

Node Court
(Management) Ltd

Node Court,
Codicote

Transport Statement

January 2023



a company of Royal HaskoningDHV

Node Court, Codicote Transport Statement

Version 4-0

January 2023

Produced by:



For:

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Project Information Sheet

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Notice

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1. Introduction

Overview

- 1.1 Integrated Transport Planning Ltd (ITP) has prepared a Transport Statement to support the proposed redevelopment of Node Court, near Codicote in Hertfordshire. The proposed development comprises the sensitive conversion of the listed former office premises (Node Court) into 17 residential dwellings (Use Class C3).
- 1.2 The site has only ceased operation in its former use due to significant fire damage, with the conversion to residential use seen as the only viable solution to bring a listed building back into use. The dwellings would complement those already present in the small hamlet of Drivers End and would offer new residential opportunities.
- 1.3 Whilst the scale of the proposed development does not meet Hertfordshire County Council's threshold for requiring a formal Transport Statement or Assessment, this document sets out the key factors that should be considered regarding transport and access to the proposed development and confirms the negligible impact in regard to road safety and trip generation.

Planning History

- 1.4 A planning application (Planning Ref: 18/03366/FP) was submitted in December 2018 for former office premises to be converted into 12 residential dwellings, made up of a mix of 2-3 and 4-bedroom apartments and houses. A formal response from Hertfordshire County Council (HCC), in their role as the Local Highway Authority (LHA), was received on 13th March 2019 highlighting reasons for objection to the development proposals.
- 1.5 A Technical Note prepared by ITP in July 2021 sought to address the comments raised by HCC and demonstrate that the proposed development did not result in a severe impact on the local highway network. The discussions through this process have been incorporated into this Transport Statement to present a single technical report in support of the proposed development.

2. Planning Policy

National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF), first published by the Department for Communities and Local Government in March 2012, and most recently updated in July 2021, is the statutory national planning document for England.
- 2.2 It takes an overriding position in favour of sustainable development, however, provides high-level policy covering a wide range of themes and topics, including transport and travel. To focus on reducing development impacts, planning decisions should take account of whether:
- 'a) appropriate opportunities to promote sustainable transport modes can be or have been – taken up, given the type of development and its location.*
 - b) safe and sustainable access to the site can be achieved for all users.*
 - c) the design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and,*
 - d) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*
- 2.3 Crucially, Paragraph 111 states:
- 'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*
- 2.4 The policy goes on to discuss the appropriate hierarchy of provision, giving priority to active and sustainable transport modes, the need to consider people with disabilities and creating safe, secure and attractive places.
- 2.5 The development proposal and supporting Transport Statement demonstrates that the proposed development does **not** present an unacceptable impact on highway safety and the impact on the road network would **not** be severe.

North Hertfordshire Local Plan

- 2.6 The emerging North Hertfordshire Local Plan covers the period 2011 – 2031 and once adopted, will replace the District Council's 1996 Local Plan Policies. It echoes the principles of sustainable development as set out in the NPPF, primarily through the council's vision for new development to contribute to,

'the creation of sustainable communities that are safe, attractive and inclusive; well-integrated into settlements; respect local distinctiveness and; raise the standards of sustainable design.'

- 2.7 Pertaining to transport matters within the District, Policy SP6 sets how sustainable transport can be promoted as far as reasonable and practicable and seeks to reduce the growth of car usage, whilst Strategic Policy T1 goes on to outline the council's approach to the assessment of transport matters with regards to new development and states:

'Planning permission will be granted where: (a). Development would not adversely impact upon highway safety.'

North Hertfordshire District Council Parking Standards

- 2.8 North Hertfordshire District Council (NHDC), as part of their Local Development Framework, have adopted the *Vehicle Parking at New Development Supplementary Planning Document* (SPD). This was last updated in September 2011.
- 2.9 NHDC expects minimum parking levels for residential development on the basis that they believe restricting residential parking provision does not limit car ownership or change how people choose to travel. These standards are summarised in Table 2-1, and mirrored in Appendix 4 of the emerging Local Plan.

Table 2-1: Residential parking standards

Use	Car parking	Cycle parking
1 bedroom	1 space per dwelling minimum	1 space per dwelling
2+ bedrooms	2 spaces per dwelling minimum	1 space per dwelling
Visitor / unallocated	0.25 spaces per dwelling	1 space per dwelling

