

Daventry Infrastructure Studies
Social Infrastructure
(Education and Health) Technical Report

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Executive Summary

Introduction

The Milton Keynes – South Midlands Sub-Regional Strategy (part of the East Midlands Regional Spatial Strategy or RSS) has identified that Daventry's population will grow substantially over the next two decades. It has identified that the town of Daventry is expected to grow towards a population of 40,000 by 2021 and that Daventry District, as a whole should continue to grow at an equally steady rate beyond 2021 until at least 2026. This study therefore sets out infrastructure requirements for expected population and dwelling growth for both 2021 and 2026 accordingly.

In order to help West Northamptonshire Development Corporation better understand the implications of these targets for the growth of Daventry in terms of certain types of infrastructure, they have commissioned a series of infrastructure studies from consultants, URS Corporation, ISU Limited and LDA Design.

This technical report covers social infrastructure, and sets out a series of preliminary conclusions for the infrastructure requirements in association with the growth levels set down in the Regional Spatial Strategy (RSS).

Purpose of the DIS

The DIS has been produced in accordance with an initial brief received from WNDC. This brief in turn had been developed and consulted upon in mid-2007 by WNDC and has been developed further as the course of the project progressed following consultation and engagement with partners. The views of several major applicants, who were in discussion with WNDC regarding existing or potential planning applications for development in and around Daventry, were also canvassed when the work was commissioned.

The objectives of the DIS have been refined and are:

1. To identify the likely infrastructure investment priorities for Daventry required to deliver long term sustainable growth as set out in the RSS, and recognise how and when they could be delivered;
2. To evaluate the current infrastructure constraints and opportunities for development in the medium to longer term (i.e. to 2021) and having regard to development up to 2026 and beyond;
3. To consider infrastructure development scenarios (but not to allocate land for development or predetermine planning decisions);
4. To consider how infrastructure could be phased alongside growth;
5. To allow consideration of the relationship between infrastructure investment and growth proposals for the town to assist in making planning decisions in the short to medium term; and
6. To provide an evidence base which may be used by other local planning authorities to support the plan making process for Daventry town as a whole.

Key Conclusions - Baseline

The Technical Report has found that the baseline social infrastructure is adequate for the current population.

Education provision for early years, primary, secondary and post-16 children in and around the town of Daventry is adequate for the current population. Despite the expansion of the town, pressure on schools does not appear to be materialising. The rate of enrolment in both primary and secondary schools has remained fairly level since 2003 and the projected enrolment rates are expected follow a similar pattern till 2012. Furthermore, there are also a number of primary schools in villages close to the town of Daventry and these could be of particular importance to developments around the fringes of the town.

The existing health provision in Daventry appears to be providing adequate services in comparison to England in terms of both quality and capacity. Northampton Hospital provides a centre for acute services, although other hospitals are also used.

Key Conclusions – Infrastructure Requirements

This Technical Report has concluded that the key strategic additional infrastructure requirements for a population of at least 45,000 (which would be reached with an increase in population of 20,000 as is likely by 2026) are:

- Four to six primary schools with a capacity to provide for early years pupils;
- One to 1.4 secondary schools with a capacity to provide for post-16 pupils; and
- 12 whole-time equivalent GPs.

A Sustainable Infrastructure Strategy

Based on the investigations undertaken, the report outlines that with the exception of secondary schools for which it is possible to assume a larger radius and catchment area; the distribution of social infrastructure with spare capacity does not suggest any particularly advantageous development scenario for the town. The two possible exceptions are the southern extent of the north east sector and the south west sector. In particular, the southern extent of the north east sector benefits from being contiguous to the catchments area for some of the primary and secondary schools that currently have, or a forecast to have vacancies over the coming 4 – 5 year period.

1 Introduction

1.1. Background

- 1.1.1. This technical report is part of the Daventry Infrastructure Studies (DIS). URS has been appointed by the West Northamptonshire Development Corporation (WNDC) to assist in the preparation of the Daventry Infrastructure Studies (DIS). The DIS will form part of WNDC's evidence base and will be a material consideration that will help to inform decisions about the future expansion of the town and the infrastructure required to support that growth. It should also be of assistance to Daventry District Council in determining planning applications which fall (in whole or part) outside of WNDC's planning functions area or beneath the threshold for determination by WNDC within that area. The DIS will also be used in the development of WNDC's infrastructure delivery programme for West Northamptonshire, within the WNDC Regeneration Framework. This technical report forms part of the DIS.
- 1.1.2. WNDC has the statutory function of securing regeneration of its three Urban Development Areas (Daventry, Northampton and Towcester) but also has a duty to consider planning applications that fall to it for determination in accordance with proper planning grounds.
- 1.1.3. This is a wide-ranging multi-disciplinary task, with social infrastructure constituting one of the five infrastructure elements under investigation. In the context of this study, the types of social infrastructure that are covered by this report are:
 - Education (early years, primary and secondary)
 - Health (GPs and dentists)
- 1.1.4. This technical report has been chiefly prepared by URS. URS regularly prepare socio-economic impact assessments to predict and appreciate the impact of new development on social infrastructure facilities.
- 1.1.5. The DIS will be used as a tool to assist WNDC in considering proposals for growth and change to the town of Daventry. It will form part of WNDC's evidence base and will be a material consideration that will help to inform decisions about the future expansion of the town and the infrastructure required to support that growth. Further, the findings of the DIS will be used in the development of WNDC's infrastructure delivery programme for West Northamptonshire, within the WNDC Regeneration Framework.
- 1.1.6. WNDC has the statutory function of securing regeneration of its three Urban Development Areas (Daventry, Northampton and Towcester) but also has a duty to consider planning applications, which fall to it for determination in accordance with proper planning grounds.

1.2. Methodology and Scope of the Report

- 1.2.1. For the purposes of this exercise, education and health facilities were the prime infrastructure items of interest; given the importance of schools and health facilities to shaping new places and communities, and contributing to the achievement of sustainable community development.
- 1.2.2. This report has been prepared as a technical study and is predominantly based on a desktop review of various sources of information compiled by other agencies that focus on social infrastructure provision in and around the town of Daventry.
- 1.2.3. For the purpose of the Daventry Infrastructure Studies and this Technical Report social infrastructure includes education (early years, primary, secondary and post-16 education) and health (primary care) provision.
- 1.2.4. The overall scope of this report is:
 - To provide a broad outline of the baseline position with regard to the extent of provision of education and health facilities¹;
 - To use the understanding of the baseline position in relation to social infrastructure (and specifically education and health facilities) to suggest sustainable scenarios for Daventry's growth based upon the consideration of spare capacity within the existing infrastructure (i.e. locations for growth which involve lower costs for new infrastructure provision due to their more efficient use of existing infrastructure); and
 - to identify a schedule for proposed social infrastructure investment associated with growth proposals for the town.
- 1.2.5. The existing provision is set against the expected future demand in order to appreciate the gap between existing provision and future demand. Spare capacity is then used as a means for identifying potentially sustainable development sites (in respect to education and health facilities only). This process of identifying possible sustainable scenarios for development has been undertaken utilising a mapping process that examined the catchment areas of any education and / or health facilities that have spare capacity that could be usefully utilised by residents of new development.

¹ Note: Qualitative implications have not been considered in the scope of this assessment. These considerations are a matter for the respective educational authority to resolve.

- 1.2.6. Given the predominantly desktop nature of the study and the strategic level of analysis conducted, a number of assumptions have been necessary to define the infrastructure needs arising as a result of population growth in the town of Daventry. Such assumptions will be discussed in the relevant sections of this report, and can be broadly summarised as follows:
- Assessment of baseline conditions: For education, baseline has been assessed for early years, primary, secondary and post-16 education. For health, only primary health care constituting GPs have been considered. Information on other health facilities such as dentists and hospitals is only provided where information was readily available. Assumptions on 'typical walking distance' for individual types of social infrastructure were based on advice from the URS transport planning unit, derived using guidance notes from the Department for Transport.
 - Infrastructure requirements and programme: The infrastructure requirements for schools are based on assumptions for each new primary school to have 420 places and each new secondary school to have 1,200 places. In addition, one GP surgery is assumed to have the capacity for three GPs.
 - Cost estimates for additional infrastructure requirements: All costing for schools was based on estimates provided by the Northamptonshire County Council and costing for health facilities was based on information provided in 'Developing a Planning Obligation Strategy, Consultation Report', WNDC, for consistency.

1.3. Report Framework

- 1.3.1. The assessment comprises the following elements, which are set out in the next four sections as follows:
- Section Two examines the baseline position for education facilities in Daventry town – specifically early years, primary and secondary schools;
 - Section Three examines the baseline position for health facilities in Daventry town;
 - Section Four examines the future demand that is expected to arise as a result of an increase in population to about 40,000 people and undertakes a gap analysis to examine which education and health facilities might be able to serve additional demand;
 - Section Five sets out the critical education and health infrastructure requirements together with indicative costs; and
 - section Six briefly examines the implications for the identification of Sustainable Development Scenarios for Daventry's expansion on the basis of the facilities that are likely to have spare capacity to serve new residents, including residents of greenfield and brownfield development sites.

