

STAFF REPORT

DATE: November 1, 2017

RE: **622 Grinnell Street (permit application # T17-8676)**

FROM: Karen DeMaria, City of Key West Urban Forestry Manager

An application was received requesting the removal of **(1) Barbados Cherry tree**. A site inspection was done on October 27, 2017 and documented the following:

Tree Species: Barbados Cherry (*Malpighia glabra*)





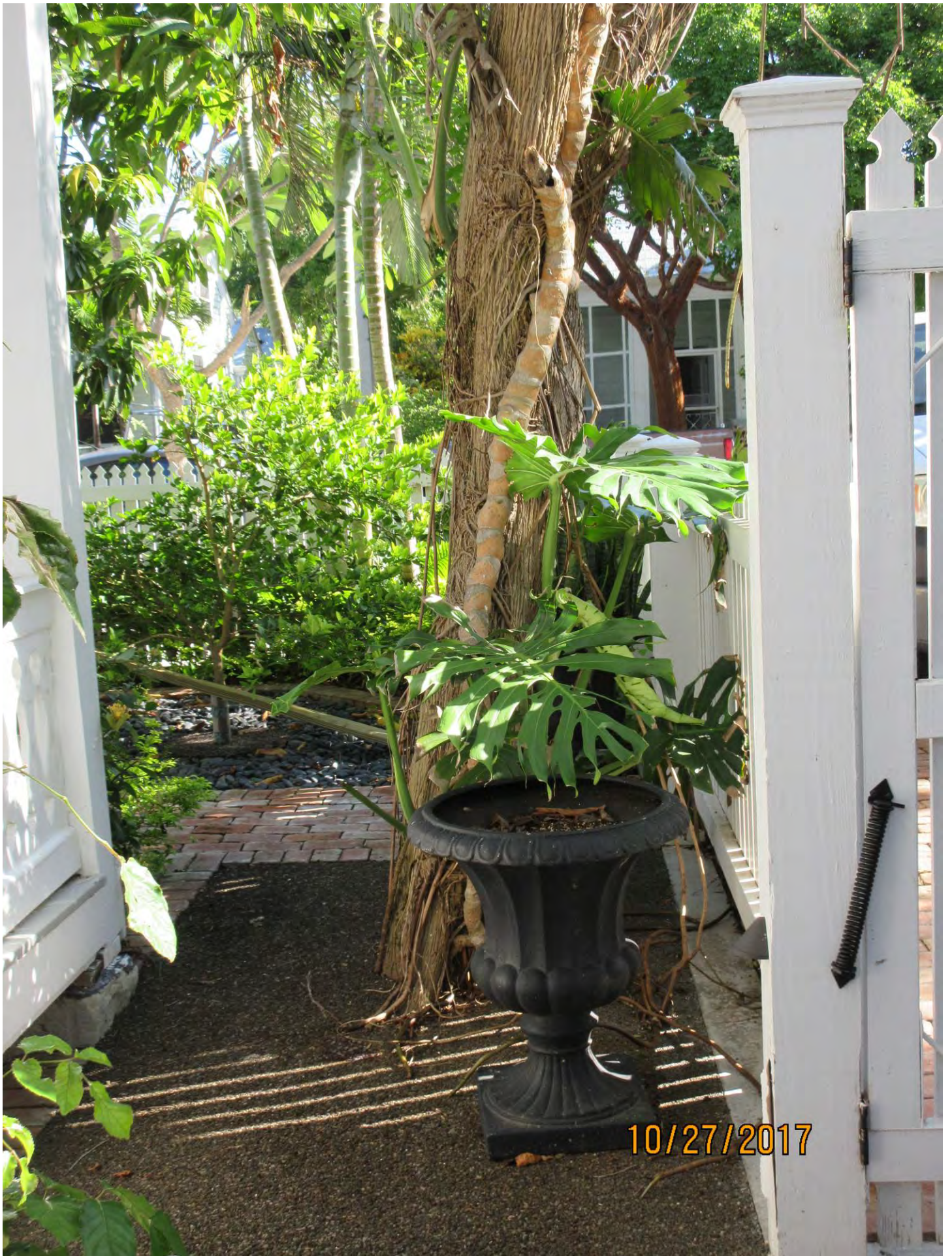


10/27/2017











Diameter: 15.2"