Source: *Vehicle Parking at New Development Supplementary Planning Document*

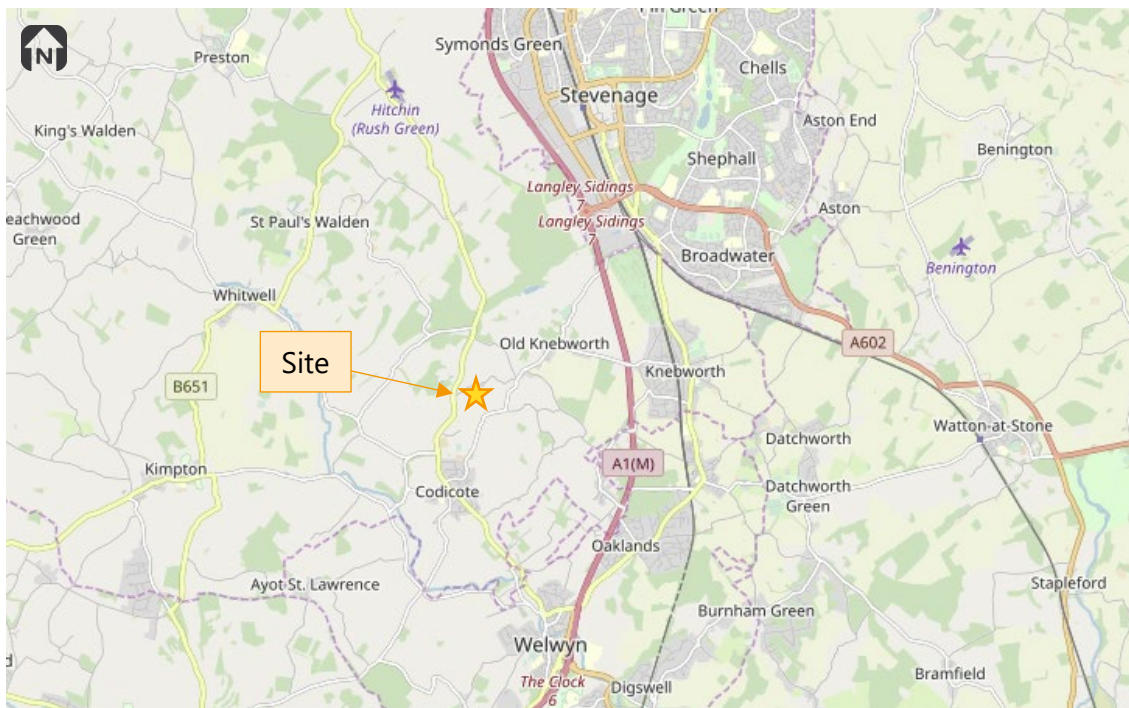
- 2.10 Section 4 of this Transport Statement discusses the proposed development and the proposed levels of parking, in relation to the standards set out above.

3. Existing Situation

Site Location

- 3.1 The site is located between the villages of Codicote and Old Knebworth, as shown in Figure 3-1, in the hamlet of Drivers End. The nearest major centres are located at Stevenage, to the north, and Welwyn Garden City, to the south, both approximately five to six kilometres from the site.

Figure 3-1: Site Location



Source: Open Street Map contributors

- 3.2 The nearest local high street is located in the village of Codicote, two kilometres from the site, and offers a range of amenities including a convenience store, village hall, post office, butchers, pubs and restaurants.

Local Highway Network

- 3.3 Figure 3-2 shows the site in relation to the surrounding highway network. It can be seen that this site is located off a minor rural lane but connects nearby to a classified route – the B656.

Figure 3-2: Local Highway Network



Source: Open Street Map contributors

Drivers End Lane

- 3.4 The site is accessed off Drivers End Lane at a large semi-circular bell mouth. It is noted that in the vicinity of the access, Drivers End Lane is a single-track road, however passing places are frequent. The access itself allows two cars to pass, and a vehicle to wait off of the public highway while the gate is opened or closed.
- 3.5 As a rural lane, Drivers End Lane is unlit and does not provide footways. It is noted that a number of public rights of way pass the site and provide alternative walking routes, as discussed later.
- 3.6 Drivers End Lane is subject to the national speed limit of 60mph as a single carriageway road, however vehicle speeds are typically much lower due to the geometry of the lane.
- 3.7 A seven-day speed survey conducted between 14th and 20th November 2018 demonstrated 85th percentile speeds of 26mph in both directions adjacent to the site access. Given that no significant changes have been made to the lane, it is considered that this speed data remains relevant to the revised application.

Park Lane

- 3.8 Park Lane is a rural lane; however, a wider carriageway allows two vehicles to pass easily along the majority of its length. Park Lane links Codicote to Knebworth, crossing the A1(M) to the east of the site.
- 3.9 The lane is unlit and subject to the national speed limit of 60mph for single-carriageway roads. There are no footways, given the limited pedestrian demand in a rural location such as this.
- 3.10 Park Lane is not part of a strategic route and therefore is considered to act solely as a local access and distributor road, meaning that capacity issues are unlikely to exist nor would they be exacerbated by the proposed development.

B656

- 3.11 The B656 is a classified route that runs parallel to the A1(M) between Welwyn and Hitchin, therefore providing only local access and distributor road functions. The road links to the site via a priority junction with Drivers End Lane.
- 3.12 The road is a standard single carriageway along its length with footways and street lighting provided through built-up areas. Outside of these areas, footways or street lighting are generally not provided, given the rural setting.

Highway Safety

- 3.13 To establish whether there are any inherent safety concerns on the local highway network within the vicinity of the site, ITP has investigated personal injury collision data obtained from the 'Crash Map' website, for the local highway network in the vicinity of the proposed development site.
- 3.14 *National Planning Practice Guidance* states that collision records should be interrogated for the most-recent available three-to-five-year period – in this case 2019–21, inclusively.
- 3.15 Within this period, only two 'slight' collisions occurred within the vicinity of the development site, as demonstrated in Figure 3-3. These both occurred in 2019, one close to the access for Vanstone Park Garden Centre on the B656, and the other on Park Lane. Both collisions occurred at locations some distance from the proposed development, away from key junctions likely to be used by future occupants.

