

CLIVE CHAPMAN ARCHITECTS
ELLERAY HALL FEASIBILITY
JULY 2019

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GARNHAM ASSOCIATES

1.0 INTRODUCTION



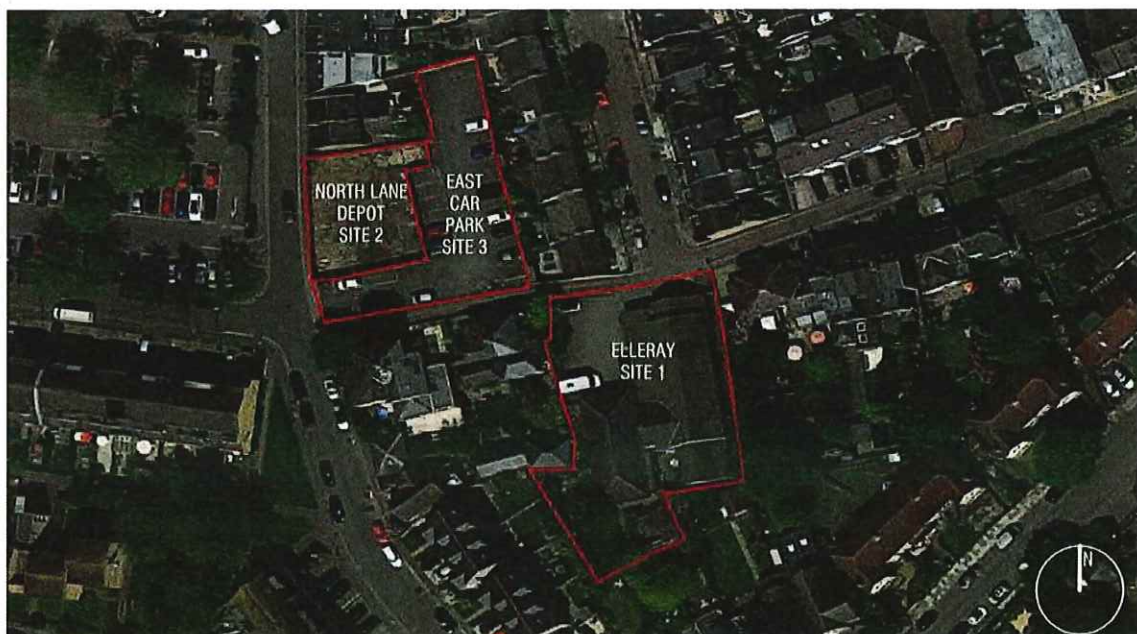
ELLERAY HALL

Clive Chapman Architects (CCA) has been appointed by the London Borough of Richmond Upon Thames to undertake a high level feasibility study to appraise options for the re-provision of Ellera Hall community centre and the provision of enabling development on a neighbouring site, the North Lane Depot and East Car Park.

CCA has worked in conjunction with Lambert Smith Hampton, Paul Mew Associates and Michael Garnham Associates to prepare this feasibility document.

THE OBJECTIVES OF THE FEASIBILITY EXERCISE ARE TO:

- Establish users' views on the proposals in relation to their service needs and gauge the best means of consolidating these services into a modern fit for purpose community building; to provide an initial project brief for the new community building
- Develop design concepts, tested to 1:500/1:200 for key uses to inform floor space requirements and arrangements between uses, including vehicular and access requirements as well as internal floor space and facilities, for the new community building on the NLE Car Park site so that it can be tested in terms of site issues, planning policy and delivery costs to enable a business case to be developed for the project
- Set out a clear rationale for a preferred option for the re-provided for the building and a robust design concept for its use¹



AERIAL VIEW OF THE SITES

ELLERAY HALL (SITE 1): The site currently accommodates a single storey property which is used to provide day care and activities to the elderly. The facility is well used and provides a valuable service which is well regarded by the community. The building is also used by other local groups during out of hours times (evenings and weekends).

The neighbouring properties are all residential and around 2-2.5 storeys. While the existing building is well used it is in need of modernisation, the age and construction of the structure mean that it is inefficient to run. The existing layout is also unsuitable for the changing programme that is required for both the existing users and the demand for a community space from other local groups.

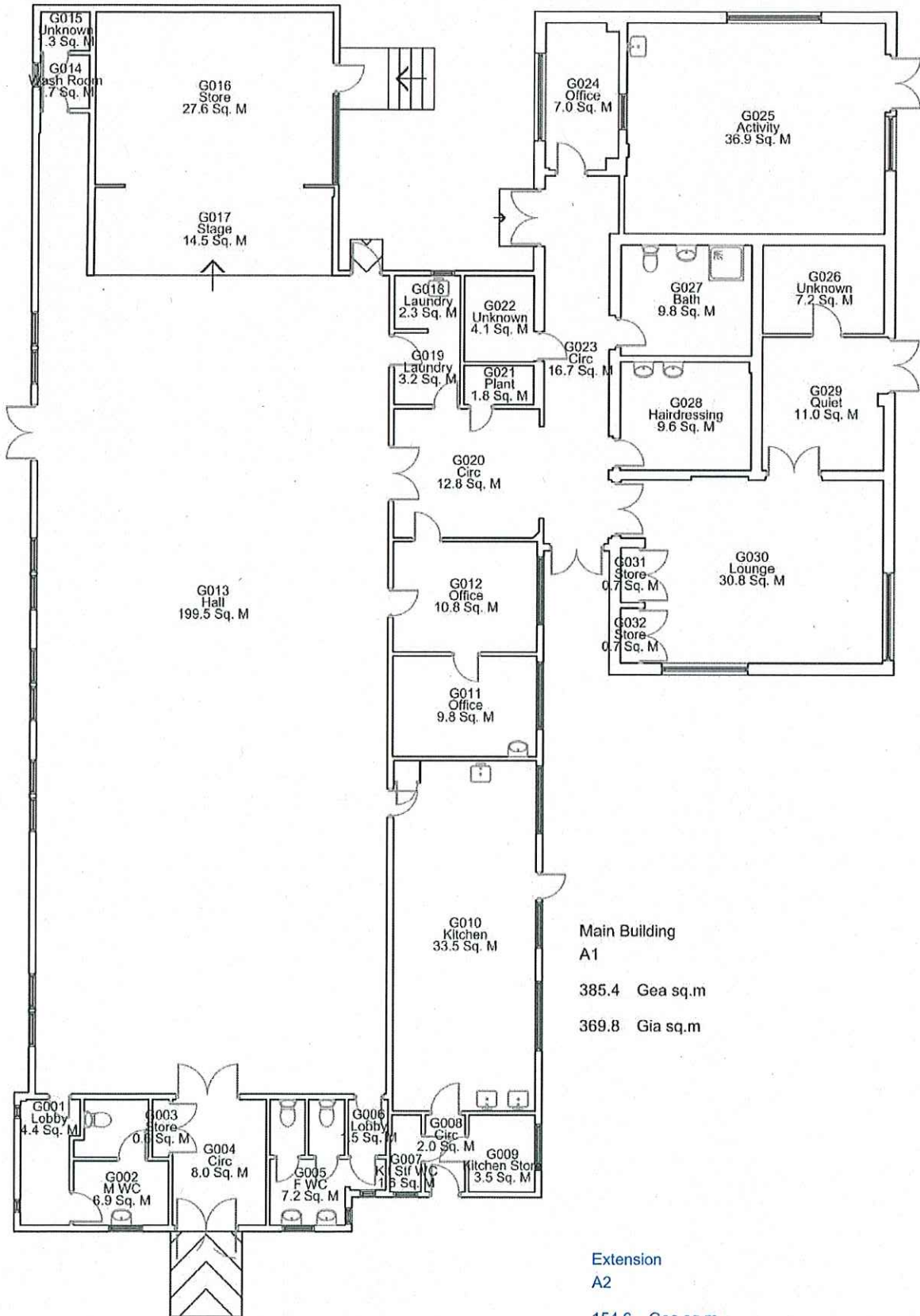
The site area is 0.13ha which accommodates the existing building which is approx. 510.5m², a hardstanding car park which provides 6no. cars and has provision for a minibus for pick up/drop offs. There is also an established garden space which is well used by the Elleray Hall members.

NORTH LANE DEPOT AND EAST CAR PARK (SITE 2 AND 3): The site is currently in use as an overflow car park and a former depot site. The site area is 0.1ha. The North Lane Depot site is currently fenced off and not in use. The East Car Park site is being used as an overflow car park for the main North Lane Car Park which is located adjacent to the site.

There are two storey houses along Elleray Road which back onto the East Car Park and there are a number of residential buildings of townscape merit (BTM) which overlook the site located along Middle Lane (no's 21-27).

The site has vehicular access from North Lane and pedestrian access via Middle Lane which connects North Lane to Elleray Road.

EXISTING ELLERAY HALL BUILDING



EXISTING SITE PHOTOGRAPHS



East Car Park Site Looking North



Houses along Middle Lane



North Lane Depot from North Lane



Elleray Hall Garden



View from Middle Lane looking East



East Car Park Site Looking East



Elleray Hall Car Park

2.0 CONSULATION WITH EXISTING USER GROUP

Clive Chapman Architects held a meeting with the representatives of Elleray Hall. The purpose of this meeting was to visit the existing building and discuss the spatial, access, technical and organisational requirements of the Teddington Older Peoples Welfare Association (TOPWA) at Elleray Hall.

The meeting with Joan Barnett, Fiona Brennan and Emilia Harris at Elleray Hall was held on 1st April 2019. A full copy of the meeting minutes is provided in Appendix 1.

Summary notes as follows:

- Ideally Elleray Hall would stay on its current site, or the new hall be completed before demolition of the existing
- Ability to sub divide the hall would be beneficial for other local groups to use out of hours
- Provide appropriate spaces on the ground floor with access suitable for more vulnerable users is important
- The garden space is very important for the members
- Provision for a Minibus parking space is essential
- Ideally the scheme would provide up to 6no. car parking spaces however they would accept a minimum of 3
- Adequate storage area and ancillary spaces for washing/drying will be required within the building
- Independent access to the hall is a good idea and having separate access to the office and other rooms allows for the spaces to be used by different groups simultaneously

OTHER BRIEF CONSIDERATIONS:

The community centre should be designed to accommodate the existing Elleray Hall user group as well as being a flexible building which can accommodate changing needs for an elderly day centre. The spatial arrangement needs to focus on providing areas that meet the area requirements and day to day needs of the existing user groups while also being mindful of changing demographics and requirements. The options need to consider the ability for spaces to accommodate other community groups both during the day and evening without disrupting the core programme.

In order to use the site most efficiently it is proposed that the building will need to be over at least two storeys. Any accommodation proposed on the first floor will need to be fully accessible for all users.