Location: 60% (canopy impacted by utility lines)

Species: 50% (not on protected or not protected tree list)

Condition: 50% (fair overall with a poor structure)

Total Average Value = 53%

Value x Diameter = 8 replacement caliper inches

Barbados Cherry (*Malpighia glabra*): Identification, Uses and Maintenance

Stephen H. Brown, Lee County Horticulture Agent, brownsh@ufl.edu

Kim Coopridier, Lee County Master Gardener



Fort Myers, early November



Fort Lauderdale, Florida, early January

Family: *Malpighiaceae*

Common Names: Barbados cherry, acerola, cherry, cereza, cerezo

Synonyms: *M. biflora*, *M. punicifolia*

Origin: Southern Mexico, Caribbean, Central America, Northwestern South America

USDA Zone: 10A-11 (28°F)

Plant Type: Large shrub or small tree

Plant Shape: Bushy

Growth Rate: Moderate

Typical Dimensions: 12' x 10'

Roots: Not problematic

Leaf Persistence: Evergreen

Leaf Type: Simple, entire

Flowering Season: April through October

Flower Color: Pink

Light Requirements: Sun, partial sun

Soil Requirements: Wide

Drought Tolerance: High, once established

Salt tolerance: High

Wind Tolerance: Moderate

Nutritional Requirements: Low

Propagation: Leafy hardwood cuttings, air layers, grafting

Motility: Low

IFAS Assessment: Not listed

Human Hazards: None

Major Potential Problems: Acerola weevil, nematodes; lesser problems: scale, aphids and whitefly

Uses: Edible fruits, shrub, small tree, hedge

Distribution

Barbados cherry (*Malpighia glabra*) is native to Tropical America. It is widely distributed throughout the Americas including Bermuda, Bahamas, southern California, southern Texas and south Florida. New growth freezes at about 30°F but the tree has been found growing as far north as Manatee County in south Florida, USDA zone 9B.

Growth Habit

This is a densely branched large shrub or small tree. In Florida, it typically grows to about 12 feet tall with similar width. The tree has a short trunk of about 4 inches and is usually multi-trunked. Some cultivars have an upright growth pattern, while others sprawl. The root system is shallow, making the tree somewhat vulnerable to high winds. The bark is brown or gray and somewhat smooth, with light brown lenticels. The twigs are gray, ringed at the nodes with whitish lenticels.



Kingston, Jamaica, late May



Queensbury, Jamaica, early September



Palmetto, Florida, late October

Leaves

The evergreen leaves are entire, somewhat wavy and turned slightly upwards. They are oppositely paired, and are lanceolate, elliptic to ovate shaped. Blades are typically to 3 inches long and 1.5 inches wide. The petioles are short, about 0.15 inches long. The upper leaf surface is a shiny green, and the lower surface a dull light green.



Oppositely arranged leaves



Leaf examples

Flowers and Flowering

Flowers are arranged in umbels or corymbs of a few flowers at the leaf bases of new stems and older wood. They are on short stalks of about 0.25 inches long. The flower has five pink or lavender, spoon-shaped, fringed petals about 0.3 inch long. The ten stamens are united into a tube at the base; the pistil has a short ovary and three styles. Flowering is mostly from April through October in numerous short episodes. Bees are the primary pollinators.



Flowers at the leaf base of new stem with whitish lenticles.



Flowers at the leaf base of older wood.

Fruits and Fruiting

Store bought trees are often in fruit at the time of purchase. Fruit is borne on a pedicel originating from the leaf axil. The fruits (drupes) are rounded, slightly flattened, and faintly three lobed. It takes about four to five weeks for flowers to develop to mature edible fruits. With sufficient rainfall or irrigation, fruit begin appearing in abundance in May with successive crops until about November. The tree is highly productive. Fruits are best picked and eaten right off the tree when fully ripe. Since there is continuous fruiting over long periods, picking is done every day, every other day, or ever three days to avoid loss by falling.

As it matures, the fruit turns rapidly from green, to yellow, to a fire engine red, and finally to a deep crimson. It is usually less than 1 inch in diameter when fully matured. The flesh is orange in color; the seed has three triangular, fused, winged lobes, which are usually spat from the mouth after flesh consumption. The flavor ranges from tart and acidic to mildly sweet. Ripe fruits are highly perishable but can withstand storing for about three days at 45°F.



