Job Title:	Network Building, Tottenham Court Road
Job No:	2020-4312
File Ref:	N01-AS-London Underground Trip Distribution Note (210317)
Date:	17th March 2021

Subject: **London Underground Trip Distribution Note**

Introduction

1. This Note has been prepared by Caneparo Associates on behalf of Derwent Valley Property Developments Ltd ('the Applicant') in support of an application for the redevelopment of The Network Building at 95-100 Tottenham Court Road ('the site') which is located within the London Borough of Camden ('LBC').

2. The description of development for the proposed works (planning reference 2020/5624/P) is as follows:

   "Outline application for demolition of office building (95-100 TCR & 76-80 Whitfield St) and 7 flats (88 Whitfield Street) and construction of a new building to provide for a maximum of 17275 sqm (GIA) of 'commercial business and service' floorspace (use Class E) along with details of access, scale and landscaping and other works incidental to the application. Details of layout and appearance are reserved."

3. Stage 1 response comments were provided by the Greater London Authority (GLA) and Transport for London (TfL) on 8th March 2021. This Transport Response Note has been prepared to address a specific comment regarding Trip Generation and Public Transport Impacts, which is as follows:

   "A transport assessment (TA) has been provided for this proposed development, setting out the potential impacts this development may have on the local transport network. The trip generation assessment demonstrates a reduction in car driver trips, which is welcomed and an increase in sustainable modes, such as public transport, cycling and walking. The assessment indicates a sustainable mode share of 96%, which is supportive of the Mayors strategic aim for 90% of all trips in central London to be undertaken by walking, cycling or public transport by 2041.

The TA should be amended so that the trip generation for the London Underground is analysed by station, line and direction. Depending on the outcome, the applicant may need to undertake a station capacity and line loading assessment. TfL would welcome further discussions about this matter and can supply the necessary data."

4. This Note has been prepared to set out the methodology and forecast distribution of the net uplift in underground trips which are expected to be generated by the proposals during the AM and PM peak hours.

Methodology

5. The distribution of underground trips made to and from the site was determined using data from the 2011 Census. The 'WU03EW – Location of usual residence and place of work by method of travel to work (MSOA level)' dataset was interrogated to determine the proportion of people travelling from each of the London Boroughs to work in the Camden 026 Super Output Middle Layer, within which the site is located.

6. A broad route was assigned to each borough, determining the final line and station that will be used to access the site on the London Underground network. The route for each borough was determined using a combination of journey planner tools and identifying the prevalence of stations on particular lines in each borough.

7. It is recognised that this is a high-level assessment which will not capture the various nuances in individual travel patterns to/from each borough in London, especially considering the geographical size of each borough and the travel preferences of individuals (i.e. minimal interchanges, walking distances, difference between AM and PM travel, etc.). It is provided to inform discussions with the GLA/TfL to establish whether a more detailed assessment of London Underground station and line load capacity is warranted.

8. Each route has been split by underground line, station and direction of travel towards the site, to identify the line that will be used last/first when travelling to/from the site. The distribution data has been included at **Appendix A**.

Trip Distribution

9. **Table 1** below shows the anticipated net uplift in underground trips generated by the proposed development, distributed across the various nearby stations and London Underground lines, by direction (in relation to the site), as outlined above.

Table 1: Proposed Development Net Change Underground Trip Distribution								
Station / Line	**Direction**	**Employee Travel Proportion (%)**	**AM**			**PM**		
			In	**Out**	**Total**	**In**	**Out**	**Total**
Bakerloo – Regents Park	North	7	9	1	9	1	8	9
Circle / Hammersmith & City / Metropolitan – Euston Square	East	10	12	1	13	1	12	12
	West	11	13	1	14	1	12	13
Central – Tottenham Court Road	East	4	5	0	5	0	5	5
	West	2	2	0	2	0	2	2
Northern – Warren Street	North	12	14	1	16	1	14	15
Northern – Goodge Street	South	9	11	1	12	1	11	12
Victoria – Warren Street	North	21	25	2	27	2	24	26
	South	24	28	3	31	2	27	29
Total		**100**	**119**	**11**	**129**	**9**	**113**	**122**
Note: Discrepancies relate to rounding of numbers								

10. Table 1 demonstrates that the Victoria Line at Warren Street Station will accommodate the most employees from the site during the peak hours, with approximately 31 two-way employee trips travelling to/from the south during the AM peak and 29 two-way employee trips travelling to/from the south during the PM peak.

11. Considering that 27.34 Victoria Line services are provided in both directions during the peak hours (according to PTAL), the proposals will result in circa 1 additional passenger per train during the worst-case AM peak hour (based on 28 arrivals), which is not expected to have a detrimental impact on Victoria Line services/capacity.