Figure 3-3: Recorded collision locations (2019 - 2021)



Source: Crash Map

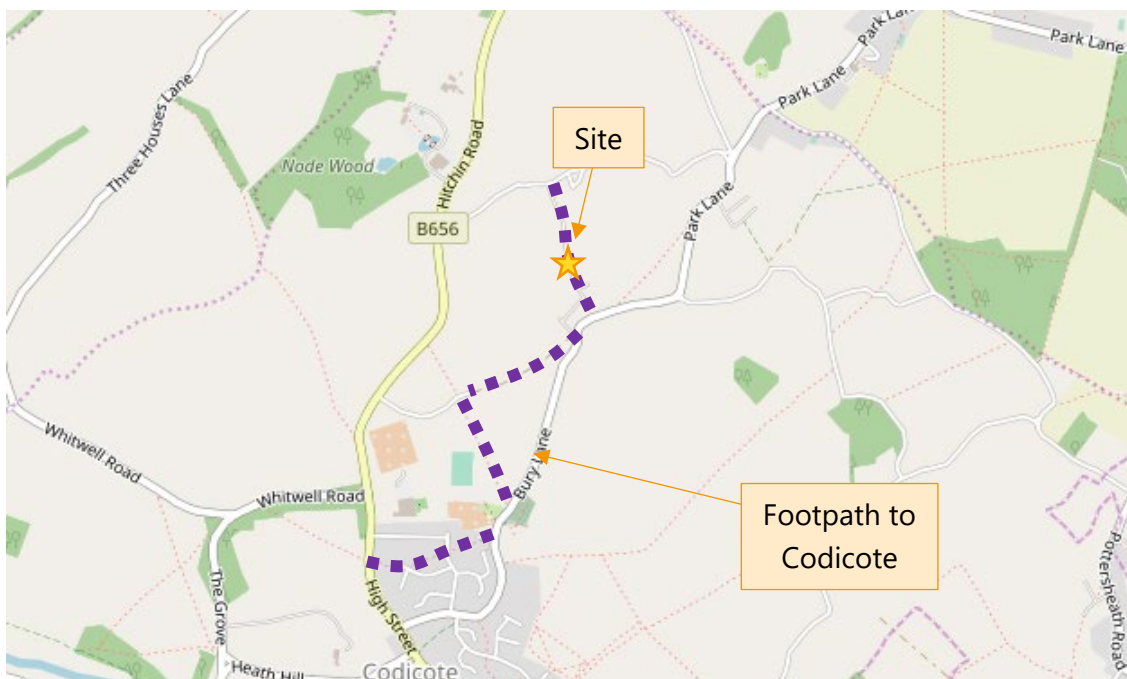
- 3.16 There is nothing to suggest the proposed development would give rise to any new road safety concerns and it should be noted, in particular, that during the assessed period, there were no recorded collisions to have occurred within the immediate vicinity of the proposed site access junction.
- 3.17 This is in line with Policy T1 (a) of the emerging North Herts Local Plan whereby, *'planning permission will be granted where development would not adversely impact upon highway safety.'*

Sustainable Travel

Walking and Cycling

- 3.18 The site is surrounded by a number of maintained public rights of way. Figure 3-4 demonstrates the two-kilometre route that can be followed between the site and Codicote. The highlighted sections indicate footpaths segregated from motorised traffic, providing provide a pleasant walking environment.

Figure 3-4: Footpath towards Codicote



Source: Open Street Map

- 3.19 There are a large number of leisure routes through the surrounding countryside that provide an excellent amenity for prospective residents, allowing them to enjoy walking in a traffic-free environment. The existing rights of way will be maintained in line with Policy SP6 of North Hertfordshire's emerging Local Plan.
- 3.20 Recent upgrades to the Highway Code have also reinforced that priority should be given to vulnerable users, particularly in settings where segregated infrastructure is not available.
- 3.21 National Cycle Network route 12 passes approximately 900 metres to the east of the site, providing a signed route to the centres of Stevenage, Welwyn Garden City and Letchworth Garden City, as well as integrating with the wider cycle network.

- 3.22 The network of surrounding rural lanes provides a low-traffic environment for leisure cyclists, as well as providing attractive links to nearby local centres and railway stations. Knebworth railway station provides extensive sheltered cycle parking, giving the option for individuals to easily access rail services by bicycle.

