

The top portion of the cover features a photograph of a rural landscape. In the foreground, there is a green field with a few cows. Behind the field, a row of houses is visible, some with solar panels on their roofs. The background shows rolling hills under a cloudy sky. A large blue diagonal shape covers the bottom two-thirds of the page, containing the title and other text.

Tisbury and West Tisbury Neighbourhood Plan

Site Assessment

16th June 2017

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Quality information

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Revision History

Revision	Revision date	Details	Authorized	Name	Position
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Front cover photograph courtesy of Jonathan Amos.

Photograph taken from land north of Vicarage Road / Hatch Lane looking east into Tisbury.

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Abbreviations used in the report

Abbreviation

AONB	Area of Outstanding Natural Beauty
BAP	Biodiversity Action Plan
DCLG	Department of Communities and Local Government
Ha	Hectare
NPPF	National Planning Policy Framework
SHLAA	Strategic Housing Land Availability Assessment
SSSI	Site of Special Scientific Interest
TPO	Tree Protection Order

Executive Summary

Background

AECOM has been commissioned to undertake an independent site appraisal for the Tisbury and West Tisbury Neighbourhood Plan on behalf of the Tisbury and West Tisbury Neighbourhood Plan Steering Group. The Neighbourhood Plan is being prepared in the context of the adopted Wiltshire Core Strategy¹. The Neighbourhood Plan, when adopted, will include allocations for housing.

Tisbury and West Tisbury Neighbourhood Plan Steering Group has made good progress in preparing the Neighbourhood Plan, and it is now looking to ensure that key aspects of its proposals will be robust and defensible. In this context, the Steering Group have asked AECOM to undertake an independent and objective assessment of the sites that are available for housing for inclusion in the Neighbourhood Plan.

The Wiltshire Core Strategy was adopted in January 2015¹. The Core Strategy, which covers the period up to 2026, provides a framework for how future development across Wiltshire will be planned and delivered. The Core Strategy sets out an allocation of 420 new homes for the wider Tisbury Community Area (which includes 16 parishes) between 2006 and 2026, with 200 allocated for Tisbury itself. Whilst this allocation has now almost been met in Tisbury, the Tisbury Neighbourhood Plan Steering Group wish to help ensure that community benefits are secured through Tisbury and West Tisbury Neighbourhood Plan through encouraging a degree of development which recognises the potential for more development that is required for Tisbury by the recently adopted Core Strategy.

Sites appraised

This site appraisal has considered 12 sites in Tisbury and West Tisbury parishes.

Following the completion of the site appraisal, it is considered that two sites are most appropriate for shortlisting by the Neighbourhood Steering Group for taking forward as allocations for housing in the Tisbury and West Tisbury Neighbourhood Plan. This is due to their suitability, their availability, and the opportunities offered at the sites.

The two sites are as follows:

- Site 1: St. Modwen (Land at the Station Works);
- Site 7: Weaveland Road (Land on Churchill Estate);

In addition to these sites, five further sites that are potentially suitable for taking forward for the purposes of the Neighbourhood Plan, however in a number of cases their availability needs to be determined prior to allocation. These sites are:

- Site 2: Sacred Heart Church allotments
- Site 4: Magistrates' Court and Old Police Station (operational requirements of the Fire Service would also need to be overcome prior to allocating);
- Site 6: Land at the Old Sports Centre;
- Site 11: Old Council Yard (Land at Tuckingmill Highways Depot); and
- Site 12: St. Johns Close Redevelopment.

Table ES1 summarises the suitability of the sites for allocation in the Neighbourhood Plan.

¹ Wiltshire Council (January 2015) Wiltshire Core Strategy <http://www.wiltshire.gov.uk/adopted-local-plan-jan16-low-res.pdf>

Table ES1. Suitability of sites for taking forward for the purposes of the Tisbury and West Tisbury Neighbourhood Plan

Site No.	Site Name	Appropriate for taking forward for the purposes of the Neighbourhood Plan?
1	St. Modwen (Land at the Station Works)	<p>Yes – development at this location would involve the redevelopment of a brownfield site of poor visual quality. This has significant opportunities for enhancing the quality of the public realm at this location and offers significant scope for improving the landscape and townscape setting of this part of Tisbury.</p> <p>Development should ensure that three key conditions are met: safe vehicle and pedestrian access is put in place across the railway line to provide enhanced access into Tisbury village centre; some employment land should be retained in the development of the site; and where necessary, space is included within the site for the potential dualling of the railway line. There is also the need for a detailed assessment on the extent to which the site is contaminated due to its history as a gas works, and for remedial action to be taken.</p>
2	Sacred Heart Church allotments	Potentially – The site could support in the region of 8 dwellings at a location accessible to village centre facilities. Development at this location however has the potential to impact on the setting of the conservation area and adjacent buildings of local importance.
3	Nadders Close Car Park	No – Despite the development potential of the site, the importance of the car park for the vitality of the village centre is considered to be a key issue.
4	Magistrates' Court and Old Police Station	Potentially – the redevelopment of a brownfield site in the centre of Tisbury offers a number of opportunities. However there are a number of issues that would need to be overcome prior to allocating, in particular relating to the availability of the site and the operational requirements of the Fire Service.
5	Land opposite the Avenue	No – Development is considered to have significant impacts on the setting of this part of Tisbury, and is likely to have adverse effects on the integrity of the AONB and Tisbury Conservation Area.
6	Land at the Old Sports Centre	Potentially – The site consists of previously developed land with no significant environmental, landscape or heritage constraints. However the availability of the land for development is unclear, including relating to planning conditions. This would need confirming prior to allocation. The land is also outside of the housing policy boundary and has been recommended to be set aside for future extension of the primary school.
7	Weaveland Road (Land on Churchill Estate)	Yes – The site currently consists of informal open space within a residential area. The site has few constraints to development; and thus considered suitable for allocation. Development would need to incorporate the TPO on the boundary of the site. It is also only a very small site and it forms a useful pedestrian access into the community field so may be better suited for allocation as Local Green Space.
8	Lush's Field (Land north of Vicarage Road)	No – The site has no suitable access, and it is not considered that access could be readily provided. Development would impact on the setting of the Tisbury Conservation Area and the AONB, and the site has a number of ecological constraints.
9	Tuckingstones (Land adjacent to Tuckingstones, Tisbury)	No – Development of the site is likely to significantly impact on the views from surrounding properties and on the setting of historic environment assets in this location. In addition, the land provides an important landscape gap between Tisbury and Tuckingmill which would be lost with development at this location.
10	Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)	No – Part of the site is designated as a County Wildlife Site and therefore has potential to support protected species; development would therefore see a loss of an important local ecological resource.

Site No.	Site Name	Appropriate for taking forward for the purposes of the Neighbourhood Plan?
11	Old Council Yard (Land at Tuckingmill Highways Depot)	Potentially – Development at this location would involve the redevelopment of a brownfield site, adjacent to existing residential properties. Development would need to ensure potential effects on the adjacent County Wildlife Site are avoided and mitigated.
12	St. Johns Close Redevelopment	Potentially – The site currently consists of low density housing that is located close to the centre of Tisbury centre. The site has few constraints to development and redevelopment could provide a higher density of housing than currently. However, the availability of the land for development is unclear and this will need confirming prior to allocation and there will be a likely need to relocate existing residents.

Next steps

Sites to be taken forward for the purposes of the Neighbourhood Plan will be considered and chosen by the Tisbury and West Tisbury Neighbourhood Plan Steering Group on the basis of:

- The findings of this site appraisal;
- Information on site availability;
- Responses received during consultation on proposed sites;
- The scope for the sites to meet identified infrastructure needs of the community, including through Community Infrastructure Levy contributions; and
- The extent to which the sites support the Vision and Objectives for the Neighbourhood Plan.

This process will be incorporated within the next stages of development for the Neighbourhood Plan in conjunction with engagement with landowners, the public, Wiltshire Council and other stakeholders.

1. Introduction

1.1 Background

AECOM has been commissioned to undertake an independent site appraisal for the Tisbury and West Tisbury Neighbourhood Plan on behalf of Tisbury and West Tisbury Neighbourhood Plan Steering Group. The work undertaken was agreed with the Steering Group and the Department for Communities and Local Government (DCLG) in September 2016.

Figure 1.1 provides a map of the Tisbury and West Tisbury Neighbourhood Plan area, which covers the parishes of Tisbury and West Tisbury. The Neighbourhood Plan is being prepared in the context of the adopted Wiltshire Core Strategy¹. The Neighbourhood Plan, when adopted, will include allocations for housing.

The Tisbury and West Tisbury Neighbourhood Plan Steering Group has made good progress in preparing the Neighbourhood Plan, and it is now looking to ensure that key aspects of its proposals will be robust and defensible. In this context, the Steering Group have asked AECOM to undertake an independent and objective assessment of the sites that are available for housing for inclusion in the Neighbourhood Plan.

The purpose of the site appraisal is therefore to produce a clear assessment as to whether the identified sites are suitable and available. In this context it is anticipated that the site selection process will be robust enough to meet the Basic Conditions considered by the Independent Examiner, as well as any potential legal challenges by developers and other interested parties.

1.2 The Local Plan context for the Neighbourhood Plan

The Neighbourhood Plan is being prepared in the context of the Wiltshire Core Strategy, which was adopted in January 2015². The Core Strategy, which covers the period up to 2026, provides a framework for how future development across Wiltshire will be planned and delivered.

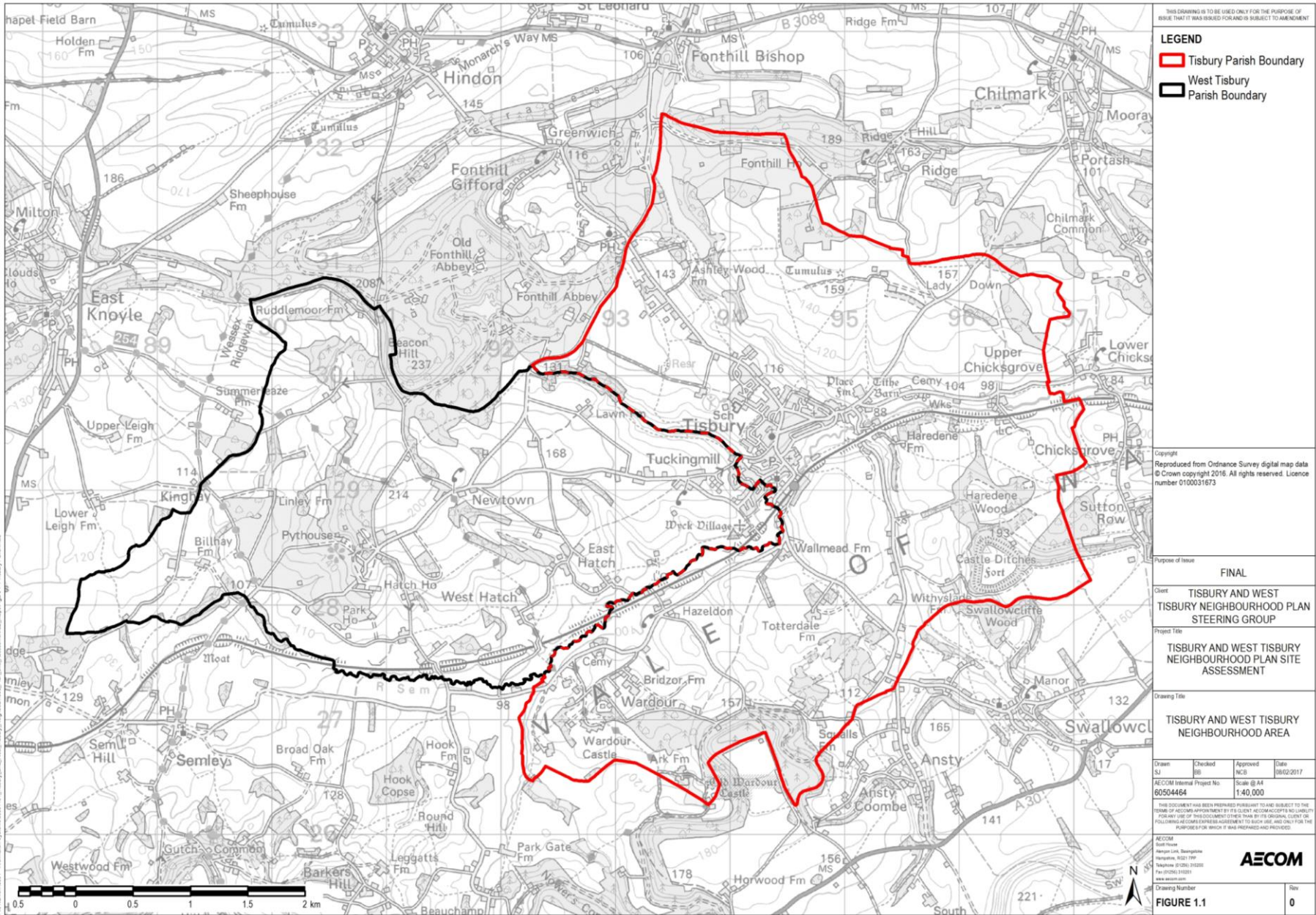
Neighbourhood Plans will form part of the development plan for Wiltshire, alongside, but not as a replacement for the Core Strategy. The Core Strategy states that it seeks to give communities a solid framework within which appropriate community-led planning policy documents, including neighbourhood plans, can be brought forward. Neighbourhood plans are required to be in conformity with the Core Strategy and can develop policies and proposals to address local place-based issues. In this way it is intended for the Core Strategy to provide a clear overall strategic direction for development in Wiltshire, whilst enabling finer detail to be determined through the neighbourhood planning process where appropriate.

In relation to the wider Tisbury Community Area, the Core Strategy states that:

“The strategy for Tisbury Community Area is to provide for modest growth of both housing and employment to ensure development is balanced, thus helping to minimise out-commuting and also to provide support for local services and communities. Identifying suitable non-strategic allocations will include working closely with existing employers to ensure they have the potential to meet their future needs. The strategy will respond to the Community Area’s location (in full or part) within a nationally designated landscape. In the Tisbury Community Area this includes the Cranborne Chase & West Wiltshire Downs Area of Outstanding Natural Beauty. It will deliver, within the overall objective of conserving the designated landscape, a modest and sustainable level of development.”

Tisbury village has been designated through the Core Strategy Settlement Strategy as a ‘Local Service Centre’.

² Wiltshire Council (January 2015) Wiltshire Core Strategy <http://www.wiltshire.gov.uk/adopted-local-plan-jan16-low-res.pdf>



The Core Strategy sets out an allocation of 420 new homes for the wider Tisbury Community Area (which includes 16 parishes) between 2006 and 2026, with 200 allocated for Tisbury itself. Whilst this allocation has now almost been met in Tisbury, the Core Strategy seeks to stress that *“the indicative figures also allow a flexible approach which will allow the council including through the preparation of the Sites Allocation Development Plan Documents and local communities preparing neighbourhood plans to respond positively to opportunities without being inhibited by an overly prescriptive, rigid approach which might otherwise prevent sustainable development proposals that can contribute to maintaining a deliverable five year housing land supply and delivering the strategic objectives of the plan. Neighbourhood Plans should not be constrained by the specific housing requirements within the Core Strategy and additional growth may be appropriate and consistent with the Settlement Strategy.”*

In this context the Tisbury and West Tisbury Neighbourhood Plan Steering Group wish to help ensure that community benefits are secured through Tisbury and West Tisbury Neighbourhood Plan through facilitating a degree of development which supports the Neighbourhood Plan objectives, including through supporting the vitality of the Neighbourhood Plan area.

1.3 Sites considered through the site appraisal

Sites to be considered through the site appraisal have been selected via the following methods:

- Review of Wiltshire Council's Strategic Housing Land Availability Assessment (SHLAA)³;
- Review of known free land in the Neighbourhood Plan Area; and
- A call for sites by the Neighbourhood Plan Steering Group.

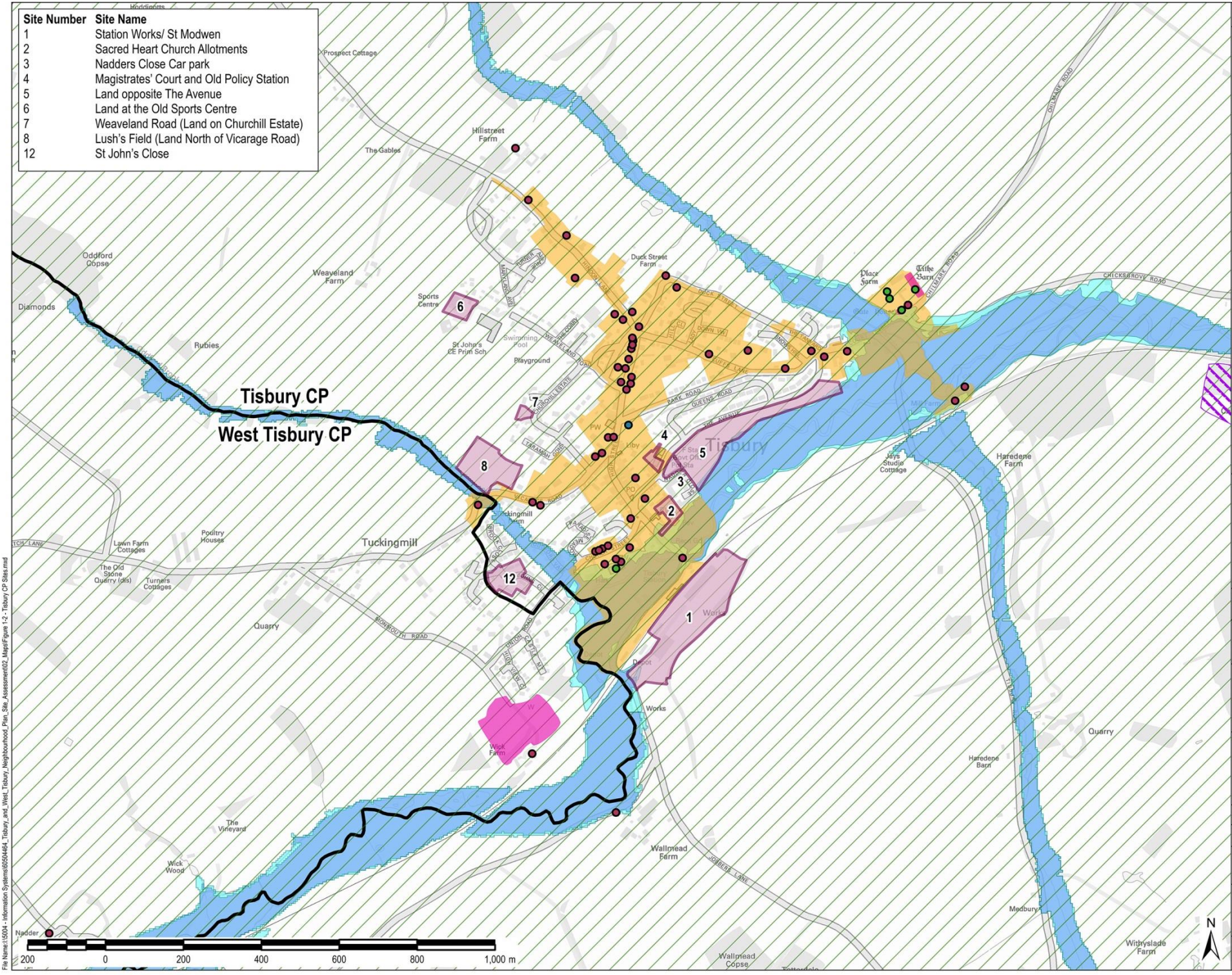
This process resulted in 12 sites being taken forward for the purposes of the site appraisal process. These 12 sites are presented in Table 1.1. Nine of these sites are located in Tisbury Civil Parish (CP) and three sites are located within West Tisbury CP.

The location of the sites are presented in Figure 1.2 (Tisbury CP) and Figure 1.3 (West Tisbury CP).

Table 1.1. Sites considered through the site appraisal

Site Number	Site Name	Size (ha)
1	Station Works/ St. Modwen	4.00
2	Sacred Heart Church allotments	0.29
3	Nadders Close Car Park	0.14
4	Magistrate's Court and Old Police Station	0.14
5	Land opposite the Avenue	2.47
6	Land at the Old Sports Centre	0.35
7	Weaveland Road (Land on Churchill Estate)	0.1
8	Lush's Field (Land north of Vicarage Road)	1.29
9	Tuckingstones	1.04
10	Old Quarry at Hatch Lane	1.28
11	Old Council Yard (Land at Tuckingmill Highways Depot)	0.25
12	St. Johns Close Redevelopment	0.66

³ Wiltshire Council (February 2014) Strategic housing land availability assessment - Output report
<http://www.wiltshire.gov.uk/shlaa-output-2012-report.pdf>



Site Number	Site Name
1	Station Works/ St Modwen
2	Sacred Heart Church Allotments
3	Nadders Close Car park
4	Magistrates' Court and Old Policy Station
5	Land opposite The Avenue
6	Land at the Old Sports Centre
7	Weaveland Road (Land on Churchill Estate)
8	Lush's Field (Land North of Vicarage Road)
12	St John's Close

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LEGEND

- Site
- Parish Boundary
- Listed Building
 - Grade I
 - Grade II*
 - Grade II
- Conservation Area
- Record of Scheduled Monument
- Site of Special Scientific Interest (SSSI)
- Area of Outstanding Natural Beauty
- Flood Zone 3
- Flood Zone 2

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Project Title
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Drawing Title
TISBURY CP SITES

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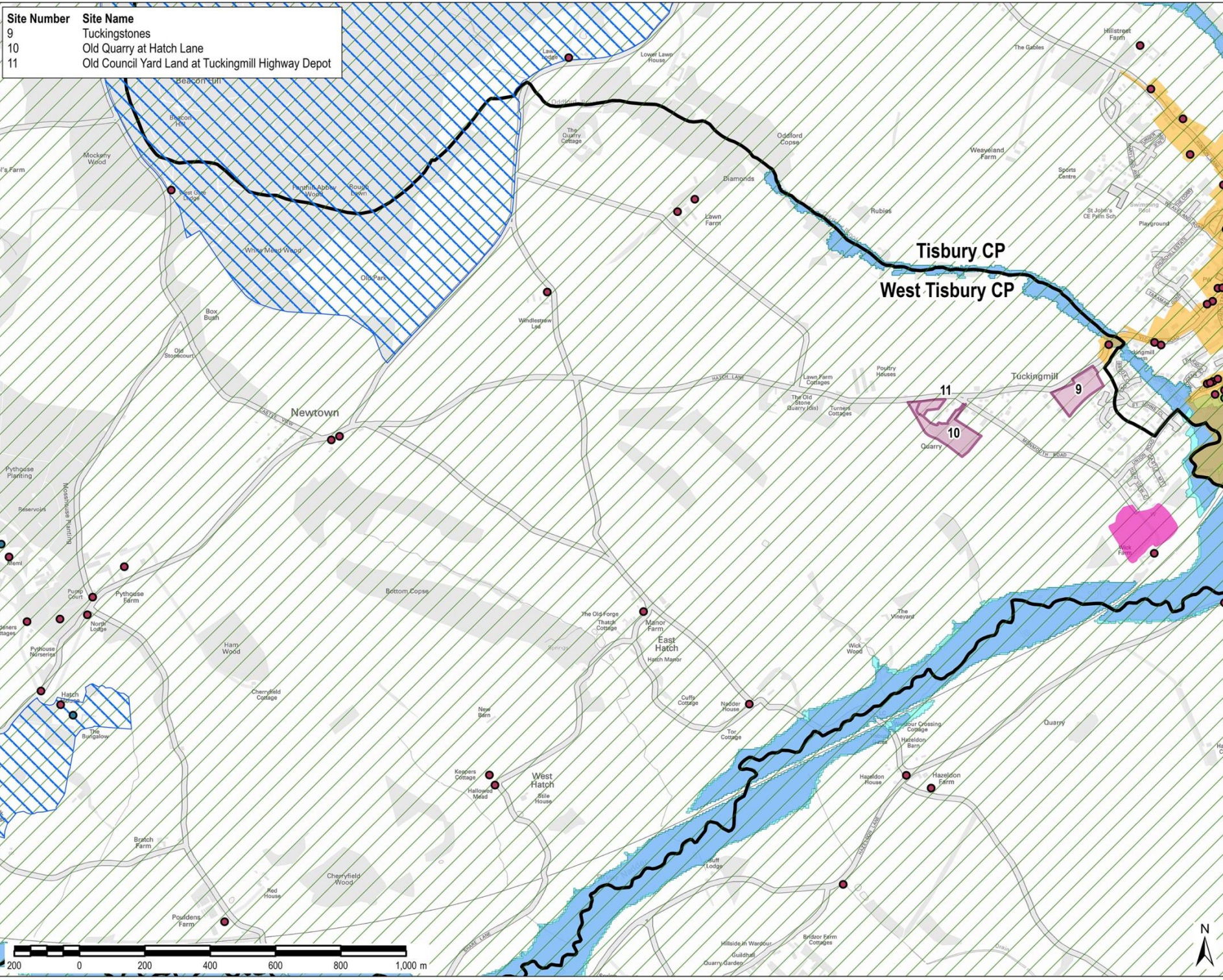
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Site Number	Site Name
9	Tuckingstones
10	Old Quarry at Hatch Lane
11	Old Council Yard Land at Tuckingmill Highway Depot



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LEGEND

- Site
- Parish Boundary
- Listed Building
 - Grade I
 - Grade II*
 - Grade II
- Registered Parks and Garden
- Conservation Area
- Record of Scheduled Monument
- Area of Outstanding Natural Beauty
- Flood Zone 3
- Flood Zone 2

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Project Title
TISBURY AND WEST TISBURY NEIGHBOURHOOD PLAN SITE ASSESSMENT

Drawing Title
WEST TISBURY CP SITES

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2. Methodology for the site appraisal

2.1 Introduction

Site selection and allocations is one of the most contentious aspects of planning, raising strong feelings amongst local people, landowners, builders and businesses. It is important that any selection process carried out is transparent, fair, robust and defensible and that the same criteria and thought process is applied to each potential site. Equally important is the way in which the work is recorded and communicated to interested parties so the approach is transparent and defensible.

The approach undertaken to the site appraisal is based primarily on the Government's National Planning Practice Guidance (Assessment of Land Availability) published in 2014 with ongoing updates, which contains guidance on the assessment of land availability and the production of a Strategic Housing Land Availability Assessment (SHLAA) as part of a local authority's evidence base for a Local Plan.

Although a Neighbourhood Plan is at a smaller scale than a Local Plan, the criteria for assessing the suitability of sites for housing are still appropriate. This includes an assessment of whether a site is suitable, available and achievable.

In this context, the methodology for carrying out the site appraisal is presented below.

2.2 Task 1: Development of site appraisal pro-forma

Prior to carrying out the appraisal, site appraisal pro-forma were developed. The purpose of the pro-forma is to enable a consistent evaluation of each site through the consideration of an established set of parameters against which each site can be then appraised.

The pro-forma utilised for the assessment enables a range of information to be recorded, including the following:

- Background information:
 - Site location and use;
 - Site context and planning history;
- Suitability:
 - Site characteristics;
 - Environmental considerations;
 - Heritage considerations;
 - Community facilities and services;
 - Other key considerations (e.g. flood risk, agricultural land, tree preservation orders); and
- Availability.

2.3 Task 2: Initial desk study

The next task was to conduct an initial desk study for each of the sites. In addition to gaining preliminary information relating to each site, the purpose of this stage was to highlight areas which should be examined in more detail during the subsequent site visit.

2.4 Task 3: Site visit

After the completion of the initial desk study, a site visit to the Neighbourhood Plan area was undertaken by two members of the AECOM Neighbourhood Planning team. The purpose of the site visit was to evaluate the sites 'on the ground' to support the site appraisal. It was also an opportunity to gain an opportunity to better understand the context and nature of the Neighbourhood Plan area.

2.5 Task 4: Consolidation of results

Following the site visit, further desk-based work was carried out. This was to validate and augment the findings of the site visit and to enable the results of the site appraisal to be consolidated.

Section 4 presents a summary of the findings of the site appraisal.

The completed pro-forma for each site are subsequently provided in Appendix 1.

3. Indicative housing capacities

Where sites were previously included in Wiltshire Council's Strategic Housing Land Availability Assessment (SHLAA)⁴ the indicative housing capacity listed in this document has been used. For sites not included within the SHLAA, the indicative housing capacity for each of the sites has been calculated utilising the methodology outlined below.

In terms of housing density, the methodology assumes a density of 30 dwellings per hectare (dph) for all sites.

This figure does not necessarily equate to the amount of land that is suitable for development, as, for larger sites, land needs to be allocated for non-housing uses, for example community facilities and open space (the net development area).

To address this, the methodology provides ratios to calculate the net housing density based on the size of sites. The approach is based on the notion that: the bigger the site, the more land that needs to be put over for non-housing uses. The ratios are provided in Table 3.1.

Table 3.1. Net housing density

Area	Gross to net ratio standards	Net Housing Density:
Up to 0.4ha	90%	30
0.4 to 2ha	80%	30
2ha to 10 ha	75%	30
Over 10 ha	50%	30

The indicative number of dwellings for each site is shown in Table 3.2. Those sites calculated by AECOM using the above methodology are noted with an asterisk (*). It should be noted that these densities are for comparative purpose. For a number of the sites, a higher density is likely to be achievable. Where this is the case, this is indicated in the site appraisal summaries below.

It is viewed that the above approach reflects the provisions of the Wiltshire SHLAA Methodology, which states that *"In light of the consultation responses and the revision to PPS3 removing the minimum density requirement, it is considered appropriate to apply a single density assumption of 30dph across the board..."*⁵

⁴ Wiltshire Council (2014) SHLAA 2012 Output Report, February 2014

⁵ Wiltshire Council (2011) SHLAA Methodology, September 2011

Table 3.2 Indicative number of dwellings

Site Number	Site name	Size (ha)	Indicative Number of Dwellings
1	St. Modwen (Land at the Station Works)	4.00	89
2	Sacred Heart Church allotments	0.29	8*
3	Nadders Close Car Park	0.14	4*
4	Magistrates Court and Old Police Station	0.14	48*
5	Land opposite the Avenue	2.47	51
6	Land at the Old Sports Centre	0.35	9*
7	Weaveland Road (Land on Churchill Estate)	0.1	3*
8	Lush's Field (Land north of Vicarage Road)	1.29	30
9	Tuckingstones (Land adjacent to Tuckingstones, Tisbury)	1.04	24
10	Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)	1.28	31
11	Old Council Yard (Land at Tuckingmill Highways Depot)	0.25	8
12	St. Johns Close Redevelopment	0.66	16*

* Site capacity calculated by methodology presented above

4. Summary of site appraisals

The following sections provide a summary of the findings linked the evaluation of the 21 sites considered through the site appraisal for the Tisbury and West Tisbury Neighbourhood Plan.

These summaries should be read alongside the completed pro-forma presented in Appendix 1.

4.1 Site 1: St. Modwen (Land at the Station Works)

The site is located to the south of Tisbury Railway Station. It comprises a series of warehouses currently used for commercial use. The site has a total size of 4.00ha and could accommodate 89 houses.



4.1.1 Site Development Potential

Development on this site has the capacity to deliver 89 houses on a brownfield site and is understood to be available as well as deliverable within 0-5 years. Redevelopment of the site would result in the regeneration of a run-down site on the edge of Tisbury. Development has the potential to lead to significant enhancements in the quality of the public realm at this location and provides opportunities to enhance views from Tisbury village, as well as the landscape setting of this part of the village.

The site has reasonable access to community services and facilities.

4.1.2 Key Constraints

Redevelopment of the site for residential use would result in a loss of employment land; and in 2002 and 2004 planning applications for the redevelopment of the site for mixed use, consisting of residential and employment use, as well as alterations to site access was refused by Wiltshire Council.

The site has a number of constraints, principally vehicle access, flood risk, contamination and restraints on the developable area. In addition, the site is outside of the settlement boundary of Tisbury, as defined by Wiltshire Council (Policy CP1 Settlement Framework of the Wiltshire Core Strategy).

Currently no vehicle access is available directly into Tisbury village centre, with traffic having to access the site from Jobber's Lane. A pedestrian crossing exists across the rail line (see photograph above). However, this is not considered suitable in the event the site is developed for residential use.

In regards to restraints on the developable area, the southern part of the site has a steep embankment up to higher level that would restrict development on this area of the site; furthermore, it is understood to be necessary to leave space for the dualling of the railway line that is adjacent to the site.

The site may have the potential for contamination based on current and previous land uses; in particular it is known that a gas holder was located on the eastern part of the site, as well as the centre.

In regards to flood risk, the access road onto site is at risk of fluvial (Flood Zone 2) and surface water flooding (low to medium flood risk); furthermore, Jobbers Lane is within fluvial flood zone 2 and 3, and at high risk of surface water flooding.

4.1.3 Recommendations

The site has a number of constraints that would need to be managed as part of the redevelopment of the site. However, it is considered that redevelopment of an underused brownfield site, which has the potential to deliver a large number of homes close to the centre of Tisbury, would bring a range of benefits to the community in terms of landscape and visual effects.

In this regards, the site is **appropriate** for allocation in the Neighbourhood Plan with a number of key conditions: safe vehicle and pedestrian access is put in place across the railway line to provide direct access into Tisbury village centre; some employment land should be retained in the curtilage of the site; and where necessary, space is included within the site for the potential dualling of the railway line. There is also the need for a detailed assessment on the extent to which the site is contaminated due to its history as a gas works, and for remedial action to be taken.

4.2 Site 2: Sacred Heart Church allotments

The site is located in the centre of Tisbury village on the High Street. The site is located within the grounds of the Sacred Heart Church and adjacent vicarage, part of which is currently used for private allotments. The site has a total size of 0.29 ha and could accommodate 8 houses.



4.2.1 Site Development Potential

The site is located in Tisbury village centre, with excellent access to community services and facilities, including the adjacent recreation ground. Development would relate well to its surroundings which includes residential use if designed appropriately. It is considered that development would only affect short views from surrounding viewpoints.

The site is not currently accessible, however the site includes land to the south of the vicarage that would provide space for vehicular access to the site from the High Street.

4.2.2 Key Constraints

There are a number of heritage constraints on the site; the site is at the eastern boundary of Tisbury Conservation Area and close to The Clock House, a Grade II listed building approximately 50m to the north-west of site; in addition the Sacred Heart Church and Trellis House are buildings of local importance. Development of the site is therefore likely to affect the conservation area and setting of the adjacent Sacred Heart Church and Trellis House, through removal of trees (one of which is considered to be of importance) and changes to the character and presence of the conservation area.

Development at this location would lead to the loss of allotments, a key community facility.

The site has flood constraints on part of the site. The southern boundary of the site is located in fluvial flood zone 2, while the north eastern section of site is at low risk of surface water flooding.

4.2.3 Recommendations

The site is well located with excellent links to community facilities and services; however the site could only provide a limited number of houses. Given the open perspective of the site, development has the potential to impact on the setting of the conservation area and adjacent buildings of local importance. However, there is a precedent for high quality design in this location; adjacent areas have recently been redeveloped for residential uses of a design sensitive to the setting of the location.

For these reasons the site is **potentially appropriate** for allocation within the Neighbourhood Plan, if appropriate design and layout is incorporated within new development.

4.3 Site 3: Nadders Close Car Park

The site is located within Nadders Close Car Park, the main car park for the village centre. The site has a total size of 0.14 ha and could accommodate four houses.



4.3.1 Site Development Potential

The site is adjacent to the village centre, so has excellent links to community services and facilities. The site is a brownfield site and it is also located adjacent to residential development, and has good access. The site could accommodate in the region of five houses. Development would only affect short views from existing residential areas, and as such development is considered to relate to its surroundings well.

4.3.2 Key Constraints

While the site is not at flood risk, Nadders Close, adjacent to site, is at low risk of surface water flooding. In addition the site is adjacent to the Tisbury Conservation Area, and development would affect views out to the east from the village centre to the east across the Nadder Valley; though this is not listed as being a key view in the Tisbury Conservation Area Appraisal and Management Plan.

Development on the land would result in the loss of Nadders Close Car Park, the main car park for the village centre. This will significantly reduce car parking available in the area, with the potential to affect the vitality of the village centre.

4.3.3 Recommendations

Despite the development potential of the site, the importance of the car park for the vitality of the village centre is considered to be a significant issue. For this reason the site is **not considered appropriate** for allocating within the Neighbourhood Plan.

4.4 Site 4: Magistrates Court and Old Police Station

The site is located on land previously occupied by the Magistrates Court and the Police Station. The buildings associated with these remain, however are not in use. The site is adjacent to the Fire Station. The site has a total size of 0.14 ha and could accommodate four houses.



4.4.1 Site Development Potential

The site benefits from being located on brownfield land currently not utilised, in the village centre with good access to community facilities and services. The site is also within the settlement boundary of Tisbury (Wiltshire Core Strategy Policy CP1).

Development is considered to fit in well with the site's surroundings, which include residential development. The site is within flood zone 1.

4.4.2 Key Constraints

The site is within the Tisbury Conservation Area. However development would not necessarily have significant effects on the conservation area, as it is an infill site, which would not affect views into or out of the Conservation Area. There are also a number of listed buildings and buildings of local importance located in close proximity to the site.

Current vehicular access is provided from The Avenue in front of the Fire Station, however this is shared with the Fire Station, and outside the boundary of the site. For operational reasons the Fire Station would need their own access so a new access would be required for the development. The site is steeped up from the road, making access difficult. Parking may need to be provided in parking bays at a lower level than the houses themselves.

It is not known if the site is available, and in addition, part of the site leased to the Fire Service; as such development would need to be sensitive to the operational requirements of Fire Service in regards to access, training, and parking.

4.4.3 Recommendations

The site has the capacity to deliver four homes, on an unused brownfield site in the centre of Tisbury. There are some constraints, in particular availability and the operational requirements of the Fire Service that would need to be overcome.

Therefore the site is considered to be **potentially suitable** for taking forward for the purposes of the Neighbourhood Plan.

4.5 Site 5: Land opposite the Avenue

The site is a linear strip of agricultural land, currently used for grazing cattle. The site is located along the southern edge of The Avenue, and north of the River Nadder. The site has a total size of 2.47 ha and could accommodate 51 houses.



4.5.1 Site Development Potential

The site has the potential to deliver a large number of houses in a location close to Tisbury village centre, and therefore has good access to community services and facilities. The site is located on Grade 3 agricultural land and it is considered that development would relate well to surroundings, with residential development to the north and east.

While the site is not at risk of fluvial flooding, the site is directly adjacent to the boundary of an area at risk of flooding (flood zones 2 and 3); as well as an area at high risk of surface water flooding. Only a small part of the site is at low risk of surface water flooding, which in itself is not a significant constraint.

Furthermore, the site is available for development (0-5 years) and in single ownership.

4.5.2 Key Constraints

The site has a number of environmental, landscape and heritage constraints. The site is located close to the River Nadder, which is designated as a County Wildlife Site, with water voles and otters known to use the area. There are no barriers between the County Wildlife Site and the site, and as such, the site could therefore be used for protected species. The site is also within the SSSI impact risk zone for the River Avon System SSSI, and as such development could have impacts on this, if not mitigated.

Development on the site would have a significant impact on long distance views of the Nadder Valley from the village centre, as well as impacting on the landscape through the redevelopment of a greenfield site in a river valley to residential land use. Furthermore, the site is also adjacent to the

Tisbury Conservation Area, which borders the site to the north east and north west. The Tisbury Conservation Area Management Plan mentions that the Nadder Valley can be best seen from the Avenue, through the line of trees. Development therefore has the potential to have significant effects on the setting of the conservation area and the AONB.

4.5.3 Recommendations

The site has the potential to deliver a large number of houses in a location close to Tisbury village centre; however the likely impact of development on the AONB and Tisbury Conservation Area are considered to be significant. For these reasons the site is **not considered appropriate** for taking forward for the purposes of the Neighbourhood Plan.

4.6 Site 6: Land at the Old Sports Centre

The site is located on land previously used as a sports centre; however the building is now vacant following the development of the Nadder Centre on an adjacent site. The site has a total size of 0.35 ha and could accommodate nine houses.



4.6.1 Site Development Potential

The site is a brownfield site that has the potential to deliver in the region of nine houses. It is in a location adjacent to a school and community and sports centre; as well as being located in an area adjacent to residential housing. The site is also with a reasonable walking distance of Tisbury village centre.

The site is not at risk of fluvial or surface water flooding, nor are there considered to be any other environmental or heritage constraints.

It is considered that there are only short views in to the site from the adjacent community and sports centre, primary school and residential area to the east of site. Development is also not considered to have a significant effect on the views or landscape, and thus the integrity of the AONB.

4.6.2 Key Constraints

The land is understood to be available for development, however there are two potential constraints for development. Firstly, it is understood that the land was donated to Wiltshire Council by the Fonthill Estate for educational use, there could therefore be a covenant on the land restricting residential development. Secondly, the land is also subject to an existing planning permission that would see the demolition of the building and landscaping of the site as a wildflower meadow.

The site is outside the settlement boundary for Tisbury (Wiltshire Core Strategy Policy CP1).

4.6.3 Recommendations

The land is considered appropriate for residential development, due to its location and lack of environmental, landscape or heritage constraints. However the availability of the land for development is unclear; this will need confirming prior to allocation within the Neighbourhood Plan. The land is also outside of the housing policy boundary and has been recommended to be set aside for future extension of the primary school.

The site is therefore considered to be **potentially suitable** for taking forward for the purposes of the Neighbourhood Plan.

4.7 Site 7: Weaveland Road (Land on Churchill Estate)

The site is located to the west of Tisbury village centre, on the Churchill Estate. The site is currently open space within the housing estate, with no formal use. The site has a total size of 0.1 ha and could accommodate 3 houses.



4.7.1 Site Development Potential

The site has the potential to accommodate a number of houses in a location that is adjacent to an existing residential area, as well as being located relatively close to the village centre, and thereby

close to community services and facilities. The site has no environmental or heritage constraints; and the site is within the settlement boundary of Tisbury.

The site is well screened from open countryside and is not considered to affect long distance views and thus the AONB.

4.7.2 Key Constraints

The site contains a TPO(/s) on the boundary, and development of the site would see the loss of a small plot of grassland that is currently available for use for recreational purposes by surrounding residents. It forms a useful pedestrian access into the adjacent community field. However, as the land is not designated for recreation use, and recreation space is available locally this should not prohibit the development of the site. The development would affect short distance views from the neighbouring properties.

4.7.3 Recommendations

The site currently consists of open space within a residential area that has no formal designation. The site has few constraints to development; and thus **considered suitable for allocation**. It is however only a very small site and it forms a useful pedestrian access into the community field. As such, the site may be better suited for allocation as Local Green Space.

4.8 Site 8: Lush's Field (Land north of Vicarage Road)

Agricultural land located to the west of Tisbury, to the north of Vicarage Road and Tuckingmill Farm. The site has a total size of 1.29 ha and could accommodate 30 houses.





4.8.1 Site Development Potential

The site has the potential to accommodate a large number of houses in a location that is relatively close to Tisbury village centre, and within a reasonable walking distance of other community services and facilities. The site is part surrounded by residential development.

While the site is not at risk of fluvial flooding, the site is directly adjacent to the boundary of an area at risk of flooding (flood zone 3); as well as an area at high risk of surface water flooding.

Furthermore, the site is available for development (0-5 years).

4.8.2 Key Constraints

The site is located on greenfield agricultural land that is outside the settlement boundary of Tisbury (Wiltshire Core Strategy Policy CP1). Construction of houses as well as access to the site would be difficult, as the site falls steeply to the south west down to the watercourse (Oddford Brook) and Vicarage Road. It is not easily conceivable how access could be provided to the site from Vicarage Road.

In regards to environmental constraints, the site is adjacent to a County Wildlife Site to the west, which also consists of deciduous woodland, a Biodiversity Action Plan (BAP) Priority Habitat; as a result the site could support protected species.

In regards to the historic environment, the site is adjacent to Tisbury Conservation Area to the south along Vicarage Road. The Tisbury Conservation Area Management Plan notes that the cohesion of the hamlet around Tuckingmill Farm is formed around the stream and the enclosing form of the buildings to the lane, and that the dwellings are a '*cohesive and intimate group*'. It is therefore possible that development on the site would affect the conservation area.

The western boundary of the site may be at risk of surface water flooding.

The site has long distance views to the south east, and development could affect views to and from the AONB.

4.8.3 Recommendations

The site has the potential to deliver a large number of houses, however it is not considered that access can be readily provided to the site. Furthermore, development could have an adverse effect on Tisbury Conservation Area, the AONB, as well as on ecological constraints. For these reasons, the site is **not considered suitable** for allocation in the Neighbourhood Plan.

4.9 Site 9: Tuckingstones (Land adjacent to Tuckingstones, Tisbury)

Agricultural and residential land located in Tuckingmill, to the south of Vicarage Road. The site has a total size of 1.04 ha and could accommodate 24 houses.



4.9.1 Site Development Potential

The site has the potential to accommodate a large number of houses in a location that is within a reasonable walking distance to Tisbury village centre, however, other community services and facilities are further away. The site is in part surrounded by residential development. The site is not at risk of fluvial or surface water flooding and it is flat as well as accessible, with access easily provided from Mount Pleasant, where the current farm access gate is located.

4.9.2 Key Constraints

The site is predominantly greenfield land, however two residential properties are located on it.

The site is overlooked by adjacent residential properties, as well as from the surrounding landscape, particularly from the north-east and east. It is therefore considered that development would affect the long distance views from properties on Mount Pleasant; and shorter distance views from other properties adjacent to the site. In addition, the site forms the only gap between Tisbury and Tuckingstones.

In regards to the historic environment the site is located adjacent to a number of features, including the Tisbury Conservation Area, listed buildings and an area of archaeological potential. Development on the site, which is largely open, could therefore affect the setting of these. In particular, development could alter the cohesion of the hamlet around Tuckingmill Farm, which is reported in the Tisbury

Conservation Area Management Plan as a '*cohesive and intimate group*' of dwellings. Development at this location would also lead to the merging of Tisbury and Tuckingmill as distinctive settlements.

The SHLAA also reports that the site is not currently considered available, as the site is within multiple or unknown ownership. However it is reported as deliverable in 6-10 years.

4.9.3 Recommendations

Development of the site could potentially significantly impact on the views from surrounding properties and on heritage receptors. In addition, the land provides the only break between development Tisbury and Tuckingmill. For these reasons, the site is **not considered suitable** for allocation in the Neighbourhood Plan.

4.10 Site 10: Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)

The site comprises land located on the western boundary of Tuckingmill, to the south of Hatch Lane. The site has a total size of 1.28 ha and could accommodate 31 houses. The site, which was previously a quarry, has been designated as a County Wildlife Site.



4.10.1 Site Development Potential

The site has the potential to accommodate a large number of houses on the boundary of Tuckingmill. The site has no heritage constraints and is not at risk of fluvial flooding.

4.10.2 Key Constraints

The site is a County Wildlife Site, and has potential to support protected species; development would therefore see a loss of an important local ecological resource.

There are a number of other constraints to development including: the distance from Tisbury village centre and associated community services and facilities; the effect development would have on the

views from surrounding residential properties; overhead electricity lines traversing part of the site; and a risk of surface water flooding on the south-eastern tip of the site.

Furthermore, the site is outside the settlement boundary and is of uncertain ownership.

4.10.3 Recommendations

Due to the significant constraints present at the site, principally the ecological constraints associated with the County Wildlife site designation, the site is **not considered suitable** for allocation of residential development through the Neighbourhood Plan.

4.11 Site 11: Old Council Yard (Land at Tuckingmill Highways Depot)

The site comprises previously developed land located on the west of Tuckingmill, to the south of Hatch Lane. The site has a total size of 0.28 ha and could accommodate eight houses. The site is currently unused; however it was previously the Council's Highway Depot.



4.11.1 Site Development Potential

The site has the potential to accommodate a number of houses on the boundary of Tuckingmill; development would fit in with the linear nature of development in this area. The site is a brownfield site that is currently not in use. Development would not affect the views from existing residential properties, due to the screening afforded by the trees on the boundary of the site. The site has no heritage constraints and is not at risk of fluvial or surface water flooding.

4.11.2 Key Constraints

The site is adjacent to a County Wildlife Site that is located to the south eastern part of the site. A number of mature trees are present on the site boundary. As such, the site has ecological potential.

The site is located outside of the settlement boundary (Wiltshire Core Strategy Policy CP1), and not within immediate proximity to Tisbury village centre and associated community services and facilities;

with the village centre approximately 1 km to the east and St. Johns Church of England Primary School 1.3km away.

4.11.3 Recommendations

The site has the capacity to deliver a small number of houses on a brownfield site adjacent to existing residential properties. Development at this location would need to ensure effects on the adjacent County Wildlife Site are avoided, and potential biodiversity assets on the site (including trees) are retained.

It is therefore concluded that the site is **potentially suitable** for the allocation of residential development through the Neighbourhood Plan.

4.12 Site 12: St. Johns Close Redevelopment

The site is located to the south west of Tisbury. The site currently consists of approximately 16 sheltered houses, managed by Wiltshire Council. The site has a total size of 0.66 ha and could accommodate a significant number of houses if densities are increased.



4.12.1 Site Development Potential

The site has the potential to accommodate a larger number of houses than at present in a location that is close to Tisbury village centre, and within a reasonable walking distance of community services and facilities. The site is surrounded by residential development and is within the settlement boundary of Tisbury (Wiltshire Core Strategy Policy CP1).

4.12.2 Key Constraints

There are limited environmental constraints in the vicinity of the site. St. Johns Close (the road only) is at a low to medium risk of surface water flooding and approximately 150m north of the site is a County Wildlife Site associated with the River Nadder.

From an availability perspective, the site is currently occupied, primarily by older residents in sheltered accommodation, who would need relocating during any redevelopment. It is also not known if Wiltshire Council are willing to redevelop the site.

4.12.3 Recommendations

The site currently consists of low density housing that is located close to Tisbury village centre. The site has few constraints to development; and redevelopment could provide a higher density of housing. However, the availability of the land for development is unclear; this would need confirming prior to allocation within the Neighbourhood Plan.

As such the site is considered to be **potentially suitable** for taking forward for the purposes of the Neighbourhood Plan.

5. Conclusions

5.1 Housing sites to take forward for the purposes of the Tisbury and Tisbury West Neighbourhood Plan

This site appraisal has assessed the 12 sites put forward by the Tisbury and West Tisbury Neighbourhood Plan Steering Group. These have been evaluated utilising the consistent criteria presented in the pro-forma developed by AECOM.

Following the completion of the site appraisal, it is considered that two sites are most appropriate for shortlisting by the Neighbourhood Steering Group for taking forward as allocations for housing in the Tisbury and West Tisbury Neighbourhood Plan. This is due to their suitability, their availability, and the opportunities offered at the sites.

The two sites are as follows:

- Site 1: St. Modwen (Land at the Station Works);
- Site 8: Weaveland Road (Land on Churchill Estate);

In addition to these sites, five further sites that are potentially suitable for taking forward for the purposes of the Neighbourhood Plan, however in a number of cases their availability needs to be determined prior to allocation. These sites are:

- Site 2: Sacred Heart Church allotments
- Site 4: Magistrates Court and Old Police Station (operational requirements of the Fire Service would also need to be overcome prior to allocating);
- Site 6: Land at the Old Sports Centre;
- Site 11: Old Council Yard (Land at Tuckingmill Highways Depot)
- Site 12: St. Johns Close Redevelopment.

Table 5.1 below summarises the suitability of the sites in the Neighbourhood Plan Area for taking forward for the purposes of the Neighbourhood Plan.

Table 5.1. Suitability of sites for taking forward for the purposes of the Tisbury and West Tisbury Neighbourhood Plan

Site No.	Site Name	Appropriate for taking forward for the purposes of the Neighbourhood Plan?
1	St. Modwen (Land at the Station Works)	<p>Yes – development at this location would involve the redevelopment of a brownfield site of poor visual quality. This has significant opportunities for enhancing the quality of the public realm at this location and offers significant scope for improving the landscape and townscape setting of this part of Tisbury.</p> <p>Development should ensure that three key conditions are met: safe vehicle and pedestrian access is put in place across the railway line to provide enhanced access into Tisbury village centre; some employment land should be retained in the development of the site; and where necessary, space is included within the site for the potential dualling of the railway line. There is also the need for a detailed assessment on the extent to which the site is contaminated due to its history as a gas works, and for remedial action to be taken.</p>
2	Sacred Heart Church allotments	Potentially – The site could support in the region of 8 dwellings at a location accessible to village centre facilities. Development at this location however has the potential to impact on the setting of the conservation area and adjacent buildings of local importance.
3	Nadders Close Car Park	No – Despite the development potential of the site, the importance of the car park for the vitality of the village centre is considered to be a key issue.
4	Magistrate's Court and Old Police Station	Potentially – the redevelopment of a brownfield site in the centre of Tisbury offers a number of opportunities. However there are a number of issues that would need to be overcome prior to allocating, in particular relating to the availability of the site and the operational requirements of the Fire Service.
5	Land opposite the Avenue	No – Development is considered to have significant impacts on the setting of this part of Tisbury, and is likely to have adverse effects on the integrity of the AONB and Tisbury Conservation Area.
6	Land at the Old Sports Centre	Potentially – The site consists of previously developed land with no significant environmental, landscape or heritage constraints. However the availability of the land for development is unclear, including relating to planning conditions. This would need confirming prior to allocation. The land is also outside of the housing policy boundary and has been recommended to be set aside for future extension of the primary school.
7	Weaveland Road (Land on Churchill Estate)	Yes – The site currently consists of informal open space within a residential area. The site has few constraints to development; and thus considered suitable for allocation. Development would need to incorporate the TPO on the boundary of the site. It is also only a very small site and it forms a useful pedestrian access into the community field so may be better suited for allocation as Local Green Space.
8	Lush's Field (Land north of Vicarage Road)	No – The site has no suitable access, and it is not considered that access could be readily provided. Development would impact on the setting of the Tisbury Conservation Area and the AONB, and the site has a number of ecological constraints.
9	Tuckingstones (Land adjacent to Tuckingstones, Tisbury)	No – Development of the site is likely to significantly impact on the views from surrounding properties and on the setting of historic environment assets in this location. In addition, the land provides an important landscape gap between Tisbury and Tuckingmill which would be lost with development at this location.
10	Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)	No – Part of the site is designated as a County Wildlife Site and therefore has potential to support protected species; development would therefore see a loss of an important local ecological resource.

Site No.	Site Name	Appropriate for taking forward for the purposes of the Neighbourhood Plan?
11	Old Council Yard (Land at Tuckingmill Highways Depot)	Potentially – Development at this location would involve the redevelopment of a brownfield site, adjacent to existing residential properties. Development would need to ensure potential effects on the adjacent County Wildlife Site are avoided and mitigated.
12	St. Johns Close Redevelopment	Potentially – The site currently consists of low density housing that is located close to the centre of Tisbury centre. The site has few constraints to development and redevelopment could provide a higher density of housing than currently. However, the availability of the land for development is unclear and this will need confirming prior to allocation and there will be a likely need to relocate existing residents.

If site allocations are included in the plan, it is recommended that the Steering Group discuss site viability with Wiltshire Council. Viability appraisals for individual sites may already exist. If not, it is possible to use the Council's existing viability evidence (such as an Affordable Housing Viability Study or Community Infrastructure Viability Study) to test the viability of sites proposed for allocation in the Neighbourhood Plan. This can be done by 'matching' site typologies used in existing reports, with sites proposed by the Steering Group to give an indication of whether a site is viable for development and therefore likely to be delivered. Likewise the developer should be contacted to ensure that the site remains deliverable.

Overall it is recommended that the policy approaches proposed by the Neighbourhood Plan should seek to address the potential constraints highlighted in this report and through the strategic environmental assessment process currently being undertaken for the plan. This can include targeted site-specific Neighbourhood Plan policies to address the elements raised relating to environmental constraints and accessibility.

5.2 Next steps

Sites to be taken forward for the purposes of the Neighbourhood Plan will be considered and chosen by the Tisbury and West Tisbury Neighbourhood Plan Steering Group on the basis of:

- The findings of this site appraisal;
- Information on site availability;
- Responses received during consultation on proposed sites;
- The scope for the sites to meet identified infrastructure needs of the community, including through Community Infrastructure Levy contributions; and
- The extent to which the sites support the Vision and Objectives for the Neighbourhood Plan.

This process will be incorporated within the next stages of development for the Neighbourhood Plan in conjunction with engagement with landowners, the public, Wiltshire Council and other stakeholders.

Appendix A Completed site appraisal pro-forma

- A.1 Site 1: St. Modwen (Land at the Station Works)
- A.2 Site 2: Sacred Heart Church allotments
- A.3 Site 3: Nadders Close Car Park
- A.4 Site 4: Magistrate's Court and Old Police Station
- A.5 Site 5: Land opposite the Avenue
- A.6 Site 6: Land at the Old Sports Centre
- A.7 Site 7: Weaveland Road (Land on Churchill Estate)
- A.8 Site 8: Lush's Field (Land north of Vicarage Road)
- A.9 Site 9: Tuckingstones (Land adjacent to Tuckingstones, Tisbury)
- A.10 Site 10: Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)
- A.11 Site 11: Old Council Yard (Land at Tuckingmill Highways Depot)
- A.12 Site 12: St. Johns Close Redevelopment

Site 1: Land at the Station Works

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 1: Land at the Station Works
Site Address	Station Works, Land adjacent to Tisbury Railway Station, Tisbury
Current use	commercial use – principally storage
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	4.00ha
SHLAA site reference (if applicable)	S75

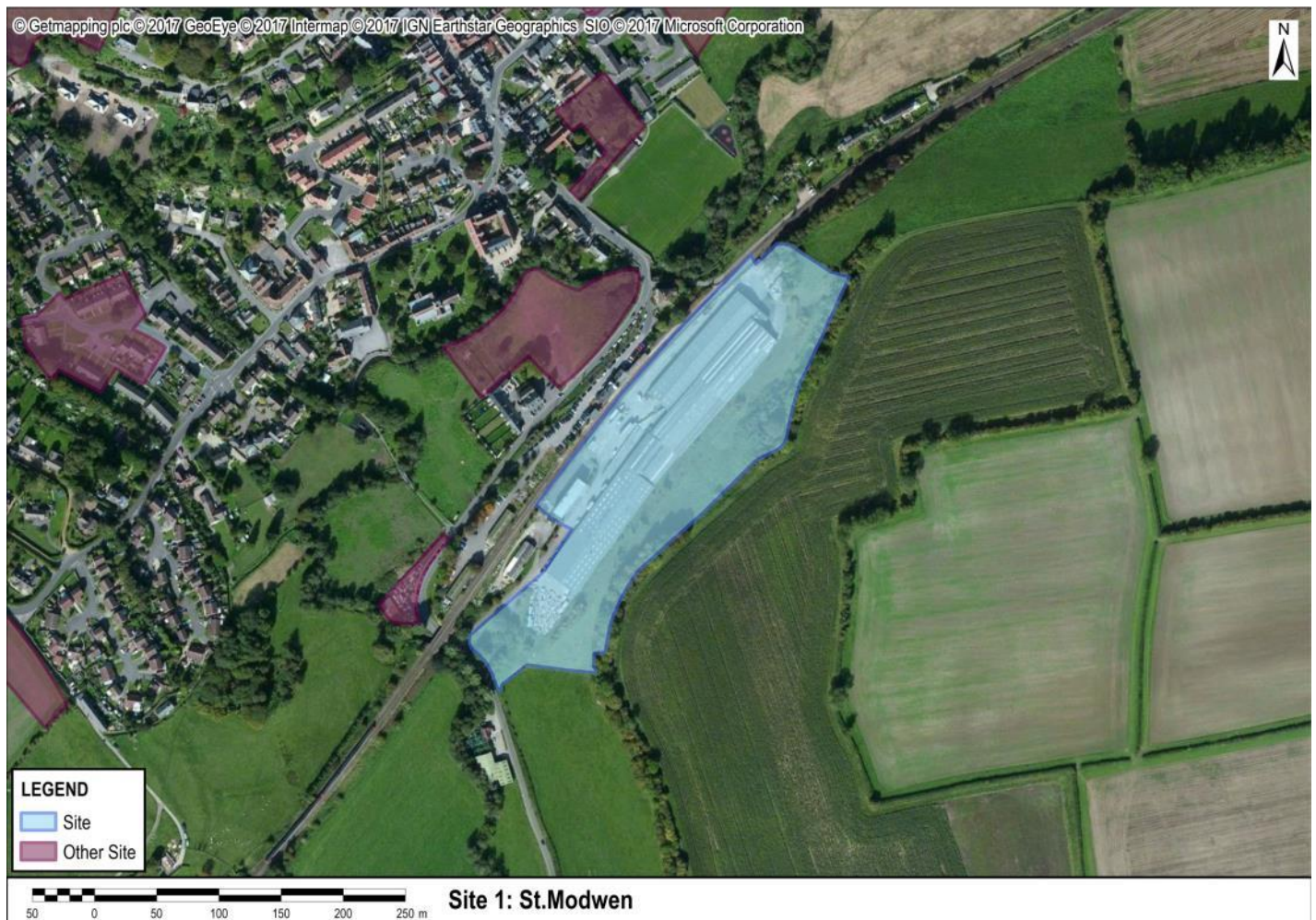


Figure 1. Site Boundary

Table 1-2 Context

Surrounding land uses	Railway Station and Line (north), agriculture			
Site boundaries	Railway Station and Line (north), road – trees along access road (wet), trees on northern and eastern boundary.			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	2002 – Approved - alterations and subdivision of part of building to provide - unit a - b8 use with ancillary repairs unit B C D - B2 B1 B8 and recladding of SW gable (S/2002/0005); 2002 – Refused - mixed use of residential and employment and alteration to access (S/2002/1367); 2004 – Refused- mixed use of residential and employment and alteration to access and footbridge over railway (S/2003/2547); 2011 - Application for prior notification for demolition of 2 x warehouse buildings and 1 x office building (S/2011/0660) - prior approval not required.			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Within existing developed area for employment use, however not within residential area of Tisbury.	
How would development of this site relate to the surrounding uses?	Site is outside of the residential area of Tisbury and would feel unconnected; however the redevelopment of the site would improve connectivity with the rest of the village.	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	No- a more direct pedestrian access would need to be provided over the railway line into Tisbury. The current road access and adjacent road are known to flood.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone	
Is the site within the Wiltshire Council settlement boundary?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Northern part of the site is flat, however south part has a steep embankment up to higher level.
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From the north only - Views in from the railway station and adjacent residential property; as well as further afield to the north of Tisbury where properties will have elevated views to the south.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Medium distance views to the north across Tisbury St. John's Church spire visible to the north.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance¹	>800m	
Distance to sites designated as being of National Importance²	>800m	
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Yes- for the River Avon System SSSI. Zone applies to: <ul style="list-style-type: none"> Any residential development of 100 or more houses outside existing settlements/urban areas.
Distance to sites designated as being of local importance³	<400m	Within 50m of the River Nadder a County Wildlife Site.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

¹ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

² Site of Special Scientific Interest, National Nature Reserves

³ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is adjacent to a conservation area	Tisbury Conservation Area adjacent to the north west boundary
Scheduled monument	Site is not on or adjacent to a SAM	Approx. 200m south west of the site boundary.
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site is adjacent to, or within the setting of a listed building	Site boundary is within 50m of Grade II listed structure (Bridge over River Nadder). The spire of St John's Church is visible from the site.
Area of Archaeological Potential	Within an area of archaeological potential Adjacent to an area of archaeological potential Site is not within or adjacent to an area of archaeological potential	Land is outside of the Tisbury Conservation Area boundary. No data currently available.
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	The north western site boundary is adjacent to a 'Positive Contribution Building', from which there are incidental views to two landmarks approximately 200m from the north western boundary.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	400-800m	Approx. 800m from Tisbury town centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	400-800m	500m from train station (no access bridge provided across the railway from the site)
School(s)	>800m	900m from St. John's C of E Primary School via level crossing; or 1.7km via road.
Open Space / recreation facilities	<400m 400-800m	300m from recreation ground via level crossing; or 700m via road.
Health Centre facility	400-800m >800m	Approx. 700m to Tisbury Surgery via level crossing; or 1.1km via road.

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 2		South western access road is at risk of flooding. Jobbers Lane at risk of flooding (Zone 2 and 3) – this road provides access from the site into Tisbury
Agricultural Land Classification?	Grade 3		
Are there any Tree Preservation Orders on the site?	None		In the northern corner of the site there are two Other important Trees. The woodland corridor to the south east of the site is outside the Tisbury Conservation Area, and hence there is no available data for these trees.
Other			Land would need to be kept aside on the northern boundary to allow for dualling of the railway

<i>Is the site affected by any of the following?</i>	<i>Yes</i>	<i>No</i>	<i>Comments</i>
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Two small areas at risk of surface water flooding – access road to the south west and part of the central site Jobbers Lane at risk of surface flooding (Zone 2 and 3) – this road provides access from the site into Tisbury
Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Former gas holder is located on eastern part of the site. In addition, the current and previous land uses have the potential to result in some contamination.
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Land would need to be kept aside on the northern boundary to allow for dualing of the railway
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years		
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Land at Station Works, Tisbury
Please tick a box	
The site is appropriate for development	<input checked="checked" type="checkbox"/>
This site has minor constraints	<input checked="checked" type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	89
Estimated development timeframe:	0-5 years
Explanation / justification for decision to accept or discount site.	<p>The site has a number of constraints that would need to be managed as part of the redevelopment of the site. However, it is considered that redevelopment of an underused brownfield site, which has the potential to deliver a large number of homes close to the centre of Tisbury, would bring a range of benefits to the community in terms of landscape and visual effects.</p> <p>In this regards, the site is appropriate for allocation in the Neighbourhood Plan with a number of key conditions: safe vehicle and pedestrian access is put in place across the railway line to provide direct access into Tisbury village centre; some employment land should be retained in the curtilage of the site; and where necessary, space is included within the site for the potential dualling of the railway line. There is also the need for a detailed assessment on the extent to which the site is contaminated due to its history as a gas works, and for remedial action to be taken.</p>

Site 2: Sacred Heart Church Allotments

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 2: Sacred Heart Church allotments
Site Address	High Street (Southern end), Tisbury
Current use	Allotments, ground of The Sacred Church
Parish Name	Tisbury
Gross area (Ha) Total area of the site in hectares	0.29ha
SHLAA site reference (if applicable)	N/A



Figure 2. Site Boundary

Table 1-2 Context

Surrounding land uses	Recreation ground to the south east; church and shops along High Street to the west; residential (north west and north east).			
Site boundaries	Hedges, small stone wall (NE boundary), barns (NW boundary), hedges and trees (SE boundary), Church (W boundary)			
Is the site:	Greenfield <input checked="" type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	N/A			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes
How would development of this site relate to the surrounding uses?	In the centre of Tisbury surrounded by development, development would relate well to its surroundings- however there would be impacts on the setting of the conservation area.
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Access to site only possible for pedestrians via pathway from High Street and Nadder Close. Vehicle access is restricted and would need to be from the south west (via High Street).
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone
Is the site within the Wiltshire Council settlement boundary?	<div>Yes <input checked="" type="checkbox"/></div> <div>No <input type="checkbox"/></div>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Short views from houses and church on boundaries.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Short views of Sacred Heart Church to the west. Medium views to the south extending across the Recreation Ground and to the River Nadder.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance⁴	>800m	The site is located approximately 1.75km away from the western boundary of the River Avon SAC.
Distance to sites designated as being of National Importance⁵	>800m	The site is located approximately 1.5km away from the western boundary of the Upper Chicks Grove Quarry SSSI
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	The site is within the River Avon SSSI Impact Risk Zone; however not for the type of development proposed, the location of the development is within the existing settlements/urban areas and would consist of less than 100 homes.
Distance to sites designated as being of local importance⁶	<400m	The River Nadder is a County Wildlife Site approximately 100m south west of the site.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

⁴ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

⁵ Site of Special Scientific Interest, National Nature Reserves

⁶ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is within a conservation area	Site is located at the eastern boundary of Tisbury Conservation Area.
Scheduled monument	Site is not on or adjacent to a SAM	Nearest Scheduled Monument is 600m to the south west of the site.
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site is adjacent to a listed building	The Clock House is a Grade II listed building approximately 50m to the north-west of site.
Area of Archaeological Potential	Adjacent to an area of archaeological potential	Site is located approximately 150m to the west of an area of archaeological potential.
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	Site is adjacent to Positive Contribution Buildings to the north, west and south.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	Approximately 50m to Tisbury village centre (High Street)
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	<400m	Approximately 300m to Tisbury Railway Station, with a 2-hourly bus stop adjacent to the Railway.
School(s)	>800m	Approximately 850m from St Johns C of E Primary School
Open Space / recreation facilities	<400m	Site is adjacent to Tisbury Recreation Ground (south eastern boundary).
Health Centre facility	400-800m	Approximately 600m from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 2		The southern boundary of the site is located in Flood Zone 2. The northern section of the site is outside the Flood Zone boundary.
Agricultural Land Classification?	Grade 3b to 5		The site is situated on Grade 4 Agricultural Land, but is bordered by Grade 3.
Are there any Tree Preservation Orders on the site?	None		There are large trees on the site- however these are not subject to a TPO. Tree adjacent to the High Street is listed as of importance.
Other			
<i>Is the site affected by any of the following?</i>	Yes	No	<i>Comments</i>
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	North eastern section of site is at low risk of surface water flooding.
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Unknown
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Sacred Heart Church allotments
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input checked="" type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	8
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	<p>The site is well located with excellent links to community facilities and services; however the site could only provide a limited number of houses. Given the open perspective of the site, development has the potential to impact on the setting of the conservation area and adjacent buildings of local importance. However, there is a precedent for high quality design in this location; adjacent areas have recently been redeveloped for residential uses of a design sensitive to the setting of the location.</p> <p>For these reasons the site is potentially appropriate for allocation within the Neighbourhood Plan, if appropriate design and layout is incorporated within new development.</p>

Site 3: Nadders Close Car Park

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 3: Nadders Close car park
Site Address	The Avenue, Tisbury
Current use	Car Park
Parish Name	Tisbury
Gross area (Ha) Total area of the site in hectares	0.14
SHLAA site reference (if applicable)	N/A



Figure 3. Site Boundary

Table 1-2 Context

Surrounding land uses	Fire station and Tisbury Police Station (north), Residential (south, west); Field to the east.			
Site boundaries	Stone wall to the north, west and south; field to the east.			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield	Currently used as a car park			
Site planning history Have there been any previous applications for development on this land? What was the outcome?	N/A			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes
How would development of this site relate to the surrounding uses?	Development is close to the village centre and surrounded by residential development, so is considered to relate to its surroundings well.
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Yes, access is provided via The Avenue linking the site to the north-east and south-west of the site.
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone
Is the site within the Wiltshire Council settlement boundary?	<div> <div>Yes <input type="checkbox"/></div> <div>No <input checked="" type="checkbox"/></div> </div>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Gently sloping ground (north-west to south-east) towards the River Nadder.
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Short views from the residential areas (from the south and west). Short views from Tisbury Police Station and properties along The Avenue.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Medium to long views to the east across the Nadder Valley. Short views to the west towards High Street.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance⁷	>800m	Approximately 1.8km from the western boundary of the River Avon SAC.
Distance to sites designated as being of National Importance⁸	>800m	Approximately 1.3km from the western boundary of Upper Chicks Grove Quarry SSSI.
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Within the River Avon System SSSI risk zone; however the location of the development is within the existing settlements/urban areas; and would consist of less than 100 homes.
Distance to sites designated as being of local importance⁹	<400m	The River Nadder is a County Wildlife Site approximately 200m south east of the site.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

⁷ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

⁸ Site of Special Scientific Interest, National Nature Reserves

⁹ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is adjacent to a conservation area	Site is directly east of the Tisbury Conservation Area.
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	Site is outside the Tisbury Conservation Area boundary. No data currently available.
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	There are Positive Contribution Buildings approximately 30m to the south west of the site.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	Approximately 170m to High Street (east of site).
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	<400m	Bus stop approximately 150m east of site (one route daily). Approximately 400m from Tisbury Station.
School(s)	>800m	Approximately 850m to St John's CoE Primary School (via road). Similar distance via footpaths.
Open Space / recreation facilities	<400m	Approximately 300m from Tisbury Recreation Ground (south of site).
Health Centre facility	400-800m	Approximately 600m from Tisbury Surgery (via roads). Approximately 300m if walking (using footpath connecting Queens Road and Park Road).

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3b to 5		
Are there any Tree Preservation Orders on the site?	None		
Other			

<i>Is the site affected by any of the following?</i>	<i>Yes</i>	<i>No</i>	<i>Comments</i>
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Site itself is not at risk of surface water flooding. Nadders Close is adjacent to site and at low risk of surface water flooding.
Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Adjacent to residential properties and the Avenue.

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input type="checkbox"/>	<input type="checkbox"/>	Unknown – however Wiltshire Council have included the site in the revised settlement boundary that is being consulted on.
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Currently leased to the Parish Council
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Unknown
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Nadders Close car park
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input checked="" type="checkbox"/>
Potential housing development capacity:	c.4 dwellings
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	Despite the development potential of the site, the importance of the car park for the vitality of the village centre is considered to be a significant issue. For this reason the site is not considered appropriate for allocating within the Neighbourhood Plan.

Site 4: Magistrates Court and Old Police Station

3. Background information

Table 1-1 Site location and use

Site Reference / name	Site 4: Magistrates Court and Old Police Station
Site Address	The Avenue, Tisbury
Current use	None – previously site occupied by Police and Magistrates
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	0.14
SHLAA site reference (if applicable)	N/A



Figure 4. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential (east, north and west), car park (south) Site surround the fire station			
Site boundaries	Stone wall to the west and south; hedge to the east; hedge/fence to the north.			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None (excluding building modifications and removal of trees)			

4. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes
How would development of this site relate to the surrounding uses?	Development is close to the village centre and surrounded by residential development, so is considered to relate to its surroundings well.
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Current access is provided, however this is shared with the fire station, and is outside the site boundary. The fire station would need its own access so a new access would be required. The site is steeped up from the road, making access difficult - parking bays at a lower level than the houses would be a possible solution.
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone
Is the site within the Wiltshire Council settlement boundary?	<div>Yes</div> <div>X</div> <div>No</div> <div></div>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	The western half of the site is steeped up from the road, and then gently sloping. The eastern half of the site is gently sloping
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From houses on the boundaries to east, north and west – short views only
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Medium to long distance views to the south across the Nadder valley and beyond.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance¹⁰	>800m	
Distance to sites designated as being of National Importance¹¹	>800m	Upper Chicksgrove Quarry is approx. 1.4km east of the site
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	No	Within the River Avon System SSSI risk zone; however the location of the development is within the existing settlements/urban areas; and would consist of less than 100 homes.
Distance to sites designated as being of local importance¹²	<400m	The River Nadder is a County Wildlife Site - approx. 150m south east of the site
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

¹⁰ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

¹¹ Site of Special Scientific Interest, National Nature Reserves

¹² Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is within a conservation area	The site is within the Tisbury Conservation Area.
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	There are a number of listed buildings in close proximity to the site however they are not directly adjacent, to include: Overhouse (Grade II) to the south east; Clock House (Grade II) to the south; and Gaston Manor (Grade II*) to the north.
Area of Archaeological Potential	Adjacent to an area of archaeological potential	The northern boundary of the site is approximately 75m away from an area of archaeological potential.
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	There is a Positive Contribution Building located adjacent to the north western boundary of the site.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	150m to Tisbury village centre (west)
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	<400m	400m to Tisbury Railway Station Non-hourly bus service approx. 100m east of the site.
School(s)	>800m	Approx. 1km from St. Johns C of E Primary School.
Open Space / recreation facilities	<400m	250m from recreation ground
Health Centre facility	<400m 400-800m	250m from Tisbury Surgery via footpath; or 450m via road.

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3		Grade 3- however brownfield site
Are there any Tree Preservation Orders on the site?	None		
Other			
Is the site affected by any of the following?	Yes	No	Comments
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Very small part of the northern boundary is a low risk of surface water flooding
Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Potential for some contamination based in previous land uses
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Landowner not known
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Landowner not known; in addition operational requirements of fire service in regards to access, training, parking unclear.
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Unknown
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Magistrate's Court and Old Police Station
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input checked="" type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	c. 4 dwellings
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	<p>The site has the capacity to deliver four homes, on an unused brownfield site in the centre of Tisbury. There are some constraints, in particular availability and the operational requirements of the Fire Service that would need to be overcome.</p> <p>Therefore the site is considered to be potentially suitable for taking forward for the purposes of the Neighbourhood Plan.</p>

Site 5: Land opposite to the Avenue

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 5: Land opposite to the Avenue
Site Address	The Avenue, Tisbury
Current use	Grazing of cattle
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	2.47 ha
SHLAA site reference (if applicable)	S68



Figure 5. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential (north, east), Sports facility and car park west, river to the south.			
Site boundaries	Mature trees on the northern boundary with The Avenue. No boundary on southern boundary, as site is only part of a field. Hedges/Shrub/Fence on eastern and western boundaries.			
Is the site:	Greenfield <input checked="" type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	Part of the eastern site has had three applications for flood alleviation schemes in 2005 (applicant was the Environment Agency): S/2005/1158; S/2004/2458; S/2005/1584.			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Site is on the boundary of Tisbury, however site is surrounded on three sides by development.	
How would development of this site relate to the surrounding uses?	The development would relate well to existing development with residential development to the north and east.	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	No current access. Access could easily be provided from Nadder Close and also The Avenue, though this would result in the loss of some trees.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a minerals safeguarding zone	
Is the site within the Wiltshire Council settlement boundary?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Slopes down to the river to the south of the site
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Views in from the Avenue, and property on the eastern boundary – would affect short and medium distance views from these properties. Long distance views from village centre of the river valley.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Medium and long distance views to the east and south.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance¹³	>800m	
Distance to sites designated as being of National Importance¹⁴	>800m	Upper Chicks Grove Quarry is approx. 1km east of the site
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Yes- for the River Avon System SSSI. Any residential development of 100 or more houses outside existing settlements/urban areas; and All planning applications outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Distance to sites designated as being of local importance¹⁵	<400m	The River Nadder is a County Wildlife Site - approx. 50m south of the site
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	Yes	The river to the south of the site is known to have water voles and otters.

¹³ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

¹⁴ Site of Special Scientific Interest, National Nature Reserves

¹⁵ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is adjacent to a conservation area	Tisbury Conservation Area borders the site to the north east and north-west.
Scheduled monument	Site is not on or adjacent to a SAM	There is a SM (Tithe barn and gatehouse at Place Farm) 300m north east of the site boundary, which is not visible from the site.
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	There is a Grade II listed building in approx. 50m of the boundary (however there is an intermediate property between the site and the listed building)
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	Site is located outside of the Tisbury Conservation Area boundary. No data is currently available.
Building of local importance	<p>Site contains a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site does not contain or adjoin a building of local importance</p>	Site is located outside of the Tisbury Conservation Area boundary. No data is currently available.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	400m from centre of Tisbury
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	400-800m	600m from train station Non-hourly bus service adjacent to site boundary
School(s)	>800m	1.2km from St. John's Primary School.
Open Space / recreation facilities	<400m	300m from recreation facilities (adjacent to site boundary) 1.1km from Nadder Centre
Health Centre facility	<400m	300m from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1 Zone 2 Zone 3		Site is on the boundary of an area at risk of flooding (Zones 2 and 3). Exact location of the boundary hard to determine.
Agricultural Land Classification?	Grade 3		
Are there any Tree Preservation Orders on the site?	None		Site is located outside of the Tisbury Conservation Area boundary. No data is currently available regarding 'other important trees'.
Other			
Is the site affected by any of the following?	Yes	No	Comments
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Low risk of surface water flooding on a small section of the site. However directly adjacent to an area at high risk.
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Adjacent to residential properties and the Avenue.

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Single ownership
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years		
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Land opposite the Avenue
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input checked="" type="checkbox"/>
Potential housing development capacity:	51
Estimated development timeframe:	0-5 years
Explanation / justification for decision to accept or discount site.	The site has the potential to deliver a large number of houses in a location close to Tisbury village centre; however the likely impact of development on the AONB and Tisbury Conservation Area are considered to be significant. For these reasons the site is not considered appropriate for taking forward for the purposes of the Neighbourhood Plan.

Site 6: Land at the Old Sports Centre

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 6: Land at old sports centre
Site Address	Weaveland Road, Tisbury
Current use	Sports centre (currently unused), with attached car park
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	0.35ha
SHLAA site reference (if applicable)	N/A



Figure 6. Site Boundary

Table 1-2 Context

Surrounding land uses	St John's CoE Primary School to the south of site, sports facility to the east, residential to the north and agricultural to the west.			
Site boundaries	Weaveland Road to south and east; Hedgerow to the west; Row of young trees.			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	2014 – Approved - Community Campus development off Weaveland Road (14/04907/FUL). As a result of the development of the Nadder Centre the site is supposed to be transformed into wildflower meadow.			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes, along the western boundary.	
How would development of this site relate to the surrounding uses?	The development of the site would relate well to the surrounding uses, with existing residential development to the east. Additionally, the site is adjacent to the community centre and local primary school.	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Current access via Weaveland Road; also Pedestrian access via path from Hindon Lane.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone	
Is the site within the Wiltshire Council settlement boundary?	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Flat land
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Short views in from the adjacent Community Centre, local primary school and residential area to the east of site.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Medium to long views extending over the agricultural land (north west of site) over to Weaveland Farm.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance¹⁶	>800m	Approximately 2.3km from the western boundary of the River Avon SAC
Distance to sites designated as being of National Importance¹⁷	>800m	Approximately 1.7km from the southern boundary of Fonthill Grottoes SSSI and 1.9km from the western boundary of Upper Chicksgrove Quarry SSSI.
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	No	
Distance to sites designated as being of local importance¹⁸	<400m	Site is approximately 380m from a County Wildlife Site (Oddford Brook), a tributary to the River Nadder.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

¹⁶ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

¹⁷ Site of Special Scientific Interest, National Nature Reserves

¹⁸ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is not within or adjacent to a conservation area	Approximately 300m away from Tisbury Conservation Area.
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	Site is outside of Tisbury Conservation Area boundary. Currently no data available.
Building of local importance	<p>Site contains a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site does not contain or adjoin a building of local importance</p>	Site is outside of Tisbury Conservation Area boundary. Currently no data available.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	400-800m	Approximately 600m away from High Street.
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	>800m	1.1km from Tisbury Railway Station. Approximately 500m away from Boot Bus Stop (Weaveland Road entrance). Three services, infrequent throughout the day.
School(s)	<400m	Adjacent to St John's CoE Primary School.
Open Space / recreation facilities	<400m	Adjacent to Tisbury Community Centre.
Health Centre facility	400-800m	Approximately 750m away from Tisbury Surgery.

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3b to 5		Site is located on Grade 4 Agricultural Land.
Are there any Tree Preservation Orders on the site?	None		Site is outside of Tisbury Conservation Area boundary. No data is currently available regarding 'other important trees' within or adjacent to the site.
Other			
<i>Is the site affected by any of the following?</i>	<i>Yes</i>	<i>No</i>	<i>Comments</i>
Surface water flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Adjacent to school and Community Centre.

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Land owned by Wiltshire Council and not currently in use.
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Land is understood to have been donated to Wiltshire Council by the Fonthill Estate for educational use – however it is unsure if this is a covenant on the land. The land is also subject to an existing planning permission that would see the demolition of the building and landscaping of the site as a wildflower meadow
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Unknown
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Land at old sports centre
Please tick a box	
The site is appropriate for development	<input checked="checked" type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	c.9 dwellings
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	<p>The land is considered appropriate for residential development, due to its location and lack of environmental, landscape or heritage constraints. However the availability of the land for development is unclear; this will need confirming prior to allocation within the Neighbourhood Plan. The land is also outside of the housing policy boundary and has been recommended to be set aside for future extension of the primary school.</p> <p>The site is however considered to be potentially suitable for taking forward for the purposes of the Neighbourhood Plan.</p>

Site 7: Weaveland Road (Land on Churchill Estate)

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 7: Weaveland Road (land on Churchill Estate)
Site Address	Weaveland Road, Tisbury
Current use	Green space
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	0.1ha
SHLAA site reference (if applicable)	N/A



Figure 7. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential, agriculture (grazing)			
Site boundaries	Trees to the west, residential to the north, wooden fence to the south and east			
Is the site:	Greenfield <input checked="" type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes
How would development of this site relate to the surrounding uses?	Well – in an existing residential area
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Access can be made available from the Churchill Estate
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone
Is the site within the Wiltshire Council settlement boundary?	<div> <div>Yes</div> <div><input checked="" type="checkbox"/></div> </div> <div> <div>No</div> <div><input type="checkbox"/></div> </div>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From surrounding residential properties - short views only.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	To surrounding residential properties - short views only. From first floor longer distance views likely to the west and south.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	
Distance to sites designated as being of European Importance¹⁹	>800m	
Distance to sites designated as being of National Importance²⁰	>800m	Upper Chicksgrove Quarry is approx. 1.7km east of the site
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	No	Within the River Avon System SSSI risk zone however not applicable to residential development in the urban area.
Distance to sites designated as being of local importance²¹	<400m	Approx. 200m from County Wildlife Site to the south west (River Nadder)
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

¹⁹ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

²⁰ Site of Special Scientific Interest, National Nature Reserves

²¹ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is not within or adjacent to a conservation area	Located within 200m (to the south)
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	Located approx. 1.6km to the north
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	Site is located outside of the Tisbury Conservation Area boundary. No data currently available.
Building of local importance	<p>Within the setting of a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site is not within or adjacent to a building of local importance</p>	Site is located outside of the Tisbury Conservation Area boundary. No data currently available.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	Approx. 350m from Tisbury village centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	400-800m	750m from Tisbury railway station
School(s)	400-800m	Approx. 800m from St. Johns C of E Primary School.
Open Space / recreation facilities	<400m	250m from recreation ground at the Nadder Centre.
Health Centre facility	400-800m	Approx. 450m from Tisbury Surgery.

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3b to 5 Grade 3		Border of Grade 3 and 4
Are there any Tree Preservation Orders on the site?	Yes		TPO on part of the hedge boundary to the west of the site. Site is located outside of the Tisbury Conservation Area boundary. No data currently available regarding Other Important Trees.
Other			
Is the site affected by any of the following?	Yes	No	Comments
Surface water flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Adjacent to residential development

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Owned by Wiltshire Council and suggested by them. It is understood that the site was included in an earlier SHLAA
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Unknown
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Weaveland Road (land on Churchill Estate)
Please tick a box	
The site is appropriate for development	<input checked="checked" type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	C. 3 dwellings
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	The site currently consists of open space within a residential area that has no formal designation. The site has few constraints to development; and thus considered suitable for allocation. It is however only a very small site and it forms a useful pedestrian access into the community field so may be better suited for allocation as Local Green Space.

Site 8: Lush's Field (Land north of Vicarage Road)

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 8: Lush's Field (Land north of Vicarage Road)
Site Address	Land north of Vicarage Road, Tisbury
Current use	Grazing
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	1.29 ha
SHLAA site reference (if applicable)	Site 3171



Figure 8. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential (south and east), Agriculture (north and west)			
Site boundaries	Trees and hedges on boundaries. Residential property to south east.			
Is the site:	Greenfield <input checked="" type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	On the edge of the built up area, however site feels within the settlement boundary	
How would development of this site relate to the surrounding uses?	Well, surrounded on two sides by residential development	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	No current access. Access only available from Vicarage Road, however the site is very steep and access is not considered easily feasible.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	In a Minerals Safeguarding Zone	
Is the site within the Wiltshire Council settlement boundary?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Steep - land falls steeply to the south west, especially on the south west part of the site.
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From adjacent houses to the east; as well as from housing estate to the south.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Long distance views to the south

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance²²	>800m	
Distance to sites designated as being of National Importance²³	>800m	1.8km from Upper Chicks Grove SSSI (to the east)
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Yes- for the River Avon System SSSI. Zone does not apply to residential development; however All planning applications outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Distance to sites designated as being of local importance²⁴	<400m	Site adjacent to a County Wildlife Site (Oddford Brook – tributary of the River Nadder) that is located to the west of the site
Does the Site contain any BAP Priority Habitat?	No	CWS consist of Deciduous woodland (BAP Priority Habitat)
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

²² Special Areas of Conservation, Special Protection Areas and Ramsar Sites

²³ Site of Special Scientific Interest, National Nature Reserves

²⁴ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is adjacent to a conservation area	Adjacent to Tisbury Conservation Area to the south along Vicarage Road
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	1.5km south of Fonthill (Grade II*)
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	3 listed building lie to the south along Vicarage Road (within 100m of the site boundary) - Tuckingmill Farmhouse (Grade II); Knapp Cottage (Grade II); The Knapp (Grade II)
Area of Archaeological Potential	Adjacent to an area of archaeological potential	South western boundary of site is located adjacent to an area of archaeological potential
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	Cluster of Positive Contribution buildings located approximately 30m outside of the south western site boundary.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	<400m	Approx. 400m from Tisbury town centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	>800m	850m from Tisbury Train Station 600m from non-regular bus service
School(s)	400-800m >800m	700m from St Johns C Of E Primary School via footpath; 1.1km via road
Open Space / recreation facilities	400-800m >800m	350m from recreation ground by Nadder Centre (via footpath); 700m from recreation ground in Tisbury village centre.
Health Centre facility	400-800m	600m from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		However, adjacent land to the west is in flood zone 3
Agricultural Land Classification?	Grade 3b to 5		Grade 4 (with potential to be Grade 3)
Are there any Tree Preservation Orders on the site?	None		Three 'other important trees' located along the western boundary of the site.
Other			PRoW goes along part of north eastern boundary within the site
<i>Is the site affected by any of the following?</i>	Yes	No	<i>Comments</i>
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Adjacent land to the west is at surface water flood risk, which could include the site's boundary. Therefore, boundary would need to be confirmed.
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Single or multiple agreed ownership
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years		
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Lush's Field (Land north of Vicarage Road)
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input checked="" type="checkbox"/>
Potential housing development capacity:	30
Estimated development timeframe:	Within 5 years
Explanation / justification for decision to accept or discount site.	The site has the potential to deliver a large number of houses, however it is not considered that access can be readily provided to the site. Furthermore, development could have an adverse effect on Tisbury Conservation Area, the AONB, as well as on ecological constraints. For these reasons, the site is not considered suitable for allocation in the Neighbourhood Plan.

