



591 Woolwich Street
Guelph . Ontario
N1H 3Y5

T: 519.822.6839
F: 519.822.4052
info@aboutng.com
www.aboutng.com

URBAN FORESTRY

ARBORIST REPORTS
MANAGEMENT PLANS
TREE PRESERVATION PLANS
TREE RISK ASSESSMENT
GIS TREE INVENTORIES
TREE APPRAISALS
MONITORING

ECOLOGICAL RESTORATION

NATURAL SYSTEMS DESIGN
HABITAT RESTORATION
EDGE MANAGEMENT PLANS
RAVINE STEWARDSHIP PLANS
NATURALIZATION PLANS
INTERPRETIVE DESIGN
MONITORING
CONTRACT ADMINISTRATION

ENVIRONMENTAL STUDIES

SUBWATERSHED STUDIES
ENVIRONMENTAL IMPACT
STATEMENTS
ECOLOGICAL LAND
CLASSIFICATION
WETLAND EVALUATION
VEGETATION ASSESSMENT
BOTANICAL INVENTORIES
WILDLIFE SURVEYS
MONITORING

LANDSCAPE ARCHITECTURE

MASTER PLANNING
RESIDENTIAL COMMUNITIES
COMMERCIAL/INDUSTRIAL
HEALTHCARE AND EDUCATION
STREETSCAPES
PARKS AND OPEN SPACES
TRAIL SYSTEMS
GREEN ROOFS
CONTRACT ADMINISTRATION

EXPERT OPINION

OMB TESTIMONY
LEGAL PROCEEDINGS
PEER REVIEW
RESEARCH
EDUCATION

June 25, 2014

Our Project No: AA14-063A

David McAuley
360 Woolwich Street
Guelph, Ontario

Re: 360 Woolwich Street and 15 Mont Street, Guelph
Tree Conservation Plan

Dear Mr. McAuley:

We have completed our study of the above referenced project. The following attached documents are part of this report.

- *Appendix 1. Tree Inventory and Assessment Methodology*
- *Appendix 2. Detailed Tree Data*
- *Appendix 3. Limitations of this Tree Assessment*
- *Appendix 4. Protection of Migratory Birds and Development*
- *Drawing TCP-1. Tree Management Plan*

Background Information

As part of a rezoning application for the properties of 360 Woolwich Street and 15 Mont Street, a tree conservation plan is required. The existing and proposed conditions of the site are shown on Drawing TCP-1.

Methodology

The City of Guelph currently has Draft Tree Protection Policies and Guidelines (June 2008) for the preparation of a Tree Conservation Plan. Trees that met the following criteria qualified for detailed individual investigation in this study.

- On-site trees with a DBH (diameter at breast height) of 10cm or greater; and
- Off-site trees with a DBH of 10cm or greater where the dripline extends to within 1 metre of the subject property boundary.

The fieldwork was conducted by Steven Aboud, ISA Certified Arborist on May 22, 2014. All trees included on the survey were subject to assessment. *Appendix 1* provides an explanation of the tree assessment methods and definitions of codes.

Trees that met the above-mentioned criteria were assigned a unique number and the following data was collected.

- species (botanical and common names)
- diameter at breast height - DBH (cm)
- height (est. in metres)
- crown reserve (tree crown diameter, est. in metres)
- minimum protection zones ¹
- biological health
- structural condition
- tree quality
- location (site, off-site, municipal, shared)
- recommendation based on health & structure
- recommendation based on development impacts
- final recommendation
- observations / comments

Note: Trees were not tagged.

¹ *Tree protection zone distances (diameter) calculated by: 2 X Minimum Protection Distance for City-owned and Private Trees (SS-31, Specifications for Trees, City of Guelph) + DBH.*

A description of assessment methods and definitions of codes of observations are provided in *Appendix 1*.

Each tree was assigned a recommendation of preservation or removal based on:

1. Tree's existing biological health and structural condition,
2. Impact(s) from the proposed development, and
3. Final recommendation based on both 1 and 2, above.

We provide *Appendix 3 - Limitations of this Tree Assessment* to clarify what is reasonable and possible in our assessment of trees.

The locations of trees shown on Drawing TCP-1 are estimated as provided by you. Four additional trees (Numbers 4, 11, 12 and 16) were added at the time of the field inventory. Their locations are estimated.

Findings and Recommendations

A total of 16 trees were recorded in the study area. No endangered or threatened tree species were recorded.

Table A provides a summary of recommended action assigned to the trees. Specific details of the trees' measurements, condition, etc. are provided in *Appendix 2*. The locations, identification numbers, crown reserves, and preservation recommendations of trees are shown on Drawing TCP-1.

Recommended Action	Based on Health and Structure	Based on Construction Impacts	Based on Condition AND Development Impacts
Preserve	13	8	8
Remove	3	8	8
Total	16	16	16

Trees Recommended for Preservation

A total of 8 trees are recommended for preservation. Their locations and details of tree protection zone fence and tree protection zone information signage are shown on Drawing TCP-1. Tree protection zone fence and tree protection zone information signage are to be installed prior to construction and remain in place until construction is completed. No vehicle traffic, material stockpile or grading encroachments (cut or fill) is to occur within the tree protection zones (TPZ) with the following exception described below.

