Cupar Planning - Sustainable Cupar

This document is in response to current consultations by Fife Council, in particular to LDP-CUP007 and Affordable Housing.

About Sustainable Cupar

Sustainable Cupar are an environmental charity (SC042695) who wish to encourage a more sustainable community in Cupar.

We have a number of sub-groups:

- Energy. This group focuses on energy saving and sustainable energy generation. We are currently investigating a district heating system for Cupar.
- Fruit and Blossom. This group manages an orchard, encourages local planting, and organises fruit planting and pruning demonstrations.
- Transport. This group encourages sustainable movement (walking and cycling) in the town.

Preamble

We all expect the town we live in to be a place where people can have their daily needs well met. However, economic and social change has an affect on how we live and work and, in response, we have to adapt how we use our town. Sustainable Cupar aim to protect our local heritage but also to take advantage of the opportunities which change makes available. Members of the community have the right to a say about what changes are permitted that affect the nature of our town. We should use the principles of sustainable development to guide how planning decisions are made.

A vision of an expanded Cupar was adopted by Fife Council in 2009 as the settlement plan for the town. The plan envisaged the development of housing and other uses together with a relief road on the northern built-up edge of Cupar. The Cupar North Strategic Plan was seen as a means to address a number of planning issues which reflected local pressures of economic and social change. This large scale development would be carried out in phases over a 20 year period.

To ensure that the principles of sustainable development would be fully realised in the development of Cupar North, Fife Council made it clear that specific planning tools would be used to shape the urban design of the development and to provide an investment plan for the development of public infrastructure and services. These planning tools are: the completion of a Strategic Development Framework and the preparation of a Master Plan. Fife Council has indicated that the preparation of the master plan will be shaped by active community engagement.

The financial crisis of 2008 led to a collapse in urban development in the UK. A recovery of economic growth is now anticipated. There is the real prospect that developers will soon prepare planning applications to respond to recovering demand. It will be important that developers are guided to prepare proposals for sites for which anticipatory planning policies and designs based on sustainable development have been worked up with community involvement. In the following sections Sustainable Cupar outline their views on sustainable development and are keen to bring forward their ideas and knowledge to help shape the Cupar Settlement Plan and in particular the preparation of Master Planning of Cupar North. The ideas expressed

in the following sections are intended to provide a start to the conversation required between the local community, Fife Planning and the developers.

Sustainable Cupar intend to work closely with the Cupar Community Council to ensure that a working group is formed to engage meaningfully with Fife Council and the developers. This group will need to be guided by the views of residents, businesses, charities and others.

Introduction

The principles of sustainable development are embedded in national planning policy, and there is a statutory duty on development plans to contribute to sustainable development.

The fundamental principle of sustainable development is that it integrates economic, social and environmental objectives. The Scottish Government supports the five guiding principles of sustainable development set out in the UK's shared framework for sustainable development:

living within environmental limits
ensuring a strong, healthy and just society
achieving a sustainable economy
promoting good governance
using sound science responsibly

Sustainable Cupar would add that support is required from the grass roots to achieve this, and so planning policy must also encourage a sense of community.

Good intentions need to be realised and actually applied to development on the ground. Sustainable Cupar wish to ensure that any major developments in and around Cupar are done in a sustainable way. These developments should be expected to have lifetimes measured in decades and centuries. They should be built to meet standards that we know will be needed in that timeframe. We do not want money wasted by having to go back and reinvest with measures that do not require hindsight. That would be bad design.

Energy and Climate Change policy

Generating energy from fossil fuels is not sustainable. The sound, and clear, scientific advice is that we should rapidly reduce carbon emissions. This is also the policy of the Scottish Government, and has been written into law.

Obtaining energy from renewable sources can be done in many ways, for instance:

From the sun directly using PV panels
From the sun directly with passive solar design and active devices such as solar thermal panels, and indirectly using ground and air source heat pumps
From the sun indirectly using biomass
From the sun indirectly using wind

All of these are appropriate for small town use, and new buildings, and are readily available. The optimum use of wind would be outwith the town but could be owned by the community.