Site 9: Tuckingstones (Land adjacent to Tuckingstones, Tisbury)

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 9: Tuckingstones (Land adjacent to Tuckingstones)
Site Address	Land south of Hatch Lane (and east of Mount Pleasant), Tisbury
Current use	Agriculture, Residential
Parish Name	West Tisbury CP
Gross area (Ha) Total area of the site in hectares	1.04 ha
SHLAA site reference (if applicable)	S59



Figure 9. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential (west, south and east), Agriculture (north)			
Site boundaries	Hedge (with scattered trees) on the SW boundary; Trees on SE boundary; hedge/trees/fence on NW boundary; SE boundary unclear			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield	Two residential properties based on the site. Remaining land is gardens/agricultural land			
Site planning history Have there been any previous applications for development on this land? What was the outcome?	Number of minor residential planning applications (extensions, greenhouse) from owners of houses within the site.			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes – however the site forms the only gap between Tisbury and Tuckingstones	
How would development of this site relate to the surrounding uses?	Relate well – surrounded by residential development	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Farm access currently available from Mount Pleasant (road)	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone	
Is the site within the Wiltshire Council settlement boundary?	<p>Yes</p> <input type="checkbox"/>	<p>No</p> <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Views in from adjacent residential properties, as well as from the surrounding landscape, particularly from the NE and E. Development would affect the long distance views from properties on Mount Pleasant; other properties adjacent to the site only likely to affect shorter distance views.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Long distance views to the North-east, East and South.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance²⁵	>800m	
Distance to sites designated as being of National Importance²⁶	>800m	
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Yes- for the River Avon System SSSI. Zone does not apply to residential development; however It relates to all planning applications outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Distance to sites designated as being of local importance²⁷	<400m	CWS - 50m from NE corner of the site.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

²⁵ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

²⁶ Site of Special Scientific Interest, National Nature Reserves

²⁷ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is adjacent to a conservation area	30m west of Tisbury Conservation Area
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	1.7km south/south east of Fonthill (Grade II*)
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	Closest listed building is 70m NE of the site boundary
Area of Archaeological Potential	Adjacent to an area of archaeological potential	The north eastern corner of the site is located approximately 50m from an area of archaeological potential.
Building of local importance	Site is adjacent to, or within the setting of a building of local importance	The north eastern corner of the site is located approximately 50m from a cluster of Positive Contribution Buildings.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	400-800m	Approx. 600m from Tisbury town centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	>800m	Approx. 1.1km from Tisbury Train Station Non-regular bus service 400m west of the site.
School(s)	>800m	1.3km from St Johns C Of E Primary School
Open Space / recreation facilities	>800m	850m from recreation ground
Health Centre facility	400-800m	Approx. 750m from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3b to 5 Grade 3		Grade 3 or 4 – cannot tell from mapping available.
Are there any Tree Preservation Orders on the site?	None		
Other			
<i>Is the site affected by any of the following?</i>	Yes	No	Comments
Surface water flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not available due to multiple or unknown ownership
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Multiple or unknown ownership
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	6-10 years		
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Tuckingstones (Land adjacent to Tuckingstones)	
Please tick a box		
The site is appropriate for development		<input type="checkbox"/>
This site has minor constraints		<input checked="" type="checkbox"/>
The site has significant constraints		<input type="checkbox"/>
The site is unsuitable for development		<input type="checkbox"/>
Potential housing development capacity:	24	
Estimated development timeframe:	6-10 years	
Explanation / justification for decision to accept or discount site.	<p>The site has few environmental or heritage constraints, and development is considered to have minimal landscape and visual effects due to screening on and adjacent to the site. However access to community facilities and services are relatively poor. Small scale linear development is considered the most appropriate as this would relate well to the existing settlement pattern in this area.</p> <p>The availability of the land for development is unclear; this will need confirming prior to allocation. The site is thus considered to be potentially suitable for residential development.</p>	

Site 10: Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 10: Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)
Site Address	Hatch Lane, Tuckingmill
Current use	None
Parish Name	West Tisbury CP
Gross area (Ha) Total area of the site in hectares	1.28
SHLAA site reference (if applicable)	Site 3085



Figure 10. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential, Agriculture			
Site boundaries	Trees and hedges on boundary within the south-east part of the site; north west part of the site is trees/hedges and field boundary			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input type="checkbox"/>	Mixture <input checked="" type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield	Part of the site is a disused quarry, however this has now been reinstated as a wildlife site. Other part of the site is agricultural			
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Located on the edge of Tuckingmill, a linear settlement	
How would development of this site relate to the surrounding uses?	Development on the south-east of the site would relate well to the adjacent residential properties surrounding part of the site. Development on the north-west of the site would be separated from Tuckingmill and would not relate well to the surroundings.	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Farm access from Hatch Lane to the north-west part of the site.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a minerals safeguarding zone	
Is the site within the Wiltshire Council settlement boundary?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Relatively flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From adjacent residential houses. Other views limited due to the screened nature of the south-east part of the site. Views in from the north-west part of the site are likely to be wider views from points within the landscape.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Short views in the south-east part of the site due to screening. Longer distance views to the south from the north-west part of the site.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance²⁸	>800m	
Distance to sites designated as being of National Importance²⁹	>800m	
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes/No	Yes- for the River Avon System SSSI. Zone does not apply to residential development; however All planning applications outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Distance to sites designated as being of local importance³⁰	<400m	Part of the site is within a County Wildlife Site (south-eastern half of the site)
Does the Site contain any BAP Priority Habitat?	No	-
Does the Site contain Ancient Woodland?	No	-
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	Yes	Site has trees within and on the boundary; it is also partly designed as a County Wildlife Site; ecological value therefore presume to be high.

²⁸ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

²⁹ Site of Special Scientific Interest, National Nature Reserves

³⁰ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is not within or adjacent to a conservation area	Approx. 500m west of Tisbury Conservation Area
Scheduled monument	Site is not on or adjacent to a SAM	Approx. 600m north west of a SM (Wick Farm settlement site)
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	1.5km south/south east of Fonthill (Grade II*)
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	Closest is 500m east of the site.
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	No information available. Site is outside of the boundary for Tisbury Conservation Area.
Building of local importance	<p>Site contains a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site does not contain or adjoin a building of local importance</p>	No information available. Site is outside of the boundary for Tisbury Conservation Area.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	>800m	Approx. 950m from Tisbury town centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	>800m	1.2km (using footpaths) and 1.4km (via road only) to Tisbury Train Station. Non regular bus service adjacent to the site.
School(s)	>800m	1.5km from St Johns C Of E Primary School
Open Space / recreation facilities	>800m	1.3km from recreation field in Tisbury village centre
Health Centre facility	>800m	Approx. 1.1km from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3		Grade 3 no recent classification
Are there any Tree Preservation Orders on the site?	None		No information available regarding 'other important trees' as the site is located outside of the boundary for Tisbury Conservation Area.
Other			Public right of way goes through the site.
Is the site affected by any of the following?	Yes	No	Comments
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	South-eastern tip of the Site is at low risk of surface water flooding. This area could easily be avoided as part of any layout.
Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Potential for contamination from previous use.
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Overhead electricity lines on north-west part of the site. Site is adjacent to a transformer station.
Utility services unavailable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Part of the site adjacent to residential properties

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not available at present as in multiple or unknown ownership
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Multiple or unknown ownership
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	6-10 years		
Any other comments?	None		

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Old Quarry at Hatch Lane (land and disused quarry at Tuckingmill)	
Please tick a box		
The site is appropriate for development	<input type="checkbox"/>	
This site has minor constraints	<input type="checkbox"/>	
The site has significant constraints	<input type="checkbox"/>	
The site is unsuitable for development	<input checked="" type="checkbox"/>	
Potential housing development capacity:	31	
Estimated development timeframe:	6-10 years	
Explanation / justification for decision to accept or discount site.	Due to the significant constraints present at the site, principally the ecological constraints associated with the County Wildlife site designation, the site is not considered suitable for allocation of residential development through the Neighbourhood Plan.	

Site 11: Old Council Yard (Land at Tuckingmill Highways Depot)

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 11: Old Council Yard (Land at Tuckingmill Highways Depot)
Site Address	Tuckingmill Highways Depot, Hatch Lane, Tuckingmill
Current use	Currently not used, previously used as the Council's Highways Depot
Parish Name	West Tisbury CP
Gross area (Ha) Total area of the site in hectares	0.28 ha
SHLAA site reference (if applicable)	Site S100



Figure 11. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential (east), Agriculture, Electrical Substation (north)			
Site boundaries	Trees			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Located on the edge of Tuckingmill, a linear settlement.	
How would development of this site relate to the surrounding uses?	Development would relate reasonably well to the adjacent residential properties to the east of the site.	
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Small singular vehicle width access from Hatch Lane.	
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone	
Is the site within the Wiltshire Council settlement boundary?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Relatively flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	Minimal, as surrounded by trees. Potentially some short, shielded, views in from 3 houses to the east.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	Minimal, as surrounded by trees.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	Cranborne Chase & West Wiltshire Downs
Distance to sites designated as being of European Importance³¹	>800m	
Distance to sites designated as being of National Importance³²	>800m	
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	Yes	Yes- for the River Avon System SSSI. Zone does not apply to residential development; however All planning applications outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures.
Distance to sites designated as being of local importance³³	<400m	Adjacent to a County Wildlife Site on adjacent site, that is located to SW.
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	Yes	Site has trees within and on the boundary; it is adjacent to a County Wildlife Site; ecological value therefore presume to be high.

³¹ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

³² Site of Special Scientific Interest, National Nature Reserves

³³ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is not within or adjacent to a conservation area	Approx. 500m west of Tisbury Conservation Area
Scheduled monument	Site is not on or adjacent to a SAM	Approx. 700 NW of SM (Wick Farm settlement site)
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	1.4km south/south east of Fonthill (Grade II*)
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	No information available. Site is outside of the boundary for Tisbury Conservation Area.
Building of local importance	<p>Site contains a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site does not contain or adjoin a building of local importance</p>	No information available. Site is outside of the boundary for Tisbury Conservation Area.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	>800m	Approx. 1km from Tisbury town centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	>800m	1.3km (using footpaths) and 1.4km (via road only) to Tisbury Train Station. Non regular bus service adjacent to the site.
School(s)	>800m	1.6km from St Johns C Of E Primary School
Open Space / recreation facilities	>800m	1.3km from recreation field in Tisbury village centre
Health Centre facility	>800m	Approx. 1.2km from Tisbury Surgery

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3		Grade 3 no recent classification
Are there any Tree Preservation Orders on the site?	None		No information available regarding 'other important trees' as the site is located outside of the boundary for Tisbury Conservation Area.
Other			
<i>Is the site affected by any of the following?</i>	Yes	No	Comments
Surface water flooding	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Contamination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Potential for contamination from previous use.
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services unavailable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Part of the site adjacent to residential properties

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Single ownership
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years		
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	Old Council Yard (Land at Tuckingmill Highways Depot)	
Please tick a box		
The site is appropriate for development	<input type="checkbox"/>	
This site has minor constraints	<input checked="" type="checkbox"/>	
The site has significant constraints	<input type="checkbox"/>	
The site is unsuitable for development	<input type="checkbox"/>	
Potential housing development capacity:	8	
Estimated development timeframe:	0-5 years	
Explanation / justification for decision to accept or discount site.	<p>The site has the capacity to deliver a small number of houses on a brownfield site adjacent to existing residential properties. Development at this location would need to ensure effects on the adjacent County Wildlife Site are avoided, and potential biodiversity assets on the site (including trees) are retained.</p> <p>It is therefore concluded that the site is potentially suitable for the allocation of residential development through the Neighbourhood Plan.</p>	

Site 12: St. Johns Close Redevelopment

1. Background information

Table 1-1 Site location and use

Site Reference / name	Site 12: St. Johns Close Redevelopment
Site Address	St. Johns Close, Tisbury
Current use	Residential housing
Parish Name	Tisbury CP
Gross area (Ha) Total area of the site in hectares	0.66ha
SHLAA site reference (if applicable)	N/A

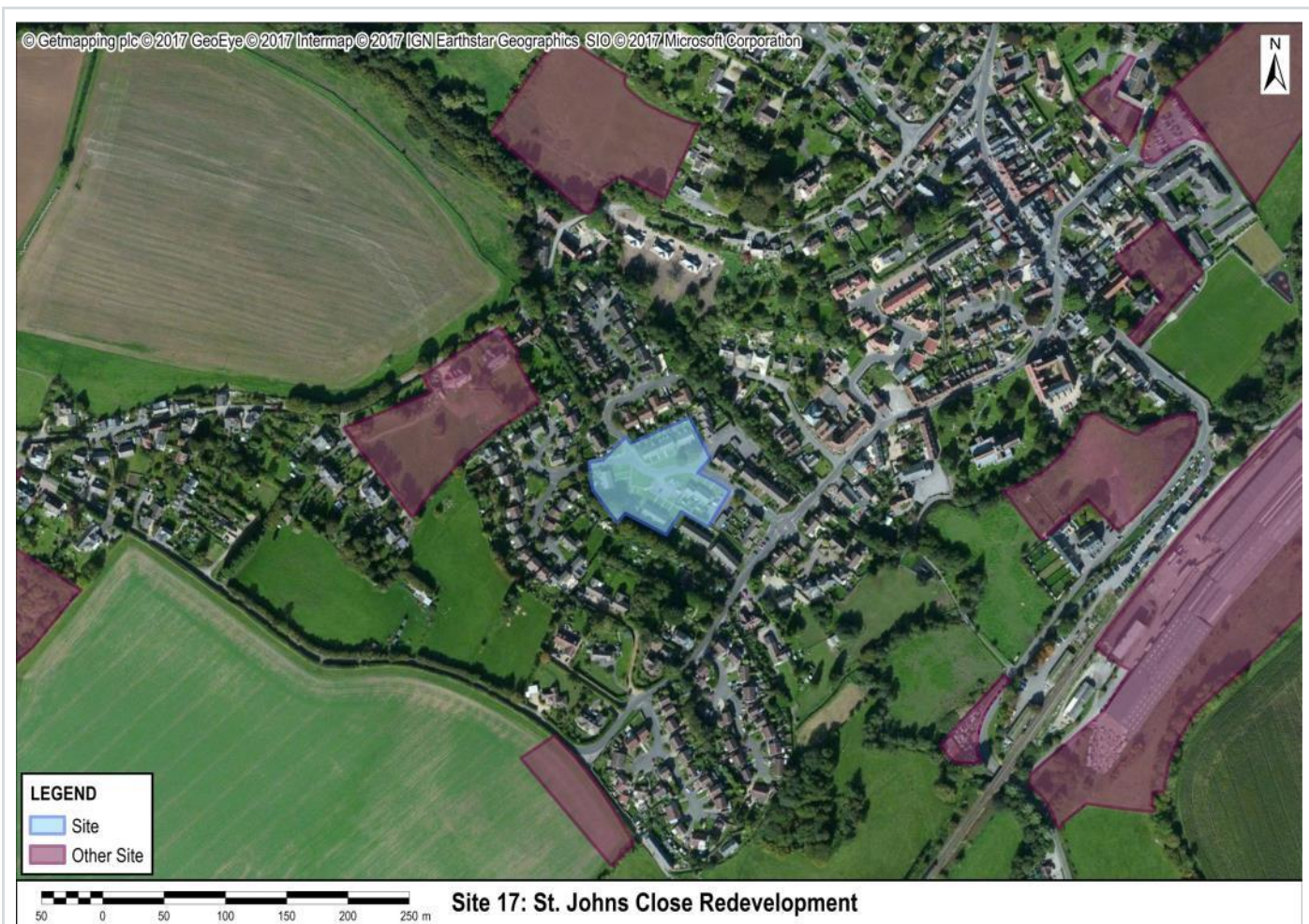


Figure 12. Site Boundary

Table 1-2 Context

Surrounding land uses	Residential			
Site boundaries	Trees to the east and south east. Existing residential properties and gardens on other boundaries			
Is the site:	Greenfield <input type="checkbox"/>	Brownfield <input checked="" type="checkbox"/>	Mixture <input type="checkbox"/>	Unknown <input type="checkbox"/>
If a mixture, please provide details i.e. northern part of site Brownfield, southern part Greenfield				
Site planning history Have there been any previous applications for development on this land? What was the outcome?	None			

2. Suitability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 2-1 Suitability

Is the site within the existing built up area of the settlement?	Yes
How would development of this site relate to the surrounding uses?	Well – in an existing residential area
Is the current access adequate for the proposed development? If not, is there potential for access to be provided?	Yes
Is the site allocated within the Local Plan? (incl. residential, industrial, waste, mineral etc...)	Within a Minerals Safeguarding Zone
Is the site within the Wiltshire Council settlement boundary?	<div> <div>Yes <input checked="" type="checkbox"/></div> <div>No <input type="checkbox"/></div> </div>

Table 2-2 Characteristics

Characteristics which may affect development on the site:	Comments
Topography: Flat/ plateau/ steep gradient	Flat
Views in? Can the site be seen from the surrounding area? What would the impact be on views towards the site?	From surrounding residential properties - short views only.
Views out? Can any landmarks e.g. church spires or listed buildings be seen from the site?	To surrounding residential properties - short views only. From first floor longer distance views likely to the south.

Table 2-3 Environmental Considerations

		Observations and comments
Area of Outstanding Natural Beauty (AONB)	Within a AONB	
Distance to sites designated as being of European Importance³⁴	>800m	
Distance to sites designated as being of National Importance³⁵	<400m 400-800m >800m	Upper Chicksgrove Quarry is approx. 1.8km east of the site
Is the site within an SSSI Impact Risk Zone for the type of development which may be proposed through the Neighbourhood Plan?	No	Within the River Avon System SSSI risk zone however not applicable to development in the urban area.
Distance to sites designated as being of local importance³⁶	<400m	Approx. 150m from County Wildlife Site to the north (River Nadder)
Does the Site contain any BAP Priority Habitat?	No	
Does the Site contain Ancient Woodland?	No	
Ecological value? Could the site to be home to protected species such as bats, great crested newts, badgers etc?	No	

³⁴ Special Areas of Conservation, Special Protection Areas and Ramsar Sites

³⁵ Site of Special Scientific Interest, National Nature Reserves

³⁶ Local Nature Reserves, Sites of Nature Conservation Importance

Table 2-4 Heritage considerations

Proximity of site to the following sites / areas	Proximity	Comments
Conservation Area	Site is not within or adjacent to a conservation area	
Scheduled monument	Site is not on or adjacent to a SAM	
Registered Parks and Gardens	Site is not within or adjacent to a Registered Park and Garden	
Registered Battlefields	Site is not within or adjacent to a Registered Battlefield	
Listed buildings	Site does not contain or within the setting of a listed building	
Area of Archaeological Potential	<p>Within an area of archaeological potential</p> <p>Adjacent to an area of archaeological potential</p> <p>Site is not within or adjacent to an area of archaeological potential</p>	Site is located outside of the Tisbury Conservation Area boundary. No data currently available.
Building of local importance	<p>Within the setting of a building of local importance</p> <p>Site is adjacent to, or within the setting of a building of local importance</p> <p>Site is not within or adjacent to a building of local importance</p>	Site is located outside of the Tisbury Conservation Area boundary. No data currently available.

Table 2-5 Community facilities and services

What is the distance to the following facilities (measured from the site centre along roads)	Distance (metres)	Observations and comments
Town / local centre / shop	400-800m	450m from Tisbury village centre
Public transport e.g. Train Station or Bus Stop (with at least a half hourly service during the day)	400-800m	550m from Tisbury railway station (via footpath) or 650m via road.
School(s)	>800m	1.2km from St. Johns C of E Primary School.
Open Space / recreation facilities	400-800m	550m from Tisbury village centre recreation ground
Health Centre facility	400-800m	Approx. 750m from Tisbury Surgery.

Table 2-6 Other key considerations

			Comments
Which Flood risk zone (fluvial) does the site fall within or intersect with?	Zone 1		
Agricultural Land Classification?	Grade 3b to 5 Grade 3		Border of Grade 3 and 4
Are there any Tree Preservation Orders on the site?	None		Site is located outside of the Tisbury Conservation Area boundary. No data currently available regarding Other Important Trees.
Other			
<i>Is the site affected by any of the following?</i>	Yes	No	Comments
Surface water flooding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	St. John Close (road only) is at risk of surface water flooding
Contamination	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Significant infrastructure crossing the site i.e. power lines/ pipe lines	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Utility services available	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

3.0. Availability

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 3-1 Availability

	Yes	No	Comments
Is the site available for sale or development (if known)? Please provide supporting evidence.	<input type="checkbox"/>	<input type="checkbox"/>	Uncertain
Are there any known legal or ownership problems such as unresolved multiple ownerships, ransom strips, tenancies, or operational requirements of landowners?	<input type="checkbox"/>	<input type="checkbox"/>	Owned by Wiltshire Council, however currently land contains residential housing that is currently occupied (council owned housing- Wiltshire Council).
Is there a known time frame for availability? 0-5 /6-10 / 11-15 years.	0-5 years 6-10 years 11-15 years		Uncertain
Any other comments?			

4.0. Summary

Assessing the suitability of the site will give an indication of whether the site has any constraints to development. It should consider aspects such as infrastructure, planning policy, local services, heritage and other considerations.

Table 4-1 Conclusions

Site name/number:	St. Johns Close Redevelopment
Please tick a box	
The site is appropriate for development	<input type="checkbox"/>
This site has minor constraints	<input checked="" type="checkbox"/>
The site has significant constraints	<input type="checkbox"/>
The site is unsuitable for development	<input type="checkbox"/>
Potential housing development capacity:	16 dwellings (however the site could easily support increased densities)
Estimated development timeframe:	Uncertain
Explanation / justification for decision to accept or discount site.	<p>The site currently consists of low density housing that is located close to Tisbury village centre. The site has few constraints to development; and redevelopment could provide a higher density of housing. However, the availability of the land for development is unclear; this would need confirming prior to allocation within the Neighbourhood Plan.</p> <p>As such the site is considered to be potentially suitable for taking forward for the purposes of the Neighbourhood Plan.</p>



Neighbourhood Plan Renewal 2022



Stage 1 Community Engagement Report

Prepared for Tisbury and West Tisbury Parish Council

Final version – 6th September, 2022





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Front cover picture, River Nadder flooding October 2021 (Sue Pocock)



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1. Context

1.1. The Tisbury and West Tisbury Neighbourhood Plan

- The Tisbury and West Tisbury Neighbourhood Plan (“TisPlan”) covers the period 2019 – 2036 and its designated area is formed by the civil parishes of Tisbury and West Tisbury. The current version of TisPlan, the product of six years’ work by a team of committed volunteers, received 93.6% support at referendum, before being made on 28th November 2019.
- Since 2019, TisPlan has informed a number of development proposals and in particular its vision for the site of the former Sports Centre in Tisbury village led to submission of a planning application for a community-led development of 13 homes, supported by Wiltshire Council, which has received high levels of community support.
- At the start of 2022 Tisbury and West Tisbury Parish Councils (the “Parish Councils”) concluded that TisPlan should be renewed to take account of changes since 2019 and a Steering Group was established to recommend those areas of the plan which should be updated as part of the renewal, ensure these were aligned with the views of the local community, and to oversee the renewal process.

1.2. Renewal Objectives

Renewal priorities

- The Steering Group recommended three areas of focus:
 - to update policies on **FLOOD RISK** in the light of severe flooding in Tisbury in October 2021 and publication of a new strategic Flood Risk Assessment by Wiltshire Council
 - to strengthen policies governing emissions of **ARTIFICIAL LIGHT**, following designation of the Cranborne Chase AONB (in which Tisbury lies) as the 14th [International Dark Sky Reserve](#), reflecting its exceptional night skies and the commitment to protect them for future generations.
 - to ensure that all Local **GREEN SPACES** valued by the community are protected and to consider potential candidates for designation which have been put forward since 2019.

Other areas of focus

- The Steering Group also recommended that the renewed TisPlan should retain its full weight in planning decisions by responding to changes in the wider planning landscape since 2019, and in particular should ensure:
 - that location of its main strategic site, Station Works, remains appropriate in the light of government guidance that the viability of strategic sites should be carefully assessed at the time of plan preparation.
 - that it reflects the most up-to-date assessment of local housing need in the light of government guidance that all neighbourhood plans should contribute towards meeting housing need.

1.3. Stage 1 Community Engagement

- In March 2022, the Steering Group therefore commissioned an initial community engagement exercise to establish:



- the level of support for renewing TisPlan in 2022
 - the level of continued support for the Vision Statement, on which TisPlan is based
 - the scope for the renewal, and
 - other suggestions or concerns which should be considered as part of the 2022 renewal.
- The schematic for the engagement approved by the Steering Group is reproduced in Appendix A - Survey Schematic.
- In addition, the Steering Group sought to use the engagement as an opportunity to build a better picture of housing need in the Plan area.
- The engagement took the form of a **community survey**, conducted between 25th April 2022 and 11th May 2022, containing 13 core questions designed to explore the areas set out above. The survey was available in both online and print format and was publicised through a leaflet drop to every home in Tisbury and West Tisbury parishes. The survey was promoted through publicity at Tisbury Post Office, on local websites, social media channels and through a street presence by Neighbourhood Plan volunteers on Tisbury High Street.
- Local housing need was explored through a separate section of the survey completed by those who indicated that they would need a home in the Plan area in the near future. Those completing this section were asked to describe the type of home sought and the obstacles (if any) which they felt might prevent their needs from being met by the local housing market.
- A copy of the complete survey questionnaire is reproduced in Appendix [B]

Flooding of
Stubbles
Footpath and
Three Arch
Bridge on 21st
October 2021.



Pictures
courtesy
Dan Burrow,
Gerry Murray
& Sue Pocock





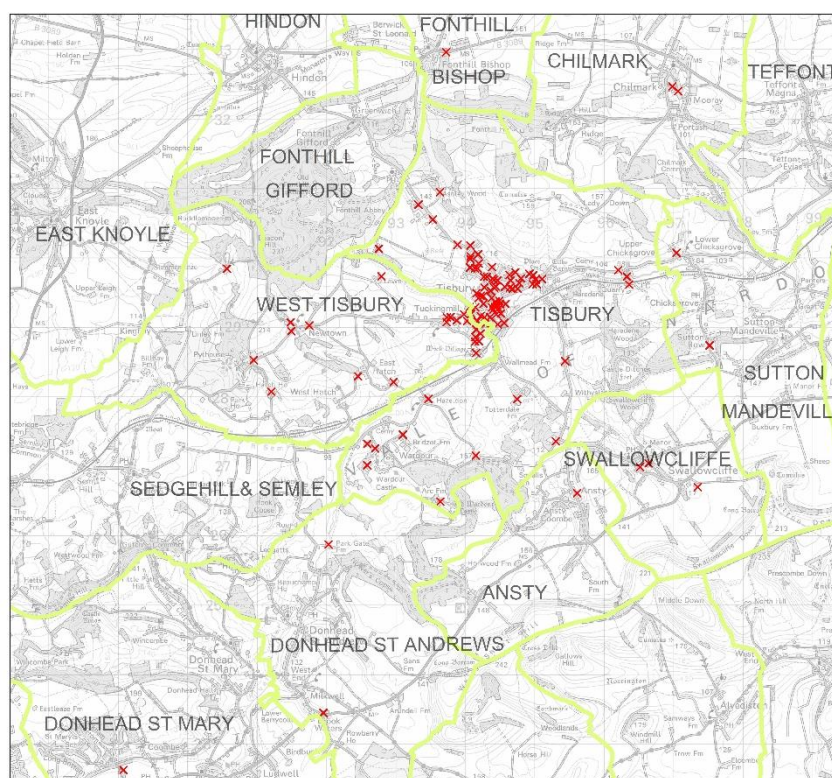
2. Level of Response

Response from one fifth of the adult population

- A total of **351** responses were received, representing just under **one fifth** (19%) of the adult population of the Neighbourhood Plan area¹

Coverage across the Neighbourhood Plan Area

- 95% of responses came from those living in either Tisbury or West Tisbury parish. The remaining 5% of responses came predominantly from those living just outside the Plan area. The distribution of responses is shown in the maps below:

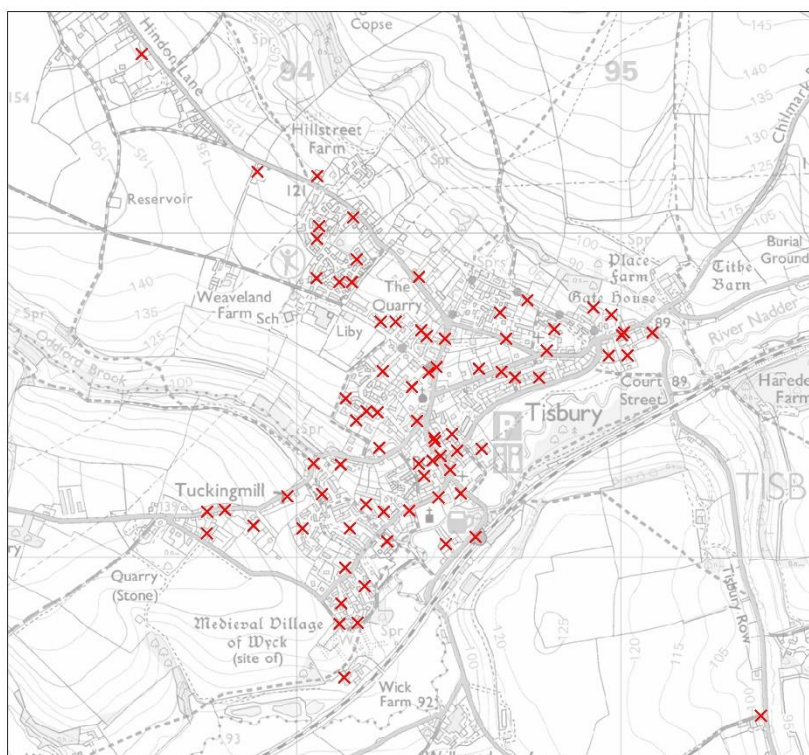


Distribution of Responses across local parishes

X - indicates a Postcode from which one or more responses were received

Distribution of responses in Tisbury and West Tisbury parishes

¹ Resident Adult Population calculated from 2011 Census Table KS101EW, uplifted by 6.3% representing the percentage increase between 2011 and 2020 projected in the ONS Mid-2020 population estimates for Tisbury Community Area.



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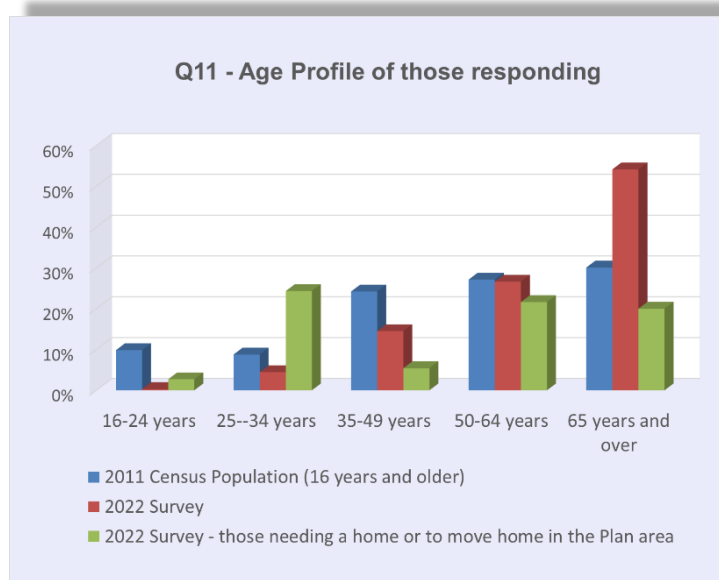
Distribution of Responses
Tisbury

X - indicates a Postcode from which one or more responses were received

Distribution of responses in Tisbury village

Response weighted towards those over 50, except on housing need

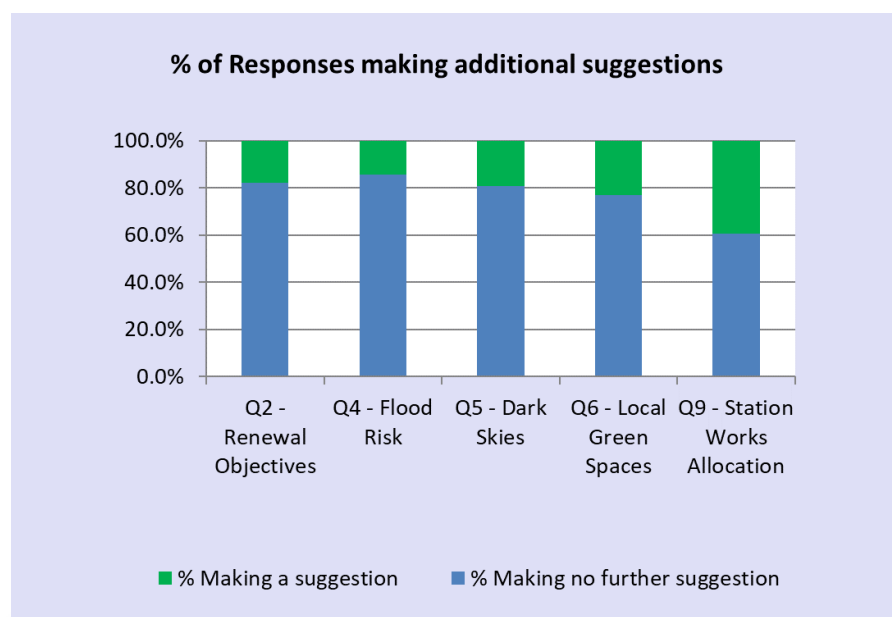
- Compared with the population of the Plan area as a whole, responses were weighted towards those in their older years. However, this was not relevant to the majority of questions, where there was no significant difference of view between those at each life stage.
- The exception was on the question of housing need, where an additional section was completed by those expecting to need a home in the Plan area in the near future. Those completing this section had a much younger profile, with one quarter falling into the age range 25-34.





High level of engagement

- Responses indicated a high level of engagement, with over half of those taking part (174 people) writing-in at least one additional comment or suggestion as well as responding to the survey questions. A total of **393** additional comments and suggestions were received, many setting out specific suggestions on the proposed areas of focus: The importance of the Station Works site to the local community is reflected in the fact that **40%** of people responding (138) wrote-in additional comments on this question.





3. The Renewal Objectives

Overwhelming support for Renewal

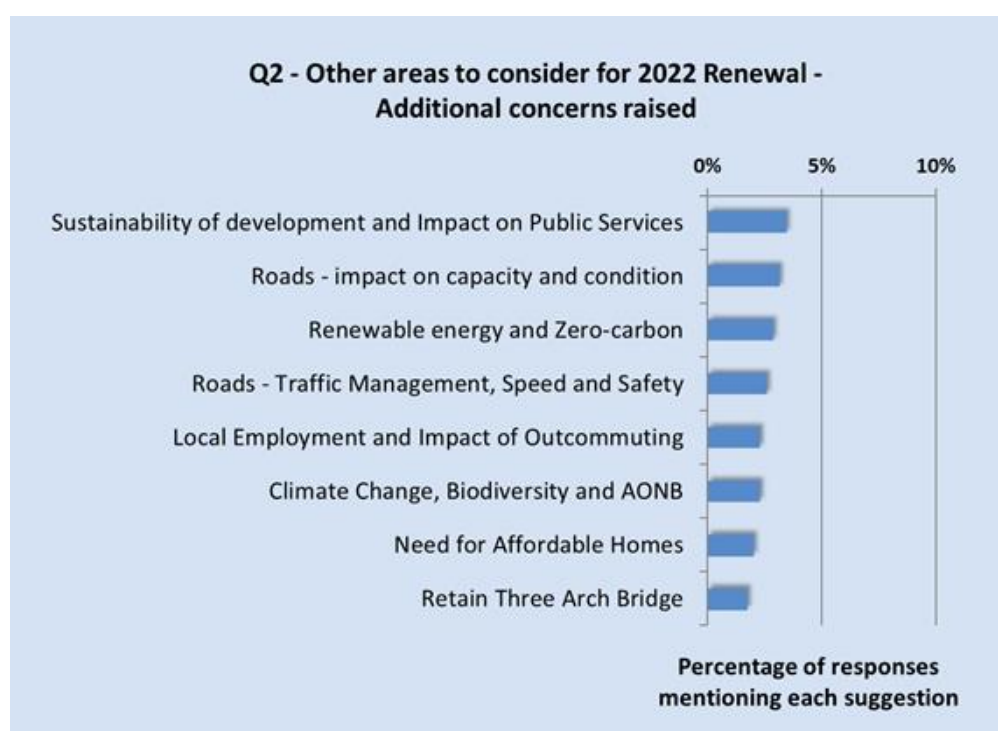
- There was strong support for the principle of renewal, with **95%** of those taking part supporting renewal of TisPlan in 2022, **2%** not supporting renewal and **3%** having no view:

Strong support for the three renewal priorities

- There was broad agreement on the renewal priorities, with **82%** of responses making no additions to the three proposed renewal priorities (flood risk, light pollution and local green spaces) together the two areas of focus set out above.

Other issues raised included sustainability, roads and affordability

- The remaining 18% of responses put forward 92 suggestions and comments, with a number of additional topics raised although the number of responses featuring each issue was small. The eight most raised issues are shown below.



- Concern about the sustainability of development was linked to anxiety that public services in Tisbury village would not be able to cope. A number of comments were made about Tisbury's road system, divided evenly between concerns about highway maintenance and the capacity of Tisbury's road system to host significant new development. Concern was expressed about the need to focus on local employment opportunity and to ensure that development does not lead to further out-commuting. A number of those responding expressed the view that considerations of viability should not hinder achievement of the community's priorities.



Comments

- Examples of comments on the eight most raised issues are given below:

Sustainability and Impact on Public Services	<p>✎ <i>We don't need more houses in Tisbury. We have to consider the amount of traffic, schools, doctor, sewer.</i></p> <p>✎ <i>Is it set in concrete that we have to have more housing when this is such a small rural area?</i></p> <p>✎ <i>Regarding the government mandatory requirements, these should only be put into effect with strong consideration for maintaining Tisbury as a community ...to not overload local facilities and roads and to protect the local environment.</i></p> <p>✎ <i>Wiltshire Core Strategy 2015 ... states "the strategy for Tisbury Community Area is to provide for modest growth of both housing and employment to ensure development is balanced, thus helping to minimise out-commuting and also to provide support for local services and communities."</i></p>
Roads – Capacity and Condition	<p>✎ <i>Ensuring that levels of traffic are kept manageable and that alternative forms of transport such as walking and cycling are prioritised over more cars clogging up lanes and the high street.</i></p> <p>✎ <i>The current infrastructure cannot cope with any more housing</i></p>
Renewable Energy and Zero Carbon	<p>✎ <i>A statement of general principles should be included to demonstrate energy efficiency in all new buildings and any renovations.</i></p> <p>✎ <i>There should be a greater emphasis on moving to Zero Carbon for all new developments. We cannot defer this for another two years as the clock is ticking.</i></p>
Roads – Traffic Management and Safety	<p>✎ <i>Traffic management and parking are a significant issue in Tisbury. It is becoming more and more difficult to drive safely in the area.</i></p>



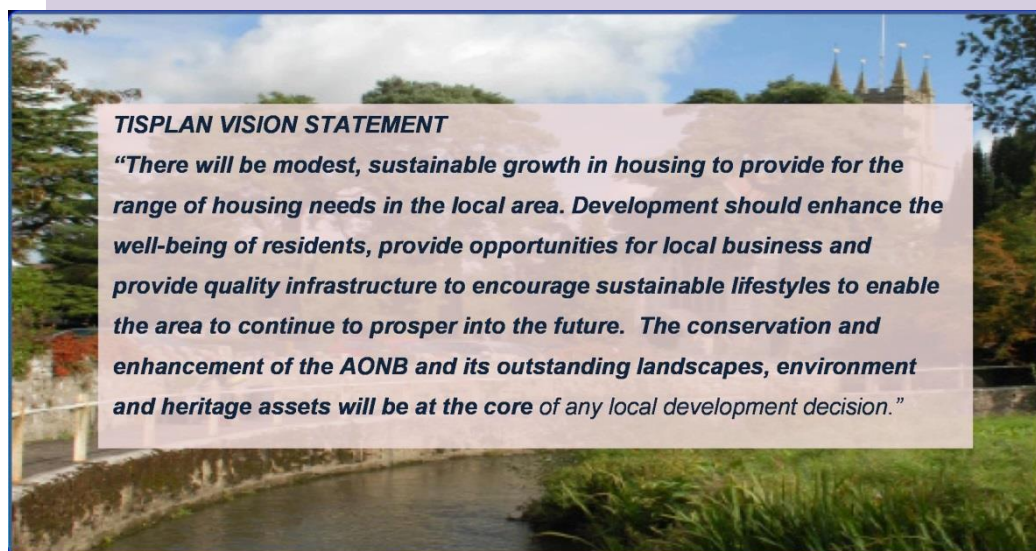
Local Employment and Out- commuting	<p>✎ <i>It should be the principal objective of the TisPlan to maintain the status of Tisbury as a village and not to have it subsequently become a convenience for wealthy commuters.</i></p> <p>✎ <i>Consider the requirement that any development should create work or business opportunities. Otherwise, it will not support the local community and will simply lead to increased travel and greenhouse gas emissions.</i></p> <p>✎ <i>We should develop business / work facilities within the Village otherwise Tisbury will become simply a dormitory village with not enough young people living in it.</i></p>
Climate Change, Biodiversity and the AONB	<p>✎ <i>The Parish Councils will readily acknowledge that the impacts of climate change and loss of biodiversity are now far more widely understood and appreciated than they were when the drafting of the first TisPlan was initiated, and that our collective response to these pressures is urgent.</i></p> <p>✎ <i>Reforestation ... could be explored, to slow the decline of countless natural species.</i></p>
Need for Affordable Homes	<p>✎ <i>Affordable housing has gone in on Old Sports Centre. Station works is not for benefit off local people.</i></p> <p>✎ <i>Provide social housing at social rents in order to attract a younger generation into the area.</i></p>
Three Arch Bridge	<p>✎ <i>Station works development should ... NOT restrict traffic through railway bridge.</i></p> <p>✎ <i>Housing at Station Works should be low density and the developer's proposal for traffic lights at the bridge should be abandoned. Whether this is 'affordable for the developer' is immaterial. The development should serve the needs and interests of the local community.</i></p>



4. TisPlan's Vision

TisPlan's Vision continues to be endorsed

- Based on feedback from over 1,000 residents between 2015 and 2019 the TisPlan Vision Statement appears at the start of TisPlan and inspires everything it contains.



- **93%** of those responding indicated they supported the existing Vision Statement, with **5%** indicating they did not support it and **2%** having no view either way. Some comments made by the **5%** opposing the Vision Statement are shown below and indicate a variety of concerns, including flood risk, out-commuting and concern about health facilities, which the Steering Group propose to address in the modified plan.

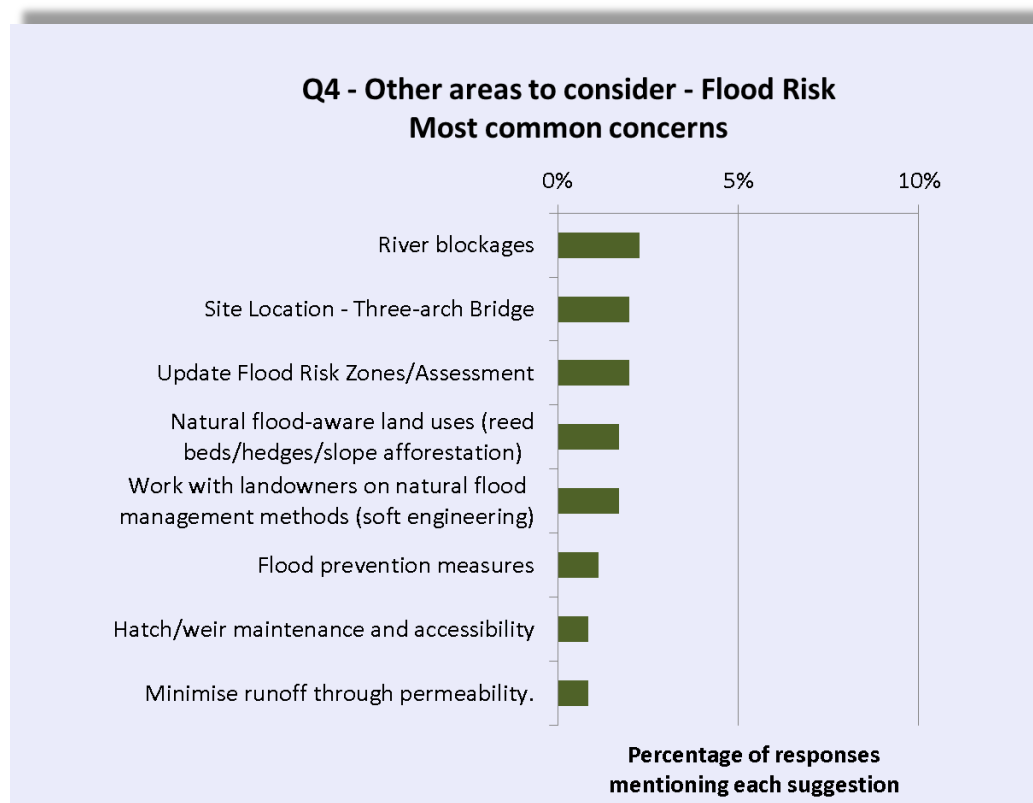
- ✎ *A definite speed limit of 20mph throughout our village is a priority.*
- ✎ *I think housing development proposals will increase the flood potential*
- ✎ *Local employment and sustainability need to continue to get priority*
- ✎ *Sixty plus houses ... is not making Tisbury more self contained.... will enhance out commuting etc, etc*
- ✎ *The railway bridge (3 arches) is a prime example of why housing cannot be built on the station works site.*
- ✎ *Station Works represents an unattractive brownfield site, well located for the village centre and station. Maximising the use of the site for housing will protect Tisbury from the need to allocate further... greenfield sites.*
- ✎ *No to more houses! We cannot get doctors' appointments.*
- ✎ *The old police station & fire station would make a good shop with parking - not too far from High Street.*



5. Flood Risk

Emphasis on natural methods of flood prevention

- Of the **62** comments and suggestions received on Flood Risk, there was an emphasis on TisPlan's role in promoting natural methods of flood prevention and steering development towards appropriate locations. Other concerns highlighted included the need for stronger local control to deal with blockages, including the management of hatches and storm drains.
- Suggestions focused on the following areas:
 - River blockages
 - The importance of the Three-arch Bridge as a natural overflow channel
 - The need to align with the most recent Strategic Flood Risk Assessment
 - Natural flood-aware land uses (reed beds/hedges/slope afforestation)
 - Work with landowners on natural flood management methods (soft engineering)
 - Other flood prevention measures
 - Hatch/weir maintenance and accessibility
 - Measures to minimise runoff through permeability.
 - The need for development to make a positive contribution to flood attenuation
 - Bunds/ditches on flood plain and road/river banks
 - Grey water capture
- A chart showing the most common concerns raised is shown below:





Comments

➤ A sample of comments made is shown below:

Dealing with Blockages, Management and Maintenance	<p>✎ <i>Good communication during high risk flood periods to make sure hatches and weirs remain open or responsive to need??</i></p> <p>✎ <i>A scheme needs setting up to help residents access flood gates, doors etc by the provision of a local flood grant to residents , provided by the EA or Wiltshire Council together with Tisbury PC</i></p> <p>✎ <i>There are several drain holes along local roads which are blocked: for example in The Avenue, at the junction with the western end of Queens Road</i></p>
Importance of the Three Arch Bridge	<p>✎ <i>Don't block off one of three arch bridge arches</i></p> <p>✎ <i>Flooding has and will always be an issue at the 3 Arch Bridges.</i></p> <p>✎ <i>Don't pedestrianise the bridge arch!</i></p>
Soft Engineering	<p>✎ <i>Methods might include, additional hedges, soil aeration, cross slope afforestation and choice of planting along the catchment; addition of spillways/runoff ponds or diversion channels (soft engineering).</i></p> <p>✎ <i>By working with nature based solutions and building knowledge and capacity in local people, better results can be achieved than pouring public funds intohard / infrastructure solutions.</i></p> <p>✎ <i>Plant more flood-reducing trees to mitigate risk of floods</i></p>
Natural Expansion	<p>✎ <i>Local Authorities need to work more closely with land owners along the (Sem/Odd etc) Nadder catchments to allow the river to expand and contract naturally, seasonally and in the event of high precipitation / flash floods.</i></p> <p>✎ <i>Do not in any way mitigate the effectiveness of the water meadows</i></p>
Steering Development to Sustainable Locations	<p>✎ <i>Do not allow development on future flood plains</i></p> <p>✎ <i>No building near the river</i></p>



Specific Issue of Sewage Outflow

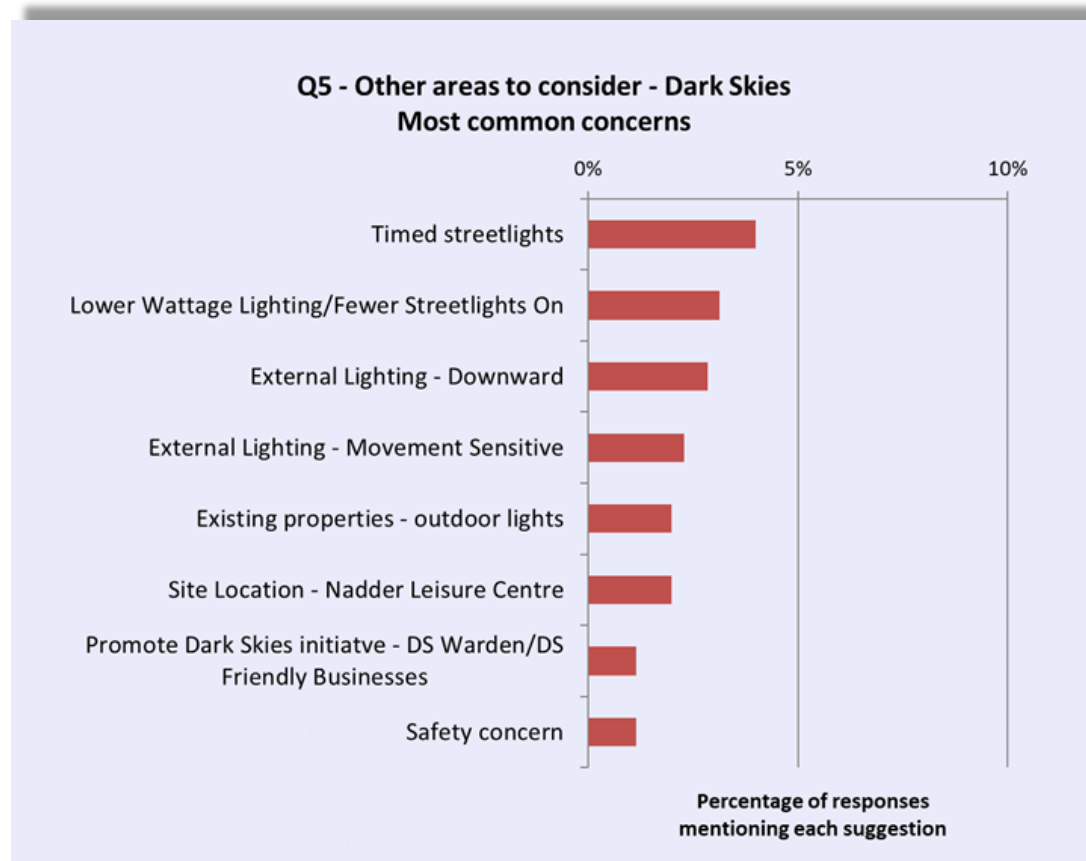
- One comment highlighted specific concerns about outflow of raw sewage into the River Nadder near Tisbury Parish Church at times of heavy rain and the possibility that the terms of a consent to discharge storm water granted by the Environment Agency might have been breached. A copy of this comment and details of the Environment Agency consent have been passed to Tisbury Parish Council.



6. Artificial Light

Preference for practical solutions

- Of the **83** comments and suggestions received on the subject of Light Pollution there was an emphasis on practical measures which could reduce existing light pollution in Tisbury, many of which, if incorporated into planning policy, could minimise emissions from new development. The most favoured measures were the timing of streetlights, use of less powerful streetlights, fewer streetlights and the use of designs which do not project light up (such as lit bollards and downward facing lights with shades). The need to design buildings so that they do not emit light upwards (for example plate glass in commercial frontages or skylights in residential development) was also commented on. One response contrasted the type of streetlights used in the centre of Tisbury village with brighter lighting used on more modern developments in its outskirts.
- Many of those commenting asked whether initiatives could be put in place to reduce light emissions from existing buildings, and a number of responses highlighted specific locations, with eight sites in Tisbury village mentioned as potential candidates. Seven responses pointed to the contribution which the Nadder Leisure Centre could make by reducing light emissions further.
- Four responses proposed giving greater prominence to the Dark Skies Initiative promoted by Cranborne Chase AONB, including its "Dark Skies Friendly Business" project and the introduction of a Dark Skies Warden.
- Four responses emphasised the importance of taking a balanced approach which is sensitive to safety concerns and the needs of elderly people, who appreciate brighter lighting.
- A chart showing the most common suggestions is shown below:





Comments

➤ The following indicate the most frequent comments made:

Timed Streetlights	<ul style="list-style-type: none"> ✎ <i>Put timers on street and path lights set to turn them off at 11pm or 12midnight</i> ✎ <i>Do street lights HAVE to be on overnight? Midnight to 06.00. Dark skies and less electricity used ie greener.</i> ✎ <i>Reduce use of street lighting between midnight and 5am</i> ✎ <i>Switch off the streetlights between 1 and 5am, which would also save money."</i> ✎ <i>A total of 830,000 tonnes of CO2 pollution is produced from the energy wasted by streetlights alone.</i>
Lower Output/Fewer Streetlights	<ul style="list-style-type: none"> ✎ <i>What about turning off every other street light??</i> ✎ <i>Reduce intensity of street lighting; both in brightness and quantity.</i> ✎ <i>Street lighting is at fault here and should be taken into account with any new development</i> ✎ <i>Retail premises should reduce the amount of light on closed premises, including signage etc.</i> ✎ <i>The 3 estates in Tisbury are noticeably brighter than other historic parts of the village. Could light fittings be switched to lower wattage in these areas?</i>
Downward Lighting	<ul style="list-style-type: none"> ✎ <i>I think the contrast between the satellite maps is startling and very concerning ... the AONB designation and policies should be strong deterrents to increased lighting.</i> ✎ <i>A change to downward directional street lighting wherever possible.</i> ✎ <i>It will be important to specify low level downlighting as a requirement for all future planning applications</i> ✎ <i>Ensure that street lighting does not leech upwards and prohibit uncovered plate glass commercial interests burning 24hrs per day.</i>



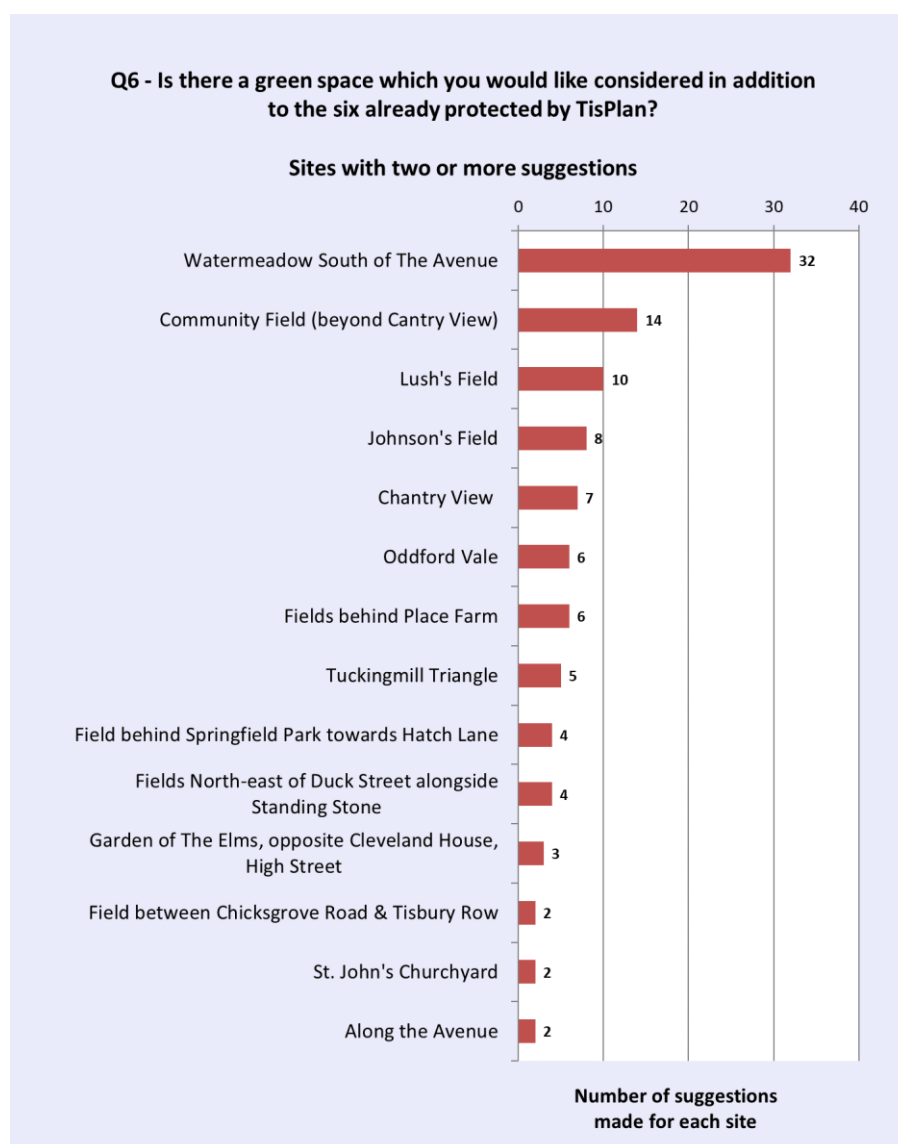
Movement Sensitive Lighting	<ul style="list-style-type: none"> Is it possible to ensure that any outdoor lights are person-movement sensitive and only come on when required. Movement activated lighting on footpaths so safe for people but not causing consistent light pollution. This would especially be good in the stubbles and station area
Specific Sites	<ul style="list-style-type: none"> About 12 months ago, I requested that the Fire Station consider dimming / changing its outside lights. Though met initially with resistance, I am delighted to say that along with the new wiring, new outside lights have been fitted which no longer light up a good stretch of The Avenue - congrats to all at the Fire Station. Light pollution would be reduced a lot by appropriate changes at the Tisbury Sports Centre Community hub lights are on all night and very bright - are they all necessary? Security lighting around the Nadder Centre is excessively bright The street lights (and other outside lights e.g. at the station and in the yard behind the station) recently fitted should have shades, angled at 45 degrees, to prevent light pollution. Surely we should leave a dark corridor behind the station through to the rolling hills beyond? The decrepit white office block on the station works site is floodlit and highly visible, especially on the road from Chilmark.
Promoting the AONB Dark Skies Initiative	<ul style="list-style-type: none"> Recommend local businesses apply to become 'Dark Sky Friendly' businesses. A volunteer dark skies officer should be appointed to advise on new lighting issues and address specific ...problems. More information to householders regards the importance of dark sky reserves.
Safety Concerns	<ul style="list-style-type: none"> We have to consider the safety of people Some street lighting is needed for safety reasons



7. Local Green Spaces

Over 100 nominations received

- This section of the survey received the second strongest response, with 114 nominations spread across 23 spaces. When nominating a space, those responding were asked to explain its special value to Tisbury's community.
- The water meadows South of The Avenue attracted by far the most nominations and were nominated in 32 responses (9% of the total). Nominations highlighted the floodplain's value to large numbers of residents, with comments such as "a significant tranquil space which hundreds of villagers enjoy throughout the year.", "the beauty of the meandering river at the foot of this area is one of the greatest natural assets for the village."
- Responses also indicated that the Community Field (beyond Chantry View), Lush's Field, Johnson's Field and Chantry View are all highly valued by the community.
- A chart showing the most nominated sites is shown below:





Top 5 Spaces – Special Value

- The table below shows the special importance which each of the top five spaces has to Tisbury's community, as stated by those putting forward nominations:

Space	Nominations	Special Value
Water Meadow South of The Avenue	32	<p><i>"A significant tranquil space which hundreds of villagers enjoy throughout the year."</i></p> <p><i>"The beauty of the meandering river at the foot of this area is one of the greatest natural assets for the village."</i></p> <p><i>"These are lovely green spaces I am worried we are going to lose to houses."</i></p> <p><i>"Important local views across the floodplain to the other side of the Nadder Valley."</i></p> <p><i>"It's enjoyed by everybody"</i></p> <p><i>"Enjoyed by dog walkers and other visitors, being tranquil and beautiful, being next to the river."</i></p>
Community Field (beyond Chantry View)	14	<p><i>"A significant site of biodiversity and could be made into an educational natural asset with a little work."</i></p> <p><i>"Full of wild flowers and new trees recently planted."</i></p> <p><i>"Used daily by many dog walkers and has recently had the village's platinum jubilee tree planted in it."</i></p>
Lush's Field	10	<i>"Nature Reserve and public amenity."</i>
Johnson's Field	8	<p><i>"Amazing wildlife and adjacent to the River Nadder too."</i></p> <p><i>"Tranquillity and excellent potential for harbouring local wildlife."</i></p>
Chantry View	7	<p><i>"Valuable green space in residential area with important views across the Oddbrook Valley."</i></p> <p><i>"[Brings] the surrounding countryside into the village and emphasise its special place as a community within the AONB rather than a built-up area"</i></p>



8. Site Allocation – Station Works

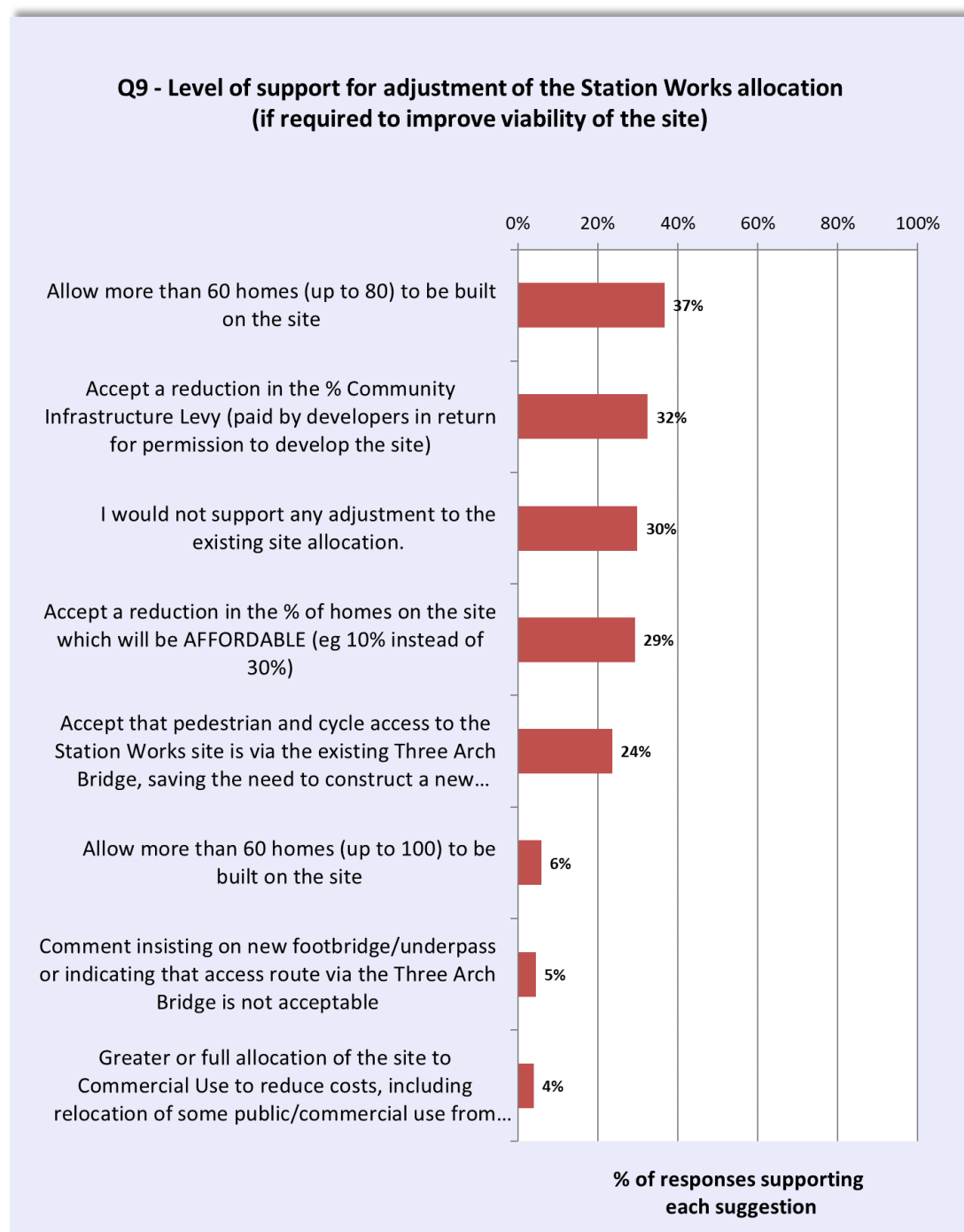
No clear mandate to adjust the site allocation

- Those responding were asked whether they would support one or more **potential adjustments** to TisPlan so that development of the Station Works site could be made financially viable for a developer, **if it transpired that** development in line with TisPlan's existing policies was not viable. The suggestions proposed were (in the order listed on the survey form):
 1. Support pedestrian and cycle access to the Station Works site is via the existing Three Arch Bridge, saving the need to construct a new bridge or underpass across the railway
 2. Permit up to 80 homes to be built on the site (instead of 60)
 3. Permit up to 100 homes to be built on the site
 4. Accept a reduction in the % of homes on the site which will be AFFORDABLE (eg 10% instead of 30%)
 5. Accept a reduction in the % Community Infrastructure Levy (paid by developers in return for permission to develop the site)
 6. Status quo (did not support any change to the site allocation)
- An opportunity to write-in additional suggestions was provided.
- There was limited enthusiasm for any of the proposed changes. None received the backing of a majority of those responding, with the least unpopular option being to provide 80 homes which was supported by **37%**. By contrast, **30%** indicated that they would not support any changes.
- The importance of the Station Works allocation to the community is indicated by the fact that **138** people wrote-in specific comments in addition to responding to the survey question.
- **15** people took this opportunity to emphasise their opposition to using the Three Arch Bridge as the main pedestrian access route.
- Other suggestions included
 - Greater commercial use of the site to reduce costs, including relocation of some public/commercial use from Tisbury centre.
 - Seek a contribution to a new pedestrian/cycle crossing from Network Rail
 - Community or Not-for-profit development of the site.
 - Employ a cheaper level crossing rather than a pedestrian bridge or underpass.
 - Seek ways to make development affordable over a longer investment term.
 - Designate part or all of the site for self or custom-build.
 - A cantilevered steel footbridge over the river alongside Three Arch Bridge to overcome flooding/traffic problems
 - Scaling down the number of homes built on the site to reduce infrastructure and remediation costs:



Summary of Opinion

- The chart below shows the most common suggestions and comments::





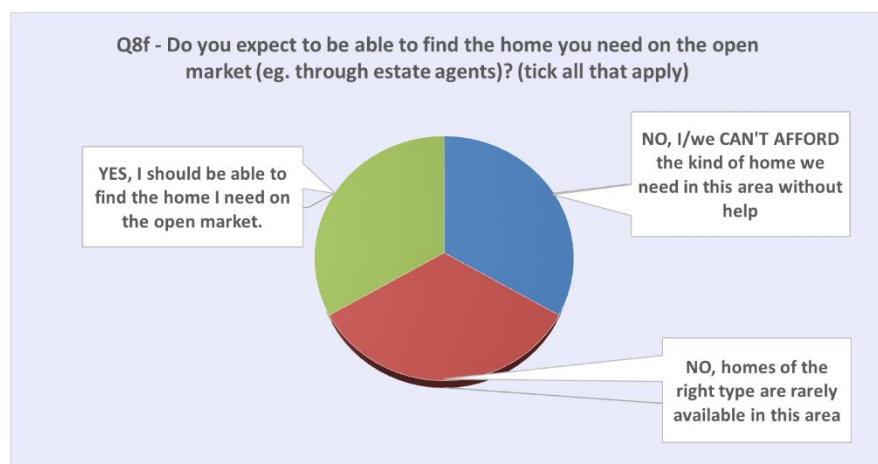
9. Housing Needs Assessment

Both younger and older age groups represented

- To provide an up-to-date assessment of local housing needs the Parish Councils have commissioned a separate Affordable Housing Needs Assessment for Tisbury from AECOM Infrastructure & Environment UK Ltd.. To complement this work, the engagement survey included an additional section on housing need, which was completed by those who indicated they would need a home or need to move home in the TisPlan area within the next few years.
- **38** people living in the Plan area completed the additional housing need section, of whom **16** do not currently own their own home, whilst **22** currently own their existing home. Typically the latter group are in their later years and seeking to downsize, find a 'last home' or move into sheltered accommodation. Inclusion of this cohort enables a broad picture to be established of housing need across all ages.
- The survey response of 352, with 38 local residents expecting to need a new home in the Plan area broadly matches the response to the Tisbury Parish Housing Needs Survey 2019, conducted by Wiltshire Council, which received 292 responses, of which 24 indicated a need for an affordable home in the Plan area.
- The remainder of this analysis focused on the needs of those 38 people who currently live in the Plan area.

Two thirds DON'T expect to find an open market home

- Those completing the housing needs section were asked whether they expected to find the home they needed on the open market. **Two thirds** felt that they would have difficulty. Of this number, half felt they would need financial help to find something affordable and the other half did feel affordability was a problem, but felt that accommodation meeting their needs rarely became available locally.



The “Affordable Home” and “Older Owner” cohorts

- These two cohorts have different priorities and they are characterised as follows:

Affordable Home ("Can't afford")

Spread across all age ranges, but 50% are in the range 25-34. Predominantly needing financial help to find their first home or families looking for a larger home.



Older Owner

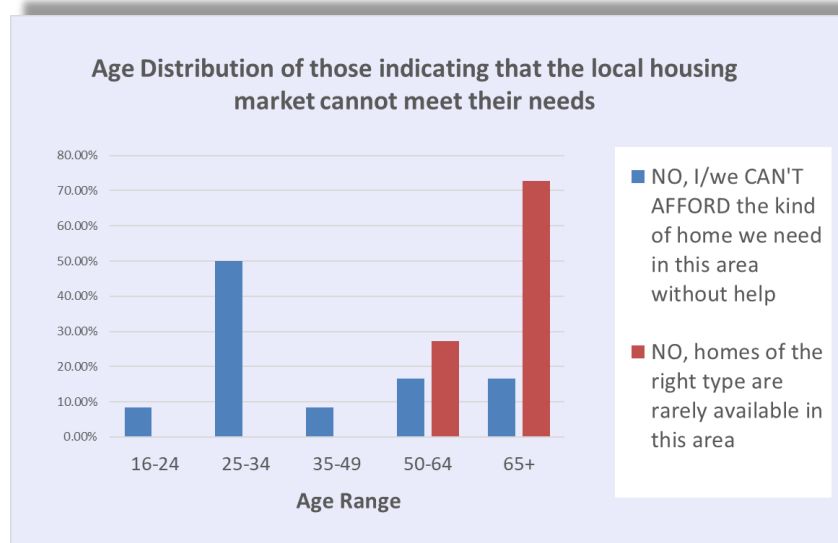
(Can Afford,
Can't find)

Predominantly older people. All are above 50 years old. Looking mainly to downsize, move to sheltered accommodation or find a home which is more maintainable and/or closer to the centre of Tisbury village.

- For ease of reference the remainder of this analysis refers to these groups as **Affordable Home** and **Older Owner** when identifying subjects on which they have different priorities.

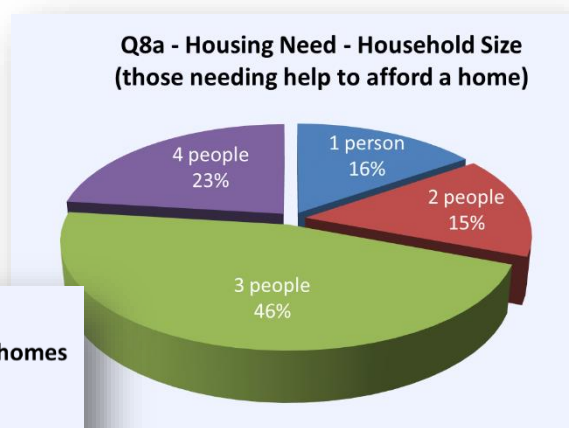
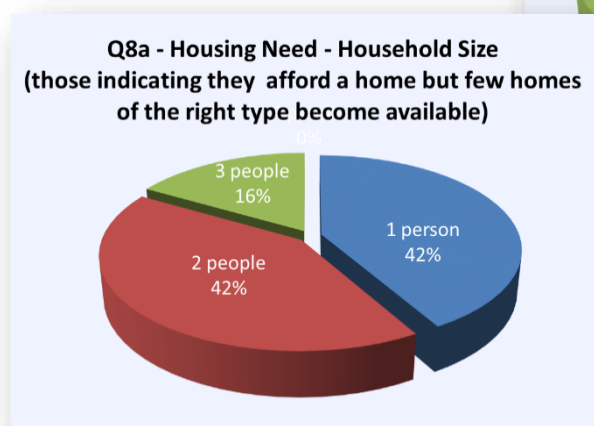
The Older Owner cohort are all above 50 years' old

- The Affordable Home cohort are spread across all ages, but predominantly are formed from those between 25-34 years old. By contrast, the Older Owner are **all** above the age of 50 and the majority are over 65 years old.



Older Households are half the size of younger ones

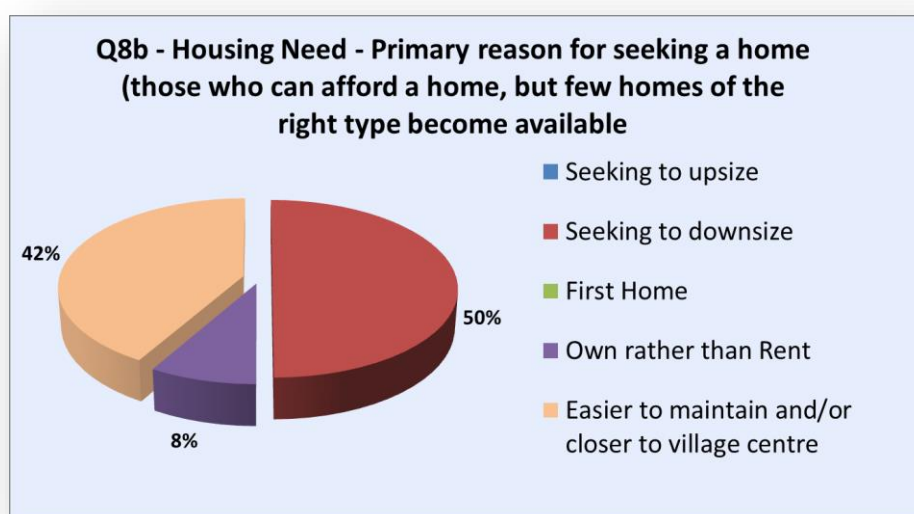
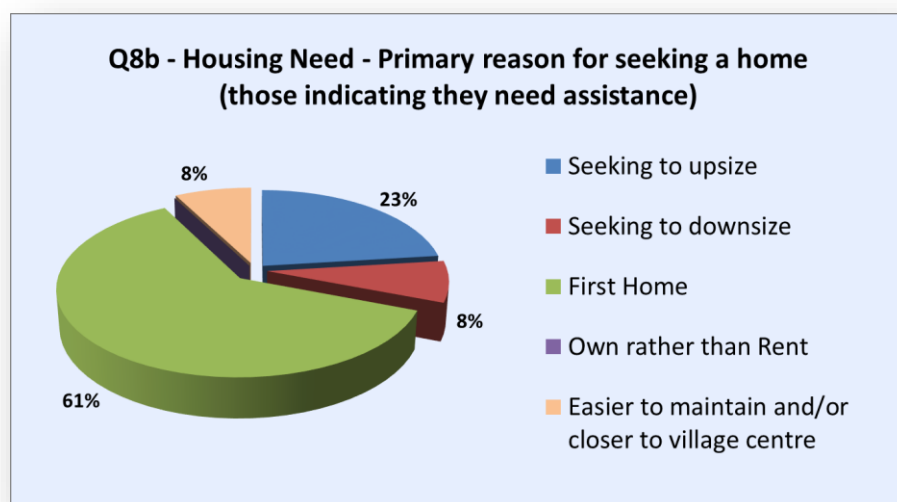
- The average household size of those seeking homes in the Plan area differed between each cohort. The Affordable Home cohort have an average household size of 2.77, whilst the Older Owner cohort have a household size of only 1.77:





The Affordable Home and Older Owner groups have different aims

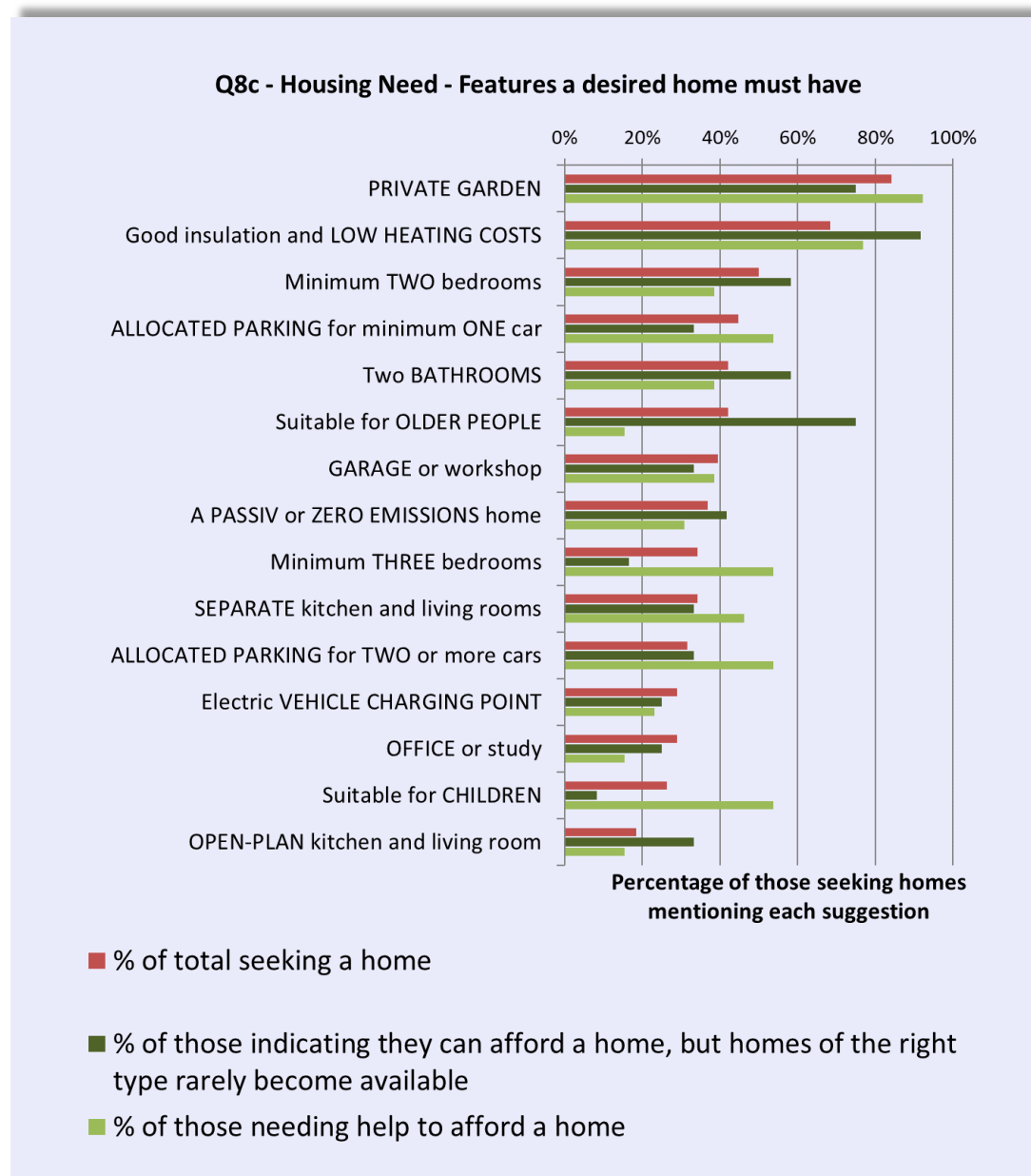
- Those indicating they would be seeking a home were asked to explain what they were looking for.
- The Affordable Home cohort were mainly seeking their **first home** or a **larger home**.
- The Older Owner cohort were mainly seeking a home which was **smaller, easier to maintain or closer to the village centre**.





Private gardens and low heating costs are highly prized

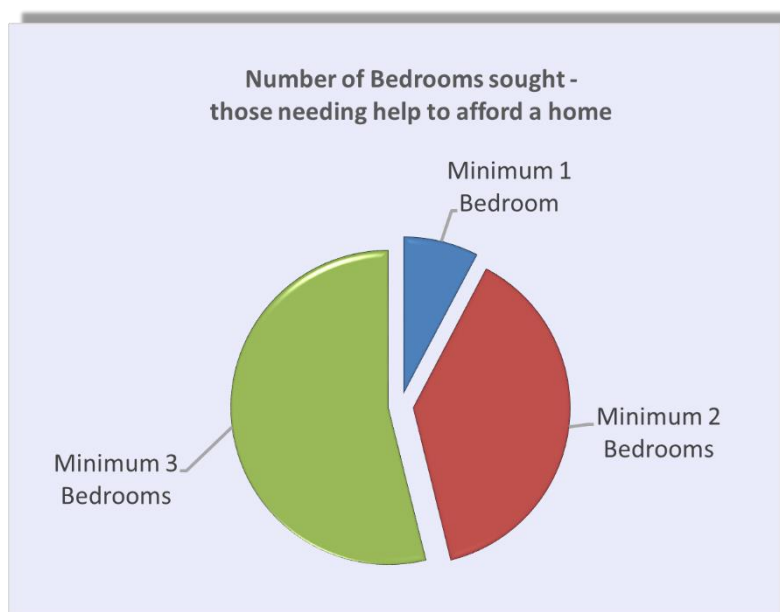
- Those seeking a home were asked to indicate what features their home **MUST** have. Of the Affordable Home cohort **92%** stated they must have a home with 2 or more bedrooms. The equivalent percentage in the Older Owner cohort was **75%**.
- **92%** of the Affordable Home cohort indicated that their home must have a private garden.
- The Older Owner cohort valued a private garden and parking space less, but instead 75% indicated the importance of a home designed with older people in mind.
- All those seeking homes felt low heating costs were important.





Those seeking an affordable home most likely to need 2 or 3 bedrooms

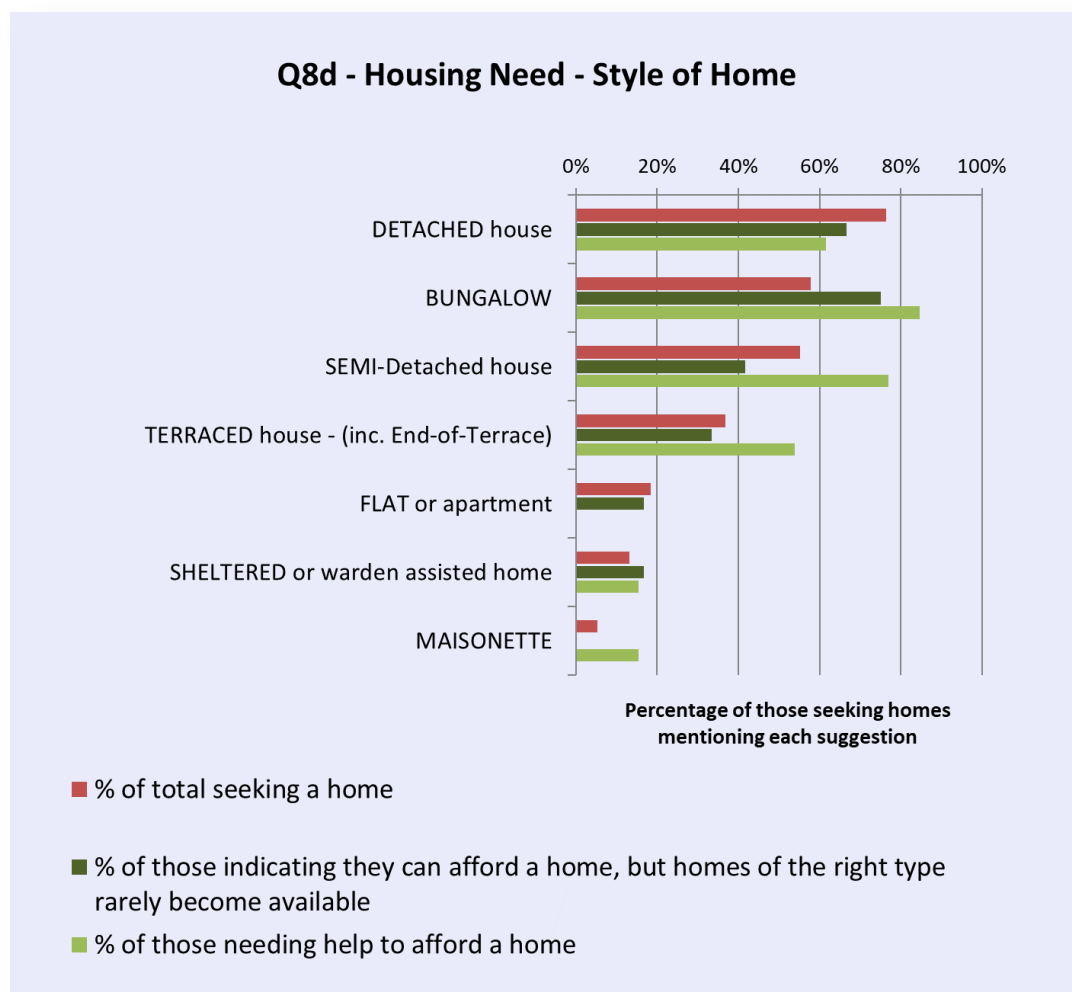
- The chart below shows the distribution of those seeking affordable homes with one, two three or four bedrooms. The strong preference for homes with at least two bedrooms reflects the larger household size of this group and possibly a greater need to work from home typical of this age range.





Houses and bungalows strongly favoured, but little interest in flats

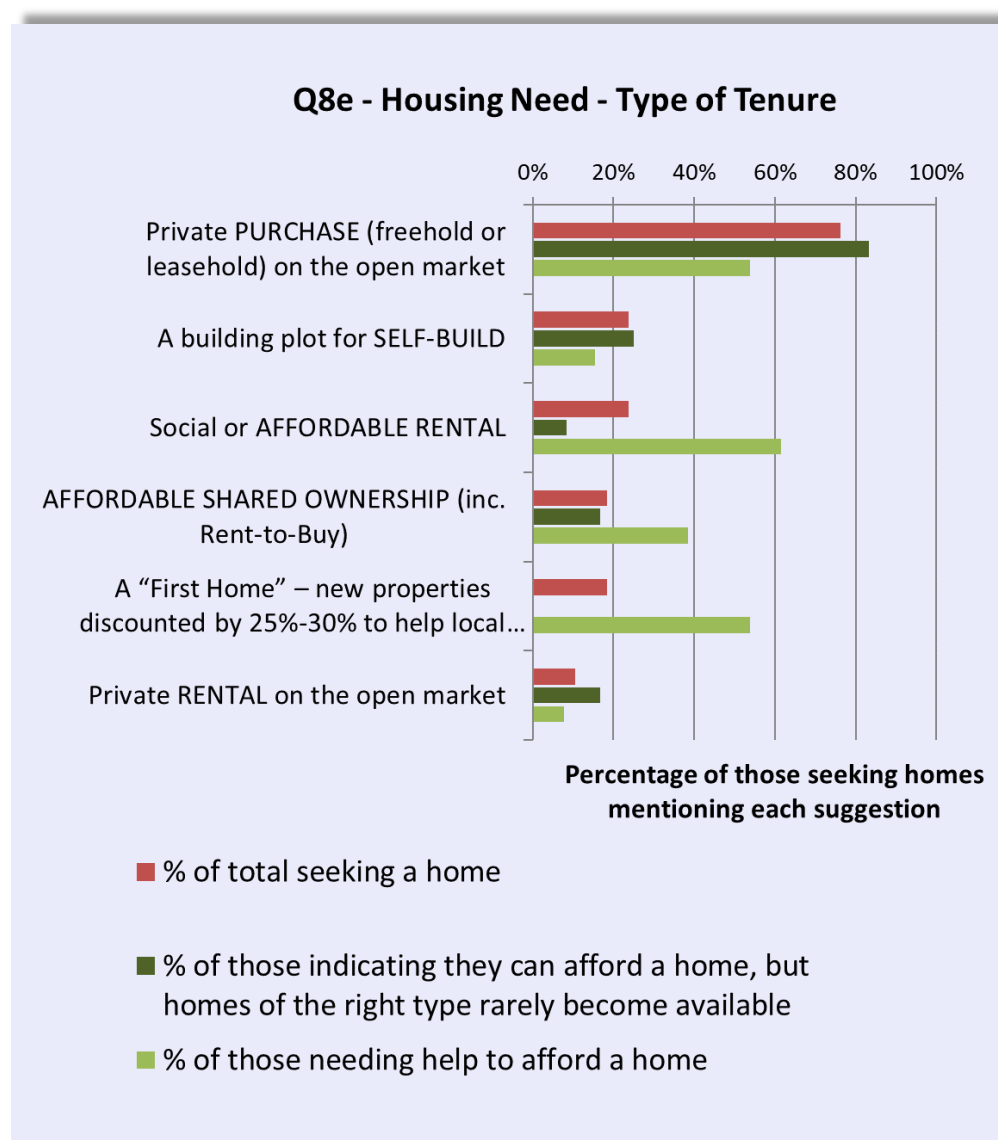
- Responses indicated a strong preference for houses and bungalows over flats and apartments. No one in the Affordable Home cohort indicated they were prepared to consider a flat.
- Those who were prepared to consider a flat were **also** prepared to consider a house, indicating that increasing the affordability of houses is a more strategic and versatile solution to Tisbury's future housing need.





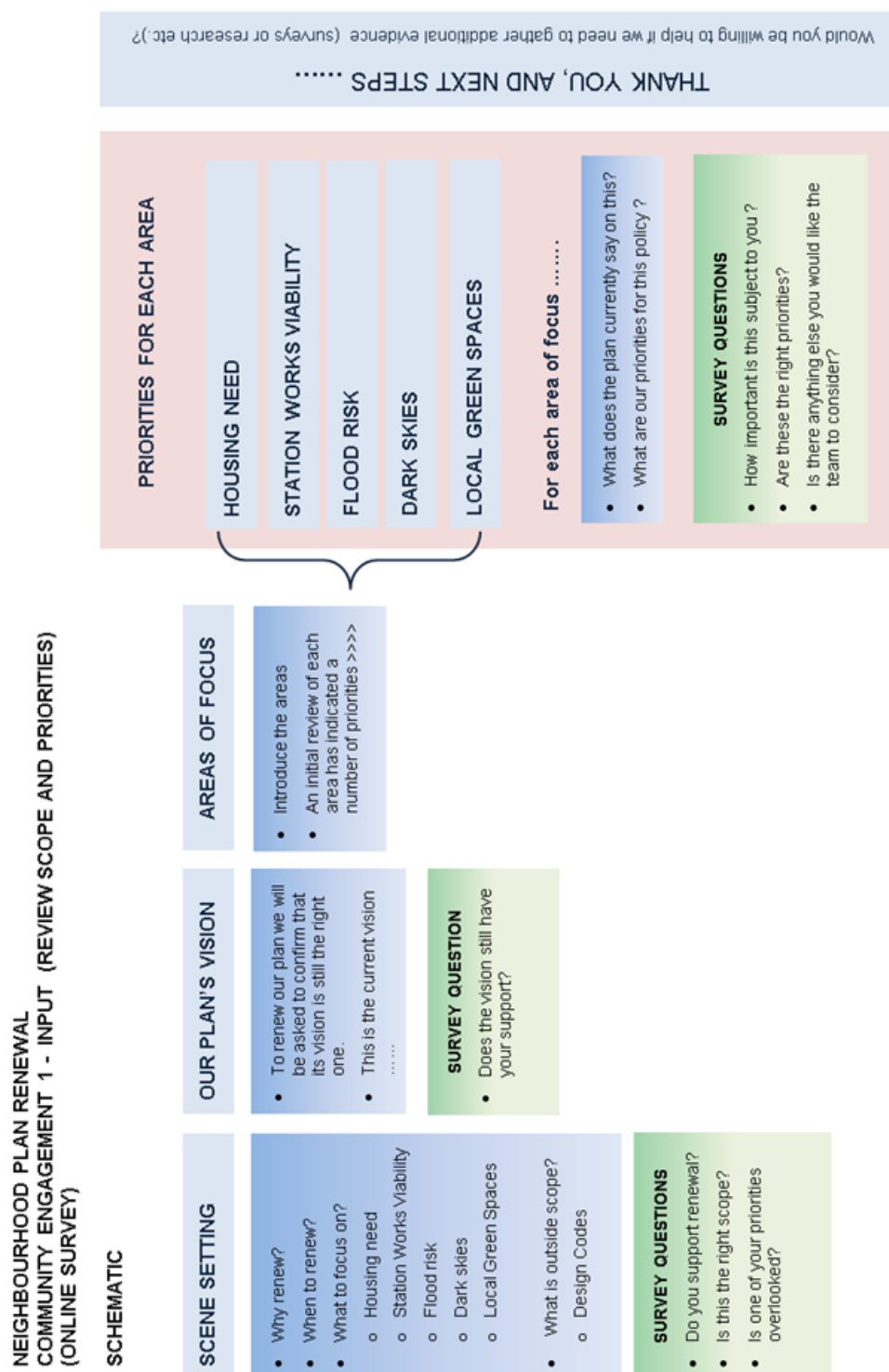
Interest in all forms of affordable home ownership

- Those indicating they would be seeking a home were asked to say what type of tenure would suit them best.
- Of the Affordable Home cohort there was strong interest in the three main forms of affordable home ownership (affordable rental, shared ownership and the government's "first homes" scheme). There was also interest in house purchase on the open market, which may indicate that some of those who feel they cannot afford a home in Tisbury, would consider moving further away to find a home they can afford.
- Conversely, those in the Older Owner cohort had less interest in affordable home ownership.
- There was some interest in self-build (meaning a freehold or leasehold home built by its owner or by a local builder on behalf of the owner) with 15% and 20% of each group indicating they would consider this.
- The least favoured tenure was private rental, with less than 10% interest.





