Green Infrastructure South West Web Portal: Delivery Case Study

Name of Case Study
Park for Truro Park & Ride

Lead organisation / contact
Park for Truro Park & Ride is owned by Cornwall Council with the service operation currently contracted out to local bus operator Western Greyhound.
Natalie Warr (Cornwall Council), nwarr@cornwall.gov.uk

Location
Cornwall's first permanent P&R is located on the A390 on the western approach to the City Centre and is approximately 3 miles from the town.

Main issues raised and highlighted:
Park for Truro is a good example, which shows that Green Infrastructure can be provided through partnership working towards one goal. Park for Truro provides an attractive transport solution within a site that blends with the local landscape to enhance the surroundings and wildlife habitats.

Main Partners:
Cornwall Council, CORMAC and also Western Greyhound who operate the service.

Funding Stream(s):

- Local Authority through Local Transport Plan 2 funding
- South West Regional Development Agency
- Department for Communities and Local Government
- Government Office for the South West

The funding relates to the scheme design and development costs and not for ongoing day to day management of the service.

Policy Framework:

- Local Transport Plan 2
- Truro Transport Strategy
- The Draft Truro and Threemilestone Area Action Plan
- County Structure Plan
- Sustainable Community Strategy

Aims of project:

Truro has a population of 21,000 and attracts 20,000 workers to the city centre each day. Congestion, parking capacity, public transport and pollution issues was identified in the Truro Transport Strategy from which the Park for Truro scheme was born. The establishment of the Park for Truro site was one of a package of measures developed to alleviate pressures on the infrastructure, accentuated by a predicted population increase of 7,000 in 11 years.

With Cornwall being a very rural county the majority of people still rely on their cars to get to work, health, education and leisure. By providing P&R as the final link into Truro this scheme aims to ease congestion and improve air quality in the historic City. P&R is being carefully targeted at car users in order to ensure that it doesn't attract those passengers currently using other means of public transport. The scheme was developed to achieve the following key objectives:

- reducing road traffic congestion into and within Truro;
- improving the city centre environment and thereby the attractiveness of Truro city centre to visitors and shoppers;
- relieving pressure on Truro city centre parking stock and on street parking; and
- obviating the need to provide additional city centre parking spaces to meet forecast increases in traffic growth, with benefits for land use planning.

Description of project:

In stark contrast to what you might expect from a standard car park, Park for Truro has been designed to blend with, respect and enhance the existing landscape and ecology on site, creating an attractive gateway into Truro. It comprises 1209 spaces; spaces for disabled persons and those with children are clearly signed and within easy access of the reception building.

Cornwall County Council worked with Cornwall Environmental Consultants Ltd as the masterplanners, landscape architects and ecologists to develop the site. The design process looked first to address ecological and landscape issues, with engineering applied afterwards, reversing the usual design process. The main aim was to create a best example of a park and ride design that demonstrates commitment to:

- respecting the environment and quality of the Cornish landscape
- designing a community integrated park and ride facility

- providing for the needs of pedestrians, cyclists and disabled people
- integrating form and function and providing a modern design that can inspire future projects in the Southwest and beyond by working with the existing landscape in order to blend in with and protect as many local species and wildlife as possible.

Working with the existing contours, the parking area was shaped to fit the existing landform creating a bowl shaped car park with terracing, which minimised earthworks and the need to transport earth to landfill sites. The majority of the existing hedgerows and trees were protected and retained and these were supplemented with additional planting that included:

- **1.13ha** of native woodland and shrub buffer planting
- **2.26ha** of meadow areas
- **0.85ha** new ornamental planting areas including car park strips and parks
- **2000** trees
- **30,000** shrubs, many of which will bring benefit to wildlife
- **65,000** plants including herbaceous plants and climbers

A number of recycled materials were used on site to minimise the impact on the environment and this included:

- **18000** tonnes of road planings taken from resurfacing schemes in Cornwall have been reused in the construction of the roads on site.
- **15,000m²** of ecoblock parking bays made from recycled plastics have been used instead of tarmac surfacing
- **500** tonnes of crushed glass instead of quarried sand has been used
- **4.5km** of pipe laid on site have been made from recycled plastics
- **1.8km** of recycled plastic kerbs have been used in place of traditional concrete kerbs

The Amenity Building

The building has also been designed and built to minimise its environmental impact in terms of both its construction and energy needs and has been equipped with the following sustainable features:

- Solar panels to generate electricity and provide hot water for the building
- Heat from underground sources is used with the building
- Rainwater is harvested for use in flushing toilets
- A reed bed filtration system is used to purify the waste water from the building before it is discharged into watercourses
- SUDS are used for surface water drainage including two open storage ponds to improve habitat

The site includes a number of features to enhance its attractiveness for passengers that include; seating, recycle bins and planting throughout the site.

