

Fareham Borough Council

Refining the Fareham SDA Capacity Analysis

Draft Report

3 July 2009



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Appendix A: Constraints
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1.0 INTRODUCTION

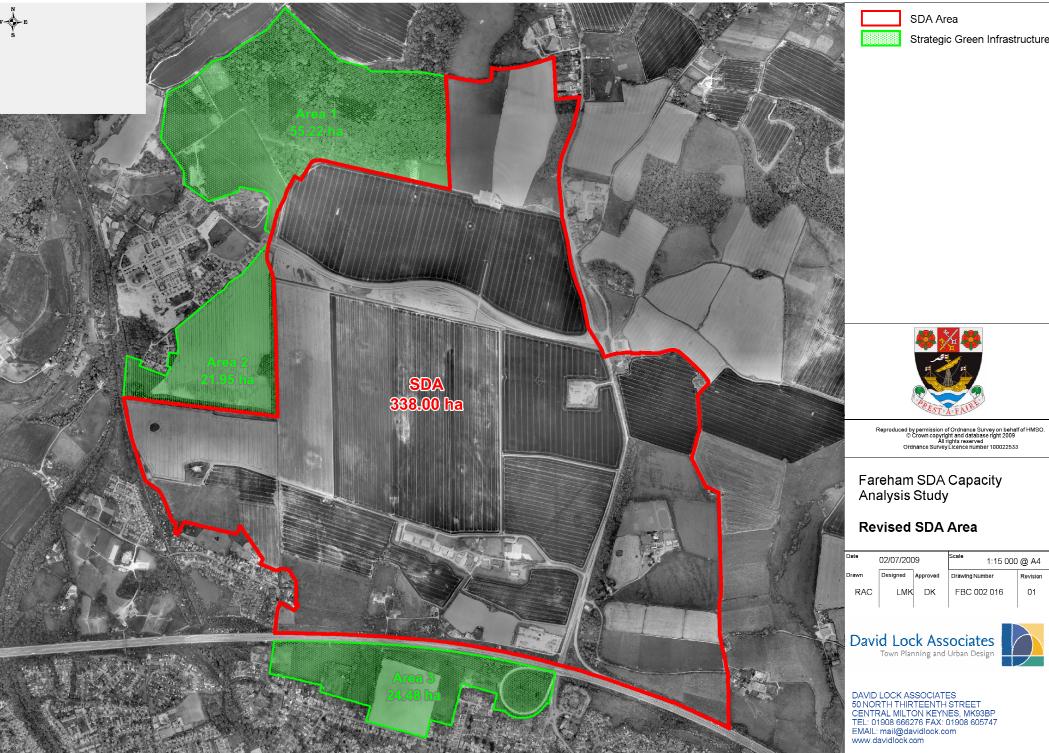
- 1.1 In autumn 2008 DLA was instructed by Fareham Borough Council (FBC) to undertake a Capacity Analysis Study of the land north of Fareham which is proposed to contain the Fareham Strategic Development Area (SDA). The aim of this Study was to test the extent of land required for the SDA to accommodate 10,000 dwellings and 121,000 m² of employment, and to take account of a number of potential development and mitigation scenarios in estimating indicative capacity for the SDA Area of Search. The analysis and scenario testing of this Study indicated that achieving 10,000 dwellings in the Area of Search would be very challenging. A highly optimistic approach towards constraints suggested 10,000 dwellings could be accommodated depending on the extent and method of mitigation. A cautious approach suggested the SDA Area of Search would be unlikely to achieve 10,000 dwellings. This Fareham SDA Capacity Analysis Study was published on FBC's website in January 2009.
- 1.2 At the time of that earlier Study there was very little certainty about the degree of optimism or caution that should be taken toward opportunities to mitigate constraints. This has not significantly changed. In order to refine the capacity analysis, it was clear that Fareham Borough Council would face a number of difficult decisions in the next stage of promoting an allocation for the SDA:
 - The full extent of the boundary for the SDA (ie will it include land south of the M27 and/or land in Winchester)?
 - 2. The urban form, expressed through an average site density;
 - The number of dwellings acceptable to deliver as part of the Strategic Development Area;
 - 4. The potential pursuit of CPO for land east of the A32.
- 1.3 Since the earlier Study, FBC have continued ongoing discussions with the landowners, the Joint Venture promoting the SDA, and key stakeholders. FBC have also held two Visioning events with a wide range of stakeholders to establish a vision for the SDA. The Partnership for Urban South Hampshire (PUSH) has also commissioned a Study to identify the economic development role of the SDA. The information that has emerged from these discussions, workshops and analysis has provided FBC with an important steer on a number of key issues relevant to this refinement of the earlier capacity study.

- 1.4 In spring 2009 FBC instructed DLA to undertake a refinement of the earlier Fareham SDA Capacity Analysis Study with an additional section considering an indicative housing trajectory for the SDA.
- 1.5 The analysis in this Study is based on updated assumptions about:
 - A revised SDA Area;
 - Key constraints;
 - Land take requirements;
 - Two Employment scenarios; and
 - An overall average density of 40 dph.
- The level of detail available about constraints affecting the SDA area at the time of writing is limited. Assumptions have been made about both the constraints that inform the indicative developable area analysis, and the SDA's potential land use requirements. Therefore the indicative developable area and the estimated capacity range can only be considered an estimate until more detailed information becomes available. Further detailed technical reports, which will be required by both the Local Planning Authority (LPA) and the promoters as part of the process of preparing an Area Action Plan (AAP), master plan and an outline planning application, will provide much of the technical detail to support more accurate constraints assessments and recommendations for a range of mitigation measures. These will need to be agreed with Fareham Borough Council and key stakeholders, such as the Environment Agency, Highways Agency and Natural England. Consultation with these key stakeholders is ongoing.
- 1.7 The assessment undertaken in this Study estimates that the Fareham SDA's capacity range could be as low as 6,500 and as high as 8,000 dwellings depending on the approach taken to dedicated employment areas and mitigation of key constraints. Based on the information that is currently available 8,000 dwellings are considered to be an optimistic capacity for the SDA because very little contingency land would be available to accommodate mitigation of known or unforeseen constraints. Should the SDA Area or land use requirements change, the potential capacity of the SDA would also be affected. The true capacity of the site will not be known until master planning is underway and more detailed technical information is available as part of the process to prepare an outline planning application. More detail about the method used to estimate potential capacity of the SDA can be found in Section 7 of this report.

