

ORDINANCE NO. 20-____

AN ORDINANCE OF THE CITY OF GALVESTON, TEXAS, AMENDING THE 2015 GALVESTON LAND DEVELOPMENT REGULATIONS, ARTICLE 9: “LANDSCAPING”, TO ADD DIVISION 9.600, “PALM PRESERVATION”, TO PROVIDE FOR THE PROTECTION OF CERTAIN PALM SPECIES; PLANNING CASE NUMBER 19ZA-006; MAKING VARIOUS FINDINGS AND PROVISIONS RELATED TO THE SUBJECT.

WHEREAS, on March 5, 2015, City Council adopted the 2015 Galveston Land Development Regulations, including Article 9: Landscaping; and,

WHEREAS, the Galveston Tree Committee was directed to develop a proposal for the protection of certain and specific palm species; and,

WHEREAS, per Section 13.700 of the Galveston Land Development regulations, and as presented in the Staff Report, attached and incorporated herein as **Exhibit 1**, the requested amendment is in accordance with the criteria for text amendments; and,

WHEREAS, text amendments shall serve the purposes of:

1. Advancing the goals, objectives and policies of the City’s Comprehensive Plan and other adopted special-area and special-topic plans;
2. Securing adequate light, air, convenience of access, and safety from fire, flood and other danger;
3. Lessening or avoiding congestion in public ways; Promoting the public health, safety, comfort, morals, convenience and general welfare; and Otherwise accomplishing the purposes of Texas Local Government Code Chapter 211, Municipal Zoning Authority; and,

WHEREAS the Planning Commission, at its regular meeting of January 7, 2020, voted to recommend approval of the text amendment; and,

WHEREAS, after public notice and hearing as required by law, the City Council finds that it is in the public’s interest to approve the text amendment to Article 9 “Landscaping” by adding Division 9.600, “Palm Preservation”, to provide for the protection of certain palm species.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GALVESTON, TEXAS:

SECTION 1. The findings and recitations set out in the preamble to this Ordinance are found to be true and correct and they are hereby adopted by the City Council and made a part hereof for all purposes.

SECTION 2. In accordance with the City of Galveston 2011 Comprehensive Plan, the City Council of the City of Galveston hereby amends the 2015 Galveston Land Development Regulations Article 9 “Landscaping” by adding Division 9.600, “Palm Preservation”, as substantially provided in Exhibit 1, to read and provide as follows:

DIVISION 9.600 PALM PRESERVATION

SEC 9.601 PROTECTION OF EXISTING SIGNIFICANT PALMS

A. Generally. Sites shall be designed to preserve existing palms and palm stands that are considered “significant” as provided in this Section. Palms contribute to Galveston’s appearance as a sub-tropical island, support the tourism industry, and are storm resistant. Mature palms may be of monetary value and can be easily transplanted.

For the purposes of this Division:

1. A palm is defined as any of a family (Palmae synonym Arecaceae) of mostly tropical or subtropical monocotyledonous palms, shrubs, or vines with usually a simple stem and a terminal crown of large pinnate or fan-shaped leaves.
2. Palm height shall be measured from ground level to the base of the growth point.
3. A significant palm shall be considered the following:
 - a. Date Palms:
 1. Canary Island Date Palm (Phoenix canariensis) at 8 feet in height;
 2. Phoenix Date Palm (Phoenix dactylifera sylvestri (canariensis)), not including Pygmy Date Palm (Phoenix Roebelenii), at 10 feet in height;
 - b. Pindo Palm (Butia capitata) at 5 feet in height;
 - c. Sabal Palm (Sabal Mexicana) at 8 feet in height;
 - d. Washingtonia Palm (Washingtonia filifera) at 15 feet in height;
 - e. Washingtonia Palm (Washingtonia Robusta and crosses) at 20 feet in height;
 - f. Blue Hesper (Brahea Armata) at 8 feet in height;
 - g. Chinese Fan (Livistona Chinensis) at 8 feet in height; and,
 - h. Bismark (Bisjmarkia Nobilis) at 8 feet in height.

4. A significant palm stand is a group of palms that cover a total of at least 10,000 square feet of ground area, regardless of the height of the palms or the shape of the stand.

