

PROPOSED DEVELOPMENT

GC13: BRADMORE NEW NEIGHBOURHOOD, NEWTON ABBOT

OBSERVATIONS AND CONCERNS REGARDING THE PROPOSAL

1.00 Introduction

The proposal which is the basis of these observations was formerly referred to as Land West of Houghton Barton in the Part 2 consultation. It has since been renamed as GC13, Bradmore New Neighbourhood in the final Teignbridge 2020 – 2040 Local Plan consultation. This change in name has made public access to identify the site more difficult.

The earlier phases of the process of assessment have caused the development zone to be reduced in size and this reduction appears, in part, to recognise a number of constraints including topography, woodland, and other very important factors.

Whilst there is some encouragement in terms of the reduction in development area, it is felt that certain constraints, strong topographical features, and rural landscape relationship issues have not been fully studied. This document seeks to draw Teignbridge Spatial Planning Team's attention to a number of other factors which may assist in determining an appropriate, viable and cohesive development zone. There is also a concern that the latest appraisal comprises more of a 'desktop' exercise without detailed on site assessment. Development site boundaries seem to follow Google Earth delineations which relate, on one occasion, to a temporary stock fence and, on others, to sections of fields where they had simply been part grazed or cut.

The GC13 zone appears to be a western outshoot of NA1, seeking to capitalise on agreed development adjacency and the Forches Cross link road. NA1 has been identified as an area with a 6-to-10-year delivery period and, like other areas of new development, such as those in Bovey Tracey, it can only be assumed that any delivery in an agreed GC13 area would be consecutive (and after) the completion of NA1. This would avoid piecemeal, unsustainable, and fragmented development.

The following observations will demonstrate a pronounced concern in terms of how far Newton Abbot can enlarge in a westerly direction before that development becomes disconnected and standalone compared to evolving Newton Abbot and Kingsteignton. There is some confidence when stating that the physical distances between GC13, and the services and facilities that Newton Abbot provides, are considerably in excess of those where sustainable development has typically been agreed. There is a strong risk of further westerly development becoming isolated and without adequate services to justify a standalone community. This would be akin to a small Cranbrook which is located in East Devon.

1.00 Introduction (continued)

The Forches Cross link road, with a reduction in town traffic by the creation of a bypass and the connectivity distances to Heathfield and the A38 are understood. There does therefore appear to be an ability to create structured and sustainable development around this infrastructure. This approach would reduce a risk of creating out of town dormitory housing without services and with an increased need to rely upon the private car. If, however, GC13 were to be of excess size (and too far from all Newton Abbot offers) isolated and unsustainable development would be created. An appropriate distance into the rural area must surely be established to restrict how far west Newton Abbot will be sensibly extended. The current proposal is however felt to be a step too far and an exercise to simply hit housing target numbers which may not even be necessary based on impending National Planning Policy Framework guidance, due to be published in the Spring of 2023.

2.00 GC13 Sustainability Relative to Newton Abbot

An exercise has been conducted to consider the whereabouts of local services and, by physical distance, how they relate to the services, facilities, and employment of Newton Abbot and the surrounding district.

The initial appraisal has indicated that distances to many items that comprise Newton Abbot sustainable facilities would be greater from NA1 than they are from, say, new development at Kingsteignton. Kingsteignton also benefits from a group of long-established services within its heart and a large proportion of Newton Abbot's 'out of town' retail is located around Kingsteignton and the railway station to Penn Inn roundabout areas.

The outer most limits of NA1 produce quite considerable distances between potential development and Newton Abbot's services. These distances include: -

- The railway station - 6.0 km
- The bus station - 4.6 km
- Tesco – 6.0 km
- Secondary school – 4.0 km
- Doctors surgery – 4.9 km
- Dentist – 5.3 km
- Brunel employment – 6.8 km
- Greenhill Way services and employment – 6.5 km
- Heathfield services and employment – 6.0 km

2.00 GC13 Sustainability Relative to Newton Abbot (continued)

It can be clearly seen that NA1 will already place residents in a predicament when considering sustainable methods of transport from the development zone to Newton Abbot, and onward when needing out of area travel. The A383 is served by an hourly Stagecoach bus (service 88) and it is clear that further local bus service connections will be required, including the need to change services to reach various destinations. The pedestrian and cycling distances are of some length and heavily affected by weather, the need for the journey and the inclination of the resident. With these factors in mind, it seems clear that many occupants of NA1 will often resort to the use of the private car for a majority of journeys and this trend is commonplace with outer urban schemes. If 1000 additional homes were considered for GC13, the transport assessment system known as TRICS gives 8 movements per dwelling per day as an average. This would create some 8000 vehicle movements onto the A383, the Forches Cross road, Stover and Drum Bridges, along with other connections (serviced by nearby roundabouts) to places including Totnes, Ipplepen, Kingsteignton, Abbotskerswell, Kingskerswell, Teignmouth and Bishopsteignton.

GC13 then seeks to take development appreciably westward, beyond that agreed for NA1 and, in doing so, the travel distances to Newton Abbot, services and public transport links become further extended. At this early stage, no road infrastructure has been identified but it seems certain that all the distances listed above will extend by something in the region of 0.5 km to 1.0 km at the very least. Using the railway station as an example, this creates a journey from the outer limits of GC13 of potentially 7.0 km.

The overall development strategy would potentially seek to offset these considerable distances by the creation of more local services. These service providers however need to consider population density and the prospect of a sustainable commercial operation of their business. The speed of take up (and still lack of full occupancy) of the group of units at Foxglove Close perhaps indicates the risks in assuming commercial operations will be prepared to commit further west and out of Newton Abbot. Again, it has taken over ten years for the larger Cranbrook scheme in East Devon to attract adequate local services. The risks therefore present large housing schemes, which are nothing more than dormitory accommodation in remote locations, without adverse effects on the rural landscape and rural population. This does not comprise appropriate and sustainable development.

In such situations, well intentioned planning strategy efforts to create local service clusters can cause great caution among the business operators. These risks include concerns that established developments, with local service facilities, and the new proposed facilities, would fight one another because they are too close together and the population is not of adequate size to warrant more.

PLEASE REFER TO APPENDIX 1 (Teignbridge's website does not allow attachments)

3.00 400 kv National Power Pylons Traversing the Site

A line of very high voltage overhead power distribution cables traverses the GC13 site from southwest at Ashburton Road to the northeast where it travels towards Drum Bridges and Heathfield. These cables are on large scale, cross country metal pylons.

Development in proximity to such infrastructure would comprise something of a first in Teignbridge, especially when considering domestic dwellings. There is considerable concern that Teignbridge's development framework criteria cite only a 30-metre separation between a home and the pylons. Whilst current thinking on safety criteria in relation to development in proximity to pylons will be expanded upon, it is doubtful that many purchasers will find living close to such structures acceptable. Additionally, the low quality of environment for housing near pylons is likely to cause low cost and affordable housing to be located in such situations and that will further create a social divide between affordable home and open market home residents (other eastern edge of Newton Abbot new housing places high-density, low-cost apartments on a roundabout as an example).