3.0 DESIGN OPTIONS

The following pages contain details of the design options developed in response to brief. These options have been amended following discussions with the council members, the user group and a planning concept meeting with Lucy Thatcher, Strategic Applications Manager LBRuT.

Refer to Appendix 2 for a full set of drawings

The options are summarised below:

OPTION A

The re-provision of Ellera Hall on its existing site with the addition of 2no. residential properties and the provision of 11 no. residential properties on the North Lane Car Park Site.

OPTION B

The re-provision of Ellera Hall on the North Lane Car Park Site and the provision of 11no. residential properties on the Ellera Hall site.

	ELLERAY HALL SITE	NORTH LANE CAR PARK SITE
OPTION A	2no. 2B3P Residential Houses 467m2 Community Centre	11no. Residential Units; 7no. 1B2P Flats 1no. 2B3P House 3no. 3B5P House
OPTION B	11no. Residential Units; 4no. 1B2P Flat 2no. 2B3P Flat 2no. 2B4P House 3no. 3B5P House	490m2 Community Centre

KEY DESIGN PRINCIPLES

COMMUNITY CENTRE

- A large hall with potential divide the space into three separate areas suitable for independent use by other local groups as well as the existing user group
- Separate access to the hall
- Kitchen area located with ability to serve both the hall and cafe area
- Admin office split across two floors with the ground floor accessible from both the reception area and the hall
- Parking space for minibus plus 3 car parking spaces
- Activity room and cafe opening out onto garden
- Ability for activity rooms to be flexible with movable walls suitable for a number of different activities
- Open reception area with views and access to the garden
- Massing and building height in keeping with neighbouring buildings
- A range of activity room sizes
- Lift access to all floors
- Additional activity rooms located on the first floor with potential for these to be utilised during the day by other local groups with minimal disruption to the existing Elleray Hall programme.
- Parking for a minimum of 3no. cars and 1 no. Minibus

RESIDENTIAL UNITS

- Mix of unit types and sizes appropriate for the location
- Street frontage tying into existing urban grain
- Massing and building heights respectful of neighbouring residential properties and registered Buildings of Townscape Merit (BTM)
- 1 Shared car club space provided
- Private amenity space for houses and shared amenity space for proposed flats

OPTION A

ACCOMMODATION SCHEDULE

RESIDENTIAL

NORTH LANE CAR PARK AND DEPOT SITE		
UNIT TYPE	NO.	AREA (M ²)
1: 2B3P HOUSE	1	70
3: 3B5P HOUSE	3	99
4: 1B2P FLAT	7	50
ELLERAY HALL SITE		
UNIT TYPE	NO.	AREA (M ²)
6: 2B3P HOUSE	2	72
TOTAL	13	861

COMMUNITY CENTRE

ELLERAY HALL COMMUNITY CENTRE	
	AREA (M ²)
GROUND FLOOR	378
FIRST FLOOR	89
TOTAL	467

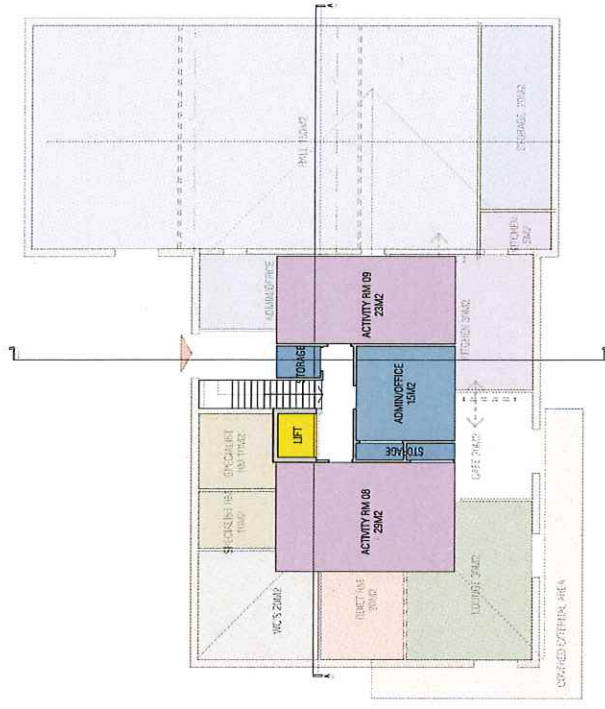


1:500 SCALE BAR 0 10 20 30 40m

Project: ELLERAY HALL AND NORTH LANE CAR PARK, ELLERAY ROAD, TEDDINGTON
 Drawing: SITE PLAN OPTION A
 Drawing No.: EHT-SK04C
 Scale: 1:500 @ A3
 Date: 08.04.2019

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OPTION A
COMMUNITY CENTRE



ELLERAY HALL COMMUNITY CENTRE
FIRST FLOOR PLAN
1:200



Project	ELLERAY HALL AND NORTH LANE CAR PARK, ELLERAY ROAD, TEDDINGTON
Drawing	ELLERAY HALL SITE PLAN OPTION A
Drawing No.	EHT-SK05B
Scale	1:200 @ A3
Date	01.04.2019

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ELLERAY HALL SITE PLAN COMMUNITY CENTRE
AND RESIDENTIAL UNITS
1:200

OPTION B

ACCOMMODATION SCHEDULE

RESIDENTIAL

NORTH LANE CAR PARK AND DEPOT SITE		
UNIT TYPE	NO.	AREA (M ²)
2: 2B4P HOUSE	3	80, 80, 87
3: 3B5P HOUSE	2	99, 105
4: 1B2P FLAT	2	50
5: 2B3P FLAT	4	61
TOTAL	11	795

COMMUNITY CENTRE

ELLERAY HALL COMMUNITY CENTRE - REPROVISION ON NORTH LANE CAR PARK AND DEPOT SITE		
		AREA (M ²)
GROUND FLOOR		389
FIRST FLOOR		101
TOTAL		490



Project: ELLERAY HALL, ELLERAY ROAD, TEDDINGTON
 Drawing: SITE PLAN OPTION B
 Drawing No: EHT-SK07D
 Scale: 1:500 @ A3
 Date: 01.04.2019

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4.0 PLANNING POLICY

Clive Chapman Architects attended a planning concept meeting with the London Borough of Richmond Upon Thames on 26th April 2019 to discuss the feasibility study of both sites.

The following notes summaries the main points that were discussed for both options, the full feedback from this meeting can be read in Appendix 3.

It was noted that both options provide in excess of 10 residential units and would therefore be required to provide on site affordable housing. Any shortfall of this requirement would need to be addressed through a viability assessment.

Comments relevant to both options:

- It was recommended that the no. of small units (1B2P) be increased on both options. This has been taken into consideration on the current proposals, however, CCA note that the overall mix of units would likely be driven by market forces. It is also noted that the London Plan define family units as having three bedrooms or more, whilst LBRuT define two bedroom units as family dwellings.
- Car club parking spaces were not objected to in principal subject to parking surveys

Option A:

- Generally no objections to the proposed community centre development or residential units on the Ellera Hall site.
- Concern that the proposed development on the North Lane Car Park site was overdeveloped particularly to the BTM's along Middle Lane.*
- It was noted that the height of the residential units to the rear of Ellera Road should not exceed single storey

* Since the planning concept meeting the scheme has been amended to increase the number of small units and reduce the 'over development' along Middle Lane and the gardens of Ellera Road.

Option B:

- Generally preferred in terms of siting, footprint and height.
- Distance of proposed dwellings from existing dwellings was noted to be slightly under that required in the LBRuT Supplementary Planning Document*
- It was noted that the design of the dwellings should explore options to demonstrate how the privacy of the neighbours gardens will be retained
- Community centre was considered acceptable at 1.5 storeys and greater distances to the existing BTM's

* Following the planning concept meeting the site plan was amended to ensure the proposed residential units fell within the required separation distances

5.0 PARKING SURVEY

A parking survey has been undertaken by Paul Mew Associates. The study has assessed the parking impact resulting from the loss of parking at the North Lane Car Park site.

The report concludes that the *“parking stress levels will remain below the 85% threshold prescribed by Richmond Borough Council, following the redevelopment of the North Lane car park. In addition, it is evident that North Lane West car park is able to absorb spill-over parking during the peak weekend periods.”*

The full parking survey document can be seen in Appendix 4.

7.0 CONCLUSION

The parking survey has shown that parking stress levels will remain below the 85% threshold following the development of the North Lane Car Park.

The spatial and planning analysis together with the financial viability appraisal illustrate that there is potential for a viable scheme for both options A and B.

Option A shows a greater surplus, but no financial allowance has been made for a temporary hall to be built on the North Lane car Park or allowance for logistical arrangements in using Linden Hall or other facilities. The community centre for option B is 23m² larger than for option A.

Whilst option B shows a lower surplus it is the planners preferred option and completing a new community centre first may be the most efficient and beneficial to the community.

APPENDIX 1

ELLERAY HALL USER GROUP MEETING MINUTES

ELLERAY HALL, TEDDINGTON
FILE NOTE
ELLERAY HALL USER GROUP MEETING MINUTES
01.04.2019, 2PM

Present:	Joan Barnett	Chair of Elleray Hall	JB
	Emelia Harris	Centre Manager	EH
	Fiona Brennan	Elleray Community Association	FB
	Clive Chapman	CCA Principal Architect Clive Chapman Architects	CC
	Hannah Griffiths	CCA Architect Clive Chapman Architects	HG

ACTION

1.0 PROJECT INTRODUCTION AND BACKGROUND

- 1.1 CC introduced the practice and explained the brief was to undertake a high level feasibility to establish whether a new community centre could be provided with enabling development on an adjacent site. JB noted that they were disheartened by previous schemes and generally frustrated by going over the same things again.
- 1.2 JB and FB explained that their goal is to have a community centre for Teddington which serves vulnerable people of all ages. They noted that it is important that they have an identity.
- 1.3 They would prefer to stay on the current site as there are more mobility issues with the North Lane Car Park Site.
- 1.4 FB noted if it was possible to stay on the current Elleray Hall site that the members could be temporarily relocated to Linden Hall in Hampton for the duration of construction.

2.0 SPACIAL PLANNING

- 2.1 CCA tabled a spacial arrangement drawing (EHT-SK01). This illustrated the initial spacial arrangement based on the sizes and rooms listed within the previous feasibility scheme. CC first outlined the room sizes and arrangement of rooms it was discussed that there would likely be a second floor and the rooms that could be located upstairs were discussed.
- 2.2 It was generally agreed that the first thoughts on the arrangement were positive with the open reception and café area shown with connection to the garden. The ability to sub divide the hall was met positively and noted that this would be a benefit for lettings particularly having an independent entrance to the hall.
- 2.3 EH noted that storage within the building is an issue particularly larger storage (table tennis tables, extra tables and chairs) and that this would need to be addressed if the project progressed.
- 2.4 It was queried where would the boiler/ cleaners c-board could be located? The centre requires a laundry facility as the washing/drying is used daily.

