



GREENPEACE CONSULTING
Arborist, LLC

Arboriculture Tree Report 1125 Hardee Rd, Coral Gables

To: FXD Construction
Attn: Danny Sanchez

Date: January 30th, 2026
Phone: (786)973-0590
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Prepared by: Trea Jones
International Society of Arboriculture Certified Arborist

Certification of Performance

I, Trea Jones certify to the best of my knowledge, and abilities:

That I have personally inspected the tree(s) and or the property referred to in this report.

That it is my professional opinion, that the following report is true, and the conclusions and results stated are correct based on the information received about the property evaluated and the evaluation methods followed.

That the reported analyses, opinions, and conclusions are only limited by the reported assumptions, methods and limiting conditions and my personal, unbiased professional analyses, opinions and conclusions.

That Green Peace Consulting Arborist, LLC. acts as an independent tree, and landscape consultant. This firm has no prospective or current interest in the property evaluated or interest/bias with respect to the parties involved.

That this Report, or parts of this Report, have not been revealed to any party other than the Client named and will not be revealed to any other party unless authorized to do so by Client named or by due process of law or by legally required public testimony by this firm of these results.

This report is written in good faith and all rights are reserved by Green Peace Consulting Arborist, LLC. It is for use by the client named only.

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Report

I. Introduction

This is a single-family residential property. My assignment is to evaluate one specific tree on site for its health and condition. The reason for my site visit is that, during the construction of the property, a truck hit the lower first-order branch, causing it to fail and rip off the trunk.

II. Property Involved

The property involved is known as 1125 Hardee Rd, Coral Gables, FL 33146. I arrived on site 01-28-2026.

III. Data Collection

The property/trees were evaluated by site visit to determine environmental conditions, species, size (DBH and height) condition as a percentage and pictures.

IV. Limiting Conditions

This “Arboriculture Report” includes only the listed trees, landscape conditions in the immediate area where the tree is located, and conditions caused by or attributable to the trees on this property. We did not evaluate and make no evaluation or conclusions regarding any other part of the landscape or other items of this property.

Limits of the Assignment

1. This report is not intended as and does not represent legal advice and should not be relied upon to take the place of such advice.
2. This report is limited to documenting the condition of the tree on the dates given. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant can neither guarantee nor be responsible for the accuracy of information provided by others.
3. Loss or alteration of any part of this report invalidates the entire report.
4. Sketches and photographs used in this report are intended as visual aids only and are not necessarily to scale.

V. Discussion

A landscape is not a forest, woods, or other wild habitat. It is intended to be a planned and controlled environment. Trees can cause considerable damage to structures when not planted in the right locations based on species and mature size. Trees should be planted with adequate green space for mature tree size both above and below ground in-order to prevent conflicts with structures above and below ground. The appearance and value of a landscape suffer, and the

property devaluates due to poor tree selection and placement.

Poorly planned landscapes also give rise to possible property damage, bodily injury and other negative circumstances and unnecessary expenses

Professionally designed and professionally maintained landscape, plants, shrubs, and trees traditionally stabilize and/or increase property values.

Trees growing in groups depend on each member of the group for stability of their root systems, wind breaks and shade. They work as one unit and appear as one from an aerial view. The loss of one or more from the group can and does have a detrimental effect on health, stability as well as aesthetics.

Most tree roots grow out horizontally from the tree in the top 6-12 inches of soil. A mature tree's roots can spread 2-3 times the diameter of the tree's crown or canopy.

Critical Root Zone (CRZ)

For existing trees, there is a minimum amount of area, above (for the trunk and crown) and below ground (for soil health and the root system vitality) that is required to protect trees and preserve tree health. This area is identified as the Critical Root Zone (CRZ) and is generally agreed to be equivalent to the soil area below ground and the space above ground defined by the tree’s dripline, or the greatest extent of the branches. Significant risk of catastrophic failure exists if structural roots within this given radius are destroyed or severely damaged. Limits of disruption are based upon tree diameter (DBH) at 4.5 feet above the ground. We define the Critical Root Zone for all trees as the circular area above and below ground with a radius equivalent to the greater of 6 feet or 1.0 feet for every inch in trunk diameter at 4.5 feet above the ground. For example, a tree with a trunk diameter (DBH) of 10 inches has a CRZ of 10 feet (10 inches x 1.0) around the tree. While the radius of the CRZ is 10 feet, the diameter of the entire CRZ is 20 feet.