The pylons cut almost centrally across GC13, and their presence, visual impact and safety consequences cannot be ignored. It is not clear from where Teignbridge Spatial Planning obtained direction on 30 metres either side being acceptable but, irrespective of the source, there is much data to suggest significantly greater distances should be considered.

Pylons are visually intrusive, unattractive, and intimidating to many people. Their physical size is vast, and the power of the electricity transported by them causes concern, along with the crackling noises that can be heard. A number of sources of technical information and guidance have been studied and the following summary may be of use.

3.01 National Grid

The National Grid publish data indicating the spread and severity of electromagnetic fields (EMF) from such pylons. This data indicates that EMF reductions start from very high values, close to the pylon and reduce over a distance each side of the conductor cables on the pylons. The data indicates that EMF values are still evident and measurable at 100 m on each side of the outer most conductor and, taking the width of the pylon into consideration, a width of some 220 m is calculated (100 m each side = 200 m plus the width of the pylon at 20 m = 220 m).

In addition to this width of clearance, the National Grid also make a statement in their Electric and Magnetic Fields (EMFs) Factsheet. The National Grid say "*EMF levels fall rapidly with distance, typically returning to the normal background range at a distance of around 150 metres*".

The EMF data and stated distances are information issued by the owners and operators of the UK's overhead high voltage power pylon network. It therefore seems inappropriate (and unsafe) to overlook such important data when setting a 30 m development proximity to the 400 kv lines which traverse the GC13 site.

PLEASE REFER TO APPENDICES 2, 3 & 4(Teignbridge's website does not allow attachments)

3.00 400 kv National Power Pylons Traversing the Site (continued)

3.02 World Health Organisation

The World Health Organisation (WHO) recognise a link between EMFs and Leukaemia and categories proximity to such power lines as '*possible carcinogenic*'.

3.03 Stakeholder Advisory Group on ELF & EMFs (SAGE)

The group conducted studies and interpreted the research of other organisations in order to provide guidance on prudent precautions when developing near power pylons. Findings aside, the underlining outcome was to recommend the avoidance of developing homes in proximity to pylons. The findings were of a preliminary nature dating to around 2007 and they also referred to a 2005 Draper report.

In terms of the risk of illness when living or working near electricity pylons, the following illnesses were identified by SAGE as ones which should be borne in mind : -

- Adult leukaemia
- Adult brain cancer
- Alzheimer's disease
- Amyotrophic lateral sclerosis
- Breast cancer
- Other childhood cancers
- Depression
- Electrical sensitivity symptoms
- Certain types of heart disease
- Miscarriage
- Suicide

Whilst percentage probabilities can vary, it seems clear that SAGE recognise risks in developing near pylons and this relates well to information provided by the National Grid where EMFs are known to extend for over 100 m each side of a pylon. The National Grid also suggest that a 150 m separation each side could be advised.

In the context of GC13, as proposed in the next phase of Teignbridge's Local Plan, there seems to be a pronounced need to further consider a suitable (and considerably larger) safety zone both sides of the high voltage pylon run that traverses the site.

On the basis that the pylon and conductors span some 20 m, and a 150 m exclusion zone is provided on each side of the pylon run, a non-developable zone of around 320 m width would be created. This type of distance may also be a factor which could create an increased deterrent to a prospective property purchasers. Many buyers may however not wish to live or work near such electrical infrastructure and housing in particular has not been closely located to pylons in Teignbridge before.

3.00 400 kv National Power Pylons Traversing the Site (continued)

3.03 Stakeholder Advisory Group on ELF & EMFs (SAGE) (continued)

SAGE took reference from the Draper et al 2005 study into leukaemia and that examined safe distances from the centre of a pylon. The report's middle distance suggested a 200 m zone each side of the pylon taken from its centre line (400 m overall) and that seems to favourably correspond with the National Grid fact sheet which states that EMFs are negligible at 150 m from the outer cable on each side of the pylon. The Draper findings, and those from SAGE's first interim findings, were also considered by a committee of MP's in 2007.

To summarise, in relation to SAGE findings, their development matrix recognises that no new development in close proximity to existing power lines is advised and this is wholly based on health and safety related issues. The findings of Draper are also borne in mind by SAGE. It therefore seems appropriate and prudent to consider a much wider exclusion zone on GC13 site than is currently specified. This would reduce risks of perceived (and real) health problems related to occupants. Also, the prospect of legal claim, should anyone fall ill with issues that relate to those known from various studies conducted on the subject, are less likely to cause problems. It is also assumed that Teignbridge's Environmental Health Team would wish to take a sensible and precautionary approach to this vital matter, taking all available data into consideration and assisting Spatial Planning with their safe and appropriate decisions.

3.04 EMF Surveyors UK Wide

EMF Surveyors UK Wide <https://substation-health-risks.co.uk> are a specialist company who provide survey and safety assessments regarding the consequences relating to electromagnetic fields (EMFs) and in relation to human safety and development.

The company advise that a thorough assessment of a pylon line, relative to potential development, should be conducted. Their recommendations are to consider a survey extending potentially 1200 m or $\frac{3}{4}$ a mile along the line of an overhead pylon line. There are strong technical and safety reasons for this approach and it would appear that Teignbridge Spatial Planning are unaware of such advice.

WHO, SAGE and other studies are recognised by the company as valid factors when considering development near pylons. Interestingly they also refer to the electromagnetics of the human body which need to be balanced against EMF outputs from large electrical installations.

It is strongly suspected that Teignbridge have simply referred to early SAGE first interim report data but there is much more research and valid information upon which to base development proximity decisions in relation to pylons. The most robust, cautious and risk managed approach to this important development criteria is therefore felt to be necessary. The National Grid themselves recognise these factors, as do other interested parties.

4.00 Ecological Considerations

The area proposed for GC13 comprises a recognised zone of important SAC land.

The ecology picks up on a variety of species with an emphasis on Horseshoe bats and it is also recognised as a zone in which Crested Newt occupancy can prevail. As the area comprises steeply sloping topography comprising countryside with woodland, established hedges, mature trees, scrub land and water, many other species (some protected) will occupy the area. For example, owl presence is known to include Barn, Tawny and Screech varieties and the type of land is most conducive. The fact that it contains a mixture of valley, farmland, woods and foraging scrub all help sustain those animals. Badgers are also known to have setts in the area.

With regard to bats, extensive studies have been carried out in relation to Horseshoe bats and the proposed GC13 development area is recognised as an important transit route, linking to sustenance zones around protected roosts. GC13 would comprise an area almost central in this transit zone and this is illustrated on Devon County Council's Environmental Viewer. This data also allows an assessment of the distances from the centre of GC13 to three known sustenance zones as follows: -

- Ashburton – 6.0 km
- Chudleigh – 3.4 km
- Ilsington – 3.5 km

PLEASE REFER TO APPENDIX 5 (Teignbridge's website does not allow attachments)

In developing GC13, natural topography habitats and transit zones would be lost, reduced, and affected. The NA1 development project, to be located on the western edge of an enlarging Newton Abbot, (potentially to now also include a development zone referred to as GC14) already causes significant losses to natural rural land and habitat. Mitigation of some significance will therefore be required. Should GC13 progress, a variety of species would have already been forced westward by the development of NA1 and GC13 which would then further restrict established natural trends. It therefore begs the question, how much more of this important landscape can be effectively developed before the ecological consequences become too severe ?