- 2.5 EH noted that the quiet room is generally used by more vulnerable users and those who are less mobile it is therefore not ideal to locate this on the first floor. Emelia suggested moving the quiet room adjacent to the lounge so that the two spaces could be connected and moving the activity room upstairs.
- 2.6 The stage within the hall was discussed and it was noted that while it is not used frequently it is a draw for letting the space. It is also used for storage.
- 2.7 Generally the size of the spaces was agreed to be appropriate. CC noted that the office was suggested to be split across the two floors EH confirmed that this would work.
- 2.8 The garden was discussed and it was generally noted that this is something that means a lot to the members and staff at Elleray Hall, EH noted that they use the garden for Thai Chi, summer parties and gardening space for members who don't have a similar space at home. CC noted that if it was possible to retain the garden then that would be advantageous, all agreed.

3.0 PARKING

- 3.1 CC queried the minimum parking requirements. JB noted that ideally would have a drop off car parking space for a Minibus and 6 car parking spaces as a minimum.
- 3.2 CC noted this and explained that this may have bearing on the overall feasibility as the additional space could be used to provide additional enabling development. JB noted that she would rather retain the maximum no of spaces, EH however agreed that the staff could park further away thus reducing the number of spaces required. It was also understood that a lesser number of spaces could be acceptable if this is a sticking point within the overall feasibility.

4.0 ACTIVITES

- 4.1 HG inquired what type of activities generally take place within the centre and it was explained that the Elleray Hall members have activities like yoga, line dancing, talks. Some equipment for these events are brought in by external teachers.
- 4.2 CCA queried what activities were hired out by external groups, as summarised below:
- Hall
 - Ballet School
 - Dance
 - Yoga
 - Antiques Fairs
 - Smaller rooms
 - NCT classes
 - AA meetings
 - Yoga + other smaller dance classes
 - MP surgery (sometimes at the same time as the members)

Generally the spaces are hired out after 4pm, however this could be earlier if there was more ability to sub divide the spaces without disrupting the programme of Elleray Hall members. EH noted that the office would need to be accessed from the hall and the general circulation space.

- 4.3 EH noted that they currently have to turn down some external groups because they do not have the capacity to separate building uses and many of the rooms are accessed through each other. Mum and baby groups were one example and it was discussed that if there were activity rooms on the first floor this could work well during the day without disrupting the programme of the members of Elleray Hall.
- 4.4 The existing kitchen was noted to be larger than required (currently 33sqm). However it was noted that there is currently a separate café. If the kitchen was to be combined with the café then 30sqm would likely be appropriate. As these are run by different groups (the café by volunteers and the kitchen by specially trained staff) then the kitchen would need to be designed to accommodate that. CC noted that if the project was progressed then a specialist kitchen designer would be brought in to advise on the layout.
- 4.5 EH noted that the 2x specialist rooms would be fitted out with specialist equipment for hairdressing and chiropody so these would unlikely be used for other groups and would ideally be located on the ground floor for access by more vulnerable members.

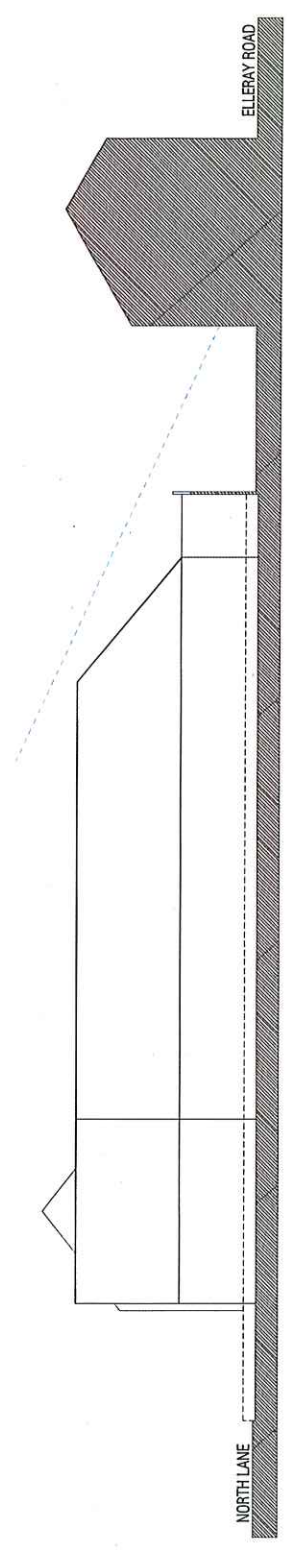
APPENDIX 2

FEASIBILITY DRAWINGS PREPARED BY CLIVE CHAPMAN ARCHITECTS

Appendix 2.1 EHT_SK10A OPTION A Sections

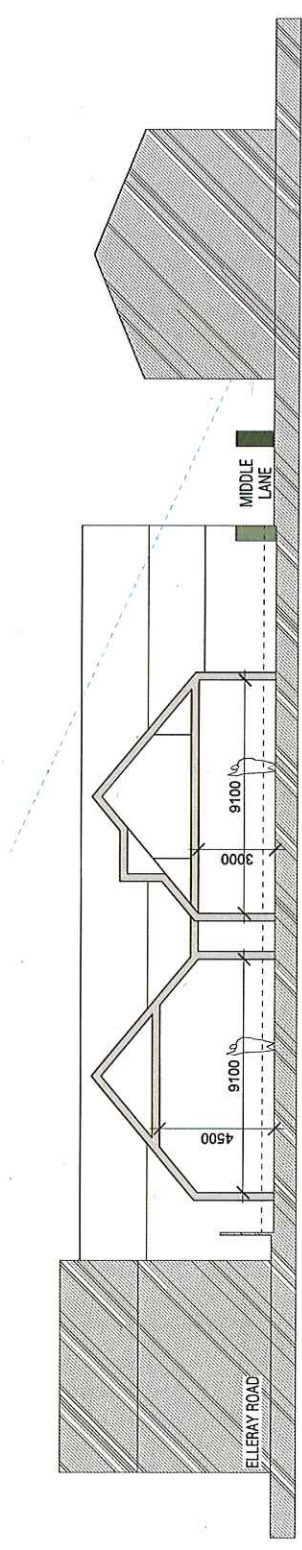
Appendix 2.2 EHT_SK11 SITE SECTIONS OPTION B

Appendix 2.3 EHT_SK09 Site Photos



ELLERAY ROAD

NORTH LANE



MIDDLE LANE

ELLERAY ROAD

FEASIBILITY - OPTION B

PROJECT ELLERAY HALL, ELLERAY ROAD, TEDDINGTON	
DRAWING SITE SECTIONS	
DRAWING No. EHT-SK11	SCALE 1:200 @ A3
DATE 25.04.2019	

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APPENDIX 4

PARKING SURVEY PREPARED BY PAUL MEW ASSOCIATES



PAUL MEW ASSOCIATES
TRAFFIC CONSULTANTS LTD

HIGHWAYS TECHNICAL NOTE

Author:	Paul Mew Associates
Date:	May 2019
Project:	P2126: Elleray Hall, Teddington
Subject:	Parking Statement

1.0 INTRODUCTION

- 1.1 Paul Mew Associates is instructed by Clive Chapman Architects on behalf of the London Borough of Richmond upon Thames to report on parking availability in relation to the proposed development at Elleray Hall, Teddington. A location plan of the site is attached at Appendix A of this report.
- 1.2 The site comprises of the North Lane East car park and Elleray Hall on the north and south side of Middle Lane respectively within Teddington Town Centre.
- 1.3 Development proposals option A involve the redevelopment of the North Lane East car park to provide four houses (one x two bedroom and three x three bedroom), seven flats (seven x one bedroom) and one car club space. Elleray Hall will be remodelled, and two houses (two x two bedroom) will be built within the site including four parking spaces and a minibus bay.
- 1.4 Development proposals option B involve the redevelopment of the North Lane East car park to provide a community centre including four parking spaces, one car club space and a minibus bay. Elleray Hall will be redeveloped to provide five houses (three x two bedroom and two x three bedroom) and six flats (two x one bedroom and four x two bedroom). The sketch layout plan for the development proposals are attached at Appendix B of this report.
- 1.5 The site is not located within a controlled parking zone (CPZ)

2.0 SURVEY OF EXISTING PARKING CONDITIONS

2.1 The first stage of assessing the parking impact of the proposed development is to survey the existing baseline conditions on the adjoining road network.

Parking Survey Inventory

2.2 The first stage of the parking assessment is to map out the parking survey area. All kerb space largely within a 200 metre distance of the application site has been measured using a measuring wheel and the on-street parking opportunities have been recorded to-scale onto OS mapping.

2.3 This parking survey has been conducted in accordance with the Richmond Methodology, which was accepted in pre-application correspondence. A copy of the methodology and pre-application email dialogue with Richmond Council's Highways Department is presented in Appendix C.

2.4 In accordance with the Richmond Methodology, Elleray Road has been excluded from the following summary as it is located within a CPZ. Elleray Road is shown separately in the appendices.

2.5 The survey area has been split into individual streets or sections of streets comprising the following:

- Elfin Grove
- Elleray Road (Behind Shops)
- Broad Street
- Little Queens Road
- Middle Lane
- North Lane
- North Place
- Park Lane
- Queens House
- St Marys Avenue

2.6 In addition, the North Lane West car park and North Lane East car park have been included in the parking survey.

2.7 The parking survey inventory (kerb-side) is presented in Table 1 as follows (additionally refer to Figures 3 a-e):

Table 1. Parking Survey Inventory (kerb-side)

Road	Parking Inventory	
	Total	Disabled
	Kerb-Side	Kerb-Side
	Spaces	Spaces
Elfin Grove	4	0
Elleray Road (Behind Shops)	5	0
Broad Street*	21	0
Little Queens Road	33	0
Middle Lane	0	0
North Lane	21	1
North Place	13	0
Park Lane	19	0
Queens House	15	2
St Marys Avenue	40	0
Total	171	3

Source: PMA Survey

*Parking on Broad Street is Pay and Display during 08:30am-18:30pm (Mon-Sat)

2.8 The parking survey inventory in Table 1 shows that there is a total of 171 safe and legal kerb side parking opportunities within the survey area.

