

8 July 2023

Parking and Accessibility SPD Consultation 2023

Question 1

Do you agree with the parking standards for non-residential developments which relate to spaces for those with disabilities?

The Trust generally supports the approach taken here by the SPD. In addition to the design principles listed in para. 2.6 the Trust would like the SPD to encourage designers to locate the parking for disabled people closer to the destination than the other spaces in the car park. The 1995 advisory leaflet which is referred to in para. 2.7 does include such advice, but it would carry more weight if included explicitly in para. 2.6.

Paragraph 2.5 requires a minimum of 2 spaces for disabled people in any car park, or 5% if there are 20 or more parking spaces. That leads to an anomaly that if the car park has exactly 20 spaces, the 5% figure could be used, resulting in a single parking space. The correct formulation is surely that there should be a minimum of two bays for disabled people, with a minimum of 5% for car parks with **40** or more spaces.

Here and elsewhere it would be helpful if the SPD could indicate whether partial spaces should always be rounded up, or just rounded to the nearest whole number. For example, if a car park has 48 spaces, 5% of the total would be 2.4. Should that be rounded to 2, the nearest whole number, or rounded up to 3? Dealing with fractional numbers of bays also applies to the EV provision and the rates of parking provision calculated on the basis of the areas of buildings in Tables 1 to 4.

In its response to the previous consultation round, Bellway Homes suggested that the SPD would benefit from some worked examples. The Trust supports this suggestion.

Question 2

Do you agree with EV charging space provision in non-residential developments for those with disabilities?

The Trust criticised the EV charging space provision for disabled people in the previous round of consultation and welcomes the efforts that have now been made to improve the SPD. The previous draft would have resulted in a single disabled parking bay with EV charging in a car park of 200 spaces, and none in any car parks of less than 200 spaces.

The new draft has some inconsistencies. Paragraph 2.5 states that for car parks of more than 10 spaces, one of the two disabled parking bays should have EV charging facilities. Paragraph 2.8, on the other hand, does not set a threshold, and says every new destination car park should have a minimum of one disabled parking bay with EV charging (though exceptions for unviability are allowed). The wording in para. 2.5 seems to be consistent with the general requirements for EV charging laid out in para. 3.15 and the Building Regulations. Could the wording in para. 2.8 be adjusted to bring it into line?

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Question 3

Do you agree that parking can be reduced on non-residential developments with good access to public transport or to good walking and cycling links?

Yes, in order to promote sustainable transport and support Policy 21, the Parking and Accessibility SPD should in fact encourage all possible means of reducing the demand for car travel to destinations and thereby avoid the need to provide so much car parking. The availability of car parking at destinations is an important factor in determining whether people drive when other options are available.

In the Trust's view the SPD does not go far enough in supporting the requirement in Policy 21 that "car parking at destinations should be limited to encourage the use of sustainable modes of transport, having regard to the accessibility of the development by walking, cycling, and public transport". While those factors are mentioned in section 2 as reasons to allow a reduction in car parking, the attainment of good walking, cycling and public transport accessibility is not sufficiently promoted or incentivised.

Please see the response to Q11 for more strategic concerns.

Question 4

Do you agree with our retail parking guidance as set out in Table 1?

The Trust notes the reasoning in para. 3.6 that electric vehicle charging should not be required for destinations such as smaller supermarkets where stays are very short. Thus Table 1 has no EV charging requirement for supermarkets up to 1000 square metres in area. A supermarket at the top end of this limit would, however, be required to have 80 parking spaces. This is well above the ten space Building Regulations threshold, and should therefore have a single EV charge point and 20% of the remaining spaces provided with cable routes.

By contrast, for general retail premises Table 1 appears to require EV charging even for premises less than 200 square metres in area. Such a building would be required to provide up to 8 car parking spaces. The Building Regulations Part S only requires a single EV charging point for car parks of more than 10 spaces. Paragraph 3.15 explains that the Council proposes provision at a rate of 5% of parking spaces, to apply to car parks of more than 20 spaces. If the intention is to require no EV charge points in a car park of fewer than 10 spaces, which seems reasonable, then Table 1 could be made clearer by recording "n/a" for the small general retail category.

At each of the previous two rounds of consultation, the Trust questioned why there was no requirement for any visitor cycle parking for various types of retail (bulky goods, DIY, builders merchants and garden centres). The Council did not address these points directly in either Statement of Consultation. Although many items sold by such retail establishments cannot be carried away by bicycle, these stores are often the only location for obtaining smaller goods as well, such as items of ironmongery, plant seeds, etc. Customers may also visit in order to place an order for home delivery. The Trust continues to suggest that there should be a requirement for four short-stay cycle spaces, irrespective of gross floor area.

By chance, the day this response was being drafted, the following appeared on Twitter:



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Question 5

Do you agree with our employment parking guidance as set out in Table 2?

Car parking at offices

The car parking requirement for office development of 1 space per 18m² is high compared with other local authorities and with previous Durham standards. The 2019 Parking and Accessibility Guidelines required 1 space per 25m², the current Northumberland rate is 1 space per 30m², and in evidence at the *Issues and Options* stage the Trust noted that Cambridge and Nottingham applied rates of 1 per 40m² outside their city centres, and 1 per 100m² within.

Considering that there is a greater emphasis than ever before to promote sustainable transport, and that the proposed office parking rates are substantially in excess of the other examples given, the Trust would like to see the rate reduced to no more than 1 space per 30m², matching Northumberland.

(There is further comment, using the office parking as an example, in the answer to Question 8 below.)

The Warehousing and Distribution requirement is also double the rate applied in Northumberland.

Question 6

Do you agree with our leisure parking guidance as set out in Table 3?

The Trust welcomes the addition of a requirement for visitor cycle parking at theatres and cinemas.

The Trust raised the lack of cycle parking provision associated with hot food takeaways in the previous round of consultation, but the Council has not amended the rate nor did the Council give a response to this concern in the Statement of Consultation. Other respondents made the same objections in the previous round of consultation. There seems to be no logical reason why pubs and cafes, along with all other leisure destinations, should be required to provide one long stay cycle parking space per five staff members, but hot food takeaways have no requirement. As for cycle parking for customers, is the Council suggesting that it is impossible to collect hot food from a takeaway by bicycle?

It is curious that Places of Worship are the only category of destination in the whole of Tables 1 to 4 where the short stay cycle parking requirement exceeds the car parking requirement (by a factor of three). The rate of cycling provision comes, like for the other categories, from LTN 1/20. With the car parking rate set as it is, the EV charge point would hardly ever apply: there is not one church in Durham City apart from the Cathedral which exceeds 1500 square metres in area: the required car parking would always fall below the Building Regulations threshold for EV charging points. Taking these two considerations together, does this suggest that the car parking requirement has been set too low? This is debatable, as many existing places of worship rely on nearby on-street parking to supplement their own car parks, or are able to arrange to share car parking with businesses whose operating hours do not overlap with use of the place of worship. Car occupancy rates will often be higher, with car sharing being more common.

Question 7

Do you agree with our other destination parking guidance as set out in Table 4?

Is the Further Education Colleges category also to apply to Higher Education? If so, this should be made explicit. If not, HE is not covered.

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As previously represented, the car parking rates for colleges and schools (including nurseries) allow 100% of staff to drive to work, but also provide one cycle space for every 20 members of staff. Transporting students' work to and from home for marking is often given as a reason for teachers needing to use cars. Firstly, this would not normally apply to nursery education, so the requirement can surely be amended there. Secondly, it is clear that historically teachers used to manage to travel without cars, and the cycle parking provision implies that some still do. Options like car sharing are also available, and schools are often well-served by public transport. It seems inequitable in the context of a climate emergency that 100% provision should be planned for teachers and school support staff.

St Oswald's Primary School in Durham City has no car parking on site, but the school assists teachers in using the Park and Ride. Durham Johnston School was designed with a car park which does not accommodate all staff. Some staff walk, cycle or use a combination of public transport with these modes.

For existing schools applying to build new classrooms, there would be unlikely to be any means of providing additional on-site car parking to meet the proposed standards without converging playground space or playing fields to car park, which would be unsustainable as it would prioritise staff travel needs over the facilities for the children.

Question 8

Do you have any other specific comments on destination parking guidance?

Electric vehicle charging

The Trust supports the proposed requirement for 5% of parking spaces to be provided with active EV charge points in car parks over 20 spaces, over and above the Building Regulations requirement for a single space in car parks of more than 10 spaces.

The Building Regulations requirement applies to all new buildings, but only applies to buildings undergoing major renovation or material change of use in certain circumstances. For example, if no work is being done to the car park or to its electrical installation, the Building Regulations would not require EV charge points to be added. The Trust is of the view that it would be unreasonable for the additional requirement imposed by the SPD to apply in circumstances where the Building Regulations would exempt the developer from installing charge points or cable routes. If that is the intention of the final sentence of para. 3.16, perhaps this needs to be made clearer.

The Trust welcomes the addition of paragraphs 3.17 and 3.18 recommending higher speed charging at sites with a swift turnover, including the exceptions relating to viability.

Cycle parking

Table 1 uses the word "minimum" throughout the short-stay cycle parking column, but the other tables do not. Para. 3.10 allows for greater provision of cycle parking where supported by a Travel Plan. It would be simple enough to amend the short and long-stay cycle parking headings in Tables 1-4 to state that all the cycle parking rates are minima. Para. 3.10 or para. 2.18 should be amended to indicate that if a reduced level of car parking is agreed then it may be necessary to increase the cycle parking provision

Paragraph 3.9 recommends that destination cycle parking be "covered, secured and enclosed" if intended for stays of an hour or more. By secure, it is understood that access to the storage requires a key or electronic identification of some kind. This is only convenient to arrange for regular users such as employees. There are, however, many types of destination where people tend to stay for more than an hour (e.g. cinemas, places of worship).

