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TREES NEED RESPECT, TOO!

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Rodney Dangerfield claims, "I don't get no respect!" If he thinks he has problems, Rodney should become a city tree. Are the street trees in your town treated as second class citizens, especially during construction projects? Unlike other city-owned street-side improvements, trees not only grow larger each year but also grow in dollar value. Yet, in too many communities, street trees are the first to go when a public "improvement" is developed. Little consideration is given for the value of trees. They are quickly removed and sometimes not replaced or project funds are often depleted before any significant replanting can be accomplished. This should not be. Take the TREE out of STREET and there is nothing left but an abbreviated "ST."

Cincinnati, Ohio has solved this problem by legally mandating that the dollar value of doomed public trees shall be set aside *before* removal is started. This process gives street trees the same, unemotional status as all of the other things such as utility poles, fire hydrants, street lights, traffic control devices, etc., that are "planted" on the public right-of-way. It also assures that the dollar amount of new street trees planted is equal to the value of those removed. In Cincinnati this concept has been expanded to include trees that have been damaged, thus devalued, but not badly enough to require removal.

Try to remember the last road widening project in your town. When 20 red oaks, each about 16 inches diameter, were removed to make way for that extra lane, did you feel it fair when 20 red oaks, each about 3 inches in diameter, were planted as replacements? The old fire hydrants that had to be removed probably were rusty and of an old design. Maybe they even leaked! Although they were serving a vital function, these old fire hydrants had not increased in value and your city was probably enhanced by the "planting" of modern, more maintenance free, fire hydrants.

The same can be said about everything, sidewalks, storm sewers, signs, lights and signals, that had to be removed and replaced, except the trees. For most of their lives, unlike any other street-side improvements, trees grow not only in size and beauty but also in dollar value. This increase in value should be fairly compensated for as a cost of doing business when trees are threatened with removal from city property for any reason.

New street-side amenities like fire hydrants cost more to purchase and "plant" today than they did 20 years ago. So do trees. However, consider the dollar value of trees many years after planting. *The Guide for Establishing Values of Trees and Other Plants*, as prepared by the Council of Tree and Landscape Appraisers, carefully considers the species, size, condition, and location of each tree to be evaluated. This guide seems to be the most commonly accepted across the nation. Using it and assuming an average condition and location for street trees in Cincinnati, those 20 red oaks, each 16 inches in diameter, would have a total value of about $25,000. The total value of 20 new 3 inch caliper red oaks is about $5,000. In this hypothetical case the value of your street tree forest has been decreased by $20,000!

Considering the dollar value of street-side improvements prior to their removal is not a new concept and is actually rather common. If a property owner in almost any city wants to build a driveway, and it can be shown that the street's traffic flow will not be adversely affected, the city

usually allows the driveway construction to proceed across city right-of-way. If a utility pole must be moved, the cost of this move, which might be several thousands of dollars, is discussed ahead of time and built into the total project cost. If the total construction cost goes over budget, a new, less costly location for the project is chosen and more money is raised or the project is abandoned.

It is not standard operating procedure in any city for the person building that driveway to simply fire up his chainsaw, fell the utility pole, cut it to firewood length, and carry the pieces to his firewood pile. It is not standard operating procedure to throw a chain around that in-the-way-of-the-project street light, jerk it down, sell it to a scrap yard, and then build the driveway. Unfortunately, in far too many towns, this *is* standard operating procedure for street trees, often for reasons much less logical than building a driveway. Reasons such as "I do not want to rake leaves anymore" or "I cannot get grass to grow under the tree" are often reason enough to cut that tree down. In Cincinnati, it is against the law to treat trees in this manner.