2.9 The parking survey inventory for both car parks is presented in Table 2 as follows (additionally refer to Figures 3 a-e):

Table 2. Parking Survey Inventory (car park)

Road	Parking Inventory	
	Total	Disabled
	Parking bays	Parking bays
	Spaces	Spaces
North Lane East car park	21	0
North Lane West car park	86	6
Total	107	6

Source: PMA Survey

Parking Survey Results

- 2.10 The overnight surveys were undertaken on Sunday 12th May, Tuesday 14th May and Wednesday 15th May at 02:30am, 01:45am and 04:00am respectively. Hourly parking beat surveys were also undertaken on Saturday 11th May from 10:00am-15:00pm and 17:00-20:00 as agreed in advance with Richmond Council.
- 2.11 The results of each parking survey are presented in Appendix D and have been produced to the standards prescribed within the Richmond methodology.
- 2.12 Table 3 presents the average results from three overnight surveys for unrestricted parking opportunities (kerb-side) within the study area.

Table 3. Average Overnight Parking Survey Results

Road	Unrestricted Kerb-side			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
Elfin Grove	4	5	0	100%
Elleray Road (Behind Shops)	5	6	0	100%
Broad Street*	21	0	21	2%
Little Queens Road	33	25	8	77%
Middle Lane	0	0	0	0%
North Lane	21	23	1	94%
North Place	13	13	0	100%
Park Lane	19	13	8	61%
Queens House	15	14	1	93%
St Marys Avenue	40	29	13	69%
Total	171	128	52	71%

Source: PMA Survey

Note: Some arithmetic errors due to rounding's

*Parking on Broad Street is Pay and Display during 08:30am-18:30pm (Mon-Sat)

- 2.13 In accordance with Richmond Methodology, illegally parked cars have been included in the number of cars parked and calculation of parking stress. In turn, the sum of number of cars parked and number of free spaces may be greater than the total number of parking spaces recorded in the inventory.
- 2.14 Table 4 presents the average results from three overnight surveys for public car parks within the study area.

Table 4. Average Overnight Parking Survey Results

Road	Parking bays			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
North Lane East car park	21	8	0	-
North Lane West car park	86	1	0	-
Total	107	9	0	-

Source: PMA Survey

Note: Some arithmetic errors due to rounding's

- 2.15 The observed average overnight parking stress of available kerb side parking within the survey area is 71%. Of the 171 total kerb side parking opportunities within the study area, an average of 128 cars have been observed to be parked leaving 52 available spaces.
- 2.16 Where the site is located on North Lane East car park, no spaces are available during the evening as the car park closes at 6:30pm. However, an average of eight vehicles were observed to be parked here overnight. The redevelopment of North Lane East car park will therefore result in eight vehicles over-spilling onto the local highway. In turn, the overall parking stress would increase by 5% from 71% to 76%.
- 2.17 Table 5 presents the peak-hour (10:00am-11:00am) results from the 10:00am-15:00pm surveys for unrestricted parking opportunities within the study area. Full details are presented at Appendix D.

Table 5. 10:00am-11:00am Parking Survey Results

Road	Unrestricted Kerb-side			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
Elfin Grove	4	4	0	100%
Elleray Road (Behind Shops)	5	6	0	100%
Broad Street*	21	18	4	82%
Little Queens Road	33	29	7	81%
Middle Lane	0	0	0	0%
North Lane	21	27	1	96%
North Place	13	13	0	100%
Park Lane	19	16	5	76%
Queens House	15	11	5	69%
St Marys Avenue	40	33	9	79%
Total	171	157	31	84%

Source: PMA Survey

Note: Some arithmetic errors due to rounding's

*Parking on Broad Street is Pay and Display during 08:30am-18:30pm (Mon-Sat)

- 2.18 Table 6 presents the peak-hour (10:00am-11:00am) results from the 10:00am-15:00pm surveys for public car parks within the study area.

Table 6. 10:00am-11:00am Parking Survey Results

Road	Parking bays			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
North Lane East car park	21	12	9	57%
North Lane West car park	86	56	29	66%
Total	107	68	38	64%

Source: PMA Survey

Note: Some arithmetic errors due to rounding's

- 2.19 The observed 10:00am-11:00am parking stress of unrestricted kerb side parking within the survey area is 84%. Of the 171 total kerb side parking opportunities within the study area, an average of 157 cars have been observed to be parked leaving 31 available spaces.

2.20 Where the site is located on North Lane East car park, 21 unrestricted spaces are present with an average of 12 vehicles parked here in the AM peak period. The redevelopment of North Lane East car park will therefore result in 12 vehicles overflowing onto North Lane West car park. North Lane West car park has 29 available spaces, and would be able to accommodate 12 additional vehicles as a result of the loss of North Lane East car park in the AM peak period.

2.21 Table 7 presents the peak-hour (17:00pm-18:00pm) results from the 17:00pm-20:00pm surveys for unrestricted parking opportunities within the study area.

Table 7. 17:00pm-18:00pm Parking Survey Results

Road	Unrestricted Kerb-side			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
Elfin Grove	4	5	0	100%
Elleray Road (Behind Shops)	5	6	0	100%
Broad Street*	21	20	2	91%
Little Queens Road	33	22	10	69%
Middle Lane	0	0	0	0%
North Lane	21	23	1	96%
North Place	13	12	1	92%
Park Lane	19	16	4	80%
Queens House	15	11	4	73%
St Marys Avenue	40	28	13	68%
Total	171	143	35	80%

Source: PMA Survey

Note: Some arithmetic errors due to rounding's

*Parking on Broad Street is Pay and Display during 08:30am-18:30pm (Mon-Sat)

2.22 Table 8 presents the peak-hour (17:00pm-18:00pm) results from the 17:00pm-20:00pm surveys for public car parks within the study area.

Table 8. 17:00pm-18:00pm Parking Survey Results

Road	Parking bays			
	Total Parking Spaces	Number of Cars Parked	Number of Free Spaces	Parking Stress
North Lane East car park	21	9	11	45%
North Lane West car park	86	37	48	44%
Total	107	46	59	44%

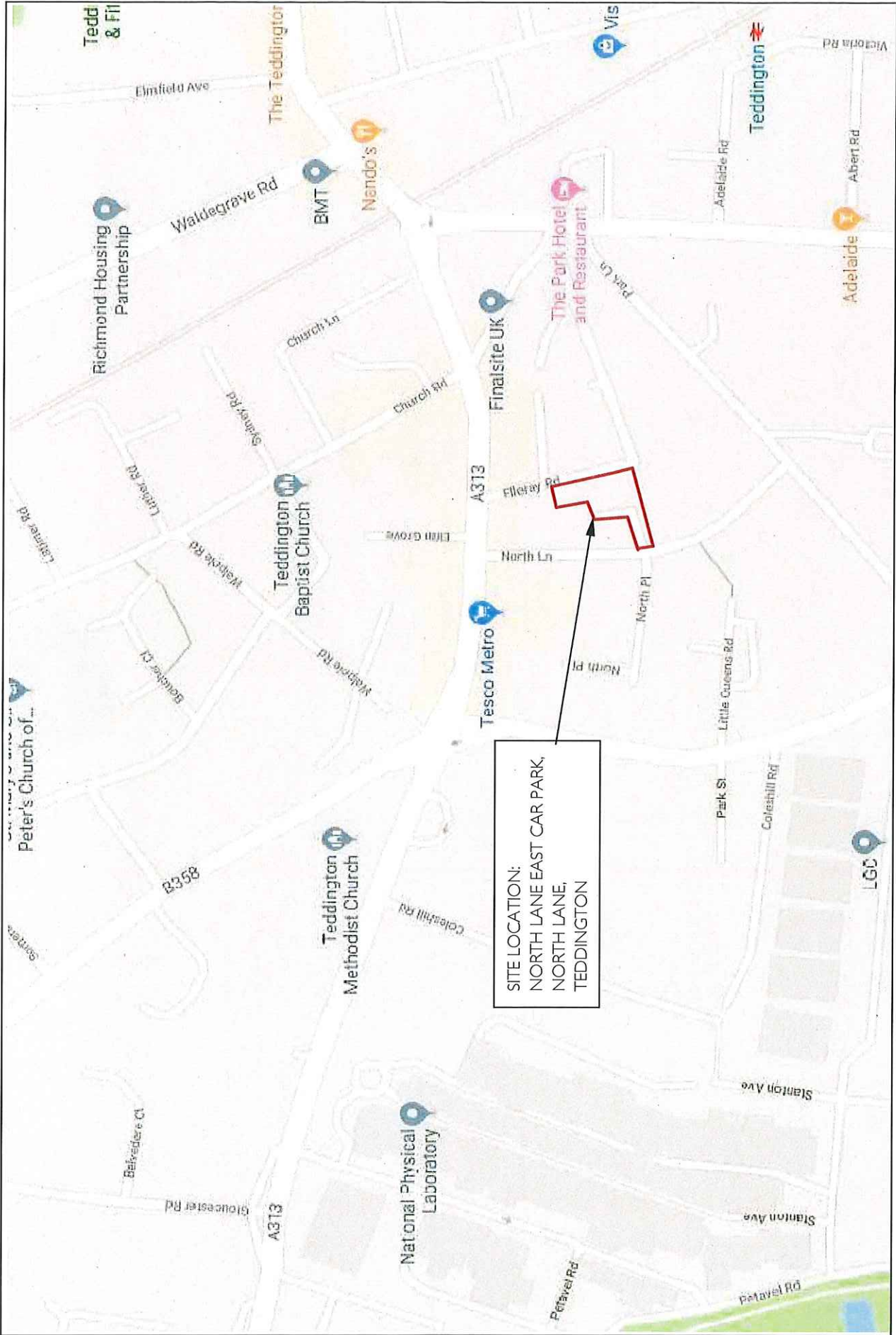
Source: PMA Survey

Note: Some arithmetic errors due to rounding's

- 2.23 The observed 17:00pm-18:00pm parking stress of unrestricted kerb side parking within the survey area is 80%. Of the 171 total kerb side parking opportunities within the study area, an average of 143 cars have been observed to be parked leaving 35 available spaces.
- 2.24 Where the site is located on North Lane East car park, 21 unrestricted spaces are present with an average of nine vehicles parked here in the PM peak period. The redevelopment of North Lane East car park will therefore result in nine vehicles overflowing onto North Lane West car park. North Lane West car park has 48 available spaces, and would be able to accommodate nine additional vehicles as a result of the loss of North Lane East car park.
- 2.25 The Richmond methodology prescribes a threshold of 85% stress level for when a parking survey area is deemed to suffer from undue parking stress. The overnight parking surveys did not show a higher overall parking stress level than 76% when applying the spill-over of parking from North Lane East car park.
- 2.26 The results of the overnight parking surveys demonstrate that the uptake of kerb side parking in proximity to the application site is not at a level where parking stress is overly high or problematic.
- 2.27 In addition, the weekday and peak period parking surveys demonstrate that the North Lane West car park is able to accommodate the spill-over parking spaces from North Lane East car park during its hours of operation.