1.4. Policy Context

- 1.4.1. Current and emerging Government Policy has confirmed the importance that social infrastructure plays in the creation of strong, healthy and sustainable communities
- 1.4.2. Sustainable communities is defined by the ODPM as:
- "Places where people want to live and work, now and in the future. They will need to meet the diverse needs of existing and future residents, be sensitive to their environment, and contribute to a high quality of life. They will also need to be safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all."²
- 1.4.3. Furthermore, strategic documents highlight the fact that sustainable communities require good schools, good health services, good parks, good transport, flourishing businesses and vibrant communities, as well as a range of housing types. High Quality for All a publication by the Department of Health, attempts to open a new chapter in the story of 'quality' in the English NHS. The report authored by Lord Darzi is currently in its next stage review of final report. It looks to bring about a radical change in what the NHS delivers in England and how it delivers it. It opens up a vision of a service whereby existing local clinicians themselves drive quality improvement, motivated on by financial incentives and by the choices of well-informed patients rather than by top-down targets³.

² NHS, Healthy Urban Development Unit (HUDU) (2006), The Case for Social Infrastructure Planning. While the importance of the HUDU model in urban planning is recognised, the model incorporates elements of primary, secondary and tertiary care. The scope of this social infrastructure assessment however only includes for basic primary health care. Information on hospital provision and dental facilities are only provided, where information is readily available.

³ Department of Health (2008), High Quality Care for All: NHS Next Stage Review Final Report

2 Education Facilities Baseline

2.1. Introduction and Overview

- 2.1.1. Education provision in Daventry District Council is presented in the 2003-2008 School Organisation Plan (SOP) and more recently within a final update of the SOP (2007) and the Children's and Young People's Plan (CYPP) 2006-2009. According to the CYPP the total population of children and young people in Daventry District was 19,500, which is 11% of the county total. Of this population, the final update of the SOP 2007-2012 states that 4,824 are presently attending primary and secondary schools in Daventry.
- 2.1.2. The district of Daventry as a whole includes two nursery schools, 39 primary schools (including some separate infant and junior schools – these are counted as two primary schools in the SOP) and four secondary schools.
- 2.1.3. The following sections outline the provision of early years, primary and secondary schools in the town of Daventry.

2.2. Early Years Provision

- 2.2.1. The Early Years and Childcare service in Northamptonshire released a Childcare Sufficiency Assessment in April 2008⁴. This assessment provides information on the provision of Early Years education in Daventry.
- 2.2.2. Information from the Childcare Sufficiency Assessment suggests that there is currently sufficient capacity to meet current demand for early years education for 3 and 4 year olds. It should be noted that the assessment assumes that every child aged between 3 and 4 will require a place in early education. Figures from the assessment show that as of 2008, there are 1,900 children aged 3 and 4. The number of early education places available is 2,082. Keeping in mind the assumption, the capacity for early years education appears to be matching demand. Population projections for 2011 show an increase in the number of 3 and 4 year olds to 2,000. Existing capacity suggests Daventry will still be able to accommodate the additional children. Only children of age 3 - 4 have been included, as per the statutory requirement upon local education authorities to provide pre-school places for all children aged 3 years and over.
- 2.2.3. As this assessment relates to the Daventry district as a whole (Daventry town's population is approximately one third of the district), information from the 2003-2008 and the updated 2007-2012 SOP for the Northamptonshire County Council were used as an indication of Early Years education provision in the town itself.
- 2.2.4. Currently, the 2003-2008 SOP states that 85% of children aged 3 and 4 in the county will require early years places. Applying the same percentages to the number of 3 year olds in the town gives us education provision of 305 early years places for 3 year olds in 2007. As information on take-up rates in the SOP is limited to children aged 3 and 4, the need for places for children below the age of 3 has not been taken into consideration here.

- 2.2.5. The following table gives further details on the number of children aged 0-3 and the possible demand for early years places arising from 3 year olds in Daventry.

Table 2-1: Number of children aged 0-3 and requirement for early years places.

	2003	2004	2005	2006	2007
Total age 0	294	370	344	357	391
Total age 1	328	323	362	346	370
Total Age 2	337	339	329	355	343
Total age 3	332	340	347	332	359
85% aged 3	282	289	295	282	305

Source: Northamptonshire County Council

- 2.2.6. Furthermore, the SOP 2007-2012 noted the importance of key recent programmes such as the development of Children's Centres. 'The overall purpose of a Children's Centre is to offer a service where children aged 0-5 and their families can have access to information and support services including health and jobcentre plus'. The SOP further recognised the plans to open 31 Children's Centres across the county by 2008 and it is expected that every community will have access to a Children's Centre by 2010.

2.3. Primary School Provision

- 2.3.1. There are currently 13 primary schools in Daventry that are either within the town or within a one to two km radius⁵ of Daventry town, three of which have a provision for early years children. It should be noted that many of these schools are located in the villages around Daventry.
- 2.3.2. As of 2007, there were 2,542 pupils on the roll of these schools. The schools had a combined planned capacity of 2,972, which shows a surplus of 430 places (See Table 2-2).
- 2.3.3. Further to this, it should be noted that there are five primary schools located beyond 2kms of the town. It is considered important to consider these schools in the baseline review of education facilities, as they feed into the two secondary schools in Daventry and could potentially be used by residents of new developments. Taking all 18 schools into consideration, in 2007 there were 3,310 pupils on the rolls of these schools. There was a planned capacity of 3,868 leaving a surplus of 558 places. In five years time, the latest date for which predictions were available, the surplus predicted was 578, which indicates a slight increase in available spare capacity of 20 places.

⁴ Northamptonshire County Council (April 2008) An Assessment of the Sufficiency of Childcare in Northamptonshire.

⁵ 1 km was determined as average walking distance for primary schools and GPs and was determined on the basis of advice from URS; transport planning unit. It was derived using, 'guidance notes on accessibility planning in local transport plans' from the Department for Transport (DfT). Given the relatively small geographic extent of Daventry, and high expectations of quick and convenient travel, the one kilometre standard is at the lower thresholds of the indicators given by the DfT guidance.

- 2.3.4. Table 2-2 sets out the enrolments and capacity, of the 13 schools within Daventry in more detail.
- 2.3.5. Table 2-3 sets out the net capacity and surplus of the five schools located beyond typical walking distance⁶ along with predictions till 2012.

Table 2-2 Enrolments and Capacity for Primary Schools within 1km of Daventry

	Jan-07			Jan-12		
	Net Capacity	Pupils (4-11)	Surplus	Net Capacity	Pupils (4-11)	Surplus
Primary						
Grange P^	588	436	152	588	378	210
Falconer's Hill Jnr	297	217	80	297	181	116
Southbrook Jnr	240	182	58	240	176	64
St James Inf	167	158	9	167	182	-15
Southbrook Inf	180	116	64	180	167	13
Badby P	119	134	-15	119	106	13
Abbey Jnr	240	228	12	240	236	4
Newnham P	100	96	4	100	96	4
Falconer's Hill Inf	180	161	19	180	180	0
Staverton CE P	105	83	22	105	105	0
Braunston CE P	210	193	17	210	211	-1
Welton CE P	126	125	1	126	128	-2
Ashby Fields P	420	413	7	420	423	-3
TOTAL	2,972	2542	430	2,972	2,569	403

Source: Northamptonshire School Organisation Plan 2007-2012

Table 2-3: Enrolments and Capacity for Primary Schools Outside of Daventry

Schools	Jan-07			Jan-12		
	Net Capacity	Pupils (4-11)	Surplus	Net Capacity	Pupils (4-11)	Surplus
Barby CE P	112	93	19	112	82	30
Byfield P	105	83	22	105	81	24
Kilsby CE P	105	96	9	105	103	2
Weedon Bec P	210	168	42	210	169	41
Woodford Halse CE P	364	328	36	364	286	78
TOTAL	896	768	128	896	721	175

Source: Northamptonshire School Organisation Plan 2007-2012

2.4. Secondary School Provision

2.4.1. There are currently two secondary schools in Daventry. The average distance that pupils travel to secondary schools in the UK is 5.5 km⁷. As Daventry is a relatively small town, an average distance of 2.2 km was considered more appropriate for the purposes of this report and identifying secondary schools that would serve a future expanded Daventry town⁸. Of the four secondary schools located in the district of Daventry, only two are within 2.2 km of the town. Table 2-4 shows that there is a net surplus of 286 secondary places at these schools.

