Density and net site area study

Contents

1 Introduction

1.1 This document is one of a series of technical papers which support the Telford & Wrekin Local Plan - Consultation Version. The document contains the information the Local Plan has used to help calculate housing yield, meaning the possible number of homes on a site based upon housing density and net site area.

1.2 Whilst average site densities and average net site areas are useful in establishing yield, ultimately site yield must be determined and established by design. These factors include amongst others local character, landscape, architecture, layout. The information used to establish density and net site area is based upon national guidance and best practice and from an assessment of local developments.

2 Planning policy

2.1 Prior to the publication of the National Planning Policy Framework (the NPPF) in 2012, policy direction and policy regarding density was contained in Planning Policy Guidance 3 (PPG 3). This required a minimum density of 30 dwellings per hectare (DpH). Since the NPPF local planning authorities have been empowered to set out their own approach to housing density to reflect local circumstances and that the development potential of a site should be guided by the existing or emerging plan policy including locally determined policies on density.

3 Density

3.1 Calculating density

3.1 Housing density can be measured in one of three ways:

- Number of habitable rooms
- Quantity of floor area (in sq metres)
- Number of dwellings per hectare (dph)

Number of habitable rooms

3.2 This measure is based upon the total number of habitable rooms provided by homes on a site. A habitable room is defined as 'Any room used or intended to be used for sleeping, cooking, living or eating purposes'. Enclosed spaces such as bath or toilet facilities, service rooms, corridors, laundries, hallways, utility rooms or similar spaces are excluded from this definition. This method is used in London to facilitate higher density urban and to reflect the larger proportion of studio and one bedroom (non family) homes.

Quantity of floor area

3.3 This measure is based upon the total amount of floor area provided by homes on a site. This is a more precise method of calculating density as the quantity can be expressed in a variety of small, medium or large sized homes. This is the most commonly adopted method in other European countries such as Germany.

Number of dwellings

3.4 This measure is based upon the number of homes on a site. This method does not distinguish between large or small homes. Dwellings per hectare (dph) is the most widely used density measure nationwide and specifically used in the former PPG 3. For this reason dph will be the density measure used in this document and for the purposes of the Local Plan.

3.2 Existing local densities

3.5 Across the borough houses have been developed in various densities. The housing density differs strongly between the different periods of time in which the developments have taken place. These periods reflect the stage of development of Telford New Town and the borough and have been influenced by dominant planning perspectives of that era.

3.6 The Density Study published in 2000 by Telford & Wrekin Council looked to identify an optimum density range for Telford. It prepared case studies on housing developments in the two decades before 2000. The study showed that most developments of that time period were built at densities of between 20 and to 25dph, which is lower than the range promoted by PPG3[1]. The study promoted an optimum density range of between 30 and 40dph, based on areas with one dominant housing type.

3.7 What will follow is a brief portray of occurring housing characters in the Borough and associated densities ranges. The purpose of this table is to provide an illustration of the range of densities in the Borough and the type of development associated with those densities. For this overview densities below 30dph are considered low, between 30 and 50dph medium and above 50dph high.

Table 1 Housing character types in Telford & Wrekin Council with density class[2]

Street Scene	Name	Description	Density class
	Pre 1900 Settlement	Dominated by building forms from the 18th and 19th centuries. Collections of these type distinguish the core of each of the original settlements.	Medium
	Pre New Town Residential	A series of inter war and post war social housing built at the edges of existing settlements, with limited examples of private developments in this time. Characterised by large plot size and broad streets.	Low

1 Planning Policy Guidance 3
2 Local Character Study 2000

Street Scene	Name	Description	Density class
	Early New Town Residential	New town developments compromising social housing based upon a segregated vehicle / pedestrian layout (Radburn) or shared access road system (Standard).	Medium
	Late New Town Residential	Developed in the 1960's, 70's, 80's and 90's using street based layout, sizeable plots and open plan and off street parking (60's) and suburban development with serpentine layout (others).	Low
	Post New Town 2000's Private Residential	Contemporary development characterised by urban character.	Medium
	Town Centres	The Borough Town Centres (with the exception of Donnington) are based upon the original settlement centres having a compact 'organic' townscape.	High

3.3 Densities in Central Telford

3.8 The Central Telford Area Action Plan set out densities for different Character Areas in and around Telford Town Centre. The highest densities were to be delivered on sites and locations within or adjoining the Town Centre Core and those with direct access to public transport. A guide for acceptable densities by Character Area is set out in Table 2 ' Densities in Central Telford'.

