

Newark & Sherwood Local Development Framework

Residential Cycle and Car Parking Standards & Design Guide Topic Paper

Consultation Draft

August 2020

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1 Introduction

Purpose of this Document

- 1.1 The purpose of this Topic Paper is to provide context and rationale for cycle and car Parking Standards across the District.
- 1.2 The principal objectives associated with developing a set of cycle and car parking standards and design principles for parking in new residential developments in the District are as follows:
 - To provide high quality, attractive, well-designed places to live with safe, convenient and useable parking provision;
 - To encourage people to cycle more for short distance trips of three miles or less to improve the health and wellbeing of residents, improve air quality, reduce fuel emissions/energy consumption and release road capacity for those using their cars for longer journeys that cannot easily or practically be completed by cycle;
 - To reduce the risk of anti-social and displaced car parking that can compromise the visual qualities of a street whilst also frustrating the ability of pedestrians (particularly the most vulnerable street users, i.e. wheelchair users and those with visual limitations) to navigate places safely and easily.
 - To ensure a consistent and transparent approach to assessing planning applications;
 - To respond to the particular characteristics of different areas and localities in the District in terms of accessibility by all modes of transport and restrictions on space availability.
- 1.3 This document has been produced to support the Supplementary Planning Document ('SPD') under the provisions of the Planning and Compulsory Purchase Act 2004. The SPD sets out the policy context for the provision and design of cycle and car parking on new residential developments and the details of how the District Council will seek to negotiate these matters. In addition to parking standards for new residential development, the SPD also sets out the requirements for electric charging infrastructure provision.

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COVID-19

- 1.4 Due to the impact of COVID-19, and in order to ensure that everyone is able to submit their comments, the Council has decided to extend its usual consultation period of 6 weeks by a further 2 weeks.
- 1.5 It is acknowledged that the COVID-19 pandemic has resulted in unprecedented times but the most up-to-date data available has been used in this Topic Paper. The bus services identified in the case studies are those which were available pre-lockdown. All sites visits were made before 8am on a weekday to ensure the highest level of occupancy at the time of visiting.

2 Background Evidence for Car Parking Standards

- 2.1 In accordance with National Policy, it is important to ensure that the District Council's parking standards for residential development take into account accessibility of the development, the type, mix and use of development, the availability of and opportunities for public transport, local car ownership levels and the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles. The Framework also requires planning policies to provide support to cycling networks through the provision of cycle parking.
- 2.2 Car parking standards are aimed at managing demand for car travel and encouraging more sustainable form of travel. This also supports the environmental agenda driven by climate change and the need to ensure the efficient use of land, as well as ensuring equal access to facilities and encouraging more active and healthier lifestyles.
- 2.3 However, it is important to ensure that the District's parking standards reflect local circumstances, and strike the right balance between providing a sufficient number of car parking spaces to prevent vehicles from being displaced onto the public highway or result in conversion of front gardens to parking areas. Such issues can cause significant loss of visual quality and increase rainwater runoff which works against the need to combat climate change.
- 2.4 The majority of the District is rural in nature with approximately 58% of the population¹ living in rural areas or 'rural-related' hub towns. Some rural areas are not served by public transport and others have infrequent and limited bus services. For the most part, demand for private vehicles is high. Given that much of the District is rural in nature, people will require space for parking their vehicles at their home even if measures are being implemented to reduce car usage.
- 2.5 This assessment has been undertaken using the 1991, 2001 and 2011 Census Data.

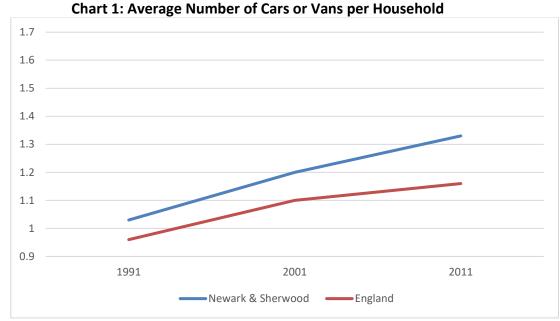
Car Ownership Trends

- 2.6 The provision of adequate parking in line with expected future car ownership levels is a priority of the District Council. If adequate parking provision is not delivered in new developments, then inappropriate parking will occur causing inconvenience, road safety issues and unattractive street scenes.
- 2.7 The 2011 Census shows a high level of car ownership in the District compared to the national average. In the District, the average car or van ownership per household is 1.33. Nationally, this equates to 1.16 cars or vans per household on average. Car or van ownership in the District has risen from 41,491 cars or vans in 1991 to 64,967 in 2011; an increase of 57% in 20 years (compared to 43% nationally). The average

¹ 2011 Rural-Urban Classification of Local Authorities and Other Geographies: https://www.gov.uk/government/statistics/2011-rural-urban-classification-of-local-authority-and-other-higher-level-geographies-for-statistical-purposes

number of cars or vans per household since the 1991 Census is outlined in Chart 1 below.

2.8 The 2018 National Travel Survey confirms that for the East Midlands region (the lowest level at which data is available), the average number of cars/vans per household is 1.4. Whilst there are no more recent figures available at the District level, comparison with the 2018 regional figures confirms the 2011 Census as a baseline to be broadly in line with expectations.



Source: 1991, 2001 & 2011 Census

- 2.9 However, the evidence indicates that car ownership varies significantly across the urban and rural areas of the District². The average number of cars or vans per household in the urban part of the District is 0.49, significantly lower than the rural area of the District (0.85) and markedly different from nationally (0.28 rural and 0.89 urban).
- 2.10 The 2011 Census Data also identifies that 42% of households in the District only own one car or van which is almost the same as the national average (43%). The table below identifies the percentage of households in the District by number of cars or vans owned. The percentage of households in the District is highest amongst those that own 1 or 2 cars or vans (72% of households). Although it is noted that there is a higher proportion of households in the District with 2 or more cars or vans than the national average (Table 1).

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² As defined by the 2011 Census

Table 1: Proportion of Households with Cars or Vans by No. of Cars or Vans

	Newark & Sherwood	England	Comparison to National Average
No Cars or Vans in	18.65%	27.54%	-8.89%
Household			
1 Car or Van in Household	42.33%	42.75%	-0.42%
2 Cars or Vans in Household	29.65%	23.28%	+6.37%
3 Cars or Vans in Household	7.04%	4.85%	+2.19%
4 Cars or Vans in Household	2.33%	1.58%	+0.75%

Source: 2011 Census

2.11 It is also noted that when compared to other District and Borough's within Nottinghamshire, that Newark and Sherwood have the second lowest percentage of households with no cars or vans in the household.

Table 2: Percentage of Households by District with No Car or Van

LPA	Total Percentage of Households with No Car or Van
Rushcliffe	15%
Newark & Sherwood	19%
Bassetlaw	20%
Gedling	21%
Broxtowe	22%
Ashfield	24%
Mansfield	25%

Source: 2011 Census

2.12 With regard to the relationship between the number of bedrooms in a property and the number of cars or vans in the household, the Census data indicates that the smallest properties are generally associated with having no cars and the larger properties with owning more cars. Therefore, as expected, the average number of car or vans per household increases with the number of bedrooms the dwelling has.

