

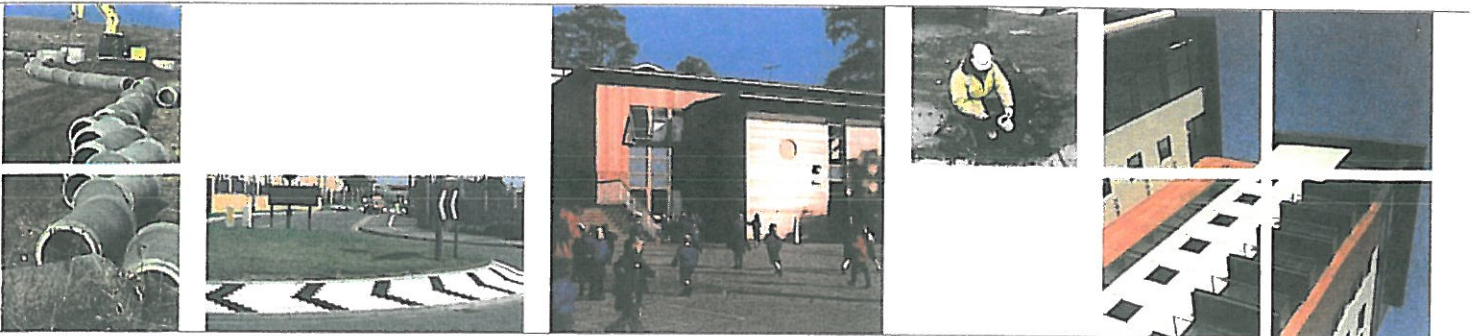
HIGHWAY REPRESENTATIONS REPORT

Royal Norwich Golf Club Hellesdon Norwich

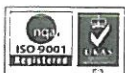
client: Endurance Estates Strategic Land Limited

November 2010 RevB

Job no: 43006



CONSULTING CIVIL, STRUCTURAL AND GEOTECHNICAL ENGINEERS



6 The Old Church
St Matthews Road
Norwich
NR1 1SP

Tel: 01603 230240

CONTENTS:-

1. INSTRUCTIONS3

2. POLICY CONTEXT.....4

3. TRANSPORT SUSTAINABILITY5

4. DEVELOPMENT PROPOSALS.....6

5. TRANSPORTATION IMPROVEMENTS.....7

6. CONCLUSIONS.....9

DRAWINGS/FIGURES

43006-C-001

Figure 1

Figure 2

Masterplan 08.074/03B

APPENDICES

Appendix A Norwich City Cycle Map

1. INSTRUCTIONS

- 1.1. There are many development sites around the Norwich area which have been promoted for allocation within the Joint Core Strategy (JCS) promoted by the Greater Norwich Development Partnership. Richard Jackson Limited have been instructed by Endurance Estates Strategic Land Limited to consider the transportation elements of the land at the Royal Norwich Golf Club (RNGC), Hellesdon, Norwich.
- 1.2. Whilst other sites could benefit from future investigation and infrastructure, there needs to be consideration to the RNGC site and its benefits as these could be realised much sooner and benefit the wider highway network.
- 1.3. The site is located to the Northwest of Norwich City Centre off Drayton High Road (A1067), one of the main distribution links between the city centre and the North of Norfolk. The golf club is split in half by the A1067 with the club house and associated parking on the western parcel. The site is bounded to the North by the Hellesdon Hospital and Hellesdon High School. To the west and east residential areas bound the site and to the south by a retail/industrial estate.
- 1.4. As noted the site is divided by Drayton High Road (A1067) and is also accessed from it. To the North and South are traffic signal junctions, with the largest connecting to the A140, part of the Norwich City ring road. These junctions will be the primary junctions in any assessment. As this road is a major distributor road it is used heavily and can be congested during the traditional working day peak hours.
- 1.5. The Drayton High Road is a single lane carriageway with a 40mph speed limit and street lighting. A single footway runs between the signal junctions to the North and South of the current access in to the Golf Club site. This footway is only approximately 1.5m wide, which would be sufficient should the site remain as its current use. To the North, Hospital Lane is also a single lane carriageway, albeit for less traffic, and has a single 2.0m wide footway running its length on the Northern side of the carriageway. It is the same situation for Low Road to the West of the site. For the Eastern land parcel, part of the RNGC, there is no opportunity to connect into the external network without affecting third party land, there are only connections to the Drayton High Road for both vehicles and non-motorised road users. Thus existing footway provision is limited for the site as a residential development as it stands, although as the club owns the land adjacent to the highway and all the perceived highway improvements can be delivered on land within the control of the promoter or the highway authority.

