



# WNDC Technical Report





# Contents

<b>1 Overview</b> .....	<b>3</b>	<b>6 Annex A:</b>	
		Housing and population projections .....	30
<b>2 Planning obligations in West Northamptonshire</b> .....	<b>5</b>	Population and Housing projections for Northampton .....	30
Local Authority Planning Obligations Policies .....	5	Identifying a total housing provision figure for Northampton .....	31
The application of contribution schedules, formulae and standard charges elsewhere .....	7	Population and housing projections for Daventry town.....	33
		Population and housing projections for Towcester.....	34
<b>3 Approach to Assessing the Infrastructure requirements and infrastructure costs</b> .....	<b>10</b>	<b>7 Annex B:</b>	
Introduction .....	10	Estimated cost per person and per dwelling of infrastructure requirements.....	37
Consultation.....	20		
<b>4 Assessing the viability of residential and commercial development in the WNDC area</b> .....	<b>21</b>	<b>8 Annex C:</b>	
Residential Residual land values.....	21	Development Appraisals and Viability Testing.....	42
Appraisal of Likely Commercial Residual Land Values.....	22		
The Scope for ‘Developer Contributions’ .....	22		
Consultation.....	24		
<b>5 Formulating the Standard charge arrangements.</b> .....	<b>26</b>		
Development and costs to be covered by the Standard Charge.....	26		
Early Informal Consultation.....	27		



# 1 Overview

## The Study

- 1.1 This Technical Report sets out the approach and background research into developing a 'Planning Obligations Strategy', undertaken jointly by Environmental Resources Management (ERM) and Christopher Marsh and Co Ltd (Sustainable Property Consultants) on behalf of the West Northamptonshire Development Corporation (WNDC).
- 1.2 The Strategy is intended to be a working document and therefore subject to periodic review. While the Strategy has been based on the best available costs of physical infrastructure and community facilities as at April 2008, it needs to be acknowledged that this information represents a 'snap shot' in time. WNDC anticipates that further work will be carried out by various bodies, including WNDC, in support of the spatial planning framework, masterplans and infrastructure planning, which will help refine the infrastructure requirements and costs set out in this technical report, and that underpin the standard charge. Moreover, the basis for the discounted standard charge and the working arrangements outlined in the final Strategy will also need to be kept under review to take account of emerging national and local policy and further changes in market conditions.

## The Brief

- 1.3 WNDC, in common with London Thames Gateway and Thurrock Thames Gateway Development Corporations, has a remit to coordinate and secure the delivery of major growth in its area. It has over 20,000 housing units in planning applications awaiting determination within its area, which covers the urban and expansion areas of Northampton, Daventry and Towcester. There is no up to date local development plan policy in WNDC to deliver the remaining strategic housing requirement, around 44,000 dwellings, set out in the draft RSS. A draft Joint Core Strategy is in preparation, which will start to firm up the policy basis, for both development and infrastructure but the timetable for formal adoption of this is at least a number of years away.
- 1.4 WNDC published its 'Planning Principles 2007' for consultation in July 2007. This proposed the introduction of a 'standardised charging system (based around a schedule of costs for specific infrastructure areas)'. It also drew attention to the London Thames Gateway Development Corporation (LTGDC) arrangements and to the merits of a consistent approach in the three development corporation areas.

- 1.5 The purpose of this study is to establish robust arrangement for securing appropriate developer contributions towards the provision of necessary strategic and local infrastructure needed in West Northamptonshire area to support the developments that are coming forward for planning approval. The production of the 'Planning Obligations Strategy' is a key intervention strategy of the Development Corporation and will be integral to WNDC's Regeneration Framework, approved by the WNDC Board in December 2007.

## The Purpose of the Strategy

- 1.6 The level of growth anticipated by the MKSM Sub-Regional Strategy for West Northamptonshire will result in increased pressure on local infrastructure, services and facilities and create demand for new provision. WNDC, developers and statutory service providers have a responsibility, through the planning process, to manage the impacts of growth and ensure that all 'development supports existing communities and contributes to the creation of safe, sustainable, liveable and mixed communities'. (PPS1, Paragraph 5).
- 1.7 The purpose of the Strategy is to establish a transparent, fair and consistent process for negotiating and securing s106 planning agreements. It seeks to provide greater clarity and certainty around WNDC's procedures for s106 planning agreements.
- 1.8 The intention is that the Strategy will:
  - assist developers, landowners and other stakeholders with understanding the infrastructure requirements that will be sought to cope with additional demands brought about by new development;
  - manage more effectively the legal arrangements for negotiating and securing s106 planning agreements;
  - allow for more timely and cost-effective decisions on applications involving s106 planning agreements;
  - enable planning obligations to be considered by applicants from the earliest stages of formulation of development proposals;
  - promote an understanding of available funding streams and allow for the co-ordinated delivery of the essential infrastructure required to support the level of growth anticipated;
  - provide a powerful tool for lobbying Government for 'gap' funding for essential infrastructure; and
  - contribute to the achievement of sustainable development in West Northamptonshire.

## The Objectives of the Study

1.9 The overall purpose of the Strategy was divided into a series of deliverable objectives for this study. These were to:

- examine the strategic options for creating a coherent, robust and workable planning obligations strategy for WNDC, taking account of planning obligations policies in neighbouring areas in order to avoid market differentiation, ie. a high cost regime which deflects potential inward investment to other low cost areas;
- ensure our approach was guided by and is compliant with the present legislation regarding planning obligations, ie s106 of the Town and Country Planning Act 1990 and relevant case law;
- consult widely on the components of the Strategy with local and other stakeholders;
- provide a strategy that is transparent and clearly understood by all interested parties, in particular, the levels of contribution, the infrastructure and services to be funded and the arrangements for collection and distribution of funding;  
and
- advise on arrangements for ratifying the Strategy so that it may be treated as a material consideration when determining planning applications, to be given such weight as the decision maker considers appropriate and securing funding and other commitments from key partners.

## Study Methodology

1.10 The process has involved understanding what the likely 'infrastructure bill' for the area will be and considering this against the 'financial viability of development', taking account of affordable housing requirements and the build quality aspirations WNDC has for the area. The reason for establishing the 'infrastructure bill', for the WNDC's areas, is to be as clear as possible about how much development can be expected to contribute to meeting the overall infrastructure needs of the area. Understanding what s106 agreements can realistically deliver and what will need to be funded from other sources is an important element of the Strategy.

1.11 The other key components of the study have been to:

- review national guidance and practice;
- assess the overall strategic housing requirement to be provided for within West Northamptonshire;
- clarify the various elements of infrastructure and cost to be eligible for developer contributions;
- determine the portion of the justifiable cost that could in practice be raised by developer contributions;
- assess the application of a standard charge regime to various types of development;
- consider the potential strategic policy components with respect to establishing a framework for charging, collection and spending of contributions; and
- to undertake informal and formal consultation with the key stakeholders to test the evidence base and highlight any areas of concern with the proposed Strategy.

## Structure of the Report

1.12 The remainder of this report is presented as follows:

- **Section 2**, local planning obligation policies, the Joint Core Strategy, and the use of standard charges and tariffs elsewhere;
- **Section 3**, the consideration of the infrastructure requirements and costs;
- **Section 4**, assessing the potential for developer contributions from individual developments in the WNDC area;
- **Section 5**, formulating the standard charge arrangements, including the alternatives considered, and the outcomes of informal consultation.

The following technical background papers are provided in the Annexes to this Report:

- Annex A: Housing and Population Projections;  
and  
Annex B: Development Appraisals and Viability Testing Tables



## 2 Planning obligations in West Northamptonshire

### Local authority Planning Obligations policies

#### Introduction

2.1 This section outlines the existing and, where relevant, emerging local s106 policies of the relevant local planning authorities. It also examines the application of standard charges and tariffs elsewhere.

2.3 The relevant planning obligations policies within the current local development plans for each of the LPA's are provided in table 2.1 below.

2.4 Each LPA has a different policy approach to planning obligations. The policies are typical of pre-Circular 05/2005, broadly defining the types of planning obligations that may be sought, primarily in respect of only significantly large residential developments. Affordable housing is the only common obligation type to all three local plans.

#### Local Authority Planning Obligation Policies

2.2 The adopted development plan is made up of 'saved' policies from the Northampton Local Plan 1997, South Northamptonshire Local Plan 1997, Daventry District Local Plan 1997, the Northamptonshire Structure Plan 2001 and the adopted and emerging Regional Spatial Strategy for the East Midlands (RSS8), March 2005. Further detail on the housing and sustainable growth requirements of the RSS8, which includes the Milton Keynes and South Midlands Sub-Regional Strategy (MKSM Sub-Regional Strategy), are set out in Section 3 of this Report.

**Table 2.1 Local Authority Planning Obligations Policies**

Northampton Local Plan – June 1997
<p>Policy T5: Planning permission for the housing development of land north west of Kings Heath will only be granted following a full traffic appraisal of the impact of the development on the local road network and subject to securing the provision of or making an appropriate contribution towards the highway improvements and infrastructure required by that assessment</p> <p>Policy H32: In granting planning permission for residential developments of 40 or more dwellings, the Council will negotiate an element of affordable housing. (NB: The Council has since prepared and adopted an Affordable Housing Supplementary Planning Guidance (Dec 2004), which provides the Council's current policy on affordable housing and includes an affordable housing threshold of 15 or more dwellings).</p> <p>Policy L6: The Council will seek to enter into an agreement with the developer under Section 106 for the maintenance of small areas of public open space associated with new development. The payment from the developer should be a commuted sum sufficient to ensure adequate maintenance for 40 years following completion of the development.</p> <p>Policy L20: Planning permission will be granted for a Country Park at Upton within the overall development of the Pineham and Upton area. The Council will seek such provision by agreement with the developers of the Pineham, Upton and Berrywood areas and relevant landowners.</p> <p>Policy L29: In granting planning permission for any major development in the River Valley Policy area the Council will seek the provision of new facilities where appropriate which are of benefit to tourism by agreement under the Town and Country Planning Act 1990.</p>
Daventry District Local Plan – June 1997
<p>Policy GN3: Implementing Development: Before planning permission for any development is granted, the Council will require to be satisfied that the infrastructure, services and amenities made necessary by the development are in existence or will be provided by the developer or other agency.</p> <p>Policy HS2: Planning permission for residential development for 1000 dwellings will normally be granted on land to the north of the Whitehills area of Northampton, provided that:</p> <p>E) The provision of infrastructure, services and amenities made necessary by the development are ensured.</p> <p>Policy HS26: Where planning permission will not normally be granted for residential development, exceptions may be made for small-scale affordable housing schemes solely to meet particular local housing needs that can not be accommodated in any other way, subject to:</p> <p>C) Planning Obligations and other secure arrangements having been made to ensure that the benefits of affordable housing can be enjoyed by subsequent as well as initial occupiers.</p> <p>Policy CM7 Public Transport: The granting of planning permission for development will be dependent on provision being made for public transport, where appropriate.</p> <p>Policy RC1 Provision of open space in new developments: Planning permission for residential development will normally be granted provided that provision is made for informal public open space at a standard of at least 10% of the development area of 0.2 hectares per 50 houses, whichever is the greater.</p>
South Northamptonshire Local Plan – October 1997
<p>Policy H7: Where there is a demonstrable lack of affordable housing for sale or rent to meet local needs, the Council will negotiate with developers to secure an element of affordable housing within large residential development schemes.</p>

## Northamptonshire County Council's Planning Obligations Framework

- 2.5 The Northamptonshire Structure Plan 1996-2016, was adopted in March 2001. The vast majority of the policies have now been superseded by policies in the RSS and MKSM Sub-Regional Strategy for West Northamptonshire. Policy GS6 Infrastructure, Service and Facilities, has been 'saved' and requires the local planning authorities to use planning conditions, obligations and other powers to secure the necessary infrastructure, facilities and services to support development.
- 2.6 In support of Policy GS6 the County Council has prepared a Draft Planning Obligation Framework and Guidance, Second Consultation Draft, March 2008.
- 2.7 The principles that underpin the County Council's framework are:
- that developers may reasonable be expected to pay for, or contribute to the cost of infrastructure, which would not have been necessary but for their development;
  - to take a single corporate approach to negotiations;
  - to promote a consistent and transparent approach towards the requirement for a calculation of development contributions for NCC provided services;
  - to push for a similar approach to be taken for other services;
  - wherever possible, practical and viable, to identify and promote opportunities for integrated service planning and best practice;
  - to support the Local Delivery Vehicles (LDVs) in their 'ringmaster' role including the development of business plans for infrastructure prioritisation and provision to ensure that there is a clear rule base in place for decisions on funding;
  - to work with others to explore, develop and establish 'banker' arrangements to address the challenge of front-funding the infrastructure required to support growth; and
  - to continue to develop effective processes and practices for joint working with LPAs and LDVs.
- 2.8 ERM has worked closely with NCC to ensure that the approach taken in the Planning Obligations Strategy for WNDC follows a consistent method and uses data which has been agreed by NCC for calculating contributions towards those infrastructure or service requirements for which the County Council is a delivery authority, including:
- Schools;
  - Transport; and
  - Community Services, including libraries and social care facilities
- 2.9 Employing a consistent approach in the methodology used to calculate specific infrastructure item provision and cost will help avoid market differentiation, at least within the County.

## Daventry District Council – Draft Infrastructure Schedule

- 2.10 The Daventry Draft Infrastructure Schedule, April 2008, sets out DDC's identification of the local infrastructure requirement to support the expected development in Daventry. It was adopted by DDC as an interim policy in February 2008. The key differences between the WNDC and DDC infrastructure schedules are the inclusion of the following items in the Daventry Infrastructure Schedule:
- Further and Higher Education (gap funding);
  - Daventry – A Town in Motion (which is an audio-visual and virtual reality experience helping residents understand the town, its' past, present and future);
  - Competition-standard Golf Course;
  - Southbrook Renewal;
  - Bio-CHP System;
  - Sewage Treatment;
  - Daventry Water Space (the creation of a town centre waterfront and link to the Grand Union Canal);
  - Police Station Relocation;
  - Marshes Regeneration;
  - Central Knowledge Park and Knowledge Corridor;
  - Daventry Enterprise Centre;
  - National-Level Tourist Attraction;
  - Central Conference Centre; and
  - Enterprise Support.
- 2.11 One objective of the Daventry schedule is to inform the WNDC infrastructure schedule for any standard charge arrangement. In this regard, where there is support in national and regional policy and guidance, and costs can be derived and apportioned, certain items listed (but not all) have been considered for inclusion in the WNDC infrastructure schedule. Such items include further and higher education, bio-CHP system and enterprise support.
- 2.12 Based on the previous EDAW work ('Using Increases in Land Value to Support Infrastructure Provision in North and West Northamptonshire', NCC, Dec 2006), the Schedule assesses the maximum possible figures for developer contributions in Daventry as:
- Large greenfield [site]: £31,600 per dwelling;
  - Small Greenfield [site]: £32,600 per dwelling; and
  - Small brownfield [site]: £12,600 per dwelling.
- 2.13 It concludes that the assumed level of public sector investment would result in an average per-unit developer contribution of £22,490 but then assumes an application pro-rata to the maximum figures each type of site could sustain, leading to indicative figures of £26,113 for greenfield units and £10,412 for brownfield ones.

2.14 In this Strategy, we are not using 'increases in land values' as the approach to address or calculate the requirement or the level of contributions that development can realistically afford. Where planning applications cross the administrative boundary between Daventry DC and WNDC, account will need to be had to the DDC Draft Infrastructure Schedule and WNDC's Planning Obligations Strategy. In such circumstances, WNDC will seek to work alongside DDC and the developer to try and reach a mutually acceptable approach. However, where this is not possible, both the LPA and WNDC will need to negotiate obligations in accordance with their own policy. Such matters should be addressed by all parties at pre-application discussion stage".

### The Joint Local Development Framework (LDF)

2.15 It is the responsibility of the three local planning authorities to prepare Local Development Frameworks (LDFs), setting out the policies required to deliver the spatial vision and strategic objectives for their respective areas. However, recognising the links between their areas, the three authorities have agreed to prepare a Joint Core Strategy. This will provide the context for all the other documents that make up the Local Development Frameworks that the Councils will prepare separately and together.

2.16 The Joint Core Strategy is at an early stage, with the Issues and Options paper having been published in October 2007 for public consultation. Section 3.6 of the Issues and Options paper addresses the issue of planning obligations, stating that:

**'When granting planning permission for both residential and commercial development local authorities and the WNDC will require appropriate contributions through Section 106 (legal) agreements. These will be used to support a substantial infrastructure investment programme.'**

2.17 The timetable for the production of the Joint Core Strategy is set out in the Local Development Scheme (LDS), which indicates publication of the Preferred Options stage in Spring 2008, and adoption of the final Strategy in December 2009. However, the timing of the program is currently under review, with a pre-submission draft Core Strategy proposed for Spring 2009. It is also intended that the proposed Joint Strategic Planning Committee be in place to drive forward decisions and delivery of joint Local Development Documents for the area. These revisions and proposals are likely to be set out in more detail in a revised LDS.

2.18 Planning obligations are increasingly being seen as a tool for achieving environmental and other improvements to help to promote sustainable communities. The emerging JCS and LDDs will need to be more comprehensive than the existing development plan and address the use of planning obligations through much more detailed policies aimed at securing contributions towards a wider range of policy areas, that include affordable housing, transport and open space, as well as education, healthcare, local labour and training initiatives. There is merit in the WNDC Strategy being taken forward by the Joint Planning Unit as a Supplementary Planning Document and applied consistently across West Northamptonshire. The benefits of the wider adoption of the WNDC Strategy are examined further in Section 4 of this report.

### WNDC Daventry Infrastructure Studies (DIS)

2.19 To identify the infrastructure requirement to support development in Daventry, WNDC commissioned consultants URS to prepare the DIS, which covers the services areas of transport, education/health, green infrastructure, utilities and water and sewage. The findings of the consultation draft of the DIS, May 2008, have informed WNDC's Infrastructure Delivery Programme, which will be used as the basis for prioritising WNDC's investment in coordinated infrastructure provision. The DIS has also assisted in building up the infrastructure costs schedule required to underpin the standard charge.

### The application of contribution schedules, formulae and standard charges elsewhere

2.20 It is our experience in carrying out planning obligation policy reviews elsewhere and site specific appraisals of major development proposals that:

- a. Many authorities are carrying out policy reviews and studies. Many did so in anticipation of Planning Gain Supplement, and now Community Infrastructure Levy. Circular 05/2005 has prompted some, such as LB Greenwich, to update their policy position and add weight to current practice as part of / in advance of the Local Development Framework. While the Circular advises authorities to carry out such reviews in concert with neighbouring authorities, there is only limited evidence to date of joint working.
- b. While very few authorities carried out financial viability testing of their old policies prior to adoption, in effect relying on market reaction to test the practicality of policy, planning authorities are now commissioning valuation exercises in order to provide some reassurance that policies are capable of implementation.
- c. An increasing range of types of planning obligation are being calculated in a formulaic way, where possible, but there is limited commonality in the approach from authority to authority. Indeed, the methodologies used to calculate contributions have been challenged, particularly education contributions.
- d. A considerable number of authorities now have schedules of standard contributions or formulae for each service, which is a small step from adopting a single standard charge per dwelling or per sq. metre of development.

## Milton Keynes Tariff

- 2.21 The best known 'standard charge' or 'tariff' system established to date has been set up by the Milton Keynes Partnership (MKP). It is the local planning authority for major applications within the designated Urban Development Area of Milton Keynes, which includes two major urban expansions of the city. It has:
- established, with Milton Keynes Council, the plan-making authority, a policy framework for development;
  - created a programme for delivering the essential infrastructure and facilities required in these areas through an investment plan;
  - assessed the prospective funding of these facilities by the relevant service providers;
  - determined the appropriate level of 'tariff' which should be applied to residential and commercial development; and
  - agreed to forward fund, prior to income being received from the 'tariff', a sufficient proportion of the infrastructure costs for essential facilities.
- 2.22 The Milton Keynes Partnership has negotiated an overall agreement with the limited number of principal landowners and has been negotiating individual s106 obligations, based on that agreement, for individual major developments. The Milton Keynes 'tariff' has been set at £18,500 per dwelling or £260,000 per hectare of employment development. Over the life of the development, these tariffs will yield around £310 million. The total infrastructure and facilities costs, which include maintenance of public realm and open space, are likely to be around £1 billion. The funding for each infrastructure or community facility is being negotiated separately, but the relevant public sector bodies are generally able to provide 75% of the funding for strategic projects. The Partnership will meet the rest and has agreed to deliver necessary infrastructure at the appropriate times. The 'tariff' applies to all development over 10 dwellings or 1 hectare of commercial development and will be collected in stages. 25% is to be paid on the grant of an implementable permission with the remainder due on completion of the development or at a 'long stop' date, usually 10 or 15 years after grant of permission.

2.23 While there are numerous detailed considerations which have had to be resolved by negotiation, the advantages of the arrangements for both the Council/MKP and developers are clear and mutual. There is certainty both in relation to the amounts and timescale for payments for the developer as well as reasonable certainty that the necessary infrastructure will be in place, whenever it is needed to support individual developments.

2.24 As part of the agreements, developers in Milton Keynes are committed to meeting high standards of sustainable development (as required by the Council's adopted policies). If developers choose to exceed this already stringent standard, they will receive a small offset to their tariff payment.

## London Thames Gateway Development Corporation

2.25 ERM was commissioned by the London Thames Gateway Development Corporation (LTGDC) in 2006 to prepare a Planning Obligations Community Benefit Strategy. An interim version of the Strategy was adopted, following consultation, in July 2007. Since then, LTGDC has been applying the principles of the Strategy, and in doing so, has secured a number of agreements using the Standard Charge. Following further consultation on the concept of Deferred Contributions, a revised Strategy was adopted in March 2008.

2.26 For the Lower Lea Valley, the present Full Standard Charge is £22,600 and £28,800 for London Riverside. Based on the viability of residential and commercial developments, a Discounted Standard Charge is being applied of £10,000 and £6,000 respectively, with affordable housing provision of 35%. The principle of levying Standard Charges on commercial development is included in the policy, but the view was taken that the application of the approach would lead to disproportionate costs and that it would be more effective to negotiate contributions on a site by site basis. The charge reflects less than 50% of the total cost of the infrastructure requirement. Like Milton Keynes, LTGDC seeks 25% of the Discounted Standard Charge to be paid upon grant of permission and the remaining 75% on practical completion or each residential or commercial unit.

