

Date August 24, 2009

RESOLUTION ADOPTING TREE PRESERVATION PRINCIPLES FOR CITY PROPERTY, PUBLIC IMPROVEMENT PROJECTS AND UTILITIES

WHEREAS, there is pending before the City Council an ordinance to enact a new Article X to Chapter 42 to be known as the Tree Removal and Mitigation Ordinance, which identifies the City Council's intent to adopt policies for the preservation and planting of trees on City property and to consider tree preservation and replacement in the design and implementation of public works projects; and,

WHEREAS, the City Manager has recommended that the City Council adopt the *Tree Preservation Principles for City Property, Public Improvement Projects and Utilities* attached hereto as Exhibit "E" as such policy; NOW, THEREFORE,

BE IT RESOLVED, by the City Council of the City of Des Moines, Iowa, that the accompany document titled *Tree Preservation Principles for City Property, Public Improvement Projects and Utilities* is hereby adopted as the City's official policy regarding the preservation and planting of trees on City property and the preservation and replacement of trees in the design and implementation of public works projects.

(Council Communication No. 09- 619 )

MOVED by \_\_\_\_\_ to adopt.

FORM APPROVED:

*Roger K. Brown*  
 Roger K. Brown  
 Assistant City Attorney

COUNCIL ACTION	YEAS	NAYS	PASS	ABSENT
COWNIE				
COLEMAN				
HENSLEY				
KIERNAN				
MAHAFFEY				
MEYER				
VLASSIS				
TOTAL				

MOTION CARRIED

APPROVED

.....  
 Mayor

CERTIFICATE

I, DIANE RAUH, City Clerk of said City hereby certify that at a meeting of the City Council of said City of Des Moines, held on the above date, among other proceedings the above was adopted.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal the day and year first above written.

\_\_\_\_\_  
 City Clerk

## EXHIBIT "E"

### Tree Preservation Principals for City Property, Public Improvement Projects and Utilities

#### Introduction

In order to operate and maintain City owned infrastructure and public utilities it is necessary to repair, replace and upgrade this infrastructure in a timely and cost efficient manner. Since the City of Des Moines allows trees to be planted within City Right-of-Way (ROW) where most of this infrastructure is located, these public trees are vulnerable to the impacts of this work. The goal is to minimize the impact to the public trees with only moderate increases in cost to repair, replace and upgrade of the infrastructure. Often the impacts include removal of public trees which under private development guidelines require mitigation in the form of new trees. In order to apply the principles of mitigation to public infrastructure projects it is proposed to develop a City Tree Replacement Fund (CTRF). The application of the CTRF is further described in each section, but since it is a central concept, the CTRF is presented first.

#### City Tree Replacement Fund (CTRF)

In order to provide an effective and efficient mitigation for trees that must be removed by Public Improvements and Utilities it is proposed to establish a City Tree Replacement Fund (CTRF) in the Capital Improvement Program. This fund would be generated by the transfer of funding from various sources that fund the construction of the improvements that impact the trees. For example if a storm water utility funded project had to remove 3- 12" diameter trees there would be a transfer of funds from the storm water utility to the CTRF to pay for the necessary mitigation. Proposed City code 42-555e would require 2 trees of up to 2" diameter for each 12" diameter tree removed. This example would require 6 mitigation trees. The cost for a mitigation tree is proposed to be established at \$400 per tree. This price represents what a warranted tree from a nursery might cost. In this example the transferred amount would be \$400 times 6 or \$2,400. The transfer would happen once a year at budget time based upon the previous years awarded contracts. The CTRF would be jointly managed by the Parks and Public Works Departments with the funds being used to purchase and plant trees in accordance with the future City Reforestation Plan as recommended by the Urban Conservation Committee and Park Board. The cost to actually plant a tree from the CTRF will probably be less than the \$400 due to efficiencies of larger purchases and self warranty of the trees. This approach allows the resources to be expended in the most cost efficient method. Many times the construction project areas are not the best suited or the highest priority area for new trees. By planting trees in a systematic and planned manner the Urban Forest can be replenished and be better prepared for upcoming diseases or pests.

#### Utility Work in Right-of-Way (ROW)

General: A number of public utilities perform construction and maintenance within the street ROW. Since Des Moines allows trees within the ROW there are often conflicts between the utilities work and the existing trees. The City by law must allow utilities to use the ROW and the utilities have operational and maintenance requirements that impact trees. There was a discussion that a system could be

created that would require all utility activity to go through an extensive review process including a pre-work survey, a tree protection plan and a construction inspection process by a qualified City Certified Arborist. Such a system would require a number of additional City employees and considerable expense. The cost for this type of program could be paid from franchise fees, however since the rate is now fixed by legislation the additional cost would be an impact to the general budget as these fees are now being used to cover other expenses. In order to provide an enhanced level of protection for trees in the ROW due to utility work and yet not have an adverse impact to the City budget it was recommended that all utilities be required to coordinate with Public Works Forestry for any complete tree removal. While this is not as extensive as a complete tree protection plan, the current City staff would be able to review areas where complete trees are removed. This would allow for future planting of the removed street trees with an appropriate replacement.

