

Submission No. 010

Andrew Whelan (AW)

Oral submission MULTI ZONE Module 2

(Wed 27th Mar 2024)

Good day Inspector and thank you for the opportunity to speak today. I have compressed my oral submissions and shall not read out references in the hope that TII will be afforded time to answer my questions.

My written submission covered two main headings:

- 1) Insufficient airport stakeholder engagement to determine future Capacity enhancements requirements at Dublin Airport.
- 2) The inappropriate selection of Charlemont as the Southern Metrolink Terminus.

My objective today is to future proof Metrolink.

The Airport Station supplies the bulk of Metro passengers therefore the Executive Summary to the "Review of Future capacity needs at Ireland's state Airports" and FCC RFI Decision Order* to DAA's Infrastructure Application is recommended reading. Indeed the recent RFI request has some Metrolink references which may or may not be known to TII?.

I cite these documents as this RO was lodged in late 2022 and since then strategic airport related zoned land has come to market and I welcome the DAA expression of interest in these lands.

References:

For ease of reference I just reprint para 1 to FCC Decision Order No PF/0451/24 dated 16/2/24 Register Ref. F23A/0781.

1. *In order to support the principle of the proposal the applicant is invited to submit a comprehensive assessment demonstrating that the location and design of each proposed development, including construction of the underpass, do not prejudice future strategic development options or compromise the future realisation of the full airfield capacity which may be determined in future reviews of 2018 Future Capacity Needs in accordance with National Aviation plan 4.4.1 the locations for a third terminal as referenced in section 7.25 and objectives EI03 and TP03 of the Dublin Airport LAP, Section 5.4.2 of the DTTAS 2018 review and in compliance with DA01, DA02 of the Fingal Development Plan will form a critical consideration in the assessment.*
2. ... to.....85 RFI queries.

AZ 1 North Airport Portal

The current RO has two loops, a short and long loop. The short loop turn back facilitates enhanced southbound airport capacity to the city.

Were a third loop to the Western campus ever to be required in any “*future strategic development options*” then IMHO an additional turback track shall be required. This turnback could also double up as additional late night stabling ahead of the end of day airport passenger surge.

TII has demonstrated a willingness to adjust the alignment –Therefore in order to future proof inter^{campus} connectivity with smaller shuttle trams may i respectfully request that TII in consultation with FCC seek ABP approval to widen this small turnback section on open ground so as to not “*compromise the future realisation of the full airfield capacity*”.

AZ 1 - AZ 2 - AZ 3. Dublin Airport environs.

When developing county development plans, is it not a planner's core objective to secure land reservations in order to address a potential future transport node or an alignment requirement?.

FCC has a road reservation from the M2 towards the airport yet TII and FCC have no reservation from the metro line to any future development that may or may not encompass a potential T3.

I ask the Inspector to review TII response to my Item 27

Review Planning Report page 110 Dublin airport LAP Objective PT06 and ascertain from FCC if they still wish to pursue the PT06 objective as I consider the “Project response” to be outdated.

I have concerns that if FCC and TII do not reserve and construct a 100m connection point within this RO, then the operational metro shall have to close in order to tie in a line serving the Western campus.

AZ 4 (h) St Stephen Green station and tunnel to Charlemont Station.

If ABP were minded to omit the Charlemont Station then there is an obvious requirement to insert a turnback south of SSE.

My item 18 proposed Iveagh Gardens (the 350m point) as the turnback termination point for a possible vertical ventilation shaft / staff emergency escape stairwell.

Maintaining the maximum 1km separation rule from SSE, the next station or possibly the first station of Metro Phase 2 could be at Portobello. Of course I am minded of both the Canal and Grand Canal sewer as proximity obstacles.

TII previously highlighted costs associated with changing a station location, however to save costs associated with my suggested Iveagh Garden vertical shaft, maybe an alternative tunnel termination point could be co-located at a shell station (which would initially be closed to the public until phase 2 opens.

This shell station can combine both ventilation point /staff escape intervention route thus mitigating the additional disruptive work required for an intervention tunnel back to SSE. The SSE station design therefore remains the same?

The enhanced empty tram turn back overnight stabling allocation is merely extended from the 350m point to the next designated/dormant 120m station box (platforms) - at Portobello.

Maybe TII could issue a technical paper as to whether this novel suggestion meets regulatory requirements?

(Of course there is nothing to stop TII extending to 1350m via a new planning application to allow a turnback after Portobello.)

AZ 4 (i) Charlemont Station and tunnel turnback.

In my written submission I said TII may "have unfortunately hamstrung the next generation of designers".

In TII's response to Elected Representatives they conclude with the following paragraph.

"Finally, the location of the terminus of Metrolink at Charlemont allows for future proofing of the extension of the metro further south, either by way of a connection to the Luas Green Line or an alternative metro route alignment serving the southeast or southwest of the city".

By inference TII can either.