Any major development should consider which of the above are appropriate. An explanation would be required if the fullest use is not made of them.

Reference should be made here to paragraph 184 of the current Scottish Planning Policy document, and to note that, as in the draft for the new SPP document, the target for 2020 has been raised to the equivalent of

100% of electricity demand from renewable sources. The draft for the new SPP states even more clearly, in paragraph 210, 'Development plans should support all scales of development associated with the generation of electricity and heat from renewable sources with a view to realising the renewable energy potential of the areas they cover.'
We are simply asking for the stated planning policy of the Scottish Government to be implemented.
New development would normally add to the carbon footprint of a town, but this does not have to be the case. With careful planning, which is what we should be aiming for, new developments could actually reduce the carbon footprint, but half-hearted measures will not achieve it.

Sustainable transport

This is another area where Scottish Planning Policy should be wholeheartedly implemented, rather than paid lip service to.

SPP very clearly states in paragraph 169 that travel modes should be prioritised in the following order: walking, cycling, public transport, car and other motorised vehicles. This order of priority has been reiterated in paragraph 192 of the draft for the new SPP.

Obviously energy policy implications are important, but there are other factors which are probably just as important. Cars cause noise and air pollution and the scientific evidence is that both of these cause significant health problems. That is entirely apart from those caused directly by accidents. Electrification of transport is part of the solution to this pollution, and can assist with our climate change goals because it is more energy efficient in practice, and also can help with the integration of renewable energy into the grid.

Even if pollution were solved, busy roads form barriers to the free movement of people and local wildlife. At the local scale this isolates people from their neighbours, both from this effect and the simple of act of being contained in their own cars.

It is this last point which is the most important when planning a community. **If someone leaves their house in a car then they have no contact with their neighbours and therefore a sense of community is unlikely to develop. A town or village community will only thrive if people meet each other face to face regularly.**

Green networks

It should be no surprise that Sustainable Cupar would support these, for the ecological benefit, and for the benefit of human health and enjoyment. SPP also supports these aims in the context of 'landscape and natural heritage' (paragraph 130) and 'open space and physical activity' (paragraph 149 onwards). Having a sense of ownership of these 'common' areas can also help to build community, enhance opportunities for people to meet each other, and also help to maintain their positive nature and benefits - there is a positive feedback loop that derives from this sense of ownership.

Green networks are a vital part of sustainable transport.

People do not want to walk on a pavement alongside a road. It is a massive failure of past planning that this is precisely where the pedestrian walkways were usually put.

People do not want to cycle on roads. It is a massive failure of past planning that separate cycle paths are so rare in Scotland.

Access to green areas is important. Green space which is surrounded by roads may look pretty but should not be considered as accessible green space.

Major developments should include community owned orchards and play areas well away from any roads, but should be overlooked for security. The community in Cupar, through Sustainable Cupar's own FAB (Fruit and Blossom) group, has shown the capacity to maintain these.

People should be encouraged to walk or cycle for most journeys within town, for example taking children to school. This is more likely to happen if they are able to make that journey without using a road, and only crossing a road where a safe crossing is installed. If, for practical reasons, pedestrians are forced to use a road, then this should be "shared space" where the pedestrian has priority.

Local produce

People need to be encouraged to use local produce to avoid transport costs. Planners should incorporate allotments, orchards, and other green space into developments that can be used to produce fruit and vegetables for local consumption. This should be considered a key element in green networks, and can support and add to the benefits of green networks, particularly if mostly organic methods are used.

Building communities

A town or village community will only thrive if:

- People meet each other face to face regularly.
- People have a sense of ownership of common areas
- The common areas are good places to be in (tidy, safe and so on).

Internet

There are a lot of people who do not work with their hands, but most of these still commute to an office every day. With fast internet access and room to work at home, many of these could stay at home for one or two days a week. This would help to build a sense of community and save travel costs.

