

## **Appendix A-5: Public Information Centre #4 Summary and Materials**





## Lawrence Park Neighbourhood Investigation of Basement Flooding and Road Improvement Study Municipal Class Environmental Assessment

September 2016

Public Information Centre #4  
Summary Report



Prepared by Lura Consulting  
for the City of Toronto



This report was prepared by Lura Consulting. Lura is providing independent facilitation services as part of the Lawrence Park Neighbourhood Investigation of Basement Flooding and Road Improvement Study. The report presents the key discussion points and outcomes from Public Information Centre #4 held on May 26<sup>th</sup> 2016 and is not intended to provide a verbatim transcript. If you have any questions or comments regarding the report, please contact either:

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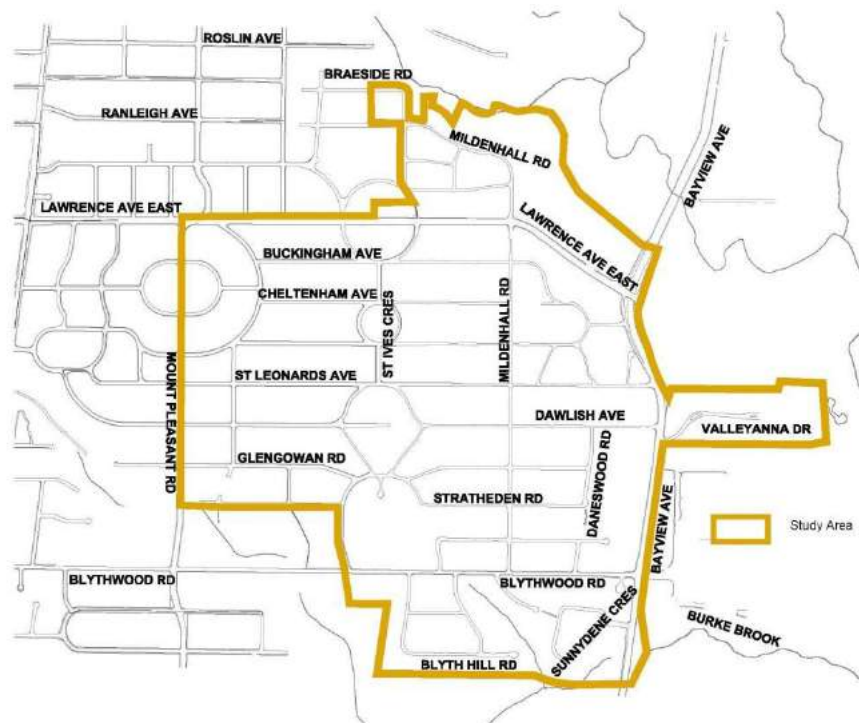
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## 1.0 BACKGROUND

The City of Toronto has initiated a Municipal Class Environmental Assessment (EA) study to address issues relating to deteriorating road conditions, traffic, pedestrian safety, drainage problems and basement flooding in the Lawrence Park neighbourhood (see study area map below). Measures that improve stormwater quality and reduce storm runoff will also be incorporated.

The study is following the requirements set out in the Municipal Class Environmental Assessment (MCEA) document dated October 2000, amended in 2011. The MCEA process provides members of the public and interest groups with opportunities to provide input at key stages of the study. The study will define the problem, consider and evaluate alternative solutions, assess impacts of the preferred solutions, and identify measures to lessen any adverse impacts. It will result in a series of recommended projects for the study area.



City staff and a multidisciplinary team of consultants began working on the EA in November 2012. The project team is being led by Aquafor Beech, an engineering and environmental services firm. Other firms on the project team include: Morrison Hershfield, Terraprobe, and Aboud & Associates. Lura Consulting is providing independent facilitation services for the study.

## 2.0 PUBLIC INFORMATION CENTRE #4

### 2.1 Overview

This public information centre (PIC) was the fourth in a series of PICs hosted by the City of Toronto as part of the Lawrence Park EA study. The PIC took place on May 26, 2016 from 6:30 - 9:30 pm at the Lawrence Park Community Church.



The PIC was designed to:

- Review the study purpose and process;
- Provide an update on the work completed since PIC #3 (May 2015);
- Obtain community feedback on the revised plan and recommendations to address deteriorating road conditions, traffic problems, pedestrian safety, road drainage problems and basement flooding issues in the Lawrence Park Neighbourhood; and
- Discuss next steps for the EA process.

The PIC format consisted of an open house from 6:30 - 7:00 pm, followed by a presentation from 7:00 - 7:50 pm. The presentation focused on recommendations for road reconstruction including an updated assessment of tree impacts, and a review of the recommendations for basement flooding and traffic safety. Following the presentation, remarks were made by City Councillor Jaye Robinson, Frank Morneau of the Lawrence Park Ratepayers Association, and Mayor John Tory. Questions of clarification were taken from 8:30 - 9:30 pm after the presentation and remarks. At the end of the meeting community members were given the opportunity to speak to project team members and City Staff, and complete feedback forms that were distributed at the outset of the meeting. Approximately 149 people signed in and participated in the PIC.

A copy of the PIC agenda and meeting notice can be found in Appendix A. The feedback form used at the PIC is included in Appendix B.

## **2.2 Open House**

During the open house, participants had an opportunity to view displays that featured the revised tree assessments and study recommendations, which included illustrations of existing and proposed road dimensions. A copy of the boards can be found on the City of Toronto's website for the study: [www.toronto.ca/lawrencepark](http://www.toronto.ca/lawrencepark).

Members of the EA project team and City staff were available at the Open House to answer questions informally and respond to feedback.

## **2.3 Welcome and Introductions**

Jim Faught, Lura Consulting, introduced himself as the independent facilitator who would be responsible for keeping the meeting on time and moderating the discussions. He stated that Lura would be preparing a report based on the meeting's proceedings and outcomes.

Mr. Faught noted that the purpose of the meeting was to provide an update on the work completed since PIC #3 in May 2015 and obtain community feedback on the revised plan and recommendations for the study area. He added that participants could provide feedback by filling out a feedback form (see Appendix B) that could be submitted any time before June 10, 2016.



The City and project team staff present at the meeting included:

- Senior Engineer, Engineering and Construction Services, and Project Manager, Jackie Kennedy
- Director, Engineering and Construction Services, John Kelly
- Senior Project Manager, Engineering and Construction Services, Grace Tesa
- Senior Engineer, Infrastructure Asset Management and Programming, Transportation Services, Mark Berkovitz
- Director, North York District, Transportation Services, Jacqueline White
- Manager, Traffic Operations, Transportation Services, Shawn Dillon
- Traffic Engineering Supervisor, Traffic Operations, Transportation Services, Shawn Dartsch
- Manager, Pedestrian Projects, Transportation Services, Fiona Chapman
- Manager, Public Consultation Unit, Tracy Manolakakis
- Manager, Stormwater Management, Toronto Water, David Kellershohn
- Senior Engineer, Stormwater Management, Toronto Water, Man-Kit Koo
- Supervisor, North York District, Urban Forestry, Tara Bobie
- Aquafor Beech, Dave Maunder
- Aquafor Beech, John Ho

Mayor John Tory and Councillor Jaye Robinson were also in attendance.

Mr. Faught recognized the efforts of the Community Advisory Group (local residents and community group representatives) that met prior to the PIC to preview and help refine the presentation materials.

## **2.4 Presentation**

John Kelly, Director, Engineering and Construction Services, City of Toronto, provided opening remarks and clarification regarding the information provided to the community through the City's recent notices. He stated that in May 2015 the City estimated that approximately 349 City owned trees (referred to as street trees) may be removed due to the anticipated construction work. After the PIC in May 2015 the City conducted detailed assessments of the trees and the potential impacts, and has identified 247 trees that can be saved through various construction techniques. He noted that the total number of trees estimated to be removed is now 106, and the City will continue to reduce that number as much as possible through the design stage.

Mr. Kelly explained that at this point in the study, the infrastructure that is needed in the area is being identified as well as the associated costs, and that the prioritization of the work will be happening at a later date. He concluded by noting that construction would not begin for at least 3 years.



Jackie Kennedy, Project Manager and Senior Engineer, City of Toronto, presented an overview of the EA study purpose and process, and an overview of the study recommendations for road reconstruction, sidewalks, traffic management, and basement flooding.

Ms. Kennedy presented further detail on the assessment of tree impacts, including the current count of trees estimated to be removed and replaced, preserved, and not impacted based on a customized Tree Impact Zone. She noted that the revised and updated tree assessments are available online at the study website and for review in the open house that evening, for each street recommended for road reconstruction within the study area. The City will continue to find opportunities to reduce tree impacts and removals during the design and construction stages. The City is also committed to increasing the tree canopy by planting new street trees as early as this year, in consultation with affected property owners.

The presentation concluded with a review of next steps in the study process.

A copy of the presentation and tree assessments can be found on the City of Toronto website: [www.toronto.ca/lawrencepark](http://www.toronto.ca/lawrencepark). For a summary of the questions of clarification and feedback following Ms. Kennedy's presentation see Appendix C.

## ***2.5 Remarks from Councillor Jaye Robinson, Ward 25***

Following the presentation Mr. Faught invited Councillor Jaye Robinson to make some remarks. Ms. Robinson thanked everyone for attending and being actively engaged in the EA process. She noted that the issues and priorities raised in Lawrence Park during the study have been divisive but she is hoping to work through them with the community and City staff.

Ms. Robinson expressed her commitment to tree protection and said she has initiated a review of the City's tree protection policies. She stated that 106 trees anticipated to be removed in Lawrence Park is still too many and she is committed to working with staff to reduce that number even further. She has requested that a Construction Liaison Committee be established consisting of residents from each street as the EA moves through the detailed design stage, as this was a successful approach during the reconstruction of roads in the Hoggs Hollow neighbourhood.

Ms. Robinson concluded by noting that she understands that trees are very important to the community and she will ensure that residents have a voice throughout the entire study process.

## ***2.6 Remarks from Lawrence Park Ratepayers Association***

Frank Morneau, Director of the Lawrence Park Ratepayers Association (LPRA), requested to make remarks during the meeting. Mr. Morneau stated that he was asked to speak on behalf of the LPRA membership and executive committee about their concerns. He stressed the importance of preserving and protecting the City's tree canopy. Mr. Morneau described the



LPRA's efforts to increase awareness of the study and he stated that a large number of residents do not agree with the City's recommendations.

After reviewing the LPRA's involvement in the study process, Mr. Morneau summarized the Board's recommendations that were unanimously put forward:

1. Any work necessary to correct basement flooding issues should be proceeded with.
2. A 7.2 m road width and one sidewalk on Mildenhall Road is supported. This may be more easily accomplished by designating Mildenhall Road as a local road.
3. A comprehensive survey of residents must be undertaken before the LPRA can accurately recommend the residents' position on the City's proposals.

Mr. Morneau further stated that the LPRA is planning to undertake a door-to-door poll and will advise the City of the outcomes. The LPRA requested that City staff defer presenting their final report to Council until after the LRPA completes their survey of residents regarding the study recommendations. He also noted that the Mildenhall Ratepayers Association is in agreement with the LPRA Board recommendations.

Mr. Morneau concluded by asking whether the City has prepared an assessment of the environmental impact of the additional carbon dioxide that would be released into the atmosphere after the trees are removed. If so, the LPRA would like to be provided with the details. He also asked whether the City has assessed the effect of tree reduction on the overall canopy. He suggested that slide 17 of the presentation is a misleading report of the effect of the removal of trees on the canopy. He added that tree size should also be considered in the assessment of the tree canopy impacts.

## ***2.7 Remarks from Mayor John Tory***

Mayor John Tory was invited to make some remarks. He began by stating that he knows the neighbourhood very well and understands the issues at hand. He noted that he receives many complaints about basement flooding in Lawrence Park and across the City. He added that the character of the neighbourhood is highly valued, but it is important to address the basement flooding issue.

Mayor Tory acknowledged that sidewalks are a separate issue. He stated that there is legislation from the Ontario government regarding sidewalks. The City wants to find pragmatic ways to minimize the impact of sidewalks.

He concluded by urging residents to use the process in place to reach a solution. He stated that he would like to continue reducing the number of impacted trees. City staff and Council are committed to a process that works and there are signs of progress being made.



## 3.0 SUMMARY OF PARTICIPANT FEEDBACK

At the PIC, participants were able to provide feedback by completing a feedback form. A combined total of 27 feedback forms were received which were either handed in at the PIC or submitted after the meeting.

Sections 3.1, 3.2, and 3.3 include a summary of the feedback received in response to the revised plan to protect street trees, the revised recommendation for Mildenhall Road, and additional input on the study recommendations. Additional feedback received through letters, telephone calls, and emails following the PIC is summarized in Section 3.4.

### 3.1 *Feedback on Revised Plan to Protect Street Trees*

Participants were asked whether they agree with the revised plan to protect street trees. Key feedback is summarized below:

- Overall, there was no consensus on whether participants agree or disagree with the revised plan to protect street trees.
- In general, there was support for preserving as many trees as possible.
- Comments in agreement with the revised plan to protect street trees include:
  - The plan strikes the right balance of improving roadway conditions and adding sidewalks while saving trees.
  - The sidewalks proposed are the minimum number of sidewalks to help pedestrians navigate the streets safely.
  - There is support for meeting public safety needs while reducing the impact on trees.
  - Staff have listened and response is very progressive.
- Comments in disagreement with the revised plan to protect street trees include:
  - The number of trees to be removed or injured is too high.
  - No trees should be removed, especially when the City is trying to expand its overall tree canopy.
  - Removal of trees will have negative environmental and air quality impacts.
  - Sidewalks on St. Leonards Avenue are not required. The character of the street will be negatively altered. Safety has never been an issue in its current state without sidewalks.
  - This process should be taken as an opportunity to put a sidewalk on every street.

### 3.2 *Feedback on the Revised Recommendation for Mildenhall Road*

Participants were asked whether they agree with the revised recommendation for Mildenhall Road south of Lawrence Avenue (7.2 m road width, 2 sidewalks, urban cross section). Key feedback is summarized below:

- Overall, there was no consensus on whether participants agree or disagree with the revised recommendation for Mildenhall Road.



- Overall, there was concern that the speed of traffic along Mildenhall Road will increase with a newly paved road surface.
- Comments in agreement with the revised recommendation include:
  - Public safety is of paramount importance. Two sidewalks are required on Mildenhall Road.
  - Mildenhall Road needs two sidewalks as it is a high traffic street and is dangerous for pedestrians.
  - Sidewalks must be added to thoroughfare streets (Mildenhall Rd) and/or high traffic roads in the neighbourhood to allow for safe passage of pedestrians.
  - The measures proposed are a reasonable compromise to the infrastructure deficit and reflect the best interests of the greater good.
- Comments in disagreement with the revised recommendation include:
  - Mildenhall Road should be classified and calmed to be a local road with one sidewalk.
  - A 7.2m road width with one sidewalk is preferred as it would save more trees.
  - One sidewalk in addition to traffic calming measures (e.g., speed bumps, four-way stop signs, reduced speed limit) would be sufficient to provide for pedestrian safety.
  - There was concern about the removal of parking for Cheltenham Park users.
- There was concern that accessible parking may block traffic on Mildenhall Road with a narrower road width of 7.2 m.

### **3.3 Other Feedback on Study Recommendations**

Participants were asked to share other feedback on any of the other study recommendations for basement flooding, study area streets, or traffic safety. Key feedback is provided below organized into recurring themes:

#### **Sidewalks**

- There are mixed views on the proposal to add sidewalks to certain study area streets. Some participants feel that sidewalks are needed to provide a safe route to destinations such as Blythwood Public School, Lawrence Park Community Church and the Toronto French School, while others feel that a sidewalk is only needed on Mildenhall Road.
- A more detailed impact study should be conducted to assess the need for sidewalks.
- Concern that a sidewalk on Glenallan Road is not necessary as it is not a connecting street through the neighbourhood and adding a sidewalk will encourage more vehicular traffic.
- Concern that a sidewalk on Dawlish Avenue is not necessary. Since parking is not permitted on the street and traffic volumes are low, there is sufficient space for pedestrians to walk safely.
- A sidewalk should be reconsidered on Cheltenham Avenue leading to Cheltenham Park to provide safe, direct access to the park.



### **Street Trees**

- Consider the increased costs to homeowners of removing existing street trees (e.g., heating and cooling costs, new landscaping costs, new privacy screening costs, etc.).
- There needs to be a final, detailed plan that shows precisely what will be done to save every tree that is threatened to be both ‘preserved if possible’ and ‘removed and replaced’.

### **Traffic Safety**

- There was concern with pedestrian safety at the intersection of Buckingham Avenue/St. Ives Avenue/Wanless Crescent. Parking should not be permitted near this intersection to improve visibility and a pedestrian path should be clearly marked. There were also concerns with cars speeding at this intersection.