Appendix A - Survey Schematic





Appendix B- Survey Text

TisPlan Renewal

Please help Tisbury and West Tisbury Parish Councils to build an accurate picture of our community's priorities by taking this short survey. Click 'NEXT' underneath the picture to start

* Required

SECTION 1 - WHY TISPLAN NEEDS TO BE REVISITED

Our Neighbourhood Plan, "TisPlan" was approved with a 94% vote at referendum in November 2019. Now, two years on, it needs to be strengthened for two reasons.....

First, some areas need to be brought up-to-date and the policy on flood risk needs to be strengthened in the light of last October's flooding.

Second, we must cope with new government rules which disqualify a neighbourhood plan after two years where the local authority doesn't meet the government's land supply targets. Wiltshire Council currently DOES NOT meet these targets, meaning that our community's voice could be ignored unless we give Wiltshire the opportunity to renew TisPlan for two more years.

Of the various improvements which could be made to TisPlan, we believe we have singled out the ones which can be achieved quickly, so that we can restore the Plan to full strength as soon as possible. The proposed changes will not change the character of TisPlan or require another referendum. But they will mean that Wiltshire Council can renew the plan, which will then regain its weight in guiding planning decisions.

Q1 - Do you agree that TisPlan should be renewed in 2022? *

Mark only one oval.

Yes, I agree that TisPlan should be renewed in 2022

No, I disagree

I have no view either way



SECTION 2 - WHAT IS INVOLVED

The current TisPlan was the result of six-years' work between 2013 and 2019, so limited changes are proposed for 2022. The Steering Group has identified THREE areas where TisPlan can be strengthened and in each case, the work required can be completed relatively quickly.

1. To strengthen TisPlan's policy on FLOODING, steering new development away from sites at risk in the light of the severe flooding which took place in the village last October.
2. To strengthen TisPlan's policies governing how much ARTIFICIAL LIGHT can be emitted from new development. This follows designation of our Area of Outstanding Natural Beauty (AONB) as one of only 14 "Dark Sky Reserves"
3. To ensure our Local GREEN SPACES are protected and consider whether any additional spaces should be added to the list.

In addition, the Government has two compulsory tests which every Neighbourhood Plan must meet. First, TisPlan must support the government's housing targets and respond to housing need. Second TisPlan must show that its proposals for its one major site, at Station Works are genuinely affordable for a developer.

Other useful work, such as on the design of new buildings, would take too long to complete in 2022, so for now it is proposed to keep to the priorities set out above, with other improvements included in the next review of TisPlan in 2024.

Q2 - Please tell us if you feel OTHER important objectives should receive priority in 2022 and why. Otherwise, just tick 'NEXT' below to go to the next section.

SECTION 3 - IS TISPLAN'S VISION STILL RELEVANT?

Based on feedback from over 1,000 residents the TisPlan Vision Statement appears at the start of TisPlan and inspires everything it contains. The Parish Councils are committed to this vision, but we need to confirm that it still has your support:

"There will be modest, sustainable growth in housing to provide for the range of housing needs in the local area. Development should enhance the well-being of residents, provide opportunities for local business and provide quality infrastructure to encourage sustainable lifestyles to enable the area to continue to prosper into the future. The conservation and enhancement of the AONB and its outstanding landscapes, environment and heritage assets will be at the core of any local development decision."



Q3 - Does TisPlan's Vision Statement still have your support? *

Mark only one oval.

Yes

No

I have no view either way

SECTION 4 - FLOOD RISK

HOW WE PROPOSE TO STRENGTHEN TISPLAN

In view of the extensive flooding in Tisbury on 21st October 2021, we plan to strengthen TisPlan in three ways

- ENSURE new development does not take place in areas at risk of flooding.
- ENSURE new developments do not make people unduly dependent on access routes which are vulnerable to flooding.
- INTEGRATE with Wiltshire Council's revised flood risk map, which gives extra protection to areas at risk of flooding

Q4 - Do you have any COMMENTS on other ways to strengthen TisPlan's policies on Flood Risk or any supporting EVIDENCE which could help? If so, please let us know below. Otherwise. click 'NEXT' to go to the next question.

SECTION 5 - DARK SKIES

ANOTHER AMESBURY IN THE MAKING? The two satellite maps below contrast the night sky over West Wiltshire in 1993 and 2016. Each square shows the amount of radiance shining up into the night sky. The red circle shows Tisbury. The orange circle shows Amesbury.

HOW WE PROPOSE TO STRENGTHEN TISPLAN

In 2019 our AONB was designated as one of only 14 international Dark Sky Reserves, but night skies above Tisbury are becoming brighter from increased light pollution. We plan to strengthen TisPlan's policies to ensure that new developments are safe, but that artificial lighting is not wasteful or intrusive on the surrounding area.

Q5 - Do you have any COMMENTS on other ways to strengthen TisPlan's policies on Light Pollution or any supporting EVIDENCE which could help? If so, please let us know below. Otherwise. click 'NEXT' to go to the next question.



SECTION 6 - LOCAL GREEN SPACES

Local Green Spaces have special protection (similar to green belt). TisPlan currently protects six Local Green Spaces, which are special to the village: Tisbury's Six Local Green Spaces, protected by TisPlan

HOW WE PROPOSE TO STRENGTHEN TISPLAN

We will review the list of Local Green Spaces and are keen to know of any additional spaces which deserve protection in future.

Q6 - Is there a green space which you would like considered in addition to the six already protected by TisPlan? If so, please tell us about it. Otherwise, press 'NEXT' to go to the next question.

SECTION 7 - TISBURY'S HOUSING NEED

Under government rules, TisPlan has to show how it supports the government's housing target and is responding to housing need. The target for Tisbury is at least 65 new homes between now and 2036. But TisPlan does have significant say over WHAT types of home should be built, HOW they should look and WHERE they should be located.

TisPlan currently allocates sites for around 70 new homes to be built between now and 2036. It supports community-led homes and those which serve the needs of older people and the local population generally

An artist Impression of some of the 13 new homes proposed for the former Sports Centre site, one of the two sites allocated by TisPlan for homes.

HOW WE PROPOSE TO STRENGTHEN TISPLAN

We will prepare an updated Housing Needs Assessment for Tisbury showing the extent to which homes are affordable for local people and the kinds of home which are needed. We will also strengthen TisPlan's support for those groups whose needs are currently not well catered for.

Please help us to understand what sort of homes Tisbury needs by answering the questions below

Q7 - Do you currently own or rent a home? *



Mark only one oval.

Own outright or with a mortgage (freehold or leasehold)

Own with Shared Ownership

Rent

Share with family or relative(s)

Share with friends or others

Don't have my own home at the moment

Other:

Q8 Thinking about YOURSELF, will you NEED A HOME, or NEED TO MOVE *
HOME in Tisbury or West Tisbury within the next few years?

Mark only one oval.

Yes

No

I'm not sure

HOUSING NEEDS SECTION

SECTION 7 - TISBURY'S HOUSING NEED (PART 2)

Please help us by telling more about the TYPE OF HOME YOU WILL NEED

How large a household will your home need to accommodate? *

Mark only one oval.

Just me

Me and one other

Me and 2 others

Me and 3 others

Me and 4 others

Me and 5 or more others



Why do you expect to move home? (tick all that apply) *

Check all that apply.

Looking for my/our FIRST HOME

To accommodate a growing FAMILY

Seeking something SMALLER

Seeking something easier to MAINTAIN

To be closer to WORK

To be closer to the VILLAGE CENTRE AND AMENITIES

Other:

Which features do you feel your home MUST have? (tick all that apply) *

Check all that apply.

Minimum TWO bedrooms

Minimum THREE bedrooms

Minimum FOUR bedrooms

Two BATHROOMS

Suitable for CHILDREN

Suitable for OLDER PEOPLE

Suitable for people with DISABILITIES or SPECIAL ACCESS NEEDS

OPEN-PLAN kitchen and living room

SEPARATE kitchen and living rooms

OFFICE or study

PRIVATE GARDEN

GARAGE or workshop

ALLOCATED PARKING for minimum ONE car

ALLOCATED PARKING for TWO or more cars

Electric VEHICLE CHARGING POINT

Good insulation and LOW HEATING COSTS

A PASSIV or ZERO EMISSIONS home

Other:



What style of home would you consider? (tick all that apply) *

Check all that apply.

FLAT or apartment

BUNGALOW

MAISONETTE

TERRACED house - (inc. End-of-Terrace)

SEMI-DETACHED house

DETACHED house

SHELTERED or warden assisted home

Other:

What type(s) of TENURE would suit you best? (tick all that apply) *

Check all that apply.

Private RENTAL on the open market

Social or AFFORDABLE RENTAL

AFFORDABLE SHARED OWNERSHIP (inc. Rent-to-Buy)

Private PURCHASE (freehold or leasehold) on the open market

A building plot for SELF-BUILD

A "First Home" – new properties discounted by 25%-30% to help local first time buyers to enter the housing market

Other:

Do you expect to be able to find the home you need on the open market *
(eg. through estate agents)? (tick all that apply)

Check all that apply.

NO, I/we CAN'T AFFORD the kind of home we need in this area without help

NO, homes of the right type are rarely available in this area

YES, I should be able to find the home I need on the open market.

Other:



SECTION 8 - STATION WORKS

TisPlan states the community's wish to see the Station Works site put to good use by providing both new homes and a diverse employment offer. At the same time it recognises the costs involved in decontaminating the site and delivering some form of new railway crossing (bridge or underpass) to offer direct, step-free pedestrian and cycling access to Tisbury High Street.

TisPlan therefore allocates the Station Works site for a MIXED DEVELOPMENT of both commercial units and 60 homes, preferably to be delivered as part of the planned expansion of Tisbury Station to support dual track working.

HOW WE PROPOSE TO STRENGTHEN TISPLAN

To comply with new government rules TisPlan must offer evidence that its proposals for Station Works are genuinely affordable for a developer. If this cannot be done, EITHER TisPlan's policies must be adjusted to make Station Works financially viable OR the government's housing target must be met elsewhere, meaning that the 60 homes allocated to the Station Works site must be built on OTHER SITES IN TISBURY.

We plan to provide the evidence which the government requires, but if it shows the Station Works site is not financially viable for development, we need your views about how TisPlan could be adjusted.

Q9 - Listed below are FIVE possible adjustments to TisPlan which could help to make development of the Station Works site more viable IF NEED BE. Please TICK ALL THE OPTIONS you feel are worth exploring:

Check all that apply.

Accept that pedestrian and cycle access to the Station Works site is via the existing Three Arch Bridge, saving the need to construct a new bridge or underpass across the railway

Allow more than 60 homes (up to 80) to be built on the site

Allow more than 60 homes (up to 100) to be built on the site

Accept a reduction in the % of homes on the site which will be AFFORDABLE (eg 10% instead of 30%)

Accept a reduction in the % Community Infrastructure Levy (paid by developers in return for permission to develop the site)

I would not support any adjustments and accept this might mean locating the 60 homes allocated to Station Works at other sites to comply with the government's housing targets

Other:

Q10 - If development of Station Works is not viable and no adjustments to TisPlan can be



made, the government will require the 60 homes allocated for Station Works to be built on OTHER sites in or around Tisbury. Do you know of any sites, however, small, which could be considered for development or re-development? If so, please tell us about them below. Otherwise. Click 'NEXT' to go to the final section.

SECTION 9 - ABOUT YOU

Tisbury Village, image courtesy of Nadder Community Land Trust

Q11 - To help us, please indicate your age by choosing one of the options below:

Mark only one oval.

Up to 15 years

16-24 years

25--34 years

35-49 years

50-64 years

65 years and over

Prefer not to say

Q12 -Please give us your full postcode. This will be used solely to understand the distribution of responses in an anonymised format.

Q13 -If you would like to be kept informed or help with the work to modify TisPlan, please give your name and email address. Otherwise, just click the SUBMIT button below.

Any details you give will be held by the TisPlan team on behalf of Tisbury and West Tisbury Parish Councils in accordance with our Privacy Notice and used solely to keep you informed of progress on the Neighbourhood Plan. Our Privacy Notice can be found on the TisPlan website at www.TisPlan.org.uk.

Your First Name

Last Name

Your Email Address



TisPlan depends entirely on volunteer support and extra help is always welcome. Would you be willing to help in future research to support TisPlan and its policies? If so, please indicate ways in which you could help by ticking the boxes below:

Check all that apply.

Environment and Biodiversity team

Traffic & Transport team

Design & Architecture team

Planning & Viability Assessment

Other:

Would you like to submit any pictures or other evidence in support of your comments or which might help strengthen TisPlan in future? If so, please make sure you have given us your email address and tick the box below so that we can contact you.

Check all that apply.

Yes, I would like to submit some additional evidence.



REPORT OUTLINE FOR AREA PLANNING COMMITTEES**Report No.**

Date of Meeting	10 th November 2022
Application Number	PL/2021/09778
Site Address	Station works site Tisbury
Proposal	Outline planning application for redevelopment of the Station Works site to provide a mixed development of up to 86 dwellings, a care home of up to 40 bedspaces with associated medical facilities, new pedestrian and vehicular access and traffic management works, a safeguarded area for any future rail improvements, and areas of public open space.
Applicant	Tisbury Homes
Town/Parish Council	Tisbury
Electoral Division	Tisbury (Cllr Errington)
Grid Ref	
Type of application	Outline planning
Case Officer	Richard Hughes

Reason for the application being considered by Committee

The application has been called-in by Cllr Errington. Notwithstanding, the applicants have formally appeal against non-determination of the application. As a result the Planning Inspectorate is the determining authority, not this Council.

1. Purpose of Report

The purpose of the report is to assess the merits of the proposal against the policies of the development plan and other material considerations and to consider, in light of the non determination appeal, Members need to consider whether the application would have been refused as recommended.

2. Report Summary

The issues in this case are:

- Principle of development, policy and planning history;
- Design, scale and impact to the amenity of the area/AONB/heritage asset impacts
- General Amenity issues
- Parking/Highways Impact, rights of way
- Impact on railway station and line
- Archaeology
- Ecological Impact
- S106 matters

3. Site Description

The site is located on the southern edge of Tisbury and its Conservation Area, and has historically been in industrial use, originally associated as its name suggests with the adjacent railway line and station. The site is located within the defined settlement boundary of Tisbury, and is allocated for development in the Tisbury Neighbourhood Plan. The site contains a collection of industrial buildings, with vehicular access points onto the adjacent road to the

south west. The railway line and station form the western/northern boundaries of the site. The land to the north and east of the site is elevated open land within the countryside. A footpath system lies adjacent to the north of the site and across the railway line.

4. Planning History

The planning history of the site largely relates to the industrial uses on the site, although the applications below are relevant as history:

S/2011/0660 - prior approval granted for the demolition of the office block and a warehouse on the site.

In the early 2000's two planning applications for a mixed-use development of residential and employment uses, with alterations to the site access, reference S/2002/1367 and S/2003/2547 were refused, due to the loss of employment land was unacceptable and that the site lay outside an area allocated for residential development.

5. The Proposal

The proposal is in outline, with all matters other than access reserved. The application is for up to 86 dwellings with open space on the site, and also a 40 bed care home. Access would be from the existing access points to the south west of the site off Jobbers Lane. The submitted details include:

- 2 x 1-bedroom flats
 - 10 x 2-bedroom flats
 - 42 x 2-bedroom houses
 - 29 x 3-bedroom houses
 - 3 x 4-bedroom houses
- 12 of these dwellings to be affordable housing, as follows:
 - 2 x 1-bedroom flats
 - 4 x 2-bedroom flats
 - 3 x 2-bedroom houses
 - 1 x 3-bedroom house
- A 30-40-bed care home, to possibly also include community medical facilities.
- Areas of on-site amenity space and landscaping;
- Provision of an area of approximately 0.4 hectares of land safeguarded for future improvements to Tisbury railway station, including an indicative vehicular access to this area;
- Closure of the northern arm of the existing vehicular access to vehicle traffic to improve visibility for traffic

entering and exiting the site. Using the northern arm of the existing vehicular access as a pedestrian and cycle access only, linked to a new pedestrian crossing;

- Creation of a new dedicated pedestrian and cycle route between the site and the existing Stubbles footpath on Station Road toward Church Street, including exclusive use of one bore of the existing railway bridge for pedestrians and cyclists;
- Traffic management measures including the provision of traffic signals on Station Road and Jobbers Lane to allow single lane alternate running of vehicle traffic through the right hand bore of the railway bridge.

6. Local Planning Policy

National Planning Policy Framework, including the National Design Guide and Code.

Wiltshire Core Strategy

Core Policy 1 Settlement Strategy

Core Policy 2 Delivery Strategy

Core Policy 3 Infrastructure delivery

Core Policy 27 – Strategy for Tisbury

Core Policy 35 & 36 – Employment and economic regeneration

Core Policy 43 – Affordable housing provision

Core Policy 50/52 Biodiversity and Geodiversity

Core Policy 51 Landscaping

Core Policy 55 – Air Quality

Core Policy 56 - Contamination

Core Policy 57 Ensuring high quality design and place shaping

Core Policy 58 Heritage Assets

Core Policy 60, 61, 62 Transport and New Development

Core Policy 67 – Drainage

Core Policy 69 – River Avon SAC

Saved policy R2 – Open space

Saved policy D8 – Public Art

Creating Places SPD

Wiltshire Local Transport Plan 2015-2026
and Car Parking Strategy

Wiltshire Waste Core Strategy policy WCS 6

Planning Obligations DPD

Adopted Tisbury Neighbourhood Plan, including EB1, BL1, BL2 BL3 BL7, HNA1, & HNA3
Adopted Tisbury Conservation Area Appraisal

7. Summary of consultation responses

WC Highways – Object (see highways section in report)

WC Landscape – Raise certain landscape impact details

WC Rights of Way – No objections, subject to footpaths near the site being upgraded via a financial contribution.

WC Public Protection – No objections subject to conditions

WC Ecology – No objection, provided the impact of the scheme in terms of phosphates on the River Avon SAC is mitigated

WC Drainage – Object (see flooding section)

WC Housing – Object. Scheme should provide 30 percent affordable housing.

WC Waste and recycling – No objection subject to S106 contributions

WC Education – Object as application would not provide any mitigating financial contribution towards off site educational provision.

WC Open Space - No objection subject to open space being provided on site and S106 contributions

WC Archaeology – No objection subject to a condition

WC Spatial - Concern that the proposal does not accord with the development plan

WC Economic Development – Object to loss of/lack of inclusion of industrial employment

WC Urban Design - Concerns expressed due to limited linkages and issues with the suggested design and layout

Environment Agency – Object as the access route is situated in an area known to flood(see Flooding and Drainage section)

Wessex Water – General advice. No objections, but refers to infrastructure crossing the site.

Network Rail – No objections in principle, subject to the occupiers of the proposal site should not use the adjacent footpath which runs across the railway line. Other general matters raised regards the development works not affecting the railway operation or land.

Natural England – No objection, but advice how the LPA should consider the application and the Habitats Regulations Assessment

8. Publicity

Third Parties: 273 responses stating the following general matters:

- Protection of wildlife/ecology/swifts required with provision of built in features
- Scheme would have an impact on existing parking and traffic issues
- Flooding issues haven't been addressed
- Not enough facilities and services for more dwellings in Tisbury
- Need affordable housing for local people
- No need for the care home
- Overdevelopment of the site
- Will be out of keeping with the area
- No energy efficiency measures included
- Not in accordance with neighbourhood plan policies
- No proper community consultation undertaken
- Would affect the AONB
- No solution to crossing the railway line has been found or assessed

Tisbury Parish Council – Object for the following reasons (summary)

1. While we support the development of Station Works, in line with the Tisbury and West Tisbury Neighbourhood Development Plan (2019-2036), this application breaches the plan's policy BL.7 multiple times. These breaches are detailed below. It also breaches policy BL.3 on the development of brownfield sites.

2. The application itself is inadequate; it lacks important detail and breaches the NPPF as outlined in our previous comments (now repeated in appendix 1).

3. The proposed development is situated adjacent to a Level 3 Flood Zone; recent excessive flooding demonstrates our concerns over the impact of the development on the risk of future flooding events, as well as the risk of a lack of accessibility to the site and, in particular, the pedestrian access to the site. Also detailed below

West Tisbury Parish Council - West Tisbury Parish Council are grateful to be consultees on this outline planning application which will have a huge impact on the village of Tisbury and the surrounding parishes. As a neighbouring parish - and bearing in mind that most of the population of West Tisbury Parish live within the settlement boundary of the village of Tisbury - any development of the scale proposed in this planning application will affect our parishioners and our parish. As joint authors with Tisbury Parish Council of the Tisbury and West Tisbury Neighbourhood Plan¹ (made November 2019), we have been working closely with Tisbury Parish Council on this proposed development at Station Works.

We note that the planning application is for the principle of development of 86 dwellings and a care home of up to 40 bedspaces - with all other matters reserved except for the pedestrian and vehicular access and traffic management works.

West Tisbury Parish Council objects to the application on the grounds of:

- Scale and density
- Lack of mixed use
- Availability of affordable housing
- Pedestrian, cycle and vehicular access

West Tisbury Parish Council also consider that too many key issues are reserved, and fear for the impact on Tisbury's infrastructure without suitable contributions.

Sutton Mandeville Parish Council - We support and mirror the responses and comments of our neighbouring Tisbury, West Tisbury, Swallowcliffe and Ansty Parish Councils.

Especially concerns for Sutton Mandeville Parish Council are:

- Increased volume of traffic through the parish (via C24), which residents continually raise concerns about with SMPC and directly with Wiltshire Councillor Nabil Najjar
- knock on issues regarding access to services, schools, GP surgeries.
- limited employment opportunities arising through the development proposed.

Sutton Mandeville PC object to proposals in planning application PL/2021 09778 on behalf of residents.

Hindon PC - Hindon Parish Council would like to add its name to the list of Parish Councils objecting to this ill thought out planning application

Fonthil and Berwick St Leonard PC

Firstly, and most importantly must be the question of access. The existing access to the site floods, as evidenced on October 21st, 2021, when the height of the river rose to half a meter above its previously record high, therefore, the facts stated in the planning documents are

wrong. 90.62m is not the highest recorded but presumably this should now be over 91m. This shows that access to the site is not feasible or sustainable for a new development of this size. See photographs of the road flooded and closed for a period of 24 hours. This must suggest the flood risk assessment and advice is unreliable or out of date.

2. How would the care home and the 86 households' access or egress the site for 24 hours? And this is not an isolated incident. It has happened at least 3 times in the last 25 years, Surely, this can't be a suitable or sustainable access for 86 homes and a large care home. Paragraph 2.39 in the planning statement clearly suggests how the access is liable to flooding surely this is a relevant factor and needs to be given suitable weight in consideration of this application.

3. The report is less accurate in its reference to the neighbourhood plan, suggesting that the proposed intensive development is in line with that neighbourhood plan. The scheme is far more intensive than envisaged by the Neighbourhood plan.

4. Furthermore, there appears to be no comment that most of the access into Tisbury is through the listed Fonthill Park and ultimately through the grade 1 listed archway. Surely this deserves mention in terms of increasing the volume of traffic by, probably, up to 15% and vehicle movements by up to 45 per day. At least half of the vehicles will access Tisbury via the Fonthill arch. No consideration has been given to any effect this might have on the listed structure.

5. Access to Tisbury via Hindon is also through a single lane tunnel.

6. As a result of the proposed development and reducing the two-arch bridge to a single arch for vehicles will mean all major access points into the village will effectively be single file and the one subject to this application will also have the added restriction of traffic lights.

7. Traffic lights as proposed are totally inappropriate for the area the village and the AONB and do not respect the rural character of the location.

8. The proposed development does not take into account the current planning application (pending) for the change of use of the South Western Hotel to a Co-op store. This in turn will increase the intensity of vehicles in the area where the traffic lights are proposed which will create complete chaos in that location.

9. The improvements in the footpath and the cycle way safety could be achieved without having the excuse of an intensive development of this nature. Indeed, it would be sensible for the parish council to draw up such a plan for discussion with neighbouring stakeholders.

10. It is difficult to see how the application delivers significant highway improvement in the locality as stated in paragraph 6.23 of the planning statement. This must be a false statement as clearly there is no planned tangible improvement to the highway in the locality.

11. The transport assessment states it is not considered that the proposed development will have any material impact on the existing road network in terms of highway capacity or highway safety. This simply cannot be true given the number of properties and the size of the care home suggested, adding to an already congested system of narrow lanes with the only access to the site being one which floods. The planning statement states at 7.2 that the primary vehicle access is off Jobbers Lane: it is in fact the only vehicular access and, as previously stated, and clearly seen, it floods even though the rest of the site may not be at risk of flooding

12. The assessment of the flood risk and the statements relating thereto are misleading. The access to the site is clearly in a flood zone and there is a severe risk of flooding meaning access into the site would be impossible in times of flood therefore is not a suitable location for a care home.

13. The groundwater monitoring took place in June and September notably dry months. it should be appreciated that groundwater rises significantly in the winter in this area and so suggest the flood risk assessment is not sufficiently detailed or covers a long enough period or the highway access.

14. The summary conclusion of the risk assessment report suggested the site is deemed unacceptable for future residential use. The contamination is a known fact and so to suggest an intensive development to afford the clean-up is misguided and not the assumed position to start from. Surely to recognise the contamination and plan around it would be more suitable.

Swallowcliffe PC

Following an extraordinary meeting of parishioners, at which 30 were present, Swallowcliffe Parish Council (SPC) has considered the above application. Since the application is divided into two parts, the observations are also divided into two, and are set out below. Although the proposed developments are only indicative and are reserved matters, SPC has reviewed them as they are the reason why the road works on Jobbers Lane are being proposed and they are described in detail in the application and its associated supporting papers.

SPC has also reviewed the objections raised by the Access To Tisbury Group (ATTG) on behalf of eight parishes surrounding Tisbury, including Swallowcliffe, and fully endorses them. This response is in addition to that of ATTG and is the responsibility solely of SPC.

Detailed Consent for Improved Access to the Site

To enhance pedestrian and cycle access from the site into Tisbury the applicant proposes an elevated walkway through the eastern bore of the railway bridge which will require its closure to motor traffic and the installation of traffic lights to control the resultant one way flow through the remaining bore.

Whilst SPC are in favour of the principle of redeveloping this site, SPC objects to these access proposals on the following grounds:

The closure of one bore of the bridge will halve the capacity of the only distributor road to the south of Tisbury and will thus divert an unacceptable flow of northbound traffic onto the highly constricted Tisbury Row and then either The Avenue, Park, Cuff's or Duck Lanes. This will reduce access from the south to Tisbury as drivers, including farm vehicles, seek to avoid the threat of delays at the bridge and will adversely affect the well being of residents on these roads. The converse will apply to southbound traffic.

The proposed development will reduce accessibility of residents of the Tisbury Community Area (TCA) living to the south of the railway to Tisbury's services and shops, particularly if the Co-op moves to the South Western Pub site.

The installation of light controlled one way flows under the remaining bore will slow the speed of response of emergency vehicles. The Fire Brigade have commented that such an arrangement would have to be negotiated with care; it is not clear where vehicles already under the bridge or its approaches could go so as to provide sufficient room for emergency vehicles to get through.

The central bore remaining for vehicular traffic is subject to frequent flooding, which will only compound the problems outlined in 3 above. Local weather records indicate that the incidence of flooding has increased significantly this century with the bridge being blocked by two "one in a hundred year" floods in the past 20 years.

There have been two such incidents in the past month, one of which led to premises just to the north of the bridge being flooded. They also led to footpath TISB74 being under water; this is the main pedestrian link by which it is proposed pedestrians from the site access Tisbury. Significant flooding of the bore now occurs on average five times a year, causing drivers to use the eastern bore which is slightly higher.

The large scale of the proposals has access implications throughout most of the TCA, yet the application only considers the capacity of Jobbers Lane immediately outside the site, which is described as 5.8m wide and is felt by the applicant to be of sufficient size to cope with the motor traffic likely to be generated by the proposed development. The applicant neglects to deal with the fact that substantial portions of the lanes which connect to the A30 and A350 to the west and south are less than 3m in width, so narrow that in Swallowcliffe alone there are at least three stretches where two cars cannot pass (see example Figure 1). The same conditions exist in Ansty and on routes to the A350. Any significant increase in traffic flow would constitute a heightened danger and loss of amenity to residents of Swallowcliffe.

The applicant estimates the indicative development would lead to an increase of on some 40 car borne journeys at each of the peak hours. If only half of these head south toward the A30, SID data suggests this would represent a 15% increase in peak hour flow, a significant increase.

Insufficient account has been taken of the likely traffic generated by the care home which will include three shifts of 12 workers, visitors, truck deliveries and specialist waste removal. This would be exacerbated should there be an associated provision of medical facilities for use by local residents.

Indicative plans are for some 375 residents living on the site (see Section 3.11 of the applicant's planning statement). In the 2011 Census Wiltshire car ownership was 596 per 1000 population. This figure is likely to be higher now because car ownership has increased and the site is set in a rural area that does not include some of the larger towns in Wiltshire. However even on 2011 county data the indicative population will generate a demand for some 205 parking spaces. Only 191 residential spaces are being provided on site so it is highly likely that overspill parking will take place on Jobbers Lane and Station Road, further reducing capacity and also reducing the attractiveness of Tisbury as a service centre to much of the TCA, some of whose trade will be diverted to Shaftesbury and Salisbury.

On the basis of the submitted documents, there is no evidence that the applicant has considered the wider impact of the proposals on the TCA road network, nor alternative means of providing pedestrian access to Tisbury. For example replacing the footpath crossing to the immediate east of the station is not considered despite it being clear from the documentation that it is Network Rail's intention to effect these works for safety reasons. This is to be subject to a cost/benefit evaluation and no doubt a developer contribution would improve feasibility.

In the view of SPC this application should be refused and the applicant invited to reconsider its access proposals as the current proposals constitute a loss of amenity and a threat to the health of residents living on lanes to the south of the site and within Tisbury itself.

Matters reserved for Subsequent Planning Applications

SPC is concerned that if the detailed access element of this application is granted, the maximum scale of developments reserved for future applications will, by implication, be tacitly deemed acceptable, even though they will have to be the subject of subsequent consents. Therefore, observations are made here concerning the indicative developments outlined that constitute the bulk of the current application.

SPC believes that both the nature and quantum of development proposed is unacceptable and in conflict with the Tisbury Neighbourhood Plan (TNP). This seeks to make provision for commercial uses having regard to the needs of the local and currently on-site businesses.

We understand there are currently 35 jobs and post COVID vacancies on site. Light industrial and business uses would add to the diversity of economic activity in Tisbury and provide a wider range of employment opportunities than the proposed “up to” 40 bed care home. It should be noted that Tisbury already enjoys the benefit of two such facilities in what is effectively the same use class as residential. An additional home will have to draw from a geographically wider pool of labour, thus increasing trip generation and missing the opportunity to diversify the Tisbury economy.

The TNP also indicates a desirable maximum of about 60 dwellings on site, of which some 30% should be affordable or social. The proposal indicates “up to” 86 dwellings of which only 14% would be affordable. This reduction is justified by the applicant’s assumption that the eventual developer will need to secure a 20% rate of return. However, according to the applicant’s own submission, there is only a 0.1% difference in returns between 14% affordable /social provision and 30%; both options showing a 23% return on cost. Given such a high return there would seem to be scope for improved access arrangements that do not involve the half closure of the railway bridge to vehicular traffic.

In sum, SWC’s reasons for objection to the indicative component of this application are

The scheme would represent overdevelopment in an AONB and is at such a scale that it would exercise a deleterious impact on the safety and amenity of Swallowcliffe residents

The proposal is at odds with the TNP’s aim for mixed uses on site and with an increase of up to 425 residents (estimated as around 15% of the wider Tisbury population) would seriously overload the services Tisbury provide to its TCA.

Teffont PC - *Whilst noting that the Developers have applied for a scheme which makes the site a cul-de-sac that is isolated from Tisbury by a reduced existing railway bridge. A bridge that is presently too low for many vehicles including Fire Engines.*

The highway through the bridge also floods after intense rainfall or a snow melt.

The proposed alterations to the road access will encourage vehicles to turn left out of the site and pass through Swallowcliffe or Ansty to join the A30 thus giving rise to a ghetto the other side of the railway track isolated from Tisbury.

Whilst it is noted that Tisbury PC supports the development of the Station Works Site in their adopted Neighbourhood Plan it is unlikely that the proposals meet the aspirations of the Tisbury citizens based on the comments included in the Neighbourhood Plan.

The Tisbury Neighbourhood Plan only paid lip service to the highway network serving Tisbury through the surrounding villages.

Teffont PC wishes to see Tisbury continue as a successful local hub, however, it is this Highways network particularly within the Parish of Teffont that concerns Teffont Parish Council.

There is no indication that anybody has modelled the potential traffic generation on anything other than the Railway Bridge, where the results are used to support the preposterous proposal of closing one arch and putting traffic lights on the other.

(Why not a new bridge under the railway linked to dredging and lowering the Nadder to reduce the risk of flooding on the access to the site and in Tisbury Row. A scheme to lower a bridge, under the railway has recently been carried out in Westbury the original estimate was £7 million. Not a large amount if the Highways Authority, British Rail and Wessex Water combine resources and ask for a sensible contribution from the site developer.)

If increased traffic from the site chooses to travel to and from Salisbury on the C24 it will be using a "lane" that is blatantly inadequate for the present traffic including the large lorries carrying goods to the EHD Site, Chicksgrove Quarry etc.

At the very least the C24 needs improvements at the junction with the B3089 (known as Stocks Corner) and additional lay bays to facilitate safe passing.

We have no doubts that these suggestions will be born out when the Highways Authority investigates the route and models the increased traffic generation from a fully developed Station Works Site.

Chilmark PC

We support the redevelopment of the Station Works site as framed by the Tisbury Neighbourhood Plan with a balance of housing and small business / commercial units providing local employment to minimise 'out commuting'.

Chilmark is a rural village 2.5 miles from Tisbury. A country road, Becketts Lane, leads from Chilmark and Ridge to Tisbury, defined by Wiltshire Council as a Local Service Centre, providing Chilmark and surrounding villages with shops, services, a Doctor's surgery and a community centre.

We note the only matter approval is sought as part of this outline application is Access. The matters of Appearance, Landscaping, Layout and Scale have been categorised as 'reserved matters' to be the subject of a separate application before the development may proceed.

We make our comments on two counts as they are interrelated and will effect the residents of Chilmark as well as other neighbouring villages.

1. Access

Tisbury, unlike every other Local Service Centre in Wiltshire is the only one with no A or B road giving access to the village.

Consequently all traffic in and out of Tisbury, from whichever direction, is obliged to negotiate narrow country lanes often with long stretches of single track and through small villages with houses standing on the road edge. Chilmark, with 20mph speed calming and a village school, is already coping with increasing numbers of private, commercial and HGV vehicles cutting through from the A303 and frequently damaging the edges of conservation area stone walls and grass verges.

Negotiating restricted road conditions already presents a challenge for local residents of rural communities. A 40 bed care home is not mixed use as understood by the Tisbury Development Plan and does not provide for any local business enterprises or local jobs. Given the shortage of care home workers, it is likely these will need to come from a wide catchment area and travel to Tisbury, increasing road traffic through villages i.e. 'out commuting'.

The proposed density of housing with its associated increase in vehicles together with the car journeys necessary to provide 24 hour shift staffing for a 40 bed care home will lead to significant traffic increases, night and day on all approach roads and through Chilmark village itself.

This increase in traffic is not merely a noisy and disruptive intrusion but also dangerous to the inhabitants walking through streets with no pavements. Wiltshire Core Strategy states ‘modest new growth in Tisbury will...take into account narrow access roads and the sensitive landscape of the AONB’.

The proposed access to Tisbury from Jobbers Lane through the AONB Vale of Wardour presents insurmountable traffic restrictions, with long lengths of narrow pinch points and single track road.

The closure of one of the railway bridge arches will cause congestion in and out of Tisbury. The closed railway bridge is the one used for vehicle access to Tisbury when the other arch is flooded. A frequently occurring event. Traffic lights are an urban intrusion to Tisbury and inappropriate to its rural location.

The suggested steel and concrete footpath running the length of a closed railway bridge does not provide an appropriate (or fitting) solution to accessing the shops on Tisbury High Street.

Without a bridge over the railway, pedestrians from the proposed development will be obliged to walk a circuitous and lengthy route with their shopping. This will force residents to use cars for these short journeys.

2. Density

The proposed plan overdevelops the site with residential housing making no provision for mixed development (e.g light commercial/small business) which would provide local employment as envisaged by the plans referred to below.

The vision set out in Wiltshire Core Strategy 2015 states that by 2026 service centres such as Tisbury ‘will become more self contained, giving a reduction in the need to travel and minimising out commuting’

The scale of the proposed development is not in line with the Wiltshire Council Local Plan 2021 (Empowering Local Communities) which provided for 65 dwellings by 2036 i.e equivalent to 4 a year. The housing density vastly exceeds this. Instead of the envisaged gradual growth in housing Tisbury Doctor’s surgery will not be able to accommodate the needs of what would amount to an immediate increase of 15%/20% to the population of Tisbury.

Parking in Tisbury is already problematic but manageable. The High Street is a narrow thoroughfare, often only able to accommodate a single vehicle moving along parked cars. Additional vehicles from shoppers will outnumber the parking spaces that can be provided.

Conclusion.

Chilmark Parish Council believe the application should be refused consent. The plan submitted does not provide for the range and scope of development nor reflect the aims as defined in the Wiltshire Core Strategy or the Wiltshire Council Local Plan (Empowering Local Communities) or the Tisbury Neighbourhood Plan and its scale will significantly contribute to increased traffic levels in an AONB with narrow road conditions through small villages.

Donhead PC: Object

- *Overdevelopment of site / not in line with the local plan*
- *Wrong category of onsite employment / not in line with the local plan*

- *Object to the notion of blocking off one side of the railroad arch to provide pedestrian access.*
- *Insufficient local infrastructure to cope with proposed develop.*
- *Should be at least 30% affordable housing.*

Access to Tisbury Group

Having reviewed this Outline application we conclude that it does not provide what Tisbury needs or the sort of development envisaged by the Tisbury Neighbourhood Plan.

The proposal is contrary to the basic development principles clearly set out in Wiltshire Core Strategy 2015. Principles that we would fully endorse. For example, modest levels of development, modest growth of both housing and employment to ensure development is balanced, minimising out-commuting, becoming more self-contained.

The scheme has excessive residential and care home accommodation at the expense of a more mixed and sustainable development, which would develop the community as a whole. The current proposal will promote a dormitory for the wider region.

The exclusively residential nature of the development, its density and its scale will result in high and unacceptable traffic generation causing not just damage to our environment, but also to the well being of our residents and communities on these access routes into and out of Tisbury.

The High Street and the surrounding narrow country lanes with their constrictions which give access to Tisbury have absorbed Tisbury's residential expansion and associated growth in traffic over many years. Blockages, conflicts and aggression now occur on these roads on a regular basis and further expansion on the scale proposed cannot be accommodated without these issues becoming more serious and difficult to manage.

The recent flooding in Tisbury has demonstrated that the access to the proposed development will be compromised by flood water from the Nadder river and we can expect this to become a more frequent occurrence with climate change.

A van disabled by the recent floods, prevented traffic from passing through one of the railway bridge arches and reinforced the need for resilience and a second arch for traffic.

The scheme lacks respect for the Tisbury and wider community.

On the basis of the above we believe this application should be refused consent.

AONB Partnership (summary)

11. This AONB is, as I expect you know, in one of the darkest parts of Southern England and hence the visibility of stars and, in particular, the Milky Way, is a key attribute of this AONB..

12. The AONB is, therefore, concerned about light pollution. Any external lighting should be explicitly approved by the Local Planning Authority and comply with the AONB's Position Statement on Light Pollution and the more recent Good Practice Notes on Good External Lighting and Paper by Bob Mizon on Light Fittings. In this location that means all lighting complying with Environmental Lighting Zone E1 as defined by the Institute of Lighting Professionals 2011.

13. The site is in the Vale of Wardour landscape character area of the Rolling Clay Vales landscape character type of the AONB's landscape character assessment. Greater details of the landscape, buildings and settlement characteristics can be found in the Landscape Character Assessment 2003. That document can be viewed in full on our website.

14. Although the application is a mixed development up to 86 dwellings and a care home up to 40 bed spaces, that description seems to differ from that provided in many of the consultation reports attached to the application. Furthermore, the submitted proposals do not appear to be a 'mixed' development. The site is stated to be 4 hectares although, again, some of the consultants' reports give a different figure.

15. A significant part of it is a brownfield site that is identified as contaminated land. However, a substantial area on the south eastern side appears to comprise semi-natural habitats. There are indications that there are protected species on site with significant habitats adjacent to it. There is no mention of the site including any matters of geological importance. Nevertheless, the site boundary appears to include all of the slope to the south east.

16. The application, and many of the consultants' reports, are confusing because the orientation of the site is oversimplified in many of the descriptions. The basic geographical elements of aspect, topography, and orientation are missing from most of the documentation. The site is, in fact, roughly a narrow oblong orientated along a line from the north east to the south west. It is to the south east of the railway station and at a similar or higher level than the railway. The south eastern side is a relatively steep slope, presumably produced at some earlier time when the full extent of the site was created. The top of the slope is approximately 115 metres AOD, whereas the site level is in the order of 95 metres AOD. The road at the south western end, which goes under the railway line, is at a lower level and, as is noted in some of the documents, is prone to flooding.

17. The whole of the site is within this AONB and I note that the north western boundary of the site adjoins the Tisbury Conservation Area. The application form indicates that there would be a loss of employment land of some 4295 sq metres with an attendant loss of 21 employees. The proposed employment generated, presumably by the care home, would be 40 full time equivalents. The increase in car parking spaces would be 151, and whilst it is noted that the application is for up to 86 dwellings, 74 would be market and 12 would be affordable. Bearing in mind the acknowledged need for accommodation in and around this AONB is for affordable properties, that seems to be a rather low proportion.

18. From my engagement with the Tisbury Neighbourhood Plan I am aware that there are some key concerns in relation to development and redevelopment around Tisbury Station.

a) A particularly pressing matter is the provision of parking so that the use of sustainable transport, the railway, can be encouraged. The current roadside parking is not only unsightly, but it also aggravates the restricted traffic flows to and from the southern side of Tisbury.

b) The Neighbourhood Plan team were also keen to ensure that redevelopment would provide a variety of jobs that would enhance the sustainability of the community.

c) Flooding is an issue and, associated with that, the control of pollution is a significant matter.

d) The landscape corridor of the River Nadder is a key feature of the settlement and any redevelopment should both respect and reinforce the character and qualities of that landscape corridor.

e) It is my understanding that the Neighbourhood Plan deliberately avoided making design comments about redevelopment around the station so as not to prohibit innovative approaches.

However, the submitted application does not appear to actively address any of these issues and concerns.

19. Having reviewed the documentation the AONB Partnership is of the view that the submitted scheme fails to comply with the Neighbourhood Plan, fails to present a scheme that is positively related to the landscape

location and context, and lacks imagination.

20. The AONB Partnership welcomes the setting aside of land for the expansion of Tisbury Station. it would, however, be more convincing if that expansion scheme were included in some detail so that everyone could be confident that sufficient space is being made available for what is clearly a desirable expansion of sustainable transport. From the AONB Partnership's position this is the only railway station within the AONB that enables visitors and inhabitants to travel sustainably to and from one of the largest Areas of Outstanding Natural Beauty in the nation.

21. The submitted reports and documents appear to be more in the role of supporting a scheme that had largely been decided upon rather than informing and contributing to the design and layout processes. The Design and Access Statement appears to support that conclusion as its section on Design Evolution has little on the landscape character of the context of the site, and there is no evidence of exploration of innovative or imaginative uses or solutions that would address the issues identified in the Neighbourhood Plan. Clearly those matters are of considerable concern to the local community and the AONB Partnership.

22. I note that the application seeks permission for access, with all other matters reserved. That does, however, mean that if granted the principle of a development in the form presented would be acceptable. That has a clear implication that landscape, community, flooding, parking, and sustainability issues have been fully considered. On the basis of the scheme presented, the AONB Partnership has to advise most strongly that the issues have not been adequately covered to consider an approval.

23. The AONB Partnership is well aware that the roads to and from Tisbury are less than adequate for a Local Service Centre. Nevertheless, residents in the AONB do drive to Tisbury not just for the shops and services but also to use the railway. It seems, therefore, that use of the railway and access to Tisbury are major issues that do have to be addressed in any development or redevelopment.

24. Turning to specific aspects of the submission, neither the Design and Access Statement nor the Planning Statement have full regard to Wiltshire Core Strategy Policy 51 as both omit the final part of the policy relating to developments within AONBs demonstrating how development proposals take account of the relevant AONB Management Plan. Whilst one expects documents provided by an applicant to strike an upbeat note the D&AS seems to be going a bit too far on page 8 when it describes the road access to Tisbury as good! It is generally acknowledged that one of the severest limitations to Tisbury is the narrow and twisting nature of the roads that access it.

25. I have already mentioned the confusion within all of the documents when the south easterly and north westerly sides are sometimes referred to as such, and at other times referred to as west and east, and the north easterly and south westerly sometimes referred to as north and south. Furthermore, the reference to the access points to the site, at the south westerly end, are sometimes referred to as the western and eastern accesses, although in one case there is reference to the northern access. Fortunately, the reference to the railway arches is more consistent.

26. One senses from the Design and Access Statement section on Design Evolution that some fairly basic designs have been tried out before any strategy for development has been established. That may account for the somewhat unimaginative approach to what is, admittedly, not an easy site to redevelop.

27. The Planning Statement for a considerable part summarises the specialist reports and therefore carries forward their assumptions, assertions, or shortcomings. There is a consistent omission of reference to footnote 7 of the NPPF and the documentation, whilst keen to quote in full other parts of the NPPF, abbreviates and omits key elements of paragraphs 176 and 177. The proposal is, of course, a major development and the Planning

Statement appears to side-step that, and the NPPF guidance on AONBs and the tests to be addressed by major development proposals. The effects on the environment are only addressed in part, and what are the public interest issues and the exceptional circumstances?

28. The proposed traffic scheme on the road outside the site appears to provide additional urbanisation, through traffic lights, signs, and similar paraphernalia, within the Conservation Area whilst doing nothing to alleviate the existing parking situation, let alone making provision for a future enhanced level of parking.

29. The Ecological Report, somewhat unexpectedly, indicates that areas of the site with a north westerly aspect nevertheless provide habitat for reptiles. On the other hand, it would be unusual if the River Nadder landscape corridor did not support large populations of bats. The report quite fairly points out the negative impact of domestic cats on bird populations but one significant gap in the report is the lack of focus on small mammals and the negative impact of cats on them. It should also be noted that the purpose of a Landscape and Ecological Management Plan is not primarily to focus on ecological matters. It is to ensure that the landscape integration and mitigation is speedily and successfully achieved and then appropriately and effectively managed thereafter. Obviously, the environmental mitigation and enhancement needs to be included so such documentation needs to be prepared by an appropriate qualified and experienced landscape professional in collaboration with experienced ecologists.

30. The submitted reports provide little basic description about the site and its surroundings, and the Ecology Report comes closest to providing an understanding of those aspects of the site. Nevertheless, the inter-relationships between the various reports seem minimal, and the influences of the various features, such as the grassland, scrub, and wooded areas on the character and qualities of the site, particularly the contribution to those aspects of the south easterly bank and the south westerly entrance area, are unclear.

31. Whilst one might anticipate that an Ecology Report would welcome any native trees and hedges, I have not seen in any of the reports any focus on the practicalities of these features, as shown in the illustrative sketches from the architects, being successfully established on a brownfield site where there is clear acknowledgement of extensive hard surface platforms and contamination. Without attention to these matters any scheme and associated sketches have to be regarded as simply aspirational.

32. The LVIA, on page 5, seems to misunderstand the NPPF. It does correctly quote Wiltshire Core Strategy Policy 51, although there is no demonstration of how the AONB Management Plan has been taken into account. It also correctly, page 9, quotes from this AONB's Integrated Landscape Character Assessment that development pressures around Tisbury and loss of character are key issues. However, it does not provide the landscape context and basic geographical and topographical details to facilitate an understanding of the location of the site, and its location in relation to other significant landscape features and elements. It seems to underestimate the importance of the character of the site as seen from the station and the trains, seemingly overlooking the fact that the trains provide a means for many people to see and appreciate the landscapes of this AONB. I am also concerned by the lack of emphasis on a landscape management plan for the whole site, including designed open spaces, the south westerly access area, and the extensive south eastern slope. It may well be a reflection of the brief given by the client, but the document appears to be supporting the development rather than informing and contributing to the design proposals for the totality of the site in the context of its local environment.

33. There are references to tree planting, and allowing existing planting to grow out, on the south eastern slope. There does not, however, appear to be any consideration of the shading of the proposed development by that slope and the planting, nor shading of ground cover and shrub habitats by those trees.

34. The AONB Partnership welcomes the positive approach of the applicant to a 106 agreement and planning conditions, but these do not appear to be particularly unusual, outstanding, or innovative. The AONB Partnership is concerned that despite the number of documents submitted many fundamental matters remain to be addressed and little attention appears to have been given to AONB matters and policies addressing AONB issues. The submitted scheme seems rather limited, does not address key matters identified in the Neighbourhood Plan, and lacks an imaginative approach to what is widely acknowledged to be a challenging

brownfield site.

35. The AONB Partnership is very concerned that none of the submitted documentation recognises, let alone takes account of, the AONB's status as an International Dark Sky Reserve. The Lighting Report seems to consider only lighting of the spine road, and the station's dark skies compliant lighting is not acknowledged. There are significant shortcomings in all of the references to lighting, including the Ecology Report, and I attach as an annex to this letter an appraisal of the situation by the AONB's dark sky advisor.

Salisbury Civic Society - Object for the following reasons:

Despite the amount of information presented with this application the proposal's urban design is expedient and needs to be fundamentally reconsidered. The Station works site, as the name clearly suggests, is defined by its immediate proximity to Tisbury's railway station. Unlike the village, however, it is on the 'other' side of the tracks and tightly constrained by a steep embankment to the south and the train line itself to the north. Its access, situation and industrial heritage are necessarily difficult and need particular designs to address these fundamental givens. The plans presented do not rise to this context and instead present an expedient solution for access and a generic layout for the housing itself.

Access

There are two lanes of vehicle traffic entering the village from the south. In the proposal one of these is given over for pedestrian access to the development site. This compromise to an already difficult village access is, certainly, unacceptable to everyone other than the developers. To make matters worse for the village this expedient solution depends on an ancient pedestrian right of way across the corner of the site and railway tracks being extinguished. Both of these 'solutions' are surely nonstarters and a more fundamental strategy for dealing with pedestrian access should have been addressed at the onset of the designing.

There is mention and some allowance given to the ongoing idea of the single train line and station platform being doubled into the development site. This would be a benefit to the rail users by ridding the waiting time getting through the Tisbury bottleneck and, of course, to the environment by making public transport more attractive. To work this extra platform will need pedestrian access either tunnelling below or bridging above the tracks. There is an obvious opportunity and synergy for the railway and the developers to share this access between themselves yet is conspicuously missed in the limited 'options' presented.

The idea of housing and business opportunity on this site is certainly a good one and, as it is set out in the village's Local Plan, clearly desired. The developers have interpreted this brief by including a care home amongst their private housing. This is a good and hopefully a generous idea as it gives the project potential for meaningful place making and the inclusion of an older generation.

Site Layout

Again, it is a difficult and particular site between the steep embankment and the railway line. It is north facing and has vehicle access from one end only and a history of industry and a tectonic of large sheds. Likewise, the site is remarkable for its potential to exploit these givens; a hillside to work with, north light to benefit from, views into the village, working with and adding to an established natural landscape, long runs of building and making the movement of pedestrians as simple and interesting as possible.

The urban design presented, however, misses both the opportunities of the site and its proposed programs or uses.

The care home, rather than being central to the scheme, is banished to the corner of the site. The requisite public open space, rather than being integrated into the plan, is simply placed in the centre of an elongated cull

de sac surrounded by car parking. Why this open space was not shared by care home residents to both enliven their lives while benefiting from their passive surveillance is certainly a missed opportunity. Instead, it would appear another expedient and banal lawn (soon to be fouled by dog excrement) as small as possible to fulfil a planning obligation.

The housing itself might have used the hillside to help hide its parking, grab views across the train line, benefit from the limited solar gain, or engage with the existing landscape. Instead it is placed symmetrically either side of central road with suburban housing stamped out as if it were in (another) boundless green field site with no consideration of its east to west orientation. There were at least two further and obvious 'options' where the road was either side of a single run housing yet these were conspicuously absent.

Even the flood attenuation pond at the end of the site belies the expediency and lack of ambition in

this development proposal. In today's age of a climate crisis, ever more flooding, and an increasing loss of natural habitat any urban design should rise above the minimum required and have ambitions to help solve the problems rather than do as little as possible. This development can and should include integral green and blue infrastructure strategies, orient buildings for passive solar gain and passive surveillance, promote dense yet interesting housing, minimise the presence and use of cars and promote and make easy pedestrian movement.

This proposal does not rise to the challenges and opportunities of the site and needs to go back to some urban design basics.

9. Planning Considerations

9.1 Principle of development, policy and planning history

The LPA is unable to demonstrate a 5 year land supply (currently confirmed at 4.7 years) and the provision of additional housing in sustainable locations is generally supported in principle. The current situation in the South HMA (Housing Land Supply Statement April 2021 and published April 2022) is that there is a deficit of 68 dwellings to be provided

However, the presumption in favour of sustainable development or tilted balance does not automatically apply to this site under para 11 of the current NPPF . Footnote 7 includes habitats sites (and those sites listed in paragraph 180) and/or designated as Sites of Special Scientific Interest. This includes the Area of Outstanding Natural Beauty, Chilmark bat SAC and the River Avon SAC catchment, and areas prone to flooding. Therefore, in officers opinion, the "tilted balance" is not applicable in this case where any harm is identified to these sites. For decision taking in the absence of a 5 year supply, para 11 requires:

where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:

- i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed⁷; or*
- ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.*

The site is within the settlement boundary of Tisbury. The adopted Tisbury Neighbourhood Plan specifically allocates the site for development as part of Policy BL7, as reproduced below:

Policy BL.7 Site Allocation: Station Works

The site of Station Works, as identified on the map, is allocated for comprehensive redevelopment to include an appropriate balance of housing, commercial units and parking.

The mix for the development should be informed by a viability test. Development proposals should be set down in a Masterplan which has been the subject of consultation with the community and the other interested parties. The Masterplan should indicate the phasing and infrastructure requirements and how their delivery will be assured. Once agreed, development should proceed strictly in accordance with the Masterplan.

The Masterplan shall be in accordance with the other policies set out in this plan and in addition:

1. Proposals should be informed by a contaminated land survey and remediation scheme, the level of information provided to be in line with the Wiltshire Core Strategy.
2. Liaise with Network Rail (and other parties as required) to identify and safeguard land to meet their current and future operational requirements including appropriate access and parking provision for the southern side of the line.
3. Make provision for an appropriate pedestrian accesses to and from the new development and the rest of the village; and show how this is to be phased, as part of the development.
4. The estimated capacity of the site is 60 dwellings in two storey buildings plus commercial uses, but density overall must be appropriate for the edge of a rural settlement in an AONB with the potential to impact on the Conservation Area and two Special Areas of Conservation (SAC) (the River Avon SAC and the Chilmark Quarries SAC).
5. The Masterplan design and layout should detail the proposed:
 - i) mix of uses
 - ii) areas of public, private and amenity space
 - iii) movement routes for different users (into and out of Tisbury Railway Station)
 - iv) employment, residential and parking areas
 - v) building heights, envelope and density
 - vi) phasing of different uses
6. Make appropriate provision for affordable housing in accordance with Policy BL.2, at a minimum level of 30% in accordance with Wiltshire Core Strategy Core Policy 43. Opportunities for self-build should also be explored
7. Make provision for commercial uses, having particular regard for the needs of local and current on-site business, in accordance with Policy BL.3.
8. The residential and commercial development should be sensitively sited and designed to mitigate any associated adverse impact (such as height of buildings, noise, smell, pollution and visual impact) arising from either use; or from the use of the railway
9. The development must reflect the site's setting within the CCWWD AONB and its proximity to the Conservation Area. This should include consideration of the impact of traffic on the neighbouring settlements, the natural landscape and historic buildings in the CCWWD AONB, the effect on the skyline for potential light pollution and views from the south facing areas in Tisbury and the sensitivity of design, in relation to the vernacular of the adjacent Conservation Area zones. Landscaping should positively reinforce the site's setting in an AONB for all users and where possible result in a net gain for biodiversity in accordance with *Policy HNA.1*
10. Development should be of a very high design standard, reflecting the predominant local vernacular, e.g. use of local brick and stone building materials which predominate on the southern edge of the village and Tisbury Railway Station
11. All necessary species and habitat surveys must be carried out to determine the extent to which the development would affect the bat species that are features of the Chilmark Quarries SAC and appropriate measures taken to avoid and mitigate impacts to roosts, foraging and commuting habitats
12. Development should strive to have a minimal (approaching zero) environmental impact in its use of natural resources such as energy and water and consider how the development can have a positive environmental impact. Wherever viable, masterplanning should utilise industry best practice on integrating principles of sustainable, low-carbon design, including the use of renewable energy and energy efficiency (e.g. BREEAM Communities)

Tisbury is classified as a Local Service Centre within the WCS settlement hierarchy. The role of Local Service Centres is to provide for a significant rural hinterland providing for local employment opportunities, communities facilities and/or affordable housing provision. The broad principle of development within the defined settlement boundaries is established, subject to proposals meeting other policies of the development plan.

WCS Core Policy 27 sets out the policy approach for the Tisbury Community Area. Key issues and considerations for Tisbury are:

- To maintain Tisbury's role as a local employment centre;
- To address a lack of tourist accommodation in the area;
- To ensure that new development is sympathetically designed to enhance local distinctiveness;
- To conserve the landscape of the AONB; and
- To ensure that any new development at the station works site explores the opportunity to provide additional parking for the adjacent railway station.

In relation to policy BL7, the key matters are:

Masterplan and public consultation

The preamble text to the above policy BL7 indicates that a Masterplan should be created in consultation with other third parties and the community, and the policy indicates the Masterplan must address the 12 criteria listed by policy BL7. This report assesses whether the submitted scheme address the 12 main aims and objectives of the above policy. Most of the aims are discussed in other sections of this report, but some main principles are explored below.

There is no formal definition of what a Masterplan should contain in national or local planning guidance, other than it is a framework for the redevelopment of an area or site. The NPPF states that at para 132:

132. *Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot.*

Policy BL.7 of the TNDP states that:

Development proposals should be set down in a Masterplan which has been the subject of consultation with the community and the other interested parties. The Masterplan should indicate the phasing and infrastructure requirements and how their delivery will be assured. Once agreed, development should proceed strictly in accordance with the Masterplan.

The appropriateness of the inclusion of a requirement for a masterplan was considered by the independent examiner for the TNDP:

... the Qualifying Body has commented that "masterplans developed in partnership with the local community, LPA and developer are a requirement of Core Policy 2 of the Wiltshire Core Strategy for strategically important sites and more generally required within the supporting text and although this site does not form a strategic site as part of CP2 it is important to the Tisbury Community and is in effect strategic to Tisbury. The community also want to ensure a good development is delivered. Tisbury wish to follow the example of the Wiltshire Core Strategy and is felt to be a reasonable approach. A masterplan approach does not need to be too onerous; the community simply asks to be part of and consulted on the masterplan development so that this can be agreed with the community prior to any planning application being submitted and thereby reducing or eliminating any objections that may be received if a planning application is submitted 'cold'. This would also enable any discussion to be had with the new owners over why or not they are proposing to include any elements of infrastructure requested and enable discussion with Network Rail."

It is clear from the submitted Statement of Community Involvement that the applicants have engaged in a range of efforts to engage with the community and parish councils, and the results of this engagement have led to a number of adjustments to the proposals that are now presented. However, given the volume and nature of the various third party comments, the scheme is not considered to be acceptable by many local people or the relevant Parish Council's.

In summary, engagement appears to have comprised the following:

- Engagement with the Wiltshire Council highways officer and the Council ecologist;
- Formal pre-application request to Wiltshire Council planning department and highways officers;
- In principle discussions with Network Rail, and formal pre-application request and response from Network Rail;
- Tisbury Surgery/Wiltshire Clinical Commissioning Group regards care home
- Tisbury Parish Council/West Tisbury Parish Council/Local Ward Councillors, including initial meeting to introduce proposals and indicative layout; Site meeting to discuss proposals in more detail, attendance at public meeting (Victoria Hall), further meeting with Tisbury Parish Council to review outcome of public consultation

- Community engagement, including Virtual consultation from 6th May to 6th June 2021, including dedicate website, delivery of approximately 1,400 leaflets to all residential addresses in Tisbury village, explaining the proposed development and how to respond to the consultation.

The applicants Planning Statement acknowledges that the responses from the community have been both positive and negative (at paras 7.4 & 7.5), and provides a useful table of the general types of responses, as below:

SUPPORT/POSITIVE	CONCERN/NEGATIVE
Site is an eyesore and needs redeveloped	General concerns that the site is being overdeveloped
Housing is needed in the village, especially for younger people/families.	No provision of a bridge or tunnel over/under the railway
Affordable housing is needed in the village.	Traffic lights will cause delays/congestion, and are not needed
Local roads are unsafe for pedestrians and speeding is an issue.	Care home is too large/not needed
Rail safeguarded area supported by Network Rail.	Block of flats is bulky and affects setting of a listed building.

In response to the above, the applicants indicate that the final scheme as submitted was adjusted thus:

- The size of the proposed care home has been reduced from 70-bedspaces to 30-40 bedspaces. This will also allow the provision of community medical facilities within the same building footprint on the site, which could also facilitate new premises for Tisbury surgery.
- An indicative footpath route up the landscape bank to the south of the site has been deleted, both to avoid conflict with adjoining private landowners and also to protect wildlife habitat on the bank from encroachment.
- Although indicative only, the layout for the block of flats has been amended to split the flats into two smaller blocks rather than a single large block, thus reducing impact on views from the listed former station hotel.
- The proposal will include traffic signal sensors which will reduce average wait times at the lights still further at quieter times.
- The pedestrian footway/cycleway under the Three Arch Bridge has been reduced in height further following analysis of updated flood data, thus further reducing its impact. (Use of the third arch of the bridge was investigated. This arch carries the River Nadder, part of the River Avon SAC system. Use of this arch for the pedestrian/cycleway would involve culverting the river at this point, as well as removing significant amounts of trees and other vegetation. This option is not therefore considered acceptable in landscape, heritage or ecological terms by the developer).

Given the nature of the third party concerns expressed as part of this proposal, officers had suggested to the applicant that further discussions may be appropriate with the public, in order to address some of the concerns. Whilst the applicant indicated recently that it may indeed discuss matter with Tisbury PC, no further details or adjustments to the application scheme have been forthcoming.

Housing need and quantum

Point 4 of policy BL7 indicates that the “estimated capacity” of the site is considered to be 60 dwellings. The current proposal envisages 86 dwellings, and up to a 40 bed care home (erroneously indicates as a 70 bed in parts of the submitted documents). The applicants argue that there is no real basis for 60 dwellings, and that the site is capable of taking more housing, and that the scheme makes efficient use of the land. Members should note that the housing allocation figures in the Development Plan are also intended to be “at least” figures.

In officers opinion, the elongated application site is of a significant size, and the submitted indicative plan appears to indicate that 86 dwellings and a care home could fit onto the site without any significant harm resulting in terms of the final scheme being overdeveloped or cramped. Whilst the concerns of the Council’s Urban Designer, Landscape officer, and Conservation officer are noted, it has been agreed with them that most the detailed concerns they have referred to in their submissions can be dealt with as part of any future application for the detailed design and layout of the buildings and the site. The Council would however also like to see any future application being submitted with a supporting Design Code document or similar (as previously promised by the applicant), which clarifies the qualities of the materials, landscaping, and architectural detailing, and how they are complimentary to and would enhance the site and the general area.

Care home / employment uses

TNDP policy BL.7 sets a requirement in addition to the delivery of approximately 60 dwellings, for the development of: *‘commercial units, having regard for the needs of local and current on-site business, in accordance with Policy BL.3’*

The exact quanta of commercial development is not specified by the policy. It is explained within the supporting text that while business activities on the site have reduced over the past number of years the site remains Tisbury’s largest commercial site. The supporting text goes on to state:

‘A business park comprising units of a size and form required by modern businesses could attract a diverse employment offer. This could provide for technology-focused businesses, or similar enterprises within use Class B1 supporting the needs of smaller local firms, as well as businesses moving into the area. This would help to minimise out-commuting by extending the availability of local employment opportunities.’

Instead of industrial/commercial uses, the proposal suggests a 30-40 bed care home, located at the southern end of the site (it is noted that a few of the submitted supporting documents refer confusingly and erroneously to a previously proposed 70 bed care home)

The applicant’s Planning Statement argues that:

The business and employment use of the Station Works site has been in steady decline for many decades, this despite its reasonably central location to the village. The relative distance from Tisbury to the main road network, combined with narrow and often winding lanes accessing the village, mean that the site no longer satisfies modern locational requirements for many businesses, particularly those requiring supply and distribution of goods.

The linear nature of the Station Works site makes locating more traditional business uses on the site challenging, whilst the significant costs of decontaminating the site mean that traditional employment uses would render the development unviable. Concerns have also been expressed during the community consultation regarding traffic impacts on neighbouring villages and narrow lanes. Locating further businesses on the site would be likely to exacerbate such issues due to commercial vehicle movements to and from the site on the surrounding local road network

We would normally expect the application to be accompanied by evidence of a marketing exercise to support this assessment in order to justify a move away from the policy expectation. This would need to be broadly along the lines of criteria v. of WCS Core Policy 35:

Within the Principal Settlements, Market Towns, Local Service Centres and Principal Employment Areas proposals for the redevelopment of land or buildings currently or last used for activities falling within use classes B1, B2 and B8 must demonstrate that they meet, and will be assessed against, the following criteria:

...

v. There is valid evidence that the site has no long term and strategic requirement to remain in employment use; the ability of the site to meet modern business needs must be considered, as well as its strategic value and contribution to the local and wider economy both currently and in the long term. It must be shown that the site is no longer viable for its present or any other employment use and that, in addition, it has remained unsold or un-let for a substantial period of time (at least 6 months), following genuine and sustained attempts to sell or let it on reasonable terms for employment use, taking into account prevailing market conditions.

Regards care home proposals, policy 46 of the WCS indicates that: *In exceptional circumstances, the provision of specialist accommodation outside but adjacent to the Principal Settlements and Market Towns will be considered, provided that (inter alia):*

- viii. a genuine, and evidenced, need is justified*
- ix. environmental and landscape considerations will not be compromised*
- x. facilities and services are accessible from the site*
- xi. its scale and type is appropriate to the nature of the settlement and will respect the character and setting of that settlement.*

With regard to the care home element of the proposal, the requirement of criterion viii of WCS Core Policy 46 does not appear to have been clearly addressed, with regard to demonstrating/evidencing the need for a care facility in this location. The Council's current data on need is from 2011. New data is currently being gathered on this point, and is initially suggesting that there is limited need in the Tisbury area, and not enough to support a 30-40 bed care home. However, the emerging figures only relates to care homes which provide financial support from the Council. It does not include self funding private care need.

Provision of a care home is not referred to in Policy BL7, but other housing policy in the Tisbury NP does refer to care home requirements (BL1 & 2). In justification, the applicants state that:

The development of a 30-40-bed care home, together with associated medical facilities, represents a commercial use as well as providing supported accommodation for older people, for which there is an acknowledged need in the area. The care home and medical facilities use could be expected to provide in excess of 40 full and part-time jobs in a range of skills and functions, providing significant employment in the local area. This would also represent an increase in employment from that existing on the site now, which is estimated to be 20-22 full and part time jobs... The care home use will provide much needed local employment, whilst also being a use compatible with a residential development.

The applicants viability assessment envisaged an alternative scheme containing 86 houses, and 8 industrial units (in lieu of the care home). This assessment indicated that if the current proposal were to be altered to be more in line with the allocated policy BL7, then the alternative scheme would not be viable enough to provide policy compliant affordable housing. So it appears that even if a more policy-compliant scheme were to be put forward, that scheme would be unlikely to provide the full required amount of affordable housing on the site. (Members should note on this point that other S106 contributions could be reduced to compensate, but either way, the impacts of the scheme would not be fully mitigated).

Summary

The scheme would not provide the type of industrial employment which is referred to by policy BL7. Furthermore, the number of dwellings proposed would exceed that required by TNP policy BL7 and current estimates for the area. Additionally there remains no submitted justification for this scale of care home to serve the Tisbury area. No detailed layout plans have been provided which indicate how such a proposal would incorporate a medical facility or how large it would be, or whether such a facility is available to the wider public, and if so, would there be sufficient parking on site.

However, in discussions with the relevant Council departments, it is considered that the provision of 86 dwellings (26 approximately about the suggested figure in the policy) would not cause a significant issue in a general land use planning or policy sense, particularly as the Council cannot demonstrate a 5 year housing supply, and because the housing figures in the Development Plan (of which the Tisbury NP is part) are “at least” figures, not limits or targets.

Additionally, it appears that a more policy compliant scheme containing industrial units would also not be viable enough to provide the full quota of affordable housing required by policy CP43. Furthermore, the provision of a care home would at least provide a form of local employment, and would provide a local community facility in the broadest sense. Whilst limited justification has been submitted by the applicant, the Council’s own evidence related to care home need dates from 2011, and new evidence is only currently in the process of being compiled. Whilst this is current indicating that there might be limited need, it however seems unlikely that any such report would indicate that there was no need for a care home, and it is noted that the current adopted Tisbury Neighbourhood Plan suggests that there is currently limited provision of such accommodation in the area. Therefore there is likely to be some public benefit resulting from the provision of a care home and possible medical facility, which would weigh in favour of the proposal.

Thus it is considered that whilst the scheme would not achieve the balanced mix of commercial employment units and housing envisaged by policy BL7 of the Neighbourhood Plan, a public benefit would result from the provision of a care home, and the provision of 86 dwellings would contribute modestly to the Council housing land supply.

9.2 Design, scale and impact to the amenity of the area, including the adjacent Heritage Assets

Section 70(2) of the Town and Country Planning Act 1990 and section 38(6) of the Planning and Compulsory Purchase Act 2004 require that the determination of planning applications must be made in accordance with the Development Plan, unless material considerations indicate otherwise. At the current time of the statutory development plan in respect of this application consists of the Wiltshire Core Strategy (WCS) (Adopted January 2015); Section 66 of The Planning (Listed Building and Conservation Areas) Act 1990 requires ‘special regard’ to be given to the desirability of preserving a listed building or its setting; Section 72 of The Planning (Listed Building and Conservation Areas) Act 1990 which states that in the exercise of any functions, with respect to any buildings or other land in a conservation area, under or by any virtue of any of the provisions mentioned in this Section, special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area; and the relevant ‘saved’ policies from the Salisbury District Local Plan (SDLP).

Policy BL7 criterions 4,5,9 & 10 refer to the design of the scheme, and its impact on the wider landscape of the AONB and the Conservation Area. Policy CP51, 57 & 58 of the WCS are also of relevance to these matters, as are the relevant sections and paragraphs of the NPPF related to design, heritage assets, and landscape impact.

The existing industrial site is considered to be in a poor visual condition, and rather at odds with its rural fringe location adjacent the Conservation Area. The removal of the existing industrial buildings could potentially offer a general visual improvement to the area. However, the site is located in a prominent and elevated location and visible from Tisbury and the wider countryside of the AONB.

The applicants Planning Statement explains the illustrative layout thus (extract):

- *The Site Layout is linear in form, structured along a street which is parallel with the railway line, albeit with subtle variations in geometry. The street is punctuated by a square at the centre of the site, which (either in the event that the railway is dualled or not) creates a secondary access and forecourt to the Station.*
- *Of the two existing access points from Jobbers Lane, the eastern one is used for vehicular access as it provides better visibility splays, whilst the western one is retained for pedestrian access.*
- *The wooded banks which flank these two access points would be retained largely in their present form, as they have ecological value and act as a characteristic rural approach to the village from the south.*
- *The square next to the Station is a focal point for the development and could permit future access to the station and an alternative route to the village centre via a station footbridge. This footpath link would however be dependent upon any future rail improvements proposed by Network Rail. In the interim period, the site would not have access to the existing Chantry pedestrian level crossing or public footpath at this northern end of the site. This is in response to concerns expressed by Network Rail on safety grounds.*
- *Built form is in terraces, semi-detached and detached buildings at 2, 2.5 and 3 storeys.*

The Council's Conservation officer has raised the following points:

The first thing I note is that this is an outline application presumably seeking in principle support for development at the site, hence the absence of a detailed layout. I note that James Webb of Forum Heritage has supplied a heritage statement (marked draft) dated October 2020. James is familiar with the historic development of Tisbury having part authored the Tisbury Conservation Area Appraisal.

James identifies the designated and non-designated heritage assets that are potentially affected by the proposals. He also includes a plan, within the appendices, that identifies key views and also 'zones of sensitivity'. I agree with James' assessment in respect of his identification of the heritage assets likely to be impacted by the development and also note his plan and would concur with the flagged up 'zones of sensitivity'. I hope the developers will pay heed to areas of sensitivity that are flagged up in the report.

At pre-application stage I did not submit an outright objection to the development of the site on the basis of harm to designated heritage assets and their settings. I concur with James (his paragraph 7.4) that the site could be developed without harming the setting of the conservation area or the setting of heritage assets, and indeed, could offer improvements given the nature of the existing site.

We have an indicative layout plan which might seem to suggest that the proposed care home is within one of the 'zones of sensitivity'. I therefore have reservations about siting this building in this location. However in the absence of a detailed design, together with a heritage impact assessment from Forum Heritage, and schematic views relating to the views identified at figures 9/10 (view from Vicarage Road outwards towards the site) and figure 11 (view from the High Street looking southwards towards Bridge House) I am unable to assess the actual impact of the proposals and must reserve judgement until details are submitted (my emphasis)

The Council Urban Design officer has also raised some issues with the overall design concept of the scheme, as below (summary)

The development proposed is conveyed by the 'Sketch Site Layout' and D&AS which comprise the 'Masterplan design and layout' required in point 5 of NP Policy BL.7 for the site (apart from 5vi) phasing of different uses is not indicated). For my reasons below this would not accord with the high standard of design and place shaping required by Core Policy 57: in its context and setting it would appear a distinctly concentrated mass and suburban built form out of character within this surrounding landscape setting detached from the main built up settlement of Tisbury by the river meadows. ...Point 4 of the NP Policy BL.7 states the estimated capacity of the site for the Masterplan as 60 dwellings in two storey buildings whereas about 86 dwellings appear to be shown and a significant number of these incorporate three storeys (as attic (houses) and part attic (apartments) second floor levels). This would suggest creating room for more strips and pockets of landscaping including tree planting creating a fragmented massing of buildings across the length of the development.

The Council's Landscape officer has indicated that (summary):

- The illustrative sketches provided in the DAS are quite useful however sketch 4 illustrates a 3 storey building, larger than policy requirements, and a footpath is illustrated but this is not included on the plan. Sketch 5 demonstrates the large size/scale of the residential care home which is at odds with the scale of the townscape. It should be noted that the trees filtering views onto the site are in residential gardens and cannot be relied on for visual or landscape mitigation.*
- The application included a Landscape and Visual Appraisal. This was undertaken in two stages, initial baseline appraisal followed by an assessment of the scheme. The overall outcome is that there will be some beneficial landscape and visual effects in terms of restoring a degraded landscape into one with opportunities to flourish. The mediocre scheme would suggest that the masterplan development was not 'landscape led'. The mitigation proposed is limited to native trees and hedges within the development and its perimeter to provide screening, the latter is not obvious in the masterplan and the former is within residential garden, therefore unreliable.*
- The planning statement, at paragraph 6.25, explains that the layout of the site has been designed to incorporate important views in and out of the site. It includes the 'verdant backdrop' to the southeast, to be retained and enhanced. There is no information of the proposed enhancement measures on the illustrative plan.*
- There will no doubt be an improvement to the overall landscape and visual appearance of the site even though it is below community expectation. But even at this stage I would expect the illustrative masterplan to deliver a meaningful scheme. The Urban Design Officer has also pointed out some useful suggestions for tackling the design issues and in that regard, I defer to his comments.*

The concerns of the AONB Partnership regards the overall design and impact on the landscape are listed elsewhere in this report. The consultation response from Wessex Water (see Drainage section of report) also suggests that a final layout may need to be different from that proposed due to the presence of a water main running through part of the site.

Summary

As a result of the above issues, the applicant intimated that a design code and other details would be prepared and submitted to address these points. However, to date, no such additional information has been submitted. It is also unclear how the part of the site within the railway protection area would be treated in the short to medium term prior to the land being required. The layout plan suggests that land would not be accessible, but the artists impressions supplied suggest the land would be utilised as a pathway serving the development. It is also not clear how this land would be accessed should this land be needed in future for the railway or how this may impact on the general amenities of development.

The sketch views provided also seems to suggest a built form differing from that shown on the indicative scale diagram. The submission appears to be a mixture of a previous and revised scheme. No schematic diagrams

have been submitted which may more show how prominent the development may be from certain viewpoints and the impact on the landscape of the AONB.

Notwithstanding, as the consultees allude to, the site is and has historically been visually detrimental to the wider area and the landscape, and the redevelopment of the site for a large quantum of development is considered acceptable by virtue of the allocation of the land by policy BL7 of the TNP. Whilst the redevelopment of the site would also be prominent in the wider area to the west, it is considered that such impacts could result in a visual improvement overall compared to the existing and historical situation, if a future scheme is of an attractive overall design, including materials, and landscaping.

In officers opinion, the elongated site is of a significant size, and the submitted indicative plan appears to indicate that 86 dwellings and a care home could fit onto the site without any significant harm resulting in terms of the final scheme being overdeveloped or cramped. Whilst the concerns of the Council's Urban Designer, Landscape officer, and Conservation officer are noted, it has been agreed with them that most the detailed concerns they have referred to in their submissions can be dealt with as part of any future application for the detailed design and layout of the buildings and the site. The Council would however also like to see any future application being submitted with a supporting Design Code document or similar, which clarifies the qualities of the materials, landscaping, and architectural detailing, and how they are complimentary to and would enhance the site and the general area.

As a result, as access is the only detailed matter at this stage, and other layout and design matters are reserved, it is considered that it is possible for such matters to be considered at the reserved matters stage should the Inspector approve the current outline consent.

9.3 Impact on Amenity

The site is located some distance from most residential properties in Tisbury, with the closest being to the north and west of the site across the railway line. Whilst the proposed development may well be visible from these dwellings (particularly those to the north adjacent the river bridge and footpath) and there may be some overlooking created from the proposed dwellings, it is considered that any relationship would be at a suitable distance, and the loss of privacy would not be so significant as to warrant refusal, particularly given existing mature planting and the railway line between the proposal site and the existing housing.

This industrial site is directly adjacent the Tisbury Railway station and railway line, and the applicants contamination survey confirms there may be contaminants in the site. The applicants noise and vibration survey concludes that:

The Stage 1 assessment indicates a low to medium noise risk across the site. A vibration survey has been undertaken and vibration levels have been found to be acceptable for residential use. Noise sources affecting the site are trains, announcements from the train station, a substation and existing commercial uses.

Noise propagation across the site has been calculated using noise mapping software. Appropriate external and internal noise criteria have been considered to minimise adverse impacts on health and quality of life as a result of the new development. The majority of the site is subject to low noise levels and suitable for residential use with minimal mitigation.

However, some areas have higher noise exposure. Appropriate mitigation measures have been outlined which should be developed during detailed design, including building orientation, screening and thermal double-glazing and trickle vents. With appropriate mitigation, the proposed scheme is not expected to experience a significant adverse noise impact and the site is considered acceptable for the proposed residential use.

The Council's Public Protection have advised that:

There are multiple contaminants onsite that currently pose an unacceptable risk to human health. The development site is located adjacent to Tisbury railway station and the main line between Waterloo and Exeter. It is noted the final layout of the site and internal layout of the dwellings has not yet been finalised.

I have reviewed the Noise Assessment completed by Venta Acoustic dated July 2020 which identifies that mitigation is required to meet internal and external ambient noise levels. Mitigation is detailed at Section 8 of the

report. The proposed development scheme includes development of a Care Home. No details have been submitted in respect of building services plant that may be installed for the care home, or details about delivery schedules to and from that site, I have therefore recommended specific conditions below which relate to the care home.

Having appraised the application, I recommend conditions are applied to any approval of this application.

In light of the response of the Council's public protection officer, the scheme would be acceptable subject to conditions. Thus the scheme could not have been refused on this basis in officers opinion. Conditions will be agreed between the parties at the future Inquiry.

9.4 Highway safety/parking/linkages

Policy BL7 of TNP contains a number of criteria which relate to access works and pedestrian linkage, namely criteria 2,3 & 5. Policy 60 & 61 of the WCS also relate to highway issues and works.

The road system adjacent to the site and leading to and from it is relatively narrow and rural in nature. As described in the applicants Planning Statement, the site currently has a dual vehicular access onto Jobbers Lane, just south of the railway bridge where the lane crosses beneath the Waterloo to Exeter railway line. Jobbers Lane continues beneath the railway bridge, becoming Station Road at a sharp right- hand bend, and continuing past Tisbury Railway Station toward the High Street. The narrow footway continues beyond the railway bridge where it connects with a public footpath toward the village centre on Church Street, known locally as the Stubbles Path. There is no footway on either side of Station Road after this point.

The access for this development would be retained from Jobbers Lane. However, as referred to elsewhere in this report, the access/egress to the site suffers from flooding/drainage issues, particularly under and around the railway bridge. The application therefore proposes to close one of the three arches under the railway bridge and provide a raised pedestrian/cycle walkway above the level of any flooding. The following improvements to the site access and pedestrian/cycle access are listed by the applicant:

- To close the eastern bore of the railway bridge to vehicular traffic and create a widened pedestrian and cycle lane under the bridge.
- To widen the existing footways on Jobbers Lane/Station Road a standard suitable for a combined pedestrian/cycle shared space, between the site entrance and a point opposite the Stubbles Path.
- To raise the height of the footway and underbridge lane to create a safe means of access-based climate change flood scenarios.
- To provide a pedestrian crossing point as part of associated traffic management proposals set out below.
- The introduction of a section of single directional traffic movement between a controlled by traffic signals,
- The traffic signals to also include pedestrian phasing to allow pedestrians to cross from the site access to the footway on the east side of Jobbers Lane and vice versa.

- A 40-mph speed limit at a suitable point to the south of the site entrance along Jobbers Lane.

The applicants Statement also refers to the aspirations to have a bridge over the railway or a tunnel:

Firstly, any improvements at Tisbury Station remain uncertain in terms of funding and timescales..., albeit that some technical work has taken place. Network Rail are supportive of the rail safeguarded area set out on the indicative layout plan for the development but have not specifically asked for any provision of bridges or tunnels. In addition, the Neighbourhood Plan Policy for the site does not specifically require provision of a footbridge or tunnel, rather requiring the safeguarding of land for rail improvements.

Secondly, in the absence of any pedestrian crossing of the railway via a footbridge or tunnel, the development should provide safe pedestrian, cycle and disabled access to the village and the station....., the existing highway and footway in Jobbers Lane/Station Road is inadequate and indeed dangerous for pedestrians and cyclists, and the limited footways too narrow for wheelchair users. There has been much local concern noted regarding vehicle speeds in Station Road/Jobbers Lane. It is important therefore that the development is supported by safe and appropriately designed pedestrian and cycle access to the rest of the village, particularly in the absence of any clear proposals for improvements at Tisbury Station.

The applicants have submitted a Transport Assessment which concludes that:

.....the results indicate that an increase of 45 additional vehicle trips are anticipated on the local road network during the AM Peak. This equates to less than 1 vehicle movement every 1 minute and is not considered to have any material impact on the existing road network in terms of highway capacity or highway safety. In accordance with Wiltshire Local Transport Plan – Car Parking Strategy, a total of 207 car parking spaces should be provided as part of the Proposed Development. Appropriate provisions for cycling has also been put forward in order to encourage local residents to cycle more. The Proposed Development will provide secure, covered and conveniently located cycle parking facilities for flats, visitors and the residential care home. It is envisaged that appropriate cycle storage will be feasible within private gardens for each of the houses within the Proposed Development.

It is concluded that the Proposed Development can provide safe and suitable access for all users. Travel to and from the Site has been carefully considered and the proposed layout has been designed to accommodate the needs of all users of the Site. Overall this Transport Assessment concludes that the Proposed Development can be safely and conveniently accessed by other, sustainable modes of transport.

The Council's Highways officer has commented thus (extract):

The Transport Assessment accompanying the application correctly indicates that existing provision for pedestrians and cyclists in the vicinity of the site is very poor.

Network Rail oppose any increase in use of the level crossing at the north of the site, and an existing footway on the opposite side of the proposed access (along Jobbers Lane) is less than 1m in width with no reasonable prospect of improvement and/or integration.

(Network Rail do not accept the applicant's statement that future residents would not have access to the existing Chantry pedestrian level crossing or public footpath at this northern end of the site, believing that any boundary treatment stands the chance of being breached especially considering that the crossing provides a more direct route to the town for most of the development.)

In order to compensate for an otherwise lack of suitable pedestrian/cycle access, the applicant proposes the closure of the southbound railway arch to vehicular traffic, to be replaced by the installation of a new elevated 3m wide pedestrian/cycle route at a height to coincide with flood thresholds. (I do not propose to comment on the flood levels quoted, but should the EA argue for a higher level, it may well compromise the minimum headroom required for such facilities.)

It would also seem obvious that such a structure would occupy a significant volume within the arch, thereby reducing the space that would otherwise be available for flood storage.

Were such a scheme to progress, it would require advertising and resolving to approve a Traffic Order that would secure closure of the section of the road in question to vehicular traffic – it would also rely on the Highway Authority being prepared to license the provision of such a structure over/on the public highway.

The TA indicates that the surface level of the proposed structure would be built at 91.3m AOD, some 0.6m above existing road level (quoted as 'approximately' 90.63m AOD)

*Campbell Reith's drawing numbered 0002 P1 shows the distance between the surface of the proposed elevated structure and the underside of the bridge arch to be **3118mm**. The plated height of the bridge shows the height of the bridge arch above road surface level to be 10'3" (ie **3124mm**) ie virtually the same. It is not possible to reconcile the design drawing with the situation on the ground.*

On the basis of those measurements, it is unclear whether such a structure would fit within the arch. The structure and railings would occupy most space within the arch, and would need to accord with DfT's Local Transport Note 1/20 which looks for clear headroom across the whole width of 2.4m. There is insufficient information to demonstrate whether those standards and requirements can be met.

There is also clear photographic evidence to show that there are existing services and drainage facilities within and across the road proposed for covering with the elevated structure, but no indication of the effect of the proposed works or how their provision could be safeguarded.

The nature of the elevated structure is such that any detritus that gathered below the structure would be extremely hard to remove.

The plan accompanying the Transport Assessment proposes that the elevated structure will be built using piling techniques. The TA gives no indication whether Network Rail have been approached to seek their view on whether such a procedure would be acceptable so close to this stone arched structure.

The TA indicates that the structure would be built using open mesh decking. That is not a material that would be accepted for adoption by the Highway Authority.

Closing one of the arches to traffic would result in all vehicles having to use the significantly narrower and lower (currently southbound) single arch. To facilitate such a proposal, the TA indicates the provision of a set of shuttle traffic signals, one set at each end of the closure (at the northern end, pedestrian crossing facilities are indicated). There is insufficient information to demonstrate whether there is sufficient space to accommodate signal poles and other associated infrastructure as well as sufficient road width noting the proximity of stop lines and potential queue lengths.

Alongside, the TA shows plans for significant kerb realignment at both ends of the closure indicating tight non-standard reverse curves, and on a map base that is not accurate to show whether it could be delivered within the red line of the application accurate and/or any other constraints.

In terms of the need for wider connectivity, the TA indicates that the proposed elevated structure would land at a point which would allow access into the town centre via footpaths TISB74 and WTIS14. I am advised however that these paths are also subject to flooding, nor suitable or permitted for cycling.

Even in the unlikely event that all of the above could be resolved, the proposed arrangements for pedestrians and cyclists to access would be lengthy and inconvenient.

Whilst land is shown as safeguarded within the site for the potential railway line dualling and second platform, I understand that Network Rail (and the rail industry in general) has no firm plan in place to undertake these works currently. These works were proposed in the West of England Line Study 2020 (part of NR's modular strategic planning) but the proposals are unfunded and at an early stage of business case development. It is thus unclear whether this safeguarded land would be sufficient for these purposes at this stage.

Conclusion

Given the above, I see no way of being able to recommend a conditional approval.

The basic premise of closing a road open to all traffic and replacing it with an exclusive facility that has been put forward to do no more than improve the planning case for an individual planning proposal is in my view unacceptable.

I do not believe that the Council would be prepared to sponsor or support a corresponding Traffic Regulation Order, nor do I believe the Council would be prepared to enter a license for construction of the elevated structure.

Other proposed works including installation of traffic signals and kerb/road realignment are a) insufficiently detailed to show whether they can be delivered and b) shown to an unacceptable standard.

In detail, (bearing in mind that detailed approval for access is sought at this stage) there remains uncertainty over whether such a structure could be built to a suitable standard within the confines of the arch, or whether the practicalities of construction and ongoing maintenance can be dealt with. (in that context, I am doubtful whether Network Rail would agree to a piled structure, but I accept it is for them to be asked and to respond to.)

Notwithstanding the above, the overall approach to pedestrian/cycle connectivity is contrived, poorly conceived and fails to achieve an acceptable access arrangement for the site. It is noted that previous planning submissions (S/2002/1367 & S/2003/2547) on this site were refused by Salisbury District Council for broadly the same reason. These latest proposals are not considered to have overcome these issues.

In conclusion, I would currently recommend the application be refused.....

Summary

The proposed walkway would result in the loss of part of the public highway, and result in highway issues to the operation of that part of the highway. As outlined elsewhere, there also appear to be flooding/drainage issues raised by this structure. Notwithstanding, once users of the walkway join the existing Station Road, there is then no additional highway improvements into Tisbury centre. Together with the closure of the existing railway line footpath to future residents, this means that sustainable access to the services and facilities of Tisbury centre would not be readily available or prioritised, particular at times of flooding events.

It is therefore considered that the proposal would not be in accordance with aims and objectives of policy BL7 of the Tisbury Neighbourhood Plan, and would also not accord with the aims of the transport and highways policies of the Wiltshire Core Strategy, or the NPPF.

