Watford Junction Development Brief

Viability Appraisal

On behalf of

Watford Borough Council

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1 Introduction

1.1 The Study Scope

1.1.1 Peter Brett Associates LLP (PBA) was commissioned by Watford Borough Council (referred to herewith as WBC or 'the Council') to undertake a high level viability assessment of new housing to be allocated in the identified Watford Junction Strategic Policy Area (SPA). The Council has also commissioned BDP to undertake a development brief for the Watford Junction SPA, which will be consulted on between 18 August and 3 October 2016. The masterplanning and the viability work reported here have been carried out together in order to identify a scheme that should be developable in bringing forward the Watford Junction SPA.

1.1.2 In assessing deliverability, in line with the requirements set in the National Planning Policy Framework, PBA have considered the realities of economic viability for the site; the impact of policy layers; and potential headroom for infrastructure needed at Watford Junction.

Other studies

1.1.3 PBA was also commissioned by the Council to undertake a viability assessment at a strategic plan level to provide:

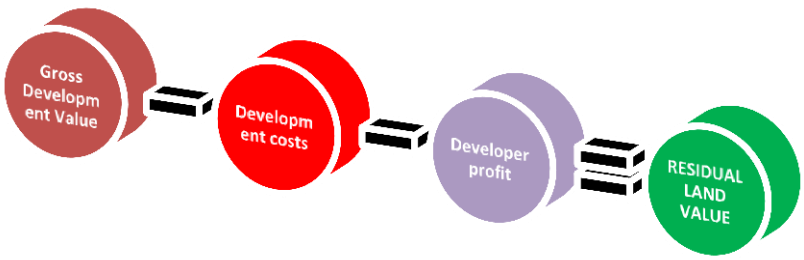
- A plan viability (PV) assessment of the Watford Local Plan draft policies; and
- To undertake a strategic viability assessment for delivering Grade A offices within the Clarendon Road Area.

1.1.4 The outputs for these three Council commissioned projects are provided within separate reports.

1.2 Approach

1.2.1 PBA's approach to assessing viability is to establish residual land value for the scheme informed by the design, layout, and assumptions relating to development after taking policy costs and values into account. This approach takes the difference between current development values and current costs, and establishes a 'residual land value' (i.e. what is left over after the cost of building the site is deducted from the potential sales value of the completed site/buildings). This figure is in turn compared with a current benchmark/threshold land value (i.e. the value over and above the value a landowner would accept to bring the site to market for development) to determine if the site development is viable. Whilst it is discussed in greater detail in subsequent sections, the broad method is illustrated in the **Figure 1.1**.

Figure 1.1: Approach to testing the Watford Junction SPA viability assessment



1.2.2 PBA have considerable experience in assessing viability in terms of local plan viability, affordable housing and CIL studies on behalf of local authorities and in relation to specific sites on behalf of developers and land owners. Importantly, the approach and model used within this report, is consistent with such studies, including the Watford Local Plan Viability Report (2016). Furthermore, having been scrutinised at examination, the approach is considered an industry accepted approach to assessing matters relating to viability.

1.2.3 The viability assessment considered in this report is for planning purposes only and as such it complies with the National Planning Policy Framework (NPPF) and its accompanying guidance - the National Planning Policy Guidance (NPPG) – which make it clear that all local plan policy costs should be built into viability testing. Further guidance notes produced in the form of the Harman Report[1] and RICS[2] financial viability in planning, provide more detailed guidance.

1.2.4 This report and the accompanying appraisal of the proposed masterplan for the Watford Junction SPA has been prepared in line with the Royal Institute of Chartered Surveyors (RICS) valuation guidance. However, it is first and foremost a supporting document to inform the masterplan, including the policies concerned with the planning, funding and delivery of infrastructure needed to support delivery of the masterplan. ***It is not a valuation exercise and as per Professional Standards 1 of the RICS Valuation Standards – Global and UK Edition[3], and the advice expressly given does not form part of a formal "Red Book" valuation and should not be relied upon as such.*** No responsibility whatsoever is accepted to any third party who may seek to rely on the content of the report for such purposes.

1.2.5 The draft Watford Junction Development Brief is being consulted upon in August and September 2016. The results of this report are based on information that is currently available. Subsequently, some of the assumptions used to inform the viability, may be subject to change when more information becomes available during the consultation.

1.3 National Policy Context

1.3.1 The PBA Local Plan Viability Assessment set out the national policy context for undertaking an appraisal of all proposed draft Local Plan policies. The national policy context set out in Section 2 of the Local Plan Viability Assessment report (published on the Council website) is relevant to this study and should be referred to for this report.

1.4 Report Structure

1.4.1 The rest of this report is set out as follows:

- **Chapter 2** describes the scheme and the infrastructure required as part of its delivery;
- **Chapter 3** outlines the assumptions informing their viability; and
- **Chapter 4** concludes by setting out the viability findings for the scheme, and any recommendations.

[1] The Local Housing Delivery Group chaired by Sir John Harman, Viability Testing Local Plans, 2012

[2] RICS, Financial viability in planning, 2012

[3] RICS (January 2015) Valuation – Professional Standards, PS1 Compliance with standards and practice statements where a written valuation is provided

2 Summary of the Tested Scheme

2.1 The Watford Junction Development Brief

2.1.1 This chapter sets out the current option for Watford Junction which will be consulted on in August 2016. This is the scheme, as set out in this chapter, which has been tested in terms of its viability. The viability assessment is based on a snapshot in time (at August 2016) because the masterplan will no doubt develop further after the consultation but likewise the values and costs associated with the scheme will always be changing as typically markets do. Nonetheless, it is important to understand at this stage whether the masterplanned scheme is deliverable, if it is able to meet the policy requirements in the emerging Watford Local Plan and how much potential headroom may be available to help pay for infrastructure.

2.1.2 The current masterplan includes 2,791 flats to be accommodated on a gross area of just over 15 hectares. Whilst predominantly a residential site, the scheme also allows for various commercial and community uses.

2.1.3 BDP's masterplan has segregated the development into five separate areas, comprising a total of 28 development blocks. BDP have set out the residential, commercial and parking measurements for each of these development blocks, which is included in **Appendix A** and summarised for each use in **Table 2.1**.