Table 3: Average No. of Cars or Vans per Household by No. of Beds in the Property

No. of Bedrooms	Average Number of Cars or Vans per Household
1 bedroom	0.46
2 bedrooms	0.90
3 bedrooms	1.31
4 bedrooms	1.88
5 or more bedrooms	2.18

Source: 2011 Census

Car Ownership Trends - by Ward

- 2.13 As outlined above, there is marked difference between the urban and rural areas of the district. In order to establish further evidence on the matter. Additional analysis has been undertaken of the 2011 Census data at Ward level³ to establish the average number of cars per household. All wards in Newark and Southwell have been combined together to provide an overall average for the settlement (see Appendix 1). Ollerton & Boughton wards have also been combined. Those where the settlement does not need to be combined to provide an overall average is not included in Appendix 1.
- 2.14 Table 4 below outlines that there is the fewest number of cars per household in Newark and the service centre settlements (as well as Blidworth). Car ownership per household increases as the Wards become more rural.

Table 4: Average Number of Cars per Household by Ward

2011 Ward	No. of Cars per Household
Newark	1.07
Ollerton & Boughton	1.19
Blidworth	1.28
Clipstone	1.30
Rainworth	1.34
Edwinstowe	1.35
Southwell	1.43
Farndon	1.55
Farnsfield & Bilsthorpe	1.56
Collingham and Meering	1.58
Winthorpe	1.59
Lowdham	1.72
Sutton-on-Trent	1.73
Muskham	1.81
Caunton	1.82
Trent (Bleasby, Fiskerton, Rolleston, Thurgarton)	1.96

Source: 2011 Census

Expected Future Car Ownership Levels

2.15 Chart 2 below analyses the average number of cars per household in each of the 1991, 2001 and 2011 Censuses. A linear forecast trend line has then been added to predict expected future car ownership levels in the District. These findings anticipate that by the end of the Plan Period in 2033, car ownership levels are expected to have increased by around 25% in the District. Such levels of increase are likely to exacerbate existing areas with car problem problems unless such an increase is accounted for in future parking standards.

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³ Ward boundaries as at 2011 Census

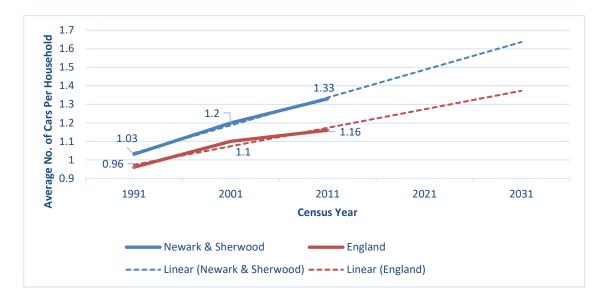


Chart 2: Past and Forecasted Trends – Average No. of Cars or Vans per Household

National Travel Survey (NTS)

- 2.16 The NTS is a household survey designed to monitor long-term trends in personal travel and to inform the development of policy. It is the primary source of data on personal travel patterns by residents of England.
- 2.17 The data published by the Department of Transport identifies key trends, including:
 - 46% of children aged 5-10 years of age are driven to school despite the average walking time to school being just 13 minutes;
 - Traffic danger is cited as the main reason for parents driving their children to school:
 - A dependence on cars for short distance trips where there is opportunity to encourage modal shift to walking and cycling if the right infrastructure is in place.
- 2.18 There are also Government Publications in August 2020; Gear Change and LTN 1/20 which highlight the importance of modal shift as part of a broader Government agenda to address issues related to physical inactivity and obesity that threaten to not only reduce people's lifespans and quality of life, but increase the financial burdens on the NHS.

Conclusions

2.19 The evidence clearly demonstrated that there is a marked difference between car ownership levels in the urban and rural areas of the District. This is owing to the accessibility and availability of public transport options available in the respective areas, as well as other factors including the mix of housing types (including number of bedrooms) and method of travel to work.

- 2.20 It is important to note that in rural areas where car ownership per household is significantly higher, there is also generally a greater percentage of households with a 2 or more cars and vans under their ownership. Therefore, it would be inappropriate to apply prescribed parking standards to the whole district. The evidence suggests the most appropriate option would be to adopt parking standards that address new residential development sites in Newark and the Rest of the District separately.
- 2.21 This evidence suggests that average car or van ownership increases alongside an increase in the number of bedrooms a dwelling has. Therefore it would be appropriate for future parking standards to differentiate by number of bedrooms. This should apply for new residential developments but also proposals which increase the number of bedrooms a dwelling has to ensure street parking is not impacted upon as a result.
- 2.22 The new parking standards policy approach will need to both reflect local car and van ownership levels as well as protect against exacerbation of existing issues, especially as car or van ownership is likely to increase in the District during the Plan Period. This protection could be accommodated within flexible wording of the standards that accounts for ways in which parking provision may be provided if less than a minimum standard is proposed on-site such as sites located within Newark Town Centre.
- 2.23 Whilst the increasing provision and attractiveness of alternatives to the car are a factor, there is no evidence to suggest that the general levels of car ownership will reduce over time. Across the district, the total number of cars increased by 57% between 1991 and 2011. General forecasts (Chart 2) anticipate a significant increase in car ownership by the end of the Plan period. These projected car ownership levels should be reflected in the table of residential parking standards but ensure parking does not over dominate new residential development. A forecasted uplift of 25% has been added to average car ownership levels from 2011 Census (25% being the forecasted increase in Chart 2).

Table 5: Current and Forecasted Average Car Ownership per Household by No. of Bedrooms in a Property

No. of bedrooms	Average Car Ownership (2011 Census)	Projected Average Car Ownership (20314)
1 bedroom	0.46	0.58
2 bedrooms	0.90	1.13
3 bedrooms	1.31	1.64
4 bedrooms	1.88	2.35
5 + bedrooms	2.18	2.72

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⁴ Assuming car ownership increases by 25% by the end of the Plan Period and equal increases are seen amongst all dwelling sizes.

3 Background Evidence for Cycle Parking

- 3.1 In accordance with National Policy, it is important to ensure that the District Council's parking standards encourage cycling and provide secure cycling parking facilities in the new residential developments. Ensuring convenient and secure cycle parking at people's homes for residents is a critical factor to increasing the use of bicycles in order to improve health and well-being and encourage more sustainable modes of travel. Other critical factors include: street design (i.e. cycle friendly streets and protected cycle ways on busier streets and routes) and convenient and secure cycle storage at the places people might choose to cycle to.
- 3.2 The Census Data shows that the proportion of residents travelling to work by bicycle dropped between 2001 and 2011 (6% and 3.94% respectively). However the mode share of the resident population who travel to work by bicycle remains higher in the District than compared to the East Midlands region and nationally (2.75% and 2.95% at the 2011 Census).
- 3.3 Sport England undertake an Active Lives Survey which is published twice a year and the number of respondents each year is around 198,000. For the years 15/16 to 17/18 (for which the data is available), when compared to the East Midlands and England, Newark had above average levels of residents cycling at least twice in the previous month for both leisure and travel purposes (see Tables 6 and 7). It is important that the cycle parking standards support current levels of cycling but also encourage an interest in cycling within the District.