B. Removal of Significant Palms and Stands of Palms. The City Manager or City Arborist, if applicable, may approve the removal of a significant palm or palm stand if it is demonstrated that the following are being met. It is highly encouraged that, in the case that palm removal is approved, the applicant consider transplanting the palms within the site or providing the palms to an interested third party for transplantation.

1. No reasonable alternative site design at the same development intensity could be approved that:
 - a. Would preserve the palm(s);
 - b. If large-scale preservation is not possible, would preserve the largest of the palms; or
 - c. If protection of the largest palm(s) is not possible, would preserve a greater number of palms than the proposed development design.
2. It is located within 10 feet of an approved building footprint of new construction or addition;
3. It is located within 6 feet of a utility easement and would interfere with the use of the easement as determined by the City Engineer;
4. It is located within 8 feet of an approved outdoor recreation area that by its nature requires the removal of the palms, such as ball fields;
5. It is ordered removed by the City Manager for other emergency reasons;
6. It is being grown and removed for agricultural purposes; or
7. It is certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the Director of Development Services as having one or more of the following conditions:
 - a. Unhealthy or structurally unsound;
 - b. Damaged by natural causes beyond the point of recovery;
 - c. Diseased beyond the point of recovery;
 - d. Poses a threat to the public and must be removed as a safety measure; or
 - e. No longer living.

C. Removal of Palm Stands. Palm stands may be located across multiple parcels. In the event of an approved removal of a portion of a palm stand, the owner is

encouraged to coordinate with adjacent property owners in order to reduce negative effects to the overall palm stand.

- D. Exempted Palms.** Palms of any size that appear on the Invasive and Noxious Weeds list for the State of Texas promulgated by the United States Department of Agriculture or on the Texas Noxious and Invasive Plants list promulgated by the Texas Department of Agriculture are exempted from this Section and may be removed. Identification by an International Society of Arboriculture Certified Arborist and/or degreed Forester is recommended.
- E. Permit Required.** A permit shall be obtained by the property owner prior to authorizing or subjecting a significant palm to removal.

SEC. 9.602 PALM REPLACEMENT

A. Generally. The removal of significant palms or palm stands must be mitigated. All requests for the removal of significant palms or palm stands shall be accompanied by a palm mitigation plan. Mitigation shall be achieved by the planting of the same amount of trunk feet removed, payment to the mitigation fund, or combination thereof.

B. Palm Replacement Required. Significant palms or palm stands that are approved for removal shall be replaced based on one foot of trunk height planted for one foot of trunk height removed. All replacement shall occur on the property on which the removal occurred. Replanting plan to be reviewed and approved by the City Arborist. All new palm species shall be from among palm species on the “Cold Hardy Palms for Galveston County of the Texas Upper Gulf Coast” list published by the Texas A&M System AgriLife Extension Service.

Palms planted as a requirement of this Section shall be inspected by the City Arborist, if applicable, for viability two years after planting. If the replacement palms are found to be dead or dying, they must be replaced following notification by the City. A planting plan and schedule shall be submitted within 45 days from the notification by the City. Failure to replace according to the approved planting plan and schedule shall constitute a violation of these regulations.

C. Palm Mitigation Fund. In lieu of the palm replacement requirements, mitigation may be achieved through the contribution to an account dedicated to landscaping and palms for the City. The mitigation amount shall be established by the City Council as part of the annual budget process:

1. \$125 per foot of palm removed.

D. Combination. Mitigation may be achieved through a combination of palm replacement and payment to the palm mitigation fund provided that the total of caliper inches approved for removal are mitigated.

E. Exempted Palms. Palms that are being grown and removed for agricultural purposes; or palms that are certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the

Development Services Director as having one or more of the following conditions are exempted from the replacement requirements of this section:

- a. Unhealthy or structurally unsound;
- b. Damaged by natural causes beyond the point of recovery;
- c. Diseased beyond the point of recovery;
- d. Poses a threat to the public and must be removed as a safety measure; or
- e. No longer living.