Table 2.1: Watford Junction Development Brief quantum of development

	Total Floorspace (sqm)
Residential (flats)	177,367 (NIA) 208,667 (GIA)
Retail	6,135 (GIA)
Office	70,764 (GIA)
Community uses	1,883 (GIA)
Gym	789 (GIA)
Car parking – Undercroft Car parking – Underground Car parking – Multi-storey	31,471 (GIA) 2,500 (GIA) 55,512 (GIA)

2.2 Infrastructure Provision

2.2.1 The purpose of a viability appraisal is to indicate whether the scheme is viable and, if so, to determine the residual value left in the scheme to contribute to other policy costs through S106 and/or infrastructure provision (referred to as the headroom).

2.2.2 BDP has provided a number of items to which the scheme is expected to contribute through S106. The masterplan includes two new 2FE schools and nursery on site, which would probably need to be included within S106. The schools have not been included within the PBA viability assessment and any headroom identified in this report would need to contribute towards on-site school development.

2.2.3 In addition, the Council have identified the following infrastructure and significant site clearance items which could be required to service the site, as listed below:

a. Highway improvements;

b. New railway station;

c. Extra-wide pedestrian and cycle bridge; and

d. Relocation of the in situ concrete factory.

2.2.4 There are a number of uncertainties regarding the cost elements of the scheme, for instance, whether these shall be fully paid for by the scheme or if there are alternative funding sources. Therefore, the above infrastructure items have not been accounted for within the appraisal. Instead the residual headroom from the masterplanned scheme, as identified in the following chapters, is used to indicate how much funding from the scheme might be available to provide a contribution towards these four items.

2.2.5 Whether the development can accommodate these items is set out in the final section of this report.

3 Viability Assumptions

3.1 Consultation

3.1.1 PBA has recently undertaken a viability assessment in testing the draft Watford Local Plan policies, and assisting in forming a planning strategy for Clarendon Road, situated close to Watford Junction. As part of these projects PBA have undertaken consultation with landowners, developers and local agents[4], and PBA have also sought the opinions of the Council's property team, which has developed a good understanding of development activity, costs and values within the borough. This has helped inform a number of the assumptions used in testing the masterplanned scheme.

3.1.2 In gaining views from a variety of stakeholders in the development industry, we have been able to check and challenge the assumptions in the following section, ensuring a robust evidence base.

Residential sales values

3.1.3 To ascertain residential sales values, PBA have consulted with a number of sources. Firstly, using online property sites such as Rightmove and Zoopla, PBA surveyed advertised properties for sale (as of summer 2016) within a 1 mile radius of Watford Junction. The advertised prices for a 1 bed apartment averaged around £225,000, for 2 bed properties at around £360,000, and for 3 and more bedrooms at over £400,000. A sample of these properties currently on the market is set out in **Table 3.1**.

Table 3.1: Flats currently on the market within a 1 mile radius of Watford Junction, at summer 2016

Location	New or Existing	No. of beds/type	Asking price
Sutton Road	Existing	1 bed studio	£155,000
Osprey Close	Existing	1 bed studio	£175,000
Argyle Court	Existing	1 bed studio	£175,000
Chiswell Court	Existing	1 bed studio	£185,000
Holm Park	Existing	1 bed studio	£215,000
Sutton Road	Existing	1 bed	£155,000
Durban Rd	Existing	1 bed	£215,000
Southwold Rd	Existing	1 bed	£220,000
Mildred avenue	Existing	1 bed	£235,000
Chiswell Court	Existing	1 bed	£240,000
Estcourt Rd	New	1 bed	£250,000
The Cloisters	Existing	1 bed	£250,000
Flanders Court	New	1 bed	£265,000
Gladstone Rd	Existing	1 bed	£265,000
Court View	Existing	1 bed	£269,950
Grosvenor	Existing	1 bed	£270,000

[4] The Council arranged a viability workshop for the local development industry to enable PBA to test the assumptions contained within the three PBA studies: Clarendon Road, draft Local Plan policies and the Watford Junction viability assessments. This took place on March 2016, and in addition to the consultants and Council officers, was attended by landowners, developers and agents.

Location	New or Existing	No. of beds/type	Asking price
Halsey Road	Existing	1 bed	£275,000
Melrose Place	Existing	1 bed	£275,000
Whippendell Rd	Existing	2 bed	£269,999
Whippendell Rd	Existing	2 bed	£285,000
Keele Close	New	2 bed	£325,000
Queens Rd	Existing	2 bed	£325,000
Woodville Court	Existing	2 bed	£325,000
Lord St	Existing	2 bed	£330,000
Wells Court	New	2 bed	£340,000
Cassio Apartments	Existing	2 bed	£350,000
Lockhart Rd	Existing	2 bed	£350,000
Modena Mews	New	2 bed	£389,000
Cassio Metro	New	2 bed	£430,000
Grandfield Avenue	Existing	2 bed	£300,000
Metropolitan Station	New	2 bed	£399,950
Ashleigh Court	Existing	2 bed	£400,000
Colnhurst	Existing	2 bed	£415,000
Harman Court	Existing	2 bed	£500,000
Albert North Rd	Existing	3 bed	£339,950
St John's Road	Existing	3 bed	£385,000
Campbell Court	Existing	3 bed	£650,000
Keel Close	Existing	4 bed	£499,950

3.1.4 For new build properties in Watford, PBA extracted Land Registry house residential sale price data and the corresponding floorspace data for each property from their Energy Performance Certificate, to obtain an average per square metre sales values for properties sold since 2014. The data indicates that sales values for new flats were on average approximately £4,300 per square metre for transactions taken place in 2014, £4,400 for those sold in 2015 and almost £5,400 for those sold in 2016 so far. These transactions (which include a sample of some 80 properties) are recorded in **Appendix B**.

3.1.5 Finally, PBA have been provided with the viability appraisals of a number of other schemes within close proximity to the site, including two developments at Clarendon Road. Using these appraisals and the consultation carried out as part of this work, PBA have been able to sense-check the figures established above.

3.1.6 Taking this into account, PBA have assumed that a figure of £4,840 per square metre could be considered as a realistic figure for the open market flatted development at Watford Junction, as noted in **Table 3.2**.