## Consistency with Standard Charges in North Northamptonshire

- 2.27 In North Northamptonshire, the MKSM Sub-Regional Strategy sets out similar levels of growth to that in West Northamptonshire. As such, the North Northants Development Company (NNDC) is progressing with the preparation of a planning obligations strategy in concert with local authorities engaged in the North Northamptonshire Joint Core Strategy.
- 2.28 North Northamptonshire Joint Core Strategy has been through examination in public, was found to be sound by the Planning Inspector, and was adopted in June 2008. It includes Policy 7 'Infrastructure Delivery and Developer Contributions', which identifies the use of a two-tier standard charge approach for planning obligations. In his Report, it is interesting to note that the Inspector's key concern with the Strategy was the lack of an agreed highways and infrastructure funding programme. To overcome this issue, the North Northamptonshire Joint Planning Unit has proposed an early review of the Strategy to take account of the long-term sound evidence base required for infrastructure provision.
- 2.29 The NNDC Developer Contributions SPD is still under preparation. Given their proximity and the involvement of several of the same key stakeholders (eg Highways Agency, NCC), ERM has been seeking to maintain a consistent approach. This has involved a continuing series of meetings to discuss the services to be covered by the WNDC standard charge, the costs derived and the approach taken to valuation/residual values.
- 2.30 While it is desirable that there are no unnecessary or damaging differences between the approaches, it is more important that WNDC adopts an approach which meets its needs and can be properly defended. For this reason, there may be divergences in the final strategies adopted by WNDC and NNDC.

## Conclusions

- 2.31 There is historic policy support at the local level to secure planning obligations towards a range community services and infrastructure in the development plans of the three local authorities. The adoption of a consistent s106 policy in the Joint Core Strategy will bring the development plans up to date, but the timeframe for this means that a number of authorities are progressing with interim policy ahead of the JCS, WNDC included, in an effort to manage the impacts of developments currently waiting to be determined.
- 2.32 Within the WNDC areas the overriding objective, and statutory purpose of WNDC, is to secure the regeneration of its area. In order to effectively do this, WNDC is preparing the Regeneration Framework, setting out the vision, strategies and necessary guidance/policy to begin delivering upon its remit. Central to this is ensuring an approach to planning obligations that ensures development contributes financially or in kind towards the infrastructure needed in the WNDC areas.
- 2.33 There is, in WNDC, the opportunity to create a set of formulae to calculate the appropriate level of financial contributions to each service across the WNDC area and to consolidate this into a Standard Charge, similar to those adopted in Milton Keynes and LTGDC.



## 3 Approach to Assessing the Infrastructure requirements and infrastructure costs

### Introduction

- 3.1 In this section, the report sets out the approach taken to infrastructure costs, the extent of planned house building and the basis for a standard charge.

### Identifying the Housing Requirement

- 3.2 West Northamptonshire is part of the Milton Keynes and South Midlands (MKSM) growth area, which was identified by the Government as an area for major growth. The MKSM Sub-Regional Strategy - March 2005 forms part of both the current and emerging Regional Spatial Strategy for the East Midlands (RSS8).
- 3.3 The Draft East Midlands Regional Plan was published in September 2006. In December 2006 the East Midlands Regional Assembly undertook additional consultation on a replacement housing figure for the Northampton Implementation Area (NIA) in the draft RSS, following an earlier High Court Challenge. The Examination in Public took place from May to July 2007, and the Secretary of State issued the Schedule of Proposed Changes in July 2008. Table 3.1 sets out the draft strategic requirement for West Northamptonshire, which makes provision for 62,150 additional dwellings between 2001 and 2026. The table also provides a summary of the completions and outstanding planning permissions to April 2007, the remaining housing requirement to be delivered across West Northamptonshire, and an estimate of the portion that may fall to WNDC to determine.
- 3.4 This assessment estimates that the remaining total housing requirement for West Northamptonshire amounts to 46,422 new dwellings between 2007 and 2026, against which a planning obligation towards the cost infrastructure and services could be levied. To determine the portion still required to be delivered across West Northamptonshire required consideration of housing completions and commitments to April 2007 and the housing projections prepared by each LPA in their Annual Monitoring Report.

The housing projections, along with a detailed assessment of the overall housing requirement, are provided in Annex A.

### The Timing of Development Coming Forward

- 3.5 The three local plans have expired and the supply of allocated sites is now limited. The Joint Core Strategy, being prepared for the three West Northamptonshire authorities, is unlikely be in place before 2010, with housing allocation DPDs to follow after that. ERM's view on house building rates (without imposing any infrastructure constraints or market influences) is that development rates will initially peak at around 2,200 units per year in 2011 to 2012 in line with strategic sites coming forward in the LDFs. However, there is likely to be a significant build rate to be achieved later in the plan period, as the limited urban capacity within Northampton especially, brings forward development of urban expansion sites.
- 3.6 In reality, rates of development are likely to be constrained by the following factors, which are:
- market conditions over the next two or three of years;
  - the expectations of landowners as to the value of development land and the period required for the land market to adjust to realistic long term values;
  - fluctuations in house prices, incomes and mortgage finance;
  - available infrastructure capacity; and, possibly
  - ability of the market to absorb new housing, taking account of the pace of development taking place in adjacent areas; and
  - capacity of the construction industry generally in Northamptonshire to deliver housing and infrastructure.
- 3.7 While it is reasonable to anticipate that all 46,422 dwellings will be built out by 2026, the timing of this development will be heavily dependant on the above factors, and will need to be monitored by the WNDC in their consideration and application of a Planning Obligations Strategy.

**Table 3.1 Remaining Housing Requirement for WNDC 2001-2026**

	Total Strategic Housing Requirement (Draft RSS)	Completions and Outstanding Planning Permissions to April-2007	Remaining Strategic Housing Requirement	Remaining Housing Requirement to be met within the WNDC areas
Northampton Implementation Area	40,375	10,618	29,782	27,149
Daventry District	13,500	3,123	10,377	8,171 (Daventry Town)
South Northamptonshire	8,250	1,987	6,263	3,276 (Towcester)
Totals	62,125	18,460	46,422	38,596

Source: ERM Analysis

## The Levels of Anticipated Commercial Development

- 3.8 A key policy objective of the MKSM Sub-Regional Strategy is to balance the growth in housing numbers with a commensurate level of employment growth. While the MKSM Sub-Regional Strategy provides a figure for monitoring purposes, a more realistic target however, is provided in the draft Strategic Northamptonshire Economic Action Plan (SNEAP), which includes a figure of 53,000 additional jobs in West Northamptonshire from 2001 to 2021.
- 3.9 Neither the Draft RSS nor the MKSM Sub-Regional Strategy give an indication of the amount of land or floorspace that should be allocated to the various employment uses. As planning advances, it will become possible to broadly determine the gross employment land requirement to achieve the spatial vision and objective sought. As such, a later review of the Strategy should consider whether standard charges could realistically, be derived for each type of commercial land use.

## Defining Infrastructure Requirements to Match Development Needs

- 3.10 The necessary strategic and local infrastructure required to match the development needs of the WNDC area, represents the total amount of infrastructure required to provide for the satisfactory functioning of the three towns during the whole plan period to 2026. This covers the combined needs of the population of existing and planned new housing, as the additional development can only function adequately if the area as a whole does. The total needs include the infrastructure required to cater for the level and type of employment needed to support the combined population.
- 3.11 As well as the costs of accommodating additional housing and employment, the total costs of providing sufficient infrastructure to meet the needs of the future population of the whole urban areas include:
- meeting existing infrastructure shortfalls in terms of current desirable provision standards;
  - maintaining current standards of infrastructure provision by ongoing renewal;
  - raising current standards of infrastructure provision by upgrading, extending and adding facilities;
  - meeting additional infrastructure needs likely to arise among the existing population, for example as a result of the changing age structure and disposable incomes;
  - adjusting forms of infrastructure provision to reflect new ways of delivering services (eg community hospitals, neighbourhood police units);
  - meeting infrastructure needs imposed on the area by users resident outside the area, for example highway capacity to accommodate visitors or through traffic.

- 3.12 This definition of total costs is conceptual and accurate data is rarely available to support estimates for most of these types of infrastructure. This is due partly to the uncertainties involved and partly to the fact that few infrastructure providers attempt to assess total requirements more than a few years into the future.

## Defining the Scope of Infrastructure Costs

- 3.13 The costs associated with providing infrastructure comprise the capital costs of building and accommodating the facilities, the costs of running the facilities and the costs of maintaining them on a continuing basis. In general, it is reasonable to assume that once facilities are in place, there should be regular public funding sources available for running and maintaining them as for the rest of the existing stock of facilities. The costs relevant to the present exercise should therefore normally be restricted to the one-off capital costs.
- 3.14 There are, however, some revenue costs which it has become customary to include in s106 agreements, for want of any other clear sources of funding. Of these, the maintenance costs of green spaces, play spaces, start-up costs for running community facilities and employment training costs, are widely accepted. These and other similar revenue costs are considered appropriate for inclusion in a standard charge.
- 3.15 Apart from these exceptions, the term 'infrastructure costs' is restricted here to the capital costs of providing infrastructure in the form of new facilities or increased capacity of existing facilities, including, where relevant, the costs of land. They do not include the costs of studies aimed at ascertaining the feasibility of development, such as Strategic Flood Risk Assessments, which have to be undertaken before development can be approved, nor are the costs for constructing development to meet current sustainability requirements considered to be an 'infrastructure cost' for this purpose.
- 3.16 In many cases, land is required to accommodate some forms of infrastructure and this is a legitimate item for inclusion in the Standard Charge. However, it can often be appropriate for a developer to provide such land at nil cost to the service provider, in which case, WNDC will allow the developer to off-set part of the value of the land provided. However, such land costs will only be allowed in relation to those types of infrastructure listed in Table 3.7, provided later in this section. There will be no off-set of the value of land provided for affordable housing.

## Defining Infrastructure Costs that would be Justifiable for Payment by Developer Contributions

3.17 The above definition of the total cost to be covered by infrastructure providers over the plan period goes beyond what could reasonably be charged to developers in new development areas. Under current government policy set out in Circular 05/2005,

**'planning obligations should not be used solely to resolve existing deficiencies in infrastructure provision or to secure contributions to the achievement of wider planning objectives that are not necessary to allow consent to be given for a particular development' (Para B9). The requirements should be 'directly related to the proposed development' and 'fairly and reasonably related in scale and kind to the proposed development'.**

3.18 There are two ways of considering the costs of such items of infrastructure for present purposes:

- i. as a gross requirement, considering the needs of the new development in isolation from the needs of existing areas; or
- ii. as a net or marginal requirement, comprising the difference between the total requirements of the area from the definition in (i) above and the infrastructure that would have been required to serve the needs of the existing development had there been no new housing. This measure would take account of potential adjustments to provision serving existing areas to facilitate efficient servicing of the whole area. Such opportunities may be expected to become available as decreasing household size leads to reduction in population in the existing housing stock. They may involve the release (or reduction in) capacity for use by the new development or the substantial restructuring of provision through a combination of inserting new facilities and closing some existing ones).

3.19 Estimates of the costs of the infrastructure requirement to serve new development areas become more reliable as planning advances. At the earliest stage when only total quantities are known, as in West Northamptonshire where the Joint Core Strategy is still under preparation, only gross requirements can be assessed and then only on a unit demand and unit cost basis. Even if spare capacity can be identified at this stage, there can be no certainty that it will be appropriately located to serve the new development, much of which is likely to take the form of substantial urban extensions, away from existing infrastructure provision.

3.20 When a detailed level of planning has been reached, planned provision of infrastructure can be tailored to the local situation, i.e. taking into account not just the facilities needed to meet the needs of the new development, but also how the new development's needs can be dovetailed into the provision in existing development areas so as to make best use of any available spare capacity or to meet any existing shortfalls. In this case, the planned provision, which is a net requirement, can be costed with some confidence. However, as planning advances, the estimates from the broad approach may turn out to have over or underestimated the actual costs that need to be covered. A cautious approach to costing the infrastructure requirement is therefore recommended.

3.21 At this stage, the gross infrastructure costs need to be used as the starting point for assessing the target levels of contribution to be secured for developments, with any charge being set with a margin between the identified gross costs and the actual charge to ensure that it is unlikely that excessive costs are being recovered.

## Identifying Infrastructure Items Appropriate for Funding by Developer Contributions

3.22 Table 3.2 sets out a long list of types of infrastructure required to support new development and which deserve consideration for coverage by developer contributions. It was compiled by collating items identified in reports on London Thames Gateway, Milton Keynes, and Aylesbury Vale. The table indicates first whether the need for the facility is generated directly by residents of new housing or more indirectly through their employment, or both. It then shows whether the facility has been identified in the EDaw Infrastructure Study <sup>(1)</sup> or the Daventry Infrastructure Strategy <sup>(2)</sup> and, if so, whether it was classed as 'local' or 'strategic' infrastructure. Finally it indicates whether the facility is among those covered by the Northamptonshire County Council Planning Obligation Framework and Guidance <sup>(3)</sup>, the Milton Keynes Infrastructure Tariff <sup>(4)</sup> or the LTGDC Standard Charge <sup>(5)</sup>. Milton Keynes is the most comprehensive s106 tariff to date and is likely to serve as a guide to those items which can legitimately be included within a tariff.

(1) Edaw, Using Increases in Land Values to Support Infrastructure Provision in North & West Northamptonshire, Dec 2006

(NB we are not using 'increases in land values' as the approach to address or calculate requirements).

(2) Daventry District Council, Daventry Infrastructure Strategy (DIS), March 2008

(3) Northamptonshire County Council, Creating Sustainable Communities: Planning Obligations Framework and Guidance, March 2008

(4) Milton Keynes Partnership, Breakdown of Infrastructure Costs Estimated at April 2005

(5) ERM, London Thames Gateway Development Corporation, Planning Obligations Community Benefit Strategy, Dec 2006

**Table 3.2 Long List of Infrastructure Items for Potential Inclusion in Standard Charge**

Type	Facility	EDAW ULV	DDC	NCC	MK	LTGDC
Affordable Housing						
Education	Early Years	L	L	Y	Y	Y
	Primary (2FE)	L	L	Y	Y	Y
	Secondary (8FE)	L	L	Y	Y	Y
	Adult Learning					
	Further Education	S	L		Y	
	Higher Education	S	L		Y	
Culture & Community	Libraries	L	L	Y	Y	Y
	Museums & Archives				Y	
	Public Art				Y	
	Community Centre	L	L		Y	Y
	Youth Centre				Y	Y
	Ecumenical Centre					
Social Care	Day Care		L	Y	Y	
	Older Persons Housing		L	Y	Y	
	Children's Homes		L	Y	Y	
Open Space	Local Park	L			Y	
	LAP	L			Y	
	LEAP	L			Y	
	NEAP	L			Y	
	District Park	L	L		Y	Y
	Green Infrastructure		L		Y	Y
Recreation & Leisure	Sports & Leisure Centre	L	L		Y	Y
	Swimming Pool		L		Y	
	Playing Pitches		L		Y	Y
Crematoria & Burial Grounds	Crematoria				Y	
	Burial Grounds	L	L		Y	
Emergency Services	Police Stations	L	L			Y
	Fire Stations	L		Y		Y
	Ambulance Stations	L			Y	
Health Services	GP Health Centre (6D)	L	L		Y	Y
	Dentist					
	Intermediate Care					
	Acute Hospital	S			Y	
	Mental Health Facility				Y	
Waste	Household Waste Site	L	L	Y	Y	
	Commercial Waste Site	L	L	Y	Y	
	Waste Disposal Facilities	L	L	Y	Y	
	Refuse Recycling Points	L	L	Y	Y	
Transport	Road	S	L	Y	Y	Y
	Rail	S	L	Y	Y	Y
	Public Transport	S	L	Y	Y	Y
	Local Transport	L		Y	Y	Y
Utilities	Water Supply	S				
	Sewerage	S				
	Electricity	S				
	Gas					
	Telecommunications					
Public Realm		L			Y	
Flood Defence		S		Y	Y	
Voluntary Sector		L/S		Y		
Inward Investment & Enterprise Support		L		Y		
Decontamination					Y	
Neighbourhood Renewal		L	Y			
Vocational Training linked to Employment		L				
Daventry – A town in motion						
Golf Course						
Biodiversity Measures		L				
Bio-CHP System						
Knowledge Park		L				
National-level Tourist Attraction						
Central Conference Centre						

Source: ERM Analysis of Published Reports

3.23 A wide array of funding sources exists to cover the cost of providing, operating and maintaining infrastructure. These sources include:

- the regular funding arrangements of the infrastructure providers themselves, which usually cover running and maintenance costs but are more limited in their ability to cover capital costs of new or restructured capacity;
- special funding arrangements from Government, especially Growth Area Funding (GAF) and Community Infrastructure Fund (CIF), aimed at assisting in the provision of a range of new or expanded infrastructure; and
- developer contributions.

3.24 However, allocating the future costs of infrastructure to particular sources presents difficulties. There are, for example:

- no hard and fast rules about what types of costs can or should be covered by many of these funding sources;
- substantial uncertainties about the level of funding that may be offered by these funding sources in the future; and
- various 'competitive' mechanisms by which certain public funding is allocated and it is difficult to predict which particular projects may be expected to capture whatever funding might be available and the proportion of the cost that might be covered.

3.25 The Study has focused on that portion of the total costs of future infrastructure requirements which can justifiably be ascribed to new development and therefore potentially secured through developer contributions. Some of this infrastructure is likely to be eligible for other types of funding. The question arises whether all of those costs should be included in the cost base for any Standard Charge. In practice, if not in principle, where there is reasonable certainty that the whole of such costs is supposed to be covered by other funding sources, it is possible to exclude them.

### Privatised Utilities

3.26 The utility companies raise funds for investment through user charges and borrowing.

3.27 The privatised water services sector is subject to Government regulation through Ofwat, in relation to prices and investment plans, and the Environment Agency, in relation to water quality, abstraction and broader environmental issues. Ofwat controls the prices that water companies can charge, which consequently affects their investment plans. Water companies have to submit their 5 year business plans to Ofwat for approval and to persuade Ofwat of their need to invest new capital to meet the needs of growth. Anglian Water is the private water company which provides water supply and waste services in the West Northamptonshire area.

3.28 There is a broadly similar arrangement for the supply of electricity. The supply of electricity in the Northampton area is managed by EDF Energy and the National Grid Company, which are responsible for ensuring new or replacement capacity. National Grid plc is responsible for transmitting gas to users in the region. Electricity and gas prices to the customer are regulated by Ofgem, and this ultimately affects the scope of National Grid and EDF Energy to make investment decisions to cover forecast increases in demand.

3.29 By a range of different arrangements, developers (and end users) make direct contracted arrangements to contribute to the delivery of services by the utilities.

3.30 Our recommendation is that WNDC should not require developer contributions towards utility provision which can be handled through the existing procurement and market mechanisms. There may be circumstances, for example, in relation to innovative renewable or low carbon energy networks, where WNDC would have a legitimate role as coordinator or funder of such infrastructure.

### Crematoria

3.31 These are usually privately built and operated, with costs met through user charges imposed, although land costs may need to be met by public funds.

### Remediation of Contaminated Land

3.32 Responsibility in law is intended to reflect the ‘polluter pays’ principle, which, in practice, means that the responsibility is often passed to the prospective developer to ensure that development is safe and suitable for use for the purpose for which it is intended. It is therefore appropriate that the developer retains responsibility for ensuring that contaminated development sites are adequately treated save, for example, where land is being acquired for public purposes and needs to be remediated.

### Adult Learning

3.33 Provision for adult learning is normally fully funded by the Learning and Skills Council, other public sources and user charges.

### Range of Infrastructure and Facilities to be covered in the WNDC Standard Charge

3.34 Any Standard Charge arrangement in WNDC must be designed, as far as possible, for a seamless transition into Community Infrastructure Levy (CIL). Present guidance on planning obligations, in Circular 05/2005, takes, in some respects, a narrower view of how obligations should be formulated (including Standard Charges).

3.35 Given the emerging statutory basis for CIL, the principal concerns of landowners and developers in WNDC in relation to the Standard Charge will not focus on the exactness of the relationship of any one development and the charge, but on the wish to avoid any innovative aspects of the charge, which may be seen as unwelcome precedents for CIL.

3.36 ERM's advice on which infrastructure and facilities should be included derives from:

- existing practice in standard charge and tariff arrangements, taking account of CIL as far as it has been defined;
- the extent to which particular infrastructure programmes can be robustly defined and costed;
- WNDC's existing practice in negotiated planning obligations; and
- a desire to adopt arrangements that are consistent with those being proposed by NNDC and, where possible, match existing practice in the relevant local authorities.

3.37 On this basis, and taking account of the discussion in Section 3.8, the infrastructure items listed in Table 3.3 are proposed for inclusion in the Standard Charge at present.

**Table 3.3 Proposed Provisional List of Infrastructure Items for the WNDC Standard Charge**

Type	Facility
Education	Primary and Early Years school
	Secondary school
Culture & Community	Libraries
	Museums & archives
	Community centre
	Cultural investment
Open space	Locally Equipped Area of Play *
	Neighbourhood Equipped Area of Play *
	Non Equipped Area of Play *
	District park *
	Green infrastructure
Public realm	Public realm
Recreation and leisure	Sports hall
	Swimming pool
	Playing pitches
Emergency services	Police stations
	Fire stations
Health services	GP surgery/health centre
	Dental surgery
	Intermediate healthcare provision
	Acute hospital
Waste	Waste management facilities
Transport	road
	rail
	public transport
Revenue items	Training
	Voluntary/community sectors

Note: \*Maintenance costs may be included for these items

3.38 In addition, when facility planning has advanced sufficiently for suitable costs to be derived, the following additional items may potentially be included:

- Strategic flood defences
- Further and higher education

3.39 In each case, consideration should be given as to whether these costs apply across the whole of the WNDP area or only to certain sub areas. As noted above, this issue can be dealt with in broad terms if there is a reasonable margin between the gross costs and the proposed level of charge.