SEC. 9.603 PALM PLANTING AND MAINTENANCE

A. Recommended Maintenance Best Practices.

- 1. Trimming is recommended to remove dead or dying fronds in order to prevent breakage, eliminate nesting places for pests, and reduce fire and visual hazards.
- 2. In order to avoid seeding, trimming should occur between June and July.
- 3. In order to prevent the spread of disease, including Fusarium wilt, all tools should be cleaned and disinfected between trimming each palm by one of the following methods:

<u>Material*</u>	<u>% Solution</u>	<u>Minimum Soaking Time</u>
<u>Household Bleach</u>	<u>25% (1 part bleach + 3 parts water)</u>	<u>5 minutes</u>
<u>Pine oil cleaner</u>	<u>25% (1 part bleach + 3 parts water)</u>	<u>5 minutes</u>
<u>Rubbing alcohol (70% isopropyl)</u>	<u>25% (1 part bleach + 3 parts water)</u>	<u>5 minutes</u>
<u>Denatured ethanol (95%)</u>	<u>25% (1 part bleach + 3 parts water)</u>	<u>5 minutes</u>

*the above materials were shown to be effective in eliminating fungus from the wood dust or palm sap trapped on pruning tools (Simone 1998). It is suggested that the solution be replaced after 10 palms or every 2 hours. Rinse the tool with fresh water after soaking. Other potential disinfectants include trisodium phosphate or quaternary ammonium salts. The latter is recommended at a 5% solution, soaking for five minutes (Smith, Smith, and Clements 2003). Information courtesy of the University of Florida FAS Extension Service

- 4. Remove only those fronds that are brown and pointing down. Do not remove green fronds, doing so may cause the palm stress. Leave as many green fronds as you possibly can on the palm. Palms need many green

fronds to produce a steady food supply so that the plant can grow. A palm cannot stay healthy and build reserves without a considerable number of green fronds.

SEC. 9.604 OFFENSE

- A. It is a violation of this section to perform activities that may result in the decline in health and/or death of a significant palm, including but not limited to excessive pruning of fronds and destruction of the trunk.

SECTION 3. It is hereby declared to be the intention of the City Council that the sections, paragraphs, sentences, clauses, and phrases of this Ordinance are severable and, if any phrase, clause, sentence, paragraph or section of this Ordinance should be declared invalid by the final judgment or decree of any court of competent jurisdiction, such invalidity shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Ordinance.

SECTION 4. All Ordinances or parts thereof in conflict herewith are repealed to the extent of such conflict only.

SECTION 5. In accordance with the provisions of Section 12 and 13 of Article II of The City Charter this Ordinance has been publicly available in the office of the City Secretary for not less than 72 hours prior to its adoption; that this Ordinance may be read and published by descriptive caption only.

SECTION 6. This Ordinance shall be and become effective from and after its adoption and publication in accordance with the provisions of The Charter of the City of Galveston.

APPROVED AS TO FORM:

DONNA M. FAIRWEATHER
ASSISTANT CITY ATTORNEY

I, Janelle Williams, Secretary of the City Council of the City of Galveston, do hereby certify that the foregoing is a true and correct copy of an Ordinance adopted by the City Council of the City of Galveston at its Regular meeting held on February 27, 2020, as the same appears in records of this office.

IN TESTIMONY WHEREOF, I subscribe my name hereto officially under the corporate seal of the City of Galveston this _____ day of _____, 2020.

Secretary for the City Council
of the City of Galveston



19ZA-006

STAFF REPORT

APPLICANT:

City of Galveston

REQUEST:

Text Amendment

APPLICABLE ZONING LAND USE

REGULATIONS:

Article 9 Landscaping

PROPOSED TEXT AMENDMENT:

Include a new section in Article 9 to provide protection for palms

EXHIBITS:

A – Text Amendment – August 2, 2019 Version

B – Text Amendment – Current Draft

C – Examples of Palms

STAFF:

Catherine Gorman, AICP
Assistant Director/HPO
409-797-3665
cgorman@galvestontx.gov

Background:

In 2017, City Council directed the Tree Committee to develop a proposal for protecting palms. Palms are not included in the existing protections for trees due to the fact that palms are technically classified as a grass. The Tree Committee presented a proposal in the Summer of 2018. At that time, City Council directed the Tree Committee to develop a new proposal focusing on protecting only certain palm species.

On August 6, 2019, the Planning Commission reviewed the Tree Committee's proposal and voted unanimously to recommend approval. Before the proposal was reviewed by the City Council, the Tree Committee received public comment that it wanted to address. The current proposal includes additional species for protections and modified heights. Attachment A includes the previous proposal. Attachment B includes the current proposal with the items that have changed highlighted in yellow.

