

Working with Trees in New Orleans

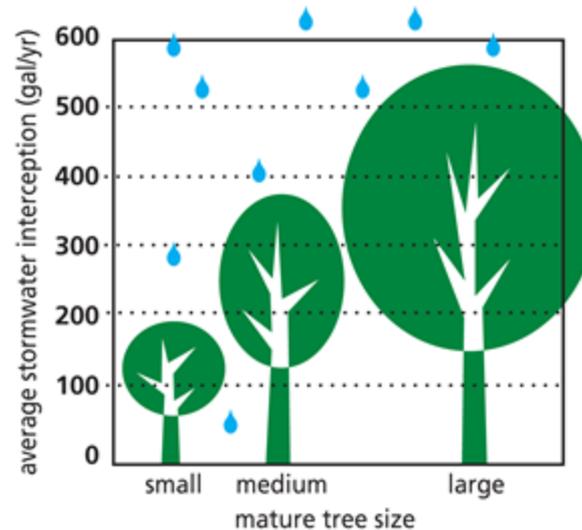


Benefits of Trees



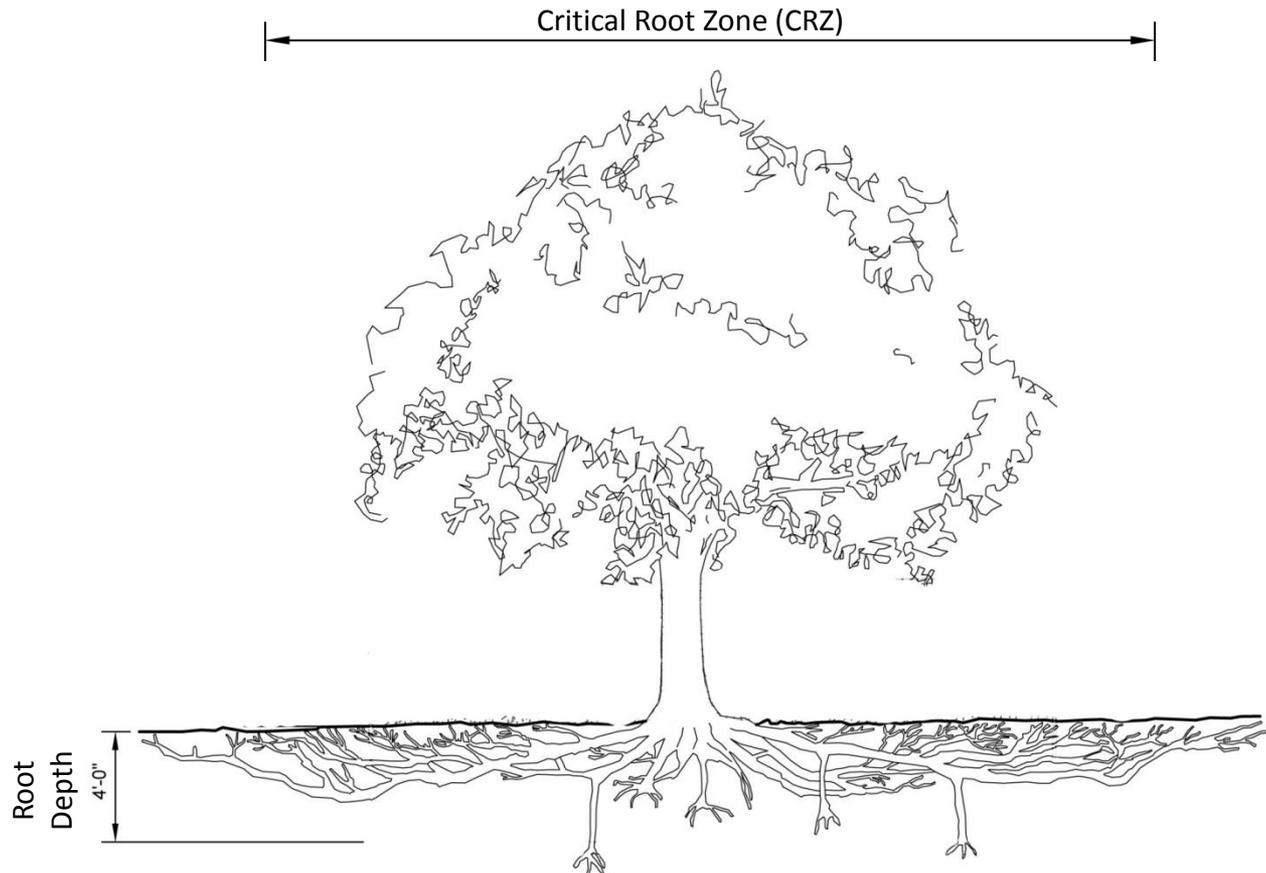
- Stormwater reduction
- Heat island/temperature reduction
- Pollution reduction
- Increased property values
- Economic impact: increased sales
- Beautification