Bus

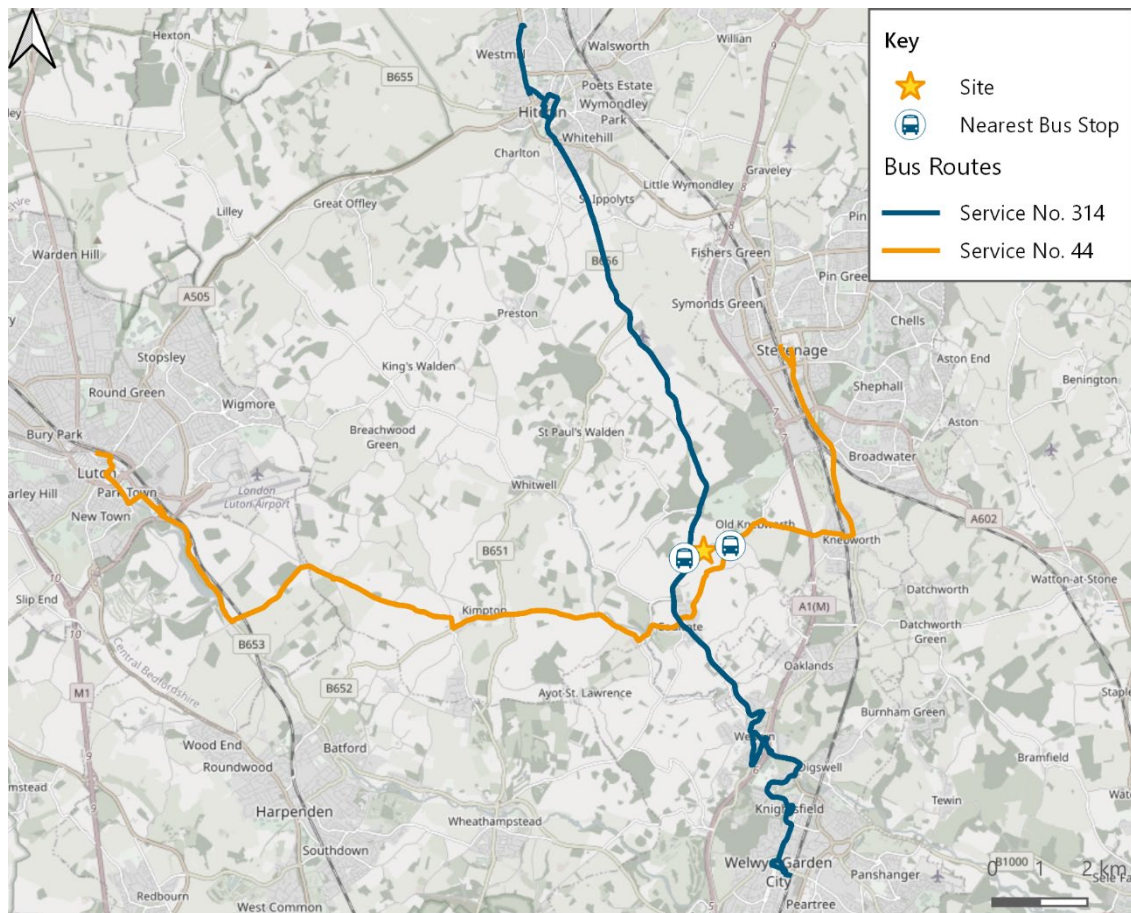
- 3.23 The nearest bus stops are located approximately 450 metres west of the site, at the junction of Drivers End Lane and the B656. These are served by route number 314 between Welwyn Garden City and Hitchin, operated by Centrebus. The 314 service operates Monday-Saturday, with a timetable focussed around traditional commuting periods on weekdays, allowing it to be used by those traveling to work directly or integrating with other public transport, such as rail connections at Welwyn Garden City.
- 3.24 The nearest bus stops east of Node Court are approximately 800 metres from the site, situated on Park Lane and served by route number 44, also operated by Centrebus. This operates two-hourly services Monday-Saturday between Stevenage and Luton. The route also allows for integration with other sustainable modes of transport, in particular Luton and Knebworth Rail Station, and Stevenage Bus Station.
- 3.25 A summary of these services is provided in Table 3-1, and shown in Figure 3-5.

Table 3-1: Bus service summary

#	Route	Approximate frequency ¹	
		Mon-Fri	Sat
44	Stevenage – Luton via Knebworth, Codicote, Kimpton and Luton Parkway Station	Every 2 hours	Every 2 hours
314	Hitchin – Welwyn Garden City via Codicote	Every 2 hours	Every 2 hours

¹ Frequency of services during the interpeak period. Service timetables from Q3 in 2022.

Figure 3-5: Codicote bus routes



Source: Open Street Map contributors

Rail

- 3.26 The nearest station is located at Knebworth, which is served by both Thameslink and Great Northern rail services out of Moorgate, London King's Cross and St Pancras. The station is 3.5 kilometres from the site by road and can be reached using the number 44 bus service from the site.
- 3.27 Thameslink services cross central London with the Knebworth routes extending to Peterborough and Cambridge. These services operate approximately every 30 minutes throughout a typical weekday.
- 3.28 Great Northern services serve the City of London, as well as extending to Cambridge and East Anglia. These services generally only call at Knebworth during peak periods. Outside of these times, interchange onto Great Northern Services can be carried out at Welwyn Garden City or Stevenage.

4. Proposed Development

Layout

- 4.1 The proposed layout is shown in Figure 4-1 and is also included in full as **Appendix A**. It can be seen that much of the existing site is being retained, including the existing access point onto Drivers End Lane, which continues to take the form of a wide semi-circular bell mouth.

