

STAFF REPORT

DATE: February 2, 2017

RE: **1103-1105 Simonton Street ROW**
(permit application # T17-8287)

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

An application was received requesting the removal of **(1) Mahogany tree**.
A site inspection was done and documented the following:

Tree Species: Mahogany (Swietenia mahagoni)



Photo taken when semi truck hit branch.











10/28/2016



10/28/2016



Photo shows the three trunks of the tree. One grows over Simonton Street and the other two grow over private property (Radcliff Welding).





Yellow ribbon denotes the location of truck hit on the trunk.











Photo showing impact area prior to ribbon being placed on tree trunk.

NOTES: Federal law requires a clearance of 14 ft over a roadway. This trunk of the tree has been measured as being 12.8 ft above the road.

Information regarding the age of the tree indicates it was planted during the WPA plantings of 1923.

Alternatives to removal:

1. Shift the traffic lanes away from tree-this area of Simonton Street does not have street parking. There is a bus stop with bump outs opposite the tree at the Gato building. According to the City of Key West engineering department, this alternative is not available at this location.
2. Heavy maintenance trimming-the trunk over the road must be removed which would leave an unbalanced tree with all of its weight over private property and away from the core center of the tree creating a safety issue. The final cut would be a large cut that would take a while to heal (older trees have a hard time healing large cuts).



The tree would also have to be trimmed on the private property side in order to create a weight distribution that would be safe for people, property, and the tree. This would require a significant portion of the canopy to be reduced back toward the core of the tree. This amount of trimming work, almost 70% of the tree, would likely shock the tree. Due to

the existing utility lines, the tree would never be able to have a proper canopy and the remaining tree would not be a dignified tree.

Diameter: 42"

Location: 20% (close to roadway, branch/trunk too low over road, under utility lines-canopy impacted by utility trimming)

Species: 100% (on protected tree list)

Condition: 50% (fair, structurally a sprawling tree, one trunk/branch grow over road with weight toward end, other branches growing over sidewalk and private property)

Total Average Value = 56%

Value x Diameter = 23.5 replacement caliper inches

Regulations:

Sec. 110-256. Tree abuse.

(b) *Prohibited acts.* A tree shall be considered abused if a person takes an action so that one of the following occurs:

- (1) Significant damage has been inflicted upon any part of a tree, including the root system, by machinery, storage of materials, soil compaction, excavation, vehicle accidents, chemical application or change to the natural grade.
- (3) Cutting upon any tree which permanently reduces the function of the tree or causes it to go into irreversible decline.
- (4) Cutting upon a tree which destroys its natural shape.

Sec. 110-259. Duty of private property owner.

- (a) It shall be the duty of any person or entity owning or occupying private real property bordering on any street, upon which private property there is a tree or trees, to maintain such trees in a manner that such trees will not obstruct the street lights, obstruct the passage of pedestrians on sidewalks, rights-of-way, roadways, obstruct vision of traffic signs or traffic lights, obstruct views of any street or alley intersection or grow into utility wires. All landscaping shall be trimmed at least 80 inches above a walking surface and a minimum width of 36 inches for clear passage, or the width of the sidewalk.

Sec. 108-453. – Required clearance over roadways and fire lanes.

Every tree, whether new or existing, shall have a minimum of 14 feet of clearance over any roadway or fire lane, whether public or private, to allow for the unobstructed passage of emergency apparatus to safely travel under.

From US Dept Transportation Federal Highway Administration:

4.3.5 Vertical Clearance

Vertical clearance is defined as the minimum unobstructed vertical passage space required along a sidewalk. Vertical clearance is often limited by obstacles such as building overhangs, tree branches, signs, and awnings.