3.1.7 The appraisal assumes that any affordable housing will command a transfer value to a Registered Provider at lower than market rates. These values have been confirmed by the Council, and are shown for affordable flats in **Table 3.2**.

Table 3.2: Modelled average Open Market residential sales value

Tenure	£ per sqm
Open market flatted development	£4,840
Social rented flatted development	£2,178
Affordable rented flatted development	£2,662
Intermediate flatted development	£3,146

Non-residential values

3.1.8 **Table 3.3** sets out the rental values and yields assumed for the Watford Junction scheme. For the commercial retail and office uses, these values have been estimated from recent transactions[5] and data of uses currently on the market[6] in Watford. Owing to a dearth of transactional data on gyms, value data was selected from a wider geographic location. It is assumed that the return for community uses is likely to be negligible since generally these types of uses generate no direct value.

Table 3.3: Values for commercial and employment uses

Uses	Rent per annum (£ per sqm)	Yield
Retail	£220	6.00%
Office	£240	6.75%
Community uses	£0	0.00%
Gym	£95	7.00%

3.2 Development Costs

Build costs

3.2.1 Residential build costs are based on actual tender prices for new builds in the market place over a 15 year period from the Build Cost Information Service (BCIS), which is published by the Royal Institution of Chartered Surveyors (RICS). Costs figures are derived from the most recent sample data reflect actual construction data. The tender price data is also rebased to Watford prices using BCIS defined adjustments, to give the median build costs shown in **Table 3.4**. As can be seen in **Appendix A**, the scheme designed by BDP includes residential blocks of various heights. To account for this PBA have split flatted developments into separate costs, as BCIS include higher costs for developments of 6 stories and above.

Table 3.4: Build costs prices assumed for Watford Junction (1st Quarter 2015)

Uses	Build costs (£ per sqm)
Flats (up to 5 stories)	£1,300
Flats (6 stories and above)	£1,700
Retail	£1,500
Office	£1,850
Community uses	£1,700
Gym	£1,900

[5] Using sources such as EGI data. www.egi.co.uk

[6] Using sources such as Rightmove and local agents websites

Car parking

3.2.2 It is important to note that car parking provision set out in the development brief is comprised of different forms of parking (undercroft, underground and multi-storey) which would have different costs associated with each parking form. **Table 3.5** sets out the total cost of floorspace for each type of parking provision.

Table 3.5: Cost assumptions for car parking

	Total floorspace	Total cost (inc. professional fees and contingency)
Undercroft	31,471 (GIA)	£15.9m
Underground	2,500 (GIA)	£2.7m
Multi storey	55,512 (GIA)	£22.1m

3.3 Land Purchase

3.3.1 To determine an appropriate minimum benchmark land value that would incentivise the owners to sell or develop the land at Watford Junction, PBA have sourced data and opinion of local agents regarding land values. From discussions with local agents it was considered that a reasonable benchmark land value could be considered as in the region of £3m per net hectare across the whole masterplan area.

Land purchase costs

3.3.2 The land value needs to reflect additional purchase cost assumptions, which have been set out in **Table 3.6**. These are based on the typical promoter's fee for bringing strategic sites forward, and surveying costs and legal costs to a developer in the acquisition of land and the development process. These have been established as industry standard rates from experience elsewhere, discussions with developers and agents.

3.3.3 A Stamp Duty Land Tax is payable by a developer when acquiring development land. This has been applied to the residual valuation as percentage cost based on the current (April 2016) HM Customs & Revenue variable rates against the residual land value.

Table 3.6: Land purchase costs

Land purchase cost items	Rate at	Applied to
Surveyor's fees	1.00%	Land value
Legal fees	0.75%	Land value
Stamp Duty Land Tax	HMRC rate	Land value

3.4 Other Development Costs

3.4.1 Further relevant cost item assumptions are shown in **Table 3.7** and explained below.

Table 3.7: Other development costs

Development build cost items	Rate at:	Applied to:
External costs	10%	Build cost
Professional fees	10% for residential uses; 8% for commercial uses	Development costs
Contingency	5%	GDC
Sales costs (marketing and legal fees)	3% for OMV units; 0% for AH units; 3% for commercial units	OM GDV AH GDV Non-resi GDV
Abnormal costs	£500,000	Per net hectare
Community Infrastructure Levy	£0	Levied on open market residential floorspace
Draft Policy SD5 – carbon reduction	£2,500	Per unit
Draft Policy T7 requirement for Electric Charging Points	£1,400	Per car parking space
Developer profit on Open Market (OM) dwellings	20%	OM GDV
Developer profit on Affordable Housing (AH) dwellings	6%	AH GDV
Developer profit on non-dwelling development GDV	20%	Non-resi GDV
Development costs finance (per annum)	6.5%	-ve cashflow

External works

3.4.2 This input incorporates all additional costs associated with the site curtilage of the built area, including incidental landscaping and connections to the strategic infrastructure such as estate roads, sewers, utilities and public open space (POS). With an absence of detail costings data being available at this time, the external works variable had been set at a rate of 10% for residential and non-residential floorspace.

Abnormals

3.4.3 Given the nature of the scheme, it is expected that there may be a requirement to factor in abnormal costs into the appraisal to make extra allowances for contaminated land remediation and clearing the site. At this stage it is currently not known what the extent of contamination and remediation is so PBA have included an assumption of £500,000 per hectare to accommodate these potential costs, which equates to approximately £7.5m in total. This has been informed by examples from elsewhere and the HCA document "Guidance on dereliction, demolition and remediation costs" (March 2015).

Professional fees

3.4.4 This input incorporates all professional fees associated with the build, including: architect fees, planner fees, surveyor fees, project manager fees. PBA have assumed that professional fees are set at 10% of residential and 8% of non-residential build costs, externals and extra overs for strategic infrastructure, in line with industry standards.

Contingency

3.4.5 A contingency allowance is included for particular risks of cost overruns on build cost, externals, strategic infrastructure and associated extra-over works for site abnormals. This has been set at 5% of all construction costs.

Sales costs

3.4.6 The Gross Development Value needs to reflect additional sales cost assumptions. These are based on the average cost of marketing for a major new build development site, incorporating agent fees, 'on site' sales costs and general marketing/advertising costs.