On January 7, 2020, the Planning Commission reviewed again and made some additional recommended changes. Those changes are highlighted in green and include to:

1. Clarify that a permit is required to remove a significant palm;
2. Remove references to trees; and
3. Clarify that it is a violation to perform activities to significant palms that results in a decline in health or death.

Executive Summary:

At the June 25, 2019 meeting, the Tree Committee voted to recommend the following:

1. Include protection for palms as a new division in Article 9: Landscaping. The previous proposal included palms in Division 9.500: Tree Protection. The establishment of a new division will clearly differentiate palm protections from tree protections;
2. Identifies the five species that will be protected (see Attachment B for examples) and provides the heights each palm species must be to be considered "significant" and to have protection from removal;
3. Provides standards for removal, replacement, and mitigation; and
4. Provides best practices for planting and maintenance.

At the October 29, 2019 meeting, the Tree Committee further voted to recommend the following:

1. Addition palm species for protection; and
2. Modification of some heights at which to consider palms "Significant."

Criteria for Text Amendments

Per Section 13.700: Text Amendments of the Land Development Regulations:

Recommendations and decisions regarding petitions for amendments to the text of these regulations are legislative in nature, but shall be based on consideration of all the following criteria:

1. The proposed amendment will help to implement the adopted City of Galveston 2011 Comprehensive Plan or if it involves a topic that is not addressed or not fully developed in the City of Galveston 2011 Comprehensive Plan, the proposed amendment will not impair the implementation of the adopted City of Galveston 2011 Comprehensive Plan and other adopted special-area and special-topic plans when compared to the existing regulations.
2. The proposed amendment is consistent with the stated purposes of these regulations.
3. The proposed amendment will maintain or advance the public health, safety, or general welfare.
4. The proposed amendment will help to mitigate adverse impacts of the use and development of land on the natural or built environment, including, but not limited to mobility, air quality, water quality, noise levels, storm water management, wildlife protection, and vegetation or will be neutral with respect to these issues.
5. The proposed amendment will advance the strategic objectives of the City Council such as fiscal responsibility, efficient use of infrastructure, public services, and other articulated City objectives.

Per Section 13.700: Text Amendments of the Land Development Regulations:

Purposes: Text amendment proposals shall serve the following purposes:

1. Advancing the goals, objectives and policies of the City's Comprehensive Plan and other adopted special-area and special-topic plans;
2. Securing adequate light, air, convenience of access, and safety from fire, flood and other danger;
3. Lessening or avoiding congestion in public ways; Promoting the public health, safety, comfort, morals, convenience and general welfare; and Otherwise accomplishing the purposes of Texas Local Government Code Chapter 211, Municipal Zoning Authority.

Consideration for Text Amendments

Considerations: In preparation and considering proposals for text amendments, the Planning Commission and City Council shall pay reasonable regard to:


1. The Comprehensive Plan and related plans;

2. Current conditions and the character of current uses and structures in each district;
3. The most desirable use for which the land in each district is adapted;
4. The conservation of property values throughout the jurisdiction; and
5. Responsible development and growth.

Other Reviews

The Tree Committee reviewed at their October 29, 2019 meeting and voted to recommend approval. The vote was five in favor and one in opposition. The Planning Commission reviewed at their January 7, 2020 and unanimously voted to recommend approval.

Respectfully Submitted,



Catherine Gorman, AICP
Assistant Director/HPO

1/8/2020

Date

Division 9.600 Palm Preservation

SEC. 9.601 PROTECTION OF EXISTING SIGNIFICANT PALMS

A. Generally. Sites shall be designed to preserve existing palms and palm stands that are considered “significant” as provided in this Section. Palms contribute to Galveston’s appearance as a sub-tropical island, support the tourism industry, and are storm resistant. Mature palms may be of monetary value and can be easily transplanted.

For the purposes of this Division:

1. A palm is defined as any of a family (Palmae synonym Arecaceae) of mostly tropical or subtropical monocotyledonous palms, shrubs, or vines with usually a simple stem and a terminal crown of large pinnate or fan-shaped leaves.
2. Palm height shall be measured from ground level to the base of the growth point.
3. A significant palm shall be considered the following:
 - a. Phoenix Date Palm (*Phoenix dactylifera sylvestri (canariensis)*), not including Robleini, at 10 feet in height;
 - b. Pindo Palm (*Butia capitata*) at 10 feet in height;
 - c. Sabal Palm (*Sabal Mexicana*) at 14 feet in height;
 - d. Washingtonia Palm (*Washingtonia filifera*) at 25 feet in height; and
 - e. Washingtonia Palm (*Washingtonia Robusta* and crosses) at 30 feet in height.