Table 2 Densities in Central Telford

Character Area	Average density
Telford Town Centre	75 dph
Old Park	45 dph
Central Park	45 dph
Malinslee	50 dph
Hollinswood	50 dph

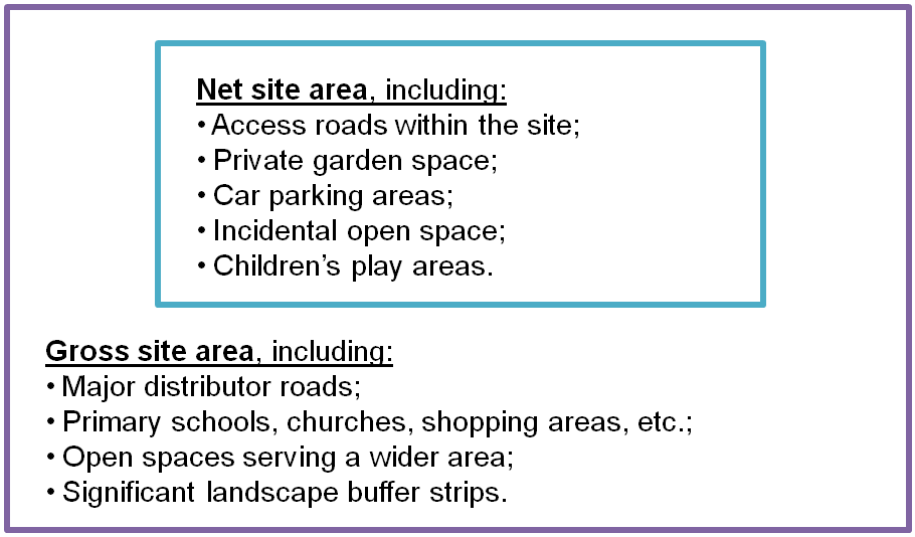
4 Net site area

4.1 Calculating net site area

4.1 Housing density can also be measured either in terms of a site's gross area or its net area. The term "gross site area" is defined as the total land area as part of the development. The term "net site area" is defined as the land that is available for development. It is also referred to as the area of developable land.

4.2 Planning practitioners have applied different interpretations on what is developable land. The current preference is to define density by net site area. It is necessary to define clearly what is, and what is not, included in the net site area. The net site area is more than the land for dwellings and private space and includes other areas that contribute to the use and enjoyment directly linked to the developed dwellings. The figure below shows which features are included in the net site area, apart from the dwellings as part of the development, and what the relationship is between the net site area and the gross site area.

Figure 1 Net site area as part of gross site area



4.3 To be clear, infrastructure and services which are directly associated with the use and enjoyment of the developed dwellings are included in the net site area. Infrastructure and services serving a wider area (such as parks and open space) will not be counted towards the net site area, and are therefore considered as part of the gross site area.

4.2 Gross to net ratio standards

4.4 In planning practice it is common to determine the net site area as a percentage of the gross site area, known as the gross to net ratio. This will not be the same for every site but depends on the site size. Various studies have been carried out on this issue and the ratios

below are taken from previous research [3]. The gross to net ratio tends to decrease with larger sites, as more space is reserved for other uses as primary schools, shopping areas, open space and landscape buffer strips.

