

EBD.20



Canal Quarter and Two Associated Employment Sites

Viability and deliverability report

On behalf of **Stratford on Avon District Council**



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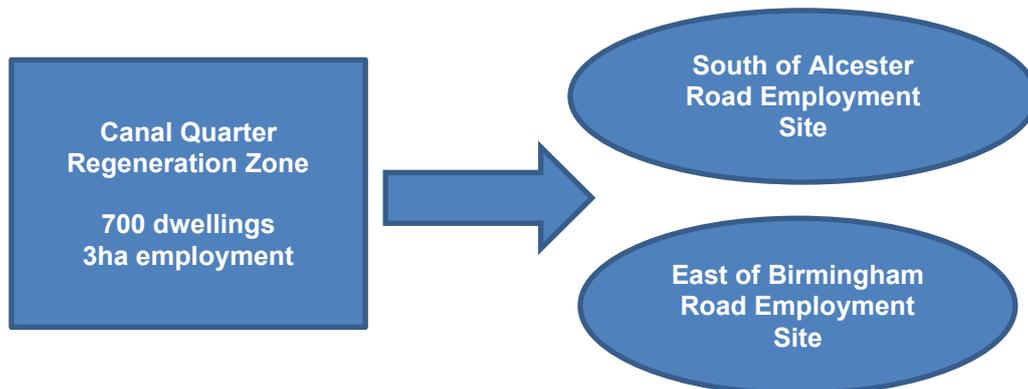
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1 Introduction

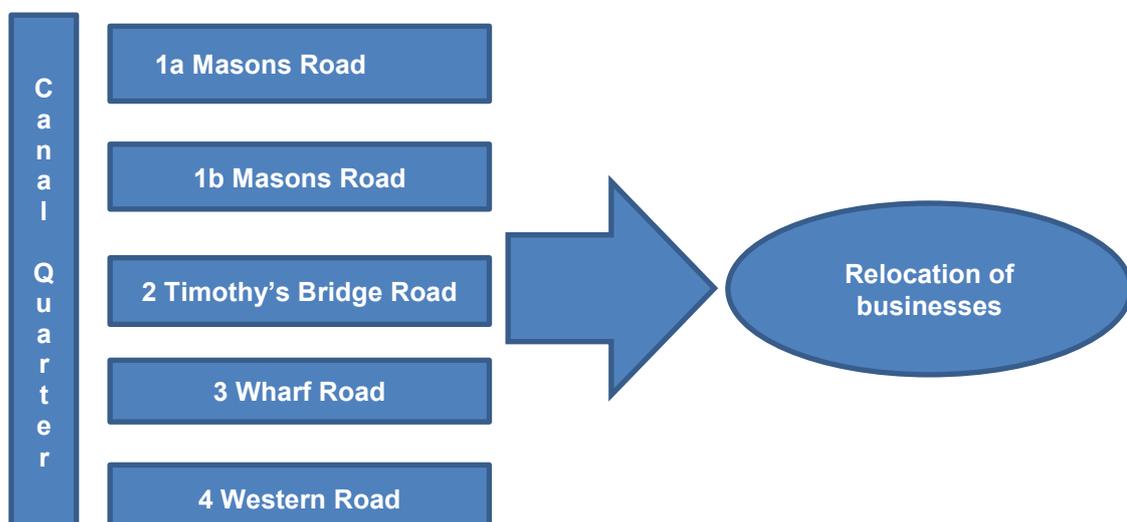
- 1.1.1 The focus of this report is to assess viability and deliverability issues associated with taking forward the Canal Quarter site alongside the development of two employment sites to accommodate relocated businesses.
- 1.1.2 The report assesses the key issues and constraints associated with all of the sites involved. This is based on desk based research including policy analysis and a market assessment, alongside extensive consultation.
- 1.1.3 The Canal Quarter Regeneration Zone was identified in the Intended Proposed Submission Core Strategy to accommodate 700 houses which will go some way to meeting housing supply requirements within the plan period. The report assesses whether the figure of 700 houses is deliverable and the various strategies that could be implemented to take forward the site as well as the two employment sites.

Figure 1.1 Policy proposals



- 1.1.4 In preparing the report, we have been mindful of variations in strategy in terms of securing regeneration of the Canal Quarter. We have identified 5 different and distinct areas within the Canal Quarter and assessed their individual merits in terms of viability and delivery, including timescales. We have also assessed the viability of the two employment sites and the interconnections between these sites and the regeneration of the Canal Quarter.

Figure 1.2 The Canal Quarter areas



- 1.1.5 The report and the accompanying appraisals have been prepared in line with RICS valuation guidance. However, it is first and foremost a supporting document to inform the Core Strategy evidence base and planning policy, in particular policy concerned with the planning, funding and delivery of infrastructure needed to support delivery of the plan.
- 1.1.6 As per Professional Standards 1 of the RICS Valuation Standards – Global and UK Edition¹, the advice expressly given in the preparation for, or during the course of negotiations or possible litigation 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 Approach

- 1.2.1 PBA has sought to establish whether the Canal Quarter Regeneration area identified by the Council can deliver the required number of dwellings within the Plan period, taking into account the local market and infrastructure requirements necessary to enable development. A brief summary of our approach is set out as follows:
- 1.2.2 **Task 1 Site research** – this has established the baseline evidence on each of the parcels of land in terms of the scale and mix of development, pace of development, infrastructure requirements, constraints and mitigation, building on previous work where possible. In particular we have:
- Undertaken consultation/interviews with key stakeholders – this has established work done to date in identifying infrastructure requirements and constraints, business aspirations, marketing and anticipated sales rates and values, land values
 - Reviewed the transport and utilities work and established from this likely costs and timing of delivery
 - Undertaken work on population increase related infrastructure requirements, costs and timings (e.g. education)
 - Market assessment – we have set out achieved values for the types of developments likely to come forward where such examples exist – tested with local agents through telephone consultation as to the likelihood of achieving suggested values and the pace of development.
- 1.2.3 **Task 2 Viability testing** – for each site a viability assessment has been undertaken. This includes a cashflow analysis that will take into account the pace of development and payments for key infrastructure items. The viability assessment sets out what contributions development could make through CIL, taking into account development costs and S106 requirements, including affordable housing.
- 1.2.4 **Task 3 Delivery plan** – we have set out a schedule for the delivery of the site which will include a housing trajectory and triggers for key infrastructure.

¹ RICS (January 2014) Valuation – Professional Standards, PS1 Compliance with standards and practice statements where a written valuation is provided

2 Policy Appraisal

2.1 National Planning Policy Framework, March 2012

- 2.1.1 The National Planning Policy Framework (NPPF) promotes sustainable development and encourages planning authorities to plan positively for their area. The Local Plan is the key document delivering this sustainable development and reflects the vision and aspirations of local communities.
- 2.1.2 The setting of strategic priorities within the Local Plan (Core Strategy) is set out within the NPPF (para 156). This advocates strategic policies to deliver the homes and jobs needed in the local authority and broad locations for strategic development as well as additional specific site allocations for promoting development (para 157). In addition, the NPPF requires proportionate evidence base to be submitted to support the plan (para 158). In particular, the NPPF requires that Local Plans' pay careful attention to viability to ensure that the plan is deliverable. With regards to this, paragraph 173 of the NPPF states:
- "The sites and the scale of development identified in the plan should not be subject to such a scale of obligations and policy burdens that their ability to be developed viably is threatened. To ensure viability, the costs of any requirements likely to be applied to development, such as requirements for affordable housing standards, infrastructure contributions or other requirements should when taking account of the normal cost of development and mitigation, provide competitive returns to a willing land owner and willing developer to enable the development to be deliverable."*
- 2.1.3 The NPPF also sets out the requirements of local authorities to identify and update annually a supply of specific **deliverable sites** sufficient to provide five years worth of housing against their housing requirements.
- 2.1.4 **Deliverable sites** – must be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable.
- 2.1.5 Further to this, local authorities are required to identify a supply of specific, **developable** sites or broad locations for growth, for 6-10 and, where possible, for years 11-15.

2.2 National Planning Practice Guidance, 2013

- 2.2.1 The NPPF provides no further guidance as to delivery and in particular how the viability aspects should be approached. However, the recently published National Planning Practice Guidance (NPPG) does provide some further explanations about the government's view on viability and delivery in respect of plan making.
- 2.2.2 It states that:
- 'Development of plan policies should be iterative – with draft policies tested against evidence of the likely ability of the market to deliver the plan's policies, and revised as part of a dynamic process' and that "Evidence should be proportionate to ensure plans are underpinned by a broad understanding of viability. Greater detail may be necessary in areas of known marginal viability or where the evidence suggests that viability might be an issue – for example in relation to policies for strategic sites which require high infrastructure investment'*
- 2.2.3 In respect of delivering land for housing development the NPPG sets out what should be considered deliverable and developable. In particular it states that assessments should identify:

- the potential type and quantity of development that could be delivered on each site/broad location
- reasonable estimates of build out rates
- how any barriers to delivery could be overcome and when
- an indicative trajectory of anticipated development and consideration of associated risks.

2.3 Core Strategy Intended Proposed Submission, July 2013

- 2.3.1 The Core Strategy is the first document to be produced in the suite of Development Plan documents. The Core Strategy sets out the vision and long term objectives for the Stratford-on-Avon District and the policies to achieve them.
- 2.3.2 The version of the Core Strategy made available for this study was the Intended Proposed Submission Core Strategy endorsed by the Council in July 2013. The Intended Proposed Submission proposes 700 homes at the Canal Quarter Regeneration Zone in the plan period 2008 to 2028 (the plan period has since been revised to extend to 2031).
- 2.3.3 The plan promotes a strategy for economic development which looks to create conditions for businesses to prosper and grow. Policy CS.23: Economic Development states that provision will be made for an additional 30ha of employment land over the plan period 2008-2028 (the plan period has since been revised to extend to 2031), primarily for B1a (offices) and B1B (research and development).
- 2.3.4 The plan identifies a surplus of more traditional employment sites across the District which have previously been used for industrial activities and proposes selective release of such sites.
- 2.3.5 Opportunities for environmental improvements and regeneration at the canal corridor through the town are identified.
- 2.3.6 The Employment Land Study makes reference to the specific provision of a business park for Stratford.
- 2.3.7 The plan addresses transport infrastructure works required to deliver the Stratford Regeneration Zone. These include an enhanced pedestrian and cycle link on Birmingham Road and Alcester Road including spurs to Masons Road and town railway station and a Pedestrian/cycle bridge across the canal.

2.4 Core Strategy New Proposals Consultation, August/September 2013

- 2.4.1 The New Proposals Consultation addressed specific proposals in the emerging Core Strategy including the regeneration of the Canal Quarter, along with new employment sites in Stratford-upon-Avon and a potential location for a major new settlement. The proposals are in response to the increased housing requirements for the District.

2.5 Core Strategy New Proposals Consultation – Summary of responses

- 2.5.1 The “New Proposals Consultation” was launched on 1 August 2013 and ran to 27 September 2013. The consultation Comment Form invited respondents to indicate either support or objection to the proposals and to comment on their reasons. The proposals to be considered included the Canal Quarter Regeneration Zone and two employment areas for relocated businesses. A summary of the key issues raised in the consultation is outlined below:

Canal Quarter:

- This proposal received support from 78% of the 55 respondents
- The regeneration of the area is strongly preferred to further edge-of-town greenfield expansion
- The area is recognised as largely unfit for purpose in its current state, with acknowledged traffic problems and little room for businesses to expand
- The representations made on behalf of land owners and house builders focus on the viability and deliverability of the proposal. Difficulties with land assembly, contamination and relocating businesses were raised.

Alcester Road:

- This proposal received support from 60% of the 25 respondents.
- Warwickshire County Council advised that traffic impacts on the A46 Wildmoor roundabout would require mitigation.

East of Birmingham Road:

- This proposal was opposed by 58% of the 26 respondents.
- The principal reasons for objection related to the land being released from the green belt especially when it is considered that alternative brownfield land may be available.

2.6 Core Strategy: Further Public Consultation, January to March 2014

- 2.6.1 Stratford-on-Avon DC undertook further public consultation on its emerging Core Strategy because new technical evidence is suggesting further important changes that will affect where new homes are built across the District.
- 2.6.2 The latest consultation sought comments on the following aspects of the Core Strategy:
- 2.6.3 **Changes to the timeframe of the Core Strategy:** Given that the NPPF provides that Core Strategies should run for at least 15 years from the date of adoption (expected to be 2015), it is proposed that the plan period be changes from 2008-2028 to 2011 to 2031.
- 2.6.4 **The total number of new homes that need to be built:** Overall the evidence points to a need for 9,600 additional homes (480 per year) between 2011 and 2031. However the joint Strategic Housing Market Assessment 2013 (SHMA) for the wider and Coventry and Warwickshire sub-region suggests that this figure would result in some suppression of household formation and the need to consider a higher level of provision to support economic growth in south Warwickshire. Taking into account the SHMA evidence, a figure of 10,800 additional homes between 2011 and 2031 is proposed.
- 2.6.5 **A range of alternative strategic options for meeting an increased housing requirement:** The Canal Quarter Regeneration Zone continues to be identified as a strategic allocation for 700 homes.
- 2.6.6 The production of the Core Strategy is ongoing through the relevant stages to adoption.

2.7 Emerging principles (February 2014)

2.7.1 The Council are in the process of developing and refining the emerging policies relating to the Canal Quarter and the employment sites. The key principles of the policy approach are as follows:

Canal Quarter

- 20ha to deliver approximately 700 houses, B1 uses, linear park and community facility.
- To be delivered in two phases over the plan period.

SUA2: South of Alcester Road

- 20ha for employment uses B1 (a) (b) and (c). relocation of businesses from the Canal Quarter.
- During the plan period up to 10ha will be released, plus additional land to correspond with the area taken up by businesses relocating from the Regeneration Zone.

SUA.3: East of Birmingham Road

- 15ha for employment and commercial uses relocating from the Canal Quarter.
- The justification for the removal of this land from the Green Belt is based solely on providing scope for implementing the Canal Quarter Regeneration Zone. It is not intended that any other business will be allowed to locate on this site. Specifically, the relocation of car showrooms from Western Road is identified for the Green Belt site.

2.8 Employment Land Study (ELS), August 2011

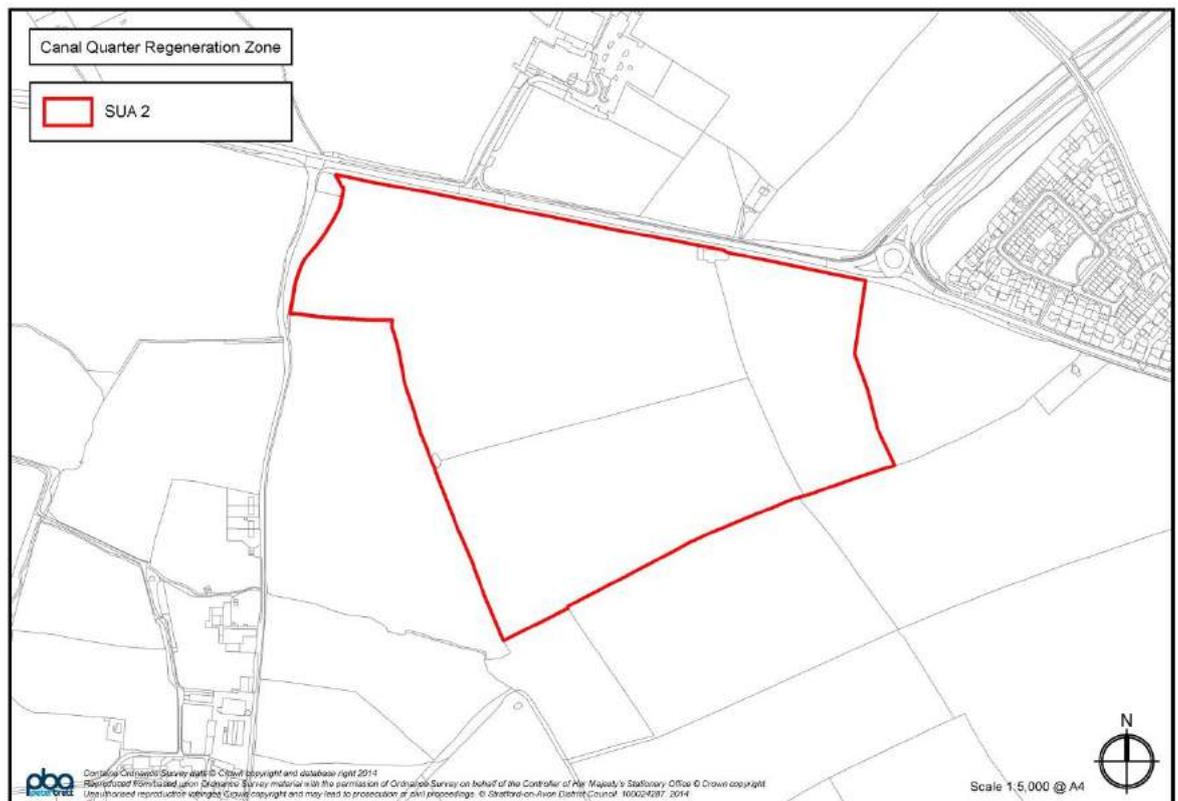
- 2.8.1 The ELS focuses on B Class uses in an assessment of the District's economy. Stratford-on-Avon is the main employment centre, containing around 17,500 jobs and across the District, levels of productivity are close to the national average.
- 2.8.2 Over the past decade, the area has seen high business start-up rates and stronger than average survival rates. Levels of labour market skills are relatively high in the District and economic activity and employment rates are also high. There are relatively few large corporation occupiers within the District.
- 2.8.3 The ELS identifies a requirement for 5-10ha of B1 space within Stratford-on-Avon in the plan period 2008-2028 and a surplus in the supply of industrial and warehouse space.
- 2.8.4 At Masons Road, the ELS comments that the quality of stock is substandard and there is potential for mixed use redevelopment of sites in this employment area over the plan period.
- 2.8.5 At Western Road, the ELS recommends that the potential for mixed-use redevelopment should be considered.

3.1.5 Redrow Homes completed a detailed viability appraisal to assess the viability of the proposals and this concluded that the policy compliant planning obligations which would be sought from a development of this scale were not viable for the developer to make a reasonable return. The application was refused and was considered at appeal in January 2014, at the time of writing the decision is pending.

3.2 Proposed Employment Site SUA2: South of Alcester Road

3.2.1 This is a greenfield site on the A46 which is owned by the Baker Trust. It extends to 20ha. The site has significant frontage onto the A46, the far north east of the site adjoins the roundabout between the A422 and the A46. There are a number of trees and hedgerows that border the site and a small pond with a group of trees at the northern boundary. The site is flat grassland and there are no buildings. Figure 3.1 sets out the proposed boundary.

