

Southeast Trees:

A Multi-Site Tree Planting and Evaluation Project in Southeast Los Angeles County

Part 4. Palms Park, Lakewood

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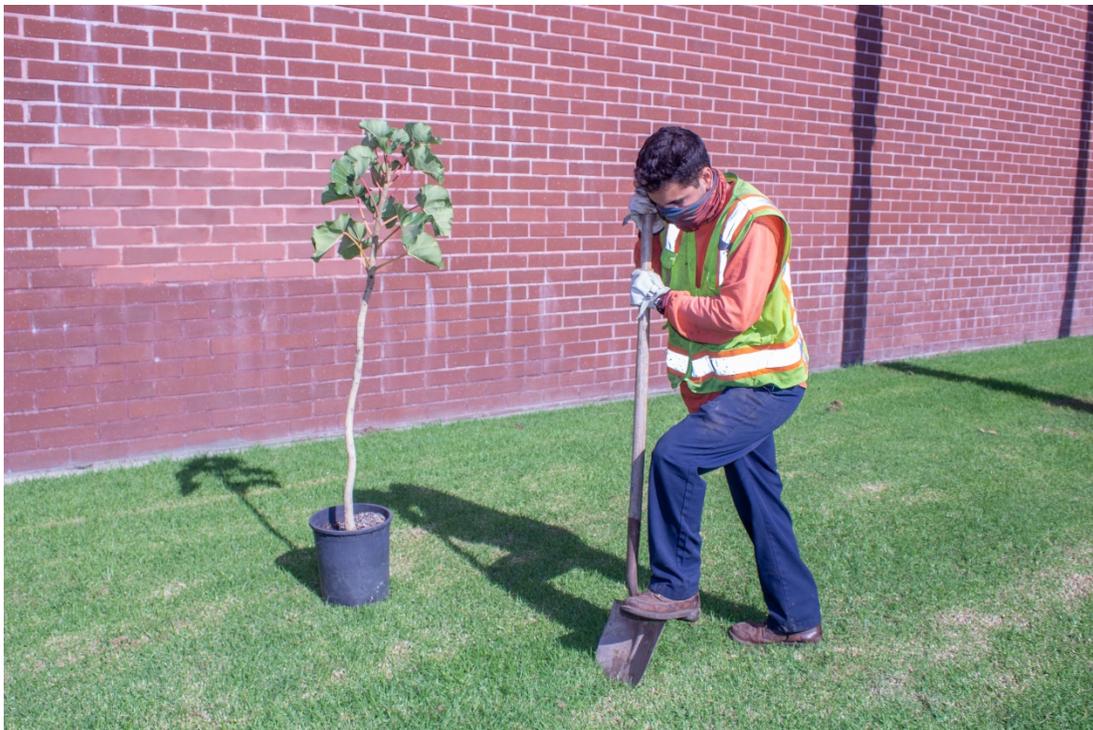
Parts 1, 2, and 3 of this series provided an introduction, rationale, and background to this multi-site, tree planting and evaluation project in southeast Los Angeles County and adjacent Orange County, including an illustrated and annotated list of the more than 125 plantings made at El Dorado East Regional Park in Long Beach beginning in late 2015 and continuing through 2019 (Hodel 2020a) and 892 plantings made at city parks in Lakewood and Cerritos in Los Angeles County and Seal Beach in adjacent Orange County in 2017 and continuing through 2020 (Hodel 2020b, Hodel and Holguin 2020). Here in Part 4 of this series we provide an illustrated and annotated list of tree plantings made in November and December, 2020 at a second park in Lakewood, Palms Park (**Figs. 1–2**).

At the corner of 207th Street and Norwalk Boulevard in far southeastern Lakewood, rectangular-shaped Palms Park is surrounded by residential areas north and south and schools east and west. It is 11.7 km from the Pacific Ocean at Long Beach, 2.5 km east of the San Gabriel River, and 4.6 km east of Arbor Road Park, the first site in Lakewood where we planted trees. The site is mostly flat but has a few small, gently mounding, artificial hills a few meters tall. The site is in Sunset Zone 22, which was based on University of California geographical and climatological studies, and is too far from the coast (Sunset Zone 24) to access the moderating influence of the ocean and yet is not far enough inland where hilly terrain (Sunset Zone 23) would provide better air drainage on cold winter nights. Indeed, for a few nights nearly every winter freezing or near freezing temperatures occur at the site. Because of its proximity to the San Gabriel River, soil at Palms Park is a deep, good quality, sandy alluvium, mostly making planting a pleasure although grading and excavation for the Community Center building modified adjacent soils somewhat so that some clays and compacted layers were present. So far, water is not an issue. It is reclaimed and with few restrictions on its use.

