то:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING FEBRUARY 5, 2019	
FROM:	KELLY SCHERR, P.ENG., MBA, FEC MANAGING DIRECTOR OF ENVIRONMENTAL AND ENGINEERING SERVICES & CITY ENGINEER	
SUBJECT:	TREE IMPACTS FOR 2019 INFRASTRUCTURE RENEWAL PROGRAM	

RECOMMENDATION

That, on the recommendation of the Managing Director of Environmental and Engineering Services & City Engineer, the following information concerning tree removal, mitigation, and communication as part of the 2019 Infrastructure Renewal Program **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

None.

2015-2019 STRATEGIC PLAN

The 2015 – 2019 Strategic Plan identifies this objective under Building a Sustainable City; 1B – Manage and improve our water, wastewater and stormwater infrastructure and services.

BACKGROUND

Purpose

The purpose of this report is to provide an overview of the tree removal identification and mitigation approach as part of the 2019 Infrastructure Renewal Program. The Infrastructure Renewal Program is generally funded by a combination of Wastewater, Water, and Transportation Capital Budgets.

Context

The London Plan includes strategies to increase protection, maintenance, monitoring, and planting of the urban forest. These strategies are applicable to City infrastructure projects and are actioned through an Environmental and Engineering Services Tree Strategy. This specific strategy meets the London Plan requirements by recognizing trees as municipal assets to be protected with specific measures during construction, their condition managed based on expert evaluation of health and structural condition, and a robust post-construction planting plan.

DISCUSSION

The City is committed to maintaining strong and healthy infrastructure above and below ground. There are a number of large construction projects currently planned for 2019. The Infrastructure Renewal Program is an annual program intended to replace municipal infrastructure that has reached the end of its service life. Typically, about 10 to 15 construction projects are assigned to City design teams and engineering consultants every year to help deliver this annual program.

These projects generally include sanitary and storm sewer reconstruction, watermain reconstruction, road restoration, replacement of curb and gutter and sidewalk, as well as restoration of areas disturbed by construction. The scope of each project varies in length, excavation depth and extent of infrastructure replacement.

Generally, Infrastructure Renewal Program projects are situated in older areas of the City. Each of the projects have work plans that include the required engineering design plan to complete the project. In addition, all projects require the design consultant to retain an arborist to analyze all trees on City Right-Of-Way within the project limits, support tree decisions for that project, prepare a Tree Inspection Report, and assist in the creation of tree protection plans. The City has adopted standards for tree protection during construction.

To ensure consistency within the Infrastructure Renewal Program, the City has an internal tree protection strategy to manage the design and implementation of construction projects with respect to trees on public property. This document covers project design considerations, public relations, construction, and tree protection measures, as well as standards for tree planting and preservation.

It is noted that an arborist is hired for each individual Infrastructure Renewal Program contract to assess each tree in the City Right-Of-Way within the project limits. This assessment includes the determination of the health and the impact of construction activities for each tree. A Tree Inspection Report is prepared for each project which provides recommendations for tree removal/retention.

All trees within the Right-Of-Way are visually evaluated to assess health and structural integrity. Evaluated trees are reviewed for health risk status based on the International Society of Arboriculture standards. Generally, most are deemed suitable for retention, pending decisions regarding the construction footprint. However, some can be deemed unhealthy, high risk, or have a limited life span and are not suitable to keep.

For 2019, in addition to identification of trees required for removal, staff have also identified trees which may have to be removed following post construction assessment. These trees will be retained during construction but due to the unknown extent and location of major roots, could be at risk of requiring removal, noting that the intent is to keep these trees. All required and potential tree removals are being communicated to property owners within the project limits through homeowner letters and invitation to Project Update Meetings.

Following construction, the City's Forestry Co-ordinator will review the tree inventory on those streets. At that time, a determination will be made on the number and species of trees that will be replanted based on available space and planting guidelines. Generally, the City plants trees after construction in every viable planting location. About 300 to 400 trees get planted on reconstructed streets per year.

