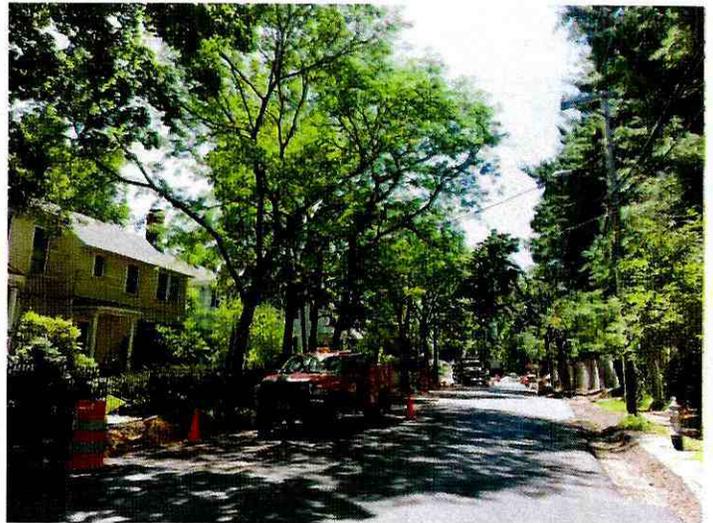


September 26, 2013

In response to Council Order Number O-15, dated September 9, 2013, regarding the damage to street trees on Scott Street, Acting Public Works Commissioner Owen O’Riordan reports the following:

**DAMAGE TO TREES**

On Tuesday, August 6, 2013, while excavating the sidewalk area adjacent to 2 and 8 Scott Street, the City’s contractor caused significant damage to the root structure of 5 street trees. The operator and superintendent did not take appropriate precautions when excavating around the trees for the new granite curb and, more importantly, did not adjust the construction methods or notify the City’s Project Manager or Arborist once the first tree root had been damaged. The operator continued to excavate and irreparably damaged the root structure of a total of 5 street trees, representing approximately 75 caliper inches of street trees.



The City Arborist and two independent certified arborists evaluated the trees and the damage. It was with great regret that we concluded that each of these trees had to be removed due to the extent and severity of the root damage. City staff notified the immediate abutters on August 8<sup>th</sup> and delivered the attached notification to the larger community on August 12<sup>th</sup>. The trees were removed August 13<sup>th</sup>.



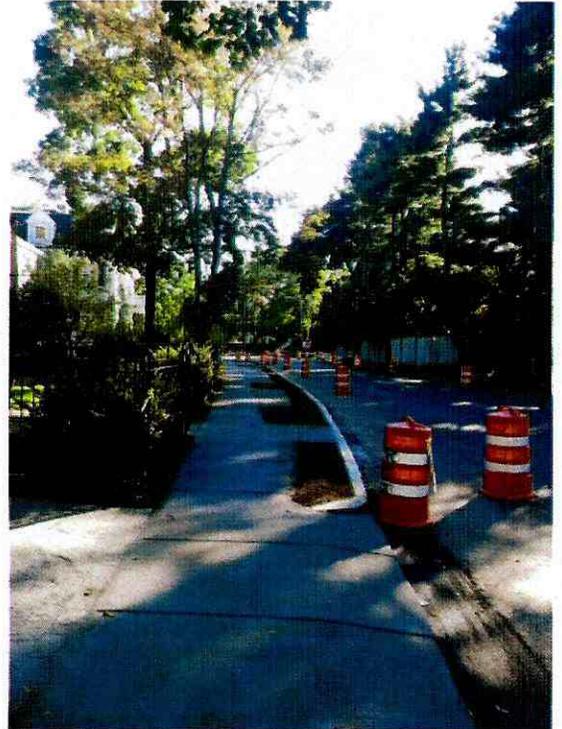
City staff hosted a community meeting on August 21<sup>st</sup> to review what had occurred, discuss options to allow for larger trees to be replanted at 2 and 8 Scott Street and to review the construction schedule for the remainder of the project. Approximately 20 people attended the meeting. Attached is the notification of the meeting, as well as a plan of the proposed landscaping areas.