### Assessing the Scale and Cost of Gross Infrastructure Requirements

3.40 Approaches available for assessing infrastructure required to serve new development areas in the absence of detailed planning vary according to the form of provision. Approaches fall into three broad groups:

- Infrastructure supplied in units of a relatively uniform size and capacity (e.g. play facilities, schools, health centres). For these modular types of facility, provision standards based on population or household support thresholds can be derived so that the quantity of units required to serve a given population or number of dwellings can be readily estimated and their cost calculated from unit costs.
- Infrastructure supplied in units of highly variable size and capacity (e.g. libraries, leisure centres). For these types of facility it is sometimes possible to derive per capita demand levels for key elements (such as hospital beds, sports courts) and estimate costs of provision from unit costs of these elements. Alternatively, per capita costs for particular types of facility can be generated by reference to average or typical existing provision rates or examples of recently provided facilities<sup>(6)</sup>.
- Infrastructure that is not provided in clearly defined units for which per capita or other demand levels could be sensibly derived (e.g. green infrastructure, transport facilities). In these cases there are likely to be many alternative ways of meeting need, with widely differing cost implications. Separate studies are therefore needed to assess requirements and their costs and to apportion costs between new and existing development.

3.41 Table 3.4 classifies all infrastructure items in Table 3.3 into these three groups. Methods (a), (b) and (c) should be used in that order of priority, according to the characteristics of the infrastructure item in question, in order to achieve the most robust cost estimates possible.

**Table 3.4 Classification of Forms of Infrastructure Provision**

Infrastructure item		Form of provision		
Type	Facility	relatively uniform units	highly variable units	no units
Education	Primary (inc. early years)	Y		
	Secondary	Y		
	Adult learning		Y	
	Further education		Y	
	Higher education		Y	
Culture & Community	Libraries		Y	
	Archives		Y	
	Community facilities	Y		
	Cultural investment (arts, theatre, heritage etc)			Y
Open space	Local Equipped AP	Y		
	Neighbourhood EAP	Y		
	Non equipped area of play	Y		
	District park		Y	
	Green infrastructure			Y
	Burial grounds		Y	
Recreation and leisure	Sports/leisure centre	Y		
	Swimming pool	Y		
	Playing pitches	Y		
Emergency services	Police stations		Y	
	Fire stations		Y	
Health services	GP health centre	Y		
	Dental surgery	Y		
	Intermediate healthcare provision		Y	
	Acute hospital		Y	
Waste	Waste disposal			Y
Transport	Road			Y
	Rail			Y
	Public transport			Y
Public realm				Y
Voluntary sector				Y
Employment training				Y

Source: ERM Analysis of Published Studies

(6) Both approaches were used in Roger Tym & Partners 'The Cost and Funding of Growth in South East England' (2005) and Essex County Council in their 'Developers Guide on Infrastructure Contributions' (2007).

## Quantities of Infrastructure Required

### Costs per dwelling of transport infrastructure

3.42 Table 3.5 estimates the amount of each type of infrastructure required to serve the net additional dwellings planned to be accommodated in each of the three WNDC locations between 2007 and 2026. The assumptions behind the dwellings per unit ratios used in these estimates are set out in Annex A.

3.43 The costs of transport infrastructure are the most difficult to apportion between new and existing development areas. We have assumed that the connection of individual sites to the strategic transport network will be provided by developers along with on-site transport facilities outside the Standard Charge.

3.44 Because a transport network is an open system, providing for movement by local people, visitors and those in transit through an area, its use at any one moment in time cannot be definitively ascribed to any geographically defined catchment. The infrastructure requirement to serve growth should therefore be assessed as the total cost of all the additional infrastructure required to enable the whole system (or at least a substantial portion of it) to function acceptably, rather than as the cost of any specific elements that will be used by the new development.

3.45 ERM understands that the Highways Agency, NCC and the JPU are currently working towards providing a strategic transport package, which will also form an essential piece of the evidence base in support the emerging Joint Core Strategy. It is anticipated that this work will result in the formulation of a costed programme of transport infrastructure projects to support the entire quantum of development coming forward in West Northamptonshire over the plan period. This will also take into consideration the likely funding streams to deliver the programme, including developer contributions.

3.46 The appropriate proportion of the cost of these improvements to be ascribed to new development will need to be assessed, particularly with regard to strategic roads. Motorways and Trunk Roads link cities, areas of population, ports and airports and therefore primarily serve national and regional needs. They are the responsibility of the Highways Agency and are, in part, centrally funded but where additional demands are placed upon certain stretches of them or junctions with them by localised growth, they will be an appropriate target for developer contributions.

3.47 Given that this planned work has not yet been completed, we have based our estimates of potential transport infrastructure costs on Northamptonshire County Council's Transport Strategy for Growth (September 2007). This sets out a Transport Prioritisation Framework, which identifies and prioritises transport schemes required to meet the growth needs of the county.

**Table 3.5 Estimates of Infrastructure Requirements by Location**

Facility	Unit content	Dwellings per unit	Number of units required		
			Northampton, for 27,149 dw	Daventry, for 8,171 dw	Towcester, for 3,276 dw
Primary and early years school	Two form entry school	1,750	15.5	4.6	1.9
Secondary school	Eight form entry school	11,473	2.4	0.7	0.3
Library	m2 of floorspace	14 per m2	1939m2	584m2	234m2
Archive	m2 of floorspace	83 per m2	327m2	98m2	40m2
Community facility	530m2 centre	3,620	7.5	2.3	0.9
Locally Equipped Area of Play	0.16 ha unit	556	48.8	14.7	5.9
Neighbourhood Equipped Area of Play	0.308 ha unit	1069	25.4	7.7	3.1
Non-equipped Play Area	Ha of play area	744	36.5 ha	11.0 ha	4.4 ha
District park	Ha of park	521 per ha	52.1 ha	15.7 ha	6.3 ha
Green infrastructure	N.A.	N.A.	N.A.	N.A.	N.A.
Public realm	N.A.	N.A.	N.A.	N.A.	N.A.
Cultural investment	N.A.	N.A.	N.A.	N.A.	N.A.
Sports hall	Four courts (683m2)	5747	4.7	1.4	0.6
Swimming pool	5 lane 25m pool	10,516	2.7	0.8	0.3
Playing pitches	1 all weather pitch				
3 grass pitches					
2 tennis courts	1551	17.5	5.3	2.1	
Police station	N.A.	N.A.	N.A.	N.A.	N.A.
Fire station	Fire station equivalent (FSE)	12,476	2.18 FSE	0.65 FSE	0.26 FSE
GP surgery/health centre	4 GP health centre	3,000	9.0	2.7	1.1
Dental surgery	1 dentist surgery	2,250	12.1	3.6	1.46
Intermediate healthcare provision	m2 of floorspace	4	6,787m2	2,043m2	819m2
Acute hospital	m2 of floorspace	8	3,394m2	1,021m2	410m2
Waste management facilities	N.A.	N.A.	N.A.	N.A.	N.A.
Road	N.A.	N.A.	N.A.	N.A.	N.A.
Rail	N.A.	N.A.	N.A.	N.A.	N.A.
Public transport	N.A.	N.A.	N.A.	N.A.	N.A.
Employment training	N.A.	N.A.	N.A.	N.A.	N.A.
Voluntary/community sector	N.A.	N.A.	N.A.	N.A.	N.A.

Note: N.A. = Not applicable

It is intended to contribute towards the preparation of Northamptonshire's third Local Transport Plan, on which work is due to commence in 2008, and to set the scene for the investment plans being developed by NNDC and WNDC.

3.48 The document assesses a long list of possible transport schemes according to their projected contribution to meeting various objectives ranging from national down to local. It sets out a resulting list of transport schemes required to deliver the Transport Strategy for Growth and a delivery programme which indicates the cost of each project, its expected predominant source of funding, current status, and programming requirements on an annual basis to 2011 and five yearly from 2011 to 2031. In addition there is a list of further schemes that may be prioritised subject to further evidence and/or investigation. The latter are not costed or ascribed to funding sources in the document but NCC has provided ERM with the latest information on those which would so far appear to be most likely to be justified.

3.49 Table 3.6 sets out the resulting schemes throughout the county, together with their estimated cost. Following discussions with Northamptonshire County Council officers, we have also identified in the table which of the proposed schemes may be expected to take significant additional traffic from the WNDC area. The expected predominant source of funding for each scheme is also indicated, with schemes of national importance assumed to be funded mainly centrally and those only of local importance, mainly by developers and regional bodies. The total cost of the relevant schemes whose requirements may be attributed to the growth area agenda in West Northamptonshire needs to be split between residential and non-residential development. In the absence of a properly derived figure, we have applied a simple factor of 80% to derive the residential figure to be divided among the projected net additional dwellings in the area.

**Table 3.6 Transport Strategy for Growth' Schemes, Funding Sources and Costs**

Scheme		Cost (£m)	Funding	WNDC area		Developer cost	
				%	Cost (£m)	%	Cost (£m)
Road	M1 Junction 16 Improvements	20	Dev	100%	20	100%	20
	M1 Junction 19 Improvements	180	NTR		0		0
	A5 Towcester Bypass	18	Dev	100%	18	100%	18
	A14 Kettering Bypass Collector/Distributor Roads	185	NTR		0		0
	A43 Junctions Towcester	26	RFA/SIP	100%	26	10%	2.6
	A43 Northampton to Kettering	60	RFA/SIP	50%	30	50%	15
	A43 Corby Link Road	25	RFA+Dev		0		0
	A45 Weedon, Flore and Upper Heyford Bypass	30	RFA	100%	30	100%	30
	A45 Grade Separated Junctions	40	RFA+Dev	10%	4	100%	4
	A45 Stanwick to Thrapston Dualling	30	RFA		0		0
	A361 Daventry-M40 traffic management	5	LTP+SIP	100%	5	100%	5
	A427 Weldon Bypass	5	Dev		0		0
	A 509 Isham Bypass	15	RFA		0		0
	A 509 Isham to Wellingborough Improvement	16	RFA		0		0
	B4036 (A5 - Long Buckby Station) Improvements	3	SIP	100%	3		0
	Wellingborough Eastern Distributor Road	10	Dev		0		0
	Kettering Eastern Avenue	30	Dev		0		0
	Rothwell Link Road	5	Dev		0		0
Rural traffic management	5	LTP+SIP		0		0	
Bus	Quality Inter-Urban Bus Network	30	LTP+SIP	50%	15	100%	15
	Development of rural service routes	30	LTP+SIP	50%	15	100%	15
Rail	London Midlands franchise commitments		DfT Rail		0		0
	East Midlands franchise commitments		DfT Rail		0		0
	Passenger rail services for Corby		DfT Rail/NR		0		0
	Rail station interchange/parking improvements	14	LTP/SIP/TOC	50%	7	100%	7
TDM	Fast trains Northampton to London		tbc		0		0
	TDM at journey origins	8	LTP+SIP+Dev	50%	4	100%	4
	Joint strategy for all Northampton parking	5	LTP+SIP+Dev	100%	5	100%	5
	Buzz smartcard - Integrated ticketing	4	LTP+SIP+Dev	50%	2	100%	2
Town Strategies	HOV priority on A45	10	SIP	100%	10	50%	5
	Road improvements around town Strategy	215	LTP+SIP+Dev	100%	215	100%	215
	new road links	50	SIP+Dev	50%	25	100%	25
	Enhanced urban bus network	40	LTP+SIP+Dev	50%	20	100%	20
	Extend bus services to new developments	10	Dev	50%	5	100%	5
	enhanced walking network	12	LTP+SIP+Dev	50%	6	100%	6
	Improved facilities for cyclists	13	LTP+SIP+Dev	50%	6.5	100%	6.5
	Improved streetscape in town centre's	50	SIP+Dev	50%	25	100%	25
Travel choices centre in new developments	5	Dev	100%	5	100%	5	
Prov items (i)	A508 Road Bypass	40	LTP+SIP+Dev	100%	40	50%	20
	A508 Upgrade Northampton NW Bypass to A14	10	LTP+SIP+Dev	100%	10	50%	5
	A361 Imp North of Daventry	8	LTP+SIP+Dev	100%	8	50%	4
	Extend Cycle Network to Rural Areas	4.5	LTP+SIP+Dev	100%	4.5	50%	2.25
<b>Total</b>		<b>1276.5</b>			<b>564</b>		<b>£486.35m</b>
			Residential %				80%
			Dwellings				46,422
			Cost per dwelling				£8,381

Notes (i)

Provisional items listed in "Transport Strategy for Growth" as requiring further assessment

3.50 It must be emphasised that these assessments are preliminary and, as the necessary modelling is not yet complete, based partly on subjective assessments. The costings will need to be replaced with more reliable figures when these are available in the near future from the joint work being undertaken by the Highways Agency, NCC and the JPU.

### Cost per Dwelling of Land for Infrastructure

3.51 The infrastructure items covered by the standard charge vary in whether and to what extent they require provision of land to accommodate them. For some facilities, including public realm, cultural investment and training, it is not expected that there would be any land requirement. In the case of green infrastructure and waste disposal, it is not possible to establish a potential land requirement at present. Some facilities, while sometimes requiring sites of their own, are likely to be provided to a large extent within existing sites as extensions to existing buildings, as in the case of libraries and archives, police stations and fire stations. Others, such as sports halls and swimming pools may often be provided within school sites, either existing or new. In the case of transport facilities it is assumed that land costs have been included in the capital costs from which the per dwelling costs have been derived. The derivation of land costs for the remaining items, for which facility area standards can be established, is set out in Table 3.7. The total land requirement per 1,000 dwellings comes to 10.83 ha. Assuming the land in question is developable (ie if it were not being made available for the specified infrastructure it would otherwise be developed for market units), and an average acquisition cost of £600,000 per hectare, this gives a land cost per dwelling of £6,500. This is intended to be an estimate of the costs of acquiring land for particular infrastructure where it would be unreasonable for that provision to be made at nil cost by a particular landowner or developer. Any offsets for the cost of land will be limited to those items and maximum area requirements listed in Table 3.7.

**Table 3.7 Cost per Dwelling of Land to Accommodate Infrastructure Items**

Facility	Unit area (ha)	Source of area assumption	Dw per unit	Ha per 1000 dw
Primary School inc. Early Years	2.30	DfES Bulletin 99	1,750	1.31
Secondary School inc. Post-16	10.00	DfES Bulletin 98	11,473	0.87
Community centre	0.21	530m2 building and net to gross assumed 0.25	3,620	0.06
LEAP	0.15	See Annex A	556	0.29
NEAP	0.31	See Annex A	1069	0.29
Non- equipped children's play space	1.00	See Annex A	744	1.34
Playing pitches	7.00	See Annex A of the Strategy	1551	4.51
District park	1.00	See Annex A of the Strategy	521	1.92
Burial grounds		See Annex A of the Strategy		0.03
Sports hall	0.36	900m2 building (MK example) and net to gross assumed 0.25	5747	0.06
Dentist	0.09	210m2 building (1 dentist to every three GP) and net to gross assumed 0.25	3,000	0.03
GP health centre (4GP + 1 dentist)	0.34	839m2 building (see Annex A of the Strategy) and net to gross assumed 0.25	3,000	0.11
Total				10.83
		Land cost per ha		£600,000
		Total land cost per 1000 dw		£6,500,000
		Total land cost per dw		£6,500

### Infrastructure Costs per Dwelling

3.52 Table 3.8 shows the costs per dwelling figures for each type of facility. The information sources on which each figure was based is set out in the Planning Obligations Strategy, Annex A.

3.53 Where possible, the provision standards (units per 1000 dwellings) and unit costs (£ per unit of facility) have been obtained from sources that relate specifically to Northamptonshire. Where no such standards or costs have been derived for the local area, sources have been used, as far as possible, which are closely comparable to the situation in West Northamptonshire, i.e. other growth areas such as Milton Keynes and Swindon. In a few remaining cases the sources are regional or national.

3.54 For infrastructure for which unit requirements and costs are not applicable, costs per dwelling have either been based on overall costs (in the case of transport) or derived by WNDC in discussion with stakeholders and developers to establish S106 contributions for recent or current major residential developments.

**Table 3.8 Residential Infrastructure Cost Schedule**

Facility	Cost per dwelling	Facility	Cost per dwelling
Primary School including Early Years (and all Special Needs)	£4,429	Sports Halls	£481
Secondary School including Post 16	£3,051	Swimming Pool	£254
Library	£221	Police Station	£432
Archives	£43	Fire Station	£86
Community Facility	£439	GP Health Centre (4 GP)	£775
Equipped Play Space	£1097	Dentist	£267
Non-Equipped Play Space	£148	Acute hospital	£661
Playing Pitch	£757	Intermediate health care provision	£861
District Park	£571	Waste Disposal	£409
Green Infrastructure	£250	Transport	£8,381
Public Realm	£480	Voluntary / Community Sector	£260
Cultural Investment (arts, theatre, heritage etc)	£360	Employment Training	£97
Burial Grounds	£12	Land Fund	£6,500
		<b>Provisional Total</b>	<b>£31,327</b>

3.55 It is important to acknowledge that these infrastructure costs are provisional and will need to be revised as:

- the spatial planning framework (through the Joint Core Strategy and LDDs) firms up;
- more detailed masterplans are brought forward for the principal development areas (either by the local planning authorities or applicants); and
- infrastructure planning is advanced, either by the providers or assisted by WNDC.

### Full Standard and Discounted Standard Charges

3.56 The Full Standard Charge represents the total cost of the infrastructure requirement per dwelling. For WNDC, the Full Standard Charge, based upon the above schedule and rounded, is currently £31,300 for each new dwelling. This is broadly similar to costs at LTGDC (£23,000 to £28,000), while Milton Keynes is around £50,000.

3.57 The Discounted Standard Charge represents the ability of the average development to contribute towards the infrastructure and service requirement. The ‘average’ ability to pay is based upon the residual values and financial viability testing, which is considered in detail in Section 4 and Annex B of this report.

### Commercial Infrastructure Schedule

3.58 Of the infrastructure items for which a charge is proposed to be levied against residential developments, only the following truncated list is proposed for commercial development:

- Transport
- Employment Training
- Public Realm (town centre management and industrial area improvements)
- Green Infrastructure
- Voluntary / Community Sector
- Emergency Services

3.59 In principle, the overall cost of relevant infrastructure provision should be apportioned between residential and commercial development. However, the current policy position in West Northamptonshire means that, for commercial development, these costs cannot be identified in aggregate, as the type and quantity of employment use likely to come forward over the plan period is not known.

3.60 Unlike residential development, different types of employment use give rise to disproportionate infrastructure and service requirements, making it difficult to apply a standard charge to commercial development. For example, a standard per sqm charge for employment training would unfairly favour uses with high employment densities. Moreover, in respect of most types of commercial development in West Northamptonshire, the assessment of viability suggests that the capability of the commercial development sector to carry these costs is limited. This is partly due to present market conditions but also to the high values attached to existing uses on some sites. For these reasons, it is considered that better outcomes can be achieved by negotiating on a scheme-by-scheme basis, but with a ‘benchmark’ charge per sq. metre based upon the financial viability appraisals.

3.61 Clearly there is a relationship between new commercial development and the need for new affordable houses, schools and other social infrastructure. However, there is no consensus about the scale of contribution that commercial development should make to such facilities and, for the purposes of this Strategy, no contributions are proposed. This is an issue that should be considered in any review. Given the margin between the assessed costs and the amount proposed to be charged to residential development we do not believe that it can be said that the residential sector is ‘subsidising’ the commercial sector to a material extent.

## Form of Standard Charge

- 3.62 ERM proposes a single tariff, not a two-tier tariff with local and strategic elements as in EDAW's Using Increases in Land Values to Support Infrastructure Provision in North & West Northamptonshire, December 2006. We also recommend a standard per dwelling tariff, not a tariff that varies with dwelling size, as in NCC's Draft Planning Obligation Framework and Guidance, March 2008 approach.
- 3.63 There will be developers who will argue that different Standard Charges should apply to larger and small residential units or that these should apply on a floorspace basis. Our preference is for a per dwelling charge, which can be set at the outline permission stage, before detailed design (and hence floorspaces) have been defined. With a few exceptions, there are no standards defined for infrastructure provision required by different sizes of residential unit and, at this stage, there is no reliable estimate of the total residential floorspace to be built between now and 2026. A per dwelling Standard Charge will help to promote the provision of family housing (and discourage the provision of excess numbers of small units). On most sites, particularly the larger ones, there will be a mix of housing of different sizes and types (indeed this is likely to be a planning requirement) so any distortion caused by using a standard per-dwelling charge will be small.

## Consultation

### Developers and Landowners

3.64 ERM held a series of informal consultation workshops and one-to-one sessions with developers, landowners and agents, when preparing the Strategy. The last of these was held on 14th April 2008, to discuss our approach and assumptions to building up the infrastructure cost schedule underpinning the standard charge. The key issues discussed were:

- our methodology or justification used to decide the infrastructure included in the charge;
- other infrastructure or services that should be included in a standard charge;
- infrastructure that the developer is expected to pay for in addition to the standard charge;
- our assumptions on funding - both for items excluded, as well as those to be part funded by developer contributions;
- costing and apportionment between new and existing development, and between residential and commercial development;
- the inclusion of revenue costs and why we consider these to be reasonable;
- the quantum of development used to derive the per dwelling figure.

3.65 The main issues raised by those attending the workshop, in respect of the infrastructure cost schedule, were:

- the variance in costs between the various studies, including the EDAW Infrastructure Study, the Daventry Infrastructure Strategy, and the Northamptonshire

County Council Planning Obligations Framework and Guidance;

- that the infrastructure cost schedule did not reflect the different characteristics of the three areas, in terms of existing/surplus infrastructure provision;
- that the infrastructure cost schedule had not as yet been robustly reviewed by industry;
- the fact that the source of the comparables or the formulae used was just referenced rather than providing a copy of the relevant document as an appendix to the schedule;
- how the WNDC infrastructure schedule was to be reconciled with the infrastructure schedule in the Daventry Infrastructure Schedule, which has now been adopted as interim policy; and
- given that 70% of the standard charge is made up from just two items, transport and schools, should additional work be undertaken to ensure these figures are correct.

3.66 All of the above issues have been considered and the responded to in the Consultation Responses Report, which is published alongside this report and is available to view on the WNDC website. The issue of variance in costing in the same type of infrastructure typically arises as a result of applying different formulae or baseline data. In preparing the infrastructure costs schedule in support of the Planning Obligations Strategy, ERM has used the relevant formulae provided in the Northamptonshire County Council Planning Obligations Framework and Guidance (second consultation version), as it is considered that these represent the most robust calculations available, and their use would ensure a degree of consistency might be achieved across the region. With respect to the last point, Officers from NCC were also in attendance at the consultation workshop and were able to confirm to those present that the costs included in WNDC's infrastructure schedule, for both school provision and transport infrastructure, were the most accurate at the time.