Table 2-4: Enrolments and Capacity for Secondary Schools within 2.2km of Daventry

		Jan-07				Jan-12					
		Pupils			Surplus			Pupils			Surplus
Secondary	Net Capacity	11-15	16+	Total		Net Capacity	11-15	16+	Total		
Danetree	1200	1085	0	1085	115	1200	1102	0	1102	98	
William Parker	1200	1029	0	1029	171	1200	1017	0	1017	183	
TOTAL	2400	2114	0	2114	286	2400	2119	0	2119	281	

Source: Northamptonshire School Organisation Plan 2007-2012

2.4.2. As of 2007, the two schools recorded a total of 2,114 places, and a net capacity of 2,400. Thus the surplus of secondary school places in Daventry in 2007 was 286. The forecasted secondary school places for 2012 was similar at 281 surplus school places.

Post-16 education

2.4.3. Information from the Northampton County Council indicates that currently there is a campus of Northampton College in Daventry. A majority of post-16 residents of Daventry are known to attend this facility.

2.5. Proposed New Developments

2.5.1. URS has estimated the Daventry town's population to be approximately 25,379⁹ over 2007. Given the direction contained in the Milton Keynes and South Midlands Sub-Regional Strategy that Daventry will grow towards a population of about 40,000 by 2021, the town itself is looking at population growth of at least 14,622 or in simple terms approximately 15,000. This entails a (presumed) annual dwelling build rate of 453 from the baseline year of 2007.

- 2.5.2. The direction contained in the draft RSS is that Daventry District should continue to grow after 2021 until 2026 at a rate that is equal to growth (in terms of the number of dwelling completions per annum) that is equal to growth prior to 2021. If the town were to continue growing at such a rate, it could be expected to add a further 5,222 odd people. This would mean that the town can be expected to accommodate an additional 19,843 people (at least) by 2026. The number of dwellings is accordingly set to increase by 8,600.
- 2.5.3. This report sets out infrastructure requirements for both 2021 and 2026 accordingly.

2.5.4. At the present time there are three major planning applications submitted which each contain provision for educational facilities within their existing masterplans. Table 2-5 sets out the relevant detail of the planning application for major housing developments at Daventry.

Table 2-5: Major Housing Developments proposed in Daventry

Site	No. of Units
Monksmoor Farm	1,000+
NE Daventry	4,000+
SE Daventry	5,000+

⁷ National Travel Survey (2006).

⁸ 2.2 km was determined as average walking distance for secondary schools and was determined in consultation with transport planners at URS. It was derived using 'guidance notes on accessibility planning in local transport plans' from the Department for Transport (DfT). Given the relatively small geographic extent of Daventry, lower thresholds of the indicators were used.

⁹ This figure is approximate only and is derived using ONS Mid Year population projections according to a methodology agreed with DDC and NCC. It is based on ONS mid year population projections for each year running from 2001 to 2005.

Proposed Primary and Secondary Schools

2.5.5. At the present time, none of the above proposed developments have received planning permission and it cannot be assumed that they will be approved. Therefore it is important to note that other than the planned provision of schools to go with the proposed housing developments there are no further plans for provision of new primary or secondary schools in or within average walking distance of Daventry Town.

Proposed Post-16 education

2.5.6. The Interim Draft Daventry Masterplan contains proposals for a Learning Quarter. These are now the subject of detailed work by a team appointed by Northampton College on behalf of the Daventry Learning Partnership (DLP, comprising Northampton and Moulton Colleges, Danetree School and William Parker School). The Learning Quarter is proposed to contain Sixth Form school provision combined with vocational learning, focusing on the 16+ age group. The DLP intend to have the Learning Quarter operational by December 2010, and to attract a significantly higher number of local young people into education, and to stay in Daventry to learn, as a result.

2.6. Summary

- 2.6.1. The existing education provision in and around Daventry appears to be adequate for the current population. Despite the expansion of the town, pressure on schools does not appear to be materialising. The rate of enrolment in both primary and secondary schools has remained fairly level since 2003 and the projected enrolment rates are expected follow a similar pattern till 2012. There are also a number of primary schools in villages close to the town of Daventry and these could be of particular importance to developments around the fringes of the town.
- 2.6.2. Despite the existing available number of school places, an increase in population to approximately 45,000 and beyond would clearly warrant provision for an increase in school places. Furthermore, the SOP recognises that a number of central Daventry primary schools and the two secondary schools have a significant number of surplus places. While, there is some growth planned in the existing urban area (Daventry town centre), most of the planned housing developments are on the fringe of the town and in order to meet walking distances will need to have provisions to be served by their own primary schools. Therefore the SOP identifies the feasibility of removing or making effective use of this surplus accommodation, particularly in light of the extended schools agenda¹⁰.

3 Health Facilities Baseline

3.1. Introduction

3.1.1. On October 1st 2006, Northamptonshire Heartlands Primary Care Trust merged with Daventry & South Northamptonshire Primary Care Trust, Northampton Teaching Primary Care Trust and part of Cherwell Vale Primary Care Trust to form Northamptonshire Teaching Primary Care Trust. Primary care provision for Daventry Town has therefore been under the control of the Northamptonshire Teaching Primary Care Trust (PCT) since October 1st, 2006.

3.2. GP Services (Primary Care)

3.2.1. As of 2003, there were approximately 52.1 GPs per 100,000 population, based on the number of GPs practicing and the estimated population in the three NHS Trusts that make up the Northamptonshire PCT¹¹, which is slightly below the current national average of 57.9 GPs per 100,000 population¹². More recently, figures for the entire PCT show that the average patient to GP ratio across the whole PCT area is currently 1,962¹³ compared with the national average of 1,786. This information is useful as it provides a helpful context of the average provision of GP facilities in Daventry town.

3.2.2. The standard set by the Daventry and South Northants Primary Care Trust before it merged was that each doctor should have a list of 1,800 patients. This is a standard common with many other Primary Care Trusts. The Northamptonshire PCT currently lists a total 83 GP practices on its local services webpage and as of 2003 there were 293 WTE¹⁴ GPs working within the Trust. There are three GP surgeries in Daventry town with a total of 16 WTE GPs.

Table 3-1: GP Surgeries and patients located within Daventry

GP Surgery	No of GPs	No of Patients	Patients per GP	Accepting New Patients
Abbey House Medical practice	9.25 WTE	18,460	1,996	Yes
Monksfield Surgery*				Yes
Danetree Medical Centre	7 WTE	12,633	1,809	Yes
Total	16.25 WTE	31,093	1,913.4	

*GPs in Abbey House Medical Practice work part-time in the Monksfield surgery; Source: PCT Q3 Jan 08

3.2.3. The figures are complicated by the fact that the GP surgeries are reporting a total patient list of some 31,000. This is some 6,000 in excess of the town's population, and this difference is likely to reflect demand from the surrounding areas. Accepting the figures as they are presented, it appears that across the three GP surgeries there is an average of about 1,913 patients registered per GP working in each practice. This is higher than the England average of 1,786 recorded in 2003¹⁵.

3.2.4. This suggests that Daventry may in fact be notionally under-supplied for GP services; although this is an observation and we did not find any such statements to this effect in the documents reviewed. If Daventry, with a population of roughly 25,000 in 2007, was to achieve a patient to GP ratio on keel with the England average, it would require only 14 GPs.

3.2.5. If the GP surgeries in Daventry really are operating at a ratio of 1,913 patients per GP, then a total of 25 GPs would be required to bring the ratio down to 1,800 patients per GP, suggesting a deficit of 8.6 GPs.

3.2.6. Interestingly, the surgeries reported that they are all still accepting new patients. This could either reflect spare capacity, or could be because there is simply nowhere else that is close enough for residents of Daventry to reasonably be expected to travel to for GP services.

3.2.7. There are two more practices located within 5 miles (8 kms) of Daventry. Weedon Surgery is located approximately 4.2 miles (6.7 km) to the south-east of Daventry and The Long Buckby Practice is located 4.6 miles (7.4 km), north-east of Daventry. Table 3-2 below provides some details for each of these surgeries.

Table 3-2 GP Surgeries located within close proximity to Daventry

GP Surgery	No of GPs	No of Patients	Patients per GP	Accepting New Patients	Distance from Daventry (in kms)
Weedon Surgery	4	7,051	1,763	Yes	6.7
The Long Buckby Practice	4	5,952	1,831	Yes	7.4
Total	8	13,003	3,594	-	-

Source: PCT Q3 Jan 08i

¹¹ Northampton, Daventry & South Northamptonshire and Northamptonshire Heartlands PCTs.

¹² Department of Health, 'More family doctor services for deprived areas', 19 March 2007.

¹³ Northamptonshire PCT Q3 Jan 2008.

¹⁴ Whole Time Equivalents.

¹⁵ Department of Health, (2004); 'Departmental Report 2004'.