3.4.7 A rate of 3% of open market GDV is applied to the valuation as a percentage of the open market GDV. Similarly a rate of 3% is assumed for commercial uses and is applied to the valuation as a percentage of the non-residential GDV. The appraisal assumes that there are no marketing fees associated with the sale of affordable units.

Finance

3.4.8 A finance rate of 6.5% APR has been incorporated into the viability testing to reflect the value of money and the cost of reasonable developer borrowing for the delivery of development at this time and scale in Watford.

Developer profit

3.4.9 The developer profit is the expected and reasonable level of return that private developers would expect to achieve from a specific development scheme. Developer profit margins and overheads have been assumed as follows:

- For the Open Market residential sales, a 20% profit margin is assumed. This is applied to the GDV on the open market residential dwelling development.
- For the Affordable Housing element, a lower 6% profit margin is assumed for the private house builders on a nil grant basis. This is applied to the transfer values of the AH residential dwelling development.
- The commercial (employment and retail) elements to achieve a profit of 20%, which is applied to their Gross Development Value (GDV).

3.5 Local Plan Policy Costs

3.5.1 In identifying the implications of local policies on development viability of Watford Junction, we have reviewed the policy requirements within the Watford Borough Local Plan Part 1 (adopted Jan 2013) and Part 2 (draft consultation policies Dec 2014 and Jan 2016) to identify those that may have a cost implication and hence an impact on viability. This was undertaken as a separate study undertaken by PBA, on behalf of the Watford Borough Council, and is set out in full within the Watford Local Plan Part 2 Site Allocations and Development Management Policies Viability Assessment (August 2016).

3.5.2 Local Plan policies which have a direct impact on the proposed Watford Junction masterplan site are set out as follows:

Adopted Policy HS 3 Affordable Housing

3.5.3 The scheme is appraised against a policy compliant level of 35%, as set out in the adopted Watford Local Plan Part One (2013).

3.5.4 Policy HS3 requires affordable housing tenure, based on the Strategic Housing Market Assessment (2008), and therefore the following assumptions are applied to the affordable housing units:

- 20% social rent;

- 65% affordable rent; and
- 15% shared ownership.

Draft Policy SD 5 Sustainable Design Standards

3.5.5 Draft Policy SD5 provides for sustainable design standards for residential and non-residential developments for Watford Junction, as set out below:

- **Major development in Strategic Policy Areas:** Development to comply with an energy performance standard equivalent to the former national standards as in Code for Sustainable Homes level 4 and BREEAM Excellent (for non-residential uses).

3.5.6 A review of past Government research on cost impacts of changes in Building Regulations and Code for Sustainable Homes (CfSH) suggests that past forecasts of price changes have never affected costs to the extent forecast. Nonetheless, to err on the side of caution we have incorporated estimated additional costs into the model based on the latest advice on the additional cost of moving to CfSH Level 4, which included a 20% reduction in carbon above the Building Regulations Part L 2013 (closely matching the additional requirements on top of building regulations sought by this policy), was approximately a £2,500 increase on build costs. This extra build cost is applied to each residential unit.

3.5.7 For non-residential units, in order to account for the policy to achieve a BREEAM rating of Excellent, PBA have assumed an additional cost equivalent to 2% of the total non-residential build cost.

Draft Policy T7 Parking Provision for Low Emission Vehicles

3.5.8 This policy requires that new developments provide 1 active electrical charging point in every 10 spaces and also 1 passive provision in every 10 spaces. The Energy Saving Trust website[7] states that the typical home charging equipment and installation is £1,400 per dwelling. BDP's design makes a provision for 3,053 parking spaces, of which it is assumed 2 in every 10 would likely incur this additional cost. PBA have accounted for this in the appraisal as a cost to development of £854,000.

Space standards

3.5.9 The Council have advised PBA that the Council will adopt the national space standards. The national space standards have been used within the dwelling sizes at Watford Junction, in line with the BDP masterplan.

Community Infrastructure Levy (CIL)

3.5.10 The Council have an adopted Community Infrastructure Levy (CIL) Charging Schedule which charges £120 per square metre for residential development. However, Watford Junction is zero rated for CIL, and therefore no CIL is charged.

On-site infrastructure requirements

3.5.11 The key objective of this viability appraisal is to firstly determine whether the scheme, as defined in the consultation version of the masterplan (August 2016) is deliverable, i.e. viable. The second objective is to determine what contributions the scheme can make to infrastructure items that are required within the masterplan, to provide a comprehensive development at Watford Junction.

[7] http://www.energysavingtrust.org.uk/scotland/grants-loans/domestic-charge-point-funding

3.5.12 A list of infrastructure items is set out in **Table 3.8**, along with current assumptions about what these costs are likely to be. They are estimated costs summing to £56m and will no doubt change as more information about these schemes comes to light. These costs have not been calculated by PBA and have been taken from third parties.

Table 3.8: List of infrastructure items and estimated costs (August 2016)

Infrastructure item	Cost
Relocation of the Concrete Factory	£10m
Two new 2FE schools	£11m
Highways improvements	£5m
Extra wide pedestrian and cycle bridge	£15m
New railway station	£15m

3.5.13 In the next chapter, PBA tests the assumptions set out in **chapters 2** and **3** to identify whether the current Watford Junction Development Brief (at August 2016) demonstrates viability, along with any financial headroom in the scheme that might contribute towards the critical infrastructure costs shown in **Table 3.8**.

4 Watford Junction Development Brief Viability

4.1 The Viability Results

4.1.1 Prior to discussing the viability of the development brief, it is important to reiterate that this viability appraisal assesses the design that the Council are consulting on between August and October 2016. Subsequently, some of the assumptions used to inform the viability may be subject to change when more information becomes available.

4.1.2 PBA have calculated the residual land value of the policy compliant scheme based on the site information within the masterplan as set out in **Appendix A** and summarised in **Chapter 2**, and using reasonable cost and value assumptions which are correct or appropriate at the time of the report as summarised in **Chapter 3.**

4.1.3 Comparing the residual land value against the benchmark land value (i.e. what a landowner could reasonably expect to receive), gives an indication to the overall viability of the scheme. In this case, the residual land value is in excess of the benchmark land value, with an additional £2m per gross hectare left in value. This figure equates to just under £31m in total, which is the residual value otherwise known as the 'headroom' for paying for infrastructure.