Fort Myers, late June.



Fort Lauderdale, late May



A day's crop from a 4 foot tree.

Uses

Grow Barbados cherry as a small fruit tree, large shrub, hedge, or container plant. It is well suited as a foundation planting for larger buildings or used in the rear of the shrubbery border. It can be used as a small accent tree just as Japanese Ligustrum is used. Fruits are eaten fresh off the tree or juiced. They have a very high ascorbic acid content thus an excellent source of Vitamin C. The fruits are highly attractive to humans and birds.

Growing Conditions and Management

Several clones were developed in the 1950's and 60's but have not persisted in the trade. The plant is sold as *M. glabra* and is commonly available in nurseries throughout South Florida. It is mostly propagated by air layering or cuttings and grows in a wide range of well-drained soils. In most of south Florida, it can be transplanted from container to soil at anytime of the year. In the coldest regions, zone 9B and interior peninsula, avoid transplanting from December through February. Established plants will survive temperatures in the high 20's Fahrenheit for short periods of time. In the coldest areas, the plant is usually semideciduous.

Plant establishment is relatively fast and easy provided it is sufficiently irrigated. Plants should be protected from lawn mowers, weed whackers, and lawn grass by the creation of a weed free border around the plant. In the driest years, plant may fail to yield adequately until the summer rains. During such times, spring irrigation is useful in promoting flowering and fruiting. Plants grown from cutting and air layering are more susceptible to strong wind damage than grafted tree as they have a shallow fibrous root system. Grafted plants have a deeper tap root system.

Pests and Diseases

The acerola weevil is sometimes the most important pest of Barbados cherry in Florida. Adult weevils deposit eggs on the anthers of flowers, and in immature fruits. The larvae develop in the flowers and fruits causing extensive damage to flowers and the flesh of fruits. The peak months for adult emergence from the fruits is from late June through September.

Nematodes can be a serious problem in mostly sandy soils. Occasional sucking insects such as whiteflies and scales are minor problems. Sooty mold is an indication of the presence of sucking insects.



Black sooty mold caused by whiteflies



Whiteflies feed on the underside of leaves

References

- Barwick, M.. 2004. Tropical & Subtropical Trees. Timber Press, Portland, OR
- Boning, C. R. 2006. Florida's Best Fruiting Plants. Pineapple Press, Inc., Sarasota, FL
- Bourne, M.J., G.W. Lennox, and S.A. Seddon. 1992. Fruits and Vegetables of the Caribbean The Macmillan Press Ltd., London and Basingstoke
- Culbert, D.F. 1998. Barbados Cherry. UF/IFAS Okeechobee County Extension, Vero Beach, FL
- Gilman, E.F. 2014. Malpighia glabra Barbados Cherry. FPS-390. UF/IFAS, Gainesville, FL
- Maxwell, L. S. and B.M. Maxwell. 1995. Florida Fruit. Lewis S. Maxwell, Tampa, FL
- Morton, J. 1987. Barbados Cherry. Fruits of Warm Climates, P. 204-207. Julia F. Morton, Miami, FL
- Pena, J.E., J.L. Sharp and J.M. Wasoki. 2002. Tropical Fruit Pests and Pollinators. Cabi Publishing, Wallingford, Oxon, UK



All pictures taken by Stephen H. Brown, brownsh@ufl.edu

Send me an email to request Brown's Plant File. Include your first and last names and your general location. The plant file is emailed at no cost to you about every six weeks.

This fact sheet was reviewed by Carlos Balerdi, Extension Agent Emeritus, Miami-Dade County; Peggy Cruz, Lee County Extension; Pat Rooney, Lee County Master Gardener.

The Institute of Food and Agricultural Sciences (IFAS) is an Equal Opportunity Institution authorized to provide research, educational information and other services only to individuals and institutions that function with non-discrimination with respect to race, religion, age, disability, sex, sexual orientation, marital status, national origin, political opinions or affiliations. U.S. Department of Agriculture, Cooperative Extension Service, University of Florida, IFAS, Florida A. & M. 3/2016.

[Return to first page.](#)

Application



Canopy-
Removal

8676

Tree Permit Application

Date: 10-20-17

Please Clearly Print All Information unless indicated otherwise.