3.3. Hospital Provision

Within Daventry

- 3.3.1. An increase in population to approximately 45,000 by 2026 would present implications for emergency care provision as well as for the number of bed spaces available at the NHS hospitals.
- 3.3.2. There is one hospital located in Daventry although it doesn't provide accident and emergency services. The hospital, Danetree Community Hospital, is a 28 bed purpose built hospital that provides specialist cardiology services; intermediate care; rehabilitation; medical assessment; palliative/terminal and recurrent care. The hospital also has a minor injury unit.
- 3.3.3. This hospital has a further sub-division, Blinkdale Clinic, which includes facilities for general surgery and oral maxillofacial surgery.

Beyond Daventry

- 3.3.4. In addition to the hospital provision within the town, Daventry is served by the Northampton General Hospital NHS Trust. Northampton General Hospital is a medium-sized district general hospital, located close to the centre of the town of Northampton. It generally services Northampton and South Northamptonshire. In combination with Kettering General Hospital, which generally services the North of Northamptonshire, the two hospitals provide diagnostic, medical, surgical and emergency care for the whole of Northamptonshire. Patients from Daventry also access NHS services at St Cross Hospital, Rugby, and University Hospital Coventry, as well as further afield.
- 3.3.5. Northampton General Hospital has more than 30 wards, 600 beds and 14 operating theatres and an accident and emergency department. The hospital employs around 3,600 staff, including: 159 consultants; 216 other medical staff; 1,188 nurses and midwives, 904 clinical support staff such as technicians, pharmacists, healthcare scientists and therapists; 1,152 non-clinical staff, including ancillary staff, maintenance staff, administrative and clerical staff, and managers. In terms of clinical services, the Trust provides a range of services encompassing:
- Anaesthetics;
 - Audiology;
 - Cardiology;
 - Children's Services;
 - Dermatology;
 - Genetics;
 - Medicine;
 - Neurosciences;
 - Oncology;
 - Ophthalmology;
 - Pharmacy;
 - Paediatrics;
 - Pharmacy;
 - Physiotherapy;
 - Plastics Surgery;

- Radiology;
- Rheumatology; and
- Urology

- 3.3.6. Northampton General Hospital is the nearest acute services hospital to Daventry located 13 miles (20.8 kms) away in Northampton. It currently provides acute and emergency hospital services to a local population of 360,000 and cancer services to a wider population of 880,000.
- 3.3.7. There is a hospital closer to Daventry in Rugby located within a different PCT area – the University Hospitals Coventry and Warwickshire NHS Trust. The Hospital of St. Cross is located approximately 10 miles away and has a more limited Accident and Emergency facilities, when compared with the Northampton General Hospital.

3.4. Dental services

- 3.4.1. The East Midlands Strategic Health Authority maintains records of patient registrations and the number of dentists active in the area. As of September 2006, there were 1,577 dentists practicing in the East Midlands region with an average population of 2,731 per dentist, which is above the England average of 2,486 per dentist¹⁶. The same source records 90 practicing dentists within the Northamptonshire PCT each serving an average population of 2,346. The average list size of dentists in England is 1,400 patients comprising 30% under-18 years patients and 70% over 18-years¹⁷.
- 3.4.2. There are currently four dental practices in Daventry, employing a total of eight dentists. Danetree Community Hospital has a consultant specialising in Oral and Maxillofacial surgery. Of the four practices, three were seen to be accepting new fee paying NHS patients, new charge exempt adults for NHS treatment, or new children aged zero to 18 years old for NHS treatment, while Danetree Community Hospital, is limiting its patients to existing registered patients.
- The Dental Surgery, has two dentists;
 - New Street Dental Surgery, has two dentists;
 - Daventry Dental Practice, has four dentists; and
 - Danetree Community Hospital has one Oral and Maxillofacial Consultant.

¹⁶ NHS Dental Statistics for England, September 2006.

¹⁷ London Health Observatory, Oral Health Overview, 2006.

3.5. Summary

- 3.5.1. The existing health provision in Daventry appears to be providing adequate services in comparison to England in terms of both quality and capacity. Northampton Hospital provides a centre for acute services, although other hospitals are also used.
- 3.5.2. The three surgeries present in Daventry have 16.25 WTE GPs between them and record an average list size of approximately 1,913 per GP. This figure is notionally higher than the England average and GPs in Daventry appear to be working near to capacity. However, despite this all surgeries are accepting new patients.
- 3.5.3. Dentists in Daventry also appear to be satisfactory as three of the four dental surgeries are accepting new patients. The provision of optician care in Daventry is also deemed satisfactory.

4 Future Education and Health Demand and Gap Analysis

4.1. Population Growth and Dwelling Development

- 4.1.1. Infrastructure demand is a function of population and dwelling growth.
- 4.1.2. The assumed population of about 40,000 people for the town of Daventry by 2021 is contained in paragraph 124 of the Milton Keynes and South Midlands Sub-Regional Strategy (MKSM SRS), which constitutes part of the RSS. The population of Daventry in 2007 has been estimated at 25,379. Taking this figure, it was estimated that there are approximately 10,192 dwellings in Daventry. If all of this growth were to be accommodated within or immediately adjacent to Daventry's urban settlement area, then the town could be expected to grow by another 6,337 dwellings (assuming an average household size of 2.42 persons) and at least 14,622 people. Table 4-1 provides a summary of these assumptions.
- 4.1.3. This growth forecast for the town is in the context of stated RSS policy that the entire Daventry District area (i.e. the town and the rest of the district) should grow by 540 dwellings per annum between 2001 and 2021. Assuming growth in the town of 453 dwelling per annum to reach the stated population target, this equates to the town assuming an 84% share of the growth in dwelling numbers expected of the District.
- 4.1.4. At the present time, the draft RSS introduces an extension of the planning period to 2026 during which time it is identified that the entire Daventry District local authority area would be required to make continuing provision for housing growth at the same annual average rate of 540 dwellings per annum over the plan period. Assuming that the town continues to absorb the same proportion of development (within the District) after 2021, as it does before – it could be expected to grow by a further 5,222 people and 2,265 dwellings in the ensuing five year period. These assumptions are summarised in Table 4-1

Table 4-1: Population and Dwelling Increase Assumptions, 2007 - 2026

Relevance / Status:	Population (Actual or Expected)	Dwellings (Actual or Expected)	Likely Year / Time Period	Daventry AHS (NCC Projection)
Census Record:	21,774	8,837	2001	2.46
Estimated Baseline:	25,379	10,192	2007	2.49
MKSM Figure:	40,000	16,529	2021	2.42
2026 with continued constant growth:	45,222	18,792	2026	2.41
Estimated Increase:	+ 14,622	+ 6,337	2007 - 2021	NA
Estimated Increase:	+ 19,843	+ 8,600	2007 - 2026	NA

Source: URS calculations derived from various information sources including ONS Census Data and Mid-Year Population Estimates, DDC Dwelling Completion estimates, NCC estimation of existing and projected average household size in Daventry.

- 4.1.5. A critical output of the DIS is the estimation of the key trigger points²² for new infrastructure. Most trigger points will be judged in terms of the increase in population and/or the increase in dwelling numbers. In order to identify the increase in population and set this against an approximate date (in this case a year) the DIS uses the MKSM SRS population level of 40,000 for the year 2021 applying an even rate of population increase over that period, as shown in Table 4-2.

Table 4-2: Simplified Population and Dwelling Increase Assumptions, 2007 - 2026

Relevance / Status:	Population (Actual or Expected)	Dwellings (Actual or Expected)
Annual Growth	1,044	453

Source: URS calculations

- 4.1.6. It should be noted that these annual growth rates are an average and growth in terms of population and dwelling completions is likely to vary from year to year depending on the availability of developable land, economic circumstance and other factors. It is however a useful starting point when projecting growth over a medium to long term period.

¹⁸ This figure was estimated using ONS mid year population projections for 2001 to 2005 and extrapolating forward to 2007. The methodology used was confirmed as the best available by K. Palmer, Senior Research and Information Officer, Planning and Growth Department, Northampton County Council and also agreed with DDC.

¹⁹ This is based on an average household size of 2.49. Figure supplied by K. Palmer, NCC, 14/02/08.

²⁰ Average household size figures obtained from K. Palmer, NCC, 14/02/08.

²¹ This number is specific to the whole local authority area rather than for the town of Daventry in isolation.

²² The term trigger point refers to a certain population level, or number of dwellings, which once reached triggers the requirement for additional infrastructure because existing spare capacity has been used up by preceding population and/or dwelling growth. It is a useful concept for identifying the stage at which new infrastructure must or should be provided.

4.2. Education

4.2.1. The increased population in Daventry will result in an increased demand for educational places, as new families and their children occupy new housing developments in the town. The impact on the baseline is assessed below.

Child Occupancy rates

4.2.2. A standard means of calculating the resultant demand for education is through the application of child occupancy rates to the accommodation schedule for a proposed development. In this case, we have based an estimation of the likely number of pupils on the expected number of dwellings (8,600) required to elevate Daventry's population to about 45,222 by 2026.