- 1.6. The objectives of these representations are to indicate that the site can be brought forward either in isolation with contributions to off-site infrastructure and transportation improvements or together with locally promoted sites, such as the hospital site, to deliver the highway improvements to provide a significant upgrade to the local highway network. This would be a substantial benefit to the local community and help to enhance pedestrian, cycle and public transport links to the city centre.

2. POLICY CONTEXT

- 2.1. The site in the context of the Local Planning Proposals has been promoted as part of the Joint Core Strategy and was considered also as part of the Strategic Housing Land Availability Assessment (SHLAA) and as an integral element of Broadland District Council, site allocations. In general terms the site is supported as a sustainable location to deliver a high level of accessibility to dwellings.
- 2.2. The proposed development is being considered in the policies as part of the Joint Core Strategy (JCS) and is included under Policies 9 and 12 which are 'Strategy for Growth in the Norwich Policy Area' and 'The Remainder of the Norwich Urban Area including Fringe Parishes' respectively. For specific issues on access and transport the JCS refers to Policy 6.
- 2.3. In terms of transport provision under the Norwich Area Transportation Strategy, the development of the site is complementary to and capable of making valuable contribution to the Northern Distributor Road (NDR) and Bus Rapid Transit (BRT) planned along the A1067.
- 2.4. To remain consistent with the JCS, the proposed development can be compared in transportation terms to the policies contained in the referenced documents in the JCS. These are:
- Planning Policy Guidance 13 (PPG 13)
 - Norfolk's 2nd Local Transport Plan (2006 – 2011)
 - Norwich Area Transportation Strategy
 - East of England Regional Assembly : Regional Funding Allocation
 - East of England Plan Policies T1 – T15 and NR1

As outlined, the development site where necessary has the ability to deliver the aspirations of the first three issues above and on a regional basis, can contribute to the overall emphasis. In all three core documents there needs to be a directional change to more sustainable

transportation mode use and it can be shown that this development can deliver benefits required by these policies.

3. TRANSPORT SUSTAINABILITY

- 3.1. The sustainability of any site, in particular reference to transportation elements, can be assessed in relation to local amenities. Figure 2, gives a clear indication of the local amenities with reference to schools, employment, entertainment, local shops, sporting facilities and that the site lies 3.6km from Norwich City centre.
- 3.2. Local amenities for a housing development in this location are well catered for with several facilities available for use. These include:
- Asda superstore and sports village – Retail Park 440m south east of the site
 - Hellesdon Hospital – 540m north west of the site
 - Hellesdon Kinsale First School and Hellesdon High School – 500m north of the site.

Other facilities/amenities that are within easy reach of the site include; Post Office; Library; Bank; Dentist; Retail Park; Newsagent and several buildings that serve food. Good, direct access to these facilities will be essential to any large housing development in the area. Figure 2 shows the locations of that noted above.

- 3.3. The locality of all of these amenities indicates that they are within the criteria of 400m to a bus stop, 1.1km walking distance to all facilities and 5.0km cycling distance also.
- 3.4. The current bus services are already extremely frequent and there are a number of services including the 28, 29, 31, 125, 903 and X29 which pass the site. Current public transport is well provided for in this area with a bus route on the Drayton High Road travelling to the city centre. The nearest existing bus stops are located near the junction with the Retail Park some 450m south of the existing access to the site, however there is scope to provide additional stops adjacent to the existing golf course site. A bus route also goes along Hospital Lane and Low Road, with bus stops located adjacent to the site boundary. This is shown on Figure 1 of this document and is summarised in the Table below:

Current Bus Services

Bus No:	Operator	Service and Frequency	
28	First	City Centre – Thorpe Marriott via Drayton	Monday to Friday 48 services/day Saturday 45 services/day Sunday 22 services/day
29	First	Norwich – Taverham	Monday to Friday 10 services/day Saturday 10 services/day
31	First	Norwich Early Morning Circular	Monday to Friday 1 service/day Saturday 1 service/day
125	Anglian Bus & Coach	Norwich Drayton	Monday to Friday 8 services/day Saturday 8 services/day
903	Dolphin Autos	Thomas More School – Hellesdon – Catton	Monday to Friday 1 service/day
X29	Norfolk Green	Norwich – Fakenham	Monday to Friday 12 services/day Saturday 10 services/day
	Sanders Coaches		Sunday 3 services/day