Table 6: Percentage of Residents who cycled for Travel at Least Two Days in the Last 28 Days

	Nov 15/16	May 16/17	Nov 16/17	May 17/18	Nov 17/18	Average
England	7.20%	7.10%	8.10%	6.90%	6.80%	7.02%
East Midlands	6.20%	6.20%	5.90%	6.10%	5.70%	6.02%
Newark & Sherwood	-	-	11.00%	9.50%	6.80%	9.10%
District						

Table 7: Percentage of Residents who cycled for Leisure at Least Two Days in the Last 28 Days

	May 16/17	Nov 16/17	May 17/18	Nov 17/18	Average
England	10.60%	10.40%	10.00%	9.60%	10.15%
East Midlands	11.30%	10.40%	9.80%	9.80%	10.33%
Newark & Sherwood District	17.10%	17.00%	15.20%	13.00%	15.58%

Conclusions

3.4 Ensuring convenient secure cycle parking at people's homes for residents is a critical factor to increasing the use of bicycles (for health and wellbeing reasons) and accessing services or facilities via alternative means to the private car. Best practice

APPENDIX B

from elsewhere in the UK and Europe shows that distances of under 5 miles can be easily and comfortably cycled by many people if the right infrastructure in place. The difficulty is that cycle provision is non-existent or poor in many locations. This often means cycling is not an option for our residents. It is increasingly acknowledged that painted white lines on pavements are neither popular with cyclists or pedestrians. The government defines cycle infrastructure as being either cycle friendly streets or the creation of protected cycle ways on busier streets and routes.

4 Background Evidence for Infrastructure for Electric Vehicle Charging Points

- 4.1 The Council recently declared a climate change emergency and are aware of its environmental responsibility and the contributions that it can make to mitigate the causes of climate change. In this regard, the Council's Local Development Framework promotes sustainable modes of transport and healthy environments that works to mitigate climate change.
- 4.2 Paragraph 105 of the NPPF requires that if setting local parking standards for residential development, the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles should be taken into account.
- 4.3 It is important that the Council plans for the increased adoption of electric vehicles (EVs) in order to meet the anticipated increased demand as well as helping to meet sustainable travel objectives of Spatial Policy 7. This is particularly important in the Newark & Sherwood as private vehicles are often the only practical choice for residents living in some areas of the district, particularly in some rural areas where other sustainable modes of travel such as cycling and walking are difficult to adopt.
- 4.4 Last summer (2019), the Government published their most recent 2017 emission estimates. These estimates identified that the District has the highest per capita emissions in Nottinghamshire.

Table 8: 2017 Estimates of Per Capita Emissions by Local Authority

Local Authority	Per Capita Emissions
Newark & Sherwood	7.6
Bassetlaw	6.9
Rushcliffe	6.4
Broxtowe	6.3
Ashfield	5.2
Mansfield	4.1
Gedling	3.7
Nottingham	3.6

Source: Gov.uk Local Authority CO2 emissions estimates 2005-2017 (kt CO2) - Full dataset

- 4.5 The Council recognises that Ultra Low Emission Vehicles ('ULEV') and Plug-in Hybrid Electric Vehicles ('PHEV') currently constitutes a relatively small proportion of the vehicles on our roads (1.9% in 2018). However, from 2035, the Government are seeking a ban on selling new petrol, diesel or hybrid cars in the UK. For these reasons, the Government are driving a transition to more efficient, lower polluting technologies such as Electric Vehicles ('EV').
- 4.6 Advances in technology have resulted in increased popularity in electric vehicles and it is anticipated that as technology and Government initiatives develop, their use and popularity will increase further. The percentage increase of new licensed ULEV

vehicles between 2012 and 2019 in Nottinghamshire is outlined in Table x below. This table highlights that the district has seen the third biggest increase in new licensed ULEV vehicles.

Table 9: Percentage Increase in Newly Licenses ULEV Vehicles Since 2012

Local Authority	Percentage Increase
Rushcliffe	6,575%
Gedling	4,614%
Newark & Sherwood	4,525%
Ashfield	4,180%
Broxtowe	4,043%
Mansfield	3,520%
Nottingham City	2,121%
Bassetlaw	1567%

Source: GOV.UK Statistical data set - All vehicles (VEH01)

4.7 At the end of Q1 2020, the total number of ULEV vehicles licensed by Local Authority has been used to calculate the percentage of ULEV vehicles per household in Nottinghamshire. This highlights Newark and Sherwood to have the second highest percentage of ULEV vehicles per household in the county. This is reflective of the Government's intentions to phase out petrol and diesel cars from 2035.

Table 10: Total ULEV Vehicles at Q1 2020 Licensed in Local Authorities in Nottinghamshire and % Of Households with ULEV Vehicles

Local Authority	% of Households
Rushcliffe	1.13%
Newark & Sherwood	0.73%
Gedling	0.65%
Broxtowe	0.60%
Nottingham	0.57%
Bassetlaw	0.51%
Ashfield	0.41%
Mansfield	0.39%

`Source: GOV.UK Statistical Data Set – All Vehicles (VEH01)

- 4.8 Residential parking (overnight) is likely to be the most common way of charging an EV and most residential properties with off-street parking are able to simply install an EV Charging Point (EVCP) using a 3-pin plug as long as they have the necessary infrastructure (wiring) to do so.
- 4.9 To help the Council plan for the increased adoptions of EVs whilst meeting sustainable transport objectives, the Council are seeking to futureproof new residential development for the projected increase in take-up of electric vehicles. It is cheaper and less disruptive to install the underlying infrastructure for electric vehicle charging points during construction than to retrofit afterwards. There is also the benefit for future occupants to choose whether to own an electric vehicle but also provides future choice as to which charging point best suits their requirements. It is therefore essential that the continued increase in electric vehicles is supported.
- 4.10 The requirements are outlined in Chapter 3 & 4 of the SPD.

5 Testing the Standards - Residential Parking Case Studies

In order to assess the impact that parking provision within recent residential developments, an appraisal has been undertaken on a handful of randomly selected sites across the District.

- 5.1 A desk-based survey of the approved plans has been undertaken on each Case Study site to ascertain the level of parking provided and is intended to provide an overall picture. This has then been compared with the level of parking provision that would have been provided by the proposed car parking standards.
- 5.2 Following this, site visits were also undertaken in May and July 2020 (during a weekday morning before 8:00am) when home parking levels were expected to be at, or close to, their highest levels. The purpose of which was to determine if the level of parking on each development is sufficient and if there are any design issues would could be addressed.
- 5.3 The housing developments that have been identified as Case Studies are outlined below in Table 11.