- 1.8 The assessment and findings of this report are set out in 9 sections:
 - Section 1: Introduction;
 - Section 2: Revised SDA Area:
 - Section 3: Key constraints
 - Section 4: Indicative developable area;
 - Section 5: Land use requirements and employment scenarios
 - Section 6: Estimated Capacity;
 - Section 7: Indicative housing Trajectory:
 - Section 8: Conclusions.
- 1.9 This report does not take into consideration detailed development design considerations. That level of analysis is more appropriate as a subsequent piece of work, which would build on the findings from this and the earlier Study, and help to guide the AAP process.

2.0 REVISED SDA AREA

- 2.1 The earlier Fareham SDA Capacity Analysis Study (January 2009) considered the widest possible Area of Search for the SDA, approximately 979 ha. This area incorporated land within Winchester District, land in Fareham south of the M27, and highly sensitive areas of land east of the A32. Since that Study was completed, Fareham Borough Council has continued ongoing dialogue with the landowners, the Joint Venture, the Environment Agency, Natural England, and other key stakeholders. Figure 2.1 overleaf represents a revised SDA Area for consideration in this Study. It takes into account findings from these ongoing discussions, and findings from the landscape sensitivity appraisal undertaken in the earlier Study.
- 2.2 The revised SDA Area is 338 ha with an additional 102 ha in Winchester and in Fareham south of the M27 to serve as strategic green infrastructure for the SDA. It is therefore excluded from the potential developable area assessed in this Study. The total potential developable area considered for the purposes of this refined capacity testing is therefore 338 ha.





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3.0 KEY CONSTRAINTS

- 3.1 When key constraints and mitigation measures are taken into account, the indicative developable area for the SDA will be less than 338 ha. To inform the earlier capacity analysis of the SDA, Fareham Borough Council provided GIS data on key constraints. The earlier Study also made assumptions about potential buffer and exclusion areas related to these key constraints. The extent of these constraints and the mitigation measures and solutions will not be known for some time. Greater detail and certainty will emerge from ongoing consultation with key stakeholders and detailed technical studies that will need to be commissioned as part of the AAP and outline planning application process. Since January 2009 the only new information about key constraints that has emerged is the extent of land associated with the listed building at Roche Court (4.35 ha), which will need to be excluded from the SDA's developable area.
- 3.2 In addition, updated assumptions have been made about a number of the key constraints, as set out below.
 - Funtley Buffer: the earlier Study did not take into account any buffer area between the SDA and Funtley. This Study assumes a 50 m wide buffer area to prevent coalescence. This buffer area could be optimistic.
 - A32 Realignment: the earlier Study assumed an indicative road alignment. This study assumes an alternative alignment based on Option 7 from the A32 Realignment Study.
 - Roche Court: the earlier study assumed a ½ ha exclusion area for all listed buildings. This Study estimates an exclusion area of 4.35 ha to take account of the building and its environs.
 - Gas Pipeline: The earlier Study tested three potential mitigation scenarios of 6m, 75m, and 150m. This study has taken no account of any exclusion or buffer area for the gas pipeline because no further information is available and it is not considered appropriate to rely on any one of those scenarios at this stage. We have shown the area on the Constraints Plan in Appendix A, and the indicative developable area in Section 4. The overhead electrical lines are treated in the same manner. A degree of caution should therefore be applied to the estimated capacity for the SDA.
 - Areas of Special Landscape Character and Water Source Protection Zones: the earlier Study assumed some level of mitigation would be required in relation to these constraints. This Study assumes that limited development could take place on these areas.

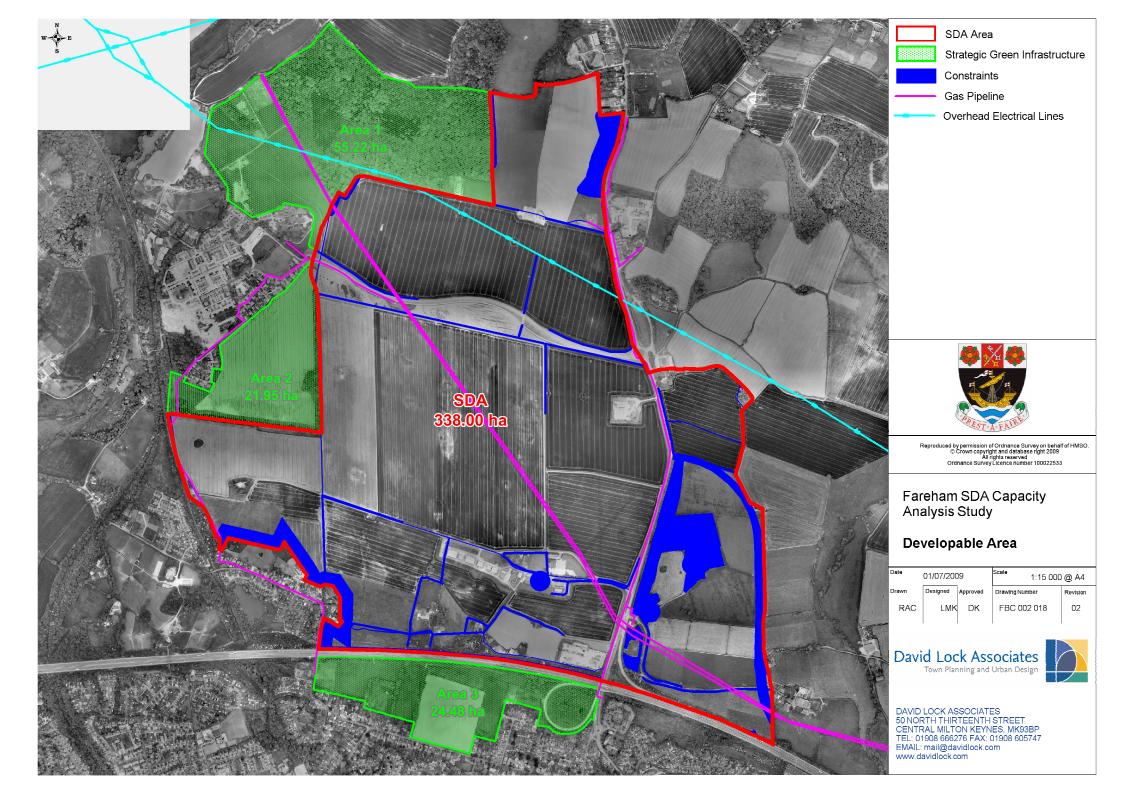
3.3 The key constraints considered in this Study and the assumptions about buffer and exclusions areas are set out in Table 3.1 below. Except where updated information or assumptions have been made as set out above, these are largely the same as in the earlier Fareham SDA Capacity Analysis Study.

