

# Pro Arb

PLAN, PLANT, PRESERVE

NOVEMBER 2013

AN INTERVIEW WITH  
**DERIC NEWMAN**  
of Civic Trees

**SITE VISIT**  
DEEPDALE  
TREES



## HAVS

Jonathan Hazell advises on Hand Arm Vibration Syndrome and how to avoid the condition



## 21<sup>st</sup> Century Arborist

KarbonTech introduces new tree management technology to record and monitor tree health



## PPE

Pro Arb takes a look at the current personal protective equipment available for arborists

## The 21<sup>st</sup> Century Arborist:

# GETTING TREE SMART

**New Forest based KaarbonTech introduces a new tree management system using a tablet device to help arborists record and monitor tree health**

Trees are one of our most valued natural assets and contribute to our quality of life whether we live in a bustling city centre, leafy suburb or rural village. They are such a familiar part of our landscape and communities that it is easy for the public to overlook the skill and management that goes into the keeping them healthy.

Those readers who work for local authorities will know all too well the increasing importance given to the recording and monitoring of the quality, volume and range of work carried out by their arborists. Meanwhile, arborists pretty much without exception do not like finding themselves sitting at a desk in an air conditioned office.

### **Taking the office outdoors**

New Forest based company, KaarbonTech, has developed a tree management system that records and accesses data using Android and IOS devices. The system known as Tree SMART enables users to enter data, whether they are sitting at a desk, in a vehicle, in a park or in a field. The software uses



Ordnance Survey and other council Geographic Information Systems (GIS) datasets to provide accuracy and alignment to other systems.

KaarbonTech has designed the software around the requirements of arborists, improving coordination by removing barriers to sharing data and enabling wireless communication wherever members of the team may be located. Tree SMART is able to integrate with existing systems, allowing previously held tree preservation information to be enhanced with the addition of GIS location data.

The software records the health and vitality of the tree along with its life stage – newly planted, young, semi-mature, over-mature or veteran. The range of service requests that can be generated include, but are not restricted to, planting, felling and removal of suckers. Pest and disease control can be logged, as can application of fertiliser or installation of a cable brace.

The Capital Asset Value for Amenity Trees (CAVAT) cash valuation method, which uses a formula to determine the monetary value of tree stock, can be integrated into the system. This integration saves the team having to enter data into two different systems and automates the cash valuation based on the user's response to a series of questions. CAVAT is widely →



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## The ability to easily export and share data helps improve performance monitoring and achieve key performance targets

used by councils to determine maintenance programmes, implement protection orders and to assess cost should a tree be damaged by a third party.

The inclusion of pick lists is designed to save time. For example, once the arborist has entered the first three letters of the species name or provided a brief description, the system will generate a tailored list from which to select. The location and size of tree groups can be plotted a touch screen and viewed at different scales, all while working offline.

Recognising that one size doesn't fit all, the 'Tree SMART' system is tailored to meet the requirements of individual local authorities or estates. As the system builds an easily accessible record of maintenance and inspections, it enables officers to evaluate tree conditions across the area and use visual markers to record and manage safety issues. The ability to easily export and share data helps improve performance monitoring and achieve key performance targets. An additional bonus is the ability for officers to be able to respond more quickly to enquires from councillors or the public about specific trees.

The teams of arborists who have been using the system at South Gloucestershire Council and Gloucestershire County Council, have agreed to share their experience. Phil Dye, Arboricultural Officer at South Gloucestershire Council said: "I was impressed how automated the process could be. Traditionally devices to collect this information have been clumsy and slow but this was not the case."

The arborists at South Gloucestershire

were able to update and view the following information using the system:

- › Automated calculation of Root Protection Area (RPA).
- › Accurate, visual representation of the crown of a tree against the mapping background, providing enhanced perspective and identifying highway overhang issues and property infringement.
- › Photographic and video verification of species records.

Simon Penfold, Arboricultural Officer at South Gloucestershire Council explained: "The simplicity of reporting allows us to quickly identify trees in need of maintenance and allocate them to one of the team. This reduces the risk of injury to the general public through poorly maintained trees."

### Practical

The arborists reported a number of key benefits when using the handheld Android and iOS devices:

- › Route navigation took the teams to exact locations.
- › Once on site, the use of colour markers and simple filtering made it easy to understand which trees required work, saving time.
- › The system proved easy to manage outdoors and uploading data was quick and accurate.
- › The fact that the system could be used offline and changes simply uploaded once reconnected meant that lack of mobile coverage was not a hindrance.
- › Accurate location data and a clear visual display eliminated confusion over site boundaries.
- › Members of the team were able to access accurate data and allocated work plans whatever their location.
- › Time previously lost making phone calls or unnecessary journeys was reduced.

### Create key performance indicators