Table 11: Overview of Case Study Sites

Case	Address	Location	No. of	Year of
Study No.			Dwellings	Completion ⁵
1	Scarborough Road	Bilsthorpe	25	2014/15
2	Belle Vue Lane	Blidworth	21	2018/19
3	Cavendish Way	Clipstone	107	2019/20
	(Cavendish Park)			
4	Braemar Farm Phase	Collingham	40	2019/20
	1			
5	Ye Olde Jug and Glass	Edwinstowe	16	2016/17
	Inn, High Street			
6	Low Street	Elston	10	2018/19
7	The Ridgeway /	Farnsfield	60	2019/20
	Milldale Road			
8	Sleaford Road	Newark	70	2016/17
9	Fernwood	Newark	1,090	2015/16
10	Wellow Road	Ollerton &	147	2019/20
		Boughton		
11	Land off Warsop Lane	Rainworth	160	2019/20
	(Coupe Gardens)			
12	Nottingham Road	Southwell	34	2017/18
13	Miners Welfare,	Ollerton &	88	2018/19
	Whinney Lane	Boughton		

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⁵ Monitoring Year

Case Study 1 - Scarborough Road, Bilsthorpe

- 5.4 Bilsthorpe is a principal village within its own day to day facilities but is also influenced by the sub-regional centre of Mansfield approximately 7 miles to the east. The village has an hourly bus service to Mansfield and less frequent bus services to Nottingham and Ollerton. It is likely that most trips would be made using a private vehicle.
- 5.5 The development of 25 dwellings is an 100% affordable housing scheme comprising of 25 x two bed properties. The development provides 1 or 2 spaces for the 2 bed properties and also accommodates 3 visitor parking spaces.
- 5.6 A very low level of car parking was observed generally for the 13 bungalows accessed off Scarborough Road. For the bungalows accessed off Chewton Close, all but one vehicle was parked on the drive. All properties had allocated parking to the front or side and therefore within close proximity to their front doors. The surface finish of the parking spaces was good as it was a smooth and hard surface material. There was very limited on-street parking observed on both Chewton Close and off Scarborough Road.
- 5.7 Overall, the development has sufficient parking provision which does not obstruct other vehicles and pedestrians and the spaces relate well to the property which they serve.



Figure 1: View of Development from Cul-de-Sac off Scarborough Road



Figure 2: View of Development from Chewton Close

Table 12: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
14 x 2 bed	1 space per dwelling	2 spaces per dualling
11 x 2 bed	2 spaces per dwelling	2 spaces per dwelling
Visitor Parking	3 spaces	n/a
Total Spaces	39 spaces	50 spaces

Case Study 2 – Belle Vue Lane, Blidworth

- 5.8 Blidworth is a principal village and whilst self-sufficient for daily needs, is closely linked to Mansfield, 3 miles to the north, for all major services. The village has relatively good bus services with buses every 15 minutes to Mansfield.
- 5.9 The development of 21 dwellings (a mix of apartments and houses) comprises of 6 x 1 bed properties and 15 x two bed properties. The development provides 1 space for each 1 bed unit, and either 1 or 2 spaces for each 2 bed unit. The development also accommodates 2 visitor parking spaces.
- 5.10 All houses have parking to the front of each properties with the parking for the apartments to the side. There was limited on street parking observed at the site (just two cars).
- 5.11 From a visual point of view, frontages are dominated by parking even though there is small amounts of boundary treatments to separate these dwellings. This is in part due to the fact that there are dwellings on either side of the road which all have front of plot parking. This would be visually improved if the type of parking solutions used provided some variety i.e. a mix front and side of plot parking and cars behind the building line to reduce the dominance of car parking. However, the surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.12 Overall, the development has sufficient parking provision which does not obstruct vehicles or pedestrians but the main problem relates to the design of the car parking (perpendicular car parking) which could have been in a way which sought to reduce the over dominance of cars.



Figure 3: View of the only car parked on the road at the development



Figure 4: View towards centre of development highlighting over dominance of front of plot parking



Figure 5: View of boundary separation between dwellings and their respective parking spaces

Table 13: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed
		Parking Standards
6 x 1 bed	1 parking space	1 space per dwelling
4 x 2 bed	1 parking space	2 spaces per dwelling
11 x 2 bed	2 parking spaces	2 spaces per dwelling
Visitor Parking	2 spaces	n/a
Total Spaces	34 spaces	36 spaces

Case Study 3 – Cavendish Way, Clipstone (Cavendish Park), Clipstone

- 5.13 Clipstone is a service centre and whilst self-sufficient for daily needs is closely linked to Mansfield, almost adjacent, for all major services. The village has relatively good bus services with buses every 15 minutes to Mansfield.
- 5.14 The development of 107 dwellings comprises of 22 x 2 bedroom properties, 66 x 3 bedroom properties and 19 x 4 bedroom properties. In terms of car parking provision, the site provides the majority of 2 bed dwellings with 1 parking space, 3 bed dwellings with 2 parking spaces and all 4 beds have 3 parking spaces. The development also provides 11 visitor parking spaces.
- 5.15 The development itself comprises of 107 dwellings but forms part of a larger new development on the edge of Clipstone. Some roads in the development had a reasonable amount of on-street parking while others were clear. Most of the parking was on the same side of the road so didn't cause an obstruction. Some of the parking was half on the footway but most fully on the carriageway.
- 5.16 Most of the on-street parking occurred nearby to properties with integral garages or where parking is located at the back of the dwelling. However in most cases parking spaces are well used. In some places, the development was over dominated by cars, particularly the semidetached dwellings which had two parking spaces to the front and no boundary separation between properties. Furthermore some drives on the development were very narrow which meant occupiers were forced to park on the road.
- 5.17 The surface finish of the parking spaces was good as it was a smooth and hard surface material. Integral garage doors were a variety of colours which made integral garages appear less visually dominant / prominent and a more pleasant environment.
- 5.18 An issue highlighted after the site visit was the internal measurements of integral garages. The Rufford Housetype's integral garage measures 4.7 x 2.5m which is 0.1m shorter than a standard car parking space and significantly short of the 6C's Design Guide minimum internal measurement requirement of 6m x 3m. It is therefore essential that integral garages are fit for purpose, especially if they are counted as a parking space for the purposes of assessing the number of spaces allocated to a property.
- 5.19 Overall, whilst the parking provision was largely okay, the problem with on street parking is the greatest where parking has not been provided at the front of the properties and people either choose or are forced, to park on the street closer to their properties. Similarly there were some problems for households with integral garages which are not being used for such purposes and resulted in less parking spaces for the property.



Figure 6: View of front of plot parking



Figure 7: View of front of plot parking which over dominates the street scene in this particular location



Figure 8: View of front of plot parking

Table 14: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
20 x 2 bed	1 space per dwelling	2 spaces per dwelling
2 x 2 bed	2 spaces per dwelling	2 space per dwelling
40 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
26 x 3 bed	3 spaces per dwelling	3 spaces per dwelling
19 x 4 bed	3 spaces per dwelling	3 spaces per dwelling
Visitor Parking	11 spaces	n/a
Total Spaces	250 spaces	299 spaces

Case Study 4 – Braemar Farm (Phase 1), Collingham

- 5.20 Collingham is a principal village in the District and looks to both Newark and Lincoln for its services. Collingham has good public transport links with a train station to the east of the village providing services to Lincoln, Newark, Nottingham, Leicester and Peterborough. There are also regular bus services to/from the village with an hourly bus services to Newark.
- 5.21 The development of 40 dwellings comprises of 4 x 1 beds, 6 x 2 beds, 10 x 3 beds, 12 x 4 bed and 8 x 5 bedroom properties. Parking provision across the development is varied. There are 2 visitor parking spaces.
- 5.22 The development itself consists of 40 dwellings but forms part of a larger site in Collingham. Parking is entirely on plot, mostly at the front/side of the property, but some to the rear. Some of the roads in the development had a small amount of on street parking. This was clustered around dwellings which had parking to the rear and / or dwellings which had two parking spaces and one of which comprised a garage. All cars observed were parked on the same side of the road, but some cars were fully on the footway. The majority of parking spaces relate well to the property which they serve. The surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.23 Overall the parking provision is satisfactory, however the only problem arises in instances where parking is to the rear of the property and people either chose, or were forced, to park at the front of their property. There were also some examples where garages which were not being used for their primary purpose and caused overspill onto the highway.