Earlier comments refer to the presence of cross-country power lines and the development zone comprising GC13 contains a large woodland and many kilometres of established Devon hedges. Also, the zone includes steep slopes, enclosed low lying areas and water in the form of running streams (tributaries to the River Lemon) and outpourings from extensive natural springs which litter the area. The geology is one of heavy clay, underlain with shillet and limestone which has created many quarries. These attributes all assist the sustainment of a mixed, extensive, and diverse wildlife populations, particularly on the far western end of GC13 where it folds steeply into a valley near South Knighton.

4.00 Ecological Considerations (continued)

As is widely understood, many of the native wildlife species are most active at night and rely upon largely dark skies to find an area worthy of occupation and cross-country transit (e.g. Horseshoe bats). Modern development will inevitably be heavily illuminated, and this will create light pollution to the detriment of many species, including the nearby rural residents who enjoy predominantly dark skies. In particular high level and ridge located development affects dark skies and this is particularly important to Horseshoe bats, along with the avoidance of light bleed from glazing on buildings. Should development climb to the higher ground of GC13, and be located on ridges, it will have an adverse effect on the next fold in the landscape comprising the steep valley separating South Knighton and Chipley from GC13. This is an area rich and diverse in ecological texture.

Urbanisation of a rural area at such a large scale will cause the human occupation to dominate previously large areas of natural environment.

The construction of buildings, hard paved roads and heavy reductions in soft (and varying) landscape will cause wildlife to vacate and adjust its behaviour. Human activity is typically 18 to 24 hours a day, based on lifestyle, shift working and other evolving society trends. An area such as GC13 which can comfortably accommodate a wide variety of wildlife would be largely lost and that is in addition to much of the landscape already allocated to NA1.

5.00 Surface Water Consequences

The NA1 allocation, west of Newton Abbot, abuts the A383 on its southern, lower lying boundary and it is interesting to note the lack of adverse surface water consequence on the A383, and the lower land to the south of that road. Notwithstanding those positive observations, NA1 has had to consider downstream surface water consequences resulting from the development. These include increased water flows into the River Lemon and dam improvements at Holbeam.

When considering GC13 however, Devon County Council's Environmental Viewer (which cross references to the Environment Agency's flood risk mapping) shows a very different scenario on relevant section of the southernmost low land and the A383. This data base can also provide accurate Ordnance Survey information in relation to ground slopes and contours. Teignbridge's own GC13 assessment criteria recognise the area as a Critical Drainage Zone.

For the entire southern boundary of the proposed GC13 area (and extending eastward beyond Howton Lane and westward beyond Chipley) then heading towards Bickington, a very different situation can however be seen.

5.00 Surface Water Consequences (continued)

The relevant areas of entire lowland and sections of the A383 are compromised by Zone 2 and Zone 3 flood risk in an already recognised Critical Drainage Zone. All of the land suggested to be embraced within GC13 slopes steeply from the north to the south from approximately 100 m above sea level down to 40 m above sea level. Additionally, the western most edges of the suggested development zone are much more steeply sloped, over shorter distances with over 30 m changes of level. It is therefore easy to identify why the low-level southern areas below GC13 and the A383 flood, because of pronounced existing surface water run-off. There is also an element of flooding in the steep folding valley separating GC13 from Chipley and South Knighton where land is very steep. This flood characteristic also creates a Zone 3 flood risk on the A383 and for a section of the road linking to Chipley, South Knighton and Ingsdon (these communities are located above and to the north).

These flood characteristics are clearly understood by a number of agencies, and they have been scientifically assessed. Those assessments record flood data when GC13 remains permeable farmland and it is an area with a current ability to manage some (but clearly not all) of its surface water run-off.

The entire area is known to be littered with natural springs and these contribute to water flows along with stream tributaries linking to the River Lemon. The typical area geology comprises heavy clay, underlain with shillet and limestone.

Development of GC13 will require large sections of the site to become impermeable following the construction of buildings and paving. At its western end, and from a ridge top crest, set some 80 m above sea level (dropping to 40 m and 50 m on its western and southern boundaries) the land is very steep. This will have potential to create adverse run off consequences and there are limited opportunities for attenuation. It is therefore hard to understand how such challenging topography (and geology) which already contributes to Zone 3 flooding, and is classed as a Critical Drainage Zone, can be developed on its slopes without making matters significantly worse.

Devon County's LLFA flood team are a consultee in planning applications. They are most insistent that attenuation and soakaway viability are established before development can proceed. In particular, natural springs and high-water tables must be demonstrated not to be in strata levels that could cause ground water to fill soakaways or attenuation ponds. All of this assumes, of course, that the slopes are not too steep to sensibly accommodate development and then to manage the water that may arise from them, using viable and sustainable drainage engineering solutions. The concern is therefore that land could be considered and allocated which may later be proven to be non-viable on this important technical level. The Local Plan consultation brief already recognises an impact on the River Lemon, dam infrastructure and downstream consequences to established Newton Abbot. There is every likelihood that GC13 will further surcharge a difficult situation and water run off may present an insurmountable challenge.

5.00 Surface Water Consequences (continued)

In potentially limiting the boundary of GC13 to remove western and southern land (where the terrain is at its steepest) will inevitably reduce some of the worst surface water run-off consequences that will exacerbate the known flood risk to the south and west zones of the site. Currently, the suggested GC13 boundary is conveniently drawn to field shapes (and grazing patterns) and, on one occasion on a ridge at 80 m above sea level, to a stock fence. This indicates a potential for only desk top studies to have been used to determine the perimeter, perhaps with the assistance of Google Earth and Devon's Environment Viewer. Additionally, it is doubted that private land facing the proposed development will have been visited to assess the landscape consequences. It would therefore seem that more topographical assessment would help to identify steeply sloped areas (and a ridge top zone facing rural communities) which would be difficult to develop based on levels and challenges when managing surface water consequences.

All new developments seek to avoid further burdens on an old and over stretched mains surface water sewer system. Even developments that have recently been delivered as close to Newton Abbot as the new Coop, off Foxglove Close have had to provide house by house storage crate surface water attenuation and the developers have also had to provide further buffer systems to avoid adverse sewer consequences. NA1 will need to take these matters further and that scheme is located in an area where no abutting southern flood risk issues can be seen, and the land is not so steep as GC13. GC13, however, already displays significant flood risk to the south and west which compromises private land and on an important A road which links the A38 to Newton Abbot and the planned Forches Cross link road.

A lack of proper surface water research, bore hole logging and topographical assessment could cause land to be zoned which may never be viable for development. This is a critical aspect of any development strategy, and a lack of prudent planning could cause land to never deliver the development that was anticipated. Simply stating a few objectives in relation to a large development and its need to work with achievable sustainable drainage solutions, may not be enough. The risks and current flood characteristics are clear, and they have a direct relationship with steeply sloping land, particularly to the west and southwest corner of the site.