### **Basement Flooding**

- There were mixed views on the need to improve the sewer system in the neighbourhood. Some participants expressed support for upgrading the sewer systems to address basement flooding while others were concerned that improving the sewer system will not eliminate basement flooding issues as they are the result of individual homeowner actions.
- It was suggested that homeowners should be obligated to make grading improvements to prevent basement flooding.
- It was suggested that homeowners experiencing flooding should undertake an engineering assessment to address their drainage issues and repairs should be subsidized by the City or Province.

### **Stormwater Drainage**

- There are issues with water ponding at Fidelia Avenue and Strathgowan Crescent.
- There was support for requiring more permeable surfaces on properties to increase drainage.
- It was raised that storm drains need to be properly maintained to prevent blockage by fallen leaves and debris.

### **Other**

- Questions were raised regarding accommodating existing heated driveways during the construction process.
- Questions were raised regarding who is responsible for snow removal on proposed Mildenhall Road sidewalks.

## **3.4 Additional Feedback Received**

Additional comments were received from participants through letters, telephone calls, and emails leading up to and after the PIC. Sixty five (65) additional comments were received. Key feedback is summarized below organized into recurring themes:



## Sidewalks

- There was some concern that the study recommendations place a priority on preserving the natural environment over improving pedestrian safety and building walkable and accessible communities.
- Some community members expressed support for at least one sidewalk on every street in the neighbourhood so that pedestrians of all ages and abilities can walk safely while other community members would like to see no sidewalks (with the exception of Mildenhall Road) and no roads widened.
- There were mixed views on the number of sidewalks that should be recommended for Mildenhall Road. Some community members suggested that one sidewalk on Mildenhall Road is sufficient to balance the issues of safety, traffic calming and preserving the tree canopy while others noted that the current recommendation of two sidewalks is appropriate.
- It was suggested that the rationale for recommending two sidewalks on Mildenhall Road needs to be more clearly presented.
- There were mixed views on whether there should be a sidewalk on Rothmere Drive. Some community members noted that Rothmere Drive provides an important link between Wanless Park and the Toronto French School and should therefore be reconsidered for a sidewalk while others were opposed to a sidewalk.
- It was noted that sidewalks should be recommended on streets that provide connections to local parks (i.e. Cheltenham Avenue and Rothmere Drive).
- Some community members suggested a sidewalk on Dawlish Avenue is not necessary, especially given that there is no sidewalk proposed on Dawlish Avenue west of Mildenhall Road.
- A question was raised regarding whether the proposed sidewalk on Dawlish Avenue (1.7 m width) could be narrowed to accommodate restrictions such as trees, especially given that the width of the existing sidewalk on the west end of Dawlish Avenue is approximately 1.25 m.
- There was a request to understand why Glenallan Road is proposed to have a sidewalk.

## Traffic Safety

- There were concerns expressed with vehicular traffic speeds throughout the neighbourhood. It was noted that the proposed recommendations may encourage more traffic and speeding.
- There was support for four-way stops as a traffic calming measure at every intersection on Mildenhall Road. There was a request to know how many rear end accidents occur on similar streets such as Duplex Avenue and Jedburgh Road which have four-way stops.
- Regardless of the number of sidewalks recommended for Mildenhall Road, there was a preference for the road width to be 7.2 m to reduce the potential for speeding and reduce the impact on trees.
- There was concern that there will continue to be tradespeople parking illegally on Mildenhall Road and the proposed recommendations should take this into



consideration. 'No stopping' signs and ticketing are currently not a deterrent for illegal parking on this street. Similarly, there was a general concern that there will not be parking available for users of Cheltenham Park with the addition of two sidewalks.

- It was suggested that a broader system of one-way streets be implemented on Dawlish Avenue, St. Leonards Avenue, Rochester Avenue, Cheltenham Avenue, and Buckingham Avenue to reduce cut-through traffic and increase pedestrian safety in the neighbourhood.
- There was concern that Mildenhall Road is classified as a collector road. It was suggested that alternative sidewalk materials and streetscape elements (e.g., flower pots, light posts, roundabouts) be introduced so the street does not take on the character other collector roads such as Blythwood Road.
- It was suggested that further study of vehicular traffic volumes as well as pedestrian traffic volumes is required in order to determine the most appropriate traffic calming and pedestrian safety solutions.
- There was interest in adopting 'shared roadway' strategies on the neighbourhood streets to increase pedestrian safety without the need for sidewalks (e.g., signage, road markings, improved lighting).
- There was support for localized road narrowing and shifting as a means to preserve trees and calm traffic.

### **Street Trees**

- Strong concerns were raised about the potential tree canopy losses and change to the character of the neighbourhood. It was suggested that the City must look for ways to minimize the disruption and damage to the tree canopy when making the necessary changes to the streets.
- Many community members highlighted the various benefits provided by the tree canopy (e.g., improved air quality, shade, shielding noise, aesthetics, stormwater absorption, wildlife habitat, etc.). There was concern that these benefits are not being taken into account and should be studied further. It was also noted that the replacement of a mature tree with a young sapling does not provide the same benefits to the tree canopy.
- There was a concern raised regarding the tree assessment information presented. It was noted that no third-party arborist report is available and there was concern regarding the tree rating standards and Tree Impact Zone (TIZ) used in the assessment.

### **Road Reconstruction**

- It was requested that City staff provide proposed road reconstruction drawings that include existing pavement and roadway width and trees as well as the proposed construction width. This information would better inform residents.
- Provide clarification on whether 'construction width' includes the outside edge of curbing and sidewalks where applicable.



- A question was raised regarding what form of excavation is assumed for the purposes of arriving at the estimated construction width.
- The uncertainty of the proposed plans is making it difficult for homeowners to make changes to their landscaping and driveways. Clarification should be provided regarding who is responsible for the costs of landscaping and driveway repairs associated with the road reconstruction work.

#### **Basement Flooding and Stormwater Drainage**

- Some community members expressed support for the proposed repair and upgrading of sewer infrastructure, including the urban drainage approach, while others felt that the existing ditches should not be replaced.
- It was noted that drainage and flooding issues are often a result of residential construction activities as the ditches are filled in and permeable surfaces are paved over.
- It was suggested that individual homeowners be given a rebate to undertake renovations to improve weeping tiles and other waterproofing elements of their homes. The view was expressed that the basement flooding issue is not a result of an inadequate sewer system.

#### **Other**

- It was expressed that the views of the LPRA are not reflective of the views of the entire Lawrence Park neighbourhood.
- There was concern that misinformation is being spread throughout the community (e.g., there is a need to clarify that trees tagged with ribbon have been tagged by residents and not the City; 'Save our Trees' signs are being placed on lawns without homeowners' permission).
- Some community members indicated that the \$75M budget should be allocated to more urgent projects in the City such as transit and affordable housing.
- A question was raised regarding whether each of the street-by-street assessments were recalibrated following the reassessment of the number of impacted trees as this may reveal additional sidewalks that could be proposed with minimal impact to trees.
- It was requested by the LPRA that the final study recommendations take into consideration their pending survey of all affected Lawrence Park residents.

## **4.0 NEXT STEPS**

The study team will consider all comments and this consultation summary report will be issued and posted on the project website. City staff will present their final recommendations to Public Works & Infrastructure Committee of City Council in the Fall of 2016. Once the study is completed the final report will be made available for a 30-day public review period.



## **Appendix A - PIC Agenda and Notice**



May 10, 2016

Dear Lawrence Park Residents:

Last year, the City presented recommendations for improvements to sewers, roads and road drainage in the Lawrence Park neighbourhood. Following a series of public meetings, we heard from a large number of residents who expressed concern over the impact the recommended improvements would have on the tree canopy. Residents also shared a variety of opinions on sidewalks and support for sewer upgrades to reduce basement flooding risks. After reviewing all of the comments, City staff reassessed the impacts of the recommended solutions. We will be holding a public meeting to present our findings on Thursday, May 26 at the Lawrence Park Community Church from 6:00 to 9:00 (presentation at 7:00 pm).

#### **Impacts on the Tree Canopy**

Working closely with staff from Urban Forestry, we have reduced the estimated number of trees that would require removal from 349 to 106. We were able to reduce the numbers of trees impacted by assessing each tree individually. However, there is still more that we can do at the next stage of detailed engineering design, to avoid tree removals, such as shift the alignment of the road and/or narrow the road in sections to 6.6 metres.

#### **Road Widths and Sidewalk Locations**

Within the neighbourhood, there are 26 streets that require full reconstruction due to deterioration of both the asphalt and subsurface and present opportunities to address pedestrian safety and road drainage improvements. While recent resurfacing work has been done, this is a short-term measure that is only expected to last for 10 years.

The City is recommending that all local streets be reconstructed to a width of 7.2 metres - close to their existing width. In addition, a curb will be added to each side of the road and storm sewers added under the road to capture water draining on the surface. Existing swales and culverts will be filled in and re-landscaped.

Based on resident concerns about safety along Mildenhall Road, south of Lawrence Avenue East, the City is now recommending that the road be narrowed to 7.2 metres, with the addition of sidewalks on both sides. We feel that this will help address concerns about safety by narrowing the road to reduce traffic speed and providing safer travel for pedestrians along the street.



Of the 26 streets requiring reconstruction, the City has identified 5 streets for sidewalks to be added. These streets have been chosen as they provide a priority connection for pedestrians between the western part of the neighbourhood, where sidewalks already exist, out to Bayview Avenue and to key sites within the neighbourhood (eg. school, church, TTC stop). The City has taken steps to reduce impacts by providing for a 1.5 metre sidewalk at the road edge and will take further steps in the design stage by minimizing impacts to tree roots.

### **Basement Flooding**

Our study is also one of many areas within the City where ways to reduce basement flooding are under review. While flooding can happen for a number of reasons, the City is only addressing improvements that can be made within the City's sewer system. Reducing the volume of water entering the sewer system is also important and a function of the many by-laws and programs undertaken by the City in recent years. The sewer improvements being recommended are identified for only a handful of streets where computer simulation modelling has shown that there is additional capacity needed. These improvements will aid in protecting homes from sewage backing up into basements during heavy rainfall events.

### **Opportunity for Public Feedback**

We invite you to attend a public meeting to find out more and see the results of our work. The meeting will take place on **Thursday, May 26 at Lawrence Park Community Church (2180 Bayview Avenue) from 6:00 to 9:00 (presentation at 7:00 pm).**

At the meeting, we will present an update on our work and our final study recommendations. You will have an opportunity to view drawings for all affected streets that showcase our tree assessments. A copy of the presentation material has been posted at [www.toronto.ca/lawrencepark](http://www.toronto.ca/lawrencepark). I have also included a set of Frequently Asked Questions to help address some of the common questions we have been asked.

Lastly, each of the recommended projects will be funded and implemented over several years. At this time, the earliest start for any construction would be 2020. We remain committed to working with residents on a street by street basis during the next stages of work to develop final plans.

I can be reached at 416-392-2990 or [tmanola@toronto.ca](mailto:tmanola@toronto.ca) if you have any questions.

Sincerely,



Tracy Manolakakis  
Manager, Public Consultation Unit  
City of Toronto





**Lawrence Park Neighbourhood Investigation of  
Basement Flooding (Area 20) & Road Improvement Study  
Municipal Class Environmental Assessment**

**Public Information Centre #4**

May 26, 2016, 6:30 – 9:00 pm

Lawrence Park Community Church, 2180 Bayview Avenue

**AGENDA**

**Meeting Purpose:**

1. Provide an update on the work completed since Public Information Centre #3 (May 2015).
2. Obtain community feedback on the revised plan and recommendations to address deteriorating road conditions, traffic problems, pedestrian safety, road drainage problems and basement flooding issues in the Lawrence Park Neighbourhood.

6:30 pm      Open House and Displays

7:00 pm      Agenda Review and Councillor Welcome

7:05 pm      Presentation – Jackie Kennedy, Project Manager, City of Toronto

7:50 pm      Questions of Clarification

8:20 pm      Open House Resumes and Completion of Feedback Forms

9:00 p.m.    Adjourn



## **Appendix B - Feedback Form**



**2. Do you agree with the revised recommendation for Mildenhall Road south of Lawrence (7.2 metre road with 2 sidewalks)? Why or why not?**



3. Do you have any further feedback on any of the other study recommendations for basement flooding, study area streets or traffic safety?

**Thank you for your comments!**

**Please return completed forms to the Registration Table.  
Or if you would like more time, please return by June 10, 2016 to:**

**Tracy Manolakakis, Manager, Public Consultation Unit  
55 John Street, Metro Hall, 19<sup>th</sup> Floor  
Toronto, ON M5V 3C6  
E-mail: [tmanola@toronto.ca](mailto:tmanola@toronto.ca)  
Tel: 416-392-2990 TTY: 416-392-2974**



## **Appendix C - PIC #4 Questions of Clarification**



**Lawrence Park Neighbourhood Investigation of  
Basement Flooding (Area 20) & Road Improvement Study  
Municipal Class Environmental Assessment**

**Public Information Centre #4  
May 26, 2016  
6:30 pm - 9:00 pm  
Lawrence Park Community Church, 2180 Bayview Avenue**

**Questions of Clarification**

The following summarizes participants' questions or comments, and responses from the project team or City of Toronto during the Q&A session following the presentation at the PIC. Questions are noted by Q, responses are noted by A, and comments are noted by C. Please note this is not a verbatim summary.

**C. I have participated in this Environmental Assessment (EA) process for more than three years. I have three concerns: (1) Regarding the process itself, there is a systemic bias in the street evaluation process undertaken by the City. The bias is towards the preservation of trees at the expense of pedestrian safety. Now that the number of trees impacted has been reduced, that bias is even more pronounced. (2) Regarding safety, one thing the EA process has done really well is allowed organizations like the Lawrence Park Ratepayers Association (LPRA) and individuals to document the concerns they have about pedestrian safety. These are now part of the public record. Along with the tragic death of a resident last summer, the dangers of walking around Lawrence Park are all too real. The City has a moral obligation to protect all of its citizens from preventable dangers. (3) Regarding accessibility, how difficult would it be for a blind or disabled person to walk around this part of Lawrence Park? Why is it okay to discriminate against one group of people but not another? Accessibility for Ontarians with Disabilities Act (AODA) legislation has been around for over a decade. Staff and Council need to support building sidewalks on all the streets in this part of Lawrence Park. We need to make this neighbourhood accessible and safe for all the families who make and want to make Lawrence Park their home.**

**Q. Thank you for working to reduce the number of impacted trees from 349 to 106. Have you looked at the shifting and narrowing of the streets and how much it would reduce the number of impacted trees even further?**

**A. We have not looked at that yet. It is part of the detailed design stage. We are committed to further reducing the number of impacted trees. The number of 106 trees has been determined through a desktop exercise. The trees are plotted on the maps which are available tonight. We identified tree size, species, and health in order to determine which trees were within the construction width to the extent where removal would be expected based on preliminary alignments. It will be looked at more closely to get a more accurate number.**

**C. The City's messaging has not been clear. Basement flooding is one of the projects we are dealing with. I learned that 100% of basement flooding would be prevented by a pipe on Bayview Avenue and few other minor streets with some minimal tree damage. The other project is about sidewalks and storm sewers on all the other streets in lower**



**Lawrence Park. That is where the majority of the trees are coming down and where the majority of the budget is being spent. Why are we doing this project to begin with? I don't see the need to spend the money when we could simply repave the roads.**

**A.** The basement flooding solutions are not throughout the entire study area but the road reconstruction is throughout the entire area. It is not the sidewalks that are impacting trees per se. It is the fact that the roads are in a deteriorated state down to the road base (2 feet or more below the surface). While we could continue to do shave and pave to temporarily improve the surface condition, it does nothing to improve the condition underneath. Over a period of time, that minor maintenance will be far more expensive than reconstructing the road where it will last for decades.

**Q. I would like to know who authorized City staff to order the ratepayers' association and individuals to remove the lawn signs. The process is important, as is peoples' right to express themselves freely.**

**A.** The City's Municipal Licensing & Standards staff received a complaint from a resident in the neighbourhood about the proliferation of signs. A bylaw enforcement officer was called out to investigate. When they are called out to investigate it is their duty to enforce the sign bylaw. The bylaw officer has clarified that where there are signs of a temporary nature in a local area advertising a community event they can be posted for up to one week in advance of the event and must be removed 48 hours after the event.

**C. I would like to know who did the assessment of the trees in the area. From what I read, not many trees are considered in good condition. Was the assessment done by the City or by a third party? If many of the trees are in moderate to poor condition they will not survive. You need to conduct a risk assessment.**

**A.** The assessment was carried out by the consulting engineer's certified arborist in conjunction with the City's Urban Forestry staff.