Table 3 Gross to net ratio standard

< 0.4 hectares	100% gross to net ratio
0.4 - 2 hectares	75 - 90% gross to net ratio
> 2 hectares	50 - 75% gross to net ratio

5 Assessment of local developments

5.1 Methods

5.1 In order to establish an up to date understanding of densities in the borough a desk study was conducted which relies on GIS mapping, planning application files and monitoring data using a sample of 25 sites. The sites considered comprise schemes which benefit from planning permission and have progressed to various stages of development over the last 15 years. The gross and net site areas of the sites were measured and other data collected about the site.

5.2 This data was used to categorise sites against four bands. These were:

- the size of the site;
- the mix of dwellings on the site (that is, whether it had houses, flats or a mix of the two);
- whether the site was greenfield and brownfield (Previously Developed Land) sites; and
- the geogpraphical location of the site within the borough.

5.2 Results

Overall results

5.3 A total number of 25 sites were assessed covering approximately 2,675 dwellings and more than 72 hectares of land. Of the total number of sites, five were greenfield and 20 were on Previously Developed Land (PDL). The net site area averaged 91% of the gross site area, although this varied from 70% to 100% between the different sites.

5.4 The average density of the sample sites was 40dph for net area and 37dph for gross area. This ranged between 20 net dph and 137 net dph. [4]

5.5 A full overview of the results of all the sites assessed and the various assessments carried out can be found in 'Appendix 1: Results per site' and 'Appendix 2: Assessments'.

3 ATLAS, Approaches to establishing basic site capacity and potential density of future development (2013)

4 The number of assessed Greenfield sites is too low to address significant differences between Greenfield and PDL sites, as the differences could too much be influenced by a single site.

Assessment by Site Size (by gross site area)

5.6 The sites assessed fall into one of the following five site area categories:

- Sites of less than 1 hectare;
- Sites between 1 and 1.99 hectares;
- Sites between 2 and 3.99 hectares;
- Sites between 4 and 6.99 hectares; and
- Sites in excess of 7 hectares.

5.7 The assessment showed that smaller sites (of <4 hectares) were more likely to have higher net developable land areas, averaging 96%, whilst larger sites (of 4-6.99 hectares) averaged lower developable areas, averaging 83%. It was noteworthy that the gross to net ratio increased for the largest sites (<7 hectares), averaging 97%, although this category only included two sites and this result is therefore of low significance. This could possibly be explained by the fact that infrastructure and services, such as access distributor roads and open spaces, are counted under net site area as they serve the sub-areas of these whole sites, where they were excluded from the net site area for smaller sites as they serve an area that expands the developed site.

5.8 Smaller sites (<4 hectares) tended to have a higher proportion of apartments, averaging 17%, compared to larger sites (<4 hectares), averaging 3%. Especially sites smaller than 1 ha had with 23% a relatively high proportion of apartments, where sites over 7 hectares consist solely of houses. Densities were identified to be higher on smaller sites (<4 ha), averaging at 46 dph (net), although this partly relates to the number of apartment schemes analysed. The densities on larger sites (in excess of 4 hectares) were however considerably lower averaging 37 dph (net). In general the assessment showed that density declined as site area increased.

Assessment by Site Yield (number of dwellings)

5.9 The sites assessed were also grouped into five categories having regard to their yield (the number of dwellings built on site). These were:

- Sites with fewer than 50 dwellings;
- Sites between 50 and 99 dwellings;
- Sites between 100 and 149 dwellings;
- Sites between 150 and 249 dwellings; and
- Sites in excess of 250 dwellings.

5.10 The assessment showed that sites in excess of 100 dwellings averaged a 90% net developable land area, whilst smaller sites averaged 97%. This indicates a correlation between site size, measured in hectare or yield, and the net to gross ratio. This reflects national data, where the percentage of developable land declines as the site size increases[5]

5.11 In the proportion of houses and apartments a similar trend as in the site size assessment was observed, namely that the proportion of houses roughly increases with the number of dwellings on the site. This indicates that apartments have for the majority been built as part of smaller schemes in stead of large scale development.

5 ATLAS Paper - Issues regarding capacity and density on large scale sites (2013)

5.12 The densities in the different categories show a similar image as the site size assessment as well, with lower densities when the yield increases. Where sites of less than 100 dwellings have average densities of 46 dph (net) and larger sites average 39 dph (net).