### **RECONSTRUCTION OF SCOTT STREET**

The damage done to the trees was an egregious breach of the City's contract and the contractor was immediately removed from Scott Street. The City contracted with other construction companies to complete the project.

The drainage was completed in August and approximately 25% of the sidewalks have been completed to date. The remaining sidewalk work is scheduled to be completed by the end of October. The raised intersection, landscaping, tree planting and final paving are scheduled to be completed in spring 2014.

The street trees that were removed and their canopy cannot be replaced, but the locations will be replanted and city staff is coordinating closely with the immediate abutters regarding preferred tree species. At the August 21<sup>st</sup> community meeting, the street design was modified to provide for larger tree wells to support the planting of 4" caliper trees at these locations.



### **CONTRACT LANGUAGE**

Construction around existing street trees is always a challenge and staff work closely with contractors and the City Arborist to ensure that street trees are protected during construction activities. The City's construction contracts contain very clear language regarding the protection of street trees and the contractor is paid to protect each existing tree in the project area. Attached is the tree protection specification.

Staff regularly reviews the tree protection requirements with contractors – at pre-construction meetings when the contracts first begin, regular project meetings and weekly city-wide construction coordination meetings. In addition to the city contract requirements, public shade trees are protected by Massachusetts State Law, Chapter 87. Section 12 states that a fine of up to five hundred dollars per incident of damage to public shade trees can be levied. The damage done to these trees was an egregious breach of the City's contract and the contractor was removed immediately from Scott Street, fined per state law and is paying damages caused by his actions.

City staff is committed to maintaining and enhancing our urban tree canopy. From a staff perspective what occurred is simply unacceptable and we strive, working with our contractors and those who do construction in the City to achieve higher standards of care and stewardship for our existing trees.

## Contract Language for Tree Protection

ITEM 102.5

TREE PROTECTION AND MAINTENANCE

EACH

### DESCRIPTION

The work to be done under this Item consists of instituting and maintaining positive measures to protect and maintain public and private shade trees within and adjacent to the limits of work.

Public trees are protected by Massachusetts state law, Chapter 87. Section 12 states that a fine of up to five hundred dollars, (\$500.00) per incident of damage to public shade trees can be levied. Each branch broken or improperly pruned, each improper wounding of the trunks of the trees, and each root improperly pruned shall constitute an infraction. Section 12 further provides that anyone who negligently or willfully damages a tree will be liable to the City for all damages.

The Contractor shall take the utmost care to avoid unauthorized, unnecessary or improper wounding of public or private shade trees. Prior to construction, the Contractor shall provide a tree protection and maintenance plan and work schedule. A Massachusetts or International Certified Arborist shall be sub-contracted by the Contractor to provide a protection and maintenance plan and perform specified work. **All plans and schedules shall be subject to review and approval by the City Tree Warden. Infraction of Massachusetts state law Chapter 87 or failure to provide a protection plan and work schedule will result in fines or the immediate cancellation of the contract.**

### CONSTRUCTION METHODS

Tree protection and maintenance measures shall include the following:

1. Erect and maintain temporary rigid fence around drip line of individual trees or around perimeter drip line of groups of trees to remain. At sidewalk tree pits, the entire perimeter of the tree pit shall be fenced. At a minimum, and only if the Engineer determines that the preceding measures are not feasible, wrap the trunks of all trees with a durable material such as two by four lumber sufficient to protect tree trunks from mechanical damage. Remove fence and wrapping when construction is complete.
2. Trucks and heavy equipment shall not pass over or park on roots of public shade trees; nor shall construction materials, debris, or excavated material be stored within drip line of trees or within tree pits. For occasional or one time access over roots, ½-inch plywood overlapped may be used. Permeable materials such as gravel or wood chips shall be placed over root systems of trees which are not covered by hardscape and over which trucks and heavy equipment must travel during construction operations, when such travel is unavoidable, to prevent soil compaction and root damage. Material shall be replaced as needed.
3. During sidewalk construction adjacent to trees, suitable soil shall be maintained within tree wells. Moist soil or mulch shall also be maintained around surface roots outside of tree wells which may become exposed during construction. Such covering shall be placed as soon as possible after roots are exposed. If roots are going to be exposed for more than one hour, cover roots with damp burlap. Burlap shall be kept moist until most soil and mulch can be used for permanent cover.

