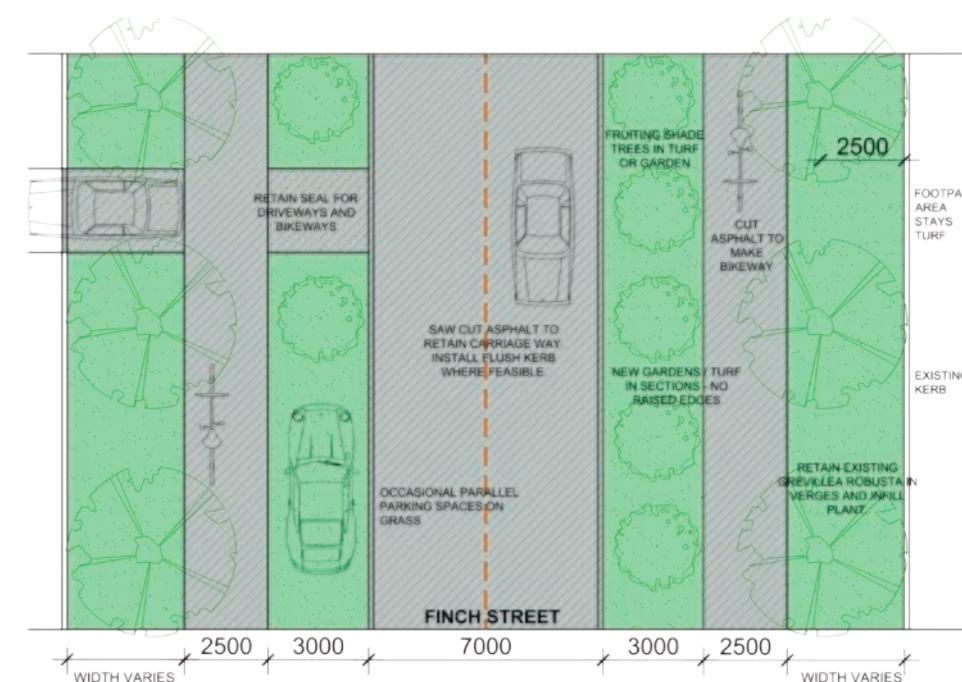


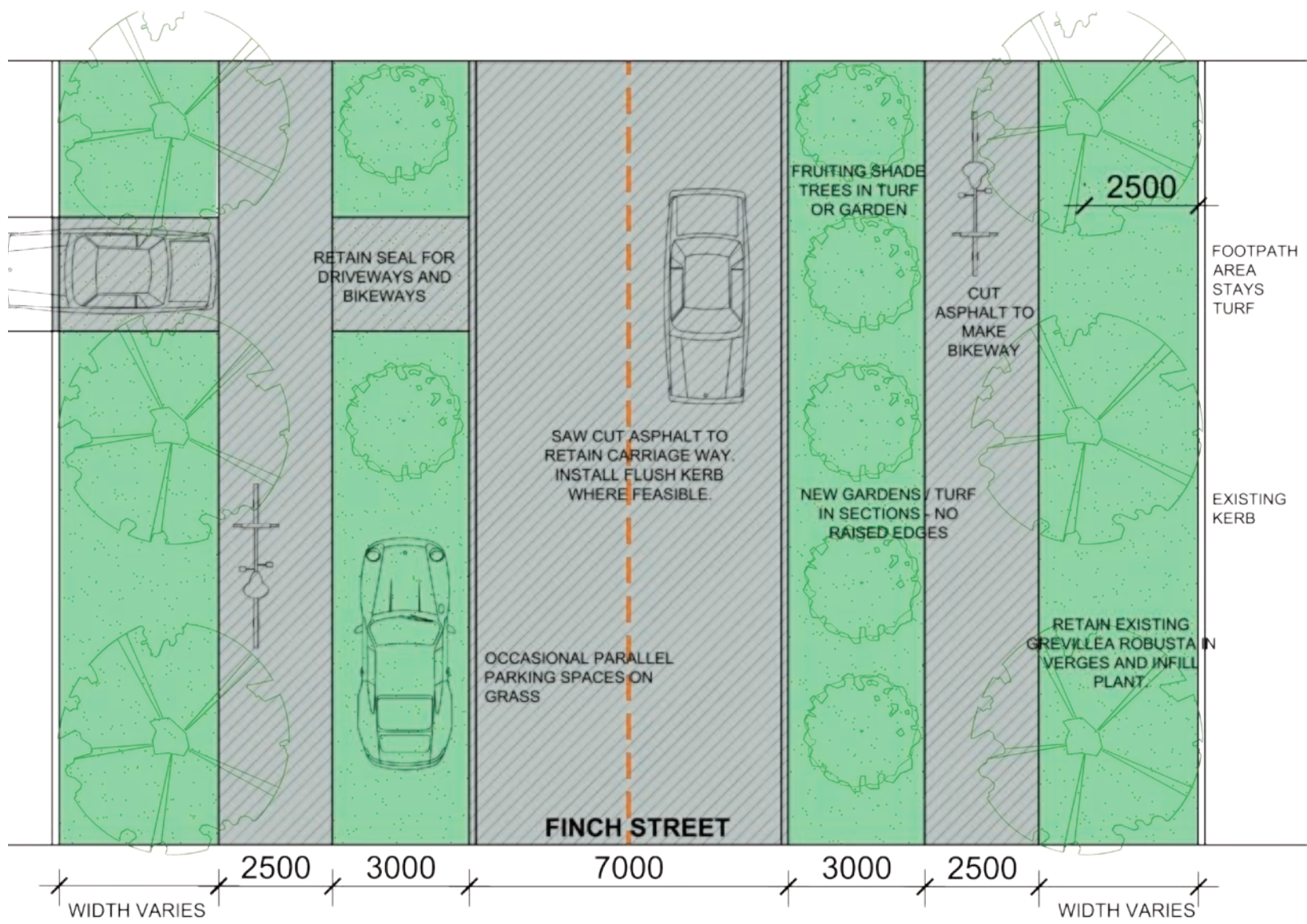
Finch Street



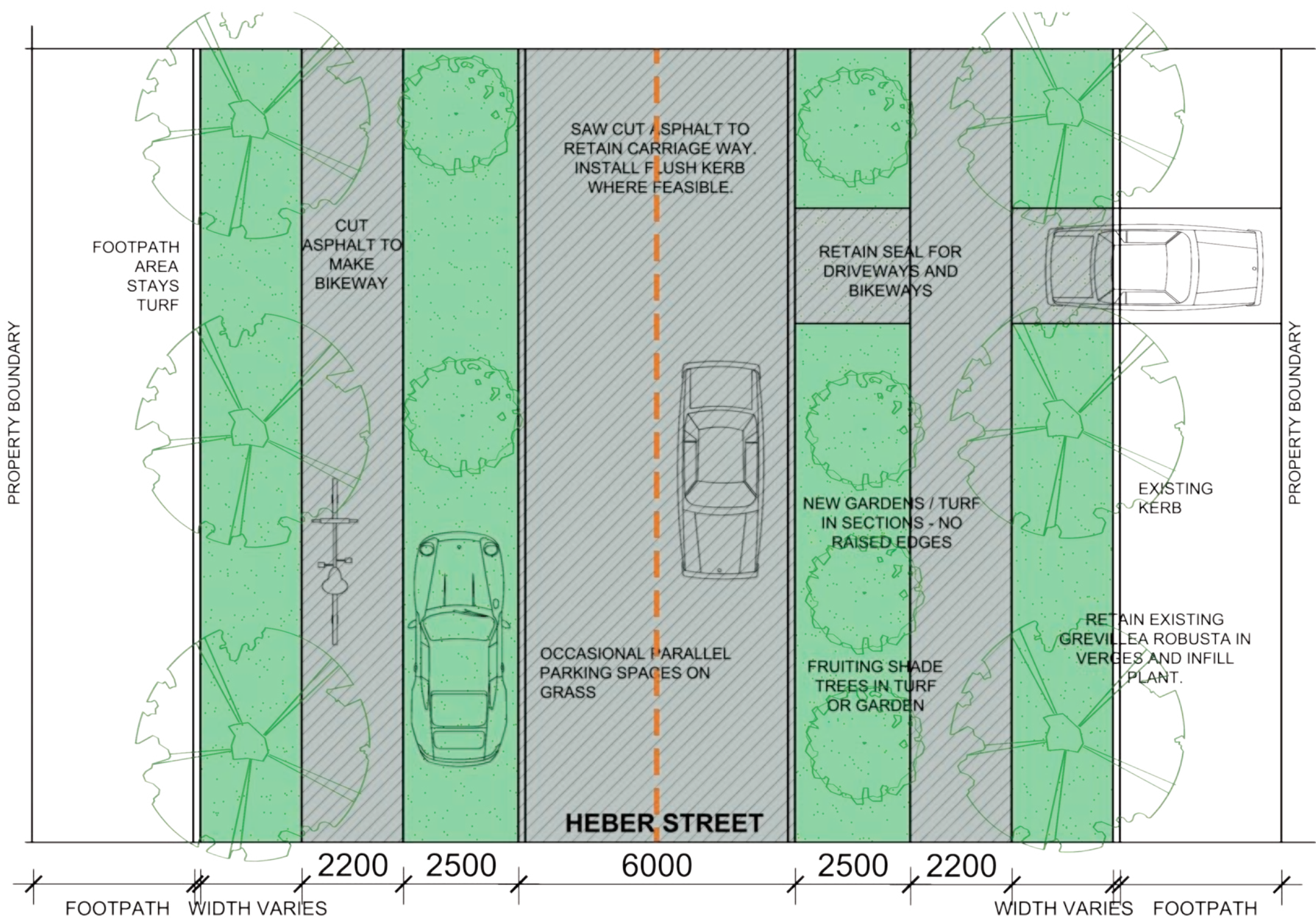
The wide asphalt avenues are to be converted into shaded corridors with dedicated bikeways and gopher ways. These avenues could continue the pattern of using large shade trees and also introduce productive trees: oranges, limes and other fruit and nut which could become streetside community orchard rows by carving out asphalt. Existing old trees are to be protected and water harvested through garden swales.



