THE CUPOLEX® SOLUTION

SOIL CELLS FOR TREE AND STORMWATER MANAGEMENT

ENVIRONMENTALLY FRIENDLY
Made from 100% recycled plastic

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SUPPORTING LARGE TREE GROWTH

Trees in cities are almost universally seen as a very desirable and indeed a hugely beneficial part of our lives. Tree health and longevity is the provision of enough quality soil for the tree roots. Providing for this volume of non-compacted soil beneath pavements is an issue that arborists, landscape architects and engineers have been debating for decades.

The CUPOLEX® SOIL CELLS system employs advanced concrete design geometry to produce the latest generation of under pavement soil cells for urban trees that can be adequately provided for in their urban setting.

ADVANTAGES FOR TREE GROWTH

• Proper compaction of the soil so that the root system is able to expand more quickly and evenly
• Greater volume for the expansion of the roots resulting in increased stability of the tree
• Greater surface area for gas exchange between soil and air resulting in increased oxygenation of the roots
• Easy installation of irrigation systems
• Percolation of rainwater allowed in conjunction with pavement drainage

The roots, finding the correct oxygenation and the right compaction, do not need to emerge hence avoiding to ruin or brake the upper pavement

Advanced engineering and design provides 100% non-compacted soil volume.

CUPOLEX® SOIL CELLS is designed to support workloads and form a monolithic concrete structure with excellent modular strength, both vertically and laterally.

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CUPOLEX® SOIL CELLS

CUPOLEX® SOIL CELLS is a forming system for providing an easy, efficient and fast solution for constructing a pavement with heights that can vary from 300 mm (12 inches) to 2500 mm (100 inches). This cutting edge forming system comprises of CUPOLEX® domes, pipes, bases and a patented bracing system that quickly interlock and connect to each other composing a self-bearing structure ready for the placement of planting soil and furthermore of the concrete pavement. The elevated CUPOLEX® SOIL CELLS pavement supported by the matrix of columns formed by the tubes allows the system to support high load-bearing capacities. The elevated CUPOLEX® SOIL CELLS structure and the void created below the slab can be used to contain quality and unlimited soil-volumes, creating structurally beneficent and strong structure systems that are conducive to root growth while supporting any pavement design.

FEATURES

- Enables trees to accept, store and transmit water, nutrients and energy
- Provides room in which roots can propagate. CUPOLEX® SOIL CELLS creates space below the pavement which is required for good soil life and the necessary biochemical exchanges to promote tree growth
- Trees are not planted in cramped planting pits and poor subsoil
- Roots do not colonise the area immediately underneath the paved surface, thus preventing structural pavement damage
- Solid and compacted ground for pavements is not required
- Can be designed to support any vehicular traffic
- Trees do not compromise or damage the structural integrity of the paved surfaces
- Urban trees can be adequately provided for in their urban setting
- Provides savings in time and materials compared to other tree and stormwater management systems
- Flexible for any dimension on plan or depth and can be easily installed around new or existing underground utilities and pavement penetrations.
- Proven track record
- Allows for root breakout from the soil cells into surrounding soil
- Provides a complete opened void allowing for easy flow of water into and out of the soil
- Time tested technology with over 500 million sq.ft installed
- Manufactured to ISO 9000:2002 high quality standards
BENEFITS

- Resolves issues involving exposed tree roots
- Cost effective-up to 50% cost saving compared to conventional Plastic shoring systems for creating soil cells
- Easy design for application in new projects and for restoration of existing mature trees areas
- Simple to install
- Concrete design exceeds HS-20 loading
- Great adaptability
- Environmentally friendly
- Made from 100% recycled plastic

Essentially CUPOLEX® SOIL CELLS may be utilized wherever trees are being planted in paved areas.

There are many areas where the application of this system can assist with the healthy growth of trees such as cities, parking lots, roadways, footpaths, shopping centers and medians.