

Employment Land Review

For Telford First

DRAFT

A report submitted by GHK

With GVA Grimley

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526 Fulham Road, London SW6 5NR
Tel: 020 7471 8000; Fax: 020 7736 0784
www.ghkint.com

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<i>Prepared by</i>	<i>Fionn O'Sullivan</i>
<i>Checked by</i>	<i>Colin Arnott</i>
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1 INTRODUCTION

This Employment Land Review forms Theme 3 of the Stage 2 Baseline Analysis for the Borough of Telford and Wrekin. It will help form part of the analysis of the nature and sub-regional role of Telford's economy, to inform the business planning of Telford First in its efforts to regenerate the local economy and the preparation of the Local Development Framework. It will also contribute to sub-regional spatial planning perspectives.

This report has been drafted to comply with ODPM Guidance on conducting employment land reviews (Employment Land Reviews – Guidance Note 2004).

Theme 3 is one of 5 themes in the Stage 2 work programme which also includes a Borough Level Economic Performance Review & City-region Analysis; Town Centre Performance and Role; Property Market Performance; and Transport & Accessibility.

The work in this report has been prepared by GHK and GVA Grimley.

The rest of the report is structured as follows:

- Section 2 – Property Market Review
- Section 3 – Employment Land and Property Supply
- Section 4 – Demand Side Economic Forecasts
- Section 5 – Conclusions and Recommendations

2 PROPERTY MARKET REVIEW

2.1 Introduction

Telford and Wrekin is situated in the rural north-western part of the West Midlands. It is easily accessible via the M54, which runs directly through the town and connects with the M6 north of Birmingham, and the M6 Toll. Telford is a new town, which has seen significant growth in manufacturing based employment, particularly from overseas. This resulted from the availability of grants up to 1995, plus the skilled labour in the West Midlands conurbation. The grants available in this area were through Regional Selective Assistance (RSA). This was a discretionary grant scheme aimed at encouraging investment, and creating or safeguarding jobs in the Assisted Areas of Great Britain and increasing regional competitiveness and prosperity.

Telford & Wrekin gained Enterprise Zone status between 1984 and 1994. This provided firms with incentives to set up and move there, and encouraged developers and occupiers to build space. The combination of these incentives attracted considerable amounts of foreign direct investment particularly from Japan.

Telford was designed for motor transport; therefore it has an excellent road system enabling easy access to all the main commercial areas.

Telford and Wrekin had around 74,700 employees in 2003. Its share of manufacturing, transport & distribution related employment is above the UK average¹. As well as manufacturing companies, there is a large percentage involved in retail trade, public administration and real estate & business activities.

Telford & Wrekin District Council's planning policies are orientated towards attracting high-value manufacturing occupiers to Telford, but probably on a lesser scale than in the past. There has been growth in the Electrical & Electronic Engineering Industry particularly since the early 1980s due to relocation of Far Eastern firms into the town.

Telford has an unemployment rate of 2.1% compared to 5.5% in Birmingham, and an average weekly wage of £332.50, compared to £355.20 per week in Birmingham. (Source: Promis as at 07/02/2006)

2.2 Industrial Market

Almost all of Telford and Wrekin's industrial and warehousing space is concentrated within 3 areas: Hortonwood, Stafford Park and Halesfield. All 3 areas are large and sprawling, comprising a wide range of properties from starter units to large manufacturing complexes and distribution warehouses.

There are many loyal companies to Telford & Wrekin, as they gained Regional Selective Assistance in the early 1990's to locate there and do not wish to move. The Enterprise Zone added additional incentives such as rent-free periods, reduced business rates and capital allowance changes, which allowed greater flexibility.

¹ Source: Promis Report, Property Market Analysis, 2006

However, as there are no longer significant grants available it is harder to attract new companies to relocate to Telford and Wrekin.

ODPM age of commercial and industrial stock data at Local Authority Level for 2004 shows the age of factory and warehouse floorspace in Telford and Wrekin. This reveals the fact that the largest percentage of floorspace was built in the nine years between 1981 and 1990., with the majority of floorspace built post 1970. This compares to the West Midlands as a whole where a large percentage was pre 1940, or 1940-1970.

Telford & Wrekin's major advantage is the cheaper land relative to comparable areas such as Wolverhampton and the Black Country. English Partnerships land in 2006 in Telford & Wrekin is £160,000 per acre. Black Country prime industrial land values are around £350,000 per hectare, while in Birmingham they are £950,000 per hectare and over.

Distribution companies consider drive times in terms of cost per mile. Therefore if say the rents are £4 per sq.ft in Telford & Wrekin rather than £5 elsewhere, the operating costs and transport costs may still discourage them from locating in Telford & Wrekin since they are too far away from the main routes, when overall operating costs are considered. Whilst firms could use the M6 Toll this is considered costly for lorries. It is therefore likely that mobile distribution companies will pay more to rent premises in more accessible locations.

Telford & Wrekin has not historically been a popular location for large scale distribution activity since it is situated to the north west of Birmingham, considered to be the "wrong" side for national and regional distribution functions (*Source: Promis, 2006*). The largest distributor in Telford & Wrekin is the MOD. The majority of distribution activity is by retailers e.g. Lyreco relocated from Stafford Park to Donnington Wood. Anecdotal evidence suggests that if logistics were to grow anywhere in Telford & Wrekin, it would be at Donnington Wood.

Interestingly, a news release from Telford and Wrekin BC in July 2006 states that a new railfreight terminal at Donnington has got the go ahead and should be open within twelve months and the rail-serviced warehouse later in 2007. This project is of huge importance to the future economic success of the Borough and should help to make Telford and Wrekin more popular for large scale distribution activity. However, it should still be noted that operators will still be discouraged by the transport costs.

2.3 Key deals

Telford & Wrekin has seen healthy levels of demand during 2005 with 2 deals in excess of 100,000 sq. ft. completing at Hortonwood and Stafford Park and at other important industrial locations at Tweedale and Halesfield.

Particular to Telford & Wrekin is that many deals involve occupier sales. While this trend is important nationwide, the high incidence in Telford reflects low institutional interest in the market. Without the increased competition from large international pension funds etc the local occupiers can take advantage of competitive pricing within the Telford & Wrekin market.

There is a reasonable representation of national and international firms in the area; for example, local occupiers at Stafford Park include Nestle, Siemens, Toyota, Wincanton, Samsung, NEC Technologies, Epson and Morrisons.

2.4 Telford – Black Country Relationship

Very few companies relocate to Telford & Wrekin from the Black Country. Existing Black Country firms are more likely to locate to a site further away from their current location, but in the Black Country even if there is a closer site in Telford & Wrekin. Few companies tend to move from Telford & Wrekin to the Black Country.

The relationship between investors/firms looking to locate in Telford & Wrekin or the Black Country is not as strong as one would expect given the location.

Anecdotal evidence indicates that the procedures in place for disposal of properties in Telford & Wrekin make firms less likely to go to Telford & Wrekin. English Partnerships, which own the majority of the land, require the properties and land to be marketed in a certain way and conform to, for example Building Research Establishment Environmental Assessment Method (BREEAM) and eco-homes standards.

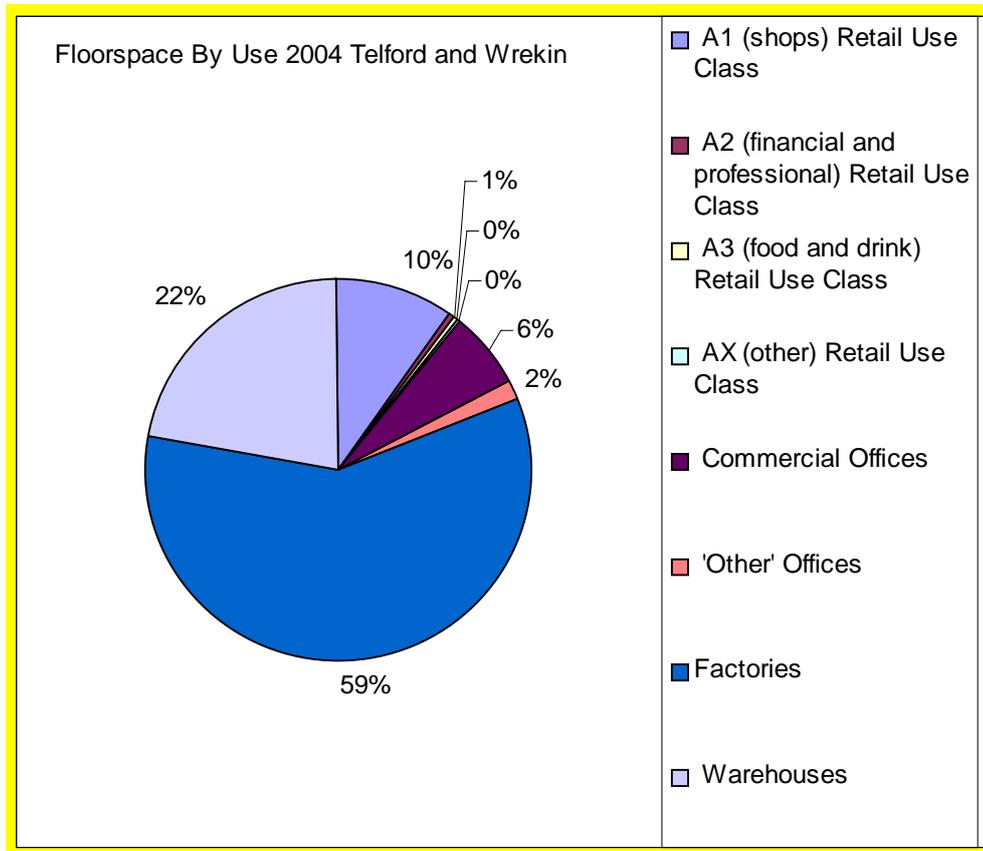
There are many companies, which relocated to Telford & Wrekin when the areas were assisted and they have extensive land around their sites, on to which they can expand. However, the problem now is attracting new firms to Telford & Wrekin. The procedures imposed on marketing and packaging the properties currently deters firms from Telford & Wrekin (views of local agents).

2.5 Supply

2.5.1 Existing Stock and Completions

According to the Promis Report (2006) total Stock in Telford & Wrekin at the end of 2004 was 24.4 million sq. ft, which comprises 74% factories and 26% warehouses. There is a relatively low percentage of new industrial stock, around 5.7%. Figure 2.2 shows the breakdown of factories and warehouses as percentages of total floorspace in Telford & Wrekin in 2004 (including offices and retail uses), according to ODPM (2004).

Figure 2.2: Floorspace Breakdown by Use (2004)



Source: ODPM (2004)

Table 2.1 compares the Telford and Wrekin floorspace to that of the West Midlands region. This shows that Telford has a particularly high percentage of factory floorspace and a lower percentage of warehouse floorspace than the average for the West Midlands region.

Table 2.1: Employment Floorspace in Telford and Wrekin District and West Midlands Region 2004

	Employment Floorspace Stock	% of stock	West Midlands % of Stock
A1 Retail	277,000 m2	10%	12%
A2 Offices	15,000 m2	1%	1%
A3 Food and Drink	13,000 m2	0%	1%
Other Retail	7,000 m2	0%	0%
Commercial Offices	180,000 m2	6%	8%
Other offices	48,000 m2	2%	3%
Factories	1,637,000 m2	59%	47%
Warehouses	626,000 m2	22%	28%
All	2,803,000 m2		

Source ODPM Industrial and Commercial Floorspace Statistics 2004

The dominance of factory stock is not surprising given the history of Telford and previous levels of manufacturing based inward investment.

Completions in Telford & Wrekin in 2005 were 372,000 sq. ft., a large increase from 123,000 sq. ft. the previous year (Source: Promis Report, 2006)

Marketing particulars indicate that at Crown Point, Stafford Park 10 there is a 103,000 sq. ft. high specification unit capable of sub-division, called "Emerald". This includes fitted offices with ground floor reception, a fenced service yard and landscaped car parking areas. This is Telford 7 Wrekin's largest new build speculative unit in recent years.

There is also "Amethyst" (completed in 2004), which has two remaining units of 31,400 sq. ft. and 42,000 sq. ft. This new development has fitted offices, a deep service yard and landscaped parking area.

Both developments have planning consents for unrestricted B1, B2 & B8 use, and have all mains services.

International House, Stafford Park 11 has offices of 36,000 sq. ft., with car parking and canteen, and warehouse space of 99,000 sq. ft., with secure yard and gatehouse, available for sale or to let.

In terms of available sites, there is 1.91 gross ha at Halesfield 17, which is a regular shaped plot with extensive road frontage. Operation for industrial and distribution uses is accepted and buildings should be constructed to a "very good" BREEAM rating.

There are two sites available at Donnington Wood Business Park of 8.56 gross ha and 4.39 gross ha. This is a good site for warehousing & distribution operators. All mains services are available for connection.

Over the last 5 years in Telford & Wrekin, 33% of space developed has been speculative, with 67% built pre-let or purpose built. This compares with an Industrial PROMIS average of 40% speculative development. Pre-let space built in Birmingham is 60% so this is not an unusual figure for Telford and Wrekin. (Source: Promis, 2006)

2.6 Availability

Availability of industrial land in 2005 was 1,609,000 sq. ft. down from 1,830,000 sq. ft. in 2004. On average this figure has decreased year-on-year since 2000. In the 1990s it rose rapidly due to a large number of second hand units being released as a result of manufacturing closures or contractions.

Vacancies in Telford & Wrekin have declined by 13% over the 6 months to Q2 2005. (Source: Promis)

2.7 Rental values

Prime industrial rents in Telford & Wrekin in 2005 were £4.50 per sq. ft. (Source: Promis) Top rents in Telford & Wrekin have remained flat over the last year, however over the long term, rental volatility has been greater than the Industrial PROMIS average.

Compared to surrounding areas, this was lower than in the Black Country where rents were £5 per sq. ft at the end of 2005 (Source: King Sturge). This is also lower than Birmingham, where rents are £6 per sq. ft. (Source: Promis)

As evidence to support the £4.50 per sq. ft. rental level, Swan Hattersley took a 69,400 sq ft unit at the first phase of the newly built Crown Point scheme at Stafford Park at end-2003. This matches the rent paid by Single Source for their 42,000 sq ft unit at Crown Point in January 2001. If the deal at Amethyst, Crown Point completes at £4.60 psf this would indicate that prime rents are still around the £4.50 per sq. ft. mark. Table 2.1 provides a further list of comparable rental values.

Table 2.1 Key letting deals

Key lettings by rent since end-2002					
Additional information available in Excel download					
Address	Occupier	£ psf	sq ft	Date	Notes
Stafford Pk 4, The Builder Ctre	Wolseley UK	6.61	11,500	Nov 05	Assignment, 14 yrs
Stafford Pk 1, Bldg 2 (rear of Carnelian garage)	Just 4 Rent	5.84	4,400	Sep 04	Let
Unit 2 Queensway Link IE, Stafford Pk 17	City Electrical Factors	5.25	2,800	Sep 03	Let
Amethyst 1, Crown Point IE	Local firm	4.60	42,000	Sep 05	U/O, 15 yrs, brk in yr 5
Unit D12, Horton Pk IE, Hortonwood 7	Thrifty	4.60	3,200	Oct 05	Let
Opal Bldg, Crown Pt, Stafford Pk	Swan Hattersley	4.50	69,400	Dec 03	Let, 10 yrs, RR yr 5
Unit 11 Stafford Pk 12	n/a	4.33	6,000	Mar 05	Let, 3 yrs
Unit 2 Fletcher Hse, Stafford Pk 17	CAB Glazing Services	4.27	6,200	Feb 04	Let
Stafford Pk 12	Peter Grant Papers	3.99	24,000	Jun 03	Let, 15 yrs, brk in yr 10
Stafford Pk 7	Epwin Group	3.96	50,000	Sep 03	Let, 10 yrs
Stafford Pk 7	Plaslyne Ltd	3.96	50,000	Oct 03	Let, 10 yrs
Unit B, Stafford Pk 12	Samsung	3.65	30,000	Aug 05	Let, 6 yrs
Unit 12 Stafford Pk 12	Nanopoint	3.62	6,000	Apr 04	Sub-let
Unit C4 Haybrook IE, Halesfield	Telford Plastics	3.53	3,500	Sep 05	Let, 3 yrs
Haybrook IE, Halesfield	Mr Martin	3.40	3,500	Mar 03	Let, 3 yrs
Unit B5, Haybrook IE, Halesfield	Holidoze	3.25	4,300	Apr 04	Let, 5 yrs
Stafford Pk	Integrated Precision Technology	3.00	4,500	Dec 04	Let, 3 yrs
Unit C8 Stafford Pk	China Enterprise	3.00	4,500	Jun 05	Let, 6 yrs
Stafford Pk 12	4 Tech UK	2.98	7,300	Apr 04	Sub-let
Unit J2 Tweedale IE	Telford Wire	2.75	6,900	Apr 04	Let
Halesfield 24	Pastor Frigor	2.73	8,200	Jun 03	Let, 6 yrs
Unit E, Tweedale IE, Madeley	Wrekin Sheet Metal	2.50	24,300	Aug 04	Let
Unit L Tweedale IE, Madeley	Wrekin Construction	2.45	13,500	Mar 04	Let
Stafford Pk	Paul George Conservatories	2.25	4,500	Dec 04	Let, 3 yrs
Unit 23 Stafford Pk 12	Precision Carbide Tools	2.05	8,200	Aug 05	Sub-let, 7 yrs

Source: PMA deals database

Last update: 06/03/2006

2.8 Yields

As mentioned above, there is a limited institutional investment market in Telford & Wrekin Borough, due to high levels of owner occupation.

GVA Grimley Research states that industrial yields in Telford & Wrekin in December 2005 were 6.5%. This has decreased from the previous year when yields were at 7%.

However, recent investment deals from Promis suggest a higher yield just over 7.38%. This is supported by the investments in Table 2.2. Key investment deals have been focused at Stafford Park.

Table 2.2: Key investment deals

Key Investments since end-2002				
Address	Purchaser	sqft	Date	Notes
Portfolio deal	Bank of Scotland	270,000	Oct 04	Part of portfolio sale; £20m, yield of 7.3%.
Halesfield 10	St Modwen Developments	259,000	Apr 05	£5.2m, with land for further development
Stafford Pk 10	Merrill Lynch Property Fund	240,500	Sep 04	£10.4m, yield of 7.85%. Warehouse and lorry park let to Wincanton Holdings
The Laconite Bldg, Stafford Pk 6	Halo Investments	178,900	Dec 05	£8m, yield of 8%.
Halesfield 8	ATE Properties	90,000	Aug 04	£1m, 4.5 acre site, to be redeveloped.
Units 8-9 Stafford Pk 12	David Samuel Properties	62,300	Jul 04	£3.2m.
'Alycast' Unit Halesfield 21	n/a	37,700	Sep 03	£0.325m.
12 Stafford Pk	Tower Estates	25,600	Oct 05	£1.2m, yield of 8%.

Source: PMA deals database

Last update: 06/03/2006

Birmingham industrial yields are 5.5% in March 2006 down from 5.75% in December 2005. All other areas in the Midlands are 6% as at December 2005, including Sandwell and Wolverhampton, both in the Black Country (no figures available for Dudley and Walsall).

CBRE average yields data gives an average yield of 6.2% for the West Midlands in the first quarter of 2006.