The larger the tree, the more stormwater it can manage.



Tree Roots

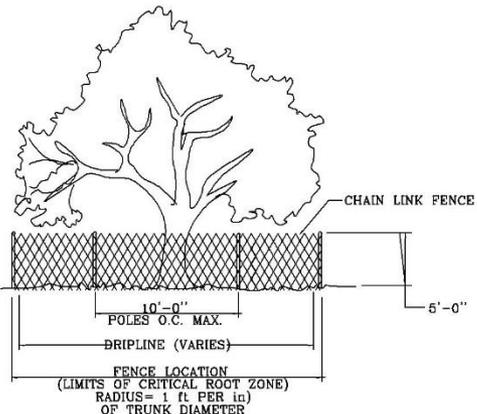
- Roots provide trees with nutrients and prevent trees from falling over.
- The critical root zone (CRZ) is the area directly under the canopy dripline.
- Digging or cutting roots within the CRZ can cause toppling of the tree or a gradual death over a period of up to 10 years.
- *Trees often die so slowly that people do not make the connection between construction damage and decline of the tree.*
- The tree root system extends beyond the canopy and to a depth of about 4 feet. 95% of the roots are in the top 2 feet of soil.



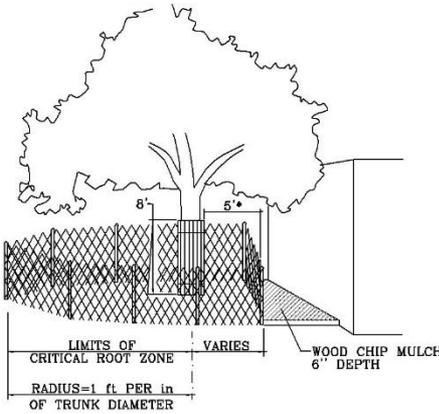
Damage Prevention

- All design contracts should stipulate that an ACCURATE tree survey is required, including size and species, as an overlay with utilities and other important site features included
- Existing trees to be preserved must be shown on all demolition, grading and site plans
- Parkways should review all plans at the earliest conceptual stage – the earlier the conflicts are identified the cheaper the solution
- Parkways should review plans again during design development and final bid document stages
- Parkways should be present at the preconstruction meeting if any trees have been identified for preservation
- Parkways should be present at the construction progress meetings if any trees have been identified for preservation

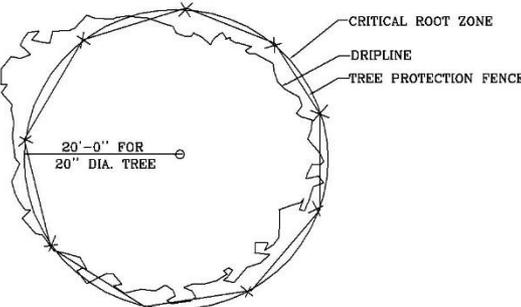
Tree Protection



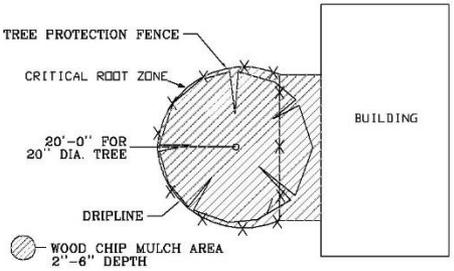
TREE PROTECTION FENCING
CHAIN LINK FENCE
N. T. S.