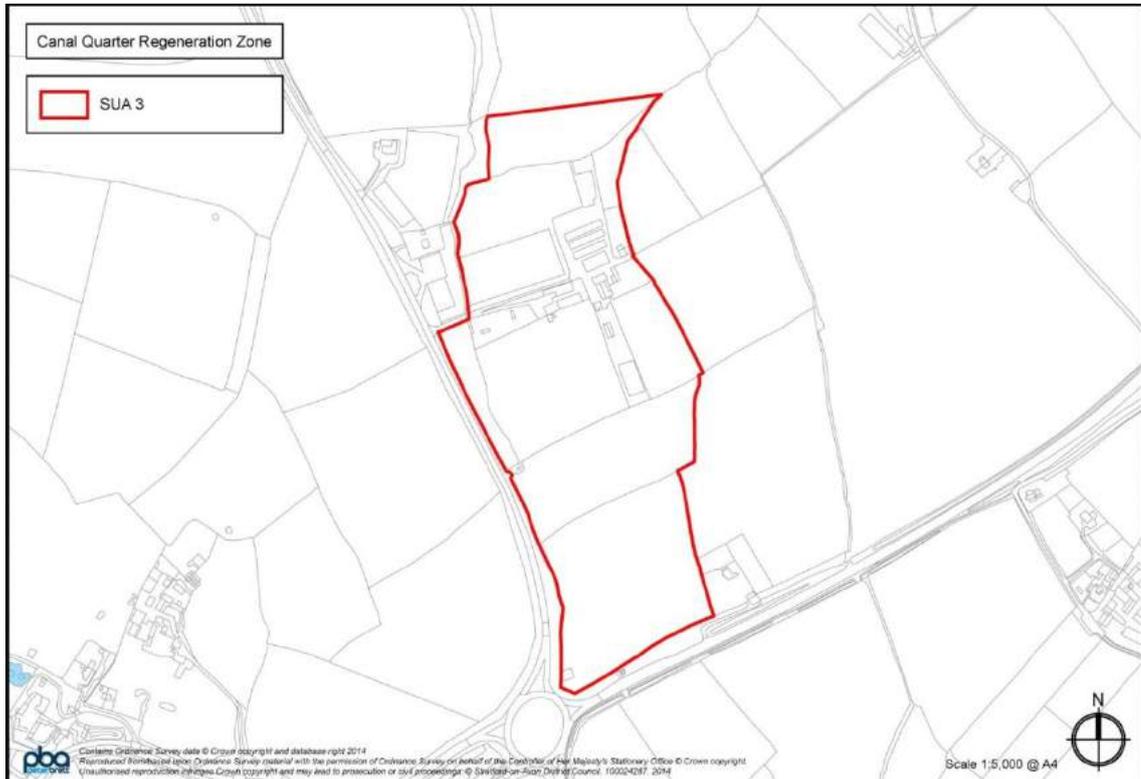
Figure 3.2 SUA2



3.3 Proposed Employment Site SUA3: East of Birmingham Road

- 3.3.1 This site is in the Green Belt and in various ownerships. It extends to 15ha. A proportion of the site is occupied by mobile homes and various buildings in commercial use. There are a number of trees and hedgerows on the site. Figure 3.3 shows the boundary for SUA 3.

Figure 3.3 SUA 3

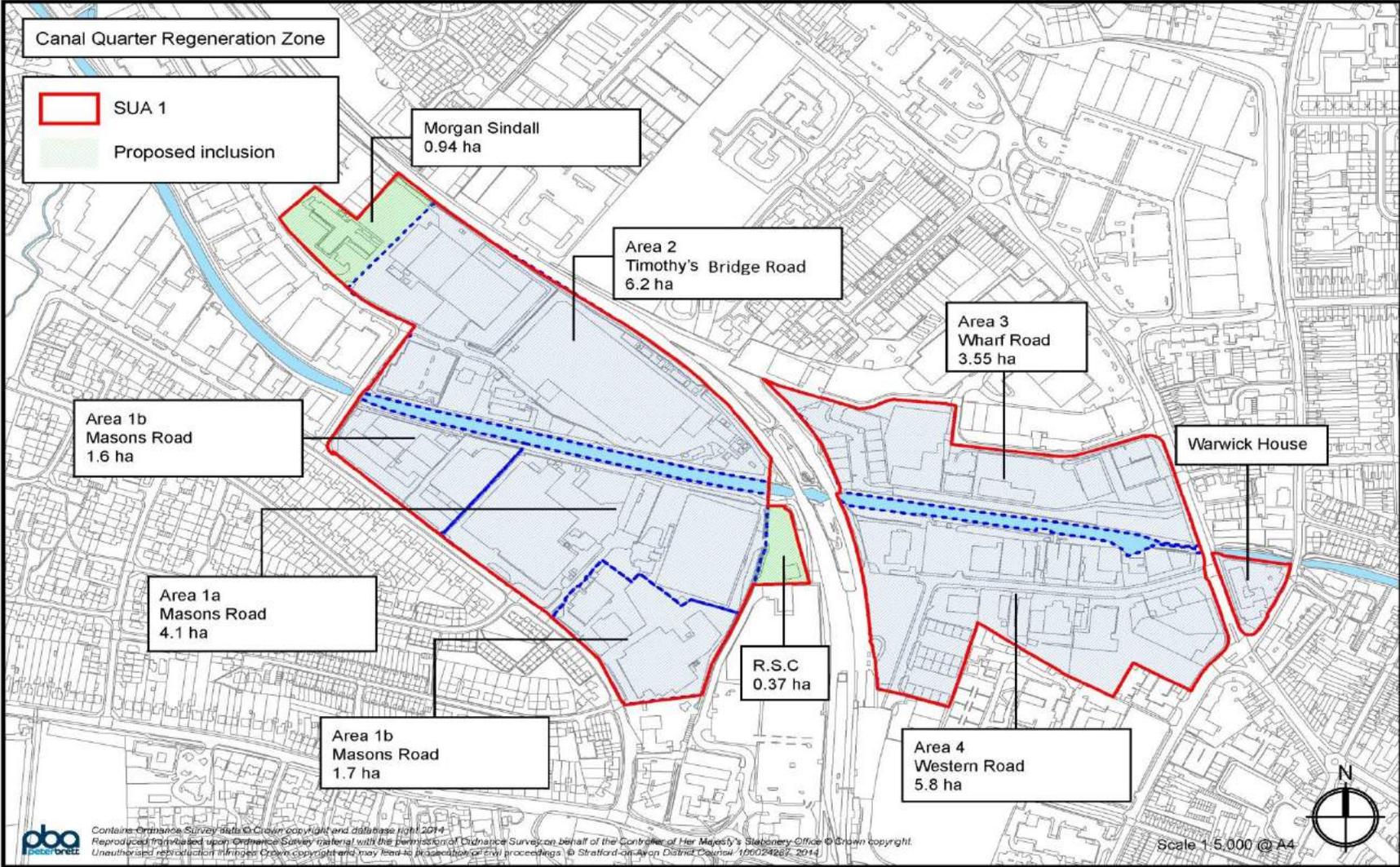


3.4 Canal Quarter Areas

- 3.4.1 For the purposes of the study, the Canal Quarter has been divided into distinct areas and each one of these areas addressed in order to drill down into detail about the characteristics of the site and its deliverability (see Figure 3.4). The following section sets out a brief description and the land ownership for each parcel. There are a multitude of ownerships and uses across the site, however the land parcels identified below are intended to help identify specific parcels that could come forward for development given the right policy and development framework.

Canal Quarter and Two Associated Employment Sites
 Study of the Viability and Deliverability

Figure 3.4 Canal Quarter Regeneration Zone land opportunities



3.5 Warwick House

- 3.5.1 We understand that this parcel of land is being taken forward for around 80 units of specialist housing in the form of one and two bedroom flats. The Council has advised that this area of land should not be assessed in the scope of the report as they are dealing with specific proposals for development of the site. The Council anticipates that the site is capable of being brought forward within the first five years and is therefore deliverable. The site is owned by the Town Trust.

3.6 Area 1a: Masons Road

- 3.6.1 Listers have significant interests on this site. They own a large site and lease the former football ground from SDC for car parking. The site has a generally run down appearance and is not fully occupied. Wright Engineering leases a small part of the site from Stratford-on-Avon District Council. The implications of the lease are discussed in subsequent sections of this report.
- 3.6.2 The area of land shaded green on the plan to the east of Area 1a is also owned by Stratford-on-Avon District Council and leased to the Royal Shakespeare Company. Our understanding from the council is that the site could be made available for development. With the potential for improving local land values to create a more comprehensive development, in addition to achieving more residential development to meet local need, it is proposed to include this within the Canal Quarter in Area 1a. This also means that the boundary of the Canal Quarter Policy Area SUA 1 should be revised.

3.7 Area 1b: Masons Road

- 3.7.1 This part of the Masons Road site comprises several buildings which are leased out to a number of tenants. Stratford Enterprise is a relatively modern building with various tenants and is well occupied.
- 3.7.2 Tappex occupy a single storey brick building on the site which appears to be in good condition. Tappex are a well-established firm which manufactures threaded inserts for plastics, metals and wood and supplies a UK and international market.
- 3.7.3 The area to the south of Area 1b is currently occupied by the fire station. Whilst it is considered that there is potential for this site to be redeveloped as part of the wider regeneration plans, the Warwickshire Fire and Rescue service have indicated that they have no plans to move in the medium term.

3.8 Area 2: Timothy's Bridge Road

- 3.8.1 This area is dominated by DCS in large warehouse buildings and car parking. The site is serviced by a significant number of articulated vehicle movements. Although close to the canal, the buildings do not front it or have any relationship with the waterway. It is understood that DCS is an owner occupier for much of this site.
- 3.8.2 A separate company occupies a small part of the site, in modern office buildings. Also an extension to the west of Area 2 has been suggested through the consultation process to include the Morgan Sindell buildings and car park. However, as this site has come forward during the later stages of preparing this report it has not been fully tested in terms of likely constraints, potential uses and viability. However, in broad terms it is considered that this represents a logical extension to SUA 1 and should be included – potentially for a range of mixed uses which will complement the residential proposals.

3.9 Area 3: Wharf Road

- 3.9.1 This area is dominated by Jewsons and Build Base builders merchants. We understand that these businesses trade well from this site and benefit from being located close to one another. There is on street parking in this area and parking issues can cause difficulties with access.
- 3.9.2 Premier Inn occupies a key site in a new building with frontage on to the canal and access onto Birmingham Road. The development of the site has successfully exploited its canalside location with the hotel restaurant overlooking the canal and ample outside seating adjacent to the towpath.
- 3.9.3 There are 11 small low rise units off the Waterways which are in multiple ownership. These were constructed on the site of the old gas works. Remediation of the gas works was undertaken by Celtic Technologies for British Gas Plc and completed in 2004.

3.10 Area 4: Western Road

- 3.10.1 This area is largely comprised of motor sales premises. The majority of the area is owned by the Town Trust, with individual plots subject to long leases of 99 years which run generally to about 2060. We understand that the rent payable to the Town Trust is very affordable and well below market rates.
- 3.10.2 The Toyota Car Showroom (no.9/10) occupies a large building (leased by Listers). Other uses include a motorcycle showroom (no.15/15A) and a car body repair shop (no.16/17).
- 3.10.3 We understand that an application for a McDonald's drive thru on Western Road was submitted in 2013 but then withdrawn and recently resubmitted with a fresh application.
- 3.10.4 Planning permission has been granted for a Steam Locomotive Centre on an area adjacent to the existing railway. Whilst there is no clear indication as to whether the centre will be delivered within the plan period, the council has requested for the area to be safeguarded and for it to be excluded from the developable area.

4 Consultation

4.1 Introduction

- 4.1.1 The following section provides a summary of the consultation responses from key stakeholders and landowners related to the Canal Quarter and the two employment sites. The consultation exercise focused on 10 key interests (primarily identified by the council) and clearly does not include all the land owners in Canal Quarter. The stakeholders were selected on the basis that they cover most of the interests on the Canal Quarter and would therefore be reflective of current thinking and future opportunities.
- 4.1.2 The consultation responses are a vital element in determining the viability and deliverability of the sites.

Table 4.1 Summary of stakeholder discussions

Name	Current Position	Delivery	Future
Stratford NDP Team	Support the regeneration of the Canal Quarter, in particular the preference for employment on greenfield sites and high density residential on brownfield sites in the town centre.	Requires a canal crossing to access Timothy's Bridge Road Site.	Requires a robust masterplan for successful delivery with the potential to emulate canal regeneration elsewhere e.g. Birmingham.
Stratford Town Trust	Support the regeneration proposals.	Significant land ownership on Western Road with various leases. Would be prepared to sell the freehold in the future to facilitate regeneration.	The Trust has a long term view of regeneration in Stratford and considers the Canal Quarter project working over a long timeframe.
Canal and River Trust	Support the principle of regeneration, subject to their existing operations being satisfactorily accommodated and continuing to operate.	Concerns about their uses conflicting with residential use.	Require that their interests are fully assessed as proposals are taken forward.
Listers Group	Have a significant presence in the Canal Quarter. Western Road – car dealerships leased from the Town Trust. Masons Road – car parking areas which could be relocated anywhere.	There are too many small sites with varied interests which presents significant challenges to regeneration.	Could relocate from Masons Road in the short term. The premises on Western Road are adequate for at least the next 10 years.
DCS Group (UK) Ltd	Own a significant site at Timothy's Bridge Road.	Currently not looking to relocate but have indicated a desire to move in the past.	Prices of land locally are far too high to allow any potential move.
Bird Group	Committed to Stratford and have ambitious plans for development.	Inward investment and relocation is viable in open market	Intend to respond quickly and positively as the Core Strategy is

Name	Current Position	Delivery	Future
		conditions if land is made available.	progressed.
Jewsons	Operate from Wharf Road	May consider relocation to an appropriate site south of the river.	Need to look at value of their existing site alongside relocation sites.
Warwickshire Fire and Rescue Service	Fire Station at Masons Road.	Medium term plans to 2020 do not include relocation. The existing fire station is a critical part of the future strategy in Stratford.	Plans will be reviewed post 2020, but at this stage there is nothing to suggest relocation will take place, even in the long term.
Barratt West Midlands	Proposals tested with a national housebuilder – indicated that they would be interested in this type of investment in partnership with a promoter or landowner	There is potential for residential to be delivered.	Would look to deliver family homes (semi-detached) at Masons Road, and more bespoke apartments at Wharf Road.
Baker Trust SUA.2	The Trust owns the entire site and is a willing seller.	Undertaking ongoing discussions with potential development partners. Have had preliminary discussions with DCS.	Currently identifying abnormalities in order to understand more about the site.
Morrisons Park Home Estates SUA.3	Own approximately 5.5 acres of the site and operate a mobile homes business.	Have not explored land values and are not actively marketing the site.	Have a flexible approach to their strategy for the site and appreciate that there are a number of ownerships.

5 Site Assessments

- 5.1.1 The Canal Quarter and the two potential employment sites have been assessed in terms of the infrastructure requirements and their environmental impacts in terms of landscape and ecology which are also important given the canal side setting in respect of the Canal Quarter and the greenfield setting for the employment sites.
- 5.1.2 A risk matrix is included at the end of this section to set out the main requirements to enable the sites to be brought forward. This is used to help inform the viability assessment and the delivery plan.

5.2 Infrastructure

- 5.2.1 The proposed strategic sites will require substantial investment in infrastructure to deliver the sustainable development that is planned. It is important that the main infrastructure requirements are identified and tested in this report. However, it is also important to note that an Infrastructure Delivery Plan (IDP) is being prepared to support the Core Strategy and a subsequent CIL process will provide further guidance on developer contributions for the required infrastructure. The IDP will be kept up to date through the plan period to reflect any changing circumstances and should be cross referenced when reading this report for the latest position.

Infrastructure consultation

- 5.2.2 To inform the viability testing and to evidence the assessment of delivery, consultation has been undertaken with developers, landowners and Infrastructure Service Providers (ISPs) to identify indicative physical, social and green infrastructure requirements. This information has been supplemented and validated by PBA in conjunction with ISPs identified by the Council.
- 5.2.3 The work has focused on the identification of onsite infrastructure requirements to inform the consideration of development viability. The study has sought to identify what infrastructure is required, its cost, who is responsible for its delivery, when it is likely to be required and potential funding sources.

Infrastructure requirements

- 5.2.4 It is important for the purposes of demonstrating delivery that the following is identified:
- Trigger points for infrastructure
 - Cost of infrastructure
 - Funding options for infrastructure provision
- 5.2.5 The tables in the following section set out an infrastructure plan in terms of infrastructure provision and pace of development for the Canal Quarter. For the purposes of this stage of the report it is assumed that 700 dwelling are to be provided on the Canal Quarter Regeneration area. An indication of the likely source of funding for each of the infrastructure items is also included. However, it is considered that whilst the report does indicate funding sources the decision of what will be identified as site specific mitigation and agreed through S106/S278 and what will be funded through CIL is ultimately a decision for the council.

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Table 5.1 Infrastructure requirements

Canal Quarter SUA 1 Infrastructure Trajectory		Phasing	0	0	0	0	40	55	55	55	55	55	55	55	55	55	55	55	55
		Running Total	0	0	0	0	40	95	150	205	260	315	370	425	480	535	590	645	700
Scheme Reference/Infrastructure Requirement	CIL or S106/S278	Cost (£ million)	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31
1. A4390/B493 Evesham Place Roundabout	S106/S278	0.23										0.23							
2. A3400 Birmingham Road	S106/S278	0.49																	0.49
3. A46/A3400 Bishopton Roundabout	S106/S278	0.73										0.73							
4. A46/A422 Wildmoor Roundabout	S106/S278	0.73											0.73						
5. Extension/modernisation of existing health premises	S106	0.06											0.06						
6. Improvements to Community Centre and Library Provision	S106	0.35											0.35						
7. New 1 FE primary provision (off site)	S106	2.25													2.25				
8. Secondary School Place contributions	S106	1.50													1.5				
Total S106/278 Cost		6.34																	
9. A3400 Alveston Manor and Shipston Road/A422 Banbury Road Roundabout	CIL	0.30																	
10. A3400 Bridgefoot/Bridgeway Gyrotory	CIL	0.24																	
11. A3400 Shipston Road/B4632 Clifford Lane Roundabout	CIL	0.32																	
12. A3400 Shipston Road/A4390 Seven Meadows Road Roundabout	CIL																		
13. Strategic Signing Improvements	CIL	0.29																	
14. Shakespeare Street/Mulberry Street one-way	CIL	0.06																	
15. Guild Street/Gt. William Street traffic signals	CIL	0.06																	
16. A46/A4239 Marraway Roundabout	CIL	0.04																	
17. A3400 Bridgeway/A439 Warwick Road	CIL	0.04																	
18. Contingency for unforeseen impacts	CIL	0.70																	
19. Police recruitment, equipment and custody provision	CIL	0.60																	
Total Cost (S106/278 + potential CIL funded items)		8.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	1.14	0.00	3.75	0.00	0.00	0.49	
Employment sites SUA 2 and SUA 3 Infrastructure Trajectory																			
20. A46/A3400 Bishopton Roundabout	S106/S278	0.40										0.4							
21. A46/A422 Wildmoor Roundabout	S106/S278	0.40									0.4								
Total Cost		0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Notes:-

- (a) The following estimates of when mitigation would be required are based on a high-level assessment of predicted highway network conditions in relation to the proposed housing trajectory
- (b) Scheme 1 would be required with 250 - 500 dwellings
- (c) Scheme 2 would be required with 500 - 1,000 dwellings
- (d) Scheme 3 is also required to accommodate the effects of change in traffic movements at this junction following the delivery of the Stratford Western Relief Road (SWRR) which will exacerbate issues which are likely to occur as result of the overall growth within the area
- (e) Schemes 4 and 5 are intrinsically linked and should be delivered as a single scheme. Implementation would need to follow the capacity improvements provided by Schemes 1 to 3
- (f) Scheme 6 is required to accommodate the additional vehicle demands released onto the network by Schemes 1 to 5
- (g) Schemes 7 and 8 should be considered for early implementation due to the strategic nature of the trips that are affected by development impact coupled with the need to ensure the operation of the A46 Strategic Road Network is maintained throughout the Core Strategy period
- (h) Scheme 9 would encourage traffic to use the A439 Warwick Road for inbound trips as an alternative to A3400 Birmingham Road where capacity is constrained
- (i) Scheme 14 provides a contingency sum for schemes yet to be identified and is based on a rate of £1,000 per dwelling as adopted at the former Rugby Radio Station site

5.3 Environmental impacts

- 5.3.1 In addition to identifying infrastructure requirements a desk top study of the environmental and landscape issues of each of the three sites (SUA1-SUA3) has been undertaken to identify potential landscape and ecological constraints and opportunities.
- 5.3.2 The research includes a landscape data trawl, utilising existing published data including relevant local authority GIS datasets and Core Strategy Evidence Base documents, published landscape character assessments and utilising Google Earth.
- 5.3.3 From the desktop appraisal, landscape and ecology constraints for each of the sites have been identified and are set out on plans in Appendix A, and in the following sections below.
- 5.3.4 Strategic landscape and ecology / green infrastructure principles for each of the sites have also been identified, in terms of key landscape and ecology mitigation requirements and enhancement opportunities to accommodate the proposed development and changes of land use. These are illustrated on plans in Appendix A, and set out in the sections below.
- 5.3.5 The landscape and ecology constraints and principles set out in this document and on the accompanying plans are intended to provide a broad overview of the key issues and opportunities for each site. More detailed landscape, visual and ecological studies may be required to inform any subsequent planning applications.