Figure 4-1: Proposed site layout



Source: Briffa Phillips (1581-217-rev E)

Trip Generation

- 4.2 The vehicle trip generation shown in Table 4-1 below confirms the negligible impact proposed by the development of 17 residential dwellings.
- 4.3 Furthermore, when it is considered that previous commercial use of the site is likely to have carried a higher trip generation, it can be seen that the proposed development is likely to result in a net reduction in trips on the local highway network during the most sensitive peak periods.
- 4.4 The full TRICS report is included as **Appendix B**.

Table 4-1: Vehicle trip generation

		AM Peak (08:00-09:00)			PM Peak (17:00-18:00)		
		Arr.	Dep.	Total	Arr.	Dep.	Total
Trip rates	per unit	0.093	0.284	0.377	0.333	0.087	0.420
Trip generation	17 units	2	5	7	6	1	7

Source: TRICS

- 4.5 The proposed development will generate just seven vehicle trips in the AM peak and seven vehicle trips in the PM peak, or less than one vehicle every eight minutes. This is a negligible number of vehicle trips and therefore considered to have no material impact on the local network. Further assessment is not considered necessary, in line with the assessment thresholds set out by Hertfordshire's *Highways Design Guide*.

Servicing

- 4.6 It is not proposed to put forward the internal access roads for adoption by the local highway authority. It is proposed therefore that refuse collection will be arranged privately since it is assumed that the local authority will not send refuse vehicles onto an un-adopted access road.
- 4.7 It is expected that a refuse collector will be selected on the prerequisite that they are able to provide vehicles that are able to access the site. They will be expected to provide a collection methodology that satisfactorily demonstrates this. Refuse collection locations are proposed around the site to ensure the distance residents have to carry their refuse is within the requirements of Building Standards.
- 4.8 Swept-path analysis has been shown in **Appendix C** that demonstrates a fire appliance accessing the site, in line with relevant Building Standards. The appliance is able to get

within 45 metres of all buildings and to turn within the site and exit in a forward gear. Access roads are a minimum width of 3.7 metres, widening at bends to match the swept path of the large vehicle. A proposed 'Grasscrete' turning area is shown towards the rear of the site to allow the vehicle to safely turn and exit in a forward gear.

Parking

- 4.9 Given the form of the residential buildings it is not considered practical to provide parking immediately adjacent to each property. Car parking has therefore been grouped into small clusters located to the north and east of the main building. Whilst only a short distance from the properties, they are visually broken up by planting and existing trees. Unit 15, Unit 16 and Unit 17 are exception to this, with associated parking provided adjacent to each property entrance.
- 4.10 34no. parking spaces are provided at Node Court, accommodating the 2 spaces per dwelling minimum requirement as set out in Hertfordshire's adopted parking standards. This therefore ensures sufficient provision is available on-site so as to avoid any pressures on the local highway network, and on-street parking capacity.
- 4.11 It is proposed for parking to be provided on an un-allocated, first-come-first-serve basis to allow for communal and visitor use of the parking bays,
- 4.12 To adhere to building regulations, each property will be provided with one space with active electric vehicle charging equipment. The proposed EV enabled spaces are indicated on the proposed site layout included in **Appendix A**.
- 4.13 A covered cycle store providing space for 16 cycles with Sheffield stands is provided to the front of the main building. Self-contained Unit 15 at the rear of the site, and Units 16 and 17 at the front of the site also have the opportunity for further secure cycle parking within their fenced driveway and dwelling curtilage.

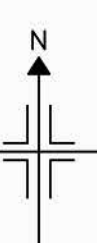
5. Summary and Conclusions

- 5.1 Integrated Transport Planning has provided this Transport Statement to support the proposed redevelopment of Node Court, Codicote, to provide 17 residential dwellings in place of a previous office use that was subject to severe fire damage several years ago.
- 5.2 The proposed residential use will attract a more diluted highway impact with lower peak period vehicle trip generation than the previous office use. Whilst the conversion of the site, principally to secure the long-term future of an important listed building, will result in vehicle trip generation, there are a number of options for users to make multi-modal journeys, for example through integration with nearby rail services.
- 5.3 Node Court is currently served by bus routes No.44 and No.314 to provide residents in Codicote with bus connectivity to nearby local centres and towns of Stevenage, Welwyn Garden City, Luton and Hitchin. The stops serving these routes are located no more than 800 metres from the site. In addition, Knebworth rail station is 3.5 kilometres from the site by road, with rail services out of Moorgate, London King's Cross and St Pancras.
- 5.4 No road safety issues have been identified in the vicinity of the site. There does not appear to be any common causality or cluster of collisions and it is noted no collisions have been recorded at the existing site access.
- 5.5 The relatively small scale of the development and resulting trip generation does not require further assessment and will result in an imperceptible impact on the surrounding road network.
- 5.6 This report has identified that the development would not result in an adverse transport impact and the development is therefore supported by transport planning policies at a national, regional and local level, particularly when considering the balance of retaining and providing a sustainable long-term use for this listed building.
- 5.7 In light of the assessment, it is reasonable to conclude that the development proposals are in accordance with the principles of sustainable development set out within the *National Planning Policy Framework*, principally they will not produce an unacceptable road safety risk and they will not result in a severe impact on the road network. The proposals should therefore not receive further objection on highways grounds.