3.0 SUMMARY

- 3.1 In summary, development proposals option A involve the redevelopment of the North Lane East car park to provide four houses (one x two bedroom and three x three bedroom), seven flats (seven x one bedroom) and one car club space. Elleray Hall will be remodelled, and two houses (two x two bedroom) will be built within the site including four parking spaces and a minibus bay.
- 3.2 Development proposals option B involve the redevelopment of the North Lane East car park to provide a community centre including four parking spaces, one car club space and a minibus bay. Elleray Hall will be redeveloped to provide five houses (three x two bedroom and two x three bedroom) and six flats (two x one bedroom and four x two bedroom).
- 3.3 This report has been prepared to assess the parking stress impact of the scheme prior to the submission of a full planning application to the local planning authority.
- 3.4 It can be concluded that parking stress levels will remain below the 85% threshold prescribed by Richmond Borough Council, following the redevelopment of the North Lane car park. In addition, it is evident that North Lane West car park is able to absorb spill-over parking during the peak weekend periods.



SITE LOCATION:
 NORTH LANE EAST CAR PARK,
 NORTH LANE,
 TEDDINGTON

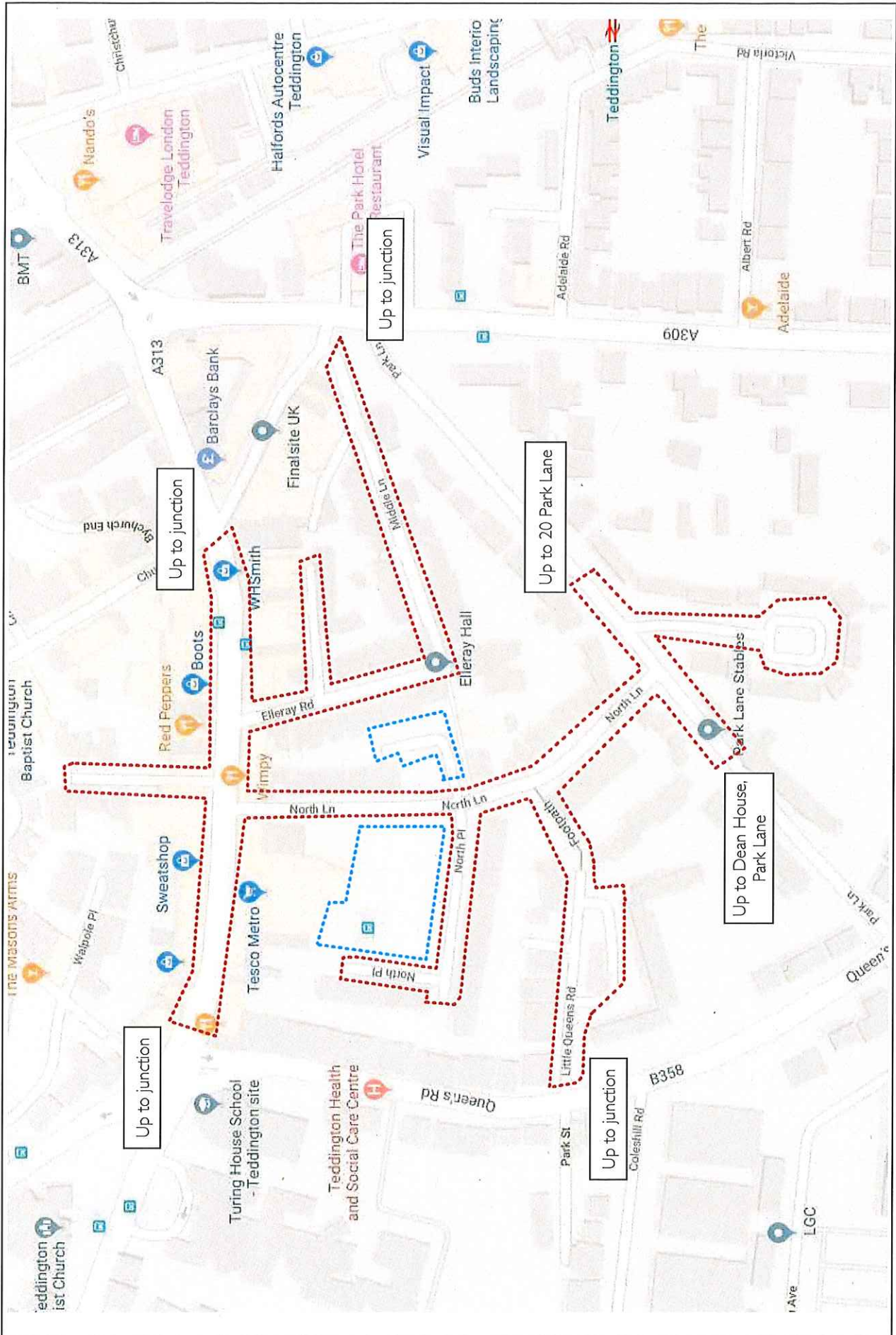
Date: 29-April-2019
 Scale: NTS
 Source: Google Maps
 Drawing No: P2126/PS/01



P2126: North Lane East Car Park, North Lane, Teddington
 Figure 1.
 Site Location.



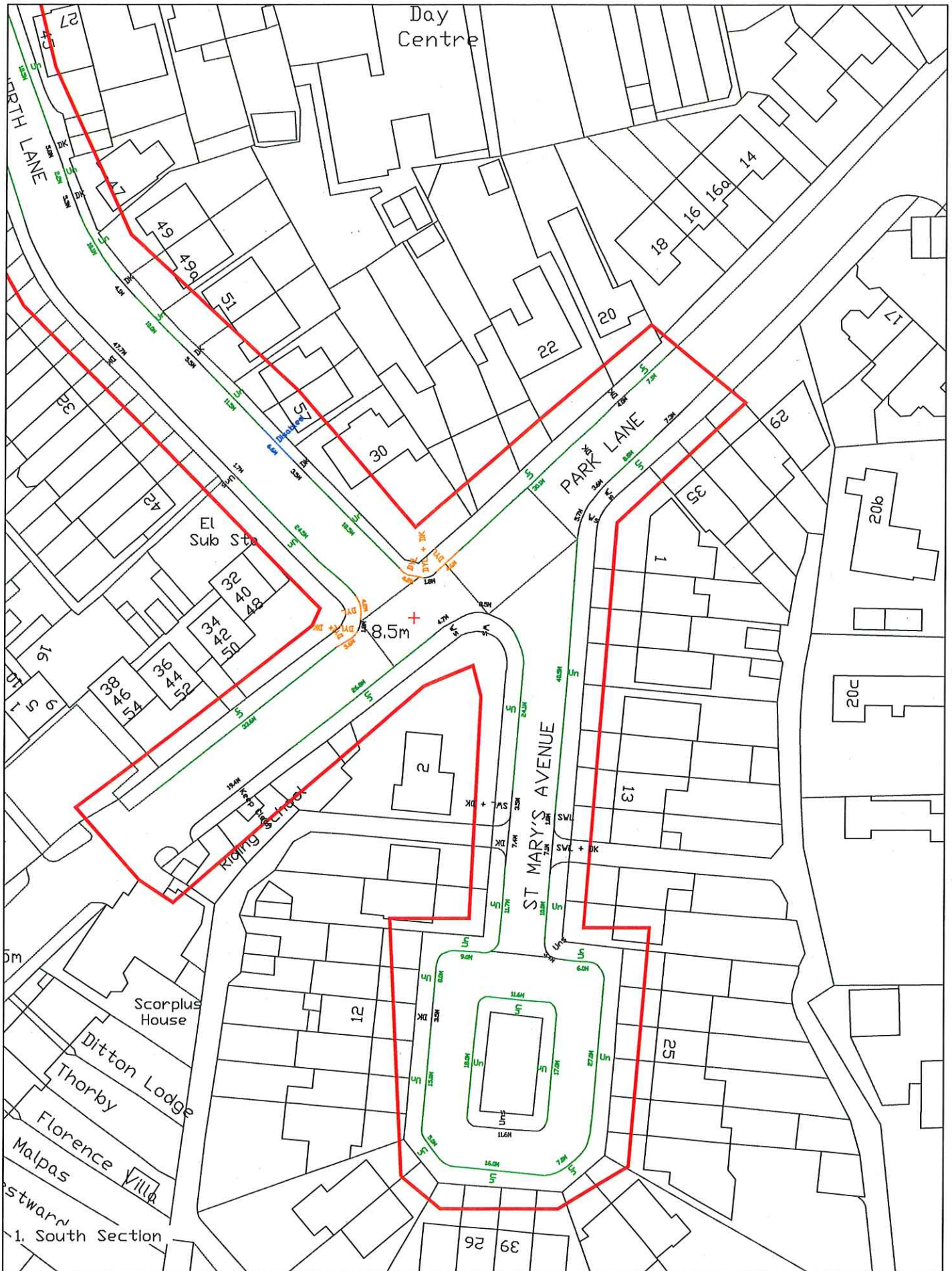
PAUL MEW ASSOCIATES
 TRAFFIC CONSULTANTS



Date: 29-April-2019
 Scale: NTS
 Source: Google Maps
 Drawing No: P2126/PS/02



P2126: North Lane East Car Park, North Lane, Teddington
 Figure 2.
 Parking Survey Area.