SITE SUA.1: CANAL QUARTER REGENERATION ZONE

- 5.3.6 The SUA.1 site is dominated by large scale industrial/manufacturing and commercial units with associated areas of car parking and circulation roads. The Stratford-on-Avon Canal divides the site west to east. The site is also bisected north to south by the Birmingham to Stratford railway line. The canal and railway line form green corridors through the urban environment.

Landscape and Visual

- 5.3.7 The table at Appendix B1 sets out an overview of the likely landscape and visual constraints and opportunities associated with redevelopment of the site for residential and mixed uses.

Ecology current habitats

- 5.3.8 Areas of semi-natural habitat within the site are limited to the canal and its associated riparian bankside habitats and the scrubby embankments of the railway line. There are scattered mature and semi-mature trees throughout the site, where these are located within landscaped areas and car parking associated with the various industrial and commercial units.

Ecological constraints and opportunities

- 5.3.9 The table at Appendix B2 provides an overview of the likely ecological constraints and opportunities associated with development of the SUA.1 site. This would however need to be confirmed following a detailed site habitat assessment and targeted protected species surveys (where appropriate).

Strategic Landscape and Ecology Principles for SUA.1:

- 5.3.10 Key landscape and ecology mitigation requirements and proposed enhancement opportunities to accommodate the proposed development and changes of land use for site SUA.1 are identified in Appendix B3 and include:
- Create high quality public realm and active uses along the canal corridor, including public open spaces, new tree planting, and integrated play within the urban environment;

- Increase public access to the canal – new footpaths and cycle routes;
- Retain good quality mature and semi mature trees, incorporate root zones into soft landscape strips;
- Enhance ecology habitats along the canal where possible, including riparian habitats and fish refuge areas where appropriate;
- Incorporate water sensitive urban design solutions (WSUDS) into the public realm hard and soft landscape areas as part of the SuDs delivery;
- Increase pedestrian and cycle routes throughout the site, including new north-south crossings over the canal between the site parts;
- Create new pedestrian and cycle routes to provide links to the town's railway station, Timothy's Bridge Road and the existing National Cycle Network along Masons Road;
- Incorporate new street tree planting along Masons Road frontage to soften the new development in views from adjacent areas and to 'green' the road corridor;
- Enhance the wildlife corridor along the railway boundary with native trees, shrubs and grassland areas, including semi-natural buffer zone;
- Utilise a sensitive lighting strategy along the canal corridor, minimising light spillage, as part of mitigation strategy for bats; and
- Provide bat roosting and bird nesting opportunities within new buildings.

SITE SUA.2: SOUTH OF ALCESTER ROAD

5.3.11 The SUA.2 site comprises two agricultural fields and part of a third field, bordered by the A46 Alcester Road to the north and the Drayton Manor Drive to part of the eastern boundary. The site lies at the western edge of Stratford-on-Avon, the northeastern tip of the site adjoining the roundabout between the A422 and A46.

5.3.12 The site was amongst those areas considered in the Landscape Sensitivity Study prepared by White Consultants on behalf of Stratford on Avon District Council in July 2011. The site forms a part of the wider area of ST26 of that study which was assessed in terms of landscape sensitivity to housing development and, separately, to commercial development.

Landscape and Visual

5.3.13 The table at Appendix B3 sets out an overview of the likely landscape and visual constraints and opportunities associated with development of the site for commercial uses.

Ecology current habitats

5.3.14 The SUA.2 site is dominated by a series of grassland fields, understood to comprise improved and poor semi-improved grassland and therefore likely to support a limited botanical diversity. The site is bounded by linear scrub as well as hedgerows, which also form a network within the site where these are located along field margins. Hedgerows are largely defunct and appear to be species-poor, although this would need to be confirmed following a full site habitat assessment. Street-view photography of the site indicates that ditches occur along the bases of some of the hedgerow habitat, considered likely to be seasonally wet. Ordnance survey maps of the site also indicate that it supports two small ponds, located along both its northern and southern boundaries.

Ecological constraints and opportunities

5.3.15 The table at Appendix B4 provides an overview of the likely ecological constraints and opportunities associated with development of the SUA.2 site. This would however need to be confirmed following a detailed site habitat assessment and targeted protected species surveys (where appropriate).

Strategic Landscape and Ecology Principles for Site SUA.2:

5.3.16 Key landscape and ecology mitigation requirements and proposed enhancement opportunities to accommodate the proposed development and changes of land use for site SUA.2 are identified on Plan 29828-001-05 and include:

- Plant new hedgerows to the site boundaries or enhance existing boundary hedgerows, to include native and fruiting species;
- Retain and enhance existing trees and shrubs;
- Incorporate new tree planting, native species, along site boundaries;
- Create a linear green corridor along existing internal ditch/hedgerow alignment, including new tree planting and incorporating SuDs solutions where practicable;
- Retain pond and group of trees at northern boundary, enhance with new tree and shrub planting, enhancements to pond to provide ecological benefits;
- Create a wildlife margin to site boundaries, including tussocky grasslands or scrub mosaics habitat, and incorporating SuDs solutions where possible;
- Utilise a sensitive lighting strategy along the southern boundary; and
- Provide bat roosting and bird nesting opportunities within new buildings.

SITE SUA.3: EAST OF BIRMINGHAM ROAD

5.3.17 The SUA.3 site comprises agricultural fields, bordered to the south by the A46 and to the west by the A3400 Birmingham Road. In the centre of the site is an area of existing development with agricultural buildings and large scale buildings providing workshops and storage facilities, and associated car parking areas. The southern tip of the site adjoins the roundabout junction for the A46, A3400 towards and away from Stratford-on-Avon, Bishopston Lane. The site is situated within the Green Belt.

Landscape and Visual:

5.3.18 The table at Appendix B5 sets out an overview of the likely landscape and visual constraints and opportunities associated with development of the site for commercial uses.

Ecology current habitats

5.3.19 The SUA.3 site is dominated by a series of arable and improved/semi-improved grassland pasture fields, likely to support a limited botanical diversity. Within the central part of the site there is a collection of traditional and modern barns and buildings and an area of uncultivated land which appears to have developed into a scattered scrub and rough grassland mosaic (previously identified as unimproved neutral grassland within the 2010 Ecological and Geological Study). The site is bounded by linear scrub as well as hedgerow habitat, which also forms a network within the site where these are located along field margins. Hedgerows appear to be well-established and could be species-rich, although this would need to be

confirmed following a full site habitat assessment. Ordnance survey maps of the site indicate the presence of a ditchline and pond within the northern part of the site. A planted tree belt occurs along the site's southern margin, where this forms the boundary with the A46 road.

Ecological constraints and opportunities

5.3.20 The table at Appendix B6 provides an overview of the likely ecological constraints and opportunities associated with development of the SUA.3 site. This would however need to be confirmed following a detailed site habitat assessment and targeted protected species surveys (where appropriate).

Strategic Landscape and Ecology Principles for Site SUA.3:

5.3.21 Key landscape and ecology mitigation requirements and proposed enhancement opportunities to accommodate the proposed development and changes of land use for site SUA.3 are identified on Plan 29828-001-06 and include:

- Plant new structure planting to the site boundaries and strengthen existing boundary hedgerows, to include native and fruiting species and improve wildlife corridor, particularly to eastern boundary
- Retain and enhance existing trees and shrubs, include native and fruiting species
- Retain good quality trees from internal hedgerow within a green linear corridor
- Retain pond and wetland habitat / ditch in northern area of site, enhance with new tree and shrub planting, enhancements to pond to provide ecological benefits
- Create a wildlife margin to site boundaries, including tussocky grasslands or scrub mosaics habitat, and incorporating SuDs solutions where possible
- Utilise a sensitive lighting strategy along the eastern boundary
- Retain trees in the scrub area in the centre of the site, create a copse with new tree planting and improvements to ecology habitat including retention or enhancement of bat roosts
- Provide bat roosting and bird nesting opportunities within new buildings

5.4 Risk matrix

5.4.1 Table 5.2 provides a summary of the required infrastructure and the site constraints that need to be considered when determining the relative delivery of each of the sites. This is set out in terms of the following key issues:

- Transport and access
- Contamination
- Floodrisk
- Landscape and ecology

Table 5.2 Infrastructure and site constraints risk matrix

Key				
Insignificant	Minor	Moderate	Major	Severe
Assessment				
Site	Transport	Contamination	Flooding	Landscape and Ecology
Western Road	Junction improvements. Traffic management.	Car body repairs	Flood Zone 1. The risk of a breach/overtopping is likely to be very low. If flooding were to occur at the site it is anticipated that it would be shallow and slow flowing and that the risk could be mitigated with masterplanning adaptations. The Canal and Rivers Trust would need to be contacted in the preparation of a FRA to determine how the levels in the canal are managed. There appears to be a watercourse that runs along the eastern boundary of the site, some of which is shown as culverted on OS mapping. It may be that the EA require an assessment of the risk	Increase public access to the canal. Create high quality public realm fronting the canal corridor. Survey required for bats and otters.
Wharf Road	Junction improvements. Traffic management.	Builders merchants. Part of the site was historically occupied by a gas works which contained Gasometer tanks and other structures. Remediation of the old gas works was undertaken on behalf of British Gas, completed 2004. Part of the site previously accommodated a lime kiln.		
Masons Road	Access issues and traffic management.	Works (unknown users) and former football ground.		
Timothy's Bridge Road	Access to be identified – potentially through Masons Road by way of a crossing over the canal	Site used as a warehouse, therefore contamination likely to be low level.		

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			from the watercourse. If it is culverted the EA will probably require that de-culverting be considered as part of the development scheme. Access to culverted sections for maintenance purposes will also have to be retained. The exact requirements will depend upon the party responsible for maintenance.	
Alcester Road SUA.2	Access directly off Wildmoor Roundabout or proposed Western Relief Road. Improvements to Wildmoor Roundabout as required by HA. Frequent bus service to serve the development.	Greenfield site. Contamination unlikely.	No known flood issues	Maintain existing good quality trees and hedgerows. Bat survey required.
Birmingham Road SUA.3	Access only off Birmingham Road. Improvements to Bishopton Roundabout as required by HA. Frequent bus service to serve the development.	Contamination unlikely. Small proportion of the site occupied by mobile homes and various outbuildings.	No known flood issues	Maintain existing good quality trees and hedgerows. Bat survey required.

6 Land Assembly and Relocation of Existing Businesses

6.1 Introduction

- 6.1.1 Land assembly issues at the Canal Quarter site are not straightforward. There are approximately 60 different land owners in the Canal Quarter and many leases of varying lengths and clauses across all the sites. The ability to secure a willing land seller and the complexity with terminating any leases is a key consideration in assessing potential delivery and in setting out a realistic delivery plan.
- 6.1.2 To inform the assessment of land assembly a SWOT analysis has been prepared to identify the key issues and opportunities. This information is then used to set out potential uses and development phases for each site.

6.2 Swot analysis

- 6.2.1 The following tables set out a SWOT analysis for each parcel of land as identified in section 3 of this report. It identifies the key strengths, weaknesses, opportunities and threats of each of the sites within the assessed areas in terms of land assembly and potential to bring sites forward for development.

Area 1a: Masons Road

Table 6.1 Masons Road Swot 1a

Strengths	Weaknesses
<ul style="list-style-type: none"> Land assembly relatively straightforward as in two main ownerships – Stratford-on-Avon District Council and Listers. Listers are prepared to relocate car storage and maintenance area Site could come forward in the short to medium term 	<ul style="list-style-type: none"> Wright Engineering located on the site - lease from SDC to 2070. Would require a relocation strategy
Opportunities	Threats
<ul style="list-style-type: none"> Early win, first phase of Canal Quarter regeneration Incorporate land owned by the Council on the current RSC storage site to the east Potential for high density development along the canal side and to include attractive linkage to area 2 Predominantly residential development that will help to meet housing needs 	<ul style="list-style-type: none"> Failure to relocate Wright Engineering

Area 1b: Masons Road

Table 6.2 Masons Road Swot 1b

Strengths	Weaknesses
<ul style="list-style-type: none"> Opens up the whole of the Masons Road area for regeneration 	<ul style="list-style-type: none"> Requires relocation of a number of existing businesses
Opportunities	Threats
<ul style="list-style-type: none"> Completes the Masons Road regeneration providing a significant quantum of residential development 	<ul style="list-style-type: none"> Failure to relocate established businesses

Area 2: Timothy's Bridge Road

Table 6.3 Timothy's Bridge Road

Strengths	Weaknesses
<ul style="list-style-type: none"> Relocation of an existing use which incurs numerous heavy vehicle movements per day Allows for the relocation of an important local business which has potential to expand. 	<ul style="list-style-type: none"> Dependent on the relocation of major occupier DCS to a suitable alternative site Some smaller land owners to consider
Opportunities	Threats
<ul style="list-style-type: none"> Completes the regeneration of the Canal Quarter west of the railway line. Links with Area 1 by way of a canal crossing Allows a comprehensive strategy for canalside regeneration along this stretch 	<ul style="list-style-type: none"> Dependent on providing a crossing over the canal which will cost in the region of £500,000 DCS relocation strategy is not pursued by the company

Area 3: Wharf Road

Table 6.4 Wharf Road

Strengths	Weaknesses
<ul style="list-style-type: none"> A key site with good canal frontage Relocation of businesses which incur heavy vehicle movements and significant car parking requirements 	<ul style="list-style-type: none"> Requires the relocation of two builders' merchants and a small number of other uses. Relocation site(s) for these businesses not identified
Opportunities	Threats
<ul style="list-style-type: none"> In conjunction with Area 4, completes comprehensive regeneration to the east of the railway line Potential to develop a high quality employment use to complement hotel and provide a location for other re-located businesses 	<ul style="list-style-type: none"> Businesses do not relocate

Area 4: Western Road

Table 6.5 Western Road

Strengths	Weaknesses
<ul style="list-style-type: none"> Prime site with good canal frontage 	<ul style="list-style-type: none"> Dependent on relocation of a number of businesses which are on long leases to the Town Trust at affordable rates Canal activities may not be good neighbour uses for residential development
Opportunities	Threats
<ul style="list-style-type: none"> Long term opportunity to address Canal Quarter site east of the railway line Wholesale relocation of a number of car showrooms buildings Potential to relocate car showroom to a high quality site with good road frontage and strong infrastructure links 	<ul style="list-style-type: none"> Lack of incentive for relocation Inclusion of the railway centre site will reduce developable area

SUA 2 South of Alcester Road

Table 6.6 SUA 2

Strengths	Weaknesses
<ul style="list-style-type: none"> Excellent frontage on major road (A46) Clean site with potential for high quality development 	<ul style="list-style-type: none"> Currently no uses formally identified or agreements in place
Opportunities	Threats
<ul style="list-style-type: none"> Potential to provide relocation space for businesses vacating Canal Quarter 	<ul style="list-style-type: none"> Agreements on land prices could hinder development

SUA 3 East of Birmingham Road

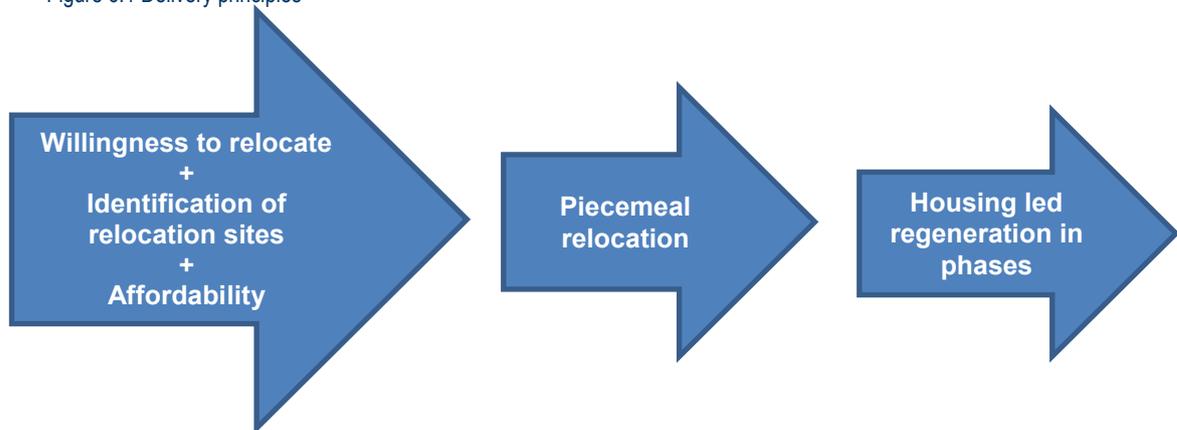
Table 6.7 SUA 3

Strengths	Weaknesses
<ul style="list-style-type: none"> Good frontage on major road (A3400) 	<ul style="list-style-type: none"> Greenbelt
Opportunities	Threats
<ul style="list-style-type: none"> Potential to provide relocation space for businesses vacating Canal Quarter 	<ul style="list-style-type: none"> Not being able to demonstrate robust reasoning for release from Greenbelt

6.3 Strategy for phased development

- 6.3.1 In terms of identifying a robust delivery strategy, there has to be a strong degree of certainty that specific sites will come forward within a defined timescale. For this reason, the phased approach is considered to be the right strategy to deliver the Canal Quarter regeneration scheme.

Figure 6.1 Delivery principles



Willing land owner

- 6.3.2 The strategy for taking the sites forward depends largely on the willingness of landowners to either redevelop or sell their land for redevelopment. We understand that Stratford-on-Avon District Council has a preference not to use compulsory purchase powers to facilitate development, therefore development will be private sector led and reliant on willing landowners to realise the benefits of redevelopment to their business or organisation.