The following table provides a listing of the 2019 Infrastructure Renewal Program projects which have proposed tree removals. It is noted that large trees have been defined as trees with a trunk diameter of 30cm (12 inches) or more. Small trees have a trunk diameter of less than 30cm.

PROJECT	TOTAL # OF TREES ASSESSED	REMOVAL REQUIRED	REMOVAL MAY BE REQUIRED	% Removal
York Street (Talbot – Clarence)	34	0 Large 22 Small	0 Large 0 Small	65%
Wistow Street (Landor Street – Oxford Street East)	67	11 Large 3 Small	4 Large 0 Small	21-27%
Egerton Street (Brydges Street – Ormsby Street) Brydges Street (Egerton Street –Douglas Court) Pine Street (Egerton Street – Oak Street)	47	4 Large 8 Small	0 Large 0 Small	25.5%
Devonshire Avenue (Edward Street – Cathcart Street) Devonshire Place (all) Cathcart Street – Devonshire Avenue to Emery Street East)	69	7 Large 1 Small	12 Large 0 Small	11-29%
Cavendish Crescent (Wyatt Street to Riverside Avenue) Mount Pleasant Avenue (Riverside Avenue – Charles Street)	56	13 Large 5 Small	0 Large 0 Small	32%
Avalon Street (all) Parkhurst Park South*	96	0 Large 0 Small	0 Large 0 Small	0%
Canterbury Road (Windermere Road – Richmond Street Westchester Drive (Canterbury Road – Richmond Street)	65	15 Large 0 Small	11 Large 0 Small	23-40%
Roehampton Avenue (all) Monsarrat Avenue (Belfield Street - Gatewood Road)	67	6 Large 4 Small	4 Large 0 Small	15-21%
Wellington Street (Grosvenor Street – Victoria Street)	97	9 Large 5 Small	0 Large 0 Small	14%
Waterloo Street (Oxford Street – Grosvenor Street)	114	7 Large 1 Small	0 Large 0 Small	7%
Regal Dr (Magnolia Cres West – Fuller St East)	101	16 Large 10 Small	0 Large 0 Small	26%
Champlain Cres (Cartier Rd – Frobisher Cres) Frobisher Cres (Champlain Cres – Hudson Dr)	90	23 Large 0 Small	0 Large 0 Small	26%

*There are a number of mostly small trees which need to be removed in the south side of Parkhurst Park South. Engineering staff have met on site with Forestry Operations staff and determined that these tree removals are not considered to create an impact to the park.

At this time, 170 trees are scheduled to be removed in 2019 alongside streets. This includes trees of various sizes and removal is required due to either their high risk nature, construction conflict, poor health, or short life expectancy. These tree removals are spread across twelve (12) construction projects.

Forestry Operations will be removing all required tree removals over the winter months to ensure all trees are removed prior to the start of construction.

Communications Plan

The social impact is being mitigated through design team coordination and public communication. In an effort to ensure continuity within the program, the specific communication strategies for the various projects include:

- Homeowner Letter Pre Construction Notice, which is sent approximately two weeks prior to the Project Update Meeting, describes the tree impact that is anticipated, with further information to be available at the Project Update Meeting on tree conditions and removals.
- Tree removals will be shown on plans and discussed at the Project Update Meeting. The difference between construction removals and health and safety trees or end of life is highlighted. The tree arborist is typically present at the Project Update Meeting, especially for projects with a high number of tree removals.

CONCLUSIONS

Trees are an important asset to the City of London and best efforts are being made to protect them during construction. The final number of trees slated for removal may change, recognizing that tree location may conflict with the installation of water services and private drain connections. Considerable effort will be made to minimize impact of construction on any tree.

All design assignments within the 2019 Infrastructure Renewal Program include Tree Inspection Reports, meaning that all trees within the Right-Of-Way are visually evaluated by an arborist to assess health and structural integrity against international standards. Homeowners are kept informed of the extent and impact of tree removals through multiple communication efforts. The City's Forestry Division will assess all streets with tree removals and initiate replanting efforts in subsequent years.

Acknowledgements

This report was prepared within the Wastewater and Drainage Engineering Division by Kyle Chambers, P. Eng., Environmental Services Engineer

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cc. Doug McRae

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