**Q. I and few others met with City staff and engineers on March 21<sup>st</sup> to talk about the issue of basement flooding and look at the plans. There is something like 19 houses that have been affected over the last 20 years. If one of those houses had any flooding it gets represented as one of the dots on the plan. We asked at the time if there was any idea how many of the floods were from window wells or cracks in the foundation compared to floods through the drains and we did not get an answer. We also proposed that the City should be looking at downspouts connected into the sewer. We know there are still many downspouts that have not been disconnected. The plan for basement flooding on the east side of the neighbourhood talks about upgrading sanitary sewers at the north corner of Bayview Avenue and Lawrence Avenue. It does not address any of the areas further away. How will this solution alleviate any of the basement flooding that we know about today?**

**A.** The basement flooding that was reported gave us the focus to look at this area. We put flow monitors in the sewers so we could observe how those sewers respond during rainfall. Based on that information, we used computer models to confirm what we observed and identify where there are real bottlenecks in the sewer systems. We used this data to build the solutions. The modelling speaks to what we know about the sanitary system and the bottlenecks. With respect to downspout disconnection and surface drainage, a lot of the roads do not have storm sewers for us to monitor today. With the reconfigurations, there will be storm sewers included and there will be criteria for the amount of water we let pond on the road. There are also design elements to how big that storm sewer should be.



Regarding the dots representing flooding events on the drawings, there is sensitivity about disclosing which homes experienced flooding. The consultants doing the analysis understand those hotspots.

**Q. Walk Toronto would like to bring attention to the various benefits that trees bring that have not yet been raised. Air quality has been stressed, but we haven't heard about benefits such as shade, the elimination of high winds, creating a sense of place, and aesthetics. The term tree canopy has been used a lot. Street trees are publically owned. I am aware that private residences have magnificent trees in their backyards. We need to compare the canopy of the trees slated to be removed to the total tree canopy including private trees. From our perspective, 62 trees isn't a large amount considering the various safety benefits they bring. In Leaside there are other types of signs on lawns indicating there are children at play, drive slow. Where I live, the priority is on saving lives of children and seniors.**

**My question for Mr. Morneau of the LPRA is do you have an accurate count for the total number of trees in the area, both public and private?**

**A. City staff indicated that the tree assessment done by the City refers to the street trees only and 1201 is the total tree count within the study area.**

**Q. Regarding the 'Save our Trees' lawn signs, you indicated earlier that because this is considered an event, we have up to 48 hours to remove the signs after the event. The LPRA has committed to undertaking a survey with residents to find out their views on the EA assessment. The way I look at it, the event has not ended yet. If anyone wishes to maintain the signs on their lawns, are they allowed to do so?**

**A. The information I provided is what we were told by the municipal bylaw officer. They are interpreting the event as the meeting tonight (May 26, 2016). You are welcome to contact the City if you would like to discuss the interpretation of the bylaw.**

**Q. I would like to know how many comments were received about sidewalks and the breakdown of how many people are in favour and opposed to sidewalks. That is information that the community should have.**

**A. The comments that are received will be summarized into a public consultation report, as we have done with the previous rounds of consultation. These are available online and we have been transparent about this. We have not tallied it the up the results like you mentioned as it is not part of the EA process.**

**Q. I have some concerns regarding safety. There are construction trucks that come through the area on Mildenhall Road and cars are weaving around trying to pass them. Cars are also running stop signs. If you pave the road, cars will go even faster. I believe that adding a sidewalk doesn't fix the problem. Has a proper assessment of the safety risks been taken into account?**

**A. A sidewalk is the safest place to walk. It is a defined space where we expect to see pedestrians and there is the protection of a slight grade change. It is there for people of all ages and abilities. We try to add sidewalks because when visibility is limited and the roads are slippery (in the winter, at night time), and walking is more of a challenge. The City standard is to put at least one sidewalk on local roads and two sidewalks on collector roads.**

**C. The City needs to pay more attention to what people want. I agree that a sidewalk creates a defined space, but in the winter people often have to walk on the road because the sidewalks are not plowed. I think you should distinguish how many trees would be**



affected by the roadbed work, compared to the sewer work, and compared to the sidewalk construction.

**C.** The number of trees that should come down is zero. We just lost millions of hectares of trees in Alberta. We cannot afford to lose more in the City. We already have a water shortage. You have to find a way of repairing roads without digging down two feet. There is something wrong the system in the City that allows construction to go on that way. We need a new system to make this work without impacting any trees.

**Q.** I've been told that I need a sidewalk on my street because of safety issues. I have two young boys who walk to Blythwood Public School every day and we have never had a safety concern. I am of the view that a rural landscape street is safer than an urban street with a sidewalk. It is a natural traffic calming street with soft shoulders, the rugged nature of street, and the enveloping tree canopy that keeps traffic out psychologically. Drivers are also more cognizant of the irregularity of the street and therefore reduce their speeds. Has the City considered any studies that look at the issue of a rural street being safer for pedestrians? In addition, is there any indication of the number of residents that want sidewalks? Numerous surveys were conducted last summer. 93% of people that responded to the survey on Dawlish Avenue between Bayview Avenue and Mildenhall Road signed a petition that they do not want a sidewalk.

**A.** We did analyze both rural and urban cross sections as alternatives for rebuilding the streets. The primary reason for recommending an urban cross section is because it has a smaller construction impact zone and would therefore impact fewer trees. We are happy to look at the studies you have found regarding the safety of rural streets compared to urban streets.

**C.** Mayor Tory addressed flooding as an issue. A lot of residents feel that there is a lack of personal responsibility in terms of how homeowners manage rainfall on their properties. Very little flooding is a result of water coming from the City roadway onto a homeowners property. With respect to the trees, there is a loss of credibility for the City based on the materials they have shared. The City has to act more responsibly in giving out the tree estimates. They have to do more work and also share the information from Hoggs Hollow.

**A.** We feel it would be irresponsible of City staff to say that no trees would be impacted and then come back later and say that we were wrong. We are trying to do our best to let people know what may happen and we are going to do our best to reduce the number of impacted trees.

**Q.** The construction width does not include a tracing of the current road dimensions. Could you provide that information?

**A.** At the detailed design stage, we will have that information.

**Q.** There is a lack of trust between the community and City staff. Can you extend the 30-day review period to 90 days? Who makes that decision?

**A.** After tonight, the City will prepare a report to the Public Works and Infrastructure Committee (PWIC) in the fall. If they approve the recommendations, the report goes on to City Council. If Council approves the recommendations, the City will issue a Notice of Completion which is a requirement of the EA process. There is a minimum 30-day review period. At the time that we are reporting to PWIC the public can put forth a request to extend the comment period.



**C. The LPRA has asked tonight for the City and Councillor to defer any further action until after October 1, 2016 in order to give the LPRA sufficient time to poll every resident in the neighbourhood and to share that information with the City.**

**A. We are willing to accept all input, including the information the LPRA provides, and report on it to the PWIC. The timeframe of October 1, 2016 is in line with our schedule to report to PWIC.**

**C. Why is Mildenhall Road considered a collector road when your data shows that it has 2000 cars travelling on it per day? If we redefine it as a local road, there will be different planning parameters.**

**A. To clarify, it was stated that Mildenhall Road has 3000 vehicles per day which is within the limit for a collector road. All local roads feed out onto Mildenhall Road which empties out onto Lawrence Avenue. It is the only north-south street connecting Blythwood Road to Lawrence Avenue. It has double the volume of any other street in the neighbourhood and is fulfilling the function of a collector road.**

**C. I have two children who walk to school every day. I would like to ask the same question my child has been asking me for the last four years which is why can't we have sidewalks and trees? My challenge to the City and my neighbours is to believe that there is a way to provide a safe pedestrian infrastructure while preserving our tree canopy. I am in favour of saving trees and I also want my children to walk freely in the neighbourhood and not be scared of being struck by a car. The study recommendations do not provide a coherent sidewalk network. We need to find a creative solution that will work for our growing City and neighbourhood.**



## Lawrence Park Neighbourhood Investigation of Basement Flooding and Road Improvement Study

### Road Reconstruction

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#### ***Why can't the City simply repave the roads and regrade the ditches?***

Many of the roads on the east side of St. Ives Crescent are at the end of their service life and need to be reconstructed. This involves excavating approximately 0.6 metres (m) to replace the road base which supports the asphalt driving surface. The recent and ongoing patchwork of repaving the asphalt driving surface of the roads in the neighbourhood is only a short-term measure. It also does not improve the underlying pavement structure or correct drainage problems. Reconstruction is the only long-term solution to improving the City's infrastructure.

Ditches along many streets have been filled in or re-landscaped affecting their ability to properly drain and resulting in water ponding on the street and flowing onto private property. We've considered reconstructing the ditches however this option has greater impact on trees than do other options.

#### ***Will reconstruction require roads to be widened?***

The City is not proposing to widen all roads in the Lawrence Park neighbourhood. In fact, many roads will remain the same. The City is only proposing to widen roads that do not meet current City standards by bringing them to 7.2 metres. This standard is set by the City to ensure adequate access for emergency and service vehicles, space for pedestrians and cyclists, safe two-way traffic flow, and to accommodate winter road maintenance.

#### ***Will the City consider narrower road widths?***

Yes, the City is recommending localized narrowing down to 6.6 m to avoid the physical removal of mature trees. Shifting the alignment of the road will also be considered, where possible, to preserve trees.

### Tree Assessment and Protection

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#### ***Can the City find ways to protect trees and limit the number that have to be removed during construction?***

The City will make every effort to minimize the removal of trees. At the detailed engineering design stage and ahead of any construction, the City can use the following measures to protect trees:

- shifting the road horizontally
- localized narrowing of the road
- using industry standard construction techniques (i.e. hand digging, air spade)
- using alternative materials to reduce tree loss
- applying various treatments to maintain tree health in advance of construction (i.e. root protection and post construction fertilization and irrigation).



***Why would the tree in front of my house need to be removed when it is located several feet from where the road is?***

At this early stage, we can only estimate the number of tree removals based on the area that would be excavated during construction for road, sidewalk, drainage or sewer work. For example, a 7.2 metre road would require an excavation width of 8.2 metres, providing a 0.5 metre working zone on each side of the pavement. If a tree's root system falls within the excavation width on a given road it was counted as potentially requiring removal in our evaluation. However, measures such as those mentioned earlier can be used to avoid impacting tree roots.

***As part of the work in Hoggs Hollow only a few trees had to be removed. Can the same be done in Lawrence Park?***

Yes, the same methods, along with any new methods to minimize the impact on street trees will be used.

***Can the City plant larger diameter trees to replace any trees that are removed?***

The City will plant a new tree for every one tree that is removed. In addition, the City is interested in planting new trees ahead of construction. Generally, the City will plant a 2-3 inch diameter tree. Smaller trees have a higher percentage of their root system intact when they are removed from the nursery and prepared for planting as compared to larger trees. As a result, smaller trees adapt and recover faster to transplanting, often catching up to or exceeding larger stock trees planted at the same time.

## **Sidewalks**

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***Why are sidewalks recommended?***

It is the City's practice to recommend that local roads have a sidewalk on at least one side. The City's Walking Strategy also strongly recommends that road reconstruction is the best time to add sidewalks as it is more cost-effective and less disruptive to area residents. Sidewalks are an important safety feature which define a safe path of travel for pedestrians. They are also particularly helpful for our most vulnerable citizens – children on their way to school and older citizens who may travel more slowly. In the winter, snow and ice and limited daylight hours can make sharing the road with cars more of a challenge.

This study has looked at providing a sidewalk on streets that connect to key destinations, such as schools and transit stops, and to develop connections between the west and east portions of the neighbourhood. Of the 26 streets being studied in the area, new sidewalks are proposed to be installed on five streets.

***Why is the City recommending two sidewalks on Mildenhall Road, south of Lawrence Avenue?***

Following the last round of public meetings, residents raised concerns that an 8.5 metre road would not address the problems with traffic speeding. The City reviewed these concerns and is now recommending a 7.2 metre road with a sidewalk on both sides. This option narrows the road to address concerns about traffic speeding and provides protection for pedestrians and allows for the safe passage across a narrower street. Given the traffic volume on Mildenhall Road, one-sidewalk with a narrower road is not an option.



## Basement Flooding

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### ***Why are sewer improvements needed?***

The recommended sewer improvements are based on computer simulation modelling that shows how the City's drainage system performs under extreme rainstorm events. From this analysis, we have identified that there are bottlenecks in the system and more capacity is needed to handle wet weather flows and help prevent sewer back-ups.

In addition, the study found that there are many issues on individual properties which also contribute to basement flooding. The City encourages homeowners to reduce the risk of basement flooding by disconnecting their downspouts, where feasible, ensuring proper lot grading, or installing a backwater valve and sump pump.

### ***Why are storm sewers recommended for streets to be reconstructed?***

We examined two options for managing water that falls on the road surface - a rural cross-section (ditches) and an urban cross-section (storm sewer with catchbasins). An urban cross-section is recommended as it has less impact on trees. The storm sewer will be placed underneath the road and will include perforated pipes to help recharge groundwater levels.

## Traffic Management

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### ***What is the City doing to address traffic problems in the neighbourhood?***

Our study looked at traffic problems including sight-line issues (lack of adequate sight distance at intersections) and traffic infiltration (cars which enter and exit the study area without stopping) for the area between Mt Pleasant Road, Lawrence Avenue, Bayview Avenue and Blythwood Road.

Recommendations include addressing issues with respect to lack of sight-lines at three locations (Blythwood Road/Strathgowan Crescent, Mount Pleasant Road/Lawrence Crescent and Mount Pleasant Road/St. Leonards Avenue). There are no recommendations to address traffic infiltration as the recorded traffic counts (the number of vehicles per day) for local roads and Mildenhall Road are below or within volumes designated for these road types.

### ***What can be done to address traffic concerns for the area north of Lawrence Avenue East?***

The City has met with the Toronto French School to review the measures they are taking to address the traffic congestion around the school during the drop-off and pick-up times. Any additional traffic concerns can be brought to the attention of Transportation Services. Please contact Shawn Dartsch, Supervisor, Traffic Engineering at 416-395-7466.

### ***Will the study address traffic calming measures?***

Traffic calming measures are reviewed under a separate process as outlined in the City's Traffic Calming Policy. The City is willing to work with residents to examine options.

### ***Why is Mildenhall Road, south of Lawrence Avenue classified as a collector road?***

Mildenhall Road is classified as a collector road based on a number of criteria, including the typical daily motor vehicle traffic volume as well as its function to collect and distribute traffic between local streets and arterial roads such as Bayview Avenue and Lawrence Avenue.



***Can a stop sign be added to the corner of Mildenhall Road and Dawlish Road?***

The City has performed a warrant analysis for an all-way stop at this location. Based on the analysis, a stop sign is not warranted at this intersection because traffic volumes on Dawlish Road are too low to warrant stopping traffic on Mildenhall Road. The analysis shows that a stop sign could decrease angle collisions but would lead to an increase in the number of rear end collisions. Transportation staff will review the sight-lines at the intersection to ensure there is adequate sight distance for all approaches.

***Will parking restrictions be changed after roads are reconstructed?***

Parking restrictions will largely remain unchanged on Mildenhall Road. Parking around Cheltenham Park will be examined at the detailed design stage and options will be reviewed with residents. For all other streets, parking will be limited to one side of the street and will not be permitted in areas where the road is narrowed below 7.2 m to protect trees.

***Is it possible to add angled parking on Mildenhall Road at Cheltenham Park?***

Angled parking is not an option as it does not allow drivers adequate site distance when exiting the parking spot. However, the City will look at other parking options during the detailed engineering design stage and consult with area residents and park users.

## **Construction**

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***How much will the road, sidewalk and sewer work cost?***

The cost for all improvements is estimated at \$75 million and would be funded through the City's capital budget which covers all state of good repair work and investment in maintaining City assets.

***When will construction take place?***

The earliest that construction could begin is 2020 and would be phased in over a period of 10 years based on priority, construction, coordination and funding.

***What will happen to landscaping or property features such as interlocking, heated driveways or fencing located in the City's Right-of-Way?***

The City's Right-of-Way is the area that extends approximately 10 metres from the center of the road to the private property line. Features such as irrigation systems or fencing, heated driveways and landscaping that are located within the City's property will be reviewed at the detailed design stage. The City will work closely with homeowners to address any concerns.





## **Lawrence Park Neighbourhood Investigation of Basement Flooding & Road Improvement Study**

**Public Information Centre  
May 26, 2016**

**Lawrence Park Community Church, 2180 Bayview Avenue**

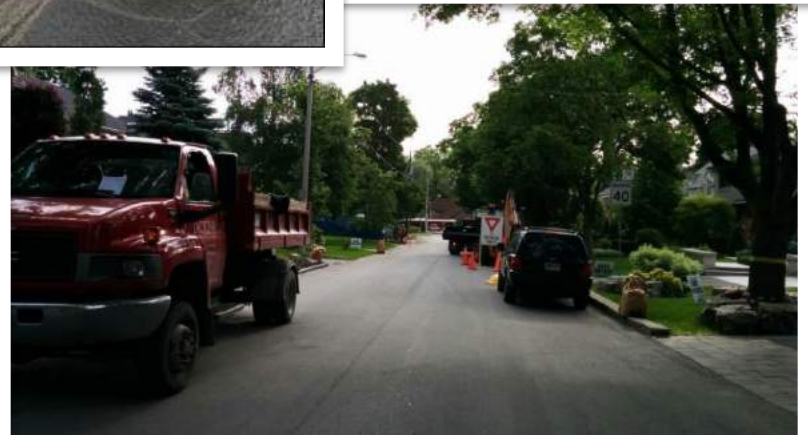


# Why are we doing this study?

The City has an obligation to ensure that its infrastructure is in a state of good repair and, when reconstructed, is brought up to date to meet today's policies and standards.