Table 4.1: Proposed Watford Junction scheme viability and headroom

	Gross site area (ha)	Affordable housing %	Residual land value (per gross ha)	Benchmark land value (per gross ha)	Viable?	Residual land value per hectare (Headroom)	Total Residual value (Headroom)
Watford Junction	15.2751	35%	£5,014,188	£3,000,000	**Yes**	£2,016,204	£30,797,718

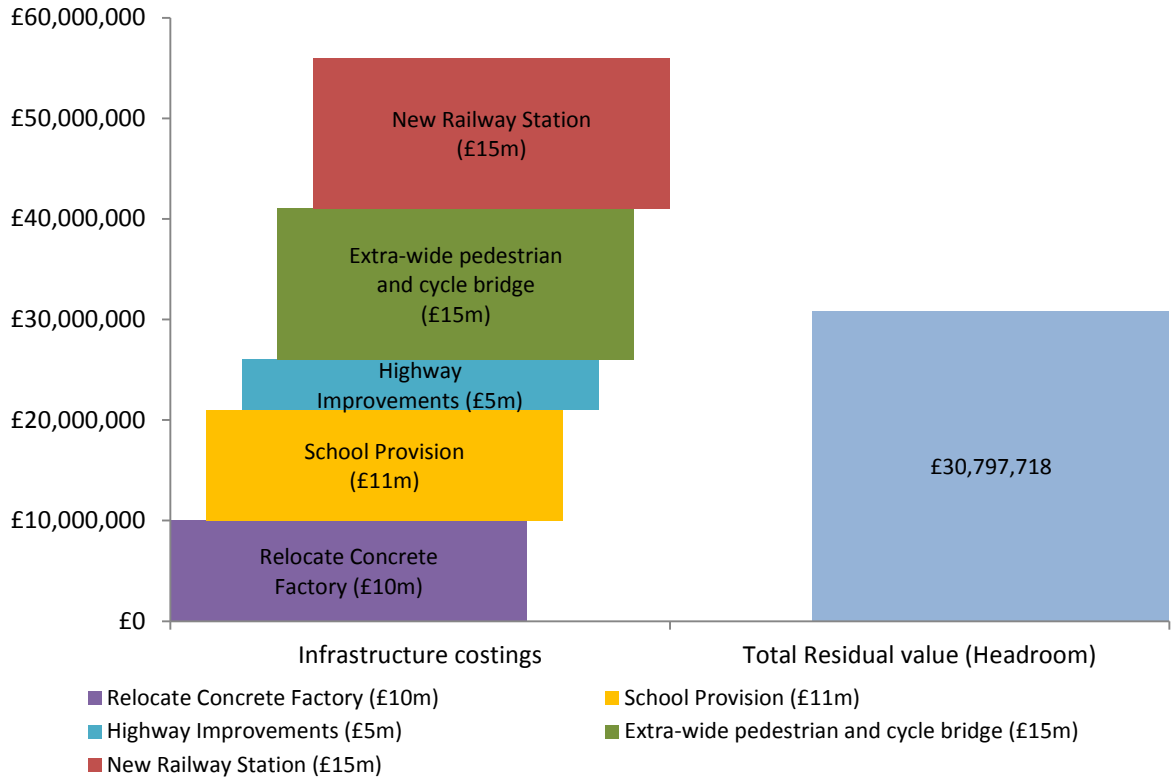
4.1.4 Since this headroom is a positive figure it can be concluded that the scheme, compliant with all adopted and draft Local Plan policies, but with no contributions to infrastructure requirements, is considered as being very viable. The scheme is fully policy compliant with all adopted and draft Local Plan policies, but this assumes no contribution being made to the necessary infrastructure assumed in the Watford Junction Development Brief (August 2016).

4.2 Potential to Contribute towards Strategic Infrastructure

4.2.1 **Figure 4.1** compares the total headroom from **Table 4.1** against the estimated costs for each of the infrastructure items. The infrastructure items are stacked broadly in terms of priority, with the most essential at the bottom and least essential towards the top.

4.2.2 As **Figure 4.1** indicates, the scheme has enough headroom equivalent to paying for some of the infrastructure items identified. Overall, the shortfall is approximately £25.2m towards meeting the estimated costs for the infrastructure requirements within the scheme.