PLEASE REFER TO APPENDIX 6 (Teignbridge's website does not allow attachments)

6.00 GC13 And Its Relationship With The Rural Landscape

Taken from the edge of older established Newton Abbot (circa 1950's to 1990's) development is evident to the north and south of the A383 for a further 650 m, travelling to the west. This just maintains a relationship (and connection) to 'old Newton Abbot'.

The NA1 scheme stretches that distance along the A383 to 1.4 km, eating into rural landscape with a view to creating a town bypass link road and a range of development. Distances to Newton Abbot services are of some length from NA1's extremities with, for example, journey's in the region of : -

- Train Station – 6.0 km
- Bus Station – 4.6 km
- Town Centre - 4.7 km

GC13 would push further into the rural landscape for at least another 1.0 km, westward along the A383 and onto steeply sloping land to the north of the road. The distances to Newton Abbot, its services and transport links will become longer, and the development will not be able to provide on-site everything a resident requires. Later delivery of improved transport infrastructure and its viability would also need to be questioned and this very much indicates that GC13 (in whatever form it is eventually agreed) absolutely must be built to follow the completion of NA1 and only when firm sustainable transport commitments are contractually in place.

In terms of the landscape and visual consequences of the development, if the boundaries were to remain as currently proposed, rural vista and rural lifestyle intrusions would become apparent. The zone comprising Ingsdon, South Knighton and Chipley accommodates only 200 people who live in and around a high ground and valley area with separation from Newton Abbot. The house quantities extend to approximately 40 dwellings. Should GC13 extend too far westward over high ridges and onto west facing, steeply sloping land, a visual link would be created between an urban environment and a long established rural one. This is felt to be wholly unnecessary and severely damaging to the area's rural character and lifestyle.

The western and southwest corner topography of GC13 could present adverse landscape visual consequences, changing the character of the rural zone. Earlier observations identify other technical constraints in relation to power pylons, ecological matters, and surface water management as examples.

Therefore, a contradiction appears to be evident between Teignbridge's currently shown GC13 boundaries and certain key objectives outlined in the development zone preamble. In particular, paragraph 3 a (iv) suggests that upper elevations of the site should not be developed in order to minimise potential landscape consequences. Therefore, the current red line on the western side of the proposed zone (drawn along a stock fence) would surely not be developed and development would be confined to the eastern facing slope on the other side of that ridge.

6.00 GC13 And Its Relationship With The Rural Landscape (continued)

Early assessments have also established that the zone of land is classed as important as hinterland in the context of Dartmoor. Therefore, the highest areas of the proposed GC13 site sit at around 80 m and 100 m above sea level. These zones comprise visible high ground and ridge and skyline environments when viewed from the west and they should be protected. This will also assist appropriate ecological decisions.

7.00 Ilsington Parish

Teignbridge Spatial Planning appear to be seeking cooperation from a fundamentally Dartmoor, and largely rural, Parish known as Ilsington, in order to progress GC13.

Ilsington Parish is of great size and its boundary is believed to be the longest of any parish in England. Historically, this very large parish operated as one zone and it was the construction of the A38 trunk road, in the 1970's, that split the territory north and south, with an emphasis on land contained with Dartmoor National Park. A more southerly zone of Ilsington Parish contains Liverton and, further south again, there is little in the way of residents. The parish boundary has never been changed and those southern most residents largely comprise the small communities previously listed in this document.

Ilsington Parish does not have an adopted Neighbourhood Plan, nor does it have new housing requirements based on research or demographic assessments. On that basis, it is Newton Abbot (and the whole of Teignbridge) who wish to encroach into this completely rural parish territory to deliver housing numbers, in order to meet targets. Whilst there is quite significant geographical separation between the Moorland population of Ilsington and those in the south nearer Newton Abbot, a unified approach to the lifestyle, quality of environment and amenities prevails.

It is apparent that Ilsington Parish Council wish to resist the proposal for GC13 where it sits within their parish boundary.

8.00 GC13 Development Format

From Teignbridge's narrative, it has become apparent that GC13 would link to NA1 in the hope of creating a self-contained community (perhaps in the form of a mini-Cranbrook, which is located in East Devon).

The development is however seeking to present itself in the form of apparently logical extensions to Newton Abbot and the services it offers. Huge amounts of infrastructure, public buildings and community facilities are needed to make a scheme of that nature work and other Devon examples have proved to be less than successful, slow in their delivery and difficult when attracting the necessary commercial interest to create sustainability.

The scheme is not felt to be one which will create a cohesive neighbourhood to supplement Newton Abbot and it will be more one of a separate and slightly isolated form. Technical difficulties, topography and other constraints aside, GC13 will need to rely upon Newton Abbot and what the town offers. These facilities are however rather distant and beyond normal sustainability indicators. It is also strongly doubted that public transport and modern family life will prevent the heavy use of the private car by the people who live there.

9.00 Traffic Consequences

In conjunction with Devon County Council traffic flow analysis conducted to establish factors surrounding any benefit from the NA1 Forches Cross link road, vehicle flows were assessed in both directions on the A383, Bickington to Newton Abbot section.

The earlier findings established vehicle volumes were consistently running at around 8100 movements per day and a growth loading percentage, year on year, was also identified at 1.3% (east and westward movements). At 2023 levels, the traffic is predicted to run at around 9200 vehicles per day and that is before the Forches Cross road is built. These volumes will continue to use the road (and no doubt grow in quantity) and it is simply a case of where they will go rather than not using the area at all.

NA1 will inevitably create more movements in and out of the zone and these will come from three principal directions: -

- Through Newton Abbot and via the A380
- Along the A383
- From Drum Bridges and the A38

Additionally, other traffic feeds into two key roundabouts and much traffic also comes into the zone from Totnes, Ipplepen, Kingsteignton, Abbotskerswell, Kingskerswell, Teignmouth and Bishopsteignton. Not all of these journeys will simply wish to pass by NA1 and GC13 and, in doing so, they will add further traffic to the newly created development areas.

9.00 Traffic Consequences (continued)

It is without doubt that the new roads associated with the development (presuming that is why they are being built) and increased population will create higher vehicle volumes. Local changes and a short link road aside, all of this traffic will further burden the existing road network that serves the territory. NA1's consequences will already be of considerable size and the addition of GC13 will exacerbate that. As previously stated, TRICS data estimates typical dwelling movements at 8 per day, creating potentially 8000 more movements to a current local total of over 9000. That is before NA1 is delivered. These figures also do not take into account increases based on the Hele areas of development, commercial and public transport traffic to service the zone, local service vehicles and emergency traffic. In summary, these vehicle increases (and the appropriateness of them) would need to be carefully considered in relation to established and unchangeable local connection points with huge risks of congestion.

It is also important to note that the majority of Newton Abbot urban services are located away from GC13 and largely on the opposite side of Newton Abbot. For example Aldi would be some 6.7 km and Sainsburys 7.0 km from the development and definitely requiring the use of a private car.