Of the 8 trees to be preserved, 7 will be impacted by the development. Five trees (Tree Numbers 4, 5, 6, 7 and 8) will be impacted from grade cut adjustments (to a maximum of 22cm) in the parking areas. Due to the limited encroachment and limited grade changes within the TPZ's from grading, impact to these trees will be very minor. Turfstone or gravel is proposed as the surface treatment of the parking areas. Based on the soils report (prepared by V. A. Wood (Guelph) Inc.), the subsurface profile at Borehole #2, below the 300mm of granular base is comprised of 1.5m of silty sand fill with trace organics. This type of profile will require limited adjustments needed to support the parking area surface treatment. The benefit to trees is that minor to no changes are needed to prepare subsurface soils for the surface treatment of the parking areas.

The proposed parking area is currently used for parking and as such the roots of the adjacent trees are pre-stressed to this condition.

Placement of parking bumpers (e.g. pre-cast curbs) in front of Tree Numbers 5, 6, 7 and 8 are recommended to prevent future damage to tree trunks from vehicles using the parking area following construction.. The bumpers should be positioned to prevent vehicles from striking trees.

Tree Numbers 11 and 12 are located off-site on adjacent private property. These two trees will experience very minor impact from the proposed construction. The proposed construction footprint is at the TPZ's of both trees. Although the construction footprint is at the TPZ limit, additional care during excavation of the foundation should be implemented as follows:

1. Excavation within the TPZ of both trees should be done by hand. Exposed roots from excavation should be pruned according to proper arboricultural practice. The tree roots at the exposed excavation are to be kept covered (e.g. using a canvas tarpaulin) and moist until the foundation is completed and backfill and soil have been re-instated.

Tree Protection Zone Fence (TPZF) is required for specific trees recommended for preservation. The locations and details of TPZF and TPZF signage are shown on Drawing TCP-1.

One tree (Tree Number 1) to be preserved will not be impacted from the development. It is a mature, municipally-owned Norway Maple behind the sidewalk on Mont Street. No tree protection is recommended for Tree Number 1.

Arboricultural Treatments

Based on the canopy sizes of the trees recommended for preservation and the site plan, minor clearance pruning may be required. This and other arboricultural treatments including crown pruning, root pruning, and review of matters that arise related to trees is to be performed or reviewed by a Certified Arborist.

In order to complete the grading of the parking area within the TPZ, TPZF will need to be removed. During this operation a Certified Arborist should be on site to provide direction and recommendations related to tree protection.

Trees Recommended for Removal

A total of 8 trees are recommended for removal. All 8 trees are recommended for removal due to the impact from the proposed construction. Three of these eight trees are also recommended for removal due to their poor biological health and/or structural condition. A summary of tree removals based on property ownership and reason for removal is provided in Table B.

	Site Tree	Off-site Tree	Municipal Tree	Shared Tree	Subtotal (Quantity)
Remove Due to Tree Condition	2 T#s: 15, 16	None	1 T#: 2	None	3
Remove Due to Development Impact	6 T#s: 9, 10, 13, 14, 15, 16	None	2 T#s: 2, 3	None	8
Subtotal (Quantity)	6 trees	0	2 trees	0	8 trees

Private Tree By-law (2010)-19058

The sizes of the two parcels at 360 Woolwich Street and 15 Mont Street are 0.049ha (5,264sf) and 0.059ha (6,420sf), respectively for a combined total area of 0.108ha. The minimum property area for regulation under the Private Tree By-law (2010)-19058 is parcels larger than 0.2ha. Since the total of both parcels is less than the minimum regulation property size, it is not regulated under the City's Private Tree By-law.

Tree Compensation

The current Tree Conservation Plan is intended to provide a detailed assessment of the trees related to the proposed development, determine the impacts to trees, provide recommendations of tree preservation and removal, and provide mitigation measures to trees to be preserved. Determination of compensation trees is recommended in consultation with the City following City review of the rezoning application (including the current Tree Conservation Plan) and other related studies or plans, e.g. landscape plan.

Bird Nests and Construction Activities

Almost all species of birds in Ontario, including their nests, eggs and young, are protected against disturbance and destruction by the federal Migratory Birds Convention Act, 1994 and the provincial Fish and Wildlife Conservation Act, 1997. No permit can be issued to remove or disturb nests, or trees containing nests, for economic activities including construction and development. Therefore, the Canadian Wildlife Service recommends that no development activities be conducted during the Core Nesting Period, which in southern Ontario (Bird Conservation Region Number 13) is May 1 to July 31. If it is absolutely necessary that work must take place during the Core Nesting Period, a qualified wildlife biologist must carry out a comprehensive survey to identify any nests or breeding activity, and work should be curtailed around any nests that are encountered. Where potential habitat of birds (e.g. trees, woodlands, hedgerows, thickets, meadows) will be disturbed or destroyed by construction and development activity, particularly within the core breeding period, the attached document, *Protection of Migratory Birds and Development* provides further information and recommendations to ensure that there is no contravention of the above acts and regulations.

Please contact the undersigned should you require additional information or have questions about this report.

Report Prepared By:

ABOUD & ASSOCIATES INC.



Steven Aboud, B.Sc., Principal
Senior Ecologist, ISA Certified Arborist ON-0323A
ISA Tree Risk Assessment Qualified

APPENDIX 1. TREE INVENTORY AND ASSESSMENT METHODOLOGY

DBH (cm): Diameter at breast height, 1.4 m above ground, measured in centimeters. Two or more numbers denotes the DBH of each stem/trunk for trees with multiple stems/trunks.