## Conclusions

3.67 ERM has brought together the best available estimates of the overall housing requirement for the WNDC areas and sought to identify the types of infrastructure required to support the new development. Further to this, we have made an assessment of whether each type of infrastructure can justifiably be ascribed to new development and therefore potentially raise developer contributions, and have classified infrastructure items in terms of how their costs can best be assessed.

3.68 As anticipated, given the early stages of LDD preparation and the 'out of date' nature of the allocations in Local Plans, it is not possible to prepare site specific assessments of likely infrastructure costs. Despite these difficulties, ERM believes that, for a carefully restricted range of services, it is possible to produce a series of robust costs estimates for each to act as the basis for assessing a 'minimum' Full Standard Charge. These will need to be refined and improved at regular intervals as LDDs emerge and service providers progress the design and costs for individual infrastructure items.

## 4 Assessing the viability of residential and commercial development in the WNDC area

### Introduction

4.1 In this section, the potential for developments to finance planning obligations and affordable housing in the WNDC area is explored. Detailed residential and commercial appraisals were prepared, albeit for a standard clean development site. Because of the unpredictable and wide ranging problems associated with brownfield sites, they will be subject to site-by-site assessment and have not been modelled in this exercise. These cover the range of open market sale values and build costs being achieved across the WNDC area at the time the Strategy was drafted in November 2007 and revised following informal consultation in February 2008.

### The Issue of Landownership

4.2 The appraisals discussed in this section ignore the issues of land ownership and land assembly, except for the inclusion of 'existing use value' in the tables.

4.3 The issue of landownership and expectations of future land values are critically important in moving the discussion about the planning obligations strategy from the realm of illustrative appraisals into the real world.

4.4 Our approach derives from the widely accepted view that the 'real' value(s) of a potential development site can only be assessed in two ways:

- as an 'Existing Use Value' (EUUV) ie its capitalised value in its existing use, taking account of its future life and condition (potentially after refurbishment) ; or
- as a 'residual development or land value', which is derived from a development appraisal, and which is based on a development scheme or schemes which would obtain planning permission (ie which take account of any on-site abnormal costs, the costs of essential infrastructure without which the development could or should not be occupied and any other planning obligations which are lawful and required by the planning authority).

4.5 Private landowners rarely, if ever, proceed with a redevelopment unless the residual value they will receive is not comfortably in excess of the 'existing use value'.

### Residential Residual Land Values

4.6 A central element in this study is an analysis of local property conditions in order to determine the capacity of development proposals to deliver infrastructure and affordable housing as required. In other words, is there sufficient gross development value and thus residual land value to pay for infrastructure?

4.7 On the basis of considering a range of sales prices, densities, construction costs and gross to net ratios, we have assessed over 1,600 'clean site' appraisals, to determine residual land values for the following scenarios:

- a. A planning obligation of £18,000 or £22,000 per dwelling;
- b. A planning obligation of £18,000 or £22,000 per dwelling plus the provision of 35% affordable housing units at nil value/cost ie. the developer' return from the RSL for the affordable housing is the same as the cost of delivery, with no resulting residual land value, positive or negative;
- c. A planning obligation of £18,000 or £22,000 per dwelling plus the provision of 35% affordable housing units plus a £10,000 land value per affordable unit.

4.8 This analysis assumes that all necessary Social Housing Grant (SHG) is being received for the affordable housing.

## Assumptions

4.9 For the purposes of this benchmarking exercise, we have adopted values and costs based on actual development appraisals in West Northamptonshire, together with agent and cost consultant advice. Specifically, we have modelled;

- a range of sales values between £1,800psm (£167psf) and £3,497psm (£325psf);
- densities between 30 and 144 units per hectare, that is 2,700 sq.m to 10,080 sq.m per hectare;
- construction costs between £975psm (£90psf) and £1,367psm (£127psf), including a 5% contingency and 5% for ancillaries, and gross to net floorspace ratios between 100% and 85%;
- professional fees at 10.5%; and
- developer's profit at 15% on cost although a higher figure may well be necessary in some cases involving greater risk.

4.10 These assumptions are explained more fully in Annex B. In the tables provided in Annex C, yellow cells indicate combinations of variables that produce residual values that fail to exceed existing use value and would therefore not be implemented. White cells suggest combinations that may be deliverable. It should be emphasised that in reality, Existing Use Value will vary from site to site. Thus, for example, a low grade builder's yard would have a low EUV and thus more redevelopment options would be viable than a comparatively high value existing use.

## Appraisal of Likely Commercial Residual Land Values

4.11 The appraisal testing clearly demonstrates the sensitivity of the financial variables especially for industrial and office space:

- **Industrial.** Hybrid Industrial / B1 residual values at rents at or above £12psf hold up quite well with modest levels of obligations attached but standard sheds normally command rents between £4.50 and £5.50psf and up to £7psf for smaller units. Large B8 rents are currently between £5 and £6.25psf and while these may be able to command some contributions, they are all financially finely balanced and can go negative or conflict with Existing Use Value.
- **Offices.** Follows a similar pattern with good residual values, where rents are at or approaching £25psf but tailing off quickly below that level. This would of course be counteracted to a degree with densities higher than a 1:1 plot ratio but these are unusual.
- **Retail.** As elsewhere, remains the best performer largely because of the strength of yields. Thus for instance, a supermarket with a typical rental between £20 and £25psf produces a strong residual value, even when weighted with obligations. However, other retail warehouses and smaller retail schemes are likely to generate lower rents and thus land values and are less likely to be able to carry significant obligations.

4.12 Overall, commercial rents and yields have been improving in WNDC and, at their best, can carry obligations. There is however a wide range of values and this limits the prospects for setting a single Standard Charge.

## The Scope for 'Developer Contributions'

4.13 In order to complete the analysis of the potential for planning obligations to help meet the infrastructure and other costs of delivering high quality sustainable communities in the WNDC areas, previous strands of the argument have to be brought together:

- the costs of infrastructure and community facilities provision;
- the likely extent of 'subsidy' that will be required to deliver the desired mix of affordable and market housing. This can, in theory, be derived from one or other (or a combination) of Social Housing Grant or 'cross-subsidy' from the 'profitable' private housing element of the development;
- the costs of land acquisition; and
- the likely net development value that will be achievable under different combinations of housing density and sales values.

## Levels of Standard Charge on Greenfield Sites

4.14 We are confident that it is possible to set a 'standard' charge, which will be valid for at least two years (when it should be reviewed in any case, to take account of the Joint Core Strategy and detailed infrastructure plans).

4.15 It should be stressed that this is only a 'benchmark' charge. Where developers have good reason to seek a reduction in the charge supported by evidence of extra ordinary costs, WNDC must take this into account, by seeking 'open book appraisals'.

4.16 As the appraisals indicate, there are numerous variables which will affect the value of the particular site. The art in establishing a 'standard charge' is to set it at a level which can be afforded by the majority of developments so that the planned level of housing is able to proceed. It effectively acts as a 'benchmark' from which developers have to argue with evidence of 'extra-ordinary' costs, low sales values, or other limitations which affect their returns. The starting place for setting the charge must be that developers are sophisticated and will ensure that any costs legitimately imposed by the planning system are passed on to the landowner.

4.17 The effect of 'standard charges' on residential residual land values is set out in full in Annex B.

4.18 Table 4.1 extracts the residual value results for the most likely 'greenfield' site scenarios in WNDC.

**Table 4.1 Residual Land Values (RLV) for Typical Greenfield Site Residential Development (£ per hectare)**

Scenario			RLV no Obligations	RLV with £18,000 Obligations	RLV with £18,000 plus 35% AH
A	Low Density	(30 dph)	£2.39 million	£1.852 million	£1.204 million
	High Value	(£2695 psm)			
	Good Quality	(£975 psm)			
B	Medium Density	(48 dph)	£1.677 million	£0.813 million	£0.529 million
	Low Value	(£2152 psm)			
	Lower Quality	(£915 psm)			
C	Medium Density	(48 dph)	£1.827 million	£0.938 million	£0.609 million
	Medium Value	(£2421 psm)			
	Good Quality	(£1022 psm)			
D	High Density	(72 dph)	£2.112 million	£0.778 million	£0.506 million
	Medium Value	(£2421 psm)			
	Good Quality	(£1108 psm)			

Source: Annex B

4.19 Even with these 'typical' examples, the range in values is wide, from £0.5 million per hectare (£0.2 million per acre) to £1.2 million (£0.47 million per acre), but most will be in the £0.5 to £0.8 million range. Table 4.2 shows what changing the standard charge does to RLVs, assuming the four examples in Table 4.1.

**Table 4.2 RLVs Altering Standard Charge from £15,000 to £25,000 per Dwelling (assuming 35% Affordable Housing)**

Scenario			£15,000/Dwelling	£22,000/Dwelling	£25,000/Dwelling
A	Low Density	(30 dph)	£1.294 million	£1.084 million	£0.994 million
	High Value	(£2695 psm)			
	Good Quality	(£975 psm)			
B	Medium Density	(48 dph)	£0.673 million	£0.337 million	£0.193 million
	Low Value	(£2152 psm)			
	Lower Quality	(£915 psm)			
C	Medium Density	(48 dph)	£0.753 million	£0.417 million	£0.273 million
	Medium Value	(£2421 psm)			
	Good Quality	(£1022 psm)			
D	High Density	(72 dph)	£0.722 million	£0.218 million	£0.002 million
	Medium Value	(£2421 psm)			
	Good Quality	(£1108 psm)			

Source: ERM comment based on Annex B

4.20 Based on our appraisals and consultations, and experience of developer and landowner behaviour, our conclusions are that:

(i) Agricultural landowners do not have a single value below which they will not sell, but £200,000 to £300,000 per acre is likely to be a satisfactory minimum for most owners, at present, although this will have to be kept under review. This is corroborated by the leading agents who act for landowners eg Carter Jones, Bidwells, Knight Frank, however, CLG consider a figure of £100,000 per acres seems more appropriate.

(ii) Based on the evidence, it would not be sensible to set a standard charge above £22,000 per dwelling, which would only be achievable on a small number of higher value sites/locations.

(iii) All of the modelled residential values ignore costs such as on-site highway improvements (which will not, at this stage, be covered by the standard charge) as well as any other site specific requirements/extraordinary costs.

(iv) If the 'standard charge' is to work in a majority of cases it cannot be too punitive, otherwise the benefits are lost as every application will be contested through appraisals.

(v) Leading 'greenfield' developers are already talking openly about accepting a standard charge of around £18,000, and one WNDC scheme has already settled above that.

4.21 Our advice on 'brownfield' sites is necessarily based on a much less exact analysis, which balances the likelihood of more complex layouts, demolition and site clearance and existing use values. Nevertheless, we recommend applying the same standard charge to brownfield sites as Greenfield for formal purposes again with the proviso that developers who can demonstrate exceptional costs such as decontamination may be able to negotiate a reduced charge with WNDC.

4.22 WNDC is rightly concerned to achieve high quality and to promote 'low carbon' developments. At present, developers can achieve the Code of Sustainable Homes (CSH) Levels 2 or 3 without incurring significant additional costs. From Code Level 4 upwards, extra costs are difficult to assess but research for English Partnerships suggests that £10,000 (CSH4) to £30,000 (CSH6) per unit could be incurred. As long as energy prices remain high, purchasers will be prepared to pay a premium for low carbon homes, but again the size of that premium is difficult to estimate. Logically, based on savings in energy costs it should be £5 to £10,000 at present energy prices for CSH4 to 6, but this may not be realised in the market.

4.23 In terms of commercial schemes, there are clearly circumstances where commercial developers will be able to make contributions towards infrastructure but the range of actual/potential schemes and site circumstances is so varied that ERM does not recommend a Standard Charge at this stage, but WNDC should continue to negotiate contributions on a site-by-site basis.

## Consultation

4.24 An outcome of the initial workshop held with developers and landowners on 15 February 2008, was the need for ERM to test the assumptions used in the appraisal of residual land values. Two afternoon sessions on 19th and 21st February, comprising eight one-to-one meetings, were therefore held with developers and agents representing the range of small, large, commercial, and residential development, as well as the interests of landowners.

4.25 The key issues raised were that:

- ERM's assumptions on values were well above the current achieved sales prices.
- Many land transactions (option agreements, conditional contracts and joint ventures) have minimum value triggers, and the imposition of a charge may prevent these minimum land values being reached.
- Agricultural land is now £5,000+ per acre in West Northamptonshire, whereas brownfield land can easily be worth £1m+. Experience to date suggested a figure of £250,000 per acre for the landowner to release the land.
- Market conditions must be taken into account if the delivery agenda is to succeed. Any downturn in the market will further reduce viability, especially with increases in build costs to meet BREEAM standards and Code for Sustainable Homes.
- Lower densities, between 35 to 48 units per hectare, would seem to be the norm. There are a few high density sites in Northampton Town Centre but it is unlikely that these will still be viable due to market conditions for flats and apartments.
- There is a small land value uplift on the affordable housing but only in the range of zero to five per cent.
- The level of the Standard Charge needs to take account of the potentially significant 'on-site' costs eg balancing ponds, connections to road network, primary substations, gas mains etc. Discretion needs to be applied to take account of exceptional circumstances, including the circumstances of the landowner.
- If the level of charge is pitched too high then the land will not come forward and there will be no development.  
Also the Strategy needs to be clear about what the Standard Charge pays for and what will still be required through a site specific s106.
- Key risk to developers is the actual costs, plus the potential for holding costs, as well as marketing costs, which all impacts on scheme viability.
- The timing of the payment of any Standard Charge on commercial schemes is crucial, as it is doubtful that developer would be in a position to pay any amount if they did not have a commitment from a future occupier of the development.

- There needs to be a transitional period for those with submitted applications because it is unreasonable to account for the charge in the land agreement retrospectively, especially smaller developers who have committed sites. Would suggest a five year transitional period for brownfield sites, which would bring these forward and provide the necessary regeneration that Northampton, in particular, needs.
- If developers pay the charge, they need confidence that the essential infrastructure required to market and sell the houses is provided in a timely manner.
- Development subject to the Standard Charge will in effect, subsidise those below the WNDC threshold, where the LPA is securing significantly less.

4.26 As a result of the one-to-one sessions, further refinements of the variables were made and the baseline figures amended to reflect these. Consultation with landowners and developers and their representatives when preparing these appraisals is clearly important, and highlighted the fact that consultation needs to be on-going process, not only to monitor viability and thus delivery but also in terms of future reviews of the level of discounted standard charge.

## Conclusion

4.27 In conclusion, the viability testing process is, as always, a critical part of setting a standard charge. We believe that the approach that we are recommending will be practical and deliverable in most development scenarios and circumstances. There will, however, be particular situations where a genuine case reflecting site specific circumstances can be made by an applicant, and demonstrated through the submission of an appropriate 'open book' development viability appraisal. In these circumstances, WNDC will give due consideration to the viability arguments and weigh these against other material considerations.



## 5 Formulating the Standard charge arrangements

### Overview

- 5.1 This section outlines the approach taken to formulating the arrangements for inclusion in the consultation draft of the Strategy. It sets out the alternatives that were considered in various policy areas, and the informal consultation undertaken. The justification for progressing with the recommended approach outlined fully in the consultation draft of the Strategy. Changes made to the final approach set out in the adopted Planning Obligations Strategy, and the reasons for these, are provided in the Comprehensive Consultation Report, published separately and available to view on the WNDC website.
- 5.2 This section includes consideration of alternative options that were put forward for informal consultation, and where appropriate outlines the reason why the preferred option was taken forward. It should note that this Section does not deal with all policy areas, some having been dealt with adequately in the above sections (ie whether or not to include affordable housing in the development appraisal) and for others, it not considered necessary or appropriate to put forward an alternative option but rather subtle variations on the same option (eg offsets, where the option was more to do with how to calculate the allowable offset rather than the alternative option, to not allow offsets, which was not considered acceptable).

### Development and costs to be covered by the Standard Charge

#### Development type

- 5.3 The Order giving WNDC development control powers for planning applications relevant to its purpose, prescribes a development threshold of 50 or more residential dwellings and 2500 sq m of employment floorspace. This was the starting point for consideration of the types and scale of development to be covered by the standard charge.
- 5.4 As set out in Section's 3 and 4 above, the analysis undertaken by ERM determined that neither the infrastructure sought, nor any variations between residual land values, warranted a separate infrastructure costs schedule or discounted standard charge being derived for each of the three towns. It also determined that the likely values to be achieved from most commercial uses within the WNDC areas are relatively modest and, with the exception of larger scale single use development (ie supermarkets, retail warehouses and large distribution facilities), commercial developments will generally be unable to afford significant contributions to infrastructure costs, under present market conditions.
- 5.5 Based on this analysis, it was determined that in principle, the standard charge and discounted standard charge would apply to all residential development for which WNDC is the determining authority and that, initially, planning obligations for commercial development would continue to be negotiated on a scheme by scheme basis. However, it is anticipated that any review of the Strategy will enable the opportunity to revisit this issue.

### Brownfield and Greenfield sites

- 5.6 Further consideration was then given to whether a separate discounted standard charge could potentially be derived for Brownfield and Greenfield development sites. While initial thoughts were that this would be possible, further analysis raised significant issues with how this would work in practice, how you would define a Brownfield site, and whether it resulted in a fair and reasonable outcome. In particular, the greatest hurdle to overcome was extreme variations that could be experienced in existing use values (EUV) and how to address these. Examples provided were a car showroom site with an EUV of over £1m per acre and, located reasonably close by, a builders yard with an EUV of £300K per acre. Given that both sites were also reasonably well serviced to the gate, it was considered that there was little to differentiate the residual land value of the builders yard site from that of a Greenfield development site requiring basic investment in on and off site servicing. It was also apparent that, in the case of the car sales building, it would be easier to demonstrate exceptional circumstances in a development viability appraisal. For these reasons, and because it was generally accepted that even on greenfield sites, there was potential for exceptional costs, ERM and WNDC chose not to progress this option, in favour of applying one rate of discounted charge to all sites.

### Northampton Central Area

- 5.7 The Order giving WNDC development control powers also highlights the important strategic role of the Northampton central area in the regeneration of West Northamptonshire, and prompted the consideration of alternative approaches to development within this area. Within Northampton central area, ie the area within the Northampton Centre Area Action Plan DPD boundary, where WNDC determines all residential applications, it was determined that, in principle, the Standard Charge should apply to all permissions. However, account was also given to the achievement of WNDC's objectives as a 'growth and regeneration' agency, and therefore, to two alternative proposals to development within this area. The first was to have a further reduced discounted standard charge tied to a separate infrastructure cost schedule based only on infrastructure required to deliver town centre regeneration initiatives. The second approach was to recommend a two year moratorium on imposing the discounted standard charge on development within the central area, to enable these key regeneration sites to be brought forward.

5.8 Informal consultation with the local developers and landowners on this issue also highlighted the significant role redevelopment of these typically smaller town centre sites would have in leveraging in further inward investment and bring about the much needed regeneration of the town centre. Based upon an assessment of the likely s106 receipts to be achieved through the application of a standard charge upon development within the town centre, compared with the benefits that could be derived through bringing forward early development of these sites, it was felt that the second option was the most appropriate approach. Such an approach would also not affect the ability of WNDC to seek appropriate planning obligations from such development towards town centre regeneration projects or initiatives.

### Revenue Costs to include in the Standard Charge

5.9 Initially it was proposed to include revenue costs in respect of some community facilities and services but not all. Consideration was given to the approach taken by other local planning authorities in preparing published formulae. Whilst it was considered legitimate for WNDC to seek revenue costs towards such services as healthcare, the basic premise taken in deriving the infrastructure costs schedule for the standard charge was to include items where there was no certainty of funding from other sources to meet the identified need. Despite the widely accepted use of the HUDU model, it was determined that there was certainty that revenue funding for health service facilities would become available, even if delayed due to the Departments three year funding cycle, (which does not take account of the potential for increases in revenue needs to serve growth over the intervening three year period). For other facilities, such as new community facilities, there was significant merit in including a revenue component to cover the initial start-up costs associated with provision of these facilities. However, given that in many respects, it was difficult to make a judgement about the certainty of revenue funding for certain facilities, and the fact that development viability meant that it was unlikely that the discounted standard charge would be sufficient to cover the capital cost of facilities provision, it was decided that save for known revenue costs associated with skills development no revenue costs would be sought for inclusion in the standard charge.

## Consultation

### Early Informal Consultation

5.10 WNDC published its 'Planning Principles 2007; A Consultation Draft' in July 2007, which posed the question of support for a standard charge system and the principles for such an arrangement. There was a significant response to this question, the details of which were reported in agenda item 6 to the WNDC Board Meeting of 11 December 2007<sup>(7)</sup>. All of the responses to 'Planning Principles 2007' were also considered by ERM in the preparation of the Planning Obligations Strategy.

### Consultation with Developers, Landowners and Agents

5.11 ERM held the first of a series of workshops with developers, landowners and agents on 15 February 2008. The purpose of the workshop was to discuss the process undertaken and the principles that would underpin the formulation of the Planning Obligations Strategy. A briefing paper was also prepared and those consulted were invited to comment on the process to derive the standard charge and the proposed working arrangements.

5.12 The following provides a summary of the comments received:

5.13 There was general acceptance of a Standard Charge in order to provide a clear basis for the delivery of essential infrastructure and growth in West Northamptonshire. There was also acknowledgement that the Strategy would enable WNDC to determine applications in a timely manner, and in any event, most felt that the progress of CIL made such an approach inevitable. There was also acceptance of the value of the Strategy and the Infrastructure Delivery Programme as a tool to lobby Government for gap funding.

5.14 The key issues of concern raised at the first workshop were that:

- Developers require certainty that the necessary infrastructure will be delivered at the right time and therefore the Standard Charge should include a requirement for covenants. If infrastructure is to be provided 'in kind' by the developer, how will adjustments be made to the Standard Charge?
- There is the need for a banker/procurement of infrastructure to operate the obligations scheme. At this time, WNDC had only just appointed consultants to prepare an Infrastructure Delivery Programme, which will identify funding arrangements and priority for delivery based upon the total infrastructure requirement (ie extending to the consideration of infrastructure items beyond those proposed to be included in the Standard Charge).
- That it is unclear how the threshold of 50 dwellings has been assessed and what will be applied to applications below that threshold. Aligned to this was the question of the relationship between WNDC Strategy and that of Daventry District Council's Infrastructure Schedule.
- That the development of true brownfield sites within Northampton inner areas are key to promoting regeneration of the town, and to impose a tariff on these sites will halt the regeneration initiatives that are only just starting to be realised.
- A degree of flexibility needs to be included in the Strategy to take account of the ownership of land, exceptional on-site and off-site costs not included in the Standard Charge, and the costs to development of meeting higher building standards.