Reference to Crashmap.co.uk has indicated a significant number of road accidents along the A383 in the vicinity of the western edge of Newton Abbot, the zone allocated to NA1 and the section abutting the proposed GC13 site.

A number of these accidents were quite serious, and an interesting factor relates to the dates of many of the incidents. Crashmap records accidents over a 23-year period but the majority on the section of road concerned are during recent dates, 2017 – 2023. There is therefore heavily correlation between the growth and development at this end of Newton Abbot and the frequency of vehicle accidents. These statistics are highly likely to increase as development progresses and perhaps further consideration should be given to this important safety factor, especially as development of this type will still require frequent use of the private car to sustain family life.

10.00 Bus Services

Bus services appear to be a regular method of trying to justify the sustainable nature of a given development. The difficulty with this relates to the need to rely upon a partnership with private companies who are seeking to generate profit from bus transport, against very difficult operational factors.

Currently, the A383 is supported only by Stagecoach's 88 service on an hourly basis. This comprises a cross country service with limited frequency and no early or late availability. It is certainly not a bus service that could support a new residential community and Teignbridge would need to form arrangements with Stagecoach (or another bus company) to create a terminus and frequent and flexible shorter journey bus facilities, thereby avoiding the use of the private car. Those facilities would need to respond to work commutes, school runs, various activities during the day and evening events that surround family life. It is felt that there is a strong possibility that this important method of sustainable transport (linking to others such as National train and bus journeys) will be very hard to deliver.

10.00 Bus Services (continued)

Turning to the costs of bus journeys, the operational expenditure and need for profit are causing bus travel to be very expensive. In the short-term Government support is being provided to bus companies to make short journeys more cost effective. This is however not a long-term solution and the current service 88 round trip price between Newton Abbot and either Totnes or Ashburton is £8.30. This further encourages the use of the private car and the convenience it offers for flexible travel, carrying multiple people and goods.

These bus related factors therefore lead to a concern that such sustainable transport cannot be guaranteed in the future, and this will further damage the sustainability of the GC13 development at such a far distance from Newton Abbot.

11.00 Rat Runs

It is important to draw attention to another component of traffic consequences associated with any westerly enlargement of Newton Abbot.

Not everybody wants to travel from Caton Cross on the A38 to Forches Cross and onwards to Drum Bridges. There is also a prospect of enlargement of Liverton which will increase local traffic and, in turn, pressurise local small roads because their journeys do not necessarily take them to either Newton Abbot or Heathfield. Allocations are proposed for housing and industrial schemes around Liverton and those people needing to access western Newton Abbot will plan journeys around cross country narrow lanes (this trend is already to an extent evident).

Five principal, and largely single track, roads exist in the area and these travel from the south off the A383 in a northerly direction to the former A38 running through Liverton. The roads comprise the following :-

- Ingsdon Road between the A383 and The Welcome Stranger
- Road between the A383 and The Welcome Stranger serving Chipley and South Knighton
- Small subsidiary road from the A383 to Chipley by The Old Mill
- New House Hill off the A383 linking to Bickington
- Love Lane off the A383 linking to Bickington

With increased vehicle traffic these roads will prove tempting to some of the new and additional traffic volumes expected from NA1 and GC13. This is already known to be a major issue at times of road works or accidents. The road between the A383, Chipley, South Knighton and The Welcome Stranger became a very busy rat run during peak times of the Stover Road's phased upgrade. This has led to heavy congestion on a single track road, occasional light accidents, damage to gateways and significant deterioration in the road surface which is now in dreadful condition. Additionally, these lanes are vital to local agriculture, farm vehicles and the movement of livestock. They are also heavily populated with horse riders and dog walkers.

Whatever amount of development is eventually considered, it is felt that every effort should be made to prevent cross-country rat run movements as vehicle volumes inevitably increase. The lane network cannot absorb the traffic and the local occupants and farming community will be badly inconvenienced with the change in character to their rural environment and compromises to rural lifestyle quality and safety.

PLEASE REFER TO APPENDIX 7 (Teignbridge's website does not allow attachments)

12.00 GC13 Site Constraints

The analysis has indicated that GC13 would be a difficult zone to deliver and the reduction in its size from the Part 2 assessment compared to the one contained in the Local Plan consultation helps to indicate that.

There are a few contradictions, however, between the zone's aspirations and preliminary constraint factors as set out by Teignbridge, compared to a more detailed review. These are likely to make some of the site's land area undeliverable, uneconomic, and undesirable.

A major framework constraint relates to the 400 kv pylon route which cuts through the site. This infrastructure will remain and people's desire to live near high voltage lines is clearly understood, along with the medical concerns that surround the topic. Teignbridge have relied upon a first interim observation in terms of building distances from such structures but that fails to address the question of 'who would want to live there?' Evidence has been provided in relation to more appropriate separations between development and pylons from sources such as The National Grid, SAGE, The World Health Organisation, The Draper report and EMF, a specialist electromagnetic assessment company. Varying separation widths of 300 m to 600 m are muted and the health of nearby occupants (and perception of health by the residents) should be key development factors to reduce risk and liability in the future. Additionally, property take up could be heavily affected if buildings are too close.

Should a sensible and optimum safe zone be considered for the buffer area around the pylon run, a width of around 300 m to 320 m seems to be backed up by research and recommendation by various organisations. Whatever distance is deemed appropriate (and it is strongly requested that this is in excess of 30 m on each side of the pylons) this major landscape feature will split the development east to west.

Taking that logical assumption forward, it appears that only a small amount of separate and hilltop land would remain to the west of the pylon run and that also contains Bradmore Wood and steeply sloping land to the west and south. If any development were to take place to the west of the pylon run, it would be isolated from the main GC13 and NA1 development. It would impact unnecessarily on a rural landscape and rural community setting as well as creating a group of occupants with no cohesive link to the rest of the scheme.

These observations then beg the question, is there any merit, benefit or improvement to a scheme that passes westward beyond the power pylons? The zone would be small, hilltop, separated from the rest of Newton Abbot and, in part, utilising steeply sloped land which will be difficult to build upon and drain.

Turning to other constraints, there are two fundamental concerns, and these relate to pronounced and adverse consequences from surface water management and the further loss of valued SAC ecological land which provides transit routes and close connections to at least three sustenance zones and major roosts.

12.00 GC13 Site Constraints (continued)

It appears clear that downstream water consequences are already identified in Teignbridge's assessment as matters for concern. Sweeping statements in terms of dam improvements may not be adequate at this time to warrant classing all of GC13 as truly deliverable development land. Before embracing such challenging topography, with recognised southerly and A383 Zone 3 flood risks, surely more technical analysis should be provided? Other Devon agencies hold the key to eventual agreements on development relative to viable surface water management (LLFA) and their criteria to remove planning application objections are most rigorous. Sites with a gradient in excess of 1:10, and where soakaway systems need to be justified following bore hole logging, flag up with LLFA as sites of major concern. If then, development could increase recognised flood zone and downstream problems, significant technical research is required. It is not known if Teignbridge Spatial Planning have engaged with Devon LLFA.