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Figure 9: View towards on-street parking to rear of properties



Figure 10: View towards a cul-de-sac



Figure 11: View along the development from Swinderby Road

Table 15: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
3 x 1 bed	1 space per dwelling	1 space per dwelling
1 x 1 bed	2 spaces per dwelling	1 space per dwelling
3 x 2 bed	1 space per dwelling	2 spaces per dwelling
3 x 2 bed	2 spaces per dwelling	2 spaces per dwelling
7 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
3 x 3 bed	3 spaces per dwelling	3 spaces per dwelling
7 x 4 bed	2 spaces per dwelling	3 spaces per dwelling
5 x 4 bed	3 spaces per dwelling	3 spaces per dwelling
1 x 5 bed	2 spaces per dwelling	3 spaces per dwelling
2 x 5 bed	3 spaces per dwelling	3 spaces per dwelling
5 x 5 bed	4 spaces per dwelling	3 spaces per dwelling
Visitor Spaces	2 spaces	n/a
Total Spaces	96 spaces	113 spaces

Case Study 5 – Ye Olde Jug and Glass Inn, High Street, Edwinstowe

- 5.24 Edwinstowe is a service centre village and has a range of local services which are complimented by a number of Sherwood Forest related tourist facilities. The village is linked closely to Mansfield for a wider range of services and facilities. There are half hourly bus services from Edwinstowe towards Walesby via Ollerton and Mansfield and bi-hourly services to Bilsthorpe, Farnsfield and Nottingham.
- 5.25 The development of 16 apartments comprises 11no. studio apartments and 5 x 1 bed apartments. All apartments have been provided with 1 parking space each. There is no provision for visitor parking.
- 5.26 The development comprises a change of use of a former pub to residential apartments. The car park is well overlooked by surrounding residential properties and is well used but not full. There was no signs of overspilling onto the carriageway, but this would be less apparent due to the nature of the parking provision. However, it is in the centre of the village and there is a free car park located nearby. The surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.27 Overall, the level of parking provision would appear to be adequate.

Table 16: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed
		Parking Standards
11 x studio	1 space per dwelling	1 space per dwelling
5 x 1 bed	1 space per dwelling	1 space per dwelling
Visitor Spaces	0 Spaces	n/a
Total Spaces	16 spaces	16 spaces

Case Study 6 - Low Street, Elston

- 5.28 Elston is a small village which looks to Newark for its day to day services and facilities. The village has an hourly bus service towards Newark and infrequent services to Aslockton, Bingham and East Bridgford.
- 5.29 The development of 10 affordable dwellings comprises 8 x 2 bed and 2 x 3 bed properties. All dwellings have been provided with 2 parking spaces. There is no visitor parking on site.
- 5.30 This is a relatively small development which comprises a single cul-de-sac. All parking is provided to the front or immediately to the side of each property and related very well to the properties that they serve. There was a variety of parking solutions across the site with some parking behind the building line, and some in front but with a decent level of landscaping to soften the visual impact of car parking. The cul-de-sac design also serves to minimise the visual impact of car parking. Most of the houses were occupied by vehicles and there was no on street parking. The surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.31 Overall, the site has sufficient parking and visually it has a good layout in terms of parking and road layout.



Figure 12: View into the site from the entrance

Table 17: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
8 x 2 bed	2 spaces per dwelling	2 spaces per dwelling
2 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
Visitor Spaces	0	n/a
Total Spaces	20 spaces	22 spaces

Case Study 7 - The Ridgeway / Milldale Road, Farnsfield

- 5.32 Farnsfield is a principal village and is self-sufficient for daily needs but looks to Southwell for a wider range of services and facilities. The village has bi-hourly bus services towards Nottingham and Bilsthorpe, Edwinstowe and Ollerton. There are also hourly bus services towards Blidworth, Rainworth and Mansfield, as well as Southwell and Newark.
- 5.33 The development of 60 dwellings comprises 15 x 2 bed, 22 x 3 bed, 18 x 4 bed and 5 x 5 bed properties. The majority of 2 and 3 bed properties have 2 car parking spaces. Provision for 4 bed properties ranges from 2 spaces through to 4 spaces. There are no visitor parking spaces on the site.
- 5.34 The majority of these dwellings are larger detached properties with the remainder being semi-detached and smaller terraced style properties. The parking is mostly on plot with some to the front and some to the side. In most cases the parking is either in line with or behind the building line which reduces the visual dominance of parking across the development. The surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.35 Whilst there was a handful of cars parked on the highway (either fully on the highway or half on the footway), it did not cause an obstruction to passing cars. On-street parking tended to be clustered around dwellings where driveways were located to the side or rear of the property. Either because the driveways were full or people chose to, or were forced to, park at the front of the house. However, the majority of parking spaces relate well to the property which they serve.
- 5.36 Overall, there was some overspill parking onto the highway, and whilst it did not obstruct the highway for other vehicle users, pedestrians could be inconvenienced in places. Overspill onto the highway does not occur frequently enough to suggest a chronic lack of parking spaces but better designed parking provision may aid the development.



Figure 13: View down the central road running through the development

Table 18: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed
		Parking Standards
1 x 2 bed	1 space per dwelling	2 spaces per dwelling
14 x 2 bed	2 spaces per dwelling	2 spaces per dwelling
14 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
8 x 3 bed	3 spaces per dwelling	3 spaces per dwelling
5 x 4 bed	3 spaces per dwelling	3 spaces per dwelling
7 x 4 bed	4 spaces per dwelling	3 spaces per dwelling
6 x 4 bed	2 spaces per dwelling	3 spaces per dwelling
5 x 5 bed	4 spaces per dwelling	3 spaces per dwelling
Visitor Spaces	0	n/a
Total Spaces	156 spaces	165 spaces

Case Study 8 – Sleaford Road, Newark

- 5.37 Newark is the main location for services, jobs, retail, education and a focus for transport for most of the District. The town has excellent communication links with quick rail connections to London, Leeds, Edinburgh and Nottingham and the adjacent A1 provide road links to the north and south.
- 5.38 The development comprises of 50 houses and 20 apartments (20 x 1 bed apartments, 39×2 bed houses, and 12×3 bed houses). All 1 bed properties have 1 parking space

- and all 2 and 3 bed properties have 2 parking spaces. There is no visitor parking available on the development.
- 5.39 The parking is all on plot with parking provided to the front or the side except for approximately 4 properties where parking is provided to the rear. On-street parking was not much of an issue with only a couple of cars parking on the carriageway. These two occurrences seemed to be the result of the dwelling not having enough parking spaces. The surface finish of the parking spaces was good as it was a smooth and hard surface material (mostly block paving).
- 5.40 From a visual point of view, frontages are dominated by parking. This is in part due to the fact that there are dwellings either side of the road which all have front of plot parking and no boundary separation. This would be visually improved if the type of parking solutions used provided some variety i.e. a mix front and side of plot parking and cars behind the building line to reduce the dominance of car parking. However, the surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.41 Overall, the parking provision was largely adequate but the only problem occurred as a result of the frontages being dominated by car parking (tandem car parking) throughout the development. There was little in the way of boundary treatments separating the properties and in places felt more like a car park than housing development. This was particularly the case for the semi-detached and terraced properties to the west of the housing development.