(7) Agenda item 6 is available from the WNDC website

- WNDC support for full SHG funding for affordable housing was welcomed, but the approach to affordable housing need to be addressed, with regard to the proposed tenure split, the impact on land values and the fact that the Standard Charge is proposed to apply to all housing, including affordable housing.
  - The Strategy needs to be clear about what is included in the Standard Charge and what will still remain to be addressed on the site by site basis. Aligned to this was whether WNDC or the local authorities could request further obligations to be imposed in addition to any Standard Charge.
  - Whether or not a land value for the land given up to provide for strategic or wider community facilities is capable of being offset against the charge and at what if any cost.
  - If the obligations are to be triggered by implementation (or possibly earlier) then there cannot be Grampian conditions that effectively prevent or delay development taking place.
  - That the timing of payment should be linked to the occupation of dwellings and should have regard to cashflow.
  - General agreement of the need to review the Standard Charge in order to reflect changing circumstances but that the rate of the charge when the obligation is entered into must endure for the life of the development.
  - More detail was requested over who will hold the monies collected from the Standard Charge and who will be responsible for implementing the various infrastructure items.
  - Since WNDC is a body with limited life, what arrangements would apply to money collected etc after WNDC is wound-up?
- 5.15 Many of the above issues were dealt with in subsequent one-to-one sessions or workshops, and others through providing further detail in the relevant sections of the draft Strategy and technical papers.
- 5.16 The significant changes made to the consultation draft of the Strategy, to address specific concerns, were:
- clarifying that the recoverable element of 'in kind' provisions should be offset against the Discounted Standard Charge based upon the estimated cost of provision;
  - recommending a moratorium on imposing the Standard Charge on residential schemes within the Northampton Central Area;
  - providing, as an option, a range of possible arrangements for Deferred Contributions on very large schemes (this has now been refined to one workable option); and
  - recommending that payments will normally be made on commencement of development and for large schemes be phased to either a calendar timetable or on completion of a certain number of dwellings.

## Discussions with Local Planning Authorities

5.17 Informal consultation was had with officers of the local planning authorities and a formal presentation on 22 February 2008 of the emerging Strategy. Each of the authorities is at a different stage in thinking about Standard Charges, with the most advanced being Daventry DC, which have adopted the Daventry Infrastructure Schedule as an interim policy. At the Officer level, there is general consensus on the merits of a 'Standard Charge' approach and this is reflected in the Joint Planning Unit's approach to be included in the Joint Core Strategy. Issues raised in consultation with the three local planning authorities were focused, generally, on practical implementation issues, namely:

- the desire to see local policy reflected through the infrastructure included in schedules and inputs into priorities for delivery;
- WNDC as sole signatory for services that WNDC are not delivering;
- securing their 'share' of the pot – who is to be 'ring-master' and banker;
- ability of WNDC to secure advanced funding and delivery; and
- adoption of the principles as policy in the development plan, especially for sites just outside WNDC's boundary and development below WNDC's threshold.

5.18 The application of a similar approach by the LPAs, outside the WNDC boundary, is desirable but cannot be imposed. As the Government's Regulations for CIL develop, there might be potential for wider joint working and the use of Standard Charges. There are certainly sites just outside the WNDC boundary, which may be promoted through DPDs or arise as 'windfall' applications, where it would be highly desirable to apply compatible Standard Charges.

## Northamptonshire County Council

5.19 A series of meetings were held with NCC Officers to discuss transport investment across the WNDC areas, including work being undertaken on detailed proposals, costs, the level of public funding and apportionment. This also applies to the other service areas for which the NCC is responsible for coordinating delivery. At Officer level, again there is acknowledgement of the value of a Standard Charge approach to be applied consistently within and without WNDC's area. However, Officers have highlighted their concerns with WNDC as a limited life body and sole signatory, limiting NCC's ability to require/request Grampian conditions.

## North Northants Development Company

5.20 ERM worked closely with EDAW, who are advising North Northants Development Company (NNDC). These meetings focused on standardising approaches for defining the infrastructure to be included and the basis for deriving costs and residual land values. NNDC's Strategy is being prepared jointly by the local planning authorities as a Supplementary Planning Document. The need for agreement between the parties has resulted in delays to the production of the NNDC Strategy, meaning that WNDC has had to press on with determining the specific details of the WNDC Strategy. Nevertheless, WNDC will continue to share our workings and experience with EDAW and NNDC, to ensure that there is a degree of consistency between the two final strategies.

## Joint Planning Unit

5.21 ERM met the Joint Planning Unit to discuss their work programme for relevant LDDs and the required evidence base in support of these. There is general support from Officers for the principles of the Standard Charge and recognition of the benefits to be gained by the wider adoption and application of a single and consistent planning obligation strategy to support delivery of the spatial strategy and vision of the Joint Core Strategy, once this has been adopted. In this respect, ERM has also sought to highlight the benefits that a comprehensive planning obligations framework, supported by policy and an agreed programme for infrastructure funding and delivery, will have in meeting the key test of 'soundness', with respect to demonstrating that the spatial strategy is deliverable. This is a two way process, where the baseline evidence, in support of the spatial strategy, will also assist in refining the infrastructure needs and provide alignment on priorities for coordinated delivery of local infrastructure / facilities and investment programmes.

5.22 The outcome of this informal consultation was that WNDC should continue to liaise with the JPU to ensure that the policy assumptions made in the WNDC Strategy are consistent with the emerging policy position of the Joint Core Strategy and other LDDs. Issues raised for further discussion include:

- defining the Northampton Implementation Area;
- WNDC as a limited life body;
- arrangements for coordinated delivery of the infrastructure; and
- JPU input into the Infrastructure Delivery Programme.

## Highways Agency

5.23 The Highways Agency has questioned the Strategy's approach to defining the transport infrastructure that is to be included within the Standard Charge. They consider that all new transport infrastructure required to support development should be equally eligible for funding through the Strategy. In this respect, the Highways Agency acknowledge that work is still on-going to prepare the transport infrastructure 'package' for West Northamptonshire, that identifies needs, costs, funding sources and responsibilities for delivery. However, they consider that some of this work is advanced enough that it should be taken into account in the Standard Charge.

5.24 WNDC proposes to initially base contributions towards strategic transport on the 'Transport Strategy for Growth' prepared by the Northamptonshire County Council. However, it is acknowledged that once there is an agreed transport infrastructure 'package' for West Northamptonshire, WNDC will review its current position and amend the standard charge to take account of the relevant infrastructure and costs set out in that package, to the extent that such infrastructure is considered to be relevant and required to support growth in West Northamptonshire otherwise it should be centrally funded.

## Conclusion

5.25 The key principles for the consultation draft of the Planning Obligation Strategy were therefore devised and refined in consultation with developers, landowners, the local authorities and other service providers. WNDC sought to ensure that the administrative arrangements should be as simple and straight-forward as possible. A Discounted Standard Charge of £20,000 per dwelling to be applied by WNDC to all residential developments, except those in Northampton Central Area. The Full and Discounted Standard Charges are to be reviewed after two years, when the Joint Core Strategy and LDDs have been progressed. Until that review, planning obligations on residential schemes in the Northampton Central Area and commercial developments will be negotiated on a case by case basis.

## 6 Annex A:

### Housing and Population Projections

#### Introduction

A.1 The purpose of this note is to:

- (a) determine the total number of new housing to be built within West Northamptonshire to meet the remaining strategic housing requirement set out in the draft RSS to the end of 2026, taking account of completions from 2001 – 2007;
- (b) estimate the timing of developing coming forward over the plan period taking account of current housing projections and the need to meet any shortfall in delivery of the remaining strategic housing requirement;
- (c) estimate the portion of that development which is likely to fall to WNDC to determine, and therefore that which could potentially be subject to the standard charge (NB: this assumes WNDC will play a significant role in determining applications within the NIA, including those that may well be located outside of the identified UDA); and
- (d) estimate the total number of people (ie population growth) expected as a result of the new housing that would fall to WNDC to determine.

A.2 The resultant data will aid in giving a clearer picture of the quantity of housing development and the likely timing of this coming forward. This provides an understanding of the infrastructure requirement to serve the level of growth anticipated, and therefore, that quantum of development that should contribute towards the cost of such infrastructure. The following analysis as undertaken in November 2007, based on housing projection data provided by Northamptonshire County Council, July 2007.

### Population and Housing Projections for Northampton

#### Defining the Northampton Implementation Area (NIA)

A.3 The Milton Keynes and South Midlands Sub-Regional Strategy requires that the majority of development in West Northamptonshire should be concentrated in the Northampton Implementation Area (NIA). The MKSM Sub-Regional Strategy does not define the area to be covered by the NIA but proposes that it covers Northampton Borough and neighbouring parts of Daventry and South Northamptonshire districts. The West Northamptonshire Joint Core Strategy has put forward the following two broad options for defining the NIA:

- i. Define the NIA as a wider policy area including the urban area and surrounding countryside and villages;
- ii. Define the NIA as a tighter area just including the urban area and any land required to meet future growth requirements in specific directions.

A.4 Regardless of which option is progressed, it is reasonable to assume that the strategic housing requirement for the NIA will be met through a combination of urban regeneration, intensification and the identification of new sustainable urban extensions to Northampton. Whilst the new urban extensions might straddle the administrative boundary of Northampton and the neighbouring districts, our consideration of the infrastructure and service requirement must extend to the satisfactory functioning of Northampton as a whole. Therefore, for the purposes of this study, the NIA has been treated as the functional town of Northampton irrespective of administrative boundaries.



## Identifying a Total Housing Provision Figure for Northampton

- A.5 The Draft Regional Plan requires that a total of 40,400 dwellings be built within the NIA between 2001 and 2026. Taking account of completions for 06/07 and those applications that have planning permission but are yet to be completed, 10,618 dwellings have already been delivered. The remaining strategic housing requirement for the NIA is therefore 29,757 dwellings to 2026. In calculating the total infrastructure requirement, it is assumed that the respective LPAs will allocate sufficient sites in their LDF to meet the minimum strategic housing requirement for the NIA to 2026.
- A.6 To determine the total number of new housing likely to be subject to a standard charge requires consideration of WNDC's development control powers.
- A.7 The Order giving the WNDC development control powers within its territory came into effect in 6 April 2006. The Order established the Corporation as the local planning authority for strategic planning applications for Northampton, Daventry and Towcester – in summary, more than 50 homes or 2500m<sup>2</sup> of business floorspace.
- A.8 In Northampton's central area, given its strategic importance to the county, the WNDC is also responsible for determining most applications relevant to its purpose.
- A.9 The responsibility for determining planning applications below the WNDC threshold remains with the LPA. Whilst such development will have an impact on infrastructure and service requirements, it is for the Borough to determine how this is to be addressed and the level of s106 contribution to be sought. As a result, such development is to be excluded from our calculation of the overall total housing provision likely to be subject to a standardised charge.
- A.10 Taking account of the small scale windfalls sites within the Northampton Centre Area, and excluding strategic schemes that already have planning permission as well as those major developments (10+ to <50 dwellings) below the WNDC threshold, provides a figure of 27,149 additional dwellings, on which a planning obligation towards infrastructure and service provision can be levied for Northampton / NIA.
- A.11 The Annual Monitoring Report (AMR) for Northampton Borough Council records the number of housing completions for the NIA over the 2001 to 2007 period. These are set out in Table A1 below:
- A.12 The AMR demonstrates that, within the NIA, cumulative housing completions over the past six years exceeded the annual housing requirement for the same period, despite the relatively poor performance to 2003/04. The improvement in housing performance is attributed to completions on a number of major development schemes including Grange Park, St Crispins and Upton.
- A.13 The housing projection for the NIA, provided in Table A.4, shows that the good performance of the past three years, when set against the annual housing requirement, is unlikely to be replicated going forward. Housing completions are projected to peak at 1,552 in 2011/12 and steadily decrease thereafter to around 982 dwellings from 2015/16 onwards. This decrease in housing completions also coincides with an increase in the annualised housing requirement, from 1,450 dwellings in the period 2006/11 to 1,780 dwellings in 2021/26. Based upon the current housing projections, there will be a significant shortfall of around 14,864 dwellings within the plan period, which will require additional urban extensions or new identified urban capacity sites.
- A.14 It is assumed that the Joint Planning Unit will identify, through the Northampton Implementation Area Development Plan Document (DPD), sufficient housing allocation sites to meet the projected shortfall in the strategic housing requirement. The timeframe for adoption of the DPD is currently programmed for February 2011 (Joint Local Development Scheme March 2007). Assuming no slippage occurs against the joint LDS timeframe, it is likely that such sites could begin delivering housing by 2012/13. With respect to the current projection (Table A4), this is likely to result in an increase in housing completions from 2013/14 onward. The level of increase and the timing of development coming forward will depend on the balance to be struck between a number of competing requirements, including:
- market conditions;
  - the constraints placed upon existing urban capacity through demand for employment land;
  - PPS3, which states that the priority for development should be previously developed land (para. 36);
  - the need to meet the growth requirements of the RSS; and
  - the need to meet any housing backlog experienced as a result of poor performance to 2012/13.
- A.15 The likely result of these competing requirements is that the bulk of development will be towards the end of the plan period.

**Table A1 Housing Completions 2001 to 2007**

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	Total
Northampton NIA	1,084	1,208	1,009	1,623	1,626	1,857	8,407
Annual Housing Requirement	1,300	1,300	1,300	1,300	1,300	1,450	7,950

A.16 The three scenarios for the timing of housing development coming forward within the NIA are outlined in Table A.2 below.

**Table A2 Phasing of Housing Development to 2026**

	01/06	06/11	11/16	16/21	21/26
Phasing Based on Draft RSS	6,500	6,500	7,250	8,850	8,900
Phasing Based on Housing Projection July 2007	6,550	6,952	6,204	4,910	920
More likely Phasing Based on Housing Projection and Adopted NIA DPD	6,550	6,952	7,342	9,477	10,079

### Housing and Population Estimates/Projections

A.17 The Department for Communities and Local Government (DCLG) has produced 2004-based population estimates/projections for the East Midlands Region, which includes an estimate of average household size for 2006 to 2026 at five year intervals. Given the size of Northampton's population, it is reasonable to assume that trends in average household size within the NIA will be comparable to the regional estimates for East Midlands over the same period.

An estimate of the total housing and population growth expected as a result of the new housing within the NIA has been produced using the most likely scenarios for the phasing of housing coming forward from Table A.2 (minus completions for 06/07 and those projected developments below the WNDC threshold), multiplied by the DCLG average household size. This is set out in Table A.3 below.

**Table A3 Likely Phasing of Housing Development that will fall to WNDC to determine within the NIA to 2026 and Estimate of Corresponding Population Increase**

	07/11	11/16	16/21	21/26	Total
Housing Projection based on Draft RSS for the NIA	5,200	7,250	8,850	8,900	
Housing Projection only for development above the WNDC threshold but taking account of the urban extensions within the NIA	2,211**	6,722	8,857	9,359	27,149
Average Household Size*	2.40	2.34	2.28	2.23	
Total Population Growth	5,306	15,729	20,194	20,870	62,099

\*Source: DCLG 2004-based: Household Estimates/Projections

\*\* Excludes commitments PP & UC of 2,211 dwellings

**Table A4 Total Projected Net Additional Dwellings by Year for Northampton**

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/26	Total
Small Scale Sites/ Windfalls (>10)	169	124	124	124	124	124	124	124	124	124	124	124	124	124	720	2,501
Large Scale/Windfall Sites (10+<50)	151		40	40												231
Northampton Town Centre (>10)		127	18													145
Dallington Grange				350	350	350	350	350	350	280	280	280	280	280		3,500
St Crispin's*	190	160	100	40												490
Upton Phase 1*	326	294	218	95												933
Upton Lodge (excl Norwood Farm)				126	168	156	200	128	112	146	146	146	146	146		1,620
Upton Park										162	162	162	162	162		810
Princess Marina Hospital			50	150	150	150	50									550
Castle Station					180	180	180									540
Freeschool Street			100	50	50	50										250
Emmanuel School		63	63													126
British Timken		50	150	150	130											480
Nunn Mills			50	200	200	200	200	200	150							1,200
Harvey Reeves Road			100													100
Ransome Road			50	100	100	100	100	100	100	50	50	50	50	50		900
East of Upton Way			90													90
Bective Road*		100	55													155
Sixfields District Centre										140	140	140	140	140		700
Pineham					100	100	100	100	100	40	40	40	40	40		700
Adnitt Road*	54															54
David Wilson Homes										40	40	40	40	40		200
Newport Paguel Road	50	25														75
St Edmunds Hospital*		43	42												200	285
Hawkins Shoe Factory*	52															52
Talavera Way*	50	50														100
Talbot Road*	52															52
Wellingborough Road*		41	55	55												151
Woolmonger Street*	65															65
Guildhall Road*	40															40
Cotton End*	34															34
<b>Strategic Housing Allocation</b>	<b>1,450</b>	<b>1,450</b>	<b>1,450</b>	<b>1,450</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>1,775</b>	<b>8,875</b>	<b>40,375</b>
<b>Total Projected Completions</b>	<b>1,233</b>	<b>1,077</b>	<b>1,305</b>	<b>1,480</b>	<b>1,552</b>	<b>1,410</b>	<b>1,304</b>	<b>1,002</b>	<b>936</b>	<b>982</b>	<b>982</b>	<b>982</b>	<b>982</b>	<b>982</b>	<b>920</b>	<b>17,129</b>
<b>Cumulative Completions from 01/02</b>	<b>9,640</b>	<b>10,717</b>	<b>12,022</b>	<b>13,502</b>	<b>15,054</b>	<b>16,464</b>	<b>17,768</b>	<b>18,770</b>	<b>19,706</b>	<b>20,688</b>	<b>21,670</b>	<b>22,652</b>	<b>23,634</b>	<b>24,616</b>	<b>25,536</b>	

Source: Northampton Borough Council and Northamptonshire County Council July 2007. Note: \*Commitments including PP and UC

## Population and Housing Projections for Daventry Town

### Identifying a Total Housing Provision Figure for Daventry Town

A.18 The Milton Keynes and South Midlands Sub-Regional Strategy identifies Daventry as a Sub-Regional centre and a focus for development. The draft Regional Spatial Strategy has set a total housing requirement for Daventry District of 13,500 dwellings between 2001 and 2026. Taking account of completions for 06/07 (2,019 dwelling), as well as those applications that have planning permission but are yet to be completed (1,104 dwellings), leaves a residual of 10,377 dwellings still to be delivered by 2026. Whilst the forthcoming LDF will contain new housing allocations to meet the strategic requirement, it is expected that the vast majority of new housing will be allocated to Daventry Town.

A.19 To derive a total housing provision figure for Daventry Town requires consideration of the housing projection prepared by the District Council, provided at Table A6. This demonstrates that the Council anticipates 1,729 dwellings to be provided for within the rural area of the District within the plan period, based on past completions. This figure, along with sites within Daventry Town below the WNDC threshold, can then be subtracted from the strategic housing requirement residual given above. This gives a total housing provision figure for Daventry Town of 8,171 additional dwellings, against which a planning obligation towards infrastructure and services can be levied.

A.20 It should be noted that site allocations for the urban extension of Daventry Town are likely to extend beyond the WNDC administrative boundary, and as such, will be considered by both WNDC and the Daventry Council. However, our consideration of the infrastructure and service requirement must extend to the satisfactory functioning of Daventry Town as a whole. Therefore, for the purpose of the study, any urban expansion is to be considered as part of the functional town of Daventry irrespective of administrative boundaries.

### The Timing of Development Coming Forward

A.21 The housing projection in Table A.6 includes the Council's assumptions on urban extensions to Daventry Town as a result of new housing allocations being identified through the emerging LDF. As a result, the housing projection indicates that yearly completion rates in the District are likely to be comparable to the annualised strategic housing requirement, with the urban extensions beginning to contribute towards completions during 2009/10. This timing is heavily dependant upon the Core Strategy and Daventry Town DPD being adopted in line with the programme outlined in the current joint Local Development Scheme (March 2007). However, there is presently no reason to assume that the timing of development coming forward will differ significantly from that proposed in the housing projection.

A.22 The overall shortfall in housing provision occurs as a result of the Council's projection extending only to 2021. However, it is anticipated that sufficient new housing allocations will be identified through the LDF to meet the strategic requirements to 2026.

### Population Estimates/Projections

A.23 The Department for Communities and Local Government provides 2004-based population estimates/projections for the East Midlands Region, which includes an estimate of average household size for 2006 to 2026 at five year intervals. An estimate of the total population growth expected as a result of the new housing within Daventry Town has been produced using the projected phasing of housing coming forward from Table A6 (adjusted to take account of WNDC attributed development), multiplied by the DCLG average household size (adjusted to take account of Daventry Town average household size given in 2001 Census data). Table A5 provides a summation of the projected phasing of development within Daventry Town to 2026.