Table 3.1: Exclusion and Buffer Area Assumptions

Constraint	Exclusion or Buffer Area
Buffer to Funtley	50 metre buffer area
Buffer to Knowle	Assume no additional buffer land required as strategic green
	infrastructure acts as buffer to the SDA
Local Listed Building	½ hectare for each site exclusion area
HCC Listed Buildings	½ hectare for each site exclusion area
Roche Court	4.35 ha exclusion area
Rights of Way	3 metre wide exclusion area
Overhead Electrical	No exclusion area applied because detailed technical
Lines	information unavailable.
Gas Pipeline	No exclusion area applied because detailed technical
	information unavailable.
Scheduled Ancient	Assumed exclusion area. Buffer yet to be attributed.
Monuments	
Tree Preservation	Assumed exclusion area. Buffers to be attributed.
Orders	
Hedgerows	8 metre wide exclusion area.
Sites of Scientific	Assumed exclusion area. Buffer not yet attributed.
Interest (SSSI)	
Sites of Interest for	Assumed exclusion area. 15m buffer area from development.
Nature Conservation	
(SINC)	
Areas of Special	Assume limited development could take place.
Landscape Character	
Areas of Ecological	Assumed exclusion area.
Importance	
Ancient Woodland	Assumed exclusion area.
	Buffer not yet attributed.
Ancient Woodland	Assumed exclusion area. Buffer not yet attributed
Remnants	
Additional Woodland	Assume exclusion area.
Air Pollution/Air Quality	Exclusion and buffer areas not yet attributed.
Noise Pollution	10 metre exclusion area from M27
Water Source Protection	Assume limited development could take place
Zones	
Environment Agency	Assume exclusion area
Flood Zone 2	
Environment Agency	Assume exclusion area
Flood Zone 3	
M27	Assume exclusion area
A32 realignment	Assumed Option 7 Realignment from
	Mott Gifford A32 Realignment Study

4.0 INDICATIVE DEVELOPABLE AREA

- 4.1 By applying the assumptions in Table 3.1 to the revised SDA Area, an indicative developable area emerges (Figure 4.1 overleaf). Areas affected by key constraints are shown in dark blue. Appendix A illustrates the location and extent of the assumptions made about each of the constraints. Taking the key constraints into account, the indicative developable area for the Fareham SDA is 306 ha. It is important to reiterate that some caution should be taken towards this figure for the following reasons:
 - Neither the Gas Pipeline nor the Electrical Overhead Line is taken into account in
 this indicative developable area because no detailed technical information is
 currently available. Should the mitigation of these two key constraints reduce the
 indicative developable area, this would have consequential results for the
 estimated capacity of the SDA.
 - Several of the key constraints have the potential to count towards open space requirements within the SDA Area, such as the Funtley Buffer, Ancient Woodland, Ancient Woodland Remnants, Tree Preservation Orders and Hedgerows. However, the extent to which these areas could be applied toward outdoor sports and parks and amenity areas is not yet known. Should some of these areas be applied toward the SDA Area's green infrastructure requirements, the indicative developable area could increase, with an effect on the estimated capacity for the SDA.



5.0 LAND USE REQUIREMENTS AND EMPLOYMENT SCENARIOS

- In order to consider the potential net dwelling capacity of the SDA, this section identifies potential land use requirements to be accommodated within the 306 ha indicative developable area identified in Section 4.0. By applying land use requirements to the indicative developable area, a net developable area for dwellings as set out in *PPS 3: Housing* is estimated in Section 6.0.
- In January 2008, FBC set out a series of broad assumptions about land use requirements for the SDA. These assumptions were applied in the earlier *Fareham SDA Capacity Analysis Study*. Based on the outcomes of two stakeholder Visioning events, results of the PUSH commissioned *Economic Development Role of the Strategic Development Area north of Fareham* Study, and ongoing discussion with the Joint Venture, landowners, and other key stakeholders, the indicative land use requirements for the SDA have been updated (see Table 5.1 below).
- 5.3 There are a number of differences between the earlier land use requirement estimates and those updated in this Study. The first relates to assumptions about green infrastructure. The earlier study identified 132 ha for open space and green infrastructure, which referred to strategic, formal and informal open space. This Study identifies 102 ha of strategic green infrastructure, which is identified adjacent to, but outside of the SDA Area on land in Winchester and in Fareham south of the M27. In addition, this Study assumes there will be a requirement to accommodate green infrastructure for outdoor sports and park and amenity open space within SDA Area and this estimate is based on 2.7ha/1,000 population.
- 5.4 The second key difference is the consideration of potential employment land for the SDA. The earlier study considered 25 ha of dedicated employment land within the SDA Area of Search to accommodate 121,000 m² of employment floorspace. In contrast, this Study considers two potential employment scenarios. The first scenario (Scenario A) tests the SDA's net dwelling capacity based on an assumption that 30,000 m² of office development would be located in the District Centre, and the remaining employment floorspace (75% of 121,000 m²) would be located in a dedicated employment area adjacent to, but outside of the SDA Area. The second scenario (Scenario B) tests the SDA's net dwelling capacity based on the assumption that 30,000 m² of office development would be located in the District Centre, but the remainder of the 121,000 m² employment floorspace would be accommodated on 27 ha of dedicated employment land areas within the SDA Area.