Willing business

- 6.3.3 As well as landowners' willingness there also needs to be agreement from businesses with existing leases in place. A commercial tenancy will have exclusive possession. Any early termination will need to be negotiated unless CPO is used.
- 6.3.4 Even if the tenancy is coming near the end of the term, the tenant could have protection from Part 2 of the Landlord & Tenant 1954 Act. Under the Act the tenant will have automatic right to renewal at lease end. The landlord can only refuse automatic renewal under the following grounds (which is Section 30 of the act):
- (a) Tenant has not kept any of their obligations as respects the repair and maintenance
 - (b) Persistent delay in paying rent
 - (c) Other substantial breaches by tenant of their obligations under the current tenancy
 - (d) The landlord has offered and is willing to provide or secure the provision of alternative accommodation for the tenant
 - (e) Where the current tenancy was created by the sub-letting of part only of the property
 - (f) On the termination of the current tenancy the landlord intends to demolish or reconstruct the premises
 - (g) On the termination of the current tenancy the landlord intends to occupy the property
- 6.3.5 Therefore tenants are well protected under Part 2 of the 1954 act. However some leases explicitly exclude protection, this is negotiated between the landlord and tenant prior to granting of the lease.

6.3.6 The detailed content of the leases that are in place in the Canal Quarter is not known at this stage and is beyond the scope of this study. The best route is through renegotiation with tenants and a clear policy framework and opportunities for them to relocate their businesses. The alternative method is through compulsory purchase which as previously discussed is not the Council's preferred route at this time. For this reason it is recommended that caution is exercised in relying of the Canal Quarter to deliver dwellings in Stratford-on-Avon in the short term (i.e. deliverable within five years). However, it is considered that the medium to long term (5 years and beyond) prospects for redevelopment are good, especially given the higher values that will be realised through residential development and the need for business to grow and thus relocate to more suitable premises.

6.4 Phased development sites and potential housing numbers

6.4.1 The table below summarises the order of sites as they are predicted to come forward (based on their deliverability highlighted in the SWOT) and the number of units which could be accommodated on these sites. The site at Warwick House has also been added as this is within the SUA 1 area and as discussions are already underway in terms of the form of development on the site the council envisage will come forward in the first five years and is therefore deliverable. It should be also noted that rather than apply a simple density multiplier each site has been looked at individually and assumptions made on the net developable area and the type of dwellings envisaged. For example an area around the canal has been excluded to allow for a linear park and it is anticipated that development along the canal length will mainly be three storey apartments.

Table 6.8 Residential phasing

Area Name/ Corresponding plan	Phase	Size (Ha)	Housing Nos.	Cumulative Housing no.
Warwick House	0 – 5 years	0.42	80	80
Area 1a Masons Road	5 – 17 years	4.4	183	263
Area 1b Masons Road	5 – 17 years	3.3	131	394
Area 2 Timothy's Bridge Road	5 – 17 years	6.2	267	661
Total deliverable and developable within the Plan Period (to 2031)				661
Area 3 Wharf Road	17 years +	3.6	150	150
Area 4 Western Road	17 years +	5.0	200	350
Total beyond the Plan Period				350

6.5 Masons Road 1a (Phase 1)

- 6.5.1 The first area identified for development in the period 5 – 17 years is part of the Masons Road site – the former football ground owned by SDC used by Listers for car parking and the adjoining building owned and used by Listers. This site could be an early win in terms of delivering the first residential units on the Canal Quarter site. Although this is the earliest site to come forward it is not considered that any housing will be completed within the first five years. This is because it will take some time to agree a development strategy for the site, gain the necessary permissions, clear the site and initiate construction. At least one lease break will also need to be agreed and as a council owned site there will be a lengthy internal process to agree the release of the site for redevelopment.
- 6.5.2 Within this site it is estimated that there is potential for some 183 dwellings, with approximately 30% in three storey flatted developments which maximise the view of the canal running to the north of the site. Based on consultations, including interested developers, the remaining units would be a combination of terraced and semi-detached family dwellings.
- 6.5.3 Excluding a green wedge along the canal, the gross site area would be 4.4 ha, and some 3.6 ha of this would be developable. The overall dwellings per hectare for this area are above the norm for the rest of Stratford-upon-Avon, with 51 dwellings per net hectare.

6.6 Masons Road 1b (Phase 2)

- 6.6.1 The remainder of the site (Phase 2) is more complicated to deliver, given that it is in multiple ownership with numerous leases. It is anticipated that this area would come on stream in due course, after Phase 1 has been built out as this will encourage land owners and businesses to reassess their strategies and realise potential value in their premises and land.
- 6.6.2 Should a residential development come forward, it is estimated that there is potential for some 131 dwellings, with approximately 25% in three storey flatted developments which maximise the view of the canal, which is exposed only along the north west of the site. The rest of the site would be appropriate for family housing, with a combination of 2 to 3 bed terraced units, and 3 to 4 bed semi-detached units.
- 6.6.3 With the green wedge along the canal being excluded, the gross site area would be 3.3 ha and 3 ha is net developable. The overall dwellings per hectare for this area are above the norm for the rest of Stratford.

6.7 Timothy's Bridge Road

- 6.7.1 The relocation of DCS, the major occupier on this site, is dependent on the company finding a relocation site and establishing sufficient value for their existing site to fund the relocation. It is very difficult to put a timescale on this relocation. DCS initially suggested an interest in relocation but at the time of writing this report have now indicated that they may not move. This uncertainty maybe a reflection of the current lack of an adopted policy position and if confirmed this may provide the interested parties with more certainty regarding their future business development. The uncertainty means that the site is not deliverable in the first five years of the Plan and the council should be cautious in relying on its delivery in meeting their housing needs.
- 6.7.2 The remainder of the site which is occupied by Stratford Enterprise Park would be likely to remain in employment use, providing office accommodation as part of the mixed use nature of the Canal Quarter. Although should they wish to relocate policy should be sufficiently flexible to enable this to happen.
- 6.7.3 Should a residential development come forward within this site, it is estimated that there is potential for some 267 dwellings, with approximately 33% in three storey flatted developments

to maximise the view of the canal, which is exposed the whole way along the south of the site. In line with the rest of the regeneration area, the rest of the site could come forward for family housing, with a combination of 2 to 3 bed terraced units and 3 to 4 bed semi-detached units. The attraction of the site would be improved through a crossing over the canal to secure access, although this would be at a cost of approximately £500,000.

- 6.7.4 Excluding a green wedge along the canal, the gross site area would be 6.2 ha with some 5.1 ha being developable. The overall dwellings per hectare for this area would be 52 dwellings per net hectare, representing a relatively high dense scheme for Stratford, but this would be appropriate for the brownfield development site in an edge of the town centre location.
- 6.7.5 Although not considered as part of this report there is also an opportunity for the site to extend with the inclusion of the Morgan Sindell site – it is likely that this would be a mixed development that would complement the adjacent business and future residential uses.

6.8 Wharf Road

- 6.8.1 A large proportion of this site nearest to the canal is occupied by Jewsons and Build Base Builders Merchants. This is not an ideal location for these businesses in terms of access, especially in respect of HGV movements. There is scope for these businesses to relocate to allow redevelopment of this part of the site. However, it is unlikely that a developer would see this part of the wider Wharf Road site as a viable development option on its own. It would require the remainder of the site to come forward as well in order to provide the right quantum and setting for residential development.
- 6.8.2 The remainder of the site is occupied by a series of low rise industrial units (11 in total) which are in multiple ownership.
- 6.8.3 The development of the Premier Inn on this site has set a good standard of development which exploits its canal side setting. Further waterside development along the canal in this area would be a natural progression, bringing regeneration to this area of the Canal Quarter.
- 6.8.4 The Wharf Road area provides the opportunity to accommodate employment related uses which is important in creating a viable mixed use development within the Canal Quarter. It is anticipated that, over time, the builders merchants may relocate to alternative locations, given that their current position is not suited to heavy goods movements. The area could be regenerated in time to meet the needs of small and medium sized businesses in office and industrial units.
- 6.8.5 Alternatively residential development could come forward at some point in the future but there is little evidence that this will happen within the plan period. If residential development did come forward it is anticipated that around 150 dwellings could come forward, if on the same basis as Masons Road.

6.9 Western Road

- 6.9.1 The area of Western Road owned by the Town Trust could potentially come forward in the long term, beyond the plan period. The key occupiers on this stretch are car showrooms owned by Listers. We understand in terms of the lifespan of the current buildings which Listers lease from the Town Trust, there is 10-15 years left before refurbishment would be required. It is at this point that it would appear viable to relocate the car showrooms to an alternative location. The remainder of the site is taken with small business units on long leases paying with relatively cheap rents in comparison to what they would have to pay for newly developed space. Therefore unless the Council were to consider compulsory purchase there is little incentive for these businesses to relocate.

6.9.2 A part of the area adjacent to the railway is to be safeguarded for the potential use as a Steam Locomotive Centre, which has an extant planning permission – this reduces the developable area and the number of potential units.

6.9.3 If the site does come forward for redevelopment then it is anticipated that the site could realise a yield of approximately 200 dwellings.

6.10 Relocation sites (SUA 2 and SUA 3)

6.10.1 The identification of two employment sites that were in the Intended Core Strategy specifically to accommodate relocated business from the Canal Quarter was clearly intended to help facilitate relocation and in turn redevelopment of the Canal Quarter. As neither of these sites has been formally adopted within the development plan and their development would currently not be plan compliant little progress has been made to date in terms of the take up or interest in either of the employment sites.

6.10.2 The strategy of identifying the employment sites for relocated businesses is sound as long as policy is flexible enough to allow a range of employment uses, both those relocated from the Canal Quarter and so as not to stymie employment development also other businesses wishing to locate in Stratford-upon-Avon. A more restrictive policy is likely to affect the competition for employment land and thus values, potentially acting as an inhibitor to development. Through adopting a more flexible approach and thus a more open market this may be the catalyst needed to begin investment on the sites with businesses from the Canal Quarter.

6.11 SUA.2

6.11.1 The employment site South of Alcester Road has been identified in the Emerging Draft Policies provided by SDC in February 2014 as 20 ha, with 10 ha for employment use and the remainder for businesses relocating from the Canal Quarter.

6.11.2 We understand that there have been preliminary discussions between the land owners (Baker Trust) and DCS, who own the majority of Site 2 in the Canal Quarter, regarding DCS potentially relocating to 10hs of SUA.2. At the time of writing the report DCS have indicated that they may not move at this stage, making redevelopment of their site in th Canal Quarter unlikely in the first five years.

6.11.3 It is recommended that SUA 2 should continue to be identified for employment uses which could potentially accommodate DCS if they do decide to relocate in the future, other Canal Quarter businesses, or employment generating uses wishing to locate in Stratford-upon- Avon.

6.12 SUA.3

6.12.1 The East of Birmingham Road Employment site is in the Green Belt and the exceptional circumstances for its removal are based solely on providing for the relocation of businesses from the Canal Quarter, in particular the car dealerships from Western Road.

6.12.2 A selective review of the green belt and release of a site for employment purposes requires considerable and robust justification. An Inspector considering this issue and assessing whether there are exceptional circumstances to warrant changing the green belt would need to be convinced of the need for its release and would require substantial evidence of the site's delivery within the plan period, as well as its achievability and viability. These tests are stringently applied and require a high degree of justification.

6.12.3 We are not convinced that the evidence exists to provide the exceptional circumstances required to justify the release of the green belt, especially in view of the fact that a

comprehensive green belt review has not been undertaken and that no green belt sites are proposed to provide any housing.

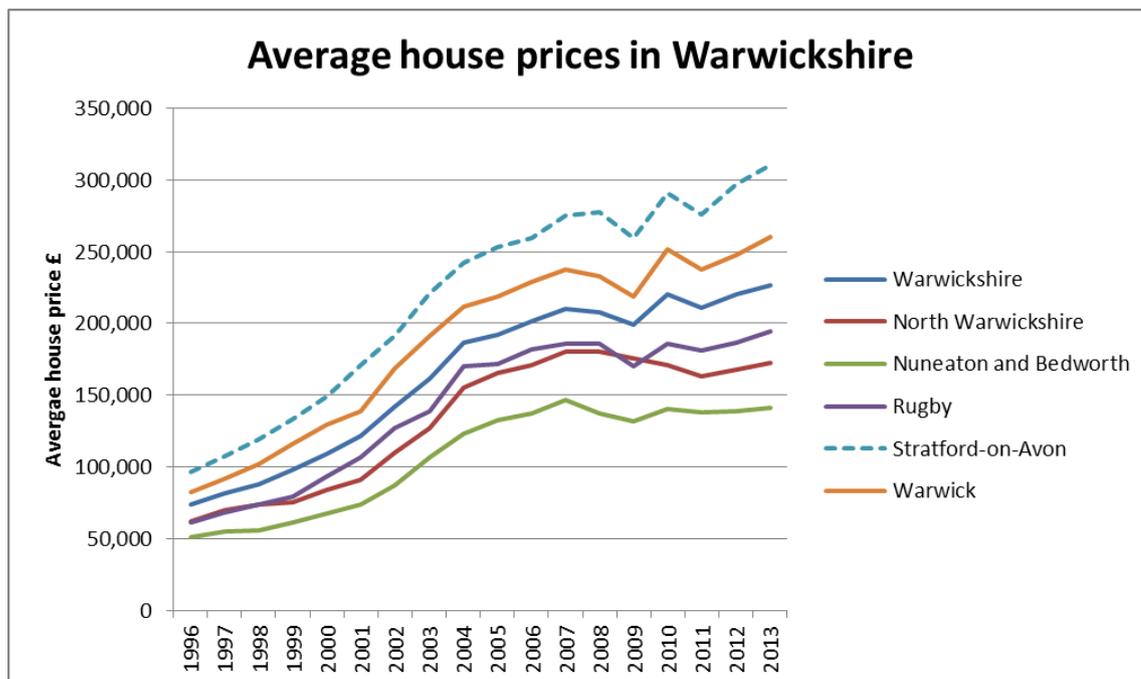
- 6.12.4 It is apparent from our assessment that there is not an overwhelming need for the green belt site. The relocation of businesses from Western Road (identified as potential occupiers of the Green Belt site) is unlikely to come forward within the plan period. This is due to the fact that the majority of businesses at this location are well established and have long leases left to run with the Town Trust at below market rates. In particular, we understand that the car showrooms on Western Road which are owned by Listers would not be considered for upgrading within the next 15 years.
- 6.12.5 We have significant concerns about how the council would demonstrate and justify the release of the green belt site SUA.3 and would recommend that it is not included within the local plan on the basis that it is for the relocation of businesses from the Canal Quarter.

7 Market Assessment and Viability

7.1 Market overview

- 7.1.1 The housing market in Stratford-on-Avon District continues to outperform its neighbours in Warwickshire, with a widening gap between average house prices as shown in Figure 5.1. This is likely to reflect the typical larger properties associated with this area and its affluent location.
- 7.1.2 The peak of the last market cycle was in December 2007, when the average residential property price in Stratford-on-Avon was £276,000 and £222,000 across England. The impact of the financial crisis and resultant recession is also clear in Figure 5.1, with average values in Stratford-on-Avon falling to £264,000 by April 2009. Since that time, prices have been on a steady (if somewhat erratic) upwards trajectory, peaking in August 2010 before falling back and then up again. The most recent record suggests that average price in Stratford-on-Avon District was just over £300,000.

Figure 7.1 Average house prices in Warwickshire



- 7.1.3 Looking forward, the latest projections of house prices prepared by Savills in their Residential Property Focus (Q1 2014), shows a 23.4% increase in values over the next five years, which is slightly below their expectations for the UK which is at 25.2%. However, based on the characteristics of the local market, there may be some reason to suggest that Stratford-on-Avon will over-perform the regional average.
- 7.1.4 When looking at the markets within Stratford-on-Avon District there are distinctions as highlighted in the CIL Economic Viability Report, September 2013. The table below (7.1) shows average house prices over the last 12 months for 6 settlements in the district.

Table 7.1 Average house prices paid (new and secondhand market)

Settlement	Average price
Alcester	£237,000
Henley-in-Arden	£327,000
Shipston-on-Stour	£290,000
Southam	£248,000
Stratford-upon-Avon	£312,000
Studley	£199,000

Zoopla March 2014

- 7.1.5 In common with the previous work undertaken values to the west in Studley and Alcester are lower than those in the central area around Stratford-upon-Avon, Henley-in-Arden and Shipston-on-Stour. Values to the east, illustrated here with Southam are in between the east and central value areas.
- 7.1.6 The previous work on the local housing market (CIL Economic Viability Report, September 2013) identified a per square metre value of £3,200 for dwellings in the central area which would include the canal Quarter Regeneration Area. The reasoning for using the same value for the strategic sites, despite the different locations was because the strategic sites would share similar characteristics and would be a different offer to what has previously come forward in the area in recent years in terms of scale in particular.
- 7.1.7 It is considered that the same principles should apply to this updated work for consistency, however as previously described there has been an improvement in values since the £3,200 was established. Therefore having looked at the market data from both Land Registry and property websites it is considered appropriate to add a modest increase of 1.5% to reflect the slight rise in the market. Therefore the value to be used in this assessment will be £3,250 per sq. m for market dwellings.

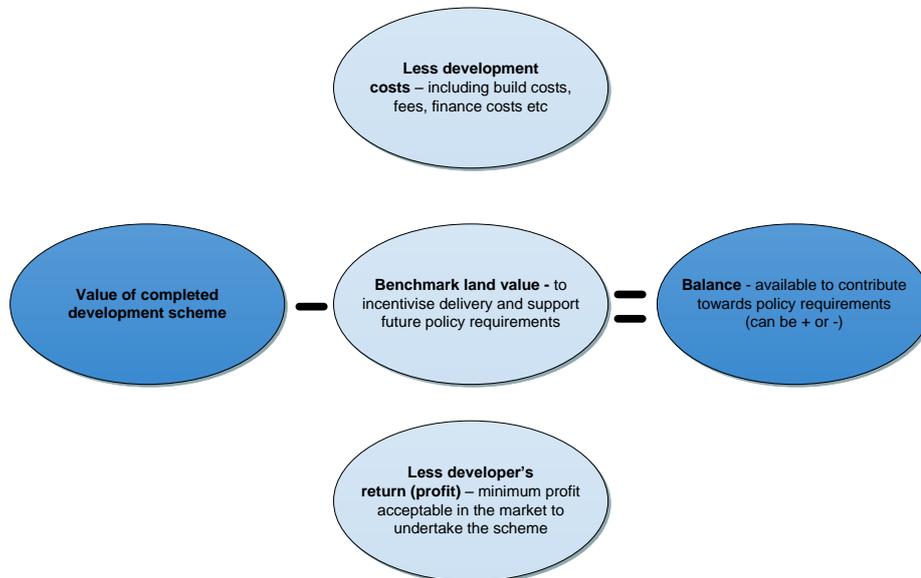
7.2 Approach used for the development viability appraisals

- 7.2.1 The PBA development viability model uses the residual approach to development viability. The approach takes the difference between the development value and costs and compares the 'residual land value' with a threshold land value to determine the balance that could be available to support policy costs such as affordable housing and infrastructure.
- 7.2.2 In the case of the strategic sites, the model has been adapted to test for a range of different infrastructure requirements and when they are required. This is then built into the cashflow modelling to assess viability through the lifetime of the development, where costs and returns will be flowing through the development cycle.
- 7.2.3 Where appropriate assumptions that were used in the CIL Economic Viability Report, September 2013 have been utilised as a baseline for consistency but these have been updated to reflect latest position on costs and values. It should also be noted that this report should be read in conjunction with the 2014 report on Plan Viability, including affordable

housing, although the reports are consistent in terms of both approach and baseline assumptions.

7.2.4 The broad method is illustrated in the figure 7.2.

Figure 7.2 Approach to residual land value assessment for whole plan viability



7.2.5 The purpose of the assessment is to identify the balance available to pay for policy costs at which each of the potential strategic sites is financially viable.

7.2.6 Work in the previous stages provides an understanding of each of the sites and the required infrastructure to bring forward sustainable development. When added to a set of locally based assumptions on new-build sales values, threshold land values and developer profits, a set of potential strategic sites development viability assessments are produced.