Figure 14: View of cul-de-sac with dominant front of plot parking



Figure 15: View of the development

Table 19: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed
		Parking Standards
20 x 1 bed apartments	1 spaces per dwelling	1 spaces per dwelling
39 x 2 bed houses	2 spaces per dwelling	2 spaces per dwelling
12 x 3 bed houses	2 spaces per dwelling	2 spaces per dwelling
Visitor Spaces	0	n/a
Total Spaces	122	122

Case Study 9 - Fernwood, Newark

- 5.42 Fernwood is defined within the Newark Urban Area which is the main location for services, jobs, retail education and a focus for transport for most of the District. Fernwood is a relatively new village and by 2015/16, approximately 1,090 dwellings have been built. Once completed, the village will accommodate approximately 3,200 dwellings.
- 5.43 Car ownership in the parish of Fernwood is significantly higher than the District at 1.62 cars per household (2011 Census). The district level is 1.33 cars per household. The Fernwood Neighbourhood Plan states that the shortcomings in the existing car parking, both the amount of it and the way it had been 'designed' into the existing

village is detailed in an informal Building for Life 12 Assessment. This assessment identified the following issues:

- Front of plot parking with no landscaping so that cars dominate the streetscene.
- Little formal provision for on street parking causing disruption to pedestrians and other vehicles.
- Over reliance on rear parking courts that are not well used and cause overspill onto the highway.
- 5.44 A review of the approved plans has not been undertaken due to the age and nature of the development site coming forward.
- 5.45 On-street parking along Goldstraw Lane is difficult to manoeuvre especially when cars are coming in the opposite direction and are parked on both sides of the highway. Cars were also in some places parked fully on the footpath. Whilst not particularly obstructive to pedestrians due to the width of the path, it nevertheless dominates the street scene.
- 5.46 The smaller properties have less convenient parking provision with most spaces being provided in parking courts or to the rear of properties and away from the front door of the property causing residents to either chose, or be forced to, park at the front of the house. Whereas the larger detached properties (such as along Collinson Way) have spacious driveways to the front of the property and as a consequence there are little problems with on-street parking.
- 5.47 The parking courts were not well used, particularly along Naysfield Mews and were surrounded by blank walls and poor or no lighting.
- 5.48 The surface finish of the parking spaces was good as it was a smooth and hard surface material. Some of the larger older properties had white integral garage doors but this complimented the detail of the front elevation which often featured bay windows and open porches. The newer properties which have integral garages tend to be set back from the front elevation and blend well with the streetscene without over dominating. The colour of the garage door is less of an issue where the garage does not over dominate the property.
- 5.49 Overall, on street parking is a significant problem at Fernwood and in some places is particularly difficult to navigate. The scheme may well have sufficient provision of actual parking spaces, but it is the inconveniently located parking provision which causes the biggest problem here.



Figure 16: View of problems with parking on footpath in newer areas of the development



Figure 17: View towards the older larger properties on the development with ample off road parking

Case Study 10 - Wellow Road, Ollerton

- 5.50 Ollerton & Boughton is a service centre town which provides a range of facilities including a supermarket and secondary school. The town also has a large number of local employers.
- 5.51 The development comprises of 147 dwellings with 6 x 1 bed, 16 x 2 bed, 49 x 3 bed and 76 x 4 bedroom properties. There is at least 355 parking spaces shown on the approved layout plan (although a precise breakdown is not available).
- 5.52 Most of the on street parking occurs around properties which have integral garages and a narrow driveway (particularly those which had two spaces, one of which was an integral garage). At the time of visiting a number of dwellings with integral garages had doors open and it was evident that garages were not being used for their primary purpose. There are two instances on the development thus far seeking planning permission to provide additional parking spaces within the curtilage of properties (albeit one approved and one withdrawn). Both properties have a detached garage and one additional parking space.
- 5.53 The surface finish of the parking spaces was good as it was a smooth and hard surface material. In places integral garage doors were black against a white render. This design helps to reduce the dominance of the integral garage on the streetscene but the properties were also larger so the garage appeared better proportioned to the rest of the property and assisted in making the development feel less dense.
- 5.54 In some instances on-street parking occurred where parking was not conveniently located for example the corner plots where the garage and driveway is to the rear behind the garden.
- 5.55 On the whole, on street parking is not a significant problem, but could have benefitted from a better design in terms of the layout of the parking. The roads in this development felt narrower in places than other housing sites (particularly where cars parked on both sides of the road) visited as part of this research, so whilst there were less cars, the roads felt more congested.



Figure 18: View along a road in the development with evidence of displaced and anti-social half pavement parking



Figure 19: View towards narrow driveway in the development



Figure 20: Examples of half on pavement parking in the development

Table 20: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
6 x 1 bed		1 spaces per dwelling
16 x 2 bed	At least 255 anges	2 spaces per dwelling
49 x 3 bed	At least 355 spaces	3 spaces per dwelling
76 x 4 bed		3 spaces per dwelling
Visitor Spaces		n/a
Total Spaces	At least 355	413

Case Study 11 - Warsop Lane, Rainworth (Coupe Gardens)

- 5.56 Rainworth is a service centre village and whilst self-sufficient for daily needs is closely linked to Mansfield and looks to it for all major services. The village has hourly bus services to Mansfield, Nottingham, Sutton-in-Ashfield.
- 5.57 The development comprises of 160 dwellings with 15 x 2 bed, 116 x 3 bed and 29 x 4 bed properties. The majority of 2 bed properties has 1 parking space, the majority of 3 beds have 2 parking spaces and the majority of 4 beds also have 2 parking spaces. There is no visitor parking provision within the development.
- 5.58 This new housing development had the most on street parking after the Fernwood development. However, cars were mostly parked on the same side of the road and where cars were parked on both sides of the road, it did not feel narrow or congested. Parked cars on the highway/footway were not an obstruction to other vehicle users but did inconvenience pedestrians in some locations which could cause wheelchair or pushchair users having to go onto the road to get round.
- 5.59 Most dwellings had car parking provided on the plot and for the majority, the spaces relate well to the property which they serve. However there was one parking court observed which was underused and more on-street parking was concentrated around this location. There were also a number of properties which had integral garages and these properties tended to have single garages and space for one car on the driveway. It was in these locations some overspill onto the highway was observed, but largely it did not obstruct the highway or the footway.
- 5.60 The surface finish of the parking spaces was good as it was a smooth and hard surface material. Integral garage doors were predominantly white and were in line with the front door which looked visually prominent because the houses are a bit smaller than some of the other developments, but also a higher density. However, all front doors were different colours which meant the prominence of the garage doors were displaced somewhat.
- 5.61 An issue highlighted after the site visit was the internal measurements of integral garages. The Bisham Housetype's integral garage measures 5m x 2.5m and the Aldenham Housetype measures just 4.4m x 2.4m. This is only marginally bigger than a standard car parking space and does not meet the minimum internal space standards outlined in the 6C's design guide of 6m x 3m. The double detached garages also fall

short of the minimum internal space standards in the 6C's design guide. Small garages could actively discourage households from using integral garages for their primary purpose. It is therefore essential that integral garages are fit for purpose, especially if they are counted as a parking space for the purposes of assessing the number of spaces allocated to a property.