The Buses

Park for Truro uses Mercedes Citaro buses that have the latest Euro V low emission engines used in public transport vehicles, which mean that additives are injected into the exhaust to convert harmful gasses into the harmless substances nitrogen and water. The scheme is trialling the next generation of enhanced environmentally friendly vehicles (EEV) in Cornwall. The EEV model is the first of its kind in the South West and in tests against the Euro V model the EEV version emits:

- 80% less CO
- Zero Hydrocarbon emissions
- 25% less NOx, and
- 91% less particulate matter

Delivery mechanism / long-term adoption of project:

The scheme was constructed under the NEC Option C (cost plus fee) contract with an open-book accounting environment created with the Client to ensure that there were 'no surprises' in financial terms. Value engineering formed a major part of Cormac's approach to create and prioritise sustainable solutions where possible. This enabled recycled materials to be a main feature of construction in terms of economics and performance. The Client's requirement for high end specification was surpassed through rigorous value engineering and Prince 2 methodology which proved invaluable in making sure all stakeholders took ownership of the project.

The works programme was critical to the success of the project, which had very little lead in time. Early and efficient co-ordination of the supply chain and sub-contractors was vital. Poor weather was prevalent in the early winter months which coupled together with an archaeological investigation and working safely under national grid 132Kv cables created some challenging working methods to meet timescale targets. Thanks to sheer determination and good working relationships with all sub-contractors (over 15 in total), time was made up and the scheme was finished one month ahead of the scheduled completion of November 2008.

This early finish was also attributable to Cormac's close working relationship with our specialist ecological consultant who provided swift and sensitive solutions to protect our onsite badgers from construction related disturbance.

Cormac is a fully BSI accredited contractor and following a 3rd party audit by BSI onsite (focusing on quality, environment and health & safety) the project was commended as an example of 'best practise' in construction. The project was also constructed under the CEEQUAL assessment best practice ethos and through rigorous environmental management and regular auditing the project and achieved excellent status with an 87.8% overall response. Construction was also audited through the Considerate Constructors Scheme and given an 'excellent' award. These set of commendations have confirmed our excellent approach to the project in terms of quality, health & safety and environmental performance.

CEC who were the landscape architects for the scheme developed a 5 year maintenance plan to ensure that the site continues to thrive and enhance the existing ecology. The ecological mitigation and enhancements will also undergo future monitoring by an ecological consultant to determine its success in protecting and encouraging biodiversity to the site.

Outputs/outcomes/benefits

- Reduced congestion
- Improved air quality
- Community engagement
- Enhanced Biodiversity
- Ecosystems services
- Health and well being
- Landscape enhancement
- Informal recreation
- Heritage conservation
- Green travel
- Raises profile of public transport for those people that normally only use their car
- Improved linkages between rail, bus and key attractor sites such as places of work, colleges, hospital and city centre
- Has assisted in raising profile of the importance of environmental issues – people can easily identify with the scheme and what it tries to achieve not only for materials/methods used on site but also for reducing congestion and improving air quality

Lessons learned

The benefit of bringing together multiple parties to share the vision for the scheme and create passion for what was being provided was key to this projects success. This maximised the strength of the partnership working approach and facilitated ownership by all.

All parties had to work to challenging timescales but it is a real testament to all those involved that it was delivered a month ahead of schedule. This demonstrates how creating passion and ownership will overcome the many hurdles projects face and should be embedded at the start of any scheme.

The way in which the scheme was promoted was also a major factor to its level of success. Pre-scheme awareness was carried out to inform the general public of our intentions; regularly updates with key stakeholders were carried out during the implementation phase to increase support for it and lastly post scheme promotion to encourage usage.