7.3 Viability assumptions

7.3.1 Given that there has been little development in Stratford-on-Avon District at the scales proposed, it is not always possible to get a perfect fit between a site, the site profile and cost/revenue categories. But a best fit in the spirit of the Harman Report guide has been attempted. For this, the viability testing requires a series of assumptions about the site coverage and floorspace mix to generate an overall sales turnover and value of land, which are discussed here. In addition, there are a number of residential cost assumptions that have been used, which are set out in detail in Appendix C. Residential assessment summary sheets are set out in Appendix D.

Site coverage

7.3.2 The net (developable) area of the site informs the likely land value of a residential site. Typically, residential land values are normally reported on a per net hectare basis, since it is only this area which delivers a saleable return.

7.3.3 The net developable area has been arrived at through discussion with the council and the strategic site promoters representing these sites.

Sales area

- 7.3.4 In addition to density, the type and size of units is important because this informs overall revenue based on saleable floorspace, to generate an overall sales turnover. To derive saleable floorspace, the type of unit and size of these units need to be defined.
- 7.3.5 The type of unit has been based on assumptions that have been used and approved in other studies we have been involved. Details are shown in Appendix C. Two floor areas are used for flatted schemes: the Gross Internal Area (GIA), including circulation space, is used to calculate build costs and Net Internal Area (NIA) is applied to calculate the sales revenue.

Sales values

- 7.3.6 Current residential revenues and other viability variables are obtained from a range of sources, including:
- Generic websites, such as the RightMove and the Land Registry
 - Direct research with developers and agents operating in the area.
- 7.3.7 The details for these assumptions have been discussed in the market assessment section of this report and are shown below:
- Houses - £3,250 per sqm
 - Flats - £2,143 per sqm
- 7.3.8 The appraisal assumes that variable levels of affordable housing, which will command a transfer value to a Registered Provider at the going rates:
- Social rent 45%
 - Affordable rent 55%
 - Intermediate 65%
- 7.3.9 The current policy requirements of 60% social rented, 20% affordable rent and 20% intermediate (e.g. shared ownership) are assumed. The details for these assumptions are set out in a separate report on Affordable Housing Viability.

Threshold land values

- 7.3.10 To assess viability, the residual value generated by a scheme is compared with a threshold land value, which reflects 'a competitive return for a landowner' (as stated in Harman). The threshold land value is important in our calculations of the residual balance to pay for other policy and infrastructure costs to support a sustainable development. The difference between the threshold land value and the residual land value represents the amount of money available to contribute to affordable housing policy, S106/278 contributions or CIL. This is further considered in a separate report on CIL.
- 7.3.11 The approach used to arrive at the threshold land value is based on a review of recent viability evidence of sites on currently on the market, viability appraisal submissions, published data on land values and discussions with various stakeholders. The approach has been based considering both a top down approach of current market value and bottom up approach of existing use / alternative use values.

- 7.3.12 The estimate for the threshold land values is based on the existing employment use value plus a mark up of at least 30% to 40%. As detailed in the Stratford-on-Avon CIL (Community Infrastructure Levy) Economic Viability Study (September 2013), land values established before 2007 provide evidence of a range of land values for employment uses between £400k and £750k per net developable hectare. It is therefore concluded that a benchmark figure of £950,000 is appropriate, after taking into account future policy requirements.
- 7.3.13 This approach is in line with the Harman report and recent CIL examination reports which accept that authorities should work on the basis of future policy and its effects on land values and well as ensuring a reasonable return to a willing landowner and developer. This also reflects the gross land values (before including the cost of site opening or remediation) and therefore the values would be lower than a clean residential site
- 7.3.14 It is important to appreciate that assumptions on threshold land values can only be broad approximations, subject to wide variations. This is taken account of in drawing conclusions and recommendations on whether sites are viable.

Build costs

- 7.3.15 The sources used for typical development costs include BCIS build cost data rebased to the location. Approximations to represent the average over a range of scheme types have been used for costs such as external works, fees, finance and developers' margins and previously tested with the development sector.
- 7.3.16 Building costs are based on BCIS data for new builds over a 15 year period, which have been rebased to Stratford-on-Avon and first quarter 2014 prices using BCIS defined adjustments. This identified the following unit build costs:
- Flats – £993 sqm
 - Houses (general estate) - £891sqm
- 7.3.17 The Council has policy towards improved building standards, these are considered below. Further associated development costs applied to the unit build costs for the potential strategic sites are shown in Table 7.2, and discussed below.

Table 7.2 Cost summary

Cost	Rate	Unit
External costs	10.0%	build cost
Extra over for Lifetime Homes	£500	per unit
Professional fees	12.0%	development costs
Contingency	5.0%	development costs
Sales costs	3.0%	GDV
Developers' profit on OM dwgs	20.0%	OM GDV
Developers' profit on AH dwgs	6.0%	AH GDV
Development costs finance (pa)	7.0%	-ve cashflow gap

External Works

- 7.3.18 This input incorporates all additional costs associated with the site curtilage of the built area, including circulation space in flatted areas and garden space with the housing units, landscaping costs comprises Highway trees and public open space, permeable paving, estate roads, and connections to the strategic infrastructure such as sewers and utilities.
- 7.3.19 The external works variable had been set at a rate of 10% of build cost in the absence of no detail costings data being available at this time.

Sustainability and building standards

- 7.3.20 In England, Building Regulations (Part L, 2013 – effective from April 2014) have recently been amended to require emission reductions, to give an overall 6% improvement to 2010 standards. This standard is estimated to add approximately £450 in costs per home above the 2010 Building Regulation standards (this is based on the Government's Regulatory Impact Assessment findings). This increase is taken into account in the viability assessments.
- 7.3.21 Building Regulations are different to the requirements set out in the Code for Sustainable Homes (CfSH). The Code outlines a staged framework to improve the overall sustainability of new homes. In the past, there has been an intention to incorporate the requirements of the code with the Building Regulations. The government has recently intimated in the Building Standards Review that it wishes to simplify national standards and proposes to move away from the CfSH to a single system of standards.
- 7.3.22 Whilst the Government is no longer intending to support a range of standards in the future, they have indicated that they will allow local authorities, through planning policy, to seek improved building standards in their locations until revised regulations are place. For authorities wishing to incorporate this into planning policy, such as Stratford-on-Avon, this will have cost implications that will need to be considered. Further details in respect of the regulation change are anticipated in summer 2014.
- 7.3.23 A review of Government research on cost impacts of changes in building regulations and CfSH suggests that past forecasts of price changes (such as that predicted in the original Cyril Sweet work, 2010) have never affected costs to the extent forecast. In order to incorporate the cost into the model, we have used the latest advice on the additional cost of moving to CfSH 4 from Building Regulations Part L 2013 in an update from autumn 2013, by Davis Langdon to their original 2011 estimates that were published by DCLG. The CfSH sets standards above Part L. The increased requirements for Part L that come into force in April 2014 will still mean that an increase is required in standards to meet CfSH Level 4. The update shows an increase on build costs of 2.5%, which is a substantial reduction on previous estimates.
- 7.3.24 Similar to the Building Regulations the Government is also reviewing space standards and is currently considering a national voluntary policy on space standards. The details of this have yet to be published. The emerging Core Strategy policy also requires improved space standards and until such a time as a national policy is in place will apply a requirement for new dwelling to be compliant with Lifetime Homes standards. The extra over cost of new buildings meeting Lifetime Homes standards will range widely according to housing type, although typically the average cost is around £300 to £500 per dwelling. Based on a level of uncertainty, the high end value is assumed.
- 7.3.25 It is recognised that building standards are under constant review both in terms of resource reduction and space. However the guidance is quite clear that unless there is a clear policy framework for future changes, assumptions should be based on current costs and values. Therefore, the assessments take into account Council policy on implementing CfSH 4 and

Lifetimes homes but not beyond as there is no certainty in respect of the future regulations at this time.

Professional Fees

- 7.3.26 For a scheme of this nature, significant professional fees will be required. This input incorporates all professional fees associated with the build, including: architect fees, planner fees, surveyor fees, project manager fees at 12% of build cost.

Contingency

- 7.3.27 For a scheme of this nature and at this early planning stage, it is normal to build in contingency based on the risk associated with each site and has been calculated based on industry standards. They are applied as a percentage of build costs at 5%.

Marketing Fees

- 7.3.28 The Gross Development Value needs to reflect additional sales cost assumptions, which have been set out in Section 5. These costs relate to the costs incurred for disposing the completed residential units, including legal, agents and marketing fees, and are based on the average cost of marketing for a major new build development site. These are based on industry accepted scales established from discussions with developers and agents at the rate of 3% of open market GDV.

Developers' Profit

- 7.3.29 The developers' profit is the expected and reasonable level of return that a private developer would expect to achieve from a specific development scheme. In relation to these site the open market residential dwellings elements are assumed to achieve a profit of 20%, which is applied to their Gross Development Value (GDV). This also allows for internal overheads. For the Affordable Housing element, because they will have some, albeit lower, risks to the developer a lower 6% profit margin is assumed for the private house builders on a nil grant basis. This is applied to the below market GDV of the AH residential dwelling development.

Finance

- 7.3.30 A monthly cashflow based on a finance cost of 7% has been used throughout the sites appraisals, as identified in the above costs assumptions. This is used to account for the cost of borrowing and the risk associated with the current economic climate and near term outlook and associated implications for the housing market. This is a typical rate which is being applied by developers to schemes of this nature

S106 infrastructure costs, site opening costs and abnormal costs

- 7.3.31 In collecting evidence on residential land values, a distinction has been made for sites that might reflect extra costs for 'opening up, abnormal and securing planning permission' from those which are clean or 'over-ready' residential sites. The viability appraisals for each site includes an allowance for site opening costs to allow for costs such as strategic landscaping/green infrastructure, schools expansions and transport improvements through S106/S278 contributions. This could be met either through a CIL or collection of S106 contributions and will be dependent on capacity and need of each specific scheme.
- 7.3.32 The S106/S278 infrastructure requirements anticipated have been informed by discussions with the local planning authority and County Council. The total bill for these infrastructure items is just over £6m and includes transport improvements and provision of community infrastructure including contributions to primary and secondary education.

- 7.3.33 For the purpose of this appraisal, any potential strategic infrastructure that would be paid for through CIL rather than S106/S278 have been deducted because it would not be possible to double dip for the same infrastructure items. Based on the remaining infrastructure bill, the strategic infrastructure cost is taken to be around £10,500 per unit. It is unclear at this stage the cost of provision for green infrastructure and play. However it is considered that these could be considered as part of the strategic opening up costs, externals or as part of the CIL package.
- 7.3.34 There will be further strategic opening up costs on the site for things like utility services which will need to be upgraded to provide the necessary water, gas, electricity and telecommunication supplies; and possibly there will be provision of a distributor road, footpath/cycleway links, SuDS mains drainage, and structural landscaping and creation of the green infrastructure. A cost of £5,000 per unit is applied to allow for such, as yet unknown, costs.
- 7.3.35 As brownfield sites, with potentially some minor contamination from the current and previous uses, and demolition costs of existing buildings, an additional £100,000 per net hectare is allowed for within the site appraisals.
- 7.3.36 Once detailed planning is undertaken there will be a better understanding of these various costs (site opening costs, site abnormalities, and strategic infrastructure such as schools, highways etc.) to inform site specific assessments.

Land Purchase Costs

- 7.3.37 The land value needs to reflect additional purchase cost assumptions. These are based on surveying costs and legal costs to a developer in the acquisition of land and the development process itself, which have been established from discussions with developers and agents, and are also reflected in the Harman Report (2012) as industry standard rates.
- 7.3.38 A Stamp Duty Land Tax is payable by a developer when acquiring development land. This factor has been recognised and applied to the residual valuation as percentage cost based on the HM Customs & Revenue variable rates against the residual land value.
- 7.3.39 These inputs are incorporated into the residual valuation land value.

Table 7.3 Land Purchase Costs

Land purchase costs	Rate	Unit
Surveyor's fees	1.00%	land value
Legal fees	0.75%	land value
Stamp Duty Land Tax	HMRC rate	land value
Development finance for land purchase (pa)	7.00%	land value

7.4 Canal Quarter assessment outputs

- 7.4.1 Although the purpose of this report is not to set the level of CIL to apply to the Canal Quarter, the calculation of a potential CIL it is a useful test by which each of the parcels can be judged.
- 7.4.2 The following is an explanation of how to interpret the information contained in the summary appraisal table. Reading the tables from left to right, successive columns are as follows:

- Site name
- Yield
- Affordable housing percentage
- The overage or residual value expressed as £per sq.m. The residual site value is the difference between the value of the completed development and the cost of that development (including the developer's profit, policy costs, site servicing costs, etc).
- The threshold land value is then deducted from the residual land value to arrive at the CIL balance or 'overage' available to contribute towards any infrastructure costs in the form of a possible maximum CIL charge. This CIL balance is an estimate of the CIL 'maximum theoretical CIL' i.e. the maximum CIL that could be charged consistent with the development being financially viable. Given the variations surrounding strategic viability appraisals, this is an approximate indicator, and as such we seek to have a considerable buffer between the overage and any CIL charge. It is not recommended that this theoretical maximum be directly translated into a CIL charge.
- The traffic light colour coding is used to show if a scheme is considered to be viable (green), marginal (amber is stated as being unviable, but is actually within 20% of the threshold value) or not viable (red). Note it is important to state that a scheme may come out as not viable in this assessment but still deliver depending on the what the landowner and developer are willing to accept, so for instance the threshold land value could be reduced or the developer's return could be adjusted, or actual build costs or other assumption variables maybe be differ from that used here.

7.4.3 Note that the CIL overage is not a direct calculation of deducting the threshold value from the residual land value. As affordable housing is not liable to CIL charge, an allowance for this is included in the analysis. The CIL overage/ or CIL liable figure is calculated from the CIL chargeable floor area (total GIA minus GIA of affordable units).

7.5 The viable position

7.5.1 Based on current development values and costs, including the purchase price for land, the build costs, S106/S278 contributions, and an affordable housing rate of 35%, two of the sites (Masons Road a and b) are viable, with a small amount of financial headroom left over for the CIL, which will support the delivery of the wider necessary infrastructure in Stratford-on-Avon District. The Timothy's Bridge Road site potentially is not deliverable at current values and 35% affordable housing.

7.5.2 Table 7.4 shows that more headroom for CIL would be available if the affordable housing proportion is lowered. Therefore three lower proportions of affordable housing were tested at 30%, 25% and 20%, which are also shown in Table 7.4. Timothy's Bridge Road only becomes marginally viable at the 25% affordable housing rate but it would not support contributions towards CIL. Therefore an affordable housing level of 20% maybe more appropriate if securing contributions to infrastructure are considered as more of a priority over securing a higher rate of affordable housing. Alternately the Council could alter the tenure mix and reduce the portion of social rented, which is set relatively high at 60%. Further discussion in respect of suitable levels of affordable housing are within the Plan viability and affordable housing viability study.

Table 7.4 Viability assessment of Canal Quarter sites (residential)

Site typology	Dwellings	Affordable housing	Residual land value	Benchmark	Headroom	
	No.	%	Per Ha	Per Ha	Per Ha	CIL liable Sqm
SCQ Area 1a: Masons Road	183	20%	£1,387,634	£950,000	£437,634	£145
SCQ Area 1b: Masons Road	131	20%	£1,573,341	£950,000	£623,341	£208
SCQ Area 2: Timothy's Bridge Road	267	20%	£1,170,846	£950,000	£220,846	£73
SCQ Area 1a: Masons Road	183	25%	£1,263,535	£950,000	£313,535	£111
SCQ Area 1b: Masons Road	131	25%	£1,449,741	£950,000	£499,741	£178
SCQ Area 2: Timothy's Bridge Road	267	25%	£1,048,198	£950,000	£98,198	£34
SCQ Area 1a: Masons Road	183	30%	£1,139,435	£950,000	£189,435	£72
SCQ Area 1b: Masons Road	131	30%	£1,326,141	£950,000	£376,141	£143
SCQ Area 2: Timothy's Bridge Road	267	30%	£925,551	£950,000	£-24,449	£-9
SCQ Area 1a: Masons Road	183	35%	£1,015,336	£950,000	£65,336	£27
SCQ Area 1b: Masons Road	131	35%	£1,202,541	£950,000	£252,541	£104
SCQ Area 2: Timothy's Bridge Road	267	35%	£802,903	£950,000	£-147,097	£-60

Summary of viability results

- 7.5.3 It is recommended that if delivery of the Canal Quarter is an important component of the Council's supply then a cautious approach should be taken towards any policy requirements that may affect viability. In particular the level of affordable housing needs careful consideration as this will have the biggest effect on values. Whilst sites within the Canal Quarter are viable at 25% affordable housing, they are still marginal and this leaves little scope to accommodate any unforeseen costs which may be apparent when more detailed work is undertaken to support a planning application. Therefore the Council should consider setting the required level of affordable housing at 20% depending on the level of CIL to be sought.

8 Findings and Recommended Approach

8.1 Findings

- 8.1.1 The Canal Quarter proposals present a significant opportunity to rejuvenate and transform an underutilised area in the heart of Stratford-upon-Avon. Its regeneration will provide an exciting new destination for business and residents in Stratford-upon-Avon which is not only attractive but also highly sustainable, given its proximity to the town centre and railway station. This must, however, not be at the expense of existing businesses which need to be considered and accommodated or relocated within Stratford-upon-Avon.
- 8.1.2 The findings of this report have to be considered within the context of the NPPF which requires local authorities to demonstrate that they have a deliverable and developable supply of housing. It also requires plans to be deliverable in terms of any sites that are identified and the ability to fund the necessary infrastructure.
- 8.1.3 The Council has sought evidence as to whether:
- the Canal Quarter can deliver 700 dwellings within the plan period
 - what infrastructure is required to support that development
 - whether the proposed employment sites are suitable and developable for the uses envisaged
- 8.1.4 The level of residential development that can be shown as deliverable and developable within the plan period is around that originally envisaged by the Council, if the Warwick House development is added to the figures. It is considered that (excluding Warwick House) around 600 dwellings could be realistically brought forward by 2031. These dwellings are unlikely to come forward in terms of completion within the first five years of the Plan because of issues in respect of ownership and site preparation. However, as the first phase is largely in control of the council as landowner, the council can take a leading role in kicking off the regeneration and take steps to speed up the process. There is more uncertainty with subsequent phases, especially 1b Masons Road and 2 Timothy's Bridge Road because these are reliant on the land owners and tenants to bring forward land for development.
- 8.1.5 It is clear that there is opportunity to extend the boundaries of the current proposed SUA 1 boundary. These boundary extensions are both logical in terms of their connectivity with the existing area and the surrounding uses. The RSC site is suitable for residential uses and whilst untested in this report the potential to extend Area 2 to incorporate the Morgan Sindall building is appropriate given the poor quality and likely lifetime of that building.
- 8.1.6 Whilst there are infrastructure requirements both on site and in the wider Stratford-upon-Avon these can be funded through by the development directly and through contributions through CIL. The majority of the requirements are transport or education related with contribution towards a primary school and junction improvements accounting for most of the contributions.
- 8.1.7 It is clear from our assessment that there is no justification to identify both employment sites on the basis that their allocation is mainly to provide an alternative location for displaced businesses from the Canal Quarter.
- 8.1.8 In terms of SUE 2 it is noted that the policy allows for a range of employment uses from both related business from the Canal Quarter and other business wishing to located in Stratford-upon-Avon. Given the greater area now envisaged and a reduced requirement to relocate businesses from the Canal Quarter it is considered that this site is sufficient to accommodate relocating businesses.