3. A significant palm stand is a group of palms that cover a total of at least 10,000 square feet of ground area.

B. Removal of Significant Palms and Stands of Palms. The City Manager or City Arborist, if applicable, may approve the removal of a significant palm or palm stand if it is demonstrated that the following are being met. It is highly encouraged that, in the case that palm removal is approved, the applicant consider transplanting the palms within the site or providing the palms to an interested third party for transplantation.

1. No reasonable alternative site design at the same development intensity could be approved that:
 - a. Would preserve the palm(s);
 - b. If large-scale preservation is not possible, would preserve the largest of the palms; or
 - c. If protection of the largest palm(s) is not possible, would preserve a greater number of palms than the proposed development design.
2. It is located within 10 feet of an approved building footprint of new construction or addition;
3. It is located within 6 feet of a utility easement and would interfere with the use of the easement as determined by the City Engineer;
4. It is located within 8 feet of an approved outdoor recreation area that by its nature requires the removal of the palms, such as ball fields;

5. It is ordered removed by the City Manager for other emergency reasons;
6. It is being grown and removed for agricultural purposes; or
7. It is certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the Director of Development Services as having one or more of the following conditions:
 - a. Unhealthy or structurally unsound;
 - b. Damaged by natural causes beyond the point of recovery;
 - c. Diseased beyond the point of recovery;
 - d. Poses a threat to the public and must be removed as a safety measure; or
 - e. No longer living.

C. Removal of Palm Stands. Palm stands may be located across multiple parcels. In the event of an approved removal of a portion of a palm stand, the owner is encouraged to coordinate with adjacent property owners in order to reduce negative effects to the overall palm stand.

D. Exempted Palms. Palms of any size that appear on the Invasive and Noxious Weeds list for the State of Texas promulgated by the United States Department of Agriculture or on the Texas Noxious and Invasive Plants list promulgated by the Texas Department of Agriculture are exempted from this Section and may be removed. Identification by an International Society of Arboriculture Certified Arborist and/or degreed Forester is recommended.

SEC. 9.502 PALM REPLACEMENT

A. Generally. The removal of significant palms or palm stands must be mitigated. All requests for the removal of significant palms or palm stands shall be accompanied by a palm mitigation plan. Mitigation shall be achieved by the planting of the same amount of trunk feet removed, payment to the mitigation fund, or combination thereof.

B. Palm Replacement Required. Significant palms or palm stands that are approved for removal shall be replaced based on one foot of trunk height planted for one foot of trunk height removed. All replacement shall occur on the property on which the removal occurred. Replanting plan to be reviewed and approved by the City Arborist. All new palm species shall be from among palm species on the "Cold Hardy Palms for Galveston County of the Texas Upper Gulf Coast" list published by the Texas A&M System AgriLife Extension Service.

Palms planted as a requirement of this Section shall be inspected by the City Arborist, if applicable, for viability two years after planting. If the replacement palms are found to be dead or dying, they must be replaced following notification by the City. A planting plan and schedule shall be submitted within 45 days from the notification by the City. Failure to replace according to the approved planting plan and schedule shall constitute a violation of these regulations.

C. Palm Mitigation Fund. In lieu of the palm replacement requirements, mitigation may be achieved through the contribution to an account dedicated to landscaping and palms for the City. The mitigation amount shall be established by the City Council as part of the annual budget process:

1. \$125 per foot of palm removed.

D. Combination. Mitigation may be achieved through a combination of palm replacement and payment to the palm mitigation fund provided that the total of caliper inches approved for removal are mitigated.

E. Exempted Palms. Palms that are being grown and removed for agricultural purposes; or palms that are certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the Development Services Director as having one or more of the following conditions are exempted from the palm replacement requirements of this section:

- a. Unhealthy or structurally unsound;
- b. Damaged by natural causes beyond the point of recovery;
- c. Diseased beyond the point of recovery;
- d. Poses a threat to the public and must be removed as a safety measure; or
- e. No longer living.