Generally, the full Perimeter (PCRZ) is considered the optimum amount of root protection for a tree. (The ICRZ is identified as the inner half of the CRZ radius). As root impact occurs within the PCRZ, greater post care will be required for the tree to remain alive and stable. The absolute maximum disturbance allowed must still leave the ICRZ undisturbed if the tree is to have any chance of survival.

The CRZ (Critical Root Zone) is calculated at 1” of root for each inch of trunk diameter at or near breast height (dbh). This gives the radius of the CRZ.

Example:

Tree Diameter	CRZ	Tree Diameter	CRZ
2" diameter	2' radius	16" diameter	16' radius
4" diameter	4' radius	20" diameter	20' radius
6" diameter	6' radius	24" diameter	24' radius
10" diameter	10' radius	30" diameter	30' radius
12" diameter	12' radius	40" diameter	40' radius

The CRZ of a tree, also called the “tree protection zone”, is often defined as an imaginary circle on the ground that corresponds with the “dripline” of the tree. However, the dripline

is very irregular and misleading, so the trunk diameter is referred to.

This is a generally accepted method for measuring CRZ, root systems do vary in depth and spread based on size of tree, soil quality, water table, species, and other related factors such as root obstructions. If the rooting area is restricted by structures, soil compaction, impermeable soil layers, excessive soil water, or a high-water table, the root system may not develop well enough to adequately anchor the tree.

Tree trimming

As trees grow in the landscape it is not uncommon for structural defects to develop unless structure pruning is performed throughout the years leading up to tree maturity. Structural deficiencies such as co-dominant leaders with inclusions are the most common points of failure. I recommend removing hazardous trees and mitigating the hazards some trees create due to poor structure using acceptable arboriculture practices. Acceptable practices used may be one of the following methods or a combination of, removing or reducing leaders/branches with poor unions, cabling and or bolting to reduce risk of failure.

Please see links below for more information.

<https://hort.ifas.ufl.edu/woody/structural-pruning-flash.shtml> and https://www.isa-arbor.com/events/conference/proceedings/2013/GILMAN_Structural%20Pruning.pdf

Trees or parts of trees may fail and cause injury to people or property. It is important to evaluate trees for risk. While all trees have the potential to fail, only a small number hit something or someone (a target). There is no such thing as a completely “safe” tree.

Branch bark collar

The branch bark collar is a critical area found at the base of a branch where it connects to the trunk or parent branch. This specialized zone, often characterized by a slightly raised or swollen area, contains a ring of cells that help compartmentalize the wound created during pruning. It is imperative to stress the importance of retaining the branch bark collar during pruning, as it serves as a natural barrier that aids in the healing process and prevents the spread of decay into the main trunk. Understanding and preserving the branch bark collar is fundamental to this approach in promoting optimal tree health and structural integrity through judicious pruning techniques.

Compartmentalization

Compartmentalization in trees is a natural defense mechanism that isolates wounded or decayed areas to prevent the spread of pathogens. Unlike humans, who can regenerate tissue to heal wounds, trees cannot replace damaged tissues. Instead, they form chemical and physical barriers, known as the CODIT (Compartmentalization Of Decay In Trees) model, to contain decay. This process involves four walls that prevent the vertical, inward, and lateral spread of decay, with the fourth wall being the most critical as it isolates the wound completely. The effectiveness of compartmentalization varies among tree species, with Live Oaks and Southern Magnolias in South Florida demonstrating strong compartmentalization, while species like Ficus and Royal Poinciana are more prone to decay. Proper pruning techniques, especially cuts made just outside the branch bark collar, are essential to support this process. The branch bark collar is a key

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anatomical feature where the branch meets the trunk and is critical for effective compartmentalization. If this area is damaged or improper cuts are made, the tree's ability to isolate decay is compromised, leading to further structural issues.

VI. Analysis

Per the stated scope of work, my assignment was limited to evaluating one specific tree on site for its current health and condition, and to provide arboricultural guidance related to a single, recent mechanical injury that occurred during construction activity. The reason for this site visit is that a construction vehicle (reported as a concrete truck) struck a lower first-order limb, causing that limb to fail and tear away from the trunk.