We must address these infrastructure problems:

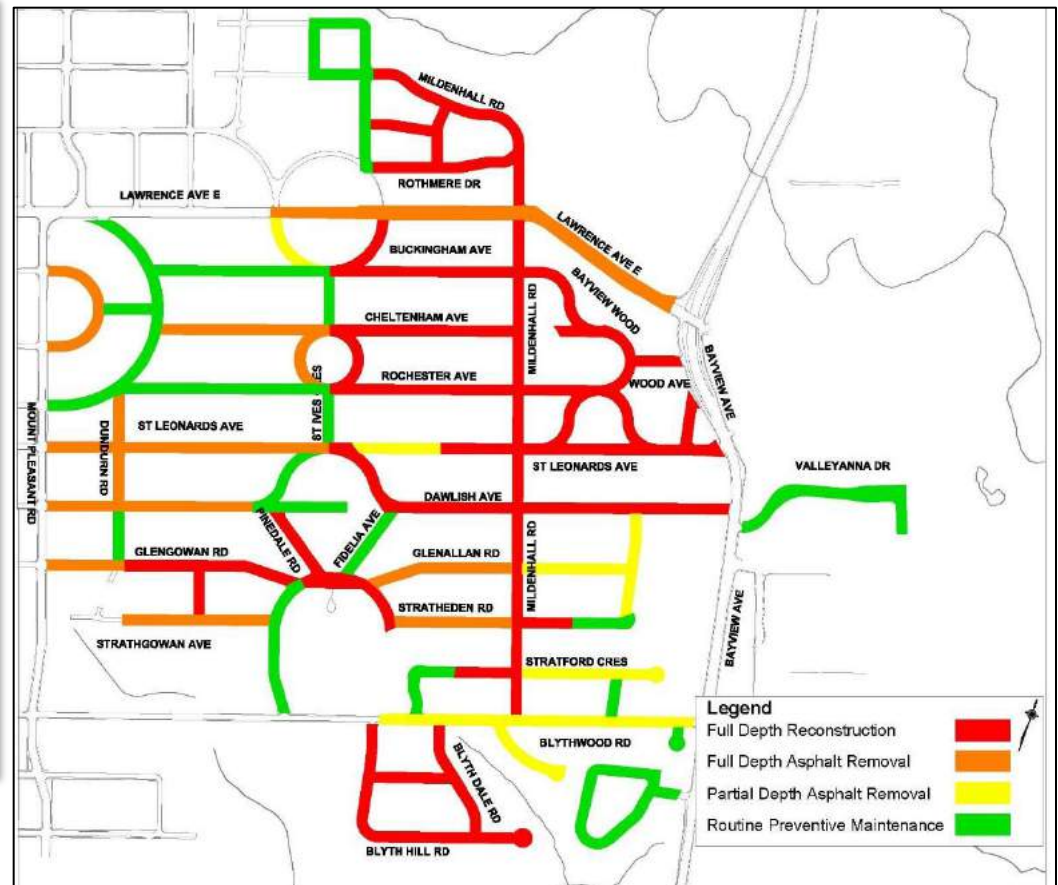
- Deteriorated Road Infrastructure
- Pedestrian Safety
- Traffic Management
- Poor Road Drainage
- Incidences of Basement Flooding





# Problem: Deteriorated Roads

- Many roads require full reconstruction; built over 50 years ago and are at the end of their service life



Graphic summarizes results of 2013 geotechnical assessment of pavement conditions.



# Resurfacing vs. Reconstruction

- Recent resurfacing is **only a temporary solution**. It is not a cost-effective, long-term solution for the road structure or drainage of the roads
- Reconstruction is required:
  - To improve underlying pavement structure deterioration
  - To correct major road drainage problems
  - To change the layout of the existing road features (i.e., width or location of road surface, curbs or sidewalks)

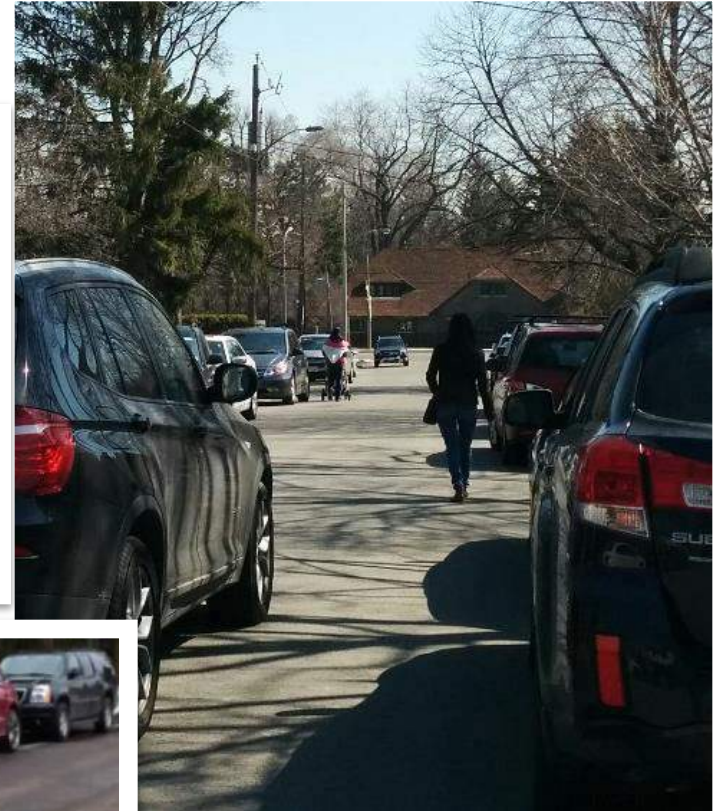


- With maintenance and rehabilitation, reconstructed roads will last up to 100 years



# Problem: Pedestrian Safety

- Sidewalks exist on west-side of the neighbourhood; no pedestrian connection to east-side
- Vehicle and pedestrian conflicts
- Busiest street - Mildenhall Road provides only a 1.2m asphalt path with no separation from traffic





# Problem: Traffic Management

- Concerns with intersection sight-lines and traffic infiltration

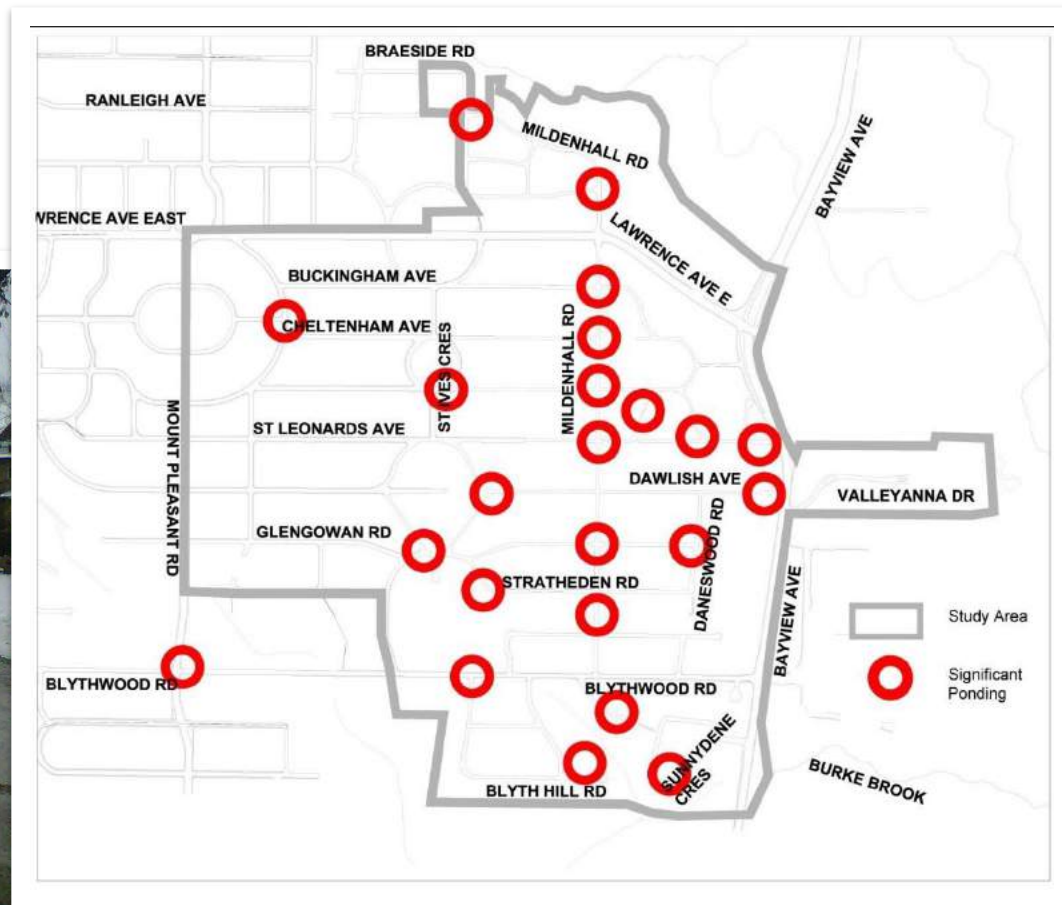


- Concerns with speeding can be addressed through road narrowing, traffic calming and enforcement
- Traffic Calming is a separate process and can be requested by residents or Councillor and is managed outside of the Environmental Assessment
  - Toronto's traffic calming policy requires a sidewalk on the street



# Problem: Poor Road Drainage

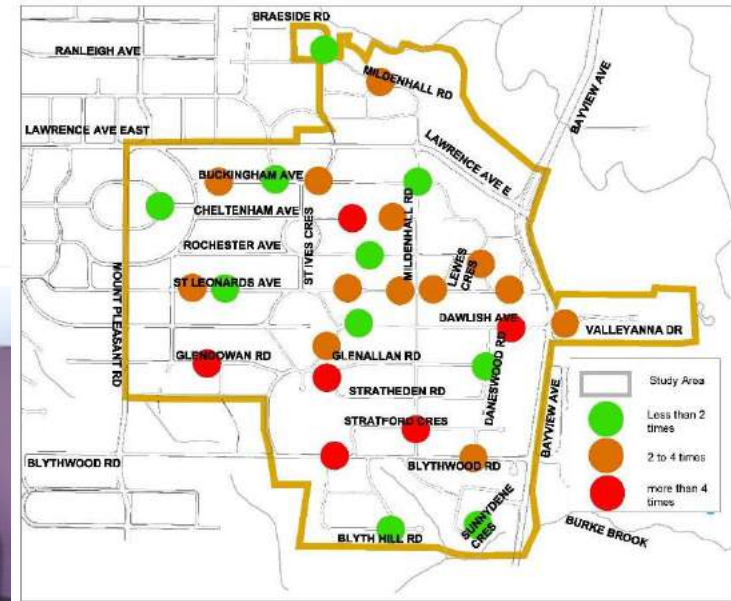
- Swales have been filled-in or landscaped
- As a result surface water (or road drainage) does not drain and causes excessive ponding on streets and private property





# Problem: Basement Flooding

- Sewer back-ups have been reported during severe rainstorm events
- Storm drainage system in East-side (former North York) is not functioning during severe storm events, and is backing up in the sanitary sewers
- Sewer system in West-side (former Toronto) is sized to handle the average rainfall, not severe storm events

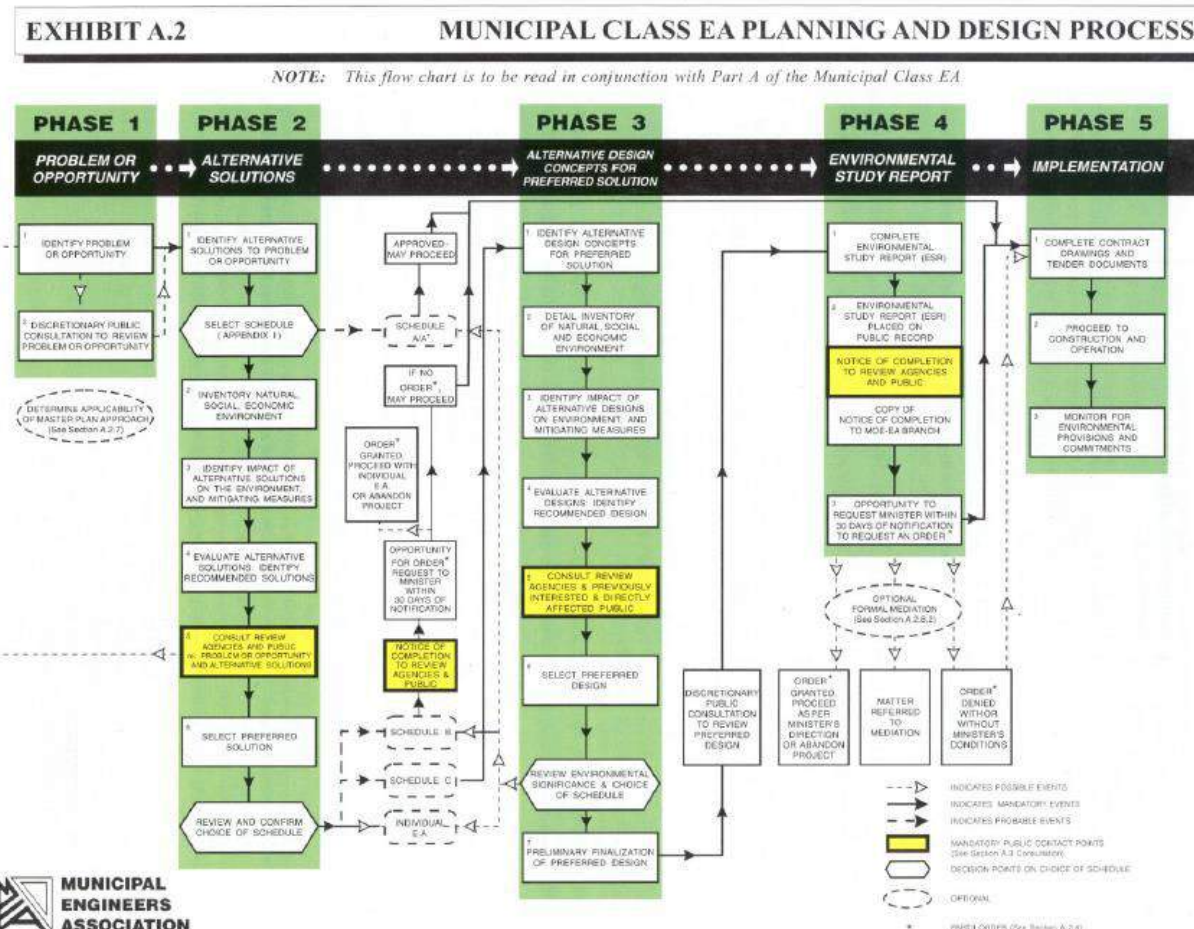




# What is the study process?

To address the infrastructure problems, the City is carrying out a Master Plan study under the Municipal Class Environmental Assessment (a prescribed process to meet the requirements of the province's Environmental Assessment Act).

An EA assesses impacts on all aspects of the environment, the community and stakeholders, and produces recommendations based on a logical decision making process.





# Three Stages – Study, Design, Construction

1



## Environmental Assessment Study

Establish framework of road widths, streets with sidewalks, road drainage system, sewer improvements and traffic sight-lines

2



## Detailed Engineering Design

Produce detailed drawings with:

- Road alignment
- Sidewalk and curb details (side of street, material)
- Incorporate locations of other utilities (e.g., hydro, gas)
- Coordinate other necessary upgrades (e.g., watermain, sanitary sewers)

3



## Construction

Qualified contractor hired to carry out construction; City oversees contract and inspection of work



# What we've heard

- Study area streets
  - Preserving trees is a key priority
  - Desire to maintain rural, unique character
  - Mixed views on sidewalks
- Traffic safety
  - General agreement with traffic safety recommendations
  - Support for more traffic safety measures (parking restrictions, sight line improvements, signs and turning restrictions)
- Basement flooding
  - General agreement that sewer upgrades needed to reduce basement flooding risk
  - Some concern over potential implications of solutions (e.g., loss of trees, more paved surfaces)
  - Request to extend sewer improvements to additional streets



# Infrastructure Standards

City standards and policies have been reviewed and consideration has been given to the study area conditions, and public and stakeholder feedback.

The EA report will capture the area specific considerations and will be a guide during the design work that will follow.