Expanses of turfgrass comprise most of Palms Park, which measures about 400 m east to west and 200 m north to south. Most of the turfgrass expanses are baseball diamonds and fields, while tennis courts, a playground, a parking lot, and the Community Center building occupy about a



1. The November planting of trees arrived at Palms Park in the back of a pick-up truck.



2. Ian Girling of the City of Lakewood helps to plant *Ficus abutilifolia* in November.

third of the remaining area. Most of the existing trees are along the perimeter of the western three-fourths of the park and around the existing structures and facilities. Established trees include *Pinus canariensis* (Canary Island pine), various eucalypts like *Corymbia citriodora* (lemon-scented gum) and unusually large specimens of *Eucalyptus grandis* (rose gum or flooded gum), and various palms such as *Syagrus romanzoffiana* (queen palm) and *Washingtonia robusta* (Mexican fan palm).

We made two plantings of trees at Palms Park, one in late in late November and the other about a week later in early December, 2020, and we would like to make more because of the cooperative nature of city personnel and the adequate water. We planted 22 trees, including seven species of *Ficus* and other species in the genera *Alectryon*, *Brachychiton*, *Cassia*, *Delonix*, *Dombeya*, *Handroanthus (Tabebuia)*, *Itoa*, *Pouteria*, *Senna*, and *Talipariti (Hibiscus)*, filling in gaps between existing trees around some of the structures and in open spaces where trees would provide shade and enhance esthetics.

For the first planting we had the help of Ian Girling, a city employee and co-author's wife Marianne A. Hodel helped with both plantings. Park crews will help to maintain the trees. We planted trees out of mostly 5-gallon-sized (ca. 19-liter) containers, always using unamended site soil that came out of the hole as the backfill. We carefully inspected root systems before planting and, if necessary, corrected circling or kinked roots.

We applied mulch around the trees but applied no fertilizer. Most trees were not staked for support after planting because they were structurally pruned judiciously and grown with ample space in co-author Hodel's nursery, but stakes might be inserted if needed in the future, mostly to provide protection from errant turfgrass mowers. We structurally pruned trees as needed. Perhaps the most serious problem will be weeds and encroaching turfgrass, which we will control through mulching and hand-weeding.

The trees are listed alphabetically and followed on the same line by the latitude and longitude coordinates (estimated from Google Earth) and an accession number that gives the year and month planted, and a two-letter code for location and a number that corresponds to that tree in a database spreadsheet. For example, *2020-11-SP1* signifies that the tree was planted in 2020, in November, at PP (Palms Park) and is entry 1 in the spreadsheet database for that park. The common name(s) of the tree (in UPPERCASE), if any, mostly taken from the internet, follow(s) on the next line. The source of the tree or propagative material and planting month and year are on the lines below the common name.



3. Marianne Hodel and *Alectryon tomentosus*.



4. *Brachychiton discolor*.



5. *Brachychiton rupestris*, 2020-12-PP12.



6. *Brachychiton rupestris*, 2020-12-PP13.

Growth data by date, trunk diameter (at 30 cm above ground, and, if applicable, 1.4 m above ground), and overall height is provided in table format. Because many of the trees were less than 4.5 feet (1.4 m) tall (the standard height for measuring trunk diameter) when planted, we measured trunk diameter at 30 cm above the soil so all trees could be uniformly assessed. As the trees grow we will transition to the standard trunk diameter at 4.5 feet (1.4 m) (DSH). A performance rating follows the growth table and considers several factors, including growth rate, pruning and training needs, pest and disease activity, and abiotic disorders like cold or heat damage, nutritional status, and perceived moisture effects. The rating is: 1 = dead or nearly so; 2 = poor; 3 = average; 4 = good; 5 = excellent. Completing the treatment is a section titled Notes, a narrative providing a general summary of the tree's history, appearance, performance, nomenclature, and/or miscellaneous information.

