

STRUCTURAL CELL TECHNICAL SHEET

structural cells

typical applications

material specifications

2 STRUCTURAL CELLS

DeepRoot's new Structural Cell supports traffic loads while providing uncompacted soil volumes for large tree growth and on-site stormwater management. The modular framework provides unlimited access to healthy soil—a critical component of tree growth in urban environments—allowing them to manage stormwater, reduce heat-island effect, and improve air quality.

TYPICAL APPLICATIONS

MATERIAL SPECIFICATIONS

PARKING LOTS

- Grow large, healthy and functional trees while maximizing the number of available parking spaces
- Recharge groundwater while providing soil bioremediation

COMMERCIAL / CIVIC PLAZAS

- Reduce urban heat island effect by growing larger trees
- Treat stormwater as a resource and maintain it on-site

SIDEWALKS & DRIVEWAYS

- Create "Break-out Zones" for street trees to access larger soil volumes

DESIGN FEATURES

- The modular design enables complete flexibility
- Highly efficient – 92% void space

MATERIAL SPECIFICATIONS

30% Fiberglass Reinforced, chemically-coupled homopolymer polypropylene. Meets AASHTO H-20 loading standards.

FRAME DIMENSIONS

Length: 48" (1200 mm)
Width: 24" (600 mm)
Height: 16" (400 mm)
Void capacity: Approximately 92%

DECK DIMENSIONS

Length: 48" (1200 mm)
Width: 24" (600 mm)
Height: 2" (51.5 mm)

Steel reinforcing tube

Galvanized steel tube inserted in the channel on the underside of the deck to increase the rigidity and loading capability of the deck.

Deck

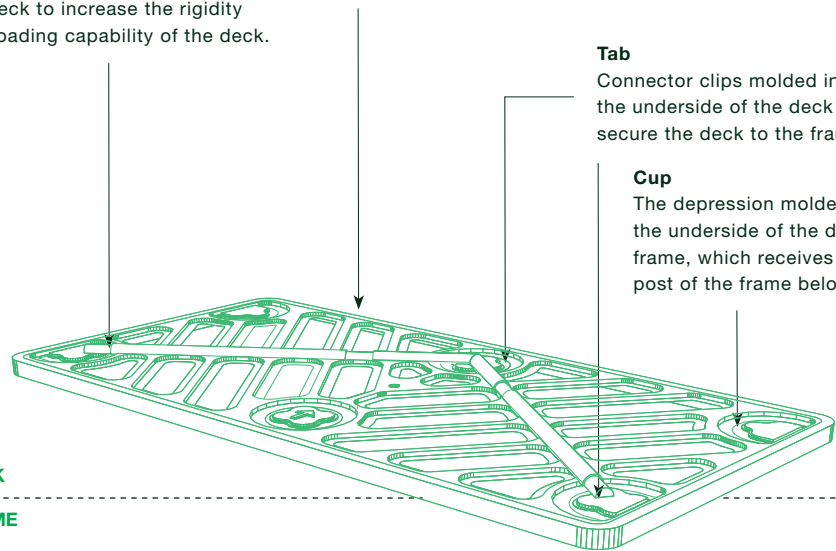
The top member of the structural cell assembly.

Tab

Connector clips molded into the underside of the deck to secure the deck to the frame.

Cup

The depression molded into the underside of the deck or frame, which receives the post of the frame below.



DECK

FRAME

Post

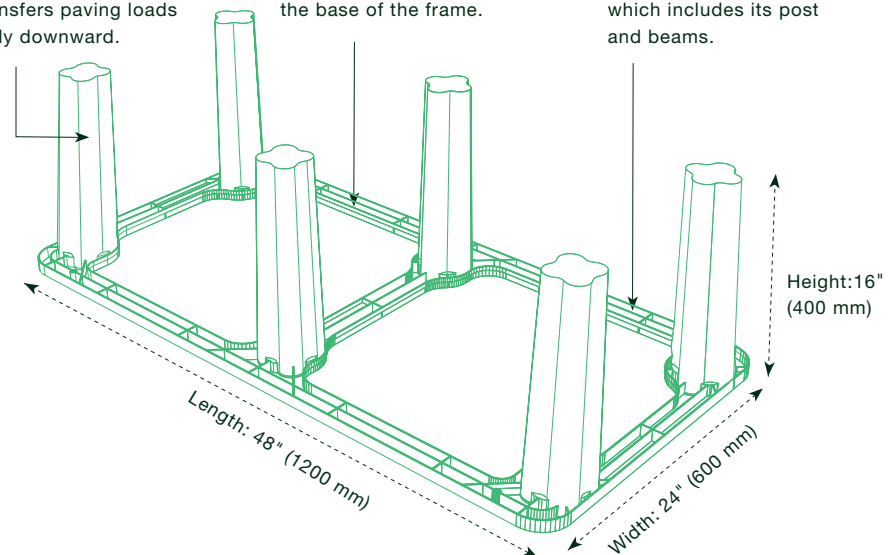
The vertical member or column of the structural cell frame unit that transfers paving loads vertically downward.

Beam

The horizontal bars connecting the posts at the base of the frame.

Frame

The base member of the Structural Cell assembly, which includes its post and beams.



www.deeproot.com Deep Root Partners, LP
530 Washington Street, San Francisco, CA 94111.

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