



ttp consulting
transport planning specialists

**2A CHRISTIAN FIELDS AVE,
GRAVESEND**

Transport Statement

September 2023

TTP Consulting Ltd
111-113 Great Portland Street
London W1W 6QQ
Tel: 020 7100 0753

www.ttp-consulting.co.uk

Registered in England: 09931399

Contents

1	INTRODUCTION	1
2	EXISTING SITUATION.....	2
	The Site	2
	Access on Foot	3
	Access by Bicycle	4
	Access by Public Transport	5
	Local Highway Network	6
	Car Ownership	6
	Travel to Work	7
3	EFFECTS OF THE PROPOSALS	8
	The Proposals.....	8
	Trip Generation	8
	Car Parking	9
	Deliveries	10
	Refuse Collection	10
4	SUMMARY AND CONCLUSION.....	11
	Summary.....	11
	Conclusion.....	11

Figures

Figure 1.1	-	Location Plan
Figure 2.1	-	Permitted Layout
Figure 2.2	-	Walking Isochrone Map
Figure 2.3	-	Cycle Isochrone Map

Appendices

Appendix A	-	Application Plans
Appendix B	-	Census Car Ownership Data
Appendix C	-	Census Travel to Work Data
Appendix D	-	Parking Survey

1 INTRODUCTION

- 1.1 TTP Consulting is retained to provide highways and transport advice in relation to the proposals for 2A Christian Fields Avenue (the Site) in Gravesend.

Figure 1.1: Site Location Plan



- 1.2 The Site currently has consent as a 6 bedroom House of Multiple Occupancy (HMO) (Class C4) with a maximum occupancy of 6 persons, with off-street parking provided for 1 car. This report has been prepared to support an application to increase the permitted occupancy of the house. No changes are proposed to the layout, with a copy of the plans provided at **Appendix A**.

2 EXISTING SITUATION

The Site

- 2.1 The Site which is located at 2A Christian Fields Avenue in Gravesend comprises the detached bungalow with 5 ensuite bedrooms plus a kitchen on the ground floor and a single ensuite bedroom in the eaves; off-street parking provided for 1 car served by a single crossover. The building has permission to be used as a Class C4 HMO with 6 bedrooms with a copy of the permitted layout at **Figure 2.1**.

Figure 2.1: Permitted Layout



Access on Foot

- 2.2 Walking is considered to be a suitable mode of transport to replace car and public transport journeys up to 2km in length, with factors such as health, weather and facilities along with access to a car and journey purpose all influencing a person's choice to walk. Footways are provided along both sides of Christian Fields Avenue that connect the Site to the wider pedestrian network.
- 2.3 **Figure 2.2** shows an 800m and 2km walking distance around the Site. The map shows that a number of amenities and public transport opportunities within walking distance, with local parks, schools and local shops all within walking distance.