Assessment of Site Density (net dph)

5.13 The third assessment considered sites by net density. Although gross density was established for all sites, only net density was analysed in the assessment as this reflects a more common approach in planning applications. All sites were grouped into the following five categories:

- Sites of less than 30dph;
- Sites between 30 and 40dph;
- Sites between 40 and 50dph;
- Sites between 50 and 70dph;
- Sites in excess of 70 dph.

5.14 Of the 25 assessed sites a majority falls within the 30 to 50 dph range, with only one site below 30 dph, five sites of between 50 and 70dph and one site of more than 70 dph. This largest site, with a density of 137dph, consists solely of apartments, and is with, 24 dwellings, the smallest site assessed.

5.15 The assessment showed that when the proportion of net developable land increased, so did the density. Sites of less than 40 dph averaged an 89% gross to net ratio, sites between 40 and 50 dph averaged 92% and high density sites above 50 dph averaged 98% gross to net ratio. This relates to the smaller size of high density sites which limits the need for extra infrastructure and services and thus a higher gross to net ratio. Consistent with previous assessments, the proportion of apartments increase with higher densities. Sites with densities lower than 40 dph consist solely of houses, sites between 40 and 70 dph had a mix of housing types with an average of 13% of apartments and a single site of over 70 dph consists of apartments only.

Assessment by Site Type / Mix (proportion of houses and apartments)

5.16 In order to assess sites by type and mix of dwelling types all sites were again grouped in 5 categories:

- Sites comprising an element of less than 5% houses;
- Sites comprising an element of 5 to 35% houses;
- Sites comprising an element of 35 to 65% houses;
- Sites comprising an element of 65 to 95% houses; and
- Sites comprising an element of more than 95% houses.

5.17 A majority of the sites assessed fall within the greater than 65% houses categories, with two sites having on average 36% of houses and one site comprising solely of flats with no houses. No significant differences between the mix categories can be recognised, except the high ratio for the 65 to 95% houses category of which the 99% net site area is remarkably higher than the overall average of 91%.

5.18 A clear relation between the proportion of houses and average net density can be observed, as densities are decreasing when the proportion of houses increases. From 137 dph for a single site with 100% apartments, to 49 dph for sites with a mix of houses and apartments and 37 dph for sites consisting solely of houses.

Assessment by Location (Telford - Newport - Rural)

5.19 The sites assessed were categorised into the following three locations:

- Sites located within the Telford urban boundary, referred to as 'Telford';
- Sites located within the Newport urban boundary, referred to as 'Newport'; and
- Sites located outside the Telford and Newport urban boundaries, referred to as 'Rural'.

5.20 Of the assessed sites 21 were located in Telford and four in Newport. No site was identified in the rural area that met the criteria for inclusion in this study.

5.21 Densities in Newport tend to be slightly higher than in Telford, averaging 49 dph (net) against 40 dph (net). This can firstly be explained by the nature of Newport as a compact market town, and secondly by a higher proportion of apartments (20% versus 8%). Moreover, the Newport sites where smaller in size, averaging 43 dwellings against 119 in Telford.

Assessment by Value Area

5.22 The final assessment considered sites based on their location within different Value Areas in the borough. This was directly linked to the findings of the SHLAA Viablility Study (2014), undertaken by Peter Brett Associates. Through the development of this review four housing sub-market areas have been identified, which draw together wards of similar social, economic and housing characteristics. As such, the locational assessment of identified sites was undertaken based on the SHLAA Viability Study sub-market areas and were grouped as follows:

- Lower Value;
- Medium-low Value;
- Medium Value; and
- Higher Value.

5.23 None of the assessed sites were located in a Higher Value Area, as this band only covers the rural area. As has been stated above, the study could not find any rural sites meeting the initial criteria for inclusion in this study. A map of the Value Areas and the sites located within them can be found in 'Appendix 3: Map Selected Sites in Value Areas'.