9.5 Impact on railway station and line and infrastructure

Point 2 of policy BL7 of TNP indicates that any development proposal should:

2. Liaise with Network Rail (and other parties as required) to identify and safeguard land to meet their current and future operational requirements including appropriate access and parking provision for the southern side of the line.

Policy TR2 of the TNP also indicates that:

Development at or within the environs of the Tisbury Railway Station that protects and enhances the existing railway service will be supported. To ensure the necessary co-ordination, proposals should be developed in conjunction with the Local Planning Authority, Network Rail and other interested parties as appropriate. Proposals should have appropriate regard for the following:

1. Increasing and accommodating the use of public transport - train, bus and taxi.
2. Accommodating sustainable travel needs, such as pedestrian accesses, bicycle shelters and electric car charging points.
3. Extending car parking in line with the levels of station usage.
4. The requirements of the Tisbury Conservation Area and the Victorian character of the station buildings

The applicants Planning Statement explains the situation (extract):

Network Rail, in late 2020, published a technical study on various improvements to the West of England line along its length from London Waterloo to Exeter St Davids. The report, "Continuous Modular Strategic Planning – West of England Line Strategic Planning" makes a number of recommendations in respect of dualling the line at Tisbury and associated station improvements:

8.1.1 Description

This intervention is an extension of the current Tisbury Loop westward through Tisbury to enable a 5.5km loop with an additional platform at Tisbury station. This is required for performance/ resilience, capacity and journey time savings on SWR services.

8.1.2 Overview

Land would need to be acquired on the Down side to accommodate the new platform. There could be an opportunity to extend the existing platform and the proposed new platform at Tisbury to accommodate six-car services. This has not been considered in this study but would form part of any future scheme development.

Additionally, a new footbridge will be required to connect the new platform on the Down side of Tisbury station with the existing Platform 1 on the Up sideto be Access for All (AfA) compliant, the footbridge would be required to have either compliant ramps and/or lifts. Lifts are likely to be the preferred option at this station location and further development will be required to understand whether this can be achieved safely at this location or whether additional land on the up side may be required owing to the width of the platform.

Whilst details exist of what these improvements could be, there is as yet no information on what funding exists for them, or in what timescale the improvements are programmed to take place. It is clear that the works do not form part of any specific transport or planning policy, nor, as far as the applicant is aware, are they defined in any Network Rail infrastructure programme.

The indicative layout for Station Works ..includes an area of approximately 0.4 hectares immediately adjoining the railway line and station which is to be left undeveloped and safeguarded for future improvements to the station and line. Given the lack of detail on the timescale for any these proposals, it is considered that this safeguarding represents a reasonable and proportionate obligation on behalf of the applicant to future rail infrastructure provision, and which, from the technical study undertaken by Network Rail in 2020, appears more than adequate to accommodate the improvements suggested.

Subsequent discussions have taken place with Network Rail which have confirmed that it considers the safeguarded area adequate to allow for any future improvements at Tisbury.

Network Rail has stated the following (summary extract):

Whilst in principle NR are supportive of the proposal and welcome the safeguarded land to facilitate future improvements to Tisbury railway station, some concern remains regarding the potential risk of accessing Chantry pedestrian level crossing and the parking management of the development.

Chantry pedestrian level crossing

We note that the applicant states future residents would not have access to the existing Chantry pedestrian level crossing or public footpath at this northern end of the site, however, Network Rail's Level Crossing team remain concerned that if the boundary treatment is not adequate it may be breached.

As part of our license to operate and manage Britain's railway infrastructure, we have the legal duty to protect rail passengers, the public, the railway workforce, and to reduce risk at our level crossings so far as is reasonably practicable.

The most effective way to mitigate any additional risk to the pedestrian level crossing would be to close the level crossing by diverting the Public Right of Way (PROW) TISB16 either over a new footbridge or through the development and along the new shared pedestrian / cycle way, however, this is unlikely to be feasible given the length of the diversion required to rejoin PROW TISB15.

As a result, we request a number of conditions are attached to any planning to address our concerns of increased use and consequently increased risk to the Chantry pedestrian level crossing and the future residents.

- 1. A prior to commencement condition which details how the pedestrian level crossing will be inaccessible from the development during the construction phase. This could be included within a 'Construction Management Plan'.***

2. ***A prior to commencement condition that provides Network Rail with the opportunity to review and agree the boundary treatments post construction.***
3. ***A prior to occupation condition ensuring that the agreed boundary treatment is installed.***
4. ***A prior to occupation condition requiring a 'Boundary Treatment Management Plan' that ensures the boundary treatment is regularly monitored and if breached, repaired within a certain timeframe.***

Summary

From the Network Rail response, it appears that provided any application is approved with conditions restricting access by future occupiers of the scheme to the adjacent footpath crossing the railway line, and provided that parking on the proposal site is adequately managed, then Network Rail would not object. This response also suggests that additional railway parking is not considered to be required as part of any proposal. Therefore the aims of criterion 2 of policy BL7 are met in the sense that Network Rail seem satisfied with the current outline proposals, and does not appear to be asking for any additional parking or for a suitable access to the site.

However, it is unclear how the railway protection area would be treated in the short to medium term prior to the land being required. The indicative layout plan is unclear but suggests that land would not be accessible, but the artists impressions supplied suggest the land would be utilised as a pathway serving the development. It is also not clear how this land would be accessed should this land be needed in future for the railway or how this may impact on the general amenities of development. These would need to be sorted out at the reserved matters stage.

9.6 Access to adjacent Rights of Way system including railway line crossing.

Currently, the public footpath runs across the adjacent railway line to the north of the railway station and through the northern section of the existing site.

As Network Rail objects to occupiers of this proposed scheme using the adjacent footpath system which runs across the main railway line adjacent the site (see below), the Council's rights of way officer has withdrawn her initial objection (to new residents not having access to the footpath network) subject to a financial contribution to the footpath system in the immediate area of the site, as below:

Our preferred solution would be access to TISB16, the off-site contribution would overcome our objection. The £7,250 would cover the costs of the following improvements that have been identified for paths that would see increased use if the link to TISB16 is not provided:

Re-surface the first section of TISB74 with tarmac (1.5m width) for approximately 50m from the Station Road end. Improve the surface of WTIS13 with stone (1.2m width) for approx. 153m long split over 2 sections) and 50m of wooden edging on side of the path.

As a consequence, even though it is considered to be a regressive step in planning and overall design terms to stop future residents accessing the right of way system, a refusal of the application on this basis may be difficult to justify, unless Members feel that that the enhancement of the existing footpath system is outweighed by the

benefit of retaining the footpath link with the application site. Such access however would of course be contrary to wishes of Network rail as outlined below.

9.7 Archaeology

The Council's Archaeologist has commented thus:

The Archaeology Service has previously been consulted about this proposal and we have previously been in receipt of the archaeological desk-based assessment report (Cotswold Archaeology, September 2020) submitted with the current application. The assessment report has established the potential of the site to contain buried remains of prehistoric and Roman date and notes in particular the discovery of a stone-coffined Roman inhumation found in 1953 just to the east of the red line boundary of the site. Unfortunately, further details of this discovery are unknown.

The assessment report also notes that the site is likely to have been substantially disturbed from several phases of previous development, along with substantial terracing into the north-west facing natural slope. This is corroborated by the geotechnical data that shows deep 'made ground' deposits in some parts of the site. However, the report notes that there may be areas of the site where buried remains may have survived, undisturbed by previous uses of the site. The area within the red line boundary that is likely to be the least disturbed, and therefore has the highest archaeological potential, is the green space along the east side of the site, but this is not proposed for any development. On this basis, the report concludes that further archaeological investigation would be appropriate if the application was permitted, and this could be secured by an appropriately worded condition.

In view of the previous history of the site and the existing buildings on site and provided the green space in the east of the site is not proposed for development, I agree with the conclusion of the archaeological desk-based assessment report and that archaeological investigation would best await demolition to ground level of the existing buildings. The archaeological investigation should initially take the form of an exploratory trial trench evaluation which will determine if there are any areas of archaeological interest within the site that will be impacted by the proposed development. The results of the exploratory investigation will, if justified, be used to develop an archaeological mitigation strategy, which may include further archaeological investigation prior to the commencement of development in areas of archaeological interest or monitoring during construction work. The archaeological mitigation strategy should be prepared and agreed prior to the approval of any reserved matters applications in relation to this outline application.

The following condition is proposed:

No development, other than demolition to ground level, shall commence within the area indicated by application PL/2021/09778 until:

- a) A written programme of archaeological investigation, which should include on-site work and off-site work such as the analysis, publishing and archiving of the results, has been submitted to and approved in writing by the Local Planning Authority; and*
- b) The approved programme of archaeological work has been carried out in accordance with the approved details.*

REASON: To enable the recording of any matters of archaeological interest.

The programme of archaeological work should comprise the following elements:

i) Exploratory archaeological investigation through trial trenching after demolition but prior to the commencement of development

ii) The archaeological investigation of any areas of archaeological interest identified by the exploratory investigation. This may comprise further investigation prior to the commencement of development in the areas of archaeological interest or monitoring during development.

iii) A programme of assessment, analysis, and publication commensurate with the significance of the archaeological results.

As a result, there are no archaeology issues with the development, subject to conditions being imposed.

9.7 Ecological Impact/River Avon Catchment Area

Point 4 of Policy BL.7 stipulates: *'The estimated capacity of the site is 60 dwellings in two storey buildings plus commercial uses, but density overall must be appropriate for the edge of a rural settlement in an AONB with the potential to impact on the Conservation Area and two Special Areas of Conservation (SAC) (the River Avon SAC and the Chilmark Quarries SAC).'*

Point 11 of Policy BL.7 states: *'All necessary species and habitat surveys must be carried out to determine the extent to which the development would affect the bat species that are features of the Chilmark Quarries SAC and appropriate measures taken to avoid and mitigate impacts to roosts, foraging and commuting habitats.'*

Policies CP50 and CP52 relate to ecology matters and biodiversity/green infrastructure and are also relevant, as well as CP69 related to the protection of the River Avon SAC.

The application is accompanied by an ecological survey. This concludes that:

- A construction environmental management plan should be developed to mitigate any construction impacts on the River Nadder;
- A financial contribution should be made (through S106 obligation or CIL) toward implementation of the River Avon Phosphate Management Plan;
- Replacement hedgerow planting to be provided for any lost as part of bat mitigation;
- A landscape and environmental management plan to be developed to ensure the vegetated bank, together with any new landscaped areas, and the attenuation pond are managed for wildlife in the long term;
- The Himalayan Cotoneaster on the railway embankment where it encroaches on the site should be removed;
- Specific mitigation proposals for foraging badgers, birds, barn owls, bats and reptiles to be incorporated into the development.

A Habitats Regulations Assessment was then provided by the applicant. The assessment specifically considered the impact of the proposed development at Station Works on the Chilmark Quarries SAC and the River Nadder, which is a tributary of the River Avon SAC. The HRA screening considered that likely significant effects could not be ruled out in the absence of mitigation for River Avon SAC phosphate pollution and recreational impacts and

for Chilmark Quarries loss or fragmentation of functional habitat (both physical loss and via light disturbance impacts).

The applicants HRA recommended the following mitigation:

- Extensive habitat creation for bats leading to a net increase in available foraging/commuting habitat;
- Lighting design with light spill reduction methods to ensure continued use of bat foraging/commuting habitats; and
- Phosphate neutral development via CIL payments as set out in the Wiltshire Local Plan.
- The Habitats Regulations Assessment Information Report concludes that the Local Planning Authority should be able to safely conclude that an Appropriate Assessment of the proposed development under Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended) can be passed.

This information has been reviewed by the Council's Ecology team. They objected subject to the carrying out of a positive Habitats Regulations Assessment, and subject to the following matters being addressed by the applicant:

- Provision of currently omitted 'net gain assessment' report cited in the EclA. The completed Biodiversity Metric should also be provided in its entirety. Provision of two scaled and detailed plans; the first should clearly illustrate and quantify the existing habitat; and the second plan should illustrate and quantify the areas of habitat to be retained as well as areas of proposed habitat / habitat to be enhanced.

Extent of proposals

- Provision of revised *Sketch Site Layout* showing full extent of current proposals including the proposed steps and footpath up the bank in the south-eastern section of the site and an area of POS at the top of the bank as these proposals are referred to in the EclA but not shown on the submitted plans. The areas that these proposals would cover should also be quantified and provided.
- Soft landscaping for bats proposed in the EclA comprising planting of hedgerows on the bank and new tree planting at the base of the bank are not shown on the *Sketch Site Layout – 06 Rail Safeguard* (Drawing no. SKL-06).
- Proposed swales are not suitably annotated/shown in the key of the *Sketch Site Layout*.
- The *Sketch Site Layout* should be revised to show full extent of proposals and to demonstrate that recommendations set out in the EclA will be implemented. There should also be consistency across the submitted plans. This is needed in interests of proper planning and to facilitate fully informed assessment of effects on protected species including bats, reptiles and birds

Ecology survey

- Clarification regarding the date that the update Phase 1 Habitat Survey was undertaken.
- Confirmation regarding whether the validity of the ecological survey data was reviewed as most of the data was over 2 years old at the time the application and EclA was submitted, and the EclA stipulates the data is only valid for 18 months. The Council generally considers survey data to be valid for 2 years and applications should be supported by valid data particularly where the data informs HRA as is the case for this application. Therefore, a rationale setting out why the data was still considered valid and why update surveys were not conducted must be provided as this is not included within the EclA. If a sound rationale cannot be provided surveys would need to be updated.

Reptiles

- It is considered that the minimum number of trapping days proposed for the reptile translocation is too low and not in accordance with best practice. A rationale is required for the proposed approach (e.g. is it due to the size of the area to be excluded). The strategy should be revised if a sound justification cannot be provided

Ecological Parameters Plan

- Revised EPP requested which shows and quantifies all ecological, landscape and arboricultural parameters and consideration should be given to the incorporation of an ecological buffer between the bank in the southeast of the site and the development/works footprint. This should be shown on the plan.

Phosphate issues

- Provision of bespoke phosphorus mitigation strategy, which has been discussed with NE through their DAS, for the 'unplanned' uplift in proposed development at the site from that which was allocated in the NDP.

Chilmark Quarries SAC

- Provision of currently omitted lighting report cited as in the EclA as: 'Alan Tulla Lighting (2021). *Lighting design for car parks at Tisbury Station, Wilts.*'
- Requested revision to scheme layout to incorporate further avoidance and mitigation measures for bats, including ecological buffer zone / 'dark corridor' between identified bat flight lines used by Annex II qualifying species of the SAC and the development/works footprint.

It has been some months since the Council's ecologist expressed her initial views. The applicant has suggested that they would provide further information to address the above, but at the time of writing, nothing has been received. However, the applicants viability assessment received just before this report was finalised suggests that they may wish to offer a Nutrient Reduction Agreement contribution of £237,379. No further information regards this contribution has yet been forthcoming, but in principal, the Council's ecology officer considers that such a contribution would be useful in phosphate mitigation. However, such a contribution can only be secured if and once the appellant submits a suitable legal agreement which is agreed as part of the appeal decision.

The Council's ecologist has now indicated that in the period since their initial comments, the Council's own work on providing a solution to the phosphate issue has progressed, and given the [Ministerial Statement](#) on 20 July 2022 measures are coming forward to help minimise nutrient burdens of development through wastewater treatment works improvements and a Natural England led strategic mitigation scheme. Some of these measures are being secured through other legislation in due course. This will hopefully lift the significant burden on Local Authorities.

Regards the other issues raised above related to the various reports, it remains the fact that the submitted details are somewhat contradictory. However, should the Inspector be minded to approve this scheme, the Council's ecologist is now of the view that suitable conditions could be imposed to ensure that the suggested mitigation works occur as suggested.

Based on the above, and subject to suitable phosphate mitigation, and suitable conditions, including in relation to the Chilmark Quarries SAC, and subject to finalisation of the proposed national measures to ease the phosphorus issue in due course, it is considered that the proposal would accord with aims and objectives of policy BL7 (point 4 and 11) of the Tisbury Neighbourhood Plan, and the aims of Core Policy 50 and 52 of the Wiltshire Core Strategy, and the biodiversity aims of the NPPF.

Because of the likely significant effects on the River Avon SAC and the Chilmark Quarry SAC, a positive Habitats Regulations Assessment will however need to be concluded by the Inspector.

9.8 Drainage and Flooding

Whilst the site itself is located in Flood Zone 1, the adjacent highways access via Jobbers Lane around the railway bridge/arches area and the adjacent field system to the north is in Flood Zone 2 & 3, and has a recent history of flooding issues. Third Parties have highlighted this matter in the various responses. This is an issue for the scheme as the highway system beneath the railway bridge (Flood Zone 3) would be the only way that any future occupiers of the proposal would be able to access Tisbury and its facilities, given that access to the existing footpath system would not be allowed.

Policy CP67 of Wiltshire Core Strategy relates to developments in Flood Zones 2 & 3. Policy HNA 3 of the Tisbury NP and its supporting text relates to flooding issues in Tisbury and around the application site.

The Environment Agency has currently concluded that (extract and summary):

Flood Risk

Flood Zone Compatibility

..The proposed walkway should be classified as a water-compatible use. If the Local Planning Authority (LPA) are satisfied with this classification, then the proposed walkway will need to:

- remain operational and safe for users in times of flood;*
- result in no net loss of floodplain storage;*
- not impede water flows and not increase flood risk elsewhere.*

We understand that designing the walkway to remain operational may be impractical and therefore measures will need to be put in place to make it safe; this along with the other points are discussed further below.

Safe Access

It is the LPA's responsibility to decide if the access arrangements are safe and they should determine this through consultation with their emergency planners. The EA's role is to provide technical advice regarding the flood hazard rating, which should be provided in the Flood Risk Assessment (FRA).

In this instance, all of the proposed buildings will be located in Flood Zone 1, but the access is via Jobbers Lane which is located in Flood Zone 3. Therefore, if residents or the emergency services needed to access the site during the design flood they would need to pass through floodwater.

The assessment of hazard for vehicular access uses flood levels that differ to those stated in the FRA. The letter estimates a flood level of 91.70mAOD for the 1% annual probability event plus 38% climate change allowance, whilst the FRA states in paragraph 5.1.6 a flood level of 92.38mAOD, which is significantly higher. Clarification on the design flood level is required before an assessment of the hazard for the vehicular access can be concluded.

We note that the letter states "safety would be controlled by individual users because the extent of any flooding would be immediately apparent". Whilst the extent of flooding will be clear to see, the depth of flooding may not be immediately apparent and, therefore, it may be advisable to provide some indication of this to users.

Increase in Flood Risk Elsewhere

The letter provides a high-level assessment of the potential impact of the raised walkway based on the loss of floodplain storage volume. However, the potential reduction in conveyance through the bridge arches is more of a concern. The restriction on flow caused by the bridge means that changes in conveyance through this structure have the potential to have a significant effect on flood risk elsewhere.

Whilst the letter appears to try and address the concern qualitatively, this is not sufficient to overcome our concern. We request that hydraulic modelling is undertaken to assess the impact of the proposals and any

potential compensation. Alternatively, the design of the proposed walkway could be altered to avoid reducing conveyance and loss of storage. Measures would need to be installed to appropriately manage the risk to users and the LPA's emergency planners should be consulted on any such proposals.

Other matters

Our comments provided in our previous letter dated the 12 November 2021 relating to groundwater and contaminated land are still relevant to this application. (Officer note - These state as below:)

Groundwater and Contaminated Land

The investigation reported in the Environmental Risk Assessment (Ridge, November 2020) has identified hydrocarbon contamination of soils and shallow groundwater beneath the northern end of the site. This part of the site is in close proximity and up gradient of the River Nadder and we therefore agree with the conclusions of the report that there is the potential for unacceptable levels of pollution of controlled waters.

The nature of the hydrogeological pathway between the identified contamination and the River Nadder is not described explicitly in the report; we consider that further refinement of this part of the site conceptual model could aid the design of the proposed permeable reactive barrier and assessment of residual risk following remediation.

A remediation options appraisal and strategy has been presented in the Remediation Method Statement (Ridge, August 2021). Bioremediation is stated as being the preferred option for dealing with soil and groundwater contamination in section 9.2 though the table of remedial actions in section 9.14 states remediation is to be achieved through treatment using clay stabilisation. We have no objection to either method in principle although it must be ensured that the treatment design takes account of site specific conditions to achieve optimum performance.

Remediation target criteria for soils and groundwater should be defined prior to commencement of remedial works to ensure a defined end-point is known and to reduce the risk of delays during the verification process. In the absence of derived site-specific target concentrations, the conservative Environmental Quality Standards (or Drinking Water Standards where no EQS available) should be used.

An Environmental Permit is likely to be required to regulate the proposed remediation of soils and groundwater unless the conditions of RPS 215 for small scale remediation schemes can be met in full. Further details are available at Land contamination pilot trials and small scale remediation schemes: RPS 215 - [GOV.UK](https://www.gov.uk) (www.gov.uk).

We note that re-use of excavated materials is proposed as part of the development. Any such re-use should be carried out in accordance with an appropriate regulatory regime such as an Environmental Permit or declaration under the CL:AIRE Definition of Waste Code of Practice. We recommend early application for any permit that may be required for remediation activities or re-use of materials since determination can take a number of months.

We recommend the following conditions are included in any planning permission granted (if our flood risk objection can be overcome) to ensure the risks from the identified contamination are dealt with appropriately. Without these conditions we would object to the proposal in line with paragraph 170 of the National Planning Policy Framework because it cannot be guaranteed that the development will not contribute to, be put at unacceptable risk from, or be adversely affected by, unacceptable levels of water pollution...

In addition, if our objection in relation to flood risk matters could be overcome, we would wish a condition for a Construction Environmental Management Plan to be included in any granted planning permission for the site. This condition would be required to ensure there would be no pollution of the environment during the construction phase of the scheme. We can provide suggested wording for this condition in due course.

The Council's Drainage team in their capacity as Lead Local Flood Authority have the below objections to the application; and have stated that these must be overcome before a drainage objection can be removed:

1. *The drainage team mirror the concerns laid out by the Environment Agency (in their consultation response dated 18th August 2022), with regards to Flood Zone Compatibility, Safe Access, Increasing flood risk elsewhere and groundwater and contaminated land. For brevity, these objections have not been repeated as part of our response.*
2. *The applicant is proposing construction in Jobbers Lane (outside of the catchment boundary). The footpath / cycleway will impact on how surface water is drained which has not been addressed in the proposed drainage strategy (Appendix H of the Flood Risk Assessment and Drainage Strategy); the LLFA also question whether a legal agreement is in place for construction within this area, and discharge of surface water to third party assets. Furthermore, as the proposed footpath / cycleway will impact on levels within Flood Zone 3, additional compensatory storage (on 3rd party land) will likely be required, and will need to be agreed with the EA.*
3. *The proposed drainage strategy includes an existing manhole within what appears to be easement for the railway line. The location of this should be revised due to potential for a clash with any track-dualling that might occur in the future. Furthermore, detailed drawings are required of the connectivity between the SW line, flow control and attenuation pond.*

Whilst not objecting to the proposals, Wessex Water have also indicated that:

There is a 1" water supply main with the site boundary at the south west end of the site. In accordance with Wessex Water Policy, there must be no habitable buildings within a minimum of 3m either side of the distribution main and no tree planting within a minimum of 6m. This includes no surface water attenuation features and associated earthworks in the easement strip. The water main must not run through enclosed private rear gardens, it must be within a 6m (3m either side) open access easement strip or roads. Wessex Water require unrestricted access to maintain and repair our apparatus. The proposed layout (shown on drawing ref SKL-06 Rev P9 dated 21/05/20) appears to conflict with this existing main, however as this is an outline application, we would not object at this time, the applicant will need to either consider diverting the main or changing the proposed layout to accommodate the required easements for the main.

Summary

It is clear from a recent events and from the Tisbury NP that the highway and field systems around the site have a history of flooding issues. The applicants would therefore have been fully aware of this issue prior to submission of an application from its consultation process. However, at the time of writing, this matter has not yet been resolved to the satisfaction of the Environment Agency or the Council's Drainage officers. Thus, at the time of writing, the proposals do not address the flooding and drainage issues associated with the accessing of the site and hence how suitable linkage between the site and the facilities and services in Tisbury can be achieved. The proposal is therefore contrary to the aims of policy BL7 (criterion 3 & 5), and HNA 3 of the Tisbury NP, and also the aims of policy CP67 of the WCS, and the NPPF guidance related to flooding matters.

9.9 Viability and affordable housing provision

Points 1 & 6 of policy BL7 relate to contamination issues, viability, and affordable housing provision.

The applicants have indicated via a recently revised viability assessment that the development will be unable to provide the required 30 percent stated within policy BL7 and CP43 of the WCS. The Council's own viability adviser has currently indicated to the contrary, that the proposal subject of this application is viable enough to provide 30 percent affordable housing as well as the other suggested S106 contributions/requirements elsewhere in this report. As stated elsewhere in this report, it is however the case that an "alternative" scheme which could provide some industrial units on the site has also found to be unviable in that it too would be unable to provide policy compliant affordable housing.

At the time of writing, the assessment of the applicants viability report has yet to be concluded. Thus at the moment, whilst point 1 above has been complied with, point 6 of the policy BL7 regards the provision of

affordable housing has not been complied with. The Council Housing Officer has requested 30 percent affordable housing, and this remains the position until the outcome of the viability assessment is known.

The proposal is therefore currently in policy terms contrary to the aims of point 6 of BL7, and to the aims of CP43.

S106 mitigation matters

The Wiltshire Planning Obligations Supplementary Planning Document (SPD) (Adopted May 2015) supports Core Policy 3 and provides further detail on the council’s approach to developer contributions

- Provision of affordable housing on site**

The applicants have submitted an affordable housing viability statement that indicates that in its view, a policy compliant amount of affordable housing cannot be provided on this site. The viability assessment process related to this matter is ongoing at the time of writing. Subject to that being resolved, the Council’s affordable housing officer response remains as follows:

Policy Requirements:

I note that an Affordable Housing Viability Statement was submitted with the application and that subsequently, the Viability Review Report demonstrates that the scheme is viable with provision of the full policy requirement. My comments therefore are provided on this basis.

Core Policy 43 of the Wiltshire Core Strategy (as amended by the National Planning Policy Framework) sets out a requirement for 30% on-site Affordable Housing provision within the 30% Housing Zone, on all sites of 10 or more dwellings. There is therefore a requirement to provide 26 affordable units within a scheme of 86 dwellings. This would meet the policy requirement and would assist in addressing the need for affordable housing in Tisbury.

With respect to the care home proposals, the development of a care home does not require provision of an affordable housing contribution. However, if the scheme includes provision of any self-contained retirement apartments to be sold or let on the open market, this aspect of the scheme would require an affordable housing contribution of 30% on-site affordable housing in accordance with Core Policy 46 and Core Policy 43 of the Wiltshire Core Strategy.

Tenure Mix:

In accordance with Core Policies 43 and 45 of the Wiltshire Core Strategy the tenure mix should reflect local need for affordable housing and should therefore be provided with a tenure mix of 60% of the units (16 units) being for Affordable Rented housing, and 40% of the units (10 units) being provided for shared ownership.

Unit Size Mix:

Core Policy 45 of the Wiltshire Core Strategy states that housing size and type will be expected to reflect that of the demonstrable need for the community within which a site is located. There is currently a need for all sizes of affordable accommodation in Tisbury. The following mix is currently suggested by the applicant as the mix that would be provided, should provision of the full policy requirement be considered viable:

Affordable Rent	Shared Ownership
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2 x 1 bed flats 2 x 2 bed flats 10 x 2 bed houses 2 x 3 bed houses	7 x 2 bed flats 3 x 3 bed houses
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There is a predominance of 2 bed provision within this proposed mix. If it could be achieved without impact on viability, a slight amendment would provide the following preferable mix which would better reflect demonstrable need:

Affordable Rented:

4 units - 1 bed / 2 person (maisonette style) flat or bungalow

8 units - 2 bed / 4 person house or bungalow

4 x 3 bed / 5 person house

Shared Ownership:

7 units - 2 bed / 4 person house

3 units - 3 bed / 5 person house

There is also a demonstrable need for adapted housing in Tisbury. On all schemes which provide more than 10 Affordable Housing units, it is requested that 10% of affordable units are provided as adapted units in order to help meet this need. These units should be provided as ground floor flats / bungalows to Building Regulations M4(2) standards with a level access shower provided. In this instance it would be appropriate to provide the ground floor flats as adapted units to meet demonstrable need.

Design of Scheme (including Minimum Floorspace Standards):

Affordable housing in Wiltshire is expected to meet high standards of design and quality, and to be visually indistinguishable from open market housing. I note that the layout provided is indicative and does not show the location of the Affordable Housing units. In designing the final scheme, the following should be taken into account:

- The Affordable Housing units should be evenly dispersed, in small clusters of no more than 15 units, within mixed tenure developments.*
- Any 1 bedroom flats should be provided in small blocks. Please note that 2 bedroom flats above ground floor level, and flats over commercial units or garages, are considered unsuitable for affordable units.*
- Parking courts are not considered suitable for affordable homes (other than for blocks of flats). Parking for houses should be provided in curtilage or adjacent to the property.*

In order to ensure that the affordable housing units are eligible for inclusion in Homes England's Affordable Housing programme, we would advise that all affordable homes are built to meet at least 85% of the Nationally Described Space Standard (NDSS) relevant to the dwelling type and minimum person criteria. NDSS and 85% NDSS are shown in the table below:

Number of bedrooms	Number of bed spaces	NDSS			Minimum 85% NDSS		
		1 storey (sqm)	2 storey (sqm)	3 storey (sqm)	1 storey (sqm)	2 storey (sqm)	3 storey (sqm)
Studio	1p	39 (37)*			34 (32)*		
1b	2p	50	58		43	50	
2b	3p	61	70		52	60	
	4p	70	79		60	68	
3b	4p	74	84	90	63	72	77
	5p	86	93	99	74	80	85
	6p	95	102	108	81	87	92

*Where a one person flat has a shower room rather than a bathroom the floorspace may be reduced from 39 sqm to 37 sqm (NDSS) or from 34 sqm to 32 sqm (85% NDSS).

Transfer to Registered Provider:

The affordable dwellings will be required to be transferred to a Registered Provider, approved by the Council, or to the Council, on a nil subsidy basis.

It is strongly recommended that the applicant makes contact with Registered Providers and Wiltshire Council's Residential Development Team as soon as possible in order to discuss the best option for the affordable dwellings including an indication of transfer prices that can be expected. A list of Registered Providers who work in partnership with Wiltshire Council can be provided on request.

Nominations:

The Local Authority would have nomination rights to the affordable dwellings, secured through a S106 Agreement.

At the current time, subject to the outcome of the ongoing viability assessment process, it is considered that the scheme is viable enough to provide the required level of affordable housing provision referred to above.

• **Provision of waste and recycling facilities**

The Council's Waste officer has confirmed that recycling facilities are required under policy CP3 and WCS6. He has requested the following contribution:

The Council requests s106 contributions towards the provision of waste and recycling containers for each residential unit, under policies CP3 and WCS6. The following estimated contribution is required for the proposed development:

Property type category	Contribution per house/per category	Quantity	Total
Individual house	£91	69	£6279
Bin store for block of 6-10 flats	£581	0	£ 0
Bin store for block of 11-14 flats	£1,038	0	£0
Bin store for block of 15-18 flats	£1,474	1	£1474
Total			£7753

Please note that all arrangements for the Care Home and associated treatment centres are classed as commercial and Wiltshire Council do not have an obligation to collect from these properties.

- **Provision and maintenance of public open space on and off site**

The Council's open space officer has confirmed that:

The dwelling mix stated in the design and access statement generates a requirement of 1455m² of public open space and 873m² of equipped play.

A public open space has been included within the development, please note that we cannot accept attenuation basins as POS unless the area remains dry and useable for a substantial amount of the year, please do not include in the area calculation if it does not meet this requirement. All on-site open space provision must be secured in perpetuity. Wiltshire Council will not adopt the POS.

An off-site contribution of £125,712.00 is required for equipped play.

An off-site Youth and Adult contribution of £52,380.00 is required.

The target site for this contribution is the Lower Recreation Ground and/or playing pitch and ancillary services within the facility of the development. The Lower Recreation Ground next to the development which has a range of facilities in need of upgrading, including the pavilions which host the sports, social club and bowls club alongside the playing pitches. The Lower Recreation Ground also has a play area in need of upgrading/developing so this would be a target site for equipped play alongside upgrading play provision at the field by the Nadder centre.

Closing the level crossing would mean the formal play area would not be accessible and I would say it needs to be looked at from a view of keeping and upgrading from a safety perspective if there is an issue here. Closing the crossing is of concern and takes a link away from the development.

Retirement Home:

The open space requirement for 30-40 care home would fall between 609.93m² - 813.24m² - the final figure is to be calculated once the exact dwelling number is finalised. If the provision cannot be met on site then an off-site contribution will be required using £34.87m² to make up any shortfall. All on-site open space provision must be secured in perpetuity. Wiltshire Council will not adopt the POS.

There is no requirement for Equipped Play or Youth and Adult facilities to be provided for the care home development.

The appellant has confirmed the following:

Dwelling	Rate	Number	Total requirement
1-Bedroom	10m ²	2	20m ²
2-Bedroom	15m ²	52	780m ²
3-bedroom	20m ²	29	580m ²
4+-bedroom	25m ²	3	75m ²
Care Home	8m ²	40 max	320m ²

This gives a total requirement of 1,455m² for the residential development, and 320m² for the care home. The provision within the indicative scheme is in excess of both requirements.

As a result, as the area of open space shown on the outline plan exceeds 320 sqm, it is considered that any future legal agreement should simply contain a requirement that any care home should have an open space area adjacent and available to it for its residents of at least the equivalent of 8sqm per occupant. This is in line with saved policy R3 of the SDLP, which specifies that 0.81hecatres of open space be available per 1000 population, which equates to 8sqm per person).

- **Public Art**

The Council's open space team has also confirmed the contribution below for public art. This is based on the required contribution of £300 per dwelling, and is supported by saved policy D8 (of the Salisbury District Local Plan), and policies CP3, CP57 of the Wiltshire Core Strategy, and the Planning Obligations DPD.

The Public Arts provision for this development is required as an off-site contribution of £25,800.00.

- **Provision of financial contribution towards off site Education facilities**

The applicants have submitted an Education Impact Assessment which concludes that there is surplus places in the catchment area and hence the application does not need to provide any financial contribution towards educational facilities.

The Council's Education officer maintains her view that a contribution is required as below:

We note that among the documentation submitted by the applicant there is an Education Impact Assessment, which attempts to rebut the S106s cases that were advised to them at the pre-app stage. However, the assessment includes primary schools which aren't within 2 miles safe walking distance of the development site, and as such are not appropriate destinations for the pupils who will live on it. The Council would be obliged to provide transport for them, which is not sustainable, and would incur significant and ongoing costs which the Council is unable to meet. The only appropriate primary school designated to serve this development, is St John's CE, Tisbury.

PRIMARY ASSESSMENT DETAILS:

- Capacity = 140 places.
- Oct 21 number on roll = 123 pupils.
- Highest numbers forecast = 127 pupils.
- Additional places required in housing already registered/approved but not yet built out = 4.
- So, the school currently has 9 spare places available.

PRIMARY S106 CONTRIBUTION REQUIREMENTS: Current primary cost multiplier = £18,758 per place: *(Please refer to accompanying caveats as the cost multiplier quoted is due to be updated shortly for the 2021/22 year).

- There is limited capacity currently available at St John's CE, and it is insufficient to accommodate the full pupil product of this proposed development. There are no other primaries within 2 miles safe walking distance of the development site.
- As a result, we require a developer contribution towards the 25 - 9 (available places) = 16 places that this development generates a need for at St John's CE Primary, Tisbury. Using the current cost multiplier, (but please see note * above) = 16 places x £18,758 = £300,128. This contribution would be subject to indexation and secured by an S106 agreement to which the Council's standard terms will apply.

- **Rights of Way enhancement**

As Network Rail objects to occupiers of this proposed scheme using the adjacent footpath system (which runs across the main railway line adjacent the site), the Council's rights of way officer has requested a financial contribution to the footpath system in the immediate area of the site, as below:

Our preferred solution would be access to TISB16, the off-site contribution would overcome our objection. The £7,250 would cover the costs of the following improvements that have been identified for paths that would see increased use if the link to TISB16 is not provided:

Re-surface the first section of TISB74 with tarmac (1.5m width) for approximately 50m from the Station Road end. Improve the surface of WTIS13 with stone (1.2m width) for approx. 153m long split over 2 sections) and 50m of wooden edging on side of the path.

- **Phosphate mitigation**

Explanation of the phosphate issue and justification for this contribution is provided for in the ecology section of this report. Core Policy CP69 applies.

The applicants viability assessment suggests that they may wish to offer a Nutrient Reduction Agreement contribution £237,379.

10. Conclusion and planning balance

The comments of the Town Council and other third parties and consultees have been taken into account.

The site has been recently included within the settlement boundary of Tisbury, within which, residential development is considered acceptable in principle. The site is also allocated for development within the adopted Tisbury Neighbourhood Plan. As the Council does not currently have a 5 year housing land supply at the current time, the development of the site for housing is considered to be of significant weight, particularly in terms of the provision of much needed housing, including any affordable housing. However, as stated elsewhere, it is considered that due to flooding issue related to this site, the “tilted balance” towards approving the development does not apply in this instance.

Whilst the proposal does not accord with the aims of policy BL7 in terms of providing industrial type employment on the site, the proposed care home would provide a local facility and would provide employment. This should also carry weight. Similarly, whilst the number of dwellings proposed is above that suggested by the allocation policy, such figures are not regarded as a ceiling figure, and no harm has been identified in relation to the additional housing over and above the number referred to in the policy, particularly as it will make a modest contribution to housing land supply. Whilst the suggested layout and design of the scheme could be improved upon, it is considered that this can be dealt with via any future reserved matters application.

However, there remains an objection from the Council’s Highways department, the Environment Agency and WC Drainage. The Council must therefore conclude that there remains a significant highway, flooding and drainage issue related to this application in terms of the access and egress of the site, including how occupiers of the site would access services and facilities in the adjacent town during a flooding event. The Council’s Highways officer has objected to the access works. This significantly weighs against the proposal.

Furthermore, at the present time, the applicants viability assessment process is still ongoing, and the applicant has also indicated that they would not wish to provide the required educational contribution. In the absence of a suitable legal agreement, the proposal would therefore not be able to contribute any suitable mitigation towards off site educational facilities, onsite affordable housing, the management or enhancement of on or off site open space facilities, on site waste and recycling facilities, the enhancement of highways access infrastructure, off site rights of way, or public art provision. The suggested contribution towards nutrient mitigation cannot be achieved. This is considered to be of significant weight.

Consequently, as the applicant has now appealed and the Council need to conclude its consideration of the application as the decision making body, the proposal is considered to not accord with the aims and objectives of the adopted Tisbury Neighbourhood Plan in particular policy BL1, BL2 BL3 BL7, HNA1, & HNA3 It would also fail to accord with the sustainable development aims of the NPPF and the Wiltshire Core Strategy, including saved policy R2 & policies CP1,CP2, CP3, CP27, CP35, CP43, CP46, CP50, CP51, CP52, CP57, CP61, CP67, CP69. As a result, based on the existing proposals and justification, the harm caused by the proposal is likely to significantly outweigh any positive benefits provided by the provision of housing on the site.

11. RECOMMENDATION: THAT THE PROPOSAL WOULD HAVE BEEN REFUSED, for the following reasons:

1.The proposal envisages the closing off of one of the existing vehicular routes under the existing railway bridge, and the construction of a raised pedestrian and cycle structure. In terms of several critical aspects, the application does not contain sufficient information to allow proper consideration of the proposals. Notwithstanding the lack of detail, the principles of access for pedestrians and cyclists is unacceptable. The route proposed is unattractive and circuitous, and is conditional on the road being close to vehicular traffic and the implications thereof, which is an unacceptable proposition.

Consequently, it has not been demonstrated that an acceptable and safe means of access for non-motorised users can be achieved to the site. Furthermore, insufficient information has been provided to demonstrate that the proposed pedestrian/cycle route meets the requirements set out within the Department of Transport's Local Transport Note 1/20 and Disability Discrimination Act 1995, and that the proposed signals can be accommodated within the existing highway.

As a result, the proposal is considered to be contrary to Tisbury Neighbourhood Plan policies BL3 (2), BL7 (3), Wiltshire Core Policies 60, 61 & 62 and NPPF Section 9, paras 104-106 & 110-112.

2.Notwithstanding the highway access issues, the highway and field systems around the site have a history of flooding issues. The proposal envisages the access via Jobbers Lane which is located in Flood Zone 3. Therefore, if residents or the emergency services needed to access the site during the design flood they would need to pass through floodwater, during a flood event. The proposed walkway access will need to remain operational and safe for users in times of flood; result in no net loss of floodplain storage; not impede water flows, and not increase flood risk elsewhere.

However, this matter has not yet been resolved, and the proposals do not address the flooding/drainage issues associated with the accessing of the site and hence how suitable linkage between the site and the facilities and services in Tisbury can be achieved. The proposal is therefore contrary to the aims of policy BL7 (criterion 3 & 5), and HNA 3 of the Tisbury Neighbourhood Plan, and also the aims of policy CP67 of the Wiltshire Core Strategy, and the NPPF guidance related to flooding matters.

3.Furthermore, at the present time, the viability assessment of the application remains ongoing. The applicants assessment is currently indicating that a policy compliant percentage of affordable housing cannot be provided on site. Until this viability process is completed, the Council assume that the proposal can provide the required quantum of

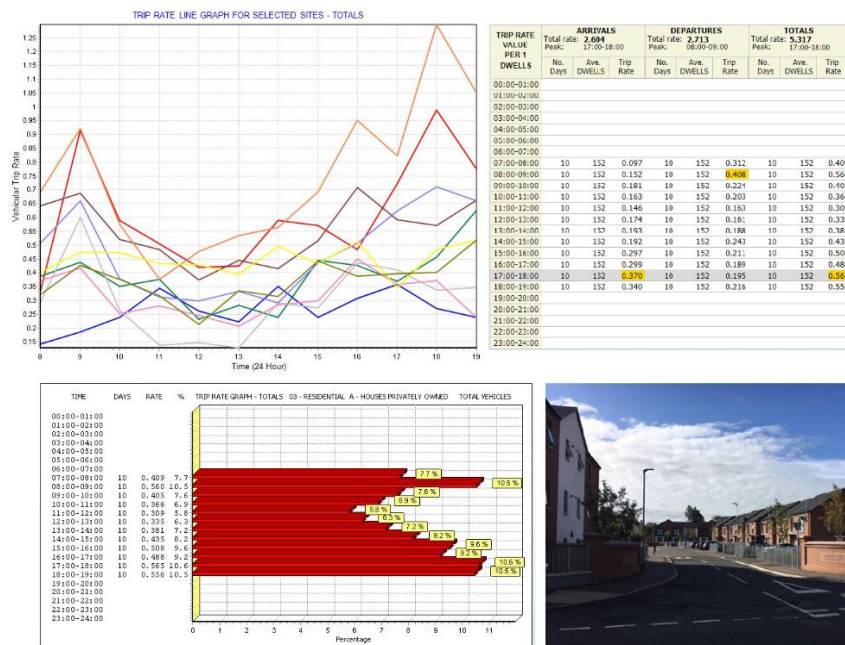
affordable housing required by policy. Notwithstanding, the applicant has also indicated that they would not wish to provide the required contribution towards mitigating the impact of the scheme on existing educational infrastructure. Consequently, and in the absence of a suitable legal agreement, the proposal would therefore not be able to contribute suitable mitigation towards off site educational facilities; onsite affordable housing; the management or enhancement of on or off site open space facilities, on site waste and recycling facilities, the enhancement of highways access infrastructure, off site rights of way, public art provision, or any contribution towards nitrate mitigation.

As a result, the proposal is contrary to the aims of CP3, CP43, CP50, CP52, CP57, CP69 of the Wiltshire Core Strategy, the Council's Planning Obligations DPD, saved policies R2, D8 , the waste and recycling core strategy policy WCS6, and the aims of policy BL1, BL2, and BL7 criterion 6 in relation to the quantum of affordable housing.



TRICS Consortium Limited

TRICS Good Practice Guide 2021



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1. Overview

- 1.1. This TRICS® Good Practice Guide supersedes the 2016 version of this document. It is fully endorsed by TRICS Consortium Limited and its six Shareholders (Dorset Council, Kent County Council, East Sussex County Council, West Sussex County Council, Surrey County Council and Hampshire County Council).
- 1.2. The aim of this document is to provide guidance to users of TRICS® to encourage good practice when using the system, and to also provide guidance to parties tasked with auditing outputs produced by the system (which may appear in Transport Assessments or other documentation). Version 7.7.3 of the software (released in September 2020) has been used in all examples given within the document.
- 1.3. TRICS® is a very flexible system providing a large amount of survey data across a wide range of development types, therefore allowing great potential variation in the calculation of both vehicular and multi-modal trip rates. Therefore, it is quite possible that two users of the system, applying different filtering criteria and ranges to a task, may end up producing different results. This guide is intended to assist users in ensuring that correct procedures and understanding of the system are practised in the production of trip rate calculations, and is also intended to provide guidance to assist in the correct and thorough auditing of TRICS® data once it is received by third parties.
- 1.4. There are many areas within the system whereby careful selection criteria and ranges are important in achieving robust and reliable trip rates. This guidance is designed to assist users in this task.
- 1.5. The correct way to build a selection of surveys for the purposes of calculating trip rates is to decide initial inclusion criteria, and then filter the database using the various options provided by the system to provide a representative sample. The incorrect method is to produce trip rates to fit a pre-determined and preferred trip rate figure. This guidance, if followed correctly, will assist users in avoiding such incorrect, “pre-determined” methods.
- 1.6. Recipients of data generated by TRICS® need assurance that the data has been produced in accordance with the guidance contained within this document. Therefore, it is the responsibility of all TRICS® users to ensure that full details of how data was obtained, along with clear indications of what the data represents, are provided to data recipients. Additional assistance for auditors of reports where TRICS® data has been used can be found within Section 22 of this document.
- 1.7. The principles covered in this guide apply to both traffic surveys and multi-modal surveys. It should be noted that multi-modal surveys were first introduced into the database in 2000, whilst traffic-only surveys were present from the very first versions of the database. Both traffic and multi-modal surveys are regularly added to the database through annual data collection programmes.
- 1.8. Previous versions of this guidance have been widely used to reinforce data produced in accordance with the methods contained within this document. In cases of dispute, such as when conflicting sets of results are presented at Public Inquiries, it has often been the Good Practice Guide which has influenced Inspectors in their decision making.

2. Using the most up to date version of TRICS and archived versions

- 2.1. TRICS® software and database updates are issued on a quarterly basis, these usually being in March, July, September, and December. New survey data is usually added to the database in each quarter, with new system features also added in quarterly updates as and when they are developed. The current series of TRICS® versions is Series 7. During 2020 there were four scheduled releases, these being 7.7.1 in March, 7.7.2 in July, 7.7.3 in September, and 7.7.4 in December.
- 2.2. There is no set rule against using an earlier version of the system. However, users should always aim to use the most up to date version wherever possible. The version in use is indicated by the issue number, which is always present on the Homescreen of the system. With quarterly system updates new data is added to the database and, from time to time, some survey sites are removed from the database due to issues with their data, whilst others may be relocated from one land use sub-category to another (due to re-classification), and others may have some of their data corrected. All instances of deleted, corrected and relocated survey sites are stated within the list of new sites document for each quarterly system release, and these are available as PDF's in the Library module of TRICS® (accessible via the "Library" icon at the top of all system screens). Users can often use the current up-to-date version of TRICS® to audit data supplied using an earlier version; it is only necessary to use an archived, older version of the system should there have been any changes made to the database that may have affected the selected set of survey sites being audited.

TRICS System Information	
TRICS Version 7.7.3	Build 19.58
© 2005/2020 TRICS Consortium Limited	
Phone: 020 3657 2186/7	Global Region UK & Ireland

Figure 1 – Extract of TRICS system information showing TRICS version number

- 2.3. When using TRICS® online, users will by default always be operating the most up-to-date version of the system. However, users may on occasion require the use of an older version of TRICS® to audit trip rate calculations produced using a previous version of the system. This can be done by downloading an older version via the TRICS® software archive (which is accessible once logged in to the Members Area at www.trics.org. Section 21 provides further detail about the auditing of TRICS® data. If using older versions of the system, users should take care to ensure that there are no issues relating to survey sites that have subsequently been moved, amended or deleted (see 2.2), as the inclusion of such data could render the trip rate results unreliable and open to potential challenge.
- 2.4. In instances where there is a conflict between two sets of TRICS® results, data that has been produced whilst adhering to the Good Practice Guide will be considered more representative and robust. This takes precedence over the actual version of the system being used. If in such a conflict both users have adhered to this guidance, then a further analysis of each method used to obtain the sets of results should be undertaken, following the principles contained within this guide, with the appropriate professional judgement applied thereafter.

3. Understanding Land Use Definitions

- 3.1. Within TRICS® version 7.7.3 (issued in September 2020) there were 121 land use sub-categories, all of which are defined within the Help section of the system, accessible by clicking on the Help icon at the top of all TRICS® system screens.

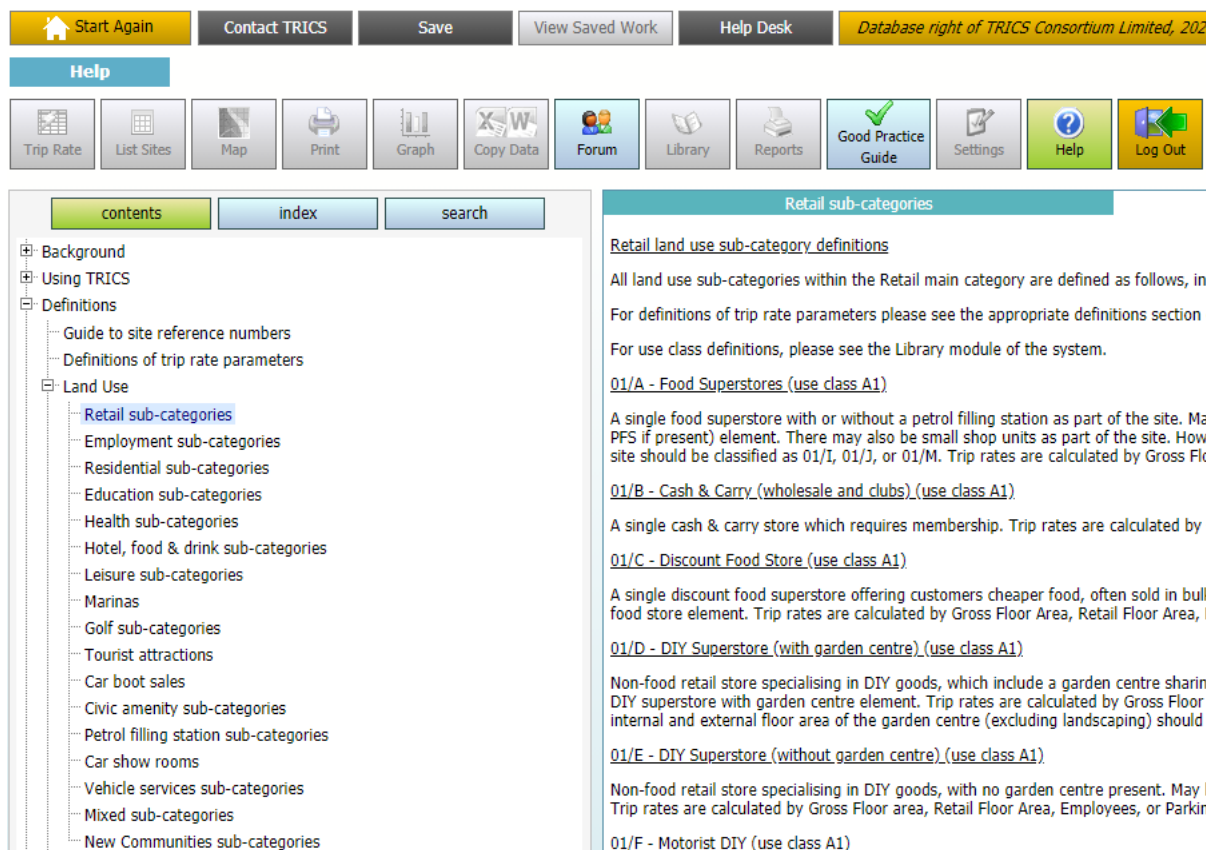


Figure 2 – Extract of Help section showing land use type definitions

- 3.2. It is vital that users undertake trip rate calculations using land use sub-categories appropriate to their individual development scenarios. For example, a DIY Superstore is not compatible with a Builders Merchant site in TRICS® (and there are countless other examples). For more obscure development types users need to proceed with a greater degree of caution. The Miscellaneous category (16/A in the database) contains all sites that do not fit into any other specific sub-category. It is within the Miscellaneous sub-category that users should search if they are unable to find a suitable site in any other sub-category. However, there is no guarantee that users will find the type of development they are looking for. Also note that due to the mixed and varying nature of developments within this sub-category, trip rates cannot be calculated for 16/A Miscellaneous sites.

4. Site selection by Region, Location Type and other data fields

- 4.1. The issue of survey sites within the TRICS® database being included/excluded by specific regions has often been raised by users. This has led to TRICS® undertaking comparative research into trip rates split by region and by main TRICS® location type. This research was undertaken in two stages, with vehicular trip rate variation assessed in 2019, followed by an assessment of multi-modal trip rate variation in 2020. In both cases, key land use sub-categories were studied, these being 01/A (Food Superstore), 02/A (Office) and 03/A (Houses Privately Owned), with the aim of this research being to establish whether region or TRICS® location type produced any patterns of significant trip rate variation. The initial report on the vehicular analysis is available for download in the Library module of the TRICS® system. It is called *[“A Comparison of Vehicular Trip Rate Variation by TRICS® Regions and Location Types – Technical Note”](#)*. The second report, covering the multi-modal analysis, will soon also be made available within the Library module, and the subsequent version of the Good Practice Guide will be updated accordingly.
- 4.2. In both stages of the vehicular research, trip rates were calculated per 100m² of Gross Floor Area (for the Food Superstore and Office land use sub-categories) and per 1 dwelling for the Houses Privately Owned sub-category, with arrival, departure and total peak periods and full survey duration periods being covered. The percentages of trip rate variance were then calculated for each regional or location type grouping compared to trip rates for all survey sites in the sample used for each land use sub-category, and a system of rankings showed how the groupings compared to each other across the land uses, to see if any significant patterns emerged. It was from the presentation of sets of tables displaying these results that our conclusions were drawn.
- 4.3. The vehicular analysis by region revealed no evidence of any clear, consistent pattern of vehicular trip rate variation, with any variation appearing to fluctuate randomly throughout. If there had been a clear basis for overall trip rate variation by region alone, then we would have seen certain regions ranking consistently lower or higher than others, but our study did not find this. Our conclusion from this is that a considerable number of other factors are influencing trip generation to a significantly greater degree than region alone.
- 4.4. On the other hand, the vehicular analysis by location type did show an overall structured and consistent variation in trip rates. The ranked comparison of TRICS® location types showed the Edge of Town category ranking mostly at the top in terms of trip rates, with the Town Centre/Edge of Town Centre grouping of categories ranking mostly at the bottom. This suggests that, although there are of course numerous factors that can influence trip generation, TRICS® location type is certainly an important one of these.
- 4.5. Therefore, our vehicular study revealed that there is a significantly higher correlation between location type and vehicular trip rates than there is between region and vehicular trip rates, with location type clearly showing a greater level of consistency and a clear, emerging pattern, compared to the apparent randomness of fluctuations when trip rates are split by region. Our subsequent multi-modal study, following the same structure of analysis as the vehicular study, found similar conclusions, and upon publication of the multi-modal technical note this guidance will be further updated accordingly. Therefore, our current guidance is that regional selection should not be a major consideration when applying trip rate calculation filtering criteria, whilst TRICS® location type appears to be one of the most influential factors in terms of trip generation, and therefore should be one of the main filtering considerations.

- 4.6. Bearing in mind the results of our research, with hard data now being available, it is not considered good practice to exclude survey sites within the TRICS® database on the sole basis of such sites being located within any particular region. We consider that a more robust use of the TRICS® filtering process takes place on a case-by-case basis, taking into account the numerous factors that can influence trip generation, with the TRICS® location type being at the forefront of these.
- 4.7. There are clearly some extreme exceptions to the above. For example, trip rates generated from a development within a major city centre would probably be somewhat different to those generated from the Shetland Islands, for obvious reasons. But if all local potential influencing factors are carefully considered, especially the TRICS® location type, there is no obvious reason why some trip rates generated from a site within, say, Glasgow, would not apply to a similar development within, for example, Greater Manchester. Similarly, some development scenarios in parts of London may be compatible in terms of trip generation with sites in other large cities. However, the importance of compatibility in terms of local population, vehicle ownership, location type, etc. cannot be stressed enough. It is within development data of individual TRICS® survey sites, through the use of the filtering process, where true potential compatibility should be established, rather than applying an automatic exclusion of certain regions, which could unnecessarily remove many actually compatible sites from a user's selected dataset.
- 4.8. Care should also be taken to ensure that data fields used in site selection filtering are relevant to each individual case. For example, using average levels of car ownership within a 5-mile radius of a development as a criteria in the filtering process would be more appropriate for a land use sub-category such as a food superstore than it would be for a residential development. For the latter, average car ownership per household within a 5-mile radius would probably not be as an effective or relevant a filter, as it is the car ownership level of the households within the particular residential development scenario that we would be interested in, and not that of the greater surrounding area. This and other factors including, for example, demographic considerations (amongst other things), when appropriate, should also be considered when deciding on the filtering criteria that is to be used, so that justification can be readily provided for each element of the database filtering criteria should it be required at any point. Therefore, users should always take care to ensure that each instance of filtering by TRICS® database field can be justified in the context of the type of development being analysed.
- 4.9. A specific example where the correct filtering of a TRICS® database field is essential is when dealing with food superstore sites with or without petrol filling stations included in the survey count. If a proposed development is to include a PFS, then this should be reflected by the exclusion of sites within the database that do not include a PFS in their survey counts. Similarly, if a proposed development is not to include a PFS, then filtering should ensure that stores with a PFS included in their survey counts are excluded. This approach is necessary as surveys at food superstores with a PFS also record trips to the PFS only, in addition to trips to the store only and trips that take in both the store and the PFS in the same visit. It should be noted that individual TRICS® surveys at food superstores do not break down counts into trips to the PFS only, trips to the store only, or trips that include a visit to both the PFS and the store, with only the total trips in and out of the site as a whole being represented.
- 4.10. As discussed above, we consider the TRICS® main location type to be one of the most important data fields in terms of site selection compatibility. It is reasonable to suggest that developments located in a town or city centre, with good local public transport accessibility will, as a general rule, achieve a different type of modal split to a similar development located in the countryside

without local public transport accessibility. Mixing sites which are clearly incompatible in a dataset for trip rate calculations could potentially lead to misleading trip rates being generated. A general guide to compatibility by TRICS® main location category is shown in the table below.

Location Type	Town Centre	Edge of Town Centre	Suburban Area	Edge of Town	Neighbourhood Centre	Free Standing
Town Centre	-	Possibly compatible	Not compatible	Not compatible	Not compatible	Not compatible
Edge of Town Centre	Possibly compatible	-	Possibly compatible	Possibly compatible	Not compatible	Not compatible
Suburban Area	Not compatible	Possibly compatible	-	Possibly compatible	Possibly compatible	Not compatible
Edge of Town	Not compatible	Possibly compatible	Possibly compatible	-	Possibly compatible	Possibly compatible
Neighbourhood Centre	Not compatible	Not compatible	Possibly compatible	Possibly compatible	-	Not compatible
Free Standing	Not compatible	Not compatible	Not compatible	Possibly compatible	Not compatible	-

Table 1 – General guide to site compatibility by Main Location type

- 4.11. Clearly there would be many potential “borderline” cases where compatibility between two or more different main location types might be possible. Therefore, [Table 1](#) is not necessarily to be taken as an absolute table of rigid compatibility covering all cases. For example, a town or city centre may be very close to the town or city’s actual physical edge. Also, if you look at the “Suburban Area” category, which can include sites both in quiet residential areas a significant distance from a town/city centre, and sites within busy built-up areas just outside the edge of a town/city centre, you will see how wide-ranging this main location type can be (see [Figure 4](#)). To assist users in addressing these issues, and to provide greater clarity on location types on a site-by-site basis, in December 2007 additional location sub-categories were introduced, and the entire TRICS® database reviewed as a result. Users are now encouraged to examine both the main location and sub-location categories to identify compatibility of sites to be included in their selected datasets. We consider the best approach is to examine the location of the development scenario, and then combine this with an examination of compatibility through the TRICS® location type definitions. A full definition of location types and sub-types is accessible by clicking on the “Definitions” button next to the Location indicator on the Site Details screen of an individual TRICS® site record.
- 4.12. In the first instance, it is recommended that users include sites across location types that are possibly compatible, and then examine the individual site locations in more detail using facilities such as Google Maps, before refining the dataset further if necessary using their professional judgement.

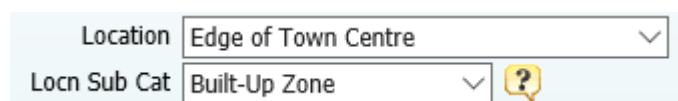


Figure 3 – Location fields and definitions button within a Site Details screen



TRICS® LOCATION DEFINITIONS – DECEMBER 2008

NOTE: Individual development sites within the TRICS® database are allocated location categories (and sub-categories if applicable) on a site-by-site basis, at the discretion of the TRICS® system development team. If there is no significant predominance of local features that places a site within an appropriate location sub-category, the selection of “No sub-category” is displayed.

Main Location: Town Centre

Within the central core area of the heart of the town/city (e.g. the primary shopping area), as defined in the local development plan (if appropriate).

Figure 4 – TRICS Main Location definitions

- 4.13. There will be instances where the main location type mix within a selected set of surveys will not be considered compatible. For example, a mix of sites containing both “Town Centre” and “Free Standing (out of town)” main location types will most likely produce misleading and unrepresentative trip rate results for a development assessment. If a mix of main location types is used (see [Table 1](#)), it is the responsibility of the user generating the trip rates to ensure that justification for the inclusion of the mix is provided. This can include geographical location evidence, such as maps, etc.
- 4.14. Users should note that there is no compatibility matrix for location sub-categories, as they are sub-sets which fall within the overall location type. However, users should consider the relevance of these sub-categories when selecting surveys and use their professional judgement accordingly.

5. The Use of Comment Boxes

- 5.1. Within individual TRICS® sites there is a wide variety of information available, assisting users in the site selection process. Additional descriptive information is also displayed within comment boxes, containing further site, development, parking, and survey count details, which supplement the fixed data fields. This additional information is often important for a more complete understanding of a development in the database, so users should be encouraged to study comments, as such additional information may assist in determining the compatibility of a site with a user's development assessment scenario.
- 5.2. [TRICS® Research Report 99/2 \("Research into Trip Rate Variation" by Harrison Webb\)](#) analysed variations in trip rates at retail stores, taking into account factors such as consumer expenditure, time series analysis, and the analysis of parking supply and peak demand. These are just a few examples of some of the numerous additional factors which may affect trip rates, that fall outside the data fields and calculation processes of the TRICS® database. A more recent piece of research, [Research Report 09/1 \("An econometric study of the relationship between land use and vehicle trip generations" by David Broadstock\)](#) examined economic and demographic influences, which again exist outside of the database and operations of TRICS®.
- 5.3. Comment box information is only visible within individual site, development, parking, travel plan, and survey day screens. Comment boxes are not used in the site selection filtering process, or at any other point within the system, being purely descriptive data fields. If full individual site information is output to a PDF document, all comment box information will be automatically included. Recipients of TRICS® trip generation results, if suspecting that a particular site may not be compatible with the development scenario being assessed, should ask the user who supplied the results to provide this further level of individual site detail, so that the comment information can be examined. Therefore, it is in the user's interest to ensure that comment boxes are examined before sites are included in a selected set for calculation. This may not be practical when dealing with very large sets of surveys, but when it comes to smaller data sets it is highly recommended, as it could help in avoiding any potential conflict at a later stage.

		Comment
Population within 1 mile	5,001 to 10,000	<p>This site is located in the village of Bracklesham Bay, which is to the south-west of Chichester and west of Bognor Regis on the south coast. The site is the northern part of the village, with the B2198 Bracklesham Lane to the west, which runs south towards the coast and north via the village of Somerley.</p> <p>The site has a single vehicle access for all modes.</p> <p>To the east of the site is open land, with a holiday (caravan) park to the north and residential areas to the west and south. The events venue of Bracklesham Barn is also just to the south of the site.</p>
Population within 5 miles	25,001 to 50,000	
Population within 500m	2200	
Car ownership (5 miles)	1.1 to 1.5	
Is the location of the site hilly or flat	Flat	

Figure 5 – Comment Boxes are present within individual site records

6. Understanding Trip Rate Calculation Parameter Definitions

- 6.1. Trip rates can be calculated using a variety of data fields, known as trip rate calculation parameters, and it is important that users understand the definitions of the various parameters available. A full list of parameter definitions is available within the Help module, which users can access by clicking on the Help icon whenever using the system.

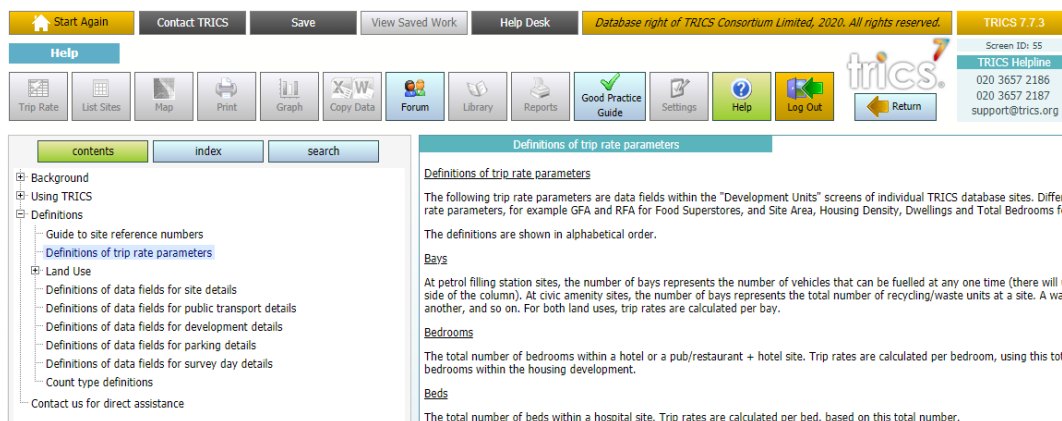


Figure 6 – Definitions of all trip rate parameters can be easily found

- 6.2. Users should also understand the trip rate calculation factor, which is always displayed at the top left hand corner of the trip rate calculation results screen (see [Figure 7](#)). In the case of Gross Floor Area (GFA), the calculation factor is always 100m², so all trip rates produced by the system using this calculation parameter are represented as trip rates per 100m² of GFA. For trip rates calculated by Employees, the factor is trips per Employee, for Dwellings it is trips per Dwelling, and for Site Area it is trips per Hectare. It is important that this is understood by the user and incorporated into the results presented to the recipient of trip generation outputs. For example, a GFA trip rate of 35.78 should be presented as “35.78 trips per 100m² of GFA”, along with information on the time period, the count type and the trip direction (i.e. arrivals, departures or total), so that the results can be fully understood. [Section 21](#) provides more detail regarding the correct presentation of TRICS® data.

TRIP RATE VALUE PER 100 SQM	ARRIVALS			DEI	
	Total rate: 61.997 Peak: 12:00-13:00			Total rate: Peak:	
	No. Days	Ave. GFA	Trip Rate	No. Days	
00:00-01:00					
01:00-02:00					
02:00-03:00					
03:00-04:00					
04:00-05:00					
05:00-06:00	1	10000	0.170	1	
06:00-07:00	4	7647	0.781	4	
07:00-08:00	15	6889	1.395	15	
08:00-09:00	15	6889	2.710	15	
09:00-10:00	15	6889	4.274	15	
10:00-11:00	15	6889	5.540	15	
11:00-12:00	15	6889	5.926	15	

Figure 7 – The trip rate calculation factor is always displayed (top left)

- 6.3. More recent sites within the database (for the relevant land use sub-categories) include a “GFA Not in Use” figure, which represents GFA as defined within the TRICS® Help section that was not in use at the time the survey was undertaken. Older data within TRICS® does not display this figure. Where the “GFA Not in Use” figure is known, users have the option to include or exclude the figure from the total GFA used in trip rate calculations. Users should note that with older data, any obvious GFA not in use was identified and excluded wherever possible. Users should always make it clear in their reports whether “GFA Not in Use” has been excluded through

TRICS® Settings (accessed via the Settings icon at the top of the screen). More detail on how GFA is defined in TRICS® is provided in [Section 7](#).

7. How TRICS Defines Gross Floor Area (GFA)

- 7.1. One of the most often used trip rate calculation parameters within the TRICS® system is Gross Floor Area (GFA), which is represented in square metres. It is an option for trip rate calculation across a wide variety of land use sub-categories within the database, and as discussed in Section 6 of this guide, trip rates calculated by GFA are displayed per 100m² by default in results tables.
- 7.2. It is important for users to understand how TRICS® defines GFA. The TRICS® definition is long established and is independent, in that it may not follow the definition of GFA provided by any other organisation (and there are multiple definitions available). It is also important to understand some slight variations of the definition of GFA within TRICS® for certain land use sub-categories. The main definition of GFA, as provided in the TRICS® Help module, is the total internal floor area of all floors within a site's building (or buildings), including any mezzanine floors. Internal floor areas will include all areas accessible to staff and visitors (for example office space, canteens, storage areas, toilets, etc), but will exclude service areas (for example lift shafts, stairwells, plant and visitor car parks etc).
- 7.3. For the 01/H (Garden Centre), 01/L (Builders Merchant) and 01/S (Mixed Bargain Retail Unit) land use sub-categories, the GFA will also include external areas of developments, excluding landscaping and parking. So, any outdoor sales, storage, or other active external areas (following the general definition outlined in [7.2](#)) will be included in the total GFA figure. This will also apply to garden centres should they be included within a DIY Superstore (land use sub-category 01/D). And this will also apply to garden centres, builders merchants and mixed bargain retail units should they be part of a Retail Park site (land use sub-categories 01/J and 01/K).
- 7.4. For the 02/E (Warehousing – Self Storage) and 02/F (Warehousing – Commercial) land use sub-categories, the GFA will also include external storage areas. So, any external areas of such developments that are used for external storage (i.e. outside of the main building or buildings), following the general definition outlined in [7.2](#), will be included in the total GFA figure. This will also apply to warehouse units should they be included within a Business Park (land use sub-category 02/B), or within an Industrial Estate (land use sub-category 02/D).
- 7.5. For the 14/A (Car Show Room) land use sub-category, the GFA will also include external sales areas. So, any external areas of such developments that are used to display vehicles for sale, following the general definition outlined in [7.2](#), will be included in the total GFA figure. This will also apply to car show rooms should they be included within a Business Park (land use sub-category 02/B), or within an industrial estate (land use sub-category 02/D).
- 7.6. When assessing development scenarios that include a development's GFA, TRICS® users should always be aware of the TRICS® GFA definition, if applicable including the exceptions outlined above. So, in examining development proposal site plans, care should be given with regards to what is included and not included in a site's GFA within TRICS® development data. A planning application may provide a GFA for a development, but that definition may not be the same as the TRICS® definition which the data within the database is based upon. This means that in some cases, reasonable adjustments to a proposed development's GFA figure may be necessary prior to undertaking TRICS® trip generation calculations, should the definitions of GFA differ.

Any such adjustments should be presented within reports written by the user to avoid any potential misunderstandings.

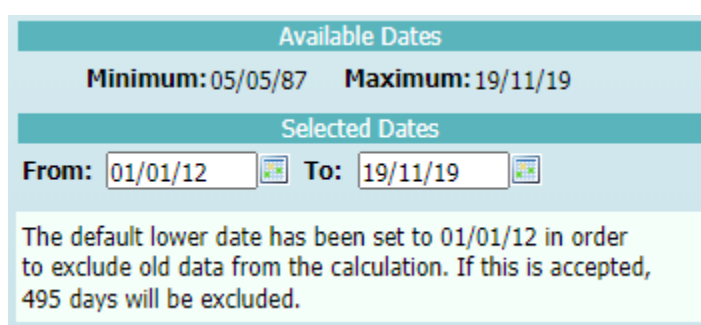
8. The Method of TRICS Trip Rate Calculations

- 8.1. The TRICS® method used to generate trip rates is consistent for all land use sub-categories within the database. It is a method that has been assessed and considered to be statistically robust, and users should become familiar with it, so that the process of TRICS® calculations can be fully understood.
- 8.2. TRICS® can calculate trip rates for an individual survey or can calculate the mean average trip rates for any number of surveys within a single land use sub-category. Mean average trip rates are calculated where there are at least two surveys included in a set as selected by a user. The method of calculation can be broken down into three stages, which apply to each survey count period and each direction (arrivals, departures, and totals).
- 8.3. The first stage of the process is obtaining mean trip rate parameter figures. For any individual survey period and direction (for example Arrivals 0800-0900), all surveys in the selected set that have count data present are included. Using Gross Floor Area (GFA) as an example of the selected trip rate calculation parameter, the system adds the GFA figures for each included development, and then divides the result by the number of included surveys, the end result being the mean trip rate parameter figure (*mTRP*).
- 8.4. The second stage of the process is obtaining mean survey count figures. Again, this applies to all survey periods and directions, and all surveys in the selected set that have count data present are included. Again using the example of the Arrivals 0800-0900 count, and in this example looking at the Total Vehicles count type, the system adds the Arrivals Total Vehicles 0800-0900 counts for each included survey, and then divides the result by the number of included surveys, the end result being the mean arrivals count figure (*mARR*).
- 8.5. The third stage of the process is the final calculation that provides the trip rate generation results. Using the mean trip rate parameter figure *mTRP* (see 8.3), and the mean arrivals survey count figure *mARR* (see 8.4), the calculation $(mARR/mTRP) \times 100$ is undertaken. Note that because GFA is used in this example the calculation factor of 100 has been used, as trip rates by GFA are always represented in TRICS® per 100m². For a different calculation parameter, for example Dwellings, the trip rates would be displayed per dwelling, and therefore the calculation simply be $mARR/mTRP$. The calculation is undertaken for all time periods and directions, which is presented in the trip rate calculation results table.
- 8.6. It is important to note that mean average trip rates for a group of selected surveys should only be presented as having been generated using TRICS® if they have been taken directly from the trip rate calculation results table using the standard TRICS® method detailed above. TRICS® does not endorse any other method of obtaining mean average trip generation rates other than the standard method specified in this section. For example, users might decide to take a TRICS® rank order list, which displays non-averaged trip rates by individual survey, ranked in relative order of trip rate intensity, and then manually calculate a mean average of the trip rates in this list. In such a case, the resulting figures would not have been generated by TRICS®, as the data would have been manipulated by the user outside the processes of the TRICS® system. It is the clear position of TRICS® that if its trip rate generation results are manipulated in any way by a user outside of the standard calculation process, then the figures resulting from this

manipulation cannot be stated as having been generated by TRICS®. Therefore, any such manipulation should be made very clear in any subsequent reporting, as should the fact that the resulting figures have not been derived using TRICS®. Organisations tasked with auditing TRICS® trip rate calculation results are encouraged to assess whether the TRICS® method of calculation outlined in this section has been correctly applied.

9. Using Older TRICS Data

- 9.1. TRICS® contains survey data from as far back as the 1980's to the present day, with a large data collection programme undertaken every year. There are currently over 8,000 survey days in the database. Users should note that within the trip rate calculation filtering process some survey days will be automatically excluded by default from the selected set by a minimum date cut-off, although this can be adjusted by users.
- 9.2. The default minimum survey date cut-off is set to the 1st of January, 8 years prior to the release year of the latest version of TRICS®. For example, TRICS® version 7.7.3, which went live in September 2020, had a cut-off default of 01/01/2012. The minimum cut-off date can be amended by users to any required date. The 8-year default is particularly helpful in assisting TRICS® system developers in determining future data collection programmes.



The screenshot shows a software window with a light blue header and background. At the top, a teal bar contains the text 'Available Dates'. Below this, the text 'Minimum: 05/05/87 Maximum: 19/11/19' is displayed. A second teal bar is labeled 'Selected Dates'. Underneath, there are two date input fields: 'From: 01/01/12' and 'To: 19/11/19', each with a small calendar icon to its right. At the bottom, a light green box contains the following text: 'The default lower date has been set to 01/01/12 in order to exclude old data from the calculation. If this is accepted, 495 days will be excluded.'

Figure 8 – The minimum survey cut-off date is defaulted to 8 Years

- 9.3. Although there is no fixed rule for amending the default survey date cut-off, TRICS® can provide some guidance on the use of older TRICS® data and trip generation trends over time to assist users in making informed professional judgements. The background to this guidance follows technical research into trip generation trends that was undertaken by TRICS® in 2019. This guidance, whilst not covering all development types, examined three key land use sub-categories, these being 01/A (Food Superstores), 02/A (Offices), and 03/A (Houses Privately Owned), across a timescale from 1989 until 2018, looking at trends over time in both vehicular and multi-modal contexts. The findings of this research were presented at the 2019 TRICS® User Meeting, and the PowerPoint presentation slides including text commentary can be freely downloaded from www.trics.org.
- 9.4. Without being too speculative, this limited analysis shows, for a small number of land use categories, a general apparent reduction in vehicular trips over time. This is also evident to a certain degree for total people trips, although these appear to be more dynamic, with individual modes showing more inconsistent trends. However, the research suggests an overall, general shift towards non-vehicular modes over time has taken place. Users should understand that this was just an initial, straightforward type of analysis, undertaken using TRICS® to calculate trip rates, and that any anomalies that may have appeared in the results could have been caused by

a variety of factors. But TRICS® considers that this research has been a worthwhile exercise that provides some interesting observations for discussion. What is clear from this exercise is that TRICS® needs to continue to undertake large numbers of surveys as we move forwards, as we look to continue to monitor trends over time. This technical analysis could be repeated at regular intervals in the future.

- 9.5. Users are encouraged to obtain a statistically sound survey sample without the need to amend the default survey date cut-off wherever possible. More recent data within the TRICS® database can be considered more representative of current trip generation levels when assessing a new development scenario, with older TRICS® data being more representative of historic trip generation levels. The technical research into trip generation trends over time was not exhaustive by development types, so the trends indicated in the results of this analysis would not necessarily apply to land use sub-categories that were not assessed. Trip rate variation over time may be lesser or greater for the land use sub-categories not covered by the research, and users are encouraged to examine historic trends within the database when it is felt appropriate. It is considered reasonable for users to extend the survey date cut-off to include older data in instances where a data sample may be considered too small with the default cut-off date in place. It is up to TRICS® users to decide on a case by case basis how to apply cut-off dates using professional judgement, and users are encouraged to state their reasons for amending the cut-off date within their reports.
- 9.6. Users applying any type of factoring to older TRICS® survey data should make this very clear when presenting their results, as post-factored data cannot be considered data generated by the TRICS® system. Data initially produced by TRICS®, prior to any factoring taking place, should be first presented (as TRICS® data), and then the factored data (with details of the factoring used and the reasoning for the factoring taking place) presented second. This will ensure that the recipient of reports including trip generation data is made aware of the trip generation has been produced by TRICS®, and any data that is a result of factoring. This practice is especially important so that data can be audited correctly by a third party (also using TRICS®).

10. Seasonal Trip Rate Variation

- 10.1. For the use of TRICS® to be fully effective for a “typical peak day” development assessment scenario, users should, when selecting surveys through the trip rate calculation filtering process, aim to ensure that non-typical seasonal travel behaviour is avoided whenever practical and possible. For example, trip rates for a golf course in January will probably be lower than in August.
- 10.2. Research commissioned by TRICS®, entitled *“Seasonality Research Report – TRICS® Research Report 02/2”*, examined seasonal variation in detail, across a variety of different land use sub-categories. This report is available within the TRICS® Library module, but it should be considered in the context of the time when the report was written in 2002. TRICS® encourages users to examine seasonality of surveys within the database during the site selection process using their professional judgement, being aware that seasonal variations in trip generation will differ in scale for the many different development types available. Consideration should be given to seasonal variation in sets of surveys that have a large enough sample size to provide this level of filtering detail, as it is recognised that there will be instances where such fine tuning may not be possible (and in such cases this does not reduce the validity of the trip generation obtained through the use of TRICS®; the results would just need to be viewed in the context of the times of the year when the surveys in the selected set were undertaken).

- 10.3. It is considered good practice for users to always present survey dates for all sites used in the trip rate calculation process. This information is available within PDF and CSV outputs that are generated by users following the calculation of trip rates.

LIST OF SITES relevant to selection parameters

1	AD-01-C-01	LIDL	ABERDEEN CITY
	GREENWELL ROAD		
	ABERDEEN		
	EAST TULLOS IND. ESTATE		
	Suburban Area (PPS6 Out of Centre)		
	Industrial Zone		
	Total Gross floor area:	1950 sqm	
	Survey date: MONDAY	18/11/19	Survey Type: MANUAL
2	AN-01-C-02	LIDL	ANTRIM
	BELFAST ROAD		
	CARRICKFERGUS		
	Edge of Town		
	Development Zone		
	Total Gross floor area:	1325 sqm	
	Survey date: WEDNESDAY	12/10/16	Survey Type: MANUAL

Figure 9 – TRICS output (highlighting survey dates)

- 10.4. When examining a regular peak trip generation scenario, if there is sufficient survey data available within the selected land use category to avoid using survey dates outside what would be considered typical peak times of the year, such that removal of these days would not compromise the robustness and representative integrity of the remaining data set (see [Section 13](#)), then users could remove “out of season” survey days. Leaving such surveys in the selected set might be considered unnecessary in some situations, possibly leading to the generation of artificially low trip rates. If the inclusion of “out of season” survey days cannot be avoided, this should be made clear in reporting. On the other hand, users should also consider avoiding using “extraordinary peak” surveys (e.g. the days leading up to Christmas for food superstores), when attempting to provide data for more regular peak activity, as this might lead to the generation of artificially high trip rates. In either case, it should be made clear in reporting whenever survey data from “out of season” or “extraordinary peak” times has been included in a selected set.
- 10.5. If a user decides to include “out of season” survey data and then apply any factoring to the subsequent trip generation results, then it should be made clear in reporting which data has been produced using TRICS®, and which has been factored, as any factored results are no longer considered to be TRICS® data. This is particularly important for auditing purposes. Any factors used will need to be explained and justified, and it should also be made clear that the factoring process has taken place outside the processes of TRICS®. It is highly recommended in such cases where factoring does take place that the TRICS® results are displayed alongside any factored results for comparative purposes.

11. Peak Hours and Days

- 11.1. When presenting TRICS® data it is considered good practice to provide trip rate calculation results covering peak hours of activity alongside the generally accepted “road peak hours” (i.e. 0800-0900 weekday mornings and 1700-1800 weekday evenings). Given the wide range of development types within TRICS®, the actual site peak hours (for arrivals and departures) may not necessarily correspond with the road peaks. In cases where they do not, trip rates for both road peaks and site peaks should be supplied if requested by the data recipient. To cover both peaks, the supply of trip rate graphs is recommended. These can be accessed directly from the trip rates calculation results screen.

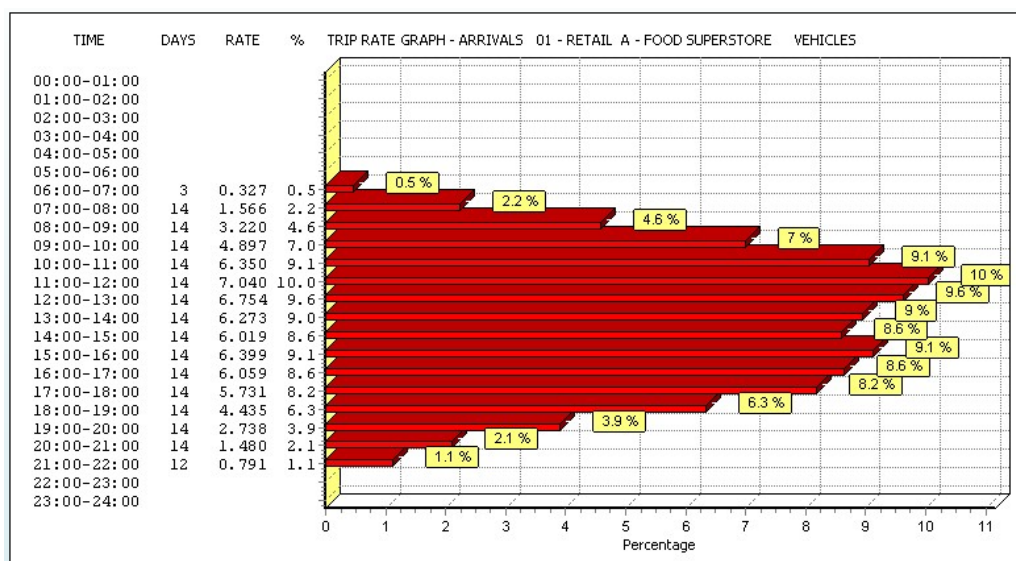


Figure 10 – Graphical display of trip rates showing peaks

- 11.2. When supplying peak trip rates, it should be made clear by the supplier whether the “peak” represents the road peak or the hour or other period of peak activity at the site (or selected set of sites). See [Section 21](#) for further detail on how to correctly present TRICS® data.
- 11.3. The development peak trip rate hours are also displayed at the top of the trip rate calculation results screen, as shown in the example below. These are site peaks, the actual busiest time periods in terms of traffic/transport activity, rather than road peaks. By supplying the results table and accompanying trip rate graphs, all peak information can be supplied in full to the data recipient. The total trip rates are also shown in the example below – these are the trip rates for the whole survey period, not to be confused with peak hour trip rates.

TRIP RATE VALUE PER 100 SQM	ARRIVALS			DEPARTURES			TOTALS		
	Total rate: 70.079	Peak: 11:00-12:00		Total rate: 70.119	Peak: 12:00-13:00		Total rate: 140.198	Peak: 12:00-13:00	
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00	3	6734	0.327	3	6734	0.030	3	6734	0.357
07:00-08:00	14	5874	1.566	14	5874	1.041	14	5874	2.607
08:00-09:00	14	5874	2.220	14	5874	2.402	14	5874	5.622

Figure 11 – Trip rate calculation results table

- 11.4. A visual example of the range of peaks and the fluctuation of trip generation across a range of selected sites can be found when viewing the “Survey Selection” option within the trip rate calculation process and then clicking on the “Graph” icon. A line graph that plots and compares each individual site in a user’s selected set is then displayed, with time shown on the x-axis and vehicular trip rates shown on the y-axis. This provides an excellent example of the range of trip rates that TRICS® generates within a selected set of surveys, with the individual survey peaks throughout the day clearly identified. This emphasises that TRICS® is not intended to provide an

exact “prediction” of trip rates for any given scenario. Instead this clearly demonstrates that TRICS® provides a range that users can work with, something very important that users should understand. TRICS® provides an average (mean) set of trip rate calculations in its results tables (with an example given in [Figure 11](#)), but it is often the case that a wide range of trip generation rates on a site by site basis have been used to get to the figures shown. As well as the line graph displaying this phenomenon quite clearly, users can see this effect in other representations such as within rank order lists and rank order scatterplot diagrams.

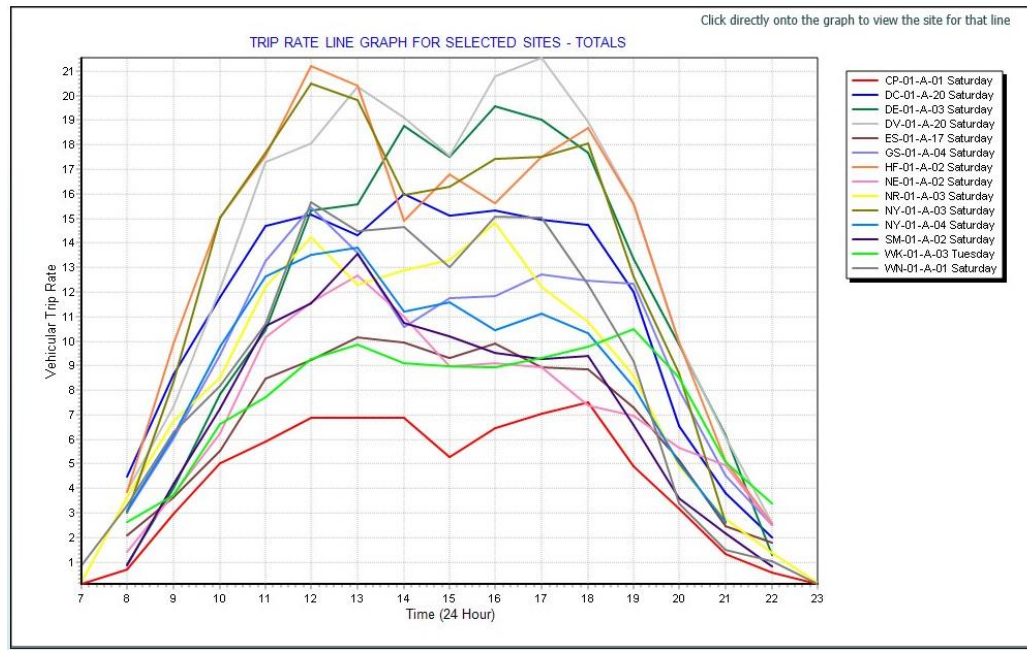


Figure 12 – Comparative survey trip rate graph for multiple sites

- 11.5. Users should not mix weekday and weekend surveys together in a selected set for trip rate calculation, as the profiles of travel during the week compared with weekends typically differ to a considerable degree; by mixing weekdays and weekends together a “hybrid” profile would emerge, which is not representative of any day, and is something that could lead to artificially inflated trip rates (see [11.7](#)). For this reason, the day of the week for each survey included should be included in trip generation reports, in summary form or in an appendix. In TRICS® outputs such information is included by default, with an example shown in [Figure 13](#).

LIST OF SITES relevant to selection parameters

1	CV-01-A-01	TESCO		CAVAN
	THOMAS STREET			
	BAILIEBOROUGH			
	BECKSCOURT			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	5000 sqm		
	Survey date: SATURDAY	20/05/17		Survey Type: MANUAL
2	DC-01-A-20	MORRISONS		DORSET
	DORCHESTER ROAD			
	WEYMOUTH			
	Edge of Town			
	No Sub Category			
	Total Gross floor area:	5500 sqm		
	Survey date: SATURDAY	29/03/14		Survey Type: MANUAL

Figure 13 – TRICS output (highlighting survey days)

- 11.6. Some land use categories typically generate peak activity on specific days of the week. For example, offices tend to be consistent from Monday to Friday, whilst food superstores will generally peak at weekends. Therefore, for offices a data set covering a range of days from Monday to Friday would be fine, whilst for food superstores it would be considered good practice to provide trip rates for Fridays, then Saturdays, and finally Sundays. Of course, there may be a specific need for a certain day of the week to be examined, but for such cases it would also be good practice to present peak day trip rates alongside this when reporting.
- 11.7. The phenomenon of “double-peaking” can produce artificially high trip rates, which would be clearly misrepresentative. This can happen when weekdays are mixed with weekends in a selected survey set. For example, food superstores tend to display different peak activity times for Fridays than for Saturdays. Therefore, when combined, results would probably show higher total trip rates than if they had been calculated including just Fridays or Saturdays. This is because both peak periods (in this example typically mid to late afternoon on Fridays and late morning to early afternoon on Saturdays) would be incorrectly included together within the set of surveys, artificially inflating the overall trip generation calculated. An example of this phenomenon is illustrated in [Figure 14](#). In the first image the results shown are for Fridays, whilst in the second image the results are for Saturdays. The final image displays results for Fridays and Saturdays combined, showing double peaking occurring.