Tree Address 622 Grinnell Street
Cross/Corner Street _____
List Tree Name(s) and Quantity Barbados Cherry
Species Type(s) check all that apply () Palm () Flowering () Fruit (x) Shade () Unsure
Reason(s) for Application:

(x) REMOVE () Tree Health (x) Safety (x) Other/Explain below
() TRANSPLANT () New Location () Same Property () Other/Explain below
() HEAVY MAINTENANCE () Branch Removal () Crown Cleaning/Thinning () Crown Reduction

Additional Information and Explanation Tree is dangerously close to house and fence and drops berries creating a slip hazard on the deck

Property Owner Name Christopher Belland
Property Owner eMail Address cbelland@historictours.com
Property Owner Mailing Address 201 Front St STE 107
Property Owner Mailing City Key West **State** FL **Zip** 33040
Property Owner Phone Number (305) 923-1987
Property Owner Signature Chris Belland

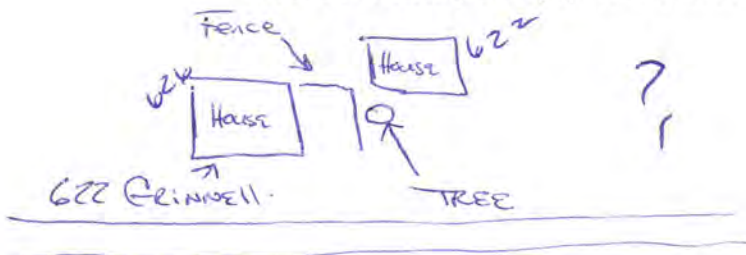
Representative Name Dot Palm Landscaping, Inc
Representative eMail Address dotpalm@comcast.net
Representative Mailing Address 5200 Overseas Hwy
Representative Mailing City Marathon **State** FL **Zip** 33050
Representative Phone Number (305) 481-0959

NOTE: A Tree Representation Authorization form must accompany this application if someone other than the owner will be representing the owner at a Tree Commission meeting or picking up an issued Tree Permit.

Tree Representation Authorization form attached ()

<<<<< Sketch location of tree in this area including cross/corner Street >>>>>

Please identify tree(s) with colored tape



4 ft cir
15.2" dbh Additional part

If this process requires blocking of a City right-of-way, a separate ROW Permit is required. Please contact 305-809-3740.



Tree Representation Authorization

Date: 10-20-17

Attendance at the Tree Commission meeting on the date when your request will be discussed is necessary in order to expedite the resolution of your application. This Tree Representation Authorization form must accompany the application if the property owner is unable to attend or will have someone else pick up the Tree Permit once issued.

Please Clearly Print All Information unless indicated otherwise.

Tree Address 622 Grinnell St
Property Owner Name Christopher Belland
Property Owner eMail Address GA Cbelland@historictours.com
Property Owner Mailing Address 201 Front St. STE 107
Property Owner Mailing City Key West State FL Zip 33040
Property Owner Phone Number (305) 923-1987
Property Owner Signature [Signature]
Representative Name Dot Palm Landscaping, Inc
Representative eMail Address dotpalm@comcast.net
Representative Mailing Address 5200 Overseas Hwy
Representative Mailing City Marathon State FL Zip 33050
Representative Phone Number (305) 481-0959

I Christopher Belland, hereby authorize the above listed agent(s) to represent me in the matter of obtaining a Tree Permit from the City of Key West for my property at the tree address above listed. You may contact me at the telephone listed above is there is any questions or need access to my property.

Property Owner Signature [Signature]

The forgoing instrument was acknowledged before me on this 19 day October.

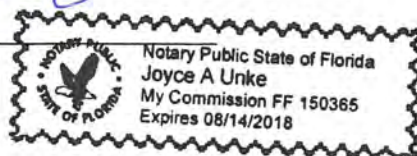
By (Print name of Affiant) Christopher Belland who is personally known to me or has produced _____ as identification and who did take an oath.

NOTARY PUBLIC

Sign Name: Joyce A Unke Notary Public - State of Florida (seal)

Print Name: Joyce A Unke

My Commission Expires: _____





RECEIVED
NOV 06 2017
BY NCH

622 Grinell
Key West
* Chris Bell and
Please add to application