5.24 Of the sites assessed, those located in a Lower Value Area have with 163 dwellings a larger average yield than sites within Medium Value (98 dwellings) and Medium-Low Value Areas (56 dwellings). The gross to net ratio seems, opposite to what was observed in the site yield assessment, to be higher with a higher yield in the Value Areas: 94% for Lower Value, 91% for Medium Value and 84% for Medium-Low Value Areas. These results are more subject to site specific characteristics (such as size and yield), than value.

5.25 There is a link between the Value Area and the net density of a site. The average net density is with 37 dph in Lower Value Areas. It was 38 dph in the Medium-low Areas and 46 dph in the Medium Value Areas. The sites with the highest densities were located in the areas

with the highest value (Medium Value), although this could partly be explained by a slightly higher proportion of apartments (12% against 9% in Medium-low Value and 7% in Lower Value) and the fact that development in the Medium Value Areas took place on smaller sites, as described above.

Conclusions on densities

5.26 Following the six assessments a number of conclusions can be drawn with regards to density patterns throughout Telford and Wrekin:

- The average density of the sample of sites was 40 dph. This is higher than average densities in the twenty years up to 2000. Most developments delivered above the (old) 30 dph minimum of PPG3;
- In general the assessment showed that density declined as site area and/or yield increased: Sites with fewer than 100 dwellings had an average density of 46 dph, larger sites average on 39 dph. Sites of less than four hectares had an average density of 46 dph with larger sites an average density of 37 dph;
- Sites comprising houses only had typically lower densities (on average 37 dph). Housing schemes with a mix of houses and flats had higher average densities (49 dph);
- In Newport, higher average densities were recorded (49 dph) compared to Telford (40 dph). This could be explained by more mixed schemes and the compact nature of the town;
- Lower densities in Lower Value Areas were found (average 37 dph) compared to 38dph in Medium-low Value areas and 45 dph in Medium Value areas. This is explained by more mixed development and smaller sites in the Medium Value areas.

Conclusions on net site area

5.27 Following the assessments against the above six criteria, a number of conclusions can be drawn with regards to net site area throughout the borough:

- The average gross to net ratio across the borough is 91%;
- The gross to net ratio tends to be higher for smaller sites, and declines if sites increase in yield or size. This is in line with previous research;
- The gross to net ratios for different site sizes were higher than previous research showed. This could be explained by the fact that major constraining (non-developable) areas were not taken forward into planning applications, which makes the gross to net ratio higher than that of the original proposed site in early planning stages.
- Sites with higher densities have higher gross to net ratios. This relates to the decreasing site yield and increasing number of apartments for higher density sites.
- Sites with a mix of houses and apartments have a higher gross to net ratio, which is related to the sites being smaller than sites consisting solely of houses;
- The average gross to net ratio is in Newport with 97% significantly higher than in Telford (91%). This could be explained by a smaller average site yield in Newport.

6 Calculations

6.1 Housing yield must ultimately be determined by design. However, for the purposes of estimating housing yield as part of the site selection process the following calculations have been adopted by the Local Plan:

Density

6.2 The following density classes are proposed:

- A density of 45 - 55 dph for sites in Newport;
- A density of 35 - 45 dph for sites in Telford less than four hectares;
- A density range of 30 - 40 dph for sites located in Telford over four hectares; and
- A density of 45 - 75 dph for sites located in Central Telford.

6.3 These densities are indicative only. Actcould be influenced by available data on the housing mix, with an increase in density by a higher proportion of apartments and/or a closer proximity to a centre.

Net site area

6.4 The net site area should always be determined by using available data on layout and design and site specific characteristics. If no or limited data is available, the following ratios can be used as a guideline:

- A gross to net ratio of 95 - 100% for sites less than 1 hectare;
- A gross to net ratio of 75 - 95% for sites between 1 and 2 hectares; and
- A gross to net ratio of 50 - 75% for sites over 2 hectares.