Finch Street Plan



Finch Street Plan



Heber Street Plan

Ideas for Sustainability

Energy, food and self-sufficiency are new challenges to embrace in our planning and design for the future. Climate change, increasing energy costs and peak oil are forcing us to re-localise right now to enable towns in twenty years time to rely on local food, local energy and local economics.

Larger shifts in thinking and planning are required to redesign country towns to be self-providing and resilient to change. Bingara can show how a rural town can face these challenges. An example of small communities powering themselves is the Hepburn Wind Farm, run by a community co-operative, which will power up to 2000 homes, and is owned by 1600 members of the community. Whilst Bingara may not have enough wind nearby to power the town it certainly has enough sun. In Denmark community co-operatives own either wind or solar power schemes. Bingara one day could own and run its own energy system.

One of the key outcomes of the Bingara and District Community Economic Development Plan 2010 - 2011 is that “rural communities could and should look to being more localized in the generation of electricity, and should lobby government and industry for more attention to this objective”. “Energy efficiency in buildings, vehicles and industry would be key to meeting objectives along with an increase in renewably generated electric power supplied through smart grids.”

The Plan covers some good ideas for energy sustainability which should be investigated:

- the use of the five largest buildings in the town (four public and one privately owned) to install solar photo-voltaic panels in one centralized installation. The estimates provided suggested, by square meterage, the equivalent of 400 houses of one kilowatt capacity could be duplicated in this way. This represented half the houses in Bingara and with the anticipated savings through centralized construction and economies of scale from transformers to wiring, would result in a more rapid uptake of green energy options than that likely to result from the gradual adoption of the technology by individual households.
- A project, supported by GSC, and funded by borrowings off-set by payment from citizens through an optional rate levy, would have many in our community investing in cheaper renewable energy, without large personal investment. The option for additional solar panel PV units on their own homes would still remain. The combination of these outcomes would make Bingara 100% self sufficient in electricity and potentially a seller into the state and national grid.
- One opportunity for a sustainable future is the prospect of electric vehicles (EV's). Already Bingara's Seniors have led the way and have made “Gophers” a common feature of the town's streets. The move towards family size and featured EV's is happening globally. These may be several years away in their general availability and up-take in Australia and may be seen as mainly a city concept, but for several reasons their application in small rural towns is worth considering.



Streets and community lighting can utilise solar power. Public space in parks can be lit with solar power from panels sited on public buildings, picnic shelters and the like.



Wind and solar power may be able to be harnessed in a major community co-operative style energy generator in Bingara and its valleys. This would reduce energy reliance in the future.



Solar bricks can be installed on footpaths and even car parks to provide no maintenance low level illumination in public areas.