Tree Identification and Measured Details

The tree evaluated is a Live Oak (*Quercus virginiana*) with a measured trunk diameter of approximately 26 inches DBH. The failed limb was a lower first-order branch, reported and measured at approximately 11 inches in diameter near the remaining stub, in the vicinity of the branch bark collar. Photographs provided show a mature Live Oak with an established canopy and a large, fresh mechanical wound where the branch tore out, leaving a jagged stub and exposed wood fibers.

General Condition, Vitality, and Structure at Time of Inspection

Based on the provided information and the photographic documentation, the Live Oak is otherwise in good condition with good vitality, appropriate foliar density for the season, and generally favorable branch architecture/branch structure for a tree of this size and age class. The canopy appears functional and balanced overall, and there are no obvious indicators in the photos suggesting systemic decline. The primary defect/concern at this time is the localized wound associated with the recent branch failure.

Description of Construction-Related Limb Failure and Resulting Wound

During one phase of construction, a truck reportedly contacted the lower first-order limb with sufficient force to cause failure at the limb's attachment. The failure presents as a "rip-out" type break with torn wood fibers at the separation point. Importantly, based on your notes and the images, the fracture did not tear down the trunk in a long vertical strip, and the remaining stub appears to be outside the branch bark collar rather than ripped deeply into the trunk tissue. This distinction matters because when trunk tissue is not extensively peeled or stripped, the tree's ability to form defensive boundaries and initiate wound closure is typically far better than when trunk fibers are catastrophically torn down the main stem.

Corrective Mitigation – Restorative Pruning Cut at the Proper Location

The appropriate mitigation at this stage is a single restorative pruning cut to remove the remaining torn stub just outside the branch bark collar, leaving the branch collar intact. This cut is not cosmetic, it is a functional, biologically-driven correction intended to (1) remove fractured wood that will not recover, (2) eliminate a jagged, high-surface-area entry point for decay

organisms, and (3) preserve the tree's natural protective tissues at the branch union so the tree can wall off the injury and initiate callus/woundwood development efficiently.

The branch bark collar is not simply "extra wood." It is specialized, anatomically distinct tissue at the base of a branch union that contains stronger defensive chemistry and a different grain orientation than the branch itself. When preserved, the collar helps the tree establish a boundary around the injury and drives the circular formation of woundwood that gradually closes over the cut surface.

What a Flush Cut Is, and Why It Must Be Avoided Here

A flush cut is an improper pruning cut where the cut is made flat against the trunk, removing the branch bark collar and "shaving" into the trunk wood to make the wound look smooth and tight. In the field, flush cuts often look "cleaner" to the untrained eye because they remove the collar swelling and leave a flat plane against the stem. Biologically, however, flush cuts are one of the most damaging pruning errors a contractor can make. Especially in a restorative situation like this, because they remove the tree's protective tissues and enlarge the wound into trunk wood that the tree did not intend to expose.

A flush cut causes three predictable problems. First, it removes the collar tissues that are naturally loaded with defensive compounds and are positioned specifically to isolate injury at the union. Second, it increases wound size and depth into trunk wood, creating a larger surface area for colonization by opportunistic fungi and bacteria. Third, it slows closure because the tree now has to generate woundwood from farther away and over a larger opening, and it must defend a wound that has crossed into trunk tissues with higher functional importance.

In short: a proper cut preserves the collar and lets the tree "seal off and roll over" the injury; a flush cut strips away the tree's built-in defenses and forces the tree to fight decay deeper in the main stem.

Compartmentalization – The Defensive "Chemical Reaction" After Wounding

Trees do not heal like animals by replacing damaged tissue with identical new tissue. Instead, trees respond to injury through compartmentalization a defensive process where the tree limits the spread of dysfunction and decay by creating chemical and anatomical boundaries around the wounded area. After a branch failure or a pruning cut, the surrounding living tissues respond by initiating a cascade of defense responses that include changes in moisture movement, deposition of antimicrobial compounds, and formation of barrier tissues.