SEC. 9.503 PALM PLANTING AND MAINTENANCE

A. Recommended Maintenance Best Practices.

- 1. Trimming is recommended to remove dead or dying fronds in order to prevent breakage, eliminate nesting places for pests, and reduce fire and visual hazards.
- 2. In order to avoid seeding, trimming should occur between June and July.
- 3. In order to prevent the spread of disease, including Fusarium wilt, all tools should be cleaned and disinfected between trimming each palm by one of the following methods:

Material*	% Solution	Minimum Soaking Time
Household bleach	25% (1 part bleach + 3 parts water)	5 minutes
Pine oil cleaner	25% (1 part cleaner + 3 parts water)	5 minutes
Rubbing alcohol (70% isopropyl)	50% (1 part alcohol + 1 part water)	5 minutes
Denatured ethanol (95%)	50% (1 part ethanol + 1 part water)	5 minutes

*the above materials were shown to be effective in eliminating fungus from the wood dust or palm sap trapped on pruning tools (Simone 1998). It is suggested that the solution be replaced after 10 trees or every 2 hours. Rinse the tool with fresh water after soaking. Other potential disinfectants include trisodium phosphate or quaternary ammonium salts. The latter is recommended at a 5% solution, soaking for five minutes (Smith, Smith, and Clements 2003). Information courtesy of the University of Florida FAS Extension Service.

- 4. Remove only those fronds that are brown and pointing down. Do not remove green fronds, doing so may cause the palm stress. Leave as many green fronds as you possibly can on the palm. Palms need many green fronds to produce a steady food supply so that the plant can grow. A palm cannot stay healthy and build reserves without a considerable number of green fronds.

Division 9.600 Palm Preservation

SEC. 9.6 01 PROTECTION OF EXISTING SIGNIFICANT PALMS

A. Generally. Sites shall be designed to preserve existing palms and palm stands that are considered “significant” as provided in this Section. Palms contribute to Galveston’s appearance as a sub-tropical island, support the tourism industry, and are storm resistant. Mature palms may be of monetary value and can be easily transplanted.

For the purposes of this Division:

1. A palm is defined as any of a family (Palmae synonym Arecaceae) of mostly tropical or subtropical monocotyledonous palms, shrubs, or vines with usually a simple stem and a terminal crown of large pinnate or fan-shaped leaves.
2. Palm height shall be measured from ground level to the base of the growth point.
3. A significant palm shall be considered the following:
 - a. Date Palms:
 1. Canary Island Date Palm (*Phoenix canariensis*) at 8 feet in height;
 2. Phoenix Date Palm (*Phoenix dactylifera sylvestri (canariensis)*), not including Pygmy Date Palm (*Phoenix roebelenii*), at 10 feet in height;
 - b. Pindo Palm (*Butia capitata*) at 5 feet in height;
 - c. Sabal Palm (*Sabal mexicana*) at 8 feet in height;
 - d. Washingtonia Palm (*Washingtonia filifera*) at 15 feet in height;
 - e. Washingtonia Palm (*Washingtonia robusta* and crosses) at 20 feet in height;
 - f. Blue Hesper (*Brahea armata*) at 8 feet in height;
 - g. Chinese fan (*Livistona chinensis*) at 8 feet in height; and
 - h. Bismarck (*Bismarkia nobilis*) at 8 feet in height.
4. A significant palm stand is a group of palms that cover a total of at least 10,000 square feet of ground area, regardless of the height of the palms or the shape of the stand.

B. Removal of Significant Palms and Stands of Palms. The City Manager or City Arborist, if applicable, may approve the removal of a significant palm or palm stand if it is demonstrated that the following are being met. It is highly encouraged that, in the case that palm removal is approved, the applicant consider transplanting the palms within the site or providing the palms to an interested third party for transplantation.

1. No reasonable alternative site design at the same development intensity could be approved that:
 - a. Would preserve the palm(s);
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 - c. If protection of the largest palm(s) is not possible, would preserve a greater number of palms than the proposed development design.
2. It is located within 10 feet of an approved building footprint of new construction or addition;

3. It is located within 6 feet of a utility easement and would interfere with the use of the easement as determined by the City Engineer;
4. It is located within 8 feet of an approved outdoor recreation area that by its nature requires the removal of the palms, such as ball fields;
5. It is ordered removed by the City Manager for other emergency reasons;
6. It is being grown and removed for agricultural purposes; or
7. It is certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the Director of Development Services as having one or more of the following conditions:
 - a. Unhealthy or structurally unsound;
 - b. Damaged by natural causes beyond the point of recovery;
 - c. Diseased beyond the point of recovery;
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C. Removal of Palm Stands. Palm stands may be located across multiple parcels. In the event of an approved removal of a portion of a palm stand, the owner is encouraged to coordinate with adjacent property owners in order to reduce negative effects to the overall palm stand.