This suggests that industrial property in Telford & Wrekin is perhaps of a lower quality or perceived as a more risky investment than that in Birmingham or the Black Country.

2.9 Development Pipeline

There is no current space under construction, compared with an annual average level of completions over the last 5 years of 276,000 sq. ft. (Source: Promis, 2006)

2.9.1 Development planned

Telford has one of the largest development pipelines of the Property Market Analysis Centres. Such a large pipeline is typical of former New Towns.

There is currently 8.9 million sq ft of space in the Telford development pipeline. Of this, all space has planning permission. The total pipeline equates to 32 years of development at the rate seen over the past five years. The average across all centres is 16 years, and across the North & Scotland Market Area 23 years. (Source: Promis Report, 2006)

Of the Telford pipeline, there are 20 schemes of over 100,000 sq ft. These schemes equate to 91% of the proposed floorspace in the centre.

2.9.2 Key planned schemes

English Partnerships is Telford & Wrekin's largest landowner, accounting for the majority of schemes in the pipeline. They control the four largest schemes with consent, which comprise mixed B1/B2/B8 developments located at established industrial locations such as Hortonwood and Donnington Wood as well as new locations including Wellington and Dawley.

The majority of sites with permission are unlikely to be developed without first securing an occupier.

Table 2.3 provides a list of the key planned schemes.

Table 2.3: Key planned schemes in Telford & Wrekin's Development Pipeline

Scheme	Developer	Planning Status	Size note	Gross sq.ft	Notes
Hortonwood North	English Partnerships	Outline	E	112 acres	B1/B2/B8
Shawbirch Campus, A442, Wellington	English Partnerships	Outline	E	56 acres	B1/B2/B8
Campus A, Newdale Campus, Lawley Dr, Dawley	English Partnerships	Outline	E	54 acres	B1/B2/B8
Telford Sci & Tech Pk, Nedge Hill East	English Partnerships	Outline	B	37 acres	Light ind/prod units
Old Park Campus, Old Pk Rd	English Partnerships	Outline	E	35 acres	B1 business devt on 3 adjoining sites
Remainder of Campus 1, Donnington Wood, Granville Rd	English Partnerships	Outline	E	32 acres	B1/B2/B8
Donnington Wood, Granville Rd	English Partnerships/AWM	Outline	E	31 acres	B1/B2/B8
Hadley West, Queensway	GKN	Outline	E	22 acres	B1/B2/B8
Lawley Campus, Dawley	English Partnerships	Outline	E	17 acres	Light ind/prod units
Telford Sci & Tech Pk, Nedge Hill West	English Partnerships	Outline	B	16 acres	Light ind/prod units
Brockton BPk, Halesfield 10	English Partnerships	Outline	A	230,000	Ind & Whse site
Lightmoor, Dawley	English Partnerships	Outline	E	15 acres	B1/B2/B8 devt site
Hortonwood 45	Makita	Full	B	220,000	Ph2 of new power tools factory
Halesfield North	English Partnerships	Outline	E	14 acres	B1/B2/B8
St Georges Roundabout, Telford Way	English Partnerships	Outline	E	11 acres	B1/B2/B8

Stafford Pk 6	Tatung	Full	B	11 acres	Expansion land for Tatung
Telford Sci & Tech Pk, Nedge Hill West	Mitac Europe	Outline	B	11 acres	Remaining expansion land for Mitac
Hadley Campus, Queensway	English Partnerships	Outline	E	11 acres	B1/B2/B8
Trench Lock, Castle St	GKN	Full	B	114,900	Factory unit
Ph2, Halesfield 17	Instant Access	Full	B	114,200	4 Unit devt
Site 13, Hortonwood 1, adj to Queensway	English Partnerships/Craemer UK	Outline	B	93,800	B1/B2/B8
Trench Lock, Sommerfield Rd	Pentard	Outline	A	80,500	Ind/Whse devt
Queensway	Hazama Corp	Full	B	79,400	Ind devt
Halesfield 19	English Partnership	Outline	E	5 acres	B1/B2/B8
Hadley Campus, Queensway	English Partnerships	Outline	E	4 acres	B1/B2/B8
Hortonwood 2	Heinz	Full	B	4 acres	Factory
North Lightmoor, Dawley	English Partnerships	Outline	B	4 acres	Light ind devt
North Lightmoor, Dawley	English Partnerships	Outline	B	4 acres	B2 devt
Stafford Pk 5	English Partnerships	Outline	E	3 acres	B1/B2/B8
Park Rd	English Partnerships	Outline	B	3 acres	Light ind/prod devt
Halesfield 2	Taws Printers	Full	D	45,600	-
Fmr Marusawa Factory, Hortonwood 7	Swancote Foods	Full	C	31,400	-
Block 4, adj 22, Stafford Pk 17	USD Group	Full	E	30,000	-
Ph2, Hortonwood 50	McPhillips	Full	B	24,000	Factory/dist units
Trench Lock, Sommerfield Rd	Blockleys Brick	Full	B	15,000	Ind unit
Plot 8, C1, Hortonwood 35	English Partnerships	Full	B	15,000	Ind unit
Plot 5, Halesfield 2	English Partnerships	Full	B	10,000	Ind unit

Source: Property Market Analysis Supply Database (Last Update: 22/12/2005)

Size note: A = Mixed Industrial/Warehousing, B = General/Light Industrial, C = Distribution, D = Industrial component of larger mixed scheme, E = Industrial component to be determined

2.10 Office Market

Telford & Wrekin offers a range of office buildings, the majority of which are located within the town centre or on purpose built office parks within close proximity of both the town centre and Junctions 4 or 5 of the M54 Motorway. Stafford Park is characterised

by both office and industrial developments, with a number of office buildings currently available.

Euston Park is one of the most recent office developments completed in Telford & Wrekin, comprising three brand new comfort cooled office buildings adjacent to the town's railway station. The scheme was the most notable speculative office development completed in Telford & Wrekin for a number of years, following the considerable over-supply of accommodation which existed during the whole of the 1990's. The last building of 32,100 sq ft was let to EDS in July 2005 at a rental of £14.00 per sq ft on the basis of a 15 year lease with a 2 year break, with a 6 month initial rent free period. (GVA Grimley Office Agents)

2.11 Recent Transactions

There have been a number of rental transactions which are directly comparable, including the following:

- In February 2006, Partnership House at Central Park was let at a yield of 6.75% on a long leasehold basis. This was a modern detached office building of 34,500 sq. ft. with a rental income of £338,260 pa exclusive, equating to £9.15 per sq. ft.
- In August 2005 Hollinswood House, The Court, Stafford Park achieved a yield of 8.3%.
- In November 2004, Cogent Limited took 1,392 sq ft of first floor office accommodation on a new 5 year lease at 4 Hollinswood Court, Stafford Park 1, Telford, at a rental of £13,215 per annum equating to £9.50 per sq ft.
- In October 2004, West Mercia Magistrates Court took 5,400 sq ft on a 10 year lease at £48,600 per annum equating to £9.00 per sq ft in 4 Hollinswood Court, Stafford Park 1, and Telford.
- In September 2004, the Ground floor of 5 Hollinswood Court, Stafford Park 1, and Telford extending to 1,725 sq ft was let on a new 5 year lease at £16,388 per annum equating to £9.50 per sq ft.
- In August 2004, a first floor office on C1-C3 Development 5, Stafford Park 4, and Telford was let to Cavendish House Limited at £7,000 per annum equating to £8.95 per sq ft. The office accommodation extends to 782 sq ft.
- Pemberton House, Stafford Park 1, Telford was let to Prince Personnel Ltd in October 2003 on a 5 year term at the rental of £5,400 per annum equating to £8.22 per sq ft. Suite 9 extends to 657 sq ft.
- In July 2003, Ground Floor, Jesson House, Stafford Park 1, Telford was let to Air Xcite on a five year lease at £7.25 per sq ft. The office accommodation extends to 4,282 sq ft.

2.12 Demand: Take Up

GVA Office Agents highlight that office enquiries in Telford & Wrekin tend to be either for those looking for smaller, cheaper offices, while others want much larger high specification offices. There is little demand for middle-sized/range properties.

Employment Land Monitoring Data from Telford & Wrekin Borough Council states that take up of B1 land in 2004-05 was 425 sq.m, while it totalled 7,991 sq.m for 2001-05.

In 2004/2005 GVA marketed two floors of office accommodation within Telford Plaza (Plaza Two) on behalf of BT Telereal. The accommodation let within circa 6 months of being placed on the market and the only serious interest which emerged within the period of marketing was from Electronic Data Systems (EDS), an outsourcing organisation operating a contract for Inland Revenue, who took a sublease from Telereal on the two floors concerned.

2.13 Supply

As discussed above, Regional Selective Assistance in the early 1990s led to numerous grants being made available to relocate in Telford & Wrekin. As a consequence of this there was a massive oversupply of office accommodation over a period of 10-12 years, which distorted the local market. Brand new office space sat empty for 8-9 years. These buildings would never have been built in a "normal" marketplace situation.

Over the last 4-5 years the market has moved into equilibrium with the development of Euston Park, but rental growth over a 10 to 15 year period has been limited.

2.14 Rental values

GVA Office Agents indicate that current prime rents are around £12-14 per sq. ft. This makes speculative development marginal. Anecdotal evidence also suggests that the land packaging and disposal requirements imposed by English Partnerships puts off a lot of speculative developers who can find alternative land elsewhere.

During the 1990s the Enterprise Zone distorted the office market. As indicated above, there was a massive oversupply of office space. Buildings were constructed on the back of expectations of guaranteed rents of £12-13 psf. Developers worked off these anticipated rental values, however these were never achieved since there was a deviation from the open market position. Instead rents of between £6-10 psf were achieved due to the oversupply and the expectations were not fulfilled. (GVA Office Agents)

For example, agents were struggling to let out a 160,000 sq.ft site at Telford Plaza. It was let in 2,000 sq.ft blocks on 5 year leases at £9 psf. (Expectations on this had been around £13.85)

2.15 Yields

From evidence on recent transactions, yields in Telford & Wrekin are around 6.75%. (Investment, DTZ) Evidence from 2004 was a higher yield of 7.7%.

In surrounding areas in the Midlands office yields are 5.5% in Coventry, Leicester, Northampton, Nottingham, Solihull, Sutton Coldfield and Wolverhampton in December 2005. They are 5% in Birmingham in March 2006.

CBRE average yields data gives an average yield of 6% for the West Midlands in the first quarter of 2006.

2.16 Development Pipeline

There are no current office developments under construction in Telford & Wrekin. (GVA Office Agents)

3 EMPLOYMENT LAND AND PROPERTY SUPPLY

3.1 Approach

GVA Grimley has undertaken a supply capacity analysis of employment land in Telford and Wrekin Borough. The previous Employment Land Study 2005, the Babbie Employment Land work and the Annual Land Statement (2005) were used as source data.

Using the above data sources a list of employment sites has been generated. Where relevant those sites already allocated to other uses (i.e. housing) have been removed from this list to provide a realistic and up to date assessment of employment land stock. A number of sites within the Telford Town Centre and reviewed as part of the Central Telford Area Action Plan has been included in this work.

GVA Grimley has then reviewed these sites building on the original analysis by Babbie and supplementing this with additional analysis concentrating on Market Conditions. A copy of the proforma used is attached at Annex 6. This explains the assessment criteria used and the scores allocated to sites. Where necessary (i.e. when new sites have been added) GVA Grimley has undertaken additional analysis using the original Babbie criteria.

3.2 Site Survey Results

53 sites were surveyed in total, covering an area of around 212 hectares. The proforma covered site details, and then scored each site on a number of factors considering Sustainability, Local Access/Catchment, Market Factors and Policy Issues.

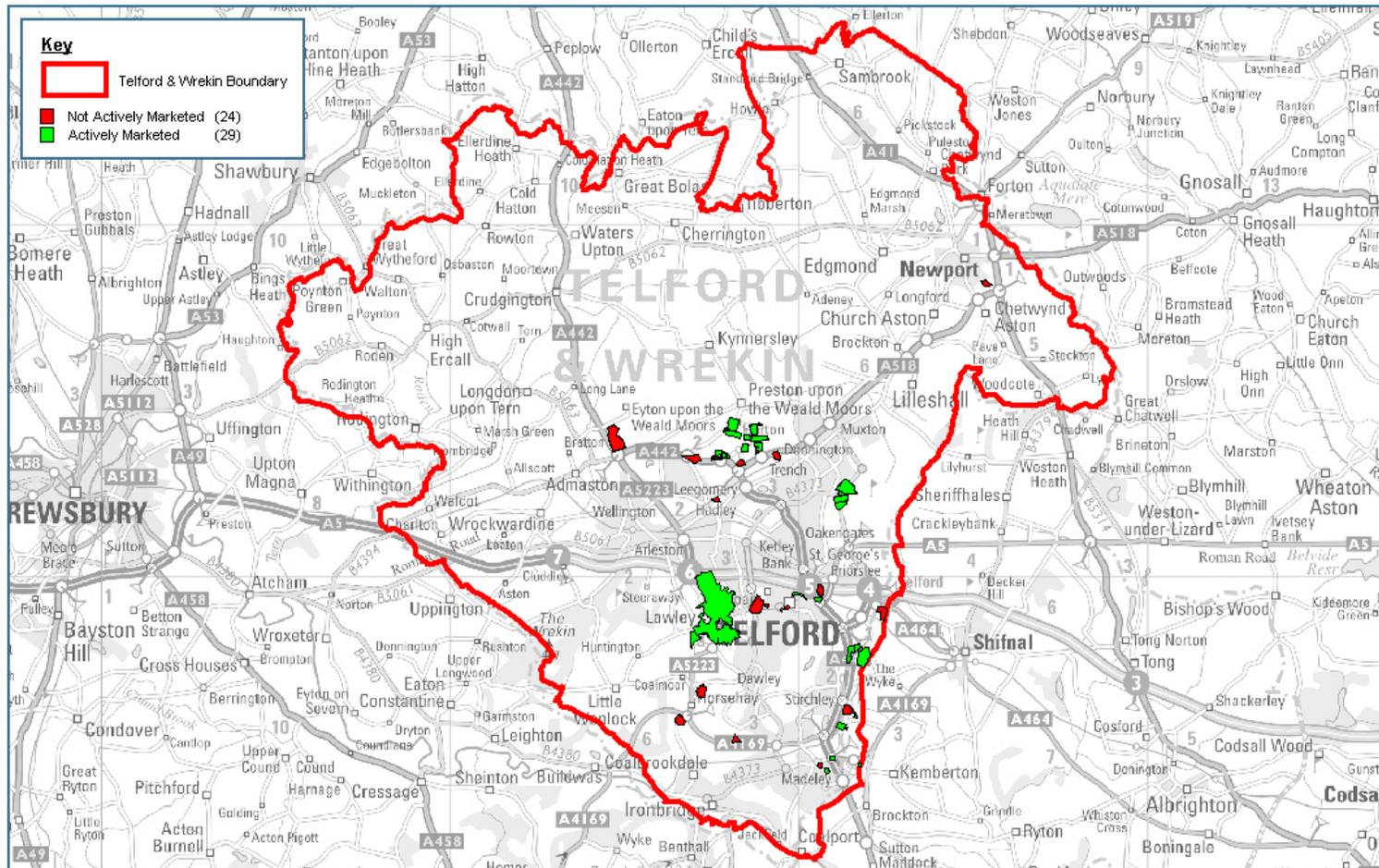
Table 3.1: Actively Marketed

	Yes	No
Number of Sites	29	24
Site Area (ha)	116.69	95.76

Source: GVA Grimley Analysis (2006)

Table 3.1 shows that over half the sites in Telford & Wrekin are currently being actively marketed, making them more readily available to the market. This represents 55% of the total land area. Figure 3.1 shows the location of the sites, with colour-coded responses.

Fig 3.1 – Active Marketing of Employment Sites



TELFORD EMPLOYMENT LAND STUDY
Active Marketing of Employment Sites



Table 3.2: Market Demand Segment

	1/2 - Local/ Borough Occupiers	2/3 – Town/West Midlands Occupiers	3 – West Midlands Occupiers	3/4 - National Occupiers
Number of Sites	16	12	1	24
Site Area (ha)	45.22	48.3	1.84	117.09

Source: GVA Grimley Analysis (2006)

Table 3.2 indicates that there are both a large number of sites (16) appropriate for local occupiers (but this only represents 21.3% of total land area) as well as 24 sites appropriate for wider West Midlands and national firms (accounting for 55% of land area). Therefore in terms of land area there is a larger amount of land appropriate for wider West Midlands and national firms. This is represented on a map of Telford & Wrekin in Figure 3.2.

Table 3.3: Internal Environment

	1- irregular shaped site, uneven ground & potential risk of flooding/con tamination	2 – irregular shaped site, uneven ground and risk of flooding or contaminati on	3 – irregular shaped site or uneven ground and slight risk of flooding or contaminati on	4 – slightly irregular shaped site or slight uneven ground	5 – regular shaped site, even ground & no risk of flooding/c ontaminat ion
Number of Sites	0	0	12	16	25
Site Area (ha)	0	0	50.19	58.85	103.41

Source: GVA Grimley Analysis (2006)

Table 3.3 shows that for the “Internal Environment” scoring criteria, nearly half of the sites are suitable for development, being of regular shape with little or no uneven ground or risk of flooding/contamination, being attributed a score of 5 (49% in terms of total land area). Generally the sites are fairly good quality with 100% of sites scoring 3 and above. See Figure 3.3 for location of sites.