Companies should get incentives to encourage personnel to work from home.

For larger developments, fibre to the home (FTTH) should be the minimum requirement. The key requirement for our digital future, in all but the remotest rural areas, has to be "getting the glass in the ground".

Size matters

There is a limit on the size of a village or town that can function as a community.

If it is too small then it will not have regular meeting places: pubs, shops, meeting rooms, workplaces, parks, and so on. A minimum size should be able to support a village shop and a village hall, preferably with a pub as well.

If it is too big then the chance of meeting people you know is greatly reduced and many more will use their car instead of walking/cycling. A general rule of thumb should be that everyone in the community should be able to walk to the centre in 10 minutes. On flat ground this means that houses should not be built more than 800m from the centre. On sloping ground 400m would be more appropriate. If car free walking/cycling routes are available to the town centre then these limits could be increased. Conversely, if there is no easy access to the town centre except by road, these limits should be considered the absolute maximum.

When deciding where to build, the walking/cycling distance from the centre should be one of the primary considerations along with easy access to a transport hub, preferably a railway station.

Serious consideration should be given to building a new community from scratch, adding or reopening a railway station if necessary.

Density matters

The housing density in towns is very important. The closer to the centre, the higher the density should be. We are not talking here about shrinking houses or gardens, but building flats and tenements. A town centre will only flourish, and be safe, if enough people live there. With insufficient local residents, a town will be empty at night. Empty town centres at night are not safe, and they are not pleasant places to visit. Planning policy must encourage town centre living.

Planning for Strategic Development Areas

Sustainable Cupar is aware of no other design that better implements the stated aims of Scottish Planning Policy, and the key principles of sustainable travel and green networks of Fife Council's consultation here, than the Village Homes development in Davis, California.

This builds on the earlier example of the Radburn development in New Jersey. Another, Wildwood Park in Manitoba Canada, based on Radburn, should also be included. These are exemplary developments. They have stood the test of time, and have clearly shown themselves to be sustainable developments (they date from the 1920s (Radburn), 1940s (Wildwood Park), and 1970s (Village Homes)). They should not be confused with poorly implemented housing estates in this country from the 60s and 70s that may have given Radburn a bad name. Radburn, Wildwood, and Village Homes are highly popular with residents, and the houses command higher prices than those in otherwise similar conventional developments.

What sets these developments apart from the normal is that they each have a "green heart". The priority is given to walking (and cycling) access, and a continuous green network is created around these routes. The houses are embedded in this, and their principal elevation faces it. Car access is available to each home, but it is the secondary access to the home, and the space given over to this, and its effect on the prioritised green network, is minimised. Each of these developments is however distinctly different, showing that this is an adaptable model.

Because it gives higher priority to walking and cycling, and creates strong linkages between development and the green network, this form of development is vastly superior to the 'perimeter block'.

The green network of paths also gives greater freedom for mobility scooters.

The most recent development, Village Homes, added other important relevant features. It has a natural drainage system - a more fully realised and naturalised implementation of SUDS, also providing greater residential amenity. This is part and parcel of the green network. Energy efficiency, and renewable solar energy, was also a key part of the design. While design knowledge, and technology has advanced since then - passivhaus and PV panels should now be part of our normal toolkit. The major innovation of having all houses facing directly south is demonstrated as best practice, and completely acceptable.

In the context of a commercial development, all three have been shown to give enhanced commercial value to the housing. The most recent development (Village Homes) had development costs lower than comparable conventional developments. Apart from anything else, developers should welcome with this because it means an increased profit margin.

For those unfamiliar with how the basic structure of a housing estate would differ from the "norm" under these proposals, please see appendix A.

Cupar North

Here are our recommendations for the Cupar North master plan (including Gilliesfaulds and CUP007) building on the experience of Radburn/Wildwood/Village homes:

Pedestrian/cycle path (green network)

The master plan should start with a pedestrian/cycle path (arterial path or greenway) around the perimeter of the existing town. This will leave small plots of land next to existing housing which should be preserved as green space.