3.5 The cycling facilities for the site at the current time are shown in the local context on the Norwich Cycle Map which indicates that Low Road and Hospital Lane are recommended on-road cycle routes. There are also off-road cycle paths to the Mile Cross residential area from the retail park. To the north, Middletons Lane has an off-road cycle route which gives access to schools and other amenities. There are currently no cycling facilities along Drayton High Road near the site, however these could be accommodated with land available where necessary.

4. DEVELOPMENT PROPOSALS

- 4.1. The development proposals are for approximately 1000 new homes on the Golf Course site, together with the potential redevelopment of approximately 1000 dwellings at the Hellesdon Hospital site, which are both accessed from Drayton High Road. The site's location is well suited for housing in terms of sustainable travel to facilities and amenities within the vicinity, thus, the proposals will need to ensure a good provision of infrastructure to these uses to ensure the use of sustainable modes of travel, whilst ensuring the additional traffic impacts are mitigated.
- 4.2. The Indicative Masterplan ref: 08.074/03B in the appendix shows access through a single roundabout junction. In accordance with current standards, a roundabout junction will be suitable for these vehicle movements. However, as Drayton High Road may become part of the Bus Rapid Transit (BRT) corridor, this junction would probably need to be a signalised junction to allow for bus priority systems.

- 4.3. The Indicative Masterplan shows that as a result of the exclusion zone (relating to the industrial site to the south west) on the west land parcel, the majority of development will be on the east land parcel. It is proposed that a suitable junction format will be provided to allow the housing densities to be accommodated. The area within the exclusion zone would make an attractive and well positioned public open space set within the river valley that could serve both the golf course site and the Helledson hospital site if required.

5. TRANSPORTATION IMPROVEMENTS

- 5.1. The main desire lines are to the North and South, thus, formal crossing points near the main access location will be provided to gain access to the proposed footway/cycleway on the eastern side of Drayton High Road. Where appropriate, a suitable link to the adjacent retail park will be provided to current standards as a footway/cycleway link to promote sustainable travel modes.
- 5.2. For the western land parcel, there are indicative links shown to the external network on Low Road and Hospital Lane. To link the site better with sustainable modes and the surrounding infrastructure, promotion of footway and cycleway links will be provided around the site and on the external interfaces of the proposed development. These links will assist in the provision of movement from the proposed Helledson Hospital site and will enable more safe and direct access for pedestrians/cyclists from the South and the city centre to their site.
- 5.3. Further provision could be given to upgrading of pedestrian crossings on the signal junctions North/South of the site. Many are uncontrolled or are not even available. These will be considered through the transport planning modelling.
- 5.4. As the nearest bus stop is over 400m away from the main access, new bus stops will be provided at a central location within the development. The agreed form of the new stops will consider whether a simple on-road shelter arrangement or a full bus lay-by will be needed and the possibility of real time passenger information (rtpi).
- 5.5. The Transport Assessment modelling will also identify the links and/or junctions that may need mitigation to limit the impact of expected increase of vehicles on the network. Should the Helledson Hospital undertake an early application this will obviously exacerbate the impact on the highway network should their proposals indicate an increase in car travel. A later application by the hospital may assist in spreading the impact out over the assessment years and reduce potential mitigation.