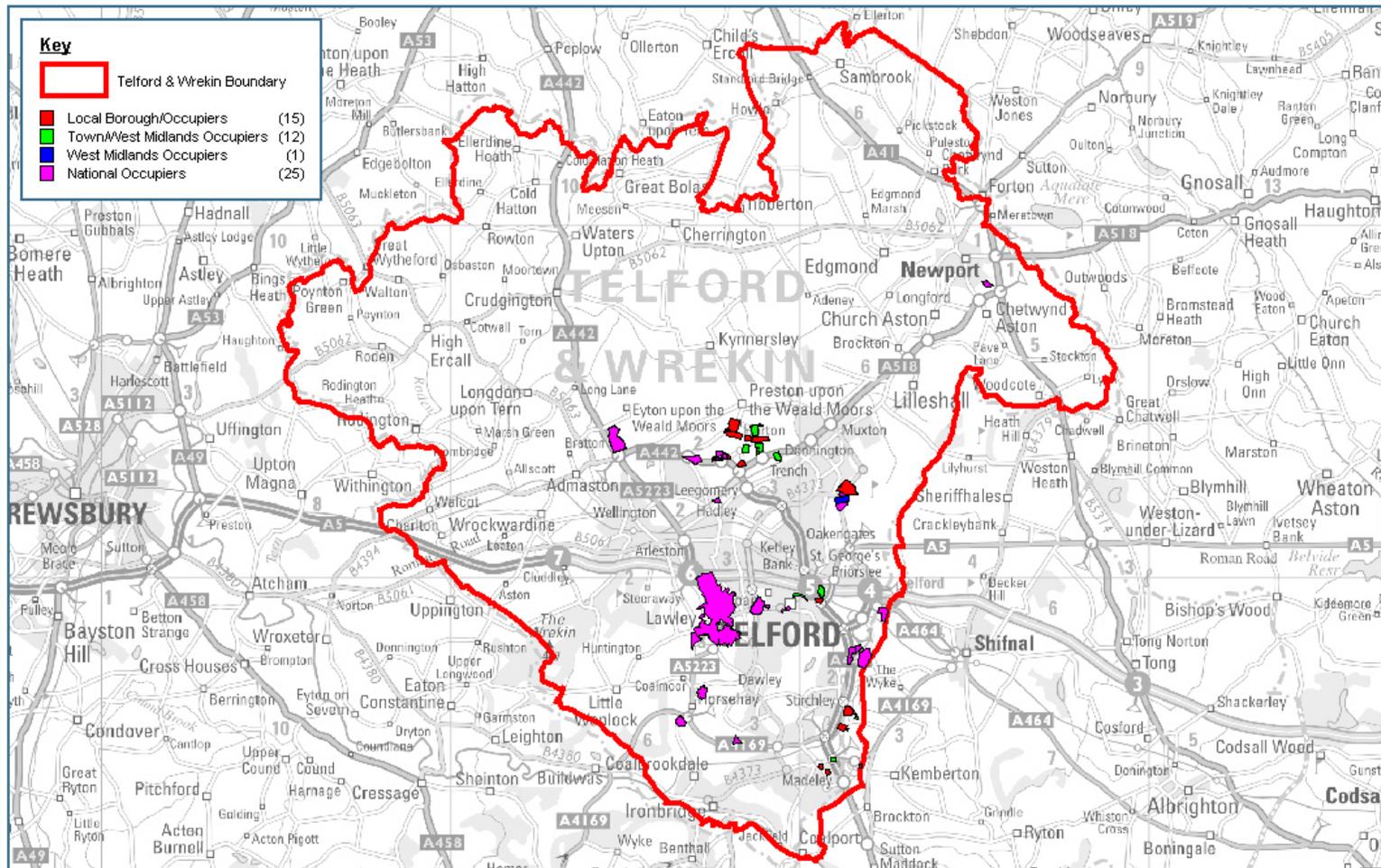
Table 3.4: External Environment

	1 – not compatible with neighbouring uses, no nearby facilities or transport provision	2 – very little similar uses nearby and limited facilities and transport provision proximate to site	3 – less compatible with neighbouring uses, some facilities and transport nearby	4 – compatible with neighbouring uses, close to facilities & transport	5 – compatible with neighbouring uses, good proximity to facilities, good transport provision & critical mass
Number of Sites	0	2	14	26	11
Site Area (ha)	0	6.27	42.22	106.97	56.99

Source: GVA Grimley Analysis (2006)

Table 3.4 also has the bulk of the sites scoring 3 and above, indicating that the “External Environment” of these sites is compatible with neighbouring uses, good proximity to facilities and public transport provision. There may also be a critical mass of similar uses in surrounding areas. Figure 3.4 colour codes the different categories in the external environment category.

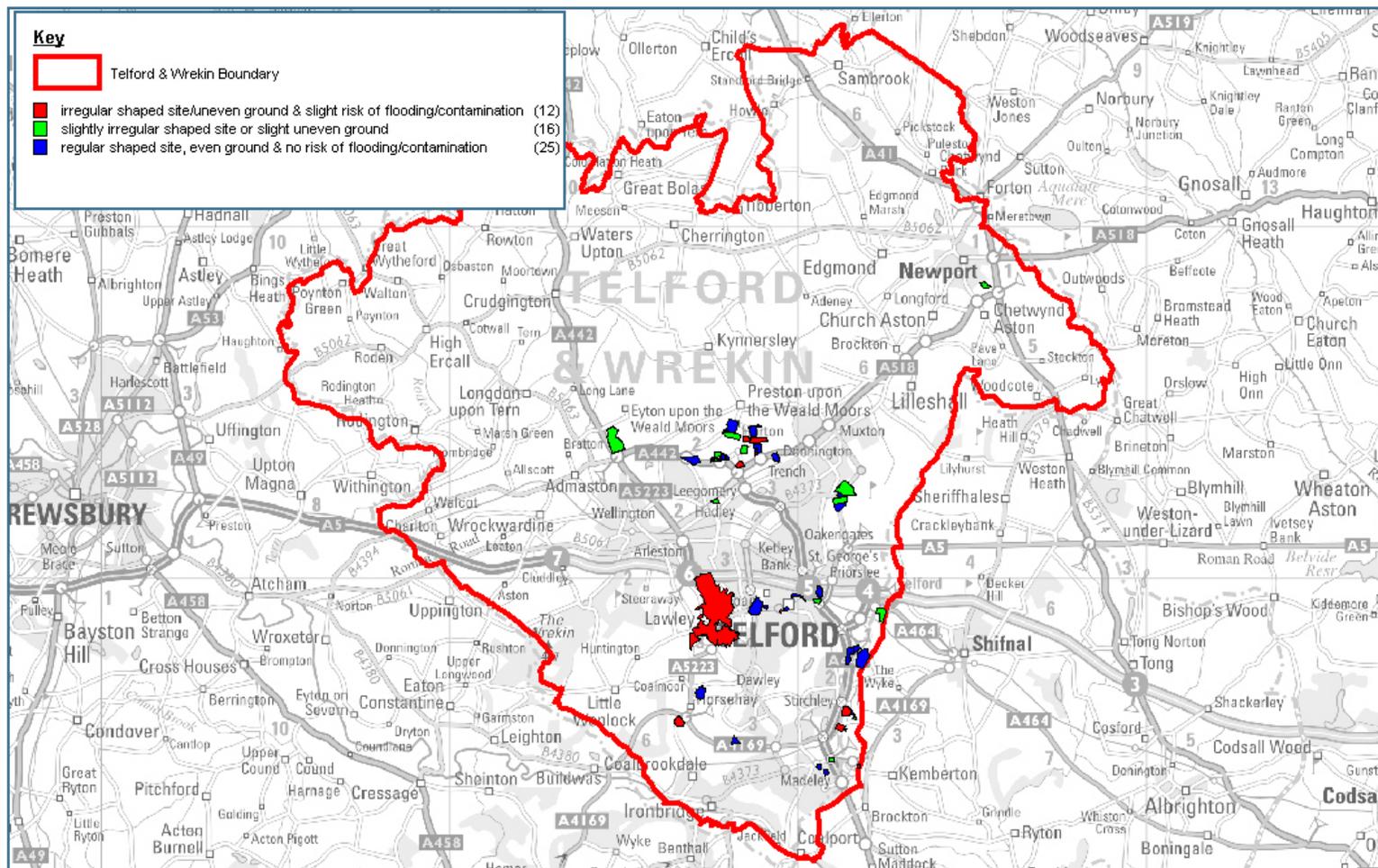
Fig 3.2 – Market Demand Segment



TELFORD EMPLOYMENT LAND STUDY
Market Demand Segment



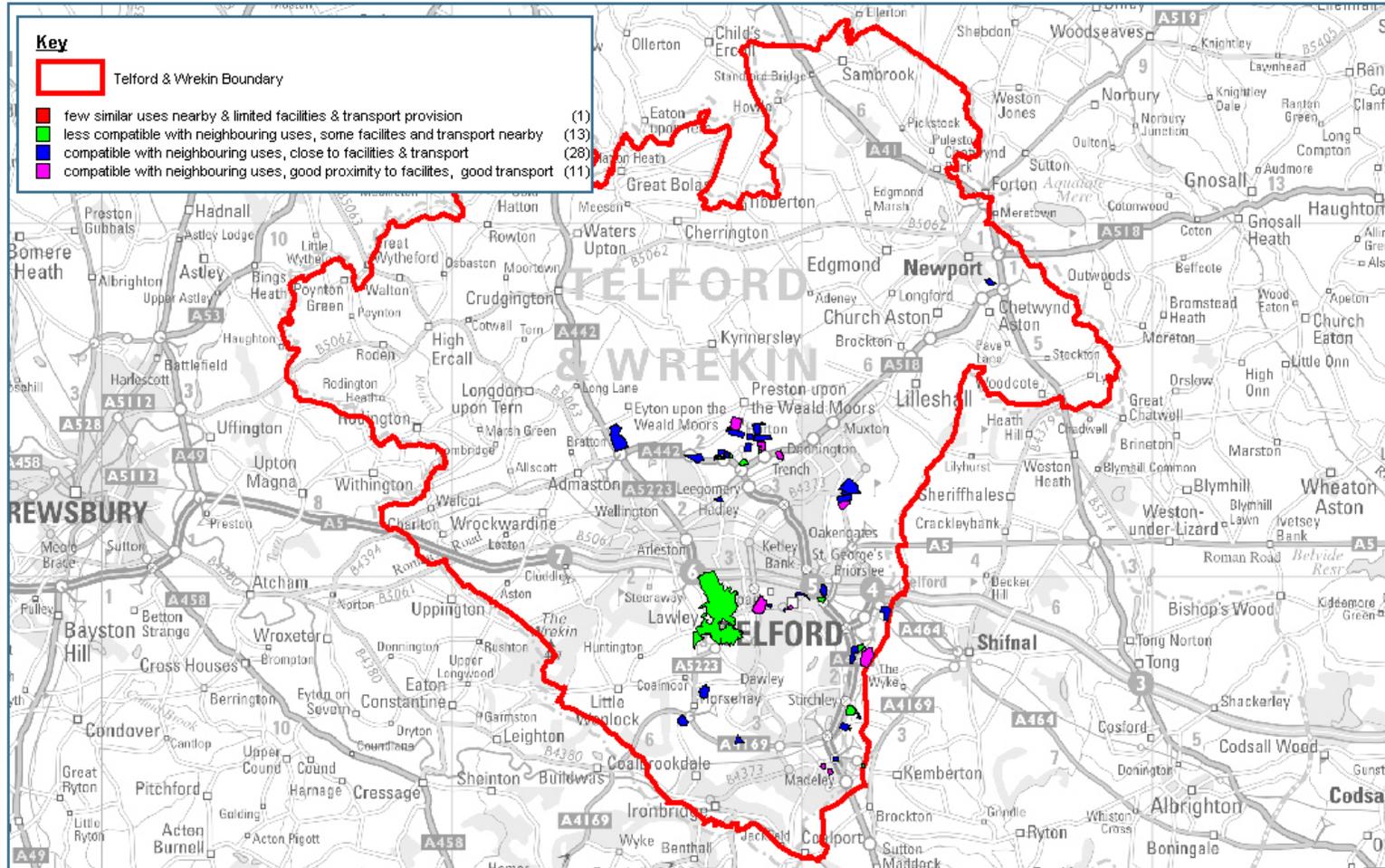
Fig 3.3 – Internal Environment of Employment Sites



TELFORD EMPLOYMENT LAND STUDY
Internal Environment of Employment Sites



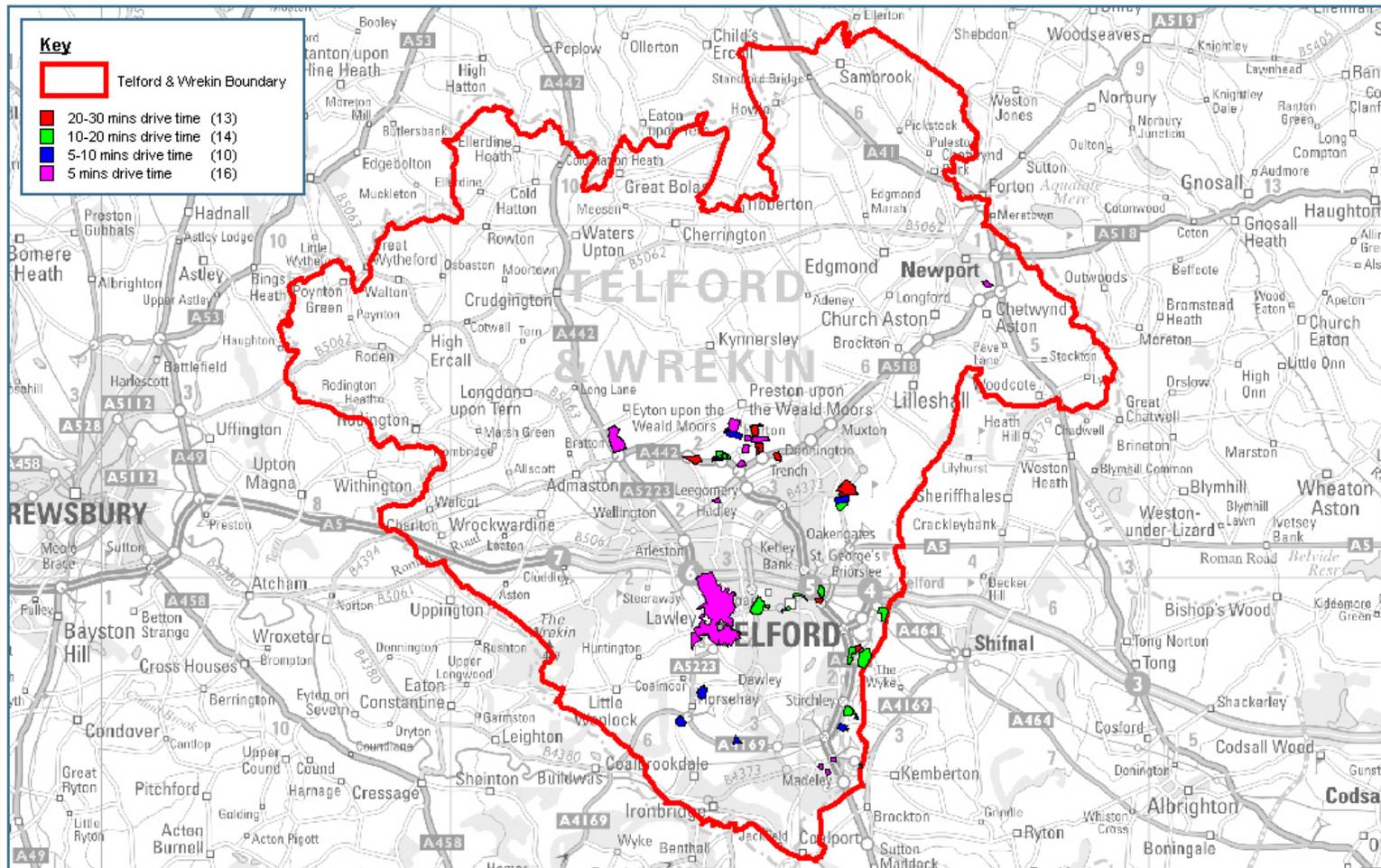
Fig 3.4 – External Environment of Employment Sites



TELFORD EMPLOYMENT LAND STUDY
External Environment of Employment Sites



Fig 3.5 – Strategic Access to Employment Sites



TELFORD EMPLOYMENT LAND STUDY
Strategic Access to Employment Sites



Table 3.5: Strategic Access

	1 – over 30 mins drive time	2 – 20-30 mins drive time	3 – 10-20 mins drive time	4 – 5-10 mins drive time	5 – 5 mins drive time
Number of Sites	0	12	15	10	16
Site Area (ha)	0	66.16	40.22	36.45	69.62

Source: GVA Grimley Analysis (2006)

Table 3.5 indicates that nearly half of the sites score 4 or 5 on “Strategic Access” (50% of land area), which represents a drive time of less than 10 minutes to the nearest motorway network or primary route. However the other half range from 10-30 minutes drive time which make them not as strategically accessible for distribution firms. See Figure 3.5.

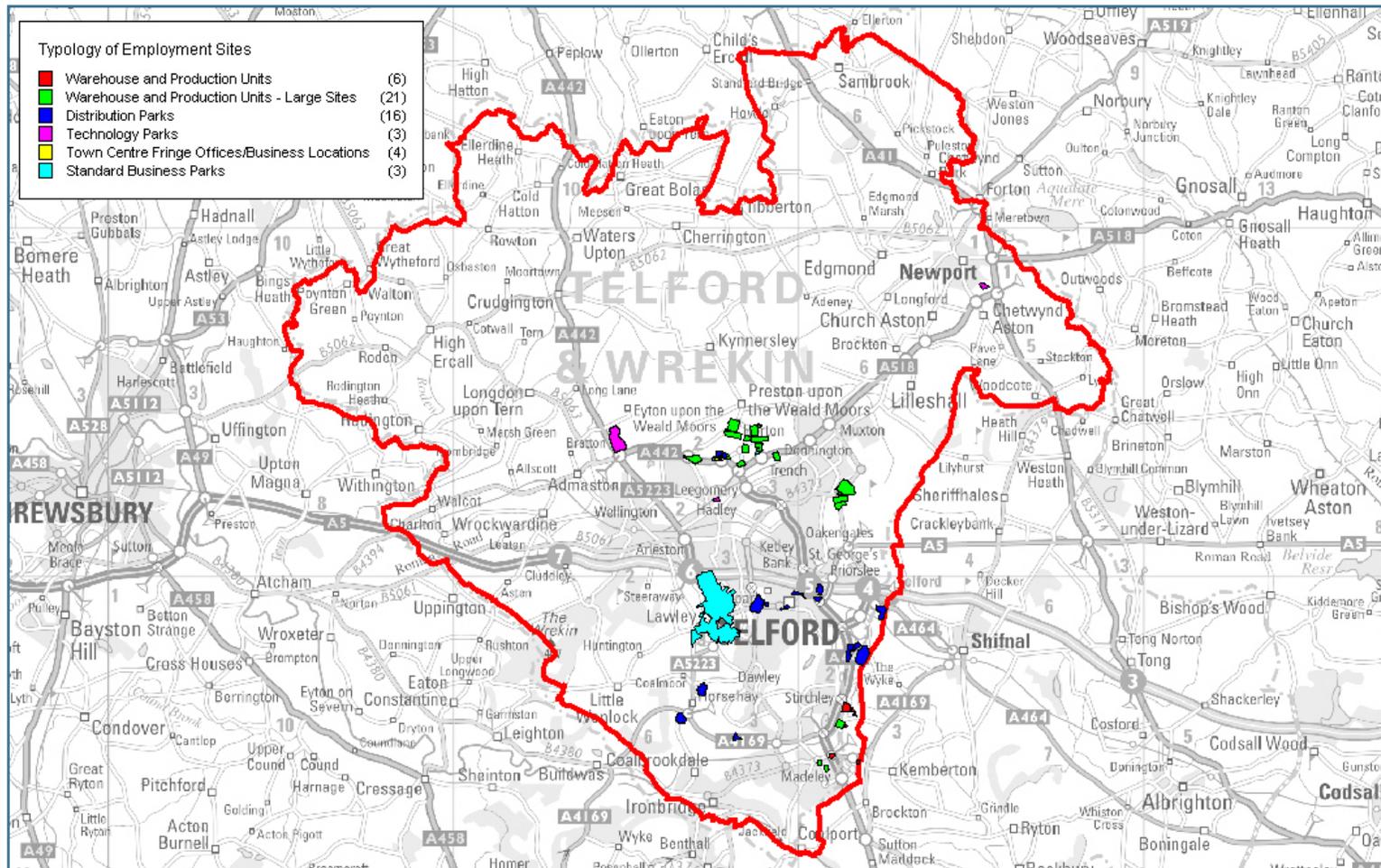
3.3 Development Typologies

As part of this work GVA Grimley have developed an assessment based upon typical typologies which represent a market based view of how a site is likely to be developed. These typologies, used in the Black Country Study have been refined to reflect Telford & Wrekin’s local market. The typologies used in this work are:

1. Warehouses and Production Sites (small sites)
2. Warehouse and Production Sites (large sites)
3. Distribution Parks
4. Technology Parks / Science Parks
5. Town Centre Fringe Offices/Business Locations
6. Standard Business Parks

Details of these development typologies can be found at Annex 7 and a locational illustration of them is clear in Figure 3.6

Fig 3.6 – Typology of Employment Sites



TELFORD EMPLOYMENT LAND STUDY

Typology of Employment Sites



3.4 The majority of land in Telford and Wrekin Borough is owned by English Partnerships (EP). Only one site surveyed in this study was not owned by EP, at Trench. Table 3.6 shows the hectares of land under each of the six development typologies in Telford and Wrekin. It also shows the breakdown of EP owned land under each typology.