Tables 1 to 4 differentiate between long stay and short stay cycle parking spaces and stipulate the rates for each type. The long stay spaces are described in the table headings as "secure and ideally covered".

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To avoid confusion over the intention of para. 3.9, and to recommend CCTV surveillance of cycle parking generally, not just long stay provision, the Trust suggests amending the wording to read:

Cycle parking should be in a prominent location allowing regular casual observance. CCTV is also encouraged. Long stay cycle parking should be covered, secured and enclosed. For short stay cycle parking ...

There are two types of leisure destination in Table 3 where the visitor provision, as well as the staff provision, should also be secure and covered. For Hotels/Motels/Guest Houses and for Caravan and Camp Sites the Trust suggests that the rate currently shown under "short stay cycle parking" which clearly relates to the number of guests, should be added to the requirements in the "long stay" column. So for example, for hotels there would be no short stay cycle parking requirement, and the long stay requirements would be given as "1 space per 5 members of staff AND 2 spaces per 25 bedrooms". This would ensure there is secure overnight storage for guests. If a hotel had a restaurant or fitness club open to the public, short stay spaces ought to be provided according to the appropriate rows in Table 3.

Setting destination parking standards

When considering the office car parking requirements (see Q5 above) we used the Employment Densities Guide cited in para. 3.5 to estimate the parking rate in terms of spaces per member of staff. The result was that the number of parking spaces was between 50% and 80% of the number of staff. In the 2011 census 79% of those who travelled to work in the county did so by car, but some of these were passengers. The proportion driving a car was 71%.

On the face of it, therefore, the rate recommended in Table 2 is a reasonable fit for travel habits in County Durham. But the obvious question is, what is the Parking and Accessibility SPD trying to do? Does it support Policy 21 which aims to promote sustainable transport? Because if the Parking and Accessibility SPD merely attempts to predict and provide for the car parking demand, that does not contribute to the aims of Policy 21, in particular the requirement that "car parking at destinations should be limited to encourage the use of sustainable modes of transport, having regard to the accessibility of the development by walking, cycling, and public transport".

The only way in which the Parking and Accessibility SPD has regard to the accessibility of the development is by allowing a lower rate of parking to be negotiated with Highways officers (as explained in the footnote to Table 2) or requiring fewer parking spaces "through planning" as mentioned in para. 3.4. This gives officers a considerable degree of leeway. If planning officers will be using some form of sliding scale or rule of thumb when considering the parking requirements, then why is this not included explicitly in the SPD? And if there are no such devices, how will the Planning Authority discharge its responsibilities consistently?

In response to previous representations from the Trust, pointing out lower parking rates defined in other local authority standards, the Council replied that the proposed rates for Durham were based on County Durham TRICS data, and that applying rates from other authorities would not be appropriate. Further explanation was given by Peter Ollivere (email, 13 May 2022) that the TRICS analysis had been informed by the professional experience of the Highways Development Manager (now retired) to formulate the appropriate parking standards. The method behind the TRICS study was not provided.

Even if the TRICS survey sites were carefully selected to avoid skewing the results towards out-of-town and less accessible locations, the main problem with using TRICS data is that it will tend to perpetuate and reinforce the current transport mix. (The census-based observations for office buildings are also flawed in this way.) There is evidence that travel to work in County Durham is sub-optimal in terms of sustainable transport: the Durham City Sustainable Transport Delivery Plan is critical of the readily available free car parking available to employees in the city, including at Durham University and Durham County Council. This culture will be reflected in

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the local TRICS surveys, which are therefore not necessarily a good guide to what is achievable in modal shift.

Question 9

Do you have any comments on our residential parking guidance as set out in Table 5?

First the Trust notes that although the Council has amended the Proposed SPD to allow garage spaces to count towards the required residential allocation, the heading of the second column of Table 5 still suggests that the allocation is to be provided on the driveway of the dwelling. This should be amended if garage spaces are to be counted.

Residential parking rates

The overall effect, after consultation in 2021 and 2022, of each revision of the Parking and Accessibility SPD has been to increase the requirement for residential car parking. The Trust offered census-based evidence in each round on consultation demonstrating the likely over-provision, but the Council appeared to react instead to unevidenced assertions.

The latest revision does allow garages to be counted, but many dwellings with 1 to 3 bedrooms, and some with 4 or more, do not have garages, and the revision represents a real increase over the previous drafts. Various housebuilders responded to the previous consultation round to object to garages not being counted towards the parking total, but this was often in the context of judging the car parking rates to be too high. They were described as “extremely excessive” by Bellway, and Persimmon gave the example of the Aykley Heads Phase 2 development, where 33 of the 48 houses had no garage anyway, and yet the new standards would have resulted in a significant over-provision of car parking. By allowing garages now to count towards the total, but increasing the in-curtilage requirements further, the Council has not addressed the actual issues.

Persimmon also objected that over-provision of car parking would make it challenging to achieve Travel Plan targets:

These initiatives will be significantly undermined if the practicalities of vehicular usage are increased and it will become significantly more difficult to incentivise residents to use alternative modes of transport.

Bellway suggested a proportionate system where cycling or public transport accessibility could allow a reduction in car parking requirements “presented in a clear matrix or with a calculation”, and pointed to the potential benefits in addressing air quality issues and tackling climate change.

Other professional bodies like the Urban Design Group advise against over-provision of residential car parking:

Provision of 2 -3 parking spaces per house results in more space used for parking and lower housing densities of about 30 homes per hectare or less, making public transport unviable. A properly conducted sustainability assessment will condemn these standards. Today, it is recognised that parking provision should be tailored to location.
*Street design standards: current and withdrawn practice: briefing sheet (2020)*¹

Bearing in mind that NPPF para. 107 requires consideration of local car ownership rates when defining parking policies, the Trust has analysed the 2021 census data across the county and at Middle Super Output Area level. The analysis shows that at current rates of car ownership:

- 63% of parking spaces at 1-bed dwellings would go unused
- 60% of parking spaces at 2-bed dwellings would go unused, and 84% of 2-bed households would have more in-curtilage spaces than they require

1 <https://www.udg.org.uk/publications/manuals/street-design-standards>

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- between 40% and 50% of in-curtilage parking spaces for larger dwellings would go unused

If the Council's proposed rates of residential car parking could be applied retrospectively to the 234,773 households across County Durham, 47% of the in-curtilage spaces would not be required, and the land occupied would be sufficient for over 10,000 houses (at 30 dwellings per hectare).

It is imperative to consider whether a significant uplift in car parking provision for new developments, by comparison with existing housing, is necessary or desirable. By setting minimum rates across the county which clearly exceed current need, the Council is not conforming with Section 11 of the NPPF "Making effective use of land".

Even on a policy principle of "predict and provide" the car parking allocations substantially exceed what is necessary. Yet various council and national policies seek to reduce car use, including the Local Transport Plan 3, the Durham City Sustainable Transport Delivery Plan and the Climate Emergency Response Plan 2. The Council should have a starting assumption that new housing developments will, through travel plans, public transport accessibility, and walking and cycling links, begin to deliver on these strategic policy objectives. The draft Solar Energy SPD includes a brief section on the climate emergency and how the SPD supports national targets. The Parking and Accessibility should equally be able to demonstrate support of rapid transport decarbonisation.

Excessive car parking allocations conflict with other aspects of planning policy.

- Policy 21 requires development to provide "appropriate, well designed, permeable and direct routes for walking, cycling and bus access". Having to find room for car parking and for active travel routes will reduce density and make developments less viable.
- Increased car parking provision will make it harder to comply with Policy 26 requirements for green infrastructure. Developers also increasingly recognise the value that people place on green infrastructure and active travel connections in housing developments, but the exact car parking provision rates of the SPD are likely to take precedence in the design stages over the qualitative requirements of Policy 26.
- The Building for Life SPD asks that residential car parking be well integrated so that it "does not dominate the street". The Parking and Accessibility SPD discourages over-reliance on tandem parking (para. 4.12). Two-bedroomed properties rarely have garages, and even a 4-bedroomed house with garage would need to provide two further spaces. With the car parking required to be in-curtilage, it would be hard to avoid tandem parking without having a street frontage dominated by driveways for car parking.

In its response to the 2021 consultation, the Trust proposed a different model for residential car parking, based on 2011 census data. A more thorough analysis, using 2021 census data, has now been carried out. The methodology and results are presented in the Appendix. The data and software which performed the analysis are available on request.

The Trust suggests that, in order to comply with NPPF para. 107(d), a banded system of allocation should be used. Each census Middle Super Output Area would be assigned to one of three bands according to whether a higher, medium or lower level of car parking is required.

Rather than stipulating an exact minimum number of in-curtilage parking spaces per dwelling, a table would allow developers to select a mix of in-curtilage and unallocated parking which would provide sufficient car parking for the area but which would also allow more varied design approaches which can respond to the local context, supporting the Building for Life SPD and the draft County Durham Design Code SPD. A higher proportion of unallocated parking would allow for more efficient use of land, and enable better green infrastructure and active travel provision, but for properties at the higher end of the market, more in-curtilage spaces could be provided where justified as an option.

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The full results of the Trust's analysis, including proposed allocation tables, are in the Appendix.

The Trust would be very willing to meet with officers to explain the proposed approach and answer questions if this would be of assistance.

Circumstances for reducing car parking provision

Para. 4.3 allows for consideration of deviation from the guidelines if this can be justified and evidenced for reasons such as sustainability, design or viability.