Ideas for Sustainability

In the last six months of 2009 it was estimated that 30 million hectares of agricultural land had been bought from poor countries who can't feed themselves, in order to grow food for countries such as China and the Gulf states, which cannot produce enough food for their own. In Africa, an area half the size of Europe's arable land was bought that year for feeding other continents (Guardian Weekly 10/07/09, p. 10).

Food will increasingly create contested space. How can we more ethically feed people? Simply put, we need to grow food close to our kitchens, and within our neighbourhoods. We have to take the transport and handling out of food, to reduce its massive carbon footprint in Australia. Examples of how to do this are emerging in Australia, despite the market, which seeks to monopolise supply and distance us from what we eat. If Cuba can do this, with little space and few resources, surely Australian towns can also succeed.

The idea of food security and self-sufficiency has been discussed in recent times in Bingara and the economic development plan also supports these initiatives:

"The modern commercial Australian economy is mirrored, on a micro scale, in Bingara. A challenge to our community, with rewards financial, social, educational and health wise, is to encourage a greater level of subsistence living.

Subsistence living has home grown food, fibre and shelter materials, produced locally, and the sharing of surpluses, with other like-minded folk, within the community.

Trends in rising food costs, transport costs and energy costs will make these responses more of a trend. Bingara, through its size and local garden culture, has the opportunity to lead the way in meeting these challenges, and become an exemplary case study for more sustainable living.



Bingara can grow, process and sell more vegetables and meat locally. It has all the resources in the district to be nearly food self sufficient.



A mixed economy, based upon traditional rural production, light manufacturing, tertiary services and quaternary provisions, along with local subsistence produce and recreation, may see Bingara as an "oasis", by becoming a "fertile place of sustainability in a desert of less capable communities" across this land.

The Living Classroom (Bingara Farm Gardens) has, as one of its major objectives, the encouragement of locally produced food, and the teaching/introduction of ways and means to do this.

There are many ideas and techniques that can be adopted and adapted from elsewhere in Australia and from overseas. Many of these take their knowledge from traditionally subsistence based cultures while others, like permaculture and biodynamics, introduce new agricultural knowledge and design, to the "local garden". The key is to mimic nature. To learn from the ways in which nature adapts to find an ecological balance that enables the survival of many species within a competitive landscape."

The report goes on to also discuss the concept of food miles:

"Another simple challenge is the limited perimeter food market e.g. "the 200 km Diet". This is in part a challenge to both consumers and local retailers to focus as much as their attention as possible to food, grown or sourced from primary producers within the 200 km radius. Such a commitment is to freshness and fuel saving as well as to supporting local and regional producers."

Ten Actions for Resilience

1. THE CHALLENGE

In the future, the resilience of places to change; whether it is to do with the economy, the environment or the health of residents, will be measured increasingly by the ability to be self-sufficient. In particular, less reliance on external energy, work and services will be challenges for smaller and isolated rural towns such as Bingara.

Rural Australia is facing unprecedented change. People are asking: What can we do?

How will Bingara be able to survive and prosper in this environment of uncertainty and change? Actions are needed to create resilience and a low carbon future. How will the community act? A series of creative brainstorming sessions could be enacted to create local ideas for resilience and self-sufficiency.

2. THE PRINCIPLES

1. resilience
2. re-localisation
3.
$$\frac{\text{small} \times \text{many} = \text{big}}{\text{simple} + \text{tomorrow}} = \text{answer}$$

3. THE BRIEF

Create actions of resilience in Bingara which are immediately achievable, cost less than \$50,000 and are able to be made by local people with local materials and resources.

4. THE ACTIONS

Bingara profiles = 5 actions to make the lives of 5 typical Bingara residents more resilient to changes in their neighbourhood.

Bingara places = 5 actions to make the neighbourhood more resilient.

5. THE PROCESS

The first step

A collaborative design think tank event will be held at the Roxy Theatre. Ten creative groups with up to ten people each will design ten actions for resilience over one day. Each group will comprise local residents and workers and be assisted by designers. The ten actions will be presented, shared and then posted on Council's website.