Where this path crosses roads, serious consideration should be given to closing these roads. There is a case for keeping Bank Street open for Emergency access only, but all other radial roads (Bishopgate, Kinloss Drive, and Balgarvie Road) could terminate at the new path. Access beyond the path would be from the relief road.

The new arterial path (greenway) will give sustainable access to the whole of the new development but, because the new development is a long way from the town centre, it is also necessary to make sure that users can get safely into the town centre and that existing residents can access the greenway. This is tricky, and different solutions may be needed from different points along the path.

One possible solution would be change some of the existing roads into one way streets so that the other half can be used for sustainable use.

The main arterial path would have links to all the Cupar North estate paths so that people can walk/cycle anywhere within Cupar North without touching a road, except when crossing Bank Street and the Carslogie Road.

All paths need to be safe to use and should have houses overlooking them wherever possible. They should also be lit with non-polluting lighting.

Relief Road

The Development Framework shows the relief road forming the northern boundary to the development. We welcome this because it is important that none of the residential areas are bisected by a primary road in the interests of safety and creating cohesive communities. No new development should be allowed north of the relief road.

All new development (except Gilliesfaulds) must have road access from the relief road to avoid “rat runs” into the town, and also to avoid cutting across the arterial path (greenway).

The relief road must therefore be in place before development starts.

Public transport

Cupar North will obviously be served mainly by bus and all residents should have safe access to a bus stop. This must not be an afterthought, but should be part of the master plan. The bus service should make it practical for commuters to use the train, which means the station should be one of the stops and that the bus times are coordinated with the train times.

House design

New buildings should be built to passivhaus standards. The EU funded CEPHEUS (Cost Efficient Passive Houses as European Standards) study showed the standard can even be achieved within social housing budgets, where they would indeed be most beneficial.

Flats and tenements should be considered near bus stops because the higher density will support public transport as well as being energy efficient because of their minimal heat loss surfaces.

Houses should be oriented directly north-south, with single pitch roofs considered to maximise the South facing area. Solar panels should cover the whole South facing roof, preferably replacing other roof coverings, as this would be most cost effective.

Off street car ports with integrated electric charge points and roof mounted PV should be integrated. Car clubs should be integrated in each cul-de-sac where feasible.

Storage for cycles should be provided on the cycle path side of accommodation.

A district heating network should be used in favour of a gas network with individual boilers. If this was designed and built in at the start of Cupar North the cost would be little different. Construction of nZEB (nearly Zero-Energy Building) will be legally required in the EU by 2020. Scandinavian studies shows the heat supply still required for such buildings can more cost effectively be implemented by way of a heat network than, for instance, individual heat pumps. The Scottish Government, and Fife Council, are supportive of heat networks.

Sustainable Cupar, funded by Scottish Enterprise, is commissioning a study of a heat network for Cupar and the Cupar North development. We are also interested in the concept of an inter-seasonal, possibly borehole, energy store. In the Drake Landing development, in Canada, this has allowed the homes there to get 97% of their space heating from solar energy. Here we could look at connecting the PV panels on the roofs of the Cupar North development, via large heat pumps, to such an inter-seasonal heat store. The cold side of the heat pump may also find an outlet in cold storage facilities. Such a development may tend to support the additional amber site for Cupar North in the consultation.

Rainwater harvesting is common in Germany, and high quality equipment is therefore readily available. If used for toilet flushing, washing machines, and for garden use it can save about 50% of normal water use. Perhaps more importantly for Cupar North, rainwater harvesting acts as part of SUDS, and should be seen as an essential part of reducing the risk of flooding to existing parts of Cupar, as well as Cupar North. The reduced hard surface area, that is part of the Village Homes design concept, should likewise be seen as an integral part of the SUDS, designed to minimise the risk of downstream flooding.