The Trust considers that this is weak. While Policy 21 requires a sufficient level of car parking for both occupants and visitors, there are many ways to help reduce demand for car parking and support sustainable transport. The Parking and Accessibility SPD should be actively encouraging developers to reduce the car parking demand through better integration of active travel opportunities, public transport, and shared ownership of vehicles (e.g. via car club facilities). This would support policy initiatives including the Council's *Climate Emergency Response Plan 2*, where the "vision for 2045" includes "individual car ownership is less common".

Purpose-built student accommodation: car parking

The SPD proposes a rate of one car parking space per fifteen students outside the Durham City CPZ and none within.

The University's policy is not to issue parking permits to students except in very few circumstances. Therefore many students who bring cars to Durham either use them rarely or compete with other potential users of the on-street car parking near the University. The University also operates a subsidised bus travel scheme with a daily flat-rate ticket for Arriva buses. The University's Travel Plan aims to reduce the numbers of students using a car to get to the campus below the rate of around 5% reported in recent travel surveys.

The Trust therefore supports the policy of requiring no student car parking for PBSAs within the CPZ.

Nevertheless, the construction of some PBSAs has led to pressure for parking on residential streets. John Snow College and South College are both outside the CPZ and have little car parking for students, in keeping with the University's policy. Residents in the new housing on Mount Oswald are finding that some students are keeping cars on the estate. It would not be at all desirable to provide car parking for students at colleges which are so close to the University.

The Trust suggests that if a PBSA site is within 2km (about 30 minutes' walk) of the University (measured from the Bill Bryson Library) or has good bus connections to the University, then the requirement for student car parking should generally be reduced, with instead the SPD offering the option of extending the CPZ to streets neighbouring the PBSA. The presumption should be that enhanced bus services or active travel routes should be explored and provided in preference to student car parking.

The Trust notes the response to the 2022 consultation from Belmont Parish Council suggesting much larger quantities of car parking for students, including for parents and other visitors. The Trust's view is that allowing for dedicated car parking for visitors would be inefficient use of land, as it would be very much less likely to be used outside weekends. But it is important for all operators of PBSAs to have workable and effective plans for managing the arrival and departure of students and their belongings at the start and end of the academic year, and minimising the impact on local residents. This should form part of the Travel Plan for all PBSAs. It would be helpful to articulate these issues within the SPD.

Purpose-built student accommodation: cycle parking

The cycle parking rate for Purpose Built Student Accommodation, at 1 long-stay space per bedroom, matches LTN 1/20. The LTN 1/20 figure is a general rate for all types of residential

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accommodation apart from sheltered housing and nursing homes. The rate makes sense for houses, where a family who cycle regularly might well have one cycle each. For PBSAs, provision at a rate of 1 space per bedroom might substantially exceed current demand: nationally about 40% of people own or have access to a cycle. Allowing for some growth in demand, the Trust would be happy to see the requirement reduced to 1 space per two bedrooms, especially if there is a Travel Plan commitment to monitor the usage, and if the plans identify space that can be used to extend the provision.

Question 10

Do you have any other comments on our residential parking guidance as set out in the rest of chapter 4?

Installation of electric vehicle charging

The Trust would like to see greater clarity as to whether the requirements for electric vehicle charging will apply in cases such as planning applications for change of use or for extensions or alterations to existing buildings. Does the Council intend to go beyond the Building Regulations Part S requirements in this regard?

Conversion of garages to habitable rooms

If garage spaces are to be counted towards the car parking allocation then removing permitted development rights via a condition on granting the planning application for a development would be a useful safeguard. Home owners could apply for permission which could then be considered case by case.

Determination of the application should take into account cycle parking where this had been provided via a garage. Paragraph 4.6 should be amended as follows (green text added, red deleted):

Therefore, when new housing developments are approved, the council may consider removing permitted development rights on a site-by-site basis to control the future loss of garages, car ports, other parking spaces and storage for cycles, mobility scooters and motorbikes provided in new development. Planning applications for the conversions of garages determined following the removal of permitted development rights will need to demonstrate that sufficient parking spaces and storage remain.

The statement that the council “may consider removing permitted development rights” is weak. The Trust suggests that para. 4.6 should be amended further to state that permitted development rights will be removed wherever (a) a dwelling would not meet the SPD car parking rates if the garage were converted, or (b) within the areas in Durham city where planning permission is required for change of use from C3 to C4, even if the HMO percentage is below the threshold. (These areas were either created through Article 4 directions or via removal of permitted development rights.)

Application of car parking requirements to residential extensions

Para. 4.4 states that the car parking requirements would also be applied where additional bedrooms are created, but the way the paragraph is phrased suggests that this will not always be applied (“additional in curtilage spaces *may* be required”).

The Trust is of the view that there are a number of scenarios in which increasing the number of in-curtilage parking spaces would not be appropriate or desirable:

- Within a Conservation Area if providing an extra parking space would require removing hedges, walls or other boundary features characteristic of the area.
- Within a Controlled Parking Zone, where it is not desirable to create extra parking capacity, and indeed, adding a new driveway can, in effect, privatise the on-street space in front of a dwelling.

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- In cases where the additional room, although usable as a bedroom, is intended to provide a home office: indeed this may enable the residents to reduce the number of cars they have.
- If the provision of car parking would entail the loss of trees or other significant greenery.
- Where introducing a new crossing of the footway would endanger pedestrians.

The SPD could be enhanced if such scenarios were included as examples to illustrate how the policy would be applied.

The information on the Durham City Controlled Parking Zone² states that resident and visitor permits are unavailable for any buildings built or converted after 2000. It would be helpful to refer to this within the Parking and Accessibility SPD.

Houses in Multiple Occupation

Para. 4.7 states that HMOs will have the same car parking rates applied per bedroom as normal houses “as they were not built as student housing and often house young professionals”. In much of Durham City Article 4 directions or removal of permitted development rights via conditions control the conversion of properties from use class C3 to C4 or the *sui generis* category of a large HMO. The test for Policy 16(3) rests primarily on the concentration of nearby properties with a Class N Student Exemption to Council Tax.

In these Article 4 areas it is therefore inaccurate to say that the HMOs “often house young professionals”. The University discourages car use among students by only issuing parking permits in exceptional cases. If the Council were able to reduce the long-stay on-street parking provision near the University then car use among students living in HMOs could be constrained and it would not be necessary to provide such large quantities of car parking.

If these conditions can be achieved, the Trust would favour a greatly reduced car parking requirement for HMOs within the areas where Policy 16(3) applies, and no car parking provision for HMOs within the Durham City CPZ.

Driveway dimensions

The SPD requires driveways to be a minimum of 2.7m wide or 4.7m for double drives (para. 4.11).

The width requirement for driveways rather depends on how far the Council wishes to accommodate the trend towards larger vehicles which is unfortunately contributing to increased emissions. The Trust observed at the *Issues and Options* stage of consultation that a width of 2.7m would leave insufficient space for anyone in a wheelchair to move alongside the vehicle, if the vehicle was a large SUV (which could be 2m in width). The Trust also suggested that additional driveway width should be required if the drive was alongside a vertical feature such as a wall, as this will also limit access. While the County Council reinstated the minimum driveway width for double drives, the other suggestions were not taken on board.

The Northumberland policy requires single driveways to be a minimum of 3.0m wide (or 5.5m for double drives). An additional 0.3m is to be added in each case if the driveway forms the main pedestrian access or forms part of the bin route to the dwelling. The Council should consider again whether the minimum width stipulated in the SPD is adequate.

Layout of car parking

As currently drafted, the SPD requires residential allocated car parking to be provided within the curtilage of the property. This very much limits the design options.

The draft County Durham Design Code SPD prescribes on-street parking and shared courtyards in some contexts to provide sympathetic design solutions which avoid car parking

2 <https://www.durham.gov.uk/article/22294/Durham-City-Controlled-Parking-Zone-CPZ->

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dominating the street. Examples are found in various settlement typologies including the historic towns and cities, historic villages, 19th century industrial towns and new towns.

The Building for Life SPD notes in para. 11.2 that “on street parking has the potential to be both space efficient and can also help to create a vibrant street, where neighbours have more opportunity to see and meet other people”, and para. 11.5 recommends “using a wide range of parking solutions appropriate to the context and types of housing”. For terraced houses it suggests “positioning parking within the street scene, for example a central reservation of herringbone parking”. The Parking and Accessibility SPD gives developers the impression that these types of solution are not permitted. In paragraph 4.8 the SPD refers to Manual for Streets p. 106 supporting the use of unallocated parking for visitor spaces. The reference is to paragraph 8.3.21, but the SPD omits to mention that Manual for Streets also encourages the use of unallocated on-street parking in various circumstances to provide residents' spaces efficiently (p. 104 to 108).

Elsewhere in this response the Trust provides evidence in favour of shifting the balance towards unallocated parking and reducing the allocated in-curtilage provision. Whether or not this is accepted by the Council, it is clear that the related Design Code SPD and Building for Life SPD recommend the use of courtyards or on-street parking in some circumstances. Where this happens, de-allocating the parking, so that it is not reserved for the exclusive use of particular dwellings, would allow the overall parking provision to be lowered while still meeting the average car ownership rates.

Although para. 4.13 of the Parking and Accessibility SPD refers developers to the other SPDs, the Trust would like to see a clear statement within the SPD that where these documents steer designers towards a communal car parking solution, there may be scope for reducing the rate of car parking provision to reflect the reduction in private spaces that would have gone unused.

The Trust would very much support the encouragement of more innovative and varied street layouts which can be much more effective and offer more scope for green infrastructure than the standard volume housebuilder's suburban street layouts with 100% on-plot parking. The Trust has made these suggestions in the two previous consultation rounds. Now that the draft Design Code SPD is also supporting this stance, it is hoped the Parking and Accessibility SPD will be amended also.