- 5.5 Currently available information about access and locational factors for the SDA suggest that 30,000 m² of office development in the District Centre is very ambitious. A more appropriate figure may be 10,000 m². Should a reduced floorspace be accommodated in the District Centre, the land required to accommodate the remainder of the 121,000 m² employment floorspace in Scenario B may need to be reconsidered. This could impact on the SDA's potential capacity.
- The capacity testing exercise is an iterative process and this Study tests land use requirements for a range of potential capacities. The starting assumption for the SDA's capacity is 10,000 dwellings. The range of potential capacity is tested as low as 6,500 dwellings. The key differences in land use requirements for potential capacities relate to green infrastructure, primary school provision and local centre requirements. This Study makes the following assumptions:
 - 4 primary schools and 4 local centres would be required for a development of 7,500-10,000 dwellings;
 - 3 primary schools and 3 local centres would be required for a development of 6,500 – 7,000 dwellings;
 - Land requirements for green infrastructure vary according to potential capacity (2.7 ha per 1,000 population assuming an average household size of 2.43); and
 - The 14ha District Centre could accommodate 500 dwellings.
- 5.7 The estimated land use requirements for the SDA are set out in Table 5.1 overleaf.

Table 5.1: Land Use Requirements for the SDA

Land Use	FBC January 2008 (Ha)	July 2009 Scenario A (Ha)	July 2009 Scenario B* (Ha)			
Employment	25	0 ha	27 ha within SDA Area			
District Centre and Local Centres	20	14 ha district centre 6-8 ha for 3-4 local centres = 20-22 h				
Education (primary and secondary)	22	12 ha for secondary school 9 -12 ha for 3-4 primary schools** = 21-24 ha				
Infrastructure requirements, community facilities, and waste/recycling	14		15 ha			
Open Space**** Total (excluding residential)	132 213	Varies from dependent	2.7 ha/1,000 population m 42.65 ha to 65.61 ha ent on capacity tested 103.65 ha to 158.61 ha			

Notes:

^{*} Scenario A assumes a 27 ha dedicated employment area would be located outside of the SDA Area used in this Study.

^{**} The number of local centres could vary depending on dwelling capacity;

^{***} The number of primary schools could vary depending on dwelling capacity;

^{****} Open Space land requirements previously included strategic green infrastructure which is now excluded from this analysis.

6.0 ESTIMATED CAPACITY RANGE FOR SCENARIOS

- To estimate the potential capacity of the SDA Area, this Study applies the indicative land use requirements identified in Section 5 to the indicative developable area in Section 4. An overall average density of 40 dwellings per hectare (dph) is applied to the residual land available for net dwellings to test the potential capacity of the SDA. In our experience from major developments elsewhere densities much above 40 dph become incredibly urban in character with housing mix shifting towards a predominance of flats. In addition, land uses such as car parking and incidental open space can be more challenging to accommodate.
- 6.2 Portsmouth and Southampton are well suited towards higher density urban development, and have experienced a high number of flats built in recent years. However, the Fareham SDA has different locational and access characteristics. It is on the edge of Fareham's urban area a somewhat 'suburban' location. It is also highly visible due to the topography, and has a requirement in the South East Plan to respect the setting of Portsdown Hill. These factors, in combination with stakeholder aspirations for the SDA from the two Visioning events suggest this location is less likely to be suited towards a highly urbanised form.
- 6.3 Set out below are the capacity assessments of the two employment scenarios based on 40dph overall average density. As a further reference point Appendix B provides the same analysis tested at 35 dph.

Scenario A

6.4 Based on a 40dph overall average density, our analysis suggests that Scenario A (assuming 30,000 m² of employment in the District Centre and the remainder located outside the SDA Area) has the potential to accommodate a maximum of 8,000 dwellings. This maximum should be considered an optimistic estimate because it takes no account of the potential mitigation constraints of the overhead power lines or the underground pipelines. It also has very little potential to take account of other unforeseen constraints or mitigation measures with only 5ha available for contingency after 8,000 units are accommodated (7,500 units in the developable area plus 500 units in the District Centre). There is a possibility that some of the area identified as constraints could potentially serve as green infrastructure, but the extent to which the areas such as the Funtley

Buffer, the Ancient Woodland and the Ancient Woodland Remnants could serve as either outdoor sports areas or parks and amenity space is currently unknown.

6.5 A more cautious approach to the estimated capacity under Scenario A suggests the maximum number of dwellings could be around 7,500. This would allow 7,000 units to be accommodated in the developable area plus 500 units in the District Centre with approximately 21 ha remaining available for contingency to accommodate known and unknown constraints and mitigation measures that have not been taken into account in this Study. The detailed assessment of Scenario A is provided in Table 6.1 overleaf.



Table 6.1: Scenario A dedicated employment outside the SDA Area

Fareham SDA Further Capacity Testing Assumptions

Assumptions							
	Requirement for 10,000 dwellings (Ha)	Requirement for 9,000 dwellings (Ha)	Requirement for 8,500 dwellings (Ha)	Requirement for 8,000 dwellings (Ha)	Requirement for 7,500 dwellings (Ha)	Requirement for 7,000 dwellings (Ha)	Requirement for 6,500 dwellings (Ha)
Total area under consideration	338	338	338	338	338	338	338
Constraints	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98
1. Formal Green Infrastructure 2.7 ha/1,000 population	-65.61	-59.05	-55.77	-52.49	-49.21	-45.93	-42.65
2. Primary schools (3ha each)	-12	-12	-12	-12	-12	-9	-9
3. Secondary school (12 ha)	-12	-12	-12	-12	-12	-12	-12
4. 1 District Centre (14 ha) and 4 Local Centres (2 ha each)	-22	-22	-22	-22	-22	-20	-20
5. Infrastructure - potential roundabout requirements for A32 link (1ha), internal road infrastructure (6ha), waste and recycling (4ha), other infrastructure requirements (4ha)	-15	-15	-15	-15	-15	-15	-15
Residual land available for Net Dwellings	179.41	185.97	189.25	192.53	195.81	204.09	207.37
Land requirements for number of dwellings (excluding 500 dwellings in district centre)	237.5	212.5	200	187.5	175	162.5	150
Residual land available for contingency	-58.09	-26.53	-10.75	5.03	20.81	41.59	57.37