Height (metres): Height of tree from ground to top of crown. Height is estimated from visual ground observations.

Crown Reserve (metres): Crown diameter (tree's canopy) measured at intervals of 1, 3, 5, 8, 10, 15 meters.

Biological Health: Related to presence and extent of disease/disease symptoms and the vigour of the tree.

H (High) - No diseases/disease symptoms present, and moderate to high vigour.

M (Moderate) - Presence of minor diseases/disease symptoms, and/or moderate vigour.

L (Low) - Presence of major diseases/disease symptoms, (i.e., extensive crown dieback), and/or poor vigour.

A further rating may be assigned of M(L) = Low side of Moderate, H(M) = Moderate side of High.

Structural Condition: Related to defects in a tree's structure, (i.e., lean, codominant trunks).

H (High) - No structural defects, well-developed crown.

M (Moderate) - Presence of minor structural defects.

L (Low) - Presence of major structural defects.

A further rating may be assigned of M(L) = Low side of Moderate, H(M) = Moderate side of High.

Position on Site: AP - above-ground planter; ED - Edge, e.g., forest, woodland; IN - Interior, e.g., forest, woodland; HR - hedgerow, row/linear group of trees; OG - open-grown; PI - planting island GP - group/cluster

Site Tree: Tree trunk located partially or completely on the property boundary of the subject property.

Offsite Tree: Tree trunk located completely outside of the property boundary of the subject property.

Municipal Tree: Tree is located on the property of the municipality/region, e.g., within Right-of-Way.

Shared Tree: Tree shared between the subject property and adjacent private or public property.

Site Dev. Impact: Impact to tree is anticipated from proposed development (e.g., road, building) at or near the tree, and/or grade changes (cut/fill).

Transplant Potential: A transplantation recommendation of **Yes** or **No** based on a tree's size, species, and condition, and site conditions (e.g. near adjacent trees/objects, on slopes, soil type).

Recommended Action: A recommendation of the following three categories is assigned to preserve or remove a tree:

i) The tree's current biological health and structural condition

ii) The anticipated impacts from proposed development

iii) The summary of the previous two categories. Note: Only trees having a recommendation of preserve for both health and structure, and impacts from the proposed development are assigned a final recommendation of preserve.

P (Preserve) - Tree has a moderate to high biological health AND moderate to high structural condition, AND is likely to survive impact from the proposed development (if present). The tree is likely to survive for at least 3 to 5 years.

R (Remove) - Tree has low biological health, AND/OR low structural condition, AND/OR will not survive the proposed development impacts (if present). The tree is not likely to survive more than 1-3 years.

C (Conditional) - In some situations a tree's preservation or removal is related to potential relocation/modification of the limit of construction, and/or known arboricultural treatments that will likely improve the biological health and/or structural condition of the tree. This may include review of a tree's condition, e.g., roots, at time of construction/excavation.

APPENDIX 1. TREE INVENTORY AND ASSESSMENT METHODOLOGY

Codes of Damage Descriptions

BA - branch attachment poor
BB - burlap, basket, wire present on/in tree/root ball
BC - bark crack
BD - bark dead
BI - bark included
BS - basal trunk sprouts
CB - crown broken
CD - crown dieback
CK - canker (abnormal growth from disease or damage)
CL - crown live, CL20 - 20% live crown
CS - crown sprouts
CT - crown thin (having reduced foliage)
CU - crown unbalanced
CV - crown vines
DW - deadwood
FB - fungal bodies present
LC - leaves chlorotic (yellow)
LD - leaves defoliated
LP - leader poor/problem
MB - multi-branched node of limbs on stem
ML - multiple leaders
PH - planted high
PL - planted low
PP - past pruning problems
RC - root crown damage/abnormality
RE - roots exposed
RG - roots girdling
SC - stems co-dominant
SG - stem girdled
ST - soil on trunk
TB - trunk bent
TC - trunk cavity
TK - trunk crooked
TD - trunk decay
TE - trunk base enlarged abnormally
TF - trunk basal flair lacking / abnormal
TG - trunk/stem girdling
TL - trunk lean (L< 5°), (M 5-20°), (H>20°)
TM - trunks multiple from at or below ground level
TS - trunk split
TT - trunk twisted
TW - trunk wound
WW - wet wood

Codes of Recommendations

A - Add mulch
B - Remove attachments (burlap, wire, stake, guard)
C - Cable
F - Fertilize
L - lower soil level
M - Monitor
N - None Needed
P - Prune
R - Remove
S - Soil bulk density (compaction) lower
V - soil volume (increase)
W - Water

Life Expectancy

1 - Less than 5 years
2 - 5 to 10 years
3 - 11 to 20 years
4 - 21 to 50 years
5 - 51 to 100 years
6 - 101 to 200 years

Priority: An action priority schedule (i.e. general timing) to provide arboricultural treatment(s).