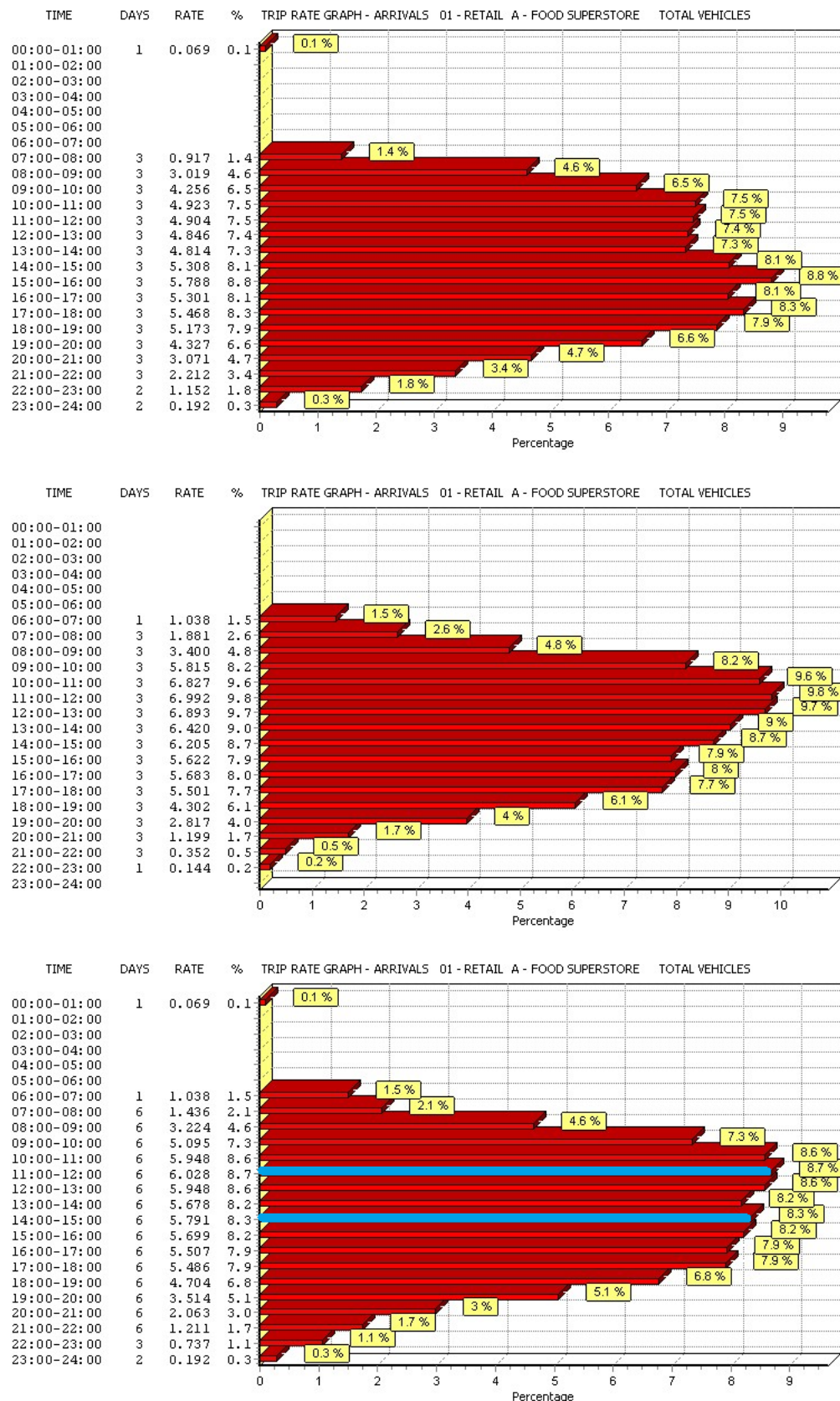


Figure 14 – Graphical display of trip rates showing “double peaking”

12. Avoiding the Production of Pre-Determined “Preferred” Trip Rates

- 12.1. The correct procedure for filtering sites in TRICS® is to apply selection criteria to an initially complete set of surveys within an appropriate land use category. To produce reliable and robust trip rates users should always avoid attempting to “fit” trip rate results to pre-determined preferred levels by manipulating the system incorrectly. Such methods, constituting bad practice, can be identified by parties tasked with auditing TRICS® data, and careful examination of TRICS® outputs can expose such instances of system misuse. It is always recommended that recipients of TRICS® reports request full details of all selection processes used through the calculation process (should they not be evident in reports), which are produced by default in TRICS® outputs, so that any such misuse of the system can be identified.
- 12.2. The basic approach that TRICS® recommends is followed for producing trip rates is to first identify the acceptable criteria ranges for site selection, then filter the sites according to that criteria, and then produce the trip rates once filtering is complete. In terms of the initial filtering criteria, it is important that all parties involved in the assessment and audit of trip generation for any given project are engaged early on, so that this important stage in the process can be discussed and the inclusion criteria agreed upon. This approach can avoid potential disputes arising at a later stage concerning the appropriateness of individual TRICS® sites within a selected set of surveys, which can in turn avoid further work being required to resolve any such disputed situation.
- 12.3. If misuse of TRICS® has taken place to try and “fit” trip rate results to pre-determined preferred levels, this can often be identified through careful auditing and scrutiny of TRICS® reports and use of the system itself. For example, rank order list scatterplots display trip levels on a site by site basis (on the y axis) by trip rate parameter levels (on the x axis). By examining the positions in rank order scatterplot diagrams of sites provided by those who have produced and submitted trip rate reports, those auditing the results who have access to TRICS® can identify whether the sites included in selected sets are within an acceptable trip generation range, by undertaking a similar calculation exercise themselves and including sites meeting a reasonable criteria as a comparison). If significant differences are found that could indicate possible misuse of TRICS®, auditors should request an explanation from the provider of the original TRICS® reports.
- 12.4. A user might argue that a particular development is expected to generate unusually high or low trip rates, if there is evidence outside of TRICS® that supports such an assertion. However, it is the initially agreed selection criteria that should reflect any anticipated elements of the proposed development which may affect trip rates, and this criteria should be clearly understood by all parties involved in the process from the outset. It is important that once trip rates have been calculated, users should not make any further amendments to the selected set of surveys to try and influence subsequent results towards a pre-determined, preferred level.

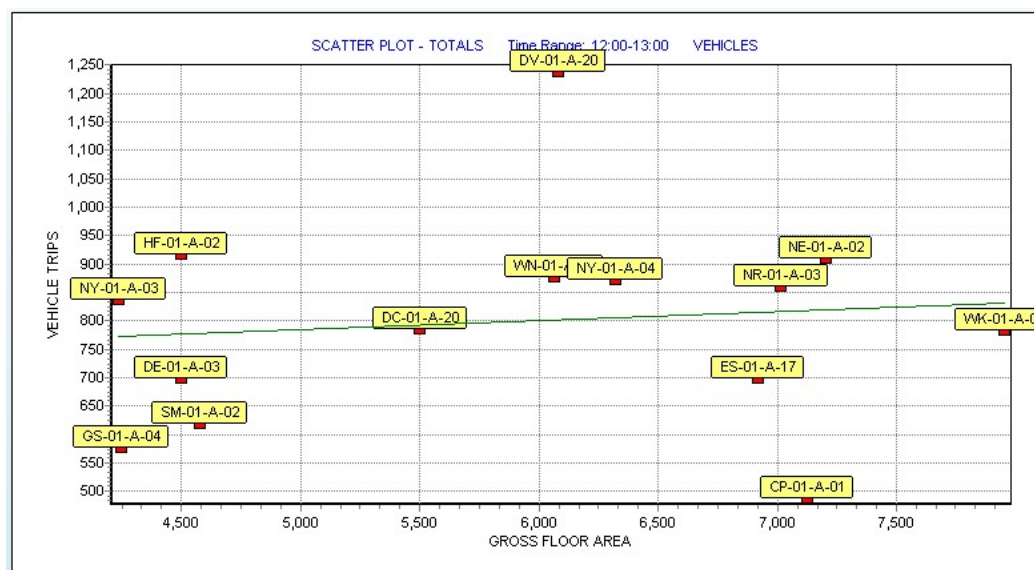


Figure 15 – Scatterplot diagram identifying low/high relative trip generation

- 12.5. Recipients of TRICS® reports can always request full details of how all trip rates have been calculated, including all selections made through the process. A handy quick-glance method of identifying a few of the selections made is the trip rate parameter summary, which is always present at the bottom of the trip rate calculation results table in PDF outputs generated by TRICS®. If this summary is not present in reports supplied then this can always be requested, since the summary must have been manually removed by the data supplier as it is included in TRICS® reports by default (and therefore such instances could potentially be causes for concern).

18:00 - 19:00	10	5650	4.078	10	5650	4.795	10	5650	8.873
19:00 - 20:00	10	5650	2.749	10	5650	3.250	10	5650	5.999
20:00 - 21:00	10	5650	1.579	10	5650	2.124	10	5650	3.703
21:00 - 22:00	10	5650	0.752	10	5650	1.087	10	5650	1.839
22:00 - 23:00	2	5780	0.493	2	5780	0.831	2	5780	1.324
23:00 - 24:00	1	4625	0.865	1	4625	1.038	1	4625	1.903
Total Rates:		68.167		68.315		136.482			

Parameter summary

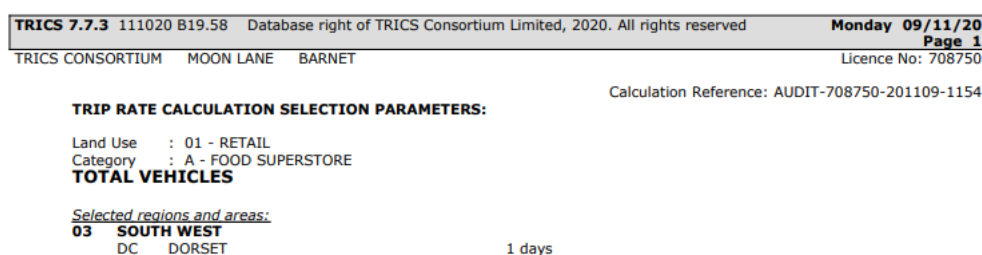
Trip rate parameter range selected:	4500 - 7200 (units: sqm)
Survey date range:	01/01/12 - 11/03/20
Number of weekdays (Monday-Friday):	0
Number of Saturdays:	10
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

Figure 16 – Trip rate parameter summary

- 12.6. The trip rate parameter summary is not by any means the only method of tracking the selections made by TRICS® users, but it is nevertheless useful. The summary can raise questions relating to data robustness and representation, which should always be checked by the recipient of TRICS® reports whenever there is doubt as to the integrity of the process used to produce the trip rates supplied. It is the user's responsibility to make clear that the procedures followed in producing the trip rates supplied are sound, and do not suggest any "fit" to pre-determined preferred trip rate levels. When in doubt, auditors of data should insist on a full trail of evidence, as discussed in [Section 21](#).

- 12.7. Those tasked with auditing and assessing TRICS® reports, who have access to the system themselves, also have the facility to directly recreate the user session of those who produced the trip rates in the report, using the system's auditing facility. By default, whenever a trip

generation PDF output is created in TRICS®, a unique Calculation Reference code is produced, and this shown at the top right of the very first page of the output. Users should note that the version of TRICS® that was used to create the report is also displayed at the top left of each page. The Calculation Reference code can be used by auditors to recreate the original user session, by inputting the code into the “Audit Another TRICS User Session” box on the TRICS® system’s Homescreen. However, users should be aware that the same TRICS® version that was used to generate the original report must be used to audit it in this way. More detailed guidance on the use of the auditing facility is available as a technical note within the “Audit Another TRICS® User Session” area of the Homescreen. *Figure 17* provides an example of a Calculation Reference code on a TRICS® PDF output, and *Figure 18* shows the area on the TRICS® system Homescreen where this reference code can be input.



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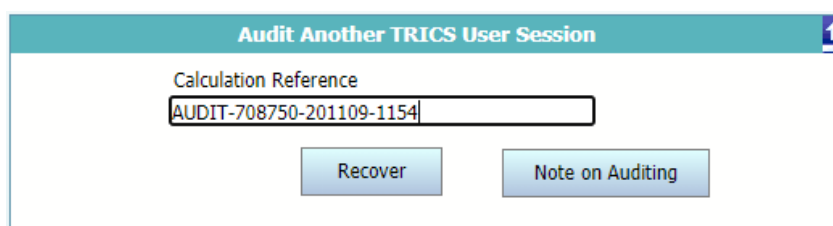
Calculation Reference: AUDIT-708750-201109-1154

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : A - FOOD SUPERSTORE
TOTAL VEHICLES

Selected regions and areas:
03 SOUTH WEST
DC DORSET 1 days

Figure 17 – Calculation Reference code on TRICS outputs



Audit Another TRICS User Session

Calculation Reference
AUDIT-708750-201109-1154

Recover Note on Auditing

Figure 18 – “Audit Another TRICS User Session” box on the TRICS system Homescreen

- 12.8. At the time of writing this version of this document, TRICS® Consortium Limited was working with partners in looking at the concept of “Decide and Provide”, which is a revision of previous understandings of forecast scenarios. Part of the work on this undertaken by TRICS® was a study of trip generation trends over time, and preliminary results of our initial research can be found within the TRICS® Library module (see *“TRICS Guidance Note – Changes in Travel Behaviour – August 2019”*). Our initial analysis, using the TRICS® system, showed that for selected land use categories trip rates have been generally reducing over time, which is perhaps not something that many had envisaged. As work continues to progress in association with our partner organisations, the TRICS® Good Practice Guide will be further updated accordingly.

13. Representative Sample Sizes and Cross Testing

- 13.1. The TRICS® database contains a wide variety of different land use categories, each of which contains a set of survey sites. For some sub-categories, the set of available data is significantly larger than for others, often due to the variation of popularity between land uses and the time when new categories were introduced to the database and surveys commenced. Obtaining a representative sample of data for a trip rate calculation involves a balance between meeting a set of criteria for inclusion and the availability of surveys in the system.
- 13.2. The general approach for obtaining a representative sample of data is to include as many surveys as possible. But this should not compromise a user's inclusion criteria. Wherever possible, users should aim to use as stringent a set of criteria as possible that allows a representative, reasonable sample of surveys to be obtained. However, there are no fixed rules to this; the aim is to achieve a reasonable balance using professional judgement. It is considered better practice to have a lower yet practical number of surveys acceptable to the selection criteria than to have a larger data set that is not. In the latter case, there might be a higher risk of trip rates becoming misrepresentative when compared to the former case, due to inclusion criteria potentially being too relaxed. Because of the complex diversity of the database, it is impossible to suggest a fixed number of surveys that would work with every scenario. It is more important that users ensure that all sites selected are compatible with the appropriate criteria, that would preferably be agreed in advance by all parties involved in the process. Following this, trip rates can be scrutinised in the very first instance to check for weighting and bias in the average (mean) results using "cross testing" (see 13.8), with more detailed auditing following this. It is considered good practice that a more "inclusive" than "exclusive" approach to site filtering is applied, so long as search criteria are not compromised to a degree where results could be considered questionable. This is the important part. Users should be prepared to be flexible with their criteria, but not so much that the results could potentially be challenged.
- 13.3. If it becomes evident whilst auditing TRICS® reports (should those auditing them have direct access to TRICS®) that there are more sites within the database that match all relevant criteria for inclusion than those presented, the auditor should question the exclusion of sites. The opposite should apply if an auditor believes there are sites included in the selected set that should not have been. When there are such instances of doubt it is important that whoever has produced the report explains their reasoning through the processes of selection that were undertaken. Following this, if the auditor believes that the dataset should be amended, then this should be discussed between both parties and, upon agreement, a revised set of calculations generated.
- 13.4. If users are limited to data from one TRICS® site only, it should be made clear that this is the case. In such instances it is considered good practice to supply the full site, development and survey day details of the site used, so that recipients of the report generated are provided with a fuller understanding of this one individual site.
- 13.5. 15th and 85th percentile trip rates can be obtained using the rank order process. The method by which TRICS® identifies the 15th and 85th percentile surveys in the rank order list is simple and not mathematically complex. The surveys which are closest to 15 and 85 percent of the way down the list, which is ranked by relative trip rate intensity, are regarded as the 15th and 85th percentile surveys for the specified time period (or peak period per survey) selected by the user. It is recognised that there are varying opinions and policies when it comes to the applicability of 15th and 85th percentile trip rates, and TRICS® merely provides the facility to use this feature at the discretion of our users, applying their own professional judgement in all cases.

- 13.6. If a user wishes to produce 15th and 85th percentile trip rates, then TRICS® recommends that users have at least 20 surveys present in a rank order list before such trip rates are quoted in reports. A warning message to this effect is displayed in the rank order list screen whenever less than 20 surveys are included in the data set (this is based on the experience of the TRICS® management team). TRICS® does not recommend that 15th or 18th percentile trip rates based on under 20 surveys are quoted, so it is the user's responsibility to provide evidence for the robustness of any figures quoted.

Rank order for: **No of Dwellings**
 Calculated on: **TOTALS**
 Time range: **08:00-09:00**

Total: 32 85th Percentile = no. 6 NF-03-A-06 Tot: 0.760
 15th Percentile = no. 27 NE-03-A-02 Tot: 0.421

Median Values		Mean Values	
Arrivals	0.147	Arrivals	0.144
Departures	0.430	Departures	0.426
Totals	0.577	Totals	0.570

Rank	Site Ref	Description	Town/City	DWELLS	Day	Date	Arrivals	Departures	Totals	Parking Spaces Per Dwelling
1	TY-03-A-02	SEMI DETACHED & BUNGALC	COOKSTOWN	101	Thursday	14/03/19	0.208	0.713	0.921	4.19
2	AN-03-A-09	DETACHED & SEMI-DETACHE	CARRICKFERGUS	151	Wednesday	12/10/16	0.252	0.662	0.914	3.03
3	WC-03-A-01	DETACHED HOUSES	WICKLOW	50	Monday	28/05/18	0.300	0.600	0.900	3.60
4	DL-03-A-10	SEMI DETACHED & DETACHE	MALAHIDE	65	Wednesday	20/06/18	0.138	0.754	0.892	3.28
5	WA-03-A-04	DETACHED	WATERFORD	280	Tuesday	24/06/14	0.179	0.589	0.768	3.51
6	NF-03-A-06	MIXED HOUSES	GREAT YARMOUTH	275	Monday	23/09/19	0.207	0.553	0.760	2.13
7	NY-03-A-10	HOUSES AND FLATS	RIPON	71	Tuesday	17/09/13	0.183	0.521	0.704	0.83
8	DN-03-A-03	DETACHED/SEMI-DETACHED	LETTERKENNY	50	Monday	01/09/14	0.100	0.560	0.660	2.50
9	NF-03-A-16	MIXED HOUSES & FLATS	WYMONDHAM	138	Tuesday	20/10/15	0.210	0.449	0.659	2.01
10	NF-03-A-07	MIXED HOUSES & FLATS	WYMONDHAM	297	Friday	20/09/19	0.175	0.455	0.630	3.37
11	ES-03-A-03	MIXED HOUSES & FLATS	POLEGATE	212	Monday	11/07/16	0.165	0.462	0.627	1.68
12	ES-03-A-05	MIXED HOUSES & FLATS	NEAR EASTBOURNE	99	Wednesday	05/06/19	0.131	0.495	0.626	1.99
13	KC-03-A-07	MIXED HOUSES	HERNE BAY	288	Wednesday	27/09/17	0.240	0.385	0.625	3.09
14	DO-03-A-03	DETACHED/SEMI DETACHED	BELFAST	79	Wednesday	23/10/13	0.089	0.519	0.608	2.62
15	KC-03-A-04	SEMI-DETACHED & TERRACE	AYLESFORD	110	Friday	22/09/17	0.127	0.473	0.600	1.77
16	CV-03-A-02	DETACHED & SEMI DETACHE	CAVAN	80	Monday	22/05/17	0.150	0.438	0.588	3.48
17	DN-03-A-04	SEMI-DETACHED	LETTERKENNY	83	Friday	26/09/14	0.145	0.422	0.567	2.19
18	DH-03-A-03	SEMI-DETACHED & TERRACE	DURHAM	57	Friday	19/10/18	0.211	0.333	0.544	3.33
19	SH-03-A-05	SEMI-DETACHED/TERRACED	TELFORD	54	Thursday	24/10/13	0.130	0.370	0.500	1.17
20	SC-03-A-04	DETACHED & TERRACED	BYFLEET	71	Thursday	23/01/14	0.141	0.352	0.493	2.49
21	DS-03-A-02	MIXED HOUSES	DERBY	371	Tuesday	10/07/18	0.089	0.402	0.491	2.92
22	ST-03-A-07	DETACHED & SEMI-DETACHE	STAFFORD	248	Wednesday	22/11/17	0.105	0.383	0.488	3.55
23	WS-03-A-08	MIXED HOUSES	ANGMERING	180	Thursday	19/04/18	0.106	0.367	0.473	2.93
24	SC-03-A-05	MIXED HOUSES	HORLEY	207	Monday	01/04/19	0.092	0.362	0.454	3.14
25	HF-03-A-03	MIXED HOUSES	BUNTINGFORD	160	Monday	08/07/19	0.119	0.319	0.438	3.95
26	WS-03-A-09	MIXED HOUSES & FLATS	WORTHING	197	Thursday	05/07/18	0.102	0.325	0.427	1.93
27	NE-03-A-02	SEMI DETACHED & DETACHE	SCUNTHORPE	432	Monday	12/05/14	0.067	0.354	0.421	1.00
28	WS-03-A-04	MIXED HOUSES	HORSHAM	151	Thursday	11/12/14	0.139	0.278	0.417	2.28
29	WS-03-A-10	MIXED HOUSES	LITTLEHAMPTON	79	Wednesday	07/11/18	0.089	0.241	0.330	2.41
30	NF-03-A-04	MIXED HOUSES	NORTH WALSHAM	70	Wednesday	18/09/19	0.071	0.214	0.285	2.36

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Figure 19 – Example of rank order screen with 85th/15th percentiles highlighted

- 13.7. TRICS® will highlight the 15th and 85th percentile trip rates whenever 6 or more surveys are included in a data set. If there are less than 6 surveys, then the feature will not be present, and no surveys will be highlighted. TRICS® does not endorse any quoted 15th or 85th percentile figures should there be less than 6 surveys in a data set. A user with such a small data set may decide to apply their own formulae to obtain what they consider to be 15th and 85th percentile figures, but the methods used to do this should always be presented in reports, and it should be made clear that the process used was outside of TRICS®.
- 13.8. A good method to establish the level of “weighting” or “bias” (see [Section 15](#)) in average (mean) trip rates (i.e. trip rates calculated using more than one survey) is to subject results to “cross-testing”, and this can also assist users in identifying the appropriateness of 85th and 15th percentile trip rates. This is a straightforward process that is recommended to all users following every trip rate calculation undertaken. Users can compare average (mean) trip rates from the main calculation results screen for a selected time period (for example the peak hour), with the corresponding median figure for the same time period taken from the rank order list for the same set of surveys. This can be done automatically by selecting the “Cross Test” icon shown on the trip rate calculation results screen. This quick procedure produces a percentage variation figure, which is displayed alongside the two (mean and median) trip rate figures. If this variation percentage is low, then, broadly speaking, trip rates can be considered not to have

significant “weighting” factors. If the variation percentage is high, this suggests that there is a higher level of “weighting” or “bias” in the data, which could warrant further scrutiny of the site selection process that was undertaken and the trip rate results that were obtained.

- 13.9. With larger data sets it would be unusual to see a significant mean to median variation. With smaller data sets, “weighting” or “bias” in the survey data may be more evident and have a greater effect on average (mean) trip rates. Once you get down to a very small data set (for example 3 surveys), the potential effect of weighting becomes greater, and this may be reflected in a higher variation percentage figure being displayed. For instance, it would not be unusual for a small dataset of, say, 5 surveys, producing a variation greater than 10%. This does not mean that trip rate results are invalid; it just means that weighting factors have a stronger effect on the smaller data set. However, should users be presented with a very large variation (say for example 30% or more), then in the interests of good practice and robustness they should review their original inclusion criteria and carefully examine the selections made through the trip rate filtering process. In cases of such high variation there may be an individual site that is so different from the rest in the selected set that it produces a significant weighting effect. Where this occurs, a review of the strictness of the search criteria should be undertaken to see if the overall number of selected sites can be increased without the inclusion criteria being significantly compromised. TRICS® recommends this approach as opposed to the alternative of simply removing the “rogue” site from the selected list (which is not considered good practice as this could be interpreted as manipulation). Users should understand that there will always be the potential for “outliers” within selected sets of TRICS® surveys, but this does not make these individual surveys invalid; they are just another representation of the ranges and diversity that can be found within sites of the same land use sub-category. It is important to reiterate that the Cross Test is available to provide users with quick guidance on weighting effects in a selected data set, and does not intend to justify any subsequent removal of individual surveys from a selected set in order to manually reduce this level of variation. It should also be noted that should users end up with a very small Cross Test variation, this does not necessarily mean that all selections made through the process are correct and robust; it just demonstrates a low level of statistical weighting taking place. As always, care should always be taken when agreeing inclusion criteria for site selection, and TRICS® recommends that Cross Test results are included in all reports alongside trip rate calculation results.
- 13.10. TRICS® cannot provide an indication of what is an “acceptable” Cross Test variation percentage for any individual situation, as every scenario is unique and may have a wide variety of influencing factors. It is often the case that the larger the data set is the smaller the variation will tend to be, but this may not necessarily always be the case. The Cross Test is intended only to provide an indication of weighting effects due to natural diversity in the survey data. Although this feature is a good indicator of the level of weighting taking place in a data set, producing reliable and robust results requires good professional judgement from all users.
- 13.11. Users should be aware that rank order lists of trip rates can be calculated using either a user-defined period or the “peak hour” on a site-by-site basis. The latter method selects the busiest hour of trip activity for each individual survey in the selected set. Therefore, the Cross Test is not applicable whenever the “Site-by-Site Peak Hour” rank order option is selected, as the Cross Test relies on a direct time comparison across all surveys between the trip rate calculation results screen and the rank order list. Users should always clearly state which methods for calculating rank order lists have been used in each individual case.

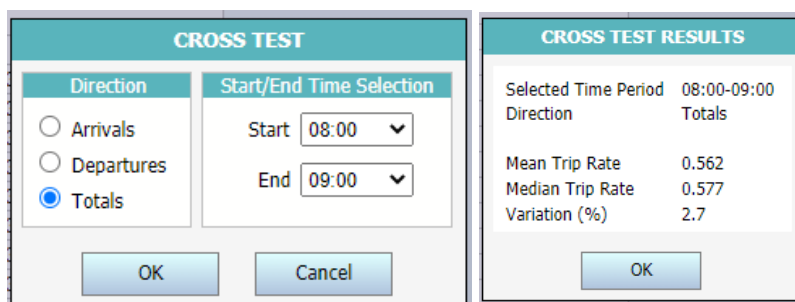


Figure 20 – Example of “Cross Testing” of mean and median trip rates

14. Resurveys and Multiple-Surveys

- 14.1. Existing sites are sometimes re-visited by TRICS® for a re-survey, to see how traffic and transport patterns may have changed over time (with the caveat that all surveys are undertaken on a single day and so can be subject to a variety of factors). Sites that have been surveyed on more than one occasion are clearly identified as such in TRICS® within the “Status” column in site lists, as shown in [Figure 21](#). Note that to display the Status column in site lists users are required to select the “Additional Columns” button and then tick the “Status” option.

Select Land Use By	Full List of Active Main/Sub Land Uses		Site Selection Search		Additional Columns		Notes on using this screen				
Main Land Use	03 - RESIDENTIAL						Click on column heading to sort by that parameter SAM sites are highlighted in orange				
Sub Land Use	M - MIXED PRIVATE/AFFORDABLE HOUSING						Click the map icon to view the site on a map				
182 Sites Available											
Reference	Description	Map	Town/City	Area	Location	SITE AREA	DWELLS	Survey Type	Most Recent Survey	Day of Week	Status
AD-03-M-01	BLOCKS OF FLATS		ABERDEEN	ABERDEEN CITY	Neighbourhood Centre	0.50	72	VEHICLES	22/06/99	Tuesday	One-Off
AN-03-M-01	TERRACED/SEMI D/FLA		BELFAST	ANTRIM	Suburban Area (PP56 C	2.52	114	VEHICLES	26/10/17	Thursday	One-Off
BA-03-M-01	NELSON WARD DRIVE		RADSTOCK	BATH & NORTH EAST SO	Edge of Town Centre	4.00	141	MULTI-MODAL	02/10/18	Tuesday	One-Off
BE-03-M-01	FLATS & SEMI DETACH		ERITH	BEXLEY	Edge of Town	4.00	343	MULTI-MODAL	20/09/18	Thursday	One-Off
BE-03-M-04	BLOCKS OF FLATS		SIDCUP	BEXLEY	Neighbourhood Centre	0.30	98	MULTI-MODAL	19/09/18	Wednesday	One-Off
BN-03-M-01	TERRACED & BLOCKS C		BARNET	BARNET	Edge of Town	2.32	105	MULTI-MODAL	09/03/17	Thursday	Initial Survey
BN-03-M-02	TERRACED & BLOCKS C		BARNET	BARNET	Edge of Town Centre	10.81	271	MULTI-MODAL	24/04/19	Wednesday	Re-Survey
BR-03-M-01	BLOCKS OF FLATS		BRISTOL	BRISTOL CITY	Suburban Area (PP56 C	0.40	42	MULTI-MODAL	06/10/06	Friday	Initial Survey
BR-03-M-02	BLOCKS OF FLATS		BRISTOL	BRISTOL CITY	Suburban Area (PP56 C	0.40	42	MULTI-MODAL	12/10/09	Monday	Re-Survey
BT-03-M-01	BLOCK OF FLATS		WEMBLEY	BRENT	Suburban Area (PP56 C	0.52	284	MULTI-MODAL	03/06/15	Wednesday	One-Off
BT-03-M-02	BLOCK OF FLATS		WEMBLEY	BRENT	Suburban Area (PP56 C	0.60	232	MULTI-MODAL	18/05/15	Monday	One-Off
BT-03-M-03	BLOCKS OF FLATS		NEASDEN	BRENT	Suburban Area (PP56 C	0.26	74	MULTI-MODAL	19/05/16	Thursday	One-Off
CA-03-M-01	MIXED HOUSES & FLAT		WATERBEACH	CAMBRIDGESHIRE	Edge of Town	1.75	52	MULTI-MODAL	20/06/18	Wednesday	One-Off
CB-03-M-01	SEMI DETACHED		COCKERMOUTH	CUMBRIA	Edge of Town	35.50	790	VEHICLES	11/09/90	Tuesday	One-Off
CB-03-M-02	BLOCKS OF FLATS		CARLISLE	CUMBRIA	Suburban Area (PP56 C	0.90	44	VEHICLES	29/10/03	Wednesday	One-Off
CB-03-M-03	SEMI-DETACHED		WORKINGTON	CUMBRIA	Edge of Town	2.90	82	MULTI-MODAL	20/06/05	Monday	Initial Survey
CB-03-M-04	SEMI-DETACHED & TER		CARLISLE	CUMBRIA	Suburban Area (PP56 C	0.46	20	MULTI-MODAL	24/06/16	Friday	One-Off
CM-03-M-01	HOUSES & FLATS		CARMARTHEN	CARMARTHENSHIRE	Suburban Area (PP56 C	1.65	48	MULTI-MODAL	18/09/08	Thursday	Initial Survey
CM-03-M-02	HOUSES & FLATS		CARMARTHEN	CARMARTHENSHIRE	Suburban Area (PP56 C	1.65	49	MULTI-MODAL	14/10/14	Tuesday	Re-Survey
CV-03-M-01	SEMI DETACHED & TER		CAVAN	CAVAN	Edge of Town	2.86	60	VEHICLES	22/05/17	Monday	One-Off
DC-03-M-01	MIXED HOUSES/FLATS		NEAR POOLE	DORSET	Neighbourhood Centre	5.00	130	VEHICLES	30/04/91	Tuesday	One-Off

Figure 21 – Example of Site List showing Initial Surveys and Re-Surveys

- 14.2. There are three types of “Status” label in the database: One-Off, Initial Survey, and Re-Survey. A “One-Off” site appears only once in the database and was surveyed on one single occasion. An “Initial Survey” site represents an “original” site that was visited again on one or more later occasions for a re-survey (with these occasions represented in separate site list rows with “Re-Survey” labels). To assist users in site navigation between re-surveyed sites there is a direct link within the Site Details screen, as shown in [Figure 22](#).

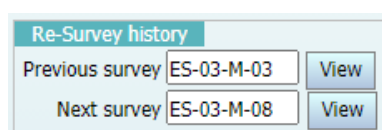
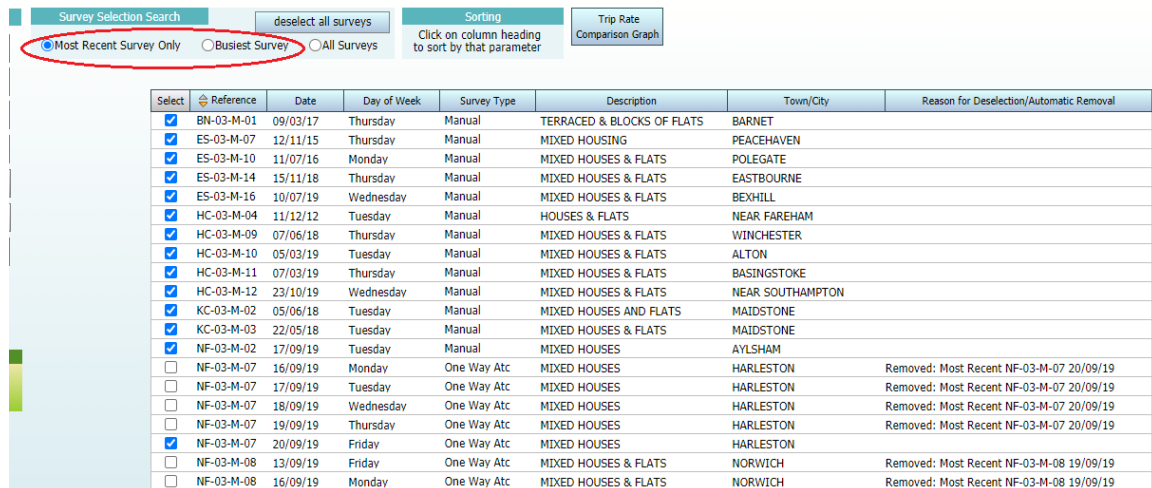


Figure 22 – Example of Site Details showing linkage to initial and re-survey details

- 14.3. It is important that users avoid including any development more than once within a selected data set. This can occur if a user inadvertently includes (or decides to include) both a re-surveyed site and its re-survey together in a trip rate calculation, and this can lead to “weighting” of trip rate results (see [Section 13](#) and [Section 15](#)). Because of this, TRICS® identifies where developments have been included twice in a selected data set. Such incidences are highlighted in yellow within the Selected Sites option in the trip rate calculation filtering process. To assist users further, by default TRICS® then automatically deselects sites that have been re-surveyed by others in the same data set, leaving only the most recent site included. This provides a fail-safe for users which means that a user would have to manually override this function to remove its effect. If users include both a re-surveyed site and any subsequent re-surveys in a selected set, the results from such a calculation cannot be endorsed by TRICS®. The only exception to this is where there is a specific need to focus on one single development and its various surveys, for example to examine any changes in trip generation at that development over time.
- 14.4. Individual sites may sometimes have more than one survey day included in their site record. For example, a food superstore may include a set of Friday, Saturday and Sunday surveys in its site record, or there may be seasonal surveys covering 3 separate Saturdays at different times of the year. Users should ensure that whenever trip rates are calculated, each site in the selected set is represented by only 1 survey day. Just like with sites that have been re-surveyed, by default TRICS® automatically selects only the most recently undertaken survey per site record selected, and just like selected sites, users would need to override this fail-safe in order to include multi-surveys for any individual development in a trip rate calculation. TRICS® cannot endorse any such inclusion, with some exceptions as explained in [14.3](#). All survey days used in a trip rate calculation for each site are listed as part of trip rate calculation results PDF outputs, so a recipient of a TRICS® report will be able to identify where this has taken place (as long as all information on the selection process has been included in the report), and if so should seek clarification from the report provider.
- 14.5. Users have three options for survey inclusion within the Survey Selection screen of the trip rate calculation filtering process. The first two are shown as “Most Recent Survey Only” and “Busiest Survey” radio buttons. The “Most Recent Survey Only” option is set as the default, as this automatically ensures that only the most recent survey at each individual site is included in the selected data set. The second “Busiest Survey” option is similar in that it only allows the inclusion of one survey per site record, although in this instance the survey day with the highest total daily vehicular activity is selected for each individual site, rather than the most recent survey. As “Busiest Survey” will tend to produce higher trip rates it is vital that users choosing this option make it clear in their reports that this choice was made, and that it is possible that the data provided is closer to a “worse-case scenario” in terms of traffic generation than a true average (as would more likely be obtained by the using the default “Most Recent Survey Only” option). Failure to provide this important information in reports would be misleading, especially if an “average” trip rate rather than a “worse case average” had been agreed upon in an early stage of the process.



Select	Reference	Date	Day of Week	Survey Type	Description	Town/City	Reason for Deselection/Automatic Removal
<input checked="" type="checkbox"/>	BN-03-M-01	09/03/17	Thursday	Manual	TERRACED & BLOCKS OF FLATS	BARNET	
<input checked="" type="checkbox"/>	ES-03-M-07	12/11/15	Thursday	Manual	MIXED HOUSING	PEACEHAVEN	
<input checked="" type="checkbox"/>	ES-03-M-10	11/07/16	Monday	Manual	MIXED HOUSES & FLATS	POLEGATE	
<input checked="" type="checkbox"/>	ES-03-M-14	15/11/18	Thursday	Manual	MIXED HOUSES & FLATS	EASTBOURNE	
<input checked="" type="checkbox"/>	ES-03-M-16	10/07/19	Wednesday	Manual	MIXED HOUSES & FLATS	BEXHILL	
<input checked="" type="checkbox"/>	HC-03-M-04	11/12/12	Tuesday	Manual	HOUSES & FLATS	NEAR FAREHAM	
<input checked="" type="checkbox"/>	HC-03-M-09	07/06/18	Thursday	Manual	MIXED HOUSES & FLATS	WINCHESTER	
<input checked="" type="checkbox"/>	HC-03-M-10	05/03/19	Tuesday	Manual	MIXED HOUSES & FLATS	ALTON	
<input checked="" type="checkbox"/>	HC-03-M-11	07/03/19	Thursday	Manual	MIXED HOUSES & FLATS	BASINGSTOKE	
<input checked="" type="checkbox"/>	HC-03-M-12	23/10/19	Wednesday	Manual	MIXED HOUSES & FLATS	NEAR SOUTHAMPTON	
<input checked="" type="checkbox"/>	KC-03-M-02	05/06/18	Tuesday	Manual	MIXED HOUSES AND FLATS	MAIDSTONE	
<input checked="" type="checkbox"/>	KC-03-M-03	22/05/18	Tuesday	Manual	MIXED HOUSES & FLATS	MAIDSTONE	
<input checked="" type="checkbox"/>	NF-03-M-02	17/09/19	Tuesday	Manual	MIXED HOUSES	AYLSHAM	
<input type="checkbox"/>	NF-03-M-07	16/09/19	Monday	One Way Atc	MIXED HOUSES	HARLESTON	Removed: Most Recent NF-03-M-07 20/09/19
<input type="checkbox"/>	NF-03-M-07	17/09/19	Tuesday	One Way Atc	MIXED HOUSES	HARLESTON	Removed: Most Recent NF-03-M-07 20/09/19
<input type="checkbox"/>	NF-03-M-07	18/09/19	Wednesday	One Way Atc	MIXED HOUSES	HARLESTON	Removed: Most Recent NF-03-M-07 20/09/19
<input type="checkbox"/>	NF-03-M-07	19/09/19	Thursday	One Way Atc	MIXED HOUSES	HARLESTON	Removed: Most Recent NF-03-M-07 20/09/19
<input checked="" type="checkbox"/>	NF-03-M-07	20/09/19	Friday	One Way Atc	MIXED HOUSES	HARLESTON	
<input type="checkbox"/>	NF-03-M-08	13/09/19	Friday	One Way Atc	MIXED HOUSES & FLATS	NORWICH	Removed: Most Recent NF-03-M-08 19/09/19
<input type="checkbox"/>	NF-03-M-08	16/09/19	Monday	One Way Atc	MIXED HOUSES & FLATS	NORWICH	Removed: Most Recent NF-03-M-08 19/09/19

Figure 23 – Example of Survey Selection screen showing “Most Recent Survey Only” and “Busiest Survey” radio buttons

- 14.6. The third option entitled “All Surveys” would mean that all survey days in the selected set would be included in the trip rate calculation. As discussed earlier in this section, users should be aware that use of the “All Surveys” option would mean that sites with multi-surveys would have all of these surveys included in the resulting trip rate calculation, and so “All Surveys” should only be selected for exceptional circumstances (as explained in 14.3).

15. Weighting Factors in Trip Rate Calculations and Manual Deselection

- 15.1. As discussed earlier in this document (see Section 13) there are “weighting” factors that can influence trip rates generated by TRICS®. In a selected set of surveys these can consist of a site with unusually high or low traffic/transport generation, a site with a trip rate calculation parameter value (e.g. Gross Floor Area or Number of Employees etc) which is significantly higher or lower than the majority of the sites in the selected set, or a combination of both of these factors. There can also be numerous other factors that can contribute to a weighting effect. These could include specific local influences at the time that surveys took place, events taking place at sites that may have added to trip generation, or other factors that may have had the opposite effect (contributing to a reduction in trip levels). It should be noted that TRICS® cannot identify specific causes on a site-by-site basis, hence the true causes of weighting can be speculative, but in terms of unusually high or low trip rate calculation parameter figures (e.g. GFA) or high or low levels of trip activity at specific sites, this is something that users can observe when studying individual site data.
- 15.2. A good method for identifying the effect of weighting factors is “cross-testing” (see 13.8), which can reveal weighting effects in comparisons between mean trip rates (averages produced in the main trip rate calculation results table) and median trip rates (from a rank order list). However, cross-testing on its own does not prove robustness and reliability of trip rate results. It is also important to understand that cross-testing cannot be used if rank order lists are calculated by the “peak hour” method (see 13.11).

- 15.3. A rank order list is also a good place to look for potential weighting factors. Users can examine rank order lists to see if the range of trip rates displayed rises from the bottom of the list in a steady, reasonably incremental order. If there are one or more trip rates displayed in a rank order list which seem out of place when compared to the pattern of trip rates in the list in general, this could identify potential issues that warrant further scrutiny of a user's initial inclusion criteria and the trip rate calculation selection process that was undertaken. Users are encouraged to examine rank order lists and then examine the individual site details and survey counts of any sites in the list that appear to be "outliers", so that there can be a better understanding of them and the potential causes of their trip generation variation.
- 15.4. TRICS® does not generally recommend the manual removal of individual sites from selected data sets within the trip rate calculation filtering process. There is the option for users to manually remove sites and survey days, but users should proceed with utmost caution if doing this (see [Section 12](#)). If manual deselection does take place, users are required to provide a reason for each instance. TRICS® records each reason given, and these reasons are then included in the PDF outputs of trip rate calculation results generated by the system. Auditors of TRICS® reports should examine these outputs carefully. As mentioned earlier in this document, "outlier" sites as identified in rank order scatterplot diagrams are considered to be just as valid as any other site in a selected set, and are an example of the range and diversity of trip rates within individual land use sub-categories in the database. It should be noted that significant weighting factors as indicated in the results of a Cross Test (see [Section 13](#)) are not sufficient reason on their own to manually remove individual sites and surveys from a selected set.
- 15.5. If a recipient of a TRICS® report suspects that there are significant weighting factors present in the calculation of trip rates worthy of further scrutiny, then clarification should be sought from whoever produced the report.

16. Trip Rates and Limits of Extrapolation

- 16.1. TRICS® allows users to calculate trip rates and then extrapolate them using an "Estimate Trip Rates" feature in the trip rate calculation results screen. As discussed earlier in this document, all trip rates are displayed per a "trip rate value" factor such as "per 100m² GFA" or "Per Employee" etc. (see [6.2](#)). The "Estimate Trip Rates" feature allows the user to extrapolate the trip rates initially displayed in a results table to represent the actual size etc. of their development scenario.
- 16.2. For example, if a user's development scenario is a 03/A (Houses Privately Owned) development of 120 dwellings, the trip rates per dwelling figures could be extrapolated using the "Estimate Trip Rates" feature, with the user inputting a dwelling value of 120 to produce second and extrapolated column of trip rates (highlighted in grey) next to the initial figures. Therefore, this second set of figures would represent "per 120 dwellings" in this case, instead of "per dwelling".

Figure 24 – Example of trip rate results showing the “Estimate Trip Rates” Feature

- 20/11/2020

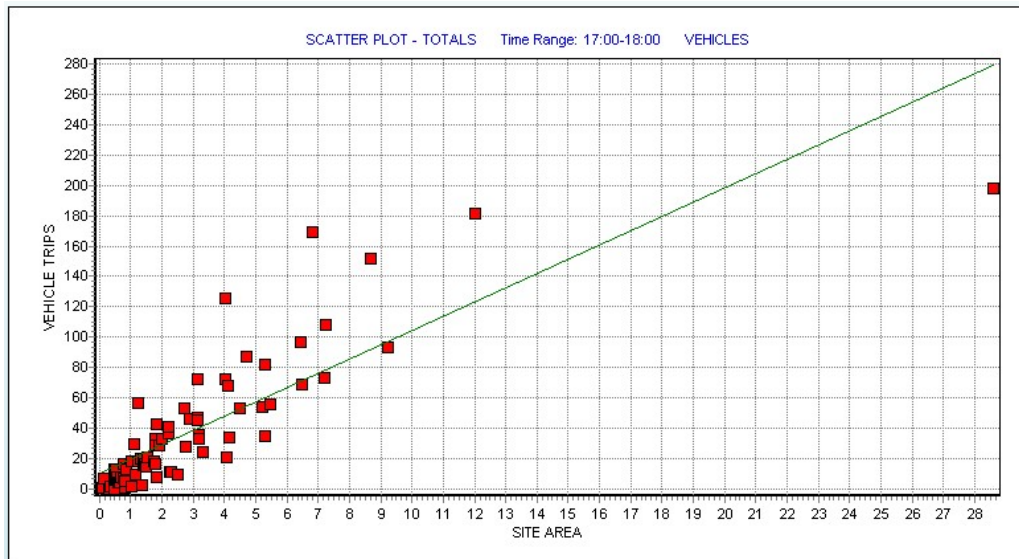


Figure 25 – Example of a 03/A scatterplot by Site Area (higher fluctuation in range)

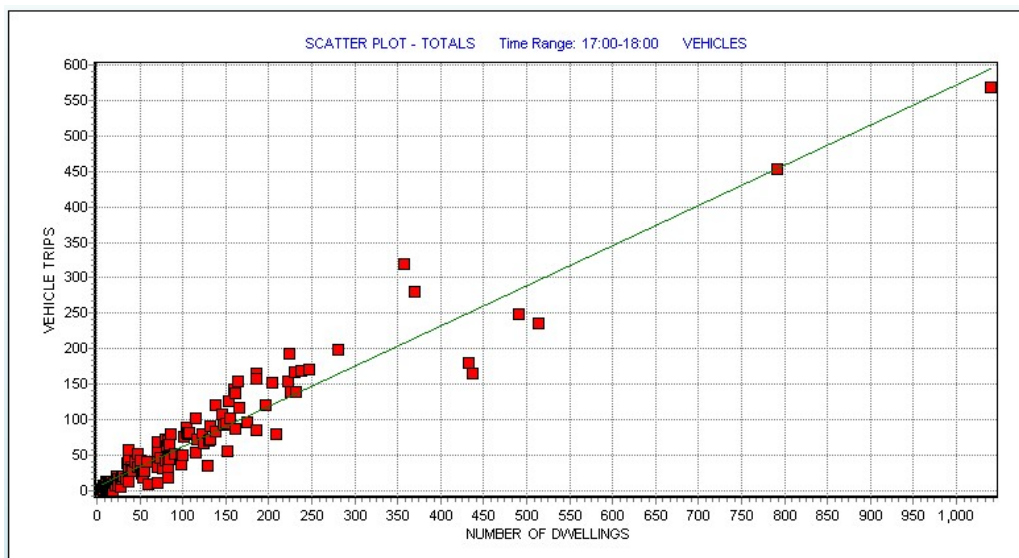


Figure 26 – Example of a 03/A scatterplot by Dwellings (lower fluctuation in range)

- 16.5. The examples in [Figure 25](#) and [Figure 26](#) illustrate how reliability of extrapolation can vary significantly across land use sub-categories and the trip rate parameter options selected. Users should always proceed with caution in identifying what is to be considered a safe limit for extrapolating trip rates, exercising their professional judgement in all cases, with scatterplots provided as supporting evidence in reports produced using TRICS®. Auditors of TRICS® reports should also request scatterplots be provided should they consider these necessary to provide clarification. The amount of range in a scatterplot will also vary depending on the size of a data set, along with numerous external factors outside of TRICS® that may also influence trip rates (see [17.6](#)).
- 16.6. There are sometimes clear visual correlations shown on scatterplots between the trip rate calculation parameter (x axis) and level of trips (y axis), with an example being shown in [Figure 26](#). However, there are sometimes no clear visual correlations, depending on the land use sub-

category and trip rate calculation parameter selected. In such cases, use of the Estimate Trip Rates feature to extrapolate trip rates is not recommended. If it is used in such cases, the large range shown on the scatterplot should be accounted for when reporting. *Figure 27* appears in the first instance (by way of a large range in the scatterplot) to suggest that food superstores do not display any clear relationship between GFA and vehicle trips, therefore limiting the accurate use of the Estimate Trip Rates feature. However, this does not necessarily tell the whole story. It is known that there is in fact a strong relationship between GFA and trip generation for food superstores (see *TRICS Research Report 09/1: "An Econometric Study of the Relationship Between Land Use and Vehicle Trip Generations"*). However, other external factors outside of TRICS® can also exert strong influences on trip generation, and this can be illustrated in scatterplots accordingly, which can mask such a relationship. Such influential factors can be numerous, but may include local competition, road network issues, demographics, and economic situations. Something very important to note is that TRICS® is designed to provide guidance on a range of potential trip generation, and it is not intended to provide an absolute prediction for any specific development scenario (see *11.4 and Figure 12*). This is because there are many factors that can affect trip rates, both internal and external to the selection parameters available within TRICS®.

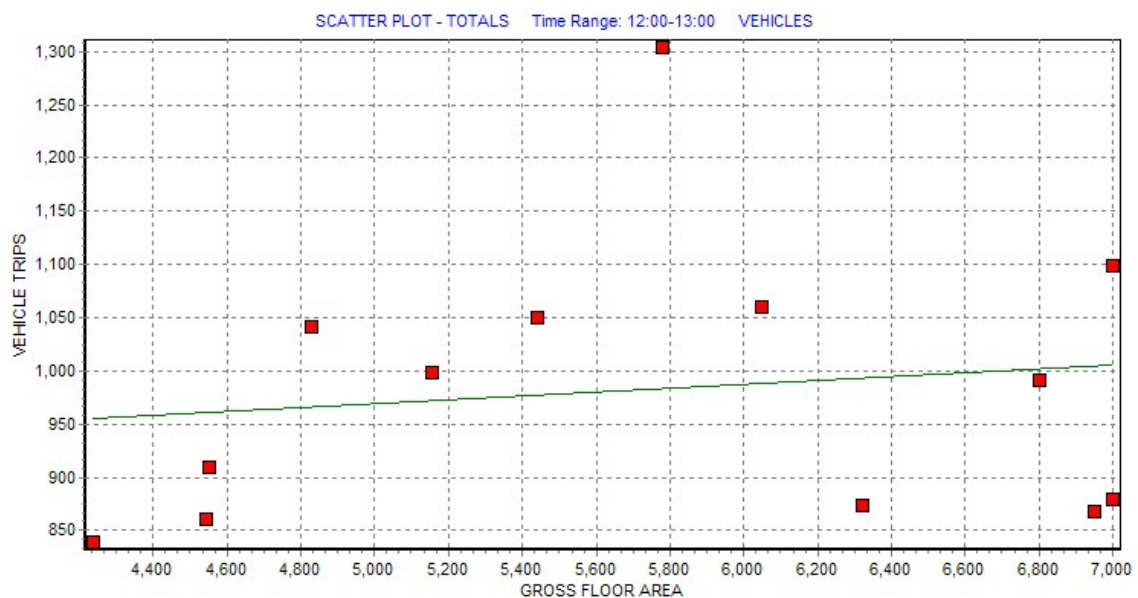


Figure 27 – Example of a scatterplot showing a lack of apparent visual correlation between GFA and vehicle trips (manufactured example for illustrative purposes)

- 16.7. *Figure 27* shows that when a relatively small data sample for food superstores is represented in a scatterplot it can appear that there is no clear, visual relationship between GFA (x axis) and vehicle trips (y axis). However, if we use a larger data set, such as that shown in *Figure 28*, we can see that there is a clearer indication that there is indeed a relationship. The trip generation relationships between land use sub-categories and their various trip rate parameter options will vary and will sometimes be more visually obvious in some cases compared to in others. The level of effects on trip generation from external factors outside of TRICS® (see *16.6*) will also vary. Users should account for the fact that a wide range of variation is taking place and is often expressed in visual differences between scatterplots. This means that a good degree of caution should be exercised in this regard when attempting to draw conclusions on trip generation influences and relationships from what is presented in these diagrams. It cannot be said that *Figure 27* shows a lack of a relationship between GFA and vehicle trips, but it could be said that such a relationship is being visually masked by external factors. There is no obvious visual correlation in the scatterplot, but this could be due to factors external to TRICS® having a

greater influence on trip rates than for some other land use sub-category and trip rate calculation parameter combinations. Users should also be aware that sometimes there may not actually be as strong a relationship between a trip rate calculation parameter and trip rates for a particular land use sub-category compared to other combinations. Users are encouraged to compare any scatterplots appearing to visually indicate a lack of a relationship between a trip rate calculation parameter and trip rates with a scatterplot using a larger data set from the same land use sub-category, to see if a visual relationship appears, as illustrated in *Figure 27* and *Figure 28*. This could assist users in an explanatory way within their reporting.

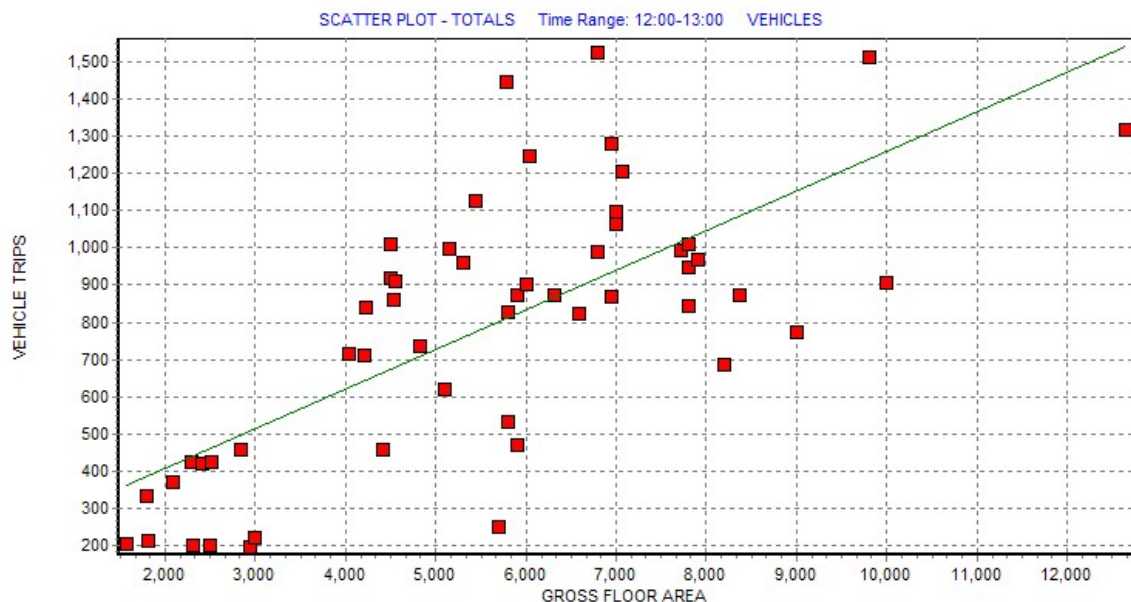


Figure 28 – Example of a scatterplot showing a visual correlation between GFA and vehicle trips (albeit significantly influenced by external factors)

- 16.8. Whenever extrapolated trip rates produced by the “Estimate Trip Rates” feature are quoted in TRICS® reports, it should be made clear that this feature has been used, and that the trip rates quoted have not been directly taken from the original trip rate calculation results before the extrapolation took place.

17. Mixed Use Sites and TRICS

- 17.1. Users often require trip rates for a development scenario constituting a mix of land use categories (for example retail units mixed with leisure and employment etc). There are a number of mixed use or “multi-use” sites within TRICS®, but due to their specific mixed use development scenarios users may need to investigate the individual components separately by land use sub-category where no TRICS® sites within the 16/B (Mixed Use) sub-category are considered to be compatible. It should also be noted that due to their diverse nature, surveys at mixed use developments cannot be used to calculate trip rates in TRICS®. However, users could extract data for individual mixed use sites and manually calculate trip rates (for example using Excel), using a figure such as Site Area (which is present in the database for mixed use sites). However, if doing this, users should make it clear in their reporting that manual calculations were undertaken, and not automatically calculated by TRICS®.
- 17.2. When compiling trip rates for individual components comprising a mixed development scenario, users should be aware that any cross-visitation activity between individual components would

not be accounted for within the trip rates generated using TRICS®. This means there is the possibility that once all trip rates for each individual unit are combined, the total trip rate sum could end up being artificially inflated. For example, someone visiting a mixed retail and leisure development might visit both units, but in terms of true trip generation they would still be a single arrival at and departure from the greater site. This means that combining trip rates obtained from individual land use sub-categories could potentially lead to the double-counting of trips in this respect. Therefore, when reporting, users should make it clear that the trip rates presented are the combined total of the individual components within the greater development, and that the sum of trip rates by individual unit does not necessarily constitute the mixed use site as a whole, given the possibility of people visiting more than one of the units at the development in a single trip. Stating that the combined trip rates of constituent units represent potential trip rates for the greater development could be misleading and unrepresentative. The only exception is when a site or sites within the 16/B (Mixed Use) land use category have been used to produce trip rates manually (see [17.1](#)).

- 17.3. This leads us to the question of what is a reasonable and acceptable factor to apply to mixed use development scenarios once trip rates have been obtained for the individual units and then combined, to avoid the potential for over-inflated trip rates representing the greater development. This is a question that has been asked for a long time by TRICS® users, but unfortunately there can be no straight answer that could apply to all mixed development scenarios. Every site will be different in numerous ways, so tackling the issue of internalisation within mixed developments will require scenario testing by practitioners using their own professional judgement.
- 17.4. If users decide to apply reduction factors to combined trip rates derived from individual mixed use site components, to take into account estimated levels of internalisation, it is very important that the original combined data derived from TRICS® is presented in reports, followed by details of the factors subsequently applied, with it also being made very clear that any amended trip rates provided post factoring are not trip rates calculated directly from TRICS®. It is important that users understand that in such cases the role of TRICS® ends when the original trip rates by individual development unit are calculated before any factoring takes place. TRICS® does not endorse any specific factoring methods that users may apply to data. However, TRICS® understands that factoring may be necessary to correctly represent a mixed development, and that such an approach would be in general principle considered reasonable and logical. Nevertheless, it remains fully the user's responsibility to provide evidence and justification in support of any factoring applied post calculation.
- 17.5. In 2018 a major TRICS® survey and research study was undertaken at a large 17/A (New Communities – Free Standing Settlement) at Cambourne in Cambridgeshire. At the time of the survey this development consisted of over 4,000 residential dwellings plus a variety of other development types including retail, community facilities, schools, offices, a leisure centre, and other land uses. There were over 10,000 inbound vehicle trips and over 13,000 inbound people trips (all modes combined) recorded on the day of the survey. What was unique about this study is that it was the first of its kind to examine levels of internalisation for a selected number of non-residential developments within such a large mixed site. A TRICS® technical report was subsequently produced detailing all findings, and this is freely available and can be accessed via the TRICS® Library module, entitled [“Cambourne Village TRICS® Survey – Technical Report”](#). The surveys undertaken were split, so that an overall standard multi-modal TRICS® survey covering the whole development was undertaken, at the same time as 7 separate multi-modal surveys at internal developments. These internal surveys also included additional interview questions to identify internalisation across the various developments, trips made by those who live outside

of Cambourne compared to trips made by those who live within Cambourne, and the type of trip “user” (for example “live in Cambourne”, “work in Cambourne”, etc). This wealth of additional data also allowed TRICS® to create a “Cambourne Village Analysis Portal”, which is also freely available to TRICS® users once they have logged in to the Members area at www.trics.org. This portal allows users to interrogate the data by making a variety of selections and to see for themselves the levels of internalisation identified for the various developments surveyed amongst other types of analysis.

- 17.6. It is very important to note that the Cambourne study was a very first examination by TRICS® of a major free-standing mixed development of this type. Although it provides some interesting results including data on internalisation, and allows TRICS® users to further examine the data using the Cambourne Portal facility, we must stress that we have drawn no conclusions from this study, neither have we speculated with regards to what the results might imply for any other mixed use development of any type. This was very much a single one-day study of a single large mixed development, so the results obtained reflect this. TRICS® does not endorse any application of the results obtained from this study to any modelling of any other mixed development. No trends can or should be defined from the data obtained in this study, but it is an important first step in our understanding, and we hope to increase this understanding with further multi-modal surveys at new communities as we move forwards.

18. Understanding Count Type Definitions

- 18.1. It is important that users fully understand the definitions of the many count types present within TRICS®. The number of count types have increased over time to allow greater detail and breakdown within our surveys, and definitions of all count types can be found within the Help section of the system, which can be accessed by selecting the Help icon at any stage during its use.

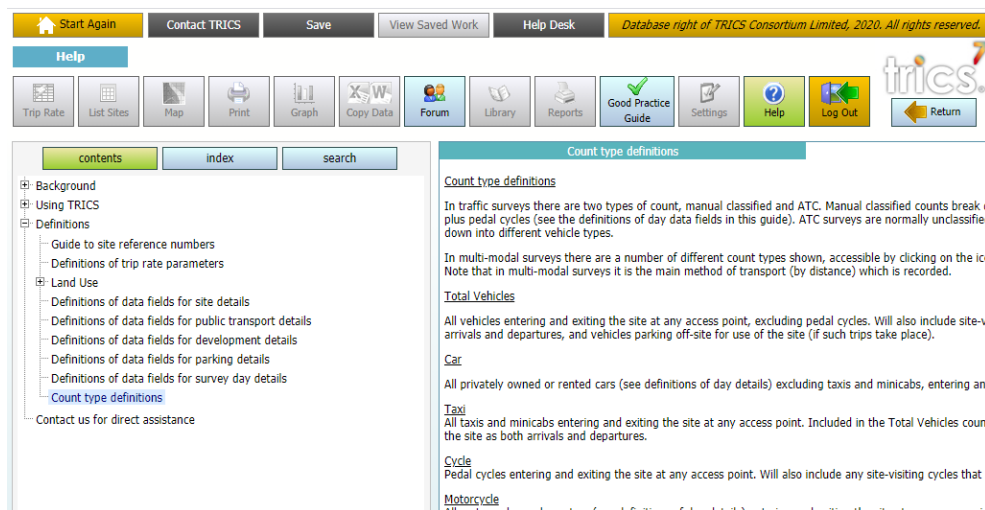


Figure 29 – Extract of Help screen showing count type definitions

- 18.2. Users should ensure that they correctly present all trip rate and count data in their reports, specifying in each case the TRICS® count types the figures represent. All current TRICS® count types are shown in [Figure 31](#). It should be noted that additional count types have appeared in the system over time. Multi-modal count types were introduced in 2000, followed by the Taxis count type in 2006, along with new counts for bus passengers, train passengers and coach

passengers (previously Public Transport Users had been contained within a single count type). PSV, OGV and pedal cycle counts were then introduced in 1998, and in 2013 separate Car, Motorcycle and LGV counts were also introduced, with all surveys undertaken in 2013 onwards containing this additional survey count breakdown. In 2015 multi-modal surveys in Greater London also included the new modes of Docklands Light Rail, Overground, National Rail and Underground. And 2016 saw the introduction of Servicing Vehicles counts (see [Section 20](#)).

- 18.3. It is important that the methodology of TRICS® surveys is also clearly understood by users. A freely available document is the [TRICS® Multi-Modal Methodology](#), which is available within the Library module of TRICS®. This document explains how we assess sites prior to undertaking multi-modal surveys, providing examples of TRICS® survey specifications and details of what is and what is not included in the various count types. For example, it is sometimes the case that the number of vehicles in a TRICS® survey exceeds the number of vehicle occupants for a given count period. This can be explained by the fact that drivers of vehicles picking up/dropping off people at a site are excluded from the vehicle occupants count (whenever this is possible). Those examining TRICS® survey data should be aware of this, along with specific exceptions in the methodology (for example surveys at schools, and surveys at some land use sub-categories located in town and city centres, amongst others); the survey data in the system is accurate, so it is just a matter of understanding the TRICS® methodology correctly.
- 18.4. It is also important to understand that modal split pie charts, accessed directly from individual multi-modal survey count screens, represent the split of total two-way trips throughout a survey's duration (unless users select the peak period option). For example, if we take an office site near a city centre there may be a significant number of pedestrian trips taking place at lunchtime, and TRICS® will record these as it does all other trips arriving at and departing from a site. In the example shown in [Figure 30](#), the percentage of total people trips that were pedestrians is shown in the pie chart as 25.5%. However, it would be misleading to claim in reports that 25.5% of employees at the office used in the example walk to work, as this is clearly not the case, as all trips throughout the survey's duration were recorded and not just trips at peak arrival and departure times. Instead it would be correct to state that 25.5% of all trips to and from the site through the survey duration were made on foot. Auditors of TRICS® reports should always request clarification if this is not clearly presented.

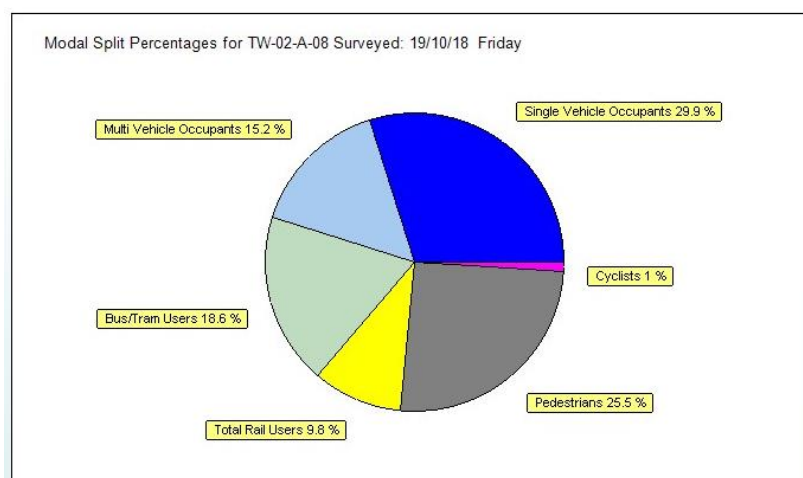


Figure 30 – Example of a modal split pie chart

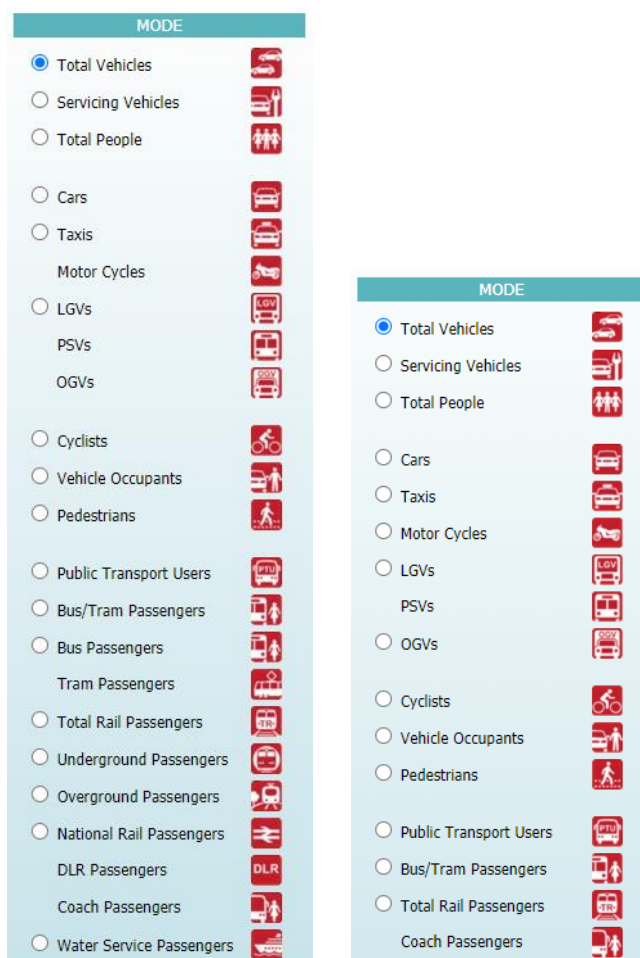


Figure 31 – Multi-Modal count types for Greater London (left) and outside of London (right)

19. Understanding the TRICS Vehicle Occupants Count

- 19.1. The Vehicle Occupants count in TRICS® was introduced upon the commencement of multi-modal surveys in 2000. It is combined with public transport users, pedestrians, and cyclists, to form the Total People count, from which modal split pie charts can be derived. This section of the document should assist users in their understanding of what is and what is not included in the Vehicle Occupants count, which is present in all multi-modal surveys in the database.
- 19.2. In all cases (with the exception of school surveys which is explained in [19.11](#)), the Vehicle Occupants count includes all occupants of vehicles who are visiting any surveyed site, but excludes all drivers of vehicles who are picking up and dropping off passengers at a site (and are therefore not considered to be visiting a site themselves). This rule applies to occupants of all vehicle types (except bus and coach passengers who are recorded separately), with taxi drivers being treated the same way as drivers of private vehicles who are picking up/dropping off passengers. However, it is important to note that if a driver of a vehicle physically visits a site in the same way as a passenger does, then the driver will be included in the Vehicle Occupants count.
- 19.3. Two examples can be given to illustrate the inclusion or exclusion of drivers and passengers of vehicles in the Vehicle Occupants count. The first example is a driver of a private car with two passengers arriving at a site, with the two passengers being dropped off and the driver then

leaving the site. In this case, one car would be recorded arriving and then departing, and two vehicle occupants (the two passengers) would be recorded arriving. The second example is a driver of a private car with two passengers arriving at a site, and all three people in the car visiting the site. In this case, one car would be recorded arriving, and three vehicle occupants (the two passengers plus the driver) would be recorded arriving. When presenting reports that include Vehicle Occupants counts or trip rates, it is considered good practice that TRICS® users clarify that such counts exclude drivers of vehicles picking up/dropping off passengers.

- 19.4. The rules for the inclusion and exclusion of vehicle occupants explained in 19.2 and 19.3 apply as much as possible through TRICS® multi-modal surveys. However, at some survey sites this will be more difficult than at others, so the exclusion of drivers of vehicles picking up/dropping off passengers at some sites may not always be possible. At some larger sites where observation of all pick-up and drop-off activity may not be fully achievable (for example perhaps at some large residential developments, industrial estates or retail parks), and where the nature of a site means that interviews to enable this information to be obtained cannot be undertaken, the Vehicle Occupants count may include some drivers that are not physically visiting sites. However, in such instances the overall level of trip activity would probably be at the higher end of the scale, and as such it is not considered that these exceptions would have much of an impact on the overall survey counts. For most surveys we can identify and exclude pick-up and drop-off trips either through observation or interview (or a combination of both), so we do not consider the exceptions to be a significant statistical issue.
- 19.5. The Vehicle Occupants count is presented in a different way to other count types in the TRICS® database (see Figure 32). Whereas all other count types display single columns for arrivals departures through the survey periods, the Vehicle Occupants count provides a split of vehicles with 1 occupant, 2 occupants, 3 occupants, up to a maximum of 7 occupants. This split is obtained through observations or by interviews during TRICS® surveys, and this allows the total number of vehicle occupants per count period to be calculated, with this being presented in the final column for arrivals and departures, with the sum of both being displayed in the Totals column in the same way as for all other count types.

Survey Dates

Tuesday 24/09/19

MODE

☐ Total Vehicles

☐ Servicing Vehicles

☐ Total People

☐ Cars

☐ Taxis

☐ Motor Cycles

☐ LGVs

☐ PSVs

☐ OGVs

☐ Cyclists

☒ Vehicle Occupants

☐ Pedestrians

☐ Public Transport Users

☐ Bus/Tram Passengers

☐ Total Rail Passengers

☐ Coach Passengers

VEHICLE OCCUPANTS

This count consists of car occupants, light goods vehicle occupants, motorcycle riders and OGV occupants

Taxi drivers and drivers of private vehicles picking up/dropping off passengers at the site are excluded from the count

Note on car sharing and vehicle occupants inclusion

Bracketed figures assume initial number at site to be 0

Time	Occupancy per Vehicle Arriving							Arr 2769	Occupancy per Vehicle Departing							Dep 2682	Totals 5451	Accumulation
	1	2	3	4	5	6	7		1	2	3	4	5	6	7			
00:00-01:00																		
01:00-02:00																		
02:00-03:00																		
03:00-04:00																		
04:00-05:00																		
05:00-06:00																		
06:00-07:00																		
07:00-08:00	75	22	3	0	0	0	0	128	96	40	30	3	0	0	0	278	406	(-150)
08:00-09:00	86	38	3	0	0	0	0	171	97	102	84	9	3	0	0	604	775	(-583)
09:00-10:00	60	52	15	0	0	0	0	209	53	43	20	0	0	0	0	199	408	(-573)
10:00-11:00	70	34	2	1	0	0	0	148	58	43	10	0	0	0	0	174	322	(-599)
11:00-12:00	44	63	9	0	0	0	0	197	89	34	9	0	0	0	0	184	381	(-586)
12:00-13:00	83	28	6	1	0	0	0	161	76	35	5	0	0	0	0	161	322	(-586)
13:00-14:00	51	31	7	2	0	0	0	142	86	20	9	0	0	0	0	153	295	(-597)
14:00-15:00	66	17	18	1	0	0	0	158	107	24	5	1	0	0	0	174	332	(-613)
15:00-16:00	93	57	35	0	0	0	1	319	117	20	5	1	0	0	0	176	495	(-470)
16:00-17:00	120	56	40	5	2	0	0	382	95	37	7	1	0	0	0	194	576	(-282)
17:00-18:00	99	66	57	8	0	2	0	446	109	22	11	0	0	0	0	186	632	(-22)
18:00-19:00	91	47	28	6	3	0	0	308	69	52	6	2	0	0	0	199	507	(87)
19:00-20:00																		
20:00-21:00																		
21:00-22:00																		
22:00-23:00																		
23:00-24:00																		

Figure 32 – Example of a TRICS® Vehicle Occupants count

- 19.6. Using the figures shown in *Figure 32* as an example, the method of calculating the sum of vehicle occupant arrivals can be explained. If we look at the 0700-0800 inbound period there are 75 vehicles with 1 occupant, 22 vehicles with 2 occupants, and 3 vehicles with 3 occupants. Therefore, the total number of inbound vehicle occupants for this period can be calculated using the following formula: $75 + (22 \times 2) + (3 \times 3) = 128$
- 19.7. It should also be noted that the first arrivals “1” column does not just show the number of inbound vehicles with just a driver that visited the site. The vehicle occupants within this column will be a combination of drivers on their own that arrived at the site, and single passengers who are picked up/dropped off by a driver who is not visiting the site. The same approach continues through the “2”, “3”, “4” columns etc.
- 19.8. It is important to understand that the Vehicle Occupants count does not differentiate between site-visiting drivers and passengers. Therefore, TRICS® users will need to make their own estimations based on assumptions with regards to this, applying their professional judgement. It should be made clear in reporting that any such assumptions used to estimate any drivers/passengers split were made outside of the TRICS® process, with the user’s own method used to estimate this split also being clearly explained. Should auditors of reports see splits between drivers and passengers without such explanatory detail they should contact whoever produced the report for further clarification.
- 19.9. The Vehicle Occupants count can assist users in providing an indication of the level of “car sharing” taking place at any individual multi-modal site. Again, users would need to make some assumptions and apply their professional judgement after examining a Vehicle Occupants count to arrive at estimates for car sharing activity, so if presenting such estimates in reports their assumptions and methods used should always be clearly explained.
- 19.10. To view the vehicle occupancy split in a more visual format, users can click on the “Occupancy Split” icon at the top of the count screen, and an Occupancy Split Graph (see *Figure 33*) will then be displayed. In this graph the total number of vehicles is shown on the y axis, with the occupants per vehicle shown on the x axis.

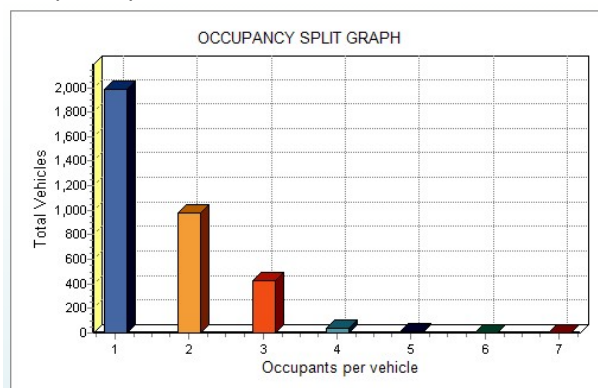


Figure 33 – Vehicle Occupants Split Graph in TRICS®

- 19.11. There is one exception to the rules of inclusion in the TRICS® Vehicle Occupants count, and this applies in the case of multi-modal surveys at schools. Any parents or guardians who physically enter the boundaries of a school within a vehicle are included within the Vehicle Occupants count, but any parents or guardians who park anywhere outside a school will not be included (their vehicles will be included in the relevant vehicles count in all cases). It should also be noted that all parents or guardians who walk to/from school with their children or use public transport are always included in the appropriate mode within the multi-modal count. This exception is

designed to ensure that the Vehicle Occupants count is not over-represented in multi-modal school surveys, given the rules stated for all other development types as detailed within this section of this document. It is considered good practice for users to explain this exception in their reports if TRICS® trip rate analyses are undertaken for school sites.


- 19.12. A note explaining the TRICS® Vehicle Occupants count is also available as a PDF when viewing any Vehicle Occupants count for an individual TRICS® site. The button that accesses this note is shown near the top of the image in *Figure 32*, called “*Note on car sharing and vehicle occupants inclusion*”.

20. Understanding the TRICS Servicing Vehicles Count

- 20.1. The TRICS® Servicing Vehicles count was first introduced for surveys in Greater London in 2014 as part of an agreement between TRICS® and Transport for London. It was then extended to specifically commissioned Standardised Assessment Methodology (SAM) surveys (see *Section 22*), before being introduced to the annual TRICS® multi-modal data collection programme in 2017. For all multi-modal surveys undertaken from 2017 onwards a Servicing Vehicles count will be included wherever such vehicles can be identified. Users should note that Servicing Vehicles counts are not included in vehicular-only TRICS® surveys.
- 20.2. When the first Servicing Vehicles counts were undertaken they were split by cars, LGV’s, OGV(1) and OGV(2) (see *Section 18*), with a new split for motorcycles added for surveys undertaken from 2019 onwards.
- 20.3. The Servicing Vehicles count records all vehicles that arrive at and depart from a site that perform a servicing function. Examples of such functions include delivery vehicles picking up or dropping off items, plumbers, electricians, fast food deliveries, waste disposal and recycling vehicles, etc). It is important to note that the criteria for inclusion of a vehicle within the Servicing Vehicles count is the function of the vehicle during each trip and not just the type of vehicle, so if a vehicle is undertaking a servicing function at a site during a survey it will be included in the Servicing Vehicles count. This also means that if a vehicle that can be used for servicing is visiting a site but is not undertaking a servicing function in that trip it will be excluded from the Servicing Vehicles count. Because of this important distinction, if vehicles servicing a site cannot be identified with a high level of confidence than a survey will exclude a Servicing Vehicles count.
- 20.4. It is also important to note that for certain types of development many of the vehicles arriving at and departing from the site would be included in the Servicing Vehicles count. An example of this would be a multi-modal survey undertaken at a O2/G (Parcel Distribution Centre) development. At such a site, many branded OGV’s might be recorded arriving at and departing from the development through the survey duration. All of these branded OGV’s would be included in the Servicing Vehicles count, because although they are vehicles belonging to the organisation of the site being surveyed, their very purpose at a parcel distribution centre would be to service the site by picking up or dropping off items. Similar levels of inclusion would also likely apply to O2/F (Warehousing – Commercial) sites.
- 20.5. Users should also be aware of how the Servicing Vehicles count sits alongside all other count types in the TRICS® database. Servicing Vehicles counts, split between the vehicle types that comprise them, are not in addition to the standard car, motorcycle, LGV, OGV(1) and OGV(2)

counts in a site record. Instead, the Servicing Vehicles count is an extract of the standard counts of those types. So, if we take for example the standard LGV's count in a survey and the total number of inbound LGV's is 25, if the corresponding number of LGV's in the site's Servicing Vehicles count is 11, this means that out of the 25 total LGV's 11 of them were servicing the site. It does not mean that we need to add the 25 LGV's in the standard count to the 11 LGV's in the Servicing Vehicles count to get to the total number of LGV's that arrived at the site during the survey. Therefore, it is very important that users understand this fundamental principle of the Servicing Vehicles count being an extract of the total counts by vehicle type and not a count in addition to them, and if reports are to include Servicing Vehicles this principle should be clearly explained to avoid potential misinterpretation by report recipients.

- 20.6. To identify which multi-modal surveys in TRICS® include a Servicing Vehicles count there is a tick box called "Servicing Vehicles count recorded" present within the Total Vehicles count screen for all individual multi-modal surveys. This indicates whether a Servicing Vehicles count was included as part of the multi-modal TRICS® survey specification that was written prior to the survey taking place. If the box is ticked but there is no Servicing Vehicles count visible this means that a Servicing Vehicles count was undertaken, but that no vehicles serviced the site through the survey. If the box is un-ticked it means that a Servicing Vehicles count was not included in the survey. However, this does not indicate that no vehicles serviced the site; it just means that such vehicles could not be identified due to the nature of the survey that was undertaken. If the box is ticked and vehicles did service the site during the survey, then the Servicing/Standard Vehicle Percentages table (see [Figure 34](#)) is populated. These figures are automatically calculated by TRICS®, showing the total number of standard vehicles by the 5 types (total inbound plus outbound through the survey duration), and then a percentage split between those that were servicing the site and those that were not.

Servicing Vehicles count recorded ☒ 

Servicing/Standard Vehicle percentages			
	Vehicles	Servicing %	Standard %
OGV (1)	20	70	30
OGV (2)	20	100	0
Light goods	575	29	71
Motor car	19399	0	100
Motor cycle	29	0	100


Figure 34 – The Servicing/Standard Vehicle Percentages table in TRICS®


- 20.7. An example of a Servicing Vehicles count is shown in [Figure 35](#). It shows the various inbound and outbound vehicle types, with these combined in inbound and outbound totals columns.


Survey Dates


☒ Saturday
 28/09/19


MODE


☐ Total Vehicles
 


☒ Servicing Vehicles
 


☐ Total People
 


☐ Cars
 


☐ Taxis
 


☐ Motor Cycles
 


☐ LGVs
 


☐ PSVs
 


☐ OGVs
 


☐ Cyclists
 


☐ Vehicle Occupants
 

☐ Pedestrians
 

☐ Public Transport Users
 

☐ Bus/Tram Passengers
 

 Total Rail Passengers
 

 Coach Passengers
 

SERVICING VEHICLES

Time	INBOUND						OUTBOUND					
	Car 0	LGV 83	MOTC 0	OGV1 7	OGV2 10	Total 100	Car 0	LGV 85	MOTC 0	OGV1 7	OGV2 10	Total 102
00:00-01:00												
01:00-02:00												
02:00-03:00												
03:00-04:00												
04:00-05:00												
05:00-06:00												
06:00-07:00	0	1	0	2	1	4	0	3	0	0	1	4
07:00-08:00	0	4	0	4	2	10	0	9	0	5	0	14
08:00-09:00	0	7	0	0	2	9	0	13	0	1	2	16
09:00-10:00	0	10	0	1	1	12	0	10	0	1	2	13
10:00-11:00	0	9	0	0	0	9	0	6	0	0	0	6
11:00-12:00	0	6	0	0	0	6	0	6	0	0	1	7
12:00-13:00	0	10	0	0	0	10	0	6	0	0	0	6
13:00-14:00	0	11	0	0	0	11	0	7	0	0	0	7
14:00-15:00	0	6	0	0	2	8	0	8	0	0	1	9
15:00-16:00	0	6	0	0	0	6	0	7	0	0	0	7
16:00-17:00	0	6	0	0	1	7	0	3	0	0	0	3
17:00-18:00	0	3	0	0	0	3	0	5	0	0	1	6
18:00-19:00	0	0	0	0	0	0	0	0	0	0	0	0
19:00-20:00	0	0	0	0	0	0	0	2	0	0	1	3
20:00-21:00	0	1	0	0	1	2	0	0	0	0	0	0
21:00-22:00	0	3	0	0	0	3	0	0	0	0	1	1
22:00-23:00												
23:00-24:00												

Figure 35 – Example of Servicing Vehicle count

- 20.8. Users can calculate trip rates for Servicing Vehicles counts in the same way as they can for all other TRICS® count types. It should be noted that the same rules apply for Servicing Vehicles as for other count types, in that for a calculation to be undertaken all surveys in a selected set must have the Servicing Vehicles count included.

21. Correct Presentation of Trip Rates and Methods

- 21.1. Users have a responsibility to ensure that all data generated using TRICS®, and all subsequent reports that include TRICS® data, meet the good practice standards as outlined in this document, providing good clarity of results and explanations of all methods used.
- 21.2. Reports should be written and presented in such a way as to include clearly traceable methods as to how all data was obtained through the use of TRICS®, so that this can be fully understood by recipients and auditors of reports. Therefore, any third party with access to TRICS® themselves should be able to examine the data provided in reports and be able to scrutinise all selections and processes used to obtain trip rate results. For example, if a report states that “a trip rate of 2.34 arrivals for the hour 1700-1800 per 100m² of Gross Floor Area was generated”, this cannot be taken as fact unless the methods used to arrive at this figure are clearly outlined in the report, either in the main body of the report or within an appendix. Detailing clear methods that were used to arrive at results, and ensuring the results themselves are expressed in the correct way, is even more important if a report is to be audited by an organisation that does not have access to TRICS®, and is therefore unable to undertake their own comparative analysis.
- 21.3. If an attempt at auditing TRICS® data cannot be adequately completed due to a lack of explanatory detail provided in a report, the auditor should request all missing and required information from whoever supplied the report. The level of detail required to understand the processes that have taken place to arrive at trip rates using TRICS® is always available through

the outputs that TRICS® generates, so there can be no reasonable technical reason through the use of TRICS® for an acceptable level of detail covering the processes and selections undertaken not being provided.

- 21.4. If the full set of procedures and selections as to how TRICS® data has been obtained are included in a report, but the trip rate results are significantly different to those generated by an auditor who has access to TRICS®, both parties must work together to understand why these differences are evident, and to agree a final set of figures. Again, the best way to avoid such a scenario is for reports generated by TRICS® to include the detail of all processes and selections made to arrive at the original set of results. There is the potential for misinterpretation to occur should a report attempt to explain the processes and selections undertaken in a way that does not correspond to the way that TRICS® operates, and this is why including the detail of TRICS® PDF outputs in full is so important; these outputs are always presented in a consistent format that anyone with access to TRICS® will be familiar with, and also have the option to include automated explanatory commentary on each section of the output, which can be especially useful to auditors of TRICS® reports who may not be fully familiar with TRICS® (and for those who do not have any direct access to the system).
- 21.5. Trip rates generated by TRICS® should always be presented in their full and correct context in reports. It should be made clear in each instance what exactly is represented by the trip rates quoted. For example, a statement saying *“trip rates of 3.26 were generated by TRICS®”* would be insufficient, as this does not contain enough information for recipients of reports to successfully understand and audit the results. All trip rates quoted in reports must display the relevant time period, direction, and trip rate calculation factor (see 6.2), for the trip rates to be correctly interpreted. Therefore, a correct version of the initial statement would be *“trip rates of 3.26 trips per 100m² GFA, for the arrivals period 1700-1800, were generated by TRICS®”*.
- 21.6. The version of TRICS® used to obtain trip rate results should also be clearly stated in reports. It should be noted that PDF outputs generated by TRICS® include the version of the system used at the top of each page.
- 21.7. It is also very important to note that auditors of reports should examine PDF trip rate results outputs generated by TRICS® to identify their source. At the top of each page of outputs will be the name of the organisation that generated them along with a TRICS® licence number. Should an auditor of a report not be able to see one or either of these important items of information on the PDF, or should this information indicate that TRICS® was used by an organisation other than that which has written the report that is being audited, then it is possible that there has been a breach of TRICS® Copyright. In all such cases, auditors should contact TRICS® Consortium Limited directly to report such a potential breach, as any report produced including trip rates generated by TRICS® that have been obtained outside of our Terms and Conditions should be considered inadmissible and should be rejected. TRICS® will investigate every incidence of such potential breaches and will take all appropriate action whenever necessary.
- 21.8. Every time that trip rates generated by TRICS® are presented in reports, the land use sub-categories used to obtain the data should be clearly indicated. For example, it would be incorrect to state that *“residential trip rate arrivals were 4.11 per household for the 1700-1800 time period”*, if the residential land use sub-category is not clearly specified. As there are many land use sub-categories within TRICS® confusion can easily arise if the relevant sub-categories used in the calculation of trip rates are not made clear. Therefore, a correct version of the initial statement might be *“residential trip rate arrivals for the 03/A (Houses Privately Owned) land use sub-category were 4.11 per household for the 1700-1800 time period.”*

- 21.9. Although TRICS® can provide information through its PDF outputs showing the site selection criteria applied when calculating trip rates, it cannot explain the reasons why the criteria was applied. Providing this detail in reports is the sole responsibility of the organisation generating TRICS® trip rate results. Failure to explain the reasoning behind the selections made through the trip rate calculation process could leave the results open to challenge, and auditors of reports should request clarification on the reasoning behind any selections made should they feel this is necessary in order to fully understand what has been produced and reported.
- 21.10. The following paragraphs explain the various sections of a TRICS® PDF output that is generated following the calculation of vehicular trip rates. The examples provided are for a calculation undertaken using the 03/A (Houses Privately Owned) land use sub-category, with trip rates calculated by dwellings. These paragraphs, which conclude this section of this document, provide both those writing reports and those auditing them with some further good practice tips with regards to providing information on the selections made during trip rate calculation filtering process and understanding what the outputs mean. For auditors of reports there is some handy information on items within the outputs that they might want to focus on in terms of examining the correctness of the processes and selections that have been made.
- 21.11. It should be noted that the sections of the PDF outputs that are included in this example are just the sections that are included by default whenever a user selects to export a PDF. There are additional features that can also be included in the report, as shown in *Figure 36*. These features include additional trip rates for available separate count types (the Total Vehicles count type is always included by default), trip rate graphs, user's own comments (which can be added to the output to provide their own further explanatory detail), a filtering summary that puts all of the selections made in to one handy area, enhanced details for the list of selected sites, and a section providing key survey period trip rates. Users are encouraged to explore these additional optional sections as they can provide good further clarity and detail.