Pre-School and Primary School Infrastructure Requirement

4.2.3. On this basis, and using a simplified applied pupil yield ratio obtained from the Education Officer at Northamptonshire County Council, we have determined the number of students that would be expected to result from an additional 6,337 dwellings. Table 4-4 shows the pupil yields derived using a pupil yield ratio of 0.03 – 0.04 per year group²³.

Table 4-4: Expected Pre-School Pupil Yield

Pre School Pupil Yield (at 3 and 4 year old level) Total No. of Pupils (for 8,600 new dwellings) Per Year increase in pupils (assuming 453 new dwellings per annum, 2007 – 21)

Pre School Pupil Yield (at 3 and 4 year old level)	Total No. of Pupils (for 8,600 new dwellings)	Per Year increase in pupils (assuming 453 new dwellings per annum, 2007 – 21)
Pupil Yield 2007 - 2026 - 0.03 per year group	516	27
Pupil Yield 2007 - 2026 - 0.04 per year group	688	36

Source: URS Calculations

4.2.4. Applying the pupil yield ratios to the total new dwellings, indicates that a total of between 516 (lower estimate) and 688 (higher estimate) pre-school children would be expected to be resident in Daventry from 2007-2026, which indicates an additional 27 to 36 children per year. Only children of age 3 - 4 have been included, as per the statutory requirement upon local education authorities to provide pre-school places for all children aged 3 years and over. Demand for nursery places for children aged 3 years and under has not been estimated and provision for children aged below 3 years such places is usually largely met by the private and voluntary / community sector.

4.2.5. The pupil yield of 0.03 and 0.04 per year group is also applied to calculate the number of primary school children expected to be resident in Daventry by 2026. Information from the Northamptonshire County Council indicates a total of seven-year groups for primary school children. Therefore keeping this in mind and applying the pupil yield ratio to the total number of dwellings shows that there will be between 1,806 and 2,408 children requiring primary school places which leads to 95 to 126 primary school places required per year.

Table 4-5: Expected Primary (5-11) Pupil Yield

Primary School Pupil Yield	Total no. of pupils (for 8,600 new dwellings)	Per Year increase in pupils (assuming 453 new dwellings per annum, 2007 – 26)
Pupil Yield 2007 - 2026 - 0.03 per year group	1,806	95
Pupil Yield 2007 - 2026 - 0.04 per year group	2,408	126

Source: URS Calculations

4.2.6. The potential demand for secondary schools arising from the above pupils is mapped in Table 4.8. The demand arising is indicated for both 2021 and 2026 accordingly.

4.2.7. As of 2021, forecasted population and dwellings, indicates the estimated demand for between three and four two form entry primary schools (420 places each).

4.2.8. By 2026 this demand increases to four to six secondary schools (although the requirement for new provision should be considered in the context of reasonably located existing spare capacity).

4.2.9. Keeping in mind the pupil yield factor, a new 420-place primary school would be required per 1,500-2,000 new dwellings. This is summarised in Table 4-6 below

Table 4-6: Estimated Primary School Requirement

Year	Population Growth	Dwelling Growth	Lower Range (based on a pupil yield = 0.03 students per year level per dwelling)	Higher Range (based on a pupil yield = 0.04 pupils per year level per dwelling)
2021	14,622	6,337	3.2	4.3
2026	19,834	8,600	4.3	5.7

Source: URS Calculations

²³ Pupil Yield ratio of 3-4 pupils per year group per 100 houses acquired from Mr. Alan Fitz, Education Officer (Schools Organisation) at Northamptonshire County Council.

Secondary School Infrastructure Requirement:

4.2.10. Using the similar methodology, the above pupil yield ratio is applied to calculate the number of secondary school children. This means the proposed expansion could be expected to generate demand for between 1,032 and 1,376 secondary school places. This is summarised in Table 4-7 below.

Table 4-7: Expected Secondary School (11 – 15 yr old) Pupil Yield

Secondary School Pupil Yield	Total No. of Pupils (for 8,600 new dwellings)	Per Year increase in pupils (assuming 453 new dwellings per annum 2007 –26)
Pupil Yield 2007 - 2026 - 0.03 per year group	1,032	54
Pupil Yield 2007 - 2026 - 0.04 per year group	1,376	72

Source: URS Calculations

- 4.2.11. The potential demand for secondary schools arising from the above pupils is mapped in Table 4.8. The demand arising is indicated for both 2021 and 2026 accordingly.
- 4.2.12. As of 2021, using forecasted population and dwellings; there will be an estimated demand for approximately one secondary school (for 1,200 place).
- 4.2.13. Furthermore, going forward to 2026, there arises a need for a 0.86 to 1.1 secondary school. It should be noted that to provide for the infrastructure requirements of the high growth scenario (1.1 of a secondary school), the new secondary school could be extended to include the additional demand arising (344 pupils).
- 4.2.14. Therefore, keeping in mind the pupil yield factor, a new 1,200 place secondary school would be required per 10,000-7,500 new dwellings. This is summarised in Table 4-8 below.

Table 4-8: Estimated Secondary School Requirement

Year	Population Growth	Dwelling Growth	Lower Range (based on a pupil yield = 0.03 students per year level per dwelling)	Higher Range (based on a pupil yield = 0.04 pupils per year level per dwelling)
2021	14,622	6,337	0.63	0.84
2026	19,834	8,600	0.86	1.15

Source: URS Calculations

Post-16 Infrastructure Requirement

4.2.15. Finally, applying the above pupil yield ratio for the number of post-16 children, gives us an expected demand for between 258 and 344 post-16 school places over the period 2007-2021 (see Table 4-9).

Table 4-9: Expected Post-16 School Pupil Yield

Post-16 Pupil Yield	Total No. of Pupils (for 8,600 new dwellings)	Per Year increase in pupils (assuming 453 new dwellings per annum 2007 –26)
Pupil Yield 2007 - 2026 - 0.03 per year group	258	14
Pupil Yield 2007 - 2026 - 0.04 per year group	344	18

Source: URS Calculations

4.2.16. Provision for pupils requiring post-16 education could be made in conjunction with the existing secondary schools or the new secondary school required.

Education Gap Analysis

Pre-Schools and Primary Schools

- 4.2.17. As per the findings in Section 2.3, a net surplus of 403 spaces is expected in 2012. This means that, assuming a development rate of 453 dwellings per annum, the early years and primary sector could accommodate just over 3 to 4½ years of demand for places arising from new development. However, this critically depends on the relative location of schools and residential development.
- 4.2.18. Initial estimates of spare capacity contained within the SOP suggest that primary schools such as Grange, Falconer's Hill and Southbrook Junior are best placed to absorb the provisional demand. In particular, Grange Primary School and Falconer's Hill Junior are expected to have surpluses in excess of 100. In addition Southbrook Infants is also reasonably placed with respect to surpluses.
- 4.2.19. Schools such as Falconers Hill Infants, Ashby Fields, and outside of the town, Welton and Braunston Primary School are forecasted to go over capacity. Furthermore, it is predicted that the north of Daventry will experience significant increases in population due to a number of new house-building projects [already] underway (See Section 2.3).

Secondary Schools

4.2.20. The findings contained in Section 2.4 indicated a net surplus of around 281 places in the secondary education sector within the town in 2012. Assuming the same demand for places per annum as in the early years and primary sector, this would mean that there is sufficient capacity to accommodate demand from new development for between a little over 3½ and just over 5 years.

4.3. Health

- 4.3.1. The baseline figures for Daventry suggest there are about 1,913 registered patients for every GP. This is more patients than the average for England for September 2003 (1,786 people per GP, or 56 GPs per 100,000 of the population).
- 4.3.2. This is also above the patient list of 1,700 patients published in Reforming Planning Applications: The Use of Standard Charges – Appendices²⁵.
- 4.3.3. As development cannot be expected to make good the existing deficiency in the number of GPs per head, the following is based on provision only in relation to the additional population arising from growth.

Health Demand

- 4.3.4. Based on the for provision of 1,700 patients per GP, and assuming a population of about 45,222 by the year 2026 generating an additional increase of 19,843 new residents on the existing 2007 population, an additional 11.7 (approximately 12) GPs would be required for the new population in the town. This would translate into a requirement for a total of 26.4 GPs for the entire town (see Table 4-10 for a summary of these figures). The table below also provides for GP requirements in 2021.
- 4.3.5. In annual terms, if the increase in population were to equal 1,044 residents per annum, then this would result in a requirement for an additional 0.61 GPs per year.