**Table A5 Likely Phasing of Housing Development that will fall to WNDC to determine within Daventry Town to 2026 and Estimate of Corresponding Population Increase**

	07/11	11/16	16/21	21/26	Total
Housing Projection based on Draft RSS for all of Daventry District	2,160	2,700	2,700	2,700	
Housing Projection only for development above the WNDC threshold	1,314**	2,260	2,070	2,527***	8,171
Average Household Size*	2.40	2.34	2.28	2.23	
Total Population Growth	3,154	5,288	4,720	5,635	18,797

\* DCLG 2004-based average household size estimates adjusted by a factor of 1.04

\*\* Excludes commitments PP and UC of 1,104 dwellings

\*\*\* Remaining Strategic Housing provision required to meet RSS8 target for Daventry District

**Table A6 Total Projected Net Additional Dwellings by Year for Daventry District, particularly Daventry Town Centre**

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/26	Total
Rural Windfall Sites	91	91	91	91	91	91	91	91	91	91	91	91	91	91	455	1,729
Urban Capacity and Windfall Sites	26	26	25	25	25	25	25	25	25	25	25	25	25	25	125	477
Outstanding Planning Permissions (excluding Middlemore)*	288	207	206													701
Middlemore*	96	110	98	99												403
Town Centre – North of High Street	90															90
Town Centre – Canal Side					15	25	110									150
Other Town Centre			169	100	100	60										429
Urban Extension – East of Welton Lane			90	90	90	90	90	90	90	74	74	74	74	74		1,000
Urban Extension – North of A45 The Marches		25	150	150	100	100	100	100	100	140	140	140	140	140		1,525
Urban Extension – Long Buckby Road		50	200	200	200	200	200	200	200	200	200	200	200	200		2,450
<b>Strategic Housing Allocation</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>540</b>	<b>2,700</b>	<b>13,500</b>
<b>Total Projected Completions</b>	<b>591</b>	<b>509</b>	<b>1,029</b>	<b>755</b>	<b>621</b>	<b>591</b>	<b>616</b>	<b>506</b>	<b>506</b>	<b>530</b>	<b>530</b>	<b>530</b>	<b>530</b>	<b>530</b>	<b>580</b>	<b>8,954</b>
<b>Cumulative Completions from 01/02</b>	<b>2,610</b>	<b>3,119</b>	<b>4,148</b>	<b>4,903</b>	<b>5,524</b>	<b>6,115</b>	<b>6,731</b>	<b>7,237</b>	<b>7,743</b>	<b>8,273</b>	<b>8,803</b>	<b>9,333</b>	<b>9,863</b>	<b>10,393</b>	<b>10,973</b>	

Source: Northamptonshire County Council and Daventry District Council ARM 2005/06 \*Commitments including PP and UC

## Population and Housing Projections for Towcester

### Housing Projections

A.24 The strategic housing requirement for South Northamptonshire is 8,250 dwellings by 2026. Completions for the period 01/02 to 06/07, as well as commitments, amounts to 1,987 dwellings across the District. This leaves a residual requirement of 6,263 dwellings by 2026. To derive a total housing provision figure for Towcester requires consideration of the housing projection prepared by South Northamptonshire Council, provided at Table A.8. This indicates that 1,620 dwellings are to be provided for within the rest of the District. It also suggests there will be a shortfall of some 1,267 dwellings against the strategic housing requirement for the plan period to 2026. Council planning staff members have indicated that the Council intends to allocate sufficient housing sites in the emerging LDF to meet this shortfall, and that it is most likely to be allocated to sites outside of Towcester.

A.25 Taking account of dwellings to be provided for within the rest of the District over the plan period, and those below the WNDC threshold, the total housing figure for Towcester is likely to be of 3,166 additional dwellings, against which a planning obligation towards infrastructure and services can be levied.

### The Timing of Development Coming Forward

A.26 The housing projection in Table A.8 includes the Council's assumptions on an urban extension to Towcester as a result of new housing allocations being identified through the emerging LDF. The Council's Local Development Scheme indicates that the Site Specific Allocations DPD is to be adopted by June 2008. However, given that the joint Core Strategy for the three West Northamptonshire LPAs is unlikely to be adopted before 2010, we assume that the programme for the Site Specific Allocations DPD will be amended to reflect this. The proposed timing for the completion rates of the Towcester extension will therefore, also change. As a result, housing completions within the extension site(s) are more likely to be delivered starting in 2011/12.

### Population Estimates/Projections

A.27 The Department for Communities and Local Government provides 2004-based population estimates/projections for the East Midlands Region, which includes an estimate of average household size for 2006 to 2026 at five year intervals. An estimate of the total population growth expected as a result of the new housing within Towcester has been produced using the projected phasing of housing coming forward from Table A.8 (adjusted to take account of WNDG attributed development), multiplied by the DCLG average household size (adjusted to take account of Towcester average household size given in 2001 Census data). Table A.7 provides a summation of the projected phasing of development within Towcester to 2026.

**Table A.7 Likely Phasing of Housing Development that will fall to WNDG to determine within Towcester to 2026 and Estimate of Corresponding Population Increase**

	07/11	11/16	16/21	21/26	Total
Housing Projection based on Draft RSS for all of South Northamptonshire District	1,320	1,650	1,650	1,650	
Housing Projection only for development above the WNDG threshold	271**	1,280	975	750	3,276
Average Household Size*	2.42	2.36	2.30	2.25	
Total Population Growth	656	3,020	2,243	1,688	7,607

\* DCLG 2004-based average household size estimates adjusted by a factor of 1.05

\*\* Excludes commitments PP and UC of 40 dwellings

**Table A.8 Total Projected Net Additional Dwellings by Year for South Northamptonshire, particularly Towcester**

	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/26	Total
Small Scale/Windfalls (>10)	20	20	20	20	10	10	10	10	10	2	2	2	2	2	10	150
Large Scale/Windfalls (10+<50)		5	40	15												60
BAE Marconi Burcote Road		30	11	30	30											101
Water Lane*	40															40
Towcester Extension			50	150	250	250	250	250	250	195	195	195	195	195	750	3,175
Rest of the District	167	175	248	250	210	185	190	65	65	13	13	13	13	13		1,620
<b>Strategic Housing Allocation</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>330</b>	<b>1,650</b>	<b>8,250</b>
<b>Total Projected Completions</b>	<b>227</b>	<b>230</b>	<b>369</b>	<b>465</b>	<b>500</b>	<b>445</b>	<b>450</b>	<b>325</b>	<b>325</b>	<b>210</b>	<b>210</b>	<b>210</b>	<b>210</b>	<b>210</b>	<b>760</b>	<b>5,146</b>
<b>Cumulative Completions from 01/02</b>	<b>2,064</b>	<b>2,294</b>	<b>2,663</b>	<b>3,128</b>	<b>3,628</b>	<b>4,073</b>	<b>4,523</b>	<b>4,848</b>	<b>5,173</b>	<b>5,383</b>	<b>5,593</b>	<b>5,803</b>	<b>6,013</b>	<b>6,223</b>	<b>6,983</b>	

Source: Northamptonshire County Council \*Commitments including PP and UC



## Conclusions

A.28 We have undertaken an assessment of housing projections for the three West Northamptonshire LPAs in an effort to derive the total remaining draft RSS housing requirement to be met in West Northamptonshire over the period 2007 – 2026, and that portion likely to fall to WNDC to determine in accordance with the Planning Obligations Strategy. A key consideration in devising a Planning Obligations Strategy for WNDC will be to ensure timely and sufficient infrastructure and service provision is made to match housing delivery. Our assessment has therefore, considered both the most likely timing of development coming forward over the plan period to 2026 and an estimate of population growth over the same time periods, which will assist in refining calculations for the quantity of infrastructure provision required, if a standard charge is to be derived for each town in a subsequent review of the Strategy. The summary of our findings is provided in Table A9 and Table A10. These figures are exclusive of commitments including PP and UC.

**Table A9 Draft Strategic Housing Provision 2001-2026 and the Remaining Requirement to be delivered across all of West Northamptonshire between 2007 and 2026.**

	Total Housing Requirement 2001-2026	Completions and Outstanding Planning Permissions 2001-2007	Remaining Housing Requirement
Northampton Implementation Area (NIA)	40,400	10,618	29,782
Daventry District	13,500	3,123	10,377
South Northamptonshire	8,250	1,987	6,263
Totals	62,150	18,460	46,422

**Table A10 Summary of: Housing Numbers likely to fall to WNDC to determine; the Timing of Development; and an estimate of corresponding Projected Populations.**

Total additional dwellings That may fall to WNDC to determine	07/11	11/16	16/21	21/26	Totals
NIA	2,211	6,722	8,857	9,359	27,149
Daventry Town	1,314	2,260	2,070	2,527	8,171
Towcester	271	1,280	975	750	3,276
Totals	3,796	10,262	11,902	12,636	38,596
Population Projections					
NIA	5,306	15,729	20,194	20,870	62,099
Daventry Town	3,154	5,288	4,720	5,635	18,797
Towcester	656	3,020	2,243	1,688	7,607
Totals	9,116	24,037	27,157	28,193	88,503

# 7 Annex B:

## Estimated cost per person and per dwelling of infrastructure requirements

Facility	Assumptions and intermediate outputs	Sources and calculations	Dwings per facility	Cost per person	Cost per dwelling (2.4/dw)
Primary School including Early Years (and all Special Needs)	<ul style="list-style-type: none"> <li>i Pupils per school = 7 years (including reception) * 30 per form * 2 forms = 420 pupils (a)</li> <li>ii Primary age pupils per dwelling = 1 bed – 0, 2 bed – 0.04, 3 bed – 0.38, 4 bed 0.63, 5+ bed – 0.65 (b)</li> <li>iii Average house size mix for new dwellings = 1 bed – 10%, 2 bed – 28%, 3 bed – 47%, 4 bed 12%, 5+ bed 3% (c)</li> <li>iv Primary age pupils per average dwelling = 0.24 (d)</li> <li>v Cost per two form entry primary school: £6m (a)</li> <li>vi Early years (3 and 4 years) pupils per dwelling = 1 bed – 0, 2 bed – 0.0118, 3 bed – 0.081, 4 bed - 0.181, 5+ bed – 0.184 (a)</li> <li>vii Early years pupils per average dwelling = 0.0686 (d)</li> <li>viii Primary school cost per pupil = £14,286 (e)</li> <li>ix Early years cost per dwelling = £3,429 (f)</li> <li>x Early years cost per pupil = Primary age cost per pupil (a)</li> <li>xi Early years cost per dwelling = £980 (g)</li> <li>xii Cost per dwelling of providing for Special Educational Needs (in Primary and Secondary) = £20 (a)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Northamptonshire County Council</li> <li>(b) NCC's Draft Planning Obligation Framework and Guidance (Feb 2008); from Table 6, derived from Pupil Generation Survey for Northamptonshire County Council, BMG Research, Final Report, May 2005</li> <li>(c) DTZ's Strategic Housing Market Assessment for West Northants (June 2007); Figure 8.17 – dwelling requirement by size to accommodate household growth in Western Northants 2006 to 2021</li> <li>(d) Calculated from (iii) and (vi)</li> <li>(e) Calculated from (v) and (i)</li> <li>(f) Calculated from (viii) and (vii)</li> <li>(g) (vii) / (iv) x (ix)</li> </ul>	1,750	£14,286 per pupil	£4429
Secondary School including Post-16	<ul style="list-style-type: none"> <li>i Pupils per school: Aged 11 to 15 = 5 years * 30 per form * 8 forms = 1200 pupils; Post - 16 = 50% of rate for 11 to 15 = 30 * 8 * 50% * 2 = 240 pupils; total 1440 pupils (a)</li> <li>ii 11 to 15 age pupils per dwelling = 1 bed – 0, 2 bed – 0.02, 3 bed – 0.13, 4 bed 0.24, 5+ bed – 0.43 (b)</li> <li>iii Post-16 pupils per dwelling = 1 bed – 0, 2 bed – 0.0078, 3 bed – 0.017, 4 bed 0.023, 5+ bed – 0.089 (b)</li> <li>iv Average house size mix for new dwellings = 1 bed – 10%, 2 bed – 28%, 3 bed – 47%, 4 bed 12%, 5+ bed 3% (c)</li> <li>v Cost per eight form entry secondary school: £35m (a)</li> <li>vi Pupils per average dwelling: 11 to 15 age = 0.11; post-16 pupils = 0.0156; total secondary = 0.126 (d)</li> <li>vii Secondary school cost per pupil = £24,306 (e)</li> <li>viii Secondary school cost per dwelling = £3,429 (f)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Northamptonshire County Council</li> <li>(b) NCC's Draft Planning Obligation Framework and Guidance (Feb 2008); from Tables 7 and 8, derived from Pupil Generation Survey for Northamptonshire County Council, BMG Research, Final Report, May 2005</li> <li>(c) DTZ's Strategic Housing Market Assessment for West Northants (June 2007); Figure 8.17 – dwelling requirement by size to accommodate household growth in Western Northants 2006 to 2021</li> <li>(d) Calculated from (iii), (iv) and (v)</li> <li>(e) Calculated from (vii) and (i)</li> <li>(f) Calculated from (viii) and (vi)</li> </ul>	11,473	£24,306 per pupil	£3051

Facility	Assumptions and intermediate outputs	Sources and calculations	Dwings per facility	Cost per person	Cost per dwelling (2.4/dw)
Libraries	<ul style="list-style-type: none"> <li>i 30 m2 of library space per 1000 people (a)</li> <li>ii construction cost of £3,000 per m2 for library buildings (in South East) (a)</li> <li>iii 98% adjustment for Northamptonshire (a)</li> </ul>	<ul style="list-style-type: none"> <li>(a) NCC's Draft Planning Obligation Framework and Guidance (Feb 2008); based on the South East Public Library Tariff prepared Museums Libraries Archives (MLA) South East (January 2007 revised edition)</li> </ul>		£88 per person	£221
Archives	<ul style="list-style-type: none"> <li>i 5 m2 per 1000 people (a)</li> <li>ii Construction cost per m2 for archive buildings: £3,600 (a)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Development of a Tariff for Archive Provision in the South East Region (March 2007)– Museums Libraries Archives (MLA) South East</li> </ul>		£18 per person	£43
Community facilities	<ul style="list-style-type: none"> <li>i 61 m2 of community centre floorspace per 1000 people (a)</li> <li>ii Construction cost per m2= £3,000 (b)</li> <li>iii 530 m2 per centre (b)</li> </ul>	<ul style="list-style-type: none"> <li>(a) SPG on Planning Obligations for Leisure, Recreation and Sport Facilities (2004) Milton Keynes Borough Council</li> <li>(b) Examples from Milton Keynes Partnership Business Plan (June 2007)</li> </ul>	3620	£183 per person	£ 439
Equipped children's play space	<ul style="list-style-type: none"> <li>i 1 ha of per 1000 people: Locally Equipped Area for Play (LEAP) 0.12 ha; Neighbourhood Equipped Area for Play (NEAP) 0.12 ha (a)</li> <li>ii Construction cost: per m2 of LEAP = £37; per m2 of NEAP = £75 (b)</li> <li>iii Thirty year maintenance cost: per m2 of LEAP = £108; per m2 of NEAP = £161 (b)</li> <li>iv Area per play area: LEAP = 0.148 ha; NEAP = 0.238 ha (b)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Open Space, Sport and Recreation Needs Assessment and Audit (2006), Northampton Borough Council</li> <li>(b) Developer Contributions for Residential Developments (Nov 2007), Swindon Borough Council</li> </ul>	LEAP: 514; NEAP: 827	£457 per person	£1097
Non-equipped play area	<ul style="list-style-type: none"> <li>i 1 ha of per 1000 people: 0.56 ha</li> <li>ii Thirty year maintenance cost per m2 = £11 (b)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Fields in Trust (formerly NPFA) standard</li> <li>(b) Developer Contributions for Residential Developments (Nov 2007), Swindon Borough Council</li> </ul>		£62 per person	£148
Playing pitches	<ul style="list-style-type: none"> <li>i 1.88 ha of outdoor playing fields per 1000 pop (a)</li> <li>ii Construction cost for a 7 ha facility: £418,000 (b)</li> <li>v Thirty year maintenance cost for a 7 ha facility: = £756,000 (b)</li> </ul>	<ul style="list-style-type: none"> <li>(a) Open Space, Sport and Recreation Needs Assessment and Audit (2006), Northampton Borough Council</li> <li>(b) Developer Contributions for Residential Developments (Nov 2007), Swindon Borough Council</li> </ul>	7 ha facility: 1551	£315 per person	£757
District park	<ul style="list-style-type: none"> <li>i 0.8 ha of park and gardens per 1000 pop (a)</li> <li>ii Construction cost for a 1.3 ha facility: £220,000 (b)</li> <li>iii Thirty year maintenance cost for a 1.3 ha facility: = £170,100 (b)</li> </ul>	<ul style="list-style-type: none"> <li>(a) SPG on Planning Obligations for Leisure, Recreation and Sport Facilities (2004) Milton Keynes Borough Council (f).</li> <li>(b) Developer Contributions for Residential Developments (Nov 2007), Swindon Borough Council - excluding costs of strategic play features and other play provision</li> </ul>	1.3 ha facility: 682	£238 per person	£571

Green infrastructure	Direct assumption (a)	(a) Per dwelling cost – WNDC discussions with stakeholders and developers on current major schemes			£250
Public realm	Direct assumption (a)	(a) Per dwelling cost – WNDC discussions with stakeholders and developers on current major schemes			£480
Cultural investment (arts, theatre, heritage etc)	Direct assumption (a)	(a) Per dwelling cost – WNDC discussions with stakeholders and developers on current major schemes			£360
Burial grounds	<ul style="list-style-type: none"> <li>i Annual death rate 9.9 per 1000 (a)</li> <li>ii Burials account for 30% of deaths (a)</li> <li>iii 1730 grave plots per ha (a)</li> <li>iv 2.5 burials per grave (a)</li> <li>v ha per 1000 pop in 20 yrs = 0.01373 (b)</li> <li>vi Cost of cemetery provision = £378,000 per ha, excluding land costs (a)</li> </ul>	(a) The Cost & Funding Of Growth in South East England” Roger Tym & Partners for South East Counties (June 2005) (b) Calculated from (i) to (v)	£5		£12
Sports hall	<ul style="list-style-type: none"> <li>i 0.29 badminton court per 1000 people (a)</li> <li>ii Construction cost per 4 court sports hall = £2.765m (b)</li> </ul>	(a) Open Space, Sport and Recreation Needs Assessment and Audit (2006), Northampton Borough Council, based on Sport England Toolkit (b) Sports England Toolkit (2nd quarter 2008)	4 court sports hall: 5747	£200 per person	£481
Swimming pool	<ul style="list-style-type: none"> <li>i 10.5m<sup>2</sup> water space per 1000 people (a)</li> <li>ii 265m<sup>2</sup> per 5 lane 25m pool (a)</li> <li>iii Construction cost per 5 lane pool = £2.67m (b)</li> </ul>	(a) Open Space, Sport and Recreation Needs Assessment and Audit (2006), Northampton Borough Council, based on Sport England Toolkit (b) Sports England Toolkit (2nd quarter 2008)	5 lane pool: 10,516	£106 per person	£254

Facility	Assumptions and intermediate outputs	Sources and calculations	Dwings per facility	Cost per person	Cost per dwelling (2.4/dw)
Police station	<p>General office accommodation</p> <ul style="list-style-type: none"> <li>Number of households per Police officer plus police staff remains constant, at 107.52</li> <li>Non-specialist accommodation per member of staff = 13.4 m2</li> <li>Cost of non-specialist accommodation = £2,679 per m2</li> </ul> <p>Custody facilities</p> <ul style="list-style-type: none"> <li>Number of households per m2 of custody facilities remains constant at 115.12 m2</li> <li>Cost of non-specialist accommodation = £3,505 per m2</li> </ul> <p>Miscellaneous capital costs per police officer</p> <ul style="list-style-type: none"> <li>Ratio of Police officers to total police staff = 0.53</li> <li>One-off start up costs per police officer = £10,953</li> </ul> <p>Miscellaneous capital costs per police support staff member</p> <ul style="list-style-type: none"> <li>Ratio of Police officers to total police staff = 0.47</li> <li>One-off start up costs per police officer = £3,174</li> </ul>	(a) Northamptonshire Police Draft "Policing Contributions from Development Schemes" (undated)			£432
Fire station	<ul style="list-style-type: none"> <li>1 new fire station with fire appliance and equipment per 12,476 dwellings (a)</li> <li>Construction cost of new fire station: £2m (a)</li> <li>Cost of new fire appliance and equipment: £200,000 (a)</li> <li>Percentage of fires in residential buildings: 49% (a)</li> </ul>	(a) NCC's Draft Planning Obligation Framework and Guidance (Feb 2008)	12,476	£36 per person	£86
GP health centre (4GP)	<ul style="list-style-type: none"> <li>1800 patients per GP (a)</li> <li>168.75m2 per GP , giving 675 m2 per 4GP health centre (b)</li> <li>Construction cost per m2 of health centre: £3,445 (c)</li> <li>Construction cost of new 4 GP health centre: £2.325m (d)</li> </ul>	(a) Government target for average number of patients per GP (implicit in GP contracts) (b) Technical Report on Infrastructure Requirements in the South East 2006-2026" SQW for SEERA (Sept 2006) – advice from Dept of Health (b) (c) Northamptonshire Teaching Primary Care Trust (communication June 2008) (d) Calculated from (ii) and (iii)	3,000	£323 per person	£775

Dentist	<ul style="list-style-type: none"> <li>i 5400 patients per dentist (a)</li> <li>ii 164m<sup>2</sup> per dentist (a)</li> <li>iii Construction cost per m<sup>2</sup> of dental surgery: £3,445 (a)</li> <li>iv Construction cost of new dental surgery: £0. 56m, equipment cost: £0. 04m - total £0. 6m (a)</li> </ul>	(a) Northamptonshire Teaching Primary Care Trust (communication June 2008)	2,250	£111 per person	£267
Acute hospital	<ul style="list-style-type: none"> <li>i. 50m<sup>2</sup> of floorspace per 400 dwellings (a)</li> <li>ii. Construction cost per m<sup>2</sup> of acute hospital: £5,288 (a)</li> </ul>	(a) Northamptonshire Teaching Primary Care Trust, based on HUDU model (communication June 2008)		£275	£661
Intermediate health care provision	<ul style="list-style-type: none"> <li>i 50m<sup>2</sup> each of intermediate bed and day care provision floorspace per 400 dwellings (a)</li> <li>ii Construction cost per m<sup>2</sup> of intermediate bed and day care provision : £3,445 (a)</li> </ul>	(a) Northamptonshire Teaching Primary Care Trust, based on HUDU model (communication June 2008)		£359	£861
Waste disposal	i. Cost of municipal waste disposal including compliance with LATS directive over five years 2008/9 to 2012/3 = £409 per household	NCC's Draft Planning Obligation Framework and Guidance (Feb 2008), based on annual estimates of municipal waste generation		£170 per person	£409
Transport	i Costed items associated with Northampton, Daventry, and Towcester, and proposed mainly for funding by developers, County Council or regionally (a) (b)	(a) Transport Strategy for Growth"; Northamptonshire County Council (Sept 2007) (b) See Table 3.6 in Technical Report			£8,381
Land	.£600,000 per ha based on discussion with landowners, developers and agents.	Refer to Table 3.7 of the Technical Report			£6,500
Training	Direct assumption (a)	(a) Per dwelling cost – from construction futures project paper [ref 08-2008-05a] WNDC board 2008			£97 <sup>(2)</sup>
Voluntary sector support	Direct assumption (a)	(a) Per dwelling cost – WNDC discussions with stakeholders and developers on current major schemes			£260

**Notes:**

(1) This standard is used in preference to the quantitative standard for parks and gardens in Northampton Borough Council's Open Space, Sport and Recreation Needs Assessment and Audit (2006) of 1.64 ha per 1000 pop. as the latter is significantly higher than standards adopted elsewhere: e.g. RTP study "The Cost & Funding of Growth in South East England"; Roger Tym & Partners for South East Counties (June 2005), uses 0.6 ha per 1000 pop.