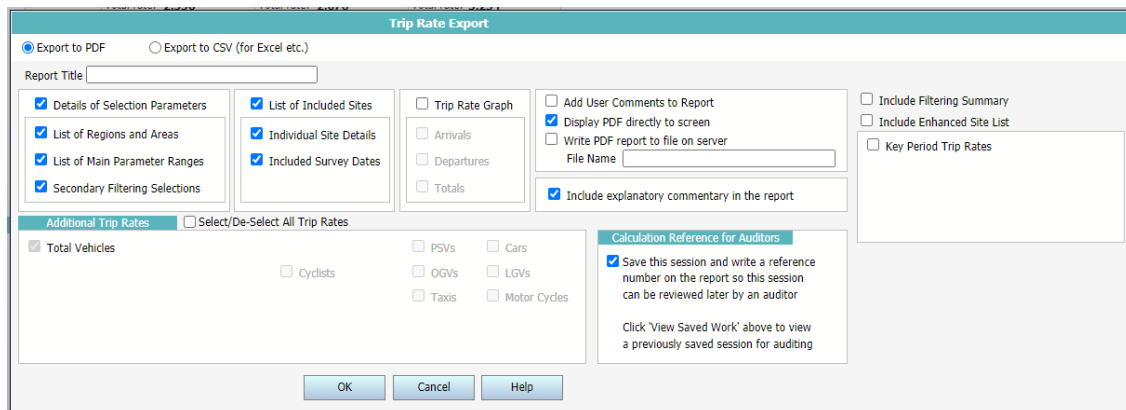


Figure 36 – Default sections to be included in a TRICS® PDF output with additional optional features also shown

- 21.12. The first section of the PDF output (*Figure 37*) displays the land use sub-category that was used, along with the number of surveys in the final selected set by TRICS® regions and sub-areas (see *Section 4*). Note that at the header at the top of the page is the user-defined title of “03/A Weekday Total Vehicle Trip Rates”. A user generating a PDF output can input any title they wish, but it is good practice for the title to be an easy quick reference explaining what the overall output contains. Also note the Calculation Reference that is displayed underneath the header on the right side (see *12.7*).

Calculation Reference: AUDIT-708750-201112-1136

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
 Category : A - HOUSES PRIVATELY OWNED

TOTAL VEHICLESSelected regions and areas:

02 SOUTH EAST	
HF HERTFORDSHIRE	1 days
WS WEST SUSSEX	1 days
04 EAST ANGLIA	
NF NORFOLK	2 days
06 WEST MIDLANDS	
ST STAFFORDSHIRE	1 days
17 ULSTER (NORTHERN IRELAND)	
AN ANTRIM	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Figure 37 – Land Use selection and regional breakdown in a TRICS® PDF output

- 21.13. The next section of the PDF output (*Figure 38*) displays the selections that have been made within the Primary Filtering stage of the trip rate calculation process. It includes the trip rate calculation parameter range (in this example Dwellings) that was specified by the user, and the actual range of the included surveys in the selected set. An important selection to focus on is the “Selected survey days” item, which indicates how many surveys were undertaken on which days of the week (*see 11.5* that explains why weekdays and weekends should not be mixed together in selected sets of surveys). Another is the “Selected Locations” item, which shows how many surveys fall within each of the main TRICS® location categories (*see Section 4 that explains compatibility between the various location types*). The Primary Filtering is very important when it comes to auditing reports, as it contains the main selections before we move on to the more “fine tuning” stage of Secondary Parameters.

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: No of Dwellings
 Actual Range: 151 to 248 (units:)
 Range Selected by User: 150 to 250 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 08/07/19

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	1 days
Tuesday	1 days
Wednesday	2 days
Thursday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	4 days
Directional ATC Count	2 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town	6
--------------	---

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	4
Out of Town	1
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Figure 38 – Primary Filtering selections in a TRICS® PDF output

- 21.14. The next section of the PDF output (*Figure 39*) displays the selections that have been made within the Secondary Parameter stage of the trip rate calculation process. This part of the selection process is more of an area of “fine tuning” but is also of importance and worthy of scrutiny by auditors of reports. Most of the selection information within this section lists the population and car ownership ranges and the number of surveys in the selected set that correspond to each. Selection parameters such as population and car ownership can be important factors when considering what types of sites should be included in a selected set in an early stage of the process. For example, if a development scenario is for a site in an isolated location where the local population may be minimal, it would be good practice to scrutinise the selections made in this section and potentially question any included sites that may show higher levels than those originally anticipated.

Secondary Filtering selection:

Use Class:

C3 6 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000	2 days
5,001 to 10,000	2 days
10,001 to 15,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	2 days
25,001 to 50,000	1 days
75,001 to 100,000	3 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	1 days
1.1 to 1.5	3 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	4 days
No	2 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	6 days
-----------------	--------

This data displays the number of selected surveys with PTAL Ratings.

Figure 39 – Secondary Filtering selections in a TRICS® PDF output

- 21.15. The next section of the PDF output ([Figure 40](#)) is the list of all included sites and surveys in the selected set. This is a very handy quick reference to the location types, addresses, days of the week and trip rate calculation parameter sizes for every included site, and so gives a good summary in a single area covering all this important information. Examining this list is a quick and easy way to become familiar with the site when auditing reports.

LIST OF SITES relevant to selection parameters

1	AN-03-A-09 SLOEFIELD DRIVE CARRICKFERGUS	DETACHED & SEMI-DETACHED	ANTRIM
	Edge of Town No Sub Category Total No of Dwellings: 151		
	Survey date: WEDNESDAY 12/10/16		Survey Type: MANUAL
2	HF-03-A-03 HARE STREET ROAD BUNTINGFORD	MIXED HOUSES	HERTFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 160		
	Survey date: MONDAY 08/07/19		Survey Type: MANUAL
3	NF-03-A-13 BEAUFORT WAY GREAT YARMOUTH BRADWELL	MIXED HOUSES	NORFOLK
	Edge of Town Residential Zone Total No of Dwellings: 198		
	Survey date: TUESDAY 11/09/18		Survey Type: DIRECTIONAL ATC COUNT
4	NF-03-A-15 SILFIELD ROAD WYMONDHAM	MIXED HOUSES & FLATS	NORFOLK
	Edge of Town Out of Town Total No of Dwellings: 235		
	Survey date: THURSDAY 20/09/18		Survey Type: DIRECTIONAL ATC COUNT
5	ST-03-A-07 BEACONSIDE STAFFORD MARSTON GATE	DETACHED & SEMI-DETACHED	STAFFORDSHIRE
	Edge of Town Residential Zone Total No of Dwellings: 248		
	Survey date: WEDNESDAY 22/11/17		Survey Type: MANUAL
6	WS-03-A-04 HILLS FARM LANE HORSHAM BROADBRIDGE HEATH	MIXED HOUSES	WEST SUSSEX
	Edge of Town Residential Zone Total No of Dwellings: 151		
	Survey date: THURSDAY 11/12/14		Survey Type: MANUAL

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

Figure 40 – List of included sites in a TRICS® PDF output

- 21.16. The next section of the PDF output (Figure 41) contains the trip rate calculation results table. This is the table from which average (mean) trip rates are taken and presented in reports. Note that this section includes a significant amount of automated explanatory commentary to assist auditors (and of course users) in their understanding of what this tabulated data represents. The table is split into three sub-sections, which display trip rates for Arrivals, Departures and Totals. Something that is important to note is that calculations are undertaken for each separate column independently, and so if we take into account rounding factors, the figures in the Totals column may not necessarily be the exact sum of the trip rates in the Arrivals and Departures columns (this is a perfectly normal statistical consequence and is not any sort of bug in the system). The trip rate calculation factor is shown above the table (in this example trip rates are displayed per dwelling), and the bold entries amongst the figures represent the peak periods for Arrivals, Departures and Totals. The Total Rates shown at the bottom of the table are the sums of all rates in their respective columns. It is also important to note that the commentary underneath the table explains the method used to calculate average (mean) trip rates in TRICS®, which is something that users creating reports and auditors in receipt of reports should become familiar with, to better their understanding of the mathematical processes that TRICS® undertakes to produce these results once all user selections have been made.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

TOTAL VEHICLES

Calculation factor: **1 DWELLS**

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	6	191	0.147	6	191	0.318	6	191	0.465
08:00 - 09:00	6	191	0.171	6	191	0.410	6	191	0.581
09:00 - 10:00	6	191	0.171	6	191	0.200	6	191	0.371
10:00 - 11:00	6	191	0.167	6	191	0.192	6	191	0.359
11:00 - 12:00	6	191	0.142	6	191	0.163	6	191	0.305
12:00 - 13:00	6	191	0.180	6	191	0.182	6	191	0.362
13:00 - 14:00	6	191	0.166	6	191	0.192	6	191	0.358
14:00 - 15:00	6	191	0.185	6	191	0.229	6	191	0.414
15:00 - 16:00	6	191	0.255	6	191	0.226	6	191	0.481
16:00 - 17:00	6	191	0.299	6	191	0.196	6	191	0.495
17:00 - 18:00	6	191	0.358	6	191	0.185	6	191	0.543
18:00 - 19:00	6	191	0.315	6	191	0.185	6	191	0.500
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.556			2.678			5.234

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: $COUNT/TRP*FACT$. Trip rates are then rounded to 3 decimal places.

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The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Figure 41 – The trip rate calculation results table in a TRICS® PDF output

- 21.17. The final section of the PDF output (Figure 42) is the Parameter Summary, and this appears directly underneath the trip rate calculation results screen by default. Therefore, auditors of reports should be aware that this summary should always appear in PDF outputs unless it has been manually removed (and if this is the case then auditors should certainly request this information as it can be very important in understanding certain elements of the trip rate calculation selection process). This summary displays quick references to the trip rate calculation parameter range selected, the survey date range, the numbers of surveys for weekdays and weekend days, and the number of surveys that have been automatically and manually removed from the selected set prior to calculation. TRICS® automatically removes surveys to ensure that only one survey at a development is included in a calculation, to avoid "weighting" and "bias" (see Section 13 and Section 15), but it is the manual deselection of surveys by whoever generated trip rates that auditors should apply particular scrutiny to (see Section 15). If any surveys have been manually removed, then they would by default be listed in the PDF output, along with the reason for removal in each case. Auditors should examine these outputs carefully for any evidence of manual survey removal, starting with the Parameter Summary, and if any manually removed surveys are not listed and explanations for their removal not provided, then this information should most certainly be requested.

Parameter summary

Trip rate parameter range selected:	151 - 248 (units:)
Survey date range:	01/01/12 - 08/07/19
Number of weekdays (Monday-Friday):	6
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Figure 42 – The Parameter Summary in a TRICS® PDF output

22. The Standard Assessment Methodology (SAM)

- 22.1. In 2005 TRICS® introduced a national standard methodology for assessing trip generation and mode choice at developments with travel plans in operation by undertaking surveys in the multi-modal TRICS® format. This methodology is known as SAM (Standardised Assessment Methodology). It is a system that undertakes surveys upon request including standard multi-modal TRICS® count types, with additional quantitative and descriptive information also collected on a site's travel plan. However, it does not provide reasons for any of the trip generation or mode split results; like all standard TRICS® surveys, SAM surveys provide the trip generation data that organisations can then interpret using their professional judgement.
- 22.2. Local authorities have introduced the requirement for SAM surveys into planning agreements for new developments, so that travel plan targets can be measured against actual trip activity. For this purpose, a "Travel Plan" data section has been introduced into TRICS®, which contains descriptive information on a site's travel plan measures, the dates when these measures were implemented, and where available their costs. As shown in *Figure 43*, SAM surveys can easily be identified within the TRICS database as they are highlighted in orange in site lists. SAM surveys are otherwise known as Level 3 Surveys, with standard multi-modal surveys being Level 2 and traffic vehicle only surveys being Level 1.

Select Land Use By	Full List of Active Main/Sub Land Uses	Site Selection Search		Additional Columns		Notes on using this screen				
Main Land Use	03 - RESIDENTIAL					Click on column heading to sort by that parameter SAM sites are highlighted in orange. Click the map icon to view the site on a map				
Sub Land Use	M - MIXED PRIVATE/AFFORDABLE HOUSING					182 Sites Available				
Reference	Description	Map	Town/City	Area	Location	SITE AREA	DWELLS	Survey Type	Most Recent Survey	Day of Week
NF-03-M-30	MIXED HOUSES & FLAT		NEAR NORWICH	NORFOLK	Neighbourhood Centre	6.89	119	VEHICLES	11/09/18	Tuesday
NF-03-M-31	MIXED HOUSES & FLAT		NEAR NORWICH	NORFOLK	Neighbourhood Centre	2.30	48	VEHICLES	05/10/17	Thursday
NF-03-M-32	MIXED HOUSES & FLAT		NEAR NORWICH	NORFOLK	Neighbourhood Centre	7.20	240	VEHICLES	12/09/18	Wednesday
NF-03-M-33	MIXED HOUSES & FLAT		NEAR NORWICH	NORFOLK	Neighbourhood Centre	7.20	239	VEHICLES	11/10/16	Tuesday
NH-03-M-01	TERRACED/FLATS		PLAISTOW	NEWHAM	Suburban Area (PP56 C	0.64	45	MULTI-MODAL	19/02/07	Monday
NT-03-M-01	BLOCK OF FLATS		NOTTINGHAM	NOTTINGHAMSHIRE	Town Centre	0.13	44	VEHICLES	22/11/10	Monday
NY-03-M-01	SEMI D./TERRACED		HARROGATE	NORTH YORKSHIRE	Suburban Area (PP56 C	0.80	14	MULTI-MODAL	22/09/05	Thursday
NY-03-M-03	SEMI D./TERRACED		HARROGATE	NORTH YORKSHIRE	Suburban Area (PP56 C	0.80	14	MULTI-MODAL	11/09/08	Thursday
OX-03-M-01	MIXED HOUSES		THAME	OXFORDSHIRE	Edge of Town	5.98	100	MULTI-MODAL	28/06/18	Thursday
RC-03-M-01	TERRACED		NEAR MOUNTAIN ASH	RHONDDA CYNON TAFF	Free Standing (PP56 C	4.30	172	VEHICLES	21/06/90	Thursday
RD-03-M-01	MIXED FLATS & HOUSE		RICHMOND	RICHMOND	Suburban Area (PP56 C	0.73	76	MULTI-MODAL	10/03/16	Thursday
RE-03-M-01	BLOCKS OF FLATS		READING	READING	Edge of Town	0.63	79	MULTI-MODAL	03/11/06	Friday
RO-03-M-01	SEMI-DET.		BALLAGHADERREEN	ROSCOMMON	Edge of Town Centre	1.02	24	VEHICLES	13/05/09	Wednesday
SC-03-M-01	HOUSES & FLATS		REDHILL	SURREY	Edge of Town	9.52	454	MULTI-MODAL	10/09/09	Thursday
SC-03-M-02	HOUSES & FLATS		NEAR FRIMLEY	SURREY	Neighbourhood Centre	11.00	342	MULTI-MODAL	10/02/10	Wednesday
SC-03-M-03	HOUSES & FLATS		REDHILL	SURREY	Edge of Town	9.52	500	MULTI-MODAL	08/09/11	Thursday
SC-03-M-04	HOUSES/FLATS		GUILDFORD	SURREY	Suburban Area (PP56 C	3.00	130	MULTI-MODAL	13/10/11	Thursday
SC-03-M-05	HOUSES & FLATS		STAINES	SURREY	Suburban Area (PP56 C	1.10	52	MULTI-MODAL	19/11/12	Monday
SC-03-M-06	HOUSES & FLATS		REDHILL	SURREY	Edge of Town	9.52	500	MULTI-MODAL	11/12/13	Wednesday
SC-03-M-07	HOUSES/FLATS		GUILDFORD	SURREY	Suburban Area (PP56 C	4.90	199	MULTI-MODAL	24/10/13	Thursday
SC-03-M-08	MIXED HOUSES & FLAT		LONGCROSS	SURREY	Neighbourhood Centre	10.68	107	MULTI-MODAL	12/11/19	Tuesday
SK-03-M-01	BLOCKS OF FLATS		PECKHAM	SOUTHWARK	Edge of Town Centre	0.69	122	MULTI-MODAL	28/09/17	Thursday
SK-03-M-02	BLOCKS OF FLATS		PECKHAM	SOUTHWARK	Edge of Town Centre	0.69	122	MULTI-MODAL	22/11/18	Thursday
SM-03-M-01	DETACHED & TERRACE		TAUNTON	SOMERSET	Neighbourhood Centre	5.09	135	MULTI-MODAL	26/09/18	Wednesday
TW-03-M-01	DETACHED & BUNGALC		NEWCASTLE	TYNE & WEAR	Edge of Town	1.57	27	VEHICLES	13/11/15	Friday
TW-03-M-02	MIXED HOUSES & FLAT		NEWCASTLE UPON TYNE	TYNE & WEAR	Suburban Area (PP56 C	2.07	108	MULTI-MODAL	19/10/18	Friday
VG-03-M-01	SEMI-DET./TERRACED		BARRY	VALE OF GLAMORGAN	Suburban Area (PP56 C	1.22	40	VEHICLES	18/10/10	Monday
WE-03-M-01	TERRACED		CHINGFORD	WILTSHIRE	Suburban Area (PP56 C	1.55	40	MULTI-MODAL	15/11/07	Thursday

Figure 43 – Example of a site list with SAM surveys highlighted

- 22.3. Local authorities will vary in terms of the SAM survey conditions they may place within planning agreements, but one example might be the requirement for a survey to take place within years 1, 3 and 5 of the operation of a development's travel plan. This would enable sufficient monitoring over an extended period, and any changes to the travel plan through this period would be reflected within the Travel Plan data section within the TRICS® site records. This is of course just one example, as TRICS® has found that some developments require surveys at more frequent (sometimes annual) intervals, whilst others require more surveys or less over time until the planning agreement SAM conditions are eventually fulfilled.
- 22.4. It is highly recommended that SAM surveys are undertaken using TRICS®-approved data collection contractors, with the surveys managed by the TRICS® team.
- 22.5. As all SAM surveys are undertaken to the standard TRICS® multi-modal data collection methodology, they are fully compatible for inclusion in standard TRICS® trip rate calculations, subject of course to the usual criteria for site inclusion. There is no fundamental reason why any sites highlighted as being undertaken through the SAM process should be excluded when users undertake the trip rate calculation filtering process.
- 22.6. As with all TRICS® surveys there may be numerous factors external to a site's travel plan that influence trip generation (see 16.6). Therefore, it should not be claimed (based on the TRICS® SAM survey results alone) that a specific element of a site's travel plan has directly influenced trip generation at any SAM development, as such a claim requires significant independent evidence outside of TRICS® survey data.
- 22.7. If providing survey count and trip rate results from an individual SAM site in the TRICS® database in reports, it would be good practice to include the Travel Plan data section along with all other descriptive site information, as this will provide report recipients with important and descriptive information about the composition of the development's travel plan.
- 22.8. In December 2012, a new feature called the Travel Plan Monitoring Report (TPMR) Generator was made available within the TRICS® system (see Figure 44). This facility allows users to make a series of selections that are used to provide a summary of an individual SAM site's trip rates and modal split, along with a summary of its travel plan measures. This facility is available for any individual SAM site that includes a Travel Plan data section. It is a very handy facility that, once the user selections are made, can generate an automated PDF report containing explanatory commentary, so it is useful as a guided summary to explain the SAM survey results to anyone who may not be familiar with TRICS®. This facility can also compare trip generation and mode split results over time (should the development have been surveyed on more than one occasion) within the single report. Users are encouraged to present TPMR reports in line with the overall guidance contained within this document, in that they should explain to recipients of reports what is being presented in a clear manner, providing additional descriptive commentary of their own should this be considered necessary.

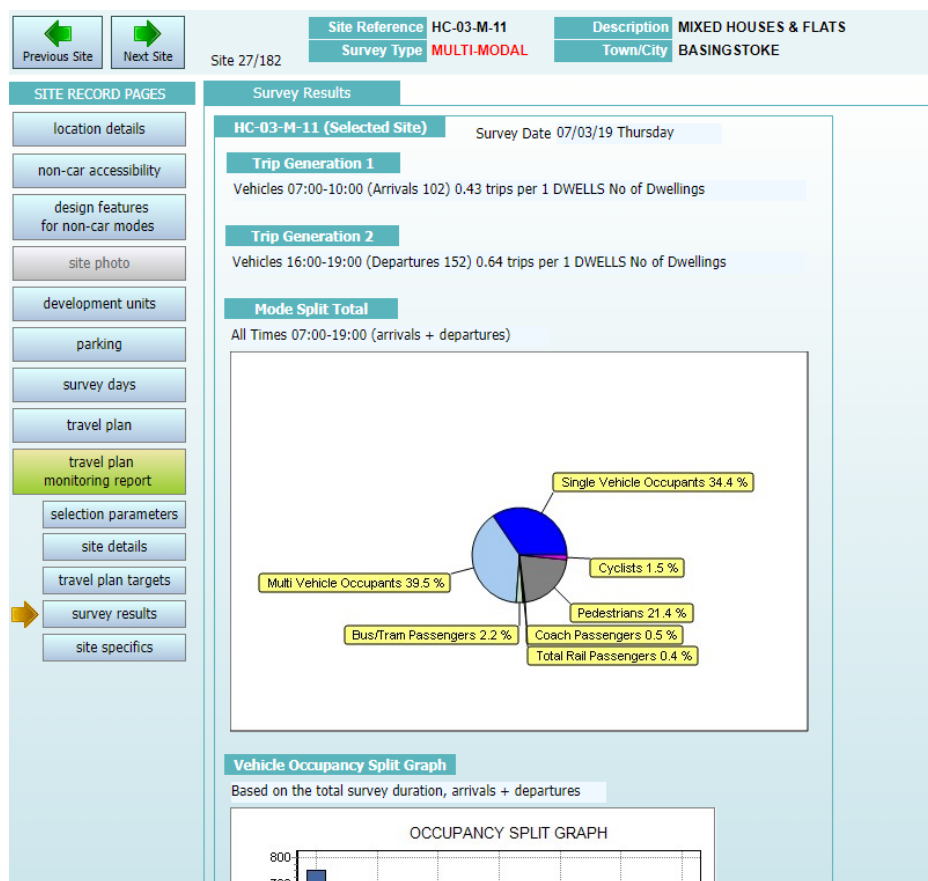


Figure 44 – Extract from the Travel Plan Monitoring Report

23. TRICS Compliant Surveys and the Provision of Survey Data

- 23.1. The TRICS® team can manage the whole process of undertaking a multi-modal TRICS® survey at any type of development. Should any organisation want to commission TRICS® to undertake a survey for them there is a clear and structured process in place.
- 23.2. Firstly, TRICS® should be contacted with some basic information about the development where a survey is required. This should include a plan of the site indicating all vehicular and pedestrian access points to the development, to give the TRICS® team an early indication of the general scale of a development and its potential survey complexity. Prior to a site visit by a member of the TRICS® team taking place, a TRICS® Survey Agreement must be signed (examples of this agreement are freely available upon request). This agreement includes a commitment by the client to pay a fixed fee for the initial site visit work and the subsequent production of a detailed TRICS® survey specification.
- 23.3. Following a site visit being undertaken by TRICS®, the multi-modal survey specification is produced, detailing all enumerator positions and instructions, and this allows TRICS® to provide a quote to the client that covers all work associated with the survey project. So this quote includes the fixed fee for the site visit and the production of the survey specification, the actual survey, and the subsequent data input and validation testing process, up to the point when the data is fully validated and the finalised TRICS® outputs and Certificate of TRICS® Survey Compliance ready to be forwarded to the client organisation. Once the quote has been issued, should the client decide not to proceed with the survey, then the fixed fee for the initial work

undertaken by TRICS® is charged at that point. Should the client go ahead and commission the survey, then once a purchase order for the full quote has been received by TRICS®, no fees are charged until the whole survey process has been completed.

- 23.4. Once a TRICS® survey has been commissioned (i.e. following the survey specification being produced and a quote supplied to the client and then accepted), the client is then put in contact with one of our TRICS®-approved data collection companies, so that a survey date can be agreed and the process of collecting the supporting site, development, parking and travel plan information necessary to populate the TRICS® database can commence. It is necessary for the client to assist the data collection company with the supply of relevant pieces of information about the development so that the TRICS data can be considered complete, and details of all required information is available from TRICS® in the form of a guidance document.
- 23.5. It should be appreciated that there is a reasonable period necessary for the turnaround of a TRICS® survey through its various project stages, from the initial enquiry through to the finalised TRICS® outputs being forwarded to the client. Consideration should also be given to the lead time our TRICS®-approved data collection contractors require to arrange staff and other preparations, especially so for more complex surveys requiring a higher level of resources. Following a survey count taking place, reasonable time should be considered for data processing, data input and data validation testing to take place. The actual timescales for a survey project will of course vary, depending on a number of factors including the complexity of a survey and the resources required, but an estimate of timescales can be discussed on a case-by-case basis between clients and TRICS® as projects commence.
- 23.6. There are, on an annual basis, two TRICS® survey windows. These are the Spring window (March to June) and the Autumn window (September to November). There are set cut-off dates announced on an annual basis at www.trics.org, after which time no new survey projects can commence for surveys taking place in the current window, so any clients wishing to commission surveys should take note of these and plan ahead. It should be appreciated that a significant amount of work is involved in taking a survey project through its various stages, and it is not something that can be turned around rapidly without potentially comprising the robustness of the final results, hence the need for such deadlines to be in place.
- 23.7. Any organisation can decide to manage a survey project themselves and supply their own survey data to TRICS® for input and validation testing, so that it can be considered and certified as being TRICS®-compliant (subject to the validation process being successfully concluded). Whilst TRICS® encourages clients to commission us to manage the whole survey process as outlined above, organisations have the option to do this themselves. However, we do emphasise that we have vast experience in managing these projects with utmost efficiency, which we believe could save clients significant costs as opposed to managing these projects themselves.
- 23.8. For a survey managed by an organisation other than TRICS® to have its data certified as TRICS®-compliant, the same procedures outlined earlier in this section, including the site visit and production of a survey specification, need to be followed in the same way as if TRICS® were managing the project ourselves, following the guidelines contained within the TRICS® Multi-Modal Methodology Document (see 18.3). TRICS® data collection forms would need to be fully populated with all site, development, parking, and if applicable travel plan information, and it should be noted that a survey cannot be considered TRICS®-compliant if this supporting information is missing. The fully completed data collection forms should then be forwarded to TRICS® for the data input and validation process to take place. There are fees associated with

this (per survey), which can be found at www.trics.org. It should also be noted that the TRICS® validation process is comprehensive and stringent to ensure high quality, and clients supplying survey data to go through the process should expect to receive a number of validation queries, all of which would need to be fully resolved for the data to be certified as TRICS®-compliant. Once a survey has been successfully validated, its data is kept on the TRICS® database for general access by TRICS® member organisations unless otherwise indicated by the client.

- 23.9. Having a survey certified as being TRICS®-compliant means that the data has been thoroughly tested by our fully independent organisation and is considered to be of a high standard of robustness, following a widely recognised methodology that has been in place and further developed and enhanced since multi-modal TRICS® surveys first started taking place back in 2000.

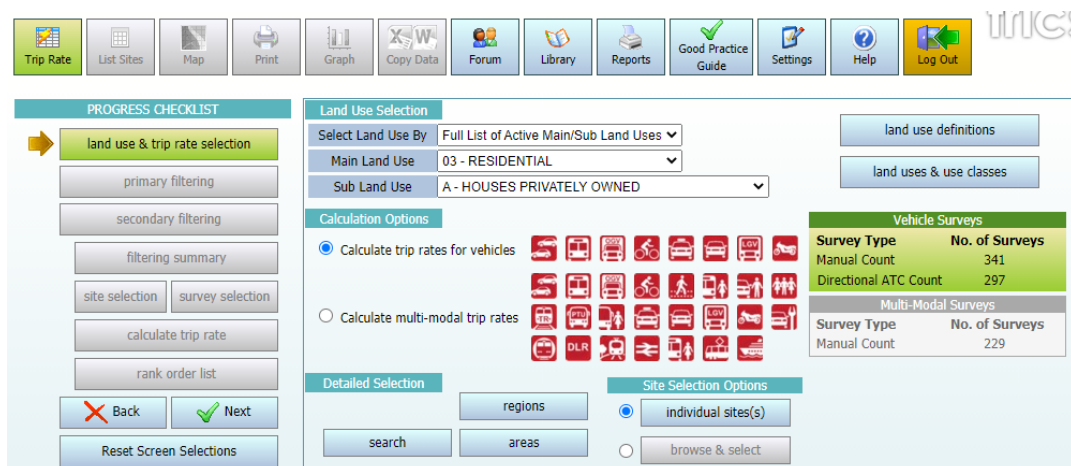
Appendix A – A worked example of a Trip Rate Calculation scenario

In this appendix TRICS® has provided a worked example, covering a fictional development scenario, to illustrate the steps a user might go through in terms of the trip rate calculation filtering process. It is important to note from the outset that the sequence of actions shown does not apply to any specific development, with the only intention being to guide users through a potential scenario whilst applying the principles of TRICS® good practice.

The development scenario used in this example is a privately owned housing development in a suburban/edge of town location. A summary of the main characteristics of the development, which we can consider using TRICS®, is as follows.

- The site is within a suburban part of a medium sized town, not that far from the edge of town.
- The development will comprise of 120 dwellings.
- Most dwellings will be houses as opposed to flats (although there will be a mix).
- It is anticipated that at least 85% of dwellings will be privately owned.
- It is anticipated that all dwellings will have more than 1 bedroom.
- It is anticipated that there will be between 2 and 3 parking spaces per dwelling.
- Total Vehicle trip rates by dwelling are required for totals (two-way trips) for 0700-1900.
- Total Vehicle trip rates by dwelling are required for arrivals for 1600-1900.
- Total Vehicle trip rates by dwelling are required for departures for 0700-1000.

As we know that at least 85% of dwellings at the development will be privately owned, and that the majority of dwellings will be houses as opposed to flats, we can select the 03/A (Houses Privately Owned) TRICS® land use sub-category. So, at the TRICS® Homescreen we can select the 03/A sub-category. As we are calculating vehicular trip rates, we can accept the default radio button option for this, as shown in *Figure A- 1*.



The screenshot shows the TRICS® software interface. At the top is a navigation bar with icons for Trip Rate, List Sites, Map, Print, Graph, Copy Data, Forum, Library, Reports, Good Practice Guide, Settings, Help, and Log Out. Below this is a 'PROGRESS CHECKLIST' on the left with steps: land use & trip rate selection (highlighted), primary filtering, secondary filtering, filtering summary, site selection, survey selection, calculate trip rate, and rank order list. The main area is divided into 'Land Use Selection' and 'Calculation Options'.

Land Use Selection:

- Select Land Use By: Full List of Active Main/Sub Land Uses
- Main Land Use: 03 - RESIDENTIAL
- Sub Land Use: A - HOUSES PRIVATELY OWNED

Calculation Options:

- ☒ Calculate trip rates for vehicles
- ☐ Calculate multi-modal trip rates

Vehicle Surveys:

Survey Type	No. of Surveys
Manual Count	341
Directional ATC Count	297

Multi-Modal Surveys:

Survey Type	No. of Surveys
Manual Count	229

Site Selection Options:

- ☒ individual sites(s)
- ☐ browse & select

Figure A- 1 – Selecting the 03/A TRICS® land use sub-category (Houses Privately Owned)

By clicking on the [Next](#) button, we can commence with the filtering process. This takes us into the Primary Filtering stage. We can then make sure the correct trip rate calculation parameter is selected. For residential land use sub-categories, the “No of Dwellings” option is the default, so we accept this default and then we can start to move through the Primary Filtering section applying our inclusion criteria. The first of these is the range of the number of dwellings at the development. As our proposed

development has 120 dwellings, and we are going to apply other criteria, we need to select a reasonable range of dwellings so that we end up with a decent survey sample whilst at the same time not diluting our criteria too much. So, we can put a range of 60-180 dwellings into the Minimum and Maximum range fields (see [Figure A- 2](#)), making sure we click on the [Accept](#) button next to the range so that the database updates correctly.

Trip Rate Parameters		
Description	Surveys	Include
Site area	607	<input type="radio"/>
No of Dwellings	638	<input checked="" type="radio"/> ?
Housing density	242	<input type="radio"/>
Total Bedrooms	254	<input type="radio"/>

Parameter Range	
Selection by: No of Dwellings	
Units:	
Minimum: 4	From: 60
Maximum: 4334	To: 180
Accept	

Figure A- 2 – Selecting the required minimum and maximum number of dwellings

The next step is for us to select the required number of parking spaces per dwelling range. Again we should proceed carefully to ensure that we do not end up with too few selected surveys, so in some cases we may have to consider extending the minimum and maximum acceptance range for this, but in this example we can apply the 2-3 parking spaces per dwelling that we anticipate at the development. So first we need to untick the “Include all surveys” default in the Parking Spaces Per Dwelling Range section, and then input 2 into the Minimum box and 3 into the Maximum box (see [Figure A- 3](#)). Again, we need to click on the [Accept](#) button once we have done this to ensure the database is updated correctly.

Parking Spaces Per Dwelling Range	
Include all surveys	<input type="checkbox"/>
Minimum: 0.23	From: 2
Maximum: 8.75	To: 3
Accept	

Figure A- 3 – Selecting the required range of parking spaces per dwelling

We can now move on to stating our required range of the number of bedrooms per dwelling. We know from our development scenario that all dwellings will have over 1 bedroom, so as per the previous selection we can untick the “Include all surveys” box in the Bedrooms Per Dwelling Range area and input 2.00 into the Minimum box (see [Figure A- 4](#)), ensuring that only developments with a minimum of 2.00 bedrooms per dwelling are included in our selected set (again clicking on the [Accept](#) button afterwards). Note that the maximum number of bedrooms per dwelling for our selected set at this stage is 5.0. In other scenarios we may decide to reduce this number if we feel this is appropriate, but for this example we can leave the maximum number as it is.

Bedrooms Per Dwelling Range	
Include all surveys	<input type="checkbox"/>
Minimum: 1.60	From: 2.00
Maximum: 5.00	To: 5.00
Accept	

Figure A- 4 – Selecting the required range of bedrooms per dwelling

We know that at least 85% of dwellings are anticipated to be privately owned, so we can also ensure that only sites that match this criteria are included in our selected set by stating this minimum percentage in the Percentage of dwellings privately owned area (see [Figure A- 5](#)). After unticking the “Include all surveys” box, we have a choice of inputting a minimum or maximum percentage for privately owned dwellings, so we make sure that the “Minimum” radio button is selected (as it is by default), and then we can input the figure of 85 into the data field and click on the [Accept](#) button.

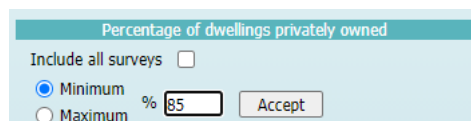


Figure A- 5 – Selecting the minimum percentage of dwellings that are privately owned

At this point we can check to see that our days of the week are acceptable. We can see that only Mondays to Fridays have surveys that meet our criteria up to this point, so this is fine for our residential development scenario. We then move across to ensure our TRICS® location types meet our criteria. We know that the development is to be within a suburban area near the edge of town, so we can include both the “Suburban Area” and “Edge of Town” options within the “Location Types to include” area (see [Figure A- 6](#)). We note that one of the sites in the selected set is in an “Edge of Town Centre” location, so we can remove that site by unticking the “Edge of Town Centre” box.

Location Types to include		
	No. of surveys	Include
Town Centre		<input checked="" type="checkbox"/>
Edge of Town Centre	1	<input type="checkbox"/>
Suburban Area	8	<input checked="" type="checkbox"/>
Edge of Town	5	<input checked="" type="checkbox"/>
Neighbourhood Centre		<input checked="" type="checkbox"/>
Free Standing		<input checked="" type="checkbox"/>
Not Known		<input checked="" type="checkbox"/>

Figure A- 6 – Selecting the main TRICS® location types to include

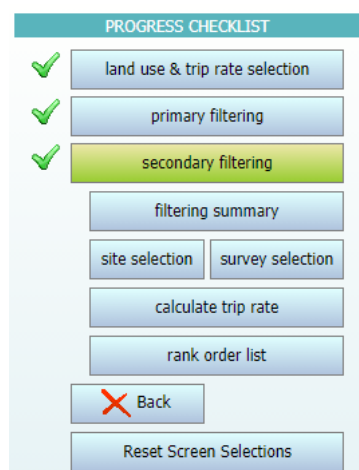
At this point our Primary Filtering selections are complete, so we can now move on to the Secondary Filtering section by clicking on the [Next](#) button within the Progress Checklist at the left-hand side of our screen. We are then presented with our range options for population and car ownership. Once again we need to provide a balance between the strictness of our inclusion criteria and the survey sample that we end up with, with an eye on a more “inclusive” than “exclusive” approach, and we will find that with different development scenarios and conditions this will sometimes require more work than at other times. In our development scenario our site is going to be developed within a medium sized town, so we might decide to remove the highest included population ranges within a 1 mile radius and within a 5 mile radius (see [Figure A- 7](#)). This is not something we might do every time, but we may feel that this will remove the sites with the highest local populations whilst at the same time not compromising our selected set of data too much. So here we will remove the 15,001-20,000 range for the population within a radius of 1 mile and we will remove the 125,001-250,000 range for the population within a radius of 5 miles. Note that in this particular example by removing the highest population range within a radius of 1 mile the highest range within a radius of 5 miles has automatically been removed (indicating that it was the same in the selected set site in both cases).

Population < 1 Mile			Population < 5 Miles		
Select	Population Within 1 Mile	Days	Select	Population Within 5 Miles	Days
	Not Known			Not Known	
	1,000 or Less			5,000 or Less	
<input checked="" type="checkbox"/>	1,001 to 5,000	2	<input checked="" type="checkbox"/>	5,001 to 25,000	4
<input checked="" type="checkbox"/>	5,001 to 10,000	6	<input checked="" type="checkbox"/>	25,001 to 50,000	5
<input checked="" type="checkbox"/>	10,001 to 15,000	4		50,001 to 75,000	
<input type="checkbox"/>	15,001 to 20,000	0	<input checked="" type="checkbox"/>	75,001 to 100,000	2
	20,001 to 25,000		<input checked="" type="checkbox"/>	100,001 to 125,000	1
	25,001 to 50,000		<input checked="" type="checkbox"/>	125,001 to 250,000	0
	50,001 to 100,000			250,001 to 500,000	
	100,001 or More			500,001 or More	

Figure A- 7 – Selecting the required population ranges within 1 mile and 5 miles radii

At this point it is very important to note that there were other selection areas within the Primary Filtering and Secondary Filtering sections of the process that we also could have actioned, but for the purpose of this example we have decided not to. Users facing different development scenarios may place more importance on some selection areas than others on a case-by-case basis, and as long as the principles of good practice outlined in this document are followed a user's decision to omit one or more of the selection areas within the filtering process can be acceptable as long as the user's reasoning is adequately explained. It should be remembered that it is always down to the user to justify all selections (and non-selections) that have been made, and to include all processes that have been followed clearly in their reports.

Now that we have completed our Primary and Secondary filtering selections, we click on the [Next](#) button in the Progress Checklist on the left-hand side of our screen (see [Figure A- 8](#)). Whereas before we did this the buttons below the Secondary Filtering button were unavailable to us (being "greyed out"), we can see that they are now available as we have completed the Primary Filtering and Secondary Filtering stages of the process.



PROGRESS CHECKLIST	
<input checked="" type="checkbox"/>	land use & trip rate selection
<input checked="" type="checkbox"/>	primary filtering
<input checked="" type="checkbox"/>	secondary filtering
	filtering summary
	site selection
	survey selection
	calculate trip rate
	rank order list
<input checked="" type="checkbox"/>	Back
	Reset Screen Selections

Figure A- 8 – The Progress Checklist at the stage where trip rate calculations can be undertaken

Before we go ahead and calculate our trip rates, we can have a look at a summary of our filtering selections by clicking on the [filtering summary](#) button (see [Figure A-9](#)). This gives us a quick and easy recap of the criteria we have applied and the number of surveys in our selected set.

Filtering Summary		
Land Use	03/A	RESIDENTIAL/HOUSES PRIVATELY OWNED
Selected Trip Rate Calculation Parameter Range	60-180 DWELLS	
Actual Trip Rate Calculation Parameter Range	62-151 DWELLS	
Date Range	Minimum: 01/01/12	Maximum: 19/11/19
Parking Spaces Range	All Surveys Included	
Parking Spaces Per Dwelling Range:	Selected: 2 to 3	Actual: 0.23 to 8.75
Bedrooms Per Dwelling Range:	Selected: 2.00 to 5.00	Actual: 1.60 to 5.00
Percentage of dwellings privately owned:	Minimum	85%
Days of the week selected	Tuesday	1
	Wednesday	3
	Thursday	2
	Friday	3
Main Location Types selected	Suburban Area (PPS6 Out of Centre)	4
	Edge of Town	5
Population within 500m	All Surveys Included	
Population <1 Mile ranges selected	1,001 to 5,000	2
	5,001 to 10,000	3
	10,001 to 15,000	4
Population <5 Mile ranges selected	5,001 to 25,000	4
	25,001 to 50,000	2
	75,001 to 100,000	2
	100,001 to 125,000	1
Car Ownership <5 Mile ranges selected	1.1 to 1.5	9
PTAL Rating	No PTAL Present	9

Figure A-9 – The TRICS® Filtering Summary

We can now examine the sites we have within our selected set by clicking on the [site selection](#) button in the progress Checklist (see [Figure A-10](#)). As we can see, one of the developments (in Liphook) was surveyed on four separate occasions, and so by default TRICS® has removed the three earliest site records for this development automatically to avoid “weighting” and “bias” in the trip rate calculations. This is clearly indicated by the inclusion boxes for three sites being unticked, and by the messages shown in the “Reason for Deselection/Automatic Removal” column on the right-hand side of our screen. In our example there is nothing else we need to do at this stage.

PROGRESS CHECKLIST		Site Selection Search	Additional Columns	Select All Sites	Notes on using this screen	
<input checked="" type="checkbox"/>	land use & trip rate selection		12 Sites Available		Click on column heading to sort by that parameter SAH sites are highlighted in orange	
<input checked="" type="checkbox"/>	primary filtering				Click the map icon to view the site on a map	
<input checked="" type="checkbox"/>	secondary filtering					
	filtering summary					
	site selection					
	survey selection					
	calculate trip rate					
	rank order list					
	Back					













Select	Reference	Description	Map	Town/City	Area	Location	DWELLS	Status	Reason for Deselection/Automatic Removal
<input checked="" type="checkbox"/>	DN-03-A-04	SEMI-DETACHED		LETTERKENNY	DONEGAL	Edge of Town	83	One-Off	
<input checked="" type="checkbox"/>	DN-03-A-05	DETACHED/SEMI-DETA		LETTERKENNY	DONEGAL	Suburban Area (PP56 C	146	One-Off	
<input checked="" type="checkbox"/>	DO-03-A-03	DETACHED/SEMI DETA		BELFAST	DOWNS	Edge of Town	79	One-Off	
<input checked="" type="checkbox"/>	DV-03-A-02	HOUSES & BUNGALOW		HONITON	DEVON	Suburban Area (PP56 C	116	One-Off	
<input type="checkbox"/>	HC-03-A-18	HOUSES & FLATS		LIPHOOK	HAMPSHIRE	Suburban Area (PP56 C	62	Re-Survey	Removed: Site re-surveyed by HC-03-A-19
<input type="checkbox"/>	HC-03-A-19	HOUSES & FLATS		LIPHOOK	HAMPSHIRE	Suburban Area (PP56 C	62	Re-Survey	Removed: Site re-surveyed by HC-03-A-20
<input type="checkbox"/>	HC-03-A-20	HOUSES & FLATS		LIPHOOK	HAMPSHIRE	Suburban Area (PP56 C	62	Re-Survey	Removed: Site re-surveyed by HC-03-A-23
<input checked="" type="checkbox"/>	HC-03-A-23	HOUSES & FLATS		LIPHOOK	HAMPSHIRE	Suburban Area (PP56 C	62	Re-Survey	
<input checked="" type="checkbox"/>	LT-03-A-01	SEMI-DETACHED & DET		CARRICK-ON-SHANNON	LEITRIM	Suburban Area (PP56 C	90	One-Off	
<input checked="" type="checkbox"/>	NF-03-A-04	MIXED HOUSES		NORTH WALSHAM	NORFOLK	Edge of Town	70	One-Off	
<input checked="" type="checkbox"/>	SC-03-A-04	DETACHED & TERRACE		BYFLEET	SURREY	Edge of Town	71	One-Off	
<input checked="" type="checkbox"/>	WS-03-A-04	MIXED HOUSES		HORSHAM	WEST SUSSEX	Edge of Town	151	Initial Survey	

Figure A- 10 – The List of selected sites within the trip rate calculation process

We can also examine the survey days that we have within our selected set by clicking on the [survey selection](#) button within the Progress Checklist (see [Figure A- 11](#)). This displays the dates and days of the week of our included surveys, and again in our example there is nothing further we need to do at this stage.

Survey Selection Search		deselect all surveys	Sorting	Trip Rate Comparison Graph
<input checked="" type="radio"/> Most Recent Survey Only	<input type="radio"/> Busiest Survey	<input type="radio"/> All Surveys	Click on column heading to sort by that parameter	

Select	Reference	Date	Day of Week	Survey Type	Description	Town/City	Reason for Deselection/Automatic Removal
<input checked="" type="checkbox"/>	DN-03-A-04	26/09/14	Friday	Manual	SEMI-DETACHED	LETTERKENNY	
<input checked="" type="checkbox"/>	DN-03-A-05	03/09/14	Wednesday	Manual	DETACHED/SEMI-DETACHED	LETTERKENNY	
<input checked="" type="checkbox"/>	DO-03-A-03	23/10/13	Wednesday	Manual	DETACHED/SEMI DETACHED	BELFAST	
<input checked="" type="checkbox"/>	DV-03-A-02	25/09/15	Friday	Manual	HOUSES & BUNGALOWS	HONITON	
<input checked="" type="checkbox"/>	HC-03-A-23	19/11/19	Tuesday	Manual	HOUSES & FLATS	LIPHOOK	
<input checked="" type="checkbox"/>	LT-03-A-01	24/04/15	Friday	Manual	SEMI-DETACHED & DETACHED	CARRICK-ON-SHANNON	
<input checked="" type="checkbox"/>	NF-03-A-04	18/09/19	Wednesday	Manual	MIXED HOUSES	NORTH WALSHAM	
<input checked="" type="checkbox"/>	SC-03-A-04	23/01/14	Thursday	Manual	DETACHED & TERRACED	BYFLEET	
<input checked="" type="checkbox"/>	WS-03-A-04	11/12/14	Thursday	Manual	MIXED HOUSES	HORSHAM	

Figure A- 11 – The List of selected surveys within the trip rate calculation process

We can now go ahead and calculate our trip rates by clicking on the [calculate trip rate](#) button in the Progress Checklist (see [Figure A- 12](#)). The trip rate calculation results table is then displayed.

TOTAL VEHICLES				Estimate TRIP rates			Weighting factors can affect trip rates. For further information please review section 13 of the Good Practice Guide		
Survey Start/End: 07:00-19:00				State TRP Figure & Extrapolate Results			OFF		
Trip rate parameter range available: 62 - 151 (units:)									
TRIP RATE VALUE PER 1 DWELLS	ARRIVALS			DEPARTURES			TOTALS		
	Total rate: Peak:	2,450 17:00-18:00		Total rate: Peak:	2,544 08:00-09:00		Total rate: Peak:	4,994 17:00-18:00	
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	9	96	0.040	9	96	0.245	9	96	0.285
08:00-09:00	9	96	0.121	9	96	0.349	9	96	0.470
09:00-10:00	9	96	0.189	9	96	0.224	9	96	0.413
10:00-11:00	9	96	0.156	9	96	0.190	9	96	0.346
11:00-12:00	9	96	0.146	9	96	0.187	9	96	0.333
12:00-13:00	9	96	0.189	9	96	0.199	9	96	0.388
13:00-14:00	9	96	0.198	9	96	0.181	9	96	0.379
14:00-15:00	9	96	0.189	9	96	0.207	9	96	0.396
15:00-16:00	9	96	0.283	9	96	0.198	9	96	0.481
16:00-17:00	9	96	0.300	9	96	0.184	9	96	0.484
17:00-18:00	9	96	0.371	9	96	0.196	9	96	0.567
18:00-19:00	9	96	0.268	9	96	0.184	9	96	0.452
19:00-20:00									
20:00-21:00									
21:00-22:00									
22:00-23:00									
23:00-24:00									

Figure A- 12 – The trip rate calculation results table

We can now extract our trip rate results. As we can see, the Arrivals, Departures and Totals columns are shown, with the trip rates per 1 dwelling displayed in each of the third sub-columns. The time periods are also shown on the left-hand side, with the total trip rates for Arrivals, Departures and Totals shown in bold at the top of the table. Note that the period with the highest two-way trip rates is highlighted by a grey bar, and the highest trip rates by arrivals, departures and totals are highlighted in yellow.

In our development scenario we were tasked with obtaining the following trip rates:

- Total Vehicle arrivals (total two-way trips) per dwelling (0700-1900)
- Total Vehicle arrivals per dwelling (1600-1900)
- Total Vehicle arrivals per dwelling (0700-1000)

Note that these three sets of required figures are just for the purposes of this example, and there may be many variations in terms of trip rate periods, directions, and TRICS® count types that are required, and the three sets shown here are not indications of what users should calculate for any particular development scenario, they are just here for illustrative purposes in this one example.

Therefore, we can extract the trip rate figures from the results table shown in *Figure A- 12* as follows. Note that the expressions shown in green are a correct method of presenting single trip rate figures, whilst it is always important that the whole results table is also presented as evidence in reports.

Total (two-way) Total Vehicle trips for the period 0700-1900:

4.994 Total Vehicle two-way trips per dwelling for 0700-1900 (taken from the bold total shown at the top of the Totals column).

Arrival Total Vehicle trips for the period 1600-1900:

We add up the separate arrivals trip rates for the 1600-1700, 1700-1800 and 1800-1900 periods to end up with **0.939 Total Vehicle arrival trips per dwelling for 1600-1900**.

Departure Total Vehicle trips for the period 0700-1000:

We add up the separate departures trip rates for the 0700-0800, 0800-0900 and 0900-1000 periods to end up with **0.818 Total Vehicle departure trips per dwelling for 0700-1000**.

We can also produce a rank order list for a stated direction and time range by clicking on the [rank order list](#) button the Progress Checklist (see [Figure A- 13](#)). In this example we have selected the 0800-0900 period and the direction is Departures, so the trip rates displayed in the rank order list represent Total Vehicles per 1 dwelling in each case.

RANK ORDER TIME

Select by Time Range

Re-Calculate

Busiest hour for each site used to calculate rank order

Calculate

List

Rank order for: No of Dwellings

Calculated on: DEPARTURES

Time range: 08:00-09:00

Total: 9

85th Percentile = no. 2

15th Percentile = no. 8

HC-03-A-23

DV-03-A-02

Dep: 0.500

Dep: 0.241

Warning

Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS, and may be misleading.

Median Values

Arrivals 0.141

Departures 0.352 *

Totals 0.493

Mean Values

Arrivals 0.115

Departures 0.357 *

Totals 0.473

Search

Figure A- 13 – The rank order list table for 0800-0900 by departures

Transport and Highways

To:	Richard Hughes		
From:	Allan Creedy		
Cc:			
Date:	22 nd July 2022		
Planning Application/Pre-Application Number:	PL/2021/09778		
Site Address: Land at Station Works, Station Road, Tisbury, SP3 6QU			
Description of Development: Outline planning application for redevelopment of the Station Works site to provide a mixed development of up to 86 dwellings, a care home of up to 40 bedspaces with associated medical facilities, new pedestrian and vehicular access and traffic management works, a safeguarded area for any future rail improvements, and areas of public open space. Detailed approval for access is sought at this stage.			

Plan	Planning policies key to principle of development
Wiltshire Core Strategy (WCS), adopted Jan 2015 (incl. relevant saved policies at App.D)	<ul style="list-style-type: none"> Core Policy 60 – Sustainable Transport Core Policy 61 – Transport and New Development Core Policy 62 – Development Impacts on the Transport Network
Tisbury/West Tisbury Neighbourhood Development Plan (TNDP), made Nov 2019	<ul style="list-style-type: none"> Policy BL.7 – Site Allocation: Station Works

Main issue(s) for consideration	Comments
<p>The application proposes the redevelopment of the Station Works site in Tisbury to provide up to 86 dwellings, a care home of up to 40 bedspaces with associated medical facilities, new pedestrian and vehicular access and traffic management works, a safeguarded area for any future rail improvements, and areas of public open space. This application is in outline with detailed matters reserved for subsequent determination, save for details relating to means of vehicular access and pedestrian/cycle access.</p> <p>As referred to elsewhere, allocation of this site in the neighbourhood plan includes a</p>	

requirement that the development of the site be led by an agreed masterplan, stating:

(extract from TNDP)

Development proposals should be set down in a Masterplan which has been the subject of consultation with the community and the other interested parties. The Masterplan should indicate the phasing and infrastructure requirements and how their delivery will be assured. Once agreed, development should proceed strictly in accordance with the Masterplan.

The appropriateness of the inclusion of a requirement for an agreed masterplan was considered by the independent examiner for the TNDP who did not dispute the stated justification for the requirement:

(extract from TNDP, Examiner's Report)

... the Qualifying Body has commented that "masterplans developed in partnership with the local community, LPA and developer are a requirement of Core Policy 2 of the Wiltshire Core Strategy for strategically important sites and more generally required within the supporting text and although this site does not form a strategic site as part of CP2 it is important to the Tisbury Community and is in effect strategic to Tisbury. The community also want to ensure a good development is delivered. Tisbury wish to follow the example of the Wiltshire Core Strategy and is felt to be a reasonable approach. A masterplan approach does not need to be too onerous; the community simply asks to be part of and consulted on the masterplan development so that this can be agreed with the community prior to any planning application being submitted and thereby reducing or eliminating any objections that may be received if a planning application is submitted 'cold'. This would also enable any discussion to be had with the new owners over why or not they are proposing to include any elements of infrastructure requested and enable discussion with Network Rail."

Despite the above, I understand from the significant third party concerns expressed as part of the application process that such a Masterplan has not been progressed in a manner which has the support of the local populace.

Highway/Transport Considerations

The Transport Assessment accompanying the application correctly indicates that existing provision for pedestrians and cyclists in the vicinity of the site is very poor.

Network Rail oppose any increase in use of the level crossing at the north of the site, and an existing footway on the opposite side of the proposed access (along Jobbers Lane) is less than 1m in width with no reasonable prospect of improvement and/or integration.

(Network Rail do not accept the applicant's statement that future residents would not have access to the existing Chantry pedestrian level crossing or public footpath at this northern end of the site, believing that any boundary treatment stands the chance of being breached especially considering that the crossing provides a more direct route to the town for most of the development.)

In order to compensate for an otherwise lack of suitable pedestrian/cycle access, the applicant proposes the closure of the southbound railway arch to vehicular traffic, to be replaced by the installation of a new elevated 3m wide pedestrian/cycle route at a height to coincide with flood thresholds. (I do not propose to comment on the flood levels quoted, but should the EA argue for a higher level, it may well compromise the minimum headroom required for such facilities.)

It would also seem obvious that such a structure would occupy a significant volume within the arch, thereby reducing the space that would otherwise be available for flood storage.

Were such a scheme to progress, it would require advertising and resolving to approve a Traffic Order that would secure closure of the section of the road in question to vehicular traffic – it would also rely on the Highway Authority being prepared to license the provision of such a structure over/on the public highway.

The TA indicates that the surface level of the proposed structure would be built at 91.3m AOD, some 0.6m above existing road level (quoted as 'approximately' 90.63m AOD)

Campbell Reith's drawing numbered 0002 P1 shows the distance between the surface of the proposed elevated structure and the underside of the bridge arch to be **3118mm**. The plated height of the bridge shows the height of the bridge arch above road surface level to be 10'3" (ie **3124mm**) ie virtually the same. It is not possible to reconcile the design drawing with the situation on the ground.

On the basis of those measurements, it is unclear whether such a structure would fit within the arch. The structure and railings would occupy most space within the arch, and would need to accord with DfT's Local Transport Note 1/20 which looks for clear headroom across the whole width of 2.4m. There is insufficient information to demonstrate whether those standards and requirements can be met.

There is also clear photographic evidence to show that there are existing services and drainage facilities within and across the road proposed for covering with the elevated structure, but no indication of the effect of the proposed works or how their provision could be safeguarded.

The nature of the elevated structure is such that any detritus that gathered below the structure would be extremely hard to remove.

The plan accompanying the Transport Assessment proposes that the elevated structure will be built using piling techniques. The TA gives no indication whether Network Rail have been approached to seek their view on whether such a procedure would be acceptable so close to this stone arched structure.

The TA indicates that the structure would be built using open mesh decking. That is not a material that would be accepted for adoption by the Highway Authority.

Closing one of the arches to traffic would result in all vehicles having to use the significantly narrower and lower (currently southbound) single arch. To facilitate such a proposal, the TA indicates the provision of a set of shuttle traffic signals, one set at each end of the closure (at the northern end, pedestrian crossing facilities are indicated). There is insufficient information to demonstrate whether there is sufficient space to accommodate signal poles and other associated infrastructure as well as sufficient road width noting the proximity of stop lines and potential queue lengths.

Alongside, the TA shows plans for significant kerb realignment at both ends of the closure indicating tight non-standard reverse curves, and on a map base that is not accurate to show whether it could be delivered within the red line of the application accurate and/or any other constraints.

In terms of the need for wider connectivity, the TA indicates that the proposed elevated structure would land at a point which would allow access into the town centre via footpaths TISB74 and WTIS14. I am advised however that these paths are also subject to flooding, nor suitable or permitted for cycling.

Even in the unlikely event that all of the above could be resolved, the proposed arrangements for pedestrians and cyclists to access would be lengthy and inconvenient.

Whilst land is shown as safeguarded within the site for the potential railway line dualling and second platform, I understand that Network Rail (and the rail industry in general) has no firm plan in place to undertake these works currently. These works were proposed in the West of England Line Study 2020 (part of NR's modular strategic planning) but the proposals are unfunded and at an early stage of business case development. It is thus unclear whether this safeguarded land would be sufficient for these purposes at this stage.

Conclusion

Given the above, I see no way of being able to recommend a conditional approval.

The basic premise of closing a road open to all traffic and replacing it with an exclusive facility that has been put forward to do no more than improve the planning case for an individual planning proposal is in my view unacceptable.

I do not believe that the Council would be prepared to sponsor or support a corresponding Traffic Regulation Order, nor do I believe the Council would be prepared to enter a license for construction of the elevated structure.

Other proposed works including installation of traffic signals and kerb/road realignment are a) insufficiently detailed to show whether they can be delivered and b) shown to an unacceptable standard.

In detail, (bearing in mind that detailed approval for access is sought at this stage) there remains uncertainty over whether such a structure could be built to a suitable standard

within the confines of the arch, or whether the practicalities of construction and ongoing maintenance can be dealt with. (in that context, I am doubtful whether Network Rail would agree to a piled structure, but I accept it is for them to be asked and to respond to.)

Notwithstanding the above, the overall approach to pedestrian/cycle connectivity is contrived, poorly conceived and fails to achieve an acceptable access arrangement for the site. It is noted that previous planning submissions (S/2002/1367 & S/2003/2547) on this site were refused by Salisbury District Council for broadly the same reason. These latest proposals are not considered to have overcome these issues.

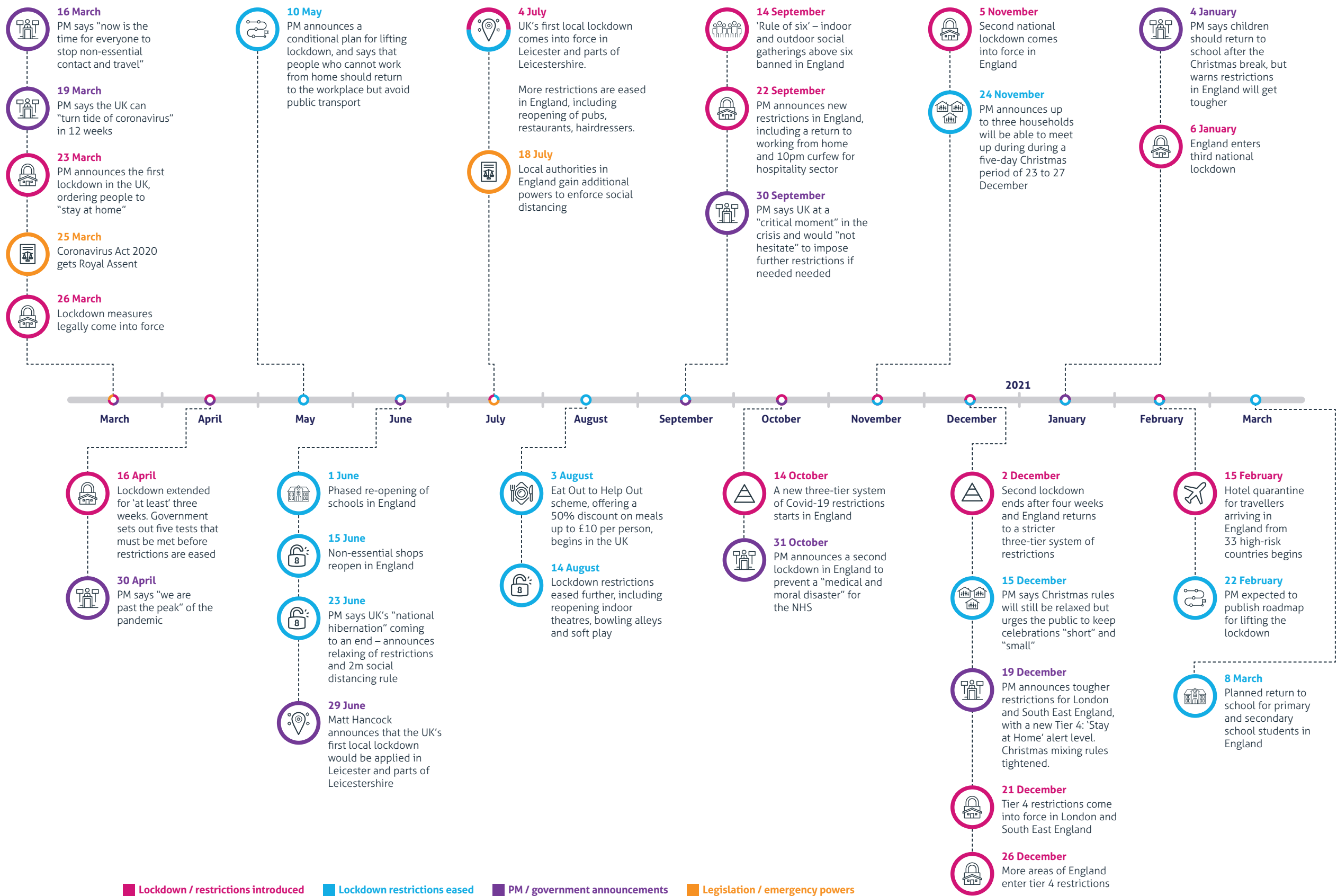
In conclusion, I would currently recommend the application be refused for the following reasons:

In terms of several critical aspects, the application does not contain sufficient information to allow proper consideration of the proposals.

Despite the lack of detail, the principles of access for pedestrians and cyclists is unacceptable. The route proposed is unattractive and circuitous, and is conditional on an unacceptable proposition ie the road being closed to vehicular traffic and the implications thereof.

It has not been demonstrated that an acceptable and safe means of access for non-motorised users can be achieved to the site, which is considered to be contrary to Wiltshire Core Policies 60, 61 & 62 and NPPF Section 9, paras 104-106 & 110-112.

Insufficient information has been provided to demonstrate that the proposed pedestrian/cycle route meets the requirements set out within LTN 1/20 and DDA 1995 and that the proposed signals can be accommodated within the existing highway. The proposals are thus considered to be contrary to Wiltshire Core Policies 60, 61 & 62 and NPPF Section 9, paras 104-106 & 110-112.



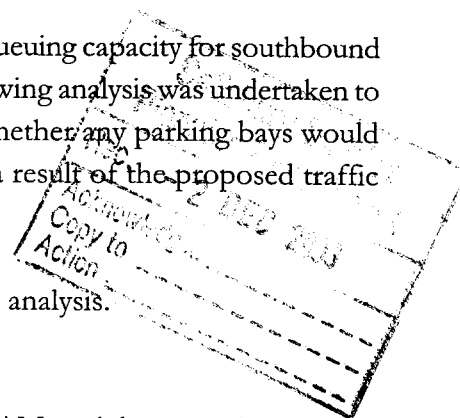
S / 03 / 25 / 7

Technical note

Project	Tisbury, Wiltshire	Date	12 November 2003
Note	Analysis for Proposed Signalised Shuttle Works	Ref	PTXPRS218
Author	Kevin Ayen		

1 Introduction

- 1.1 Jobbers Lane, Tisbury links Tisbury Railway Station to the Town Centre via a bridge spanning the Nadder River as shown in figure 1.1.
 - 1.2 The existing carriageway caters for two-way traffic with a footpath on the northern and southern edge stretching from the bridge to the town centre. A marked parallel parking bay stretches along the northern edge of the carriageway.
 - 1.3 As part of a new housing development in the area consisting of 80 houses, there are proposals to provide a footpath on the bridge, to improve the link for pedestrians between the station and the Town Centre.
 - 1.4 In order to implement this, the carriageway width across the bridge will need to be reduced from 6.9 to 4.9 metres, making it potentially hazardous for vehicles to pass safely. Therefore, a signalised shuttle work facility has been considered to allow vehicles to cross the bridge safely in a single file.
 - 1.5 However, the existing parking bays west of the bridge restrict queuing capacity for southbound traffic to 2 pcu's (where 1pcu = 6 metres). Therefore, the following analysis was undertaken to see whether this method of traffic control was feasible and whether any parking bays would need to be removed to accommodate any queuing traffic as a result of the proposed traffic signals.
 - 1.6 Section two highlights the traffic flow data used as part of the analysis.
- ### **2 Traffic Flows + Scenario**
- 2.1 Halcrow carried out a manual traffic count survey during the AM peak between 8am – 9am at 10 minute intervals on 4th November 2003.
 - 2.2 No PM peak traffic data was available for this report, therefore a reversal of the AM peak traffic data was used as a representation.. The survey undertaken only gives a snap shot of the traffic flows on one particular morning and no PM peak flows were surveyed. The



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S/03/2547

detail design will therefore utilise a two week, ATC traffic count survey in order to ensure that the worse case scenario is being modelled.

2.3 As a result, table 2.1 shows the existing traffic flows along Jobbers Lane.

	Northbound Veh (PCU's)	Southbound Veh (PCU's)
AM Peak	89 (90)	122 (126)
PM Peak	122 (126)	89 (90)

Table 2.1: Base traffic flows along

2.4 For quickness, generated traffic from the proposed development was assumed as one trip per dwelling, which is considered to be a very worse case scenario. These trips were distributed evenly northbound and southbound with the base traffic flows, resulting in the following results as shown in table 2.2.

	Northbound Veh(PCU's)	Southbound Veh(PCU's)
AM Peak	129 (130)	162 (166)
PM Peak	162 (166)	129 (130)

Table 2.2: Base together with development traffic flows

2.5 From the preliminary design shown in figure 1.1, the distance between stoplines result in a 9 second intergreen, using turning aspect from TD 16/81. Therefore, as a further robust assumption, a 10 second intergreen was implemented in the analysis to allow for any further movement in future designs between the stop lines of up to 40 metres.

2.6 The following section shows the results of the modelling using the above traffic data.

3 Analysis

- 3.1 The results of the model are shown in the following tables. Table 3.1 shows the operation of the signals prior to the development.

	AM Peak			PM Peak		
	Deg Sat (%)	Delay (Pcu/h)	Queue (Pcu)	Deg Sat (%)	Delay (Pcu/h)	Queue (Pcu)
Northbound	21.7	0.4	1	21.0	0.4	1
Southbound	21.0	0.4	1	21.7	0.4	1
Cycle Time/ Practical Reserve Capacity	40s/315.4%			40s/ 315.4%		

Table 3.1: LINSIG results for Base traffic flows.

- 3.2 Table 3.2, shows the results for the base traffic flows together with the generated traffic flows from the proposed development.

	AM Peak			PM Peak		
	Deg Sat (%)	Delay (Pcu/h)	Queue (Pcu)	Deg Sat (%)	Delay (Pcu/h)	Queue (Pcu)
Northbound	28.2	0.5	1	30.0	0.6	1
Southbound	30.0	0.6	1	28.27	0.5	1
Cycle Time/ Practical Reserve Capacity	40s/200.3 %			40s/ 200.3%		

Table 3.2: LINSIG results for Base plus development traffic flows.

- 3.3 The analysis shows that the junction will operate well within capacity. It is evident that the queues will be minimal and are not likely to impede on the existing parking bays west of the bridge. However, given that the LINSIG analysis is based on one mornings traffic flow data, it is recommended that a two week ATC survey be undertaken, as part of the detail design phase, to confirm the analysis.
- 3.4 In order to minimise the incidence of queuing beyond the parking bays (which would block the road), it is recommended that queue detector loops should be installed 10 metres from the southbound stop line. These loops would detect a queue and would alter the signal timings to ensure that southbound traffic flows are given an immediate green stage and would therefore minimise the incidence of queuing.

More Choice, Greater Voice

a toolkit for producing a strategy for
accommodation with care for older people

February 2008



What is the Housing Learning and Improvement Network?

The Housing LIN brings together groups of senior staff within local authorities, primary care trusts, registered social landlords, the private sector and others interested in forging closer partnerships in delivering housing with care solutions for older people and vulnerable adults.

Care Services Improvement Partnership

The Care Services Improvement Partnership (CSIP) was launched on 1 April 2005 after a formal public consultation. Our main goal is to support positive changes in services and the well-being of:

- People with mental health problems
- People with learning disabilities
- People with physical disabilities
- Older people with health and care needs
- Children and families and
- People with health and social care needs in the criminal justice system.

The Integrated Care Network offers advice on partnerships and integration that cut across all services in health and social care. It works closely with other networks and programmes across CSIP to ensure synergy in improvements.

About the author

Nigel Appleton is Principal of Contact Consulting, a specialist research and consultancy practice working at the intersection of health, housing and social care. His major interest is with housing and the housing related needs of older people and disabled people. He is the author of a number of briefing papers and studies in this field of work.



He is Vice Chair of Governors at the Centre for Policy on Ageing and a Trustee of Help and Care, Bournemouth.

Acknowledgements

This material draws upon more than thirty studies undertaken by Contact Consulting for local authorities and their partners to develop strategic responses to the current and future needs of older people in relation to housing and care. Thanks are due to the many people in those local authorities, and among their partner organisations, who have contributed to the formation of this material and to colleagues in Contact Consulting for their helpful suggestions and comments.

We are also grateful for contributions from Housing LIN members.

Editorial supervision by Jeremy Porteus, National Programme Lead, CSIP Networks and Luke O'Shea, Communities and Local Government.

DH INFORMATION READER BOX	
Policy HR / Workforce Management Planning / Clinical	Estates Commissioning IM & T Finance Social Care / Partnership Working
Document Purpose	Best Practice Guidance
ROCR Ref:	Gateway Ref: 9273
Title	More Choice, Greater Voice: a toolkit for producing a strategy for accommodation with care for older people
Author	Housing Learning and Improvement Network, CSUR Networks
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1 Executive summary

“Shifting care closer to home is one of the pillars that supports our vision of improved community health and social care”

Department of Health White Paper,
Our health, our care our say: a new direction of community services (2006).

“Housing supply has increased substantially in the last few years, but it is still not keeping up with rising demand from our ageing, growing population.”

Housing Green Paper,
Homes for the Future (CLG 2007)

This document provides a toolkit for undertaking work that will support a whole system approach to planning and developing accommodation and care. It is published by the Housing Learning and Improvement Network at the Care Services Improvement Partnership at the Department of Health and the Department of Communities and Local Government.

It is good practice rather than mandatory and has been prepared specifically to accompany the government's new National Housing Strategy for an Ageing Society, to offer guidance for commissioners and providers to enable them to produce accommodation and care strategies for older people.

It will be helpful to a range of people working at local and regional level. Those working to develop strategies that co-ordinate the planning of health, housing and social care bodies will find assistance here in developing an approach and structuring material. Those within local authority housing or adult social care departments whose requirements may be more focused on particular services will find materials here that will help them set those specific concerns into a wider context. Development staff within provider organisations, such as Registered Social Landlords and those in the private sector, will find here materials that they can use to understand and respond to the concerns of their statutory partners. It will inform a range of local documents such as the local development framework and joint strategic needs assessments.

These materials help map out a process, provide source materials and actual examples and introduce key questions that need to be determined locally. They encourage the development of shared definitions and understandings of the challenges and the possible responses to them that will ensure appropriate housing and care for older people now and for the future.

The basic assumption of this document is that accommodation, whether in general housing or in some form of specialised accommodation, is crucial in providing a context for the maintenance or restoration of independence and ensuring quality of life.

It is concerned with the provision of specialised accommodation – specifically sheltered housing/retirement housing in its various forms and extra care housing. However, it sets these within the context of housing-related care and support services that support people living in general housing (for sale or for rent), such as Home Improvement Agency services, day and home care and the accommodation dimension of residential care homes and nursing homes.

The consideration of accommodation choices is set within a whole system that encompasses the health and social care services. This may be essential in maintaining the well-being and the viability of their home, irrespective of tenure.

It seeks to suggest connections – from the focus on accommodation to the multi-faceted agenda that is developing across the domains of health, housing and social care. The report also explores links to other services such as planning, transport, life-long learning and leisure services.

The material presented in this document is of several kinds:



Guidance on the structure and drafting of the study



Briefing notes that explain assumptions that lay behind the study



Tools for completing particular elements of the study



Building materials such as good practice examples



Draft material that may be incorporated into the local study



Other useful information

2 The structure of the local study



The study needs to be structured with a clear focus on the end result and its purpose. As we have said, none of this is mandatory but below are a list of questions any authority opting to use this toolkit would ask:

- What is the audience for the outputs of this study?
- What decisions and actions do we expect to result?
- What information will be needed to validate those decisions and actions?
- What material will need to be included to provide a basis for the programme of work required to implement those decisions and actions?

The answers to these questions may be summarised in a table of sections for the outputs from the study. We suggest a structure that has been developed in the course of carrying out a number of such studies in a variety of settings:

- 1) **Introduction:** how and why the study came to be commissioned, determining an approach to the issues, establishing a value base
- 2) Establishing population size, trend and indicators of potential need for services
- 3) Mapping current service patterns
- 4) Taking account of national policies and specific performance targets and indicators, such as PSA 17

- 5) Understanding the local policy context and any local/regional priorities
- 6) The elements of a whole system to meet the accommodation and care needs of local older people.
- 7) Funding the future
- 8) The outline of a new pattern of provision
- 9) Conclusion, recommendations and action plan.

Appendix 1 Good practice examples

Appendix 2 Literature and sources

Appendix 3 List of individuals and organisations interviewed/consulted

The arrangement of sections is a matter of judgement and will depend upon local history and circumstances. To achieve a relatively concise report some material may be moved to appendices with summaries appearing in the main body of the report. The account of detailed statistical information, or the review of the national policy context, provide examples of material that might be treated in this way.

An executive summary will generally be required, either at the front of the report that is likely to form the major output of the study, or as a free standing document. It could possibly serve both functions.

It may be helpful to commission as one of the outputs an audio-visual presentation (in PowerPoint™ for example), based on the executive summary. This could be shown at local housing fora, older people's consultation meetings and/or multi-disciplinary training events.

3 Commissioning the study



Having determined a structure that will answer the prime questions identified above, it is a relatively short step to drafting a work programme as the basis for commissioning the study. The material for drafting some of the sections may be readily to hand in existing reports and briefings, other materials are to be found in this document and some may need to be specifically commissioned.

However much material is pre-existing there will be two major tasks:

- Drawing the material together so that it represents a coherent whole, rather than a compendium of interesting miscellaneous material, and
- Interpreting the material to arrive at specific conclusions about the future shape of provision to match local needs and expectations.

Deciding who should undertake the work may be largely determined by issues of capacity and budget:

- Is there anyone of appropriate seniority and expertise within the organisation who has the capacity within their work programme to undertake the task?
- Is there sufficient budget to pay a contractor to undertake the work?

The benefit of using an existing member of staff from one of the stakeholder organisations is that they will have an established knowledge of the locality, the organisational and policy context and good access to the key stakeholders. If this is an existing post holder there will certainly be capacity issues and they may also be perceived by other stakeholders as over-identified with the perspective of their own organisation or department.

Employing a contractor means that the capacity issues are transferred to them, they should bring expertise in this particular area, they may have established contacts with areas of good practice and they will be perceived as being neutral among the stakeholders. The downside will be the cost: however good their wider knowledge they will have a steep local learning curve and they may try to import a “one-size-fits-all” approach that fails to answer local requirements.

In some circumstances it will be possible to adopt a mixed approach with some work undertaken internally: collation of existing documentation and statistical data for example, and some undertaken by a contractor: interviews and consultations, editing material, drafting recommendations.

4 Structures for support & liaison



A successful study will require robust arrangements for commissioning, direction and implementation. These will include, as a minimum, a core group representing the key stakeholders and a wider reference group providing access to a wide range of stakeholder organisations and individuals.

The **core group** should be convened at the earliest opportunity and provide the forum for addressing the issues around the purpose of the study, the arrangements for commissioning and the appointment of staff or contractor to undertake the work. This will normally be a predominantly officer group and will include representatives of:

- Local authority social care – older persons' services (including those with responsibility for commissioning domiciliary, residential and nursing home care)
- Local authority Supporting People or commissioning body
- Local authority planners
- Local authority housing – housing management (if the authority manages its own stock), social housing liaison and those with responsibility for private sector housing

- Primary Care Trust(s) –older persons' services lead
- At least two representatives of older people drawn from the reference group, and
- Voluntary sector – representatives of current or potential service users and carers, including groups with particular needs – such as elders from Black and Minority Ethnic communities.

Ideally, the mix will include those with operational or commissioning responsibility and those with strategic and planning responsibility. The group should include people senior enough to provide real authority to the exercise and to ensure access to staff at all levels of their organisations. Where an elected member has responsibility to be the “champion” for older people within the authority consideration should be given to including him or her in the core group.

The reference group should balance the inclusion of further numbers of officers who may have more specialised functions with elected members, wider voluntary sector involvement and the direct participation of current or potential service users and carers.

Examples of officers who might be included in this wider group include the person managing sheltered housing, someone from the Occupational Therapy Service, the private sector housing grants manager and the discharge manager of the local acute NHS trust. The inclusion of elected members can be decided in the light of local political sensitivities and the interest of particular members. Voluntary sector organisations might include Age Concern, the Alzheimer's Disease Society and other condition-specific groups, the local Home Improvement Agency and Registered Social Landlords with an interest in provision for older people.

Consideration also needs to be given to involving the independent sector, including representatives of local retirement housing, estate agents and/or lenders.

Where a forum for consulting older people on local strategies and services already exists recruiting members to the reference group may be relatively straightforward. An effort should also be made to secure some input to the group from those who do not participate in such structures and from those not currently accessing services.

In addition to the person who has formal responsibility for commissioning the study it is important to appoint someone within one of the key stakeholder organisations to act as prime contact. This is especially important if the study is to be undertaken by an external contractor. The prime contact will co-ordinate the provision of documentation and of contact details.

They will act as the first point of contact for communication between the stakeholders and the person or persons undertaking the study. They may help with arrangements for meetings and interviews.

The core group will expect to meet regularly through the period that the study is being undertaken to receive reports on progress, to discuss issues as they arise, to provide a steer to the person conducting the study and to help resolve any problems of access. They will review emerging outputs and advise on presentation and dissemination. The reference group may meet less frequently – being briefed on the purpose and methodology early in the process, having an opportunity to be consulted on emerging issues as the work progresses and being able to comment on draft outputs – including key recommendations – before these are finalised.

5 Consultation & participation



Development of a strategic response to the current and future housing and care needs of older people needs to be rooted in the workings of the local strategic partnership.

It is here that the work needs to be owned and consultation and participation needs to begin in this forum. The work should relate to the Joint Strategic Needs Assessment and as its conclusions emerge they should help shape the Local Area Agreement. This high level consultation and liaison is fundamental if the particular mechanisms for consultation and participation suggested in this section are to be effective.

Engaging with professional stakeholders

By professional stakeholders we mean the relevant officers of the local authority, of the primary care trust(s), and Acute NHS Trust(s). Within the local authority this will obviously include representatives of housing and social care but may also include:

- Planning
- Building Control
- Transport
- Economic Development, and
- Leisure services and Libraries.

Changes in the current pattern of accommodation and care and the development of new forms of provision and new initiatives in existing provision are likely to have impacts within their fields of responsibility. Figure One (*page 10*) gives an indication of the issues that may be raised by the range of internal stakeholders within a unitary authority in relation to a new Extra Care housing scheme. This is by no means exhaustive but illustrates how diverse the

stakeholder, and their concerns, may be.

We would also include elected members of the local authority, especially those with particular interest in or responsibility in this area.

The private sector is often under-represented in these studies and this can be addressed by seeking to consult with private sector landlords (through a private sector landlords forum if one exists locally), with local property developers and local estate agents.

Also included in this category are the representatives of organisations of and for older people. These will include the local Age Concern and the local branch of such organisations as the Alzheimer's Disease Society and similar local groups such as the RNIB and RNID. Those providing leadership in newer structures such as local consultative groups of older people or an older persons' forum may also be included.

It should also include the representatives of organisations representing Black and Minority Ethnic communities.

In total this can amount to a significant number of individuals with a heavy time allocation needed if each is to be interviewed individually. It will often be helpful to draw some together in groups for interview and discussion.

Engaging with existing and future service users

Achieving direct input from older people and their carers, and from those approaching old age, represents a significant challenge. Consultation with older people may represent a major project within the wider study.

A starting point is to research or examine what has already been done on local engagement and

what current structures exist to achieve consultation and engagement.

Where these structures are in place and are happy to co-operate, they will provide the best route for initial work. The local Citizen's Panel may have an older persons' sub-group or the Older Persons' Forum may have an interest group focusing on housing and care. Many of these structures have been developed in response to the Better Government for Older People programme and will bring incisiveness and a well informed critique to the review of current provision and the evaluation of future programmes.

Where there is no existing structure, it will be helpful to establish an advisory group of older people to support the study. This could comprise eight to 12 members representing all tenures and including residential care and Black and Minority Ethnic community representation.

To secure inputs from particular groups within the local population of older people, it could be helpful to arrange consultative group meetings with a particular focus. These could include:

- Owner-occupiers
- Sheltered Housing Tenants
- Elders from Black and Minority Ethnic communities
- Older people who are Gay, Lesbian, Bi-sexual or Transgender, and
- Rural housing issues for older people (where relevant).

To reach a wider constituency of older people, it might be possible to invite older people to write in, using local media to publicise the study. In other situations it might be appropriate to use a questionnaire – but be aware that securing a genuine cross-sample could present a problem. One of the limitations to this means of consultation is that respondents will be influenced by their current level of knowledge – and demand for new forms of provision, such as extra care housing, may be depressed by a lack of awareness of what it is and how it differs from conventional sheltered housing.

It is important to recognise that any strategy that emerges from the study must respond to the needs, perceptions and aspirations of the current generation of older people but must also have the

flexibility to respond in due course to the emerging needs, perceptions and aspirations of succeeding generations of older people.

There are a number of tools available to encourage participation by older people in sharing their views. Local authorities can access the POPPI Demand Forecasting and Capacity Planning tool at www.poppi.org.uk without charge.

POPPI stands for Projecting Older People Population Information and provides the latest National Statistics 65+ population projections for individual local authorities down to district level. POPPI forecasts can go out to 2025, split by gender and age-band. Advantages include:

- POPPI delivers projections automatically and allows you to examine data for other localities too
- Local characteristics and prevalence data are projected onto population estimates
- National comparator information from care service data returns is included, and
- All data tables can be downloaded to Excel for analysis and charting.

Developed in collaboration with 23 councils in England, the POPPI tool is an important starting point for councils to plan for future demand in adult social care. POPPI saves time and effort collating information and gives a consistent baseline for Strategic Needs Assessment.

The toolkit *Anticipating Future Needs* sets out a Methodology for identifying a sample, constructing and planning the consultative activity and on analysing the data (available at www.csed.csip.org.uk). The materials provide detailed advice on the techniques available: individual interviews, focus groups and a seven stage process for structuring a focus group session. Also see Housing LIN case study no. 31 at www.icn.csip.org.uk/housing.

In the conduct of the study, and in subsequent consultation on its conclusions, the intention should be to achieve participation by older people, rather than token consultation. Consultation can too easily become the sharing of pre-formed conclusions and options. Participation implies that older people themselves will have helped identify the issues, evaluated the options and helped shape the conclusions.

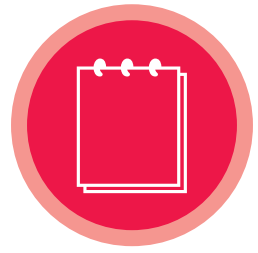
Figure One: Internal Corporate Checklist for a Unitary Authority considering developments of specialised accommodation for older people

Note: Figure One is a worked example from a particular local authority, the departments and functions involved in their strategic planning process and the concerns they raised: it therefore offers a template for conducting a similar exercise rather than a definitive list of issues and indications of concern

Location	Planning	Building Control	Environment	Social Care	Housing	Health	Leisure & Culture	Community Safety	Legal	Finance
1. Are there crime issues in the area and if there are how are these to be addressed in the design of the development?	✓	✓	✓					✓		
2. Will the development be within 400 metres of: <ul style="list-style-type: none"> • a general store • a newsagents • a post office • a library • a pharmacy • a health centre or doctor's surgery • places of worship • Transport link such as a bus stop If not, how do the developers propose to ensure access to these services as part of "lifetime neighbourhoods"?	✓		✓	✓	✓					
3. What consideration has been given to improving access to local amenities through the use of dropped kerbs, controlled crossings, provision of accessible street furniture, and so on?	✓	✓	✓							
4. Will the design ensure the accessibility of the development for those with impaired mobility or sensory impairment.	✓	✓								
5. Has a detailed "Access Statement" been provided?	✓									
6. Will an appropriate balance be struck between policies to restrict car use and adequate parking for motor vehicles, given increasing levels of car ownership among those 80+ How much car parking space is to be provided for staff and visitors?	✓	✓	✓							
7. Will there be facilities for the storage and charging of pavement vehicles?		✓								
8. Will cycle storage be provided for staff and residents?	✓									
The Accommodation										
9. What is the mix of units proposed? All units should be en suite, normally with showers. Two bed roomed units should be the norm for retirement developments. Extracare schemes may warrant a mix of one and two bed units.	✓			✓	✓					

10. How imaginative is the range of communal facilities? For example, day opportunities: IT suite, art and craft facilities, fitness suite, day care or health.				✓			✓			
11. What arrangements are secured for the staffing and servicing of these facilities?				✓		✓				
12. Are the units designed to space and design principles congruent with Lifetime Homes and energy efficiency standards?		✓		✓	✓					
13. Are lifts to be provided to all areas in development of more than entrance level?		✓								
14. What arrangements are envisaged to provide a positive role for residents in the design, development and management of the proposed facility?				✓						
15. Will a proportion of the units be available for sale or rent at levels judged to be “affordable”?					✓					
Impact										
16. What will the physical and visual impact of the development be on the surrounding area?	✓									
17. What impact will the population of the scheme have on the age profile of the ward?				✓	✓					
18. What will the cumulative impact be on demand for GP services in the area? (Refer to age profile of GP service area or health impact assessment).						✓				
19. Will the facilities of the scheme be available to those in the surrounding community and if so on what terms?				✓	✓	✓	✓			
20. What will the impact of the scheme be on the local labour market?				✓		✓				
21. Are the arrangements proposed for the storage and collection of waste appropriate?			✓							
22. Does the design for the site provide adequate access for specialist and emergency vehicles such as waste collection vehicles, fire tenders and ambulances?			✓							
23. Are the landscaping and perimeter arrangements so designed as to reduce potential crime and ensure easy maintenance?			✓							
24. Would the properties be considered good design if developed in mainstream housing for sale?	✓	✓			✓					
25. Are the properties characterful?	✓				✓					
26. What consideration has been given to the provision of green space?	✓		✓				✓			
27. What is the build quality of the properties?	✓	✓								
28. Does the design incorporate flexible space for independent living?					✓	✓				

6 A vision to inform a strategic direction



The development of a strategy that can lead to a viable whole system of accommodation and care for older people requires an overall vision. We would suggest that the first stage is to achieve such a corporate vision and to secure “sign-up”. Sign-up by elected members and senior officers within the local authority, within the local health economy, among voluntary and commercial partner organisations and – most important of all – among older people themselves.

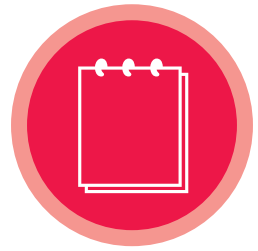


In developing such a vision we would suggest some key building blocks:

- The recognition of old age as a time of growth and development rather than of passive decline
- An approach in the development and management of services and accommodation that offers whole solutions for whole lifestyles
- A commitment to systems that provide genuine options and real choice
- An approach grounded in the rights of older and disabled citizens, and that recognises the consequences in the sharing of risk, and
- An aspiration that the outcome should be accommodation for older people that provides a context for care, rather than being dictated or constrained by care needs.

Where a suitable statement has already been adopted, within the local authority for example, then other partners may be invited to endorse it. Where no suitable statement exists then the development of a statement of values and aspirations should be the first recommendation of the study. A “visioning event” in which key stakeholders are represented at a senior level and older people themselves have a key role is an effective means of developing such a statement. Once developed it needs to be incorporated not just in the public documents that deal with policies and services in relation to older people but in the statements of corporate values and priorities of all stakeholder organisations.

7 Recognising key influencing factors

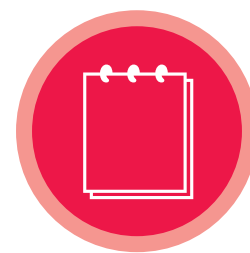


Looking at the broad picture of accommodation and care for older people it is helpful to articulate the factors that are driving change and will influence the future of accommodation and care for older people:

- The majority of older people will live until the very end of their lives in general housing and may need adaptations and other forms of help and advice to cope with their homes.
- An increasing proportion of older people are homeowners (around 75-80% in most places) and they will be reluctant to transfer into rented accommodation in old age and see the value of the equity in their homes eroded.
- Much specialised accommodation is in sheltered housing, some of which is now quite old and lacks the space standards and facilities now accepted as normal.
- The average age of those living in such accommodation has moved upwards very rapidly in the last two decades, bringing higher levels of need for support that the design of these buildings does not always allow.
- Some sheltered schemes have seen the retreat of amenities, such as shops, access to doctors and pharmacy and proximity to public transport – making independent life for their residents more difficult.
- New models of enhanced and extra care housing have emerged, offering not only the possibility of supporting higher levels of dependency but also an environment for a lively and active old age.
- Local authority residential care provision is generally housed in buildings that are now showing the limitations of their design concepts, even when the fabric is in good condition. Whilst dedicated staff add enormous value to the lives of those who live in such homes the pattern is inherently institutional. Local authorities have generally found it unfeasible to continue the direct provision of such accommodation.
- In the private sector the provision of traditional residential care in relatively small units is financially precarious and many providers continue to leave the market.
- While the nursing home sector continues to provide a context for the care of the more physically dependent and mentally confused older people, the steadily rising cost makes it imperative that other solutions are explored.