At the wound margin, living cells in the surrounding sapwood and cambial region rapidly alter their chemistry. The tree produces and accumulates protective compounds such as phenolics and other antimicrobial metabolites that make the adjacent tissues less hospitable to decay organisms. In many hardwoods, the tree will also reduce the movement of water and oxygen into the affected zone by plugging conductive elements and depositing protective substances in cell walls. Over time, as the tree transitions from immediate defense to longer-term containment, it forms new tissues around the wound perimeter. The cambium produces callus that later

differentiates into woundwood, which gradually grows inward from the wound edge, forming the rolling “donut-like” closure typical around properly located pruning cuts.

The critical point is this: the tree’s best defensive boundary is established when the injury is kept outside the branch bark collar and does not unnecessarily violate trunk tissues. Preserving the collar helps the tree define the injury as “branch tissue loss” rather than “trunk tissue loss,” and that improves the tree’s ability to isolate the damage.

Why Live Oak Is Generally a Good Compartmentalizer

Live Oak (*Quercus virginiana*) is widely regarded as a strong compartmentalizing species when compared to many other landscape trees, particularly when wounds are properly located and the tree is vigorous. Oaks commonly form effective boundaries that restrict the spread of discoloration and decay relative to species that are weak compartmentalizers. In practical terms, when a Live Oak is healthy and a cut is made correctly outside the branch bark collar without creating a flush wound. Live Oak typically has a favorable capacity to limit internal spread of decay and to initiate woundwood formation along the wound margin.

That said, even good compartmentalizers can be set back by poor cuts. A species with strong defense responses still depends on proper pruning technique to avoid turning a manageable branch wound into a deeper trunk injury.

Expected Decay Progression if the Fractured Stub Is Left in Place

If the torn stub is left as-is, the remaining wood will be nonfunctional and will begin to desiccate. The jagged tear surface dramatically increases exposed area, traps moisture and debris, and creates irregular pockets that are highly favorable for decay fungi to colonize. A retained stub also tends to die back beyond the intended boundary, which often results in a longer period of exposed, non-compartmentalized tissue before the tree can effectively wall it off. Over time, this scenario commonly produces an expanding column of internal discoloration and decay that progresses from the dead stub inward toward the union, because the tree is forced to defend a poorly defined, irregular wound with compromised edges rather than a cleanly positioned pruning cut. In a mature tree, that can translate into avoidable internal defect development at a major union point.

Expected Decay Progression if a Flush Cut Is Made

If a flush cut is made, the risk profile shifts from “branch wound management” to “trunk wound creation.” By removing the branch bark collar and cutting into trunk tissues, the tree loses the very structures most responsible for isolating branch-related injuries. The wound becomes larger, deeper, and biologically harder to defend. In that condition, decay organisms are more likely to establish and advance within trunk wood, and closure typically takes longer because the wound edge has been pushed back into tissue that must now both defend and generate woundwood over a larger opening. Over time, flush cuts are strongly associated with increased internal decay at the union, delayed woundwood formation, and an avoidable reduction in long-term structural integrity at that point on the main stem.

Pruning Specification – Contractor-Facing Clarification

The corrective pruning should consist of a single final cut to remove the remaining stub at the proper location just outside the branch bark collar, maintaining the collar intact and avoiding any cut that planes into the trunk. The objective is to create a clean wound margin that the tree can compartmentalize efficiently while preserving the biological “defense zone” that exists at the collar. No wound paint or dressing is recommended; the tree’s defense response is internal and at the wound margin, and wound dressings do not improve compartmentalization and can sometimes create an environment that retains moisture against the wound surface.

Follow-Up and Monitoring

Following the corrective cut, the wound should be monitored over time for appropriate woundwood development (even rolling closure from the wound edge), and for any signs of progressive decay or abnormal response such as excessive cracking, persistent wetwood/oozing, or fungal fruiting bodies at or below the wound. With proper cut placement and given the tree’s reported strong vigor and generally good architecture, the prognosis for successful compartmentalization and functional recovery is favorable.