Scenario B

- 6.6 Scenario B assumes 30,000 m² of employment floorspace in the District Centre and dedicated employment of 27 ha is accommodated within the SDA Area. This reduces the residential capacity of the 306 ha indicative developable area ha SDA Area by 27 ha (approximately 1,100 units at 40 dph). At the same time, the Study also assumes the land use requirements for 6,500-7,000 residential units would be less than those for 7,500-10,000 units. For 6,500-7,000 units it is assumed 3 primary schools and 3 local centres would be required rather than 4 of each.
- Taking these land use considerations into account, it is estimated that the maximum number of dwellings that could be accommodated under Scenario B at an overall average of 40 dph would be somewhere between 6,500-7,000 dwellings depending on the required mitigation measures of both known and unforeseen constraints (See Table 6.2 overleaf). To accommodate 7,000 dwellings a contingency area of approximately 15 ha would be available, whereas for 6,500 dwellings the contingency area would be around 30 ha. Similar to Scenario A, some of the area identified as constraints could potentially serve as green infrastructure, but the extent to which areas such as the Funtley Buffer, the Ancient Woodland and the Ancient Woodland Remnants could serve as either outdoor sports areas or parks and amenity space is currently unknown.
- In Section 5 it was noted that accommodating 30,000 m² of office development in the District Centre is very ambitious. Should a lower figure, such as 10,000 m² be applied, the land use requirement for dedicated employment elsewhere in the SDA Area could be impacted, and this could have an effect on the potential capacity of the SDA. Should the entire 121,000 m² of employment floorspace be accommodated within the 338 ha SDA Area, the minimum capacity of the SDA is estimated to be 6,500 dwellings.

Table 6.2: Scenario B dedicated employment within the SDA Area

Fareham SDA Further Capacity Testing Assumptions

Fareham SDA Further Capacity Testing Assumptions										
	Requirement for 10,000 dwellings (Ha)	Requirement for 9,000 dwellings (Ha)	Requirement for 8,500 dwellings (Ha)	Requirement for 8,000 dwellings (Ha)	Requirement for 7,500 dwellings (Ha)	Requirement for 7,000 dwellings (Ha)	Requirement for 6,500 dwellings (Ha)			
Total area under consideration	338	338	338	338	338	338	338			
Constraints	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98			
1. Dedicated employment areas (B1, B2, B8)	-27	-27	-27	-27	-27	-27	-27			
2. Formal Green Infrastructure 2.7 ha/1,000 population	-65.61	-59.05	-55.77	-52.49	-49.21	-45.93	-42.65			
3. Primary schools (3ha each)	-12	-12	-12	-12	-12	-9	-9			
4. Secondary school (12 ha)	-12	-12	-12	-12	-12	-12	-12			
5. 1 District Centre (14 ha) and 4 Local Centres (2 ha each)	-22	-22	-22	-22	-22	-20	-20			
6. Infrastructure - potential roundabout requirements for A32 link (1ha), internal road infrastructure (6ha), waste and recycling (4ha), other infrastructure requirements (4ha)	-15	-15	-15	-15	-15	-15	-15			
Residual land available for Net Dwellings	152.41	158.97	162.25	165.53	168.81	177.09	180.37			
Land requirements for dwellings (excluding 500 in district centre)	237.5	212.5	200	187.5	175	162.5	150			
Residual land available for contingency:	-85.09	-53.53	-37.75	-21.97	-6.19	14.59	30.37			

The Joint Venture's Capacity Assumptions

- The Joint Venture promoting the Fareham SDA set out their emerging assumptions about the SDA's land requirements in spring 2009 (Table 6.1 overleaf). These assumptions provide an estimated capacity for the Fareham SDA based on an overall average density of 40 dph and a total land requirement of 433 ha. The Joint Venture's capacity assessment indicates 10,000 dwellings and 121,000 m² of employment could be accommodated in 433 ha.
- 6.10 There are a number of differences between the Joint Venture's assumptions and the assumptions made in this Study to arrive at an estimated capacity for the SDA. The most significant differences relate to the assumptions about strategic green infrastructure, the total land area under consideration, the assumptions about constraints and infrastructure, and the approach to employment.
- 6.11 Firstly, this Study uses a potential SDA Area of 338 ha for capacity testing, of which some land would be required for outdoor sport and parks and amenity space, plus an additional 102 ha for Strategic Green Infrastructure. In contrast, the Joint Venture considers a total land requirement of 433 ha which includes a working assumption of 84 ha for all of the SDA's strategic, informal and formal open space provision.
- 6.12 Secondly, this Study identifies 32 ha of constrained land, plus an additional 15 ha for potential infrastructure requirements. In contrast, the Joint Venture assumes a total of 35 ha for infrastructure requirements, including land required to mitigate key constraints, such as the overhead power line.
- 6.13 Finally, this Study tests two options to accommodating employment floorspace 27 ha within the SDA Area versus 27ha outside the SDA Area. In contrast, the Joint Venture assumes 27 ha for dedicated employment areas within the 433 ha total SDA Area.