Appendix A

Proposed Site Layout

1581-217-Rev E (Briffa Phillips)



1:200 @A0	MB	JE	
1:500 @A0			

date	project no.	drawing no.	revision
12/10/18	1581	217	F

Appendix B

TRICS

Calculation Reference: AUDIT-743001-181109-1131

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED
 VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	ES EAST SUSSEX	1 days
	KC KENT	1 days
04	EAST ANGLIA	
	NF NORFOLK	1 days
	SF SUFFOLK	2 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	1 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	LC LANCASHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
 Actual Range: 8 to 38 (units:)
 Range Selected by User: 6 to 50 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/10 to 22/11/17

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Wednesday	2 days
Thursday	1 days
Friday	4 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	8 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town	6
Neighbourhood Centre (PPS6 Local Centre)	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	6
Village	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	8 days
----	--------

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	2 days
10,001 to 15,000	5 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

25,001 to 50,000	2 days
50,001 to 75,000	1 days
75,001 to 100,000	3 days
125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	4 days
1.6 to 2.0	1 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	1 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	8 days
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This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	CH-03-A-09 GREYSTOKE ROAD MACCLESFIELD HURDSFIELD Edge of Town Residential Zone Total Number of dwellings: 24 Survey date: MONDAY 24/11/14	TERRACED HOUSES	CHESHIRE	Survey Type: MANUAL
2	ES-03-A-02 SOUTH COAST ROAD PEACEHAVEN Edge of Town Residential Zone Total Number of dwellings: 37 Survey date: FRIDAY 18/11/11	PRIVATE HOUSING	EAST SUSSEX	Survey Type: MANUAL
3	KC-03-A-05 ROCHESTER ROAD NEAR CHATHAM BURHAM Neighbourhood Centre (PPS6 Local Centre) Village Total Number of dwellings: 8 Survey date: FRIDAY 22/09/17	DETACHED & SEMI-DETACHED	KENT	Survey Type: MANUAL
4	LC-03-A-31 GREENSIDE PRESTON COTTAM Edge of Town Residential Zone Total Number of dwellings: 32 Survey date: FRIDAY 17/11/17	DETACHED HOUSES	LANCASHIRE	Survey Type: MANUAL
5	NF-03-A-03 HALING WAY THETFORD Edge of Town Residential Zone Total Number of dwellings: 10 Survey date: WEDNESDAY 16/09/15	DETACHED HOUSES	NORFOLK	Survey Type: MANUAL
6	SF-03-A-05 VALE LANE BURY ST EDMUNDS Edge of Town Residential Zone Total Number of dwellings: 18 Survey date: WEDNESDAY 09/09/15	DETACHED HOUSES	SUFFOLK	Survey Type: MANUAL
7	SF-03-A-06 BURY ROAD KENTFORD Neighbourhood Centre (PPS6 Local Centre) Village Total Number of dwellings: 38 Survey date: FRIDAY 22/09/17	DETACHED & SEMI-DETACHED	SUFFOLK	Survey Type: MANUAL
8	SH-03-A-06 ELLESMERE ROAD SHREWSBURY Edge of Town Residential Zone Total Number of dwellings: 16 Survey date: THURSDAY 22/05/14	BUNGALOWS	SHROPSHIRE	Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES

Calculation factor: 1 DWELLS

Estimated TRIP rate value per 12 DWELLS shown in shaded columns

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate	No. Days	Ave. DWELLS	Trip Rate	Estimated Trip Rate
00:00 - 01:00												
01:00 - 02:00												
02:00 - 03:00												
03:00 - 04:00												
04:00 - 05:00												
05:00 - 06:00												
06:00 - 07:00												
07:00 - 08:00	8	23	0.060	0.721	8	23	0.361	4.328	8	23	0.421	5.049
08:00 - 09:00	8	23	0.093	1.115	8	23	0.284	3.410	8	23	0.377	4.525
09:00 - 10:00	8	23	0.098	1.180	8	23	0.153	1.836	8	23	0.251	3.016
10:00 - 11:00	8	23	0.158	1.902	8	23	0.153	1.836	8	23	0.311	3.738
11:00 - 12:00	8	23	0.093	1.115	8	23	0.104	1.246	8	23	0.197	2.361
12:00 - 13:00	8	23	0.120	1.443	8	23	0.158	1.902	8	23	0.278	3.345
13:00 - 14:00	8	23	0.109	1.311	8	23	0.082	0.984	8	23	0.191	2.295
14:00 - 15:00	8	23	0.087	1.049	8	23	0.115	1.377	8	23	0.202	2.426
15:00 - 16:00	8	23	0.219	2.623	8	23	0.153	1.836	8	23	0.372	4.459
16:00 - 17:00	8	23	0.235	2.820	8	23	0.120	1.443	8	23	0.355	4.263
17:00 - 18:00	8	23	0.333	4.000	8	23	0.087	1.049	8	23	0.420	5.049
18:00 - 19:00	8	23	0.219	2.623	8	23	0.120	1.443	8	23	0.339	4.066
19:00 - 20:00												
20:00 - 21:00												
21:00 - 22:00												
22:00 - 23:00												
23:00 - 24:00												
Total Rates:			1.824	21.902			1.890	22.690			3.714	44.592

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	8 - 38 (units:)
Survey date date range:	01/01/10 - 22/11/17
Number of weekdays (Monday-Friday):	8
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix C

