

TECHNICAL NOTE

SCP/CR/GS/13544/ 21-02-14

PROPOSED DEVELOPMENT - LAND OFF A561, BETWEEN SPEKE BOULEVARD AND SPEKE HALL AVENUE, LIVERPOOL

INTRODUCTION

1. SCP are instructed by Euro Garages Ltd to provide transport and highways advice in support of the proposed development on land situated off the A561, between Speke Boulevard and Speke Hall Avenue, Liverpool.
2. The proposed development consists of a Petrol Filling Station (PFS), with associated convenience store and a 'Drive Thru' Coffee Shop. The application site currently benefits from planning permission for two drive through fast food units (Planning Application ref: 11F/1459).
3. The site location of the proposed development is illustrated below at plan **SCP1**:

SCP1 – Site Location Plan



Source: Google Maps 2014

-
4. Pre-application discussions have taken place with the Local Planning and Highway Authority, Liverpool City Council (LCC), which have indicated that a form of supporting transport assessment should be submitted with the application.
 5. This Technical Note supports the planning application for the proposed development, and addresses LCCs pre-application comments relating to highways issues, including examining if the development would lead to any significant increase in terms of impact on the local highway network when compared to the previously consented development that is already consented for the site.

PROPOSED DEVELOPMENT

6. The proposed development consists of a Petrol Filling Station (PFS), with associated convenience store and a 'Drive Thru' Starbucks Coffee Shop on a strip of land off the A561, between Speke Boulevard and Speke Hall Avenue, Liverpool. The proposed site layout is illustrated at **Appendix 1**.
7. The site is part of a wider development area which also includes three restaurant/public house units that are located adjacent to the application site.
8. The PFS element of the proposed development will consist of a fuel forecourt including of four pump islands (eight pumps in total) with a 5m high canopy. In addition, one HGV pump island (two pumps) will be provided with a 6m high canopy to allow for HGVs, along with a convenience store with a GFA of approximately 500m².
9. The 'Drive Thru' Starbucks Coffee Shop has a GFA of approximately 200m² and will share the access and egress with the PFS from the link road, connecting on to the A561 Speke Boulevard.

Site Access and Internal Arrangement

10. It is proposed that the development will operate with two access points onto the link road. One access point, located to the south eastern boundary of the site, which will conform to a simple two-way priority controlled junction providing entry access and egress for the site. The secondary access point, located to south western boundary of the site, will operating as a one way system only allowing exiting movements from the proposed PFS. The proposed site access layout is also illustrated at **Appendix 1**.
11. Additionally, a further priority controlled junction is located within the site for access to the proposed coffee shop.
12. A swept path analysis has been undertaken of the site access and internal servicing around the site for a 16.5m articulated vehicle and this is included at **Appendix 2**. Service and delivery vehicles would use the service bay provided to the western boundary of the proposed site, located adjacent to the south of the convenience store.
13. Pedestrian access points to the site will be available, connecting to the existing footways along the link road, and continuing up to the A561 Speke Boulevard.

Car Parking Provision

14. Car parking on the site will be provided for 38 vehicles in total, with space for 20 vehicles at the PFS and 18 vehicles at the coffee shop area of the proposed development site. Provision of three disabled spaces are provided across the proposed development site.
15. This level of provision is considered to be appropriate for the scale and nature of development on the site and is based on the operators experience from a significant number of other similar developments across the country.
16. During any instances of exceptional demand, additional parking will be possible at the adjacent units within the wider site and so there is no likelihood of any overspill parking affecting the local highway network.

Accident History

17. The most recently available data has been obtained from the DfT for the latest five year period for the area around the site. No accidents have been recorded at the site access or along the internal access road. Therefore it is considered there to be no highway safety implications regarding the proposed development.

COMPARISON OF APPROVED SITE USE TO REDEVELOPMENT PROPOSALS

18. The level of trip generation for the two approved drive through fast food units on this parcel of land, Unit C (208sqm) and Unit D (297sqm), has been taken from the respective Transport Assessment which supported the approved application (App No 11F/1459, produced by TTHC). This has been compared to the potential level of trip generation that could be associated with the revised development proposals for the site.
19. The proposed development consists of a drive through unit in the form of the 'Drive Thru' Starbucks Coffee Shop, which may well have lower levels of trip generation when compared to the sites that made up the previous TRICS analysis from the approved development, which included sites such as McDonalds, KFC and Burger King, although no allowance has been made for this in the assessment.
20. The PFS element of the proposed development has been derived through the interrogation of the TRICS 2014 V7.1.1 Database with the following criteria to determine the average peak hour trip rates for a proposed use of a similar size.
21. The selection criteria for the TRICS-based trip rates is as follows:-
 - i) Petrol Filling Station – Petrol Filling Station with Retail;
 - i) Weekday surveys;
 - ii) London, Ireland and Northern Ireland sites excluded;
 - iii) Surveys undertaken between 01/01/05 to 17/11/12; and
 - iv) Selection by Filling Bays.
22. The trip rates extracted from TRICS for the PFS with retail development, in addition to the approved Trip Rates for the Fast Food Drive Through units are presented in **Appendix 3** and are summarised in **Table 1** below:

TABLE 1 – Trip Rates

Vehicles	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Trip Rates (per 100m² GFA) Associated with the Fast Food Drive Through				
TTHC - TRICS Fast Food Drive Through	18.838	17.034	15.780	13.436
Trip Rates (per Filling Bay) Associated with the PFS and Retail Unit				
SCP - TRICS PFS	9.052	9.006	11.133	11.006

23. Using the above trip rate figures the associated vehicular trip generation during the weekday AM an PM peak hours are shown in **Table 2 and 3** below:-

TABLE 2 – Vehicular Trip Generation Comparison

Vehicles	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Existing Approved Trip Generation				
TTHC (Unit C)- TRICS Fast Food Drive Through	39	35	33	28
TTHC (Unit D)- TRICS Fast Food Drive Through	56	51	47	40
Proposed Development Trip Generation				
SCP (Starbucks) - TRICS Fast Food Drive Through	38	34	32	27
SCP - TRICS PFS	72	72	89	88

TABLE 3 – Overall Vehicular Trip Generation Comparison

Vehicles	Weekday AM Peak Hour (08:00 to 09:00)	Weekday PM Peak Hour (17:00 to 18:00)
	Two Way Flows	Two Way Flows
Previously Consented Drive Through Units	181	148
Proposed Drive Thru Coffee Shop + PFS with Retail Development	216	236
DIFFERENCE	+35	+88

24. Table three above indicates that there would be an increase in the number of peak hour vehicle trips resulting from the proposed development site when compared to the previous planning approval. However, volumetrically this increase only equates to around one additional two-way trip every two minutes in the AM Peak and around three additional two-way trips every two minutes during the PM Peak.

25. It should be noted that the 'type' of trips generated by the proposed development would be of a 'pass-by', diverted or transfer nature and would in fact be a significantly limited number of 'new' trips on the local highway network.
26. In terms of the capacity of the site access junction onto Speke Boulevard, the assessment contained within the TA for the previously approved development on the site indicated that the site access would operate at just a 20% degree of Saturation during the AM peak and 30% during the PM peak. This is for the future assessment year of 2017 and has queue length results of just three PCUs during the AM peak and four PCUs during the PM peak.
27. The results of the worst-case with development scenario are summarised below:

TABLE 4 – Linsig Results Summary for Sensitivity Assessment Taken From TTHC Approved TA

Arm	Movement	AM Peak 2017 With Development		PM Peak 2017 With Development	
		DoS (%)	MMQ (PCUs)	DoS (%)	MMQ (PCUs)
Speke Road	Ahd	39	1	47	1
	Ahd & Left	39	7	47	16
	Right	23	1	43	3
Site Access	All	20	3	30	4
Venture Point	All	38	2	47	3
Speke Boulevard	Ahd & Left	85	58	65	34
	Right	7	0	15	1

28. The results show that in the future assessment year the junction is forecast to operate within capacity although there would be some queuing on the Speke Boulevard approach of around 29 PCUs per lane during the AM peak. The PM peak is shown to have significant spare capacity which is the period when the proposed development has its highest level of demand.
29. In terms of the impact on the site access, the AM peak has a cycle time of 112 seconds and the PM peak has a cycle time of 120 seconds which allows for a minimum of 30 cycles per hour. Therefore the additional traffic would equate to a single vehicle per cycle during the AM peak and three vehicles per cycle during the PM peak, which as shown above could easily be accommodated at the junction within the existing stage times, particularly as the majority of trips will come from traffic already routing through the junction.

-
30. On the basis of the above analysis it is considered that these additional vehicle movements will can easily be accommodated within the existing operation of the junction and the revised development proposals would have no impact on the operation of the local highway network in terms of highway capacity.

CONCLUSION

31. The proposed development consists of a Petrol Filling Station (PFS), with associated retail store and a 'Drive Thru' Starbucks Coffee Shop, on land off the A561, between Speke Boulevard and Speke Hall Avenue, Liverpool.
32. The development site currently benefits from planning permission for two 'Drive Thru' fast food units and this note has compared the proposed development against that which has already been permitted on the site.
33. Whilst it has been shown that there would be an increase in the number of vehicular trips associated with the proposed development, it is not considered that this would not lead to any detrimental impact upon the operation of the local highway network.
34. Therefore it is concluded that there should be no highway or transport related reasons to withhold planning permission for the proposed development.