Alectryon tomentosus 33.842693, -118.069600 2020-12-PP10 **Fig. 3.**

HAIRY BIRDS EYE, RED JACKET, WOOLLY RAMBUTAN

Source: Seed, Los Angeles County Arboretum and Botanic Garden, Arcadia, CA.

Planted: December 2022.

Growth	Diam. @ 30 cm (cm)	DBH (cm)	Ht. (m)
12/2020	1.5	0.7	1.80

Rating: 3.

Notes: An Australian native, this seed-grown plant was a steady but slow grower in the nursery and needed little structural pruning and training to develop and maintain a central leader.

Brachychiton discolor 33.842773, -118.069590 2020-12-PP15 **Fig. 4.**

Source: Unknown.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.9	0.7	1.80

Rating: 5.

Notes: An Australian native, it is somewhat drought tolerant and has pink flowers. A moderate and steady grower in the nursery, it needed no structural pruning and training to develop and maintain a strong central leader. The identity of this plant has not been confirmed.

Brachychiton rupestris 33.842641, -118.069232 2020-12-PP12 **Fig. 5.**

NARROW-LEAVED BOTTLE TREE

Source: Purchased plant, Rare Succulents Nursery, Fallbrook, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	2.0	0.6	1.65

Rating: 5.



7. *Cassia bakeriana*, 2020-12-PP3.



8. *Cassia bakeriana*, 2020-12-PP4.



9. *Cassia bakeriana*, 2020-12-PP4.



10. *Delonix pumila*.

Notes: Native to dry forests of Queensland, Australia, this species is famous for its squat, thick, robust, barrel-like trunk. Drought tolerant and a moderate and steady grower in the nursery, it needed no structural pruning and training to develop and maintain a strong central leader.

Brachychiton rupestris 33.842569, -118.069113 2020-12-PP13 **Fig. 6.**

NARROW-LEAVED BOTTLE TREE

Source: Purchased plant, Rare Succulents Nursery, Fallbrook, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	2.0	0.5	1.45

Rating: 5.

Notes: Native to dry forests of Queensland, Australia, this species is famous for its squat, thick, robust, barrel-like trunk. Drought tolerant and a moderate and steady grower in the nursery, it needed no structural pruning and training to develop and maintain a strong central leader.

Cassia bakeriana 33.843065, -118.070199 2020-12-PP3 **Fig. 7.**

PINK SHOWER TREE

Source: Plant, Ken Greby, certified arborist, Yorba Linda, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.0	0.7	1.80

Rating: 4.

Notes: This donated plant, indigenous to Thailand and Myanmar, is noted for its early summer, showy display of pinkish flowers. A moderate but steady grower in the nursery, it needed some structural pruning and training to develop and maintain a strong central leader. Briefly deciduous, it is likely only marginally cold hardy.

Cassia bakeriana 33.843111, -118.070147 2020-12-PP4 **Fig. 8.**

PINK SHOWER TREE

Source: Plant, Ken Greby, certified arborist, Yorba Linda, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.0	0.5	1.75

Rating: 4.

Notes: This donated plant, indigenous to Thailand and Myanmar, is noted for its early summer, showy display of pinkish flowers. A moderate but steady grower in the nursery, it needed some structural pruning and training to develop and maintain a strong central leader. Briefly deciduous, it is likely only marginally cold hardy.

Cassia bakeriana 33.843058, -118.070103 2020-12-PP5 **Fig. 9.**

PINK SHOWER TREE

Source: Plant, Ken Greby, certified arborist, Yorba Linda, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	0.9	0.5	1.75

Rating: 4.

Notes: This donated plant, indigenous to Thailand and Myanmar, is noted for its early summer, showy display of pinkish flowers. A moderate but steady grower in the nursery, it needed some structural pruning and training to develop and maintain a strong central leader. Briefly deciduous, it is likely only marginally cold hardy.

Delonix pumila 33.842872, -118.069295 2020-12-PP11 **Fig. 10.**

FENGOKO

Source: Purchased plant, Rare Succulents Nursery, Fallbrook, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.7	0.5	1.70

Rating: 3.