5.62 Overall, the level of on-street parking problem is a combination of two factors; design and location. Locating parking provision away from the dwelling has caused overspill onto the highway as people either chose, or were forced to park at the front of the house. Overspill onto the highway also occurred where dwellings had integral garages and drives could only accommodate one car.



Figure 21: View of integral garages in the development



Figure 22: View of instances of half on pavement parking



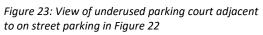




Figure 24: View of homes with integral garages



Figure 25: View of on-street parking problems along street with side of plot parking and parking courts

Table 21: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
14 x 2 bed	1 space per dwelling	2 spaces per dwelling
1 x 2 bed	3 spaces per dwelling	2 spaces per dwelling
108 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
8 x 3 bed	3 spaces per dwelling	3 spaces per dwelling
23 x 4 bed	2 spaces per dwelling	3 spaces per dwelling
6 x 4 bed	3 spaces per dwelling	3 spaces per dwelling
Visitor Parking	0	n/a
Total Spaces	321 spaces	447 spaces

Case Study 12 - Nottingham Road, Southwell

- 5.63 Southwell is a service centre town and is the third biggest settlement in the District. Key services are located in the town. The town has hourly bus services towards Newark, Bilsthorpe, Blidworth, Rainworth, Mansfield, Burton Joyce and Nottingham.
- 5.64 The development of 34 dwellings comprises 8 x 1 bed, 10 x 2 bed, 4 x 3 bed, 10 x 4 bed and 2 x 5 bed properties. Parking provision is varied across the site, with all 1 bed dwellings provided with 1 parking space, most 2 beds have 2 spaces, 3 beds have either 2 or 3 parking spaces, the majority of 4 beds have 3 spaces and all 5 beds also have 4 parking spaces.
- 5.65 This new development was a welcoming and pleasant scheme upon entry. Largely the parking was well used and related well to the property in which they served, did not over dominate the development and there was only 3-4 cars parked on the highway and most were parked against blank frontages (rear garden walls or garages) and therefore did not cause an obstruction to either the highway or the footway. The only other cars parked on the highway were outside properties which had parking to the rear. All of the parking was provided on plot except for the affordable housing located in the North West corner of the site. The surface finish of the parking spaces was good as it was a smooth and hard surface material.
- 5.66 Most parking was in line with, or behind the building line which made for an attractive development except for the cul-de-sac of affordable units which had perpendicular parking. Although parking did not dominate here as there were only 8 properties (4 on each side).
- 5.67 Overall, while there were instances of on-street parking, the issue isn't prevalent throughout the development and occurs infrequently enough to suggest that there is a largely sufficient off-street parking provision for residents. However there is no visitor parking / shared parking on site and the parking standards proposed would have resulted in less spaces being provided than currently on site which may have had the potential to exacerbate existing on street parking problems.



Figure 26: View of only car parked on the roadside



Figure 27: View of car parking in the development

Table 22: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed Parking Standards
8 x 1 bed	1 space per dwelling	1 space per dwelling
1 x 2 bed	3 spaces per dwelling	2 spaces per dwelling
9 x 2 bed	2 spaces per dwelling	2 spaces per dwelling
2 x 3 bed	2 spaces per dwelling	3 spaces per dwelling
2 x 3 bed	3 spaces per dwelling	3 spaces per dwelling
2 x 4 bed	2 spaces per dwelling	3 spaces per dwelling
7 x 4 bed	3 spaces per dwelling	3 spaces per dwelling
1 x 4 bed	4 spaces per dwelling	3 spaces per dwelling
2 x 5 bed	4 spaces per dwelling	3 spaces per dwelling
Visitor Parking	4 spaces	n/a
Total Spaces	80 spaces	76 spaces

Case Study 13 – Former Miners Welfare, Ollerton

- 5.68 Ollerton & Boughton is a service centre town which provides a range of facilities including a supermarket and secondary school. The town also has a large number of local employers.
- 5.69 The development comprises of 88 dwellings with 18 x 2 bed, 59 x 3 bed and 11 x 4 bedroom properties. There is a varying number of parking spaces per dwelling size with all but one property host to at least 2 parking spaces.
- 5.70 This new development was uninviting and unattractive, with large amounts of loose gravel driveways which had over spilled onto the highway. All garage doors, doors and window frames were white and therefore bland. There were a number of occasions where bins were stored on driveways and cars therefore parked on the side of the road.
- 5.71 Most of the parking provided was either to the front or side but usually extended further than the building line. It was a regular occurrence to see only the front portion of the driveway in use due to the narrow driveways which provided almost no room to vacate the car. This also became a problem where two dwellings had adjacent driveways and it was common to see staggered parking (rather than cars parked adjacent to one another) as the driveways were visibly narrow and parking alongside each other would restrict access to/ from the cars.
- 5.72 Access to cul-de-sacs have been gravelled over and weeds were clearly visible growing through the gravel as well as pools of water gathering where the gravel had worn unevenly. There were also patches of grass missing where cars had been regularly parking on it.
- 5.73 All garages fall short of the recommended standards in the 6C's Design Guide. Some garages are only 0.2m wider than a standard parking space. All garages have internal dimensions of approximately 2.6m x 5.5m. It is therefore essential that integral garages are fit for purpose, especially if they are counted as a parking space for the

purposes of assessing the number of spaces allocated to a property and are to provide storage for household maintenance items such as lawn mowers and bicycles.

5.74 Overall, the development seemed to provide sufficient parking spaces but unfortunately not enough useable spaces. The design of the car parking was also a major issue as it was not only impractical but is was visually poor. In addition, the gravelled driveways detracted from the quality of the development and looked messy and unkempt. A hard and smooth surface material would have been more functional and visually pleasing.