Standards and Policies	Study Considerations for Lawrence Park
<b>Local Road - 8.5 m road width</b>	7.2 m road width with localized narrowing to 6.6 m
<b>Local Road - 1.7- 2.0 m sidewalk on one or both sides</b>	Inclusion of a sidewalk on one side was evaluated. 1.5 m sidewalk on local roads that create or maintain a key linkage across the neighbourhood.
<b>Collector Road - 9.5 m road width 1.7- 2.0 m sidewalk on both sides</b>	8.5 m road width, 1.5 m sidewalk on one side 7.2 m road width, 1.5 m sidewalk on both sides
<b>Maintain existing ditches</b>	Ditches and underground storm sewers evaluated. Storm sewers score higher because of significant tree loss associated with rebuilding ditches to standard.
Enhanced level of protection against sanitary sewer back-up for 25-50 year storm event and storm sewer back-up and surface flooding for 100-year storm event *Management of runoff on or between private property is the responsibility of the homeowners	

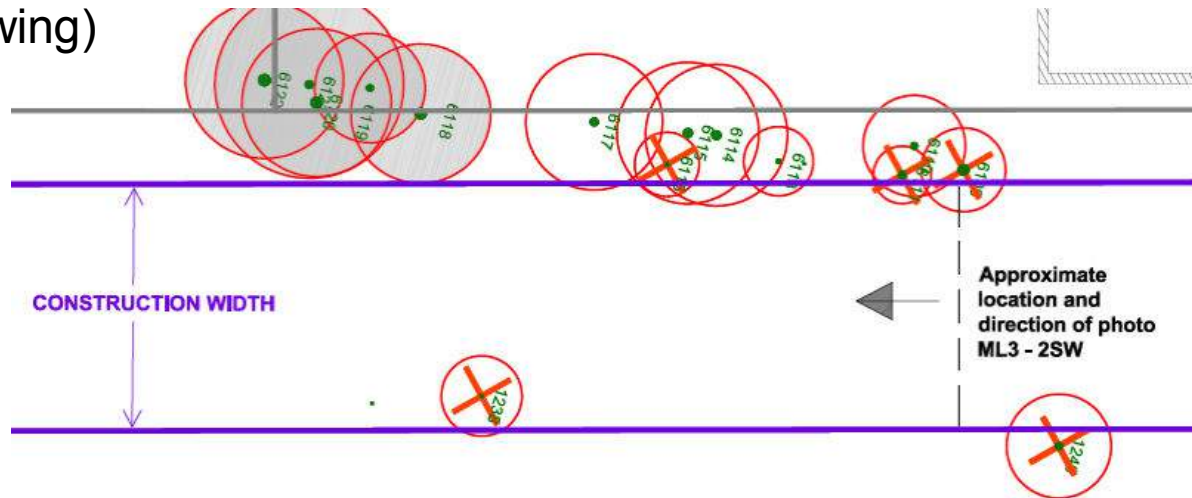





# Assessment of Tree Impacts



# Assessment of Tree Impacts

- During an EA study a worst case assessment of tree impacts is undertaken
- Hearing the community concern, a more detailed level of effort was conducted in Lawrence Park Neighbourhood to better define and minimize the impacts
- Each tree was assessed individually for a customized Tree Impact Zone (TIZ) - red circles in drawing)



	<p><b>Not Impacted:</b> The TIZ lies completely outside of the construction width and will not be impacted.</p>
	<p><b>Preserved if Possible:</b> Construction inside the TIZ; the tree will be impacted by construction. Design, construction and post construction mitigation techniques will be used to preserve the tree.</p>
	<p><b>Removed and Replaced:</b> Construction significantly inside the TIZ. Tree significantly impacted by construction to the extent that removal is expected.</p>



# Caring for Trees during Construction

## Construction Stage

- On-site supervision by certified arborists and communication plan
- Excavation techniques (hand excavation, pneumatic, hydraulic, etc.)
- Root pruning techniques and considerations
- Backfill techniques and considerations
- Tree care during construction



Pictured above: Pneumatic (air) and hydraulic (water) excavation techniques remove the surrounding soil without significantly damaging tree roots.



# Post-Construction Care

## Post-Construction

- Monitoring
- Irrigation
- Aeration
- Mulching
- Wound treatment, as necessary
- Fertilization (not recommended for at least 1 year post construction)



Monitoring



Irrigation



Aeration



# Tree Summary

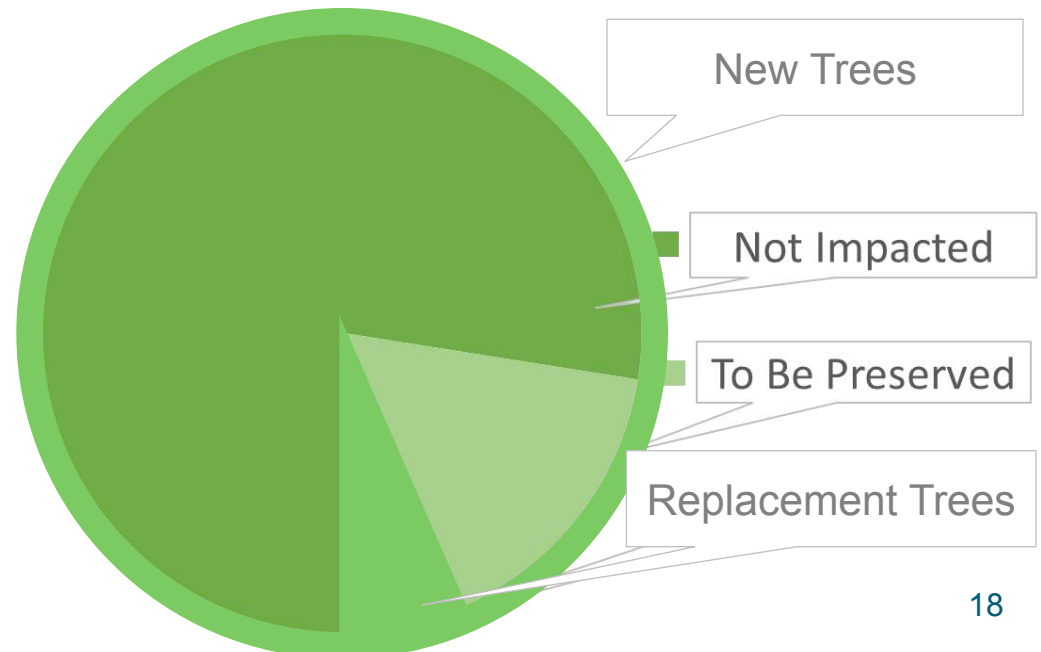
Table shows the current count of trees estimated to be **removed and replaced**, **preserved if possible** and **not impacted** based on customized Tree Impact Zone

Project ID	Representative Street Name	Approximate Total Number of Trees	Number of Trees to be removed	Number of Trees to be preserved	Number of Trees not impacted
1	Mildenhall Rd	137	29	43	65
2	Buckingham Ave	59	7	9	43
3	Cheltenham Ave	44	3	9	32
4	Rochester Ave	77	6	13	58
5	St. Leonards Ave	79	11	20	48
6	Lewes Cres, Pembury Ave	39	4	8	27
7	Dawlish Ave	54	14	14	26
8	Glenallan Rd, Pinedale Rd, Strathgowan Cres	80	1	12	67
9	Stratheden Rd, Strathgowan Cres	58	2	8	48
10A	Garland Ave, Strathgowan Ave	42	5	12	25
10B	Strathgowan Ave	35	1	8	26
11	Blyth Hill Rd	86	3	6	77
12	Blyth Dale Rd, Blanchard Rd	79	2	9	68
13	Braeside Cres, Proctor Cres	28	0	8	20
14	Rothmere Dr	48	2	8	38
15	Mildenhall Rd North	90	2	12	76
16	Bayview Wood, St. Aubyns Cres, Wood Ave	96	8	22	66
17	Fidelia Ave, St. Leonards Cres, Dawlish Ave	70	6	26	38
Total Number of Trees		1201	106	247	848



# Adding to the Tree Canopy

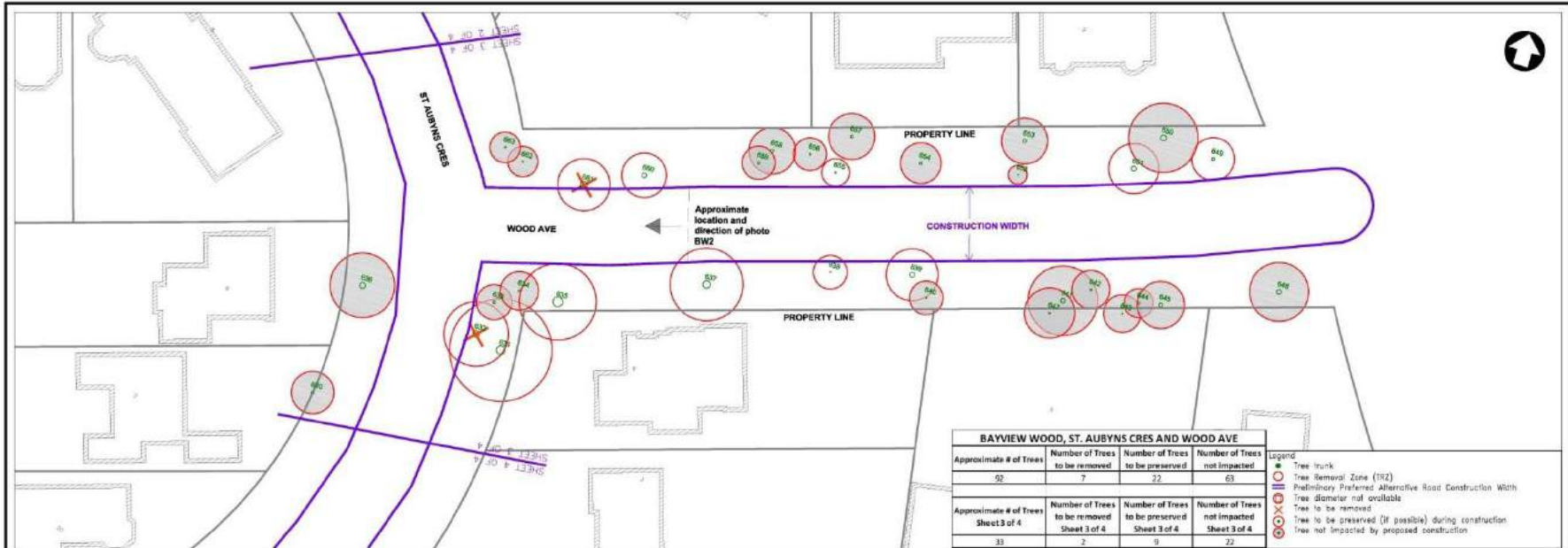
- The City will plant new trees as early as this year
- The City will identify potential locations and species type, and will consult with affected property owners
- Overall tree canopy can increase by over a 100 trees
- Early planting will allow trees to become established well ahead of construction
- During construction, the City will replace each tree that is removed





# Tree Assessment Example

## Wood Avenue



### Trees to be removed

Tree No	Tree Species	Condition	Diameter (cm)
632	QUERCUS RUBRA	Red Oak	Mod-High
661	QUERCUS RUBRA	Red Oak	Mod-High

### Trees to be preserved (if possible)

Tree No	Tree Species	Condition	Diameter (cm)
649	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Moderate
651	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	High
655	SORBUS AUCUPARIA	Mountain Ash	Mod-High
660	TILIA CORDATA	Littleleaf Linden	High
631	QUERCUS RUBRA	Red Oak	Mod-High
635	QUERCUS RUBRA	Red Oak	High
637	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
638	THUJA OCCIDENTALIS	Eastern White Cedar	Mod-High
639	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High

### Trees not impacted

Tree No	Tree Species	Condition	Diameter (cm)
630	ACER PLATANOIDES	Norway Maple	Mod-High
636	ACER PLATANOIDES	Norway Maple	Mod-High
633	ACER PLATANOIDES	Norway Maple	Mod-High
634	ACER PLATANOIDES	Norway Maple	Mod-High
640	PICEA ABIES	Norway Spruce	Mod-High
641	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Moderate
642	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
643	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
644	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
645	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Moderate
647	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
648	ACER PLATANOIDES	Norway Maple	High
650	ACER SACCHARINUM SSP SACCHARINUM	Sugar Maple	Mod-High
652	AMELANCHIER LAEVIS	Smooth Serviceberry	Mod-High
653	ACER RUBRUM	Red Maple	Low
654	ACER PLATANOIDES	Norway Maple	Moderate
656	ACER PLATANOIDES	Norway Maple	Mod-High
657	BETULA PAPERIFERA	Paper Birch	Moderate
658	BETULA PAPERIFERA	Paper Birch	Mod-High
659	BETULA PAPERIFERA	Paper Birch	Mod-High
662	PICEA OMORICA	Serbian Spruce	Mod-High
663	PICEA OMORICA	Serbian Spruce	Mod-High

	Not Impacted
	Preserved if Possible
	Removed and Replaced



# Before and After Illustration

## Wood Avenue

### Existing Conditions

- Pavement width (asphalt) – 6.8 m
- Roadway width – 8.2 m
- Swales/culverts on both sides

### Post Construction

- Proposed Pavement width – 7.2 m
- Proposed Roadway width – 7.6 m

Features include:

Addition of curbs and storm sewer/catch basins within roadway

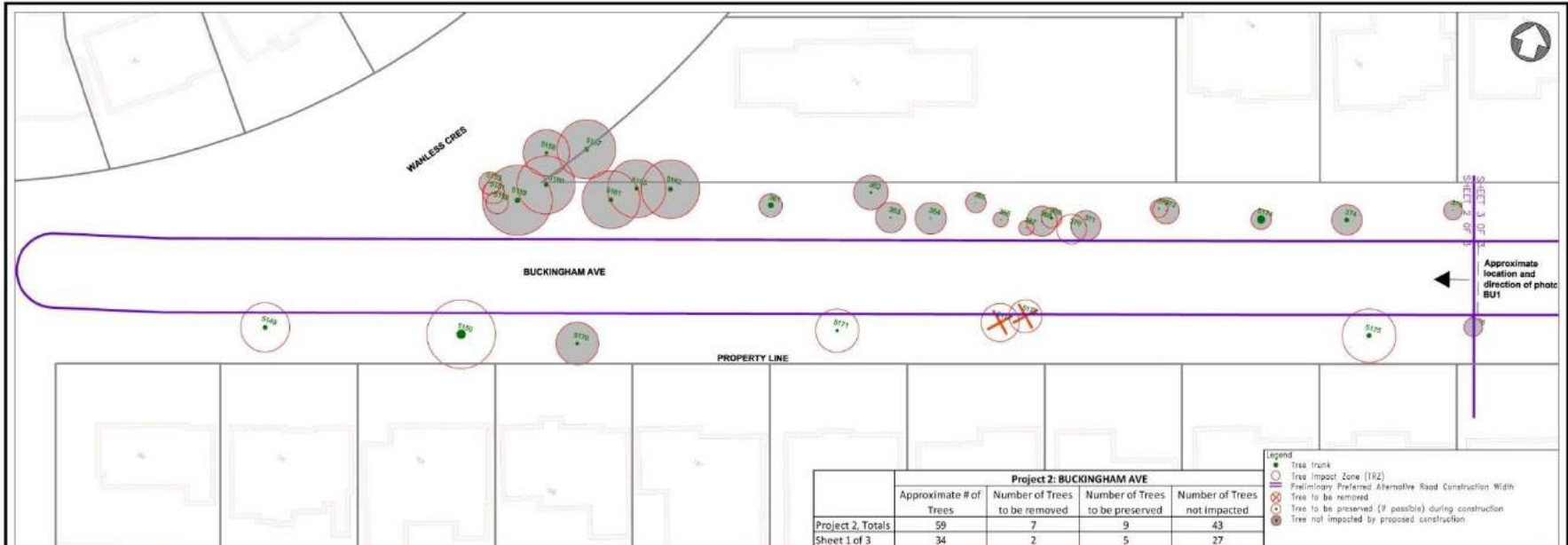


FIGURE BW2  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - WOOD AVENUE



# Tree Assessment Example

## Buckingham Avenue



### Trees to be removed

Tree No	Tree Species	Condition	Diameter (cm)
5172	ACER PLATANOIDES	Norway Maple	ModHigh
5173	ACER PLATANOIDES	Norway Maple	ModHigh

### Trees to be preserved (if possible)

Tree No	Tree Species	Condition	Diameter (cm)
370	MORUS ALBA	White Mulberry	Low
5149	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh
5150	ACER PLATANOIDES	Norway Maple	ModHigh
5173	GLEDTISIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh
5175	TILIA CORDATA	Littleleaf Linden	ModHigh