(2) Represents direct cost. Additional sums are required to be placed on deposit against contributions and will be returned with interest as training is provided.

## 8 Annex C:

### Development Appraisals and Viability Testing

#### Introduction

- C.1 This Technical Annex explains ERM's approach to testing financial viability issues as part of the process of establishing a Planning Obligations Strategy for West Northamptonshire Development Corporation (WNDC). Such exercises are increasingly important in evaluating policies before adoption, as is already the case where planning authorities seek to adopt an affordable housing threshold different from the national indicative standard (PPS3, para B29) and will probably be a requirement when the proposed Community Infrastructure Levy regime is introduced. However, they are only general overviews at particular points in time and cannot take account of exceptional individual site circumstances or future market conditions.
- C.2 The Technical Report is principally concerned with private residential development, but also includes appraisals of office, industrial and retail developments. As far as possible, it has been informed by up to date information on development values and costs in the WNDC area.
- C.3 The remaining sections of the report cover, in:
- **Section 2**, a description of the appraisal methodology and the assumptions employed;
  - **Section 3**, the appraisal results for residential development;
  - **Section 4**, the appraisal results for commercial development; and
  - **Section 5**, an assessment of the implications of these appraisals for the implementation of the WNDC approach to Obligations.

**Series A** sets out the residential appraisals in the form of tables, **Series B** sets out illustrative appraisals for a range of commercial developments.

#### Principles of Development Appraisal

- C.4 Development appraisal models are in essence simple and can be summarised via the following equation:

$$\begin{array}{r}
 \text{Completed Development Value} \\
 \text{Minus} \\
 \text{Total Construction Costs} \\
 \text{Minus} \\
 \text{Developers Profit} \\
 = \\
 \text{Residual Land Value}
 \end{array}$$

- C.5 Residual Value – what the landowner receives – will normally be the critical variable. If a proposal generates sufficient positive land value, it will be implemented; if not, unless, there are alternative funding sources to bridge the 'gap', the proposal will not go ahead.
- C.6 The problems with development appraisals all flow from the requirement to identify the key variables – values, costs etc.- with some degree of accuracy in advance of implementation. Even on the basis of the standard convention, namely that current values and costs are adopted (not values and costs on completion), this can be very difficult.
- C.7 Problems with each of the key variables can be summarised as follows:
- Completed Development Values are largely dependent on comparable evidence which requires sufficient new development in the locality of a similar size and type, to provide a realistic value base.
  - Development costs are subject to extensive national and local monitoring and can be reasonably accurately assessed in 'normal' circumstances. Increasingly however, with restrictions on greenfield development and a greater emphasis on brownfield sites, 'exceptional' costs such as decontamination are becoming more common. Such costs can be very difficult to anticipate before detailed site surveys.
  - Development value and costs will also be significantly affected by assumptions about the nature and type of affordable housing provision and other Planning Obligations and on major projects, assumptions about development phasing and infrastructure triggers.
  - While Developer's Profit has to be assumed in any appraisal, its level is closely correlated with risk. The greater the risk, the greater the profit level, in part as a contingency against the unexpected.
  - Ultimately, the landowner holds the key and will make a decision on whether to release a development site on the basis of the financial return and the potential for market change and thus alternative developments. The landowner's 'bottom line' will be achieving 'development value' that sufficiently exceeds 'existing use value' to make development worthwhile.
- C.8 WNDC combines both Greenfield and Brownfield sites and thus marked differences in Existing Use Value arise.

## The Impact of Affordable Housing and Planning Obligations on Development Viability

- C.9 While in principle, it is simple to incorporate and test policy assumptions about affordable housing into a single development appraisal, it is more complex in a general assessment of development viability.
- The principal variables are:
- the proportion of the housing to be affordable;
  - the proportions of the affordable housing which are to be social rented and intermediate tenures;
  - the likely availability of Affordable Housing Grant; and
  - the nature of any restrictions on eligibility for and access to the intermediate housing.
- C.10 Where the planning authority has clear policies or practices which define all of these and an established track record with partner RSLs, this restricts the range of affordable housing options which need to be modelled. Under most circumstances, the proportion of housing to be affordable (and hence the land requirement) is the most important variable.
- C.11 In terms of other planning obligations, it is normal to assess those which will have a financial impact on the development appraisal, as an assumed cost as if it were an element of the construction cost. In reality, the timing of any planning obligation will also be of concern to the applicant, given the potential impact on cash flow. Tactically, the developer will always try to defer contributions in order to minimise the impact on cash flow. The exceptions will be those infrastructure elements which adversely affect sales potential if they are not available at point of sale.
- C.12 The question of 'who bears the costs of planning obligations and other risks' does not have a single answer, since it will vary according to the circumstances of the development:
- (a) when negotiating with the landowner, the prudent developer will normally negotiate an option to purchase which put crudely, will enable any additional costs arising (planning obligations and affordable housing for example) to be passed on to the landowner. Ultimately, the landowner pays; and/or,
  - (b) the developer will build in sufficient contingency into the development appraisal to offset risks. An obvious example would be the so-called 'cascade' provisions in planning agreements, in which, if Affordable Housing Grant is not forthcoming or is less than anticipated, then some proportion of affordable housing units revert to intermediate tenures, or eventually market housing, to offset losses which would otherwise fall on the developer. The risks of this and other contingencies will be shared between the developer and landowner on a negotiated basis; or
  - (c) in certain unusual circumstances, for example when a developer is assembling a site from residential owner-occupiers, the land may well have to be acquired for a fixed or minimum price, which will leave the developer to carry all of the costs of planning obligations and other risks.
- C.13 Sales values and hence residual land values often vary significantly between different parts of an authority's area.
- C.14 The other key aspect of development viability which is unpredictable is the extent to which the absolute (or any reduction in) residual land values will affect whether sites are bought forward for development. Simple economic theory suggests that the landowner's decision will be based solely on financial return. This may well be true, in general, for professional property investors or developers but is less so for individual owners. The latter may allow a range of other unquantifiable factors to affect their decision to sell.

## The Benchmarking Exercise

### Key Modelling Variables

C.15 These are as follows:

- (a) **Sales Values by area.** Sales values – residential and commercial – will vary in all local planning authority areas and of course are continually changing to reflect market conditions. Developers will obviously try to complete schemes in a rising market but ultimately this is a development ‘risk’ which the developer must accept. It is not for the local planning authority to compromise because of market fluctuations.
- (b) **Density.** Density is an important determinant of development value, albeit with commensurate effects on development costs and thus residual land value.
- (c) **Gross to net floorspace.** Clearly, the greater the density, the lower the gross to net floorspace ratio – that is, more floorspace is taken up by common areas and services and thus less space is available for renting / sale - and this will adversely affect the appraisal calculation.
- (d) **Base construction costs.** While base construction costs will be affected by density and other variables such as flood risk, ground conditions etc., they are nevertheless well documented and can be reasonably accurately determined in advance by the developer. In this exercise, base costs include a 5% contingency and 5% for ancillaries.
- (e) **Profit on cost ratio.** Following the standard conventions, developer profits are based on an assumed percentage on costs, normally between 15% and 20%. Higher profit figures reflect levels of risk. The higher the potential risk, the higher the profit margin in order to offset those risks. Housing developers often assume 20%+ but in this exercise, we have assumed the minimum normally required, ie. 15% on cost.
- (f) **Existing / Alternative Use Value.** Use Value requires particular attention. Clearly, there is a point where the Residual Land Value that results from the development appraisal, (what the landowner receives), may be less than the land’s existing use value. The latter varies hugely from very little – agricultural at say £7,200 per hectare (£3,000 per acre) to existing industrial sites at say £2,400,000 per hectare (£1,000,000 per acre). Alternative Use Value is the value which the landowner might achieve in another permissible use, for example, warehousing instead of industrial.

C.16 EUV / AUV is effectively a ‘bottom line’ in the financial sense and a major driver in this modelling. In the residual valuations, in **Series A**, we have considered two situations:

- a) Development proposals on Greenfield sites where EUV is agricultural value and thus nominal, albeit that landowners will still expect a ‘premium’ in order to sell; and
- b) Proposals on brownfield urban sites where EUV will be higher but vary enormously.

C.17 The tables in **Series A** demonstrate both possibilities but it should be emphasised that the EUVs illustrated are only indicative and will vary considerably on a case by case basis.

C.18 In this exercise, we have sought to provide a guide that compares all the above variables with different Existing/ Alternative Use Values because ultimately, the product of the benchmarking must be a guide as to how much planning obligations and affordable housing can be delivered without falling foul of existing or alternative use value.

C.19 EUV remains a contentious subject, not least because one of the chief criticisms of the Three Dragons work for the Greater London Authority, was that they underestimated EUV in their Toolkit. In this exercise, we have sought to rationalise our approach by taking advice from local property agents and as such we have incorporated two **indicative** EUVs of £725,000 per hectare (£300,000 per acre) and £1,200,000 per hectare (£500,000 per acre) for benchmarking purposes, although it is important to emphasise both that particular sites may have higher or lower EUVs, but also that landowners may not always, in economic terms, make rational decisions.

C.20 Before examining the appraisals, it is important to stress again those variables which may change the outputs – positively and negatively - and which thus must be treated with caution. They are as follows:

Positive Impacts on Calculation	Negative Impacts
Net land value contribution from Affordable Housing.	Net land value loss from AH
Low/deferred Planning Obligations	High obligations up-front
Historic land costs (minimal)	Contamination / remediation cost
Increase in shared ownership	Reduced SHG
Availability of Gap funding	

The modelled results in **Series A** need to be read taking account of these caveats.

## Specific Modelling Variables: Residential

C.21 This section summarises the particular assumptions used in this benchmarking exercise for residential schemes:

- (a) **Sales Values.** While the overall level of residential transactions in WNDP is variable, there are predictably marked variations in values across the area. Most new build schemes fall within the range £242/m<sup>2</sup> (£225/psf) to £3500/psm (£325/psf) but exceptionally, there are developments outside this range. We have therefore modelled both above and below that range.
- (b) **Density.** Clearly, densities vary across WNDP from town centre to new suburban and village locations. In this exercise, as instructed, we have assumed an average residential unit size of 65 sq m (700 sq ft) and a range of densities from 30 units per hectare (2700 sq m), a mid range urban/ suburban density, to 144 units per hectare (10,080 sq m), a high town centre density, which enables a range of densities / locations to be considered and their impacts assessed.
- (c) **Gross to Net Floorspace.** The higher the density, the greater the loss of net lettable/ saleable space. In this model, we have adopted a range from 100% gross to net – ie. no difference – to 85% gross to net in high density situations where common areas amount to 15%, and completed development value is reduced in line.
- (d) **Base Construction Costs.** The modelling exercise (based on BCIS and local advice) used a range of base construction costs reflecting density considerations ranging from £975/psm to £1367/psm. While these costs are fairly high, and include 10% for contingencies and ancillaries, reflecting some caution in our calculations, it should be emphasised that they do not include 'exceptional costs', that is the variety of above average costs which include contamination and remediation. While such costs may not always be incurred, redevelopment is increasingly the norm and thus, such exceptional costs will become more common. As a result, the assumed costs need to be treated with caution and where exceeded, will inevitably diminish the capacity of schemes to carry obligations and affordable housing. We have also modelled two low specification / low cost options by way of comparison, albeit that the above caveats still apply.
- (e) **Planning Obligations.** The role of the financial testing exercise is, in part, to consider the financial capacity of schemes to deliver obligations and affordable housing. In the light of the infrastructure costing exercise conducted elsewhere in this work, we have modelled planning obligations at £18,000 and £22,000 per residential unit on Greenfield sites and £10,000 per unit in Northampton Central Area sites, the lower rate reflecting the immediate difficulties faced by smaller developers in the town centre.

(f) **Affordable Housing Variations.** There are of course a wide range of affordable housing development scenarios in terms of percentage, tenure split, nature of funding and of course increasingly private sector interest in affordable housing per se. We have modelled affordable housing based on current practice in WNDP, that is a 35% requirement. Our specialist advice is that, overall, with a 70/30% tenure split in favour of Social Rent, and adopting the regional average Grant rate (2006-2008) of £42,857 per unit average for Social Rent and £20,000 for Shared Ownership, the positive effects on land value from shared ownership normally counter the negative or nil cost/value effects from Social Rent housing. Our base scenario is a range between nil value/cost model in land value terms up to the affordable units contributing positively to land value at £10,000 per unit. At a residential sales value level of £250/psf, a no grant approach is not viable for either Social rent or Shared Ownership. Only at higher sales values would a no grant policy be viable in the sense of producing some land value.

C.22 While it is not practicable to model what is an infinite number of scenarios, it is possible to use the outputs contained in **Series A** to reflect further variations in obligations and affordable housing requirements.

## Specific Modelling Variables: Commercial

- C.23 We have also modelled business and retail space for obligation purposes, not least because WNDP has been successful in negotiating one-off planning obligations for business schemes. The results are summarised in **Series B**.
- C.24 Analysis of business space rents across the WNDP area shows a wide range. Reasonable quality office space achieves £13 to 18/psf and in some prime cases, over £20/psf. There is evidence of investment yields, however yields generally have been exceptionally strong and while in this benchmarking exercise, we have utilised a cautious 6-7% yield, it should be noted that yields may continue to soften.
- C.25 Industrials, while lower density than B1 and achieving lower rents, nevertheless benefit from lower build costs which has a positive effect on land value. However, setting aside hybrid B1/B2 schemes (£10-13/psf), B2 sheds achieve £4-50-7.00/psf which, subject to land costs, may not always be viable.
- C.26 The traditional 'rule of thumb', namely that good quality office space becomes viable, in general, at rents above £20/psf (£215/psm) is confirmed as a minimum that will generate significant land value. Indeed at £25/psf, developments would produce a residual of £1,330,120 per ha, (£554,000 per acre) including obligations of £107/psm (£10/psf) on cost. However, such rents would be exceptional in WNDP currently, which suggests that lower levels of obligation may be necessary.
- C.27 Industrials / business space hybrids benefiting from lower build costs also produce positive residual values at rents above £12/psf, including obligations. Again however, rents are very sensitive and below £107/psm (£10/psf), land value may go negative with the level of obligations set at £10/psf.

C.28 Retail rents and yields are stronger and we have modelled at £25psf, £20psf and £15psf overall (rather than zone A) and 5.5% to 6.75% yields respectively which are which would have been cautious six months ago, but in a softening market, are no longer.

## Other Influential Factors

C.29 There is no question that land markets do need time to adapt to changing policy circumstances and landowners may have the choice to hold sites back and hope. Recently, a more common circumstance, in areas of sharp price inflation, has been that of developers buying sites in without consent on the expectation that rising capital values would offset risk and then seeking, in a market that turns, to persuade the planning authority that the scheme cannot afford its consequential infrastructure and affordable housing.

C.30 Having said that, there is no question that site specific circumstances will arise where WNDC is obliged to weigh up perhaps contradictory policy requirements.

C.31 On larger schemes, perhaps phased over some years, developers will invariably try and agree fixed terms in the planning agreement and affordable housing at the outset, with cascades as a fallback. In such circumstances, it is in WNDC's interest to include a monitoring and review mechanism in the agreement, if one can be secured, that will allow a renegotiation at some future date should it become necessary.

C.32 We have not modelled service charges and their capping in this exercise but these can be a significant factor in keeping affordable housing affordable. Similarly, we have not modelled affordable housing subject to the right to buy or medium term leases which eventually will return to market value, although there are now some 'perpetuity' affordable housing models, which are being proposed by developers.



## Residential and Commercial Residual Values

### Residential Residual Values

- C.33 This section needs to be read in conjunction with **Series A** which contains the product of 1,638 residual valuations in which land values are calculated on a per square metre basis and then applied via different densities of development to generate a land value per hectare.
- C.34 **Series A** is based on a 35% affordable housing requirement with appropriate variations .
- C.35 **Tables 1 and 2** simply provide a **baseline** set of land values (subsequently refined) in which residential sales values are in Column 1. Subsequent columns then show the results of increasing density, decreasing gross to net floorspace ratios and increasing costs. Taking the four extreme cases (ie, the four corner cells on the spreadsheet):
- Low/medium density, low value, low costs (top left cell) produces a base land value of £259.75 psm.
  - Very high density, low value, high cost (top right) produces minus £324.63psm.
  - Low density, high value, low cost (bottom left) produces £1451.42 psm
  - High density, high value, high cost (bottom right) produces £688.21 psm.
- (e) Table A1x (replicated throughout the series) illustrates the effect of a lower specification and thus build cost.
- C.36 As shown in **Table A2**, most development situations (ie. those in white cells) are viable although not all. Outputs in red show negative land values. These Tables assume Greenfield situations where there is little possibility of existing use value being an issue. Equally clearly, as sales prices increase, so do land values.
- C.37 **Table A3** then demonstrates the value impact of planning obligations at £18,000 per unit. Not surprisingly, the increase in costs decreases land values, and while there are more negative residual values, the sensitivity of sales value changes is particularly apparent.
- C.38 **Tables A4A and A4B** then consider that Obligation level together with a 35% affordable housing requirement initially at nil cost/value but then with a plus impact on land value of up to £10,000 per unit. While the effects are clear in terms of decreasing land values, even with a £18,000 per unit obligation (**Table A4B**), most low to middle density scenarios that achieve sales of approaching or over £2,421psm (£225psf) remain viable.
- C.39 **Tables A5A and A5B** repeat this exercise at Planning Obligations of £22,000 per unit and again while **Table A5A** demonstrates the effects of the nil value/cost scenario, lower to middle density proposals over a sales level of £2421psm produce a positive land value (albeit very modest) although at lower cost (**Table A5Bx**), that sales value generates £895,902 land value per hectare (£373,300 per acre).

- C.40 **Tables A6A/B and A7A/B** then overlay the assumed Existing Use Values in town / urban brownfield situations to those previous scenarios and illustrate possible conflicts albeit, in particular cases, the applicant would clearly be required to demonstrate (through an RICS Red Book valuation if necessary, the 'real' EUV, which may well be different from those illustrated.
- C.41 **Tables 8A and 8B** then model the effects of reducing the Obligation requirement to £10,000 per unit in town/ urban centre locations. The effects are significant and the potential clashes with EUV much reduced.

### Commercial Residual Values

- C.42 The tables in **Series B** clearly demonstrate the sensitivity of the financial variables especially for industrials and office space:
- **Industrial.** Industrial / hybrid B1 residual values at rents at or above £12psf hold up quite well with modest levels of obligations attached but are potentially more problematic at £5-7.00psf.
  - **Offices** follows a similar pattern with good residual values at or approaching £25psf but tailing off quickly below that level. This would of course be counteracted to a degree with densities higher than a 1:1 plot ratio.
  - **Retail**, as elsewhere, remains the best performer largely because of the strength of yields. Thus for instance, a supermarket with a typical rental between £20 and £25psf produces a strong residual value, even when weighted with obligations. However, other retail warehouses and smaller retail schemes are likely to generate lower rents and thus land values and are less likely to be able to carry significant obligations.
- C.43 Overall, commercial rents and yields are improving in WNDG and at their best can carry obligations. There is however a wide range of values and this limits the prospects for setting a single standard level of obligations.

## Conclusions and Advice

### General

- C.44 Affordable housing requirements are clearly based on need proven through an up-to-date Housing Needs Survey. Inevitably, while it is possible to test the capacity of developments to deliver affordable housing in general, ultimately site specific circumstances will often undermine attempts to lay down 'blanket approaches' or fixed formulae. This is increasingly the case with brownfield sites. The experience of the London Plan's approach effectively being reduced from a site specific target to a Borough wide aspiration is indicative of the weakness of blanket policies.
- C.45 Existing use value / alternative use value is an increasing concern, and our exercise demonstrates clearly that, in lower value parts of the WNDC area, higher demands for example for affordable housing are likely to conflict with EUV/AUV.
- C.46 While the tables included in this report provide benchmarks, they clearly must be treated with caution and certainly do not support the adoption of a fixed charge, without accepting that there will be a need to consider individual site circumstances. Indeed, site specific financial evaluations will continue to be necessary, a point emphasised in Circular 05/05, where the role of the Independent Assessor is recognised specifically. Overall, unless site circumstances dictate otherwise, the benchmarking exercise suggests that planning obligations and present affordable housing policies are deliverable in some situations in WNDC but not all.
- C.48 In terms of thresholds, we accept that unit costs do tend to be higher on smaller schemes but as Circular 05/05 implies, no such thresholds are necessary in pure policy terms. Our view is that the 'standard charge' should apply to all residential schemes unless a robust financial appraisal is presented which proves otherwise.
- C.49 Planning obligations at around £18,000 per unit, in present market circumstances, are likely to be achievable on most, if not all residential developments.

### Industrials / Business Space

- C.50 As the tables in **Series B** demonstrate, in high residual value / low Existing Use Value situations, planning obligations can be delivered by office and industrial schemes up to potentially £10psf (£107psm). However, such high value schemes will for the moment be unusual, which suggests either adopting a lower obligation target, or more practicably, treating individual industrial / office schemes on their merits for obligation purposes until the next Review.

### Retail

- C.51 Driven primarily by rents over £20psf, this sector does have the capacity to deliver obligations at say £10psf or more, while maintaining residual values at or above £1m/acre (£2.4m per hectare). Again, any such policy would have to take account of site specific circumstances and it should be noted that retail yields and capitalised values are likely to become weaker. While retail, of the commercial uses, currently has the most capacity to deliver obligations, individual schemes should continue to be judged on their merits.