Active Travel England is now a statutory consultee for major planning applications. ATE recently released a planning application assessment toolkit³ which scores proposals against a number of criteria, including “car parking layout”:

The proposed street design should remove opportunities for indiscriminate and obstructive parking that would cause safety hazards and prevent access by active modes of travel either by designing in protected or marked parking bays and accompanying street furniture, planting or other features and restrictions that prevent footway parking, the mounting of kerbs, damage to green infrastructure and blockage of crossing points and sightlines.

To score well applications must be able to show that:

The site layout, parking management strategy or contribution demonstrably and physically discourage the blockage of footways, crossing points and cycle routes on and off site.

The Trust suggests that the Council incorporate into the SPD guidance for on-street car parking which aligns with the above.

3 <https://www.gov.uk/government/publications/active-travel-england-planning-application-assessment-toolkit>

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Paragraph 4.14 of the SPD refers to the proposal (actually already adopted) to change the county's Highways Design Guide to require 5.5m wide carriageways as a minimum throughout residential developments. Pegasus Group, in its response to the 2022 consultation, objected to this change on the grounds that it reduces the ability for developers to introduce a street hierarchy, and cumulatively with the increased parking standards would reduce the rate of delivery of housing. In the Council's response it was stated that the 5.5m width would "accommodate more on street parking".

The Parking and Accessibility SPD stipulates the amount of on-street, unallocated car parking that is required. Developers might assume that visitor spaces are to be provided in actual bays, as found in the recent applications for housing at Sniperley and Bent House Lane, but the response from the Council suggests that parking might be expected anywhere on the 5.5m wide estate roads. The Trust provided examples of parking behaviour in its response to the Highways Design Guide consultation⁴ which showed that increasing the width to 5.5m does not, in itself, solve the problem of pavement parking. Delineating the car parking bays using build-outs or paint markings may also be necessary.

There needs to be greater clarity in the SPD about the design standards expected for the on-street, unallocated car parking. Fuller guidance needs to be incorporated into the SPD or into a further revision of the Highways Design Guide.

Unallocated car parking and electric vehicle charging

One issue regarding unallocated and on-street spaces is how to provide for electric vehicle charging. Building Regulations Part S regards on-street unallocated car parking as "associated car parking" if, at the time the plans are deposited, the land forming the carriageway is under the ownership of the developer of the site. So before the highway is adopted, the associated car parking has to be considered for charge points and/or passive cabling provision. This would require EV charging to be provided at on-street car parking spaces to cater for any dwellings that have no allocated car parking. Cable routes would be required to all parking spaces if the development has, in total, more than ten associated car parking spaces.

A number of examples have been given in a "frequently asked questions" accompanying Part S. Diagram 6⁵ is very helpful in demonstrating that on-street parking on a newly built road intended to be adopted as a highway is considered to be associated parking.

The conclusion is that the need to provide EV charging does not require a high level of in-curtilage car parking.

Location of charging points and termination of cable routes

The proposed SPD does not contain any guidance on how charging points should be placed in relation to pedestrian footways. Where possible the on-street parking bays and footways should be designed so that the EV charging does not obstruct or narrow the footways. This should also apply to the termination points of cable routes. The Trust would like to see guidance included to this effect.

In the comments submitted to the consultation on the Highways Design Guide changes in June 2022 the Trust suggested that the minimum footway width be increased from 1.8m to 2m in line with *Inclusive mobility*⁶ (DfT, 2021). If the County Council continues to prefer footway widths which do not meet the national guidance, it is even more important to ensure they are not

4 <https://durhamcity.org/wp-content/uploads/2022/06/Highways-Design-Guide-Comments-2022-Jun-03.pdf>

5 <https://www.gov.uk/guidance/approved-document-s-infrastructure-for-charging-electric-vehicles-frequently-asked-questions>

6 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044542/inclusive-mobility-a-guide-to-best-practice-on-access-to-pedestrian-and-transport-infrastructure.pdf

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obstructed. The Trust notes that the Active Travel England planning application assessment toolkit⁷ (June 2023) refers to 2m footway widths in two of its scoring criteria.

Cycle parking: design

Table 5 and supporting paragraphs 4.17 and 4.18 do not anywhere require residential cycle parking provision to be enclosed or covered, unlike the long-stay destination cycle parking. This should be an absolute requirement for residential cycle parking, not just a recommendation.

The Trust would like an additional paragraph inserted after 4.18 to read:

The design of residential cycle parking must have regard to the guidance found in LTN 1/20 paragraph 11.3.2 and sections 11.4 and 11.8.

The only references at present to LTN 1/20 relate to non-residential provision. The sections referenced above cover cycle parking for non-standard cycles, types of stand and positioning, guidance on two-tier stands (which might be considered for apartments) and residential facilities in particular.

Cycle parking: security of storage

The Trust notes that recent major planning applications for housing at Sniperley and Bent House Lane have proposed to provide cycle parking in garden sheds for house types with no garages. A garden shed at the back is less convenient for users, and items stored within may also be more vulnerable to theft, as noted in LTN 1/20 para. 11.8.1 which favours internal storage.

Where a house is provided with a garage, the SPD expects that all cycles can be accommodated within the garage, and that the space will also be available for a car to meet the car parking requirements. This seems unrealistic: for a four bedroomed house LTN 1/20 would expect 4 cycle parking spaces. Fitting four bicycles conveniently into a 3m by 6m garage along with a large modern car would be challenging. *Manual for Streets* in para. 8.3.41 suggests that 3m by 6m garages can be used for car parking as well as storage, but it dates from 2007 before the trend towards significantly larger vehicles had become apparent.

The Trust would like to see encouragement of house types which include some general purpose storage accessible at the front or side of the house, within its footprint, and akin to a garage in terms of its interior. This would be of use for storing cycles and mobility equipment, lawnmowers, garden furniture, tools, etc.

This approach acknowledges that few people keep cars in garages, but that garages are still popular with purchasers of larger properties because of the storage opportunities.

7 <https://www.gov.uk/government/publications/active-travel-england-planning-application-assessment-toolkit>

Question 11

Do you support the approach to setting guidance for parking and accessibility as set out in the SPD?

NPPF compliance: basis of policies

The two key paragraphs of NPPF relating to parking standards are 107 and 108. Does the proposed SPD comply with para. 107?

107. If setting local parking standards for residential and non-residential development, policies should take into account:
- a) the accessibility of the development;
 - b) the type, mix and use of development;
 - c) the availability of and opportunities for public transport;
 - d) local car ownership levels; and
 - e) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

The Trust considers that the SPD complies with 107(e) in ensuring that EV change points are provided.

The SPD is structured around the different use types of developments, so to some extent 107(b) is covered. Where there might be a failing is in mixed-use developments where communal parking can cater for non-residential uses “which will tend to peak during the daytime when residential demands are lowest” (*Manual for Streets*, para. 8.3.11). There is no acknowledgement in the SPD that mixed-use development (or infill developments in a mixed-use area) might need handling differently.

The SPD does not consider local car ownership levels, 107(d) in any meaningful way. The policies are county-wide, and the local car ownership levels vary considerable across the county (see the appendix). The highest rate of car ownership across the county's Middle Super Output Areas in the 2021 census is double the lowest rate.

Nor do the policies truly take into account the accessibility of the development, 107(a), or the availability of and opportunities for public transport, 107(c). The key point from the opening of para. 107 is that “policies should take into account” these criteria. The most significant elements of the SPD are the tables of recommended parking rates. Unlike previous adopted standards, the most recent being the *County Durham Parking and Accessibility Standards 2019*, which all had a separate column for town centre parking rates, the tables show no variation according to the accessibility of the site.

The only way in which the SPD takes into account 107(a,c) is by stating that exceptions can be made. In effect, the policy only takes these criteria into account by disapplying the policies! In the Trust's view, this does not demonstrate compliance with the National Planning Policy Framework.

The Council justifies this approach in para. 2.10 by saying that it will “simplify guide [sic] for all non-residential developments, whilst giving officers the flexibility to make the best decision ... based on the site-specific circumstances”. This is coupled with a definition of an accessible location where any site close enough to a bus stop with just two buses an hour is considered accessible, and a reference to LCWIPs which now cover all the major towns in the county.

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The proposed SPD simplifies to the extent that it offers no meaningful guidance to developers wishing to make their sites accessible and sustainable for “promoting sustainable transport” in line with chapter 9 of NPPF.

The Trust's concern is shared by the Highways Agency in its well-argued response to the 2022 consultation. The Trust's proposals in the attached Appendix offer a means of complying with para. 107 for residential parking standards. Reintroducing a column with reduced town-centre parking rates in Tables 1-4 would improve compliance for the non-residential aspect of the SPD.

NPPF compliance: maximum parking rates

Paragraph 108 of the NPPF covers the circumstances in which maximum parking rates can be applied:

108. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.

The Inspector of the County Plan very clearly stated in para. 162 of his report that in order for Policy 21 to be effective it needed to set out principles including to “limit the provision of car parking at destinations to encourage sustainable modes of transport” and that the Council must “prepare a supplementary planning document ... consistent with those principles”.

This clearly suggests maximum parking standards were thought to be appropriate. The Trust has raised this in each round of consultation, but the Council's response has been that it considers there is no clear or compelling justification (as required by NPPF 108) that would allow maximum parking standards to be applied.

The Trust considers that the Council is setting the evidential bar too high. Nottingham City Council's Local Plan was adopted in 2020 and clearly must be considered to comply with NPPF paragraph 108. In para. 4.183 of the supporting text the use of maximum parking standards is justified as follows:

More restrictive maximum parking levels are considered appropriate for the City Centre because of its accessibility and the opportunities this would create in terms of urban design. Availability of car parking has a major influence on the choice of means of transport. Levels of parking may be more significant than levels of public transport provision in determining how people travel, even for locations very well served by public transport. Car parking also takes up a large amount of space in development and reduces densities.