Table 23: Comparison of Approved Parking Levels to Proposed Parking Standards

	Approved Parking	Comparison to Proposed
		Parking Standards
1 x 2 bed dwelling	1 space per dwelling	2 spaces per dwelling
5 x 2 bed dwellings	2 spaces per dwelling	2 spaces per dwelling
12 x 2 bed dwellings	3 spaces per dwelling	2 spaces per dwelling
34 x 3 bed dwellings	2 spaces per dwelling	3 spaces per dwelling
25 x 3 bed dwellings	3 spaces per dwelling	3 spaces per dwelling
7 x 4 bed dwellings	2 spaces per dwelling	3 spaces per dwelling
2 x 4 bed dwellings	3 spaces per dwelling	3 spaces per dwelling
2 x 4 bed dwellings	4 spaces per dwelling	3 spaces per dwelling
Total Spaces	218 spaces	246 spaces



Figure 28: View of poorly surfaced access to cul-de-sac with surface water

APPENDIX B



Figure 29: View of poor quality surfacing to a cul-de-sac



Figure 30: View of integral garage and narrow driveway



Figure 31: View of parking space being used to store bins



Figure 32: View of narrow driveway with bin blocking access

Conclusion

- 5.75 It is clear from the case studies that the level of parking provision is not the sole issue. A number of the case studies highlight generally sufficient parking but parking design has caused significant problems that have meant that users do not choose to, or are discouraged from, using their parking spaces in the way they were intended. Parking should be an integral part of the layout of any development and should not detract from the public realm as it has done in some of the case studies.
- 5.76 Integral garages in some cases have a detrimental impact on the quality of the streetscene and cause on street parking problems, especially when occupants either chose not to, or physically can't use them for parking (i.e. because they are too small). This is similarly the case when parking is located to the rear of the dwelling because occupants either chose to, or are forced to, park on the road outside the front of their house to better access the front door. The Council will discourage developers from counting garages as parking spaces. However, if developers do wish to have garages counted as parking spaces, these should have sufficient internal dimensions for the storage of a car, circulation space and storage space. Often residents use garages for storage which means they cannot use garage spaces for car parking. However, it should be recognised that most people will not choose to use a garage for 'day to day' parking due to the need to park a car, open the garage door and then get back into a car to drive it in.
- 5.77 High density developments also have issues with parking where parking for the dwelling is located to the rear of the property. This design layout works less well as occupants either chose to, or are forced to, park on the road outside the front of their house to better access the front door.
- 5.78 Over dominance of car parking was also a significant issue in some of the case studies. Particularly those with perpendicular parking arrangements and where the majority of parking was located in front of the building line with limited landscaping.
- 5.79 In conclusion, the following design principles should be considered in the SPD based on the findings of the case studies:
 - On plot parking as the preference with easy access to the front door of the property;
 - Provide a mix of parking solutions such as parking behind the building line and not overlying on perpendicular parking arrangements to reduce the dominance of car parking;
 - Provide a surface and hard surface finish to the driveway to ensure a safe and aesthetically pleasing finish but acknowledging in some rural areas outside the settlement boundary this may not be appropriate;
 - Avoid providing white garage doors throughout the entirety of the scheme;

- Provide parking spaces to a minimum size standard to enable parking spaces to provide for their primary intended purpose; whilst also discouraging over reliance on tandem parking.
- Discouraging the use of garages as parking spaces. Where garages are
 proposed to be counted as parking space (both detached and integral)
 these shall meet minimum size standards to encourage occupants to use
 them for the primary intended purpose.
- Kerb to kerb distances that allow on street, unallocated car parking that
 discourages half (or fully) parking on the pavement. Drivers will fully or
 partly park on a pavement in an effort to keep the centre of the
 carriageway clear and protect their vehicles from being 'clipped' by
 passing vehicles. Where this is not possible, developers shall be required
 to provide an amount of unallocated, shared parking to accommodate
 overflow and visitor car parking.

6 Summary of Proposed Standards

6.1 The following car and cycle parking standards are proposed based on the evidence outlined in the preceding chapter:

Table 24: Proposed Car Parking Standards

	Newark Urban Area	Rest of the District
1 bedroom dwellings	1 space per dwelling	1 space per dwelling
2 bedroom dwellings	2 spaces per dwelling	2 spaces per dwelling
3 bedroom dwellings	2 spaces per dwelling	3 spaces per dwelling
4 + bedroom dwellings	3 spaces per dwelling	3 spaces per dwelling
Visitor Parking	Visitor parking will only be cannot deliver the minir outlined above.	· ·
Retirement / sheltered / extra care housing	To be determined on a demonstrated by a T Transport Statement or Transport Survey data of comparable santicipated car levels relating model being proposed will and mini-bus siting should a	ransport Assessment, vel Plan as appropriate. sites and explanation of ag to the particular care pe required. Ambulance

Table 25: Proposed Cycle Parking Standards

	Cycle Parking ⁶
1 bedroom dwellings	Min. 1 space per dwelling
2 & 3 bedroom dwellings	Min. 2 spaces per dwelling
4 + bedroom dwellings	Min. 3 spaces per dwelling

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⁶ None required if garages of a suitable size are to be provided

7 Comparison To Neighbouring Authorities

7.1 The section identifies adjacent local authorities with comparable parking standards to those proposed by the Council.

Ashfield District Council (2014)

7.2 The residential parking standards are set out in a Supplementary Planning Document adopted in 2014. This sets out minimum parking standards. These standards are the same as those proposed for Newark Urban Area with the exception of visitor parking.

1 bed dwellings and Aged Persons	1 space per unit plus 1 space off plot
Residence	per 2 units for visitors
2/3 bed dwellings	2 spaces per unit
4+ bed dwellings	3 spaces per unit.

Mansfield District Council

7.3 The residential parking standards are set out in a Draft Interim Planning Guidance Note (undated). These set out minimum parking standards. Clipstone and Rainworth are closely linked to Mansfield and so it is important that the standards proposed will not undermine those sought by Mansfield. Rainworth and Clipstone fall under the 'Rest of the District' proposed parking standards and are broadly similar with the exception of an additional space for 3 bed dwellings and one fewer space for 1 bed dwellings in Newark & Sherwood with no proposed visitor parking.

1-3 bedrooms	2 spaces
4 or more	3 spaces
bedrooms	
Visitor Parking	Where there is no space for off street parking there may be a
	requirement in developments over 80 dwellings to provide
	on street parking in designated lay-bys

Appendix 1: Car Ownership Trends by Ward

Sub Regional Centre

Newark	
2011 Ward	No. of Cars per Household
Devon	0.88
Castle	0.96
Magnus	0.98
Bridge	1.01
Beacon	1.17
Balderton West	1.22
Balderton North	1.26
Total	1.07

Service Centres

Southwell	
2011 Ward	No. of Cars per Household
Southwell North	1.31
Southwell West	1.43
Southwell East	1.49
Sub Total	1.43

Ollerton & Boughton	
2011 Ward	No. of Cars per Household
Ollerton	1.16
Boughton	1.24
Sub Total	1.19

Principal Villages

2011 Ward	No. of Cars per Household
Blidworth	1.28
Farnsfield and Bilsthorpe	1.56
Collingham and Meering	1.58
Lowdham	1.72
Sutton-on-Trent	1.73

Other Rural Wards

2011 Ward	No. of Cars per Household
Farndon	1.55
Winthorpe	1.59
Muskham	1.81
Caunton	1.82
Trent (Bleasby, Fiskerton,	1.96
Rolleston, Thurgarton)	