

Project Title: Stag Brewery, Mortlake
Project No: 38262
Note No: TN047
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Subject Bespoke PTAL Calculation Summary
Prepared By: Will Fowler / Tom Haslam **Reviewed By** Peter Wadey

1.0 Introduction

1.1.1 Stantec have been asked by Reselton Properties Limited (the ‘Applicant’) to undertake an assessment of the Public Transport Accessibility Level (PTAL) for the proposed development of the former Stag Brewery in Mortlake (the ‘Site’) within the London Borough of Richmond upon Thames (LBRuT). The assessment has been undertaken in response to comments from officers at LBRuT and to demonstrate the improved public transport accessibility as a result of the proposed development. Exact comments from LBRuT are provided below.

*The TA in numerous places notes the PTAL of the site and often caveats this with the location is more accessible than the PTAL implies. The PTAL is the PTAL.....
Predictions of rail usage and statements about the PTAL need to be reassessed.*

2.0 Methodology

1.1.2 PTAL is a detailed measure of the public transport connectivity of a location, considering walk access time and service availability. The method provides a measure of the density of the public transport network for any given location within Greater London. A PTAL can range from 1a to 6b, where a score of 1a indicates ‘very poor’ accessibility and 6b indicates ‘excellent’ accessibility.

1.1.3 Transport for London (TfL) “Assessing transport connectivity in London” guidance was followed to calculate the PTAL scores. This was undertaken through a six-step process, as outlined below:

1. Calculate walk times to service access points (SAPs).
 1. Based on assumed walking speed of 4.8kph.
2. Calculate scheduled waiting time (SWT) for each route at each SAP.
 1. Based on service frequencies between 08:15 and 09:15 on a weekday.
3. Calculate average waiting time (AWT) for each route at each SAP.
4. Calculate total access time (TAT) for each route at each SAP.
5. Calculate equivalent doorstep frequency (EDF) for each route at each SAP.
6. Calculate Access Index (AI).
7. Convert to PTAL.

1.1.4 As outlined, the calculation method uses walk times, waiting times, and route frequency to determine an Access Index. The AI is then converted to a PTAL score using the following conversion table.

PTAL	Access Index range	Map colour
0 (worst)	0	
1a	0.01 – 2.50	
1b	2.51 – 5.0	
2	5.01 – 10.0	
3	10.01 – 15.0	
4	15.01 – 20.0	
5	20.01 – 25.0	
6a	25.01 – 40.0	
6b (best)	40.01+	

Figure 1- Access Index to PTAL Conversion Table ¹

3.0 Existing PTAL

- 1.1.5 The existing PTAL scores across the Site are shown in Figure 2 below. As illustrated, the score varies between 2 to the east of the Site and 1a to the west.
- 1.1.6 There appears to be several errors in the existing PTAL calculations with several pedestrian links not included in the calculations, considered walking distances higher than actual walking distances and some bus services have not been considered despite being within the acceptable PTAL walking distances (640m for bus stops and 960m for train stations). The actual PTAL score for the existing Site is therefore likely to be higher than indicated in the figure below.