Figure 4.1: Residual land value compared with costings for infrastructure



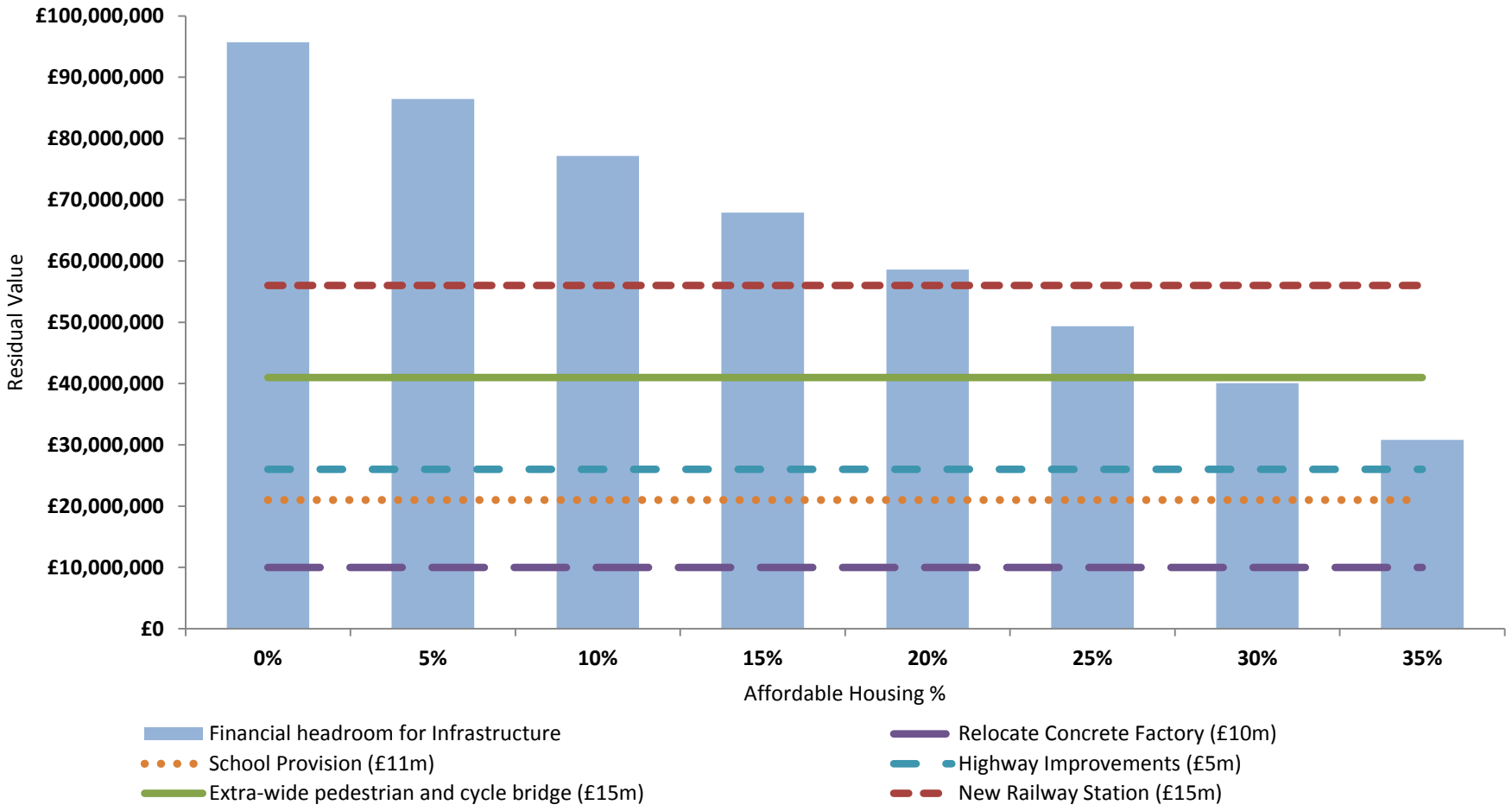
4.3 Sensitivity Testing at Different Affordable Housing Rates

4.3.1 PBA have carried out further analysis to present the residual land value of the Watford Junction scheme at full policy compliance but with different affordable housing rates to identify scope for securing additional infrastructure funding.

4.3.2 This is summarised in **Figure 4.2**, where the blue vertical bars represent the residual land value of the scheme at affordable housing rates varying from 0% to 35%. A higher affordable housing contribution represents a greater cost to the developer, therefore the residual value falls at higher percentages. The overlaid horizontal lines represent the cumulative value of the infrastructure items, identical to those shown in **Figure 4.1**.

4.3.3 The viability results estimates that the scheme would be able to meet the requirements of the identified infrastructure requirements with affordable housing set at a rate of just over 20%. At 30% Affordable Housing it is considered that the development could contribute to almost all the big infrastructure items with the exception of the new railway station.

Figure 4.2: Residual value at various rates of affordable housing



5 Conclusion

5.1.1 The PBA viability appraisal has tested the draft Watford Junction Development Brief developed by BDP on behalf of Watford Borough Council, which they are consulting on between August and October 2016.

5.1.2 This report concludes that the consultation version of Watford Junction Development Brief is viable after including all relevant adopted and draft Local Plan policies, national space standards, and assumptions set out in **Section 3**. The viability position identifies that a surplus of some £31m is available from the scheme, which could be used in contributing towards associated infrastructure items which have not been included in costing the scheme.

5.1.3 The Council have identified five large infrastructure items which potentially need to be provided within the Watford Junction development area, and the approximate estimated £56m total cost for these items has been compared to the overall residual value of the scheme. This appraisal concludes that the headroom falls only marginally short of being able to fund all of the infrastructure item costs, and should the proportion of policy compliant affordable housing reduce from 35% to being closer to 20%, then the scheme would have more chance of meeting the costs in full.

5.1.4 But should it be in the Council's interest to ensure that the scheme is policy compliant and that it does deliver the required 35% affordable housing, then external funding is likely to be needed to plug the gap in funding the big ticket infrastructure items. In doing so, the Council should work with other stakeholders whom will benefit from the additionally sought infrastructure items, including Network Rail, landowners and developers.

5.1.5 Lastly, while the Watford Junction Development Brief is looking like an achievable scheme with reduced affordable housing and/or some external funding at this time, the Council are consulting on the development brief between 18 August and 3 October 2016 and will look to take on board all relevant comments and incorporate them into a final brief. Also the infrastructure items costs are likely to change when more information becomes available. If there are significant changes in the scheme and associated infrastructure costs, then the viability work will need updating to provide a considered assessment that the scheme remains deliverable.

Appendix A Watford Junction Consultation Development Brief (Aug 2016)