In 1980, Section 743 of the Cincinnati Municipal Code was unanimously approved by the 9-member city council. Section 743 was written by a 21-member Committee for Urban Greenery, appointed four years earlier by the Mayor. This committee was charged with creating a professionally managed forestry program along the 1,000 miles of streets in the Queen City. In an attempt to put street and other public trees on the same financial basis as all city-owned property, Section 743-17 Compensatory Payments was written. In addition, this section mandates that any money generated from compensatory payments will not return to the general fund and go "up for grabs" by all other departments, but will be used exclusively by Forestry to enhance the forest.

Section 743-17 states, "No person shall remove any public tree without replacing such trees with trees of equivalent dollar value in the vicinity of the removed trees. The value of trees shall be determined by the Urban Forest Manager in accordance with regulations considering the species, location, size, and condition of trees adopted by the Urban Forestry Board. If no suitable location exists in the vicinity of the tree removed or if the replacement tree is of lesser value, the person causing the tree to be removed shall make a compensatory payment to the City of Cincinnati equal to the difference in value between the tree removed and any replacement tree. Such compensatory payment shall be paid into a fund established by the director of finance for that purpose and used solely for the purpose of enhancing the urban forest."

The following six case histories show that over the past five years the compensatory payment procedure has been working well. Although it met with some early resistance because paying for trees had not been built into various project costs prior to the passage of Section 743, projects now on the drawing board do include these costs. The dollar value of public trees is established by one of the Forestry Section's four B.S. degreed foresters following the guide mentioned earlier. This method was officially adopted by the 9-member Urban Forestry Board appointed by the City Manager.

Case 1: *Underground utility relocates because of tree value*

In 1982 the Cincinnati Gas & Electric Company had to replace a 3 city-block long section of very old 16" diameter steel gas main that lay between the curb and sidewalk on Central Parkway. Since the paved portion of this heavily travelled parkway was constructed over the Miami-Erie Canal, once linking the Great Lakes to the Ohio River, the area under the pavement was hollow and contained the remnants of an abandoned subway system. Therefore, a new gas main could not be put under the pavement. Many industrial and retail businesses were behind the sidewalk and the gas main could not be put there either. It seemed that the only location for the main was directly under 42 London plane street trees identical to those on the other side of the parkway.

These London planes ranged in size from 2.2 to 14.5 inches in diameter, in condition from dead to very good and in value from $0 to $1,962. In total, their value was over $27,500. It was agreed that the gas main project could affect the trees in any way, but that any tree immediately removed or that required removal after a 3 year period (Section 743-1R) as a result of the construction would

be paid for. Taking a second look at that $27,500, the engineers went back to the drawing board. Because of the trees and other engineering concerns, the gas main was constructed under an adjacent, old, almost never used street. The gas main joined the Parkway only for a short distance and was carefully constructed under the partially broken sidewalk which cost far less to replace than the trees.

The Forestry Section worked closely with the Cincinnati Gas & Electric Company forester, who fully understood the evaluation method. He concurred with the dollar value and the project went quite well. The community now has both a modern, safe gas main, its beautiful parkway trees, and a section of new sidewalk.

Case 2: *Homeowners insurance pays dollar value of removed street tree*

In 1982 a new property owner, irritated because he could not grow grass very well under a 22 inch diameter pin oak, began removing the street tree himself. He was unaware that the City owned the tree and that a public tree work permit was required. However, several of the original property owners who had planted those pin oaks during a neighborhood project some 40 years before, immediately called the Forestry Section. The tree was valued at $2,800 and the property owner was ordered to complete the removal or pay Forestry to finish the job. He did the remaining work under a permit, which includes a hold harmless clause. He also requested his homeowners insurance company to make the full compensatory payment since his coverage included damages caused by his family to the property of others. The insurance company promptly paid. During the next planting season Forestry, under contract to a local nursery, planted $2,800 worth of new 1½ inch diameter sovereign pin oaks, 40 in all, along his street and another adjacent street.