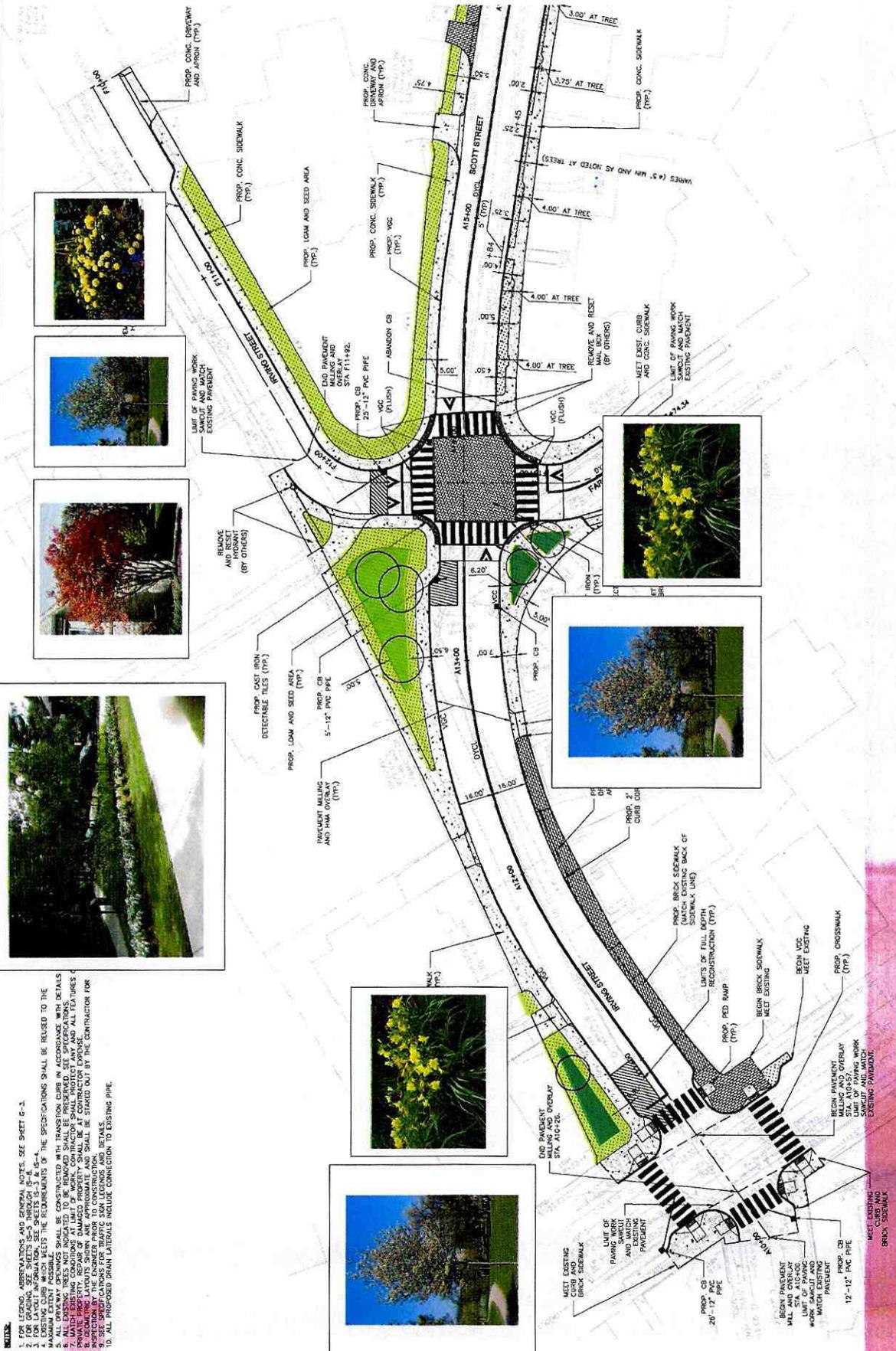
4. Traffic control plans shall be designed in such a way as to direct traffic away from tree trunks and branches.
5. Tunneling shall be the preferred method of excavation adjacent to tree roots to avoid root pruning. If root pruning is unavoidable, a certified arborist shall be onsite to execute or oversee the operation with sufficiently sharpened hand tools and in such a fashion as to have minimum negative impact on tree health and safety.
6. Following construction, existing trees within the project area shall be mulched in accordance with the requirements for new trees, as specified in Section 910.
7. All tree protection and maintenance measures and operations shall be subject to review, approval or change by the City Tree Warden.