- 5.6. To further reduce the potential issues noted above and further promote the site's sustainability, a Travel Plan will be provided with target reductions for private car use and measures to achieve them. It is the intention to include the hospital within this plan to provide a joint approach to the costs and management of this 'living' document.
- 5.7. It has been suggested that any development of more than 50 dwellings in the area will need the support of the Northern Distributor Road (NDR) being approved, more specifically between the A47 Postwick junction and the A1067 Fakenham Road. A financial contribution may be sought on any approval and this will need to be taken into consideration. The current Joint Core Strategy and the NATS does rely heavily on the NDR although other strategies are suggested. Whilst consideration to the provision of the NDR has been given a high status in the JCS, it is suggested that with contributions towards off-site highway improvements such as BRT and the supporting infrastructure, the sustainable modes could be very well delivered. The reliance wholly on the NDR means that the JCS could perhaps not deliver housing as early. The proposed infrastructure works associated with the development of the golf course site and/or the Hellesdon Hospital site will benefit the local and more strategic highway network and bring forward early delivery. No doubt with potential contribution towards a tariff or Community Infrastructure Levy (CIL) system.
- 5.8. Proposals for a Bus Rapid Transit (BRT) corridor along Drayton High Road is a proposal to provide high quality environmentally friendly buses on highway corridors that have GPS tracking and improved systems to buy tickets. The BRT routes will need upgrading to include bus lanes (see drawing 43006-C-001), with further integrated proposals along the route, together with priority control on traffic signal junctions and up to date real-time bus stop information in order to meet the 10 minute intervals promoted. The BRT proposal does not necessarily need to be wholly dependant on the progress of the NDR and funding constraints. If funding for the NDR does not come forward in a comprehensive way, early release of sustainable sites such as the golf course and Hellesdon Hospital site could provide a supporting mechanism to help boost the NDR funding. In any event the additional improvements brought will give benefit to the local highway network.
- 5.9. To support the proposal, consideration is given to the likely traffic flow in the proposed years up to 2031. The following table is taken from JCS Transport Strategy Report, January 2010 (AM peak – 2031).

	Forecast Traffic Flows		
Road	Do Minimum Low Growth	Do minimum Core Scenario	Do Something Core Scenario
A1067 Drayton High Road	1377	1466	1383

The table indicates that the NDR benefits the AM peak by 83 passenger car units (PCU's), i.e removing them from the highway network. This is to say that with future improvements and the inclusion of BRT on the route, the benefits could also be achieved through other modes and that with better links, the modal choice made could also reduce trips on the network in this location due to its proximity to many facilities and also to the City centre.

- 5.10 The proposals whether at the site or along the A1067, could be made independently with or without improvements at the Hellesdon Hospital and the associated infrastructure will be delivered in such a way to ensure compatibility at all stages of implementation. An example of this could be to provide the bus priority into Norwich on the approach to the Middletons Lane traffic signals. However it is the intention to work collaboratively with the Hellesdon Hospital site to provide a comprehensive scheme of highway improvements along Drayton High Road.

6. CONCLUSIONS

- 6.1. The site is well suited for housing located off a good bus route and with pedestrian/cycle facilities to many local amenities. Where necessary the quantum of development needs to be considered against expected infrastructure work and this will be provided to support housing in the area.
- 6.2. Although the Masterplan shows indicatively a roundabout form of access, in order to facilitate provision of a suitable access, a signal controlled junction is recommended for future introduction of BRT measures. This will also provide pedestrian/cycle crossing and improvements to bus travel further improving the sustainability of the site.
- 6.3. To support any application a full detailed Transport Assessment will be provided. A full Travel Plan will also be provided to promote sustainable travel and impose targets on the development. Again, it may be beneficial to integrate with other applicants for a joint Travel Plan, should they come forward in a similar manner.
- 6.4. It is expected that other link/junction mitigation measures, which are difficult to ascertain at this stage, improvements to pedestrian footways and crossings in the area will be delivered. Potential upgrading of Drayton High Road adjacent to the site to provide an off-road cycle route are envisaged as drawing 43006-C-001.
- 6.5. The sustainability of the site should be heavily promoted with significant measures to ensure a reduction in private car use over 'normal' housing estates.

- 6.6. Contributions to both the NDR and BRT are expected either through commuted sums or improving infrastructure in the area.
- 6.7. All of the above and shared infrastructure with the other local sites could provide a high proportion of the transportation facilities required on the highway network and, thus, should be considered favourably.

7. LIMITATIONS

- 7.1. This report has been produced for the sole use of Endurance Estates Strategic Land Limited in conjunction with the proposals at the Royal Norwich Golf Club for a new development masterplan. Its contents should not be relied upon by others without the written authority of Richard Jackson Ltd. If any unauthorised third party makes use of this report they do so at their own risk and Richard Jackson Ltd owes them no duty of care or skill.
- 7.2. All information provided by others is taken in good faith as being accurate, but Richard Jackson Ltd cannot, and does not, accept any liability for the detailed accuracy, errors or omissions in such information.