### Trees not impacted

Tree No	Tree Species	Condition	Diameter (cm)
5151	PICEA OMORICA	Serbian Spruce	ModHigh
5152	PICEA OMORICA	Serbian Spruce	ModHigh
5153	PICEA OMORICA	Serbian Spruce	ModHigh
5157	FRAXINUS PENNSYLVANICA	Green Ash	Moderate
5158	FRAXINUS PENNSYLVANICA	Green Ash	Low
5159	FRAXINUS PENNSYLVANICA	Green Ash	Low
5160	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh
5161	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh
5162	BETULA PAPPYRIFERA	BN/A	Moderate
5163	FRAXINUS PENNSYLVANICA	Green Ash	Moderate
5170	TILIA CORDATA	Littleleaf Linden	ModHigh
5174	QUERCUS ALBA	White Oak	ModHigh
5176	FAGUS SYLVATICA ATROPUNICIA	Copper Beech	ModHigh
361	GLEDTISIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High
362	ABIES CONCOLOR	White Fir	ModHigh
363	CETIS OCCIDENTALIS	Hackberry	ModHigh
364	MORUS ALBA	White Mulberry	Low
365	MORUS ALBA	White Mulberry	Low
366	MORUS ALBA	White Mulberry	Low
367	MORUS ALBA	White Mulberry	Low
368	ACER PLATANOIDES	Norway Maple	Low
369	FRAXINUS PENNSYLVANICA	Green Ash	Moderate
371	ACER PLATANOIDES	Norway Maple	Low
372	ACER NEGUNDO	Manitoba Maple	Moderate
373	ACER PLATANOIDES	Norway Maple	Low
374	GLEDTISIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh
375	PIRUS CALLERYANA GLENS FORM	Chanticleer Pear	Moderate

	Not Impacted
	Preserved if Possible
	Removed and Replaced



# Before and After Illustration

## Buckingham Avenue

### Existing Conditions

- Pavement width (asphalt) – 7.4 m
- Roadway width – 8.2 m
- Swales/culverts on both sides

### Post Construction

- Proposed Pavement width – 7.2 m
- Proposed Roadway width – 7.6 m

Features include:

Addition of curbs and storm sewer/catch basins within roadway

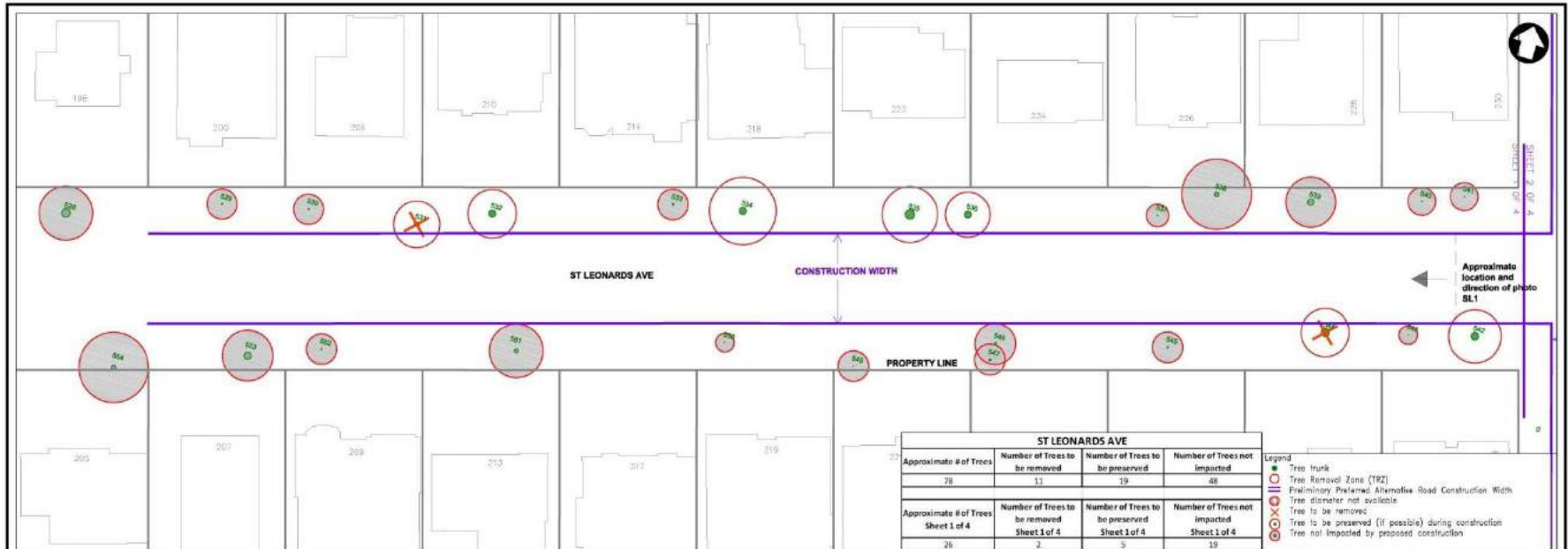


FIGURE BU1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - BUCKINGHAM AVE



# Tree Assessment Example

## St. Leonards Avenue



### Trees to be removed

Tree No	Tree Species	Condition	Diameter (cm)
544	ACER SACCHARINUM	Silver Maple	94
531	SALIX SP	Willow sp.	52

### Trees to be preserved (if possible)

Tree No	Tree Species	Condition	Diameter (cm)
542	ACER PLATANOIDES	Norway Maple	86
532	ACER PLATANOIDES	Norway Maple	77
534	ACER PLATANOIDES	Norway Maple	82
535	ACER SACCHARINUM	Silver Maple	105
536	ACER SACCHARINUM	Silver Maple	76

### Trees not impacted

Tree No	Tree Species	Conditions	Diameter (cm)
545	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh
546	ACER PALMATUM	Japanese Maple	ModHigh
547	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh
549	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh
550	GINKGO BILOBA	Ginkgo	ModHigh
551	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh
552	GINKGO BILOBA	Ginkgo	ModHigh
553	ACER PLATANOIDES	Norway Maple	ModHigh
554	ABIES CONCOLOR	White Fir	High
543	ACER SACCHARINUM	Silver Maple	ModHigh
537	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh
538	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High
539	TILIA CORDATA	Littleleaf Linden	High
540	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh
541	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh
533	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh
528	ACER SACCHARINUM	Silver Maple	Moderate
529	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh
530	ACER SACCHARINUM	Silver Maple	ModHigh

	Not Impacted
	Preserved if Possible
	Removed and Replaced



# Before and After Illustration

## St. Leonards Avenue

### Existing Conditions

- Pavement width (asphalt) – 7.0 m
- Roadway width – 9.2 m
- Swales/culverts on both sides

### Post Construction

- Pavement width – 7.2 m
- Roadway width – 9.1 m

Features to include:

Addition of one sidewalk, curbs and storm sewer/catchbasins within roadway  
*(note: sidewalk on right-side for illustration purpose only)*



FIGURE SL1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - ST LEONARDS AVE



# Reducing Tree Impacts & Removals

We will continue to find opportunities to reduce tree impacts and removals

## Design Stage

- Narrowing sections of local roads to 6.6 metres
- Shifting road alignment
- Detail tree removals and retentions on plan drawings
- Plan areas for construction access, staging, material storage
- Examine tunneling vs trenching, grade changes, slope stabilization, etc.

...

## Construction Stage

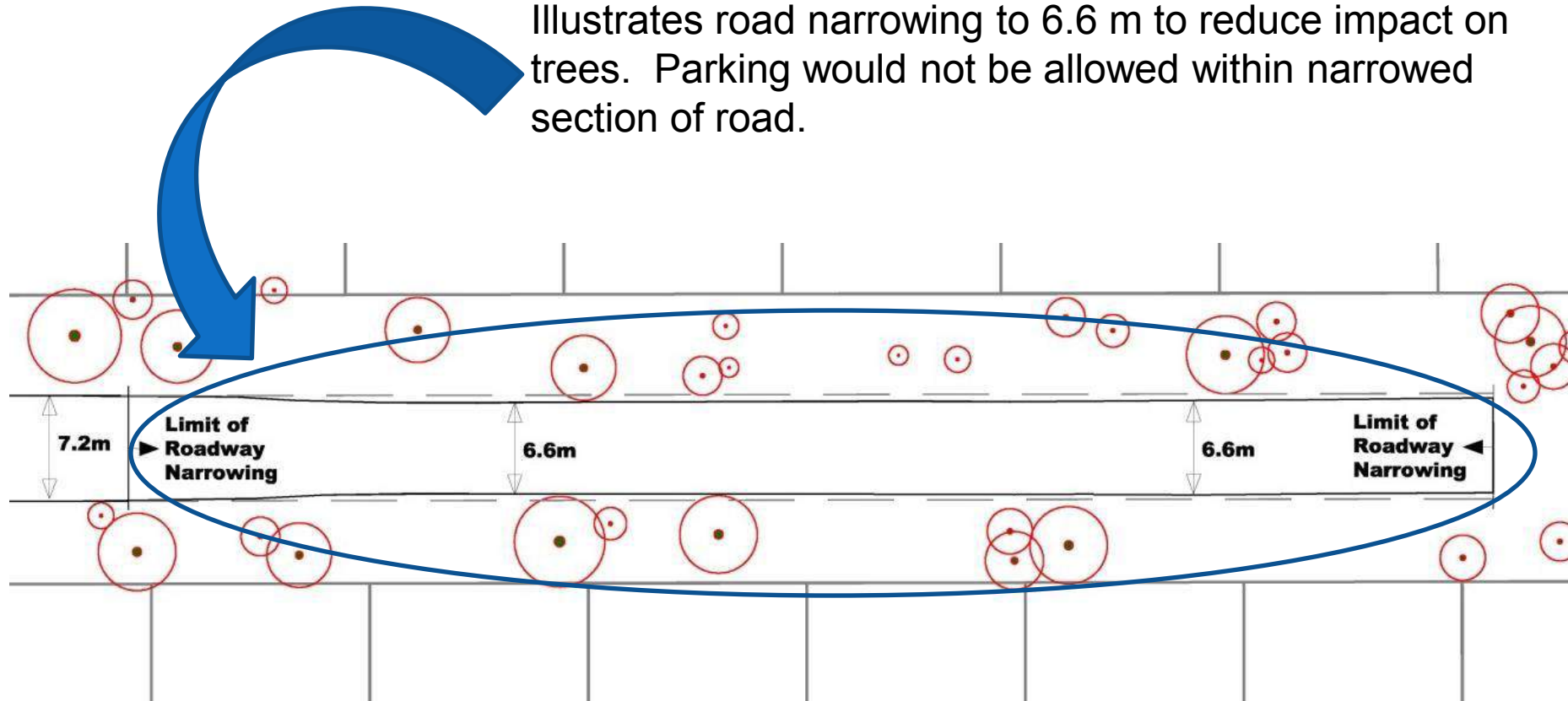
- Tree impact zone (TIZ) fencing and signage, trunk protection, etc.
- Examine considerations for root and crown pruning to avoid damage by construction equipment
- On-site supervision by certified arborists and communication plan





# Localized Road Narrowing

Illustrates road narrowing to 6.6 m to reduce impact on trees. Parking would not be allowed within narrowed section of road.





# Localized Road Narrowing

Existing Road

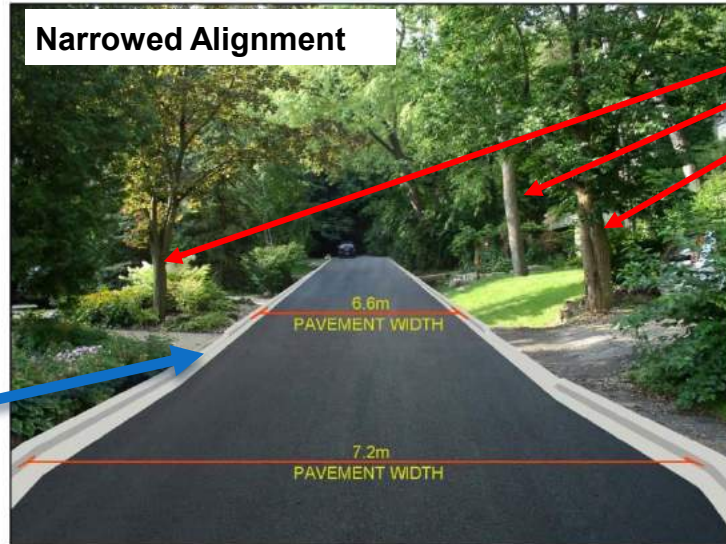


Road narrowed to 6.6 m

Preliminary Alignment



Narrowed Alignment

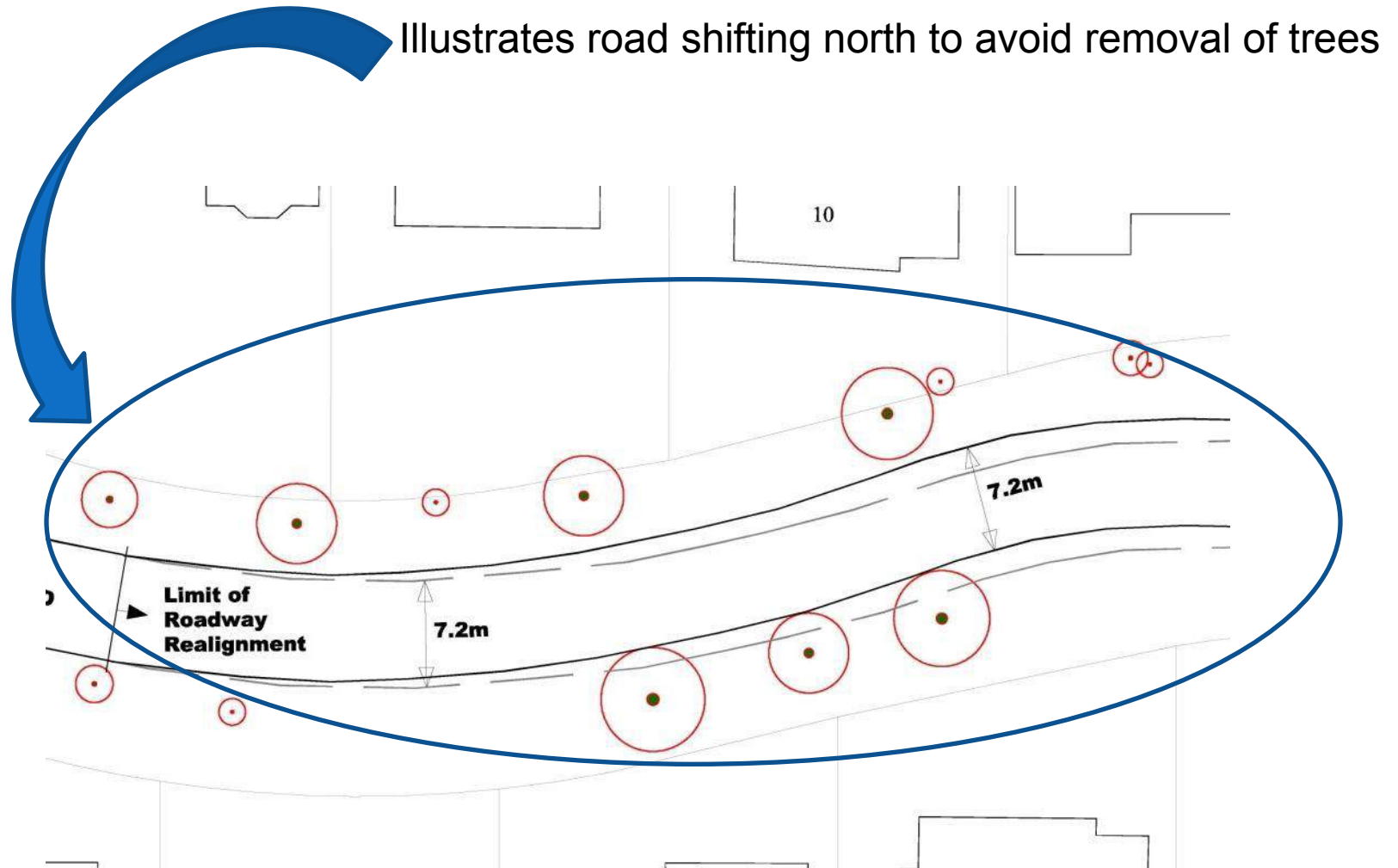


Preserved  
Trees

FIGURE NAR1  
ILLUSTRATION OF CONVENTIONAL ROAD WIDTH (TOP PHOTO) VERSUS LOCALIZED ROAD NARROWING TO PROTECT  
EXISTING TREES - STREET A