There is no part of this justification which could not be applied to Durham City or other highly accessible locations in the county. Nottingham even has found the justification to go beyond what the Inspector required of Durham's plan by setting maximum parking standards for residential use as well as non-residential.

If further justification were needed, Durham County Council can point to the use of Park and Ride, a congestion zone, controlled parking zones and the declaration of an Air Quality Management Area as justifying the need to manage the local road network in Durham city. Furthermore, across the whole county the 2022 *Climate Emergency Response Plan 2* envisages a future of lower car ownership, shared ownership of vehicles, and investment in public transport and walking and cycling infrastructure, all of which can enable, and be reinforced by, reductions in the level of car parking provision.

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If the Council cannot find justification to do what the Inspector instructed and apply maximum parking standards through the SPD, how can it possibly find the evidence to defend against an appeal should officers try to impose a maximum in a particular case? The SPD is further weakened by the changing of terminology throughout from “standards” to “guidance”.

The Highways Agency, in its response to the 2022 consultation, was also very critical of the decision against setting maximum parking standards. The Highways Agency referred to the *Net zero highways* plan and the DfT's *Decarbonising transport* (July 2021) and the need to reduce demand for car travel to respond to the climate emergency. The Highways Agency remarks noted that minimum parking standards, as used in the SPD, “generally do not encourage sustainable travel” and that the Council's approach “may result in excessive car parking, in turn encouraging more car trips”. The Agency was also concerned that the approach might “lead to developers not funding public transport improvements due to excessive parking provision resulting in development with less demand for public transport facilities” and that the policy position conflicted with the Agency's net zero highways plan. The Agency remarked on the lack of clarity in the SPD regarding exactly how flexible highways officers would be when considering allowing a lower parking requirement in accessible locations.

The Trust concurs with all these observations, and is dismayed that the Council has made no substantive changes to the basis of the SPD.

In summary, the Trust does not support the general approach to setting guidance as it is considered not to comply either with the NPPF or what the Inspector directed was required to make the County Plan effective.

Errata

Para. 2.10 says “... proposing to take this approach to simplify guide for all non-residential developments” but the word “guidance” is probably intended instead of “guide”.

Paragraph 3.6 refers to section 3.14 but the correct reference is 3.15.

Table 4 includes a typo “Sperate” in the long stay cycle parking requirement for FE colleges and for Schools.

Para. 4.1 talks of the “content of the development” but it should probably be “context”.

Table 5 refers throughout to para. 4.16 for detail on the cycle parking requirement, but the correct reference is 4.17.

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Appendix: efficacy of residential car parking model

In the Trust's submission to the 2022 consultation we provided a detailed analysis of 2011 census data which demonstrated that the Council's proposed model for residential parking would result in considerable waste of land through providing parking spaces that would be unused. This would be contrary to NPPF para. 119 which requires planning policies to "promote an effective use of land in meeting the need for homes and other uses, while safeguarding and improving the environment".

This analysis has been brought up to date using 2021 census data using an enhanced methodology which accurately matches the number of bedrooms to the number of cars.

Car ownership levels

Indications from the National Travel Survey suggested that there had been little growth in car ownership in north-east England since the 2011 census. The survey includes annual time series⁸ for the number of cars/vans per household, and the percentage of households with no car, one car, and two or more cars. The publication warned that the figures for 2020 are very unreliable because of the small sample size and the effects of the pandemic.

The 2021 census figures reveal that there has been some growth in car ownership. The number of households with no car has decreased to 24%. The average number of cars per household has increased further, suggesting that there are more households now with three or more cars.

Statistic	National Travel Survey, North-East England			Census, County Durham
	2010/11	2018/19	2020*	2021
Cars/vans per household	1.08	1.10	1.18	1.21
No car/van	29%	28%	17%	24%
One car/van	42%	40%	60%	42%
Two or more cars/vans	29%	32%	24%	34%

* 2020 survey came with warning that the figures were likely to be unreliable.

Via the ONS website it is possible to query the census results create a cross-tabulation of one census statistic with another. We can thus discover how many 2 bedroom houses, say, have access to a single car, how many have no car, and the same for any other combination of these categories. The following table shows the total number of households in County Durham broken down by the number of bedrooms, and for each category shows the proportion of these dwellings with access to no car, 1, 2, 3, 4 or more cars.

County Durham Bedrooms	Total households	Number of cars/vans				
		0	1	2	3	4+
1	13959	63%	33%	3%	0%	0%
2	76321	35%	49%	14%	2%	1%
3	105324	18%	44%	29%	7%	2%
4	32120	6%	29%	46%	14%	5%
5+	7049	8%	23%	42%	17%	10%
All dwellings	234773	24%	42%	26%	6%	2%

8 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1017101/nts9902.ods (accessed 3 June 2022)

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We can compare this with the Council's proposed model for in-curtilage car parking provision. The Council propose that all 1 bedroom dwellings should have a minimum of 1 allocated car parking space. If this had been applied across the current housing stock and current car ownership in the County almost two thirds of these spaces would be unused, because 63% of one-bedroom households have no car.

The Council propose 2 spaces per dwelling for 2-bedroom houses, yet 84% of 2-bedroom households have fewer than two vehicles, and 35% of 2-bedroom houses would have two spaces unused. Only 17% of 2-bedroom houses would make full use of the allocation.

Across all households in the county, only a third have more than one car.

Of course, the number of bedrooms is not the only, or even perhaps the main determiner of the number of cars owned by a household. In accessible areas with good public transport and active travel routes, the availability of car parking spaces can affect the car ownership rates. Over-provision of car parking is one of the factors that can cause car ownership to rise.

The following table indicates the percentage of households of different types where all the allocated parking spaces would be used, if the proposed allocation model in the SPD were applied to current housing stock in the county. It also shows the percentage of spaces which could be unused. We have had to estimate the 5 and 6+ bedroom figures because the census lumps these two categories together.

Bedrooms	Number of in-curtilage parking spaces	Percentage of households which would make use of all allocated spaces	Percentage of allocated spaces unused
1	1	36%	63%
2	2	17%	60%
3	2	38%	40%
4	3	19%	41%
5	3	Approx. 25%	Approx. 37%
6+	4	Approx. 13%	Approx. 48%

This is a remarkable level of over-provision. When considered across the whole of the county, with 234,773 households at the 2021 census, the Council's proposed allocation formula would result in 494,756 in-curtilage car parking spaces of which 230,296 (or 47%) would be unused. That is a rate of nearly one car parking space per household. With minimum dimensions of 5.5m by 2.7m this equates to 342 hectares: enough space for about 10,000 houses at 30 dwellings per hectare.

Obviously, the SPD would not immediately affect existing levels of car parking provision, but it is imperative to consider whether such a large uplift in provision, by comparison with existing housing, is necessary or desirable.

Paragraph 108 of the National Planning Policy Framework allows maximum parking standards to be set for residential accommodation only where “there is a clear and compelling justification that they are necessary for managing the local road network, or **for optimising the density of development** in city and town centres and other locations that are well served by public transport”. By setting minimum rates across the county which clearly exceed what is needed, the Council is not conforming with Section 11 of the NPPF “Making effective use of land”.

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The Trust acknowledges that the Council has avoided setting maximum parking standards, but there is no policy imperative to set minimum rates in a way which leads to land being wasted to this extent.

Even on a policy principle of “predict and provide” the car parking allocations substantially exceed what is necessary. Yet various council and national policies seek to reduce car use, including the Local Transport Plan 3, the Durham City Sustainable Transport Delivery Plan and the Climate Emergency Response Plan 2. The Council should have a starting assumption that new housing developments will, through travel plans, public transport accessibility, and walking and cycling links, begin to deliver on these strategic policy objectives.

Excessive car parking allocations conflict with other aspects of planning policy.

- Policy 21 requires development to provide “appropriate, well designed, permeable and direct routes for walking, cycling and bus access”. Having to find room for car parking and for active travel routes will reduce density and make developments less viable.
- The Building for Life SPD asks that residential car parking be well integrated so that it “does not dominate the street”. The Parking and Accessibility SPD discourages over-reliance on tandem parking (para. 4.12). Two-bedroomed properties rarely have garages, and even a 4-bedroomed house with garage would need to provide two further spaces. With the car parking required to be in-curtilage, it would be hard to avoid tandem parking without having a street frontage dominated by driveways for car parking.

Designing a county-wide model

The Trust has performed an analysis of the 2021 census data with the object of reducing the wastage of land. The analysis software takes a parameter defining the limit on unused in-curtilage spaces that will be tolerated. For each house type (e.g. 1 bedroom, 2 bedrooms, etc.) it then works through the following process:

1. Set the in-curtilage allocation for the house type to zero initially
2. Calculate how many car parking spaces will be unused with this allocation model across the county
3. Calculate how many cars will need accommodating in communal parking
4. Calculate the unused in-curtilage spaces as a percentage of the total in-curtilage spaces for that house type
5. If the percentage of unused spaces is below the defined limit, increase the in-curtilage allocation by one and repeat steps 2 to 5.
6. Once the limit has been breached, reduce the allocation again to bring it within the defined limit.
7. Finally the process outputs the recommended allocation model, including the rate at which unallocated car parking spaces will need to be provided to accommodate any cars which exceed the in-curtilage provision.

Because of the limits of the census data, unlike the latest version of the SPD the allocation model does not set a requirement for houses with six or more bedrooms. Instead the top category is five or more bedrooms. However, the analysis of over-provision in the table above suggests that having a separate category for 6+ bedrooms is unnecessary and leads to substantial wastage.