**Recommended Implementation:** Add requirement to all ROW utility permits that any total tree removal must first be coordinated with the Public Works Forestry Division or for ROW managed by Parks Department with Parks Department Personnel. Forestry Division and Parks Department would keep a tally of all trees removed by utility companies. Once a year, during the budget process, a transfer of funds will be made from the franchise fee revenue to the CTRF in the amount of \$400 per required mitigation tree.

#### Public Improvements Construction

**General:** While typically small in comparison to private tree impacts, there are a number of trees impacted every year by public construction projects. Typical projects that may impact trees are bike trails along rivers and streams, sewer projects along river and streams, bridge replacement over streams, street widening within ROW and sewer projects within ROW. While the projects are designed to minimize the impacts to trees, there are often unavoidable impacts to the location of the trees in relation to City owned property and existing infrastructure. The means and methods used to design and construct public improvements were examined to determine how the proposed tree preservation and mitigation policies could be incorporated. The first issue was tree mitigation since any trees removed for the project are within the project limits and can not be saved due to the physical requirements. A process to mitigate the trees within the project contract itself was discussed, but ruled impractical as many projects will be removing trees and installing some form of infrastructure that prevents replanting of a tree. The project site was selected based upon the need to locate the public improvement and not based upon the suitability of replanting trees. The most cost effective means is to mitigate the trees by transferring funds from the appropriate CIP fund to the CTRF. If an enterprise fund impacted a tree then the corresponding CIP project will reimburse the CTRF. The funds in the CTRF could then be used to mitigate the trees most efficiently within the City. The second was the protection of trees near the construction site. The group discussion highlighted this as the most difficult issue with current contract specification. The current specifications used by the City are typical of most other public agencies. If an enhanced level of protection is to be afforded nearby trees, revisions to the specifications must be made. A search of was made for other agency construction specification including documents provided by citizens in recent hearings. These documents included information on types of tree protection and some recommendation for methods of protection however none of these

documents included contractual language necessary for Iowa compliant competitive bidding. Specification need to include definitions, methods, measurements, payments, testing, inspection, compliance, terms, penalties, etc. It became apparent that there will be additional design costs to identify enhanced tree protection methods, additional construction costs to install and maintain enhanced tree protection methods, and depending on the final specifications significant increased inspection costs. Since these additional costs could be extensive any field tested specifications would be extremely beneficial. Any new implementation should be properly notified so that contractors could adjust their prices accordingly. The group discussed that if any new specification language is to be effective it must include some type of enforceable penalty for noncompliance. In addition the specification should be simple enough to minimize inspection costs. Preconstruction meetings can be used to educate contractors on proper tree preservation techniques. Handouts and other educational material can be made available to contractors even before formal specification adoption.

However many federally funded projects must use agency directed specifications. These projects probably would not allow City unique specifications included tree protection and mitigation measures. Therefore federally or state funded projects would not be required to contribute to the CTRF. Other tree removal activities that would not contribute to the CTRF are removal required by safety or airspace regulations. Where appropriate on site tree mitigation may be submitted to the federal or state funding agency for inclusion within the project. In addition any trees removed by City crews or contractors because of disease or dead trees or trees damage by storms or invasive trees would not contribute to the CTRF.

All non-ROW City space managed by Parks Department such as parks, golf courses, cemeteries and other open spaces will contribute to the CTRF for any removed trees that cannot be mitigated within the parks system. The Parks Department will mitigate the trees in the Park Lands and meet or exceed the ratios required by city ordinance. Parks will also mitigate for trees that are removed due to death or disease at these ratios. Parks will maintain an inventory of removals due to construction, disease and death and replanting. A report will be filed annually with the Park and Recreation board and the City Manager and City Council. This does not include the cutting of undesirable, invasive species.

Recommended Implementation: Institute a policy that during the budget process a transfer from the appropriate funding source be made to the CTRF for previous year mitigated trees for work in the ROW. The transfer shall be \$400 per required mitigated tree. Research and develop a new construction specification supplement to protect nearby trees. The specification shall include financial penalties. The new supplemental shall be used on City funded construction projects bid after Jan 2010.