Site Name	Block Number	Use	Development Measurments						Parking									Residential Area			Employment Area		School
			Plot Area	Plot Coverage Groundfloor (sqm.)	Building Footprint	Building GEA	Floor Number	Total GEA	Under Croft GEA	UnderCroft GEA	Active Frontages GEA	Active Frontages GEA	Cores GEA	Cores GEA	Undergrou nd GEA	Multi Storey Parking	On Street & On	Car Parking Spaces	Total Resi GEA	Resi Units	Resi Parking Ratio	Total Employment GEA	Employment Parking Spaces	Total School GEA
Redrow	1	Residential	958.3	637.75	637.75	2551.00	*4*	2,551.00	-	-	-	-	-	-	-	-	X	13	2551.00	32	0.40			
	2	Residential	2,483.93	2,483.93	1,817.25	9644.74	*5 to 8*	12,128.67	2,359.73	2,278.66			124.1965	205.27			-	79	9644.74	121	0.66			
	3	Residential	2,254.33	2,254.33	1,707.90	8244.22	*4 to 8*	10,498.55	2,141.61	2,030.77			112.7165	223.56				71	8244.22	103	0.69			-
	4	Residential	3,640.36	3,406.15	2,408.68	14202.35	*4 to 12*	17,608.50	3,235.84	3,112.50			170.3075	293.65				108	14202.35	178	0.61			
	5	Residential	2,552.13	1,720.70	1,395.65	5026.85	*4 to 6*	6,747.55	1,634.67	1,458.20			86.035	262.5				54	5026.85	63	0.86	-	-	
	6	Residential	1,878.40	1,274.70	957.17	2871.51	*4*	4,146.21	1,210.97	1,149.70			63.735	125				32	2871.51	36	0.89			
	7	Residential &	4,090.60	4,090.60	2,963.81	12285.86	*2 to 11*	14,863.22	2,023.34	1,997.81	425.15	351.9	128.868	227.65				67	9259.37	116	0.58			3000
	8	Residential	3,118.46	3,118.46	2,120.74	13789.58	*6 to 10*	16,908.04	2,278.24	2,189.10	684.3	620.26	155.923	309.1				76	13789.58	172	0.44			
	9	Residential	2,220.45	2,220.45	1,383.60	17881.51	*7 to 20*	20,101.96	1,998.87	1,880.44	110.56	110.56	111.0225	229.45				67	17881.51	224	0.30			-
HSBC	10	Residential	1924.25	956.44	956.44	3825.76	*4*	3825.76	-	-	-	-	-	-	-	-	X	19	3825.76	48	0.40			
	11	Residential	3491.18	3491.18	2443.29	13677.00	*4 to 10*	17,168.18	3,008.41	2,802.08	308.21	238.1	174.559	451			-	100	13677.00	171	0.58			
	12	Residential & Education	2631.93	2193.55	2193.55	17388.96	*4 to 20*	19889.29	-	-	508.75	676.95	-	125	2500.33			83	13587.01	170	0.49	-	-	3000
	13	Residential	4291.43	4291.43	2414.83	18388.01	*4 to 15*	22679.44	3,347.72	3,027.92	729.14	779.35	214.5715	484.16	-			112	18388.01	230	0.49			
Network Rail Station Carpark	14	Residential	1019.19	1019.19	1019.19	6115.14	*7*	7134.33	968.23	807.88	-	-	50.9595	211.31	-	-	-	32	6115.14	76	0.42			
	15	Residential	3816.24	3816.24	2301.99	15779.57	*6 to 10*	19595.81	3,578.93	2,852.14	237.31	540.7	190.812	423.4				109	15779.57	197	0.55	-	-	
	16A	Employment & Residential & 2 Storey Car Parking	16089.30	16089.30	3241.89	18519.09	*5 to 12*	92602.36	-	-	349.15	349.15	-	193.76		30570		1019	5428.21	68	0.25	12741.73	85	
	16B				2426.16	19805.08	*4 to 20*				970.23	898.77		71.45					15663.31	196	0.25	3171.55	21	
	16C	Employment			1832.48	12664.83	*5 to 12*				784.73	716.3		68.43					-	-		11948.53	80	
	16D				1358.27	9434.76	*5 to 10*				673.77	573.36		100.4					-	-	-	8861.40	59	
	16E	Car Parking			16089.30	16089.30	*2*				-	831.88		81.91					-	-	-	-	-	
Network Rail Sidings & Depot	17	Residential	2501.17	2501.17	1477.00	8664.16	*6 to 8*	11165.33	2,376.11	2,006.52	-	-	125.0585	494.65	-	-	-	67	8664.16	108	0.62	-	-	-
	18	Employment & Residential	4440.82	4440.82	3511.11	26987.67	*6 to 12*	31428.49	3,792.75	3,422.25	426.03	655.28	222.041	685.53				126	13236.12	165	0.22	13429.32	90	
	19A	Employment	7837.16	7837.16	889.79	7118.32	*8*	42718.91	-	-	149.58	273.35	-	278.15		20645	-	688	-	-	-	6742.71	67	-
	19B	Employment			3927.09	13868.70	*2 to 4*				-	-							-	-	-	13868.70	139	
	19C	Car Parking			6947.37	13894.73	*3*				484.04	408.21							-	-	-	-	-	
	20	Residential	962.45	645.02	645.02	3225.10	*5*	3225.10			-	-	-	-		-	X	12	3225.10	40	0.30	-	-	
Additional Sites	21	Residential	5683.04	2549.52	2549.52	8447.75	*2 to 6*	8447.75	-	-	-	-	-	-	-	-	X	42	8447.75	106	0.40			
	22	Residential	281.94	281.94	281.94	1127.76	*4*	1127.76			152.6	152.6					X	5	975.16	12	0.40			
	23	Residential	643.71	298.52	298.52	1194.08	*4*	1194.08			-	-					X	6	1194.08	15	0.40			
	24	Residential	1652.58	967.91	967.91	2903.73	*3*	2903.73					-	-			X	15	2903.73	36	0.40	-	-	
	25	Residential	1500	720.00	720.00	2160.00	*3*	2160.00									X	11	2160.00	27	0.40			
	26	Residential	790.77	360.00	360.00	1080.00	*5 to 7*	1080.00									X	5	1080.00	14	0.40			
	27	Residential	750.04	646.52	520.33	1560.99	*4*	2207.51	479.53	454.53			25.2385	50.24			-	16	1702.74	21	0.75			
	28	Residential	1547.86.	1064.27	1064.27	3768.95	*3 to 4*	3768.95	-	-			-	-			X	19	3768.95	47	0.40			

Appendix B Sales values of new residential properties in Watford (since Jan 2014)