On the matter of designated SAC land, also with a relationship to Crested Newt occupancy, a question occurs in terms of how much more of this important landscape can be lost before the consequences are too great? NA1 will already force wildlife further west and mitigation measures will need to be extensive. Should GC13 become too large, and intrusions into more 'folded' and valley landscape became evident, along with development around established woodland, hedgerows, mature trees and wet areas, further ecological losses are certain. Again, much more research is required before the true ecological consequences can be established. These factors could all contribute to the allocation of land which, again, could not be delivered in development terms.

PLEASE REFER TO APPENDIX 8 (Teignbridge's website does not allow attachments)

13.00 National Policy Planning Framework

Consultations in relation to an updated National Planning Policy Framework (NPPF) have been ongoing, with the cut of date for feedback being the 2nd March 2023. The revised document is scheduled for issue in the Spring of 2023 and it is seen as an interim measure to assist (and to effectively control) development.

GOV.UK website data in relation to the Levelling-up and Regeneration Bill: reforms to national planning policy provide links to NPPF consultation findings. Headline objectives are engrained in the review and they comprise the following :-

- make clear how housing figures should be derived and applied so that communities can respond to local circumstances;
- address issues in the operation of the housing delivery and land supply tests;
- tackle problems of slow build out;
- encourage local planning authorities to support the role of community-led groups in delivering affordable housing on exception sites;
- set clearer expectations around planning for older peoples' housing
- promote more beautiful homes, including through gentle density;
- make sure that food security considerations are factored into planning decisions that affect farm land;
- and enable new methods for demonstrating local support for onshore wind development.

13.00 National Policy Planning Framework (continued)

It is understood that a more aggregate approach to year-on-year housing delivery, which can take earlier periods of over supply (that is greater than a 5-year supply) into consideration, will assist calculations to ensure that precautionary over supply will not be evident in future allocations. This would mean that there may be reduce pressure on a Council to promote an amount of housing relative to an ongoing 5-year supply chain when they have achieved greater numbers in the recent past.

Additionally, the 'character' of a given zone will need to be carefully considered as allocations progress. The NPPF already responds to this matter and the intention is to avoid inappropriate and abnormal development, given a zone's characteristics and sustainable indicators. Reduced supply numbers could be considered to balance development against these factors in more rural and sensitive locations.

Full and correct justifications of an allocation's 'deliverability' should be provided by a Local Authority. If land is inappropriate, technically challenged, compromised relative to sustainability factors or out of character with the proposal, perhaps adjustments should be made. This set of criteria can have a significant effect on the likely slow speed of build out.

Additionally, full community, Parish and Neighbourhood Plan engagement are deemed important and pivotal to the outcome. These consultations must absolutely include the views of a local (and in this case rural) population, balanced against site constraints and an inherent, established form of lifestyle. On this occasion, a southern section of Ilsington Parish would be 'pinched' to serve the needs of Newton Abbot and Teignbridge's housing targets.

Of great importance is the recognition of farmland for the production of UK food, balanced against development needs. This is perhaps of much greater importance now because of Brexit, the war in Ukraine, rising fuel costs and rapidly rising food costs, particularly where foreign importation is evident. Farmland should not be so easily allocated to new development for these reasons. The land concerned in GC13 is classed as Grade 2 and it would otherwise be Grade 1 if it were not so steep. It seems that this is the type of land that the new NPPF wishes to help protect and divert development to lower quality and brownfield land.

It is unfortunate that Teignbridge are seeking consultation feedback to some poorly evolved (and technically under researched) proposals, setting a deadline for public feedback just in advance of the NPPF's revised edition. In doing so, an important component of Government and legal framework could be less considered, especially when the consultation criteria appear to suggest that certain types of land and community engagement need more careful consideration.

It is not felt that the consultation process should ignore the impending NPPF update and a variety of factors that are proposed should be cross referenced to the concerns and clear constraints that this document outlines as development concerns and observations.

14.00 Summary Of Observations And Concerns Regarding The Proposal

It is regretted that the analysis of potential flaws and risks associated with Teignbridge's GC13 Bradmore proposal are of such length. The matter is however of great importance to both a successful enlargement of cohesive Newton Abbot and how any development will impact upon (or adversely affect) a rural community, its character and lifestyle.

There is every indication, from the detailed study that has led to this analysis, Teignbridge may have largely 'desk topped' an allocation boundary simply because a landowner made it available, and it abutted NA1. From that, an 'idea' sprung up that NA1 and GC13 could be a new and separate community. It is respectfully felt that this is a seriously flawed concept with many challenges when seeking to deliver a self-contained, fully serviced and sustainably transport linked scheme in a new development zone.

Turning to the significant constraints surrounding GC13, they appear to have received little or nothing in the way of structured analysis. The development zone headline criteria do recognise some constraints, but then, seek to brush them aside with sweeping and simple statements that indicate that they can be mitigated. It is genuinely felt that this approach is far too simplistic and highly likely to produce a zone in which a good proportion of the development may not become deliverable. Also individual, later planning applications may later fail to get over the line.

Liverton is planned to enlarge and GC13 would add to a 'geographical pincer movement' on the rural zone comprising Ingsdon, South Knighton and Chipley. These developments would cause significant cross-country, single track lane rat runs to adversely affect the character, quality and rural life in this area. Road safety and relationships with agricultural traffic, livestock, horses and walkers would become worse with inevitable outcomes. The new Forches Cross link road will not address these concerns as who would travel two sides of a triangle when only one were necessary ?

Teignbridge have never had to consider modern urban development with an emphasis on housing in relation to high voltage power lines. National Grid's primary southwest 400 kv line travels through the area and development has historically and consistently avoided proximity to such infrastructure. It is therefore felt that Teignbridge Spatial Planning have adopted a simplistic, limited in its research, and naïve approach to this vital factor. This analysis document therefore questions the sense, safety and appropriateness of building homes near such pylons and, actually, what benefit is there in passing under them and creating small amounts of isolated development which will harm a rural setting, important ecological landscape and land that is recognised as a contributor to the important backdrop of Dartmoor ? Anyone occupying a section of land to the west of the pylons will always be separate from the remainder of GC13 and NA1 and this does not compromise cohesive and sustainable development with the correct approach to social integration in a community.

In conducting an overall appraisal of the GC13 site, its location and connectivity to Newton Abbot and its services, it has become apparent that, perhaps, Teignbridge Spatial Planning actually already realise that a development in this location does not meet sustainable development criteria. If that is the case, linking the proposal to NA1, on the pre-text of apparently creating a new community, begins a process of justifying self-containment and the need to create standalone facilities to support something that would be very difficult to deliver. This has the potential to create a disjointed and unsustainable rural dormitory cluster of housing with no relationship to Newton Abbot. It is just too far away and on land presenting too many challenges.