The large percentage of land owned by EP will affect the uses to which the sites are put. EP will need to formulate a strategy for their land in Telford in order to ensure its most efficient use.

Table 3.6: Employment Land Supply Capacity 2006

Typology	1. Warehouse/production units (B2/B8)	2. Warehouse/production units – large sites (B1c/B2/B8)	3. Distribution Park (B8)	4. Technology Park (B1a/B1b/B1c)	5. Town Centre Fringe Office/Business Location (B1a & ancillary)	6. Standard Business Parks (B1a & C1/D2)	Total
Total Hectares	47.8	69.2	47.0	24.2	15.5	8.7	212.5
English Partnerships Owned Land	47.8	67	47	24.2	15.5	8.7	210

Source: GVA Grimley Analysis (2006)

3.5 Floorspace Assessment

This analysis provides an assessment in floorspace terms of the physical capacity of employment land. It requires judgements to be made as to likely floorspace mix on sites through the use of typologies.

A summary of the output from this work is included below in Table 3.7:

Table 3.7: Total Floorspace by Land Use Class (m²)

A1	A2	A3/A4/A5	B1a	B1b	B1c	B2/B4/B5	B8	C1/D2	C3	Other Automotive
0	0	39,371	248,644	15,022	22,335	128,211	426,131	3,776	0	26,469

Source: GVA Grimley Analysis (2006)

A3/A4/A5 uses are included as these reflect the inclusion of town centre and edge of town centre sites where such uses could form part of a mixed use approach. In addition modern business and science parks often now provide a range of uses such

as hotels, public houses, cafes etc as part of a mix of uses to meet occupier requirements.

The preliminary results suggest a capacity of almost 250,000 m² of B1a development on existing sites. This includes substantial development in and around Telford Town Centre and also some development on Science Parks such as Nedge Hill.

If trends continue only a limited amount of B1b development capacity is likely (15,000 m²) focused on Science Park sites. Similarly a limited amount of B1c capacity is envisaged. This again reflects science park locations and some development capacity on warehouse/production sites.

Almost 125,000 m² of B2 development capacity is predicted using market typologies. The extent of this will be influenced by continuing demand from niche parts of this sector which are expanding; continuing relocations from Telford companies and inward investment.

It is likely that B8 development capacity will focus upon Donnington and as part of a more mixed B use class development on other employment sites. Capacity of circa 425,000 m² is suggested.

A further category of automotive/other has been included, this reflects car sales, car servicing and repair and other ancillary uses that are likely to be found in employment areas. Capacity of almost 26,500 m² is indicated.

Whilst typologies are used as a starting point in the analysis as a baseline assessment it is important to recognise that they only provide a current view of how sites might be developed. For the purposes of the employment land review it is also necessary to consider whether where there is evidence of potential shortfalls of land for particular uses it would be possible to attract uses where there is a shortage of land/floorspace to these sites. For example if there were an oversupply of distribution sites (B8) for instance but an undersupply of sites suitable for office (B1a) occupiers would these distribution sites be suitable in both planning and market terms for B1a occupiers. This issue is considered in Chapter 5 where demand and supply are considered together.

4 DEMAND SIDE – ECONOMIC FORECASTS AND SCENARIOS

4.1 Introduction

This Chapter is designed to set out the methodology underpinning the preparation of the land demand forecasts providing a clear audit trail of methods, assumptions and stages of work of the study. This includes the use of the employment forecasts prepared by Oxford Economic Forecasting in association with Regional Forecasts Ltd. (hereafter referred to collectively as OEF) and their translation into employment floorspace forecasts and estimates of future land requirements. The approach adopted has made a set of forecasts through to 2031, based on a “base case” as well various scenarios driven by different assumptions about housing growth and public policy support for specific clusters.

The principal task in this employment land study involved providing forecasts of floorspace requirements linking economic and property market analysis. This demand forecasting work has been carried out in line with the 2004 ODPM Good Practice Guidance on the preparation of employment land reviews. In terms of methodology and assumptions it is also consistent with the Black Country Employment Land Study previously carried out by GHK and GVA Grimley.

As noted, the employment land forecasts have been based on the OEF’s employment forecasts developed for the Telford & Wrekin Borough. With regard to translating employment forecasts into floorspace and land use classes/property types, we have noted that the ODPM Guidance acknowledges that this is also “*difficult and to some extent a matter of professional judgement.*” The assumptions we have employed and the process of converting employment forecasts into forecast employment land requirements are therefore set out in the following section.

4.1.1 Approach

Our approach in undertaking the employment land forecasts is consistent with the employment land reviews previously carried out by GHK and GVA Grimley and is set out in five steps as follows.

1. Source employment forecasts for the Telford economy from OEF;
2. Create appropriate sector groupings from SIC data
3. Formulate alternative scenarios based on client discussions, based on different assumptions about housing growth and the effect of support for specific clusters framed by Telford’s 2005 Economic Development Strategy;
4. Match sector groupings to land use class categories and create worker density assumptions for converting employment to floorspace and prepare floorspace requirement forecasts;
5. Convert floorspace to land estimates and forecast land requirements.

The sources, assumptions and analysis made in each step are set out in the following five sections and a series of annexes are attached setting out the detailed results of the key steps.

4.2 Step 1: Employment Forecasts

The baseline employment projections used in this study utilised Oxford Economic Forecasting’s model, which aggregates 2-digit SIC activity groupings into 27 industrial sectors, as shown in Table 4.1 below. The projections include historical data from 2002 through to 2004, and then make projections from 2005 to 2031 for the Telford & Wrekin borough.

Table 4.1 OEF Industry Sectors

<p>Industry Agriculture Extraction Food Drink & Tobacco Textiles Wood Product Industries Pulp Paper & Printing Coke Oil Refining & Nuclear Fuel Chemical Industries Rubber & Plastic Industries Other Non-Metal Mineral Products Metals Machinery & Equipment Electric & Optical Equipment Transport Equipment Other Manufacturing Electricity Water & Gas Services Construction Wholesale & Motor Distribution Retail Distribution Hotels & Catering Transport & Communication Financial Services Business Services Public Administration & Defence Education Health & Social Work Other Personal Services</p>

4.3 Step Two: Creating Sector Groupings

The next step was to identify appropriate sector groupings which reflect the structure and spatial distribution of employment in Telford as well as different land use types. This requires the selection and aggregation of the 62 2-digit SIC sectors used in the ABI annual employment survey to develop a shortlist of between 20 and 30 sector groupings, based on an analysis of sector size, growth, and local concentrations / competitive advantages. It is important that there are a sufficient number of sector

groups to provide an accurate representation of the local economy but at the same time these should not be so disaggregated as to make the analysis unmanageable. The classification derived should also exclude those sectors of activity that do not give rise to the demand for employment land and be comparable to the 27 OEF forecasting sectors as far as possible.

4.3.1 **Assessing sectors with significant employment land impacts**

All 62 sectors were therefore analysed and those sectors judged as relevant were ones that:

- Accounted for at least 1% of total employment in the borough in 2004.
- Grew in absolute terms in numbers employed between 1998 and 2004 (against an overall reduction of 2.9% in employment totals in Telford & Wrekin during the same period).
- Had a location quotient of at least 1 in 2004 compared to the West Midlands (i.e. percentage of jobs in that sector as a proportion of the local economy at least matches the percentage of employment for that sector in the region as a whole).

In addition, sectors which do not give rise to demand for “employment land” or require land primarily for activities other than employment were excluded. (e.g. agriculture, quarrying, water supply and treatment, etc.).

Table 4.2 Sectors of relevance to the study

SIC Sectors Relevant to Study
15 : Manufacturing of food and beverages
17 : Manufacture of textiles
20 : Manufacture of wood and products of wood and cork, except furniture;
21 : Manufacture of pulp, paper and paper products
22 : Publishing, printing and reproduction of recorded media
23 : Manufacture of coke, refined petroleum products and nuclear fuel
25 : Manufacture of rubber and plastic products
28 : Manufacture of fabricated metal products, except machinery
29 : Manufacture of machinery and equipment not elsewhere classified
30 : Manufacture of office machinery and computers
31 : Manufacture of electrical machinery not elsewhere classified
33 : Manufacture of medical, precision /optical instruments, watches, clocks
34 : Manufacture of motor vehicles, trailers and semi-trailers
37 : Recycling
40 : Electricity, gas, steam and hot water supply
45 : Construction
50 : Sale, maintenance and repair of motor vehicles etc; retail sale of fuel
51 : Wholesale trade / commission trade, except of motor vehicles /motorbikes
52 : Retail trade, except motor vehicles/motorbikes; repair of goods
60 : Land transport; transport via pipelines
63 : Supporting and auxiliary transport activities; activities of travel agencies
64 : Post and telecommunications
65 : Financial intermediation, except insurance and pension funding

66 : Insurance and pension funding, except compulsory social security
67 : Activities auxiliary to financial intermediation
70 : Real estate activities
71 : Renting of machinery and equipment and personal / household goods
72 : Computer and related activities
73 : Research and development
74 : Other business activities
75 : Public administration and defence; compulsory social security
80 : Education
85 : Health and social work
93 : Other service activities

SIC Sectors Not Relevant to Study
01 : Agriculture, hunting and related service activities
02 : Forestry, logging and related service activities
05 : Fishing, operation of fish hatcheries / fish farms and associated services
10 : Mining of coal and lignite; extraction of peat
11 : Extraction of petroleum and natural gas and associated service activities
12 : Mining of uranium and thorium ores
13 : Mining of metal ores
14 : Other mining and quarry
16 : Manufacture of tobacco products
18 : Manufacture of wearing apparel; dressing and dyeing of fur
19 : Tanning and dressing of leather; manufacture of luggage, handbags etc.
24 : Manufacture of chemicals and chemical products
26 : Manufacture of other non-metallic mineral products
27 : Manufacture basic metals
32 : Manufacture of radio, television and communication equipment
35 : Manufacture of transport equipment
36 : Manufacture of furniture; manufacturing not elsewhere classified
41 : Collection, purification and distribution of water
55 : Hotels and restaurants
61 : Water transport
62 : Air transport
90 : Sewage and refuse disposal, sanitation and similar activities
91 : Activities of membership organisations not elsewhere classified
92 : Recreational, cultural and sporting activities
95 : Private households as employers of domestic staff
96 : Undifferentiated goods producing activities of private households
97 : Undifferentiated services producing activities of private households
99 : Extra-territorial organisation and bodies

Based on this analysis of the Telford economy, some 23 groups - 9 manufacturing groups and 14 service groups - were adopted for forecasting purposes. The groupings are set out below in Table 4.3, together with the corresponding OEF forecasting sectors and the relevant 2-digit SIC category definitions for each.

4.3.2 Creating appropriate sector groupings

Table 4.3 Sectors of relevance to employment land forecasts

Sector Groupings	OEF definition	SIC 2003 Definition
M1 Food & Drink	Food Drink & Tobacco	15, 16
M2 Textiles, Leather and Clothing	Textiles, Leather & Clothing	17, 18, 19
M3 Wood & Paper	Pulp Paper & Printing; Wood Product Industries	20, 21, 22
M4 Chemical and Plastics	Coke, Oil Refining & Nuclear Fuel; Chemicals; Rubber & Plastics Industries	23, 24, 25
M5 Metals, Recycling and Other Minerals	Metals; Other Manufacturing; Other Mineral Products	26, 27, 28, 37
M6 Other Machinery & Equipment	Machinery & Equipment	29
M7 Electrical & Optical Equipment	Electric & Optical Equipment	30, 31, 32, 33
M8 Transport Equipment	Transport Equipment	34, 35
M9 Other Manufacturing	Other Manufacturing	36
S1 Distribution	Wholesale & motor distribution	51
S2 Transport & Communication	Transport & Communication	60, 63, 64
S3 Electricity Water & Gas Services	Electricity Water & Gas Services	40
S4 Construction	Construction	45
S5 Financial Services	Financial services	65, 66, 67
S6 Business Services	Business services	70, 71, 74
S7 ICT	Business services	72
S8 Public Administration	Public Administration & Defence	75
S9 Education	Education	80
S10 Health & Social Work	Health & Social Work	85
S11 Automotive	Wholesale & motor distribution	50
S12 Research & Development	Business services	73
S13 Retail	Retail distribution	52
S14 Other services	Other Personal Services	93

These sector groupings were then applied to each of the three alternative economic scenarios by aggregating the employment figures for relevant sectors in each year, and removing those not included in the selected sector groups.

It is also important to note that for the SIC categories listed below, only the following percentages of employment were assumed to give rise to demand for employment land:

- Construction: 33% of employment assumed to be located in fixed employment premises.
- Education: 10% of employment assumed to be in non-educational - mainly office premises.
- Health and social work: 20% assumed to be in headquarters, back-office and other office premises.

4.4 Step Three: Scenario Development

4.4.1 Selected Scenarios

It was decided in consultation with the client group that the OEF reference-case employment projections would form the baseline employment projections for this study.

In addition, a limited number of alternative economic scenarios were formulated to take account of different possible rates of housing growth, as well as the impact of local and regional economic development policies and strategies. The chosen scenarios are therefore as follows:

- Scenario 1 – the ‘Baseline’ Scenario, using the employment projections produced by the OEF model. It is worth noting that this model assumes population growth of 18,200 over the period 2004 – 2031 in the borough.
- Scenario 2 – the ‘24,000 extra houses’ Scenario. This assumes that population growth is faster up to 2031, and alters the employment forecasts (and ultimately the employment land requirement forecasts) taking into account commuting patterns and out-migration.
- Scenario 3 – a ‘30,000 extra houses’ scenario – i.e. the same as Scenario 2 but with population effects on employment growth scaled up further.
- Scenario 4 – a ‘36,000 extra houses scenario’ – i.e. the same as Scenario 2 but with population effects on employment growth scaled up further.

Each of these Extra Houses scenarios makes assumptions about how the additional population translates into employment and in which sectors. In effect, all assume that the employment resulting from additional population growth will be absorbed by service sectors (and a degree of out-commuting). It is worth noting that these scenarios do not differ from the Baseline Scenario in terms of their impact on forecast demand for employment land for **manufacturing** activities.

- In addition to the Extra Houses scenarios described above, a fifth “Policy Support” Scenario was also developed and revised in discussion with the client group.

The scenario takes account of support for particular clusters set out in the 2005 Telford & Wrekin Economic Development Strategy (EDS). It looks at 2004 employment data for Telford and the employment levels forecast by OEF in 2021 in order to identify the additional number of jobs that would need to be created in order that the EDS goal of 110,000 jobs in 2021 is met.

An explanation of the model for calculating employment totals under the Policy Support Scenario, including the assumptions underpinning it, is included in Annex 4.

The employment forecasts associated with each of the additional scenarios are summarised in Annex 1 with the area employment totals for 2004, 2011, 2016, 2021, 2026 and 2031 shown for each scenario. It should be noted that each scenario is based on the same historic data (up to and including 2004) and includes projections from 2005 to 2026.

Summaries of the employment forecasts in 2021 for Telford & Wrekin under each scenario are given in Table 4.2 below. It should be noted that for Scenario forecasting purposes all manufacturing and service sectors are included at 2-digit SIC level.

Table 4.4: Employment forecasts for each scenario, 2031, SIC sectors

	2004 (Actual)	Base Case	Extra Housing Cases			Policy Support Case
			24,000	30,000	36,000	
15 : Manufacturing of food and beverages	1,795	892	892	892	892	1,497
16 : Manufacture of tobacco products	-	-	-	-	-	-
17 : Manufacture of textiles	425	-	-	-	-	-
18 : Manufacture of wearing apparel; dressing and dyeing of fur	34	-	-	-	-	-
19 : Tanning/dressing of leather; manufacture of luggage, footwear etc.	5	-	-	-	-	-
20 : Manufacture of wood and wood and cork products except furniture;	330	156	156	156	156	156
21 : Manufacture of pulp, paper and paper products	239	80	80	80	80	80
22 : Publishing, printing and reproduction of recorded media	930	310	310	310	310	310
23 : Manufacture of coke, refined petroleum products and nuclear fuel	46	19	19	19	19	19
24 : Manufacture of chemicals and chemical products	290	101	101	101	101	101
25 : Manufacture of rubber and plastic products	1,460	571	571	571	571	1,166
26 : Manufacture of other non-metallic mineral products	798	152	152	152	152	152
28 : Manufacture of fabricated metal products, except machinery	1,962	464	464	464	464	1,468
27 : Manufacture basic metals	230	54	54	54	54	54
37 : Recycling	36	17	17	17	17	17
29 : Manufacture of machinery and equipment not elsewhere classified	2,192	703	703	703	703	703
3001 : Manufacture of office machinery	621	159	159	159	159	621
3002: Manufacture of computers	1,425	364	364	364	364	1,425
31 : Manufacture of other electrical machinery and apparatus	556	142	142	142	142	556
32 : Manufacture of radio, television and communication equipment	132	34	34	34	34	132
33 : Manufacture of medical, precision and optical instruments etc.	479	122	122	122	122	479
34 : Manufacture of motor vehicles, trailers and semi-trailers	4,766	2,014	2,014	2,014	2,014	2,014
35 : Manufacture of transport equipment	1	0	0	0	0	0
36 : Manufacture of furniture; manufacturing not elsewhere classified	437	208	208	208	208	208
51 : Wholesale trade and commission trade, except motor vehicles	4,783	5,012	4,664	5,012	5,360	4,374
60 : Land transport; transport via pipelines	985	1,238	1,465	1,574	1,683	1,374
63 : Supporting and auxiliary transport activities; travel agencies	741	931	1,102	1,184	1,266	1,033
64 : Post and telecommunications	826	1,038	1,228	1,320	1,412	1,152
40 : Electricity, gas, steam and hot water supply	223	77	71	77	82	67
45 : Construction	2,067	2,398	2,788	2,976	3,164	2,631
65 : Financial intermediation, except insurance and pension funding	991	1,322	1,569	1,675	1,781	1,970
66 : Insurance and pension funding, except compulsory social security	596	795	944	1,007	1,071	1,185
67 : Activities auxiliary to financial intermediation	338	451	535	571	607	672
70 : Real estate activities	1,377	2,565	2,965	3,166	3,366	4,220
74 : Other business activities	6,785	12,637	14,612	15,600	16,588	20,792
71 : Rental of machinery / equipment and personal / household goods	472	879	1,016	1,085	1,154	959
72 : Computer and related activities	2,622	4,883	5,647	6,028	6,410	8,035
75 : Public administration and defence; compulsory social security	5,619	6,056	7,153	7,637	8,121	6,750
80 : Education	6,690	9,033	10,656	11,459	12,261	9,987
85 : Health and social work	6,544	9,245	10,920	11,743	12,565	10,235
50 : Sale, maintenance and repair of motor vehicles; sale of auto fuel	2,351	2,464	2,292	2,464	2,635	2,150
73 : Research and development	17	32	37	39	42	35
52 : Retail trade	9,062	10,206	13,871	14,906	15,942	16,955
93 : Other service activities	748	994	1,179	1,259	1,338	1,112
Total	73,026	78,814	91,275	97,342	103,409	106,844

4.5 Step Four: Match sectors to land use categories and apply density assumptions

4.5.1 Matching sectors to land use categories

This step goes on to allocate all or divide parts of these employment sector groups between the standard land use categories. These were allocated on the basis of professional judgement and experience of the consultants' team, but have remained disaggregated as far as possible in order to narrow the range of the judgement to be made for any individual employment group or land use category. Thus the full breakdown of land use classes (e.g. A1, A2a,b,c etc, A3, B1a,b,c etc., B2, B8, C1) is used together with the 23 selected sector groups. Where an employment group is allocated to more than one land use class the percentage of employment assumed to be in each land use class is identified. Wherever possible this has been determined using 2, 3 or even 4-digit SIC data (2004 ABI data) to determine the proportions of employees in each relevant sub-sector.