The second step

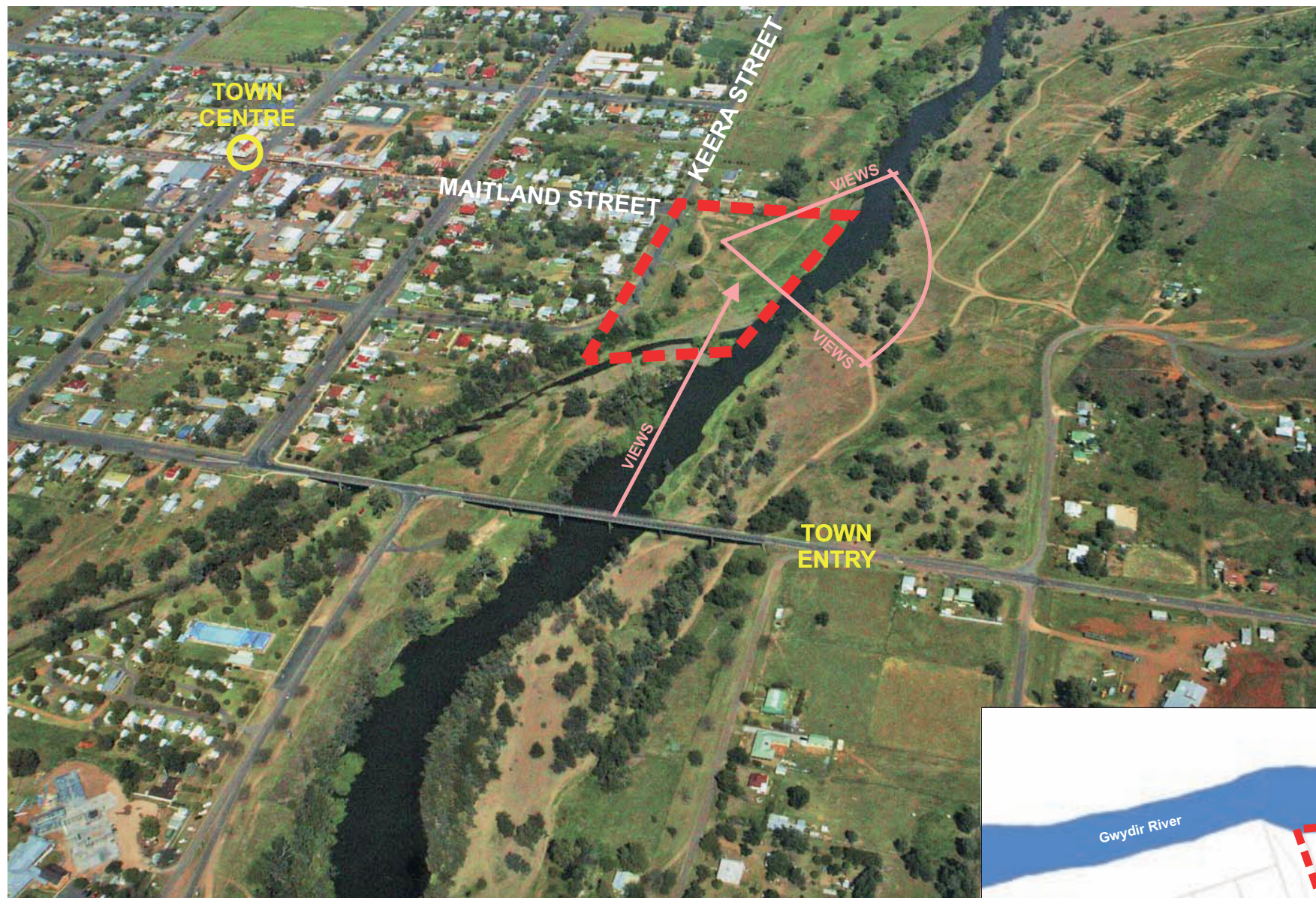
Designers will develop designs further as part of studio work, with residents providing review. Community groups will also take up individual actions and brainstorm how they can implement these actions for resilience and take ownership for an action.

The third step

Action! The Actions need to happen within one year! A celebration at the Orange Festival will complete the process. This brainstorming process would reinforce the strategies to future-proof Bingara.



Ten actions each year over ten years: many small things = big = resilience in place.



