

Strategic Transport Modelling

- Use of the National Transport Authority's Eastern Regional Model (ERM)
'The Regional Modelling System is the NTA's strategic transport planning tool. Based around a classic transport modelling four-stage model framework, the system forecasts future year transport demand based upon population and employment scenarios, and assigns it to networks and services.'
- Best practice approaches were applied to the ERM demand modelling modules including car ownership, parking constraint, demand pricing, and mode and destination choice- means the ERM is significantly more responsive to future changes in demographics, economic activity and planning interventions than traditional models
- The version of the ERM used has a base year of 2016, and is calibrated to the 2016 Census, 2017 National Household Travel Survey and localised multi-modal surveys

Forecast Growth Scenarios

- The NTA have developed a planning datasheet forecast that aligns with the National Planning Framework
- NTA provided project team with planning datasheets for the years of 2030, 2045 and 2060

Dublin Airport:

- Within the ERM, growth in landside demand is determined for passengers, staff and freight, applied to the Dublin Airport Special Zone
- Freight and staff numbers are forecasted on a scaling factor, aligned with passenger growth forecasts
- DTTAS report '*Review of Capacity Needs at Ireland's State Airports*' (August 2018)- outlines forecast passenger growth to 2050 for Low, Central and High growth scenarios

<https://assets.gov.ie/22659/d2cbb36779534741adde4be4f0943a7d.pdf>

Passenger Numbers

Two-Way	AM Peak Hour		PM Peak Hour		12hr Peak Period	
Charlemont	Boarding	Alighting	Boarding	Alighting	Boarding	Alighting
2030	1,866	2,232	2,276	1,229	15,464	12,680
2045	2,106	2,617	2,606	1,401	18,704	15,406
2060	2,560	3,333	3,340	1,801	23,613	19,756

Interchange Numbers

Transfers To/From MetroLink Stations - 12hr Period								
Charlemont	Transfers to MetroLink				Transfers from MetroLink			
	First Boarders	From Bus	From Rail/DART	From Luas	Final Destination	To Bus	To Rail/DART	To Luas
2030	5,536	3,942	-	5,986	5,744	2,098	-	4,837
2045	6,646	4,696	-	7,363	6,905	2,431	-	6,071
2060	8,451	5,809	-	9,353	8,838	3,013	-	7,905

2030 Scenario A Interchange Numbers- Airport Flyers to/from Charlemont

Interchange with Other Modes/Total Charlemont (Peak 1hr Periods Only)

Peak Hour	Boarding Metro at Charlemont						Alighting Metro at Charlemont					
	Total Boarding	Total Charlemont to Airport Flyers	% Airport Flyers of Total Boarders	From Luas to Metro to Airport Flyers	Zone to Airport Flyers*	Bus to Airport Flyers*	Total Alighting	Total Airport Flyers to Charlemont	% Airport Flyers of Total Alighting	Airport Flyers to Luas	Airport Flyers to Zone**	Airport Flyers to Bus**
AM	1,866	458	~25%	213	147	98	2,232	235	~11%	119	87	29
PM	2,276	238	~11%	110	77	51	1,229	278	~23%	144	101	34

*Estimates based on 12hr % split of Total Transfers, using Boarding ratio of 60% From Zone, and 40% from Bus

**Estimates based on 12hr % split of Total Transfers, using Alighting ratio of 75% To Zone, 25% to Bus

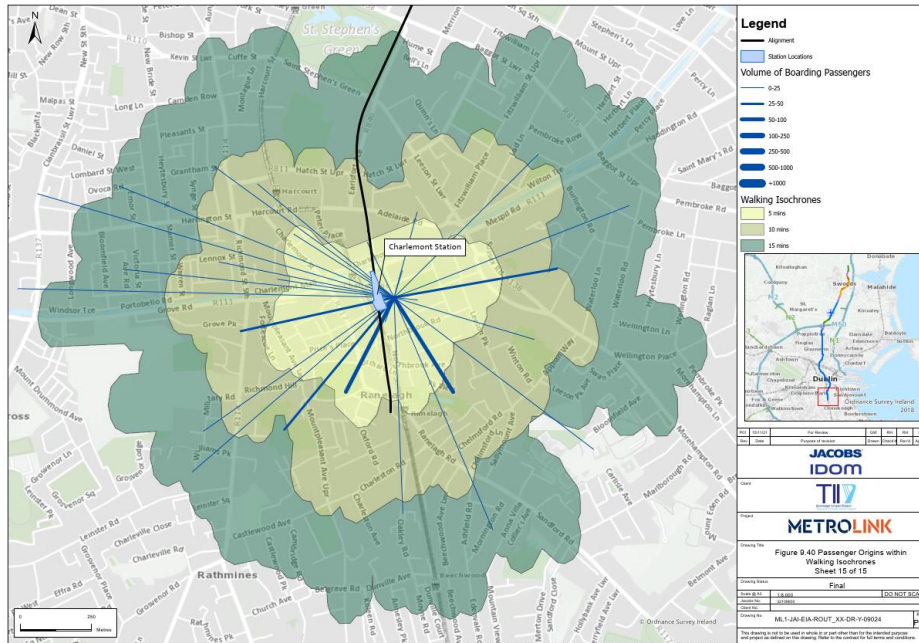
Interchange with Luas Only (Peak 1hr Periods Only)

Transfers To/From MetroLink Stations – 2030 Scenario A AM & PM Peak hours

Charlemont	Transfers to MetroLink			Transfers from MetroLink		
	From Luas To Metro	Of those from Luas, No. Travel to Airport (Outbound Flight)	% Of 'From Luas to Metro' passengers who are Airport Flyers	From Metro to Luas	Of those to Luas, No. Travelled From Airport (Inbound Flight)	% of 'From Metro To Luas' passengers who were Airport Flyers
2030 AM	819	213	26%	779	119	15%
2030 PM	809	110	14%	475	144	29%

'From Zone' Passenger Origins and Destinations – AM Peak Hour

Origins- First Boarders



Destinations- Final Destinations