Appendix

Appendix 1: Results per site

Table 4 Results per site

Number	Ward	Site Reference	Greenfield/ Brownfield	Approximate date of development	Total Number of Dwellings	Houses (number)	Houses (%)	Apartm. (number)	Apartm. (%)	Gross Site Area (Ha)	Net Site Area (net Ha)	Gross to Net ratio	Gross Density (dph)	Net Density (dph)	Value Area	Location
1	Haygate	TWC/2012/0103	GR	2014 to date	40	40	100%	0	0%	1.083	0.942	87%	37	42	Medium	Telford
2	Newport East	TWC/2012/0211	GR	2014 to date	34	34	100%	0	0%	0.905	0.905	100%	38	38	Medium-low	Newport
3	Newport South	TWC/2011/0334	PDL	2014 to date	61	55	90%	6	10%	1.521	1.521	100%	40	40	Medium-low	Newport
4	Brookside	TWC/2012/0714	PDL	2013 - 2014	52	52	100%	0	0%	1.438	1.309	91%	36	40	Low	Telford
5	Priorslee	TWC/2010/0731	PDL	2012 - 2014	50	50	100%	0	0%	1.667	1.657	99%	30	30	Medium-low	Telford
6	Muxton	TWC/2012/0371	GR	2013 - 2014	144	144	100%	0	0%	6.012	4.183	70%	24	34	Medium-low	Telford
7	Woodside	W2009/0051	PDL	2011 to date	186	143	77%	43	23%	4.245	4.245	100%	44	44	Low	Telford
8	Ss. Georges	W2003/0786	PDL	2005 - 2007	102	102	100%	0	0%	2.676	2.676	100%	38	38	Medium	Telford
9	Horsehay and Lightmoor	W2007/0948	PDL	2009 - 2014	218	218	100%	0	0%	7.119	7.119	100%	31	31	Low	Telford
10	Newport West	W2003/1021	PDL	2006 - 2007	41	35	85%	6	15%	0.601	0.601	100%	68	68	Medium-low	Newport
11	Newport North	W2006/0206	PDL	2008	37	14	38%	23	62%	0.645	0.538	83%	57	69	Medium-low	Newport
12	Hadley and Leegomery	W2005/1511	PDL	2006 - 2007	51	51	100%	0	0%	0.773	0.773	100%	66	66	Medium	Telford
13	Arleston	W2007/0535	PDL	2008 to date	149	149	100%	0	0%	3.726	3.444	92%	40	43	Medium	Telford
14	Wrockwardine	W2006/1005	PDL	2008-13	187	187	100%	0	0%	6.379	5.500	86%	29	34	Low	Telford
15	Horsehay and Lightmoor	W2006/0226	PDL	2007 - 2010	103	103	100%	0	0%	4.535	3.960	87%	23	26	Low	Telford
16	Horsehay and Lightmoor	TWC/2012/0419	PDL	2013 to date	435	435	100%	0	0%	11.048	10.543	95%	39	41	Low	Telford
17	Donnington	W2006/0068	PDL	2008 - 2013	210	210	100%	0	0%	6.444	4.980	77%	33	42	Medium	Telford
18	Hadley and Leegomery	W2007/1161	PDL	2008 - 2013	179	161	90%	18	10%	2.969	2.969	100%	60	60	Medium	Telford