Martin Doughty
Richard Jackson Ltd

DRAWINGS/FIGURES

43006-C-001

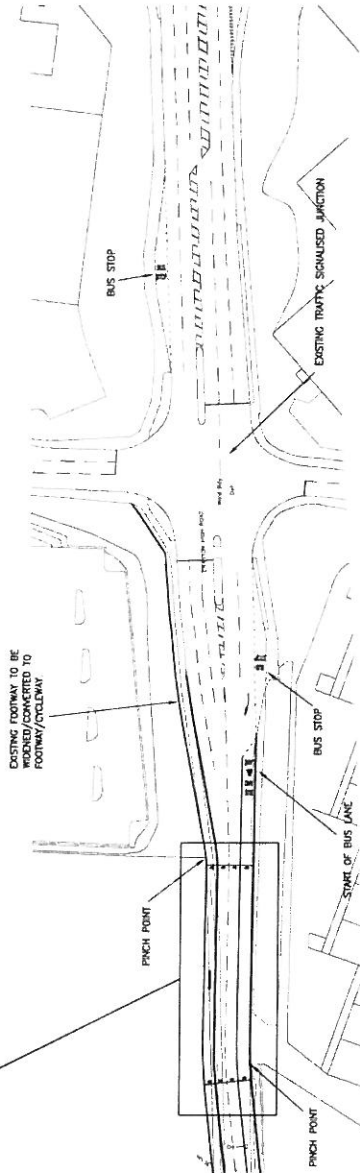
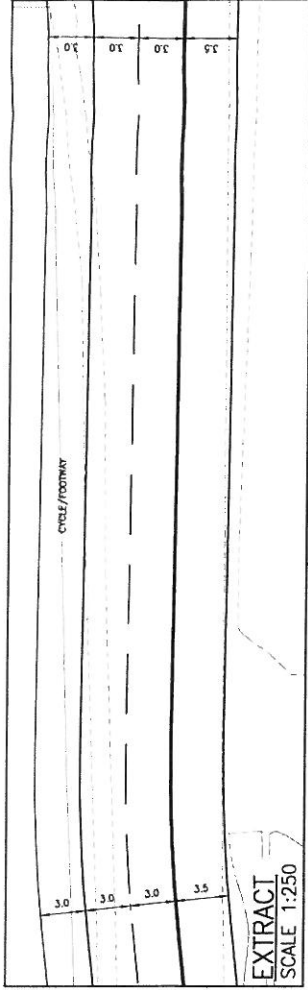
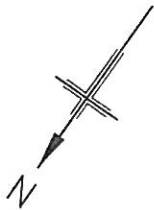
Figure 1