MODIFIED TREE PROTECTION FENCING
CHAIN LINK FENCE
N. T. S.
*AS NEEDED TO PROVIDE MINIMUM NECESSARY WORK SPACE. IF LESS THAN 5', THEN ADD BOARDS STRAPPED TO TRUNK.



TREE PROTECTION FENCING
CHAIN LINK FENCE
N. T. S.



MODIFIED TREE PROTECTION FENCING
CHAIN LINK FENCE
N. T. S.

NOTES:

- NOTICE IS TO BE POSTED ON FENCING - 15' O.C. - AND SHALL READ " <<<WARNING>> PROTECTIVE TREE FENCING. DO NOT ENTER, MOVE OR REMOVE"



STANDARD PLAN **STD10**
CITY OF NEW ORLEANS
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION

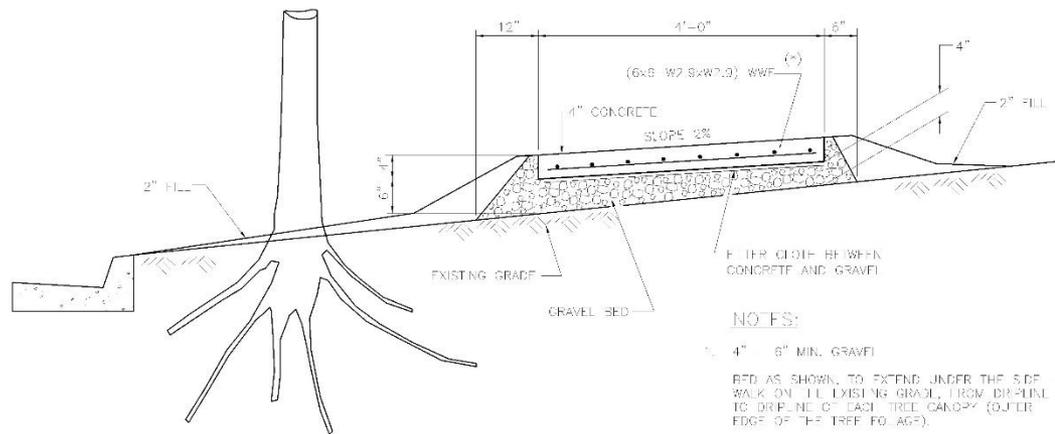
TREE PROTECTION FOR STREET CONSTRUCTION

NO.	DESCRIPTION	REVIEWED	DATE	BY	SCALE	DATE	BY
1	REVISIONS						

DESIGNED BY	R. FERJON	CHECKED BY	
DATE	XXXXXX	SCALE	AS NOTED
REV. NO.		REV. BY	
REV. DATE		REV. BY	
REV. DATE		REV. BY	

Sidewalk & Curb Projects

- The sidewalk bridging detail should be used where possible in instances of tree root conflicts.
- In some instances, it may be possible to leave existing curbs in place instead of replacement.
- In some instances, we may be able to make streets narrower in order to abandon curbs in place.



NOTES:

1. 4" - 6" MIN. GRAVEL BED AS SHOWN, TO EXTEND UNDER THE SIDEWALK ON THE EXISTING GRAVEL, FROM DRAIN TO DRAIN OR EACH TREE CANOPY (OUTER EDGE OF THE TREE CANOPY).
 2. NO MORE THAN 1.5" - 2.0" OF HILL TO BE PLACED UNDER ANY TREE CANOPY.
 3. NO EXPANSION JOINTS TO BE PLACED OVER ROOTS. ONLY "WEAKENED PLANES" SHALL BE ALLOWED.
- (*) WITH 1.5" - 2.0" COVER

SIDEWALK GRAVEL BED

REQ'D. AT EACH TREE LOCATION

N.T.S.