Table 6.3: Joint Venture Capacity Assumptions and Principles

FAREHAM SDA - CAPACITY ASSUMPTIONS AND PRINCIPLES

05-May-09

Land Budget Assumptions

Residential @ 40 Dw/Ha for 9,500 dwellings - Plus 500 units to be included within the District Centre = 10,000 dwellings - No built form to be developed within Winchester Land - Includes local streets and excludes major distributor roads (see infrastructure)	237.50 ha
Open Space Provision 3.50 ha per 1,000 population. For 10,000 homes = 24,000 population This includes: - District Park and amenity space - Local parks - AUNGS	84.00 ha
Landscape Buffer Strip to sensitive neighbouring areas - Funtley, Knowle, A32 and M27	12.00 ha
Schools Provision 4no. Primary Schools + Nursery (2.5ha each) 1 no. Secondary School with playing fields (12 Ha) Total=	10.00 ha 12.00 ha 22.00 ha
Infrastructure Provision This includes: Energy Centre Power Line Major Substation Telephone Exchange Waste/recycling facilities M27 Access improvements (east of A32) Strategic roads west of the A32	35.00 ha
District Centre - Includes a civic space component (approximately 2.4 ha) - Includes a residential component of 500 dwellings - Includes a employment component of 30,800 m2	14.00 ha
Local Centres (4no.)	1.75 ha
Employment - 121,000 m2 in total - 75% is strategic employment located east of the A32 = 27 ha in business park environment in 1 to 3 plot ratio - 25% located west of the A32 predominantly in the district centre	27.00 ha

Total land requirement= 433.25 ha

Other Assumptions

No built development within Winchester boundary but, playing fields and open space acceptable Capacity calculations include all roads

Car parking is mostly on street with adequate landscape treatment.

7.0 INDICATIVE HOUSING TRAJECTORY

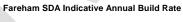
- 7.1 In August 2008 PUSH published DLA's *South Hampshire Strategic Development*Ares Deliverability Study. As part of that Study, we considered potential build rates and delivery risks for the Fareham SDA and the North / North East of Hedge End SDA as compared to other major developments across the country. The findings indicated that completions rates of 1,000 dwellings per year at either of the SDAs would be very challenging. The Study also found that build rate trajectories tend to start and end slowly, and peak for a number of years at the height of construction.
- 7.2 Several developments were identified that had achieved delivery of 700-1,000 dwellings/annum in very strong markets and at locations with high demand.

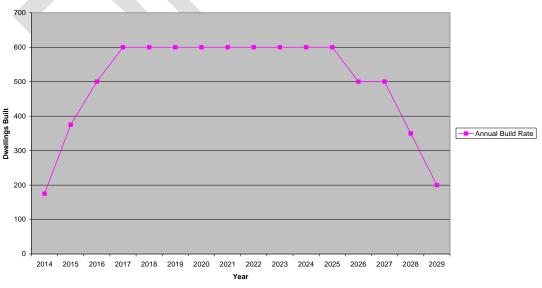
 However, a number of key risks to achieving such high rates of delivery at either the Fareham SDA or the North / North East of Hedge End SDA were identified. These included funding resources for affordable housing (estimated to be 40% of all dwellings) and the effect of the economic downturn. It was acknowledged that build rates will not ultimately affect the long-term construction of the SDAs, but could affect their deliverability within proposed timescales. The Study also found that the average large greenfield site can accommodate approximately 10-12 house builders, each building 50 homes per year (approximately 500-600 homes), but this level could increase over a peak period if the right factors are in place.
- 7.3 Included in the brief for this Study was a requirement to provide an indicative housing trajectory to estimate the potential delivery timescales for the SDA. Table 7.1 overleaf sets out an indicative housing trajectory assuming an average build rate of 500 dwellings per annum (dpa) with a peak at 600 dpa. The trajectory also assumes that timescales for adopting the Core Strategy and Area Action Plan (AAP) will follow those set out in Fareham's Local Development Scheme.
- 7.4 In Section 6, the study indicated that 8,000 dwellings are likely to be the maximum dwelling capacity given current assumptions. With this in mind, Table 7.1 indicates approximately 16 years to complete 8,000 dwellings from an assumption that Outline Planning Consent is granted in 2013. With a very willing developer, and a strong local market there is potential to achieve more dwellings by 2026.

Table 7.1 Indicative Housing Trajectory

Year	Build Rate	Cumulative Total
2010	Core Strategy Adoption	10101
2011	AAP Adopted	
2012	Outline Permission Granted	
	Reserved Matters /	
2013	Infrastructure	
2014	175	175
2015	375	550
2016	500	1050
2017	600	1650
2018	600	2250
2019	600	2850
2020	600	3450
2021	600	4050
2022	600	4650
2023	600	5250
2024	600	5850
2025	600	6450
2026	500	6950
2027	500	7450
2028	350	7800
2029	200	8000
Total:	8000	
Annual Average:	500	

Figure 7.1: Fareham SDA Indicative Annual Build Rate





8.0 CONCLUSION

- 8.1 DLA has undertaken an assessment of the potential capacity of the Fareham SDA Area based on assumptions about key constraints and land use requirements provided by and agreed with Fareham Borough Council. This report does not take into consideration detailed development design considerations. We consider that to be a level of analysis appropriate for a subsequent piece of work, which would build on the findings from this and the earlier Study and help to inform the AAP process.
- 8.2 This Study supplements the earlier Fareham SDA Capacity Analysis Study undertaken by DLA in January 2009. The earlier Study aimed to test the extent of land required for the SDA, and to consider indicative capacity for the SDA Area of Search, approximately 979 ha, through taking account of a number of potential development and mitigation scenarios related to key constraints.
- 8.3 That Study concluded that a highly optimistic approach to mitigating constraints suggested that 10,000 dwellings could be accommodated within the SDA Area of Search. However, a cautious approach could reduce the developable area significantly with the effect of reducing the potential capacity within the Area of Search. At the time of the earlier Study there was very little certainty about the degree of optimism or caution that should be taken toward opportunities to mitigate constraints. This has not significantly changed.
- 8.4 However, since that time, FBC have hosted two Visioning events with key stakeholders, continued ongoing discussions with the landowners, the Joint Venture and other key stakeholders, and PUSH have commissioned a Study to explore the economic development role of the Fareham SDA. The information that has emerged from all of these activities have provided FBC with an important steer on a number of key factors that will significantly influence the potential capacity of the SDA. The analysis in this Study is based on updated assumptions about:
 - A revised SDA Area;
 - Key constraints;
 - Land take requirements;
 - · Two employment scenarios; and
 - An overall average density of 40 dph;
- 8.5 Based on the above updated information, this refinement of the earlier *Fareham SDA Capacity Analysis Study* suggests the SDA is likely to accommodate between 6,500 and 8,000 dwellings depending on the approach taken to employment and green infrastructure, and the degree of caution or optimism that is applied to the potential to