Planting and green space

Where possible all planting should be “useful”. Village Homes promoted the concept of ‘edible landscaping’, which Sustainable Cupar, with its FAB (Fruit And Blossom) group would endorse::

For borders, soft fruit should be planted.

For trees, hard fruit and edible nut trees should be planted.

Areas of safe green space (not adjacent to roads) should be accessible from all housing without crossing any roads.

Green space should be preserved around the hospital for future growth and because green space around a hospital has been shown to improve recovery rates.

Most green space should be owned collectively by the residents.

Where a block of houses front onto a path/green space, this space should belong to that block of houses.

Affordable housing

The document on affordable housing leaves out some very important considerations, which also apply to housing intended for retired people:

Location

Most affordable housing should be within easy reach of public transport (say 100m) because the occupiers may not be able to afford a car, or may be too disabled to drive one.

Housing co-operatives and self-build should be encouraged.

Scottish Government policy, which we support, is that wherever possible affordable housing must be intermixed with, and not discernible from, other development.

Density

Affordable housing in town centres, or close to major transport hubs, will normally be high density. However, it is important that this is not exclusively affordable housing, as this would violate the principle of it not being discernible.

Cupar Tesco site

It is our opinion that the existing Tesco site should be allocated to high density housing (flats/tenements), because it is close to the train station and town centre. Tesco should be offered a site swap with a plot near the trading estate (CUP007) to build a new store. A new level pedestrian bridge over the Eden from the railway station to Ferguson Square would link the new housing, and the station, to town centre.

Sustainable Cupar submission to Fife Council consultations, 3rd February 2014

Andrew Collins

Chair

Recommended reading:

Designing Sustainable Communities (Village homes) by M and J Corbett.

Blossom (what Scotland needs to flourish) by Lesley Riddoch.

Appendix A

The following simple drawing is intended to show the way that sustainable transport can be separated from motorised transport in a modern housing estate.

It is not a suggestion as to how a small estate might be laid out in practice, but does show the principal layout constraints:

- The estate roads are in a tree (or star) formation where every branch ends in a cul-de-sac.
- The houses are double sided with the front of the house facing a path, and the back of the house facing a road. The side facing the road has the private garden and the off-street parking (with or without a car port or garage).
- "Filtered permeability" is used so that cars cannot exit from the cul-de-sacs but walkers, cyclists and mobility scooters can.