Notes: An endangered legume from the spiny forest of southwestern Madagascar, this species is drought tolerant and bears a nice display of yellow flowers in early summer. A slow but steady grower in the nursery, it needed no structural pruning and training to develop and maintain a strong central leader. It might be only marginally cold tolerant. This tree was vandalized two days after planting, uprooted and the stem partially broken. We taped the stem and replanted it.

Dombeya wallichii 33.842796, -118.070464 2020-11-PP9 **Fig. 11.**

PINK BALL TREE

Source: Purchased plant, Huntington Library, Art Galleries, and Botanical Gardens, San Marino, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	1.4	---	1.25

Rating: 3.

Notes: A Madagascar native, this plant is noted for its showy, large, mid-winter clusters of pink flowers. A moderate and steady grower in the nursery, it needed structural pruning and training to develop and maintain a strong central leader.

Ficus abutilifolia 33.842662, -118.070254 2020-11-PP8 **Fig. 12.**

LARGE-LEAVED ROCK FIG

Source: Purchased plant, Jim Sherman Nursery, San Marcos, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.5	---	1.40

Rating: 5.

Notes: Native to Africa where it grows in relatively dry, rocky habitats, this species is noted for its large, heart-shaped leaves, often with pink to red veins, and its white-barked trunk. A slow



11. *Dombeya wallichii*.



12. *Ficus abutilifolia*.



13. *Ficus auriculata*.



14. *Ficus lutea*.

but steady grower in the nursery, it needed little structural pruning and training to develop and maintain a strong central leader. It is probably only marginally cold tolerant.

Ficus auriculata 33.842683, -118.070493 2020-11-PP7 **Fig. 13.**

ROXBURGH FIG

Source: Purchased plant, San Marcos Growers, Santa Barbara, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	4.0	2.0	1.90

Rating: 5.

Notes: Native from the Himalayan foothills to southeast Asia and southern China, this ornamental fig is noted for its huge, attractive leaves and large, curious, showy, reddish figs produced on the trunk. A moderate and steady grower in the nursery, it needed little structural pruning and training to develop and maintain a strong central leader.

Ficus lutea 33.843667, -118.069936 2020-11-PP17 **Fig. 14.**

GIANT-LEAVED FIG, LAGOS RUBBERTREE

Source: Donated plant, Linda Ohara, Carson, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.5	2.0	1.75

Rating: 5.

Notes: This African native is noted for its large, handsome, dark green leaves with conspicuous whitish veins. A moderate but steady grower in the nursery, it has needed no structural pruning and training to develop and maintain a strong central leader.

Ficus luschnathiana 33.843658, -118.070099 2020-11-PP18 **Fig. 15.**

AGARRAPALO, HIGUERON BRAVO

Source: Cutting-grown from a remnant root sucker in the nursery of the Los Angeles County Arboretum and Botanic Garden, Arcadia, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.0	1.0	1.80

Rating: 5.

Notes: Also known as *Ficus monckii*, this South American native has been a fast and steady grower in the nursery with no need for structural pruning and training to develop and maintain a strong central leader. It has handsome dark green leaves and striking reddish new growth.

Ficus macrophylla 33.842839, -118.071488 2020-11-PP1 **Fig. 16.**

MORETON BAY FIG

Source: Purchased plant, Jim Sherman Nursery, San Marcos, CA.

Planted: November 2020.



15. *Ficus luschnathiana*.



16. *Ficus macrophylla*, 2020-11-PP1.



17. *Ficus macrophylla*, 2020-11-PP2.



18. *Ficus natalensis*.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.7	1.0	1.65

Rating: 5.

Notes: This plant, an east-coast Australian native, is noted for its large, showy leaves, spreading canopy, and trunk with spectacular root buttresses. A strong and steady grower in the nursery, it has needed little structural pruning and training to develop and maintain a strong central leader. It was grown from seeds collected from the famous, fenced specimen next to the San Diego Natural History Museum in Balboa Park.

Ficus macrophylla 33.842975, -118.071705 2020-11-PP2 **Fig. 17.**

MORETON BAY FIG

Source: Purchased plant, Jim Sherman Nursery, San Marcos, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.0	---	1.30

Rating: 5.

Notes: This plant, an east-coast Australian native, is noted for its large, showy leaves, spreading canopy, and trunk with spectacular root buttresses. A strong and steady grower in the nursery, it has needed little structural pruning and training to develop and maintain a strong central leader. It was grown from seeds collected from the famous, fenced specimen next to the San Diego Natural History Museum in Balboa Park.