D. Exempted Palms. Palms of any size that appear on the Invasive and Noxious Weeds list for the State of Texas promulgated by the United States Department of Agriculture or on the Texas Noxious and Invasive Plants list promulgated by the Texas Department of Agriculture are exempted from this Section and may be removed. Identification by an International Society of Arboriculture Certified Arborist and/or degreed Forester is recommended.

E. Permit Required. A permit shall be obtained by the property owner prior to authorizing or subjecting a significant palm to removal.

SEC. 9.502 PALM REPLACEMENT

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Palms planted as a requirement of this Section shall be inspected by the City Arborist, if applicable, for viability two years after planting. If the replacement palms are found to be dead or dying, they must be replaced following notification by the City. A planting plan and schedule shall be submitted within 45 days from the notification by the City. Failure to replace according to the approved planting plan and schedule shall constitute a violation of these regulations.

C. Palm Mitigation Fund. In lieu of the palm replacement requirements, mitigation may be achieved through the contribution to an account dedicated to landscaping and palms for the City. The mitigation amount shall be established by the City Council as part of the annual budget process:

1. \$125 per foot of palm removed.

D. Combination. Mitigation may be achieved through a combination of palm replacement and payment to the palm mitigation fund provided that the total of caliper inches approved for removal are mitigated.

E. Exempted Palms. Palms that are being grown and removed for agricultural purposes; or palms that are certified to the City by an International Society of Arboriculture Certified Arborist, degreed Forester, or determined by the Development Services Director as having one or more of the following conditions are exempted from the **tree** replacement requirements of this section:

- a. Unhealthy or structurally unsound;
- b. Damaged by natural causes beyond the point of recovery;
- c. Diseased beyond the point of recovery;
- d. Poses a threat to the public and must be removed as a safety measure; or
- e. No longer living.

SEC. 9.503 PALM PLANTING AND MAINTENANCE

A. Recommended Maintenance Best Practices.

1. Trimming is recommended to remove dead or dying fronds in order to prevent breakage, eliminate nesting places for pests, and reduce fire and visual hazards.
2. In order to avoid seeding, trimming should occur between June and July.
3. In order to prevent the spread of disease, including Fusarium wilt, all tools should be cleaned and disinfected between trimming each palm by one of the following methods:

Material*	% Solution	Minimum Soaking Time
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Denatured ethanol (95%)	50% (1 part ethanol + 1 part water)	5 minutes

*the above materials were shown to be effective in eliminating fungus from the wood dust or palm sap trapped on pruning tools (Simone 1998). **tree** is suggested that the solution be replaced after 10 **tree-palms** or every 2 hours.

Rinse the tool with fresh water after soaking. Other potential disinfectants include trisodium phosphate or quaternary ammonium salts. The latter is recommended at a 5% solution, soaking for five minutes (Smith, Smith, and Clements 2003). Information courtesy of the University of Florida FAS Extension Service.

4. Remove only those fronds that are brown and pointing down. Do not remove green fronds, doing so may cause the palm stress. Leave as many green fronds as you possibly can on the palm. Palms need many green fronds to produce a steady food supply so that the plant can grow. A palm ~~tree~~ cannot stay healthy and build reserves without a considerable number of green fronds.

SEC. 9.504 OFFENSE

- A. It is a violation of this section to perform activities that may result in the decline in health and/or death of a significant palm, including but not limited to excessive pruning of fronds and destruction of the trunk.

COG Case Study

History of survey work

1969 – East End and Strand Mechanic

1988 – Silk Stocking

1994 – Lost Bayou

2019 – Mid-Century Modern

Funding sources

How to get work done

Volunteers

Staff

Students

Consultants

Working with Consultants

Procurement procedures

RFP vs. RFQ

Selection Process

Contract Acceptance

Consultant Management

Quality Control – new construction example

Close out

Tips

Reread the contract

Reread the original proposal