#### COMPENSATION

Tree protection will be measured by the unit each, for each tree provided with protective measures as specified herein.

Payment for work under this items will be at the contract unit price per each and shall include full compensation for all labor, materials, disposal, equipment, tools, and any other incidentals necessary for the satisfactory completion of this work as specified, including furnishing, installing, maintaining, and removing drip line or tree pit fencing, tree wrap, and covering exposed roots with moist burlap, mulch, or soil.

- NOTES:**
1. FOR LEGEND, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET G-3.
  2. FOR LAYOUT INFORMATION, SEE SHEETS G-1 & G-4.
  3. ALL DRIVEWAY OPENINGS SHALL BE CONSTRUCTED WITH TRANSITION CURBS IN ACCORDANCE WITH DETAILS A-1 THROUGH A-4 WHICH MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.
  4. ALL DRIVEWAY OPENINGS SHALL BE CONSTRUCTED WITH TRANSITION CURBS IN ACCORDANCE WITH DETAILS A-1 THROUGH A-4 WHICH MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.
  5. ALL DRIVEWAY OPENINGS SHALL BE CONSTRUCTED WITH TRANSITION CURBS IN ACCORDANCE WITH DETAILS A-1 THROUGH A-4 WHICH MEETS THE REQUIREMENTS OF THE SPECIFICATIONS.
  6. MATCH EXISTING CONDITIONS AT LIMIT OF WORK. CONTRACTOR SHALL PROTECT ANY AND ALL FEATURES OF EXISTING UTILITIES AND SHALL BE STAKED OUT BY THE CONTRACTOR FOR PROTECTION PRIOR TO CONSTRUCTION.
  7. ALL PROPOSED DRAIN LATERALS INCLUDE CONNECTION TO EXISTING PIPE.
  8. ALL PROPOSED DRAIN LATERALS INCLUDE CONNECTION TO EXISTING PIPE.
  9. ALL PROPOSED DRAIN LATERALS INCLUDE CONNECTION TO EXISTING PIPE.
  10. ALL PROPOSED DRAIN LATERALS INCLUDE CONNECTION TO EXISTING PIPE.

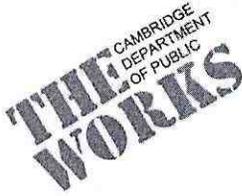


CONT. ON SHEET G-2



Sheet No.	IS-1
Total Sheets	51
File No.	
CITY OF CAMBRIDGE, MASSACHUSETTS	
CHAPTER 90 ROADWAY & SIDEWALK RECONSTRUCTION	
CONTRACT NO. 15	
IRVING / SCOTT STREETS	
CONSTRUCTION PLAN 1	
Scale	1"=20'
Date	04/26/12
Job No.	15878
Drawn by	SA/25/13
Checked by	D.S.
Approved by	G.F.
General Design Engineer	
General Design Engineer	

**FDR**  
 FDR Engineering, Inc.  
 695 Atlantic Avenue, Boston, MA 02111



August 15, 2013

## COMMUNITY MEETING NOTICE

Dear Neighbors of the Scott Street and Irving Street Area,

On Tuesday, August 6, 2013, while excavating the sidewalk area, the City's contractor caused considerable damage to five street trees located at 2 and 8 Scott Street. The City Arborist and two independent certified arborists evaluated the trees and the damage. It is with great regret that we concluded that each of these trees had to be removed due to the extent and severity of the root damage. The trees were removed this past Tuesday, August 13.