Employment totals in the sector groups in 2021 under the various scenarios are as follows:

Table 4.5 Employment forecasts for 2031, summary sectors

		2004	Base	Extra Housing Cases			Policy
		(Actual)	Case	24,000	30,000	36,000	Support
M1	Food & Drink	1,795	892	892	892	892	1,497
M2	Textiles, Leather & Clothing	1,231	363	363	363	363	363
M3	Wood & Paper	1,169	389	389	389	389	389
M4	Chemicals & Plastics	1,796	691	691	691	691	1,287
M5	Metals, Recycling & Other Minerals	3,026	687	687	687	687	1,691
M6	Other Machinery & Equipment	2,192	703	703	703	703	703
M7	Electrical & Optical Equipment	2,046	522	522	522	522	2,046
M8	Transport Equipment	1,167	298	298	298	298	1,167
M9	Other Manufacturing	4,767	2,014	2,014	2,014	2,014	2,014
S1	Distribution	4,783	5,012	4,664	5,012	5,360	4,374
S2	Transport & Communication	2,552	3,206	3,795	4,078	4,362	3,559
S3	Electricity, Water & Gas Services	223	77	71	77	82	67
S4	Construction	2,067	2,398	2,788	2,976	3,164	2,631
S5	Financial Services	1,925	2,568	3,047	3,253	3,460	3,826
S6	Business Services	8,634	16,080	18,594	19,851	21,108	25,970
S7	ICT	2,622	4,883	5,647	6,028	6,410	8,035
S8	Public Administration	5,619	6,056	7,153	7,637	8,121	6,750
S9	Education	6,690	9,033	10,656	11,459	12,261	9,987
S10	Health & Social Work	6,544	9,245	10,920	11,743	12,565	10,235
S11	Automotive	2,351	2,464	2,292	2,464	2,635	2,150
S12	Research and development	17	32	37	39	42	35
S13	Retail	9,062	10,206	13,871	14,906	15,942	16,955
S14	Other Services	748	994	1,179	1,259	1,338	1,112
Total		73,026	78,814	91,275	97,342	103,409	106,844

4.5.2 Density assumptions

In order to convert the employment forecasts to floorspace requirements the other key variable is the worker density assumptions to be applied in the model. Employment densities are a key link between employment change and land use. The *ODPM Guidance* cites a number of comparative density analyses of which the most detailed are those prepared by Arup Economics and Planning based on original survey data². We have re-examined these and compared them with those also cited in the *ODPM Guidance*. We have also searched to see if there are any more recent studies on the issue but this does not appear to be the case. The variation in the key sectors such as office, warehousing and industrial are limited and the Arup densities cited are the most disaggregated and therefore adaptable for use in the disaggregated model form adopted for this study. We have therefore adopted the Arup estimates as the most authoritative and fit for purpose.

It should be noted that most of the Arup densities are quoted as gross internal floorspace per worker and that these have been converted to gross external rates by increasing all business and industrial classes (B1 and B2) by +3.5%, and increasing all shops, financial and professional services premises (A1, A2, A3 and C1) by +10%, whilst the densities for storage and distribution (B8) have remained unchanged.

² Arup (2001) *Employment Densities: A Full Guide* Report for English Partnerships and Regional Development Agencies

The density assumptions used are based on current worker/floor space densities. There are factors impacting on future employment densities which may move towards lower overall densities or less reliance upon traditional forms of employment floorspace to meet economic needs. This study has not made adjustments for such changes because we believe it is better to use consistent and well understood national estimates for a long term forecasting whilst recognising that these should be monitored.

Land use categories and densities are summarised in Table 4.6 below.

In some cases more than one density is given in the table. For example, Electrical & Optical Equipment manufacturing consists of two separate SIC categories for electrical machinery and radio/TV/communications equipment, which have different employment densities. Full details of which densities have been applied to which sector groups and SIC code industries are contained in Annex 5.

Table 4.6: Worker Densities for Study Sectors

Activity	Sector Group	Land Use Category	Density (sq. m / worker)
Manufacturing	General & Specialist Manufacturing M1, M2, M3, M4, M5, M6	B2	34
	Electrical & Optical Equipment M7	B2 / B1c	34 / 29
	Transport equipment M9	B2	34
Logistics & Distribution	Distribution S1	B8	50
	Transport & Communications S2	B8	50 - 80
Offices	Various S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S14	B1a / A2c	19 - 20
Retail	Retail – general S13		19
	Retail Shops / Computer Services S7	A1	19
	Insurance, Banking & Finance S5	A2a	20
	Retailing, Computing / Professional Services S3, S8, S9	A2a/b	19 – 20
	Miscellaneous Services S14	A2c	20
Automotive	Motor distribution & fuel S11	B2	34

4.6 Step Five – Prepare Floorspace Requirement Forecasts

Having adopted the five alternative economic scenarios, applied the selected sector groups and the land use categories and applied the relevant worker densities to each land use category, a floorspace forecasting model was developed based on these variables.

The resulting projected floorspace requirements for each of the land use categories for are set out in detail in Annex 2.

The results for 2004, 2011, 2021 and 2031 for each scenario are set out in summary form below, showing the absolute forecast floorspace requirements in those years and comparative change compared to 2004.

Data on the corresponding demand for land are also included in hectares. In calculating these it has been assumed that 10% of a site's area would not count as developable land and therefore a net to gross ratio of 1:1.1 has been used.

4.6.1 Base Case Scenario

Table 4.7 Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	71,540	73,813	75,900	78,143	80,598
A2	131,618	142,380	150,874	158,499	166,723	175,613
B1a	430,205	478,817	515,751	550,961	589,361	631,498
B1b	510	610	691	770	855	950
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	499,940	434,660	378,261	332,038	294,277
B8	396,300	407,038	416,399	426,093	436,746	448,050
Total	1,782,127	1,661,706	1,639,587	1,627,676	1,632,953	1,653,640

Table 4.8 Change in floorspace demand compared to 2004

	2004	2011	2016	2021	2026	2031
A1		3,559	5,833	7,920	10,162	12,618
A2		10,762	19,256	26,881	35,105	43,995
B1a		48,612	85,546	120,757	159,157	201,294
B1b		99	180	259	345	440
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-166,841	-232,121	-288,519	-334,742	-372,503
B8		10,738	20,099	29,793	40,446	51,750
Total		-120,421	-142,541	-154,451	-149,174	-128,487

Under the base case scenario, demand for floorspace is around 1,650,000 m² in 2031, a slight change of nearly 130,000 m² from the 2004 total. This reflects a progressive shift in employment away from manufacturing and towards service based activities which typically operate at much higher employment densities. Around 38% of floorspace demand is accounted for by B1a offices, with B8 being the second largest class, accounting for 27% of floorspace demand. Demand for B2 space falls from 37% in 2004 of all floorspace to 18% in 2031.

Table 4.9 Change in land requirements

Change in land requirements in terms of hectares is therefore as follows:

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		9.21	16.21	22.88	30.15	38.13
B1b		0.02	0.04	0.06	0.08	0.10
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.78	-56.74	-70.53	-81.83	-91.06
B8		2.62	4.91	7.28	9.89	12.65
Total		-35.61	-45.68	-52.91	-56.29	-56.32

4.6.2 24,000 Extra Houses Scenario

Table 4.10 Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	78,794	85,644	92,651	99,636	107,470
A2	131,618	155,270	171,102	186,876	203,293	221,752
B1a	430,205	504,146	559,520	616,535	678,183	748,680
B1b	510	633	735	842	961	1,099
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	497,897	431,438	374,015	326,889	288,256
B8	396,300	409,692	421,544	435,034	449,969	466,892
Total	1,782,127	1,707,815	1,717,382	1,743,146	1,788,017	1,856,803

Table 4.11 Change in floorspace demand compared to 2004

	2004	2011	2016	2021	2026	2031
A1		10,813	17,663	24,671	31,656	39,490
A2		23,652	39,484	55,258	71,675	90,134
B1a		73,941	129,315	186,330	247,978	318,475
B1b		123	225	332	451	589
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-168,883	-235,342	-292,765	-339,891	-378,524
B8		13,392	25,244	38,734	53,669	70,592
Total		-74,312	-64,745	-38,981	5,890	74,675

In all of the Extra Houses Scenarios, the additional population and assumed employment gain is wholly concentrated in service industries. The effect in floorspace terms of this assumption is that demand for land use classes for industrial activities is very close to that for the Base Case Scenario.

In the 24,000 Extra Houses Scenario, 1,850,000 m² of floorspace is required in 2031, an increase of around 75,000 m² compared to the situation in 2004. A higher proportion is taken up by B1a office uses, which account for 40% of all demand in 2031. A further 25% is required for B8 activities with B2 falling to 16% of the total. An additional 18% is required for activities falling in A land use categories.

Table 4.12 Change in land requirements compared to 2004

Change in land requirements in terms of hectares is therefore as follows:

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		14.01	24.50	35.30	46.98	60.33
B1b		0.03	0.05	0.08	0.10	0.13
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-41.28	-57.53	-71.56	-83.08	-92.53
B8		3.27	6.17	9.47	13.12	17.26
Total		-30.66	-36.91	-39.32	-37.46	-30.96

4.6.3 30,000 Extra Houses Scenario

Table 4.13 Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	80,732	89,005	97,469	105,931	115,408
A2	131,618	158,776	177,349	196,021	215,488	237,438
B1a	430,205	514,943	579,093	645,679	717,719	800,430
B1b	510	646	760	881	1,016	1,173
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	499,940	434,660	378,261	332,038	294,277
B8	396,300	419,934	438,328	457,946	478,729	501,737
Total	1,782,127	1,736,354	1,766,594	1,813,450	1,880,007	1,973,116

Table 4.14 Change in floorspace demand compared to 2004

	2004	2011	2016	2021	2026	2031
A1		12,752	21,024	29,488	37,950	47,428
A2		27,158	45,731	64,404	83,871	105,820
B1a		84,738	148,888	215,475	287,515	370,225
B1b		136	250	371	505	663
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-166,841	-232,121	-288,519	-334,742	-372,503
B8		23,634	42,028	61,646	82,429	105,437
Total		-45,773	-15,533	31,323	97,880	190,989

The effect of the 36,000 Extra Houses Scenario is similar to that for 24,000 Extra Houses, with the pattern of employment land effects being further magnified by the gain in population. Under this scenario it is estimated that total demand for floorspace will be just under 2 million m² in 2031, an increase of nearly 200,000 m² on 2004. B1a land rises to account for 41% of the total in 2031; B8 accounts for 25% and B2 accounts for 15%.

Change in land requirements compared to 2004

Change in land requirements in terms of hectares is therefore as follows:

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		16.05	28.21	40.82	54.47	70.14
B1b		0.00	0.06	0.08	0.12	0.15
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.78	-56.74	-70.53	-81.83	-91.06
B8		5.78	10.27	15.07	20.15	25.77
Total		-25.64	-28.31	-27.15	-21.67	-11.15

4.6.4 36,000 Extra Houses Scenario

Table 4.15 Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	82,671	92,366	102,286	112,225	123,346
A2	131,618	162,283	183,596	205,167	227,684	253,124
B1a	430,205	525,740	598,666	674,824	757,256	852,179
B1b	510	659	785	920	1,070	1,247
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	501,982	437,881	382,506	337,188	300,297
B8	396,300	430,176	455,113	480,858	507,490	536,582
Total	1,782,127	1,764,893	1,815,806	1,883,754	1,971,998	2,089,430

Table 4.16 Change in floorspace demand compared to 2004

	2004	2011	2016	2021	2026	2031
A1		14,690	24,385	34,305	44,245	55,366
A2		30,665	51,978	73,549	96,066	121,506
B1a		95,535	168,461	244,619	327,051	421,975
B1b		149	275	409	560	737
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-164,798	-228,899	-284,274	-329,593	-366,483
B8		33,876	58,813	84,558	111,190	140,282
Total		-17,235	33,679	101,627	189,871	307,303

The effect of the 36,000 Extra Houses Scenario is similar to that for 24,000 Extra Houses, with the pattern of employment land effects being further magnified. Overall demand for floorspace rises to 2.1 million m², an increase of 300,000 m² compared to 2004. Industrial land activities continue to constitute a declining proportion of demand, as in the other Extra Houses Scenarios, while B1a office space remains the major area of demand.

Table 4.17 Change in land requirements compared to 2004

Change in land requirements in terms of hectares is therefore as follows:

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		18.10	31.91	46.34	61.96	79.94
B1b		0.03	0.06	0.09	0.13	0.17
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.28	-55.95	-69.49	-80.57	-89.58
B8		8.28	14.38	20.67	27.18	34.29
Total		-20.56	-19.70	-14.98	-5.88	8.66

4.6.5 Policy Support Scenario

Table 4.18 Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	86,377	97,706	109,294	120,802	133,730
A2	131,618	168,485	193,255	218,065	243,798	272,634
B1a	430,205	545,229	632,715	722,372	819,423	930,131
B1b	510	622	715	810	916	1,037
B1c	88,734	88,734	88,734	88,734	88,734	88,734
B2	666,780	538,736	488,376	443,632	407,027	377,093
B8	396,300	401,157	407,557	415,940	426,002	437,855
Total	1,782,127	1,829,340	1,909,056	1,998,847	2,106,701	2,241,214

Table 4.19 Change in floorspace demand compared to 2004

	2004	2011	2016	2021	2026	2031
A1		18,396	29,725	41,313	52,821	65,750
A2		36,867	61,637	86,447	112,180	141,016
B1a		115,025	202,510	292,168	389,219	499,926
B1b		112	205	300	405	527
B1c		0	0	0	0	0
B2		-128,044	-178,404	-223,148	-259,753	-289,688
B8		4,857	11,257	19,640	29,702	41,555
Total		47,213	126,929	216,720	324,574	459,086

The Policy Support Scenario produces different effects to the Extra Houses Scenarios in particular because of the implications of EDS support for clusters of manufacturing activities. The result of this is to mitigate the scale of the anticipated decline in demand for floorspace in the industrial use categories B1c and B2. Nonetheless, these land use classes still witness an absolute decline in demand over the period to 2031, though this is considerably less than is the case with the Base Case or Extra Houses Scenarios.

Table 4.20 Change in land requirements compared to 2004

Change in land requirements in terms of hectares is therefore as follows:

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		21.79	38.36	55.35	73.74	94.71
B1b		0.03	0.05	0.07	0.09	0.12
B1c		0.00	0.00	0.00	0.00	0.00
B2		-31.30	-43.61	-54.55	-63.50	-70.81
B8		1.19	2.75	4.80	7.26	10.16
Total		-8.30	-2.45	5.67	17.59	34.17

5 NON EMPLOYMENT BASED DEMAND

Whilst employment driven floorspace demand is likely to be a significant driver of the demand for additional floorspace in a local economy, it is also true that an element of demand will arise from companies moving either due to the obsolescence of their existing property; a desire for a different location; or to move to a lower or higher cost location. This form of demand can be called 'churn' representing a general level of turnover in property requirements.

Estimating 'churn' and its relationship to employment driven demand is not straightforward for a number of reasons:

- 1) Both employment driven and property churn factors are likely to be present as drivers for many location decisions.
- 2) Premises vacated by companies moving mainly for property based reasons could be occupied by companies expanding in employment terms, subject to planning restrictions and the suitability of premises involved.
- 3) Premises vacated by declining sectors can, subject to planning and suitability, be occupied by expanding sectors.

Using the Telford and Wrekin Land Statement 2005 it is possible to assess recent development of both employment land and for recent year's premises. Table 5.1 below provides information from the 2005 Land Statement.

Table 5.1: Land and Floorspace Developed Telford and Wrekin 1995/96 – 2004/05

Monitoring Year	Site Area Completed (Gross ha)	Floorspace Completed (m2)	Brownfield
1995-96	6.31		Not known
1996-97	19.27		Not known
1997-98	9.29		Not known
1998-99	24.16		Not known
1999-00	17.33		36%
2000-01	18.20		68%
2001-02	33.60	62,663	93%
2002-03	19.99	36,379	84%
2003-04	8.37	28,877	93%
2004-05	50.03	43,802	99%
Total 1995 to 2005 (WLP)	206.55		N/A
Annual average	20.66		79%*
Total 2001 to 2005 (RSS)	111.99	171,721	N/A
Annual average	28	42,930	92%

* Average of period 1999-2005

This data suggests take up of 28ha per annum from 1995/96-2004/5. However it should be noted that land development figures are based upon the whole of an application site even if the development proposed includes an existing building. As floorspace development data is available for the period 2001/02-2004/05 we have attempted to 'adjust' the data for site development using a general ratio of 4,250 m2 of development per 1ha (equivalent to 18,500 sq ft/acre). This represents normally anticipated plot ratios. Applying this ratio to the floorspace data above provides the following implied hectares of development.

Table 5.2: 'Adjusted' Land Development Figures 2001/2 – 2004/5

Year	Floorspace Developed	Implied Site Development
2001/02	62,663	14.74
2002/03	36,379	8.56
2003/04	28,877	6.80
2004/05	43,802	10.31
Average 2001-2005	42,930	10.10

Additional data has been sourced in terms of a breakdown of floorspace developed by land use category.

Table 5.3: Employment Floorspace Development by use class 2001/02-2004/05

Monitoring Year	B1 (m2)	B2 (m2)	B8 (m2)	B1/2/8 (m2)	Total B (m2)	Other (e.g. Retail/Leisure) (m2)	Grand Total (m2)
2001-02	2,994	7,664	33,264	14,308	58,230	4,433	62,663
2002-03	0	5,034	0	0	5,034	31,345	36,379
2003-04	4,572	1,862	6,309	13,745	26,488	2,389	28,877
2004-05	425	8,440	24,922	10,700	44,487	5,076	49,569
Total 2001-05	7,991	23,000	64,495	38,753	134,239	43,243	177,482

In order to adjust the figures to provide a specific category for B1/B2/B8 development this has been distributed on the basis of 70% B8, 15% B2 and 15% B1 to reflect both local and regional estimates of the nature of this development. The adjusted totals are given in Table 5.4 below.

Table 5.4: 'Adjusted' Employment Floorspace Development by use class 2001/02-2004/05

Monitoring Year	B1 (m2)	B2 (m2)	B8 (m2)	Total B (m2)	Other (e.g. Retail/Leisure) (m2)	Grand Total (m2)
2001-02	5,140	9,810	43,280	58,230	4,433	62,663
2002-03	0	5,034	0	5,034	31,345	36,379
2003-04	6,634	3,924	15,930	26,488	2,389	28,877
2004-05	2,030	10,045	32,412	44,487	5,076	49,569
Total 2001-05	13,804	28,813	91,622	134,239	43,243	177,482

Using the methodology used to predict future floorspace demand we have been able to estimate the floorspace impact of actual employment change 2001 - 2005 roughly corresponding to the floorspace development figures in Tables 5.3 and 5.4.