In other similar situations, some involving court settled vandalism or vehicle accident compensatory payments, active block clubs have saved Forestry all the planting labor costs by providing volunteer planting teams. In these neighborhoods Forestry can afford to order almost twice as many new street trees! Furthermore, trees planted by volunteers have achieved a very enviable survival rate.

Case 3. *New road project replaces fair dollar value of new trees*

A road construction projection was completed in 1984. Called the Melish Avenue Extension, this .5 mile four lane road joined four major thoroughfares. After the necessary land was acquired, the trees on that future right-of-way became public trees and fell under the provisions of Section 743-17. Sixty-six trees with a total value of $87,000 were involved with $40,000 worth actually being removed. No direct payment was made to Forestry since a landscape contract was signed between the City Engineering Division and a local landscape contractor.

Under Forestry's guidance, 88 new 3½ inch diameter autumn purple ash trees and 30 red oaks were planted and guaranteed for two years under this $37,000 contract. Forestry then had Madison Tree Service Company, which contractually performed city-wide, 24 hours per day emergency tree work, prune, feed, and vertically mulch the 26 old red oaks on Victory Parkway that were affected by the intersection construction. National Arborist Association standards were followed. This work cost another $2,600 and was paid for out of the project budget.

A total of $39,600 for tree work on this project might seem like a large sum. However, the total project budget including land acquisition, engineering, and construction costs, approached $4,000,000. Therefore, trees accounted for slightly under 1% of the total project budget! They were the polish on the Rolls Royce.

Case 4: *Companies under contract to forestry pay dollar value of new trees*

Forestry performs preventive maintenance on every street tree along 80 miles of street each year. Trees that are dying or too dangerous to be left standing are marked during July for removal by the Forestry Section staff composed of Tim Jacob, Jenny Gulick, and Bruce Lane. Neighborhood volunteers assist with marking the trees and notify abutting property owners. Low bidding, contractual tree service companies such as Asplundh, Bartlett, Davey, Lester, Madison,

Southwest Ohio, and Townsend begin working in October and are paid on the unit basis. Trees that are not removed are pruned to Class I National Arborist Association standards.

Clear language in the contract states that if the company prunes any tree so poorly that it has been ruined, as determined by Forestry, the contractor shall remove the tree and grind the stump at no additional charge. The compensatory payment for the value of the tree is deducted from the 10% retainer owed the company at the end of the contract. This has happened only once in five years. All contractors are very prompt about calling Forestry's attention to trees that were illegally topped by abutting property owners or trees that should be removed because of some problem that developed since the marking or was overlooked by Forestry in July.

Case 5: *Forestry Section makes compensatory payments for its mistakes*

And, yes, Forestry practices what it preaches! The Forestry Section has allocated about $800 from its funds to pay for a good tree it removed by mistake. After receiving a letter of complaint from a citizen about a dangerous street tree, Forestry asked Cincinnati Gas & Electric Company to top the tree prior to the removal that was to be done by Madison Tree Service. American National Standards Institute Z133.1 Arboricultural Safety Standards restrict the work a non-electrically qualified tree company can do around wires. C.G.&E. topped the correct tree. In writing the work order for removal, however, Forestry transposed address numbers and Madison Tree Service removed the wrong tree.

Forestry receives about 500 complaint letters per year and this is the only mistake to date. The Spring 1985 planting season resulted in four, $200 red sunset maples being planted on that same street with at least one going to directly replace the mistakenly removed tree.

Case 6: *Compensatory payments are required when extensive pruning devalues public trees*

To this point only trees that were threatened with removal or that have actually been removed have been discussed. However, Forestry, with backing from the Urban Forestry Board, has extended this compensatory payment concept to trees that have been damaged, thus devalued, but not to the extent that removal is necessary. This will be more clearly stated in Section 743 in the event it is ever amended.