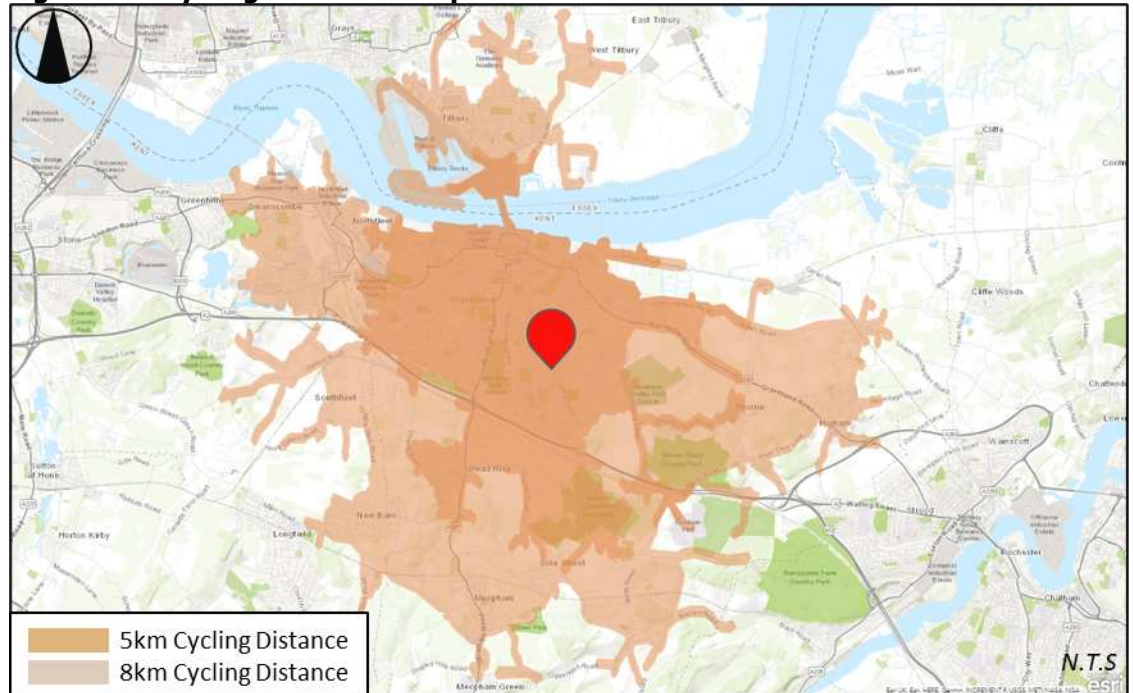
Figure 2.2: Walking Isochrone Map



Access by Bicycle

- 2.4 It is generally accepted that cycling is a sustainable mode of travel for journeys up to 8km in length. **Figure 2.3** shows the 5km and 8km cycling catchment surrounding the Site which includes all of Gravesend within 5km, and Northfleet, Ebbsfleet and part of Tilbury (via the ferry) within 8km.

Figure 2.3: Cycling Isochrone Map



Access by Public Transport

By Bus

- 2.5 The closest bus stops to the Site 'Ivy Close' and 'Truro Road' are located 130m and 150m east of the Site respectively located on Whitehall Lane. Both stops offer access to the bus route 483 which provides regular connections between Kings Farm and Bluewater Shopping Centre.
- 2.6 Additional services can be reached via bus stops 'St Hilda's Way' located on Valley Drive circa 400-540m east of the Site on Valley Drive which offer connections to bus routes 3, 111, 490A and G1, with bus route 490A offering regular departures to Singlewell. A summary of local bus routes and service frequencies is provided in **Table 2.1**.

Table 2.1: Summary of Local Bus Services			
Bus Stop	Route		Frequency every 'x' minutes
	No.	Destination	
Whitehill Lane 'Ivy Close'	483	Kings Farm - Bluewater Bus Station	30
Valley Drive 'St Hilda's Way'	735	Gravesend - Riverview Park	2 per weekday morning and evening
	3	Gravesend - Dartford - Wilmington	School day mornings and evenings
	111	Shorne - Higham - Northfleet	School day mornings and evenings
	490A	Bluewater - Gravesend - Valley Drive	30
	G1	Singlewell - Gravesend - Instead Rise - Meopham - Longfield Academy	School day mornings and evenings
	480A	Gravesend - Riverview Park	20

By Rail

- 2.7 The nearest train station to the Site is Gravesend Station which is located circa 2.5km (32-minute) walk to the north of the Site on Rathmore Road. The Station offers regular Thameslink and Southeastern departures to destinations including Rainham, Charing Cross via Sidcup, Luton, Faversham, St Pancras International, Ramsgate, Maidstone West and West Hampstead Thameslink.

Local Highway Network

- 2.8 In the vicinity of the Site Christian Fields Avenue is a two-way road that operates broadly east to west between Whitehill Lane to the east whilst at its southern extent, it terminates at The Steve Cook Stadium. The road is free from parking controls and as such, unrestricted parking occurs on both sides of the carriageway. Traffic calming measures including speed cushions are found near the Site and the road is limited to 20mph speeds.
- 2.9 Whitehill Lane is a two-way 30mph road that operates broadly north to south between Valley Drive to the south and the Old Road East / Parrock Road roundabout to the north. The road is free from on-street parking controls

Car Ownership

- 2.10 The 2021 Census data has been integrated to understand car ownership levels which suggests an average car occupancy of 1.12 per household for the area around the Site with 29% of households not having a car. The data does not however take into account the size and type of dwelling. In this regard, a review of the 2011 data for Gravesham suggests that whereas the average car ownership level is 1.23 across the borough, the level varies significantly by size and type, with an average car ownership of 1.38 cars per household for houses with 16% not having access to a car, and 0.59 cars per household for apartments with 41% not having access to a car. The data also demonstrates that car ownership levels are lower with smaller dwellings, with an average of 0.51 cars per household for a "1-3 Room" apartments with 39% not having access to a car, with lower average of 0.47 cars per household for a 1-3 bedroom rented apartment with 37% not having access to a car.