E - Extremely Urgent (within a week)
U - Urgent (within 3 months)
H - High (within a year)
M - Moderate (within 3 years)
L - Low (little or no action required for at least 5 years)

QUANTIFIED CONDITIONS (defects, diseases)

L (low, minor), M (moderate), H (high, severe)
E.G. CT(H) = severe crooked trunk
TD(L) = minor trunk decay
TF(H) = severely poor basal trunk flare

CARDINAL COORDINATES (N, S, E, W)

e.g., LN(L-S) = minor lean to the south

APPENDIX 1. TREE INVENTORY AND ASSESSMENT METHODOLOGY

TREE QUALITY (TQ)

Tree quality is a rating system of the relative importance of individual trees. It provides information about which trees have the highest quality and should be provided with the highest priority for preservation for existing or proposed land use (e.g., residential, open space). Tree quality is used to rate individual trees within a vegetation community and trees growing separately (e.g. streets, parks, rear yards) and not part of a larger vegetation community. Use of the tree quality rating system should be done by individuals with substantial knowledge about trees and the values that they provide (e.g. species' morphology/ characteristics, cultural requirements, life expectancy,) within human settlement areas (e.g. cities). Criteria used to measure tree quality are species, maturity (based on trunk diameter), biological health, structural condition, and location on the site relative to existing features, e.g. roads, buildings and services.

The rating of tree quality is also applied to vegetation communities as a rating of the quality of trees in general in the overall vegetation community e.g. hedgerow. Trees having a high tree quality rating may be part of a larger vegetation community (e.g., hedgerow) that may have a poor overall rating of biological health or structural condition. In other words, low quality vegetation communities may contain one or more moderate or high quality trees, which may warrant individual study and preservation.

The following are criteria used in the rating of the quality of an individual tree.

- **Species Quality:** Generally preferred species are those that are long-lived (> 100 years under preferred / low stress growing conditions), provide preferred shading and screening benefits through natural development of crown and foliage, and typically develop few to no structural problems given modest management.

Low Quality Tree Species: Manitoba maple, tree-of-heaven, white mulberry, Russian olive, poplars, willows.

Moderate Quality Tree Species: white ash, silver maple, black walnut, Kentucky coffee-tree, honey locust, basswood, Katsura tree, catalpa, birches, Norway maple, ironwood, crab apple, Austrian pine, Scot's Pine, white cedar

High Quality Tree Species: sugar maple, maidenhair tree, American beech, Colorado spruce, most hickories, white elm (DED resistant cultivars), hackberry, most oaks

- **Maturity (Based on trunk size- DBH):** immature (<15cm); moderately mature (15-30cm); mature (>30 cm).
- **Biological Health:** low, moderate or high.
- **Structural Condition:** low, moderate or high.
- **Location:** Tree location provides benefits (e.g. shading along street/boulevard, screening of rear yards, definition of space in parks). Tree location can be poor if it is/will interfere with existing structures and buildings, and services such as power lines.

LOW TREE QUALITY: The quality of the tree is poor; having any two or more of the following criteria.

- low quality tree species (e.g., tree-of-heaven, Manitoba maple)
 - low biological health
 - low structural condition
 - small, immature size of < 15cm DBH
 - tree is over-mature for the species (e.g., old Lombardy poplar)
 - tree is located so that it will damage existing structures or interfere with existing services within 5 years
- Improvement of the tree's quality is likely not possible or will require extensive mitigation.
Preservation may or may not be recommended.

MODERATE TREE QUALITY: The quality of the tree is moderate or fair, having all of the following criteria.

- moderate to high quality tree species
- moderate biological health
- moderate structural condition
- moderate, immature (15 to 30cm DBH) to mature (> 30cm DBH) size
- tree is located so that it may damage existing structures or interfere with existing services within 5 to 10 years, OR not likely at all to interfere with existing structures or services

Tree is likely to continue its moderate quality rating for at least 3 to 10 years under existing conditions. Minor treatments of tree's health/structure may be required.
Preservation is recommended.

HIGH TREE QUALITY: The quality of the tree is high or good having all/most of the following criteria.

- high quality tree species
- moderate to high biological health
- moderate to high structural condition
- mature size of > 30cm DBH
- tree is located so that it is not likely at all to interfere with existing structures or services

Tree is likely to continue its high quality rating for at least 10 years under existing conditions. Minor to no tree care treatments are required.
Preservation is recommended.

A further breakdown of Tree Quality rating may be assigned:

M(L) = a low, moderate rating (slightly poorer than moderate)

(M)L = a moderate, low rating (slightly better than low)

QUANTITY OF QUALITY TREES

The quantity of trees within a vegetation community (e.g., hedgerow) well suited as urban shade/screen trees (e.g., Moderate to High Tree Quality) under existing conditions, are listed.

APPENDIX 2. DETAILED TREE DATA:

360 Woolwich St and 15 Mont St, City of Guelph

Recorded May 22, 2014 (See Appendix 1 for Tree Assessment Codes; Trees not tagged)