- The significant growth of the oldest section of the older population brings with it marked increases in the number of those with dementia and other forms of cognitive impairment. For them there is a desire to provide something more than the alternative of being cared for at home or going straight into a nursing home. While the support of older people with such conditions in sheltered housing is sometimes difficult, there are housing based models – often involving the use of new technology to manage risk – where a good quality of life can be achieved.
- Expectations among older people will continue to increase, in relation to their physical surroundings and access to facilities – but also in their right to be consulted and to participate in decisions that affect their lives.
- Traditionally, the attention of the local authority has been focused almost exclusively on identifying and meeting the accommodation and care needs of those who met the eligibility criteria for statutory funding. An increasing proportion of older people have the financial resources to fund their access to accommodation and care but do require information, advice and assistance in making sound decisions. The strategic orbit of the local authority and its partners should include these self-funders, the facilitation of appropriate accommodation and care options for them and the provision of information, advice and assistance.

8 Determining an approach



Taken together, these values and influencing factors lead us to a vision of the future provision of a range of care services and accommodation settings that will give older people choice and quality of life.

The introduction of new forms, such as extra care housing or housing based forms of accommodation for people with dementia, must be balanced by the phasing out of some older accommodation and models of care.

The introduction of a wider range of choices for those who want to own all or part of their accommodation, irrespective of their care needs, will imply a reduction in the proportion for rent.

The process of change must be carefully handled to inform and involve those who will be most directly affected: current and future tenants and residents.

As a consequence:

- We see a greater drive towards the personalisation of accommodation and accommodation-related care and support services.
- We envisage a future in which the services for older people living in general housing will become more comprehensive and connected, offering information, advice and practical support in managing the home and maintaining an independent life within it.
- We see a probable reduction in conventional sheltered housing to rent, through the withdrawal of the older or less attractive stock, together with an overall reduction in traditional residential care in both public and private sectors.
- We expect that these developments will be more than balanced by the development of extra care housing and housing-based provision for people with dementia, alongside the enhancement of some existing sheltered stock and the increasing development of new retirement housing communities.
- We see all of these models being offered on the basis of a range of tenures from renting, through shared ownership to outright sale.
- We look for this range of accommodation options being supported by a matching range of care and support services that allow people to delay or eliminate moves into more specialised accommodation: fulfilling the aspiration of most older people that they should stay in their existing home for as long as possible.

9 Establishing population size & trends



The reports of the 2001 Census provide a rich source of data and in many places local analysis will already have been completed. With so much data available down to ward level the challenge might be identifying that which is relevant to forming an overall strategic picture.

We would suggest the minimum data set for such a study will be:

- Total population of the local authority area by age cohorts, 2001.
- Projections of growth in total population 2001 to 2028.
- Projections for growth of older population by cohorts 2001 to 2028 – numbers.
- Projections for growth of older population by cohorts 2001 to 2028 – as a percentage of the total population.
- Population of older people by age cohort by ward, 2001, and
- Population of older people from BME communities by cohort and community, 2001.

At the time of writing the 2004 population estimates and projections based upon them are available. Some will prefer to use these as their baseline data set. Others will wish to use the decennial census as their baseline, adding the updated estimates as they become available to provide a more recent base.

While social care will generally be drawn to estimates of the numbers of individuals, housing planners will prefer estimates of households. As the purpose is to investigate the trend rather than to make precise estimates of future numbers, both categories of data have their use – so long as like is compared with like.

It will be helpful to have the summary tables for England for each of these categories, whether you include them in the report of the study or not. They will allow comparisons to be made with national levels and trends.

As previously noted, local authorities can access the POPPI Demand Forecasting and Capacity Planning tool at www.poppi.org.uk without charge.

Total population of the local authority area by age cohorts, 2001

This may be regarded as the baseline for any analysis: what is the current size of the local population in total and the distribution of older people across the age categories of older age? As time passes from the last general census some may prefer to use estimates produced annually by the Office of National Statistics as a starting point. Others will feel that the last decennial census provides the most solid foundation before moving into the area of estimates and projections.



Table 1: Population of Peterborough from 2001 census

Age Range	Total	Males	Females
0-4	10,237	5,162	5,075
5-9	10,922	5,641	5,281
10-14	11,009	5,556	5,453
15-19	9,980	4,955	5,025
20-24	9,630	4,732	4,898
25-29	11,418	5,676	5,742
30-34	12,707	6,217	6,490
35-39	12,092	5,895	6,197
40-44	10,802	5,304	5,498
45-49	10,033	4,862	5,171
50-54	10,296	5,164	5,132
55-59	8,012	3,911	4,101
60-64	6,807	3,386	3,421
65-69	6,362	3,008	3,354
70-74	5,674	2,640	3,034
75-79	4,626	2,016	2,610
80-84	3,070	1,198	1,872
85-89	1,605	495	1,110
90 and over	779	192	587
Totals	156,061	76,010	80,051

(Source.ONS 2001 Census reports Click Licence CO2W0003323)

Commentary on such a table might draw attention to the proportion of people over retirement age, the numbers in early, middle and advanced old age (broadly 55-70, 70-85, 85+), each of which will have, in aggregate, different characteristics that impact upon the level of need for services.

Projections of growth in total population 2001 to 2028



Table 2: Population growth projections – Wokingham

000s	2001 census	2003 census	2008 census	2013 census	2018 census	2023 census	2028 census
Total	150.2	151.2	154.3	157.2	160.2	163.2	165.7
Males	75.1	75.5	76.7	77.8	79.1	80.4	81.4
Females	75.1	75.7	77.7	79.4	81.1	82.9	84.3

(Source ONS 2001 Census Click Licence CO2W0003323)

These projections will offer a baseline against which the particular projections for cohorts within the older population can be evaluated. Thus a moderate growth in the number of older people within a population projected to increase in overall numbers will have a different impact to the same level of projected growth within a population that is declining in overall numbers.



Table 3: Current and projected population 50+ – Wokingham

000s	Age range	2001 census	2003 census	2008 census	2013 census	2018 census	2023 census	2028 census
Total	50-64	27.6	27.8	29	29.2	30.5	30.7	28.8
	65-74	10.3	10.9	11.6	14	15	14.4	15.4
	75+	7.6	8	9.4	11	12.4	15.2	16.8
Males	50-64	16.1	13.8	14.5	14.9	15.6	15.6	14.4
	65-74	7.1	5.2	5.6	6.8	7.1	7.1	7.7
	75+	4.6	3.1	3.8	4.5	5.2	6.4	7
Females	50-64	17.7	14.1	14.3	14.2	14.8	15.2	14.4
	65-74	8.2	5.6	6.1	7.2	7.8	7.3	7.7
	75+	7.7	5	5.6	6.5	7.4	8.9	9.7

(Source ONS 2001 Census Click Licence CO2W0003323)



Table 4: Percentage of the population above age thresholds – Wokingham

Age range	2001 census	2003 census	2008 census	2013 census	2018 census	2023 census	2028 census
50-64	30.3	30.9	32.4	34.5	36.1	36.9	36.8
65-74	11.9	12.5	13.6	15.9	17.1	18.1	19.4
75+	5.1	5.3	6.1	7.0	7.7	9.3	10.1

(Source ONS 2001 Census Click Licence CO2W0003323)



Table 5: Population projections 50+ by five year cohorts

000s	Age range	2001 census	2003 census	2008 census	2013 census	2018 census	2023 census	2028 census
Total	50-54	5.7	5.2	5.1	5.8	6.1	5.4	4.7
	55-59	4.2	4.8	4.8	4.8	5.3	5.6	5.1
	60-64	3.4	3.5	4.3	4.3	4.3	4.8	5.1
	65-69	3.0	3	3.1	3.8	3.8	3.8	4.3
	70-74	2.6	2.6	2.6	2.7	3.4	3.4	3.4
	75-79	2.2	2.1	2.2	2.3	2.4	3.1	3.1
	80-84	1.5	1.7	1.7	1.8	1.9	2.1	2.7
	85+	1.3	1.2	1.4	1.6	1.9	2.2	2.5
	All 50+	23.8	24.1	25.2	27.1	29.1	30.4	30.9
Males	50-54	3.0	2.7	2.6	2.9	3	2.6	2.4
	55-59	2.1	2.5	2.4	2.4	2.7	2.7	2.5
	60-64	1.7	1.8	2.2	2.1	2.1	2.4	2.5
	65-69	1.4	1.4	1.5	1.9	1.8	1.8	2.1
	70-74	1.1	1.1	1.2	1.3	1.6	1.6	1.6
	75-79	0.8	0.8	0.9	1	1.1	1.4	1.4
	80-84	0.5	0.6	0.6	0.7	0.8	0.9	1.2
	85+	0.4	0.4	0.5	0.6	0.8	0.9	1.1
	All 50+	11.0	11.3	11.9	12.9	13.9	14.3	14.8
Females	50-54	2.7	2.6	2.5	2.8	3.1	2.8	2.3
	55-59	2.1	2.3	2.4	2.3	2.6	2.9	2.6
	60-64	1.7	1.8	2.1	2.2	2.1	2.4	2.6
	65-69	1.6	1.6	1.6	1.9	2	1.9	2.2
	70-74	1.5	1.5	1.5	1.5	1.8	1.8	1.8
	75-79	1.3	1.3	1.3	1.3	1.3	1.7	1.7
	80-84	0.9	1.1	1	1.1	1.1	1.2	1.5
	85+	0.9	0.8	0.9	1	1.1	1.2	1.4
	All 50+	12.8	13	13.3	14.1	15.1	15.9	16.1

(Source ONS 2001 Census Click Licence CO2W0003323)



Table 6: Numerical totals for each cohort by ward – Reigate and Banstead

Age range	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-99	100+
Banstead Village	633	493	378	379	342	315	288	192	110	50	3
Chipstead, Hooley and Woodmansterne	637	459	417	346	293	188	143	78	46	10	0
Earlswood and Whitebushes	570	375	343	232	209	177	184	101	43	0	0
Horley Central	509	392	339	324	348	255	234	140	61	14	0
Horley East	441	292	177	176	147	91	82	31	11	0	0
Horley West	636	457	401	305	269	203	122	52	25	12	0
Kingswood with Burgh Heath	607	461	383	341	273	208	149	93	57	20	0
Meadvale and St John's	547	403	279	301	273	236	172	94	32	3	0
Merstham	543	395	269	258	295	366	253	121	28	6	6
Nork	634	499	436	336	322	253	172	89	32	6	3
Preston	146	120	90	97	119	130	87	23	9	0	0
Redhill East	416	315	212	205	170	163	84	52	16	3	0
Redhill West	522	430	335	359	306	231	157	100	21	3	0
Reigate Central	486	358	275	258	272	262	202	166	81	27	6
Reigate Hill	378	323	225	234	233	211	171	159	75	10	6
Salfords and Sidlow	254	215	157	111	106	79	65	25	9	3	3
South Park and Woodhatch	548	387	351	332	342	251	184	80	36	6	3
Tadworth and Walton	576	455	380	335	258	280	187	170	84	22	0
Tattenhams	578	467	380	358	357	314	214	119	40	12	3
Total	9,661	7,296	5,827	5,287	4,934	4,213	3,150	1,885	816	207	33

(Source ONS 2001 Census Click Licence CO2W0003323)

Tables 3-5 provide crucial information about the future growth or decline in numbers within the older population. In many areas the number and proportion of those in advanced old age is set to increase – in some cases substantially – and this will have a direct impact upon the future demand for services. In other areas the number of those in advanced old age will decline in the short-term whilst the number of those in early old age will increase. The timescale, urgency and even the nature of the strategic response made by housing, health and social care organisations will be affected by analysis of these projections.

Table 6 gives numerical totals but a tabulation expressing the data as percentages of relevant population is also available. Taken together this data will allow the development of a view about where within a local authority concentrations of older people are to be found and may indicate how priorities for the provision or renewal of facilities ought to be set.

Population of older people from BME communities by cohort and community, 2001

Most Black and Minority Ethnic communities have a younger population than in the wider community. Thus the numbers of those in old age may currently be small. Even in areas of relatively high BME populations numbers of elders within each BME community may be very small except in a relatively limited number of wards. Within some communities there are much more substantial numbers in succeeding cohorts who will enter old age in ten or twenty years time.



Table 7: BME Elders by community 2001 – Doncaster

Note: The data on which this table is based is set out in an extensive spread sheet from which this key data relevant to older people has been drawn and re-formatted.

Age Range	65-74	75-84	85+
All people	26,029	16,251	4,622
White: British	25,284	15,834	4,562
White: Irish	310	142	18
White other: White	168	212	21
Mixed: White & Black Caribbean	9	3	0
Mixed: White & Black African	3	3	0
Mixed: White & Asian	18	3	0
Mixed: other Mixed	0	3	3
Asian or Asian British: Indian	39	15	6
Asian or Asian British: Pakistani	54	6	3
Asian or Asian British: Bangladeshi	0	0	0
Asian or Asian British: other Asian	3	6	3
Black or Black British: Black Caribbean	87	18	3
Black or Black British: Black African	12	0	0
Black or Black British: other Black	0	0	0
Chinese or other ethnic Group: Chinese	36	6	3
Chinese or other ethnic Group: other ethnic group	6	0	0

(Source: Contact Consulting based on 2001 Census ONS Click Licence C02W0003323)



Table 8: Ward population by ethnic origin, 2001 – Peterborough

All people (number)	%	White British	White other	Indian	Pakistani	Black Caribbean	Black African	Chinese
8,762	Central	39.97	4.54	2.32	46.46	1.03	0.68	0.19
8,141	Park	78.36	4.69	3.66	7.71	0.65	0.23	0.39
8,312	West	78.81	3.71	4.14	7.05	0.51	0.59	0.45
8,424	East	79.51	3.47	2.60	5.37	1.08	0.90	0.87
6,820	Ravensthorpe	80.22	2.17	2.89	6.76	1.44	0.62	0.37
156,061	Peterborough	85.70	2.92	1.84	4.47	0.72	0.35	0.34
7,871	Fletton	85.95	6.49	1.46	0.58	0.76	0.30	0.29
5,124	North	87.26	2.21	2.24	2.65	1.25	0.53	0.14
8,753	Dogsthorpe	87.50	2.35	2.57	2.07	0.80	0.30	0.29
9,483	Bretton North	88.00	1.86	2.07	1.50	1.13	0.44	0.25
3,206	Bretton South	88.43	2.46	3.24	0.56	0.66	0.31	0.47
8,579	Stanground Central	89.26	6.03	1.22	0.45	0.49	0.26	0.13
3,059	Stanground East	89.77	3.11	1.50	0.20	0.95	0.26	1.34
10,416	Orton Longueville	90.29	2.52	1.04	0.79	0.78	0.41	0.11
5,437	Walton	91.12	1.99	1.97	0.63	0.68	0.22	0.22
8,236	Orton Waterville	91.37	2.15	1.60	0.21	0.45	0.27	0.53
3,515	Orton Hampton	91.55	2.87	1.51	0.09	0.74	0.14	0.83
8,213	Paston	91.77	1.64	0.96	0.50	0.82	0.18	0.55
7,943	Werrington North	92.71	1.93	1.17	0.23	0.53	0.25	0.43
6,669	Werrington South	94.93	1.41	0.66	0.18	0.25	0.16	0.31
5,297	Eye and Thorney	94.96	1.45	0.77	0.09	0.45	0.19	0.08
2,610	Barnack	95.56	2.41	0.27	0.00	0.00	0.00	0.00
6,255	Glinton & Wittering	96.48	1.47	0.43	0.05	0.19	0.08	0.05
2,649	Northborough	96.72	1.40	0.38	0.11	0.00	0.11	0.00
2,961	Newborough	96.73	1.31	0.35	0.00	0.26	0.00	0.00

(Source: Peterborough City Council based on ONS Census 2001)

The distribution of particular Black and Minority Ethnic communities within a local authority area is best seen by reviewing data at a ward level.

Interpreting the data on the current and future needs of BME Elders provides a considerable challenge:

- The needs of each Black and Minority Ethnic community is distinct and cannot be crudely aggregated.
- Expectations vary within communities and between generations: some wish to have

provision specific to their community and cultural identity, others wish to encourage greater sensitivity within generic provision.

- It is clear that succeeding generations within BME communities may have different expectations reflecting changing lifestyles and provision made now needs to be sufficiently flexible to respond to that dynamic situation.
- Where numbers are small, in some cases in single figures, making specific provision is a particular challenge.

10 Data reflecting housing circumstances



The sources of data for establishing the housing circumstances of older people may be drawn from a variety of sources but should cover three principal areas:

- Tenure
- Property type
- House Condition
- Property value

Changes in tenure represent a key trend in understanding the current and future accommodation needs of older people. Owner-

occupation is now the majority tenure for older people, even in advanced old age.

The data may hold some surprises: for example the number of those in old age who are still paying a mortgage and those whose landlords are now a LSVT (Large Scale Voluntary Transfer) Registered Social Landlord who report themselves as living in a Council House. In addition to numbers by age group in ownership and various forms of renting the data will also identify those living in communal situations: mainly residential care and nursing establishments. This data is available from the 2001 census reports.



Table 9: Tenure by age and gender of household head – Cotswold District Council

	Male					Female						
	50-54	55-59	60-64	65-74	75-84	85+	50-54	55-59	60-64	65-74	75-84	85+
Own outright	809	973	1,073	2,467	1,599	373	1,011	1,236	1,288	2,824	2,153	647
Own with mortgage	1,711	1,086	538	426	144	29	1,422	880	415	386	212	64
Shared ownership	21	19	12	16	3	0	16	15	12	6	12	3
Rented from LA	29	18	22	58	36	12	16	26	21	75	82	26
Other social rented	276	218	210	449	299	102	261	218	231	558	584	238
Private rented	317	233	152	277	139	38	255	216	151	266	192	69
Living rent free	108	99	80	108	90	33	111	91	74	147	194	119
Communal establishment	10	6	3	6	45	53	12	9	15	12	128	288

(Source: ONS 2001 Census Click Licence C02W0003323)

Property Type can have a significant impact. We know that a high proportion of older people can live independently if they are in accommodation in which the key facilities are all on the same level. A high proportion of bungalows and flats in the dwelling mix within an area may mitigate the need for specialised housing, although space standards and accessibility within the dwelling will be crucial. Data on the dwelling mix will be found in census data and in house condition surveys.

House condition data will be available from house condition surveys undertaken by the local authority or on its behalf. This should identify the numbers of older people living in housing that falls below current standards either because of missing amenities or through its state of disrepair. Table 10 provides national average figures from the English House Condition Survey but local studies will give much more detailed information. As surveys are only undertaken periodically, some data may be several years old.

Table 10: Poor housing

%	Non-decent	Insufficient thermal comfort	Other reasons
Household with at least one person 60+	39	34	14
All households	33	26	12

(Source: Contact Consulting, hypothecated from ODPM House Condition Survey 2001)

Property value data is available from the Land Registry through their website which sets out the average sale prices realised and the number of transactions registered for properties of different types. We give a county-wide example here but data is available for more focused areas.



Table 11: Average price and volume of sales for Hampshire, April 2007

%	Detached (£)	Semi-detached (£)	Terraced (£)	Maison-ette/Flat (£)	All
Hampshire	352,636	203,360	166,980	126,581	218,285

(Source: Land Registry Returns)

Table 12: Average house prices for England and Wales April 2007

%	Detached (£)	Semi-detached (£)	Terraced (£)	Maison-ette/Flat (£)	All
England/Wales	270,320	169,451	140,462	169,307	179,935

(Source: Land Registry Returns)

This data on property values may have at least two principal uses:

- It may help determine what represents affordability in relation to retirement accommodation offered for sale (some would regard the average selling price of a semi-detached house as an acceptable measure).
- It also provides some indication of the likely value of equity available to older people in making a contribution from that source either to the repair and maintenance of their home, or to funding long-term care needs.

11 Indicators of potential need



Accurate local data concerning the potential need of older people for services is often difficult to establish. In some areas local studies may have been conducted but this will rarely be the case. It is possible to take prevalence levels established by national surveys and apply them to

local populations. Whilst these provide a very “blunt instrument” as they cannot reflect local variations in health inequalities they do provide a benchmark figure other than current levels of expressed demand for services and can be used to explore unexpressed demand locally.

Table 13: Difficulties with personal care tasks

Note: “Base number” refers to the number of people living in the local authority area who are within this age group and therefore the base number to which the percentage of prevalence has been applied to achieve the local number.

Age range	65 - 69		70 – 74		75 - 79		80 – 84		85+		TOTAL
	%	No.	%	No.	%	No.	%	No.	%	No.	
Bathing, showering washing all over	3	159	5	247	6	255	11	345	21	627	1,633
Dressing & undressing	2	106	2	99	2	85	4	125	8	239	654
Washing face & hands	0	0	0	0	0	0	1	31	2	60	91
Feeding	0	0	0	0	0	0	0	0	3	90	90
Cutting toenails	18	953	24	1,184	34	1,443	43	1,348	64	1,910	6,838
Taking medicines	2	106	3	148	3	127	5	157	10	299	837
At least one of above	19	1,006	25	1,234	36	1,528	45	1,411	67	2,000	7,179
Base number		5,295		4,934		4,243		3,135		2,985	20,593

(Source: Contact Consulting, based on 2001 Census and 2001 GHS. ONS Click Licence C02W0003323)

The General Household Survey of 2001 asked people about their difficulty with a range of tasks in the areas of personal care, mobility and domestic tasks. It also asked about sensory problems. From the reports of the study it is possible to establish a percentage of incidence by age cohort and then to apply that to the number of people in that age group within the local community. Using future population projections it is possible to identify trends in future potential need for services.

Of the difficulties identified those that may have particular relevance for housing are connected with bathing, showering and washing all over where adaptation, or the provision of specifically designed features in accommodation intended for older people may be appropriate.

All the categories identified here may indicate a need for accessible housing, whether by adaptation to an existing dwelling or through transfer to accommodation designed to be accessible.

Table 14: Mobility problems

Note: "Base number" refers to the number of people living in the local authority area who are within this age group and therefore the base number to which the percentage of prevalence has been applied to achieve the local number.

Age range	65 - 69		70 – 74		75 - 79		80 – 84		85+		TOTAL
	%	No.	%	No.	%	No.	%	No.	%	No.	
Going out of doors and walking down road	6	317	10	493	14	594	20	627	41	1,223	3,256
Getting up and down stairs and steps	5	264	7	345	10	424	16	501	24	716	1,756
Getting around house (on the level)	1	53	0	0	2	84	2	62	2	59	397
Getting to the toilet	1	53	1	49	1	42	1	31	31	925	12,77
Getting in & out bed	2	106	1	49	1	42	3	95	5	149	442
At least one of the above	9	476	13	641	18	763	25	783	45	1343	4,008
Base number		5,295		4,934		4,243		3,135		2,985	20,532

(Source: Contact Consulting, based on 2001 Census and 2001 GHS ONS Click Licence C02W0003323)

Table 15: Difficulties with domestic tasks

Note: "Base number" refers to the number of people living in the local authority area who are within this age group and therefore the base number to which the percentage of prevalence has been applied to achieve the local number.

Age range	65 - 69		70 – 74		75 - 79		80 – 84		85+		TOTAL
	%	No.	%	No.	%	No.	%	No.	%	No.	
Shopping	5	264	9	444	14	594	21	658	41	1,223	4,488
Washing & drying dishes	1	53	2	98	3	127	3	94	9	268	641
Clean windows inside	9	476	13	641	20	848	29	909	48	1,432	6,275
Jobs involving climbing	15	794	23	1,134	36	1,524	45	1,410	67	2,000	6,864
Use vacuum cleaner	5	264	8	394	10	424	17	533	38	1,134	2,751
Open screw tops	8	423	9	444	11	466	16	501	28	835	2,671
Deal with personal affairs	3	158	4	197	7	297	10	313	25	746	1,713
Do practical activities	13	688	22	1,085	34	1,442	41	1,285	62	1,850	6,352
At least one of above	23	1,217	31	1,529	46	1,951	57	1,787	77	2,298	8,784
Base number		5,295		4,934		4,243		3,135		2,985	20,532

(Source: Contact Consulting, based on 2001 Census and 2001 GHS ONS Click Licence CO2W0003323)

Here a number of the indicators may suggest requirements for higher levels of care that will be difficult to provide in a setting of general housing and may be more appropriately provided for in an Extra Care housing, residential care or nursing home setting.

The incidence of dementia is closely related to the age profile of the local population. There are a number of methodologies for calculating the likely levels of cognitive impairment within a population. That provided here is drawn from the work of Ely et al and applies the percentages of incidence identified in their study to the numbers in the local population in each age group.

Table 16: Incidence of Cognitive Impairment 2001

Age range	Population within catchment area	Prevalence %	Number within catchment area
65 – 74	12,100	2.3%	278
75 – 84	7,700	7.2%	554
85 +	2,400	21.9%	526
Total	22,200		1,358

(Source: Contact Consulting, Ely et al & ONS mid-year estimates 1997) (Projections rounded)

Table 17: Forecast Incidence of Cognitive Impairment 2011

Age range	Population within catchment area	Prevalence %	Number within catchment area
65 – 74	13,400	2.3%	308
75 – 84	8,200	7.2%	590
85 +	2,900	21.9%	635
Total	24,500		1,53

(Source: Contact Consulting, Ely et al & ONS mid-year estimates 1997) (Projections rounded)

Problems with sight and hearing are common in old age, tending to increase in prevalence as age increases. Whilst this may not indicate a requirement for particular housing or care options except in more extreme impairment it does underscore the need for thoughtful design in provision for older people.

Table 18: Incidence of sensory impairment 2001 – Reigate and Banstead

Note: "Base number" refers to the number of people living in the local authority area who are within this age group and therefore the base number to which the percentage of prevalence has been applied to achieve the local number.

Age range	65 - 69		70 – 74		75 - 79		80 – 84		85+		TOTAL
	%	No.	%	No.	%	No.	%	No.	%	No.	
Difficulty with sight	20	1,059	24	1,084	31	1,315	36	1,129	49	1,463	3,910
Difficulty with hearing (with hearing aid)	6	318	10	493	14	594	21	658	27	806	2,870
Without hearing aid	17	900	3211	543	23	976	21	658	27	806	3,883
Base number		5,295		4,934		4,243		3,135		2,985	20,5

(Source Contact Consulting, based on 2001 Census and 2001 GHS ONS Click Licence CO2W0003323)



Making the calculations

Excel Templates for calculating these tables are provided at the following link:
www.housinglin.org.uk/MCGV_templates

Health warning! It must be stressed that the resulting numbers should be taken only as a broad indication of potential need for services. Local environmental, economic and health factors may influence the results and the model does not claim to reflect those variations.

Local Data

There is sometimes a significant volume of local data available to support these modelled estimates, for example:

- Applications for sheltered housing - available from housing,
- Information indicating a need for housing-related support – available from Supporting People administering authorities,
- Assessments completed indicating a need for residential or nursing care – available from adult social care,
- Incidence of health conditions suggesting a need for specialised accommodation or care – available from PCTs/Directors of Public Health¹,
- Numbers of those whose transfer of care was delayed by housing circumstances or lack of availability of appropriate accommodation – Discharge co-ordinator, Acute Trust.

All these sources are partial but provide a starting point for understanding what is known, and perhaps more importantly what is not known locally. The needs of owner-occupiers and of self-funders for example may not be adequately represented.



There is also some useful learning arising from the government's Partnership for Older People Pilot programme. A new *Promoting Independence Self-Assessment Tool* sets out an approach for health and local authority communities to establish the strengths and weaknesses of their progress in making the shift towards promoting independence, prevention and early intervention. In doing this, it has the potential to help Local Strategic Partnerships (LSPs) work out the priorities for their Local Area Agreements (LAA)².

Further advice on how local experience and local data can be captured for the purposes of planning are provided in the *Configuring Future Services Toolkit: A structured Approach to Delivering Better Outcomes for Older People* which can be accessed via www.csed.csip.org.uk

In addition, the King's Fund has published a useful tool that can help health and adult social care commissioners predict who will need intensive care.

PARR – short for *Patients At Risk of Re-hospitalisation* – is a software tool that can be run daily. When an individual is admitted to hospital the tool uses the patient's recent admissions data (up to four years) to calculate the likelihood of re-admission over the next 12 months. This takes into account factors such as prior utilisation, diagnoses and socio-demographic information and gives a high rate of predictive accuracy. The tool was commissioned by the Department of Health and developed by the King's Fund with New York University and Health Dialog³.

¹ Care Services Improvement Partnership (2007), *The role of public health in supporting the development of integrated services, Integrated Care Network*. Department of Health, London

² Care Services Improvement Partnership (2007), *Promoting Independence: the long marathon to achieving choice and control for older people*. Department of Health, London

³ The most recent version of the tool, PARR++, was released in November 2007 and is free to download or order on CD from: www.kingsfund.org.uk/current_projects/predictive_risk/patients_at_risk.html



Taking changing aspirations into account

In looking to future patterns of provision we need to be conscious that the future will be characterised by the aspirations of a rising generation of older people rather than simply by an assessment of their needs. If we are not to design-in obsolescence then those aspirations need to be taken seriously.

We do know something of the aspirations of older people.

The key one is that older people have, whatever their circumstances, is the same one they will have pursued throughout their lives from childhood and adolescence, through adulthood and into old age: the desire to have control over their own lives. It is the desire to remain in control that motivates people to struggle on against enormous odds when their existing housing situation becomes difficult. That desire for control covers all the most basic aspects of our lives: with whom, if anyone, we choose to share our living space, what time we get up and go to bed, what we eat and drink and when and where we do so, how we fill our free time, with whom we will socialise, and on and on. These are the basic decisions of our lives. Traditional forms of accommodation and care for older people have tended to compromise this autonomy.

That desire for some degree of control over their own lives leads to concern for the future: what will happen if the capacity to care for oneself is diminished, if savings are exhausted and income is inadequate, if other circumstances change? Whilst recognising that change for themselves and in the world around them is inevitable, older people look for some degree of predictability in the matters that will affect them and their ability to live as they would wish. So will the place they move to continue to accommodate and care for them if mental, physical and/or financial circumstances change? What can they expect and what are their rights?

The autonomy that older people aspire to includes the freedom to choose their own life style. Traditional forms of accommodation and care have implied a degree of conformity: to fit in, to live conventionally, to join in with communal activities. Older people increasingly wish to assert their distinctiveness: in the decoration and furnishing of their living space, in their choice of relationships, in the ways in which they spend their leisure time, and so on.

There is too a concern about eventual access to care. They want reassurance that the accommodation they occupy is suitably designed and equipped so that when the need for care arises, it does not necessarily precipitate a move. They want to know that the care they require can be provided without a complete surrender of privacy, autonomy and lifestyle.

Closely linked with all these aspirations are concerns about financial autonomy. That they should maintain control of the resources they have built up through their working life – and have a degree of control over how those resources are used – is important to them. They want to maintain their status as home owners, if that is their choice, not to see their capital drained through the narrow accommodation options available to meet their care needs when they arise.

For that minority of older people who enter old age as tenants and have limited other financial resources, exercising the same degree of choice will be difficult. Unless providers are willing to offer genuinely mixed tenure schemes in which social renters and home owners live side by side they will contribute to, rather than dilute, the emergence of a two class old age.

Long standing research from the Joseph Rowntree Foundation⁴ established that the physical quality of the housing that they occupy is the most important factor in explaining the satisfaction of older people with their housing. The assumption that older people are happier in smaller houses was not borne out by the research.

More recent research from JRF⁴ concludes that the combination of independence and security offered by housing with care schemes is highly attractive to older people. The researchers further concluded that: “Accommodation that was very small impacted on residents’ lifestyle, and had implications for care delivery. Greater emphasis is needed on ‘space for living’.”

We can summarise some of these key aspirations of older people as a checklist, Figure Two. This checklist should be expanded to reflect local aspirations and consultation with local older people.

Figure Two: The proposed range of accommodation and care should ensure:

Real options for people in a range of personal and housing circumstances.	✓
Locations that provide access to a range of facilities and services.	✓
Provide actual and perceived security in the scheme and its surroundings.	✓
Recognise and provide for a diversity of lifestyle choices.	✓
Provide a flexible offer of service that is built on positive presumptions about old age.	✓
Offer the best available financial arrangements on entry and for the future.	✓

⁴ Wilson D, Aspinall P & Murie A *Factors Influencing the Housing Satisfaction of Older People*. York, Joseph Rowntree Foundation (1995).

⁵ Croucher K, Huicks L, Bevan M & Sanderson D (2007) *Comparative evaluation of models of housing with care in later life*, Joseph Rowntree Foundation, York.

12 Mapping local provision



Existing provision within the area is unlikely to be recorded in a complete or coherent way. As a minimum the study should seek to record:

- The number of units of conventional sheltered housing to rent,
- The number of units of conventional sheltered housing for sale,
- The number of units of enhanced sheltered housing to rent,
- The number of units of enhanced sheltered housing for sale,
- The number of units of extra care housing to rent,
- The number of units of extra care housing for sale,
- The number of units within almshouses and Abbeyfield houses,
- The number of registered places in care homes designated for older people, for older people with mental infirmity and other categories that specifically mention older people (such as people with a learning disability who are over 65).
- The number of registered places in care homes providing nursing for older people, for older people with mental infirmity and other categories that specifically mention older people (such as people with a learning disability who are 65 years of age or more).

Information about sheltered housing and its variants might be available locally, for example in directories of sheltered accommodation provided for the general public and in provision-mapping undertaken by Supporting People. However, both these sources may not record all leasehold schemes.



An alternative source is the database provided by the Elderly Accommodation Counsel (EAC) as part of its administrative support to the Housing Learning and Improvement Network in the Care Services Improvement Partnership at the Department of Health. It should be noted however, that some sources are likely to be hampered by incomplete data and imprecision in definition by the sector: for example, in what may be described as extra care housing. To address this, EAC with the support of a consortia of cross-sector industry providers have developed a Quality of Information Mark to encourage and help providers deliver better and more consistent information to older people about all forms of retirement housing (www.housingcare.org).

Numbers of places available in residential care homes and in care homes registered to provide nursing care may again be known from local records and may be checked against the listings provided by the Commission for Social Care and Inspection (CSCI).

The EAC database now also includes listings of care homes. Arriving at accurate numbers may not be easy. Commissioners may include capacity used by them in neighbouring authorities. Places may be registered for more than one prospective client group, leading to double counting. Making historical comparisons is complicated by a change in registration categories since the inauguration of CSCI.

In the absence of nationally agreed definitions at present, it may be necessary to develop a local understanding of what the expected characteristics of each category of specialised accommodation may be. The “Wokingham Matrix” provides a template for local discussion and development but it is a starting point for a local discussion, rather than a definitive set of statements of universal application.

Figure Three: The Wokingham Matrix

Housing Type		Characteristics of population	Design and facility requirements	Services
Retirement accommodation	Essential	Independent population.	Self contained accessible accommodation. A sustainable location in terms of access to local amenities and services.	Community Alarm.
	Desirable		Built to meet lifetime homes standards. Guest room with a range of facilities Providing two bedrooms in each unit.	Visiting warden/scheme manager service on demand, floating support service and/or individual budget.
Conventional Sheltered Housing	Essential	Independent population.	En suite private accommodation Communal facilities. High standard of accessibility internal and external. Guest room with a range of facilities.	Facilitated access to care services. Dedicated warden/ scheme manager service.
	Desirable	Capacity to cope with occasional care needs.	Enhanced communal facilities: eg craft facilities, IT suite, etc. Infra-structure in place for assistive technology. Generous storage space in addition to that within the individual unit.	Facilitated social and recreational activity programme, floating support service and/or individual budget.
Enhanced Sheltered Housing	Essential	Mixed dependency population. Including up to 12 hrs per week care needs.	Assisted bathing facilities. Access to meals service. Recreational/Leisure facilities. Infra-structure in place for assistive technology. Guest accommodation with range of facilities.	Manager based on site to provide support and facilitate access to day opportunity services. Expedited access to care services Facilitated social and recreational activity programme.
	Desirable	Aggregate care needs 150-200 hrs per week.	Restaurant. Fully equipped craft rooms. IT Suite. Exercise suite. Generous storage space in addition to that within the individual unit.	On site care and/or support.

Housing Type		Characteristics of population	Design and facility requirements	Services
Extra Care Sheltered Housing	Essential	Mixed dependency population, around 1/3rd having care needs in excess of 18 hrs care per week. 1/3rd low care needs. 1/3rd no current care needs. Aggregate care needs at least 240 hrs per week.	En-suite one bedroom & accommodation - Restaurant - Fully equipped craft rooms - IT Suite - Exercise suite - Day opportunities Scheme design encourages orientation. Infra-structure in place for assistive technology Generous storage space in addition to that within the individual unit.	Manager based on site to provide support and co-ordination 24/7 on site care. Facilitated recreation, social, cultural programme.
	Desirable	Existing residents supported in extreme frailty Some residents with moderate levels of dementia.	Some utilisation of assistive technology Communal facilities available for older people in local community	Access to nursing/ wellbeing services Access to dementia services.
Registered Care Home	Essential	Minimum care needs 18 hrs per week up to highest level of personal care short of nursing.	In space and design standards meeting the requirements of the Commission for Social Care Inspection. Infra-structure for assistive technology.	In staffing levels and practice meeting the requirements of the Commission for Social Care Inspection.
	Desirable	Capacity to cope with highest levels of physical and mental frailty	Exceeding the minimum space standards and with additional facilities to enrich the life experience of residents. Guest accommodation with a range of facilities. Some utilisation of assistive technology.	Evidence of highest professional practice and staffing to support life enrichment for residents.

(© Contact Consulting & Wokingham UA 2005/ amended)

This definitional matrix was adopted by Wokingham UA as the basis for discussion with existing and potential providers when matching the accommodation and care package they were offering against the aspirations of the authority's older persons' accommodation strategy.

It has subsequently been used with a number of other authorities and in the analysis of the supply of specialised housing for older people across Wales.

When the information has been collated it may be represented in tables, such as those below, that set out the level of provision in the London Borough of Harrow.

Table 19: Summary of retirement housing in Harrow

Tenure	Bedsits (BSR)	1 bed	2 bed	Bungalow	Not specified	Total
Rented Sheltered housing units – LA/RSLs	325	700	-	98	76	1,199
Leasehold Sheltered housing units	-	27	94	144	457	722
Abbeyfield Houses and Almshouses	19	-	-	-	-	19
Totals	344	727	94	242	533	1,940

(Source: Contact Consulting from Elderly Accommodation Counsel database)

There are also substantial issues around the distinction to be drawn between total capacity and the number of places supported by statutory funding and commissioning. Others can also be drawn between the total capacity when compared with the number of residents with long-standing

associations with the area. Often this data is not readily available and can only, and then often with some difficulty, be gathered by individually surveying local registered care homes. If the data is to be robust this may be the only route to securing it but it will carry a time and resource consequence.

Table 20: Residential and Nursing home Places within Harrow

	Local Authority	RSL or Charity	Commercial/Private	Totals
Residential Care 65+	-	151	265	416
Residential Care EMI	-	-	-	-
Residential Care Mental Health 65+	-	-	-	-
Residential Care Learning Disability 65+	-	-	-	-
Totals	-	151	265	416
Residential Care with Nursing 65+	-	74	454	528
Residential Care with Nursing EMI	-	-	14	14
Totals	-	74	468	542

(Source: Contact Consulting from Elderly Accommodation Counsel database)

To allow meaningful comparison the number of places available needs to be expressed in a standardised form. A useful means of doing this is to express the provision as a ratio of places to each 1,000 of the older population above three threshold ages: 65, 75, and 85. To simplify matters, places are aggregated into housing, residential care and nursing home places.

The following illustrations rely upon traditional distinctions between residential care and nursing home care. Changes in the categorisation of care homes make historical comparisons difficult. The old categories of Residential Care Home and Nursing Home no longer apply but the figures in Table 21 do give an indication of distribution of capacity through styles of accommodation that provide differing levels of care.

Table 21: Provision of places for older people in Wokingham

	Number of units/places	Per 1,000 of the population 65 years and over	Per 1,000 of the population 75 years and over	Per 1,000 of the population 85 years and over
Sheltered and very sheltered housing	1,249	70	164	608
Residential care places	251	14	33	122
Nursing home places	373	21	49	182

(Source: Contact Consulting, based on PSSRU for the Royal Commission on Long Term Care and ONS projections)

A further benefit of expressing the level of provision in this way is that it allows comparison with a broad historic average for England: this is calculated from the information about levels of provision contained in the Research Appendices to the report of the Royal Commission on the Future of Long Term Care. This is summarised in Table 22.



Table 22: Number of units/places for older people in England

	Number of units/places	Per 1,000 of the population 65 years and over	Per 1,000 of the population 75 years and over	Per 1,000 of the population 85 years and over
Sheltered and very sheltered housing	516,524	668	136	491
Residential care places	288,750	37	76	274
Nursing home places	157,500	20	42	150

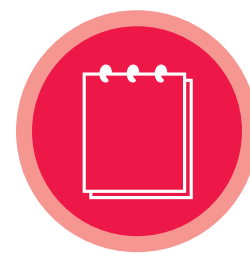
(Source: Contact Consulting, based on PSSRU for the Royal Commission on Long Term Care and ONS projections)

In practice the key indicator will be the ratio to the population of those aged over 75 as this is widely accepted as a threshold age for appropriate entry to specialised housing, residential care and nursing home care. If the provision of sheltered housing is disaggregated - as between rented and leasehold and then expressed as a ratio of provision to population - it will commonly be established that there is enough sheltered housing to rent to accommodate all those over seventy years of age currently living in rented housing, sometimes twice over.

The study may also seek to establish:

- The number of units of specialised accommodation for older people (the variants of sheltered housing and extra care housing) currently under development or planned by providers,
- The number of people occupying places in care homes and care homes providing nursing care that are funded by the local authority,
- The number of care packages/Individual budgets provided by the local authority to people living in their own homes and
- The number of people living in specialised accommodation who receive support through Supporting People.

13 The context in National Policy



Local initiatives need to take account of legislation, statutory guidance and good practice. In the dynamic climate within which those engaged in health, housing and social care are working these elements are constantly developing as the Government seeks to identify the linkages in policy and to disseminate the benefits of emerging practice.

While there are summaries and précis available, there is considerable benefit in revisiting the documents and preparing a fresh summary that will reflect the concerns that lie behind the local study.

Because the body of available material is constantly developing there can be no definitive list that will not be out of date within a few weeks. We do provide a checklist of sources and a listing of some of the most significant recent documents.

Some recent key documents:

- National Housing Strategy for an Ageing Society, CLG (2008)
- Putting People First, DH (2007)
- Commissioning Framework for Health and Well-Being, DH (2007)
- Homes for the Future: More Affordable, More Sustainable, CLG (2007)
- Our Health, Our Care, Our Say: a new direction for community services. White Paper DH (2006)

- Independence, Well-being and Choice. Green Paper DH (2006)
- Dignity in Care, DH (2006)
- The Local Government White Paper: Strong and Prosperous Communities, DCLG (2006)
- Sure Start to later life: Ending inequality for older people ODPM (2006)
- Opportunity Age: Meeting the Challenges of Ageing in the 21st Century, CM 6466 (2005)
- Commissioning a Patient Led NHS, DH (2005)
- Choosing Health: Making Healthy Choices Easier, DH (2004)
- Older People, Independence and Well-being: The Challenge for Public Services, Audit Commission (2004)
- Public Services for Tomorrow's Older Citizens: Attitudes to Ageing, ADSS (2004)
- National Service Framework for Older People, DH (2001)
- Quality and Choice for Older Peoples' Housing: A Strategic Framework, DETR (2001)

The role of Public Service Agreements and related Performance Indicators.

Alongside the announcement of the Comprehensive Spending Review in October 2007, the Government re-stated and expanded the Public Service Agreements (PSAs) and associated indicators that will shape the delivery of its policies.

PSA 20: increase long term housing supply and affordability. Amongst its indicators is the requirement to demonstrate trends in affordability, to deliver affordable homes, to show improvement in the efficiency rating of new homes and the adoption of development plan documents.

PSA 17: Tackle Poverty and promote greater independence and well being in later life. This includes indicators that may be seen as relevant to housing for older people:

- Healthy life-expectancy at age 65,
- Over 65s satisfied with home and neighbourhood and
- Over 65s supported to live independently.

PSA 18: Promote better health and well-being for all. This includes indicators to improve all age/all cause mortality rates, to narrow the gap in mortality rates between disadvantaged and non-disadvantaged areas – and to increase the proportion of people supported to live independently.

Other PSAs (such as PSA 16: socially excluded adults) and a number of the National Indicators relating to vulnerable adults are also relevant to developing services for older people.

In addition to the official information on the CLG website there is a helpful briefing paper on the Care and Repair England website.



Introduction to the Local Performance Framework – Delivering Better Outcomes for Local People

<http://www.communities.gov.uk/publications/localgovernment/localperformanceframework>

The New Performance Framework for Local Authorities and Local Authority Partnerships: Single Set of National Indicators

<http://www.communities.gov.uk/publications/localgovernment/nationalindicator>

Development of the new LAA framework – Operational Guidance 2007

<http://www.communities.gov.uk/publications/localgovernment/laaoperationalguidance>

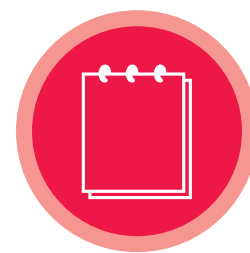
National Indicators for Local Authorities and Local Authority Partnerships: a Handbook of definitions

<http://www.communities.gov.uk/publications/localgovernment/indicatorsdefinitions>

Briefing on Implications of the Comprehensive Spending Review (2008-2011), Performance Targets and Indicators for Private Sector Housing

www.careandrepair-england.org.uk

14 Understanding the local policy context



This is certainly one element of the study that can only be prepared locally. The purpose of this section is to provide a connected account of how the current pattern of service and policy framework has been arrived at, what the current priorities and imperatives are and what constraints there might be upon future development.

The sources will include established policy documents such as:

- Sustainable Communities Strategy
- Commissioning and Older People's Plans
- Local Development Framework (planning)

- Local Delivery Plans (health)
- Community Safety Strategy
- Supporting People Strategy
- Local Strategic Partnerships
- Local Housing Strategies

In addition, there will be other information contained in Best Value reviews, reports of and responses to external inspection, reports to committee, and so on. We provide a checklist below that will provide a starting point for identifying and collating documentation. It is not exhaustive and will need to be amended and expanded to reflect the local situation.

The intention should be to provide a strand of narrative and to clearly identify past actions and current intentions.



Figure Five: Checklist of documents Health, Housing and Social Care provision for older people

(Not all documents will be available or appropriate in all cases. This list is not exhaustive)

Document	Available ✓	Sourced from:	Date passed to consultant/ Co-ordinator	If available electronically give full hyperlink
Corporate				
Star rating for councils				
Local Area Agreements setting out the priorities for a local area agreed between central government and a local area (the local authority and Local Strategic Partnership) and other key partners at the local level				
NSF Implementation Plan(s)				
Compendia of statistical information - Vitality Profile, etc				
Health				
Accountability agreements between NHS Trusts and PCTs and SHAs				

Document	Available ✓	Sourced from:	Date passed to consultant/ Co-ordinator	If available electronically give full hyperlink
Commissioning strategy Operational Plan				
Commissioning intentions				
Commissioning plans				
Quarterly performance reviews for NHS Trusts and PCTs				
Health Care Commission Annual Health Check				
Health Care Commission Improvement Reviews				
Notifications (and supporting documents) of use of Health Act Flexibility under Section 75 Partnership agreements for both provision and commissioning				
Information regarding Delayed Transfers of Care (DTCs)				
Foundation Trust applications – Integrated Business Plans, finance planning				
Social Care, general				
CSCI Council Star Ratings				
RAP returns				
CSCI National Minimum Standards				
CSCI Inspection reports				
CSCI Registration reports				
National Care Standard Commission Care Home reports				
Service plan for adult services				
Service specific or cross-cutting older people's reviews				
Improvement or implementation plans				
Joint planning documents				
Local Delivery Plans/ Community Plan (past Health Improvement Plans)				
Local Development Framework				
Community Strategy				
Local Area Agreements				
Joint Commissioning Statements				
Service Development Plans				
Any documents that evidence participation in NHS improvement schemes such as Access (A&E waiting times), Emergency Care, 18 weeks, Primary Care collaboratives				
Capacity plans				
Home Care				
Policy documents for the commissioning of home care				

Document	Available ✓	Sourced from:	Date passed to consultant/ Co-ordinator	If available electronically give full hyperlink
Performance reports on delivery of home care (both in-house, if any, and external)				
Reports on proposals for intensive home care packages.				
Performance reports on delivery of intensive home care packages.				
Intermediate Care				
Plans for the delivery of Intermediate Care				
Progress reports on delivery of Intermediate Care				
Supporting People				
Service mapping undertaken by Supporting People Team.				
Needs mapping undertaken by Supporting People Team.				
Supporting People commissioning plans.				
Relevant SP reviews, eg Home Care, Sheltered Housing, HIA				
Equipment and Adaptations				
Strategic plans for Private Sector Renewal and grants				
Policies and out-turn for Disabled Facilities Grant.				
Total funding provided from all sources for adaptations and protocols & policies for managing demand.				
Current status report on Community Equipment Integration.				
Take up of telecare through Prevention Technology Grant				
Registered Homes				
List of registered homes including capacity and categories of provision.				
Directories or other material provided to the general public.				
Local capacity information				
Summaries of commissioning activity				
Sheltered Housing				
Lists of sheltered accommodation within the area in all sectors with detailed information on what is provided.				
Reports of Supporting People or any reviews of sheltered housing.				
Planning or development proposals for extra care accommodation				
Other documents – please add documents not listed but known to stakeholders				
Local housing strategy				

15 Outlining a new pattern of provision



The new *National Housing Strategy for an Ageing Society* makes clear that there is a need for greater leadership and ambition to address the housing market and circumstances, lifestyle choices and needs of older people now and into the future.

“The strategy strongly recommends that proper local analysis is done to understand current and projected supply and demand. Determining levels of provision is of course entirely a matter for local determination.”

Having weighed likely changes in the population of older people, had regard to the direction provided in both national and local policy, considered the current pattern of provision and taken into account the context provided by a whole system of health, housing and care there is just one major step left: to quantify the range of future provision.

It is unlikely that the current pattern of provision will have developed in response to assessed need but rather in response to short-term demand and provider perceptions of what will be popular and fundable. Moving to a pattern with a more rational base that seeks to place individual elements of provision within a wider context inevitably appears threatening to some. In seeking to look forward and to encourage a shift from the current pattern to one which offers a range of options to older people and is reflective of key characteristics of the older population it will be important to take into account a number of factors:

- The demand for rented conventional sheltered housing is likely to decline.

- The suitability of the older stock for letting will become increasingly problematic.
- The potential for leasehold retirement housing will continue to grow.
- Some existing schemes will lend themselves to refurbishment and remodelling to provide enhanced sheltered housing to support rising levels of frailty.
- Some of this enhanced sheltered housing should be offered for sale alongside that for rent.
- There is a need for an increasing proportion of extra care housing but its viability depends on a stronger strategic relationship between health, housing and social care agencies.
- Extra care housing should be provided for sale and rent.
- There is a need for housing-based models of accommodation and care for people with dementia.
- The proper design and use of extra care housing should mitigate the demand for an increase in residential care provision and may allow some measure of re-provision.
- Housing-based models for dementia care will provide an alternative to nursing home-based strategies for meeting the needs of those living with moderate to severe dementia and
- The need to adequately support those who are self-funding their accommodation and care needs and those whose care is provided informally, that is to say by family members and friends.

All of which leads to a future pattern in which there will be more of some styles of provision and less of others. It is sometimes helpful to summarise these shifts in a single table, such as that shown on Table 23 (page 45).



Having taken account of these changes how much specialised accommodation may be needed in total? What we set out here rests on the assumptions set out above, a review of past attempts at estimating the appropriate ratio of provision for sheltered housing, and the experience of local authorities we have worked with who are attempting to shape a strategic direction from what they have inherited to something that will meet future needs and aspirations. It represents an attempt to quantify matters with explicit numerical ratios and targets. It is contentious, but deliberately so, in challenging those who must develop local strategies to draw all the strands together in a way that quantifies their intentions.

Previous estimates of the requirements for sheltered housing tended to look mainly at the need for social rented provision, rather than at the overall potential demand. The emergence of owner-occupation as a significant factor in old age has shifted the balance between estimates of need and response to demand. The benefits of providing more leasehold retirement housing, for example, may be as much in its effect in releasing family sized accommodation into the market as in meeting the particular needs of those who move into it. The approach we propose in this section seeks to balance the conventional estimates of need against the direction of policy (in relation to enhanced and extra care forms of sheltered housing for example) and demand in the market (in relation to ownership options) in all forms of specialised accommodation for older people. This has been based on a review of past indicators and refined through a number of local studies undertaken in support of local authority strategies.

From the work carried out for the Royal Commission on Long Term Care, we know that the inherited stock of sheltered and enhanced sheltered housing is around 136 per thousand. We would propose that a future ratio might be around 180 units of specialised accommodation of all kinds, other than registered care home places, per thousand of those over 75 years. In part, this reflects the likely increase in demand for leasehold accommodation and the achievable rate at which disengagement from the current level of rented sheltered housing

may progress. Provision for those who might otherwise be accommodated and cared for in residential care will be spread across extra care housing, to a limited extent in Enhanced Sheltered Housing, and continuing forms of residential care. The approach allows for a marginal rise in the ratio of provision in sheltered housing of all kinds.

In relation to particular forms of provision our model assumes that a “norm” for conventional sheltered housing to rent would be around 50 units per 1,000 of the population over 75 years and around 75 units per 1,000 of leasehold conventional sheltered housing. This inverts the current levels of provision in most places but reflects the rapidly changing tenure balance where around 70% of those over 75 years of age are home owners.

Some of the loss in conventional sheltered housing for rent will be off-set by the provision of enhanced sheltered housing with a projection of around 20 places per 1,000 people over 75, divided equally between ownership and renting. Full extra care housing offers the possibility of housing a balanced community of people with relatively limited care needs through to those who might otherwise be living in residential care, total provision is projected at 25 per 1,000, again divided between rent and sale. In each approach a modest provision is made for the development of housing forms to provide a context for the care of those people with dementia who cannot be supported in their existing home but require an alternative to residential or nursing home care: the norm here is ten places per 1,000. This does not reflect potential need but reflects the “pilot” and necessarily tentative nature of such provision in the immediate future.

In relation to registered care offering personal care in all sectors, it is our assumption that capacity can be allowed to decline below the current national average of around 76 places per thousand people over seventy-five years of age to around 65 places per thousand. This reflects the capacity to support older people who would otherwise be allocated to residential care in other forms of accommodation, such as extra care housing and improved support to people in their existing home. The decline in

capacity is likely to be achieved largely by continuing exodus of small and medium providers, or the enhancement of services to provide nursing home care.

Our observation of the direction of the market suggests that registered care home places offering nursing care will increase and we therefore suggest a ratio of 45 places per thousand of those seventy-five years of age and over, that is slightly above the existing average level. This reflects continuing dependency upon this category of provision to support the most physically frail and mentally confused older people but moderated by the awareness that those authorities that initially sought to respond to an ageing population by significantly increasing the ratio of nursing provision have now altered direction. Like a number of the proposed “norms” it is an attempt to provide a tangible figure around which local debate can focus.

These norms are all set at 2001 population levels, projected forward this means that, as numbers in the upper age groups increases, the ratio of institutional and specialised housing provision will decline, in line with national

government targets to support an increasing proportion of older people in their existing homes. This intention requires the adequate provision of home care and primary health care to people in their own homes. The development of strategies to ensure that such provision can be made will need to be developed in parallel with the shaping of a strategic direction of specialised accommodation and preventive services.

These “norms” are inevitably arbitrary and may be moderated to take account of the rate of change that would be required to meet them. The pattern projected is for the medium to long-term and may need to be adjusted as newer forms are developed and mature. The summary example given in Table 23 exactly illustrates the difficulties of adopting a rigid norm. Even very substantial increase in leasehold provision and reduction in rented provision will not bring sheltered housing into line with what norms might suggest. Whilst an increase in extra care housing will offset the need for so many residential care home place the very considerable under provision of nursing home places indicates the need to encourage further development in that category of provision.

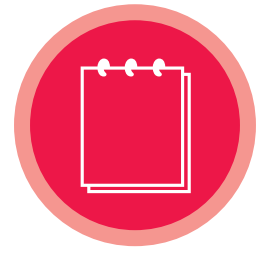
Table 23: Indicative levels of provision of various forms of accommodation for older people in Wokingham 2010-2015

		Current provision	Increase or decrease	Resulting number of units	Provision per 1,000 of Population 75+	Ratios suggested by the “norm”
Conventional sheltered housing for rent		808	-500	380	50.0	50
Leasehold sheltered housing		312	+258	570	75.0	75
Enhanced sheltered housing	For rent	40	+48	88	10.0	10.0
	For sale	99	+53*	152	20.0	10.0
Extracare sheltered housing	For rent	NIL	+95	95	12.5	12.5
	For sale	NIL	+95	95	12.5	12.5
Housing based provision for dementia		NIL	+88	88	10.0	10.0
Registered care home – personal care	Local Authority	70**	No change	70	9.2	65.0
	Private	251	No change	250	32.9	
Registered care home – nursing care		373	No change	373	48.9	45.0

*These figures allow for the transfer of units from renting to whole or partial purchase within the re-provision/enhancement of sheltered housing.

** Currently residential care for older people but in process of conversion to provision for Elderly Mentally Infirm

16 Possible drafting recommendations & an action plan



The recommendations should normally reflect the priorities for action identified in the course of the study. They may include the need to undertake formational work such as the preparation of a statement of vision and values, exploratory work such as improving local knowledge about new forms of provision, setting in place structures for participation by older people and encouraging the review of some current provision while facilitating the introduction of new forms.







A typical set of recommendations from a study of this kind might be:

- 1) Establish a shared vision
- 2) Create a dedicated project management team
- 3) Give further thought to the issues of leadership and champions such as through those that inform the Local Area Agreement
- 4) Give fresh consideration to the relationship between Adult Social Care Services and Housing to improve the correlation of the policy development

- 5) Integrate the priorities of the older people's strategy into corporate strategy and priorities
- 6) Work to develop an integrated portal to services
- 7) Develop information resources to facilitate choice and access to service
- 8) Institute a review of all rented sheltered housing with a view to achieving a reduction in the level of conventional sheltered housing to rent, an increase in leasehold provision and the development of enhanced sheltered schemes for both rent and sale.
- 9) Progress plans for the provision of extra care housing and to review the future role of in-house residential care
- 10) Develop a housing based dementia care facility
- 11) Identify potential sources of capital and revenue investment

Any action plan produced to carry forward the recommendations will need to take account of the processes that will be required for the authority to respond to the report and formulate a policy response. Generally, this will involve consulting upon the recommendations, moving to incorporate them into policy and allowing them to influence commissioning behaviour.

Figure Six: Action Plan for Anyborough 2008 to 2009

	2008												2009			
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
1) Corporate Management team augmented as appropriate by elected members and Health personnel and Older Persons' Advisory Group consider a vision of life in old age to which they are prepared to commit time and resourcing – 1 month																
2) A broader-based visioning event with large representation of older people and front line staff – facilitated by at least two members of the group in 1 above – taking place within 2 months of 1 above.																
3) Senior Member and Officer representatives of City Council and the Health Economy consider what aspects of the recommendation of this review they are prepared to endorse, outline the structural and policy change required – 2 months.																
4) Multi-disciplinary Project Team including representatives from Older Persons' Advisory Group and RSL's identified to take forward identification – establish within 2 weeks of 3 above.																
5) A sub-group of the Multi-disciplinary Project Team augmented as appropriate consider the presentation and resourcing of an extra care village. Detailed costing and site investigations pursued with an objective of brining forward proposals for funding in 2009-2010.																
6) Project Team established to work through the details of development of new policy and management and funding of existing extra care (extra care sheltered housing schemes) – with an aim to go live in 2008.																

	2008												2009			
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
7) Sub-group of Multi-disciplinary Project Team consider the integration of the family of services and adaptations, home improvement agencies, equipment services and occupational therapy – 3 months.																
8) Sub-group of Multi-disciplinary Project Team to review the roll-out of new strategy for assistance to private sector housing and connections to wider health, housing and social care agenda – 1 month in autumn 2007.																
9) Establish implementation teams involving front line staff from housing, health, social care, RSLs and Older Persons' Advisory Group. These teams to be tasked to offer advice to strategy groups and promote implementation within their respective agencies. Implementation team to be led by identified champion. Within three months with work ongoing.																
10) Housing Strategy Team to commission detailed scheme by scheme review of conventional sheltered housing using its fitness for future purpose and the scope for service reconfiguration. This review group should include representation from health and social care to examine the future role of wardens, the links with home care and community health services and how future service can be appropriately resourced. This work to be completed within 6 months.																
11) Establish focus groups of persons aged 45 to 60 for each of the minority ethnic communities to debate over a period of 4 to 6 months the nature of housing care and health needs that they believe they will require in 2021 - 2031.																

	2008												2009			
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
12) Establish a Any Town Futures Group of persons aged 45 to 60 to consider the same issues as in 11 above.					★	→										
13) Strategic Management Board for Health and Social Care develop costed proposals informed by Multi-disciplinary Project Team for the City Council and Health Authority budget rounds.							→									

★ Indicates a meeting or inaugural meeting for an on-going group.

→ Indicates an on-going item of work with approximate start and completion times.

This action programme represents the beginning of the task, not its total realisation.

17 Other useful information



Useful publications

Care Services Improvement Partnership (2006), *Extra Care Housing Toolkit, Housing Learning and Improvement Network*. Department of Health, London

Communities and Local Government (2008), *National Housing Strategy for an Ageing Society*. London

Communities and Local Government (2007), *Planning Policy Statement 3*. London

Communities and Local Government (2007), *Homes for the Future: More Affordable, More Sustainable*. London

Croucher K (2008), *The housing choices and aspirations of older people*. Communities and Local Government New Horizons research programme

Department of Health (2007), *Projecting Older Persons Population Information (POPPI)*. London

Department of Health (2006), *Our health, our care, our say: a new direction for community services*. London

Department of Health (2002), *An introduction to Extra Care Housing for commissioners*, London

HM Government (2007), *Putting People First: A shared vision and commitment to the transformation of Adult Social Care*, London

Housing Association Charitable Trust (2007), *Towards an ageing society*. London

The Housing Corporation (forthcoming), *Older People's housing strategy*. London

The Housing Corporation (2002), *Housing for Older People*. London

Housing for Older People Development Group (2006), *Older People's Housing Strategies: key policy drivers*. CLG, London

Housing for Older People Development Group (2005), *Delivering housing for an ageing population: informing housing strategies and planning policies*. CLG, London

International Longevity Centre (2007), *Towards Lifetime Neighbourhoods: designing sustainable communities for all*. London

International Longevity Centre (2007), *Building our Futures: meeting the housing needs of an ageing population*. London

Lewis G (2007), *Predicting who will need costly care: how best to target preventative health, housing and social care programmes*. The King's Fund. London

Office of the Deputy Prime Minister (2003), *Preparing Older People's Housing Strategies. ODPM/Housing Corporation*. London

Royal Town Planning Institute (2007), *Extra care housing: development planning, control and management*. RTPI Good Practice Note 8. London

Vallely S et al (2007), *Opening doors to independence*. Housing 21, London

Checklist of web sites for legislation policy, guidance and good practice

Government Departments

Cabinet Office www.cabinetoffice.gov.uk

Communities and Local Government (CLG)
www.communities.gov.uk

Department of Health www.dh.gov.uk

Department of Work and Pensions
www.dwp.gov.uk

Housing for Older People Development Group
www.communities.gov.uk/housingandolderpeople

Housing Learning and Improvement Network
www.icn.csip.org.uk/housing

Housing and housing/care related bodies

Association of Retirement Housing Managers
www.arhm.org

Care & Repair England
www.careandrepair-england.org.uk

Care Services Improvement Partnership
www.csip.org.uk

Chartered Institute of Housing
www.cih.org

Commission for Social Care Inspection
www.csci.org.uk

EROSH (sheltered housing)
www.shelteredhousing.org

Foundations (Home Improvement Agencies)
www.foundations.uk.com

Housing Association Charitable Trust
www.hact.org.uk

The Housing Corporation
www.housingcorp.gov.uk

Integrated Care Network
www.icn.csip.org.uk

Joseph Rowntree Foundation www.jrf.org.uk

The Kings Fund www.kingsfund.org.uk

Local Government Association
www.lga.gov.uk

National Housing Federation
www.housing.org.uk

Royal Town Planning Institute www.rtpi.org.uk

Social Care Institute for Excellence
www.scie.org.uk

Telecare Service Association
www.telecare.org.uk

Town and Country Planning Association
www.tcpa.org.uk

Help and advice for older people

Age Concern England www.ageconcern.org.uk

Better Government for Older People
www.bgop.org.uk

Counsel & Care
www.counselandcare.org.uk

Elderly Accommodation Counsel
www.housingcare.org

Help the Aged www.helptheaged.org.uk

We help to improve services and achieve better outcomes for children and families, adults and older people including those with mental health problems, physical or learning disabilities or people in the criminal justice system. We work with and are funded by





Explaining road transport emissions

A non-technical guide

European Environment Agency



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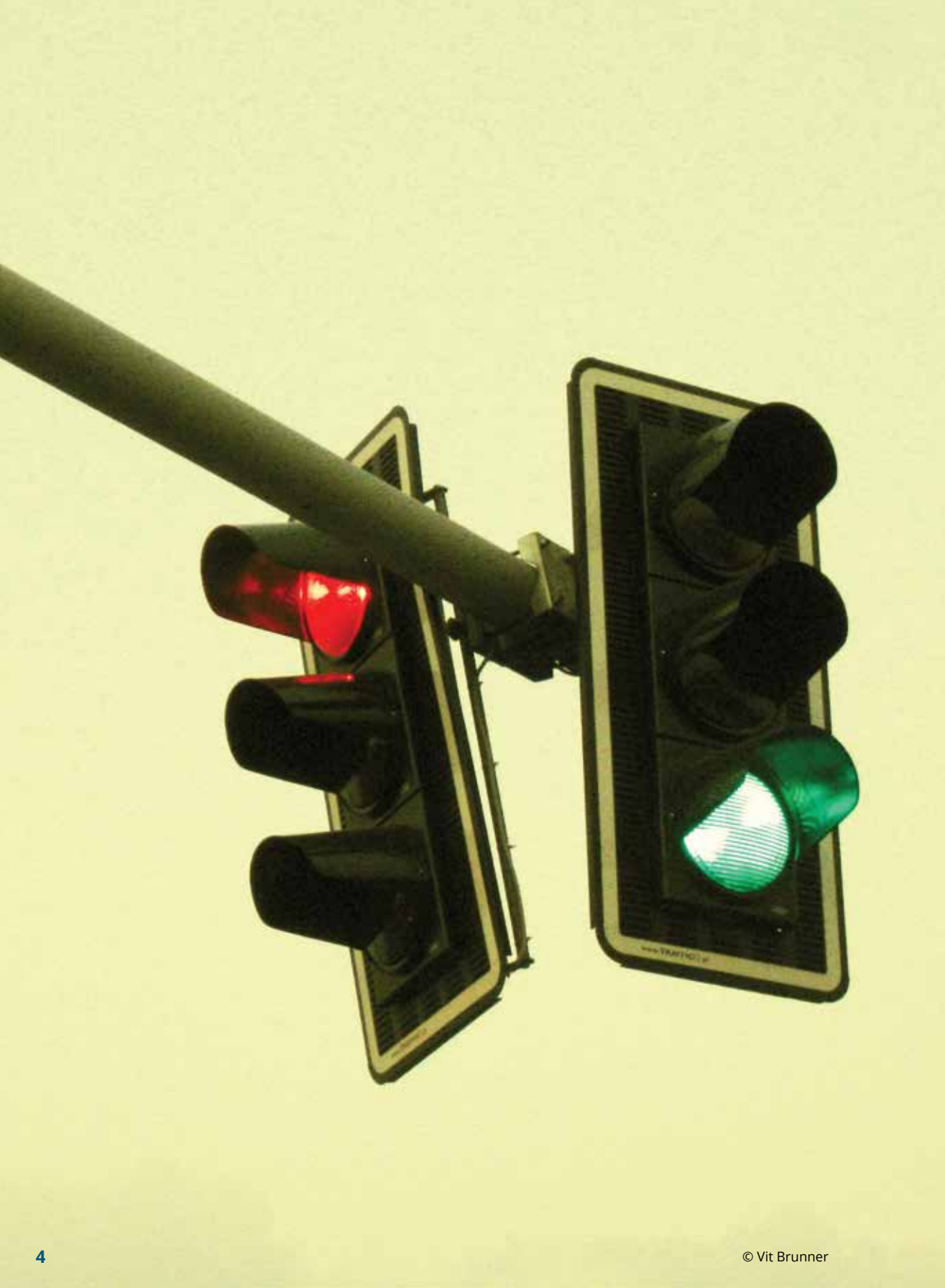
Reading this report

This report provides a summary of the current knowledge on vehicle emissions in Europe. It also explains how emissions are monitored and the common technologies used to limit them.

The report is organised as follows:

- The first four sections provide a non-technical description of how vehicle emissions occur and how they are tested, and the reasons for the differences observed between tested and real-world driving emissions.
- The next two sections present a more detailed summary of the testing procedures used for estimating vehicle emissions, as well as the technologies that are currently in place for their reduction.
- The final section provides additional sources of information for consumers, researchers and policymakers.





Why limit emissions from road transport?

Road transport is an important source of both greenhouse gases and air pollutants. Despite improvements in vehicle efficiencies over past decades, today the sector is responsible for almost one fifth of Europe's greenhouse gas emissions. Emissions from vehicles also lead to high concentrations of air pollutants above EU standards in many of Europe's cities.

Transport, and in particular road transport, delivers many benefits to our society. It allows the movement of people and goods, it supports economic growth and it provides employment. However, despite these benefits and the many technological and efficiency improvements achieved over the past decades, the road transport sector is still a major contributor to Europe's emissions of greenhouse gases (GHGs) and air pollutants. While poor air quality and climate change are very different phenomena, each harms human health, the environment or both. Such harmful impacts caused by road transport pollution cause real economic costs to society.

Good progress has been achieved over the past 25 years in limiting exhaust emissions of many pollutants from road transport. These achievements have resulted from a combination of policies and measures, such as setting technological standards for vehicle emissions and fuel quality, legislation establishing air quality limits, and measures implemented at the local level to manage transport use, such as improved transport planning and public transport incentives.

Nevertheless, the overall increases in passenger and freight demand, as well as the under-performance of certain vehicle standards under real-life driving conditions, has meant that emission reductions over recent decades have not always been as large as originally planned.

This report provides a non-technical summary of the sometimes scattered and often very complex information available concerning road transport emissions. It provides a summary of the current knowledge on vehicle emissions, how they are monitored and the common technologies used to control them. In addition, information on the following is included:

- how vehicle emissions are measured according to European Union (EU) legislation;
- the reasons for the differences observed in certain pollutants between emissions monitored according to legislative tests and real-world driving emissions;
- key policy implications of such differences.

Impacts on health and the environment

Greenhouse gases

While GHG emissions from all other main sectors of the economy have fallen in recent decades, those from transport have increased. Road transport GHG emissions are today around 16 % above the levels in 1990. As emissions from other sources have decreased, the contribution that road transport makes to total EU emissions has increased by around half — from a 13 % share in 1990 to almost 20 % share in 2013.

Air pollution

Air pollution can be defined as the presence of pollutants in the atmosphere at levels that harm human health, the environment and/or cultural heritage (e.g. by damaging buildings, monuments and materials). Identifying the relationship between emissions of air pollutants, their concentrations in the air and their subsequent impacts is complex. The quality of the air that each of us breathes depends on many factors, including the mix of emission sources in a given area, the local landscape and meteorology, all of which can affect the formation and the dispersion of the pollutants.

Road transport remains an important source of some of the most harmful air pollutants. In particular, road transport is responsible for significant contributions to emissions of nitrogen oxides (NO_x) and particulate matter (PM). Pollution released by vehicles is particularly important, as emissions generally occur in areas where people live and work, such as cities and

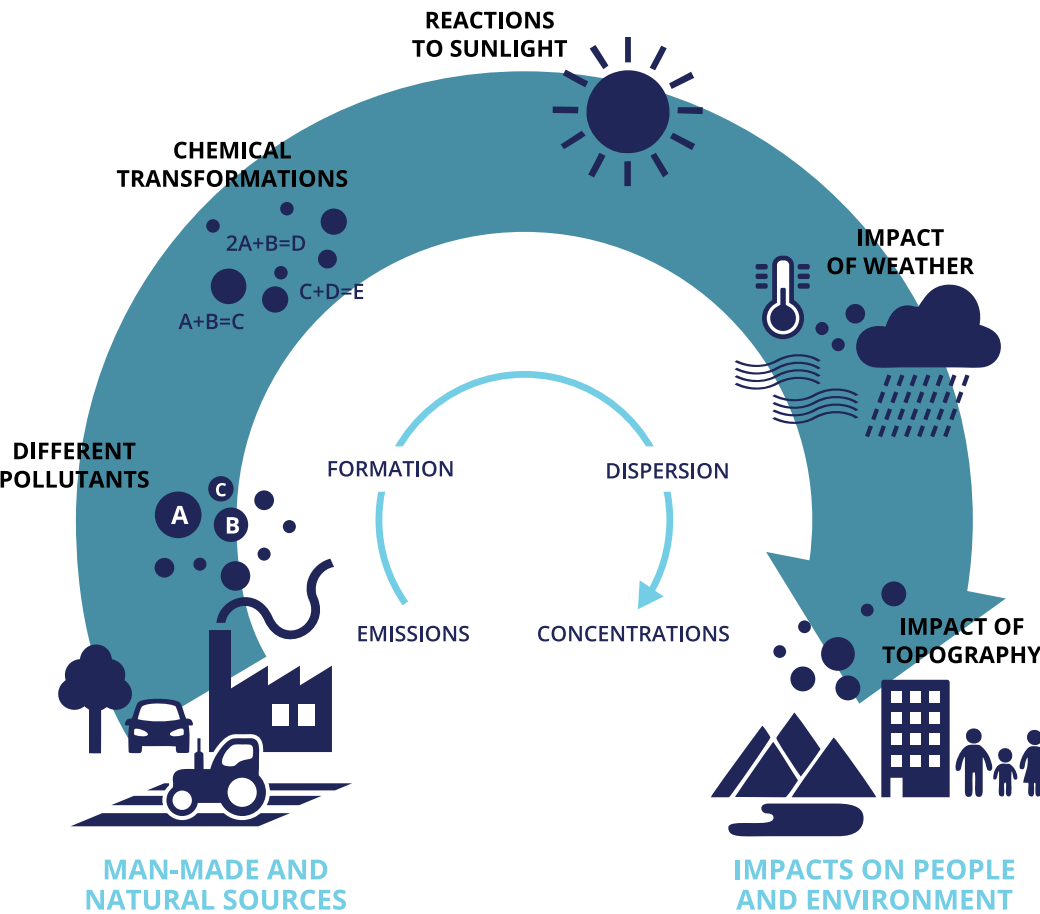
towns. Therefore, although emissions from the transport sector may not be as great in absolute terms as those from other sources, population exposure to the pollutants released by road transport can be higher than for sources such as power plants or large industrial facilities, which often tend to be located in remoter, less populated areas.

In contrast to GHG emissions, emissions of the main air pollutants from transport have generally declined over the past two decades. However, the latest air quality assessment published by the European Environment Agency (EEA) reveals that a significant fraction of the European urban population was exposed to air pollution levels exceeding EU air quality standards over recent years (EEA, 2015a). For example, the EU annual limit value for nitrogen dioxide (NO₂), the harmful component of NO_x, is still widely exceeded across Europe, mainly at roadside locations. Similarly, a number of Member States report levels of PM higher than the respective EU air quality standards.

To reduce the negative effects on air quality caused by road transport emissions, EU emission standards for exhaust emissions have become increasingly stringent over the past decades for both light- and heavy-duty vehicles. Vehicle manufacturers have subsequently achieved compliance with the decreasing emission limits, mainly by introducing technological solutions, in particular through the gradual implementation of enhanced emission-control technologies such as exhaust catalysts.

Air pollution: from emissions to exposure

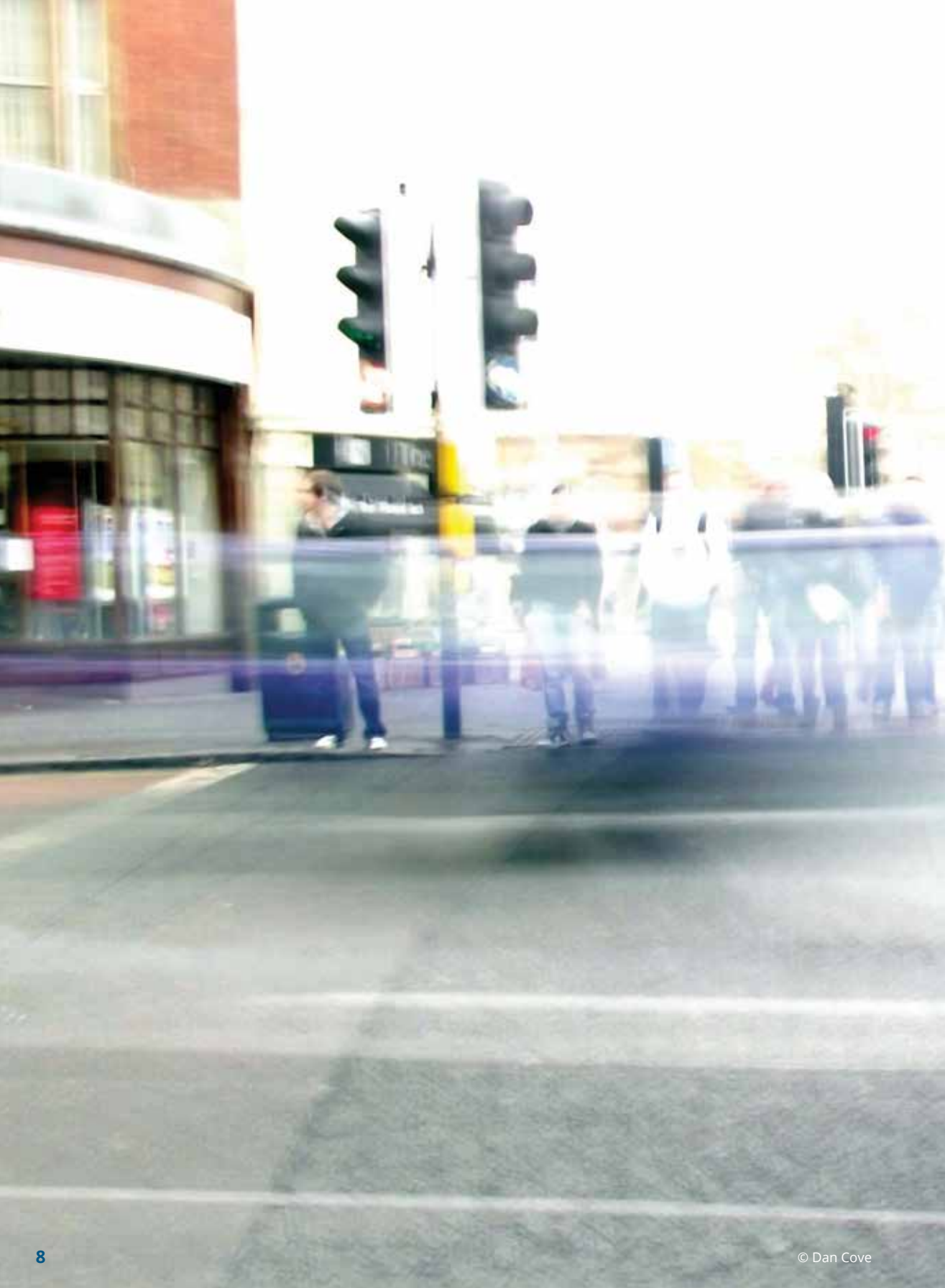
Poor air quality is a serious health and environmental problem. Certain harmful air pollutants are emitted directly from vehicles, such as 'primary' particulate matter (PM) and nitrogen oxides (NO_x). Others, such as ozone and 'secondary' PM, form in the atmosphere after emissions of precursor pollutants, including NO_x and volatile organic compounds. Different sources of pollution, including transport and non-transport sources, emit different types and ratios of pollutants. The extent to which the population and environment are exposed to harmful levels of air pollution is a complex issue, dependent on how pollutants travel in the atmosphere, their mixing and how they react under different meteorological conditions. Road transport emissions are, relatively, more harmful than those from other sources, as most emissions tend to occur in areas where people live and work, such as cities and towns.



Road transport contributes about 23 % of the EU's total emissions of carbon dioxide.

More than 30 % of NO_x emissions in the EU come from road transport.

Around 12 % of the EU's primary PM_{2.5} emissions come from road transport.



Pollutants emitted by vehicles

Road vehicles emit a variety of greenhouse gases and air pollutants. As well as being emitted from vehicle exhausts, certain pollutants are also released from brake wear and from the evaporation of fuel.

A number of different air pollutants and GHGs are emitted by road vehicles. These can be split into two groups: those that are regulated under EU road transport legislation and those that presently are not.

The 'regulated' pollutants include:

Carbon dioxide (CO₂), which is the main product of fuel combustion in vehicle engines, along with water. CO₂ is the most significant GHG influencing climate change, posing a threat to public health and the environment.

Hydrocarbons (HCs), which are produced from either incomplete or partial combustion and which are toxic to human health. HCs, and particularly the volatile organic compounds (VOCs), contribute to the formation of ground-level ozone and photochemical smog in the atmosphere. Ozone irritates the eyes, damages the lungs and aggravates respiratory problems.

Carbon monoxide (CO), a product of incomplete combustion, which occurs when the carbon in the fuel is only partially oxidised, forming CO and not CO₂. It is colourless and odourless but highly toxic. Direct exposure to CO reduces the flow of oxygen in the bloodstream and is particularly dangerous to people with heart disease. Like

HCs, CO also contributes to the formation of ground-level ozone and smog.

Particulate matter (PM), which is a product of incomplete combustion and a complex mixture of both primary and secondary PM. 'Primary' PM is the fraction of PM that is emitted directly into the atmosphere, whereas 'secondary' PM forms in the atmosphere following the release of precursor gases (mainly sulphur dioxide (SO₂), nitrogen oxides (NO_x), ammonia (NH₃) and some VOCs). In terms of its potential to harm human health, PM is one of the most important pollutants, as it penetrates into sensitive regions of the respiratory system and can cause or aggravate cardiovascular and lung diseases and cancers.

Nitrogen oxides (NO_x) (see also box on nitrogen emissions from motor vehicles), which constitute a group of different chemicals that are all formed by the reaction of nitrogen — the most abundant gas in air — with oxygen. NO_x comprises colourless nitric oxide (NO) and the reddish-brown, very toxic and reactive nitrogen dioxide (NO₂). NO_x emissions also lead to the subsequent formation of 'secondary' PM and ground-level ozone in the atmosphere, and cause harm to the environment by contributing to the acidification and eutrophication of waters and soils.

Pollutants emitted by vehicles that are not currently regulated by vehicle emission standards in the EU include: **certain acidifying pollutants**, such as NH₃ and SO₂ (although emissions of the latter are indirectly addressed via fuel quality legislation, which limits the amount of sulphur permissible in fuels); **certain carcinogenic and toxic organic pollutants**, such as polycyclic aromatic hydrocarbons (PAHs), persistent organic pollutants (POPs), dioxins and furans; and **heavy metals**, such as lead, arsenic, cadmium, copper, chromium, mercury, nickel, selenium and zinc.

Types of vehicle emissions

Vehicles emissions can be categorised into three groups:

Exhaust emissions — the emissions produced primarily from the combustion of different petroleum products such as petrol, diesel, natural gas (NG) and liquefied petroleum gas (LPG). These fuels are mixtures of different hydrocarbons, i.e. compounds that contain hydrogen and carbon atoms. In a 'perfect' engine, oxygen in the air would react in a combustion process

with all of the hydrogen in the fuel to form water and with all of the carbon in the fuel to form CO₂, and the nitrogen in the air would remain unaffected. In reality, no combustion process is 'perfect'; thus, vehicle engines emit many different pollutants in addition to water and CO₂. The amount of each pollutant emitted is very dependent on the type of fuel used, e.g. whether a vehicle is diesel or petrol powered, and engine technology.

Abrasion emissions — the emissions produced from the mechanical abrasion and corrosion of vehicle parts. Abrasion is only important for PM emissions and emissions of some heavy metals. Significant levels of PM emissions can be generated from the mechanical abrasion of the vehicle's tyres, brakes and clutch, the road surface wear or the corrosion of the chassis, bodywork and other vehicle components.

Evaporative emissions — the result of vapours escaping from the vehicle's fuel system. Evaporative emissions are important for only VOCs. Petrol fuel vapour contains a variety of different HCs, which can be emitted any time there is fuel in the tank, even when the vehicle is parked with its engine turned off.

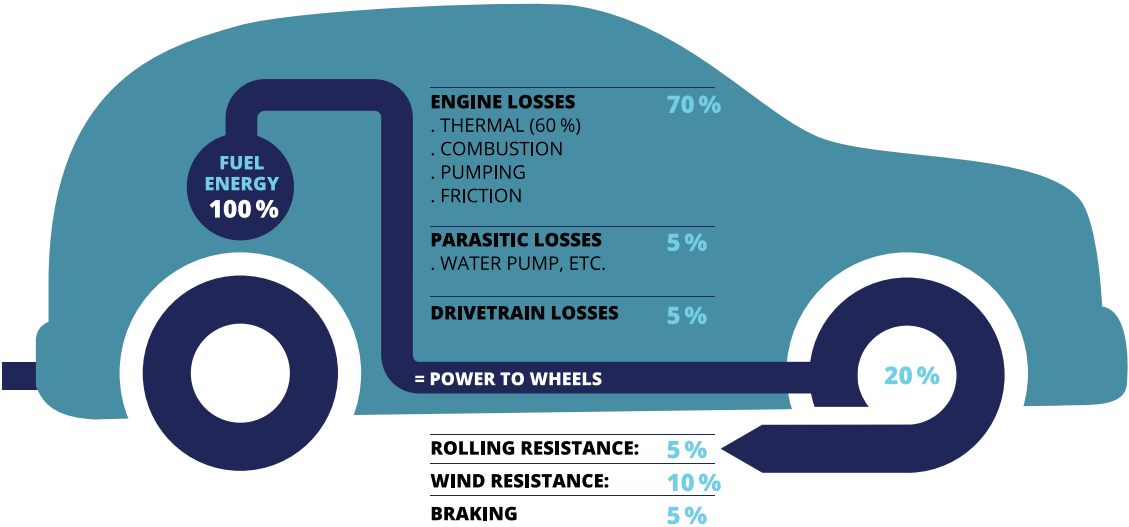
Nitrogen emissions from motor vehicles

Nitrogen oxides (NO_x) are produced when fuel is combusted in the engine in the presence of air. NO_x comprises a mixture of nitric oxide (NO) and nitrogen dioxide (NO₂). NO is not harmful to health at the concentrations typically found in the atmosphere. However, in contrast, NO₂ is associated with a range of environmental and health problems. The proportion of harmful NO₂ in the NO_x emissions of a diesel vehicle is far higher than the proportion found in the emissions of a conventional petrol vehicle. In older diesel engines, approximately 95 % of NO_x emissions were NO and only 5 % were NO₂. For new diesel passenger cars, both engine size and exhaust aftertreatments (e.g. catalytic converters) affect the level of NO₂ emissions: the NO₂ to NO_x ratio can vary from 12 % to 70 % (EEA, 2013).

Some catalytic converters may also, while significantly reducing the emissions of carbon monoxide, NO_x and hydrocarbons, produce other nitrogen-containing pollutants such as NH₃ and the GHG nitrous oxide (N₂O). The road transport emissions of both these pollutants, although relatively small, have increased since 1990 as a result of the increased use of three-way catalytic converters. These release NH₃ as a by-product. However, NH₃ emissions have fallen since 2000, and are projected to fall further in the future as the second generation of catalysts — which emit lower levels of NH₃ than the first generation of catalysts — become more widely used in the vehicle fleet.

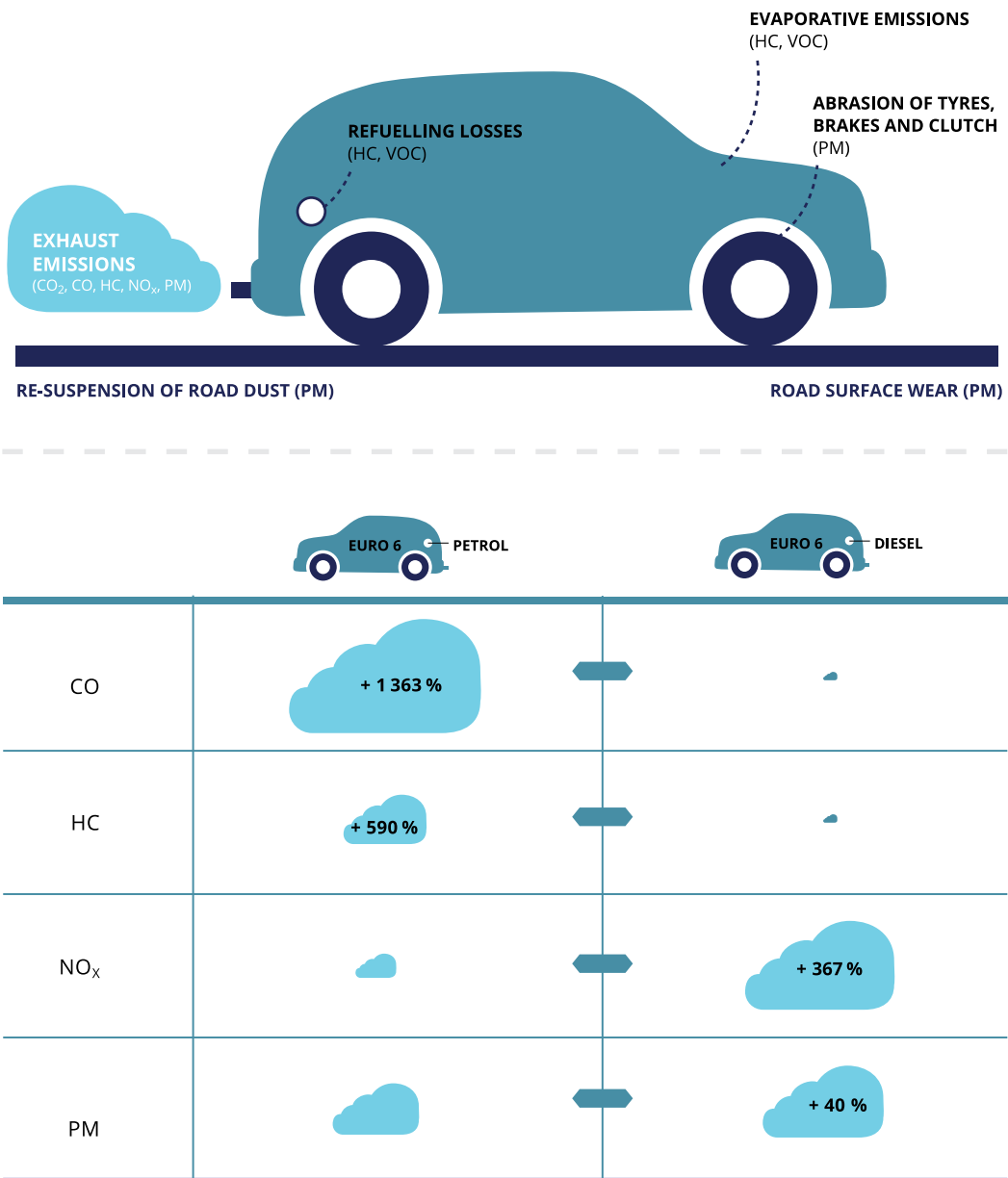
Vehicle emissions and efficiency

In a conventional vehicle, only about 18 to 25 % of the energy available from the fuel is used to move it on the road, depending on the driving conditions. The rest of the energy is lost to engine and drivetrain ⁽¹⁾ inefficiencies. A small proportion of the energy produced is used to power vehicle accessories (e.g. radio, air conditioning). Therefore, the potential to further improve fuel efficiency using advanced technologies remains significant. While newer diesel engines remain more fuel efficient than petrol engines, their impact on air pollution is worse because of the higher levels of NO_x and PM that they emit.