Street	Date	Postcode	Price	size	£ per sqm
Westland Road	14/02/2014	WD17 1QR	£189,950	41	£4,633
Westland Road	14/02/2014	WD17 1QR	£189,950	41	£4,633
Raven Close	14/02/2014	WD18 7DG	£196,000	50	£3,920
Raven Close	14/02/2014	WD18 7DG	£195,000	50	£3,900
Langley Road	26/02/2014	WD17 4PT	£185,000	44	£4,205
Raven Close	28/02/2014	WD18 7DG	£240,000	65	£3,692
Raven Close	03/03/2014	WD18 7DG	£235,000	65	£3,615
Langley Road	10/03/2014	WD17 4PT	£215,000	48	£4,479
Raven Close	14/03/2014	WD18 7DB	£200,000	50	£4,000
Raven Close	14/03/2014	WD18 7DG	£243,000	65	£3,738
Essex Road	02/05/2014	WD17 4EP	£200,101	37	£5,408
Essex Road	27/05/2014	WD17 4EP	£173,500	34	£5,103
Plantation Close	26/06/2014	WD23 2PG	£269,950	70	£3,856
Plantation Close	26/06/2014	WD23 2PG	£279,950	70	£3,999
Plantation Close	26/06/2014	WD23 2PG	£277,700	70	£3,967
Eastbury Road	01/07/2014	WD19 4PU	£425,000	89	£4,775
Aurora Close	07/07/2014	WD25 0NF	£200,000	52	£3,846
Aurora Close	11/07/2014	WD25 0NF	£200,000	52	£3,846
Eastbury Road	15/08/2014	WD19 4PU	£370,000	78	£4,744
Eastbury Road	09/09/2014	WD19 4PU	£335,000	57	£5,877
Whippendell Road	11/09/2014	WD18 7QN	£245,000	55	£4,455
Whippendell Road	12/09/2014	WD18 7QN	£245,000	55	£4,455
Whippendell Road	17/09/2014	WD18 7QN	£243,000	55	£4,418
Whippendell Road	03/11/2014	WD18 7QN	£244,950	58	£4,223
Harwoods Road	10/11/2014	WD18 7RH	£175,000	48	£3,646
Whippendell Road	14/11/2014	WD18 7QN	£243,000	58	£4,190
Whippendell Road	04/12/2014	WD18 7QN	£249,950	56	£4,463
Rosslyn Road	10/03/2015	WD18 0JY	£210,000	35	£6,000
Cunningham Way	13/03/2015	WD25 7NL	£270,995	68	£3,985
Rosslyn Road	20/03/2015	WD18 0JY	£222,500	42	£5,298
Bateson Drive	25/03/2015	WD25 7NB	£249,995	68	£3,676
Rosslyn Road	26/03/2015	WD18 0JY	£206,500	43	£4,802
Cunningham Way	27/03/2015	WD25 7NL	£269,995	68	£3,971
Cunningham Way	27/03/2015	WD25 7NL	£265,995	68	£3,912

Street	Date	Postcode	Price	size	£ per sqm
Bateson Drive	28/04/2015	WD25 7NB	£224,995	70	£3,214
Bateson Drive	30/04/2015	WD25 7NB	£239,995	68	£3,529
Bateson Drive	14/05/2015	WD25 7NB	£272,995	68	£4,015
Queens Road	26/06/2015	WD17 2LA	£265,000	62	£4,274
Harwoods Road	02/07/2015	WD18 7BG	£186,000	40	£4,650
Harwoods Road	02/07/2015	WD18 7BG	£179,000	41	£4,366
Harwoods Road	10/07/2015	WD18 7BG	£200,000	47	£4,255
Harwoods Road	21/07/2015	WD18 7BG	£200,000	49	£4,082
Harwoods Road	29/07/2015	WD18 7BG	£184,500	43	£4,291
Harwoods Road	29/07/2015	WD18 7BG	£265,000	70	£3,786
Queens Road	19/08/2015	WD17 2LA	£250,000	55	£4,545
Queens Road	21/08/2015	WD17 2LA	£250,000	52	£4,808
Harwoods Road	21/08/2015	WD18 7BG	£200,000	51	£3,922
Harwoods Road	24/08/2015	WD18 7BG	£194,000	46	£4,217
Harwoods Road	25/08/2015	WD18 7BG	£275,000	75	£3,667
Queens Road	28/08/2015	WD17 2LA	£265,000	62	£4,274
Queens Road	01/09/2015	WD17 2LA	£260,000	62	£4,194
Whippendell Road	04/09/2015	WD18 7LU	£200,000	42	£4,762
Whippendell Road	04/09/2015	WD18 7LU	£197,000	42	£4,690
Whippendell Road	10/09/2015	WD18 7LU	£200,000	42	£4,762
Whippendell Road	10/09/2015	WD18 7LU	£210,000	41	£5,122
Harwoods Road	25/09/2015	WD18 7BG	£250,000	61	£4,098
Percy Road	22/10/2015	WD18 0QA	£295,000	54	£5,463
Harwoods Road	22/10/2015	WD18 7BG	£190,000	42	£4,524
Harwoods Road	28/10/2015	WD18 7BG	£204,000	52	£3,923
Harwoods Road	28/10/2015	WD18 7BG	£264,000	63	£4,190
Percy Road	30/10/2015	WD18 0QA	£325,000	58	£5,603
Harwoods Road	25/11/2015	WD18 7BG	£189,000	41	£4,610
Clarendon Road	29/01/2016	WD17 1JY	£156,500	29	£5,397
Clarendon Road	29/01/2016	WD17 1JY	£175,000	32	£5,469
Clarendon Road	29/01/2016	WD17 1JY	£175,500	32	£5,484
Clarendon Road	29/03/2016	WD17 1JY	£125,000	25	£5,000
Clarendon Road	29/03/2016	WD17 1JY	£155,000	29	£5,345
Clarendon Road	29/03/2016	WD17 1JY	£176,000	35	£5,029
Clarendon Road	31/03/2016	WD17 1JY	£235,000	44	£5,341
Clarendon Road	31/03/2016	WD17 1JY	£140,000	25	£5,600
Clarendon Road	31/03/2016	WD17 1JY	£150,000	25	£6,000
Clarendon Road	31/03/2016	WD17 1JY	£185,000	35	£5,286

Street	Date	Postcode	Price	size	£ per sqm
Clarendon Road	31/03/2016	WD17 1JY	£265,000	48	£5,521
Clarendon Road	31/03/2016	WD17 1JY	£240,000	47	£5,106
Clarendon Road	31/03/2016	WD17 1JY	£160,000	25	£6,400
Clarendon Road	01/04/2016	WD17 1JY	£250,000	48	£5,208
Clarendon Road	01/04/2016	WD17 1JY	£255,000	48	£5,313
Clarendon Road	04/04/2016	WD17 1JY	£252,500	48	£5,260
Clarendon Road	05/04/2016	WD17 1JY	£171,500	35	£4,900