### Community Meeting

Location: American Academy of Arts and Sciences  
136 Irving Street

**\*Please use the Beacon Street entrance**

Date: August 21, 2013

Time: 6pm – 8pm

The damage done to the trees was an egregious breach of the City's contract and the contractor has been removed from Scott Street. The City is currently coordinating with other construction companies to complete this project. Mattuchio Construction is scheduled to resume with drainage work this coming Friday, August 16. That work will take approximately 2 weeks to complete. DeRoma Construction will then mobilize to complete the surface restoration (sidewalk reconstruction, raised intersection, landscaping, tree planting and final paving). Both of these contractors have done extensive work in the City and are committed to successfully completing this project.

The street trees that were removed and their canopy cannot be replaced, but the locations will be replanted and city staff has met with the direct abutters to discuss options for enhancing the planting area for the new trees. Staff would like to meet with the broader community **on August 21, 2013** to review options for modifying the design of Scott St to allow for larger trees to be replanted at 2 and 8 Scott Street and to review the construction schedule for the remainder of the project. *We apologize for the short notice for the meeting, but want to get this project back on track and minimize the on-going inconvenience to the neighborhood, while also having an opportunity to meet with residents prior to finalizing any design changes.*

Thank you for your continued patience during construction and throughout this process. Please contact Kathy Watkins at [kwatkins@cambridgema.gov](mailto:kwatkins@cambridgema.gov) or 617-349-4751 or myself at [cneil@cambridgema.gov](mailto:cneil@cambridgema.gov) or 617-349-4825 if you are unable to attend the meeting and would like to discuss the Scott St design or if you have any questions or concerns regarding this project.

Sincerely,

Chris Neil  
Community Relations Manager



August 12, 2013

Dear Scott Street Resident:

I am writing regarding an incident that occurred on Tuesday August 6, 2013 on Scott Street. In excavating the sidewalk area to prepare for the installation of the new sidewalk and street curbing, the City's contractor caused considerable damage to five street trees located at 2 and 8 Scott Street. It is with great regret that we have concluded that each of these trees must be taken down. This work was an egregious breach of the City's contract and the contractor has been removed from Scott Street.

**REMOVAL OF THE STREET TREES**

The City Arborist and two independent certified arborists have evaluated the trees and the damage. Each of them has recommended that the trees be removed immediately due to the extent and severity of the root damage.

The trees will be removed on **Tuesday August 13, 2013**. A professional tree removal company has been hired and the removal process will be overseen by the City Arborist. The street trees and their canopy cannot be replaced, but the locations will be replanted and city staff will continue to work with the abutters to discuss additional mitigation measures.

**CONSTRUCTION ON SCOTT STREET**

The contractor has been removed from Scott Street and will not be allowed to complete this project. The City is in the process of hiring another contractor to complete the sidewalk construction and final paving on Scott Street. We anticipate that the new contractor will begin construction the week of August 19<sup>th</sup> and will provide another update as soon as we have an overall schedule for completing the construction.

I cannot emphasize enough the City's commitment to maintaining and enhancing our urban tree canopy. This incident is not a reflection of that commitment and we all recognize that it is simply unacceptable. Please contact Katherine Watkins, Supervising Engineer, at [kwatkins@cambridgema.gov](mailto:kwatkins@cambridgema.gov) / 617-349-4751 with any questions about the incident, to learn more about what is being done to mitigate the loss of the street trees, or for information about the schedule for completing the project.

Sincerely,

Owen O' Riordan  
Acting DPW Commissioner