Table 5.5: Floorspace Impact of Actual Employment Change 2002/03-2004/05 (m2)

Year	B1 (m2)	B2 (m2)	B8 (m2)	Total B (m2)
2001-02	No data	No data	No data	No data
2002-03	11,067	25,488	-13,457	23,098
2003-04	-47,116	-72,673	61,830	-57,959
2004-05	-3,297	-43,231	4,700	-41,828

There is no data for 2001/2002 in Table 5.4. Data for the 3 years 2002/03 - 2004/05 suggests surprisingly an overall decline in floorspace demand. This is driven by a significant fall in B2 space as manufacturing employment declines and a fall in B1 space requirements.

It is important to note that although there are losses in employment overall, behind this there is growth in some sectors, for example Public Administration, education, motor vehicles, wholesale trade and commission trade, transport, post and communications. This may be due to the fact that these sectors do not have such high floorspace requirements.

A means of estimating floorspace churn is to apply percentage factors to existing stock and figures. Table 5.6 below provides an analysis of existing floorspace within Telford and Wrekin District.

Table 5.6: Employment Floorspace in Telford and Wrekin District 2004

	Employment Floorspace Stock	% of stock	West Midlands % of Stock
A1 Retail	277,000 m2	10%	12%
A2 Offices	15,000 m2	1%	1%
A3 Food and Drink	13,000 m2	0%	1%
Other Retail	7,000 m2	0%	0%
Commercial Offices	180,000 m2	6%	8%
Other offices	48,000 m2	2%	3%
Factories	1,637,000 m2	59%	47%
Warehouses	626,000 m2	22%	28%
All	2,803,000 m2		

Source ODPM Industrial and Commercial Floorspace Statistics 2004

What is evident is the relative dominance of factory (B2) floorspace in Telford (59% of total stock), and a smaller than average office sector. Warehouses are also underrepresented at 22% of stock compared to 28% across the region as a whole. The dominance of factory stock is not surprising given the history of Telford and previous levels of manufacturing based inward investment.

Using the existing stock of factory space for illustration purposes it is possible to assess the impact of turnover (churn) demand based upon a percentage of existing stock. 1.1 Given the general level of floorspace and land developed and allowing for employment based demand we have taken a view across the sectors to use the rationale of a range factor from 0.25 – 0.5% per annum of existing stock for likely churn. This is because, for B2 if we look at Table 5.4, the average per annum floorspace developed in previous years was 7,203 m2 per annum. Using a percentage of 0.5% for churn, gives a floorspace change of 8,185 m2. This provides a justification for using a figure slightly lower than 0.5% therefore the range 0.25-0.5% is assumed. It should be noted that this is based on limited data. Increasing environmental standards and occupation costs (energy prices etc) coupled with changing manufacturing practices may lead to higher rates of churn due to increasing obsolescence of manufacturing space in particular. However inclusion of a higher churn figure would in our view be inappropriate without specific evidence to support it.

Table 5.7 below shows turnover demand across the sectors for different percentages of existing stock, and converts this into hectares of land.

Table 5.7: Churn Demand for Office (B1a), Factory (B2) and Warehouse (B8) Floorspace

Sector	0.25% per annum	0.5% per annum	5% per annum	10% per annum
B1a – Floorspace Change	572.5	1,145	11,450	22,900
Hectares of Land**	0.071	0.14	1.42	2.83
B2 – Floorspace Change	4092.5	8,185	81,850	163,700
Hectares of Land*	0.88	1.75	17.5	35
B8 – Floorspace Change	1,565	3,130	31,300	62,600
Hectares of Land*	0.33	0.67	6.7	13.39

* Based on 4,250 sq. m per ha of development

** Based on 2/3 town centre – 10,000 sq. m per ha of development; 1/3 outside town centre – 4,800 sq. m per ha of development

The land requirement calculations in Table 5.7 also reflect a 1:1.1 plot ratio, assuming that 10% of a site’s area would not count as developable land. An estimate in the range of 0.25% - 0.5% per annum estimate of stock turnover would therefore lead to demand of 573 – 1,145 m2 of B1a stock churn per annum over the period; 4,093m2 to 8,185 m2 of B2 stock churn; and 1,565 m2 to 3,130 m2 of B8 stock churn.

Table 5.8: Churn Demand for Office (B1a), Factory (B2) and Warehouse (B8) Floorspace up to 2031 at 0.25%-0.5%

Sector	2006-2011 (0.25-0.5%)	2011-2016 (0.25-0.5%)	2016-2021 (0.25-0.5%)	2021-2026 (0.25-0.5%)	2026-2031 (0.25-0.5%)	TOTAL
B1a – Floorspace Change	2,863-5,725	2,863-5,725	2,863-5,725	2,863-5,725	2,863-5,725	14,313-28,625
Hectares of Land**	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	0.4-0.7	1.8-3.5
B2 – Floorspace Change	20,463-40,925	20,463-40,925	20,463-40,925	20,463-40,925	20,463-40,925	102,313-204,625
Hectares of Land*	4.4-8.8	4.4-8.8	4.4-8.8	4.4-8.8	4.4-8.8	22-43.8
B8 – Floorspace Change	7,825-15,650	7,825-15,650	7,825-15,650	7,825-15,650	7,825-15,650	39,125-78,250
Hectares of Land*	1.7-3.4	1.7-3.4	1.7-3.4	1.7-3.4	1.7-3.4	8.5-17

* Based on 4,250 m² per ha of development

** Based on 2/3 town centre – 10,000 m² per ha of development; 1/3 outside town centre – 4,800 m² per ha of development

The land requirement calculations in Table 5.8 also reflect a 1:1.1 plot ratio, assuming that 10% of a site's area would not count as developable land.

Table 5.8 projects the totals from Table 5.7 forward to 2031. This shows that over the period up to 2031, there could be between 1.8-3.5 ha of B1a, 22 - 43.8 of B2 and 8.5-17 ha of B8 turnover demand in Telford and Wrekin Borough, resulting from relocating companies and changes of premises.

This provides a realistic assessment of likely future land requirements emanating from local relocating companies and has been used as the basis of floorspace estimates in Chapter 6.

In incorporating our assessment of churn demand into the wider demand picture we have used a midpoint between the lower and higher end estimates (i.e. 0.375%) in order to project churn demand on an annualised basis.

- In terms of floorspace this equates to 859m² of B1a stock churn, 6,139 m² of B2 stock churn and 2,348 m² of B8 stock churn.
- In terms of land, this equates to 0.11 ha of B1a, 0.132 ha of B2 and 0.521 ha of B8

These totals have been added to forecast employment related demand through to 2031 in order to carry out the comparative analysis of demand and supply, which follows in the following section.

In carrying out the analysis, we have not factored in additional assumptions relating to e.g. the amount of space vacated by re-locating companies that is taken up by new employment-creating companies. However, given that demand arising from stock churn is only a small proportion of total demand for employment land, revising the churn estimates using such assumptions is not expected to alter the overall conclusions significantly.

6 COMPARING DEMAND AND SUPPLY: FINDINGS AND CONCLUSIONS

6.1 Floorspace

Based on the analysis of the supply and demand for employment floorspace and land in the preceding sections, it is possible to compare the findings and draw some overall conclusions about potential gaps and oversupply in the relevant periods.

A comparison of total supply and demand for employment **floorspace** within Telford & Wrekin for each scenario in both 2016 and 2031 is shown in Tables 6.1 and 6.2 below. Figures for additional demand include both employment-related demand (see section 4) and churn (see section 5 - on the basis of a 0.375% per annum estimate of stock turnover). 2016 has been chosen as an initial point of reference as it provides a suitably-distant point from the present, allowing sufficient time to influence land supply through policy intervention if required.

Table 6.1: Comparison of floorspace supply and demand in 2016

Class	Current Supply	Additional Demand Required by: 2016				Base Case
		Policy Support	24k Extra Houses	30k Extra Houses	36k Extra Houses	
B1a	248,644	209,386	136,191	155,764	175,337	92,422
B1b	15,022	205	225	250	275	180
B1c	22,335	0	-41,335	-41,335	-41,335	-41,335
B2	128,211	-129,288	-186,226	-183,005	-179,783	-183,005
B8	426,131	30,037	44,024	60,808	77,593	38,879

In 2016:

- Under the Base Case Scenario, additional demand for B1a floorspace is only forecast to grow by around 92,000 m², with ample supply of around 250,000, nearly two and a half times this amount already present in 2004. Demand for industrial floorspace in the B1c and B2 use classes also falls in absolute terms, while demand for B8 rises slightly but still comprises only 9% of current supply in 2004.
- Under the 24,000 Extra Houses scenario, demand for B1a in 2016 is substantially higher than the base case scenario, but could still be accommodated by existing supply. No additional demand is anticipated in the B1c and B2 classes. Demand for B8 floorspace also continues to be substantially lower than current supply in 2004.
- The 30,000 and 36,000 Extra Houses scenarios present a similar picture. Demand for B1a office space and B8 rises progressively in line with increased population growth, but this could still be accommodated by existing supply.
- Under the Policy Support scenario, around 210,000 m² of additional B1a office floorspace for offices will be required in 2016. This is still less than the 250,000 m²

of current surplus B1a floorspace in that year. However, the forecasts suggest that demand would outstrip supply by 2018, meaning that action would need to be taken in the years before 2016 in order to ensure adequate provision is available to meet growing demand. Demand for B1b and B1c floorspace is forecast to remain static, with a significant fall in B2 floorspace requirements. Additional demand for B8 is also anticipated to be low, reflecting the fact that distribution / logistics is not a target cluster under the EDS.

- Under all scenarios demand for Research & Development-designated B1b floorspace remains negligible and could be accommodated by existing supply.

The same results are also presented in graph format in Figures 6.1 below, making the overall conclusions about the position in 2016 under each of the scenarios clearer.

Figure 6.1: Comparison of floorspace supply and demand in 2016

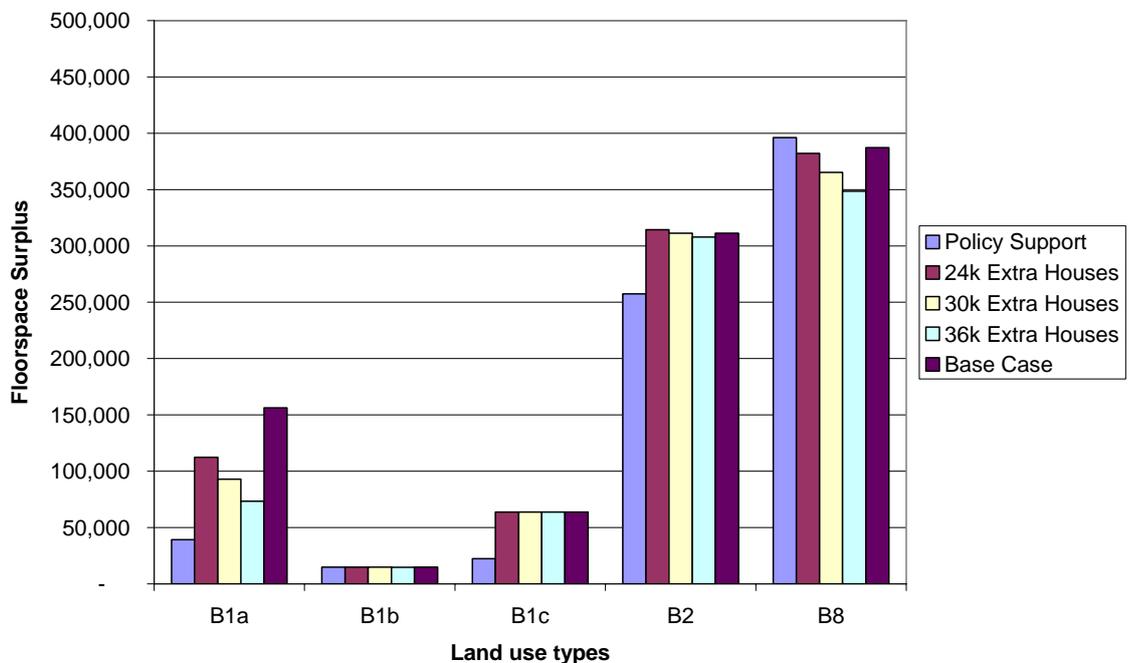


Figure 6.1 indicates that in absolute terms, there is a surplus of floorspace under all of the scenarios up until 2016. This is most clearly represented in the case of B2 and B8 space, but is also true of B1a, where it is anticipated that there will still be a surplus of around 90,000 m2 in 2016 in the Policy Support Scenario, which forecasts the highest demand for this kind of land of all the scenarios. The implication is that there is no need to add to the total supply of employment floorspace in the period up to 2016.

Table 6.2: Comparison of floorspace supply and demand in 2031

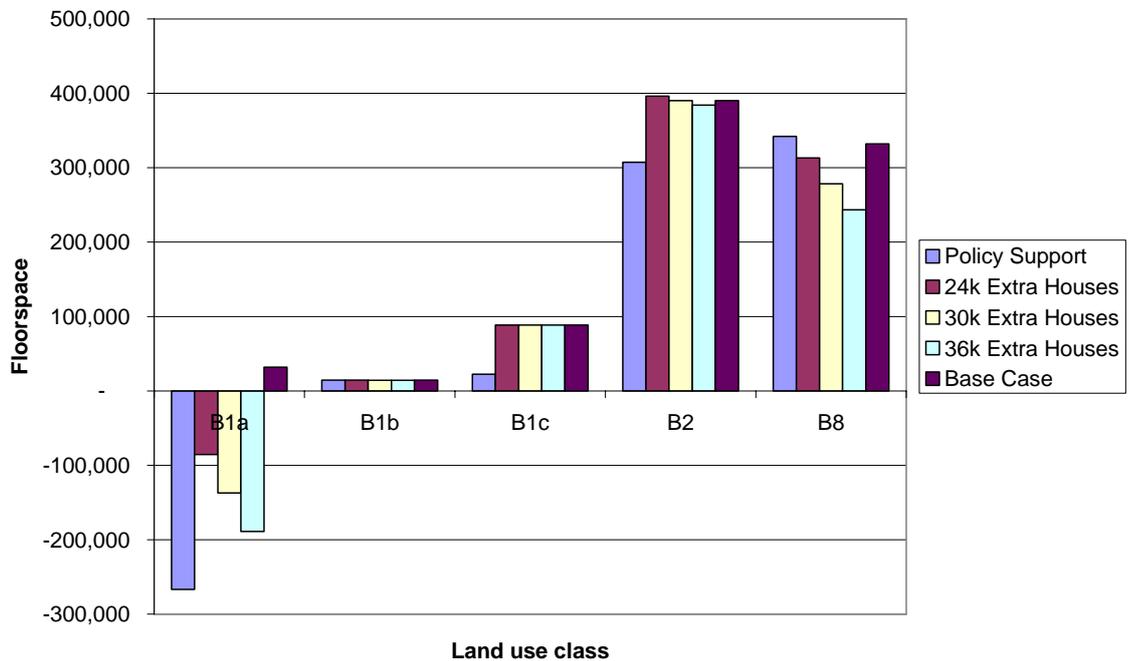
Class	Current Supply	Additional Demand Required by: 2031				Base Case
		Policy Support	24k Extra Houses	30k Extra Houses	36k Extra Houses	
B1a	248,644	515,397	333,946	385,696	437,446	216,765
B1b	15,022	527	589	663	737	440
B1c	22,335	0	-66,080	-66,080	-66,080	-66,080
B2	128,211	-179,177	-268,013	-261,992	-255,972	-261,992
B8	426,131	83,810	112,847	147,692	182,537	94,005

If this analysis is rolled forward to **2031** a somewhat different picture emerges:

- Under the Base Case, there will be significant additional demand for B1a office space and B8 warehouses, but even after 25 years it is not anticipated that this will exceed current supply. It is forecast that there will be very substantial excess supply of B1c and B2 floorspace, comprising nearly than 330,000 m2 in total.
- Under all of the Extra Houses scenarios, demand for B1a floorspace outstrips supply. As with the Base Case, a very substantial excess supply of B1c and B2 floorspace is anticipated, comprising more than 320,000 m2 in total.
- Demand for B8 floorspace is greatest under the 36,000 Extra Houses scenario, but even by 2031 it is estimated that additional demand will only constitute approximately 43% of current supply, suggesting that there will be no need to add additional floorspace during this period, and that some land could be re-allocated for other uses.
- Under the Policy Support scenario, there is likely to be a significant deficit of B1a land by 2031. Forecasts suggest that demand would outstrip supply around 2018 if employment growth targets set out in the EDS materialise. Demand for B8 will still easily be accommodated by existing supply of employment land, while demand for B2 space will be considerably lower than current levels.

The same results are also presented in graph format for ease of interpretation in Figures 6.2 below.

Figure 6.2: Comparison of floorspace supply and demand in 2031



A number of conclusions can be drawn from Figure 2.6 as follows:

- Reflecting the continuing decline of manufacturing activities in Telford under all scenarios (though mitigated to the greatest extent under the Policy Support Scenario), the gap between supply and demand for B2 employment land continues to grow with an increase in the surplus compared to 2016.
- The small surplus of 40,000 m² of B1c land in 2016 also increases to around 60,000 m² by 2031.
- The amount of forecast surplus B8 land reduces to some degree between 2016 and 2031 under all scenarios. However, an overall surplus of around 200,000 – 250,000 square metres is still present in 2031 under any scenario.
- There is a significant deficit in B1a employment land compared to current supply in 2031. In fact it is estimated that the current available supply of B1a land would be completely taken up by 2020, illustrating a need to increase supply of B1a before this period.

It should be noted that this analysis may be varied as a result of “leakage” of which no account has been taken here. The market analysis suggests that in practice some demand may leak out of the Telford area whilst still meeting the growth and location requirements of the business concerned. Equally Telford may be a more attractive location for employment growth and churn arising from surrounding areas.

6.2 Land

The corresponding comparison between current supply (in 2004) and forecast demand in terms of requirement for hectares of **land** is discussed in this section.

Tables 6.3 and 6.4 present the figures for additional demand for land in 2016 and 2031. Figures for additional demand for land include both employment-related demand and churn, as described in Section 5..

These estimates of land demand under each scenario have been derived by converting the floorspace figures into land requirements using the assumptions on typical “development typologies” which represent a market based view of how a site is likely to be developed (see section 3) consistent with the rest of the report. This expresses the land demand estimates by the main employment land classes used for the floorspace forecasts.

As noted above the analysis aggregates the demand arising from employment growth with that arising from “churn”. In practice this assumption is reasonable where the demand arising from both is positive. Where **floorspace** demand estimates arising from employment decline are negative (e.g. for B2 space) and the churn demand is positive but relatively small, this assumption is also acceptable since much of the demand arising from churn can be accommodated in vacated space. However when converted to **land** requirements it is more appropriate to “zero” the negative land requirement arising from employment decline. At the same time it is realistic to expect that some additional land is still required to accommodate the demand arising through churn.