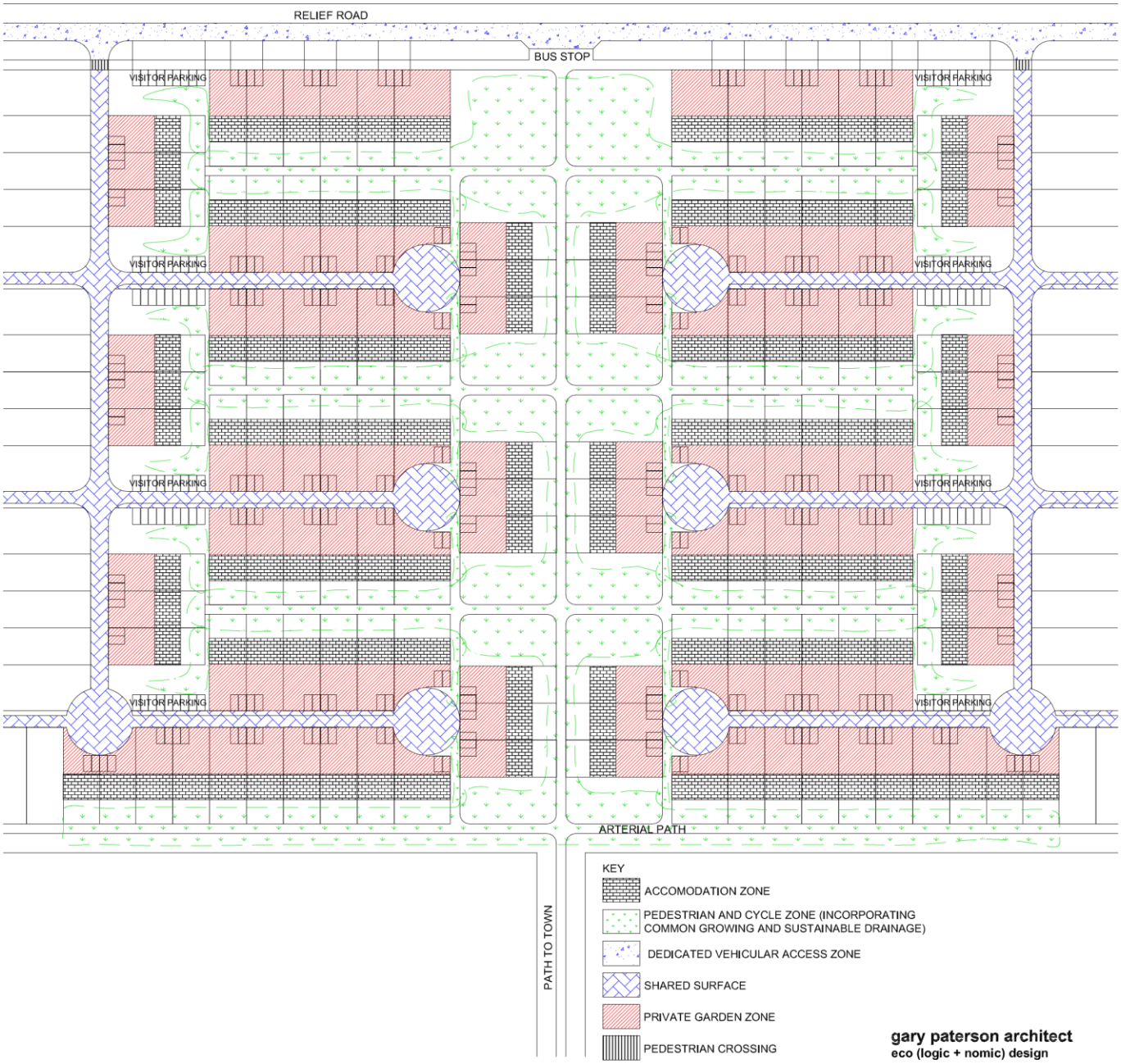
The intention is that the roads are shared space, and can therefore be the minimum width needed for access by emergency vehicles and recycling vehicles. The estate roads do not need pavements.

It can be seen from the diagrams that the entire estate and the bus stop can be accessed on foot without ever encountering a road. There is also safe pedestrian access to similar neighbouring estates and, via the arterial path (greenway), access to green areas, play areas, schools, local shops, and so on.

Scottish Government policy in "Designing Streets: A Policy Statement for Scotland" discourages cul-de-sacs but this is because their plans do not include a separate path network. It is not possible to have a completely road free path network unless cul-de-sacs are used. One possible compromise, which we would not support, would be to link pairs of cul-de-sacs to make a loop, but the path inside the loop will obviously have to cross the loop road to get to the main path network.

Some residents will want to use the shortest route, so the roads will have to be designed as shared space. This gives the best of both worlds: a "filtered permeability" road network for those who wish to walk or cycle on them, and a green path network for those who prefer a road free experience.

From a cost perspective the infrastructure of such a design is cheaper than the conventional layout because the additional cost of the paths is more than offset by the savings in road costs because they are narrower and do not need pavements.


RELIEF ROAD
BUS STOP
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
VISITOR PARKING
ARTERIAL PATH
PATH TO TOWN
KEY
ACCOMODATION ZONE
PEDESTRIAN AND CYCLE ZONE (INCORPORATING COMMON GROWING AND SUSTAINABLE DRAINAGE)
DEDICATED VEHICULAR ACCESS ZONE
SHARED SURFACE
PRIVATE GARDEN ZONE
PEDESTRIAN CROSSING
gary paterson architect
eco (logic + nomic) design