Ficus natalensis 33.843578, -118.070060 2020-11-PP16 **Fig. 18.**

NATAL FIG

Source: Donated plant, Tim Hoehn-Boydston, San Diego Zoo, San Diego, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	4.0	2.6	2.15

Rating: 5.

Notes: This plant, native to southern Africa, has been a moderate and steady grower in the nursery. Although structurally pruned and trained to develop and maintain a central leader, it still shows a tendency for shrubby growth. It might only be marginally cold tolerant. Its identity is tentative.

Ficus sycomorus 33.843057, -118.070348 2020-12-PP20 **Fig. 19.**

SYCOMORE FIG

Source: Cutting-grown from a purchased plant from Jim Sherman Nursery, San Marcos, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.5	---	1.75

Rating: 4.



19. *Ficus sycomorus*.



20. *Handroanthus × lewisii*.



21. *Itoa orientalis*.



22. *Pouteria viridis*.

Notes: This widespread African species has been a steady, vigorous, fast grower in the nursery with few problems. Little structural pruning and training to develop and maintain a strong central leader was necessary. It makes a handsome tree with figs strikingly clustered on the trunk.

Handroanthus x lewisii 33.842763, -118.070523 2020-11-PP6 **Fig. 20.**

APRICOT TAB

Source: Grown from seeds collected under a hybrid tree on Colima Road in Whittier, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	2.0	---	1.60

Rating: 5.

Notes: This recently name hybrid is spectacular in early spring when densely covered with apricot-colored flowers. It is hoped that the flowering display of this seedling will be as spectacular as that of its parent. The genus *Handroanthus* was until recently included in *Tabebuia*. It has been a steady but moderate grower in the nursery with little need for structural pruning and training to develop and maintain a strong central leader.

Itoa orientalis 33.843524, -118.069569 2020-11-PP14 **Fig. 21.**

Source: Seedling, from tree at the Los Angeles County Arboretum and Botanic Garden, Arcadia, CA.

Planted: November 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
11/2020	4.5	2.7	2.60

Rating: 5.

Notes: This handsome, rare, donated plant with large, dramatic, bold leaves has been an unusually fast grower in the nursery with few problems. Little structural pruning and training to develop and maintain a strong central leader was necessary. I dug this plant as a 45-cm tall seedling under the mother tree at the Arboretum in September 2019 and grew nearly six times as large in less than 15 months.

Pouteria viridis 33.843184, -118.070275 2020-12-PP19 **Fig. 22.**

GREEN SAPOTE

Source: Plant, Josh Allen, Vista, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	3.0	1.3	1.95

Rating: 5.

Notes: Native to Mexico and Central America, this donated plant is mostly grown for its edible fruits but its leave, dark green above and rusty brown below, are unusually handsome. It has been a fast and steady grower in the nursery with no need for structural pruning and training to develop and maintain a strong central leader.



23. *Senna racemosa* var. *liebmannii*.



24. *Talipariti elatum*.

Senna racemosa* var. *liebmannii 33.842512, -118.071505 2020-12-PP22 **Fig. 23.**

LIEBMANN'S LIMESTONE SENNA

Source: Seed-grown from tree at the Los Angeles County Arboretum and Botanic Gardens, Arcadia, CA.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.7	0.8	1.92

Rating: 4.

Notes: This medium-sized tree from southern Mexico has attractive, yellow flower displays nearly year-round. A moderately fast and steady grower in the nursery, it has bold, pinnately compound leaves and needed little structural pruning and training to develop and maintain a strong central leader.

Talipariti elatum 33.842968, -118.070463 2020-12-PP21 **Fig. 24.**

MAHOE TREE, BLUE MAHOE, CUBAN BAST

Source: Seed-grown from seeds collected at 1135 m elevation on Gran Piedra, Santiago, Cuba.

Planted: December 2020.

Growth	Diam. @ 30 cm (cm)	DSH (cm)	Ht. (m)
12/2020	1.0	---	1.38

Rating: 3.

Notes: This Caribbean native is a tall, upright tree with handsome red flowers. A slow but steady grower in the nursery, it has needed little pruning and training to develop and maintain a strong central leader. It is sometimes known as *Hibiscus elatus*.

Acknowledgements

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