city	G		0	50	2350	35	52
Howth-city	н			0		0	0
TOTALS	· · · · ·		0	0		0	O
			100	150		101	152
		В:	achelors Walk				
Description			<<<<<<<<<<<>>>>>>	>>>>>	<<<	<<<<<<<<<<><>>>>>	>>>>>>
n ABP	Bus	ABP			ABP		
	Spine/	Peak			Peak		
pplication	Route		75% occup	50% occup		75% occup	50% occup
		Passengers	Buses req'd	Buses req'd	Passengers	Buses reg'd	Buses reg'd
		8-9am	8-9am	8-9am	8-9am	8-9am	8-9am
emp/Rath-city	Α	4000	59	89	4500	67	100
elfield-city	В	900	13	20	1250	19	28
ucan-city	c	3400	50	76	2600	39	58
all/Clon-city (2)	D	1800	27	40	1600	24	36
ray-city	E		o	0		0	36
immage-city	F		0	0		0	
ffey Val-city	G	1100	16	24	575		0
owth-city	н		0	0	3/3	9	13
OTALS .			166	249		0	0
			100	249		156	234