It is therefore requested that Teignbridge Spatial Planning take all of these factors into consideration when progressing any GC13 allocation. There is some encouragement that the Part 2 proposal has been reduced in advance of the formal consultation comprising the conclusion of Local Plan feedback, but it is not felt to be enough. Teignbridge are at risk of departing from some of their own policies and emerging NPPF directives, together with making light the significant constraints of the site (particularly as it travels west). Teignbridge's endeavour to create a 'new neighbourhood' has every likelihood of being progressed at the expense, and to the detriment, of a long-established rural neighbourhood, its important environment, its social connectivity (and community benefits) along with its rural economy. These factors are deeply engrained in sustainable considerations. Important rural community and landscape features must be carefully considered.

APPENDICES

Appendix 1

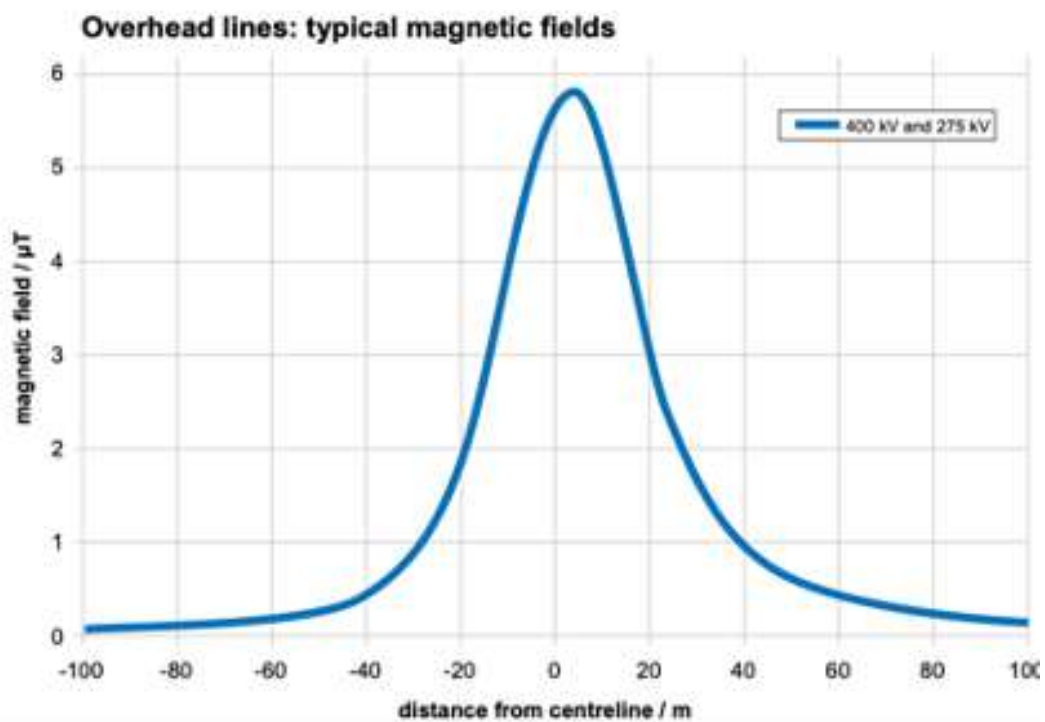
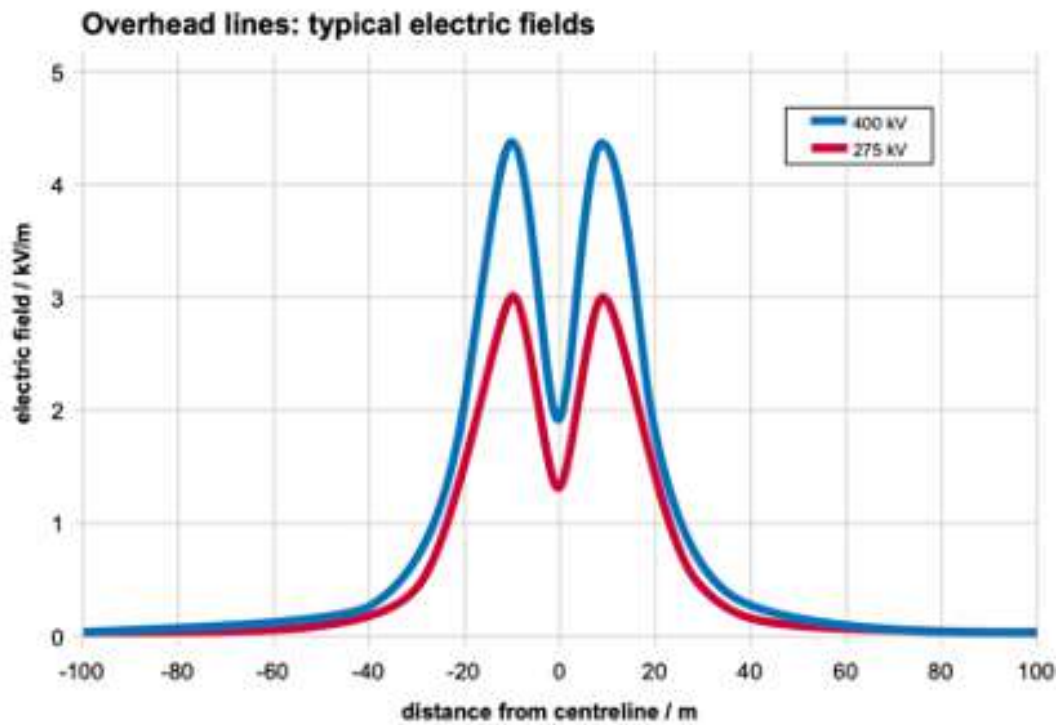
DISTANCES BETWEEN DEVELOPMENT AND NEWTON ABBOT FACILITIES

OUTER LIMIT OF NA1 (KM)	OUTER LIMIT OF BRADMORE (KM)	FACILITY
2.00	2.50	Co Op – Foxglove Close
2.30	2.80	Mile End Road Garage
3.40	3.90	Dolbears
3.45	3.95	One Stop
3.40	3.90	Bradley Barton Primary School
4.50	5.00	Highweek Primary School
3.70	4.20	St Jospehs Primary School
3.70	4.20	Coombshead Secondary
4.00	4.50	Newton Abbot College Secondary
5.00	5.50	Newton Abbot Minor Injuries
5.70	6.20	Devon Square Doctors
4.90	5.40	Cricketfield Doctors
5.20	5.70	Albany Doctors
4.50	5.00	Asda
6.00	6.50	Tesco
7.00	7.50	Sainsburys
6.60	7.10	Aldi
6.50	7.00	Lidl
5.00	5.50	Abbotsbury Dentalcare
5.30	5.80	Magnus Dentalcare
5.30	5.80	My Dentist
5.30	5.80	Tudor Dental Clinic
5.40	5.90	Uppercroft Dental
5.40	5.90	Newton Abbot Dental
5.90	6.40	Heathfiled
6.80	7.30	Brunel
6.50	7.00	Greenhill Way
4.70	5.20	Town Centre
4.60	5.10	All Saints, Highweek
4.20	4.70	Cornerstone Fellowship, Highweek
4.20	4.70	Kings Church
4.20	4.70	Abbotsbury Church

5.20	5.80	Spiritualist Church
5.70	6.20	St Pauls
5.80	6.30	St Marys
3.20	3.00	Dartmoor Halfway Inn
4.30	4.80	The Highweek Village Pub
4.50	5.00	Newtons Free House
4.50	5.00	The Swan
4.50	5.00	The Jolly Farmer
4.50	5.00	Golden Lion
4.50	5.00	The Market Gate
2.00	2.50	Bay Vets Group
4.70	5.20	Powderham Vets
6.70	7.20	Pets at Home
6.00	6.50	Train Station
4.60	5.10	Bus Station

Appendix 2

ELECTROMAGNETIC FIELD SPREAD FROM POWER PYLONS – VERTICAL CROSS SECTION ANALYSIS



factsheet

Electric and Magnetic Fields (EMFs)

EMF levels fall rapidly with distance, typically returning to the normal background range at a distance of around 150 metres.