1. Bore Left towards UCD which results in Metrolink, DART and Luas all within a few kilometres from the coast.
 2. Bore Right between the Green and Red Luas lines is feasible but can only be justified if the Metro Phase 2 catchment area is widened via feeder shuttle buses to alleviate capacity constraints on the LUAS lines.
 3. As Phase 1 TBM works are complete, mining down from the Luas Green line is technically feasible but what are the consequences?.
- In order to extend the Luas Green Line tracks down to Manders Terrace (whilst possibly avoiding the Rathmines and Pembroke sewer line), requires a top down cut followed by a mined incline tunnel that cannot exceed 650m.
 - If sanctioned by a future government, a phase 2 Metro/Luas connection would entail closing the Luas line for a few years and shall occur when Luas is running at the theoretical maximum capability* of 30 trams per hr in 2039 (11,016pphr).

Inspector Manders Terrace defines the notional Green line tie in point. Therefore if Metrolink were ever to join the Green Line (without an intervention shaft) it would have to break the surface no further than 150m south of the Beechwood stop.

In their response to my submission TII have acknowledged that Metrolink and Luas operating systems are not compatible. Metro has matured from manual operated trams to the Metrolink driverless system. Therefore because of differing technical requirements, I doubt that Luas shall ever be upgraded to Metro standard post 2042.

In fact the post 2042 GDA plan** shows additional Sandymount/UCD and Knocklyon Luas lines crossing North of the Grand Canal. (I think at Leeson St bridge and Portobello bridge - assuming LUAS can overcome the humpback there?)

Inspector Charlemont was originally chosen to extend and connect Metro North light rail onto the Luas green line. Presently it is being professed as a convenient transfer point which may or may not prove to be a viable southbound transfer point from 2039.

References:

NTA policy GDA section 12.3.10

* Planning report A 7.9 Chapter 3 Passenger demand Table and Figure on pages 11 & 12 which show LUAS passenger demand associated with various green Line upgrades.

** The Post 2042 Combined GDA Rail Network transport strategy page159.

Network capacity post 2039?

Inspector; the US DOT employs human factors researchers and engineering psychologists to study how people interact with vehicles and infrastructure. Whilst the interchange at Charlemont is the closest connecting link please review my written submission at 1.2.5, titled "The customer votes with their feet?".

Metrolink will be a huge success, Southbound airport passengers will throng to connect with DART and LUAS.

Inspector; if you are a south side resident and you really want to be assured of a Luas seat with luggage - you will most definitely connect from O'Connell Street Metrolink to the Parnell Luas Terminus. This customer trend will increase as Luas reaches ultimate carrying capacity in 2039 four years after Metrolink opens!.

Therefore it doesn't really matter if the road section after St Stephen's Green West can take 20 or 30 trams / hr capacity. What's important to you is that you have already boarded Luas!.

Inspector i refer you to the most recent "Review of Charlemont Station Note"*. This document highlights "that there is unlikely to be any significant volume of passenger drop-off due to Airport travel or general travel purposes at the Charlemont station....."

Inspector: This statement is true because airport bound passengers are already airborne between 5-8 AM ahead of the TII AM peak (8-9 am).

TII refers to traditional AM and PM peak demand whilst Dublin Airport base aircraft currently have four distinct summer peak aircraft waves. (5-8, 11-14, 16-18 and 21-2359).

Designating Charlemont as the interchange point will encourage airport passenger drop offs to coincide with the other three aircraft waves.i.e for passengers who cannot traverse the city via car and wish to avoid the unpredictable M50 delays.

The system will probably fail when peak loads align - That's the natural PM exit from the City combined with the late afternoon aircraft wave arrivals.

This double peak with suitcases will overload the available floor space capacity of LUAS exiting the city, possibly prior to the Harcourt St stop.

Any Metro Phase 2 delivered after 2042 has to reduce the load on the saturated Luas green line. Therefore a SSE Metrolink terminus with my SSN Luas surface connection makes sense; facilitate an onward SW Metro option and spares intolerable grief for Dartmouth Square residents

This is why I stated at my item 1 " *To ensure a proper planning and sustainable Dublin transport solution for the next 50 years, ultimately TII's goal should be a LOA4 (Level of Automation 4) Metrolink spine running North/South. This TII railway order is but half that solution*".

References:

"Review of Charlemont Station Note" submitted to the Oral hearing on Day 13 - Monday 11th March 2024.

Questions:

1. Will TII give assurance that it will engage with FCC on the future proofing metro issues raised ?
2. If Charlemont is axed will TII consider my SSN turnback suggestion either as a terminus or an additional in line Green station.?
3. Is TII minded to submit to ABP a technical paper on an end of tunnel dormant station proposal?
4. Metrolink capacity statistics run to 2065 - some 30 years after Metro opens. In order to increase Metro capacity after 2065, if required can the proposed 65m platforms be extended within the 120m station box to facilitate a fourth carriage?
5. Has the 2017 "New Metro North LGTI Options Appraisal Report" been updated to identify a Metrolink resurface point?
6. Given the acknowledged *"challenges associated with the upgrading of the Luas line to a metro standard of service"* does TII anticipate abandoning the proposal to connect Metrolink to Sandyford.

Conclusion:

To conclude I thank you Inspector for your time and were the Board to approve this railway order then I wish Mr Foley and TII every success and an accident free construction period.