Date: April 2019
 Scale: 1:500@A3
 Source: Ordnance Survey
 Drawing No. P2126/PA/03



P2126: ELLERAY HALL, TEDDINGTON
 Figure. 3A
 Parking Survey Inventory


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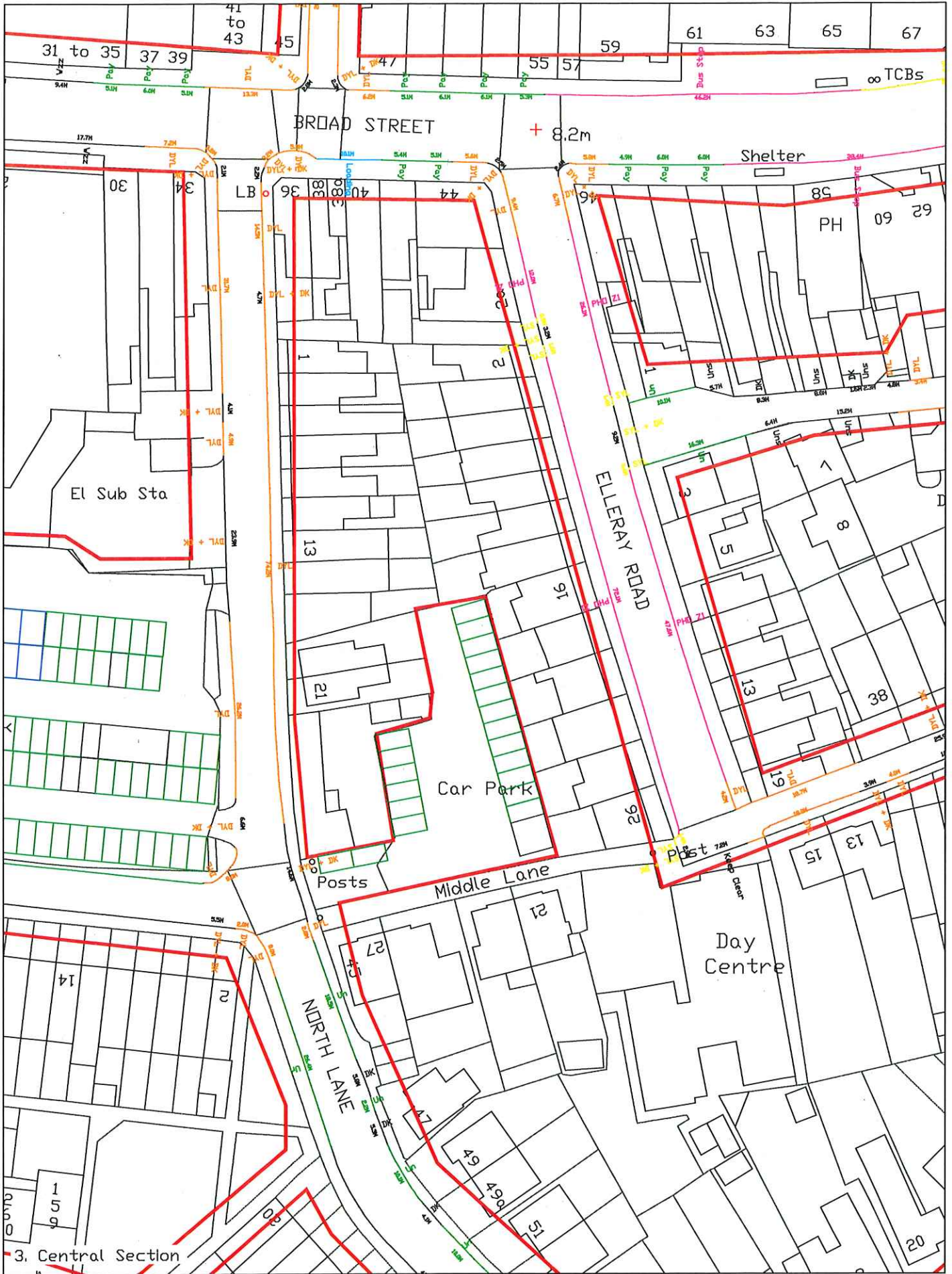


Date: April 2019
 Scale: 1:500@A3
 Source: Ordnance Survey
 Drawing No. P2126/PA/03

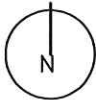


P2126: ELLERAY HALL, TEDDINGTON
 Figure. 3B
 Parking Survey Inventory


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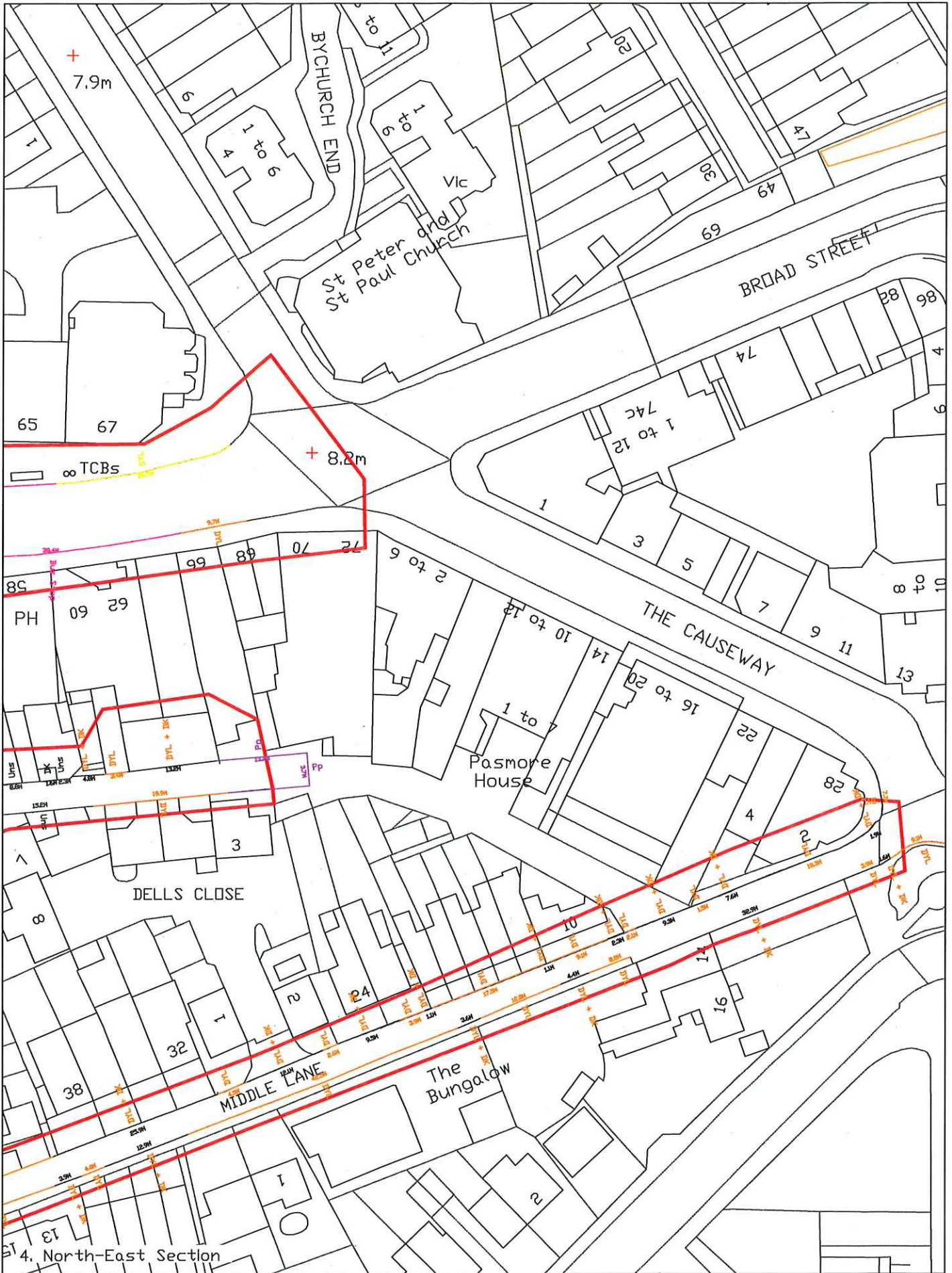


Date: April 2019
 Scale: 1:500@A3
 Source: Ordnance Survey
 Drawing No. P2126/PA/03

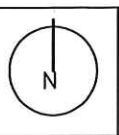


P2126: ELLERAY HALL, TEDDINGTON
 Figure. 3C
 Parking Survey Inventory

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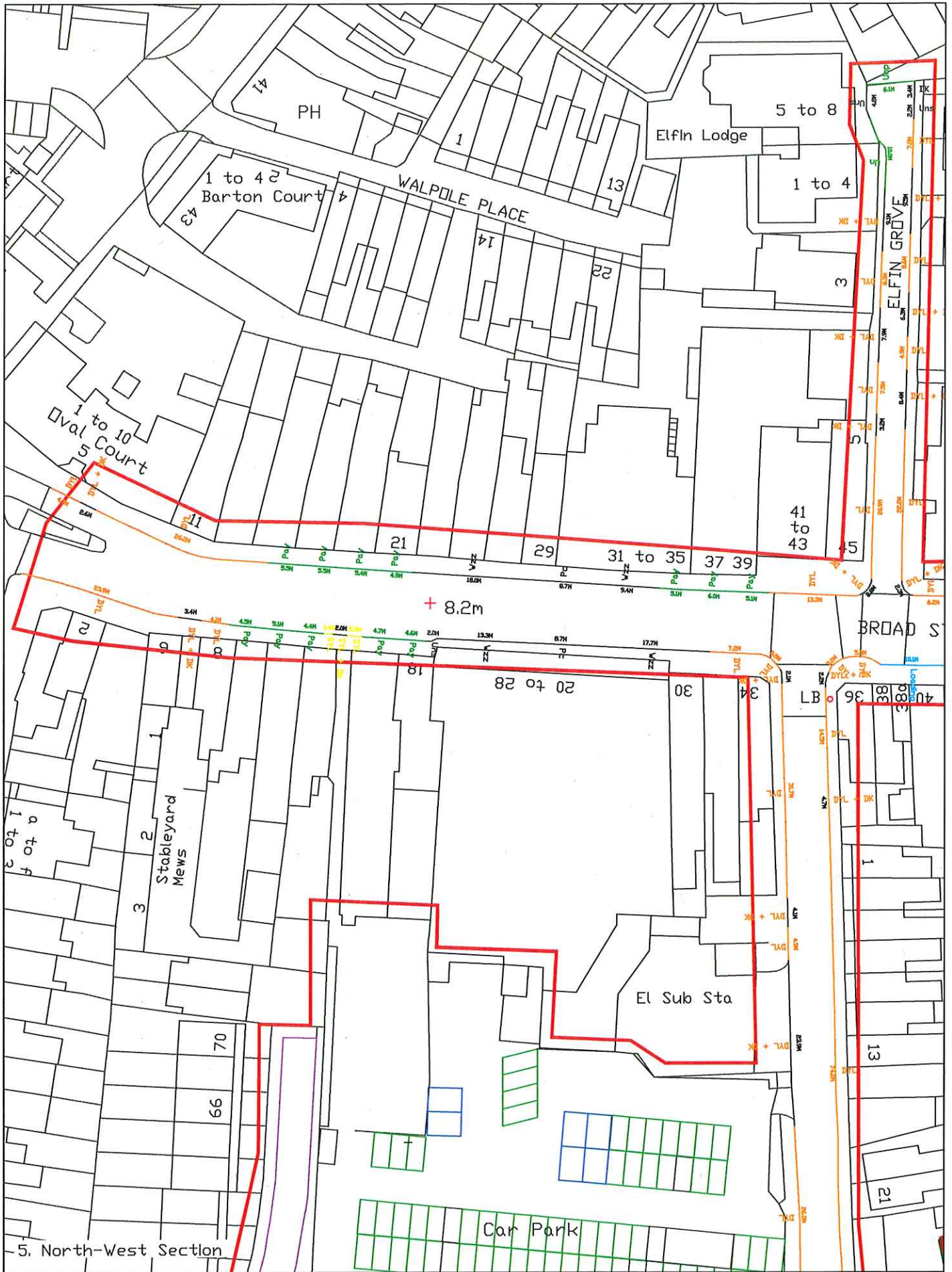