Table 2.2: Summary of Car Ownership					
	Percentage Car Ownership				Cars per HH
	0 Cars	1 Car	2 Cars	3+ Cars	
Local [E00123384]	29%	40%	22%	9%	1.12
Borough* (All)	23%	42%	26%	9%	1.23
Borough* (Houses)	16%	42%	31%	11%	1.38
Borough* (Apartments)	50%	41%	8%	1%	0.59
Borough* (All 1-3 bed Apts.)	55%	39%	5%	0%	0.51
Borough* (1-3 bed Rent Apts.)	58%	37%	4%	0%	0.47

*Gravesham

Travel to Work

2.11 **Table 2.3** provides a summary of the travel to work data for the local area based on the 2011 Census; as noted above, whereas there is some data from the 2021 Census, it is not yet available at a local level, nor considered representative given the COVID-19 pandemic. The data suggests that 63% of people travel to work as a driver with 7% as passengers, whilst 17% travel using public transport and 12% walking; nobody indicated that they cycled to work.

Table 2.3: Mode of Travel to Work	
Mode	Percentage
Train	8%
Bus, minibuss or coach	9%
Driving a car or van	63%
Passenger	7%
Bicycle	0%
On foot	12%

3 EFFECTS OF THE PROPOSALS

The Proposals

- 3.1 This report has been prepared to support an application to increase the maximum occupancy of the Site from 6 to 12 with no change in use, i.e. it would remain Sui Generis as a large House of Multiple Occupancy with 6 rooms. No changes are proposed to access, car parking and delivery arrangements which would remain as per existing.

Trip Generation

- 3.2 The potential number of trips associated with the proposals has been estimated based on a first principles approach on the grounds that one would typically estimate this based on dwelling type and size (number of rooms) neither of which are changing.
- 3.3 Currently the permission restricts the occupation of the house to 6 people based on one person per bedroom. This application is seeking to increase the permitted occupancy levels to effectively permit couple for example to cohabit, with a maximum of 12 people in the house. Notwithstanding this, the 2011 Census has been interrogated to understand the potential occupancy per bedroom with the data suggesting on average 1.2 people per bedroom for shared apartments, and lower occupancy levels for other types of accommodation; based on this, there would typically be 7 to 9 people in the house at any one time; furthermore, it is not necessary that all rooms would be occupied with some vacancies.
- 3.4 Notwithstanding that the proposals would not result in any noticeable changes in trip generation, a first principles exercise has been undertaken considering the existing and proposed maximum occupancies along with an average occupancy with a summary of the exercise provided at **Table 3.1**.

Table 3.1: Number of Trips by Mode Each-Way (Peak Period)				
Mode	%	No. of People in House		
		6	9	12
Train	8%	0	1	1
Bus, minibus or coach	9%	1	1	1
Driving a car or van	63%	4	5	7
Passenger	7%	0	1	1
Bicycle	0%	0	0	0
On foot	12%	1	1	1
Total		6	9	12

- 3.5 The movements in Table 3.1 are an estimate of the number of movements in the peak direction during the peak periods, i.e. outbound between 7am and 10am in the morning, or inbound between 4pm and 7pm in the evening. As noted above, the number of movements is considered to be robust insofar that not all of the rooms would always be occupied at the same time, with the movements would occur over a 3 hour period.
- 3.6 Whereas the number of movements associated with 9 people is considered the most representative with 5 vehicular movements within a 3hr period, i.e. 1 more than that associated with the current maximum permitted number of people, adopting the same ratio with 12 people only increases the number of vehicular movements to 7 in the same 3hr period.
- 3.7 Overall, there would not be any noticeable changes in levels of service nor trips associated with the proposals even assuming maximum occupancy.