By adjusting the tolerance setting, it is possible to run this process for a number of different wastage scenarios. The following table shows a couple of outcomes, with the Council's proposed model set alongside for comparison.

The non-allocated spaces, to be provided on-street or in communal parking areas, are expressed as a decimal, so 0.25 equates to 1 space per four dwellings.

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The column headings are:

A = allocated in-curtilage spaces per dwelling

U = unallocated spaces required per dwelling

W = estimated wastage rate (unused spaces as percentage of allocated spaces)

Bedrooms	Up to 20% unused			Up to 40% unused			SPD proposals		
	A	U	W	A	U	W	A	U	W
1	0	0.41	0%	0	0.41	0%	1	0.25	63%
2	0	0.85	0%	1	0.20	35%	2	0.25	60%
3	1	0.49	18%	1	0.49	18%	2	0.25	40%
4	2	0.27	20%	2	0.27	20%	3	0.25	41%
5+	2	0.42	20%	3	0.15	37%	3	0.25	37%

In the Trust's response to the 2022 consultation on the Parking and Accessibility SPD we proposed a different model, which allocated fewer spaces to 2-bedroomed houses and more spaces to 5-bedroomed houses. In that analysis we had assumed that the households owning more cars all lived in the bigger houses. The cross-tabulation available in the 2021 census data extract allows the variation in car ownership to be accommodated very accurately.

Note that the unallocated provision, as presented above, does not make allowance for visitor spaces in the way that the SPD does. *Manual for Streets* (para. 8.3.22) cites research finding that "no additional provision needs to be made for visitor parking when a significant proportion of the total parking stock for an area is unallocated".

If we have low levels of unused in-curtilage spaces, the unallocated proportion will tend to be higher. In the "up to 20% unused" scenario, it is unlikely any additional visitor parking would be needed, unless the development was mainly 4-bedroomed houses. In the "up to 40% unused" there is a lower proportion of unallocated parking stock, but it will depend on the mix of house types. If they were mainly 2, 4 or 5 bedroomed properties then additional visitor spaces would probably be needed, but perhaps at a rate of 1 in 10 dwellings rather than 1 in 4.

Allowing flexibility in design

It is also possible to calculate, for any set allocation of in-curtilage spaces, the number of unallocated spaces which would be necessary to accommodate the expected cars. The next table shows these ratios, along with the expected wastage of unused in-curtilage spaces.

U = number of unallocated spaces to provide per house

W = estimated rate of unused spaces as a percentage of allocated spaces

Bedrooms	Number of allocated or in-curtilage car parking spaces									
	0		1		2		3		4	
	U	W	U	W	U	W	U	W	U	W
1	0.41	0%	0.04	63%	0.01	79%	0	86%	0	89%
2	0.85	0%	0.2	34%	0.03	58%	0.01	71%	0	78%
3	1.31	0%	0.49	17%	0.11	40%	0.03	57%	0.01	67%
4	1.87	0%	0.92	5%	0.27	20%	0.08	40%	0.03	54%
5+	2.03	0%	1.11	8%	0.42	19%	0.15	37%	0.05	50%

Where an in-curtilage rate would result in 50% or more of the spaces being unused, the cells are shaded in red. Where 30% or more would be unused, the cells are shaded in pink.

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Using this sort of model, the Council could allow developers more flexibility in design. A developer might choose to build some houses with no allocated spaces, some with 1 and some with 2. The table would allow the number of unallocated spaces to be calculated.

The following worked example could be appropriate for a higher density development with more shared, unallocated spaces:

Quantity of houses	Bedrooms	Allocated spaces per house	Unallocated rate	Unallocated spaces
30	3	0	1.31	39
20	3	1	0.49	10
40	4	1	0.92	37
30	4	2	0.27	8
			Total:	94

Middle Super Output Area census data

County Durham is divided into 65 Middle Super Output Areas (MSOAs). By accessing the same statistics at MSOA level it is possible to study the variation in car parking demand from one area to another.

For example, MSOA E02004314 covers Claypath, Elvet and much of the Durham University campus. Processing the census data gives these figures:

E02004314	Number of cars/vans					
Bedrooms	0	1	2	3	4+	Total
1	290	101	4	0	1	396
2	278	243	32	5	2	560
3	153	205	77	18	5	458
4	147	163	105	20	11	446
5+	172	154	131	24	27	508
Total	1040	866	349	67	46	2368

The same, broken down by the number of bedrooms with the car number categories expressed as percentages of the total number of households of each type:

E02004314	Total households	Number of cars/vans				
Bedrooms		0	1	2	3	4+
1	396	73%	26%	1%	0%	0%
2	560	50%	43%	6%	1%	0%
3	458	33%	45%	17%	4%	1%
4	446	33%	37%	24%	4%	2%
5+	508	34%	30%	26%	5%	5%
All dwellings	2368	44%	37%	15%	3%	2%

Thus 73% of those occupying one-bedroom dwellings have no access to a car, whereas for dwellings of 5 or more bedrooms the figure is only 34%. For all dwelling types in this census

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area, 44% of households have no access to a car. These figures are all higher than the county-wide proportion of 24%.

Taking another Durham City census area which is less dominated by student housing, E02004313 covers Gilesgate, Gilesgate Moor and Sherburn Road: roughly the area between the Gilesgate roundabout and the A1(M).

E02004313 Bedrooms	Total households	Number of cars/vans				
		0	1	2	3	4+
1	318	78%	21%	0%	0%	0%
2	785	47%	43%	9%	1%	0%
3	1459	37%	42%	17%	3%	1%
4	298	32%	35%	27%	5%	2%
5+	111	33%	32%	30%	3%	3%
All dwellings	2971	43%	39%	15%	2%	1%

Compared with the Elvet and Claypath area, the make-up of the housing stock is less evenly split among the different categories, with a much higher proportion of 3-bedroom properties. But within each category the numbers of cars/vans follows a very similar pattern of distribution in both areas. This supports the argument that the accessibility of a site has a strong bearing on the demand for motor vehicles.

By contrast E02004310 encompasses Witton Gilbert, Bearpark and parts of Ushaw Moor. The census figures are as follows:

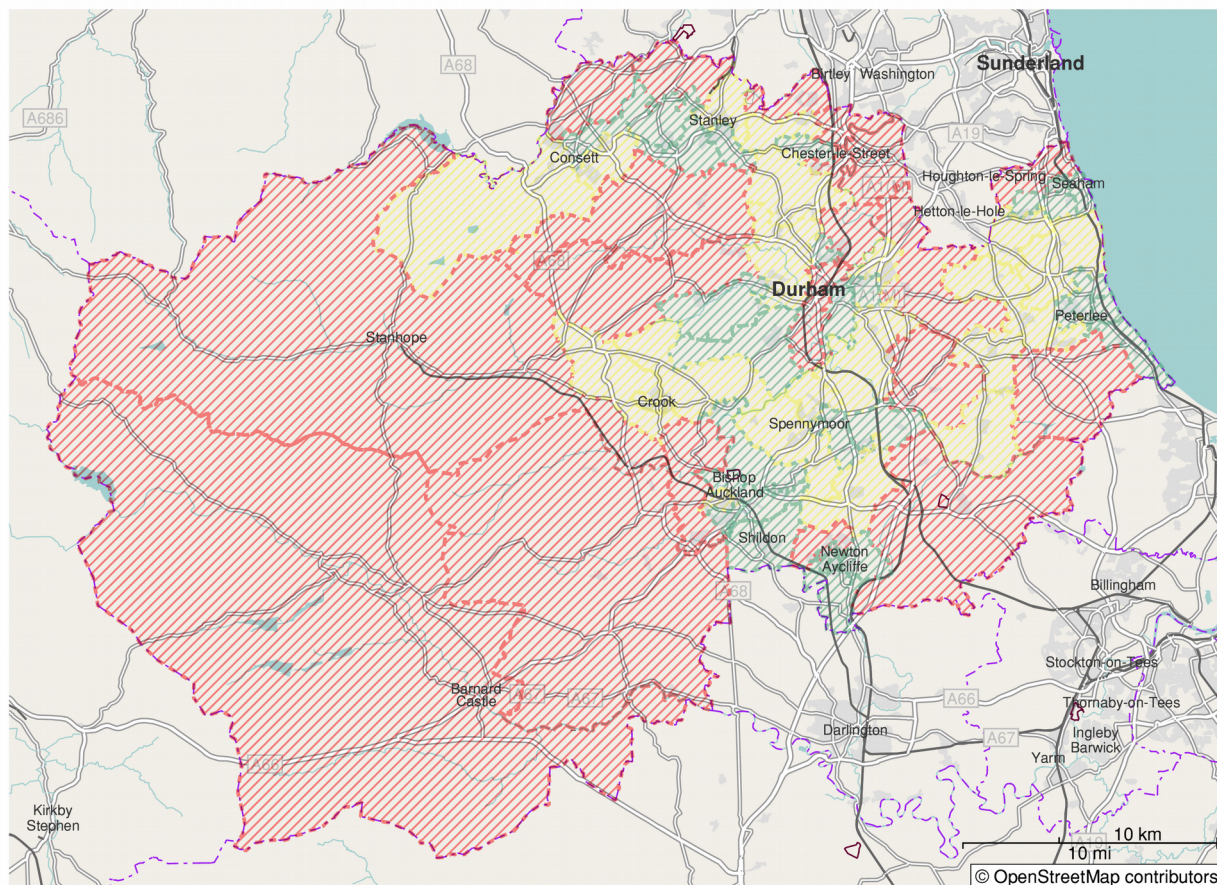
E02004310 Bedrooms	Total households	Number of cars/vans				
		0	1	2	3	4+
1	213	56%	40%	4%	0%	0%
2	984	31%	51%	15%	3%	0%
3	1775	18%	45%	29%	6%	1%
4	526	4%	31%	47%	13%	5%
5+	85	0%	24%	47%	16%	13%
All dwellings	3583	22%	44%	27%	6%	2%

This census area has a breakdown of housing-stock which is very similar to the Gilesgate area, but the car ownership is clearly higher. Whereas in the Durham City areas about a third of households with five or more bedrooms had no car, in the Witton Gilbert / Ushaw Moor area all households with five or more bedrooms have at least one car, and 13% have four or more.