Table 4-10: Expected Demand for GP Services in terms of Patient Numbers

Year	Population Growth	Total GP Requirement	Increase Per Year (assuming 453 new dwellings per annum 2007 –26)
2021	14,622	8.6 GPs	0.61 GP
2026	19,834	11.7	0.61 GP
2007-2026	Entire Town (45,000 pop.)	26.4 GPs	N/a

Source: URS Calculations

Health Gap Analysis

GP Services Requirement

- 4.3.6. Despite local practices accepting new patients, it appears that there is no surplus capacity for the new population without increasing patient lists over target guidelines.
- Given that growth to a population of about 45, 222 would entail a requirement for a further 12 GPs, this means that new GP surgery facilities will be required.
- 4.3.7. These could be provided in the form of a number of smaller GP surgeries. For example, the GPs could be housed in three surgeries capable of housing three GPs each.

Alternatively, they could be housed in a larger facility, known as a polyclinic, which offer the benefit of housing a number of primary health care services under the one roof, with the intention of improvement services for patients. URS is aware that such clinics are being considered by other PCTs as a means of providing primary health care services.

Hospital Services

- 4.3.8. The closest Accident and Emergency hospitals in Northampton and Rugby appear to be performing well in terms of resources and will be able to take in any additional demand from the proposed expansion of the population at Daventry. Information on local capacity of all the hospitals in Daventry Town and future proposals in response to the population growth has been requested from the Northamptonshire PCT. However, as of yet is still awaited and it is not certain if it will be forthcoming.
- 4.3.9. There is substantial excess capacity in the acute hospital sector of the Warwickshire health economy²⁶, of which St Cross Hospital, Rugby and University Hospital, Coventry, have significant potential to serve Daventry patients. It therefore seems unlikely that any material additional hospital capacity will be needed as a result of Daventry's growth.

Dentists

- 4.3.10. With regard to dentists, there are four dental practices with eight dentists. It should be noted that some of the dentists in the above practices might be working part-time only – and that some of the surgeries may also serve other parts of the Primary Care Trust area. Given the proposed expansion of the population, there could be a slight shortage of NHS dentists, should everyone in the town wish to be registered with one.

Summary

- 4.3.11. In summary, an increase in population to 45,222 garners the demand for an increase in the provision of education and primary health facilities. Therefore to accommodate this increase in population, the following social infrastructure requirements were deemed necessary during the period until 2026:

Table 4-11 Social Infrastructure Requirement by year

Type of Infrastructure	2021	2026
Primary schools (of 420 places each)	3 to 4	4 to 6
Secondary schools (of 1,200 places)	0.6 to 0.8	0.8 to 1.1
GP requirement	8.6	11.7

Source: URS Calculations

This translates into demand for:

- The provision for one primary school per 1,500 dwellings;
- Provision for one secondary school per 7,500 dwellings;
- Provision for one GP per 1,700 people or provision for one GP surgery (with 3 GPs) per 5,100 people

²⁵ Reforming Planning Applications: The Use of Standard Charges – Appendices.

²⁶ Coventry and Warwickshire Acute Services Review

5 Infrastructure Programme and Cost Estimates

5.1. Introduction

- 5.1.1. The following section identifies the likely trigger points for major pieces of infrastructure required by Daventry's forthcoming growth to 2021 and 2026.
- 5.1.2. The trigger points are expressed in terms of population and the number of dwellings. It is important that these figures, and not the years quoted, are recognised as being of prime importance. Nevertheless, the programme does make use of an assumed population of 40,000 in 2021 in order to count back from this date and suggest a potential date for when the respective infrastructure triggers will be reached. It should be noted that a range of factors, including the availability and delivery of serviced land availability, the prevailing economic conditions, and social trends, including the rate and size of household formation, could either slow or hasten the overall speed of increase in both population and dwelling numbers.
- 5.1.3. Using the counting back method from 2021, to an estimate population of 25,374 in 2007, calculations estimate the average annual increase in the population is 1,044 people and the average annual increase in the number of dwellings is 453 over the period from 2007 to 2021. The same average annual increases have been assumed up to 2026.
- 5.1.4. At that rate, there would be approximately 5,220 people and 2,265 dwellings added every five years.
- 5.1.5. This implies that for the period 2021 – 2026, if the average rate of development were to continue in the ensuing five-year period, the population would reach 45,220 in 2026 and 50,444 in 2031.

5.2. Critical Infrastructure Item Trigger Points

- 5.2.1. Table 5-1 below summarises the findings of this Technical Report. It outlines the estimated health and education infrastructure requirements triggered by the expected additional population and dwellings respectively up to around 2026. The population-dwelling trajectory is used to identify the time period over which the demand is likely to come on stream, to indicate a provisional reference point for additional provision.
- 5.2.2. Section 5 analysed the implications of future demand for social infrastructure against the baseline position. It identified the following trigger points for primary and secondary education and health provision:
- Primary education: the requirement for a 420 place primary school is triggered by between 1,500 and 2,000 additional dwellings, based on a pupil yield of 0.04 and 0.03 pupils per year level per dwelling respectively;

- Secondary education: the requirement for a 1,200 place secondary school is triggered by between 7,500 and 10,000 additional dwellings, based on a pupil yield of 0.04 and 0.03 pupils per year level per dwelling respectively;
 - Health care: the requirement for each additional GP is triggered by an increase in population by 1,700, resulting in the requirement for an additional GP surgery able to host 3 GPs every 5,100 additional people
- 5.2.3. To calculate the trigger for both primary and secondary education we have used the 0.04 pupil yield, which we consider is a more cautious assumption to avoid under-provision.
- 5.2.4. Based on the identified trigger point we have calculated the population (for health provision) or dwelling (for education) number associated with the relevant trigger point. Following the same approach we have also identified a time period where the additional provision is likely to be needed.
- 5.2.5. With respect to the likely time period for provision the following issues should also be considered:
- Primary education: The table below shows when the trigger for a new primary school occurs. Information from the NCC additionally indicated that a primary school takes approximately 3 years to complete including the planning and construction phases²⁷. As a result planning for the additional primary schools should begin three years in advance of the likely trigger date shown on the table
 - Secondary education: Phasing is based on the assumption that existing spare capacity in secondary schools is likely to be taken up; The table below shows when the trigger for a new secondary school occurs. Information from the NCC indicated that a secondary school takes approximately 3 years to complete, including planning and construction phases. As a result planning for the additional primary schools should begin three years in advance of the likely trigger date
 - Health: The table below shows when the trigger for a new GP surgery occurs. Consultation with the Northamptonshire Teaching PCT did not indicate the presence of any standard practice with regards to the timing and phasing of new GP surgeries²⁸. In the absence of standard practice, we have used a cautious approach and phasing is based on the assumption that there is no surplus capacity left within existing surgeries for the new population without increasing patient lists over target guidelines. As a result planning for the first new GP surgery should begin immediately, followed by provision of additional GP surgeries a minimum of six months in advance of the likely trigger date

²⁷ Personal Communications with the NCC (Oct 2008)

²⁸ Personal Communications with the Northamptonshire Teaching PCT indicated that it could take anywhere between 6 to 12 months to plan and build for a new GP surgery. This again was said to be dependent on the size of the surgery and types of facilities included in addition to the demand for additional GPs.

5.2.6. Table 5-1 below summarises the findings from the gap analysis. It shows in bold the trigger point resulting in the need for additional provision. The table also shows the population or dwelling numbers associated to the identified trigger point.

Table 5-1 Social Infrastructure Requirements Programme - The trigger is indicated in bold

Additional Population in Daventry	Additional Number of Dwellings in Daventry	Infrastructure Item Requirement	Likely Year / Time Period
25,379	10,192	[Base population point]	2007
+1,700 (Trigger)	+739	Health: Existing spare capacity in primary health care system taken up, additional GP surgery able to host 3 GPs required.	2008
+3,450	+1,500 (Trigger)	Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	2009
+6,800 (Trigger)	+2,956	Health: Existing spare capacity in primary health care system taken up, additional GP surgery able to host 3 GPs required.	2012
+6,900	+3,000 (Trigger)	Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	2012
+10,350	+4,500 (Trigger)	Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	2015
+11,900 (Trigger)	+5,173	Health: Existing spare capacity in primary health care system taken up, additional GP surgery able to host 3 GPs required.	2017
+13,800	+6,000 (Trigger)	Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	2019
+17,000 (Trigger)	+7,390	Health: Existing spare capacity in primary health care system taken up, additional GP surgery able to host 3 GPs required.	2022
+17,250	+7,500 (Trigger)	Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	2022
+17,250	+7,500 (Trigger)	Secondary Education: Existing spare capacity in secondary school system likely to be taken up; additional 11 to 18 years old secondary provision required providing 1200 school spaces.	2022

Source: URS calculations

5.3. Cost Estimates for Major Infrastructure Requirements

- 5.3.1. Table 5-2 provides estimated costs for the estimated health and education infrastructure requirements triggered by the expected additional population and dwellings respectively up to 2026.
- 5.3.2. All cost estimates cover capital costs only, excluding land, running and maintenance costs.
- 5.3.3. Primary education facilities costs are estimated based on cost estimates provided by the Northamptonshire County Council²⁹. The costs are based on a 420³⁰ place primary school and provides a capital cost of £6 million per primary school.
- 5.3.4. Secondary education facilities costs are estimated based on cost estimates provided by the Northamptonshire County Council. The costs are based on a 1,200 place³¹ secondary school and provides a capital cost of £35million per secondary school (including post-16 places).
- 5.3.5. GP surgeries costs are estimated based on approximates from the Department of Health and relevant case studies³². It provides for an approximate building cost per GP of £168.75m² and a construction cost of £2,250 per m² of a health centre. This provides a capital cost of £1.1 million per GP surgery (with three GPs).