AA14-063A

See last page for totals

Tree No.	Tree Species	DBH (cm) (combined total)	Height (m, est)	Crown Reserve (m, est)	Min. Protection Zone Dia: (m) 1	Biological Health	Structural Condition	Tree Quality	Site / Offsite / Municipal / ShareRed	Rec. Based on Health & Structure	Rec. Action Based on Development Impacts	Final Rec'n: P / R	Observations / Treatments
1	Acer platanoides Norway Maple	37	12	10	5.2	M	M	HM	M	P	P	P	-UC(M-E)
2	Acer saccharum Sugar Maple	83	18	12	11.6	ML	L	L	M	R	R	R	-TD(H-SE); BD(50% TRUNK CIRC.); CT(M); MAJOR LIMB IN OVERHEAD COMM/CABLE WIRES; PP(H); UC(H- S) -RECOMMEND BASIC TREE RISK ASSESSMENT, IF PRESERVED
3	Acer saccharum Sugar Maple	40	12	10	5.2	M	M	M	M	P	R	R	-CD(L); MB(L)
4	Juglans nigra Black Walnut	45	16	15	6.5	H	HM	H	O	P	P	P	-UC(M-E) -DBH ESTIMATED
5	Acer platanoides Norway Maple	63	14	15	9	M	M	M	S	P	P	P	-LN(L-S); UC(M-S); PP(M); CT(L); TF(L)
6	Acer platanoides Royal Red Royal Red Maple	46	15	12	6.5	H	M	M	O	P	P	P	-LN(L-S); UC(M-SE); SC2@3M
7	Fraxinus pennsylvanica Green Ash	23	15	8	3.8	M	M	M	S	P	P	P	-SC2@6M
8	Fraxinus pennsylvanica Green Ash	12	8	5	3.7	M	ML	M	S	P	P	P	-ST2@0.5M -DBH'S 7, 10
9	Fraxinus pennsylvanica Green Ash	46	15	12	6.5	M	M	M	S	P	R	R	-DW(L)
10	Acer platanoides Crimson King Crimson King Maple	57	15	15	7.8	HM	M	M	S	P	R	R	-UC(M-SE); SC2@2M; TF(L)
11	Thuja occidentalis Eastern White Cedar	12	8	4	3.7	ML	M	M	O	P	P	P	-CT(L) SUPPRESSED
12	Abies balsamea Balsam Fir	18	12	5	3.8	M	M	ML	O	P	P	P	-LC40%
13	Acer palmatum Atropurpureum Purple Japanese Maple	16	6	6	3.8	M	M	M	S	P	R	R	-BI(M); SC2@0.5M
14	Gleditsia triacanthos Sunburst	20	6	8	3.8	H	HM	H	S	P	R	R	
15	Juniperus chinensis Chinese Juniper	17	4	4	3.8	M	L	M	S	R	R	R	-TM(M) -DBH'S 8,8,8,6,8
16	Rhamnus cathartica European Buckthorn	14	5	5	2.9	H	L	L	S	R	R	R	-TM(M) -DBH'S 10,8,6

**APPENDIX 2. DETAILED TREE DATA:
360 Woolwich St and 15 Mont St, City of Guelph**

AA14-063A

See last page for totals

Recorded May 22, 2014 (See Appendix 1 for Tree Assessment Codes; Trees not tagged)

Tree No.	Tree Species	DBH (cm) (combined total)	Height (m, est)	Crown Reserve (m, est)	Min. Protection Zone Dia: (m) 1	Biological Health	Structural Condition	Tree Quality	Site / Offsite / Municipal / Shared	Rec. Based on Health & Structure	Rec. Action Based on Development Impacts	Final Rec'n: P / R	Observations / Treatments
----------	--------------	------------------------------	-----------------	------------------------	---------------------------------	-------------------	----------------------	--------------	-------------------------------------	----------------------------------	--	--------------------	---------------------------

TOTALS

Tree Quality: Low	2												
Tree Quality: Moderate-Low	1												
Tree Quality: Moderate	10												
Tree Quality: High-Moderate	1												
Tree Quality: High	2												
Subtotal	16												
Site Trees								9					
Offsite Trees (private property)								4					
Municipal Trees (public property)								3					
Shared Trees								0					
Subtotal								16					
Preserve Tree Based on Health & Structure										13			
Remove Tree Based on Health & Structure										3			
Subtotal										16			
Preserve Tree Based on Development Impacts											8		
Remove Tree Based on Development Impacts											8		
Subtotal											16		
Final Recommended Action: Preserve												8	
Final Recommended Action: Remove												8	
Subtotal												16	

1. Tree protection zone distances (diameter) calculated by: 2 X Minimum Protection Distance for City-owned and Private Trees (SS-31, Specifications for Trees, City of Guelph) + DBH.

APPENDIX 3. LIMITATIONS OF THIS TREE ASSESSMENT

It is the policy of Aboud & Associates Inc. to attach the following clause regarding limitations. We do this to ensure that developers, agencies, municipalities and owners are clearly aware of what is technically and professionally realistic in retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of the above-ground parts of each tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of insect attack and crown dieback, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the tree(s) and the surrounding site, and the proximity of property and people. Except where specifically noted in the report, none of the trees examined were dissected, cored, probed, or climbed, and detailed root crown examinations involving excavation were not undertaken.

Notwithstanding the recommendations and conclusions made in this report, it must be realized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions, or seasonal variations in the weather conditions, including severe storms with high-speed winds.

While reasonable efforts have been made to ensure that the trees recommended for retention are healthy unless stated otherwise within the report, no guarantees are offered, or implied, that these trees, or any parts of them, will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or group of trees or their component parts in all circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure in the event of adverse weather conditions, and this risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of the inspection.