Number	Ward	Site Reference	Greenfield/ Brownfield	Approximate date of development	Total Number of Dwellings	Houses (number)	Houses (%)	Apartm. (number)	Apartm. (%)	Gross Site Area (Ha)	Net Site Area (net Ha)	Gross to Net ratio	Gross Density (dph)	Net Density (dph)	Value Area	Location
19	Ketley and Oakengates	W2006/0463	PDL	2008 - 2011	103	37	36%	66	64%	2.582	2.409	93%	40	43	Medium	Telford
20	Dothill	W2009/0761	PDL	2011 - 2012	59	43	73%	16	27%	1.252	1.252	100%	47	47	Medium	Telford
21	Donnington	W2007/1334	PDL	2009 - 2010	29	19	66%	10	34%	0.597	0.597	100%	49	49	Medium	Telford
22	Muxton	TWC/2012/0709	GR	2013 to date	27	27	100%	0	0%	0.870	0.870	100%	31	31	Medium-low	Telford
23	Malinslee	W2005/1290	PDL	2009 -2010	24	0	0%	24	100%	0.175	0.175	100%	137	137	Low	Telford
24	Donnington	W2007/1521	GR	2007 - 2010	54	48	89%	6	11%	0.996	0.996	100%	54	54	Medium	Telford
25	Horsehay and Lightmoor	W2007/0145	PDL	2008 - 2014	100	74	74%	26	26%	2.245	2.150	96%	45	47	Low	Telford
				Totals:	***2675***	***2431***	***91%***	***244***	***9%***	***72.503***	***66.314***	***91%***	***37***	***40***		

Appendix 2: Assessments

Table 5 Site Size Assessment

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
<1 ha	8	297	37	5.562	5.455	98%	77%	23%	53	54
1 - 1.99 ha	5	262	52	6.961	6.681	96%	92%	8%	38	39
2 - 3.99 ha	5	633	127	14.198	13.648	96%	83%	17%	45	46
4 - 6.99 ha	5	830	166	27.615	22.868	83%	95%	5%	30	36
>7 ha	2	653	327	18.167	17.662	97%	100%	0%	36	37
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Table 6 Site Yield Assessment

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
<50 dwellings	7	232	33	4.876	4.628	95%	73%	27%	48	50
50 - 99 dwellings	6	327	55	7.647	7.508	98%	91%	9%	43	44
100-149 dwellings	6	701	117	21.776	18.822	86%	87%	13%	32	37
150-249 dwellings	5	980	196	27.156	24.813	91%	94%	6%	36	39
>250 dwellings	1	435	435	11.048	10.543	95%	100%	0%	39	41
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Table 7 Site Density Assessment

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
<30dph	1	103	103	4.535	3.96	87%	100%	0%	23	26

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
30-40dph	8	814	102	27.066	24.219	89%	100%	0%	30	34
40-50dph	10	1372	137	34.743	32.083	92%	88%	13%	39	43
50-70dph	5	362	72	5.984	5.877	98%	85%	15%	60	62
>70dph	1	24	24	0.175	0.175	100%	0%	100%	137	137
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Table 8 Site Mix Assessment

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
0-5% houses	1	24	24	0.175	0.175	100%	0%	100%	137	137
5-35% houses	0									
35-65% houses	2	140	70	3.227	2.947	91%	36%	64%	43	48
65-95% houses	8	709	89	14.426	14.331	99%	82%	18%	49	49
>95% houses	14	1802	129	54.675	48.861	89%	100%	0%	33	37
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Table 9 Site Location Assessment