Date: April 2019
 Scale: 1:500@A3
 Source: Ordnance Survey
 Drawing No. P2126/PA/03

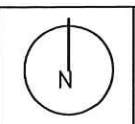


P2126: ELLERAY HALL, TEDDINGTON
 Figure. 3D
 Parking Survey Inventory


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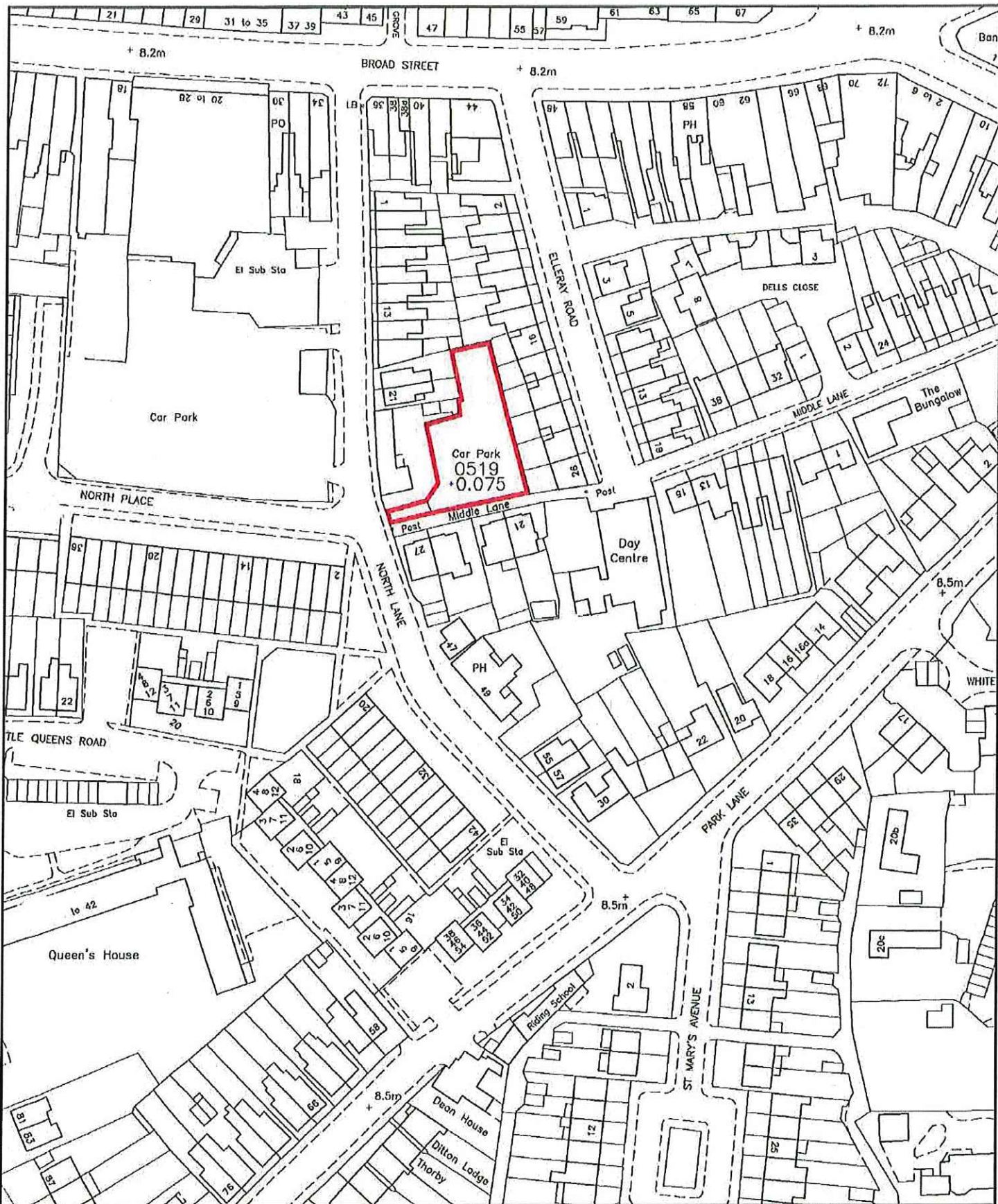


Date: April 2019
 Scale: 1:500@A3
 Source: Ordnance Survey
 Drawing No. P2126/PA/03



P2126: ELLERAY HALL, TEDDINGTON
 Figure. 3E
 Parking Survey Inventory

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TITLE
 0519 NORTH LANE EAST CAR PARK, NORTH LANE, TEDDINGTON

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LONDON BOROUGH OF RICHMOND UPON THAMES

Customer & Support Services

Civic Centre, 44 York Street, Twickenham TW1 3BZ Tel No. 0208 891 1411 Fax No. 0208 891 7751

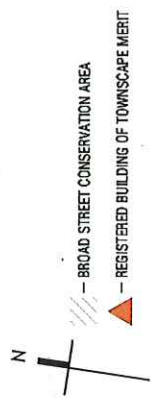
Drg. No.
 Drawn By
 Date
 Scale
 1:1250
 MARCH 2002



SCHEDULE OF RESIDENTIAL ACCOMMODATION

NORTH LANE CAR PARK AND DEPOT SITE		
TYPE	NO.	AREA M2
1: 2B3P HOUSE	1	70
3: 3B5P HOUSE	3	99
4: 1B2P FLAT	7	50
ELLERAY HALL SITE		
TYPE	NO.	AREA M2
6: 2B3P HOUSE	2	72
TOTAL	13	

ELLERAY HALL COMMUNITY CENTRE		
TYPE	NO.	AREA M2
GROUND FLOOR	378	
FIRST FLOOR	89	
TOTAL	467	



FEASIBILITY - OPTION A

Project: ELLERAY HALL AND NORTH LANE CAR PARK, ELLERAY ROAD, TEDDINGTON
 Drawing: SITE PLAN
 Drawing No: EHT-S040C
 Scale: 1:500 @ A3
 Date: 08.04.2019

CLIVE CHAPMAN
 ARCHITECTS
 SUSTAINABILITY CONSULTANTS
 TOTTENHAM
 TEL: 0181 871 1000
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 WEBSITE WWW.CCAGROUP

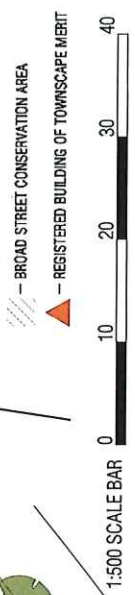


SCHEDULE OF RESIDENTIAL ACCOMMODATION

ELLERAY HALL SITE		
TYPE	NO.	AREA M2
2: 2B4P HOUSE	3	80,80,87
3: 3B5P HOUSE	2	99,105
4: 1B2P FLAT	2	50
5: 2B3P FLAT	4	61
TOTAL	11	

ELLERAY HALL COMMUNITY CENTRE -
REPROVISIONED ON NORTH LANE CAR PARK
AND DEPOT SITE

ELLERAY HALL COMMUNITY CENTRE - REPROVISIONED ON NORTH LANE CAR PARK AND DEPOT SITE		
	AREA M2	
GROUND FLOOR	389	
FIRST FLOOR	101	
TOTAL	490	



FEASIBILITY - OPTION B

Project: ELLERAY HALL, ELLERAY ROAD, TEDDINGTON	
Drawing: SITE PLAN	
Scale: 1:500 @ A3	Date: 01.04.2019
Drawing No: EHT-SK07D	

CLIVE CHAPMAN
ARCHITECTS
SUSTAINABILITY CONSULTANTS
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A R C H I T E C T S

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or act in reliance on its contents

morning between 00.30 and 05.30.

Many thanks for your prompt reply. So, all change and we look forward to hearing from Will or Darius.

CLIVE CHAPMAN
A R C H I T E C T S

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us and then delete it from your system:

Appendix A
Richmond parking survey methodology

Richmond parking survey methodology

The Council has set maximum parking standards for developments in Their Local Plan and these are expected to be met, unless it can be shown that there will not be an adverse effect on on-street parking. Where there is a shortfall of parking on site, a parking survey of the surrounding streets will be required. The Council will use an independent survey company; however applicants may provide their own surveys as long as they follow the methodology outlined below.

Extent of survey area

The area to be surveyed must cover a 200m/2 minute walking distance around the site. This area can be extended/amended in the following ways:

- 1 If the survey reaches the middle of a street at 200m, the survey area could be extended to the next junction or curtailed to the previous junction with agreement of Transport Planning officers
- 2 If there are areas within 200m where parking is restricted due to on street restrictions or undesirable (for which justification must be given) the area is to be curtailed
- 3 Areas outside of Richmond will be excluded
- 4 Roads in CPZ's adjacent to the site, for which the site would not be able to access parking permits, may be excluded depending on CPZ start time and these roads are to be agreed with Transport Planning officers prior to the survey being undertaken

The Council may require amending of surveys which reveal anomalies or require further investigation once scrutinised.

Survey times

Surveys must only be undertaken during term time and not within public/school holidays/half term or the week before/after to take into account independent school holidays. It is best to contact the Council to confirm acceptable survey dates and dates which coincide with an event in the area, which must also be avoided as these could impact on the results.

For residential surveys 2 x weekday surveys (Monday to Thursday) and one weekend survey on a Sunday between 01h00 and 05h30 are required. This will capture the residential peak parking time.

Commercial and other land use applications will require surveys at other times which are to be agreed with the Council in advance of the survey being undertaken. Similarly, times may be amended for residential surveys where the site is within close proximity to commercial uses or a town centre in which case morning and early evening surveys may also be requested. More detailed surveys may be required if the operational times clash with nearby restaurants, in which case 15 minute interval surveys between 18h00 and 22h00 will also be required. In order to assess commuter parking morning and evening

peak hour surveys will be required for sites within close proximity to railway stations. These should be undertaken between 06h30 – 08h00 and 17h30 – 19h00.

Required information

Surveys must be provided in map form, examples are included at the end of this appendix.

One map shows the inventory for the area and notes all individual bay lengths and types.