### Residential

- C.47 With particular reference to the 35% affordable housing target (see **Tables A4A and A4B, Series A**) and **nil cost/value**, it is clear that in those parts of the WNDC where sales values **exceed £225psf** (£242psm), delivering Planning Obligations at a rate of **£18,000 per unit** will be deliverable in **normal** site circumstances with medium densities, although this is sensitive to cost levels (Compare **Table A4A** with **A4Ax**). As such, we would contend that such a policy position could be adopted albeit caveated appropriately to reflect for example, circumstances where lower sales values may still be current (but are likely to rise) and/or site specific factors arise, such as contamination and thus the need for remediation. Similarly, where higher Existing Use Value can be justified (by a 'Red Book' or Bank Valuation), then any policy compromises would have to be weighed up against the overall 'planning merits' of the proposal. While higher affordable housing targets will be deliverable in some cases, for the moment, generally, these are likely to be the exception rather than the rule. The alternative would be to adopt a lower obligations target, which can be justified and applied to a higher proportion of sites across the WNDC area. While rather more cautious, this approach is less contentious and is still capable of upward review in the future.

## Overall Conclusion

- C.52 Overall, the WNDC faces a dilemma common in many areas where there is a wide range of values to consider. The first option is to set obligations and affordable housing requirements at a relatively modest level across the area, which will be less contentious, relatively easy to administer but will fall short of potential returns in higher valued areas. The alternative is to set obligations and affordable housing requirements at a higher level either in some or all of the area, accept greater administration costs and possible challenges, but potentially achieve greater returns to the local community. We would favour the latter in green field situations at £18,000 per unit Planning Obligations and 35% affordable housing and a reduced Obligation requirement of £10,000 per unit within defined 'town' boundaries.
- C.53 These, and the more detailed appraisals in this report, can be used as a basic development control tool in order to test the assertions of developers that they cannot afford to meet the requirements set out in the Planning Obligations Strategy.
- C.54 As we have already noted, there will be larger residential and mixed use schemes, particularly those with a long build period and significant exceptional costs, where it will be necessary to ask the developer to submit a full development appraisal and for WNDC to have this reviewed by an independent professional adviser, before determining the extent of planning obligations and affordable housing which it would be reasonable to require the development to contribute.



## Series A WNDC: Residential Development Appraisals

### Series A; 35% Affordable Housing

Table A1 Base Residential Land Values per square metre in WNDC

Table A1	Density – Units/hect →	30 units 2700 m <sup>2</sup> /hect G/Net 100%	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	72 Units 5040 m <sup>2</sup> /hect G/N 92.5%	96 units 6720 m <sup>2</sup> /hect G/N 90%	120 units 8400 m <sup>2</sup> /hect G/N 87.5%	144 units 10080 m <sup>2</sup> /hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		259.75	152.79	33.46	-85.86	-205.30	-324.63
£1883psm		320.11	210.14	89.31	-31.63	-152.47	-273.41
£2152psm		508.63	389.30	263.73	138.05	12.48	-113.09
£2421psm		697.25	568.45	438.04	307.74	177.43	47.13
£2690psm		885.76	747.50	612.46	477.42	342.49	207.45
£2959psm		1074.28	926.65	786.88	647.21	507.44	367.67
£3228psm		1262.80	1105.81	961.30	816.90	672.39	527.99
£3497psm		1451.42	1284.85	1135.72	986.58	837.34	688.21

Table A1x	Density – Units/hect →	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	96 units 6720 m <sup>2</sup> /hect G/N 90%
Sales Value psm	Residual Land Value psm	Build - £915 psm	Build - £915 psm
£1800psm		262.65	199.70
£1883psm		320.00	254.04
£2152psm		499.16	423.73
£2421psm		678.16	593.41
£2690psm		857.36	763.10
£2959psm		1036.51	932.78
£3228psm		1215.66	1102.47
£3497psm		1394.71	1272.15

Table A2 Base Residential Land Values per hectare in WNDC

Table A2	Density – Units/hect →		30 units 2700 m <sup>2</sup> /hect G/Net 100%	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	72 Units 5040 m <sup>2</sup> /hect G/N 92.5%	96 units 6720 m <sup>2</sup> /hect G/N 90%	120 units 8400 m <sup>2</sup> /hect G/N 87.5%	144 units 10080 m <sup>2</sup> /hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			701325	513374	168638	-576979	-1724520	-3272270
£1883psm			864297	675347	430521	-203330	-1224997	-2636033
£2152psm			1373301	1251104	1271334	887323	100282	-1090307
£2421psm			1882575	1826861	2111628	1977976	1425561	454381
£2690psm			2391552	2402273	2952440	3068629	2751704	2000107
£2959psm			2900556	2978030	3793253	4159974	4076982	3544796
£3228psm			3409560	3553787	4634066	5250627	5402261	5090522
£3497psm			3918834	4129198	5474879	6341280	6727539	6635210

Table A2x	Density – Units/hect →			48 Units 3360 m <sup>2</sup> /hect G/Net 95%		96 units 6720 m <sup>2</sup> /hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				882504		1341984		
£1883psm				1075200		1632868		
£2152psm				1677178		2723521		
£2421psm				2278618		3814174		
£2690psm				2880730		4904827		
£2959psm				3482674		5995480		
£3228psm				4084618		7086134		
£3497psm				4686226		8176787		

Table A3 Base Residential Land Values per hectare in WNDC plus Planning Obligations at £18000 per unit

Table A3	Density – Units/hect →		30 units 2700 m <sup>2</sup> /hect G/Net 100%	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	72 Units 5040 m <sup>2</sup> /hect G/N 92.5%	96 units 6720 m <sup>2</sup> /hect G/N 90%	120 units 8400 m <sup>2</sup> /hect G/N 87.5%	144 units 10080 m <sup>2</sup> /hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			161325	-350626	-1127362	-2304979	-3884520	-5864270
£1883psm			324297	-213853	-903279	-1981730	-3447997	-5303633
£2152psm			833301	361904	-62466	-891077	-2122718	-3757907
£2421psm			1342575	937661	777828	199576	-797440	-2213219
£2690psm			1851552	1513073	1618640	1290229	528704	-667493
£2959psm			2360556	2088830	2459453	2381574	1853982	877196
£3228psm			2869560	2664587	3300266	3472227	3179261	2422922
£3497psm			3378834	3239998	4141079	4562880	4504539	3967610

Table A3x	Density – Units/hect →			48 Units 3360 m <sup>2</sup> /hect G/Net 95%		96 units 6720 m <sup>2</sup> /hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				18504		-386016		
£1883psm				211200		-145532		
£2152psm				813178		945121		
£2421psm				1414618		2035774		
£2690psm				2016730		3126427		
£2959psm				2618674		4217080		
£3228psm				3220618		5307734		
£3497psm				3822226		6398387		

Table A4A Base Residential Land Values per hectare in WNDC plus Planning Obligations at £18000 per unit and 35% AH at nil cost/value

Table A4A	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		104861	-473345	-1521939	-3111722	-5244102	-7916765
£1883psm		210793	-288702	-1219427	-2675336	-4654796	-7159905
£2152psm		541646	235238	-84329	-1202954	-2865669	-5073174
£2421psm		872674	609480	505588	129724	-1076544	-2987846
£2690psm		1203509	983497	1052116	838649	343658	-901116
£2959psm		1534361	1357740	1598644	1548023	1205088	570177
£3228psm		1865214	1731982	2145173	2256948	2066520	1574899
£3497psm		2196242	2105999	2691701	2965872	2927950	2578947

Table A4Ax	Density – Units/hect →		48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm		Build - £915 psm		Build - £915 psm		
£1800psm			12028		-521121		
£1883psm			137280		-196469		
£2152psm			528566		614329		
£2421psm			919502		1323253		
£2690psm			1310875		2032178		
£2959psm			1702138		2741102		
£3228psm			2093402		3450027		
£3497psm			2484447		4158951		

Table A4B Base Residential Land Values per hectare in WNDC plus Planning Obligations at £18000 per unit and 35% AH at plus £10,000 land value per affordable unit

Table A4B	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		209861	-305345	-1269939	-2775722	-4824102	-7412765
£1883psm		315793	-118701	-969427	-2345336	-4234794	-6659905
£2152psm		646646	405238	165672	-872954	-2445669	-4573175
£2421psm		977674	779480	755587	459724	-656542	-2487845
£2690psm		1308509	1153497	1302116	1168649	763656	-401115
£2959psm		1639361	1527739	1848643	1878023	1625088	1070177
£3228psm		1970214	1901981	2395173	2586948	2486518	2074899
£3497psm		2301242	2275999	2941700	3295872	3347950	3078947

Table A4Bx	Density – Units/hect →		48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm		Build - £915 psm		Build - £915 psm		
£1800psm			180028		-185121		
£1883psm			305280		133531		
£2152psm			696566		944329		
£2421psm			1087502		1653253		
£2690psm			1478875		2362178		
£2959psm			1870138		3071102		
£3228psm			2261402		3780027		
£3497psm			2652447		4488951		

Table A5A Base Residential Land Values per hectare in WNDC plus Planning Obligations at £22000 per unit and 35% AH at nil cost/value

Table A5A	Density – Units/hect →		30 units 2700 m <sup>2</sup> /hect G/Net 100%	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	72 Units 5040 m <sup>2</sup> /hect G/N 92.5%	96 units 6720 m <sup>2</sup> /hect G/N 90%	120 units 8400 m <sup>2</sup> /hect G/N 87.5%	144 units 10080 m <sup>2</sup> /hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			-15139	-665345	-1809939	-3495722	-5724102	-8492765
£1883psm			90793	-480701	-1507427	-3059336	-5134794	-7735905
£2152psm			421646	43238	-372328	-1586954	-3345669	-5649175
£2421psm			752674	417480	217587	-254276	-1556542	-3563845
£2690psm			1083509	791497	764116	454649	-136344	-1477115
£2959psm			1414361	1165739	1310643	1164023	725088	-5823
£3228psm			1745214	1539981	1857173	1872948	1586518	998899
£3497psm			2076242	1913999	2403700	2581872	2447950	2002947

Table A5Ax	Density – Units/hect →			48 Units 3360 m <sup>2</sup> /hect G/Net 95%		96 units 6720 m <sup>2</sup> /hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				-179972		-905121		
£1883psm				-54720		-580469		
£2152psm				336566		230329		
£2421psm				727502		939253		
£2690psm				1118875		1648178		
£2959psm				1510138		2357102		
£3228psm				1901402		3066027		
£3497psm				2292447		3774951		

Table A5B Base Residential Land Values per hectare in WNDC plus Planning Obligations at £22000 per unit and 35% AH at plus £10,000 land value per affordable unit

Table A5B	Density – Units/hect →		30 units 2700 m <sup>2</sup> /hect G/Net 100%	48 Units 3360 m <sup>2</sup> /hect G/Net 95%	72 Units 5040 m <sup>2</sup> /hect G/N 92.5%	96 units 6720 m <sup>2</sup> /hect G/N 90%	120 units 8400 m <sup>2</sup> /hect G/N 87.5%	144 units 10080 m <sup>2</sup> /hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			89861	-497345	-1557939	-3159722	-5304102	-7988765
£1883psm			195793	-310701	-1257427	-2729336	-4714794	-7235905
£2152psm			526646	213238	-122328	-1256954	-2925669	-5149175
£2421psm			857674	587480	467587	75724	-1136542	-3063845
£2690psm			1188509	961497	1014116	784649	283656	-977115
£2959psm			1519361	1335739	1560643	1494023	1145088	494177
£3228psm			1850214	1709981	2107173	2202948	2006518	1498899
£3497psm			2181242	2083999	2653700	2911872	2867950	2502947

Table A5Bx	Density – Units/hect →			48 Units 3360 m <sup>2</sup> /hect G/Net 95%		96 units 6720 m <sup>2</sup> /hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				-11972		-569121		
£1883psm				113280		-250469		
£2152psm				504566		560329		
£2421psm				895502		1269253		
£2690psm				1286875		1978178		
£2959psm				1678138		2687102		
£3228psm				2069402		3396027		
£3497psm				2460447		4104951		

## Town Centres

**Ref. Existing Use Values: £740,000 per hectare (Dark Yellow): £1,235,000 per hectare (Purple)**

Table A6A Base Residential Land Values per Hectare in WNDC plus Planning Obligations at £18000 per unit and 35% AH at nil cost/value

Table A6A	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		104861	-473345	-1521939	-3111722	-5244102	-7916765
£1883psm		210793	-288702	-1219427	-2675336	-4654796	-7159905
£2152psm		541646	235238	-84329	-1202954	-2865669	-5073174
£2421psm		872674	609480	505588	129724	-1076544	-2987846
£2690psm		1203509	983497	1052116	838649	343658	-901116
£2959psm		1534361	1357740	1598644	1548023	1205088	570177
£3228psm		1865214	1731982	2145173	2256948	2066520	1574899
£3497psm		2196242	2105999	2691701	2965872	2927950	2578947

Table A6Ax	Density – Units/hect →		48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm		Build - £915 psm		Build - £915 psm		
£1800psm			12028		-521121		
£1883psm			137280		-196469		
£2152psm			528566		614329		
£2421psm			919502		1323253		
£2690psm			1310875		2032178		
£2959psm			1702138		2741102		
£3228psm			2093402		3450027		
£3497psm			2484447		4158951		

Table A6B Base Residential Land Values per hectare in WNDC plus Planning Obligations at £18000 per unit and 35% AH at plus £10,000 land value per affordable unit

Table A6B	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		209861	-305345	-1269939	-2775722	-4824102	-7412765
£1883psm		315793	-118701	-969427	-2345336	-4234794	-6659905
£2152psm		646646	405238	165672	-872954	-2445669	-4573175
£2421psm		977674	779480	755587	459724	-656542	-2487845
£2690psm		1308509	1153497	1302116	1168649	763656	-401115
£2959psm		1639361	1527739	1848643	1878023	1625088	1070177
£3228psm		1970214	1901981	2395173	2586948	2486518	2074899
£3497psm		2301242	2275999	2941700	3295872	3347950	3078947

Table A6Ax	Density – Units/hect →		48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm		Build - £915 psm		Build - £915 psm		
£1800psm			180028		-185121		
£1883psm			305280		133531		
£2152psm			696566		944329		
£2421psm			1087502		1653253		
£2690psm			1478875		2362178		
£2959psm			1870138		3071102		
£3228psm			2261402		3780027		
£3497psm			2652447		4488951		

Table A7A Base Residential Land Values per hectare in WNDG plus Planning Obligations at £22000 per unit and 35% AH at nil cost/value

Table A7A	Density – Units/hect →		30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			-15139	-665345	-1809939	-3495722	-5724102	-8492765
£1883psm			90793	-480701	-1507427	-3059336	-5134794	-7735905
£2152psm			421646	43238	-372328	-1586954	-3345669	-5649175
£2421psm			752674	417480	217587	-254276	-1556542	-3563845
£2690psm			1083509	791497	764116	454649	-136344	-1477115
£2959psm			1414361	1165739	1310643	1164023	725088	-5823
£3228psm			1745214	1539981	1857173	1872948	1586518	998899
£3497psm			2076242	1913999	2403700	2581872	2447950	2002947

Table A7Ax	Density – Units/hect →			48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				-179972		-905121		
£1883psm				-54720		-580469		
£2152psm				336566		230329		
£2421psm				727502		939253		
£2690psm				118875		1648178		
£2959psm				1510138		2357102		
£3228psm				1901402		3066027		
£3497psm				2292447		3774951		

Table A7B Base Residential Land Values per hectare in WNDG plus Planning Obligations at £22000 per unit and 35% AH at plus £10,000 land value per affordable unit

Table A7B	Density – Units/hect →		30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm		Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm			89861	-497345	-1557939	-3159722	-5304102	-7988765
£1883psm			195793	-310701	-1257427	-2729336	-4714794	-7235905
£2152psm			526646	213238	-122328	-1256954	-2925669	-5149175
£2421psm			857674	587480	467587	75724	-1136542	-3063845
£2690psm			1188509	961497	1014116	784649	283656	-977115
£2959psm			1519361	1335739	1560643	1494023	1145088	494177
£3228psm			1850214	1709981	2107173	2202948	2006518	1498899
£3497psm			2181242	2083999	2653700	2911872	2867950	2502947

Table A7Ax	Density – Units/hect →			48 Units 3360 m2/hect G/Net 95%		96 units 6720 m2/hect G/N 90%		
Sales Value psm	Residual Land Value psm			Build - £915 psm		Build - £915 psm		
£1800psm				-11972		-569121		
£1883psm				113280		-250469		
£2152psm				504566		560329		
£2421psm				895502		1269253		
£2690psm				1286875		1978178		
£2959psm				1678138		2687102		
£3228psm				2069402		3396027		
£3497psm				2460447		4104951		

## Town Centres

### Ref. Existing Use Values: £740,000 per hectare (Dark Yellow): £1,235,000 per hectare (Purple)

Table A8A Base Residential Land Values per Hectare in WNDC plus Planning Obligations at (REDUCED) £10000 per unit and 35% AH at nil cost/value

Table A8A	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		344861	-89345	-945939	-2343722	-4284102	-6764765
£1883psm		450793	95299	-643427	-1907336	-3694794	-6007905
£2152psm		781646	619238	491672	-434954	-1905669	-3921175
£2421psm		1112674	993480	1081587	897724	-116542	-1835845
£2690psm		1443509	1367497	1628116	1606649	1303656	250885
£2959psm		1774361	1741739	2174643	2316023	2165088	1722177
£3228psm		2105214	2115981	2721173	3024948	3026518	2726899
£3497psm		2436242	2489999	3267700	3733872	3887950	3730947

Table A8Ax	Density – Units/hect →	48 Units 3360 m2/hect G/Net 95%	96 units 6720 m2/hect G/N 90%
Sales Value psm	Residual Land Value psm	Build - £915 psm	Build - £915 psm
£1800psm		396028	246879
£1883psm		521280	571531
£2152psm		912566	1382329
£2421psm		1303502	2091253
£2690psm		1694875	2800178
£2959psm		2086138	3509102
£3228psm		2477402	4218027
£3497psm		2868447	4926951

Table A8B Base Residential Land Values per hectare in WNDC plus Planning Obligations at (REDUCED) £10000 per unit and 35% AH at plus £10,000 land value per affordable unit

Table A8B	Density – Units/hect →	30 units 2700 m2/hect G/Net 100%	48 Units 3360 m2/hect G/Net 95%	72 Units 5040 m2/hect G/N 92.5%	96 units 6720 m2/hect G/N 90%	120 units 8400 m2/hect G/N 87.5%	144 units 10080 m2/hect G/N 85%
Sales Value psm	Residual Land Value psm	Build - £975 psm	Build - £1022 psm	Build - £1108 psm	Build - £1194 psm	Build - £1280 psm	Build - £1367 psm
£1800psm		449861	78655	-693939	-2007722	-3864102	-6260765
£1883psm		555793	265299	-393427	-1577336	-3274794	-5507905
£2152psm		886646	789238	741672	-104954	-1485669	-3421175
£2421psm		1217674	1163480	1331587	1227724	303458	-1335845
£2690psm		1548509	1537497	1878116	1936649	1723656	750885
£2959psm		1879361	1911739	2424643	2646023	2585088	2222177
£3228psm		2210214	2285981	2971173	3354948	3446518	3226899
£3497psm		2541242	2659999	3517700	4063872	4307950	4230947

Table A6Ax	Density – Units/hect →	48 Units 3360 m2/hect G/Net 95%	96 units 6720 m2/hect G/N 90%
Sales Value psm	Residual Land Value psm	Build - £915 psm	Build - £915 psm
£1800psm		564028	774879
£1883psm		689280	901531
£2152psm		1080566	1712329
£2421psm		1471502	2421253
£2690psm		1862875	3130178
£2959psm		2254138	3839102
£3228psm		2645402	4548027
£3497psm		3036447	5256951

## Series B WNDC: Illustrative Commercial Development Appraisals

### Base Commercial Values – No Obligations

	Rent	Yield	Build Cost	Land Value psf	22,000 per acre	Per Hectare
<b>Industrials</b>						
1.	12	7	70	31.93	702,460	1,685,904
2.	9	7	70	6.48	142,560	342,144
3.	7	7	55	7.61	167,420	401,808
<b>Offices</b>						
					44,000 per acre	
1.	25	6	150	40.09	1,763,000	4,231,000
2.	20	6	150	2.50	110,000	264,000
3.	15	6.5	120	-14.32	-630,080	-1,512,192
<b>Retail</b>						
					28,600 per acre	
1.	25	5.5	120	100.56	2,876,000	6,902,400
2.	20	6	110	50.62	1,447,700	3,474,550
3.	15	6.75	100	5.78	165,308	396,739

### Base Commercial Values – A - £5 psf (£53.8psm) Obligations

	Rent	Yield	Build Cost	Land Value psf	22,000 per acre	Per Hectare
<b>Industrials</b>						
1.	12	7	70	26.94	592,680	1,422,432
2.	9	7	70	1.49	32,780	78,672
3.	7	7	55	2.62	57,640	138,336
<b>Offices</b>						
					44,000 per acre	
1.	25	6	150	35.16	1,547,040	3,712,896
2.	20	6	150	-2.43	-106,920	-256,608
3.	15	6.5	120	-19.25	-847,000	-2,032,800
<b>Retail</b>						
					28,600 per acre	
1.	25	5.5	120	95.36	2,727,296	6,545,510
2.	20	6	110	45.42	1,299,012	3,117,629
3.	15	6.75	100	0.58	16,588	39,811

### Base Commercial Values – B - £10psf (£107.6psm) Obligations

	Rent	Yield	Build Cost	Land Value psf	22,000 per acre	Per Hectare
<b>Industrials</b>						
1.	12	7	70	21.95	482,900	1,158,960
2.	9	7	70	-3.51	-77,220	-185,328
3.	7	7	55	-2.37	-52,140	-125,136
<b>Offices</b>						
					44,000 per acre	
1.	25	6	150	30.23	1,330,120	3,192,288
2.	20	6	150	-7.36	-323,840	-777,216
3.	15	6.5	120	-24.18	-1,063,920	-2,553,408
<b>Retail</b>						
					28,600 per acre	
1.	25	5.5	120	90.16	2,578,576	6,188,582
2.	20	6	110	40.22	1,150,292	2,760,700
3.	15	6.75	100	-4.62	-132,132	-317,117



**West Northamptonshire Development Corporation**

PO Box 622, Franklin's Gardens,  
Northampton NN5 5WR

Tel: 01604 586600

Fax: 01604 586648

e-mail: [info@wndc.org.uk](mailto:info@wndc.org.uk)