



**UNION SQUARE PARTNERSHIP
TREE PIT RENOVATION PROJECT
JUNE / JULY 2010**





1. Union-Square 14th Street's original metal tree pit grates, which were installed ca. 1991 by the City, were unattractive and difficult to maintain. The grates allowed for trash accumulation and weed growth and the tree truck guards were a target for graffiti and often used by cyclists to lock up their bikes.



2. Over time, the trees' root systems began to force the metal rims out of joint, creating trip hazards. Initially, the tree truck guards and grates were removed to address the condition but it quickly became clear that the "saddles" holding the grates in place would also need to be removed to fully remedy the problem.



3. After careful research and planning, and when all necessary approvals were granted, Barnett Iron Associates commenced the first phase of the project and excavated the metal saddles and prepare them for extraction.



4. Many of the metal saddles were deeply embedded in the concrete sidewalks and needed to be removed by a welder without damaging the surrounding area.



5. Once the saddles were removed, Urban Arborists was hired to aerate the soil, which had compacted tightly after almost 20 years under the weight of the metal grates.



6. After aerating the soil, a liquid fertilizer was infused. This phase of the project was conducted in close consultation with the City's Department of Parks & Recreation.



7. After fertilization, Blondie's Treehouse leveled the soil and removed debris that had accumulated over the years in order to prepare the final tree pit treatment.



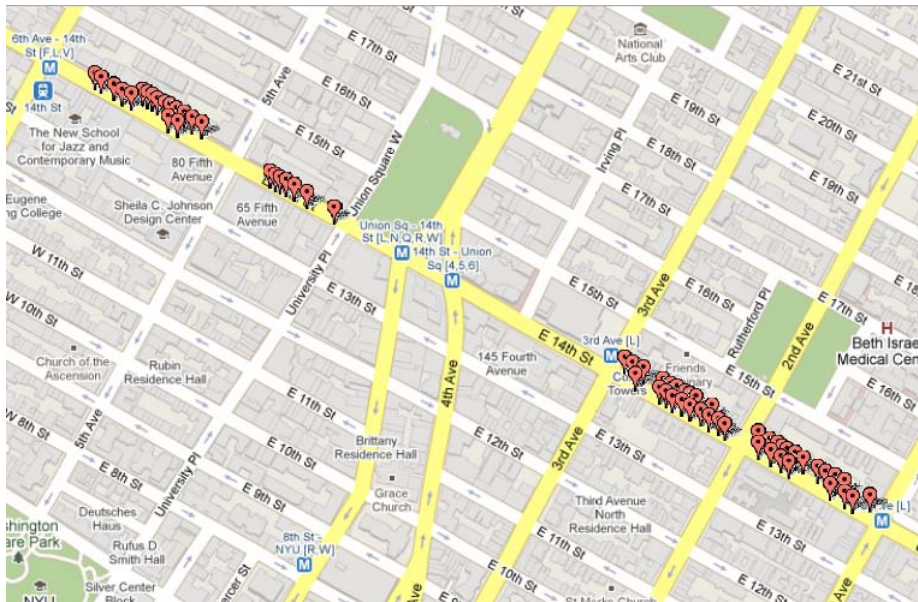
8. Each 4''x 4''x 4'' granite cobblestone was carefully laid in neat rows on either side of the tree. This design treatment was selected for its streamlined look and low cost of maintenance relative to more elaborate fencing and planting options.



9. The cobblestones were then leveled off and filled in with crushed bluestone to conform to the surrounding sidewalk profile. This overall treatment will allow for more flexibility to accommodate future tree root growth.



10. As a final touch, mulch was added to the center area of the tree pits. The results are aesthetically pleasing, easy to clean and simple to maintain in future years. Many residents and property owners have already called to say thanks!



(Above) Map of tree pit renovation locations.

11. In all, 56 tree pits along 14th Street between First and Third Avenues, between Fifth and Sixth Avenues, as well as along the along south side of 14th Street between University Place and Fifth Avenue, were remediated at a total cost of \$71,000.