Swept-Path Analysis

View 1: Refuse vehicle entering and exiting site



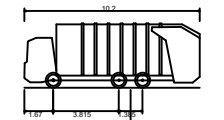
39600-3999\3974 Node
Court\Project Files\CAD

REVISIONS	REV	Auth	DATE
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Key:

-  Base mapping
-  Site boundary
-  Vehicle wheelbase at widest point
-  Vehicle body at widest point
-  Vehicle wheelbase at widest point (reverse)
-  Vehicle body at widest point (reverse)

Phoenix 2 Duo (P2-12W with Elite 6x4 chassis)



Overall Length	10.200m
Overall Width	2.530m
Overall Body Height	3.751m
Min Body Ground Clearance	0.304m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	7.800m

Client submission	-	FSmith	10.01.23
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PURPOSE OF ISSUE	REV	Auth	DATE
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Integrated Transport Planning Ltd
Cornerblock
2 Cornwall Street
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B3 2DX

Tel: 0121 285 7301
http://www.itpworld.net

CLIENT

Briffa Phillips

PROJECT

Node Court, Codicote

DRAWING TITLE

Swept path analysis with 10.2m refuse vehicle

BASE SCALE

1: 200 @ A3

DRAWING NUMBER

DWG/3974/001

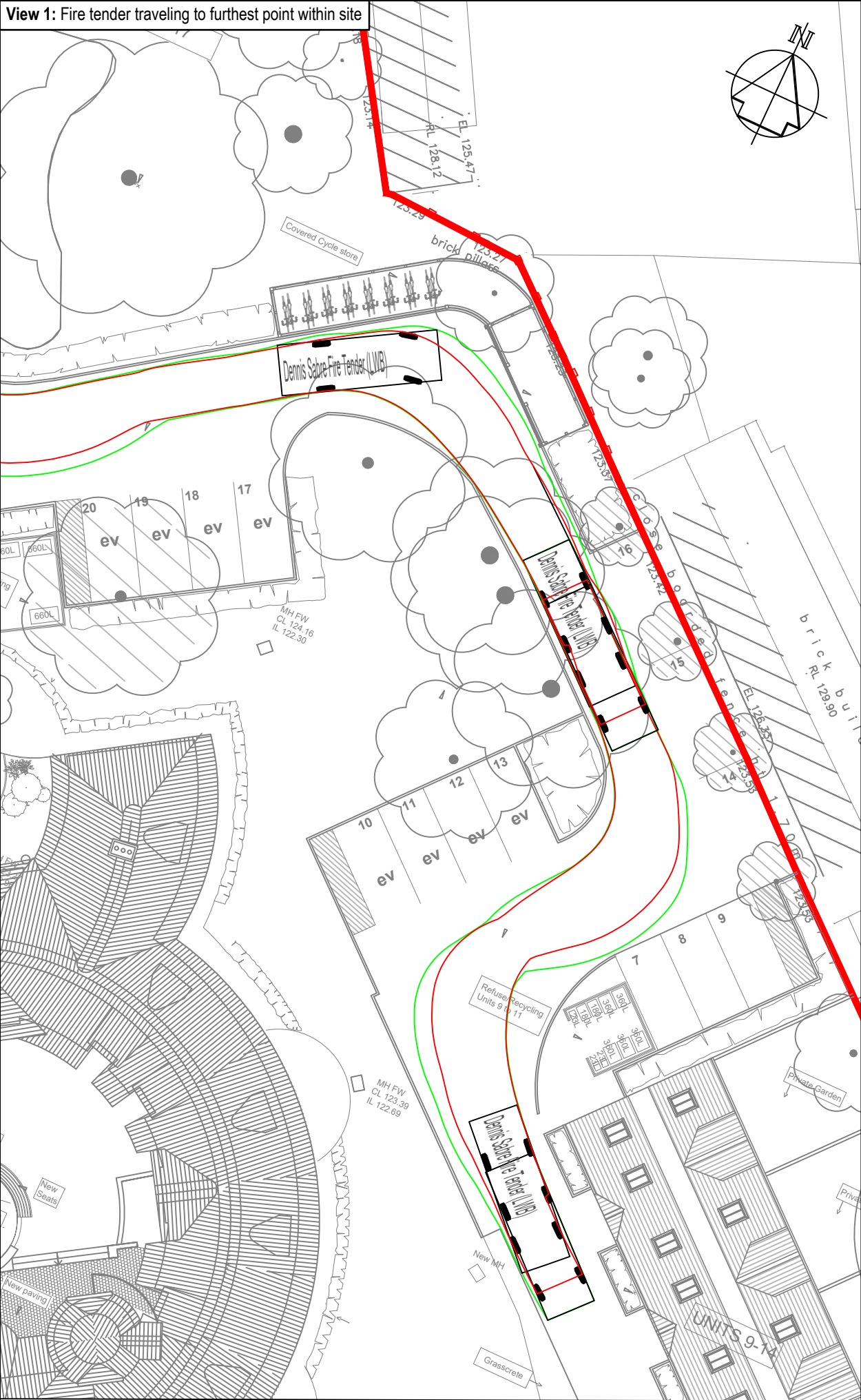