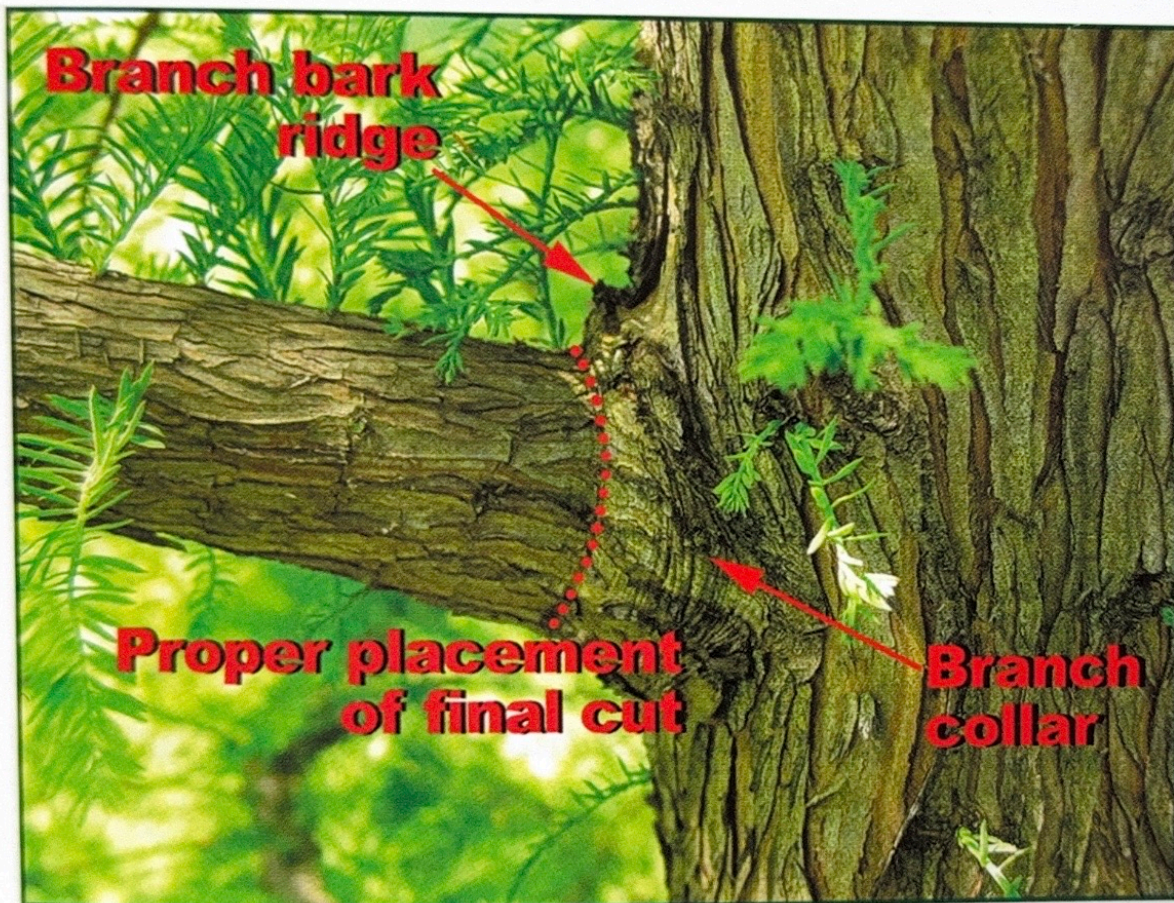
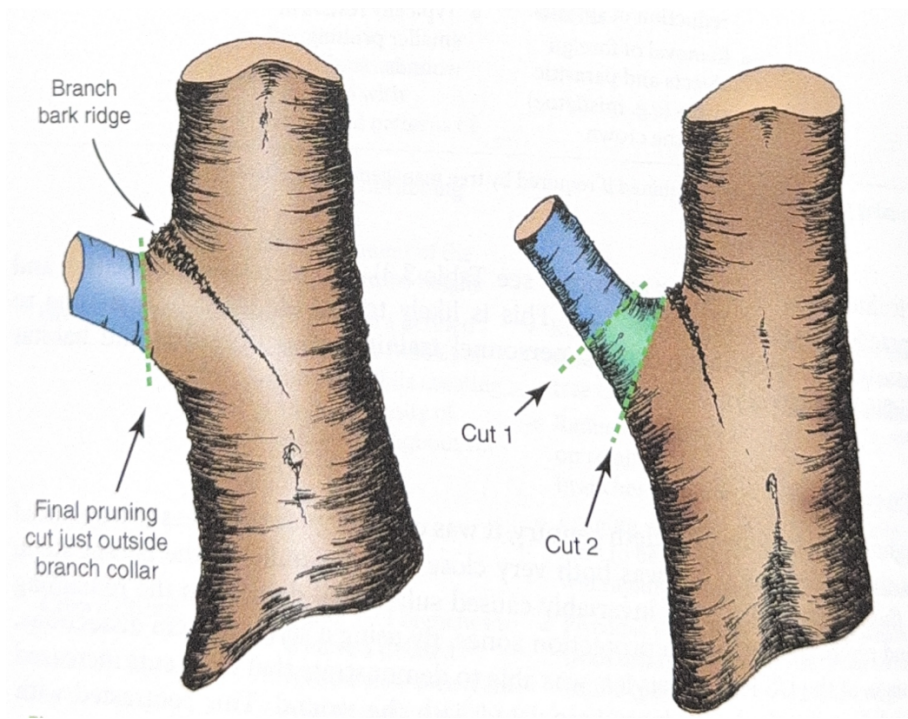
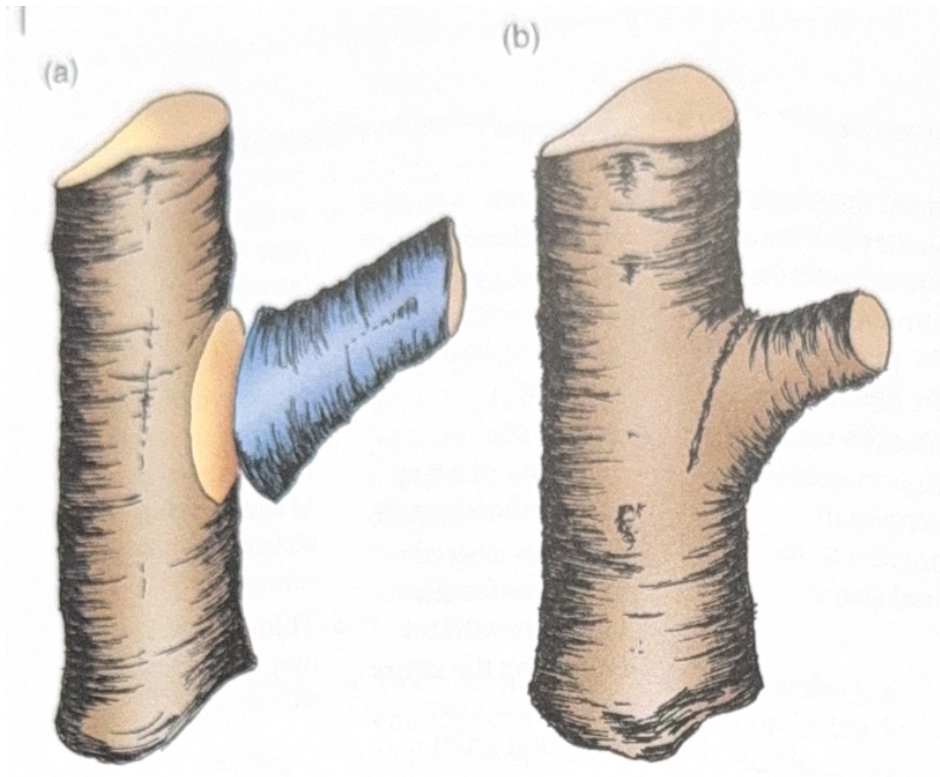


FIGURE 8.6 Cutting outside the branch collar does not damage trunk tissue.











Please feel free to contact me should you have any questions.

In Support

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TRAQ, Tree Risk Assessment Qualification

PPQ, Prescription Pruning Qualification

PMT, Professional Mangrove Trimmer

LIAF, Certified Landscape Inspector

Greenpeace Consulting Arborist is staffed by professional Arborists, Horticulturists, and Landscape Inspectors. We utilize associates with expertise in their fields to provide the most accurate, efficient and useful information available to clients. We stand behind our work and can additionally answer any questions or fulfill needs for additional information or services.

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