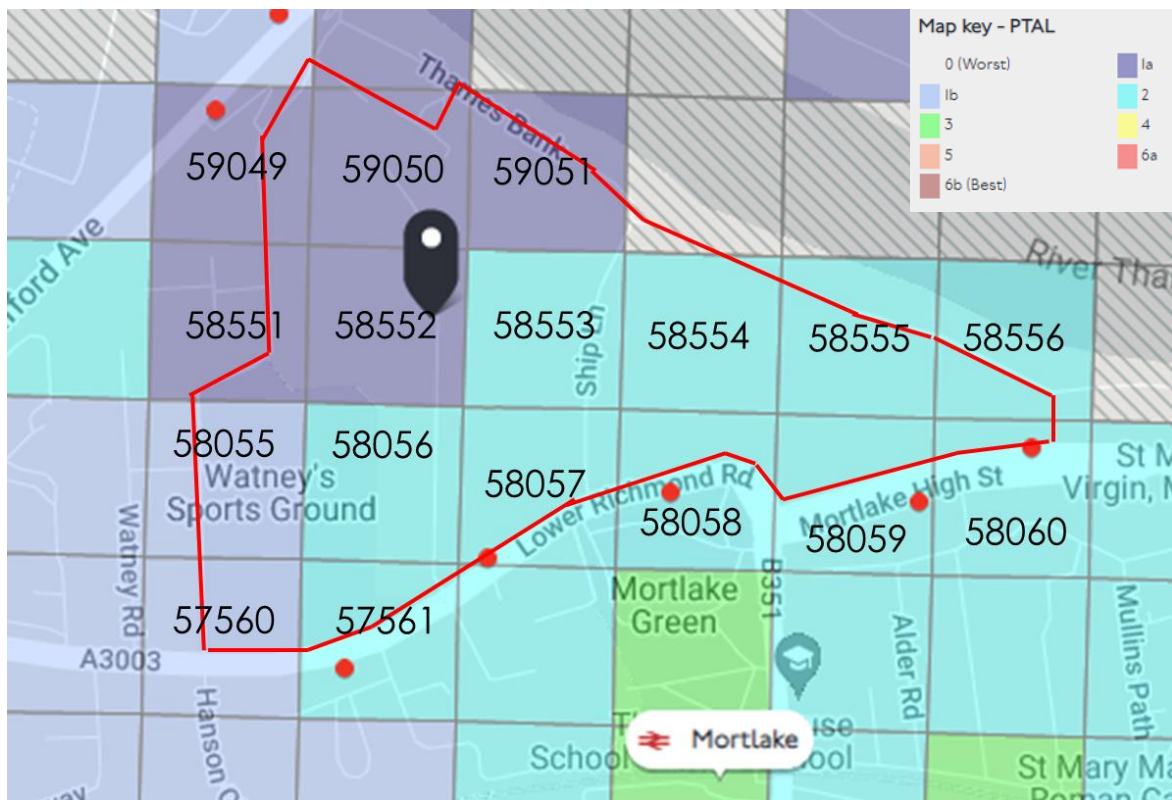


Figure 2 - Existing Site PTAL Score²

¹ Transport for London, Assessing transport connectivity in London, 2015

² Transport for London, WebCAT, 2022

4.0 Updates to PTAL

1.1.7 Each cell within the Site (100m²) has been reviewed by mapping walking distances to the local service access points which has been considered in the calculation if it is within the PTAL acceptable walking distances. The local service access points are as follows:

- Mortlake Train Station (5 services)
- Bus 190
- Bus R68
- Bus 209
- Bus 419
- Bus 533

1.1.8 The following errors have been found in the existing PTAL considerations.:

- Many of the existing PTAL cells do not consider Bus 190 despite serving Clifton Avenue at the eastern extent of the Site with existing pedestrian access into the site.
- Bus 533 is not considered by the existing PTAL despite the route being accessible from bus stops along both Clifton Avenue and Lower Richmond Road.
- Some cells do not consider Bus R68 despite being within appropriate walking distances.
- Significantly 6 cells do not include the Mortlake Train Station as a service access point despite appropriate permeability allowing pedestrian access within the appropriate walking distance. Pedestrian permeability will also be improved under the proposed scheme.
- Where Mortlake Train Station has been considered, calculated walking distance to the station is not accurate.

1.1.9 An updated PTAL rating for each cell has been calculated correcting the above observations. The results are presented in the section below.

5.0 Results

1.1.10 The results of the bespoke PTAL calculations, which include the improved permeability of the Site as proposed through the landscaping / design of the masterplan scheme are shown in Table 1.

1.1.11 Full analysis showing the detailed calculations for the PTAL assessment are included in Appendix A.

	Existing		Proposed	
	Access Index (AI)	PTAL	Access Index (AI)	PTAL
59049	1.88	1a	11.06	3
59050	1.73	1a	8.11	2
59051	2.14	1a	8.68	2
58551	2.02	1a	8.50	2
58552	1.98	1a	9.53	2
58553	5.35	2	9.02	2
58554	5.13	2	9.30	2
58555	4.34	1b	12.25	3
58556	4.31	1b	11.63	3
58055	4.05	1b	10.07	3
58056	5.6	2	10.01	3
58057	5.73	2	9.30	2
58058	7.56	2	9.76	2
58059	7.76	2	8.70	2
58060	6.56	2	7.95	2
57560	4.43	1b	8.99	2
57561	7.7	2	9.88	2

Table 1: PTAL Calculation Summary

1.1.12 The updated PTAL ratings are also demonstrated in the below Figure. This is based on each 100m grid being updated separately with the PTAL rating as calculated in the analysis provided in Appendix A.