- 8.1.9 As SUE 3 is within greenbelt it is considered that this is the site that should be dropped and not be identified in the Core Strategy as there is insufficient evidence to support a greenbelt release.

8.2 Way Forward

- 8.2.1 A phased approach to residential development of the Canal Quarter will take the area forward in phases which are deliverable over the medium and long term.
- 8.2.2 The long term vision for the Canal Quarter area is to create a vibrant, residential led development scheme which exploits its canal side setting and provides a high quality urban area which adds to the overall character of the town.
- 8.2.3 The Development Plan has to provide certainty and guidance for investment decisions and the phasing of development will serve to concentrate and manage investment over time. The Emerging Core Strategy needs to set the context for the development of the Canal Quarter. Core Strategy policy should set out:
- The Canal Quarter regeneration boundary incorporating the proposed amendments
 - Identifying the broad quantum and mix of uses for the Canal Quarter
 - Identify the specific areas and the quantum and mix of development envisaged as described in this report
 - Design and connectivity requirements including:
 - Residential development in Area 1 and 2 to include frontage on Masons Road and the canal
 - Maintaining and improving the canal and pedestrian links under the railway line to the north and between site 1/2 and site 3/4
 - Improve connectivity through all sites, especially in terms of linkages through to the town centre and railway station
 - A new bridge to connect site 1 and site 2
 - Enhance the canal side to provide attractive and useable open space and linkages
- 8.2.4 It is recommended that following the adoption of the Plan a series of development briefs for the individual sites should be prepared with landowners and promoters and these will serve to improve the efficiency of the planning and development process. A brief for site 1a Masons Road could be prepared straight away with the remainder to follow thereafter.
- 8.2.5 The development brief should address the particular constraints or opportunities of the site and set out the requirements of a planning application. Information that the development brief may cover may include the following:
- Physical context
 - Site description
 - Site constraints – including ground conditions and access
 - Public utilities and services, and their capacity

- Ownership and any related information, such as covenants
 - Existing consents
 - Uses sought – acceptable and unacceptable
 - Scale, massing and height of buildings
- 8.2.6 The Development Briefs should be prepared on a site by site basis with the close involvement of the developer. This will include community consultation which is an essential part of achieving a viable scheme. It would not be necessary to produce all the briefs immediately; however it advised that Areas 1a and 1b Masons Road and Area 2 Timothy's Bridge are prepared following adoption of the Core Strategy.
- 8.2.7 Alternatively a Masterplan could be prepared for the whole site. The Masterplan should be delivery rather than design-led and involve the key stakeholders including landowners and tenants. The Masterplan would need to cover the same elements listed above in respect of the development briefs. The benefits of a Masterplan is that it will cover the whole area to provide a comprehensive holistic plan for the Canal Quarter, however it is likely that this will take longer to prepare and may not be relevant in respect of Areas 3 and 4 until the end of the Plan period.

Appendix A Landscape and ecology constraints, opportunities and principles



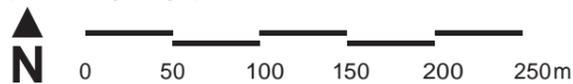
LEGEND:

-  Site boundary
- Potential Ecological Constraints**
-  Railway corridor - potential to be used by commuting and foraging bats, reptiles and nesting birds.
-  Canal - potential to be used by commuting and foraging bats. Low potential for otter to be present.
-  Buildings - potential to be used by roosting bats.
- National Landscape Character (Note 4)**
(entire study area lies with this area)
-  106: Severn And Avon Vales
- District Landscape Character (Note 2)**
Avon and Stour Valleys: Sub Area
-  Upper Avon

- Notes:
- 1.) Taken from Stratford On Avon District Council's Landscape Sensitivity Study July 2011. StratfordUpon Avon (West) Designations and Constraints plan.
 - 2.) Taken from Stratford On Avon District Council's Character Map of Stratford On Avon District - A Countryside Design Summary, September 2000.
 - 3.) Taken from OS explorer map 205.
 - 4.) Taken From Natural England website (www.naturalengland.org.uk)
 - 5.) Taken from www.sustrans.org.uk

Landscape Constraints

-  Conservation Area (Note 2)
-  Listed Buildings (Note 2)
-  Amenity Greenspaces (Note 2)
-  Public Rights Of Way (Note 3) /Stratford Upon Avon Canal Walk
-  National Cycle Route (Note 5)
-  Existing vegetation



**STRATFORD CANAL QUARTER DELIVERY
SUA.1**

**LANDSCAPE AND
ECOLOGY CONSTRAINTS**

 <small>Offices throughout the UK and Europe</small> www.peterbrett.com	STRATFORD ON AVON DISTRICT COUNCIL	
	Mark	Revision
Drawing No. 29828-001-01	REV	Date 01/2014
		Scale As Shown
		Drawn KH
		Checked NE



LEGEND:

Site boundary

Potential Ecological Constraints

Ponds and ditches - in the event this species is present in the local area these features have the potential to be used by breeding greater crested newts.

Existing trees and hedgerows have the potential to be used by nesting birds and roosting bats. Hedgerow bases and field margins also provide limited opportunities for common species of reptile.

Entire site - conceivable that site is used by foraging badgers and it may provide some (limited) sett building opportunities. Site is likely to be of low quality for commuting and foraging bats.

National Landscape Character (Note 4)

106 106: Severn And Avon Vales (Entire study area lies within this area)

District Landscape Character (Note 2)

Avon and Stour Valleys: Sub Areas

Upper Avon

Avon Ridgeland

- Notes:
- 1.) Taken from Stratford On Avon District Council's Landscape Sensitivity Study July 2011. StratfordUpon Avon (West) Designations and Constraints plan.
 - 2.) Taken from Stratford On Avon District Council's Character Map of Stratford On Avon District - A Countryside Design Summary, September 2000.
 - 3.) Taken from OS explorer map 205.
 - 4.) Taken From Natural England website (www.naturalengland.org.uk)

Landscape Constraints

Green Belt (Note 1)

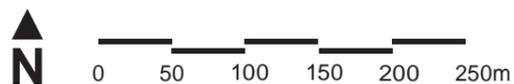
Amenity Greenspaces (Note 1)

Ponds and ditches (Note 3)

Public Rights Of Way (Note 3)

Potential views towards site

Existing trees and hedgerows



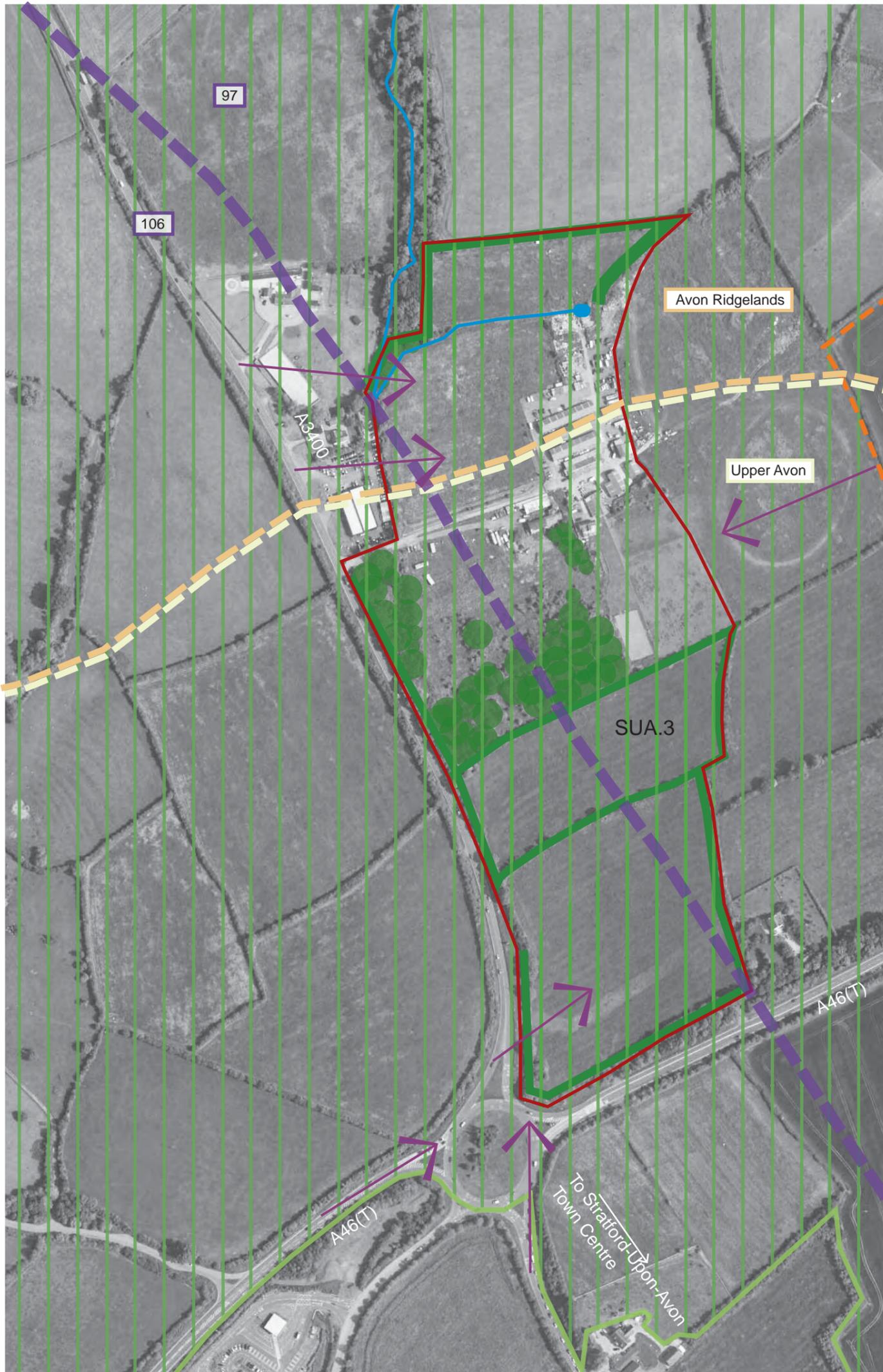
**STRATFORD CANAL QUARTER DELIVERY
SUA.2**

**LANDSCAPE AND ECOLOGICAL
CONSTRAINTS**



**STRATFORD ON AVON
DISTRICT COUNCIL**

Drawing No.	REV	Revision	
		Date	Scale
29828-001-02		01/2014	As Shown
			KH
			NE



LEGEND:

-  Site boundary
- Landscape Constraints**
-  Green Belt (Note 1)
-  Public Rights Of Way (Note 3)
-  Potential views towards site
-  Ditch and pond/ existing trees and hedges
- National Landscape Character (Note 4)**
-  97: Arden
-  106: Severn And Avon Vales
- District Landscape Character (Note 2)**
- Avon and Stour Valleys: Sub Area (entire study area lies within this area)
-  Upper Avon
-  Avon Ridgeland

Potential Ecological Constraints

-  Ponds and ditches - these features have the potential to be used by breeding great crested newts, in the event this species is in the local area.
-  Existing trees, hedgerows and scrub have the potential to be used by nesting birds and roosting bats. Hedgerow bases, field margins and scrub/grassland inter-faces provide opportunities for common species of reptiles and terrestrial phase great crested newts.
-  Entire site - conceivable that the site is used by foraging badgers and it may provide (limited) sett opportunities. Site is likely to be of low/medium quality for commuting and foraging bats.

Notes:

- 1.) Taken from Stratford On Avon District Council's Landscape Sensitivity Study July 2011. Stratford Upon Avon (West) Designations and Constraints plan.
- 2.) Taken from Stratford On Avon District Council's Character Map of Stratford On Avon District - A Countryside Design Summary, September 2000.
- 3.) Taken from OS explorer map 205.
- 4.) Taken From Natural England website (www.naturalengland.org.uk)

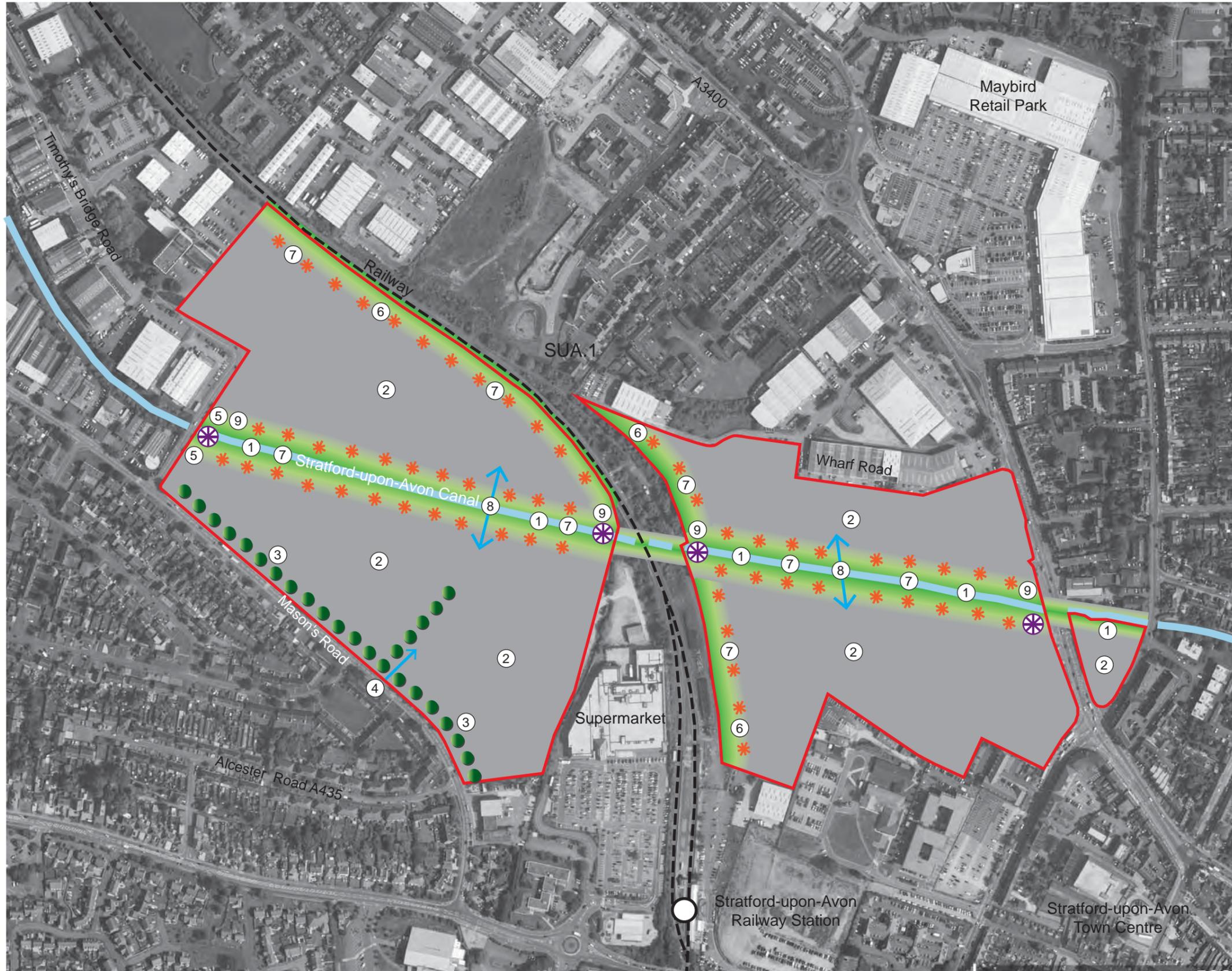
STRATFORD CANAL QUARTER DELIVERY SUA.3

LANDSCAPE AND ECOLOGY CONSTRAINTS

 <small>Offices throughout the UK and Europe</small> www.peterbrett.com		STRATFORD ON AVON DISTRICT COUNCIL	
		Mark	Revision
Drawing No.	REV	Date	01/2014
29828-001-03		Scale	As Shown
		Drawn	KH
		Checked	NE

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LEGEND:

- Site boundary
- 1 Increase public access to the canal - new footpaths and cycle routes and active uses along the canal. Enhance ecology habitats along the canal where practical through softening of bankside treatments and native riparian planting and integrate with urban design. Retain the best quality mature and semi mature trees and protect root zones in soft landscape strips.
- 2 Create high quality public realm fronting the canal corridor, including public open spaces, new tree planting, and integrated play within the urban environment. Incorporate water sensitive urban design solutions (WSUDS) into the public realm hard and soft landscape areas as part of the SuDs delivery. Increase pedestrian cycle routes to provide links to the towns railway station, Timothy's Bridge road and the existing National Cycle Network along Mason's Road.
- 3 Green route: tree planting along Mason's Road, enhance National Cycle Route, new cycle and footpath links into site.
- ↔ 4 Green link into site connecting to new canal footbridge. Tree lined entrance.
- 5 Existing link to bridge over canal.
- 6 Wildlife corridor adjacent to railway: native planting, grassland and shrub areas.
- ✱ 7 Sensitive lighting strategy (eg. use of low level bollards, lighting shields and directing light onto path)
- ↔ 8 Potential new footpath/cycleway route crossing over canal.
- ✱ 9 Enhance riparian habitats and provide fish refuge areas where appropriate (limit public access)

**STRATFORD CANAL QUARTER DELIVERY
SUA 1**

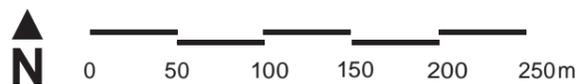
**STRATEGIC LANDSCAPE AND
ECOLOGY PRINCIPLES**



**STRATFORD ON AVON
DISTRICT COUNCIL**

Drawing No.	REV	Revision	
		Date	Scale
29828-001-04		01/2014	As Shown
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			NE

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LEGEND:

- Site boundary
- ① New hedgerows/enhance existing hedgerows on boundaries (native and fruiting species)
- ② Retain and enhance tree and shrub planting
- ③ Incorporate tree planting along boundaries
- ④ Green corridor
- ⑤ Enhance existing pond and where possible expand site's wetland resource
- ⑥ Create wildlife margin to site comprising tussocky grasslands on shrub mosaics habitat, and incorporate SuDs features where possible
- ⑦ Sensitive lighting strategy
- ⑧ Provide opportunities for roosting bats in new buildings
- ⑨ Incorporate nesting features for birds into new buildings

STRATFORD CANAL QUARTER DELIVERY
SUA2

STRATEGIC LANDSCAPE AND
ECOLOGY PRINCIPLES



STRATFORD ON AVON
DISTRICT COUNCIL

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		Date	Scale
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		Drawn	KH
		Checked	NE

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- | | | | |
|---|--|---|--|
|  | Site boundary |  | Provide opportunities for roosting bats in new buildings |
|  | New structure planting and strengthen hedgerow boundary. Improve wildlife corridor |  | Incorporate nesting features for birds into new buildings |
|  | Retain and enhance tree and shrub planting (Native and fruiting species) |  | Retain and enhance to create copse and improve habitat. |
|  | Retain and enhance pond and wetland habitat |  | Opportunity for Green Gateway and key building |
|  | Create wildlife margins comprising of tussocky grasslands or shrub mosaic |  | Retain good quality trees from hedgrows within green linear corridor |
|  | Sensitive lighting strategy |  | Survey for ecological and arboricultural interest. Retain best specimen trees if possible. Create green corridor within site |