Summary

12. A high-level trip distribution assessment been undertaken to determine the impact of the proposed development uplift in underground trips on the surrounding London Underground network. The assessment has taken into account the anticipated travel patterns for employees travelling to and from the site from each London Borough, and the uplift in underground trips from the proposed development has been distributed to each surrounding underground station and line accordingly.

13. The trip distribution exercise demonstrates that the Victoria Line at Warren Street is expected to receive the most employees from the site, with up to 31 two-way employee trips travelling to/from the south during the AM peak hour and a total of 58 employees travelling to/from both directions on the Victoria Line also during the AM peak hour.

14. This is anticipated to result in circa 1 additional passenger per train during the peak hour in each direction, as a worst-case scenario, which is not forecast to have a detrimental impact on Victoria Line services. As all other surrounding stations and lines will receive fewer additional passengers, the effect of the proposed development on nearby stations and underground services is not expected to be material.

15. The above is considered to be a robust assessment, which demonstrates that the impact of the development on underground services will not be detrimental. This assessment directly addresses the comments provided by TfL and the GLA and based on the findings it is contended that a detailed assessment of station and line-load capacity is not warranted.

Appendix A
Trip Distribution Analysis

WU03EW - Location of usual residence and place of work by method of travel to work (MSOA level)

population	All usual residents aged 16 and over in employment the week before the census
units	Persons
date	2011
place of work	E02000191 : Camden 026 (2011 super output area - middle layer)

usual residence	All categories: Method of travel to work (2001 specification)	Underground, metro, light rail or tram		Station		
BARKING AND DAGENHAM		199	1%	H&C	EUSTON SQUARE	EAST
BARNET		1,113	7%	NORTHERN	WARREN STREET	NORTH
BEXLEY		24	0%	NORTHERN	GOODGE STREET	SOUTH
BRENT		670	4%	BAKERLOO	REGENTS PARK	NORTH
CAMDEN		777	5%	NORTHERN	WARREN STREET	NORTH
CROYDON		134	1%	VICTORIA	WARREN STREET	SOUTH
EALING		607	4%	H&C	EUSTON SQUARE	WEST
ENFIELD		419	3%	VICTORIA	WARREN STREET	NORTH
GREENWICH		217	1%	NORTHERN	GOODGE STREET	SOUTH
HACKNEY		511	3%	VICTORIA	WARREN STREET	SOUTH
HAMMERSMITH & FULHAM		665	4%	H&C	EUSTON SQUARE	WEST
HARINGEY		1,215	8%	VICTORIA	WARREN STREET	NORTH
HARROW		444	3%	BAKERLOO	REGENTS PARK	NORTH
HAVERING		123	1%	CENTRAL	TCR	EAST
HILLINGDON		239	2%	CENTRAL	TCR	WEST
HOUNSLOW		233	2%	VICTORIA	WARREN STREET	SOUTH
ISLINGTON		776	5%	VICTORIA	WARREN STREET	NORTH
KENSINGTON & CHELSEA		373	2%	H&C	EUSTON SQUARE	WEST
KINGSTON		38	0%	VICTORIA	WARREN STREET	SOUTH
LAMBETH		1,210	8%	VICTORIA	WARREN STREET	SOUTH
LEWISHAM		216	1%	NORTHERN	GOODGE STREET	SOUTH
MERTON		368	2%	NORTHERN	GOODGE STREET	SOUTH

NEWHAM	639	4%	H&C	EUSTON SQUARE	EAST
REDBRIDGE	489	3%	CENTRAL	TCR	EAST
RICHMOND	144	1%	VICTORIA	WARREN STREET	SOUTH
SOUTHWARK	561	4%	NORTHERN	GOODGE STREET	SOUTH
SUTTON	83	1%	NORTHERN	GOODGE STREET	SOUTH
TOWER HAMLETS	743	5%	H&C / CIRCLE	EUSTON SQUARE	EAST
WALTHAM FOREST	840	5%	VICTORIA	WARREN STREET	NORTH
WANDSWORTH	1,037	7%	VICTORIA	WARREN STREET	SOUTH
WESTMINSTER	393	3%	VICTORIA	WARREN STREET	SOUTH
CITY OF LONDON	28	0%	CENTRAL	TCR	EAST
TOTAL	**15,528**	**100%**			

10%	H&C / CIRCLE	EUSTON SQUARE	EAST
11%	H&C / CIRCLE	EUSTON SQUARE	WEST
7%	BAKERLOO	REGENTS PARK	NORTH
12%	NORTHERN	WARREN STREET	NORTH
21%	VICTORIA	WARREN STREET	NORTH
24%	VICTORIA	WARREN STREET	SOUTH
9%	NORTHERN	GOODGE STREET	SOUTH
4%	CENTRAL	TOTTENHAM COURT ROAD	E
2%	CENTRAL	TOTTENHAM COURT ROAD	W
100%			