The implication for the land demand estimates presented below is that negative figures in B2 and B1c categories based on declining employment have been ignored, but figures for churn demand have been retained. The effect of doing this is to turn the estimate of B2 land required in 2016 and 2031 from a substantial negative figure into a small positive one, and to convert a negative figure for B1c land in 2016 and 2031 to zero.

Table 6.3 Comparison of land supply and demand (hectares) in 2016

Class	Demand Required by: 2016				
	Policy Support	24k Extra Houses	30k Extra Houses	36k Extra Houses	Base Case
B1a	39.68	25.82	29.53	33.23	17.53
B1b	0.05	0.05	0.06	0.06	0.04
B1c	0.00	0.00	0.00	0.00	0.00
B2	15.84	15.84	15.84	15.84	15.84
B8	8.87	12.29	16.39	20.50	11.03
Total	64.44	54.00	61.82	69.63	44.44

Table 6.4 Comparison of land supply and demand (hectares) in 2031

Class	Demand Required by: 2031				Base Case
	Policy Support	24k Extra Houses	30k Extra Houses	36k Extra Houses	
B1a	97.68	63.30	73.11	82.91	41.10
B1b	0.12	0.13	0.15	0.17	0.10
B1c	0.00	0.00	0.00	0.00	0.00
B2	35.64	35.64	35.64	35.64	35.64
B8	23.93	31.03	39.54	48.06	26.42
Total	157.37	130.10	148.44	166.78	103.26

In order to compare the current supply of land with these demand estimates it is only possible to present employment land supply according to the development typologies since the sites are not necessarily specifically allocated to a defined use class and may be developed for “mixed” employment purposes. The market based typology suggests that the existing supply might be allocated as shown in Table 6.5 below.

Table 6.5 Employment Land Supply Capacity 2006

Typology	1. Warehouse/ Production Units (B2/B8)	2. Warehouse/ Production Units – large sites (B1c/B2/B8)	3. Distribution Park (B8)	4. Technology Park (B1a/B1b/B1c)	5. Town Centre Fringe Office/Busi- ness Location (B1a & ancillary)	6. Standard Business Parks (B1a and C1/D2)
Hectares	47.84	69.2	47.02	24.19	15.46	8.74

Whilst it is therefore not possible or appropriate to directly compare land demand and supply by use class it is apparent that, in simple overall terms, the 2006 supply of over 210 hectares is sufficient to meet the net change in land demand in all use classes under all scenarios in 2016. This ranges from +18 hectares in the base case scenario to nearly +70 hectares in the 36,000 Extra Houses scenario) **and** in 2031 (which ranges from +103 hectares in the base case scenario to +157 hectares in the policy support scenario and +167 hectares in the 36,000 Extra Houses scenario).

In all cases therefore the level of the existing overall employment land supply allocation suggests that there is some capacity for release of some land for housing or other non-employment purposes.

As in the case of employment floorspace however the relative balance of different types of employment land is not so clear cut. Clearly there is substantial over-capacity in the 165 hectares of B8/B2/B1c type sites (where there is also significant scope for inter-changeability between uses) compared with declining B2 demand and the more limited growth of B8 demand. In the case of B2 allocations it is expected that this will either be converted to B8, or drift into lower forms of employment use or come out of employment use completely.

On the other hand the 33 hectares of available B1 Business Park and Technology Park type land is in short supply by 2016 in all but the base case scenario, and by 2031a further 8 - 64 hectares are required depending on the scenario. In this case it is

expected that some B2/B8 sites would be appropriate for reallocation for Business Park and Technology Park purposes.

It is also expected that a significant proportion of B1a demand which varies from 18 to 40 hectares in 2016 and 40 to nearly 100 hectares by 2031 will be required in Town Centre locations and – though this will take a higher plot ratio form – there is at present only 15 hectares identified and limited scope to relocate this demand outside of the centre.

6.3 Conclusions

The comparative analysis of supply and demand for floorspace and land is based on an analysis of the existing land supply capacity compared with a forecast of future requirements to 2016 and 2031 under 5 different scenarios. No specific recommendation has been made on which scenario should be adopted but rather they should be treated as providing a range of potential futures which are likely to be constrained if their respective employment land requirements are not met.

The main conclusions are as follows:

- In absolute terms, there is a floorspace surplus under all scenarios up until **2016**. This excess is concentrated in B2 and B8 space. The implication is that there is no need to add to the total supply of employment floorspace in the period up to 2016.
- By **2031**, reflecting the continuing decline of manufacturing activities in Telford under all scenarios the gap between supply and demand for B2 employment land continues to grow with an increase in the surplus compared to 2016. However, there is a significant deficit in B1a employment land compared to current supply by 2031. It is estimated that the current available supply of B1a land would be completely taken up by 2020, illustrating a need to increase supply of B1a before this period.
- The difference between forecast demand and current supply in most land use classes highlights areas of potential surplus which in turn may be used to alleviate anticipated shortfalls in supply in other land use classes. The greatest need for this would appear to be in transferring employment land supply from B2 designations to B1a, reflecting forecast growth in office-based service industry activities. This would need to be considered in the latter part of the period under consideration.
- Whilst it is therefore not possible or appropriate to directly compare **land** demand and supply by use class it is apparent that, in simple overall terms, the 2006 supply of over 210 hectares is sufficient to meet the net change in land demand in all use classes under all scenarios in 2016 and in 2031.
- However there is lots of supply of manufacturing and distribution typologies (1,2 and 3) which are mainly B2 and B8, and there is less of business and science park typologies (4-6) which are what are primarily required in Telford. The town centre will either have to expand or employment will have to be located elsewhere. It is however more difficult to change from typologies 4-6 to 1-3.
- Finally, there may also be scope to transfer some land from employment to non-employment land uses.

ANNEX 1: EMPLOYMENT FORECASTS

OE/RF Forecasts for Telford

Employees in employment by sector ('000s)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Agriculture	0.47	0.44	0.42	0.43	0.47	0.42	0.41	0.40	0.39	0.38	0.37	0.36	0.35	0.34	0.33	0.32	0.32	0.31	0.30	0.29	0.28	0.28	0.27
Extraction	0.04	0.05	0.07	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.01	0.01
Food Drink & Tobacco	2.37	2.09	1.78	1.80	1.67	1.63	1.58	1.53	1.50	1.45	1.42	1.38	1.35	1.32	1.29	1.26	1.23	1.20	1.18	1.15	1.12	1.10	1.07
Textiles	0.60	0.52	0.54	0.46	0.41	0.37	0.32	0.29	0.26	0.23	0.19	0.17	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.03	0.02	0.01
Wood Product Industries	0.31	0.24	0.28	0.33	0.31	0.29	0.28	0.27	0.26	0.25	0.24	0.23	0.23	0.22	0.22	0.21	0.21	0.21	0.20	0.20	0.19	0.19	0.18
Pulp Paper & Printing	1.42	1.24	1.29	1.17	1.09	1.03	0.98	0.93	0.89	0.85	0.81	0.77	0.74	0.72	0.69	0.67	0.64	0.62	0.60	0.58	0.56	0.54	0.52
Coke Oil Refin. & Nucl. Fuel	0.03	0.09	0.09	0.05	0.05	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02
Chemical Industries	0.41	0.47	0.37	0.29	0.26	0.26	0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.18	0.17	0.17	0.16	0.16	0.15	0.14	0.14	0.14
Rubber & Plastic Industries	2.03	2.19	1.70	1.46	1.30	1.22	1.18	1.13	1.09	1.04	1.00	0.97	0.94	0.91	0.89	0.87	0.84	0.82	0.80	0.78	0.76	0.73	0.71
Other Non-Metal Min. Products	0.49	0.53	0.50	0.51	0.48	0.45	0.43	0.40	0.37	0.35	0.32	0.30	0.29	0.27	0.25	0.24	0.22	0.21	0.20	0.19	0.18	0.17	0.16
Metals	3.05	3.73	2.78	2.19	1.98	1.90	1.80	1.71	1.61	1.51	1.43	1.36	1.29	1.23	1.17	1.11	1.06	1.01	0.96	0.91	0.87	0.82	0.78
Machinery & Equipment	2.11	2.74	1.95	2.19	2.07	1.97	1.91	1.83	1.74	1.65	1.58	1.51	1.45	1.39	1.33	1.28	1.23	1.18	1.13	1.09	1.05	1.01	0.97
Electric & Optical Equipment	3.29	3.95	3.46	3.21	2.91	2.77	2.68	2.60	2.48	2.35	2.22	2.11	2.00	1.90	1.81	1.72	1.64	1.56	1.48	1.41	1.35	1.28	1.22
Transport Equipment	4.24	4.13	4.21	4.77	4.47	4.28	4.16	3.98	3.81	3.69	3.64	3.60	3.57	3.47	3.38	3.27	3.17	3.07	2.97	2.88	2.79	2.70	2.61
Other Manufacturing	0.96	0.71	0.63	0.47	0.42	0.40	0.38	0.37	0.36	0.35	0.34	0.34	0.33	0.32	0.32	0.31	0.30	0.30	0.29	0.28	0.28	0.27	0.27
Electricity Water & Gas Svs.	0.31	0.29	0.26	0.22	0.20	0.20	0.20	0.19	0.18	0.18	0.17	0.17	0.17	0.16	0.16	0.15	0.14	0.14	0.13	0.13	0.12	0.12	0.11
Construction	1.72	2.35	1.88	2.07	2.09	2.12	2.12	2.15	2.16	2.17	2.18	2.18	2.19	2.19	2.20	2.21	2.22	2.22	2.23	2.24	2.26	2.27	2.28
Wholesale & motor distribution	5.22	5.17	6.14	7.13	7.23	7.20	7.21	7.24	7.24	7.23	7.22	7.22	7.23	7.24	7.25	7.25	7.26	7.28	7.29	7.30	7.32	7.33	7.35
Retail distribution	8.27	8.68	8.22	9.06	9.22	9.21	9.27	9.36	9.40	9.42	9.42	9.45	9.49	9.54	9.59	9.63	9.66	9.70	9.73	9.77	9.81	9.84	9.88
Hotels & catering	2.94	3.57	3.64	3.28	3.37	3.35	3.36	3.38	3.42	3.46	3.51	3.56	3.60	3.65	3.70	3.74	3.79	3.84	3.89	3.94	3.99	4.04	4.09
Transport & Communication	2.06	1.89	2.24	2.56	2.59	2.58	2.59	2.61	2.64	2.66	2.69	2.72	2.74	2.77	2.80	2.82	2.85	2.87	2.90	2.92	2.95	2.98	3.00
Financial services	2.15	2.19	1.90	1.93	1.94	1.95	1.97	2.00	2.03	2.05	2.07	2.10	2.12	2.15	2.18	2.20	2.22	2.25	2.27	2.29	2.32	2.34	2.37
Business services	11.56	11.03	9.65	11.27	11.37	11.47	11.80	12.24	12.69	13.09	13.47	13.86	14.23	14.60	14.95	15.26	15.58	15.92	16.28	16.64	17.00	17.37	17.75
Public Admin. & Defence	6.33	5.94	6.35	5.62	5.71	5.73	5.73	5.74	5.76	5.79	5.81	5.83	5.85	5.87	5.88	5.89	5.90	5.91	5.92	5.93	5.94	5.95	5.96
Education	6.06	6.52	6.65	6.69	6.55	6.71	6.80	6.90	6.99	7.07	7.16	7.25	7.34	7.44	7.53	7.62	7.70	7.79	7.88	7.97	8.06	8.15	8.25
Health & Social Work	4.78	5.25	4.36	6.54	6.71	6.82	6.94	7.06	7.16	7.24	7.33	7.42	7.52	7.61	7.71	7.80	7.89	7.98	8.07	8.16	8.25	8.35	8.44
Other Personal Services	2.90	2.98	3.12	3.35	3.59	3.58	3.65	3.75	3.81	3.86	3.91	3.96	4.02	4.07	4.10	4.11	4.13	4.15	4.17	4.19	4.22	4.24	4.26
Total	76.09	78.96	74.47	79.09	78.49	77.98	78.08	78.37	78.48	78.58	78.79	79.09	79.42	79.74	80.05	80.24	80.50	80.79	81.11	81.47	81.85	82.26	82.70

ANNEX 2: FLOORSPACE FORECASTS

POLICY SUPPORT SCENARIO

Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	86,377	97,706	109,294	120,802	133,730
A2	131,618	168,485	193,255	218,065	243,798	272,634
B1a	430,205	545,229	632,715	722,372	819,423	930,131
B1b	510	622	715	810	916	1,037
B1c	88,734	88,734	88,734	88,734	88,734	88,734
B2	666,780	538,736	488,376	443,632	407,027	377,093
B8	396,300	401,157	407,557	415,940	426,002	437,855
Total	1,782,127	1,829,340	1,909,056	1,998,847	2,106,701	2,241,214

Floorspace requirements for different land-use categories: absolute change compared to 2004*NB shows the change for each year compared to the base year of 2004 (not compared to preceding year in table)*

	2004	2011	2016	2021	2026	2031
A1		18,396	29,725	41,313	52,821	65,750
A2		36,867	61,637	86,447	112,180	141,016
B1a		115,025	202,510	292,168	389,219	499,926
B1b		112	205	300	405	527
B1c		0	0	0	0	0
B2		-128,044	-178,404	-223,148	-259,753	-289,688
B8		4,857	11,257	19,640	29,702	41,555
Total		47,213	126,929	216,720	324,574	459,086

BASE CASE SCENARIO**Floorspace requirements by land use class and year**

	2004	2011	2016	2021	2026	2031
A1	67,981	71,540	73,813	75,900	78,143	80,598
A2	131,618	142,380	150,874	158,499	166,723	175,613
B1a	430,205	478,817	515,751	550,961	589,361	631,498
B1b	510	610	691	770	855	950
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	499,940	434,660	378,261	332,038	294,277
B8	396,300	407,038	416,399	426,093	436,746	448,050
Total	1,782,127	1,661,706	1,639,587	1,627,676	1,632,953	1,653,640

Floorspace requirements for different land-use categories: absolute change compared to 2004

NB shows the change for each year compared to the base year of 2004 (not compared to preceding year in table)

	2004	2011	2016	2021	2026	2031
A1		3,559	5,833	7,920	10,162	12,618
A2		10,762	19,256	26,881	35,105	43,995
B1a		48,612	85,546	120,757	159,157	201,294
B1b		99	180	259	345	440
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-166,841	-232,121	-288,519	-334,742	-372,503
B8		10,738	20,099	29,793	40,446	51,750
Total		-120,421	-142,541	-154,451	-149,174	-128,487

ADDITIONAL 24,000 HOUSES SCENARIO

Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	78,794	85,644	92,651	99,636	107,470
A2	131,618	155,270	171,102	186,876	203,293	221,752
B1a	430,205	504,146	559,520	616,535	678,183	748,680
B1b	510	633	735	842	961	1,099
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	497,897	431,438	374,015	326,889	288,256
B8	396,300	409,692	421,544	435,034	449,969	466,892
Total	1,782,127	1,707,815	1,717,382	1,743,146	1,788,017	1,856,803
Extra	-	28,539	49,212	70,304	91,990	116,314

Floorspace requirements for different land-use categories: absolute change compared to 2004

NB shows the change for each year compared to the base year of 2004 (not compared to preceding year in table)

	2004	2011	2016	2021	2026	2031
A1		10,813	17,663	24,671	31,656	39,490
A2		23,652	39,484	55,258	71,675	90,134
B1a		73,941	129,315	186,330	247,978	318,475
B1b		123	225	332	451	589
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-168,883	-235,342	-292,765	-339,891	-378,524
B8		13,392	25,244	38,734	53,669	70,592
Total		-74,312	-64,745	-38,981	5,890	74,675

ADDITIONAL 30,000 HOUSES SCENARIO

Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	80,732	89,005	97,469	105,931	115,408
A2	131,618	158,776	177,349	196,021	215,488	237,438
B1a	430,205	514,943	579,093	645,679	717,719	800,430
B1b	510	646	760	881	1,016	1,173
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	499,940	434,660	378,261	332,038	294,277
B8	396,300	419,934	438,328	457,946	478,729	501,737
Total	1,782,127	1,736,354	1,766,594	1,813,450	1,880,007	1,973,116

Floorspace requirements for different land-use categories: absolute change compared to 2004

NB shows the change for each year compared to the base year of 2004 (not compared to preceding year in table)

	2004	2011	2016	2021	2026	2031
A1		12,752	21,024	29,488	37,950	47,428
A2		27,158	45,731	64,404	83,871	105,820
B1a		84,738	148,888	215,475	287,515	370,225
B1b		136	250	371	505	663
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-166,841	-232,121	-288,519	-334,742	-372,503
B8		23,634	42,028	61,646	82,429	105,437
Total		-45,773	-15,533	31,323	97,880	190,989

ADDITIONAL 36,000 HOUSES SCENARIO

Floorspace requirements by land use class and year

	2004	2011	2016	2021	2026	2031
A1	67,981	82,671	92,366	102,286	112,225	123,346
A2	131,618	162,283	183,596	205,167	227,684	253,124
B1a	430,205	525,740	598,666	674,824	757,256	852,179
B1b	510	659	785	920	1,070	1,247
B1c	88,734	61,383	47,399	37,193	29,086	22,654
B2	666,780	501,982	437,881	382,506	337,188	300,297
B8	396,300	430,176	455,113	480,858	507,490	536,582
Total	1,782,127	1,764,893	1,815,806	1,883,754	1,971,998	2,089,430

Floorspace requirements for different land-use categories: absolute change compared to 2004

NB shows the change for each year compared to the base year of 2004 (not compared to preceding year in table)

	2004	2011	2016	2021	2026	2031
A1		14,690	24,385	34,305	44,245	55,366
A2		30,665	51,978	73,549	96,066	121,506
B1a		95,535	168,461	244,619	327,051	421,975
B1b		149	275	409	560	737
B1c		-27,351	-41,335	-51,541	-59,648	-66,080
B2		-164,798	-228,899	-284,274	-329,593	-366,483
B8		33,876	58,813	84,558	111,190	140,282
Total		-17,235	33,679	101,627	189,871	307,303

ANNEX 3: LAND REQUIREMENT FORECASTS

Base Case Scenario

Land requirements for different land-use categories: absolute change compared to 2004

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		9.21	16.21	22.88	30.15	38.13
B1b		0.02	0.04	0.06	0.08	0.10
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.78	-56.74	-70.53	-81.83	-91.06
B8		2.62	4.91	7.28	9.89	12.65
Total		-35.61	-45.68	-52.91	-56.29	-56.32

24,000 Extra Houses Scenario

Land requirements for different land-use categories: absolute change compared to 2004

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		14.01	24.50	35.30	46.98	60.33
B1b		0.03	0.05	0.08	0.10	0.13
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-41.28	-57.53	-71.56	-83.08	-92.53
B8		3.27	6.17	9.47	13.12	17.26
Total		-30.66	-36.91	-39.32	-37.46	-30.96

30,000 Extra Houses Scenario

Land requirements for different land-use categories: absolute change compared to 2004

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		16.05	28.21	40.82	54.47	70.14
B1b		0.00	0.06	0.08	0.12	0.15
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.78	-56.74	-70.53	-81.83	-91.06
B8		5.78	10.27	15.07	20.15	25.77
Total		-25.64	-28.31	-27.15	-21.67	-11.15

36,000 Extra Houses Scenario

Land requirements for different land-use categories: absolute change compared to 2004

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		18.10	31.91	46.34	61.96	79.94
B1b		0.03	0.06	0.09	0.13	0.17
B1c		-6.69	-10.10	-12.60	-14.58	-16.15
B2		-40.28	-55.95	-69.49	-80.57	-89.58
B8		8.28	14.38	20.67	27.18	34.29
Total		-20.56	-19.70	-14.98	-5.88	8.66

Policy Support Scenario

Land requirements for different land-use categories: absolute change compared to 2004

	2004	2011	2016	2021	2026	2031
A1		N/A	N/A	N/A	N/A	N/A
A2		N/A	N/A	N/A	N/A	N/A
B1a		21.79	38.36	55.35	73.74	94.71
B1b		0.03	0.05	0.07	0.09	0.12
B1c		0.00	0.00	0.00	0.00	0.00
B2		-31.30	-43.61	-54.55	-63.50	-70.81
B8		1.19	2.75	4.80	7.26	10.16
Total		-8.30	-2.45	5.67	17.59	34.17

ANNEX 4: POLICY SUPPORT MODEL

6.4 Explanation of model

Telford's Economic Development Strategy identifies a target of achieving 110,000 jobs in the district by 2021. The ratio of jobs located on employment land compared to those on other types of land (e.g. farms, schools) is around 84% in 2004 according to current data as well as in 2021 according to OEF's forecasts and our analysis.