Sidewalk & Curb Projects

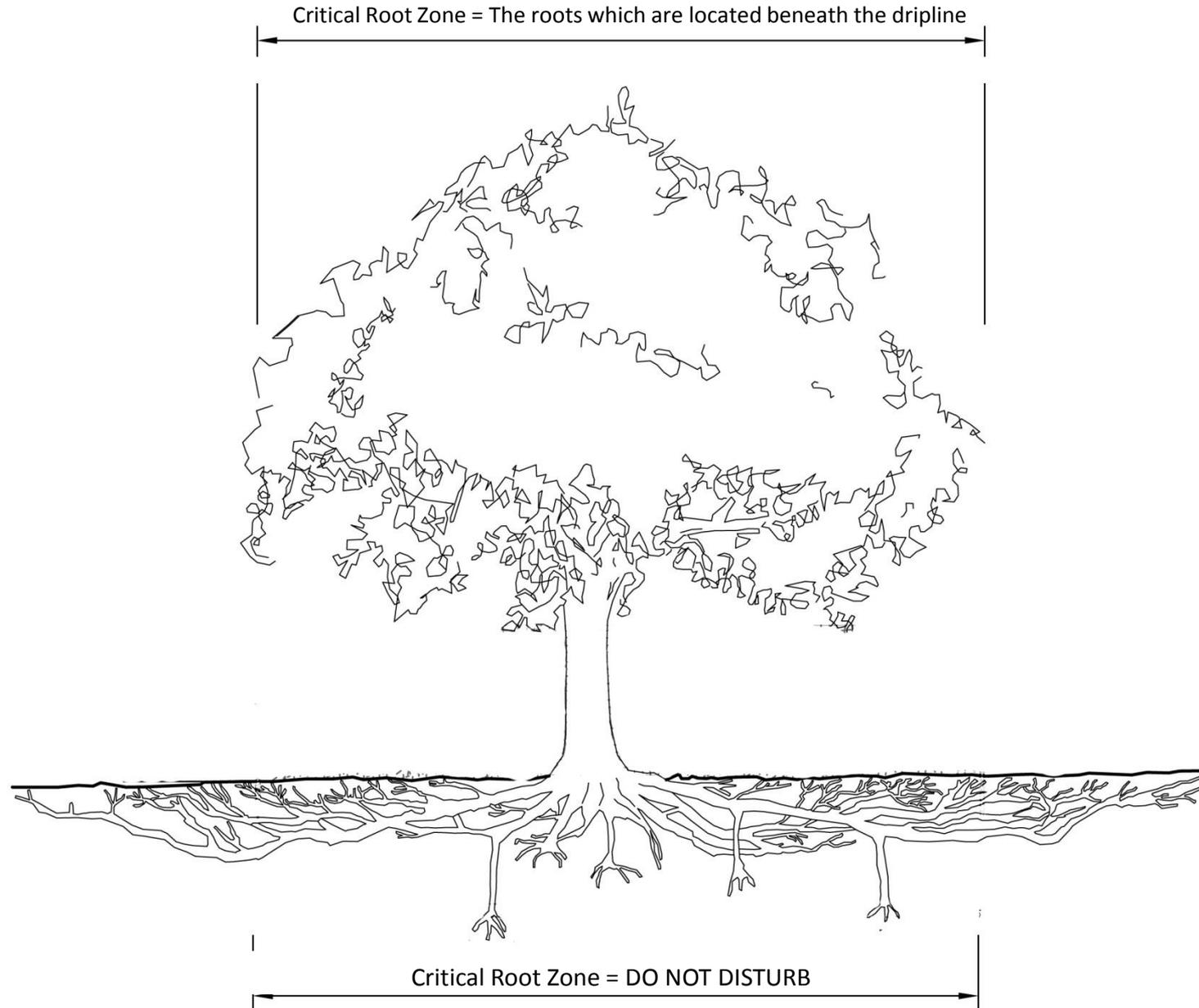
Flexipave has been installed in a few locations in an attempt to address tree root/sidewalk conflicts (pictured is 7927 St. Charles Avenue).