Another shows x's as parked cars and s's as empty spaces exactly where they are parked on the night. This will give us a snapshot of exactly how cars are parked in that area, rather than a calculated assumption, which is often incorrect. S's can only be shown where each 's' represents 5.0m.

Noted on the survey maps should be the date and time the survey was undertaken as well as whether the area is within a Community Parking Zone (CPZ) or not. All parking restrictions on street must be noted Double/Single Yellow Lines (D/SYL's), bus lay-by's, zig-zags, kerb build outs, legal footway parking, dropped kerbs, disabled/doctors/loading bays, suspensions/temporary restrictions, skips and road works, narrow roads, where parking is not possible or subject to flooding etc. If there are marked bays on street these must be shown and dimensioned on the map. The space between crossovers should also be dimensioned although areas of less than 5.0m should not be included in the calculations.

The first 7.5m of a junction is to be omitted, but cars parked within will be considered in the calculations as contributing to on street stress. Illegally parked cars must be shown on the plan and these will be included in the stress calculation.

Surveys undertaken within CPZ's during CPZ hours will need to clearly define various types of bays (Resident permit holders/shared use bays/Business Bays etc).

Where restrictions start early in the morning we may not consider these areas for overnight parking if the surveys show that residents do not park there as they will have to move their cars before the restriction commences. This includes single yellow lines.

The above information can be tabulated, but this table must reflect the information on the inventory map in terms of the available bay numbers i.e. individual lengths of bays divided by 5.0m.

The stress figures must be taken from the results maps and illegally parked cars should be counted. If spaces are noted and tabulated these must only be included if each space represents at least 5.0m. Tabulated results should be by road and include a 'Total' column.

Results

In order to assess the parking stress the tabulation must calculate the number of parked cars shown on the results map of each survey, against total available space calculated from the inventory survey and add the shortfall anticipated from the development using the Council's parking standard maximums.

LBRuT will consider appropriate extant planning permissions in the area and if stress levels are calculated at 85% stress* or more LBRuT will raise an objection on the grounds of saturated parking, highway safety and undue harm to neighbour amenity.



Example of survey inventory sheet and results maps

Road Name	No Bays	17/6/14 @ 5am	19/7/14 @ 5am	Ave		
	43	37	45	41		
	16	20	21	20.5		
	28	28	28	28		
	34	29	26	27.5		
	22	19	19	19		
	21	13	15	14		
	11	14	11	12.5		
	16	19	19	19		
TOTAL	191	179	184	181.5	All % stress	95.02617801
plus anticipated shortfall of proposal	191	192	197	194.5	plus x cars stress%	101.8324607
plus x cars from approved applications yet to be implemented within the survey area	191	195	200	197.5	plus another x cars stress%	103.4031414

Example of results table

*As per parking survey study undertaken across LBRuT to assess parking stress levels and parking survey methodology.

Table 1 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Hourly Parking Beat Survey Results - Saturday 11th May 10:00-15:00				Saturday 11th May 2019 @ 11:00				Saturday 11th May 2019 @ 12:00				Saturday 11th May 2019 @ 13:00				Saturday 11th May 2019 @ 14:00				Average			
	Inventory Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss
Elfin Grove	0	4	4	0	0	0	100%	100%	5	0	125%	100%	5	0	125%	100%	5	0	125%	100%	5	0	125%	100%
Elleray Road	0	0	0	0	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
Elleray Road (Behind Shops)	0	5	6	0	0	0	100%	100%	4	1	120%	100%	5	0	100%	100%	5	0	100%	100%	5	0	100%	100%
Broad Street	0	21	29	4	86%	82%	81%	74%	17	6	81%	91%	22	0	105%	100%	22	0	105%	100%	22	0	105%	100%
Little Queens Road	0	33	33	0	0%	0%	0%	0%	28	5	85%	79%	24	9	73%	73%	27	0	82%	82%	27	0	81%	81%
Middle Lane	0	0	0	0	0%	0%	0%	0%	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
North Lane	1	21	27	1	124%	96%	92%	92%	27	1	129%	96%	22	3	105%	88%	23	2	110%	92%	25	2	118%	93%
North Place	0	13	13	0	100%	100%	100%	100%	13	0	92%	92%	13	0	100%	100%	13	0	100%	100%	13	0	100%	100%
Park Lane	0	19	16	5	84%	76%	84%	80%	16	4	84%	80%	16	4	84%	80%	16	4	84%	80%	16	4	84%	80%
Queen's House	2	15	11	4	73%	69%	73%	67%	10	5	67%	73%	13	3	87%	81%	13	2	87%	81%	12	4	77%	75%
St Marys Avenue	0	40	33	9	83%	79%	83%	79%	26	15	65%	65%	22	17	55%	56%	23	19	58%	55%	23	15	64%	62%
Totals	3	171	157	31	92%	84%	92%	84%	145	40	85%	78%	142	36	87%	80%	142	36	83%	83%	146	33	85%	81%

Source: PMA Survey

Table 2 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Hourly Parking Beat Survey Results - Saturday 11th May 17:00-20:00				Saturday 11th May 2019 @ 18:00				Saturday 11th May 2019 @ 19:00				Average			
	Inventory Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss
Elfin Grove	0	4	5	0	0	0	125%	100%	5	0	125%	100%	5	0	125%	100%
Elleray Road	0	0	0	0	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
Elleray Road (Behind Shops)	0	5	6	0	0	0	100%	100%	0	0	0%	0%	0	0	0%	0%
Broad Street	0	21	20	2	95%	91%	91%	86%	15	7	120%	100%	6	0	120%	100%
Little Queens Road	0	33	32	1	0%	0%	0%	0%	24	9	71%	71%	17	5	81%	77%
Middle Lane	0	0	0	0	0%	0%	0%	0%	0	0	0%	0%	0	0	0%	0%
North Lane	1	21	23	1	110%	96%	92%	92%	21	3	100%	88%	22	2	103%	90%
North Place	0	13	12	1	92%	92%	100%	77%	10	3	69%	75%	10	2	79%	82%
Park Lane	0	19	16	4	84%	80%	84%	80%	15	5	79%	75%	16	4	82%	78%
Queen's House	2	15	11	4	73%	69%	73%	67%	12	3	80%	80%	12	3	76%	78%
St Marys Avenue	0	40	28	13	70%	68%	70%	68%	28	14	70%	67%	28	13	71%	68%
Totals	3	171	143	35	84%	80%	84%	77%	134	43	78%	76%	139	40	81%	78%

Source: PMA Survey

Table 3 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Overnight Parking Survey Results				Tuesday 14th May 2019 @ 01:45				Wednesday 15th May 2019 @ 04:00				Average			
	Inventory Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on Xs and Ys	Parking Stress based on inventory Ss
Elfin Grove	0	4	5	0	0	0	125%	100%	5	0	125%	100%	5	0	125%	100%
Elleray Road	0	0	0	0	0	0	0%	0%	0	0	0%	0%	0	0	0%	0%
Elleray Road (Behind Shops)	0	5	6	0	0	0	100%	100%	0	0	0%	0%	0	0	0%	0%
Broad Street	0	21	1	20	5%	5%	5%	5%	0	21	0%	0%	6	0	120%	100%
Little Queens Road	0	33	26	8	79%	76%	76%	76%	24	7	76%	76%	21	2	72%	72%
Middle Lane	0	0	0	0	0%	0%	0%	0%	0	0	0%	0%	0	0	0%	0%
North Lane	1	21	22	2	105%	92%	92%	92%	24	1	114%	96%	23	0	108%	94%
North Place	0	13	13	0	100%	100%	100%	100%	13	0	100%	100%	13	0	100%	100%
Park Lane	0	19	14	7	74%	67%	74%	67%	12	9	63%	57%	13	8	67%	61%
Queen's House	2	15	14	1	93%	93%	93%	93%	12	2	80%	85%	14	1	91%	93%
St Marys Avenue	0	40	29	14	73%	67%	73%	67%	31	12	78%	73%	29	13	73%	69%
Totals	3	171	130	52	76%	71%	76%	71%	150	54	77%	72%	128	52	75%	71%

Source: PMA Survey

Table 4 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Inventory		Hourly Parking Beat Survey Results - Saturday 11th May 10:00-15:00				Saturday 11th May 2019 @ 11:00				Saturday 11th May 2019 @ 12:00				Saturday 11th May 2019 @ 13:00				Saturday 11th May 2019 @ 14:00				Average					
	Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss
North Lane East car park	0	21	12	9	57%	43%	57%	14	7	47%	67%	16	5	24%	76%	9	12	43%	43%	8	13	38%	38%	49	12	24%	38%	38%
North Lane West car park	6	86	56	29	65%	68%	66%	59	26	65%	69%	62	23	72%	73%	52	33	60%	60%	49	36	57%	58%	56	29	65%	65%	65%
Totals	6	107	68	38	64%	64%	66%	73	33	68%	69%	78	28	73%	74%	61	45	57%	57%	57	49	53%	54%	67	39	63%	63%	64%

Table 5 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Inventory		Hourly Parking Beat Survey Results - Saturday 11th May 17:00-20:00				Saturday 11th May 2019 @ 18:00				Saturday 11th May 2019 @ 19:00				Average												
	Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss							
North Lane East car park	0	21	9	11	43%	45%	43%	8	12	38%	40%	9	12	43%	43%	9	12	41%	41%	9	12	41%	41%	30	55	35%	35%
North Lane West car park	6	86	37	48	43%	44%	44%	31	54	36%	36%	22	63	26%	26%	31	75	29%	29%	31	75	29%	29%	39	67	34%	37%
Totals	6	107	46	59	43%	44%	39	66	39	36%	37%	31	75	29%	29%	31	75	29%	29%	31	75	29%	29%	39	67	34%	37%

Table 6 - Parking Stress Calculations Based on the Richmond Survey Methodology

Road Name	Inventory		Overnight Parking Survey Results				Tuesday 14th May 2019 @ 01:45				Wednesday 15th May 2019 @ 04:00				Average												
	Disabled	Unrestricted	Based on Marked Bays	Based on 5.0m & End-On Parking	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss	Cars parked 'x'	Free spaces 'y'	Parking Stress based on inventory	Parking Stress based on Xs and Ss							
North Lane East car park	0	21	7	0	33%	100%	100%	9	0	43%	100%	8	0	38%	100%	8	0	38%	100%	8	0	38%	100%	8	0	38%	100%
North Lane West car park	6	86	1	0	1%	100%	100%	1	0	1%	100%	2	0	2%	100%	1	0	2%	100%	1	0	2%	100%	1	0	2%	100%
Totals	6	107	8	0	7%	100%	100%	10	0	9%	100%	10	0	9%	100%	9	0	9%	100%	9	0	9%	100%	9	0	9%	100%