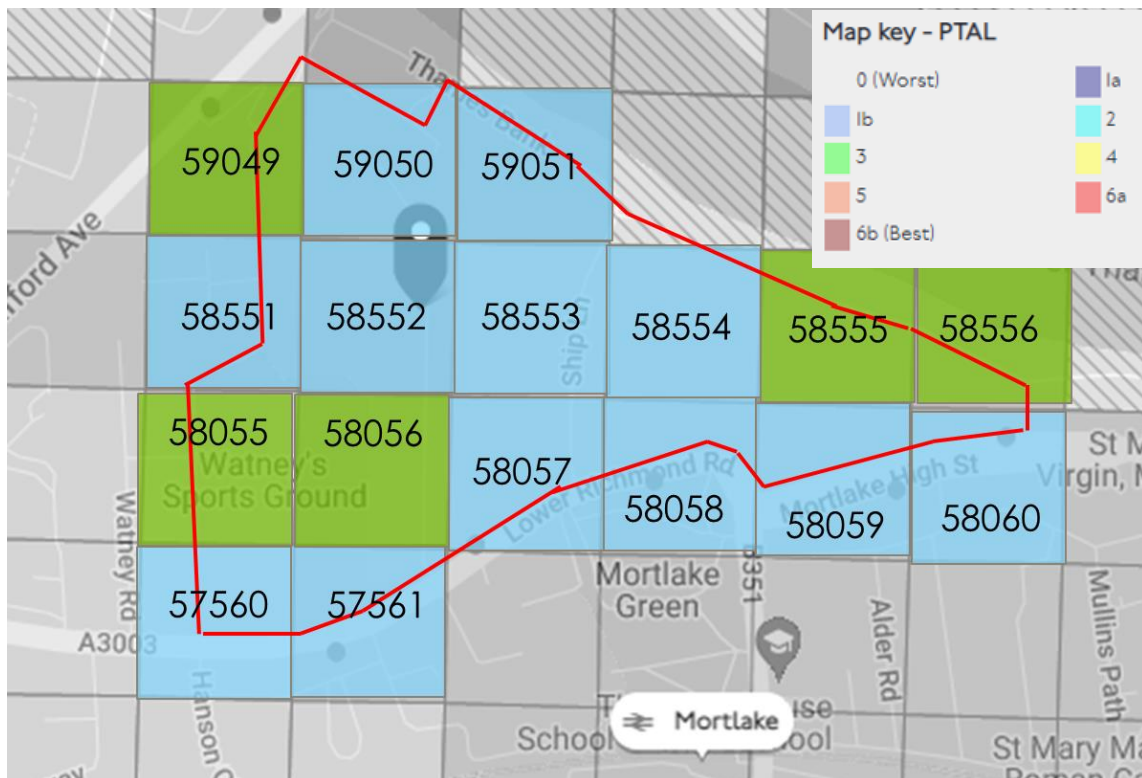


Figure 3: Updated Site PTAL Score

6.0 Summary

1.1.13 It was found that the PTAL score across the Site is in reality higher than the existing rating assumes. The existing PTAL ratings show the site is predominantly 1a and 2 whereas the

results of the updated assessment using PTAL published guidance shows the Site is largely PTAL 2 with some pockets of 3.

- 1.1.14 The PTAL score of 3 indicates moderate accessibility. The increase in accessibility rating is due to the correction of some unconsidered service access points and some inaccuracies in walking distances. The accessibility improvements are also a result of the reduced walking time and distance as a result of the additional pedestrian routes and increased permeability created by the development.
- 1.1.15 Overall, the original conclusion in the TA were accurate that the PTAL is better than shown in the TfL WebCAT website for the Stag Brewery site and this exercise has demonstrated this.

Appendix A – PTAL Calculations