We have therefore assumed that in 2021, 92,000 jobs (i.e. 84% of 110,000) will need to be accommodated on employment land.

In order to assess the implications of a successful EDS on employment land, this total number of was allocated among the seven clusters that will be supported according to the Strategy, and to the rest of the local economy. The broad assumptions for this were discussed with the client group and are included in the Table 8.1 below.

This calculation allows employment totals to be translated into floorspace requirements in order to forecast what would happen to employment land requirements in 2021 if the Economic Development Strategy is successful in achieving its aims.

The scenario works by adjusting OEF's Baseline Scenario forecast employment growth for each cluster by a scaling factor, as set out in the table below. In reviewing the assumptions it is better to bear in mind the general effect of policy support on growth trends, rather than the precise size of the scaling factor. This is because the precise size of each is somewhat arbitrary, the key issue being rather to show how combined effects would affect employment land requirements if the aims of the Economic Development Strategy are realised.

Table 8.1: Policy Support Model Assumptions

Cluster	Scaling factor	Rationale
Advanced Engineering	0 % decline from 2004 employment totals. i.e. OEF's predicted employment decline for this cluster counteracted by policy measures.	Employment in this cluster is anticipated to be stable over 2004 – 2021. e.g. in light of Telford – Wolverhampton High Tech Corridor support (e.g. Lakeside development), as well as positive indications that existing large companies (e.g. Ricoh, Maxell) will stay in the area.
Polymers	33% - The rate of decline is only a third of that predicted by OEF due to policy	Some decline is expected (e.g. it seems unlikely a major manufacturer of polythene bags will still be in Telford in 15 years in light of off-shoring trends.

	support.	
Tourism & Leisure	280% OEF's predicted employment growth is significantly boosted (by a factor of 2.8)	Strong growth in retail activities (driven by tourism & leisure but also by population growth) is reasonable in light of current trends and support measures for the cluster over the next 15 years.
ICT	280% OEF's predicted employment growth is significantly boosted (by a factor of 2.8)	Strong growth in ICT-related services is reasonable in light of national and regional trends as well as support measures for the cluster over the next 15 years. e.g. EDS recently set up a facility in Telford; Telford First is helping to attract other similar companies.
Specialist Business & Professional Services	280% OEF's predicted employment growth is significantly boosted (by a factor of 2.8)	Strong growth in professional and business services is reasonable in light of national and regional trends as well as support measures for the cluster over the next 15 years.
Food & Drink	33% - The rate of decline is only a third of that predicted by OEF due to policy support.	Some decline is expected (e.g. British Sugar in the process of closing some activities; some other closures may follow).
Building Technologies	33% - The rate of decline is only a third of that predicted by OEF due to policy support.	Some decline is expected in the light of current trends. Policy support will reduce the scale of consolidation of this cluster.
All other sectors (including self-employed)	No effect on declining sectors; 150% on growing sectors.	It is assumed that the effect of the EDS is to speed up OEF's anticipated rate of growth by 1.5 times.

6.5 Policy Support Model

Column Reference										
A	B	C	D	E	G	H	I	J	K	
Telford Target Cluster	SIC Categories	2004 employment (ABI / LFS actual data)	2021 employment total (OEF forecast)	OEF growth rate 2004 - 2021 (Total)	Employment total with policy support 2021	Change in employment 2004 - 2021	Growth rate assumption	Scaling factor for declining industries	Scaling factor for growing industries	
Advanced Engineering	3001, 3002, 31, 32, 33	3,213	1,347	-58%	3,213	-	Anticipated to be stable in employment terms over 2004 – 2021. e.g. in light of Telford – Wolverhampton High Tech Corridor support (e.g. Lakeside development), as well as positive indications that existing large companies (e.g. Ricoh, Maxell) will stay in the area.	0%		
Polymers	25	1,460	755	-48%	1,227	- 233	Some decline is expected (e.g. it seems unlikely a major manufacturer of polythene bags will still be in Telford in 15 years in light of offshoring trends. Some decline in employment period 2004 – 2021 is therefore reasonable assumption.	33%		
Tourism & Leisure (manifested in retail employment)	52	9,062	9,807	8%	11,147	2,085	Strong growth in retail activities (driven by tourism & leisure but also by population growth) is reasonable in light of current trends.			280%
ICT	72	2,622	3,954	51%	6,353	3,731	Strong growth in ICT-related services is reasonable in light of national and regional trends as well as e.g. EDS setting up a facility in Telford and helping to attract other similar companies.			280%
Specialist Business & Professional Services	65,66,67, 70,74	10,087	14,627	45%	22,799	12,712	Strong growth in professional and business services is reasonable in light of national and regional trends.			280%
Food & Drink	15	1,795	1,122	-37%	1,573	- 222	Some decline is expected (e.g. British Sugar in the process of closing some activities; some other closures may follow).	33%		
Building Technologies	28	1,962	775	-60%	1,570	- 392	Some decline is expected in the light of current trends. Policy support will reduce the scale of consolidation of this cluster.	33%		
All other sectors (inc. self-employed)		42,825	41,984	-2%	44,282	1,457	Assumption that policy support has neutral effect in influencing growth of other sectors	100%		150%
Total		73,026	74,372	2%	92,164					

6.6 Explanation of individual columns

- Column A specifies the target clusters as per Telford's Economic Development Strategy.
- Column B relates this to specific SIC codes (see the comment boxes in each cell for a list of which SIC codes have been included).
- Column C gives the 2004 total employment for that SIC code according to ABI data for the target clusters and Labour Force Survey data (including self-employment) for all other sectors.
- Column D gives OEF's predicted employment for the target clusters and all other sectors.
- Column E gives the total % growth rate implied for 2004 – 2021.
- Column G shows the implied employment totals in 2021 in individual target clusters and in all other sectors if the Economic Development Strategy is successful and has the impact implied in each of the assumptions listed in Columns H and I.
- Columns J and K give the scaling factors implied by the assumptions about the result of policy support. E.g.
 - a 0% scaling factor for the effect on advanced engineering implies that policy support will fully counteract the decline in this sector anticipated in OEF's forecasts
 - A 280% scaling factor for tourism & leisure implies that the growth rate for this sector to 2021 will be just under three times faster than that anticipated in OEF's forecasts.

ANNEX 5: WORKER DENSITY ASSUMPTIONS

Category	SIC 2 Digit Sector	Gross internal Density (m2 per employee)	Density (m2 per employee)	Gross external Density (m2 per employee)
M1	15 : Manufacturing of food and beverages	34	1.035	35.19
M1	16 : Manufacture of tobacco products	34	1.035	35.19
M2	17 : Manufacture of textiles	34	1.035	35.19
M2	18 : Manufacture of wearing apparel; dressing and dyeing of fur	34	1.035	35.19
M2	19 : Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness a	34	1.035	35.19
M2	20 : Manufacture of wood and products of wood and cork, except furniture;	34	1.035	35.19
M3	21 : Manufacture of pulp, paper and paper products	34	1.035	35.19
M3	22 : Publishing, printing and reproduction of recorded media	34	1.035	35.19
M4	23 : Manufacture of coke, refined petroleum products and nuclear fuel	34	1.035	35.19
M4	24 : Manufacture of chemicals and chemical products	34	1.035	35.19
M4	25 : Manufacture of rubber and plastic products	34	1.035	35.19
M5	26 : Manufacture of other non-metallic mineral products	34	1.035	35.19
M5	28 : Manufacture of fabricated metal products, except machinery and equipment	34	1.035	35.19
M5	27 : Manufacture basic metals	34	1.035	35.19
M5	37 : Recycling	34	1.035	35.19
M6	29 : Manufacture of machinery and equipment not elsewhere classified	34	1.035	35.19
M7	3001 : Manufacture of office machinery	34	1.035	35.19
M7	3002: Manufacture of computers	34	1.035	35.19
M8	31 : Manufacture of electrical machinery and apparatus not elsewhere classified	34	1.035	35.19
M8	32 : Manufacture of radio, television and communication equipment and apparatus	34	1.035	35.19
M8	33 : Manufacture of medical, precision and optical instruments, watches and clocks	29	1.035	30.02
M9	34 : Manufacture of motor vehicles, trailers and semi-trailers	34	1.035	35.19
M9	35 : Manufacture of transport equipment	34	1.035	35.19
M2	36 : Manufacture of furniture; manufacturing not elsewhere classified	34	1.035	35.19
S1	51 : Wholesale trade and commission trade, except of motor vehicles and motorcycles	50	1	50.00
S2	60 : Land transport; transport via pipelines	80	1	80.00
S2	63 : Supporting and auxiliary transport activities; activities of travel agencies	50	1	50.00
S2	64 : Post and telecommunications	50	1	50.00
S3	40 : Electricity, gas, steam and hot water supply	19	1.035	19.67
S4	45 : Construction	19	1.035	19.67
S5	65 : Financial intermediation, except insurance and pension funding	20	1.1	22.00
S5	66 : Insurance and pension funding, except compulsory social security	20	1.1	22.00
S5	67 : Activities auxiliary to financial intermediation	20	1.1	22.00
S6	70 : Real estate activities	19	1.035	19.67
S6	74 : Other business activities	19	1.035	19.67
S6	71 : Rental of machinery / equipment without operator and of personal / household goods	19	1.1	20.90
S7	72 : Computer and related activities	19	1.035	19.67
S8	75 : Public administration and defence; compulsory social security	19	1.035	19.67
S9	80 : Education	19	1.035	19.67
S10	85 : Health and social work	19	1.035	19.67
S11	50 : Sale, maintenance and repair of motor vehicles; retail sale of auto fuel	34	1.035	35.19
S12	73 : Research and development	29	1.035	30.02
S13	52 : Retail trade, except motor vehicles; repair of personal / household goods etc.	19	1.1	20.90
S14	93 : Other service activities	20	1.1	22.00

ANNEX 6: SITE ASSESSMENT PROFORMA

Categories	Site Assessment Criteria	Description
Site Details	Site Reference	As on map
	Area	Name of Site
	Location	Location
	Site Area (ha)	In Hectares
	Permitted Use	That which is designated under the New Towns Act, and therefore has had no opportunity for public consultation, rather than planning permissions or allocations.
	Development on Site (DS) or none (NDS)	Any development on site
	Development Typology	5 Typologies have been developed to reflect Telford's local market. (See Annex 7)
Sustainability	Quality Bus Route	The "Bus Network Map and Guide" produced by Telford Travelink defines the quality bus route network. Sites within 800m of these services have been considered to be accessible.
	Surrounding Uses	Consideration of the land uses immediately adjacent to the sites to assess potential impact from change of use/limiting factors for the release of the site for an alternative use.
	Access to Rail Network	Potential to access the rail network
	Greenfield or Brownfield	Development status of the site: undeveloped or previously developed land.
Local Access	Internal Environment	This relates to the physical environment of the site itself taking account of site specific factors such as shape, topography, obvious contamination/flooding risk. Sites within an odd shape, contamination

		would receive a low score (Score 1-5).
Local Access	External Environment	Refers to compatibility or otherwise of neighbouring uses, proximity to facilities and a critical mass of similar uses in surrounding area. A site which is isolated, with little industrial development, near by and with poor public transport provision would receive a low ranking. (Score 1-5).
	Strategic Access	<p>Drive time to motorway network/primary routes:</p> <ul style="list-style-type: none"> • 5 mins drive time – score 5 • 5-10 mins drive time – score 4 • 10-20 mins drive time – score 3 • 20-30 mins drive time – score 2 • over 30 mins drive time – score 1
Market Factors	Ownership	Identification of ownership to establish if there are any potential release issues.
	Road Frontage	Good road access to a site would make the site more attractive to the market. Sites with a service road frontage are usually the most accessible.
	Access to Primary Road Network	Close proximity to the A442 or the M54 may be a marketing strong point for certain businesses.
	Availability	<p>The availability of a site can be affected by the presence of services such as gas and electricity, access issues and the presence of contamination.</p> <p>“A” represents a site, which is serviced with gas and electricity, has a dedicated access point, has no known constraints and is immediately available for development.</p> <p>“B” represents sites, which require servicing and access to be provided, but apart from this it is available for development.</p> <p>“C” represents sites, which are constrained for example it is contaminated, has poor gradient, is landlocked or is difficult to access</p>

		and is therefore not immediately available for development.
	Actively Marketed	A site, which is actively marketed, will be more readily available to the market.
	Market Interest	Ranking of site 1-5 on the basis of how either the site is viewed by the market, or neighbouring sites with similar characteristics are actually performing in the market. Actual evidence of strong take up scores 5.
Market Factors	Financial Viability for Proposed Use	Ranking of 1-5 based on knowledge of local market and site characteristics, prospects of development being profitable by a commercially acceptable margin. Should ignore grant aid prospects. Score of 5 would indicate there is likely to be a relatively high margin between value and cost, lower score would indicate marginal or negative value schemes.
	Market Demand Segment	This is market view based on the characteristics of the site and environment in essence a general assessment as to what type of demand is likely to locate on the site. A 1 score would indicate very local occupiers ie somebody already in the key local area who would know site constraints and accept them, 2 would be an occupier from the general area borough/town, 3 would be occupiers from across Telford and surrounding areas & potentially wider West Midlands, 4 would be national occupiers and 5 international companies.
Policy Issues	Waste Site Option	There is a need for sites to accommodate waste treatment facilities in the Borough. These facilities have specific operational needs and can only be located in certain locations. Sites have been appraised to establish their suitability for this form of development.
	Site within Action Plan Area	Sites within an Action Plan Area have been/will be appraised for their local

Policy Issues		strategic importance.
	Bad Neighbour Activity	Sites may have the potential to fulfil a particular role within the borough such as the need for a bad neighbour activity site. Sites have been appraised to establish their suitability for this form of development.
	Rail Freight Activities	Whether the site is suitable for rail freight activities
	High Technology Corridor	Telford is a development node within the Telford – Wolverhampton High Technology Corridor. Sites have been appraised to establish their suitability for this form of development.
	Regionally Significant	The Regional Spatial Strategy identifies the need for a portfolio of sites, regionally significant sites such as regional logistics sites and attractive high quality sub-regional employment sites of 10 to 20 hectares. This criterion identifies whether a site has the potential to fulfil a regional policy requirement.
	Regional Logistics Site	Sites suitable as a location for a regional logistics site.

ANNEX 7: DEVELOPMENT TYPOLOGIES

Warehouse/ Production Units



International House, Stafford Park 11, Telford



Emerald, Crown Point, Stafford Park 10, Telford



Amethyst, Crown Point, Stafford Park 10, Telford

Typically, from 10ha – 20 ha upwards. Some high bay buildings, reasonable quality landscaping, split of activity would be 1/4 light and general manufacturing and 3/4 distribution. Surface level car parking.

Building Type:	Portal frame clad, office context typically 5%
Development Density:	4,150 per net developable ha (18,000 sq ft per net acre)
Ancillary Use:	None
Building Sizes:	2,800 m ² – 9,300 m ² (30,000 – 100,000 sq ft)
Current Example:	Stafford Park

2. Warehouse/ Production Units on large sites with small buildings



Halesfield 17, Telford

Anomaly typical to Telford. Sites range in size from 5-10 ha, however properties located on them range in size from small garages to large warehouses. This is historical, in that small firms have located there and then expanded in further small properties. Minimum size for logistics use 1 ha. Often focused on local manufacturing industry, small scale logistics and local services.

This typology is likely to continue in Telford so long as firms still locate in these areas, until any major redevelopment takes place.

Building Type:	Portal frame building, office content 5% -10%
Development Density:	4,250 m ² per net developable ha (18,500 sq ft per acre)
Ancillary Uses:	Trade counter, local services/repair uses. Car showrooms on road frontages
Unit Sizes:	185 m ² upwards to 10,000 m ² (range from 2,000 sq ft – 100,000 sq ft.
Current Example:	Halesfield 17

Examples in Telford:

This is an area, which is due to grow in Telford. Regeneration of Halesfield eg Halesfield (17) will be included in this, and Hortonwood 30.

Donnington Woold, Telford



Typically, from 10 ha min upwards to 100 ha, more typically 20 –25 ha. High bay buildings up to 30 metres but usually 20m. Exclusively logistics/distribution but signs of introduction as additional ancillary uses. Surface level car parking.

Building Type:	Portal frame building, office content 3%. If logistics centre then 10 % office content
Development Density:	5,070m2 per net developable ha (22,000 sq ft per acre)
Ancillary Uses:	None but currently operators looking to develop ancillary retail , hotel and health and fitness
Building Sizes:	9,300 m2 – 40,000 m2 (100,000 sq ft to 450,000 sq ft)
Current Example:	Donnington Wood

This is not such a big growth area in Telford at present, but would be set to grow in Donnington Wood if logistics were likely to develop somewhere.

Technology Park



Typical size from 8 ha – 10 ha. Mixture of office (B1a) and R&D (B1b) buildings although B1a dominates. Car parking surface level unless in high value areas (£215 per m²) potential for multi storey. High quality landscaping and increasingly shared use with health and fitness, hotel/restaurant and ancillary retail uses.

Building Type:	Typically 2 storey, but possibly up to 4 storey development buildings with floorplates of 2,000 – 15,000 sq ft
Development Density:	4,600 m ² per net developable ha (20,000 sq ft per acre)
Ancillary Uses:	Health and fitness, creche, hotel, A3 uses. Likely 10-15% of overall mix
Building Sizes:	Overall (270 m ² – 3,500 m ² 3,000 – 40,000 sq ft)
Current Example:	Nedge Hill

Example in Telford:

Nedge Hill and others

Town Centre Fringe Office/Business Location



Large floorplate buildings circa 1,400 m² – 1,860 m² (15,000 – 20,000 sq ft) capable of sub division. Typically four storeys in height. Car parking multi storey, decked or underground. High quality landscaping. Some leisure and lifestyle aspects included within scheme (i.e. health and fitness, nursery).

<i>Building Type:</i>	4 storey offices large floorplate.
<i>Development Density:</i>	7500 – 10,000 m ² per net ha (33,000 – 43,000 sq ft per acre)
<i>Ancillary Uses:</i>	A3, health and fitness, nursery possibly residential. Likely 20% of development floorspace
<i>Current Example:</i>	Old Park, Telford