Figure 2

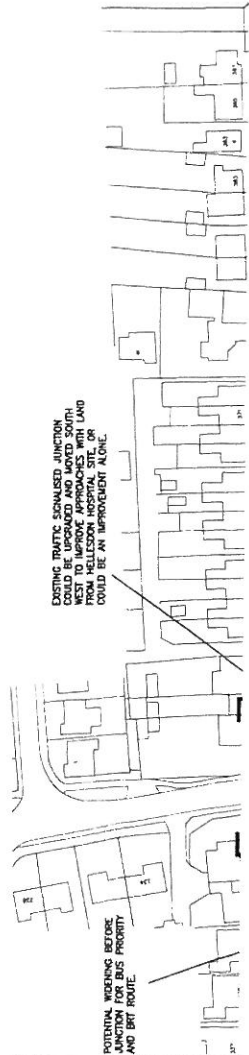
Masterplan 08.074/03B

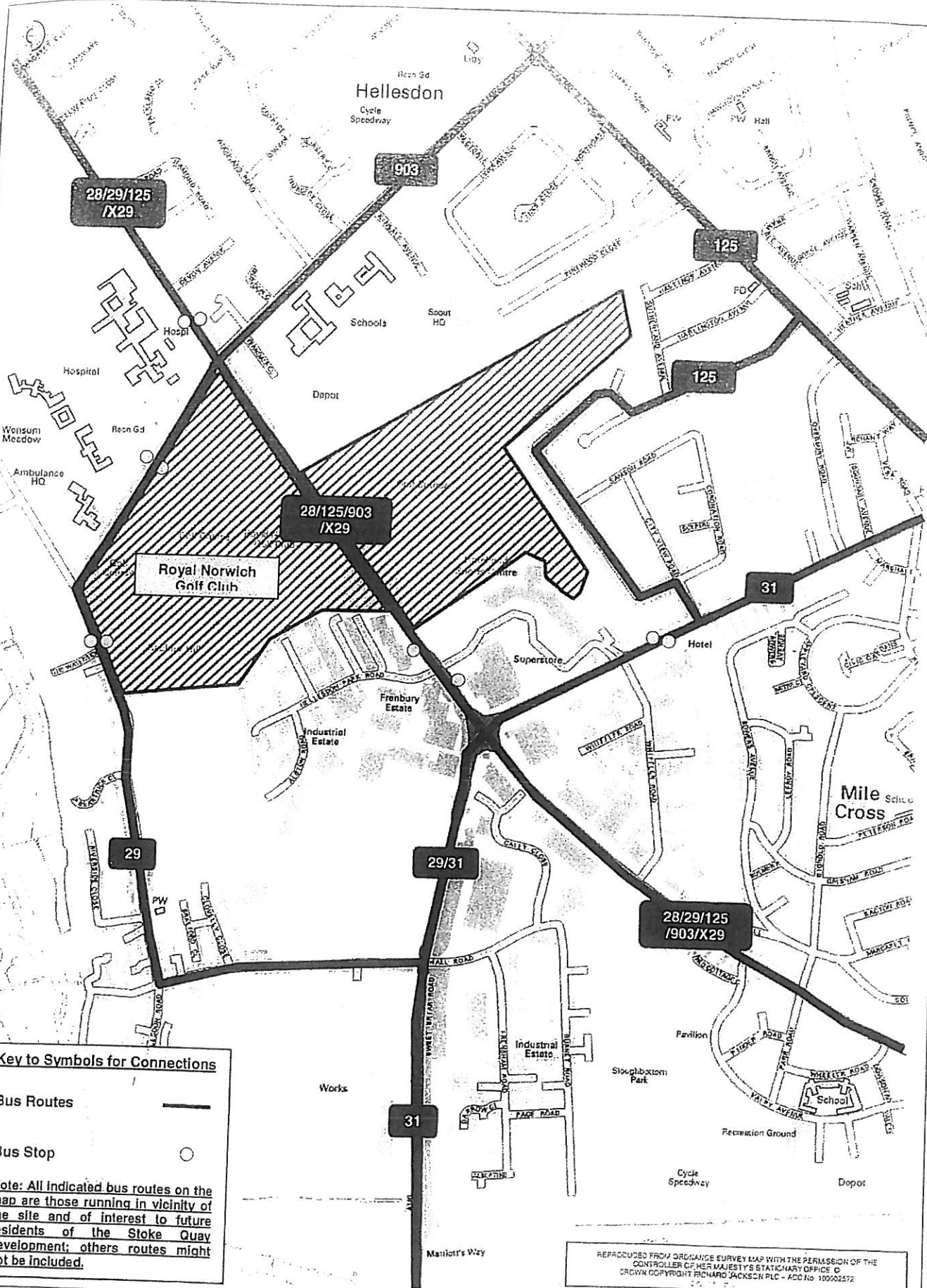
DO NOT SCALE

REPRODUCED FROM ORDINANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE. © CROWN COPYRIGHT RICHARD JACKSON LTD - ACC No. 100002572.



SOUTH EASTERN EXTENT
SCALE 1:1000





Key to Symbols for Connections

- Bus Routes ———
- Bus Stop ○

Note: All indicated bus routes on the map are those running in vicinity of the site and of interest to future residents of the Stoke Quay development; others routes might not be included.

REPRODUCED FROM ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT RICHARD JACKSON PLC - ACC No 100922572