Working with Trees

IF DIGGING IN THE CRITICAL ROOT ZONE (CRZ) CANNOT BE AVOIDED:

1. Check to see if tunneling & boring can be used instead of trenching
2. See if work can be rerouted to outside of the CRZ
3. Contact Parks & Parkways Chief Urban Forester at (504) 658-3201
4. An licensed arborist is needed on the jobsite to minimize damage to the tree
5. If trenching cannot be avoided, airspading must occur first to locate roots. Roots must then be pruned prior to trenching.
6. Properly pruned roots with an application of root stimulant lessens the damage to the tree.
7. Aerial pruning is required based upon percentage of root loss.
8. Remediation may be required to assist the tree in recovery.



No Backhoes Near Trees!



Using backhoes anywhere near a tree will cause major damage to the tree.

Case Studies



Biomedical District (Canal Street)

The trees along Canal Street were subjected to root disturbance as a result of utility, sidewalk and other construction. The trees went into rapid decline as a result of the severity of the root damage. Canal Street will continue to lose its signature live oak canopy over the coming years.

Case Studies

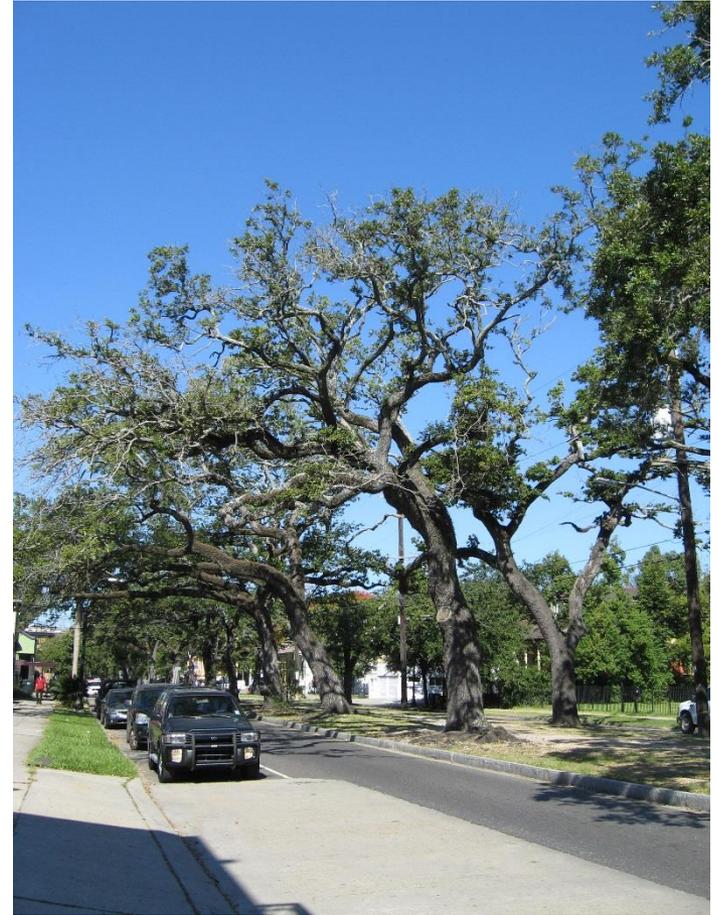


Vendome Place

This street/sidewalk project resulted in the demise of mature live oak trees, permanently changing the character of this formerly tree lined street. Some of the trees lost their structural integrity and began to lean when roots were severed. Many of the remaining trees continue to decline.



Case Studies



Esplanade Avenue

A curb replacement project resulted in the slow demise of mature live oak trees on the neutral ground many years after construction ended. Over 13 large live oaks were removed from the neutral ground in 2015, and many of the remaining trees continue to decline.

Case Studies



Time will reveal whether trees survive recent construction damage, such as the damage pictured resultant from recent installations.