# Localized Shifting of Road





# Localized Shifting of Road

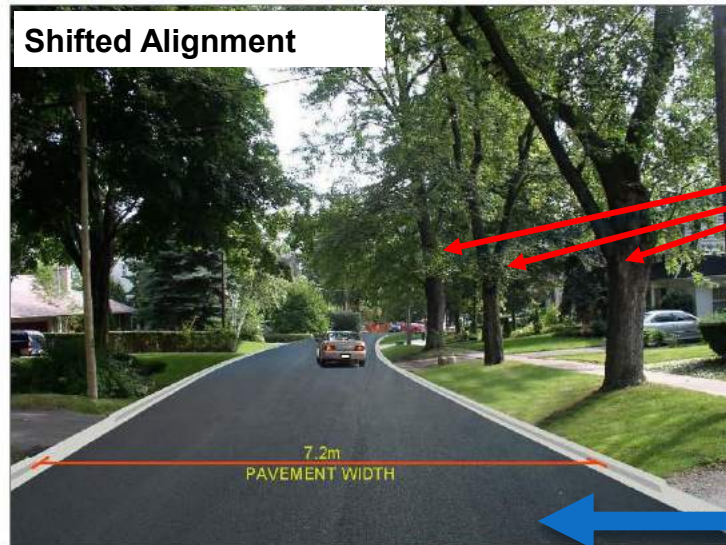
Existing Conditions



Preliminary Alignment



Shifted Alignment



Preserved  
Trees

Road  
Shifted

FIGURE SH12  
ILLUSTRATION OF CONVENTIONAL ALIGNMENT (TOP PHOTO) VERSUS SHIFTING OF ROAD ALIGNMENT TO PROTECT  
EXISTING TREES (LOWER PHOTO) - STREET D



# Roads, Sidewalks and Drainage



# Road Reconstruction

- Full depth reconstruction required for 26 roads in the study area due to deteriorated road conditions
- For each road, the City must address varying road width, pedestrian access and road drainage
- Based on review of City policies/standards and characteristics of the study area, the following set of alternative options were evaluated:

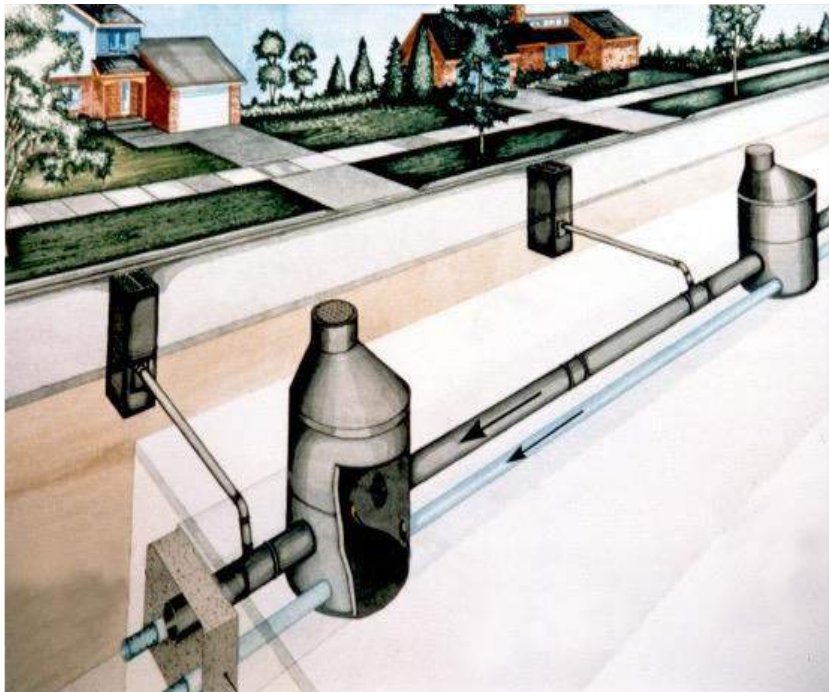
<b>Local Road Width</b>	8.5 m or 7.2 m
<b>Collector Road Width (Mildenhall South)</b>	9.5 m, 8.5 m or 7.2 m
<b>Sidewalks</b>	Local Road - 0 or 1 sidewalk Collector Road - 1 or 2 sidewalks
<b>Road Drainage</b>	Urban (storm sewers + catch basins) Rural (ditches)

- Sidewalk width of 1.5 m, which is the provincial minimum



# Urban Road Drainage

- Urban road drainage will result in the fewest impacts to trees as the sewer is located under the road surface
- Storm sewers will have perforated pipes to allow storm water to naturally infiltrate into soil
- At time of construction, existing swales will be filled-in and landscaped





# Sidewalks

- In review of the study area characteristics, City has examined creating pedestrian linkages to key destinations in the neighbourhood (schools, church, nursery, TTC stops) and connecting existing sidewalks
- Sidewalks are recommended for 5 out of 26 roads
  - **Mildenhall Road South:** Safer and accessible connection along street with high traffic volumes
  - **St. Leonards Ave & Dawlish Ave:** Adds west-east connectors to Bayview Avenue
  - **Glenallen Rd & Pinedale Rd:** Safer connection to local school
- Sidewalks will run alongside the road curb; location (side of street) to be determined during detailed design stage
- City's new Green Standards may provide alternative sidewalk materials
- Recommendations will help improve accessibility in the neighbourhood



# Recommended Alternative Solutions: LOCAL ROAD

7.2 metre road + 1 sidewalk +  
urban cross section



7.2 metre road + urban cross section



Parking on 7.2 m road width will be limited to one side of road; where road is narrowed to 6.6 m parking will not be allowed



# Previously Recommended Alternative (since revised): Mildenhall Road, south of Lawrence Avenue

Alternative #5: 8.5m road + 1 sidewalk + urban cross section



- Six alternatives were evaluated; Alternative #5 scored highest and was presented at third PIC (May 2015) as recommended alternative
- We heard concerns from the public about safety and traffic speed and request for a narrower road
- This alternative was reconsidered and is not being recommended



# Recommended Alternative (based on public feedback): Mildenhall Road, south of Lawrence Avenue

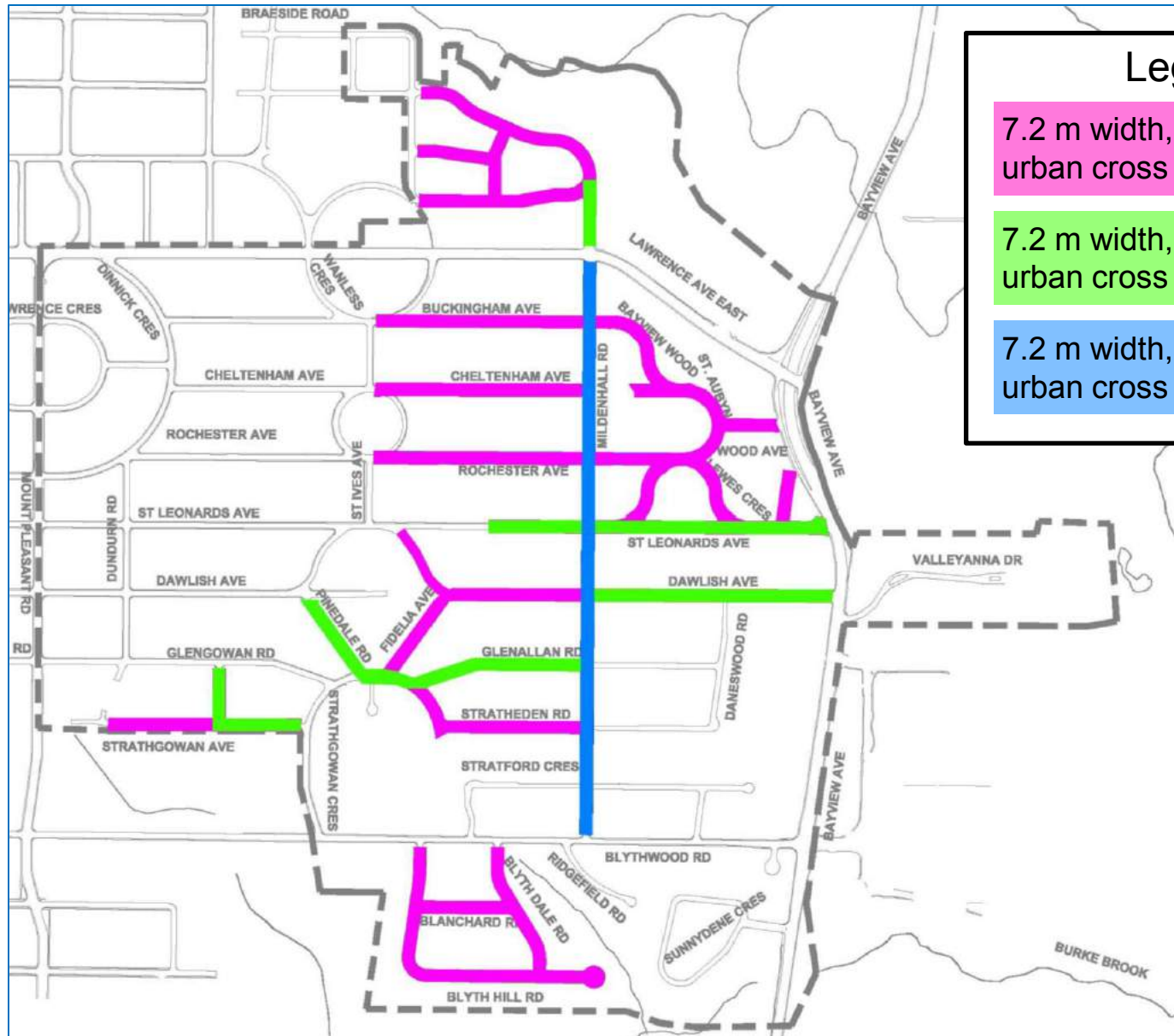
Alternative #6: 7.2m road width + 2 sidewalks + urban cross section



- Narrower road option addresses concerns about traffic speed
- Narrower width on a busy road requires a second sidewalk to avoid pedestrians having to walk on the road
- Construction width is 20 cm wider than Alternative #5; this may result in an estimated 3 additional tree removal requirements
- Parking restrictions will largely remain unchanged on Mildenhall Road. Parking around Cheltenham Park will be examined at the detailed design stage.



# Study Recommendations



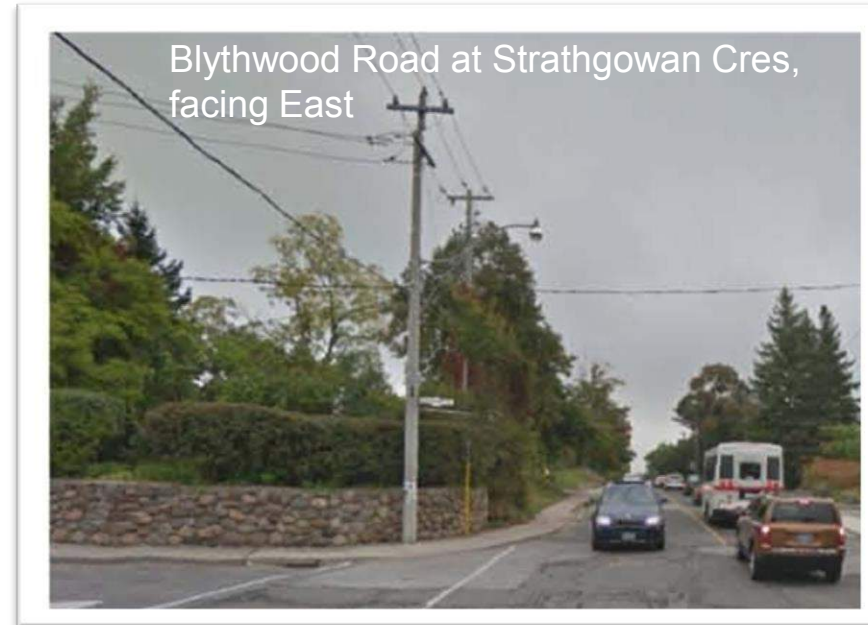


# Traffic Management



# Traffic Management

- Findings for area bound by Mt. Pleasant / Bayview / Blythwood / Lawrence Avenue show traffic volumes within City standards of:
  - < 2500 vehicles per day (local road) and,
  - 2500-8000 vehicles per day (collector road)
- Recommendations include addressing sightline issues at 3 locations:
  - Remove or relocate stone wall at Blythwood Road / Strathgowan Crescent
  - Trimming of tree branches at Mount Pleasant Road / Lawrence Crescent and Mount Pleasant Road / St. Leonards Avenue
- Requests for a stop sign at Dawlish Ave and Mildenhall Road reviewed
  - Analysis shows a potential decrease in angled collisions but an increase in rear-end collisions
  - Staff will review sightlines at intersection for further action
- Staff will continue to work with the Toronto French School to identify further improvements that can be made





# Basement Flooding

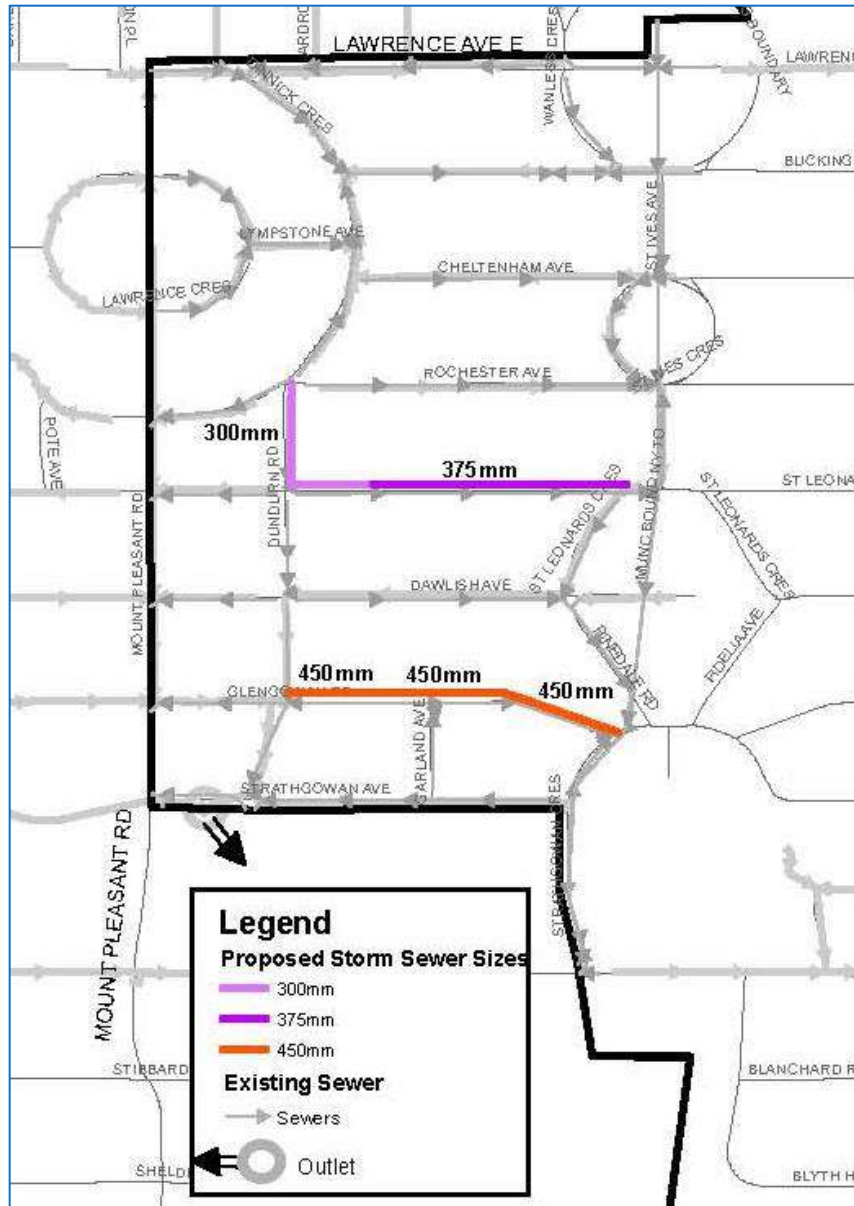


# Addressing Basement Flooding

- Two separate areas based on former municipalities
  - **West-side (former Toronto)**
    - Combined sewers
    - Storm sewers convey road drainage
  - **East-side (former North York)**
    - Sanitary sewers
    - Swales and a partial storm sewer system convey road drainage
- Data from field surveys, soil conditions, sewer flow monitoring and questionnaires were collected and reviewed
- A hydrologic-hydraulic computer model created to analyze operation of sewer systems under different rainstorm conditions
- Model shows the risks based on the ability of sewers to convey flows without flooding basements
- Surface ponding addressed as part of road reconstruction work