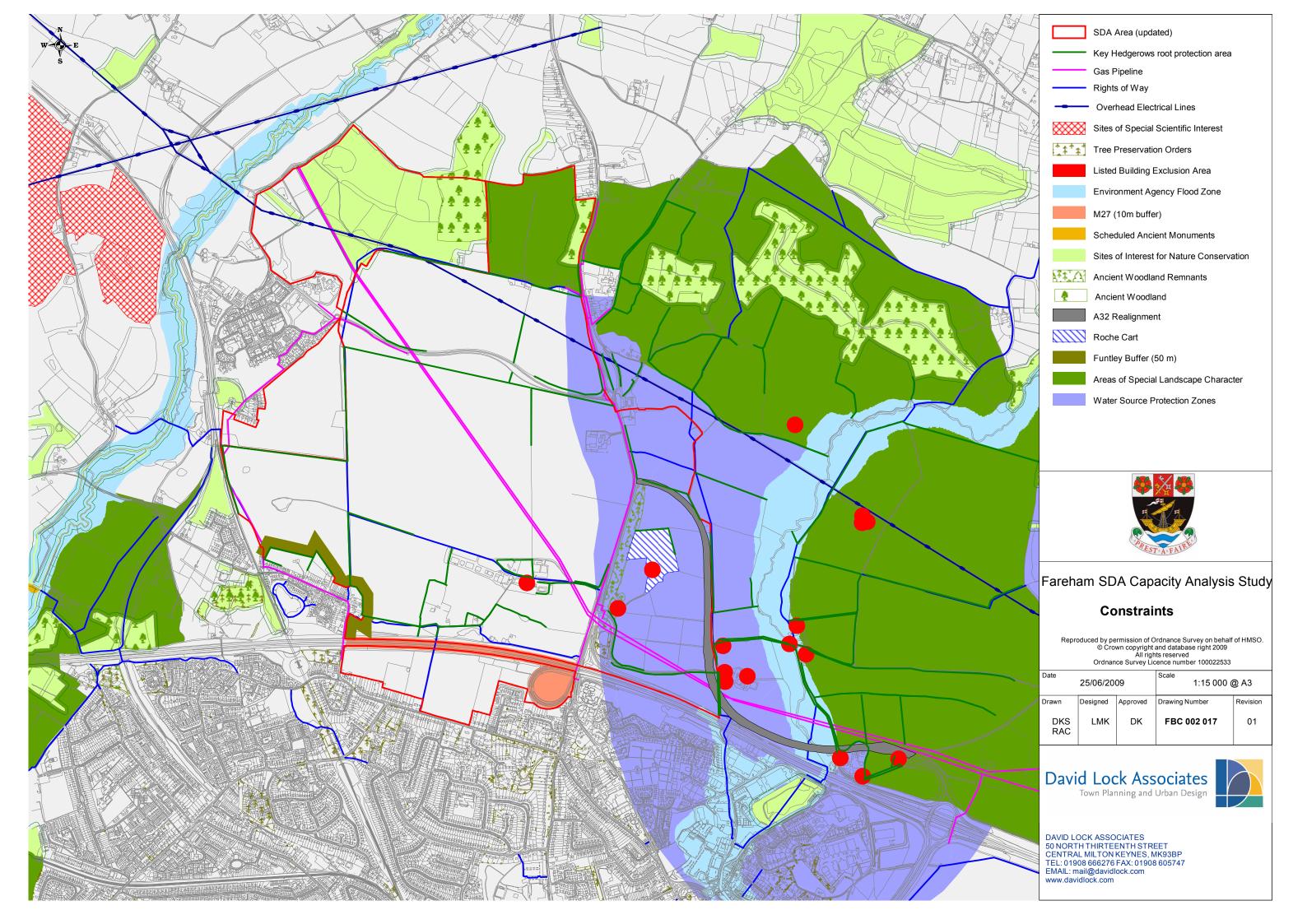
mitigate key constraints. As described in Section 6, the upper figure of 8,000 dwellings is considered to be highly optimistic because it takes no account of potential land requirements to mitigate the overhead electrical line or the underground pipeline. In addition there is very little contingency available to accommodate any other known or unknown constraints that may require additional land for mitigation. As a result, the likely maximum capacity of the SDA if the majority of dedicated employment is located outside the SDA Area is 7,500 dwellings. Should the SDA Area be required to accommodate 121,000 m² employment within the SDA Area, the capacity of the SDA could be as low as 6,500 dwellings.

- As part of this Study we have also undertaken to provide an indicative housing trajectory. Assuming FBC adopt the Core Strategy and Area Action Plan in 2010 and 2011 respectively, and Outline Planning and Reserve Matters consents can be achieved without significant delay, the indicative housing trajectory suggests that approximately 7,000 dwellings could be delivered by 2026. With a willing developer a strong market, and collaborative approach to promoting the SDA, the number of dwellings delivered by 2026 could be increased.
- 8.7 The current level of detail available about constraints affecting the SDA Area is limited. Assumptions have been made about both the constraints that inform the indicative developable area analysis and the SDA's potential land use requirements. The indicative developable area and the estimated capacity range can therefore only be considered an estimate until more detailed information becomes available. Further detailed technical reports, which will be required by both the Local Planning Authority and the promoters of the SDA as part of the process of preparing an Area Action Plan (AAP), master plan and an outline planning application, will provide much of the technical detail to support more accurate constraints assessments and capacity estimates. The recommended range of mitigation measures that emerge from this technical work will also need to be agreed with Fareham Borough Council and key stakeholders, such as the Environment Agency, Highways Agency and Natural England. Consultation with key stakeholders is ongoing.
- 8.8 Other considerations that will ultimately influence the development capacity of the SDA include:
 - · the character and profile of the development;
 - landowner aspirations;
 - the practicality and/or desirability of using land in an adjoining district for open space and other supporting land uses;
 - weighting attached to the identified constraints;

- prevailing market conditions (with particular impact on unit size); and
- balance between subjective and objective considerations.
- 8.9 The implementation programme for the SDA will extend across several plan making and economic cycles. Caution must, therefore, be exercised before making over prescriptive judgements on capacity at this very early stage in the development process.