Appendix 4

PYLON RUN AND 100 M FOLLOWED BY A FURTHER 50 M SAFETY ZONE RELATIVE TO GC13

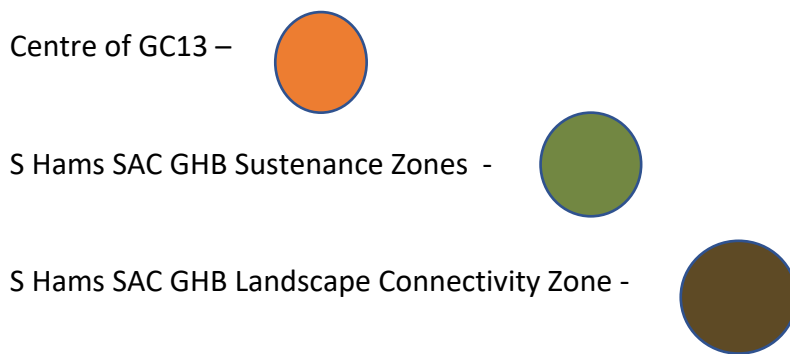


Appendix 5

GC13 RELATIVE TO SAC TRANSIT ZONES, SUSTANCES AREAS & ROOSTS (HORSESHOE BATS)

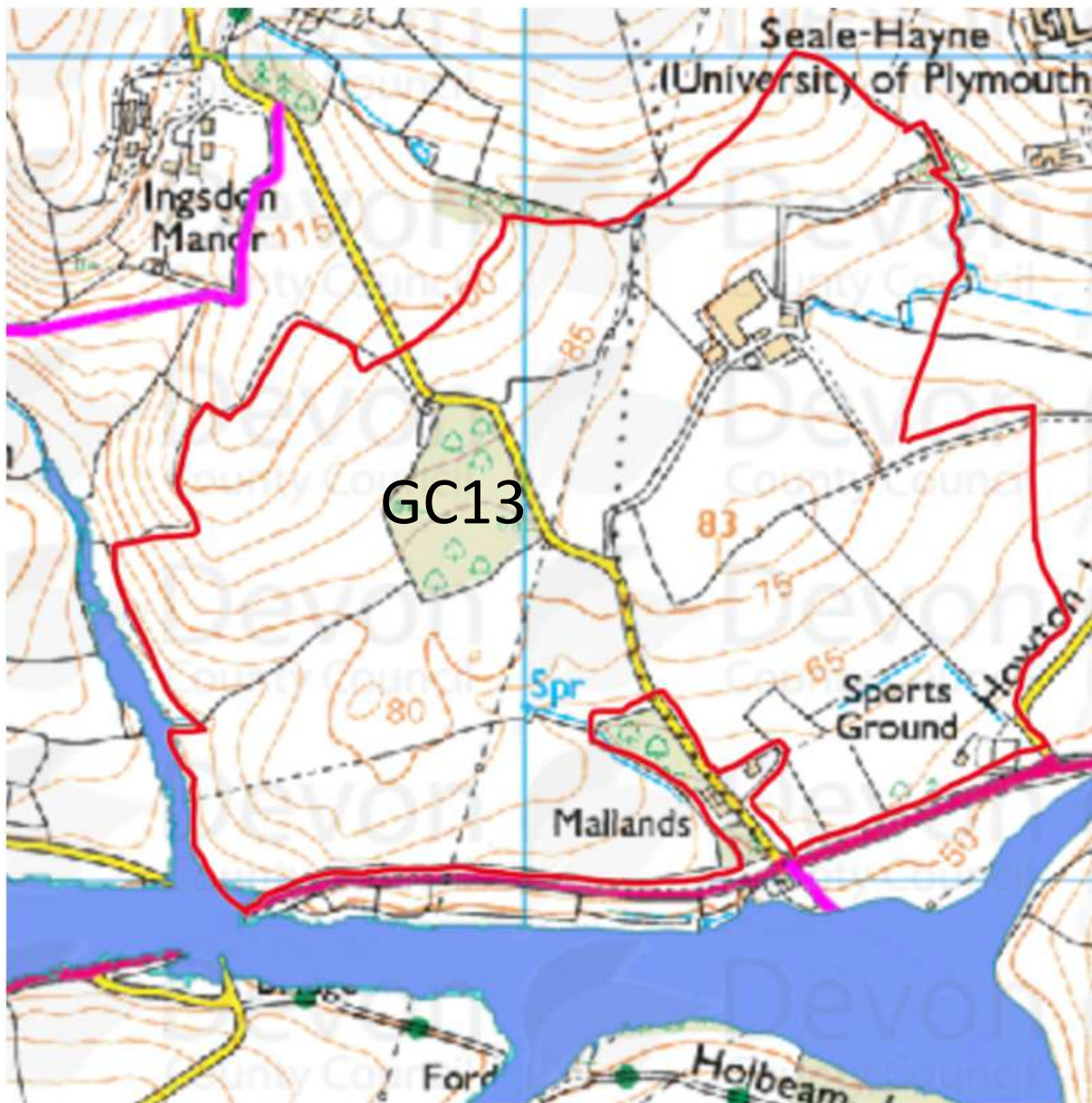


Ashburton	Roost location – Buckfast	6km to edge of sustenance zone
Ilsington	Roost location – Haytor Vale/ Ilsington	3.5km to edge of sustenance zone
Chudleigh Knighton	Roost location – Chudleigh	3.4km to edge of sustenance zone



Appendix 6

ADJACENT FLOOD RISK CHARACTERISTICS, SOUTH AND WEST OF GC13



APPENDIX 7

LOCAL ROAD NETWORK ANALYSIS RELATIVE TO GC13 (SHOWING RAT RUNS IN YELLOW)



APPENDIX 8

GC13 SITE CONSTRAINTS, PYLON, ISOLATED LAND, HIGH GROUND & WOODLAND



	Location and width of pylon run
	100 m Pylon exclusion zone each side of run
	Further 50 m pylon exclusion area
← ←	Steeply sloping land (30 m drop in level over 130 m – approx. 1:4)
	Above 100 m contour
	Prominent Ridge above 85m
	Bradmores Wood
	Higher level residual land – approx. 3.0 hectares
	Lower level residual land – approx. 1.5 hectares
	Flood Zone 3 Current Risk