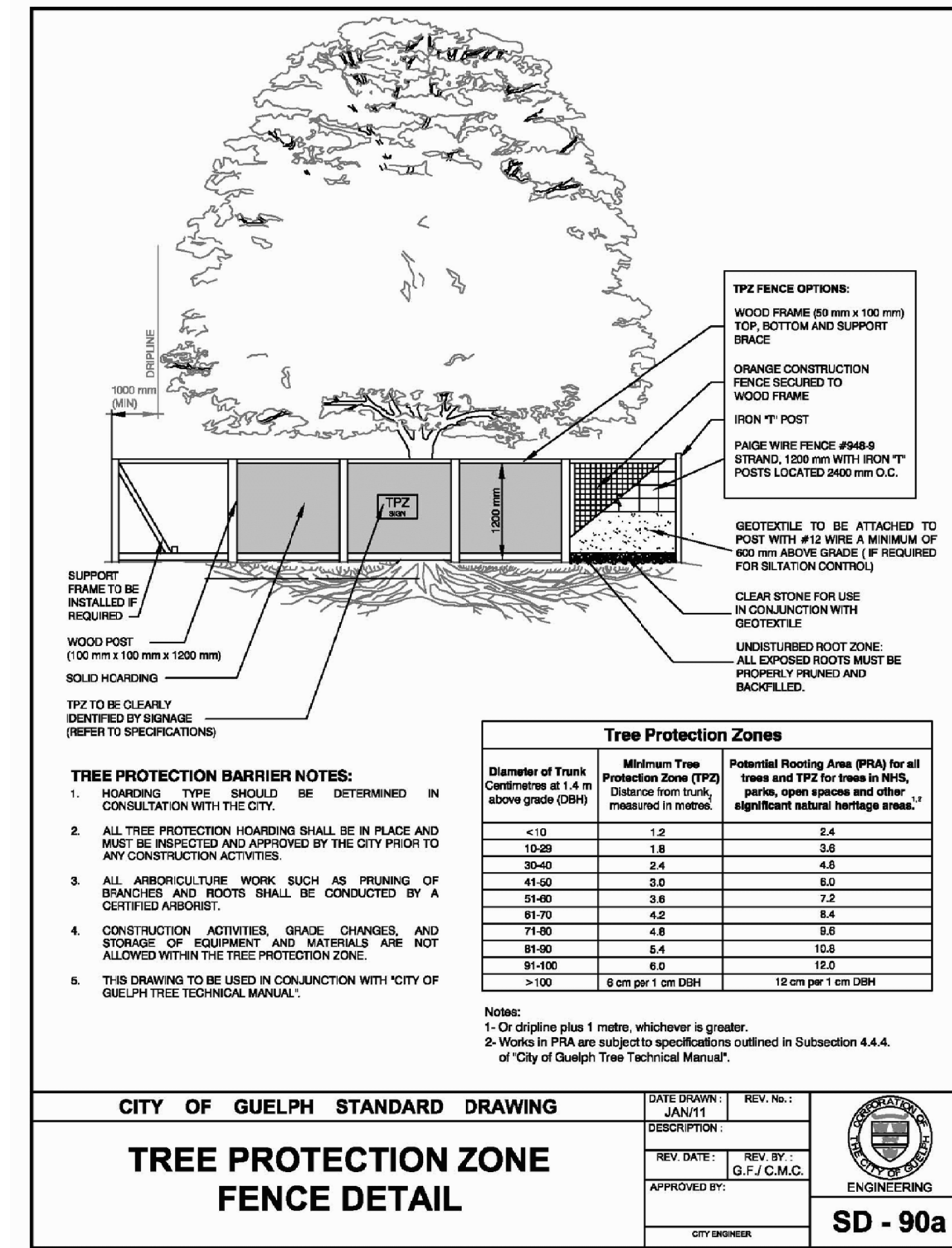
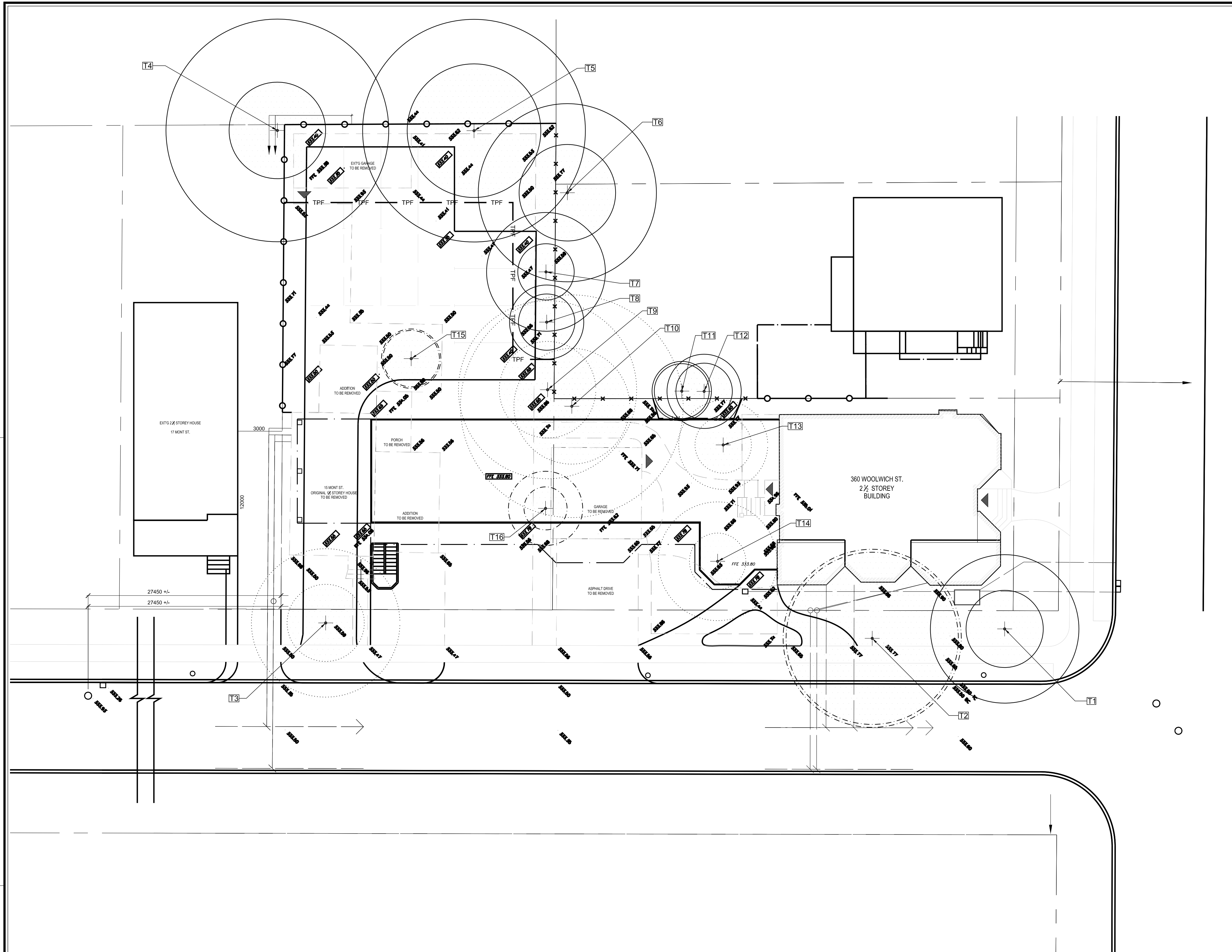
Appendix 4. Protection of Migratory Birds and Development