Table 5-2: Social Infrastructure Requirements Programme and Estimated Costs³³

Infrastructure Item Requirement	Estimated Cost (£M)
Primary Education: Existing spare capacity in primary school likely to be taken up; additional primary provision required providing 420 school places.	£30 M
Secondary Education: Existing spare capacity in secondary school system likely to be taken up; additional 11 to 18 years old secondary provision required providing 1200 school spaces.	£35 M
Health: Existing spare capacity in primary health care system taken up, additional GP surgery able to host 3 GPs required.	£4.6 M

Source: URS Calculations

- 5.3.6. Overall, therefore there is a need for between four to six primary schools totalling approximately of £30 million, one secondary school costing £35 million and four primary health centres (with three GPs) totalling £4.6 million.

²⁹ Personal Communications with the NCC (Oct 2008)

³⁰ 420 is likely to be the minimum number of additional primary school students arising with the estimated population growth, as shown in Section 4.2 of the report
³¹ 1,200 is likely to be the minimum number of additional secondary school students arising with the estimated population growth, as shown in Section 4.2 of the report.

³² Developing a Planning Obligations Strategy – Consultation Report (May 2008), Technical report on infrastructure requirements in the South East 2006-2026 SQW for SEERA (Sep 2006) – advice from the Department of Health, Recent cases in Notts and Staffs – average.

³³ Costs for education facilities are rounded to the whole number. Costs for GP facilities are rounded to the first decimal.

6 Sustainable Development Scenarios Assessment

6.1. Introduction

- 6.1.1. Having regard to the above information on education and health infrastructure, it is appropriate to consider potential sustainable development scenarios for the new infrastructure. Overall, analysing the existing and spare capacity in schools and health centres, this does not lead a clear conclusion with regard to any one particular development scenario in the town.
- 6.1.2. **Figures SI 1** and **SI 2** identify the areas of opportunity for Daventry's future growth with regard to the opportunities presented by the existing provision of education and health infrastructure.

6.2. Education

Primary

- 6.2.1. Spare capacity in primary schools mostly benefits existing areas and there is little benefit to the development applications sites of Monksmoor, most of Churchfields or Danetree from the existing spare capacity. There are a significant number of spare places at two primary schools - one just north of the town centre and one in the south west of Daventry (**see Figure SI 1**).
- 6.2.2. The latter could make sites to the south west of the town more suitable for development. An important caveat to this is that despite this producing some framework for the suggestion of sustainable development areas, it might not be sufficient to overcome other concerns about such sites - especially any sites on the south of the A45, such as the site near Big Hill - which are viewed poorly in terms of sustainable accessibility because of the barrier that the A45 presents to sustainable movement.
- 6.2.3. The remaining primary school spare capacity doesn't really benefit any green field locations to any significant extent, save perhaps for residential developments in the town centre area, which forms part of three catchment areas with surplus capacity.

Secondary

- 6.2.4. In terms of secondary schools, although there is a significant surplus of school places, the schools have a fairly wide catchment area, which benefits most areas surrounding the town (**see Figure SI 2**). The catchment areas for the two schools, which have been drawn at a radius of 2.2 kilometres around the school (as the crow flies and not mediated to take account of physical barriers to walking and cycling such as Borough Hill), overlap mostly in areas that are part of the existing built-up area of Daventry. The exception to this is where they overlap over greenfields sites to the north east of Daventry town centre, taking in the Daventry Reservoir and the land to its east in the Long Buckby Road corridor.

- 6.2.5. Therefore, this may suggest a potentially more reasonable and sustainable development scenario on account of the potential for sustainable access to secondary education facilities.

6.3. Health

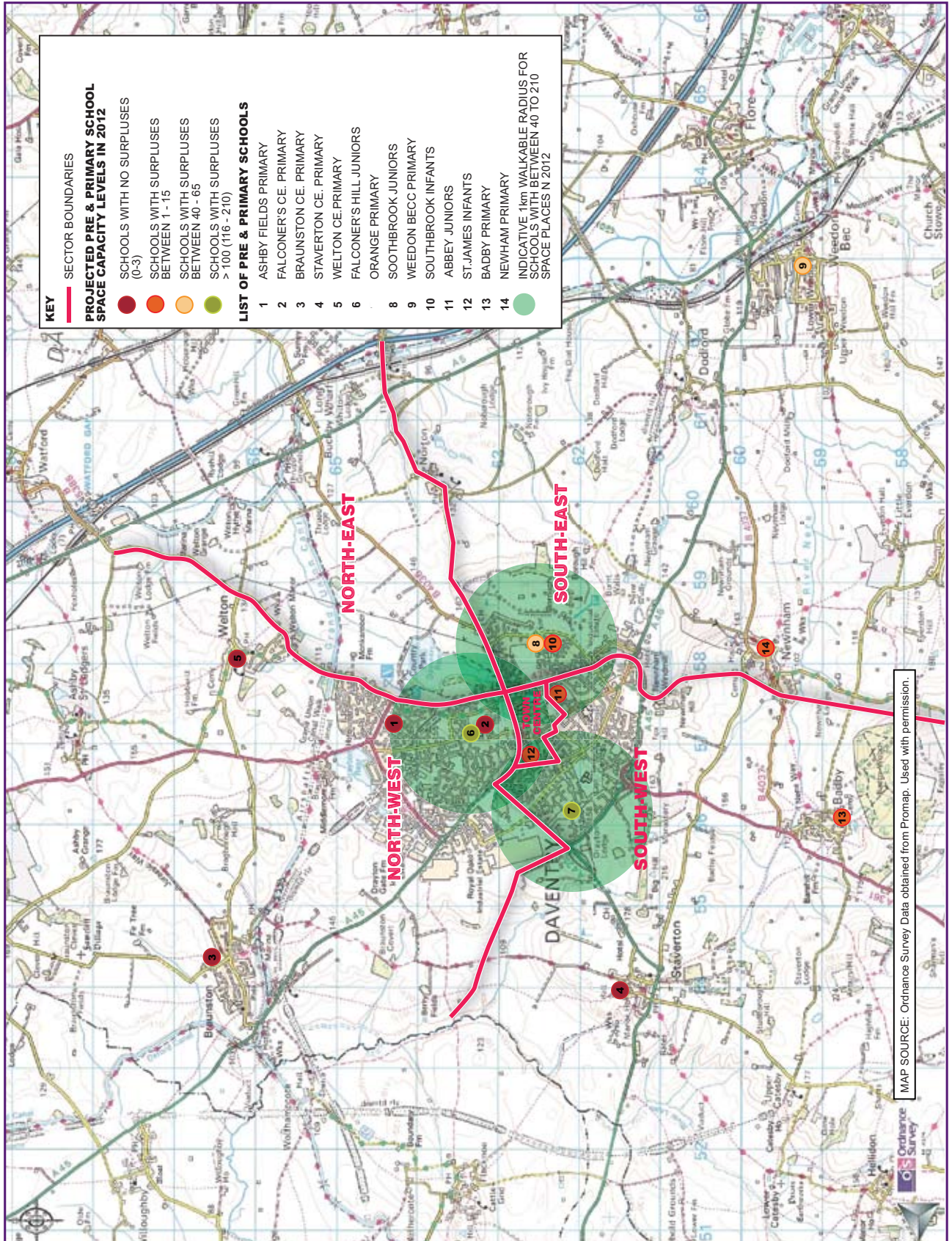
- 6.3.1. While our investigations revealed that the surgeries are all still accepting patients the indication is that they all, operate above the 'average patient / GP' ratio for the country. This means that there is no spare capacity and indicates that new surgeries would be required for any new development.
- 6.3.2. **Figure SI 3** shows the location of the health facilities serving Daventry. However, as it has been assessed that there is no spare capacity, this figure does not show any catchment areas for these facilities unlike **Figures SI 1** and **SI 2**.