(1) The drivetrain of a motor vehicle is the group of components that deliver power to the driving wheels. This includes the transmission, the axles and the wheels.

The different types of emissions from vehicles, and a comparison of the relative amounts of selected pollutants released by the latest Euro 6 petrol and diesel vehicles

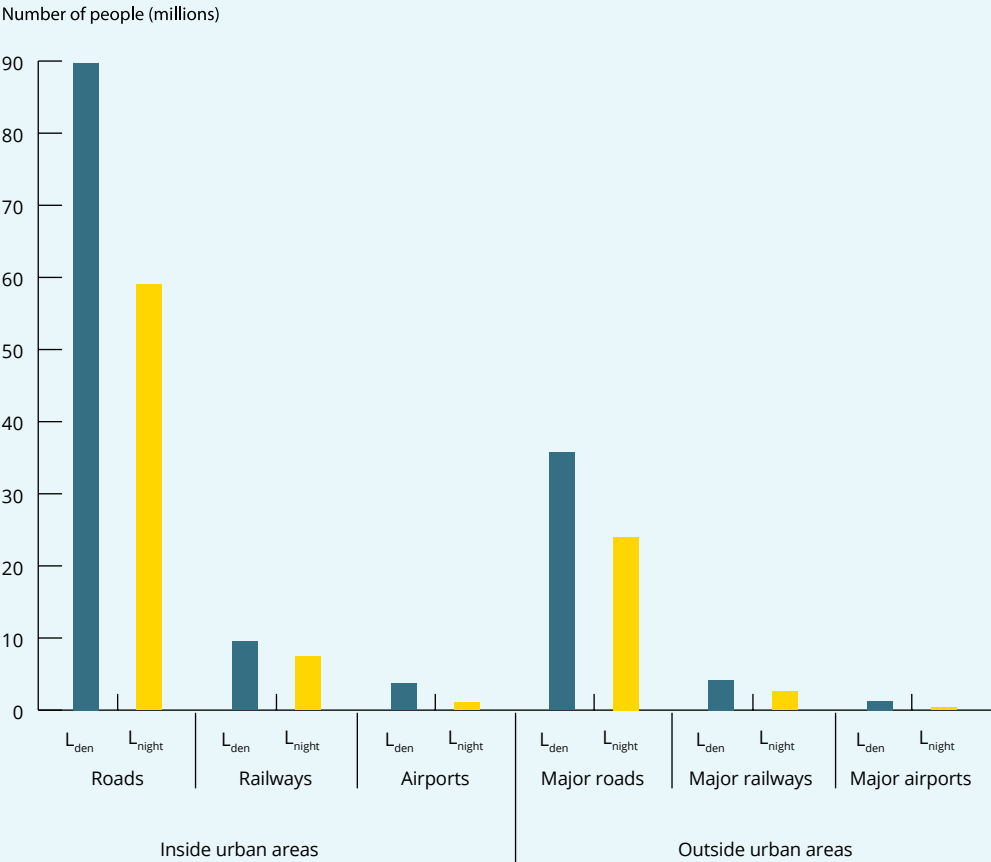


Source: Based on www.fueleconomy.gov.

Noise from road transport

Road traffic is, by far, the greatest source of traffic noise in Europe, both inside and outside urban areas. High levels of noise harm human health and well-being. Two of the main indicators used for monitoring noise levels are L_{night} and L_{den} (day-evening-night). L_{night} is the average sound level measured overnight between 23.00 and 07.00. L_{den} is a weighted noise level measured over a 24-hour period, with a decibel penalty being added to night time noise levels; these penalties reflect people's greater sensitivity to noise during the night and the evening.

Exposure to high levels of noise from road transport is a major concern. In 2012, almost 90 million people living in cities were exposed to long-term average road traffic noise levels exceeding 55 dB L_{den} . At night time, over 83 million people were exposed to road noise levels exceeding 50 dB. On major roads outside urban areas, around 35 million people were affected by high levels of noise during the day time and 24 million people at night (EEA, 2014a).



Recently, new legislation limiting the sound levels allowed from motor vehicles and of replacement silencing systems was adopted (EU, 2014a). Its main elements are:

- new international testing methods to better reflect driving behaviour;
- limit values for passenger cars, buses and light trucks, and for heavy-duty vehicles;
- additional sound emission provisions in the vehicle type approval procedure and revision of existing derogations for certain vehicle types;
- a minimum noise level ('Approaching Vehicle Audible Systems') for electric and hybrid electric vehicles;
- requiring provision of information on noise levels at vehicle dealerships.



Regulating vehicle emissions in the European Union

Over the last 25 years, Europe has put in place a number of policies to reduce the emissions of greenhouse gases and air pollutants from vehicles.

Carbon dioxide emissions

The EU is committed to reducing fuel consumption from road vehicles in the effort to reduce GHG emissions from transport and improve energy security. To this end, two important regulations have been introduced in recent years for new passenger cars and new light commercial vehicles (vans) sold in Europe. In 2009, an EU Regulation was agreed (EU, 2009) that established mandatory annual targets for average CO₂ emissions from new passenger cars sold in Europe. New cars registered in the EU-28 must achieve an average emissions target of 130 grams of CO₂ per kilometre (g CO₂/km) by 2015. A medium term target has also been established: by 2021, phased in from 2020, the average emission to be achieved by all new cars is 95 g CO₂/km.

Following the legislation for cars, two years later, a separate Regulation was introduced setting targets for vans (EU, 2011). New vans registered in the EU must meet an average emissions target of 175 g CO₂/km by 2017. For 2020, the target is 147 g CO₂/km.

The data that EU Member States have reported to the EEA and the European Commission, based on standardised laboratory emission tests, show that

CO₂ emissions from new passenger cars have steadily decreased since 2000. As a result, new cars sold in 2013 already met their CO₂ target ahead of the 2015 deadline (EEA, 2015b). As observed for passenger cars, official CO₂ emissions from vans have also decreased over the last three years and already met their 2017 target in 2013 — four years ahead of the deadline.

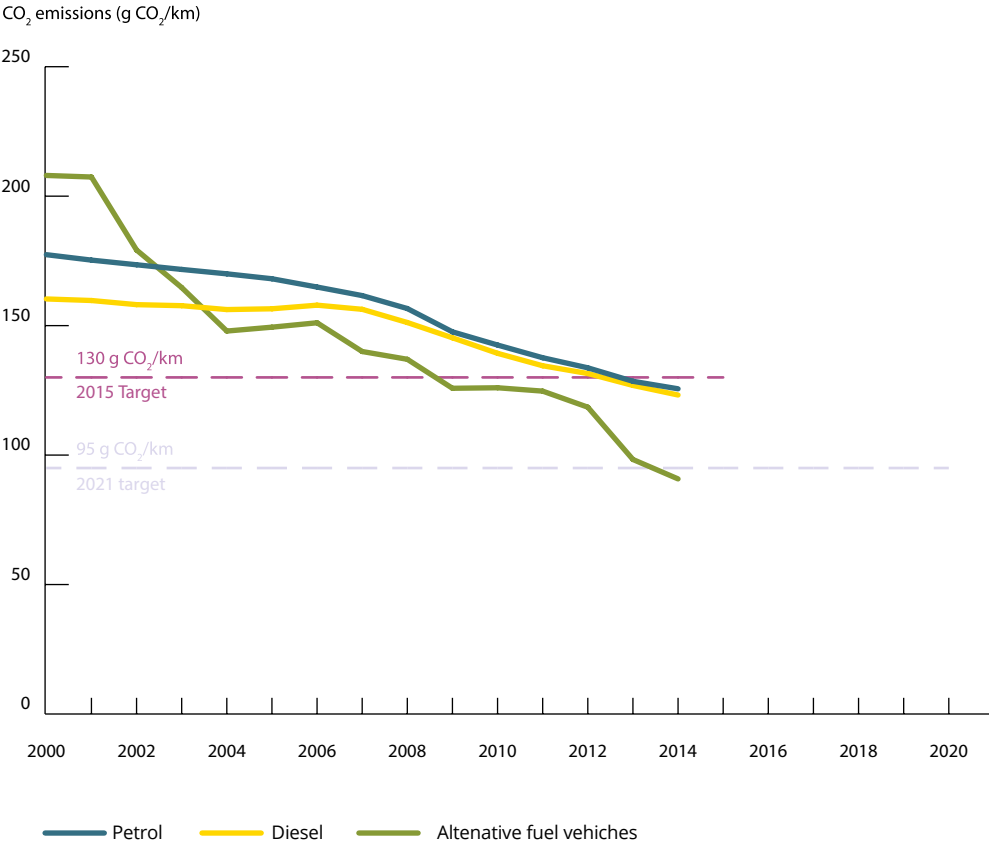
Air pollutants

Since the 1970s, the key mechanism by which vehicle air pollutant emissions have been regulated has been through the setting of exhaust emission limits. As with CO₂ measurements, vehicle conformance with the required limits is checked on the basis of standardised laboratory emission measurements. The first European Council Directive that specified measures against air pollution from motor vehicles was in 1970 (EU, 1970). Around 20 years later — in 1992 — the 'Euro' emission standards were introduced, starting with the 'Euro 1' step, followed, generally, by successively stricter standards: Euro 2 to Euro 6. At present, in 2016, only Euro 6 vehicles can be sold in the EU.

The increasingly tighter emission limits have led to the introduction of new vehicle

technologies, and there have consequently been some significant reductions in vehicle emissions in Europe over the last 40 to 45 years. As an example, the latest technology Euro 6 diesel car must emit almost 97 % less PM when tested than a 20 year older Euro 1 vehicle.

Change in officially reported CO₂ emissions from new petrol, diesel and alternative fuel passenger cars sold in the EU



Note: The value for alternative fuel vehicles includes pure electric, liquefied petroleum gas (LPG), natural gas (NG), ethanol (E85), biodiesel, and plug-in hybrid vehicles.

Source: EEA, 2015b.

Emission limits (g/km) of the successively introduced Euro emission standards for passenger vehicles

Diesel	Date	CO	NMHC	NO _x	HC + NO _x	PM	PN
Euro 1	July 1992	2.72	-	-	0.97	0.14	-
Euro 2	January 1996	1.0	-	-	0.7	0.08	-
Euro 3	January 2000	0.64	-	0.50	0.56	0.05	-
Euro 4	January 2005	0.50	-	0.25	0.30	0.025	-
Euro 5a	September 2009	0.50	-	0.180	0.230	0.005	-
Euro 5b	September 2011	0.50	-	0.180	0.230	0.005	6.0 × 10 ¹¹
Euro 6	September 2014	0.50	-	0.080	0.170	0.005	6.0 × 10 ¹¹
Petrol	Date	CO	NMHC	NO _x	HC + NO _x	PM	PN
Euro 1	July 1992	2.72	-	-	0.97	-	-
Euro 2	January 1996	2.2	-	-	0.5	-	-
Euro 3	January 2000	2.3	-	0.15	-	-	-
Euro 4	January 2005	1.0	-	0.08	-	-	-
Euro 5	September 2009	1.0	0.068	0.060	-	0.005	-
Euro 6	September 2014	1.0	0.068	0.060	-	0.005	6.0 × 10 ¹¹



Notes: NMHC, non-methane hydrocarbons; PN, particle number.

How are vehicle emissions measured?

Testing vehicle emissions is complex. Standardised measurements in laboratories are used to check that vehicles meet the official requirements for exhaust emissions. However the official procedures currently used in Europe are not representative of real driving conditions. This problem has led to the development of new measurement procedures as well as portable emission measurement systems to obtain better information on real driving emissions.

Measuring emissions under European Union legislation

According to Europe's laws, before being sold, vehicles must be tested to verify they are compliant with the required environmental, climate, safety and security standards. As it is not practical to test every single vehicle, one production vehicle is tested — with this vehicle considered representative of the 'type' — and, if all standards are respected, 'type approval' documentation is issued. In Member States, type-approval authorities have been granted responsibility for all aspects of the approval of a type of vehicle. This includes issuing and withdrawing approval certificates, as well as appointing the technical laboratory services that run the tests and verify whether the vehicles conform to the relevant European legislation.

As part of the testing, all light-duty vehicles — whether passenger car, light commercial vehicle, moped or motorcycle — have to be tested on a 'chassis dynamometer', also known as a roller bench. A chassis dynamometer is designed to operate a vehicle indoors on a stationary platform

to simulate real-world vehicle operation. The vehicle is driven on rollers, following a predefined driving pattern, with the dynamometer simulating the inertia of the vehicle, as well as the air drag resistance and the friction on the vehicle (known as the 'road load'). The level of resistance on the dynamometer is adjusted for each specific vehicle tested to simulate the level of resistance that the vehicle would encounter if operated on the road, including:

Vehicle aerodynamic resistance, a factor affected by the vehicle's size and shape, which determines how much air the vehicle has to push out of the way as it moves — the more resistance there is, the more energy has to be expended;

Tyre rolling resistance, a factor related to tyre design that determines how much energy the vehicle has to use to overcome the resistance caused by the interaction between the tyres and the road.

To set the road load and to properly reflect the actual vehicle characteristics, an initial 'coast-down' test procedure is first

performed. The coast-down test consists of coasting the vehicle from a certain speed outside of the laboratory with the engine ungeared, while simultaneously recording the speed and the travelled distance until it stops. The test allows the values of the resistant forces acting on the vehicle at certain speeds, as well as the road conditions, to be evaluated, so that they can be reproduced in the laboratory when the vehicle is subsequently tested on a chassis dynamometer.

To determine its emissions and fuel consumption, each vehicle follows a pre-defined 'driving cycle' on the chassis dynamometer. 'Driving cycles' are pre-defined cycles of accelerations, gear changes, steady speeds, decelerations and idling. A trained driver is employed to follow the driving cycle on the chassis dynamometer within defined tolerances.

While the vehicle is being driven on the roller bench, all emissions from the vehicle tailpipe are collected in sealed bags and subsequently analysed. The emission results, measured in grams of pollutant per kilometre driven, are then determined.

Emission levels primarily depend on vehicle-related factors such as model, size, road-loads, fuel type and technology. In addition to the vehicle configuration, the driving dynamics — including vehicle speed, acceleration, idling time and gear selection — have a very significant effect on emissions. Hence, the type of standardised driving cycle used for testing is an important factor in determining vehicle emissions.

A vehicle being tested on a roller bench



To measure its evaporative emissions, the car is placed into a completely sealed chamber, called a Sealed Housing for Evaporative Determination (SHED). The SHED is equipped with a heating/cooling system for temperature control in the chamber and uses software and analytical equipment to determine the level of evaporative HC emissions of the vehicle.

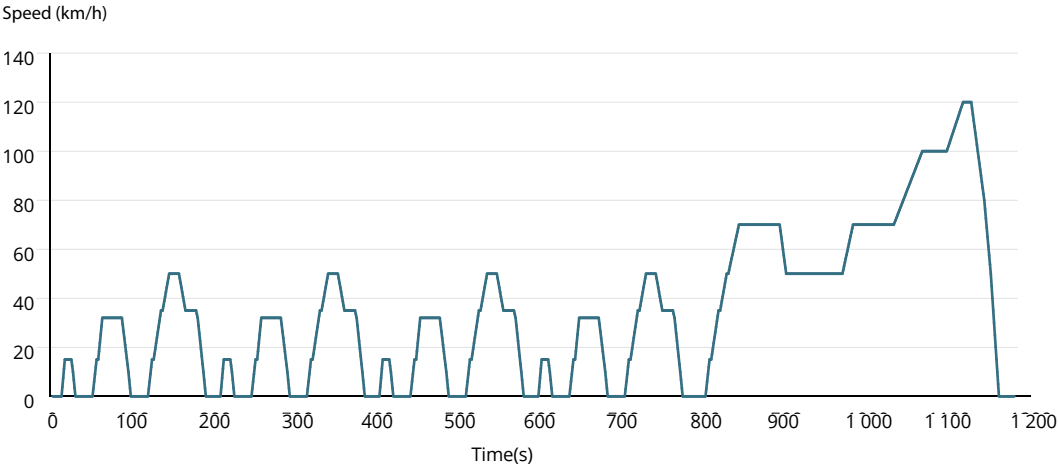
The current European Union type approval driving cycle

The New European Driving Cycle (NEDC) is presently used under EU legislation for assessing the emissions and fuel economy of light-duty vehicles during type approval. It was first introduced in 1970 to represent typical driving conditions of busy European cities; it was then updated in 1990 in an attempt to better represent more demanding, high-speed driving modes. The NEDC now consists of an urban and an extra-urban driving part. The NEDC speed

profile, which shows the speed of the vehicle during the test, is illustrated below.

The NEDC was originally developed when vehicles were lighter and less powerful than those available today. For these reasons, the test involves only a simple speed pattern with low accelerations, constant speed and many idling events that typically under-load modern day engines. Nowadays it is widely accepted that the NEDC is outdated, with much evidence available from the scientific community and vehicle users clearly showing that the emission values and fuel consumption measured in the laboratory largely understate the actual levels obtained under real-world driving conditions. This difference occurs for a variety of reasons, including deficiencies of the NEDC testing procedure itself, but also due to certain deficits in the associated measurement protocols. These issues are explained and discussed in the next chapters.

Speed profile of the NEDC driving cycle



Source: GFEI, 2015.

Test cycles designed to better reflect real-world driving

Because of the known deficiencies of the NEDC, a number of alternative driving cycles have been developed in Europe and elsewhere for research purposes and to inform policy development where improved knowledge of real-world driving emissions is needed. One such example is the Common Artemis Driving Cycles (CADC), that are frequently used in Europe to provide information on 'real-world' emissions necessary for modelling actual road transport emissions. The development of these alternative driving cycles has been based on statistical analysis of a large database of European real-world driving patterns. The cycles include three driving schedules: urban, rural road and motorway. Results of vehicle emission measurements tested using CADC are incorporated in real-world road transport emission models, such as the COPERT model (see the box page 31 on COPERT model).

Compared with the NEDC, the CADC is considered much more dynamic, with higher average and maximum speeds, more accelerations and braking, less driving at constant speed and less idling. As a result, CADC imposes a higher and more realistic load on the car engine. The following table shows a comparison of the main characteristics of NEDC and CADC driving cycles.



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Comparison of NEDC and CADC driving cycle characteristics

Characteristic	Unit	NEDC	CADC
Distance	km	10.931	50.886
Total time	s	1180	3143
Idle (standing) time	s	267	230
Average speed	km/h	33.35	58.3
Maximum speed	km/h	120	130
Cruising	%	38.8	19.3
Accelerating	%	23.6	38.8
Decelerating	%	17.3	34.5
Braking	%	16.9	21.1
Idling	%	20.4	7.32

Other legislative driving cycles

In addition to the European NEDC, other driving cycles have been developed and are used in different parts of the world to determine fuel economies and pollutant emissions (GFEI, 2015).

United States Environmental Protection Agency test cycles

Federal Test Procedure (FTP)-75 is used for emission certification and to determine the fuel economy of light-duty vehicles in the USA. Since 2000, vehicles have also had to be tested on two Supplemental Federal Test Procedures (SFTP) designed to address shortcomings with the original FTP-75 in representing demanding, high-speed driving and the use of air conditioning.

Australian test cycles

The Composite Urban Emissions Drive Cycles (CUEDCs) was commissioned by the Australian National Environment Protection Commission in 1998 as part of the Diesel National Environment Protection Measure. CUEDCs were created with the intention of closely replicating actual Australian on-road urban driving. CUEDCs are used for chassis-based dynamometer testing of both heavy and light vehicles. They are composed of four distinct drive cycle segments for describing different driving conditions: congested, minor roads, arterial and highway.

Japanese test cycles

The Japanese 2005 emission regulation introduced a new chassis dynamometer test cycle (JC08) for light vehicles (< 3 500 kg gross vehicle weight). The test represents driving in congested city traffic, including idling periods and frequently alternating between acceleration and deceleration. Measurements are made twice, with a cold start and a warm start. The test is used for emission measurement and fuel economy determination for both petrol and diesel vehicles.



Example of a PEMS unit mounted on a car

Note: The vehicle shown in the figure is for illustrative purposes only and does not correspond to any of the test results shown in this report

To illustrate the importance of the chosen test cycle on the final measured emissions, it is possible to show the ratio between NO_x emissions measured on NEDC and the more representative CADC cycles (see following figure). For both diesel and petrol vehicles, the CADC emissions are higher than the NEDC ones. Particularly for diesel vehicles, the ratio has greatly increased over time as the different Euro technologies have been implemented. For Euro 1 vehicles, NO_x emissions measured using the CADC cycles were already up to 40 % higher than the NEDC; by Euro 6 vehicles, NO_x emissions over the CADC cycles were almost five times higher than the corresponding NEDC measurements for diesel.

Measuring emissions on the road

It is possible to directly measure emissions from vehicles as they are driven on roads. A Portable Emissions Measurement System (PEMS) is a transportable measurement system containing a variety of instruments that can be carried on board a vehicle to monitor the real-time emissions of selected pollutants. As PEMS are specifically designed to measure emissions during the actual use of a car in its regular daily operation, they have to be small, lightweight and compact enough to fit into any vehicle size and be quick and easy to install.

PEMS is still a relatively new technology, but is considered rather simple and inexpensive to purchase and maintain compared with a chassis dynamometer. Its main limitations

Ratio of NO_x emissions measured on the NEDC and more representative CADC cycles for different vehicle Euro categories and engine technologies

Ratio CADC/NEDC	Euro 0	Euro 1	Euro 2	Euro 3	Euro 4	Euro 5	Euro 6
PETROL	1.07	1.38	1.88	1.62	1.96	1.50	n.a.
DIESEL	1.22	1.13	1.64	1.88	3.16	3.52	4.80

Source: INFRAS and TUG, 2015.

are the reduced range of pollutants that can be measured during a test compared with laboratory testing, as well as the mass (30–150 kg) it adds to the vehicle, which can affect the fuel consumption and hence measurements of the different pollutants. Furthermore, the lower repeatability of measurements encountered when testing, owing to real-world sources of variability, can be challenging to ensure consistency of measurements between different vehicles tested.

Findings from a European Commission study (JRC, 2011a) confirm that current laboratory emissions testing fails to capture the wide range of potential on-road emissions and that PEMS can assist in filling this gap.

Past PEMS results show for example that average NO_x emissions of diesel cars, for the then-latest technology Euro 5 cars,

substantially exceeded the Euro 5 emission limit by a factor of 4 to 7. By comparison, on-road NO_x emissions of petrol vehicles, as well as CO and HC emissions of both diesel and petrol cars generally, stay within their emission limits. NO_x emissions were found to be the highest during uphill-downhill driving (rural) and during motorway driving at high speeds, i.e. at higher engine loads. This also provides an indication that the exhaust aftertreatment devices (the devices responsible for controlling exhaust air pollutant emissions) are under-performing under these operating conditions.

CO₂ emissions tested with PEMS were also found to be higher (by 21 % on average) than laboratory tests for petrol and diesel cars. The magnitude of this discrepancy varies depending on vehicle type, operation mode, route characteristics and ambient conditions.



The gap between real-world and test cycle emissions

For certain pollutants, there is a significant discrepancy between official emission measurements and real-world vehicle performance. This gap has increased over past years. For NO_x , the latest Euro 6 diesel vehicles can emit up to 7 times more in real-world conditions than in official tests. New vehicles similarly can emit up to 40 % more CO_2 under real driving conditions than official measurements would indicate. The reasons for this discrepancy include the outdated measurement procedure used to test vehicles, the optimisation of permitted flexibilities by manufacturers during vehicle testing, as well as differences in driver behaviour under real driving conditions.

Real-world emissions

Nitrogen oxides

Real-world NO_x emissions from petrol cars in the EU have decreased significantly since 2000, in line with the increasingly stringent emission limits. In significant contrast, the emissions from diesel cars have not improved much over the same period, meaning reductions from diesels have not been as large in reality as originally foreseen in legislation. For example, average real-world NO_x emissions of new Euro 5 diesel cars are of the same size as earlier Euro technologies and are even of a similar size as pre-Euro cars.

The lack of progress in reducing real-world NO_x emissions is especially notable, given that, until the very latest Euro 6 standards, diesel cars were already permitted to emit three times more NO_x than petrol cars.

A series of recent studies have provided evidence that even the latest Euro 6 diesel vehicles do not seem to perform much

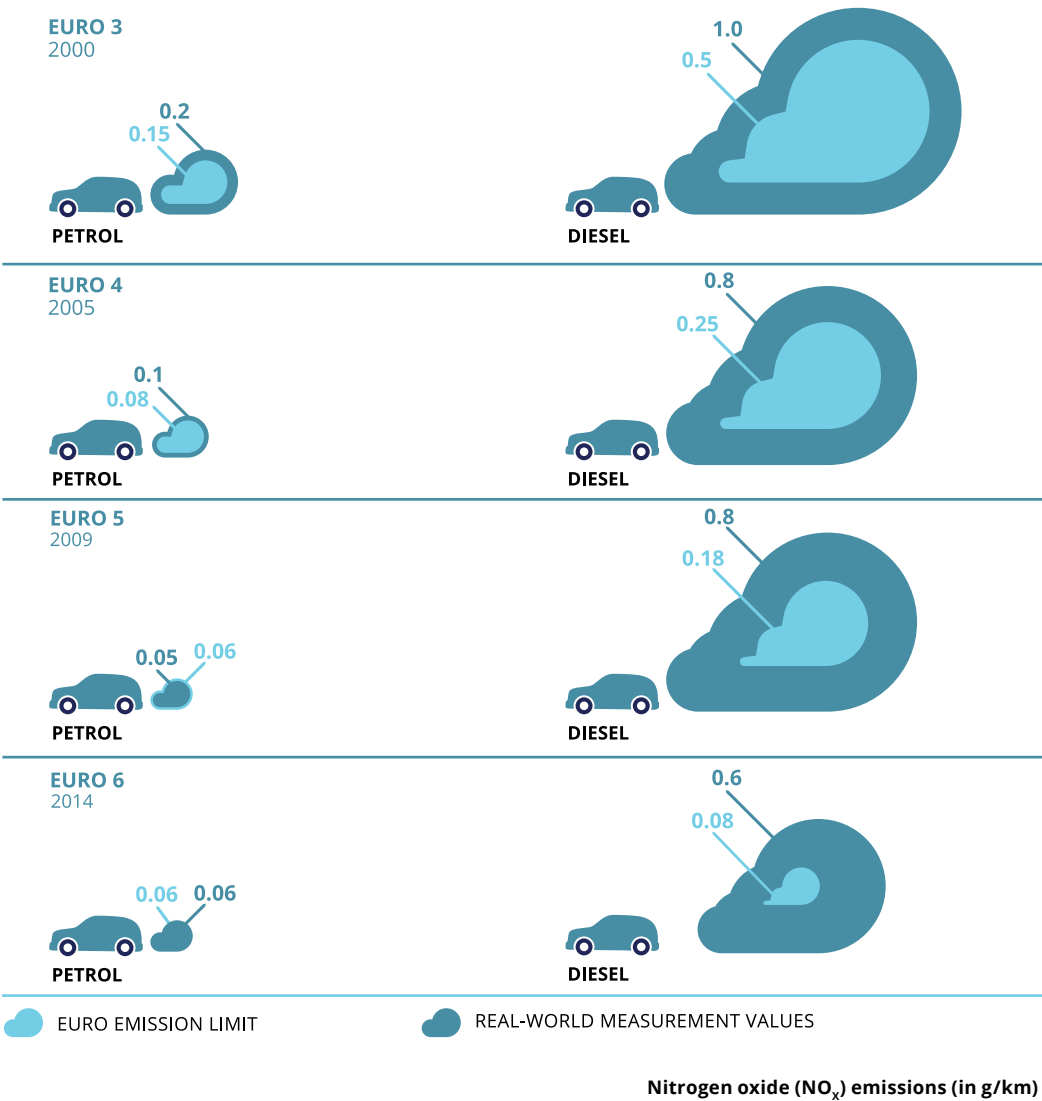
better, despite the tightening of the NO_x emission limit value from 180 to 80 mg/km. A study conducted on behalf of the Dutch Ministry of Infrastructure and Environment (TNO, 2013) found that Euro 6 vehicles produced around 500 mg NO_x /km in real-world driving, an amount very similar to that produced by the earlier Euro 4 and Euro 5 vehicles.

Similarly, a more recent study conducted by the International Council on Clean Transportation (ICCT, 2014c) based on on-road tests performed on the latest technology diesel Euro 6 cars found that, on average, real-world NO_x emissions were around 560 mg/km, or seven times higher than the limits set by the Euro 6 standard. Other similar findings have also been reported by other organisations, including the Association for Emissions Control by Catalyst (AECC) and Allgemeiner Deutscher Automobil-Club (ADAC) — Germany's largest automobile club.

Quickly reducing NO_x emissions from diesel cars is very important in meeting European air quality targets. The chart on the following page shows the expected impact of the Euro 6 diesel NO_x emission standard on the number of exceedances of EU air quality

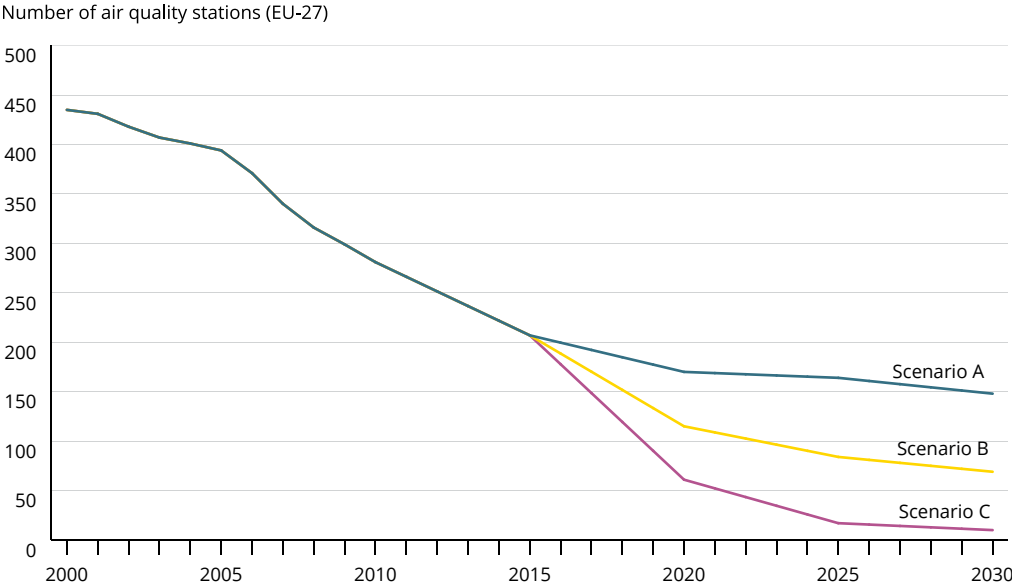
limits. In principle, this shows that Euro 6 alone can significantly influence the future evolution of air quality in cities (at least in terms of NO₂) if all vehicles were just to deliver the required emission limits under real-world driving conditions (IIASA, 2012).

Comparison of NO_x emissions and standards for different Euro classes



Source: Adapted from: ICCT, 2014a; Emisia, 2015.

Different scenarios showing the reduced number of monitoring stations exceeding EU air quality NO₂ standards with different assumptions on the future effectiveness of Euro 6 passenger car NO_x standards



Notes:

- Scenario A: assumes that real-world emissions from Euro 6 diesel vehicles are only 30 % lower than those of the previous Euro 5 generation and thus deliver similar reductions to Euro 4 vehicles;
- Scenario B: assumes that Euro 6 vehicles are introduced in 2015, but only deliver the same emission reduction as the ratio of Euro 5 real-world emissions to test measurements;
- Scenario C: assumes real-world Euro 6 diesel NO_x emissions are the same as the test cycle emission limit value of 80 mg/km from 2015 onwards.

Source: IIASA, 2012.

In response to the need to deliver real improvements in air quality, the European Commission has recently introduced a future requirement for PEMS to be used to measure in-use emissions of light-duty vehicles, the so-called real driving emissions (RDEs) (see section 6).

Carbon dioxide

As for NO_x, it is also clear that there is currently a significant gap between real-world and type approval fuel consumption and CO₂ emission levels. In particular, for fuel consumption — and hence also for CO₂

emissions — this gap has two important consequences:

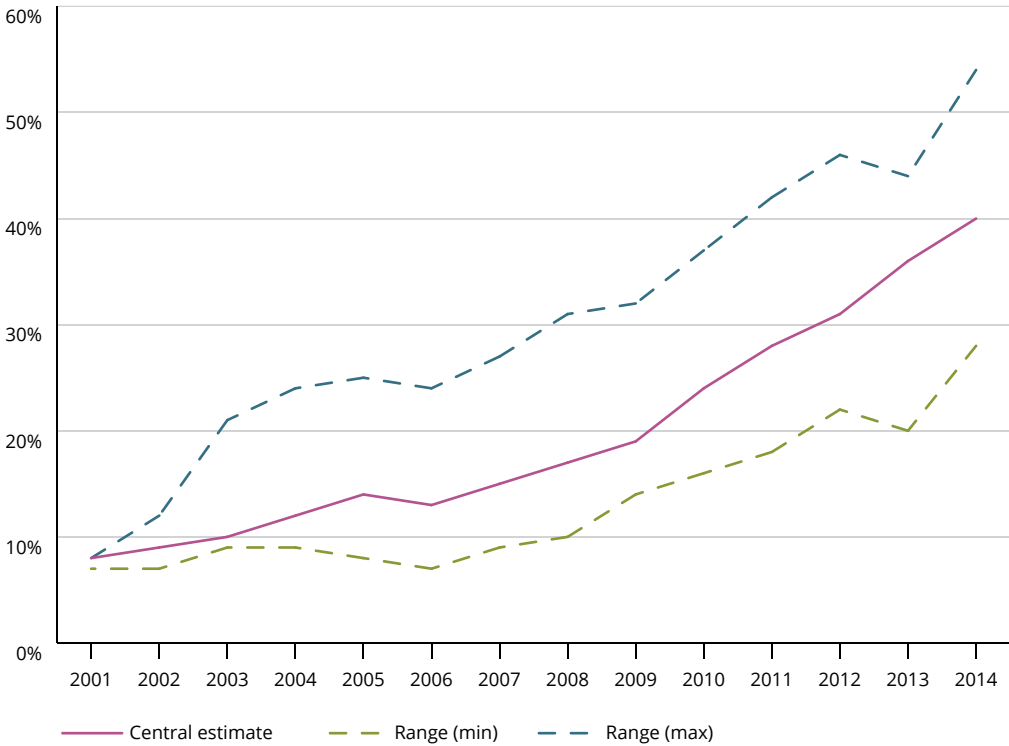
- It can provide a distorting impact on national CO₂ based vehicle taxation systems;
- Customers complain that official fuel economy values are misleading, which raises the issue of consumer rights. As a result, consumer confidence in the automotive industry can be harmed if advertised values systematically fail to meet reality.

A comparison of fuel consumption data from more than half a million private and company vehicles across Europe has shown how this discrepancy between type approval and real-world values has grown over the last 12 years (ICCT, 2014b; ICCT 2015a). In particular, the gap has increased considerably since 2007, when the binding EU average CO₂ target for passenger cars was first proposed. While the average discrepancy

between type approval and on-road CO₂ emissions was below 10 % in 2001, by 2014 it had increased to around 40 %. Moreover, while the average discrepancy between type approval and real-world values was initially similar for diesel and petrol vehicles, since 2010 the difference between the two technologies has increased: for conventional diesel vehicles, the gap is 5 % greater than for conventional petrol vehicles.

Divergence of real-world CO₂ emissions from manufacturers' type approval CO₂ emissions

Divergence 'real world' vs 'official' type approval CO₂



Source: ICCT, 2015a.

The biggest difference was observed for hybrid cars. Data for hybrid vehicles are available from 2010 onwards and the discrepancy between type approval and real-world CO₂ emissions is about 40–45 %. This larger difference may be explained, to some extent, by the fact that hybrids usually have automatic transmissions, which the study showed tend to consume about 40 % more fuel under real-world conditions than under type approval testing. The

average difference for vehicles with manual transmissions was 33 %.

Several other European studies have shown the magnitude of the gap between NEDC legislative and real-world CO₂ emissions. All studies confirm this gap: the average discrepancy between type approval and on-road CO₂ emissions is in the range of 10–40 % (ICCT, 2013; JRC, 2011b; ICCT, 2014b).



The COPERT model: estimating road transport emissions:

COPERT (Computer Programme to calculate Emissions from Road Transport) is a widely used software tool for calculating real-world air pollutant emissions (CO, NO_x, VOC, PM, NH₃, SO₂, heavy metals) and GHG emissions (carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄)) from the road transport sector (Emisia, 2015). Supported by the EEA and the EU's Joint Research Centre (JRC), it is used by many countries both inside and outside Europe for estimating and reporting official emissions data from the road transport sector.

COPERT calculates emissions as a product of activity data (i.e. mileage) and speed-dependent real-world emission factors. Emissions factors are separated into exhaust emission factors — split into those produced during thermally stabilised engine operation (hot emissions) and those occurring during engine start from ambient temperature (cold-start and warming-up effects) — and diffuse emissions factors, i.e. non-methane VOC emissions due to fuel evaporation and non-exhaust PM emissions from tyre and brake wear.

Emission factors for more than 240 individual vehicle types are included in the model, including for:

- passenger cars;
- light-duty vehicles;
- heavy-duty vehicles (including buses);
- mopeds; and
- motorcycles.

Emission control technologies (e.g. 'Euro' standards) are included for each of these vehicle categories — additional user-defined technologies can also be included.

Explaining the gap between real-world and legislative emissions

The existing gap between real world and test cycle emissions is mainly due to three factors (T&E, 2015; TNO, 2012):

- An outdated test procedure that does not reflect real-world driving conditions, as described in earlier sections;
- Flexibilities in the current procedures that allow manufacturers to optimise the testing, and thereby achieve lower fuel consumption and CO₂ emission values;
- Several in-use factors which are driver dependent (e.g. driving style) or independent (e.g. environmental conditions).

Test flexibilities

Flexibilities exploited by manufacturers during the NEDC test cycle can be broadly grouped into two categories: those relevant to the initial coast-down test and those relevant to the type approval test itself.

As described earlier, the coast-down measurement involves driving a vehicle up to a certain speed, and decelerating it in neutral gear until it stops. The vehicle's speed and travelled distance are constantly recorded during the test. Coast-down testing is used to determine the appropriate resistance levels (or 'road loads') to use on the dynamometer for a given vehicle model in the type approval test.

For this coast-down testing, a number of flexibilities exist:

Wheel and tyre specification. The legislation allows some flexibility in the choice of wheels and tyres that are to be used during the test. This flexibility may be used to optimise rolling and aerodynamic resistances of the vehicles by selecting low-rolling resistance tyres and low-width wheels and tyres.

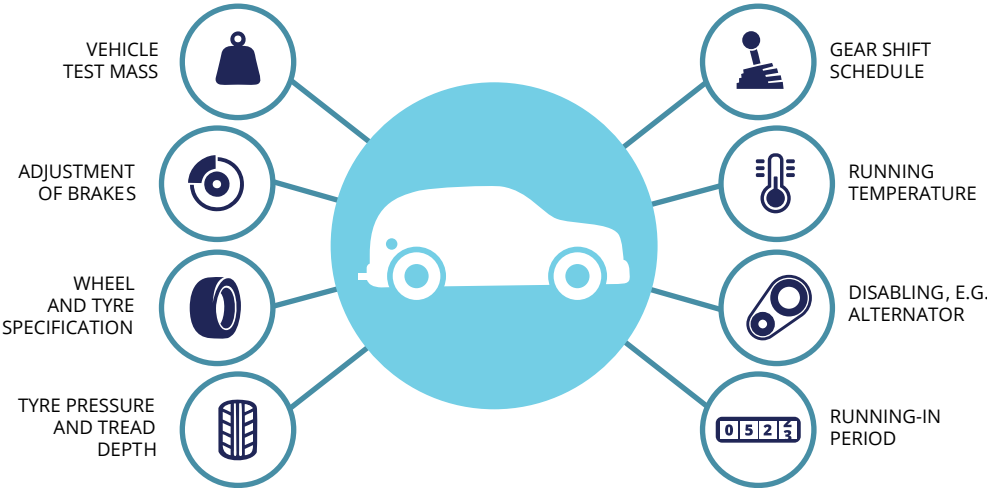
Tyre pressure. The legislation specifies that tyre pressure should be set according to the manufacturer's specifications for the use considered and should be set when the tyres are 'cold'. However, the exact temperature is not specified in the legislation. Therefore, there is some flexibility, which allows manufacturers to overinflate tyres compared with 'normal' use, resulting in a lower rolling resistance.

Adjustment of brakes. The legislation allows some adjustments to vehicle brakes in order to eliminate 'parasitic drag', namely losses from unintentional braking. This flexibility may be used to further improve coast-down performance.

Vehicle preconditioning. The legislation specifies that the vehicle should be brought to normal running temperature in an appropriate manner. This 'normal running temperature', however, is not defined. Hence, there is some flexibility, which allows manufacturers to optimise vehicle temperature during the testing, resulting in a lower rolling resistance.

Running-in period. The legislation specifies that the vehicle should be tested after having been run-in for at least 3 000 km. The tyres should be run-in for the same distance or have a tread depth between 90 and 50 % of

Flexibilities in the NEDC test approval procedure



- TEST TRACK DESIGN
- SMOOTH TRACK SURFACE
- USING STANDARD VALUES



- TEST CELL TEMPERATURE
- LABORATORY INSTRUMENTS

Source: T&E, 2015; TNO, 2012.

the initial tread depth. Hence, there is some flexibility, which allows manufacturers to use tyres with minimum tread depth to reduce rolling resistance.

Test track design. The legislation defines the characteristics of the road on which the vehicle is tested. The road surface is, however, not specified; hence, there is some flexibility in optimising the road surface, as a smooth surface results in lower rolling resistance than a rough surface.

Using all the above flexibilities, an improved coast-down result leads to reduced resistances over the NEDC test and hence lower fuel consumption. Test results from a recent study conducted for the European Commission (TNO, 2012) show that the estimated CO₂ benefit from utilising all flexibilities within the allowable limits relating to the coast-down test is about 4.5 %. The reduced resistances are also likely to help manufacturers reduce NO_x and PM emissions during the NEDC testing.

Volkswagen and 'defeat devices'

In September 2015, the United States Environmental Protection Agency (USEPA) announced that it had issued a notice of violation of vehicle emission limits against Volkswagen. This occurred after the USEPA, together with the Californian Air Resources Board, had investigated a variety of four-cylinder diesel passenger cars manufactured by Volkswagen and found that the on-road performance of these vehicles emitted up to 40 times more NO_x than permitted by the US emission standards.

Volkswagen subsequently admitted to using 'defeat devices' in the USA to artificially lower NO_x emissions during testing of these diesel vehicles. The defeat devices comprise computer software that can identify when a vehicle is being tested by monitoring various parameters such as speed, engine operation, air pressure and external conditions (i.e. temperature and humidity). When the engine software recognises the vehicles is undergoing a test, engine operation and the performance of the vehicle catalyst change to ensure that the pollution standards were respected. However, once on the road, the emission control systems were reduced or switched off resulting in significantly higher emissions under 'normal' operating conditions. Volkswagen has subsequently confirmed it has also sold diesel vehicles in Europe containing the same defeat device software.

Subsequently in early November 2015, the USEPA issued a second notice of violation after discovering certain additional larger diesel vehicles manufactured by Volkswagen Group also appeared to use defeat devices. Separately, Volkswagen Group has also publicly confirmed that the fuel consumption and CO₂ emission values it has published for some models are incorrectly stated. The company is presently reviewing which models are specifically affected.

At the time of writing, several Member States have announced that they plan to independently investigate the on-road emissions of Volkswagen diesel vehicles, as well as those from other manufacturers. The new real emissions testing procedure (RDE), which will be adopted soon in the EU, will also provide a valuable check to the on-road performance of vehicles compared with laboratory testing.

Optimising NEDC test conditions — changes in emissions of selected pollutants

Fuel type	CO ₂	NO _x	PM	CO	HCs
Petrol	↓	↓	↓	↑	↑
Diesel	↓	↓	↓	↑	↑

For the NEDC type approval test itself, the main permitted flexibilities that manufacturers may take advantage of are:

Vehicle test mass. The reference mass is the mass of the unloaded vehicle increased by 100 kg, which corresponds to the mass of the driver and the fuel. The definition of reference mass depends on which parts of the vehicle are considered to be fitted by

the manufacturer and which are fitted at a later stage as aftermarket or car dealer options. This flexibility allows manufacturers to reduce vehicle testing mass by specifying items as dealer-fitted optional extras, resulting in lower resistances in the chassis dynamometer.

Wheel and tyre specification. The legislation specifies that standard wheels, tyres and tyre pressures should be used. There is some flexibility in defining what are standard wheels and tyres for a specific vehicle model. This allows manufacturers to optimise the overall vehicle configuration for testing, for example by selecting low-rolling resistance tyres and a high tyre pressure and specifying that this is the standard vehicle setting.



Laboratory instrumentation. The legislation specifies the measurement accuracy and tolerances for a range of instrumentation equipment. These tolerances can be used for calibrating the equipment towards one end of the allowable range. Examples are the temperature, atmospheric pressure and humidity of the test cell, accuracy of the gas analysers, etc.

Test cell temperature. The legislation specifies a range of temperatures in the test cell before and during the test. A higher temperature generally reduces friction in the engine and vehicle components. This flexibility in temperature selection improves efficiency, thus reducing CO₂ emissions.

Dynamometer load. Use of the coast-down curve is not the only option for simulating road load during the type approval test. The legislation provides the option of using standard 'table values' commonly referred to as the 'cookbook' method. This method does not include a measurement of aerodynamic or rolling resistance for the vehicle being tested, but contains only typical factors. This flexibility allows manufacturers to use the 'cookbook' for testing vehicles that have relatively high aerodynamic and/or rolling resistance, for example vans or all-wheel drive vehicles.

Gear shift schedule. The legislation defines the gear number and shift points of the NEDC test. However, the use of higher gears is allowed if a vehicle cannot reach a speed of 15 km/h in first gear. The use of higher gears generally decreases fuel consumption, as higher gears allow the engine to operate more efficiently owing to lower engine rotational speeds.

Driving technique. It is very difficult for a driver to exactly follow the speed trace of the NEDC. To account for this, the legislation allows a tolerance of ± 2 km/h between the actual and the target vehicle speed. This flexibility allows experienced drivers to use these limits to their benefit, by following the lower limit at constant speeds and by achieving smoother accelerations.

Other reasons for divergences

The different flexibilities of the type approval test discussed above are not the only factors responsible for the observed differences between laboratory measurements and real-world emissions. Other factors, discussed below, also contribute to this effect.

The use of on-board electrical equipment, such as heated seats, window defrosters, air-conditioning units for cabin heating and cooling, and entertainment systems, may require significant additional amounts of energy to operate. All of these systems are switched off during the type approval test and hence their impact is not taken into account in the fuel consumption reported by car manufacturers.

The condition of the vehicle in real-world driving might also be completely different from when the vehicle is type approved, and lead to increased fuel consumption and hence emissions. For example:

- additional passengers and cargo result in the vehicle becoming heavier, reducing fuel economy;
- accessories for carrying cargo such as roof racks or rear-mount cargo boxes increase wind resistance — the

- additional resistance increases with vehicle speed;
- lower than recommended tyre pressure increase rolling resistance.

Driving behaviour and conditions have a significant effect on fuel economy. Although 'normal' driving is difficult to define, 'aggressive' driving (speeding, rapid accelerations and braking) will use significantly more fuel. Speeds above 90 km/h increase fuel consumption substantially. Other external factors, such as fuel quality, weather conditions and road surface, can also affect fuel economy.

- Engine and transmission friction increases at low ambient temperatures owing to cold engine oil.
- Hot and humid conditions increase the power demand of the air-conditioning unit.
- In winter, it takes longer for the engine to reach its most fuel-efficient temperature. This affects shorter trips more, as the car spends more of the trip at less-than-optimal temperatures.

The following figure shows the potential impact on fuel consumption of selected factors for a typical mid-sized petrol car (AVL, 2015). While clearly representing a 'maximum' driving scenario, it serves to illustrate the significant penalty in fuel consumption that different vehicle and driving conditions can have. Such a vehicle, having an official fuel consumption value of 7.6 L/100 km, is estimated to have a real-world fuel consumption of around 8.8 L/100 km, i.e. 16 % higher than the official value. In addition, the effect of selected

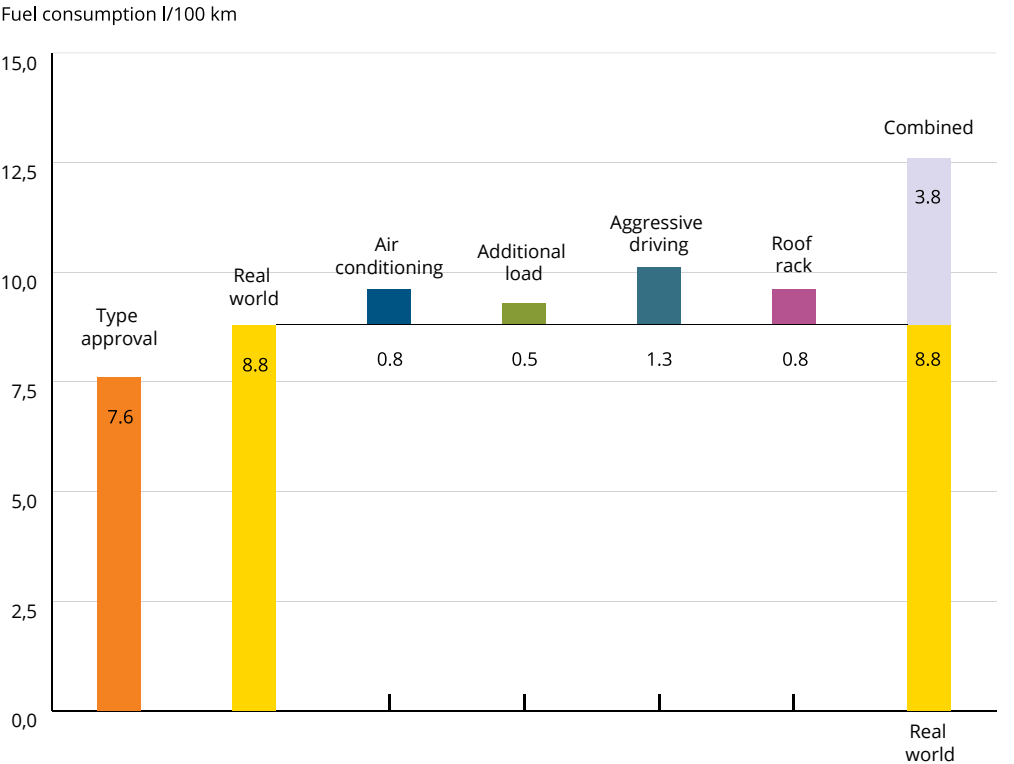
parameters can also be estimated using vehicle simulation software:

- turning the air-conditioning unit on;
- the additional load of four passengers and luggage;
- demanding driving with a 30 % increase in average speed and rapid accelerations and braking;

- adding a roof rack, resulting in a 15 % increase in aerodynamic coefficient and another 20 % increase in frontal area.

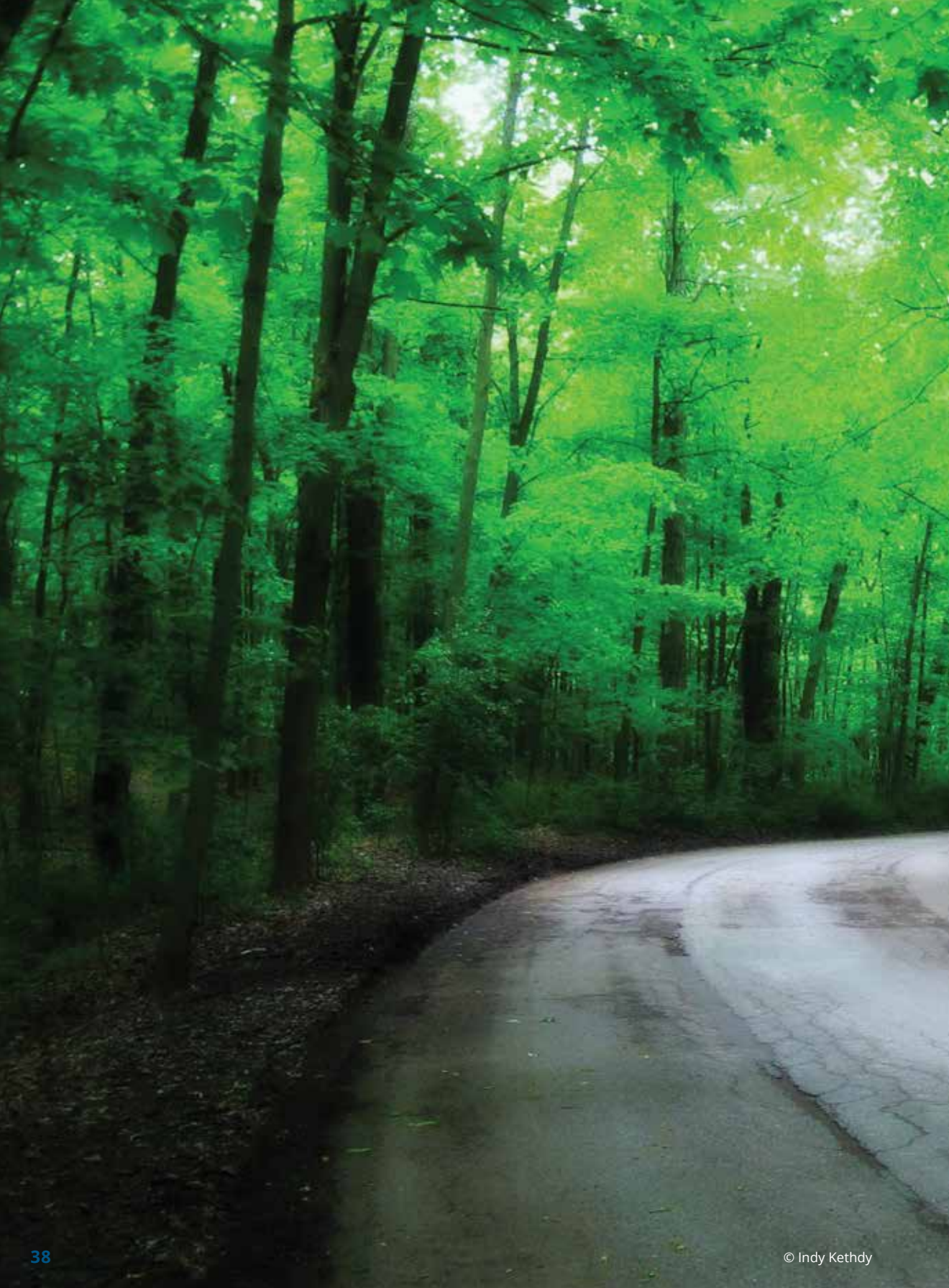
Overall, under these operating conditions, real-world CO₂ emissions for this vehicle might be as high as 12.6 L/100 km, around 65 % higher than the tested measurement.

Impact of selected vehicle and driving conditions on fuel economy for a typical mid-sized petrol car



Note: The combined value of all these parameters does not equal the sum of the individual values, as their effects are non-linear.

Source: AVL, 2015.



Progress in reducing emissions from Europe's vehicles

The need to improve fuel efficiencies and the introduction of progressively stricter European standards over the past decades have greatly contributed to technological development in the European vehicle manufacturing industry. Innovations include the development of electric and hybrid vehicle technologies, eco-innovations, and improvements in conventional engine and exhaust technologies.

Electric vehicles and hybrids

Over recent years, a number of alternative engine technologies have been introduced on a commercial scale by vehicle manufacturers. These technologies include hybrid and electric vehicles.

A **hybrid vehicle** combines an internal combustion engine and an electrical motor to power the wheels. The combustion engine runs off fossil fuels as for a conventional vehicle, and a battery provides additional electric power that assists the conventional engine during, for example, vehicle acceleration. The battery is typically charged during the braking or slowing of the vehicle. Hybrids deliver certain benefits compared to conventional technologies, as they reduce fuel consumption and CO₂ emissions by up to 35 %, as well as reducing air pollutant emissions (ICCT, 2015b). The size of the emissions reduction varies with the sophistication of the hybrid system. Petrol hybrids are amongst the cleanest commercially available vehicles with regard to regulated pollutants (JRC, 2012).

Plug-in hybrid vehicles, similarly contain both a conventional and an electrical motor which provide power to the wheels. The difference compared to a normal hybrid is that the batteries can be charged by 'plug-in' to the electricity grid. The environmental impact of plug-in hybrids depends on their operation mode — the all-electric mode of plug-in hybrids results in effectively zero tailpipe emissions in urban conditions, but relying on the conventional engine can lead to emission levels comparable to those of normal vehicles.

Pure electric vehicles have only an electrical motor and no internal combustion engine. Electrical motors have an efficiency that may exceed 80 %, and they offer substantial GHG and air pollutant reductions compared to conventional vehicles. However the higher cost, infrastructure needs, and battery capacity are still factors that limit the public uptake of electric vehicles (JRC, 2012).

Eco-innovations

To encourage development of innovative vehicle technologies to reduce CO₂, the concept of 'eco-innovations' has been

introduced into EU vehicle legislation. This allows a manufacturer, or supplier, to apply for the approval of innovative technologies that reduce CO₂ emissions but which are not measured during the standard test cycle. To date, eleven eco-innovations have been approved. For each of these, the CO₂ emissions saving is higher than 1 g CO₂/km.

Examples of approved vehicle eco-innovations

Eco innovation	Description
Use of ambient energy sources	Photovoltaic panels in the roofs of vehicles
Efficient lighting systems	Use of LED lighting
Improved electrical components	High efficient alternator
Engine compartment encapsulation	Additional insulation component to keep the heat in the engine compartment, which reduces the loss of energy
Energy storage systems	Use of the potential energy of the roads to recharge vehicle batteries



Improving conventional engine efficiencies

Only about 18–25 % of the energy contained in fuel is actually used to move vehicles. There remains, therefore, a significant technical potential to increase vehicle efficiencies.

The extent to which this can be achieved, however, depends on several factors, including, for example, the engine compression ratio ⁽²⁾ or the mixing timing. Engine efficiency has steadily improved over the last decades as a result of, for example, improved engine design and more precise ignition timing. Some of the main technologies put in place over the last 20 years that have delivered improved engine performances are outlined below.

Direct fuel injection

In conventional petrol engines, petrol and oxygen are mixed outside the combustion area. In direct injection systems, petrol is injected directly into the cylinder, so that the timing and the amount of fuel can be precisely controlled. This results in higher compression ratios and more efficient fuel intake, which deliver higher performance with lower fuel consumption.

Variable valve timing and lift

Valves control the flow of air and fuel into the cylinders and the flow of exhaust gas out of them. When and how long the valves open (timing) and how much the valves move (lift) both affect engine efficiency. Optimum timing and lift settings are different for high and low engine speeds. Traditional designs,

however, use fixed timing and lift settings, which are a compromise between the optimum for high and low speeds. Variable valve timing and lift systems permit the valve opening and closing times and the valve lift to be varied to the optimum settings for each engine speed.

Cylinder deactivation

This technology deactivates some of the engine's cylinders when they are not needed. In typical driving at low loads, the car uses only around 30 % of an engine's maximum power. In these conditions, there are only small amounts of fuel needed and the engine needs to work to draw air. This causes an inefficiency known as pumping loss.

Turbocharging

Turbochargers and superchargers are fans that force compressed air into the cylinders of the engine. A turbocharger fan is powered by exhaust gas from the engine, while a supercharger fan is powered by the engine itself. Both technologies allow more compressed air and fuel to be injected into the cylinders, generating extra power from each explosion. This allows manufacturers to use smaller engines without sacrificing performance.

Start-stop systems

These systems automatically turn the engine off when the vehicle comes to a stop, for example at traffic lights or in a traffic jam. The engine is restarted automatically when the driver lifts his or her foot off the brake, or engages the clutch, so that fuel is not wasted for idling.

⁽²⁾ The compression ratio of an engine is the ratio between the largest and smallest capacity of the volume of its combustion chamber.

Exhaust technologies

Improvements in engine technology have reduced exhaust emissions, but in themselves have generally been insufficient to meet emission goals. Therefore, the development of additional exhaust aftertreatment technologies has been needed to meet the required emission standards. The main technologies used to remove harmful gases and particles from the vehicle exhaust are catalytic converters, traps and filters.

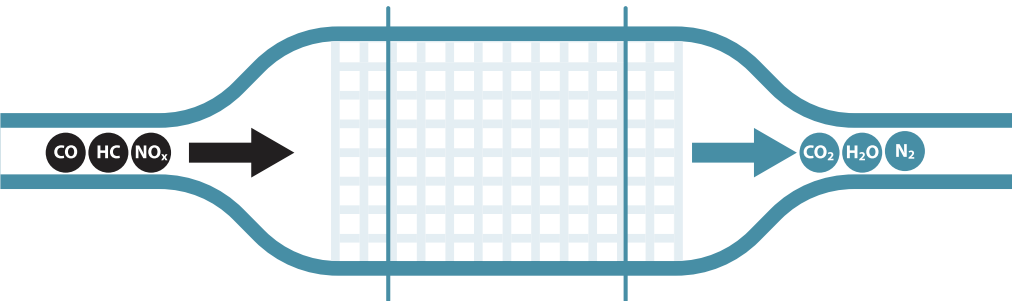
A catalytic converter is a device that uses a catalyst to convert the main harmful air pollutants in car exhaust emissions into harmless compounds. The catalyst activates certain oxidation and/or reduction reactions, which transform CO, HCs and NO_x into CO₂, water and nitrogen. A converter is typically made of one or more 'honeycomb' bricks, having a typical cross-section of small squares or alternatively triangles.

The introduction of Euro 1 emission standards effectively made the use of a three-way catalyst mandatory. Three-way

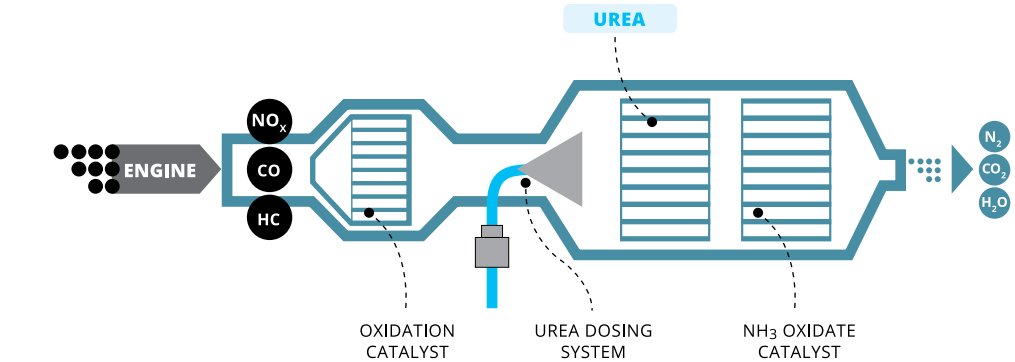
catalysts operate in a closed-loop system including an oxygen sensor to regulate the air to fuel ratio in petrol engines. The closed-loop catalytic control, first implemented in the USA, was a significant technological breakthrough. For the first time, an engine could self-calibrate itself during operation, hence effectively controlling all three major pollutants (CO, HCs and NO_x) under a wide range of conditions. Three-way catalysts are still the main technology used to control emissions from petrol engines.

Oxidation catalysts look much the same as three-way catalysts and their construction and composition is similar, although slightly less complex. Oxidation catalysts convert CO and HCs to CO₂ and water, but have little effect on NO_x. Diesel oxidation catalysts remain a key technology for diesel engines, as they convert CO and HCs but also decrease the mass of diesel PM.

Selective catalytic reduction (SCR) is an advanced emissions control technology system that reduces NO_x by injecting a liquid reducing agent through a special catalyst into the exhaust stream of a diesel engine.



A typical catalytic converter

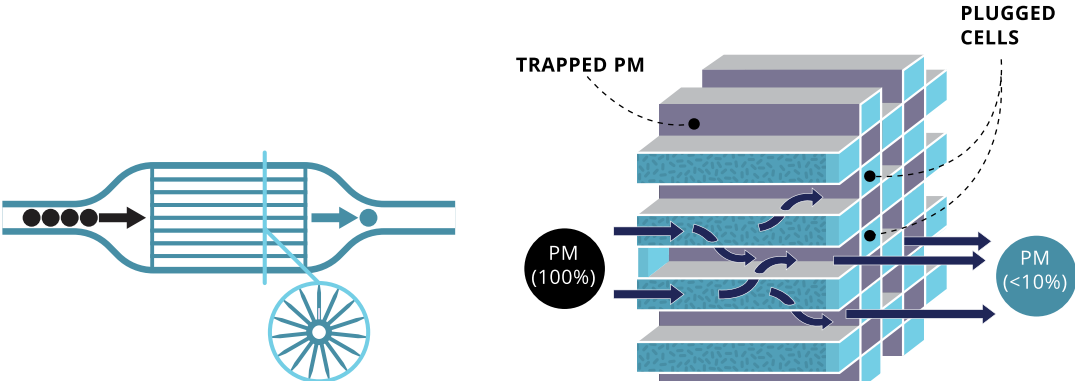


A selective catalytic reduction system to reduce NO_x

The reducing agent is usually urea, which enables a chemical reaction that converts NO_x into nitrogen, water and CO₂, and which is subsequently expelled through the vehicle exhaust. SCR is a proven catalyst technology capable of reducing diesel NO_x emissions to levels required by current emission standards.

Diesel particulate filters (DPFs) are devices used with diesel engines to remove PM. Based on engine technology and application specificities, different filter technologies may

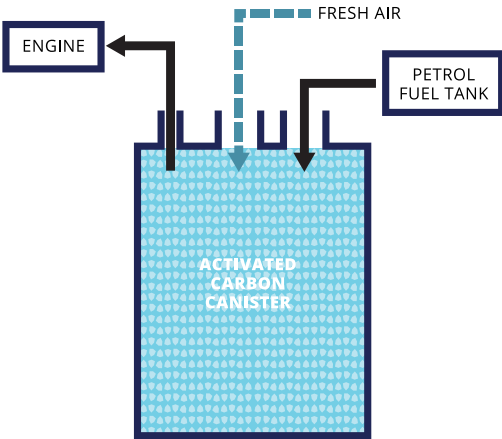
be used to reduce particle emissions. In the most common type (wall-flow filters), PM is removed from the exhaust by physical filtration using a honeycomb structure similar to a catalyst, but with the channels blocked at alternate ends. The exhaust gas is thus forced to flow through the walls between the channels and PM is deposited on the walls. In partial-flow filters, the exhaust gas flow is diverted into adjacent channels and the particles are temporarily retained before being burnt.



A typical diesel particulate filter

Traps and adsorbers are used to control the emissions of specific pollutants — usually NO_x or HCs — when engine operating conditions may not be ideal for conventional catalysts to achieve their full potential. They store the pollutant for a period of time but then release it when conditions are suitable for it to react over the catalytic materials. The two main current examples of adsorbers are NO_x adsorbers (or NO_x traps), used to capture NO_x emissions from diesel engines, and HC adsorbers that are used to 'trim' HC emissions during cold starts.

An activated carbon canister is a trap device used to control evaporative HC emissions from petrol fuel tanks. The canister consists of a plastic case containing the activated carbon, which traps (or adsorbs) the petrol vapour as it is forced out of the fuel tank during heating or refuelling. The adsorbed fuel vapours are then released (or desorbed) into the engine when the car is driven, regenerating the canister. This adsorption/desorption cycle continues for the life of the vehicle.



An activated carbon canister





Looking forward

Two important initiatives are planned in Europe to help ensure an improved future consistency between the official vehicle emissions and real-world driving performance. This includes changing the outdated NEDC official test procedure to one that is more representative of real-world emissions, as well as the introduction of a procedure for measuring the real driving emissions of vehicles on the road.

Changes to the EU test cycle

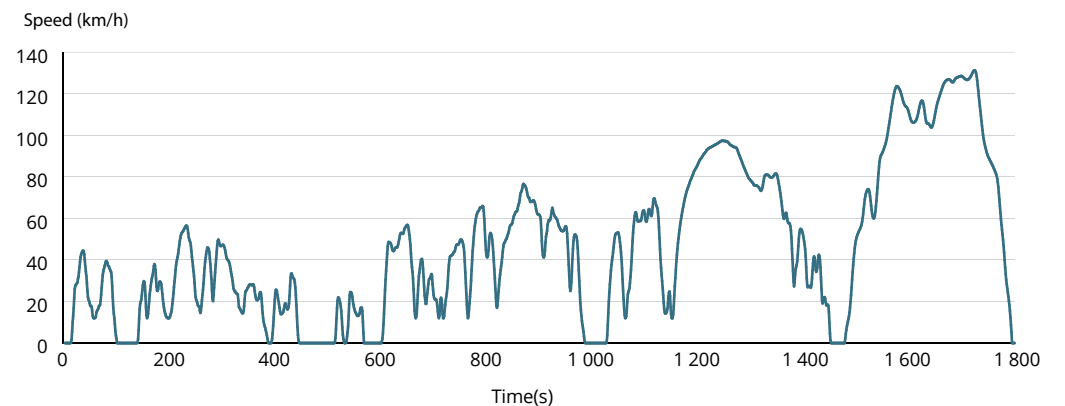
In 2008, the United Nations started work on an updated test procedure, the 'World-Harmonized Light-duty Vehicle Test Procedure' (WLTP). This includes a new test cycle that is more representative of average driving behaviour, and a test procedure that limits the allowed flexibilities and loopholes compared with Europe's current testing system. The European Commission is currently working on introducing the WLTP in the EU with a focus on improving CO₂ emissions testing — the timing of this is still to be agreed.

It is expected that the WLTP will better reflect real world driving emissions compared to the

current NEDC test. Compared with the NEDC, the WLTP has:

- a longer testing distance (23.3 vs. 11.0 km) and duration (1 800 vs. 1 180 seconds);
- a higher average speed (46.5 vs. 33.6 km/h);
- a higher maximum speed (131 vs. 120 km/h);
- fewer stops (9 vs. 14);
- less driving at constant speed (66 vs. 475 seconds);
- more acceleration (789 vs. 247 seconds) and braking (719 vs. 178 seconds);
- less idling (226 vs. 280 seconds).

Speed profile of the WLTP test cycle



Source: GFEI, 2015.

The most important differences between the WLTP and the current type approval test in terms of impact on CO₂ emissions can be broadly grouped into the following categories:

Higher driving dynamics. The frequent accelerations and higher speeds of the WLTP require greater amounts of energy, and hence result in higher fuel consumption than the NEDC. In contrast, the better efficiency of an engine at higher loads decreases the amount of fuel needed. The combination of these two effects will lead to an overall higher fuel consumption for the WLTP than the NEDC. In addition, the benefits of stop-start systems (engine shut down during vehicle stops that means reducing idle emissions to zero) will be smaller in the WLTP because of the reduced idling phases.

Vehicle test mass. There is a clearer definition of the vehicle mass in the WLTP, which takes into account optional equipment. For the NEDC test procedure, the mass of the lightest vehicle model version can be used for CO₂ testing. Hence, different versions of the same vehicle model will have higher emissions in the WLTP than the base model with no optional equipment in the NEDC test.

Cold start. In general, driving a vehicle with a cold engine increases CO₂ emissions. However, because the WLTP is longer than the NEDC, the added contribution of cold-start emissions will be distributed over a longer distance and it will not have a significant impact on the total CO₂ emissions.



Ambient temperature. The test temperature in the WLTP is 23 °C. However, the EU is planning to lower this to 14 °C, which is more representative of European average temperatures. This will result in higher excess fuel consumption because of an increased contribution of cold-start emissions.

The impact of the new test cycle and the associated gearshift procedure on emissions has been evaluated in several recent studies, with a general conclusion being that the

dynamics of the WLTP will better reflect the average real-world driving behaviour of light-duty vehicles. It is however unlikely to solve entirely the gap observed between test and real-world emissions. For example, a first estimate of the impact of the transition to the new test procedure on CO₂ emissions for the European car fleet has recently been reported (see table) (ICCT, 2014d). The estimate shown in the accompanying table is based on car testing and simulations and assumes a technology mix of the European car fleet in 2020.

Estimated impact of switching from the NEDC to the WLTP for an expected 2020 vehicle fleet

Regulatory Issue	NEDC	WLTP	Impact on CO ₂ emissions
Driving cycle	Operation at low loads with low engine efficiency, higher cold start effect (shorter distance), higher engine speeds (manual transmissions)	Higher speeds and acceleration forces, lower vehicle stop share (stop — start systems)	+ 2.1 %
Vehicle mass	No optional equipment No additional payload	Optional equipment: 70 kg Additional payload: 55 kg	+ 3.5 %
Temperature	Engine start temperature: 23 °C	Engine start temperature: 14 °C	+ 1.9 %
Total Impact 14 °C			+ 7.7 %
Total Impact 23 °C			+ 5.7 %

Source: ICCT, 2014d.

Introduction of Real Driving Emission (RDE) testing

To help address the gap between legislative and real-world NO_x emissions, the European Union has recently agreed a Real Driving Emission (RDE) test procedure for cars and vans. Following its introduction, the EU will become the first region in the world to use on-road emissions testing methods for legal compliance purposes.

The new RDE procedure will measure emissions of NO_x and at a later stage particle numbers, using portable emission measuring systems (PEMS) attached to the car. The new protocol requires the real driving emissions from cars and vans to be lower than the legal limits multiplied by a 'conformity factor'. This factor expresses the ratio of on-road PEMS emissions to the legal limits. At the time of writing, the NO_x conformity factor has been set to 2.1 (i.e. 110 % above the Euro 6 limit) from 1 September 2017 for new models and two years later for all new vehicles. In a second step, it will be reduced to 1.5 (i.e. 50 % above the Euro 6 limit) from 1 January 2020 for new models and one year later for all new vehicles. These factors remain subject to scrutiny by the European Parliament, and therefore potentially remain subject to change.

Is diesel still a solution for reducing carbon dioxide emissions?

Diesel fuel contains more energy per litre than petrol and, coupled with the fact that diesel engines are more efficient than petrol engines, diesel cars have traditionally been more efficient to run. This means that diesel cars typically have a better fuel economy, producing less CO₂ per kilometre driven. In a number of countries, financial incentives have been used over the past decades to encourage the uptake of diesel vehicles.

However, on the basis of the official test cycle measurements, the efficiency gap between diesel and petrol cars has been decreasing in recent years. In 2014, the average new diesel car registered in the EU emitted 123.2 g CO₂/km, only 2.5 g CO₂/km less than the average petrol vehicle. By comparison, in 2000, the emissions difference between diesel and petrol vehicles was 17 g CO₂/km.

This diminishing gap can largely be explained by the increase in mass of diesel cars over time. The average diesel car registered in the EU is now about 310 kg heavier than the average petrol car, i.e. around 100 kg heavier than in 2004. This increased mass has largely offset the inherent higher efficiency of the diesel engine, diminishing the average fuel economy benefits of diesel cars.



Further information

When choosing a new car, consumers are often confronted by conflicting information concerning the relative environmental performances of different vehicles, whether they are looking at petrol, diesel or hybrid vehicles.

There is growing public awareness that the 'official' fuel consumption and CO₂ values advertised on new cars may often be very different, and difficult to achieve, in reality. Similarly, although vehicles in Europe are required to meet the Euro standards for air pollutants, it can be very difficult to find comprehensive reliable information for those wishing to compare details of the typically much higher real-world NO_x and PM emissions for different diesel models. Recent years have also seen an increasing public and media focus on air pollution problems, particularly in cities, where emissions from road vehicles often play a substantial part. Consumers are understandably interested in being better informed on the air quality and climate change impacts of different vehicles.

A number of European non-governmental organisations and consumer associations, national motoring organisations and even media outlets provide online information on real-world emissions of different vehicle types. Based on independent testing and/or reports from motorists, such information sources can be a valuable source of further information should a comparison be sought of the real-world performance of different vehicle models. Examples of organisations and useful information sources describing real-world fuel consumption and emissions include:

Allgemeiner Deutscher Automobil-Club (ADAC)	Germany's largest automobile club
International Council on Clean Transportation (ICCT)	NGO
Next greencar	UK consumer website
Honestjohn.co.uk	UK consumer website
km77.com	Spanish consumer website
Spritmonitor.de	German consumer website
Travelcard	Dutch consumer website
Transport and Environment (T&E)	NGO

For the research and policy communities, it is clear that initiatives that drive vehicle technology improvements and fleet renewal can be one of the main strategies for reducing emissions of both GHGs and air pollutants. However, despite the significant technological progress made over past decades towards cleaner engines, traffic emissions still account for a high proportion of Europe's air and GHG pollution. Conventional-fuelled vehicles can still improve their performance. However, in moving towards Europe's longer term objectives of achieving a low-carbon society, it is becoming clear that incremental improvements in vehicle efficiencies will not deliver the substantial GHG emission reductions needed in the future.

The need for policy coherence across different thematic areas is clear i.e. policies that incentivise lower CO₂ technologies but at the cost of higher air pollutant emissions need to be avoided. In the research area, incentives that support the development of advanced low-carbon technologies will continue to be needed, for example into advanced hybrid, electric and fuel cell technologies.

Measures that encourage development and uptake of future clean technologies in the transport sector will therefore be fundamental for the reduction of transport's impacts on health and the environment and a necessary component of a green economy in Europe.



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For your notes

Explaining road transport emissions

Road transport is an important source of both greenhouse gases and air pollutants. Despite improvements in vehicle efficiencies over past decades, today the sector is responsible for almost one fifth of Europe's greenhouse gas emissions. Emissions from vehicles also lead to high concentrations of air pollutants above EU standards in many of Europe's cities.

This report provides a summary of the current knowledge on vehicle emissions in Europe. It also explains how emissions are monitored and the common technologies used to limit them.

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5th July 2022

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Dear Simon

**TISBURY STATION WORKS, TISBURY, WILTSHIRE
RESPONSE TO FURTHER PLANNING APPLICATION CONSULTATION FROM THE EA AND LLFA**

Further to the most recent consultation responses received from the Environment Agency (EA) and Wiltshire Council (in its capacity as the Lead Local Flood Authority), this letter sets out our further response.

Although there is a degree of overlap in some of the comments from both parties, we have provided a response to each under separate headings within this letter.

Environment Agency

Under the heading of '**Flood Zone Compatibility**' on the first page of the most recent EA response (16/05/22) this leaves a question regarding confirmation of Flood Zone Compatibility to the planning authority. The EA appears to acknowledge the context provided within our previous response dated 27/04/22 that it would be impractical for the walkway to remain operational during the most severe flood events (and, we have assumed, to the example we cited within our previous response to other 'water compatible' development not remaining operational at all times). The EA has however suggested that measures would need to be put in place to make the structure 'safe' at such times.

On the basis that it appears to have been accepted that use of the walkway and cycleway during the most severe flood events would not be practical, our interpretation of the comment regarding safety is associated with preventing access at certain times or notifying users that the structure should not be used at certain times. This aligns to a comment on the second page of the EA letter regarding confirming depth of flood water. It is considered that an appropriate and effective response to both elements could be achieved through detailed design under a planning condition (e.g. simple and clear signage confirming that the structure should not be used if flood water extended to a specified point, or more technical solutions such as warning lights/automated gates if water reached a certain level). The former would be preferable in terms of lower capital cost, maintenance and reduced risk of technical failure.

Campbell Reith Hill LLP

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Under the heading of '**Safe Access**' on the second page of the EA response, this seeks confirmation on the design flood level and whether an appropriate debris factor has been used when calculating the flood hazard rating. Our previous response dated 27/04/22 confirmed that the design flood level set out within the FRA (92.38 metres AOD) was an over-estimation based on a model-node further upstream than the proposed footway/cycleway and site vehicular entrance. It is therefore confirmed that the design flood level should be 91.7 metres AOD, as set out in our response dated 27/04/22. With respect to debris factor, we can confirm that this has been included within the risk hazard assessment, in accordance with the Explanatory Note for FD2320 and FD2321.

Under the heading of '**Increase in Flood Risk Elsewhere**' the EA has maintained its position that a hydraulic model is required in order to demonstrate that the proposed structure would not increase the risk of upstream flooding. Further to previous discussions with you on this topic, this is still considered to be a disproportionate requirement in this geographic context, however it is considered that no further information apart from hydraulic modelling could be provided to the EA in response to this point.

The EA has raised questions about its previous comments on groundwater and contaminated land and it is assumed that other members of the project team will have responded on these points. Linked to the EA comments on groundwater and contaminated land, it is assumed that the final point raised by the EA on submission and approval of a CEMP could be appropriately covered through a planning condition.

Lead Local Flood Authority

Referring to the further comments from Atkins on behalf of Wiltshire Council, where the LLFA is mirroring comments from the EA it is assumed that satisfying the EA in these respects would also satisfy the LLFA. As such these topics areas are not repeated from above.

This response only covers those topic areas within the LLFA response dated 16/05/22 where an objection was highlighted in red (LLFA points 4, 5, 6, 7, 8 and 10). These numbers have been used for clarity below:

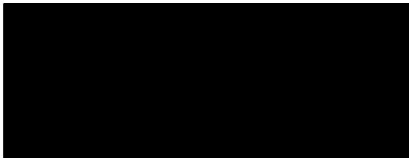
4. This comment relates to exceedance flows and the LLFA objection notes that "*No development can commence until a drainage layout plan is submitted and accepted that shows exceedance routes that minimises the impacts to property and people*". On the basis that the planning application is in outline, it is considered that this information could be appropriately provided either as a condition on any outline planning permission, or at Reserved Matters stage, which would ensure that the detailed drainage layout and exceedance flow paths were approved prior to development commencing.
5. This comment solely relates to the corresponding EA comment about contamination on site, and as with the comments from the EA, it is assumed that other members of the project team will have responded separately on this topic.
6. This comment relates to whether the proposed detention basin will be lined or not. Similar to the wording of the objection for point 4 above, this relates to the provision of information '*prior to development commencing*', which suggests that this could appropriately be provided and approved under a planning condition on any outline planning application or through Reserved Matters. The potential for the basin to be lined is acknowledged in paragraph 8.3.2 of the FRA and Drainage Strategy and if further groundwater monitoring and detailed design confirmed that lining of the basin was necessary, this would not affect the calculations made in the drainage strategy because this has not assumed any infiltration from the detention basin if it were un-lined. As such, confirmation of whether the basin was to be lined is not considered to have an influence on the evaluation of the drainage strategy at the outline planning application stage.
7. This comment suggests a need for an emergency plan to be agreed with Wiltshire Council. As is the case for points 4 and 6 above, this is something that could be secured through an appropriately worded planning condition.
8. It is not clear from the LLFA response whether this point has been addressed or whether further information is required. Following our previous response to confirm that urban creep has been accounted for

there is a note to say 'this is acceptable' but below this there is a red text objection. If the red text is intended to apply to the MADD Factor only, its wording is similar to that for points 4 and 6 (i.e. that this information should be provided prior to development commencing) and hence this information, which is more appropriate to detailed drainage design, could be appropriately secured through Reserved Matters.

10. This objection refers to the provision of a construction management plan, but it is not clear why this would be an objection, rather than a recommendation because it would be common for such documentation to be secured under a planning condition and this benefits from being undertaken in parallel to more detailed stages of design that are closer to the commencement of development. The comparable comment from the EA is worded as a recommendation for a condition.

When you have had a chance to review the responses set out in this letter, I would be very happy to discuss any aspects and re-package as tailored specific responses to the respective consultees if required.

Yours sincerely



DAVID SMITH

For and on behalf of **CAMPBELL REITH HILL LLP**

Wiltshire Council (<https://www.wiltshire.gov.uk/>)

[Log in \(/pr/s/login\)](/pr/s/login) [Register Account \(/pr/s/login/SelfRegister\)](/pr/s/login/SelfRegister)

Comment

Environment Agency's Comment

Planning Application

[PL/2021/09778 \(/pr/...](/pr/s/PL/2021/09778)

Stance

Comment

[Details \(?tabset-ae70b...](#) [Files \(?tabset-ae70b=2\)](#)

▼ Information

Comments

Environment Agency's Comment

Comment Number

WC-22-05-235070

Text

REDEVELOPMENT OF THE STATION WORKS SITE TO PROVIDE A MIXED DEVELOPMENT OF UP TO 86 DWELLINGS, A CARE HOME OF UP TO 40 BEDSPACES WITH ASSOCIATED MEDICAL FACILITIES, NEW PEDESTRIAN AND VEHICULAR ACCESS AND TRAFFIC MANAGEMENT WORKS, A SAFEGUARDED AREA FOR ANY FUTURE RAIL IMPROVEMENTS, AND AREAS OF PUBLIC OPEN SPACE. LAND AT STATION WORKS, STATION ROAD, TISBURY, WILTSHIRE

Thank you for your email dated the 27th April 2022, which attached further information from the applicant relating to the above site. We wish to make the following comments.

We have reviewed the letter 'DSds_220427_Tisbury_Station_Consultation_EA' dated 27th April 2022 from Campbell Reith Hill LLP. The submitted letter does not provide sufficient information to address our concerns and we maintain our objection to the proposals. Our full response is set out below.

Flood Risk

Flood Zone Compatibility

The letter appears to suggest that the proposed walkway should be classified as a water-compatible use. If the Local Planning Authority (LPA) are satisfied with this classification, then the proposed walkway will need to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

We understand that designing the walkway to remain operational may be impractical and therefore measures will need to be put in place to make it safe; this along with the other points are discussed further below.

Safe Access

It is the LPA's responsibility to decide if the access arrangements are safe and they should determine this through consultation with their emergency planners. The EA's role is to provide technical advice regarding the flood hazard rating, which should be provided in the Flood Risk Assessment (FRA).

In this instance, all of the proposed buildings will be located in Flood Zone 1, but the access is via Jobbers Lane which is located in Flood Zone 3. Therefore, if residents or the emergency services needed to access the site during the design flood they would need to pass through floodwater.

The letter provides an assessment of the hazard posed to both vehicles coming along Jobbers Lane from the south-east and pedestrians/cyclists using the proposed raised walkway.

The assessment of hazard for vehicular access uses flood levels that differ to those stated in the FRA. The letter estimates a flood level of 91.70mAOD for the 1% annual probability event plus 38% climate change allowance, whilst the FRA states in paragraph 5.1.6 a flood level of 92.38mAOD, which is significantly higher. Clarification

on the design flood level is required before an assessment of the hazard for the vehicular access can be concluded.

The letter also provides an assessment of the hazard to users of the proposed raised walkway; however, it is not clear what design flood level has been used. The letter references a flood depth of 0.4m, which given the proposed walkway level of 91.3mAOD, appears to relate back to the 91.7mAOD referenced above, which is inconsistent with the FRA. Additionally it is not clear whether a debris factor has been applied in the calculation of the hazard rating as summarised in the Explanatory Note for FD2320 and FD2321. Clarification of the design flood level and confirmation that an appropriate debris factor has been used when calculating the hazard rating are required.

We note that the letter states “safety would be controlled by individual users because the extent of any flooding would be immediately apparent”. Whilst the extent of flooding will be clear to see, the depth of flooding may not be immediately apparent and, therefore, it may be advisable to provide some indication of this to users.

Increase in Flood Risk Elsewhere

The letter provides a high-level assessment of the potential impact of the raised walkway based on the loss of floodplain storage volume. However, the potential reduction in conveyance through the bridge arches is more of a concern. The restriction on flow caused by the bridge means that changes in conveyance through this structure have the potential to have a significant effect on flood risk elsewhere.

Whilst the letter appears to try and address the concern qualitatively, this is not sufficient to overcome our concern. We request that hydraulic modelling is undertaken to assess the impact of the proposals and any potential compensation. Alternatively, the design of the proposed walkway could be altered to avoid reducing conveyance and loss of storage. Measures would need to be installed to appropriately manage the risk to users and the LPA's emergency planners should be consulted on any such proposals.

Other matters

Our comments provided in our previous letter dated the 12 November 2021 relating to groundwater and contaminated land are still relevant to this application.

In addition, if our objection in relation to flood risk matters could be overcome, we would wish a condition for a Construction Environmental Management Plan to be included in any granted planning permission for the site. This condition would be required to ensure there would be no pollution of the environment during the construction phase of the scheme. We can provide suggested wording for this condition in due course.

Please contact me if you have any queries.

Yours sincerely

Miss Katherine Burt
Sustainable Places - Planning Specialist
(On behalf of Mr Matthew Pearce)

Date Created

18/05/2022

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Mr Richard Hughes
Wiltshire Council
Development Control South
PO Box 2281
Salisbury
Wiltshire
SP2 2HX

Our ref: WX/2021/135783/03-L01
Your ref: PL/2021/09778
Date: 18 August 2022

Dear Mr Hughes

FURTHER FLOOD INFORMATION - UP TO 86 DWELLINGS, A CARE HOME OF UP TO 40 BEDSPACES, NEW ACCESS AND TRAFFIC WORKS, AREA FOR FUTURE RAIL IMPROVEMENTS, PUBLIC OPEN SPACE.

LAND AT STATION WORKS, STATION ROAD, TISBURY, WILTS

Thank you for reconsulting the Environment Agency on the above outline planning application.

We have reviewed the letter dated 5th July 2022, from David Smith of Campbell Reith. We still have significant concerns over the proposed walkway structure. We have explained the further information we need to see below. However, if it is not possible to see this before determination, we recommend that the application is refused based on a lack of information on flood risk. This is because the fundamental issue of flood risk cannot be considered at reserved matters stage.

Flood Zone Compatibility

We maintain that IF the Local Planning Authority (LPA) is satisfied that the proposed walkway is classified as 'water compatible', then the proposed walkway will need to:

1. remain operational and safe for users in times of flood;
2. result in no net loss of floodplain storage;
3. not impede water flows and not increase flood risk elsewhere.

These points, from our previous letter, have not been dealt with to our satisfaction.

Under point 1 above we would not wish to see this issue dealt with by condition. At present, we have too much uncertainty on how the safety measures would actually function and how failure would be prevented. We would need to see more detail, before determination, on how the walkway would be closed during times of flood. For example, how would closure be triggered? At what flood level/depth would it be triggered? How

would the developer ensure this was maintained in perpetuity?

Safe Access

Mr Smith's letter does not clearly explain the discrepancy with the levels presented previously. We would need to see clearer and more detailed revised calculations on the design flood level to be used, to understand how the applicant has arrived at 91.7mAOD. We suggest that a revised FRA would be a better format for submitting these sort of revisions as opposed to letters.

Increase in Flood Risk Elsewhere

The applicant has confirmed that they are not willing to undertake hydraulic modelling for this proposal as they consider it to be disproportionate. We disagree with this as without modelling the increase in flood risk to other sites is unquantifiable, therefore the LPA cannot determine the application in a fully informed manner.

In addition to there being no modelling, Mr Smith's letter does not provide the following information that we need in order to be sure that there will be no increase in flood risk elsewhere and/or a loss of floodplain storage caused by the proposed walkway:

1. the dimensions and volumes of the ground raising for the proposed walkway
2. flood plain compensation proposals
3. dimensions and levels of the walkway overlain with flood levels

Biodiversity and Ecology

Although we do support the responses of Natural England and the County Ecologist, we have no objection in this regard as it would be beyond our remit to do so.

A full biodiversity net gain (BNG) report has not been submitted with this application but 10% BNG will be required.

The applicant will need to work with Natural England in terms of meeting the conditions of the Appropriate Assessment for the HRA.

Please send us a copy of the decision notice issued for this application.

Yours sincerely

Ms Ellie Challans
Sustainable Places - Planning Advisor

Direct dial 02030 259311
E-mail swx.sp@environment-agency.gov.uk

TISBURY FLOODING – 20th and 21st October 2021

This is what it looked like this morning:





Play area adjacent to river completely submerged and fencing dragged down.



Stubbles footpath completely submerged.



The 2 litter bins (fixed in concrete) have been completely washed away.