STRATFORD CANAL QUARTER DELIVERY
SUA.3

STRATEGIC LANDSCAPE AND
ECOLOGY PRINCIPLES



STRATFORD ON AVON
DISTRICT COUNCIL

Drawing No.
29828-001-06

Mark	Revision
REV	Date 01/2014
	Scale As Shown
	Drawn KH
	Checked NE

Appendix B Constraints and opportunities summary table

C1: Canal Quarter Landscape and Visual Constraints

Landscape / Visual Element:	Analysis and Constraints	Opportunities
Landscape planning designations:	<p>None within the site.</p> <p>Listed buildings and Conservation Area beyond the site: effects of proposed regeneration will need to be considered in terms of visual and setting issues.</p>	
<p>Landscape / townscape character and built form:</p> <p>National Landscape Character Area: 106 Severn and Avon Vales</p> <p>District Landscape Character Area: Avon and Stour Valleys, sub area: Upper Avon</p>	<p>The site is situated within the urban environment, dominated by the large scale industrial/manufacturing and commercial units, hard surfaces and large areas of car parking.</p> <p>Very few buildings front onto the canal.</p> <p>Adjacent residential area to the south side of Masons Road (southwest boundary of the site).</p> <p>Consider heights of new residential and mixed use buildings.</p>	<p>Redevelopment for residential and mixed use provides the opportunity to replace large scale units and large car parking areas with residential scale development, creating a more varied area (in terms of scale, density and materials) with a good quality public realm appropriate to enhancing the townscape character.</p> <p>Utilise the canal corridor for active uses and front new residential development onto the waterside.</p> <p>Potential for a public event space to be situated fronting onto the canal as part of improvements to public amenity of the waterfront and increasing public open space.</p>
Landform:	Low lying, almost flat.	
Landscape / urban features:	<p>Stratford-on-Avon Canal forms a narrow green corridor through the site.</p> <p>The Birmingham-Stratford railway line dissects the site, also a green corridor varying in width. Noise issues from the railway will need to be considered and landscape planting utilised to aid noise mitigation.</p>	<p>Enhance the canal corridor and incorporate ecological habitat enhancements where possible whilst also increasing public access and incorporating the canal waterfront as part of the active public realm. Including new tree planting, use of high quality hard landscape materials in the public realm areas, new footpaths and cycle routes.</p>
Vegetation:	Ornamental trees and shrubs within landscaped areas and car parks.	Retain the best quality mature and semi-mature trees and protect the associated root zones within soft

	<p>Mature trees align the canal and banksides; riparian habitat along much of the canal.</p>	<p>landscape strips.</p> <p>New tree and ornamental shrub planting to be incorporated within public realm.</p> <p>Ecological enhancements to the canal corridor riparian habitats where possible, including new native trees and shrubs.</p>
<p>Public access:</p>	<p>Stratford-on-Avon Canal Walk along the towpath on the northern side of the canal. Little public access to the canal from its southern side, the banks are dominated by vegetation.</p> <p>Public access within the site is provided by the access/circulation roads.</p> <p>A National Cycle Network Route passes along the southwestern boundary, along Timothy's Bridge Road and Masons Road.</p> <p>The railway and canal divide the site, and are a constraint to pedestrian and cycle links between the site parts.</p>	<p>Enhance the existing towpath, incorporating it into wider public realm where appropriate.</p> <p>Increase public access to the canal – provide new footpaths and cycle routes.</p> <p>Create footpath and cycle links to the existing bridge over the canal (off-site) at Timothy's Bridge Road.</p> <p>Provide new pedestrian and cycle links:</p> <ul style="list-style-type: none"> • across the canal; • connecting to the town's railway station; and • to the National Cycle Network Route
<p>Likely key views:</p>	<p>Consider effects upon views and visual amenity from:</p> <ul style="list-style-type: none"> • the canal and associated towpath; • the railway; • the National Cycle Network Route; • adjacent streets; and • adjacent residential areas <p>Consider heights of new residential and mixed use buildings.</p>	<p>Opportunity to improve views and visual amenity by replacing the current large scale units and car park areas with residential scale good quality development and public realm; utilising the canal as a focus for waterfront development.</p>

C2: Canal Quarter Ecological Constraints and Opportunities

Ecological Receptor	Status (confirmed or predicted)	Constraints	Opportunities
Statutory designated areas of nature conservation interest	None within 2km of the site's boundaries. No statutory designated areas of European importance within 10km	-	-
Non-statutory designated	The current draft masterplan for the site	Unknown at this stage	Unknown at this stage

areas of nature conservation interest (SINCs)	(Corstorphine & Wright Architects, undated) states that there are no SINCs either within the site or associated with its boundaries. This will require confirmation following a data request to Warwickshire Biological Records Centre (WBRC).		
Otter	Otter are known to occur within Warwickshire. It is conceivable that they use the canal where this passes through the site should they be present within the catchment.	Survey for otter may be required to determine the use of the canal by this species and identify the location of any holts within the site (considered unlikely given highly urbanised and disturbed setting of the canal where it passes through the site).	Opportunities to enhance the suitability of the canal for otters through the creation of fish refuge areas, to increase the number of fish, and the widening and enhancement of the adjacent riparian habitats.
Reptiles	Opportunities for reptiles within the site are limited to the embankments of the railway and potentially the riparian bankside habitats associated with the canal (if undisturbed).	If present, and given the location and nature of the habitats within the site considered suitable for reptiles, it is considered likely that the employment of sensitive working techniques, rather than undertaking a programme of trapping and translocation, would be sufficient as a means to safely displace reptiles from works footprint.	Seek to improve the quality of the habitats within the site associated with the canal and railway to enhance their potential to support reptiles. Improvements could include the expansion of a buffer of semi-natural habitat along these linear features, to include areas of grassland and scrub planting.
Bats – commuting and foraging	Site is likely to be considered of low quality for foraging and community bats, being dominated by buildings and hardstanding. Areas of bat commuting and foraging activity are likely to be focussed along the canal and railway corridor, where these provide strong semi-natural linear features in an otherwise heavily urbanised setting.	It may be necessary to undertake surveys to understand how bats are using the site and in particular the importance of the canal and railway corridor as commuting and foraging routes.	Enhancement of those habitat features identified as being of value for bats, e.g. extension of riparian bankside habitat association with the canal, implementation of sensitive lighting strategy than minimises spillage onto canal and railway corridor.
Bats – roosting	The site's buildings may support features suitable for roosting bats.	Where any of the site's buildings are to be impacted by the development proposals,	Opportunities for roosting bats to be recreated/provided within the site with suitable

		these will need to be subject to a detailed inspection to search for evidence of or potential for roosting bats. Further emergence/re-entry surveys may be required in order to determine the status of any roost present. Where buildings known to support roosting bats are to be impacted by the development, works will need to be undertaken in accordance with a European Protected Species licence from Natural England.	features either installed or built into the fabric of new buildings.
Breeding birds	The site is likely to support a breeding bird assemblage typical of urban habitats. Potential for species such as kingfisher, as well as water fowl, to be associated with the canal.	Site clearance works to be undertaken outside the bird nesting period (March to September, inclusive).	Provide opportunities for nesting birds within the scheme design, through the creation of new areas of habitat and/or installation of nesting features into the fabric of new buildings.

C3: South of Alcester Road Landscape and Visual Constraints

Landscape / Visual Element:	Analysis and Constraints	Opportunities
Landscape planning designations:	None within the site. Green Belt boundary lies along the opposite side of A46 Alcester Road.	--
Landscape sensitivity to commercial development:	Part of site ST26. ST26 was identified as being of High Sensitivity to commercial development: <i>“The zone forms rolling open countryside of arable farmland in regular fields west/north west of the settlement and separated from it by busy roads including the A46. It has little connection with the settlement due to the busy roads and vegetation screening and because it generally slopes away from it linking visually into the wider countryside to the north. Commercial development is therefore considered inappropriate</i>	The site forms a part of the wider ST26 study area, and due to the nature of the landform and existing vegetation, has potential to accommodate sensitively designed commercial development within a strong landscape framework, without undue harm to landscape character or people's views and visual amenity.

	<i>in this area.”</i>	
<p>Landscape character and built form:</p> <p>National Landscape Character Area: 106 Severn and Avon Vales</p> <p>District Landscape Character Area: Avon and Stour Valleys, sub area: Upper Avon</p>	<p>The site forms part of countryside surrounding the settlement. There are few landscape features within the site, and the hedgerows appear to be of moderate quality with some gaps. Trees and hedgerows align the Alcester Road, filtering views into the site. The site is formed by regular fields, with a rural character.</p>	<p>A change of land use to commercial development would lead to an inevitable change in character. However, sensitive design, with due consideration of building heights and mass, together with a strong landscape framework, could potentially accommodate commercial development within the wider landscape.</p>
<p>Landform:</p>	<p>Part of the wider gently undulating landform, the site slopes towards the A46 Alcester Road.</p> <p>New buildings to be designed with due consideration of height, mass and scale, taking into account the local skyline.</p>	--
<p>Landscape features:</p>	<p>A small pond within a group of trees at the northern boundary with the A46 Alcester Road.</p> <p>Ditches or watercourse along some field boundaries</p>	<p>Retain existing boundary hedgerows and trees, and retain and enhance the group of trees and pond.</p> <p>Retain ditches and enhance, incorporating SuDs solutions where practicable; create a green linear corridor along internal ditchline / hedgerow.</p>
<p>Vegetation:</p>	<p>Moderate hedgerow field boundaries within the site with gaps and few trees. Trees and shrubs align the highway corridor. Retain hedgerows and good quality trees, ensure root protection zones are free from development including services and drainage.</p>	<p>New hedgerows and enhance existing hedgerows along boundaries.</p> <p>New tree planting along northern, western and southern boundary hedgerows to filter potential views into the site.</p>
<p>Public access:</p>	<p>No public access into or within the site.</p> <p>A public footpath is located to the southeast of the site, but is separated from the site by intervening fields.</p>	<p>Opportunity to provide new footpath and cycle routes linking the site to the town.</p>
<p>Likely key views:</p>	<p>Consider effects upon views and visual amenity from:</p> <ul style="list-style-type: none"> A46 Alcester Road (note that travelling northwest to southeast direction, towards Stratford-on-Avon, the edge of residential development at West Green Drive is on the 	--

	<p>skyline, glimpsed through winter hedgerows;</p> <ul style="list-style-type: none"> • Public footpath to the southeast; • Drayton Manor Drive; • West Green Drive; • publicly accessible routes and locations within the adjacent Green Belt; and • A422 exiting Stratford-on-Avon. 	
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C4: South of Alcester Road Ecological Constraints and Opportunities

Ecological Receptor	Status (confirmed or predicted)	Constraints	Opportunities
Statutory designated areas of nature conservation interest	None within 2km of the site's boundaries. No statutory designated areas of European importance within 10km	-	-
Non-statutory designated areas of nature conservation interest	The existing Ecological and Geological Study (2010) indicates that there are no SINCS either within the site or pertaining to its boundaries. This will require confirmation following a data request to Warwickshire Biological Records Centre (WBRC).	Unknown at this stage	Unknown at this stage
Great crested newts	The site's ponds and ditches may provide suitable breeding habitat for this local species. The existing Ecological and Geological Study (2010) confirms the presence of smooth newt within one of the site's ponds. Grassland and hedgerow habitats provide suitable terrestrial habitat for amphibians.	If great crested newts are present and breeding within site, scheme design will need to either (i) seek to retain breeding habitat and/or (ii) recreate suitable breeding habitat elsewhere within the site. Programme of trapping and translocation likely to be required if newts are present to safely remove them from built footprint to areas of retained and enhanced habitat elsewhere within the site.	Seek to retain and enhance wetland resource within site, e.g. through creation of new ponds suitable for amphibians. Seek to provide high quality terrestrial habitat within the scheme design, such as structurally diverse tussocky grasslands and scrub mosaics.
Reptiles	Field margins and hedgerow bases provide	If present, and depending on	Seek to provide habitats within the scheme design

	limited opportunities for low numbers of common and widespread species of reptiles such as grass snake and common lizard.	distribution and density, a programme of trapping and translocation may be required to safely remove reptiles from built footprint to areas of retained and enhanced habitat elsewhere within the site. Alternatively, appropriate habitat management works may be sufficient as a means to safely displace reptiles from works footprint.	suitable for this species group, e.g. structurally diverse tussocky grasslands and scrub mosaics.
Bats – commuting and foraging	Site is likely to be considered of low quality for foraging and community bats, supporting habitats that are homogenous in nature and botanically un-diverse.	It may be necessary to undertake surveys to understand how bats are using the site and allow identification of key commuting and foraging routes and features.	Retention and enhancement of those habitat features identified as being of value for bats, e.g. strengthening of hedgerow network, implementation of sensitive lighting strategy.
Bats – roosting	The site appears to generally lack any mature or veteran trees that might otherwise provide opportunities suitable for roosting bats. This would however need to be confirmed following a full site assessment.	Any mature trees present within the site to be impacted by the development proposals will need to be surveyed to assess their potential to support roosting bats prior to their removal.	Opportunities for roosting bats to be recreated/provided within the site with suitable features either installed or built into the fabric of new buildings.
Badgers	It is conceivable that the site is used by foraging badgers and the site provides some (limited) sett building opportunities.	In the event any setts are present within the site these should either be retained, or closed under licence. Depending on the status of any sett to be closed, a replacement sett may need to be recreated elsewhere within the development site.	Opportunities for foraging badger provided within landscape scheme, e.g. fruiting trees, grassland habitats
Breeding birds	The site is likely to support a breeding bird assemblage typical of farmland/urban fringe habitats. Given the small size of the site, and ubiquitous nature of the habitats it supports, this assemblage is unlikely to be noteworthy.	Site clearance works to be undertaken outside the bird nesting period (March to September, inclusive).	Provide opportunities for nesting birds within the scheme design, through the creation of new areas of habitat and/or installation of nesting features into the fabric of new buildings.

C5: East of Birmingham Road Landscape and Visual Constraints

Landscape / Visual Element:	Analysis and Constraints	Opportunities
<i>Landscape planning designations:</i>	<p>The site lies within Green Belt.</p> <p>Green Belt purposes which relate to key landscape and visual issues and which will need to be addressed:</p> <ul style="list-style-type: none"> • Check unrestricted sprawl of large built-up areas; • Safeguard the countryside from encroachment; • Preserve the setting and special character of historic towns. 	<p>Due to the nature of the landform and existing vegetation, the site has potential to accommodate sensitively designed commercial development within a strong landscape framework which contains the new development, without undue harm to landscape character, people's views and visual amenity, or to the landscape purposes of the Green Belt designation.</p>
<i>Landscape sensitivity to commercial development:</i>	<p>The site was not included within the Landscape Sensitivity Study of Stratford-on-Avon.</p>	--
<p><i>Landscape character and built form:</i></p> <p>National Landscape Character Area: 106 Severn and Avon Valles</p> <p>District Landscape Character Area: Avon and Stour Valleys, sub area: Upper Avon and Avon Ridgelands</p>	<p>The site comprises a number of small regular and irregular fields, with an overall rural character, which includes a small area of existing development in the central area of the site which includes large scale agricultural buildings, workshops and storage units.</p>	<p>A change of land use to commercial development would lead to an inevitable change in character. However, sensitive design, with due consideration of building heights and mass, together with a strong landscape framework, could potentially accommodate commercial development within the wider landscape.</p>
<i>Landform:</i>	<p>Part of the wider gently undulating landform, the site slopes towards the A3400 Birmingham Road</p> <p>New buildings to be designed with due consideration of height, mass and scale, taking into account the local skyline.</p>	--
<i>Landscape features:</i>	<p>Ditch and pond to the northern area of the site. Trees and hedgerows as field boundaries.</p>	<p>Retain ditch and pond, and provide enhancements, incorporating SuDs solutions where practicable.</p>
<i>Vegetation:</i>	<p>Field boundaries are formed by generally good hedgerows with mature trees and some gaps. Strong linear</p>	<p>New hedgerows and enhance existing hedgerows along boundaries.</p>

	<p>tree and shrub planting aligns the A46 highway corridor on the southern and the eastern boundary (Birmingham Road) is aligned with dense trees and hedgerow. At the northwestern corner, the site borders a copse of trees located off-site.</p> <p>Retain hedgerows and good quality trees, ensure root protection zones are free from development including services and drainage.</p> <p>To the southwest of the existing development is an area which appears to be scrub and maturing trees.</p>	<p>New tree planting along northern, western and southern boundary hedgerows to filter potential views into the site.</p> <p>Retain trees in scrub area, enhance for ecology habitats and create small copse.</p>
Public access:	<p>No public access into or within the site.</p> <p>A public footpath is located to the east of the site, but is separated from the site by intervening fields, and to the southeast the public footpath is separated from the site by intervening fields and the A46.</p>	<p>Opportunity to provide new footpath and cycle routes linking the site to the town.</p>
Likely key views:	<p>Consider effects upon views and visual amenity from:</p> <ul style="list-style-type: none"> • A3400 Birmingham Road; • A46; • Public footpath to the east; • Adjacent development situated on the A46, southeastern corner of the site; • publicly accessible routes and locations within the adjacent Green Belt; • the northern edge of Stratford-on-Avon, for example Bishopton and Clopton; and • long distance views from Welcome Hills / Welcombe Hills Obelisk and associated footpaths 	--

C6: East of Birmingham Road Ecological Constraints and Opportunities

Ecological Receptor	Status (confirmed or predicted)	Constraints	Opportunities
Statutory designated areas of nature conservation interest	None within 2km of the site's boundaries. No statutory designated areas of European importance within 10km	-	-
Non-statutory designated areas of nature	The existing Ecological and Geological Study (2010) indicates that	Unknown at this stage	Unknown at this stage

conservation interest	there are no SINCs either within the site or pertaining to its boundaries. This will require confirmation following a data request to Warwickshire Biological Records Centre (WBRC).		
Great crested newts	The pond and ditches may provide suitable breeding habitat for this local species. Grassland and hedgerow habitats provide suitable terrestrial habitat.	If present and breeding within site, scheme design will need to either (i) seek to retain breeding habitat and/or (ii) recreate suitable breeding habitat elsewhere within the site. Programme of trapping and translocation likely to be required if newts are present to safely remove them from built footprint to areas of retained and enhanced habitat elsewhere within the site.	Seek to retain and enhance wetland resource within site, e.g. through creation of new ponds suitable for amphibians. Seek to provide high quality terrestrial habitat within the scheme design, such as structurally diverse tussocky grasslands and scrub mosaics.
Reptiles	Field margins and hedgerow bases provide limited opportunities for low numbers of common and widespread species of reptiles such as grass snake and common lizard. The scattered scrub and grassland mosaic within the central part of the site offers opportunities for basking, foraging and sheltering reptiles and may support good numbers of common species such as slow-worm.	If present, and depending on distribution and density, a programme of trapping and translocation may be required to safely remove reptiles from built footprint to areas of retained and enhanced habitat elsewhere within the site. Alternatively, appropriate habitat management works may be sufficient as a means to safely displace reptiles from works footprint.	Seek to provide habitats within the scheme design suitable for this species group, e.g. structurally diverse tussocky grasslands and scrub mosaics.
Bats – commuting and foraging	Site is likely to be considered of low/medium quality for foraging and community bats, supporting habitats that are largely homogenous in nature and likely to be botanically un-diverse.	It may be necessary to undertake surveys to understand how bats are using the site and allow identification of key commuting and foraging routes and features.	Retention and enhancement of those habitat features identified as being of value for bats, e.g. strengthening of hedgerow network, implementation of sensitive lighting strategy.
Bats – roosting	Some of the site's trees appear to be mature and might therefore provide opportunities suitable for	Any mature trees present within the site to be impacted by the development proposals	Retention of mature trees where these have the potential to support roosting bats, where