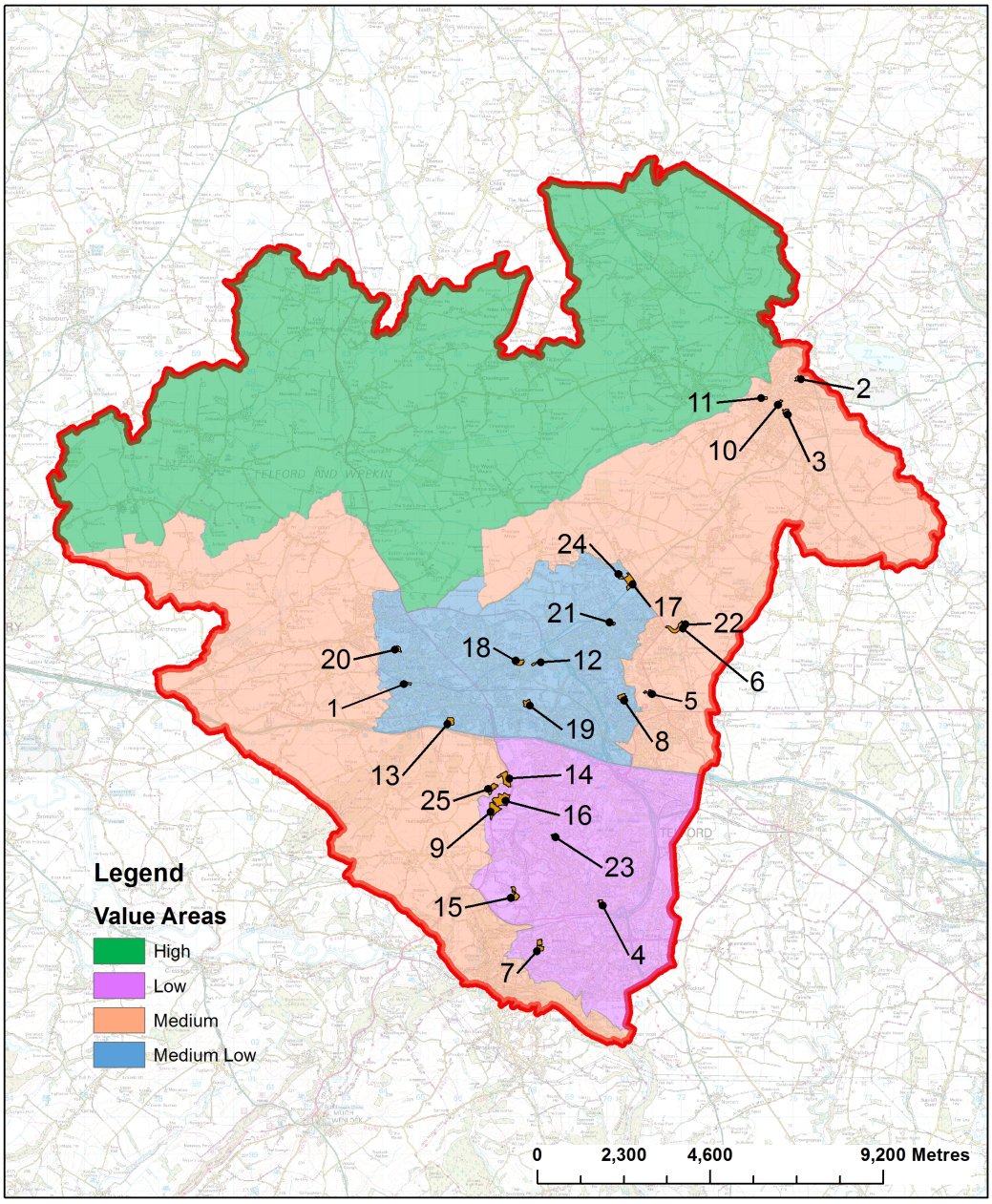
Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
Telford	21	2502	119	68.831	62.749	91%	92%	8%	36	40
Newport	4	173	43	3.672	3.565	97%	80%	20%	47	49
Rural	0									
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Table 10 Site Values Assessment

Category	Number of Sites Assessed	Total Number of Dwellings Considered	Average Site Yield	Total Gross Site Area	Total Net Site Area	Gross to Net ratio	Average proportion of Houses	Average Proportion of Apartments	Average Gross Density (dph)	Average Net Density (dph)
Low	8	1305	163	37.184	35.001	94%	93%	7%	35	37
Medium low	7	394	56	12.221	10.275	84%	91%	9%	32	38
Medium	10	976	98	23.098	21.038	91%	88%	12%	42	46
High	0									
Total	***25***	***2675***	***107***	***72.503***	***66.314***	***91%***	***91%***	***9%***	***37***	***40***

Appendix 3: Map Selected Sites in Value Areas

Map 1 Selected Sites in Value Areas



Telford & Wrekin COUNCIL

Business & Development Planning
Telford & Wrekin Council
Wellington Civic Offices
Telford
TF2 2FH

Title: Densities across the Borough (Selection of sites 2002 onwards)

Scale: 1:137,000

Date: 2 February 2015

Drawn By: Lukas van der Steen

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