Most species of birds in Ontario are protected under the federal Migratory Birds Convention Act, 1994 (MBCA) or the provincial Fish and Wildlife Conservation Act, 1997. The “incidental take” of migratory bird nests or the disturbance, destruction or taking of the nest of a migratory bird are prohibited under section 6 of the *Migratory Bird Regulations* (MBRs), under the authority of the MBCA. “Incidental take” is defined as the harming of migratory bird nests due to actions such as construction activities. No permit can be issued for the incidental take of migratory birds or their nests as a result of economic activities.

Project construction, operation or maintenance activities such as vegetation clearing, tree removal/harvesting, site grubbing, site access, excavation and stockpiling of soil/fill could result in the incidental take of migratory birds or their nests if conducted in migratory bird habitat. Construction activities could also disturb nearby breeding birds and disrupt breeding. It is the proponent’s responsibility to meet the requirements of the MBRs and should projects or activities result in the contravention of the MBRs, prosecution under the MBCA may be initiated.

In order to ensure compliance with the MBRs, Aboud & Associates recommends the following:

1. Activities resulting in the disturbance, destruction or removal of potential breeding bird habitat should, where possible, not take place during the Core Nesting Period. The Core Nesting Period is identified by Canadian Wildlife Service as the period between May 1 and July 31 in the Lower Great Lakes/St. Lawrence Plain (North American Bird Conservation Area 13).
2. When it is absolutely necessary that work must take place during the Core Nesting Period, a qualified wildlife biologist must carry out a comprehensive survey to identify areas on the subject property where birds are building nests, incubating eggs, rearing young, etc. All disruptive activities in the nesting area should be halted and identified nests should be protected with a buffer (i.e. nest protection zone/no disturbance zone) appropriate for the species, the disturbance intensity level and the surrounding habitat. Disruptive activities can continue once the biologist has deemed that fledglings have naturally left the vicinity of the nest.
3. Disruptive activities taking place outside of the Core Nesting Period, particularly during the two months before and one month following the Core Nesting Period, can be preceded by an assessment by a qualified wildlife biologist to ensure that no early or late breeding birds would be impacted.

