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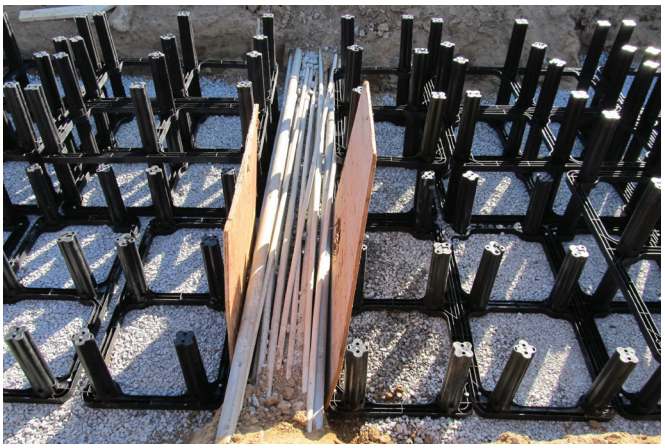
SACRED MEMORIAL, 20 YEARS IN THE MAKING, FINALLY COMPLETE

19 Elms and Cherries Honor the Legacy of Dr. Martin Luther King, Jr.

Authorized by Congress in 1996, the Martin Luther King, Jr. National Memorial in Washington, DC is a groundbreaking project. Following nearly 20 years of development and construction, it is the first memorial on the National Mall to be dedicated to an African American, and one of only a few dedicated to non-presidents. The site, a four-acre plot on the northeast corner of the Tidal Basin, is within the precinct of the Jefferson Memorial. Natural elements—stone, water, and trees—are used to underscore the themes of democracy, justice, hope, and love.



Oehme van Sweden (OvS), the Landscape Architect of Record for the project, created a landscape memorial that honored the visionary figure of Martin Luther King, Jr., yet was sensitive to its placement near the Tidal Basin's famous Yoshino cherry trees. By adding 182 cherry trees to the memorial landscape, OvS balanced the profundity and scale of the Martin Luther King, Jr. Memorial with the beloved cultural traditions of the site.

To create a more private and solemn area for the Memorial adjacent to the Japanese Cherries, OvS designed a diverse garden with a new, deep soil profile. The planter beds were filled with quality soil to support the growth and health of the landscape plants for many decades, and also served as a buffer from the expected bus traffic, thereby protecting the sanctity of the Memorial. Ten of the Cherry Trees extend to a plaza adjacent to the Memorial's Visitor's Center, where the paved surface required a different means of providing soil. Here, Silva Cells were specified in a break-out zone application to provide the ten trees with ample soil volume while also supporting the weight of the pavement on the plaza.

OvS wanted to be sure there was adequate tree canopy coverage to shade the pedestrian access areas, including the walkways surrounding adjacent buildings, so they added nine new American Elm Trees at the Memorial's entrance. The tall, healthy trees will reduce cooling costs in summer, provide a wind break in winter, and create a more pleasant visitor experience. To provide conditions conducive to the desired tree canopy, the designers specified Silva Cells in these areas to provide the roots with adequate soil volume under paving. 1,250 Silva Cell frames and 630 Silva Cell decks were installed around the new American Ems planted in the pedestrian sidewalks along West Basin Drive. The vision is for these trees to create an overarching canopy at 40' on center. In total, 9,400 cubic feet of loamy soil

(over 650 cubic feet per tree) in the Silva Cell system was provided to reach these goals.

There were challenges to the design of this site. The original site soils were all fill of various compositions, and a compacted hardpan that did not drain well was an obstacle across the site. High invert elevations from available sub drains were also drainage challenges. Soil and drainage designs had to work with these obstacles, while not compromising the design intent and other engineering considerations, to provide the required soil volumes and conditions for the trees.

The site includes a stormwater management component. Surface water within the planting beds was designed to pass into the planting soil within the Silva Cell systems to irrigate the trees and filter storm water prior to passing into the water in the adjacent Tidal Basin. Finally, expected periodic storm surge flooding from the Potomac River had to be allowed to inundate the site while letting plantings survive. This was tested on the initial dedication day when the Memorial flooded, causing the postponement of the dedication. No plants were lost.

The Memorial now pays homage to Martin Luther King, Jr. while preserving the history of the site itself. The soil conditions and thoughtful site design will help ensure that the trees and other plantings thrive and endure in their environment, a fitting echo to the permanence of Martin Luther King Jr.'s own legacy.

Installation Summary
Average soil volume per tree: 658 ft3 (18.6 m3)
Number of Trees: 19
Total Silva Cells:1,250 frames, 630 decks
Installation Date: February 2011
Installation type: Integrated – Trees and Stormwater
Project Site: Plaza, Streetscape
Project Designer: Oehme van Sweden Landscape Architects
Contractors: Ruppert Landscape

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