Client:
**ENDURANCE ESTATES
STRATEGIC LAND LTD**

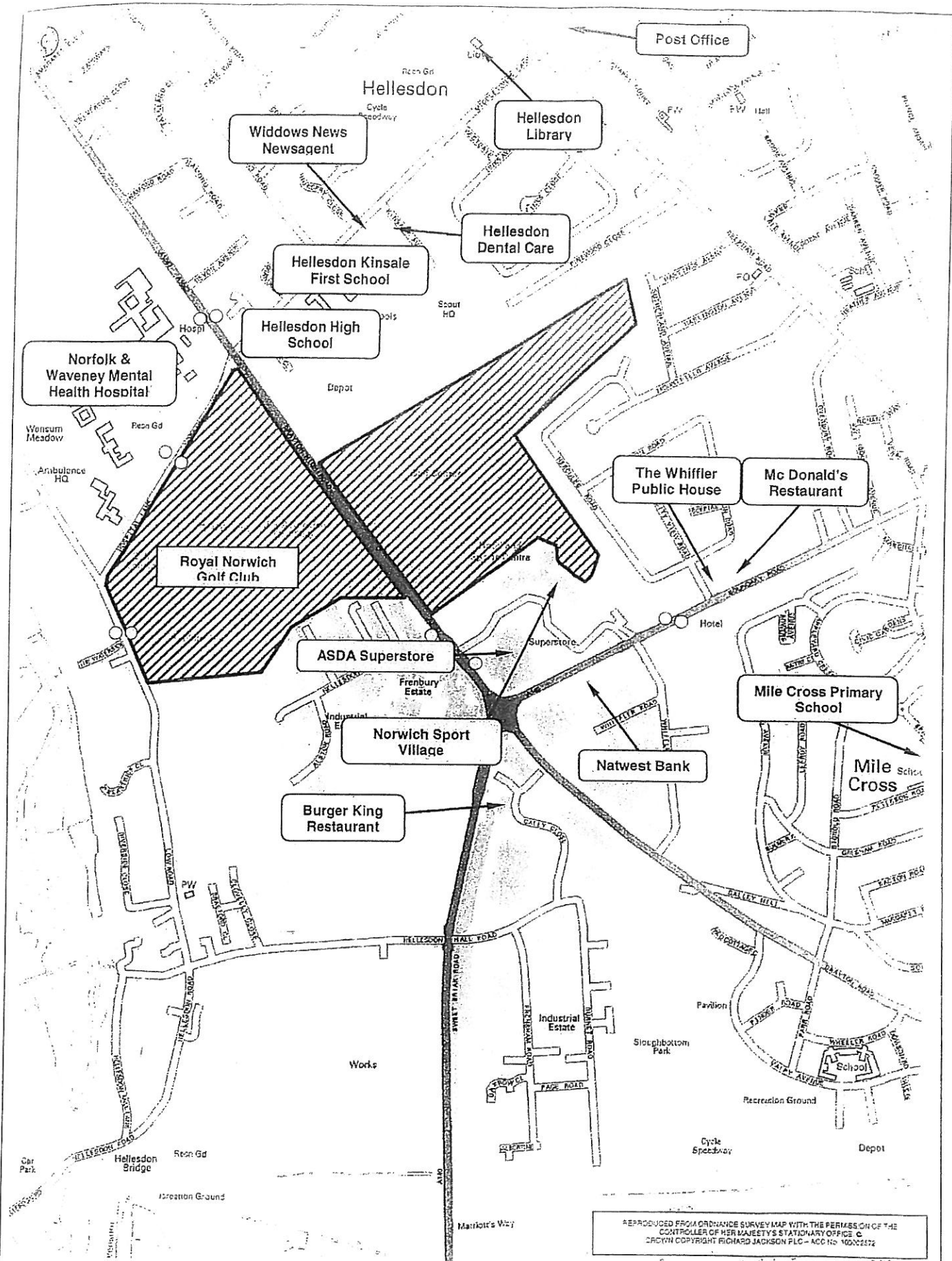
Drawing Title:
Public Transport

Job Title:
Royal Norwich Golf Club

Date: **Nov/0**
Job No: **43006**
Dwg No: **Fig. 1**

richardjackson

York House 3 Station Court Great Shelford Cambridge CB22 5NE
Tel: 01223 314794 Fax: 01223 316600
www.richardjacksonplc.co.uk



REPRODUCED FROM ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE © CROWN COPYRIGHT RICHARD JACKSON PLC - ACC No. 100202572

Client: ENDURANCE ESTATES STRATEGIC LAND LTD		Drawing Title: Local Facilities	
Job Title: Royal Norwich Golf Club	Date: Nov/0	Job No: 43006	Dwg No: Fig. 2

Richard Jackson

York House 3 Station Court Great Shelford Cambridge CB22 5NE
 Tel. 01223 314794 Fax. 01223 316600
 www.richardjacksonplc.co.uk