Variation in cars per household

The average number of vehicles per household varies across the county, with the main causal factors likely to be the accessibility and affluence of the area. This map shows the 65 MSOAs colour coded. Green indicates less than 1.15 cars or vans per household. Yellow is between 1.15 and 1.3. Red is more than 1.3 and can go as high as 1.53.

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Full details are given in the following table.

Area	Description	Cars per household
E02004345	Staindrop, Cockfield, Hamsterley	1.53
E02004339	Sedgefield, Bishop Middleham, Bradbury	1.52
E02004341	Woodham, NW part of Newton Aycliffe	1.52
E02004290	Beamish, High Handenhold, Urpeth, Ouston	1.49
E02004348	Stanhope, Wolsingham, Upper Weardale	1.47
E02004298	Benfieldside, Medomsley, Hamsterley Mill	1.46
E02004308	Newton Hall, Brasside	1.42
E02004306	Lanchester, Burnhope	1.41
E02007022	Barnard Castle, Newbiggin, Upper Teesdale	1.40
E02004294	south and east of Chester-le-Street	1.39
E02004297	Burnopfield, Tantobie	1.38
E02004332	Wingate, Castle Eden, Hesleden, Hutton Henry	1.37
E02004315	Neville's Cross, North End, Langley Moor, Browney	1.36
E02004307	Langley Park, Esh, Cornsay Colliery, part of Esh Winning	1.34
E02004295	Great Lumley, Bournmoor	1.34
E02004319	Coxhoe, Kelloe, Quarrington Hill	1.34
E02004292	South Pelaw	1.34
E02004320	north and west edge of Seaham	1.32
E02004354	West Auckland, St Helen Auckland, Escomb, New Hunwick	1.31

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E02004311	West Rainton, High Pittington, Sherburn, Sherburn Hill	1.30
E02004350	parts of Willington and Crook, Stanley Crook, Oakenshaw	1.30
E02004312	Carrville, Belmont, High Grange Estate	1.29
E02004353	west part of Bishop Auckland	1.29
E02004333	Tudhoe, Tudhoe Grange, part of Spennymoor	1.28
E02004329	south-west part of Peterlee	1.28
E02004318	Shincliffe, High Shincliffe, part of Bowburn, Hett, Croxdale	1.28
E02004305	Castleside, Bridgehill, SW Consett	1.27
E02004337	west part of Spennymoor, Byers Green, Kirk Herrington	1.25
E02004310	Witton Gilbert, Bearpark, part of Ushaw Moor	1.24
E02004334	Trimdon Grange, Trimdon Village, Fishburn	1.23
E02004296	Sacrison, Kimblesworth, Edmondsley, Chester Moor	1.22
E02004326	Shotton Colliery, Haswell	1.22
E02004323	South Hetton, part of Murton	1.21
E02004304	Delves Lane, Crookhall, part of Leadgate	1.20
E02004324	Easington, Hawthorn, part of Easington Colliery	1.20
E02004331	Thornley, Wheatley Hill, Trimdon Station	1.19
E02004349	Tow Law, Howden-le-Wear, east end of Crook	1.19
E02004299	north Stanley, south-east Tanfield Lea	1.18
E02004338	Chilton, Rushyford, Ferryhill Station	1.18
E02004291	Pelton, Newfield, West Pelton, Perkinsville	1.17
E02004316	Esh Winning, New Brancepeth, part of Ushaw Moor	1.13
E02004352	parts of Bishop Auckland and Coundon, Coundon Grange	1.11
E02004317	Brandon, Meadowfield, Brancepeth	1.11
E02004344	south of Newton Aycliffe, Aycliffe Village	1.11
E02004303	central Consett, Blackhill, part of Leadgate	1.10
E02004351	parts of Coundon and Willington	1.10
E02004330	Blackhall Colliery, Crimdon	1.09
E02004335	parts of Spennymoor and Ferryhill, Dean Bank	1.09
E02004300	Catchgate, north-west Tanfield Lea, part of Dipton	1.08
E02004309	Framwellgate Moor, Pity Me	1.07
E02004336	most of Ferryhill, Cornforth	1.05
E02004343	east part of Newton Aycliffe	1.04
E02004321	Seaham	1.04
E02004301	south-east Stanley, Craghead	1.04
E02004302	Quaking Houses, Annfield Plain, New Kyo, SW Stanley	1.03
E02004328	west part of Peterlee	1.02
E02004340	Sildon, Eldon	1.00
E02004293	Pelton Fell, central and west Chester-le-Street	0.99
E02004355	south part of Bishop Auckland	0.96
E02004322	part of Murton, Deneside, Parkside	0.90
E02004325	Parts of Peterlee and Easington Colliery	0.88

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E02004342	part of Newton Aycliffe	0.87
E02004327	Horden	0.85
E02004314	Claypath, Elvet, University campus, Houghall	0.84
E02004313	Gilesgate, Sherburn Road, Old Durham	0.78

Applying cars per household to the allocation model

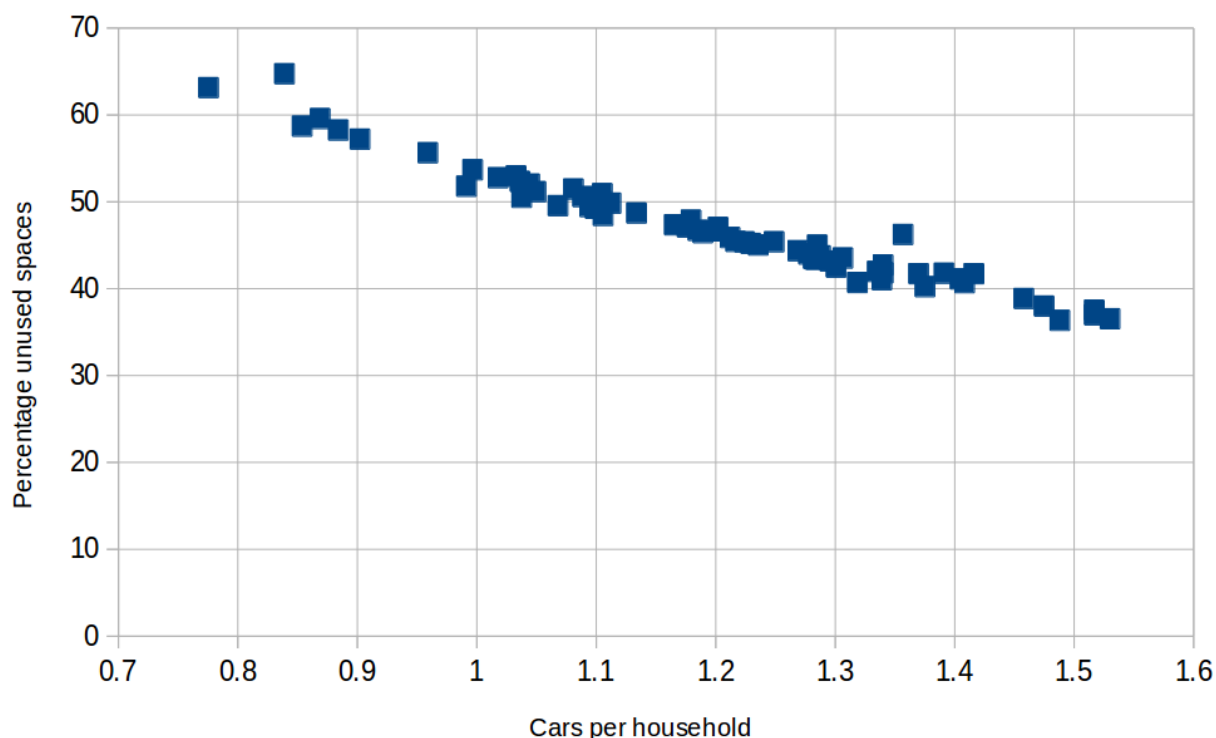
The Parking and Accessibility SPD proposes a uniform rate of car parking provision across the whole county, differentiated only by the number of bedrooms in a dwelling. The evidence above demonstrates that the proposed rates are very wasteful of land.

Paragraph 107 of the NPPF states that when setting local parking standards, policies should take account of various factors, one of which is local car ownership levels. This does not feature in the proposed SPD.

In the following sections we develop a more nuanced set of requirements, which take local car ownership levels into account.

Can we justify varying the requirements based on a simple variable such as the average cars per household? The following chart plots the cars per household for each MSOA in County Durham against the percentage of in-curtilage spaces that would be unused if the SPD's residential car parking rates were applied to the same area.

Unused in-curtilage spaces by 2021 Census MSOA



There is clearly a very strong correlation between the cars per household and the percentage of in-curtilage spaces which would not be used in a particular area. Therefore it makes sense to use the cars per household statistic to help determine what level of car parking provision would be appropriate.

A three-tier model of car parking provision

The following tables propose a system of allocation where it is predicted that fewer than 30% of the in-curtilage spaces would be unused. This is substantially better than the rates proposed in the SPD, and is also more effective than the county-wide model proposed above.

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The Middle Super Output Areas of the census are grouped into three bands, roughly equal in number, according to the average number of cars per household.