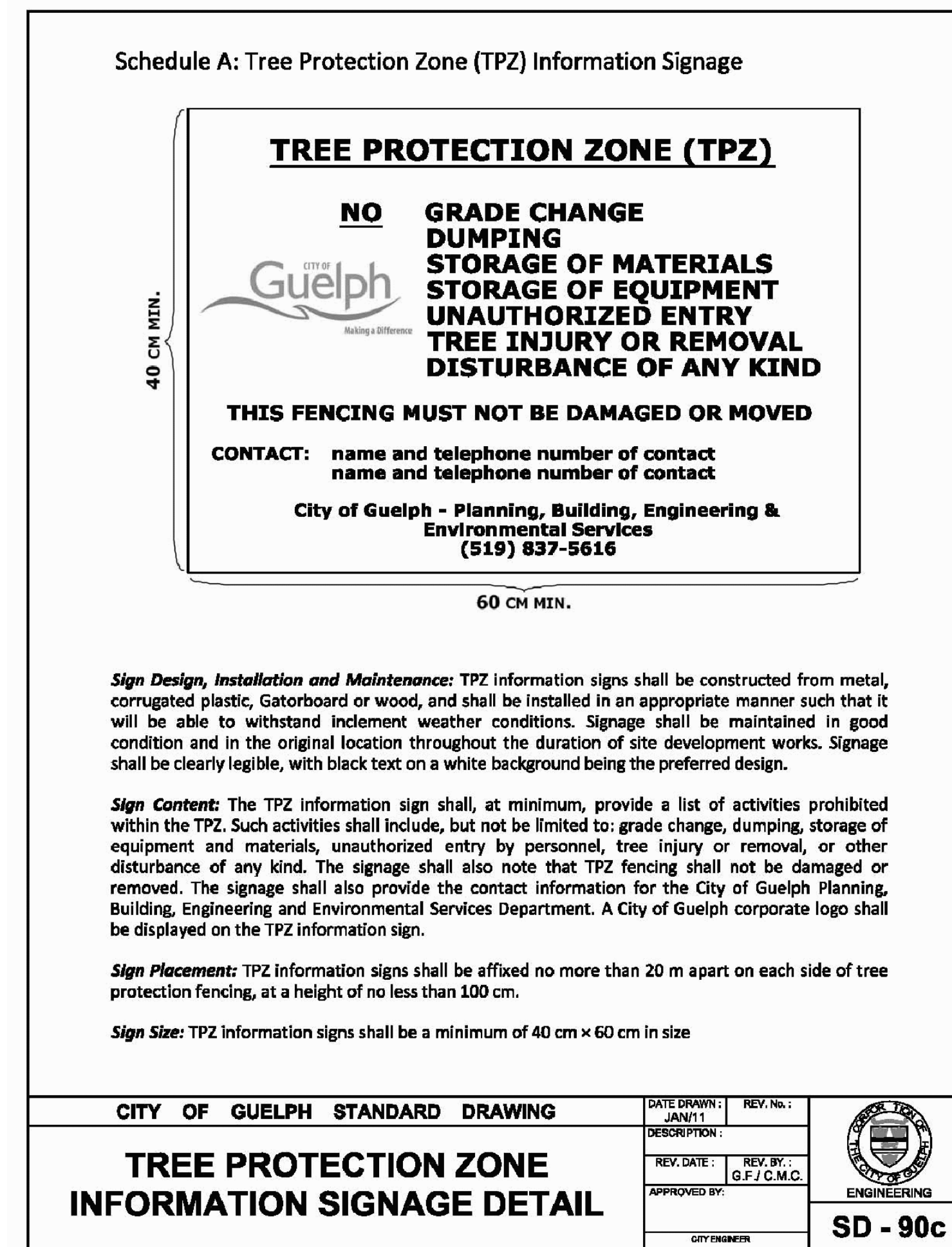


CITY OF GUELPH STANDARD DRAWING

TREE PROTECTION ZONE FENCE DETAIL

DATE DRAWN: JAN/11
 DESCRIPTION:
 REV. DATE: REV. BY: G.F./C.M.C.
 APPROVED BY: CITY ENGINEER

REV. No. 1
 SD - 90a



- LEGEND:
- TPF TREE PROTECTION FENCE
 - (T) EXISTING TREE
ID NUMBER / CIRCLE ILLUSTRATES APPROXIMATE CROWN RESERVE
 - (○) EXISTING TREE
INDICATES MINIMUM TREE PROTECTION ZONE SS-31 SPECIFICATIONS FOR TREES TREE PROTECTION ZONES, CITY OF GUELPH, 2012
 - (●) PRESERVE TREE
TREE HAS MODERATE TO HIGH BIOLOGICAL HEALTH AND/OR STRUCTURAL CONDITION AND CAN BE INCORPORATED INTO THE PROPOSED DEVELOPMENT
 - (○) REMOVE TREE
TREE HAS LOW BIOLOGICAL HEALTH AND/OR STRUCTURAL CONDITION
 - (○) REMOVE TREE
TREE IS IN CONFLICT WITH PROPOSED DEVELOPMENT
 - (○) REMOVE TREE
TREE HAS LOW BIOLOGICAL HEALTH AND/OR STRUCTURAL CONDITION AND IS IN CONFLICT WITH PROPOSED DEVELOPMENT
 - (○) REMOVE TREE
TREE IS DEAD
 - 339.95 EXISTING SPOT ELEVATION
 - 339.93 PROPOSED SPOT ELEVATION

- INFORMATION SOURCES
- Site plan prepared by J. David McAuley Architect Inc.
 - Tree locations Estimated by J. David McAuley and S. Aboud, May and June 2014

No.	Description	By	Date
0	FIRST SUBMISSION	SA	JUNE 2014

REVISIONS: All previous issues of this drawing are superseded

ABOUD & ASSOCIATES INC.
 Consulting Arborists • Ecologists • Landscape Designers
 591 Woolwich Street, Guelph, Ontario, Canada, N1H 3Y5
 1-519-822-6699 • 1-519-822-4052 • info@abouding.com • www.abouding.com

TREE PRESERVATION PLAN

Project:
360 WOOLWICH STREET AND 15 MONT STREET GUELPH

Date: JUNE 2014
 Project: AA14-063A
 Scale: 1:150
 Designer: SA
 Drawn: SK
 Checked: SA

Drawing No: **TCP-1**

FILEPATH: S:\AA\PROJECTS\2014\463A\360 WOOLWICH STREET AND 15 MONT STREET\2014-06-22.DWG CTB: ABOUD02007.dwg PLOTTED: 2014-06-22 11:13 AM