6.4. Implications for Social Infrastructure

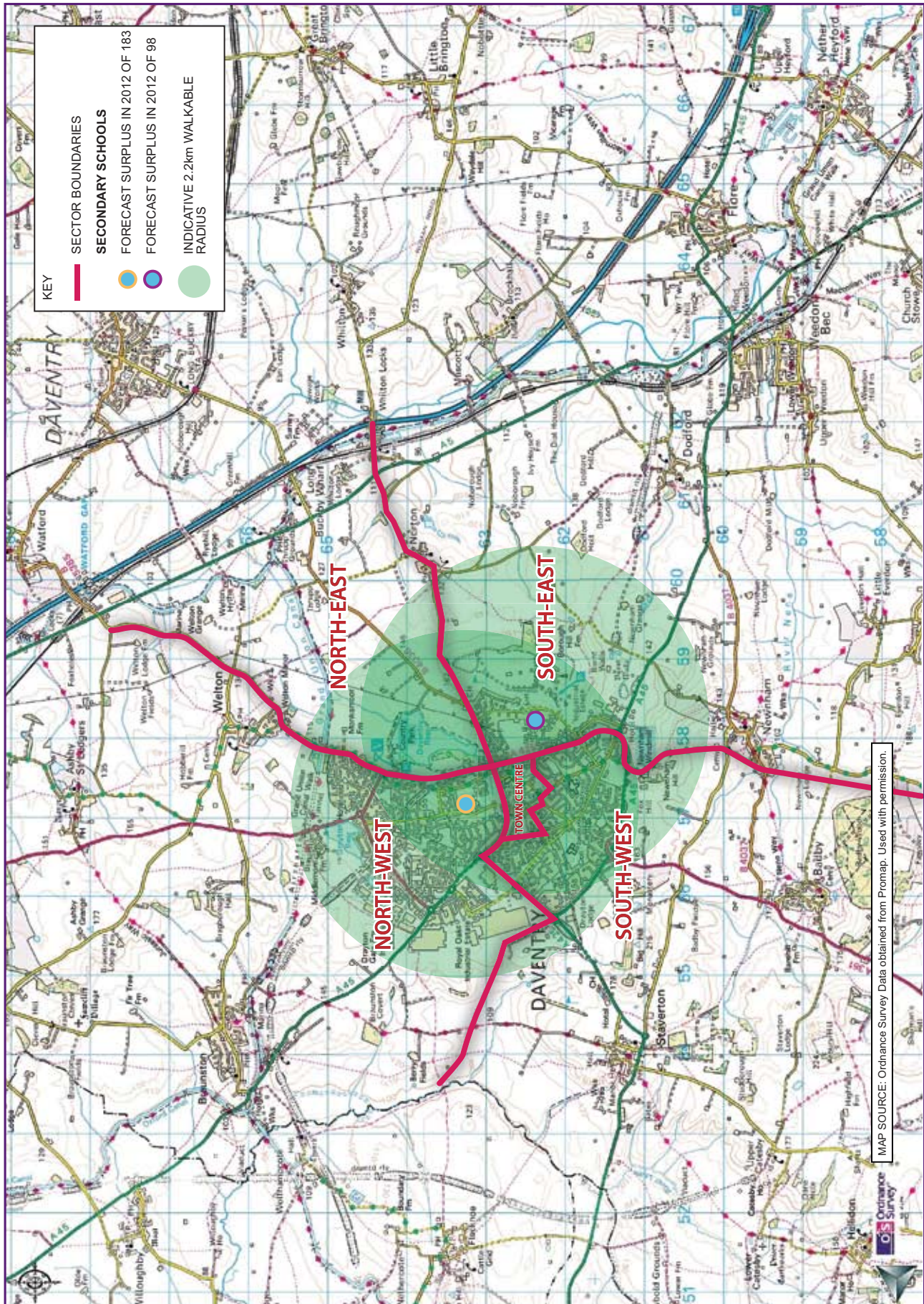
- 6.4.1. The above analysis suggests that there is relatively limited scope for existing pieces of social infrastructure to provide for new green-field development. This assessment is based on the finding that most of the catchment areas for facilities that have spare capacity fall within the existing built-up area of the town.
- 6.4.2. There are some exceptions to this finding. The main exception is with the very southern tip of the northeast sector of the town, which is the area around the junction of the B4036 and the Norton Way. This area benefits from being somewhat proximate to the catchment area for some primary schools with vacancies, and the two secondary schools serving Daventry. The other minor exception is found in the south west sector, where the large surplus anticipated in the coming years at the Grange Primary could present an opportunity for development in the vicinity to benefit from the availability of places.
- 6.4.3. In summary it would appear that, with perhaps the exception of secondary schools for which it is possible to assume a larger radius and catchment area, that the distribution of social infrastructure (specifically schools and GP surgeries) with spare capacity does not suggest any particularly advantageous development scenario. The two possible exceptions are the southern extent of the north east sector (the boundaries of which can be seen by referring to both **Figures SI 1 – 2**) and the south-west sector.
- 6.4.4. In particular, the southern tip of the north east sector benefits from being somewhat proximate to the catchments area for some primary schools with vacancies, and the two secondary schools where the large surplus anticipated in the coming years at the primary school. In addition, the Grange Primary School could present an opportunity in the two coming years for development in the vicinity to benefit from the availability of places.

Appendix A Figures

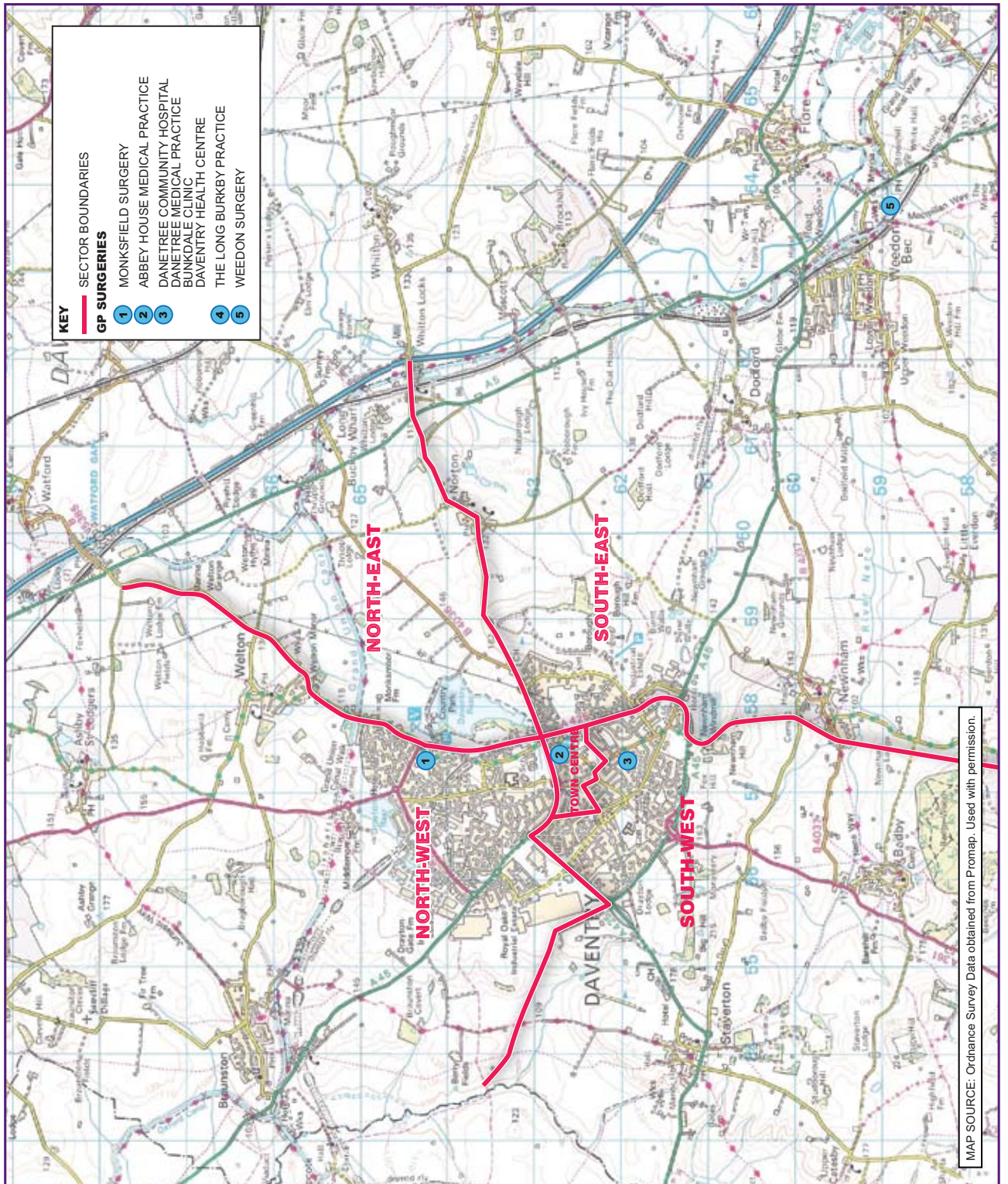
SI 1 - Primary Schools in Daventry and Catchment Areas based on Spare Capacity



SI 2 - Secondary Schools in Daventry and Catchment Areas based on Spare Capacity



SI 3 - GP Surgeries and Hospitals in Daventry





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