Car Parking

- 3.8 The Site currently provides off-street parking for one car served by a single crossover; the proposals do not include any alterations to the car parking arrangements. Based on Census data set out in Table 2.2, the existing house with 6 bedrooms assuming each were a 1 – 3 room dwelling could generate a demand for up to 3 cars, i.e. with 1 parked on the drive-way and 2 on-street; it should be noted that these figures do not assume only one person per dwelling, i.e. and more likely closer to the average.
- 3.9 Parking surveys were conducted on the morning of the 12th and 13th September 2023 to understand occupancy levels and availability of parking on the surrounding streets within a 200m walk of the Site, with a copy of the output included at **Appendix D**. The data revealed a total of 211 parking opportunities in the survey area including 32 along Christian Fields in the immediate vicinity of the Site (Zones 3 & 11) with a summary of the findings in **Table 3.2**.

Table 3.2: Summary of Parking Beats					
Restriction	Parking "Spaces"	12th Sept 2023 (0500)		13th Sept 2023 (0030)	
		Parked	Available	Parked	Available
Unrestricted Bays	33	22	5	24	4
Disabled Bays	1	1	0	1	0
Dropped Kerbs	-	11	-	11	-
Unrestricted	177	60	114	53	121
Total	211	94	119	89	125
Christian Fields (3 & 11)	32	8	26	8	27

- 3.10 The survey revealed that there were 94 cars parked at 5am on the 12th September, including 11 cars parked across dropped kerbs, with an occupancy level of 45%, with fewer cars parked overnight on the 13th September, with 26 or 27 spaces available in the immediate vicinity of the Site. The survey would have picked up any demand associated with the existing dwelling.
- 3.11 Although the proposals associated with this application is unlikely to result in an increased demand for parking which would typically be based on the size and nature of the dwelling, which are not changing, doubling the number of cars associated with the Site to 6 cars, i.e. one per room, would not impact on the availability of car parking in the local area with a summary of the potential changes in parking stress levels set out in **Table 3.3** with occupancy levels increasing from 25% to 34% in the immediate area.

Table 3.3: Summary of Parking Stress Levels (Christian Fields Zones 3 & 11)					
Restriction	Parking "Spaces"	12th Sept 2023 (0500)		13th Sept 2023 (0030)	
		Parked	Available	Parked	Available
Observed Scenario	32	8 (25%)	26	8 (25%)	27
Development Scenario	32	11 (34%)	23	11 (34%)	24

Deliveries

- 3.12 The existing dwelling is anticipated to receive on average 1 to 2 deliveries per week, excluding post and refuse collection, with deliveries most likely to take place using a transit van; deliveries would take place on-street in with other properties in the local area.
- 3.13 As with parking, there is unlikely to be any increase in the number of deliveries, albeit doubling the number of deliveries to circa 3 to 4 per week would not impact on the operation of the local or wider highway network. Deliveries would take place on-street as per existing.

Refuse Collection

- 3.14 The proposals do not include any changes to the refuse storage and collection strategy, with waste and recycling bins located within the yard at the Site frontage within 10m of the front doors and acceptable distance for refuse collection operatives.

4 SUMMARY AND CONCLUSION

Summary

- 4.1 TTP Consulting is retained to provide advice in relation to the proposals for 2A Christian Fields in Gravesend.
- 4.2 The Site comprises of a 6 bedroom HMO with a maximum permitted occupancy of 6 people. This report has been prepared to support an application to increase the maximum occupancy to 12 people in the house; no other changes are proposed.
- 4.3 Data from the 2011 Census suggests that average occupancy levels per bedroom for 1 – 3 bedroom dwellings is 1.2 people thereby suggesting that there could be 7 to 9 people on the premises at any one time; it is not necessary that all rooms would always be let.
- 4.4 Notwithstanding average occupancy levels, even basing the potential increase in trips on the maximum proposed number of people would not impact on the operation of the local highway or transport network.
- 4.5 Surveys were conducted overnight when residential car parking levels are typically highest, i.e. when people are at home sleeping, with the results demonstrating that there is ample spare capacity to accommodate the anticipated demand.
- 4.6 Deliveries would take place as per existing, and although there is unlikely to be any increase associated with the proposals, even allowing for doubling the expected typical number of deliveries would not impact on the local highway network.
- 4.7 Refuse would be stored and collected as per existing.

Conclusion

- 4.8 The proposals are acceptable in highways terms.

Appendix A

(Application Plans)

Appendix B

(Census Car Ownership Data)

Appendix C

(Census Travel to Work Data)

Appendix D

(Parking Survey)