BUS STOP

BUS STOP

BUS STOP

BUS STOP

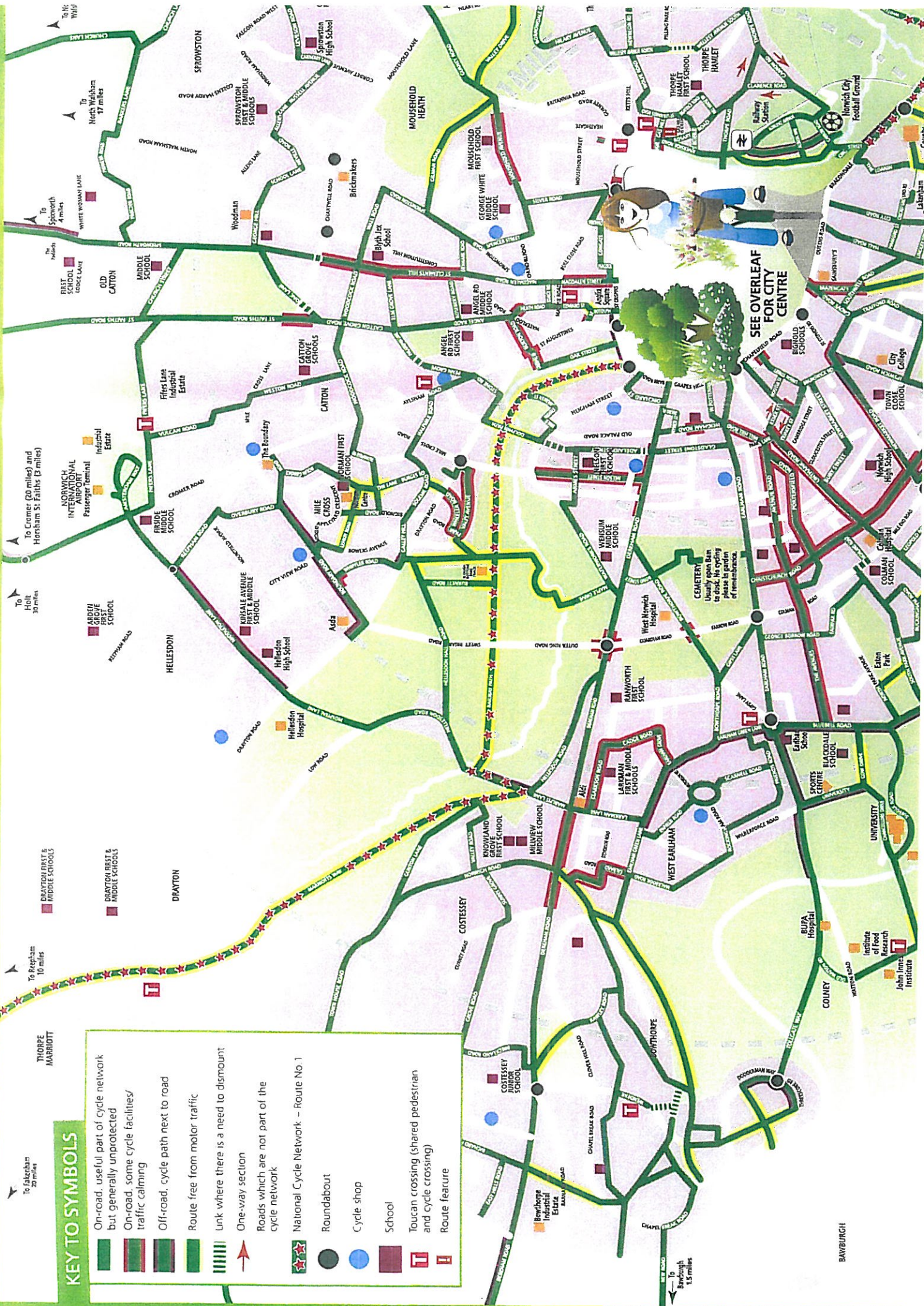


APPENDIX A

Norwich City Cycle Map

KEY TO SYMBOLS

- On-road, useful part of cycle network but generally unprotected
- On-road, some cycle facilities/traffic calming
- Off-road, cycle path next to road
- Route free from motor traffic
- Link where there is a need to dismount
- One-way section
- Roads which are not part of the cycle network
- National Cycle Network - Route No 1
- Roundabout
- Cycle shop
- School
- Toucan crossing (shared pedestrian and cycle crossing)
- Route feature



SEE OVERLEAF FOR CITY CENTRE

CENETERY
Usually open 9am to 5pm. Please do not park in garden of remembrance.