Bingara Riverscapes

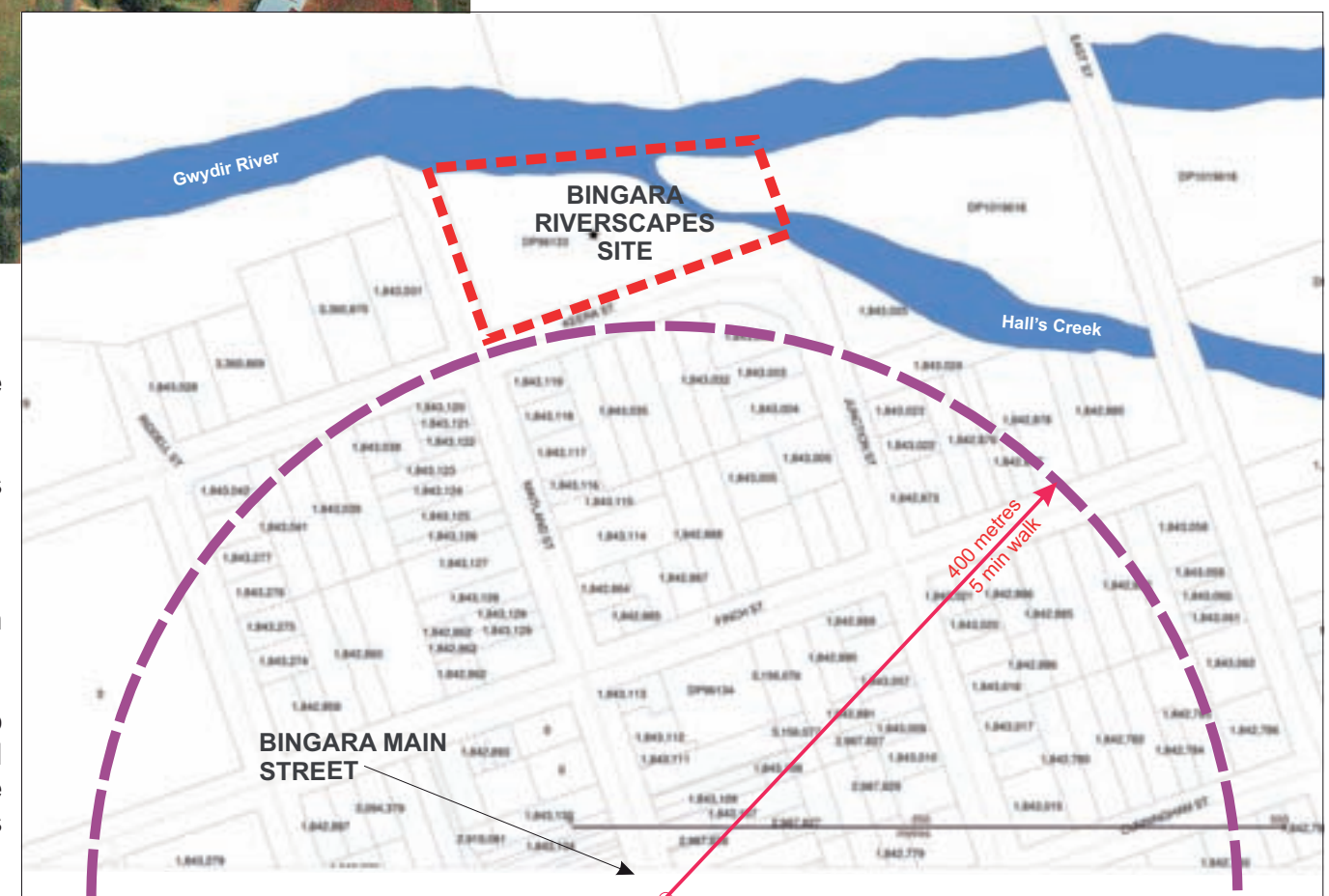
Bingara Rivescapes is a project aiming to gently improve the town centre's most proximate riverbank open space.

The town of Bingara has to date focused on its exemplary grid of traditional streetscapes. It has not actively or visually linked itself to its river which, in the past flooded, but it is now partially controlled by Copeton Dam, in the upper reaches of the river.