DATE _____

Jan 2023

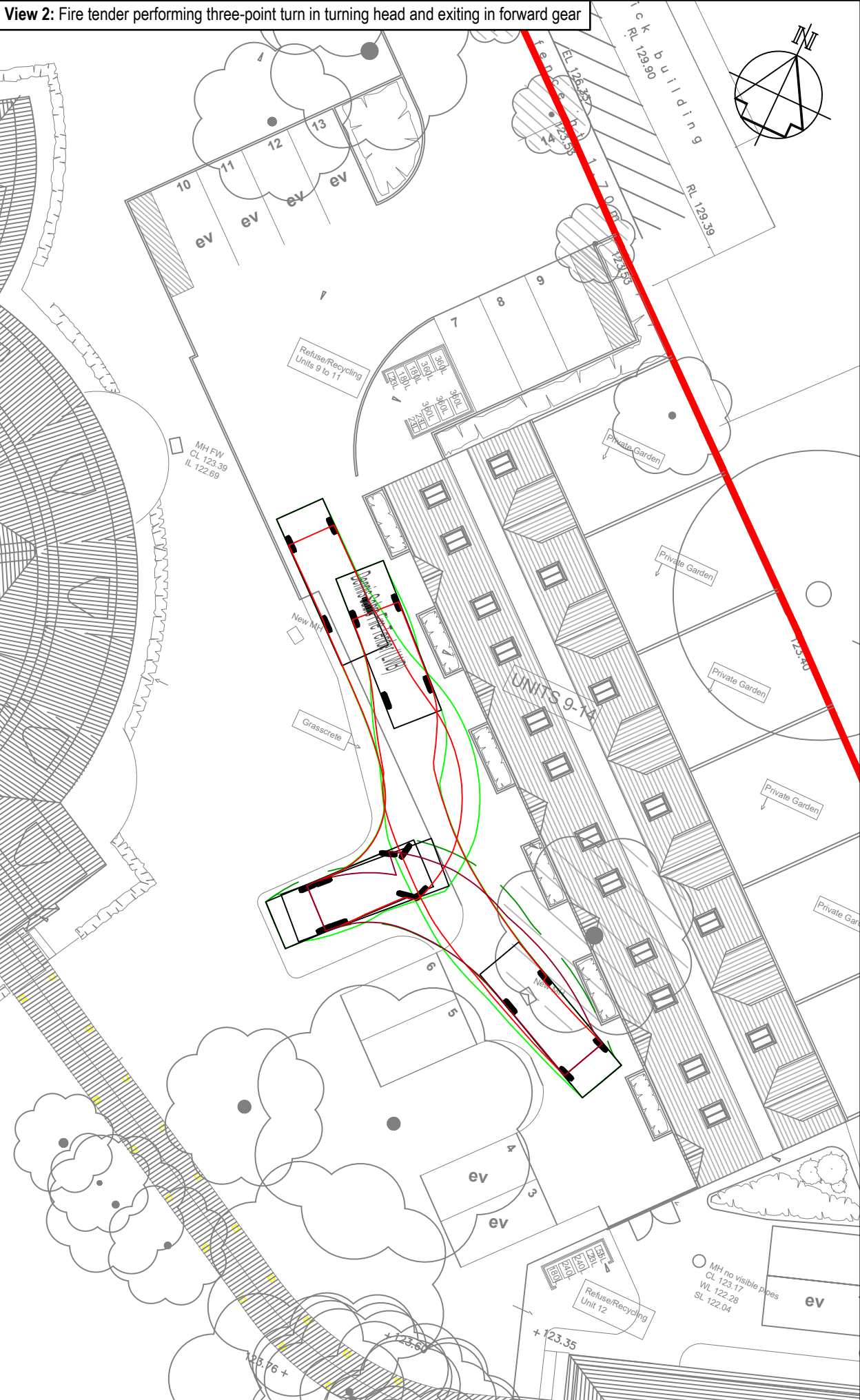
REV

—

View 1: Fire tender traveling to furthest point within site



View 2: Fire tender performing three-point turn in turning head and exiting in forward gear



39600-3999\3974 Node Court\Project Files\CAD			
REVISIONS	REV	Auth	DATE
ADD NOTES HERE Key: Base mapping Site boundary Vehicle wheelbase at widest point Vehicle body at widest point Vehicle wheelbase at widest point (reverse) Vehicle body at widest point (reverse) Dennis Sabre Fire Tender (LWB) Overall Length7.700m Overall Width2.430m Overall Body Height3.512m Min Body Ground Clearance0.397m Track Width2.380m Lock to lock time5.00s Kerb to Kerb Turning Radius7.400m			
Client submission	-	FSmith	10.01.23
PURPOSE OF ISSUE	REV	Auth	DATE
itp integrated transport planning Integrated Transport Planning Ltd Cornerblock 2 Cornwall Street Birmingham B3 2DX Tel: 0121 285 7301 http://www.itpworld.net			
CLIENT			
Briffa Phillips			
PROJECT			
Node Court, Codicote			
DRAWING TITLE			
Swept path analysis with 7.7m fire tender			
BASE SCALE		DATE	
1: 250 @ A3		Jan 2023	
DRAWING NUMBER		REV	
DWG/3974/002		—	

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