Appendix A: Constraints



Appendix B: Capacity Scenarios at 35 dph

Scenario A at 35 dph

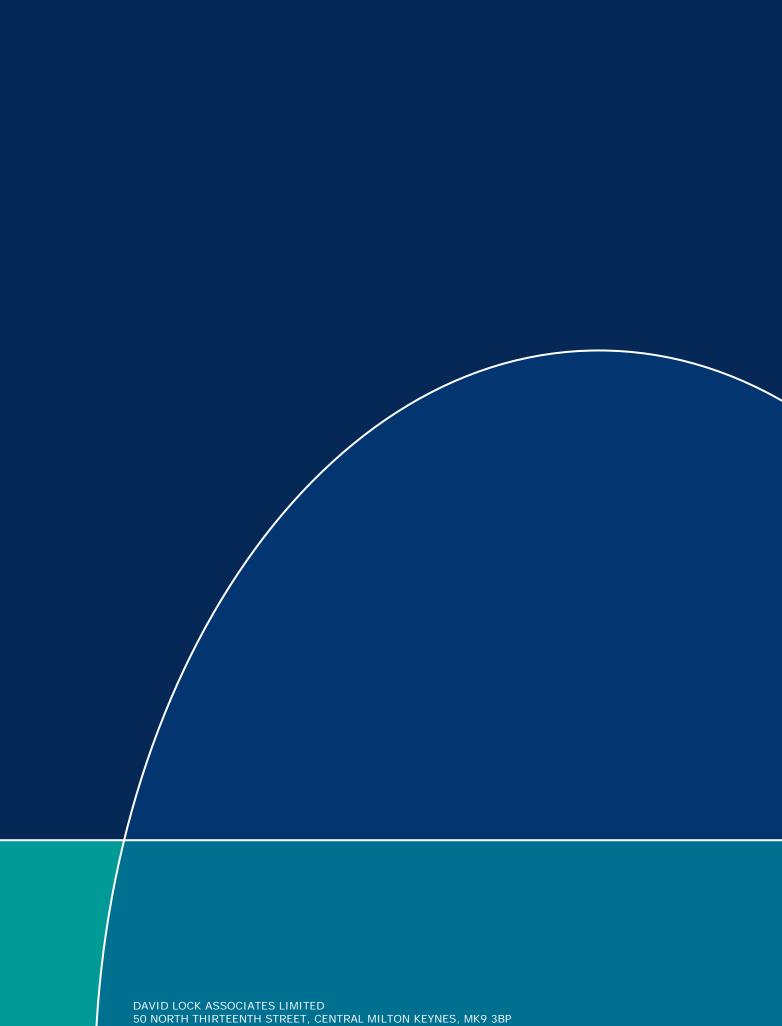
Fareham SDA Further Capacity Testing Assumptions

Scenario A	Requirement for 10,000 dwellings	Requirement for 9,000 dwellings	Requirement for 8,500 dwellings	Requirement for 8,000 dwellings	Requirement for 7,500 dwellings	Requirement for 7,000 dwellings	Requirement for 6,500 dwellings
Total area under consideration	338	338	338	338	338	338	338
Constraints	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98
1. Formal Green Infrastructure 2.7 ha/1,000 population	-65.61	-59.05	-55.77	-52.49	-49.21	-45.93	-42.65
2. Primary schools (3ha each)	-12	-12	-12	-12	-12	-9	-9
3. Secondary school (12 ha)	-12	-12	-12	-12	-12	-12	-12
4. 1 District Centre (14 ha) and 4 Local Centres (2 ha each)	-22	-22	-22	-22	-22	-20	-20
5. Infrastructure - potential roundabout requirements for A32 link (1ha), internal road infrastructure (6ha), waste and recycling (4ha), unforeseen infrastructure requirements (4ha)	-15	-15	-15	-15	-15	-15	-15
Residual land available for Net Dwellings		185.97	189.25	192.53	195.81	204.09	207.37
Land requirements for number of dwellings at 35 dph (excluding 500 in							
district centre)	A0000000000000000000000000000000000000	100000000					
Residual land available for contingency	-92.02	-56.89	-39.32	-21.76	-4.19	18.38	35.94

Scenario B at 35 dph

Fareham SDA Further Capacity Testing Assumptions

Companie D	•	Requirement for	•		Requirement for	Requirement for	Requirement for	Requirement for
Scenario B	10,000 aweilings	9,000 dwellings	8,500 dwellings	8,000 dwellings	7,500 dwellings	7,000 dwellings	6,500 dwellings	6,000 dwellings
Total area under consideration	338	338	338	338	338	338	338	338
Constraints	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98	-31.98
1. Dedicated employment areas (B1, B2, B8)	-27	-27	-27	-27	-27	-27	-27	-27
2. Formal Green Infrastructure 2.7 ha/1,000 population	-65.61	-59.05	-55.77	-52.49	-49.21	-45.93	-42.65	-39.37
3. Primary schools (3ha each)	-12	-12	-12	-12	-12	-9	-9	-9
4. Secondary school (12 ha)	-12	-12	-12	-12	-12	-12	-12	-12
5. 1 District Centre (14 ha) and 4 Local Centres (2 ha each)	-22	-22	-22	-22	-22	-20	-20	-20
6. Infrastructure - potential roundabout requirements for A32 link (1ha), internal road infrastructure (6ha), waste and recycling (4ha), unforeseen infrastructure requirements (4ha)	-15	-15	-15	-15	-15	-15	-15	-15
Residual land available for Net Dwellings	152.41	158.97	162.25	165.53	168.81	177.09	180.37	183.65
Land requirements for number of dwellings at 35 dph (excluding 500 in								
district centre)	271.43	242.86	228.57	214.29	200.00	185.71	171.43	171.43
Residual land available for contingency	-119.02	-83.89	-66.32	-48.76	-31.19	-8.62	8.94	12.22



DAVID LOCK ASSOCIATES LIMITED
50 NORTH THIRTEENTH STREET, CENTRAL MILTON KEYNES, MK9 3BP
TEL: 01908 666276 FAX: 01908 605747 EMAIL: mail@davidlock.com www.davidlock.com