The guidelines and recommendations that were reviewed for minimum allowable vertical clearance are included in Tables 4-2.1 through 4-2.4 at the end of this chapter. The majority of guidelines require a minimum of 2.030 m (80 in) of unobstructed vertical passage space. However, Oregon and Pennsylvania require 2.1 and 2.4 m (83 and 94 in) of vertical passage space, respectively (OR DOT, 1995; PA DOT,

1996).ADAAG states that circulation spaces, such as corridors, should have at least 2.030 m (80 in) of head room. ADAAG further specifies that if the vertical clearance of an area next to a circulation route is less than 2.030 m (80 in), elements that project into the circulation space must be protected by a barrier to warn people who are visually disabled or blind (ADAAG, U.S. Access Board, 1991).

4.3.8 Obstacles and Protruding Objects

Obstacles in the pedestrian environment are defined as objects that limit the vertical passage space, protrude into the circulation route, or reduce the clearance width of the sidewalk. Obstacles with large overhangs that protrude into the path of travel can be hazardous for people with visual impairments if they are difficult to detect. The full width of the circulation path should be free of protruding objects. Obstacles that reduce the minimum clearance width, such as decorative planters on a narrow sidewalk, can create significant barriers for wheelchair or walker users.

Most guidelines for accessibility concur with the ADAAG specifications for protruding objects. ADAAG states that objects projecting from walls that have leading edges between 0.685 m and 2.030 m (27 in and 80 in) should not protrude more than 100 mm (4 in) into walks and passageways. Freestanding objects mounted on posts or pylons may overhang a maximum of 0.305 m (12 in) from 0.685 m to 2.030 m (27 in to 80 in) above the ground (ADAAG, U.S. Access Board, 1991), as shown in Figure 4-13.

During the sidewalk assessments, potential obstacles and protruding objects were measured as they occurred along the sidewalk. Characteristics of obstacles measured in the sidewalk assessment include height, amount of overhang over the supporting structure (if any), and minimum clearance width around the obstacle.

The following objects can make a sidewalk difficult for some users to traverse if they protrude into the pathway or reduce the vertical or horizontal clear space:

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|---|--------------------------------|
| • Awnings | Benches |
| • Bike racks | Bollards |
| • Cafe tables and chairs | Drinking fountains |
| • Fire hydrants | Folding business signs |
| • Grates | Guy wires |
| • Landscaping | Mailboxes (public and private) |
| • Newspaper vending machines | Parking meters |
| • Planters | Public telephones (mounted) |
| • Puddles | Signal control boxes |
| • Sign poles | Snow |
| • Street vendors' carts | Street light poles |
| • Street sculptures | Telephone booths |
| • Telephone/utility poles and their stabilizing wires | Traffic sign poles |
| • Transit shelters | Trash bags and cans |
| • Tree, bush, and shrub branches | Utility boxes |

Vertical Clearance

The adopted criteria provide vertical clearance values for the various highway functional classifications (Table 19). These criteria are set to provide at least a 1-foot differential between the maximum legal vehicle height and the roadway, with additional allowances for future resurfacing. These clearances apply to the entire roadway width (traveled way and shoulders). A formal design exception is required whenever these criteria are not met for the applicable functional classification.

Clarifications

The specific standards for vertical clearance adopted for the Interstate System maintain its integrity for national defense purposes. On Interstates, the clear height of structures shall not be less than 16 feet (4.9 meters) over the entire roadway width, including the useable width of shoulder. In urban areas, the 16-foot (4.9-meter) clearance shall apply to at least a single routing. On other urban Interstate routes, the clear height shall not be less than 14 feet (4.3 meters). A design exception is required if this standard is not met. Exceptions on the Interstate must also be coordinated with the Military Surface Deployment and Distribution Command Transportation Engineering Agency of the Department of Defense.

TABLE 19

Ranges for Minimum Vertical Clearance

Type of Roadway	Rural		Urban	
	US (feet)	Metric (meters)	US (feet)	Metric (meters)
Freeway	14–16*	4.3–4.9*	14–16*	4.3–4.9*
Arterial	14–16	4.3–4.9	14–16	4.3–4.9
Collector	14	4.3	14	4.3
Local	14	4.3	14	4.3

*17 feet (5.1 meters) for sign trusses and pedestrian overpasses.

Source: A Policy on Geometric Design of Highways and Streets, AASHTO