As a general rule of thumb, the evaluation method suggests that any tree losing more than 50% of its crown is a total loss. In less severe cases of illegal pruning (without a permit) or required pruning that still causes a public tree to be misshapen, the tree is evaluated before and after the pruning. The dollar amount of the decrease in value is calculated using the approved guide. In some cases it is necessary to obtain average conditions for other street trees of the same species on the same street, if the tree in question is not seen by a forester prior to the pruning.

Many tree service companies have made such decrease-in-value compensatory payments for illegal pruning and most begin to routinely contact Forestry for public tree work permits. They learn that permits are rapidly approved, most are free of charge, and none impose unrealistic conditions on the work. The only condition that Forestry normally puts on permits is that all work must follow National Arborist Association standards. Many landscape and tree service companies are also beginning to use the permit process as a sales tool. After a permit is approved for any type of public tree work and the work is done properly, the person paying the bill can qualify for a tax deductible contribution. After all, that person saved the City the expense of performing the necessary work.

A classic example of required tree work that resulted in a decrease in tree value happened early in 1983. Armco Steel, located about 40 miles north of Cincinnati, in Middletown, contracted with Duncan Machinery Movers of Lexington, Kentucky to move five, huge air processing units from barges in the Ohio River to their steel mill. The largest of these units was 105 feet long by 18 feet wide by 22 feet tall and weighed 76 tons. For comparison, the bottom of a typical mid-lane traffic signal is usually 16 feet over the road.

The cost of moving these units included all hourly salaries needed for crews from Cincinnati Gas & Electric, Cincinnati Bell, Warner Amex Cable Television, and the City Traffic Engineering Divi-

sion to raise all their service wires to 22 feet prior to the move, then lower them to original heights after the move. Any damages done to street surfaces, sewers, culverts, bridges, etc. would also be paid for. During the well attended planning meeting after all the other major engineering questions were addressed, Forestry simply asked, "Since all utility lines and traffic signals will be returned to before-the-move conditions, who will glue the limbs back onto our street trees?" Utter silence! No one but Forestry had thought about the 105 Cincinnati-owned street trees that would need to be pruned higher than the standard 14 feet road clearance to clear the 22 feet tall air processing units.

Duncan Machinery Movers, via an approved permit, was provided with a list of tree service companies acceptable to do the work and told that Forestry would direct the pruning. That list was composed of about eight companies that were properly covered by liability and workman's compensation insurance. The Davey Tree Expert Company, under the local leadership of Gearin Brown, Arborist, was chosen by the moving company.

Forestry evaluated the 105 trees before pruning and found them to be worth $87,000. Davey Tree Expert Company performed the type of complete, professional work one would expect from a company that is a leader in its field. Duncan Machinery Movers, also with a high degree of professionalism, completed their task with only minor difficulties. Davey was promptly paid by Duncan for their services. Forestry was just as promptly paid slightly over $8,000 by Duncan to compensate for the decrease in value because the street trees now looked rather lopsided. During the following planting season, Forestry contracted to have about 130 1½ inch diameter trees planted along the same streets where the existing trees were most heavily pruned.

Conclusion

Annually, Forestry receives about $15,000 from compensatory payments. Most important, is that simply knowing the value of public trees before they are removed is often enough to cause the rethinking of and, possibly, a relocation of some projects. Such relocations are based on other engineering costs as well. The relocations always result in equally effective projects, compensatory payments being paid on the least valuable trees and the most valuable trees being saved. If it is felt that public trees can be worked around safely, but if the person or company does not have a proven track record for doing good work, Forestry requires that a performance bond be purchased on the dollar value of the public tree in question.

The compensatory payment system is working well in Cincinnati. Almost everyone concerned feels the tree values established by professionals properly using the *Guide for Establishing Values of Trees and Other Plants* are quite fair. If your city is not putting public trees on the same financial basis as other public improvements, it should. The concepts and methods outlined in this article could be used and refined as necessary in your community in order to generate the respect your valuable street trees deserve. Remember the Urban Forestry motto, "A City Without Trees Ain't Fit For A Dog!"

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