The middle band (yellow) and the lower band (green) both have an in-curtilage allocation identical to the county-wide model with a 30% wastage limit. The difference is in the rates required for unallocated (e.g. on-street) parking spaces, which are lower for the lower band.

Higher band: cars per household 1.3 or more			
Bedrooms	In-curtilage spaces per dwelling	Unallocated spaces per dwelling	Predicted percentage of allocated spaces unused
1	0	0.53	0%
2	1	0.26	26%
3	1	0.57	12%
4	2	0.29	18%
5+	2	0.46	15%
Middle band: cars per household between 1.15 and 1.3			
Bedrooms	In-curtilage spaces per dwelling	Unallocated spaces per dwelling	Predicted percentage of allocated spaces unused
1	0	0.42	0%
2	0	0.87	0%
3	1	0.5	17%
4	2	0.27	19%
5+	2	0.45	15%
Lower band: cars per household less than 1.15			
Bedrooms	In-curtilage spaces per dwelling	Unallocated spaces per dwelling	Predicted percentage of allocated spaces unused
1	0	0.35	0%
2	0	0.74	0%
3	1	0.41	23%
4	2	0.24	25%
5+	2	0.34	29%

Note also, though, that areas in the lower band would suffer a greater proportion of unused in-curtilage spaces. This suggests that a mixture of provision for 4-bed and 5-bed houses might be appropriate, with some only having 1 in-curtilage space.

Again, we can produce a requirements table which allows developers greater flexibility, balancing a reduction in in-curtilage provision with a corresponding increase in communal parking spaces. Note that the correspondence is not one-to-one, because unallocated parking is more efficient, as noted in *Manual for Streets* para. 8.3.11.

For example, in the higher band, a developer could provide a 4-bed house with 2 in-curtilage spaces, together with unallocated (e.g. on-street) spaces at a rate of 0.29 per house. If the in-curtilage provision is dropped to a single space, the unallocated rate only rises by 0.68 per house because of the reduction in wastage from unused in-curtilage spaces.

As above:

U = number of unallocated spaces to provide per house

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W = estimated rate of unused spaces as a percentage of allocated spaces

Higher band: cars per household 1.3 or more										
Number of allocated or in-curtilage car parking spaces										
	0		1		2		3		4	
Bedrooms	U	W	U	W	U	W	U	W	U	W
1	0.53	0%	0.07	54%	0.01	74%	0.00	82%	0.00	86%
2	1.00	0%	0.26	26%	0.05	52%	0.01	67%	0.00	75%
3	1.45	0%	0.57	12%	0.14	34%	0.04	52%	0.01	64%
4	1.93	0%	0.97	3%	0.29	18%	0.09	38%	0.03	52%
5+	2.14	0%	1.19	5%	0.46	15%	0.17	34%	0.06	47%
Middle band: cars per household between 1.15 and 1.3										
Number of allocated or in-curtilage car parking spaces										
	0		1		2		3		4	
Bedrooms	U	W	U	W	U	W	U	W	U	W
1	0.42	0%	0.04	62%	0.00	79%	0.00	86%	0.00	89%
2	0.87	0%	0.21	33%	0.04	58%	0.01	71%	0.00	78%
3	1.33	0%	0.5	17%	0.12	39%	0.03	56%	0.01	66%
4	1.88	0%	0.93	4%	0.27	19%	0.08	39%	0.03	53%
5+	2.13	0%	1.18	4%	0.45	15%	0.15	33%	0.05	47%
Lower band: cars per household less than 1.15										
Number of allocated or in-curtilage car parking spaces										
	0		1		2		3		4	
Bedrooms	U	W	U	W	U	W	U	W	U	W
1	0.35	0%	0.03	67%	0.00	82%	0.00	88%	0.00	91%
2	0.74	0%	0.15	41%	0.02	64%	0.01	75%	0.00	81%
3	1.18	0%	0.41	23%	0.09	45%	0.02	61%	0.01	70%
4	1.74	0%	0.84	10%	0.24	25%	0.07	44%	0.02	57%
5+	1.75	0%	0.92	16%	0.34	29%	0.13	46%	0.04	57%

If used to set the parking standards, the policy could require that if a developer selects a rate of provision where the wastage would exceed 50% (the red cells), this would only be permitted in exceptional circumstances, and that any wastage above 30% would require justification.

Design and layout of car parking would need to conform with the Building for Life SPD and the County Durham Design Code SPD. The additional flexibility offered by the above approach would, however, make it easier to conform with these related planning documents.

Other possible factors

As well as local car ownership, NPPF para. 107 states that parking policies should take into account the accessibility of the development and the availability of and opportunities for public transport.

The Department for Transport sponsor the Propensity to Cycle Tool⁹ which models the cycling rates expected under different scenarios. It is based on the 2011 census travel to work data, using a sophisticated model which takes into account topography including hills. The most

⁹ <https://www.pct.bike/>

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ambitious scenario is represented by Dutch-style high-quality cycle infrastructure (of the sort now mandated by Active Travel England and LTN 1/20) combined with wide up-take of e-bikes, enabling longer and hillier journeys.

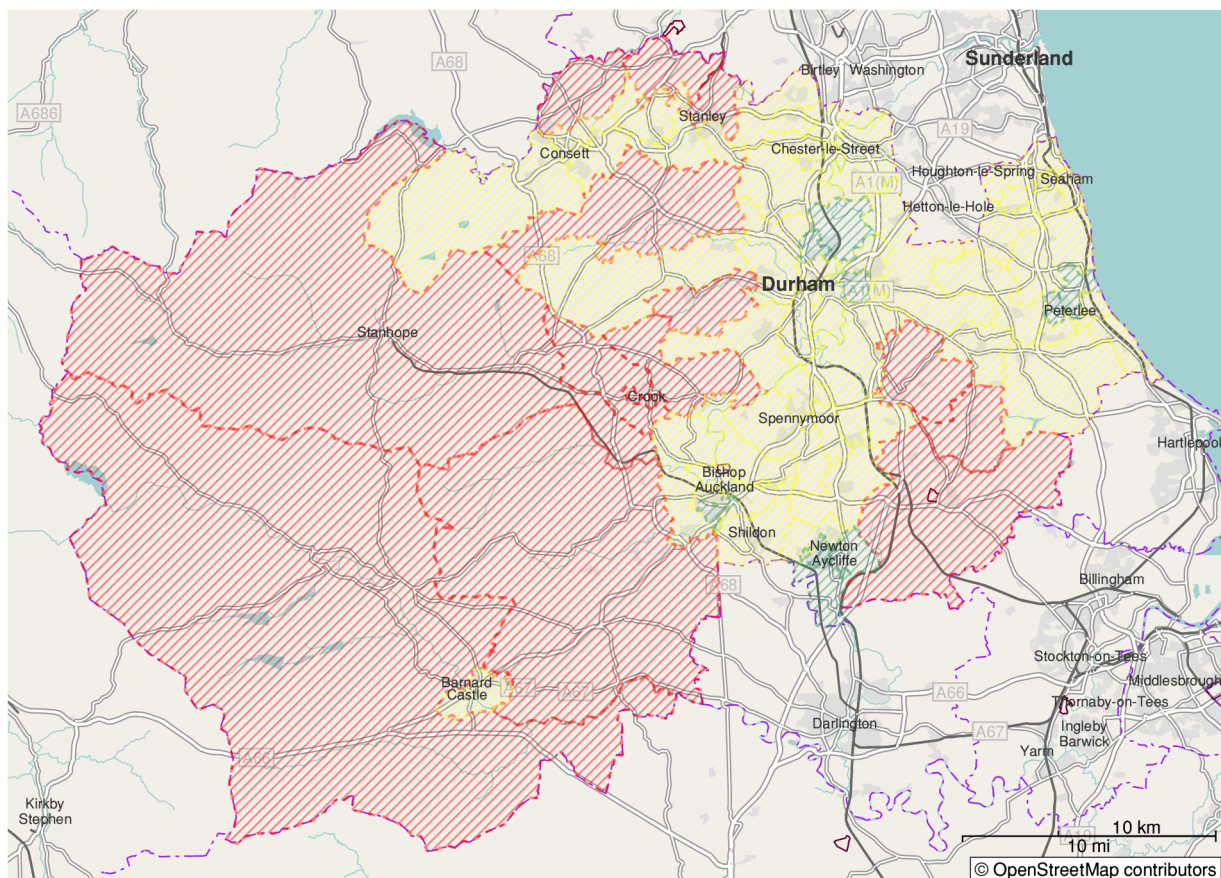
The tool predicts cycling rates, and the diminution of car commuting, at the Lower or Middle Super Output Area level.

It would be possible to use these predicted rates as a measure of the potential accessibility of each MSOA. The following map illustrates the results.

- Green = predicted cycle share of 23% or over
- Yellow = predicted cycle share of 16% to 22%
- Red = predicted cycle share of less than 16%

Even the lowest predicted share exceeds 10%, much higher than the 1% to 2% average across the county at present.

In any case, magnitude of the predicted share matters less than the ranking of the areas, as that helps to indicate the more accessible areas where there is more potential for people to reduce their car use.



Some of the areas which are predicted to be more accessible by cycling are areas with higher car ownership, while some of the least accessible areas have low car ownership (either because they are less affluent, or in the case of the Elvet area of Durham, because of a high student population and strong parking controls). The following map shows the MSOAs which differ in this way. Those shaded blue have low car ownership and low accessibility, and those shaded grey have higher car ownership but also would be very accessible by cycle.

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In these areas the assignment of car parking rates based on the current rate of car ownership per household may need to be adjusted. The blue areas may genuinely require a higher rate of car parking provision. In the grey-shaded areas better active travel and public transport opportunities could be prioritised in order to reduce the car parking demand.