	<p>roosting bats. This would however need to be confirmed following a full site assessment.</p> <p>The site's buildings may support features suitable for roosting bats.</p>	<p>will need to be surveyed to assess their potential to support roosting bats prior to their removal.</p> <p>Where any of the site's buildings are to be impacted by the development proposals, these will need to be subject to a detailed inspection to search for evidence of or potential for roosting bats. Further emergence/re-entry surveys may be required in order to determine the status of any roost present. Where buildings known to support roosting bats are to be impacted by the development, works will need to be undertaken in accordance with a European Protected Species licence from Natural England.</p>	<p>possible.</p> <p>Opportunities for roosting bats to be recreated/provided within the site with suitable features either installed or built into the fabric of new buildings.</p>
Badgers	<p>It is conceivable that the site is used by foraging badgers and the site provides some (limited) sett building opportunities.</p>	<p>In the event any setts are present within the site these should either be retained, or closed under licence. Depending on the status of any sett to be closed, a replacement sett may need to be recreated elsewhere within the development site.</p>	<p>Provide opportunities for foraging badger within landscape scheme, e.g. fruiting trees, grassland habitats</p>
Breeding birds	<p>The site is likely to support a breeding bird assemblage typical of farmland/urban fringe habitats. Given the small size of the site, and common nature of the habitats it supports, this assemblage is unlikely to be noteworthy.</p>	<p>Site clearance works to be undertaken outside the bird nesting period (March to September, inclusive).</p>	<p>Provide opportunities for nesting birds within the scheme design, through the creation of new areas of habitat and/or installation of nesting features into the fabric of new buildings.</p>

Appendix C Assumptions

Assumption	Source	ID	Notes																																																												
Scenarios																																																															
Residential development typology	Consultation with client	This mix of schemes was selected in discussion with the client group, making use of																																																													
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25	CQ Area 2: Timothy's Bridge Road																																																														
Mix type	Assumed	Except for the CQ sites, unit size distribution is taken from the GL Herve Coventry and Warwickshire SHMA (Nov 2013), Tables 98 & 99.																																																													
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Unit sizes	Industry standard	Residential floorspace is based upon industry standards of new build schemes. Two floor areas are displayed for flatted schemes: The Gross Internal Area (GIA) is used to calculate build costs and Net Internal Area (NIA) is applied to calculate the sales revenue. For the small housing sites (up to 5 units) larger dwellings are delivered in the borough, with medium and larger sites delivering more 'standard' unit sizes, we have																																																													
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Residential scenarios	Council policy	The Council targets an affordable housing rate of 35% on schemes of 5 dwellings or more. The policy also states an overall balance of 60% social rent, 20% affordable rent and 20% for intermediate affordable tenures.																																																													
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Policy costs		CSH Level 4 (applies to sites >0.3ha or with 10+ units, Lifetime homes + BR2013)	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Apply?</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Yes</td> <td>2.5% build cost</td> </tr> <tr> <td>Yes</td> <td>£953 per unit</td> </tr> </tbody> </table>	Apply?	Cost	Yes	2.5% build cost	Yes	£953 per unit																																																						
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Canal Quarter and Two Associated Employment Sites Study of the Viability and Deliverability

Assumption	Source	Notes																									
Construction Costs																											
Build costs	BCIS Quarterly Review of Building Prices online version accessed March 2014. Prices rebased to the district.	Residential build costs are based upon industry data from the Build Cost Information Service (BCIS) which is published by the Royal Institution of Chartered Surveyors (RICS). The data is published by RICS on a quarterly basis. BCIS offers a range of prices dependent on the final specification.																									
		<p>The following median build costs used are derived from recent data of actual prices in the marketplace. As early as 2009, the market across the UK was building at round Code for Sustainable Homes Level 3 for private and Level 4 for affordable housing.</p> <table border="1"> <thead> <tr> <th></th> <th>Small housebuilder</th> <th>Large house builder</th> </tr> <tr> <th></th> <th><</th> <th>4</th> </tr> <tr> <th></th> <th colspan="2">dwgs</th> </tr> </thead> <tbody> <tr> <td colspan="3">Private</td> </tr> <tr> <td>Flats –</td> <td>£993</td> <td>£993 sqm</td> </tr> <tr> <td>Houses (general estate) –</td> <td>£1,257</td> <td>£891 sqm</td> </tr> <tr> <td colspan="3">Affordable</td> </tr> <tr> <td>Flats –</td> <td>£993</td> <td>£993 sqm</td> </tr> <tr> <td>Houses (general estate) –</td> <td>£1,257</td> <td>£891 sqm</td> </tr> </tbody> </table> <p>Costs may alter in future. In particular, there will be national policy change regarding housing standards that will limit the use of setting targets for CISH. The arrival on new Building Regulations Part L in April 2014 on tightening of carbon standards is estimated to add about £450 in costs per home above the 2010 Building Regulation standards (this is based on the Government's Regulatory Impact Assessment findings). The final effect of these changes on viability is difficult to foresee at the current time.</p> <p>A review of current Government research on cost impacts of changes in building regulations and CISH suggests that past forecasts of price changes (such as that predicted in the original Cyril Sweet work (2010)) have never affected costs to the extent forecast. When these future requirements come into force, they will impact on both development costs and land values, normally with one cancelling the other out. The PBA work has not incorporated these possible impacts into the viability testing because the appraisal is based on current market conditions and not forecasts of potential future change. The approach to incorporating these (and other) potential but as yet unknown costs is to set a wide margin for error that will cover variations in factors such as build costs, site conditions, and timing.</p>		Small housebuilder	Large house builder		<	4		dwgs		Private			Flats –	£993	£993 sqm	Houses (general estate) –	£1,257	£891 sqm	Affordable			Flats –	£993	£993 sqm	Houses (general estate) –
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Plot external	Industry standards	Plot externals relate to costs for internal access roads, hard and soft landscaping. This will vary from site to site, but we have allowed for this at the following rate: 10% Build cost																									
Site abnormals		Developing greenfield, brownfield and mixed sites represent different risk and costs. These costs can vary significantly depending on the site's specific Land type Brownfield £200,000 per net ha Mixed £100,000 per net ha Greenfield £0 per net ha																									
Opening up costs (generic sites)	Infrastructure study	Opening up costs typically account for strategic infrastructure and S106 costs - local highway improvements, drainage, strategic landscaping, PoS, education/ community facilities, etc. This is treated as an add on to the adopted benchmark land value so that the benchmark land value is sufficiently below the market rate for clean residential land. Generally, SI costs including S.106 costs - vary between £500k and £800k/ha increasing as schemes get bigger (say 500 - 10,000 units), which should fall within the difference between the benchmark land value and the clean residential land value. Since some strategic infrastructure will be paid for separately through CIL charges, the following assumptions are used based on the site area (NB: the estimate Dwgs Generic sites < 200 £5,000 per unit Generic sites < 500 £10,000 per unit Generic sites >= 500 £18,000 per unit Brownfield infill (5) per unit Small Brownfield (7) per unit Small Greenfield infill (7) per unit Brownfield infill (10) per unit Small Greenfield (20) per unit CQ Area 1a: Masons Road per unit CQ Area 1b: Masons Road per unit CQ Area 2: Timothy's Bridge Road 500,000 per unit CQ Area 3: Wharf Road per unit																									
Professional fees	Industry standards	Professional fees relate to the costs incurred to bring the development forward and cover items such as; surveys, architects, quantity surveyors, etc. 12% Build cost																									
Contingency	Industry standards	Contingency is based upon the risk associated with each site and has been calculated as a percentage of build costs at 5% Build cost																									
Sale costs	Industry standards	Sale costs relate to the costs incurred for disposing the completed residential units, including legal, agents and marketing fees. These are based on industry accepted scales at the following rates: 3% Gross Development Value																									
Finance costs	Industry standards	When testing for development viability it is common practice to assume development is 100% debt financed (Viability Testing Local Plans - Advice for planning practitioners and RICS Financial viability in planning guidance note GN94/2012. Within our cashflow we used a finance rate based upon market rates of interest as follows: 7% Development costs																									
Professional fees on land purchase	Industry standards	In addition to SDLT the purchaser of land will incur professional fees relating to the purchase. Fees associated with the land purchase are based upon the following industry standards: Surveyor - 1.00% Legals - 0.75%																									
Stamp duty on land purchase	HMRC	Stamp Duty Land Tax (SDLT) is generally payable on the purchase or transfer of property or land in the UK where the amount paid is above a certain threshold. The SDLT rates are by Treasury, the following rates current rates have been applied: ≤ £150,000 0.00% > £150,000 1.00% > £250,000 3.00% > £500,000 4.00%																									

Canal Quarter and Two Associated Employment Sites

Study of the Viability and Deliverability

Profit																																																																													
Developer's return	Industry standards	<p>A developer's return is based upon their attitude to risk. A developer's attitude to risk will depend on many factors that include but not exclusive to, development type (e.g. Greenfield, Brownfield, refurbishment, new build etc), development proposal (uses, mix and quantum), credit worthiness of developer, and current market conditions.</p> <p>The Harmen Report states that "residential developer margin expressed as a percentage of GDV - should be the default methodology" and E.2.3.8.1 of the RICS Financial viability in planning report states "The residential sector seeks a return on the GDV".</p> <p>We have applied a rate that is acceptable to both developers and financial institutions in the current market. The developer return is a Gross Margin and therefore includes overheads. The developer return is calculated as a percentage of Gross Development Value at the following rate:</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Developer return on market housing</td> <td style="text-align: right;">20% Gross development value</td> </tr> <tr> <td style="text-align: center;">Return on affordable housing</td> <td style="text-align: right;">6% Gross development value</td> </tr> </table> <p>A lower margin has been applied to the affordable units as these represent less development risk as the end user is known at point of construction. This approach is also typical with industry standards. The Homes and Community Agency (HCA) state 'Conventional practice is to allow for developer's margin at a lower rate for affordable housing developed as part of a Section 106 agreement, as the risks are low relative to development of open market housing. The user manual for the Economic Appraisal Tool states that a typical figure may be in the region of 6% of affordable housing value on a nil grant basis'.</p>				Developer return on market housing	20% Gross development value	Return on affordable housing	6% Gross development value																																																																				
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Revenue																																																																													
Sales value of completed scheme	Land Registry/Rightmove Brochures	Property values are derived from different sources, depending on land use. For housing, Land Registry and Rightmove data forms a basis for analysis. This provides a full record of all individual transactions. Values used are as																																																																											
				House	Flats																																																																								
		Private sale	West	£2,650	£2,143 sqm																																																																								
		Private sale	East	£2,850	£2,143 sqm																																																																								
		Private sale	Central	£3,250	£2,143 sqm																																																																								
Affordable housing (Section 106)	Industry standards	<p>The current percentage requirement for affordable housing is X% on sites with X+ new dwellings. The impact of residential tenure can affect the impact of this policy, and we have assumed a blended average of intermediate and affordable rented accommodation as follows:</p> <table border="0" style="width: 100%;"> <tr> <td colspan="3">Transfer value</td> <td style="text-align: center;">45%</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Social rent</td> <td style="text-align: center;">West</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,193</td> <td style="text-align: right;">£964 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Social rent</td> <td style="text-align: center;">East</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,283</td> <td style="text-align: right;">£964 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Social rent</td> <td style="text-align: center;">Central</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,463</td> <td style="text-align: right;">£964 sqm</td> <td></td> </tr> <tr> <td colspan="3">Transfer value</td> <td style="text-align: center;">55%</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Affordable rent</td> <td style="text-align: center;">West</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,458</td> <td style="text-align: right;">£1,179 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Affordable rent</td> <td style="text-align: center;">East</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,568</td> <td style="text-align: right;">£1,179 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Affordable rent</td> <td style="text-align: center;">Central</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,788</td> <td style="text-align: right;">£1,179 sqm</td> <td></td> </tr> <tr> <td colspan="3">Transfer value</td> <td style="text-align: center;">65%</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">Intermediate</td> <td style="text-align: center;">West</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,723</td> <td style="text-align: right;">£1,393 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Intermediate</td> <td style="text-align: center;">East</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£1,853</td> <td style="text-align: right;">£1,393 sqm</td> <td></td> </tr> <tr> <td style="text-align: center;">Intermediate</td> <td style="text-align: center;">Central</td> <td style="text-align: center;">✓</td> <td style="text-align: right;">£2,113</td> <td style="text-align: right;">£1,393 sqm</td> <td></td> </tr> </table>				Transfer value			45%			Social rent	West	✓	£1,193	£964 sqm		Social rent	East	✓	£1,283	£964 sqm		Social rent	Central	✓	£1,463	£964 sqm		Transfer value			55%			Affordable rent	West	✓	£1,458	£1,179 sqm		Affordable rent	East	✓	£1,568	£1,179 sqm		Affordable rent	Central	✓	£1,788	£1,179 sqm		Transfer value			65%			Intermediate	West	✓	£1,723	£1,393 sqm		Intermediate	East	✓	£1,853	£1,393 sqm		Intermediate	Central	✓	£2,113	£1,393 sqm	
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Time-scales																																																																													
Build rate units/per annum	Industry standards	House builders typical build to sale. Therefore build rates are determined by market conditions of how many units can be sold on a monthly basis as developers do not want to be holding onto stock as this impacts their cashflow.																																																																											
		Construction Start	Building growth rate	Sales delay (days)																																																																									
			0.65	187																																																																									
Benchmark land value per ha																																																																													
Residential land values	Land Registry & UK Land Directory website	<p>It is important to appreciate that assumptions on benchmark land values can only be broad approximations, subject to a wide margin of uncertainty. We take account of this uncertainty in drawing conclusions and recommendations from our analysis. We have examined a cross section of residential land comparables across Swale. These comparable recent transactions generally relate to urban, brownfield sites, which were fully serviced with roads and major utilities to the site boundary. In collecting evidence on residential land values, we aimed to distinguish between sites that deliver flats and housing sites - this is due to development densities, and sites values that might reflect extra costs for opening up and planning permission from those which are clean residential sites. The figure we use reflect a fairly clean residential site (although it may not yet be permitted)</p> <p>We would expect that land values for smaller sites with less than 10 dwellings to be higher because of being under the affordable housing threshold. This approach is in line with the Hamman report which advises authorities to work on the basis of future policy and its effects on land values.</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">Residential values</td> <td style="text-align: center;">Small Brownfield</td> <td style="text-align: right;">£1,200,000 per ha</td> <td style="text-align: right;">£384,460</td> </tr> <tr> <td style="text-align: center;">Residential values</td> <td style="text-align: center;">Brownfield</td> <td style="text-align: right;">£950,000 per ha</td> <td></td> </tr> </table>				Residential values	Small Brownfield	£1,200,000 per ha	£384,460	Residential values	Brownfield	£950,000 per ha																																																																	
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Appendix D Residential Assessments

Canal Quarter and Two Associated Employment Sites Study of the Viability and Deliverability

CQ Area 1a: Mas Central		183 Units					pba peterbrett		
ITEM									
Net Site Area		3.60 Brownfield		Residual Value		£1,015,336 per net ha			
Yield		Units 183		Private	Affordable	Social rent	Intermediate	Shared ownership	
		119.20	64.18	38.51	12.84	12.84			
1.0 Development Value									
1.1	Private units	No. of units	Size sq.m	Total sq.m	£psm	Total Value			
	Flats (NIA)	36.00	55	1,980	£2,143	£4,243,140			
	2 bed house	38.74	70	2,712	£3,250	£8,813,350			
	3 bed house	38.74	80	3,099	£3,250	£10,072,400			
	4+ bed house	5.72	120	686	£3,250	£2,230,800			
		119.2		8,477					
1.2	Social rent	No. of units	Size sq.m	Total sq.m	£psm	Total Value			
	Flats (NIA)	11.63	55	640	£964	£616,887			
	2 bed house	12.52	70	876	£1,463	£1,281,326			
	3 bed house	12.52	80	1,001	£1,463	£1,464,372			
	4+ bed house	1.85	120	222	£1,463	£324,324			
		38.5		2,739					
1.3	Affordable rent	No. of units	Size sq.m	Total sq.m	£psm	Total Value			
	Flats (NIA)	3.88	55	213	£1,179	£251,324			
	2 bed house	4.17	70	292	£1,788	£522,022			
	3 bed house	4.17	80	334	£1,788	£596,596			
	4+ bed house	0.62	120	74	£1,788	£132,132			
		12.8		913					
1.3	Intermediate	No. of units	Size sq.m	Total sq.m	£psm	Total Value			
	Flats (NIA)	3.88	55	213	£1,393	£297,020			
	2 bed house	4.17	70	292	£2,113	£616,935			
	3 bed house	4.17	80	334	£2,113	£705,068			
	4+ bed house	0.62	120	74	£2,113	£156,156			
		12.8		913					
Gross Development value						£32,323,851			
2.0 Development Cost									
2.1	Site Acquisition						Total Value		
2.1.1	Site value (residual land value)						£3,655,210		
		Purchaser Costs					5.7500%		
						3,865,384			
2.3 Build Costs									
2.3.1	Private units	No. of units	Size sq.m	Total sq.m	Cost per sq.m	Total Costs			
	Flats (GIA)	36.00	65	2,340	£993	£2,323,620			
	2 bed house	38.74	70	2,712	£891	£2,416,214			
	3 bed house	38.74	80	3,099	£891	£2,761,387			
	4+ bed house	5.72	120	686	£891	£611,582			
		119		8,837					
2.3.2	Affordable units	No. of units	Size sq.m	Total sq.m	Cost per sq.m	Total Costs			
	Flats (GIA)	19.38	65	1,260	£993	£1,251,180			
	2 bed house	20.86	70	1,460	£891	£1,301,038			
	3 bed house	20.86	80	1,669	£891	£1,486,901			
	4+ bed house	3.08	120	370	£891	£329,313.60			
		64		4,759					
						183.38			
						£12,481,236			
2.4 Construction Costs									
2.4.1	External works as a percentage of build costs	10%		£1,248,124					
2.4.2	Site abnormalities (remediation/demolition)	£200,000 per net ha		£720,000					
2.4.2	Site opening up costs	SI	£5,000 per unit	£916,923					
		S106/S278	£10,683 per unit	£1,959,098					
						£4,844,145			
2.5 Professional Fees									
2.5.1	as percentage of build costs	12%		£1,497,748					
						£1,497,748			
2.6 Contingency									
2.6.1	as percentage of build costs	5%		£624,062					
						£624,062			
2.7 Developer contributions									
2.7.3	CSH Level 4 (applies to sites >0.3ha or with 10+ units, whichever is the higher)	2.5% build cost		£312,031					
2.7.5	Lifetime homes + BR2013	£953 per unit		£174,766					
						£486,796			
2.8 Sale cost									
2.8.1	as percentage of GDV	3.00%		£969,716					
						£969,716			
TOTAL DEVELOPMENT COSTS (including land)						£24,769,087			
3.0 Developers' Profit									
3.1	Private units	20%		Gross development value					£5,071,938
3.2	Affordable units	6%		Gross development value					£417,850
TOTAL PROJECT COSTS [EXCLUDING INTEREST]						£30,258,874			
TOTAL INCOME - TOTAL COSTS [EXCLUDING INTEREST]						£2,064,977			
4.0 Finance Costs									
4.1	Finance	APR 7.00%		PCM 0.565%		-£2,064,977			
TOTAL PROJECT COSTS [INCLUDING INTEREST]						£32,323,851			