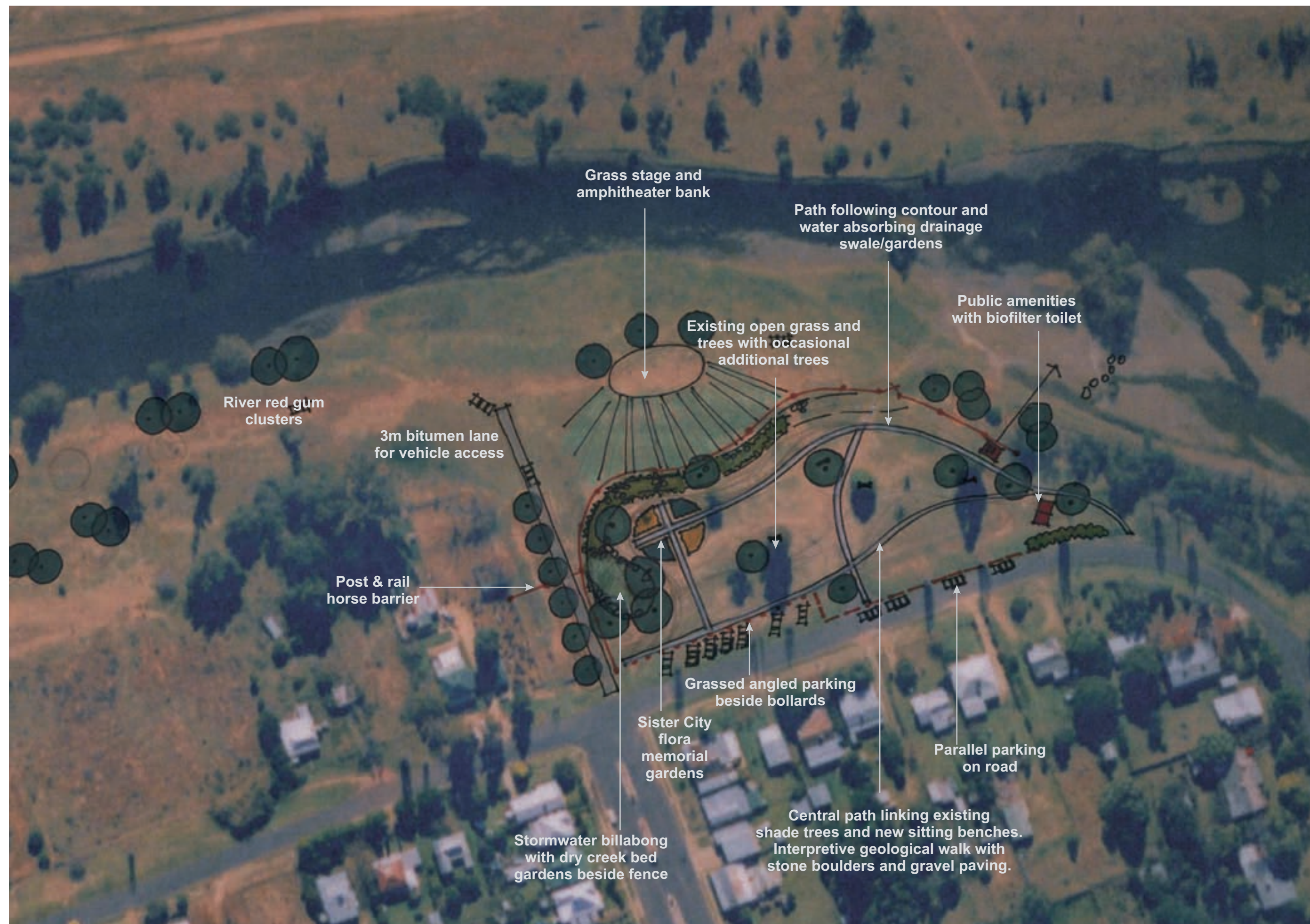
In the future the town will embrace the river and provide a wider range of passive recreation activities by its gentle waters.

By providing paths, park amenities and low key gardens the open space will be transformed into an open parkland with value to both local residents and to visitors of the town. Local people will have more places to relax in the town, and visitors will be encouraged to stay longer. The Riverscapes Project will enhance the appearance of the town and provide park at the terminus of the Main Street.

The park will also feature a memorial garden which celebrates the sister city arrangements with Willoughby City Council, who would be invited to supply sandstone and flowering plants, to be incorporated in a geological interpretive walk in the park.



Walking Distances to Town 1:5000 @ A3





On-Site Design Process

Landscape Architects John Mongard, Jacqueline Ratcliffe and Wes Mortensen met up with steering group members for the Bingara Riverscapes project on Saturday 16th February 2008.

Site based design was carried out throughout the day, with sketches and plans 'truthed' on the land. The Bingara Riverscapes concept plan emerged. Earlier ideas for the park were tested, refined and incorporated where suitable and additional site constraints confirmed.