# Basement Flooding Protection – West-side

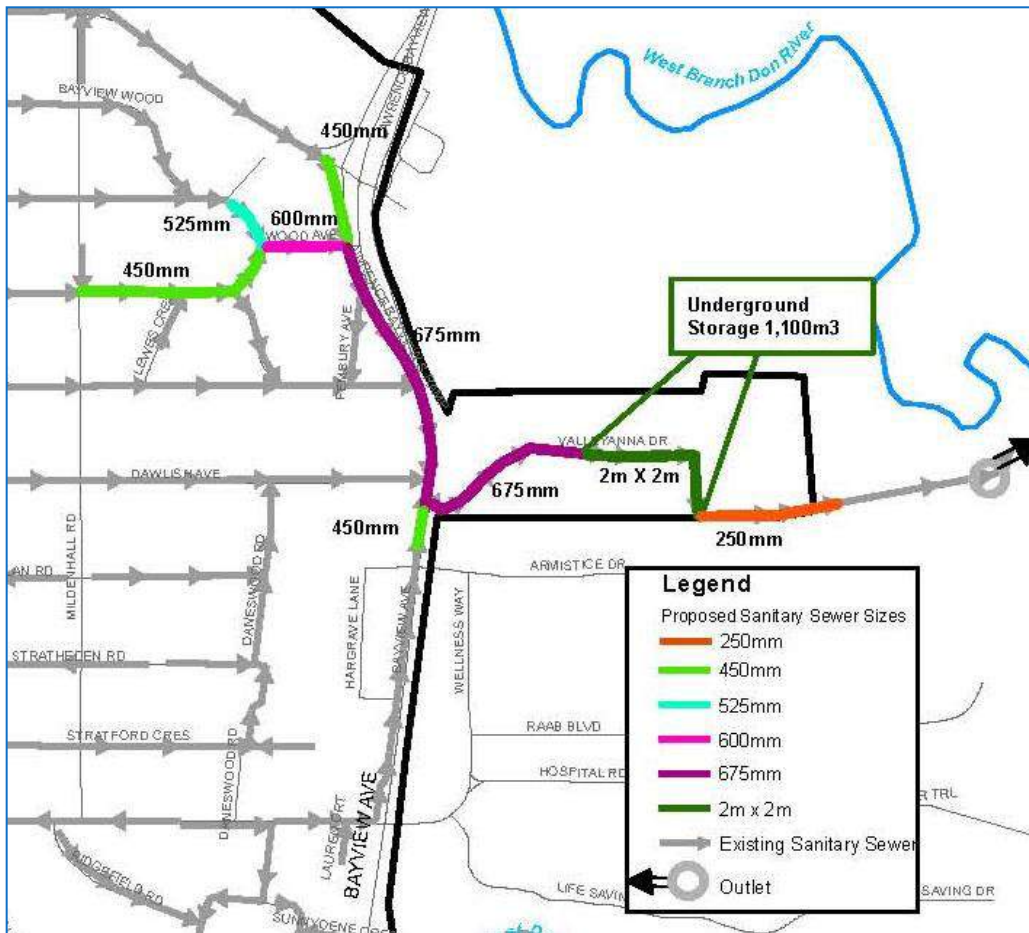


## West-side (former Toronto)

- Additional capacity needed in the combined sewer to reduce basement flooding risks
- Storm sewers to be added on St. Leonards Ave, Glengowan Rd., & Dundurn Rd. to capture and convey road drainage will reduce flow into the combined sewer



# Basement Flooding – East-side



## East-side (former North York)

- Additional capacity needed in the sanitary sewer system to reduce basement flooding risks
- Existing sanitary sewers on Rochester Ave., Bayview Ave., Wood Ave., Bayview Wood, and Valleyanna Dr. to be enlarged
- Underground storage tank to be constructed within the road on Valleyanna Dr.
- Sanitary manholes to be sealed in low lying areas



# Reducing Your Risks of Flooding

- Downspout disconnection can help us to reduce the amount of water entering the sewer system
  - City has implemented a bylaw requiring owners to disconnect downspouts, where feasible
- Homeowners can take other steps on private property to help reduce the chances of basement flooding
  - Seal cracks or openings in walls, floors, windows and foundations, and seal all window wells
  - Clear eavestroughs and downspouts of leaves
  - Proper grading around home
  - Increase green space around your home to help absorb rainwater and melted snow
  - Repair/replace damaged weeping tile systems
  - Install a backwater valve and sump pump





# SCHEDULE OF WORK

- All infrastructure work will be designed and constructed based on **Priority, Coordination and Funding**
- Earliest start for detailed design is 2019-2020, construction following approximately 1 year later
- Projects will be scheduled based on priority and technical sequencing requirements
- Projects to be sequenced for construction over a 10-year period
- City is committed to working with community to engage and consult with residents on design details and construction





# NEXT STEPS



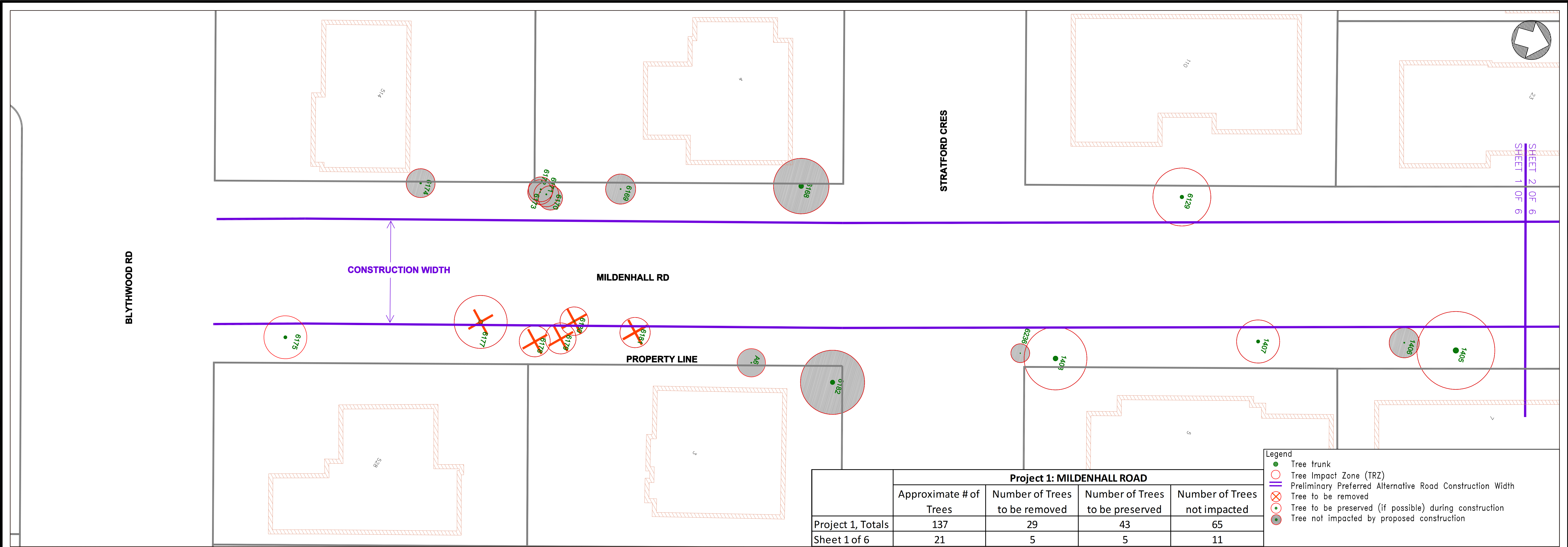
- Once study is completed, City will report to Committee of Council for approval of study recommendations
- If approved, a study report will be published and made available on-line for a 30-day public review period
- During the 30-day review period, a resident can contact the City to resolve any outstanding issues, if the issue cannot be resolved, the resident can request Minister of Environment & Climate Change to review and make decision



# THANK YOU AND QUESTIONS







Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
6177	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	45
6178	ACER PLATANOIDES	Norway Maple	ModHigh	22
6179	BETULA PAPYRIFERA	Paper Birch	ModHigh	22
6180	ACER NEGUNDO	Manitoba Maple	Moderate	14
6181	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	14

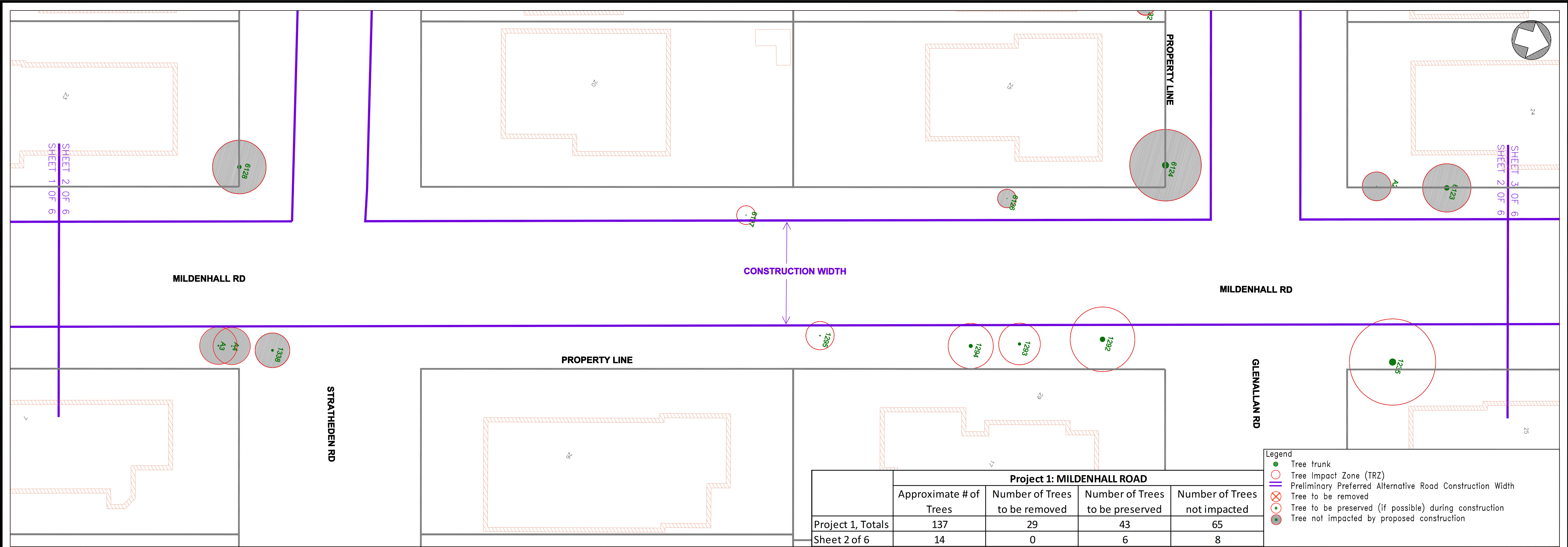
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
1405	TILIA CORDATA	Littleleaf Linden	High	61
1407	ACER PLATANOIDES	Norway Maple	ModHigh	36
1408	QUERCUS RUBRA	Red Oak	High	54
6129	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	40
6175	MALUS BACCATA	Siberian Crabapple	ModHigh	35

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
6168	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	53
6169	CELTIS OCCIDENTALIS	Hackberry	ModHigh	12
6170	ULMUS AMERICANA	White Elm	Moderate	8
6171	ULMUS AMERICANA	White Elm	Moderate	14
6172	ACER PLATANOIDES	Norway Maple	Moderate	12
6173	ACER PLATANOIDES	Norway Maple	Moderate	14
6174	MALUS BACCATA	Siberian Crabapple	ModHigh	19
6182	BETULA PAPYRIFERA	Paper Birch	ModHigh	49
6236	PRUNUS CERASIFERA	Cherry Plum	ModHigh	8
1406	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
A6	PINUS MUGO	Mugo Pine	Moderate	13





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
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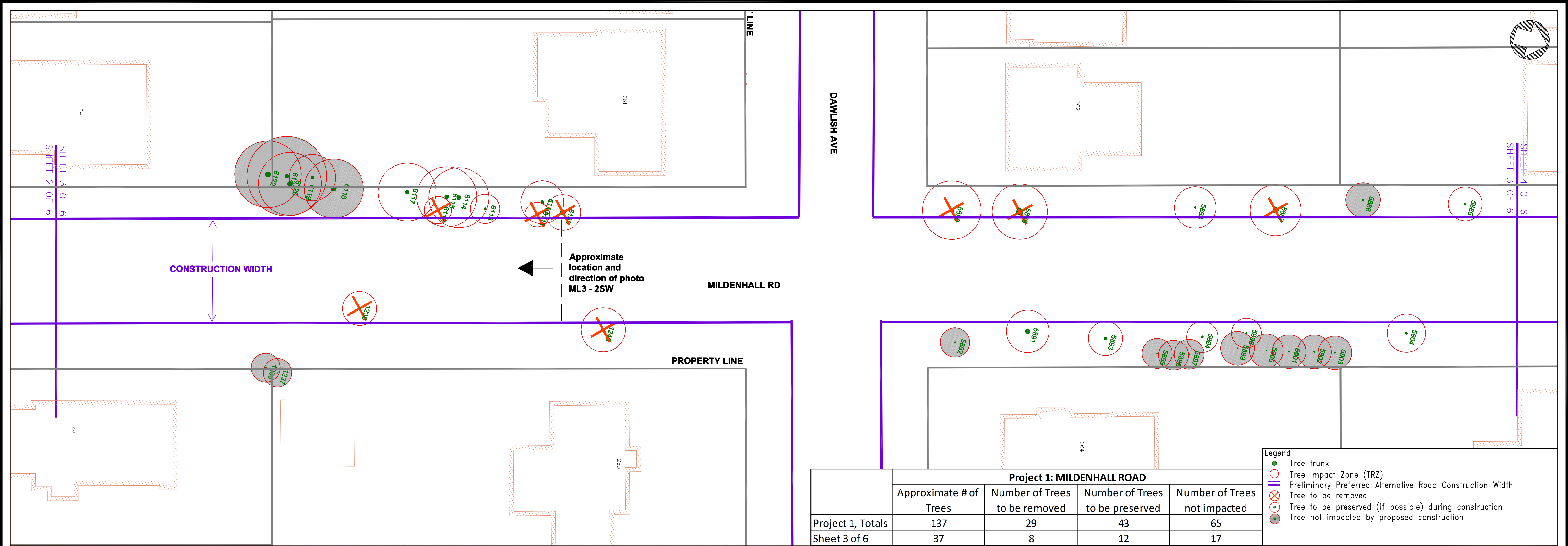
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
1235	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	High	73
1292	ACER PLATANOIDES	Norway Maple	High	54
1293	BETULA PAPHYRIFERA	Paper Birch	Moderate	30
1294	ACER PLATANOIDES	Norway Maple	ModHigh	39
1295	ACER GINNALA	Amur Maple	Moderate	12
6127	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	7

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
1338	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	24
6124	BETULA PAPHYRIFERA	Paper Birch	ModHigh	71
6126	PRUNUS SP	Cherry	ModHigh	5
6123	BETULA PAPHYRIFERA	Paper Birch	Moderate	54
6128	ACER PLATANOIDES	Norway Maple	Moderate	43
A2	ACER SACCHARUM	Sugar Maple	ModHigh	5
A3	BETULA PAPHYFERA	White Birch	ModHigh	15
A4	BETULA PAPHYFERA	White Birch	ModHigh	12





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
1238	MALUS PUMILA	Apple	Low	17
1240	PICEA GLAUCA	White Spruce	ModHigh	39
5887	TILIA CORDATA	Littleleaf Linden	High	65
5889	ACER PLATANOIDES	Norway Maple	ModHigh	71
5890	ACER PLATANOIDES	Norway Maple	ModHigh	48
6109	ACER PLATANOIDES	Norway Maple	Moderate	54
6111	ACER PLATANOIDES	Norway Maple	ModHigh	40
6116	ACER PLATANOIDES	Norway Maple	ModHigh	22

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
5885	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	15
5888	ACER PLATANOIDES	Norway Maple	ModHigh	20
5891	ACER PLATANOIDES	Norway Maple	Moderate	51
5898	AESCULUS HIPPOCASTANUM	Horse Chestnut	ModHigh	9
5894	ACER PLATANOIDES	Norway Maple	ModHigh	24
5893	TILIA CORDATA	Littleleaf Linden	ModHigh	29
5904	ACER PLATANOIDES	Norway Maple	ModHigh	23
6110	PICEA ABIES	Norway Spruce	ModHigh	35
6113	ACER PLATANOIDES	Norway Maple	ModHigh	25
6114	PICEA ABIES	Norway Spruce	ModHigh	45
6115	PICEA ABIES	Norway Spruce	ModHigh	45
6117	ACER PLATANOIDES	Norway Maple	ModHigh	40

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
5886	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	22
5892	FAGUS SYLVATICA FASTIGIATA	Dawyck Beech	ModHigh	15
5895	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	12
5896	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	11
5897	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	12
5899	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
5900	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
5901	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
5902	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	15
5903	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
6118	ULMUS AMERICANA	White Elm	ModHigh	54
6119	ACER PLATANOIDES	Norway Maple	ModHigh	34
6120	ACER PLATANOIDES	Norway Maple	Moderate	55
6121	ACER PLATANOIDES	Norway Maple	ModHigh	40
6122	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	57
1236	THUJA OCCIDENTALIS	Eastern White Cedar	Low	20
1237	ULMUS AMERICANA	White Elm	Low	14









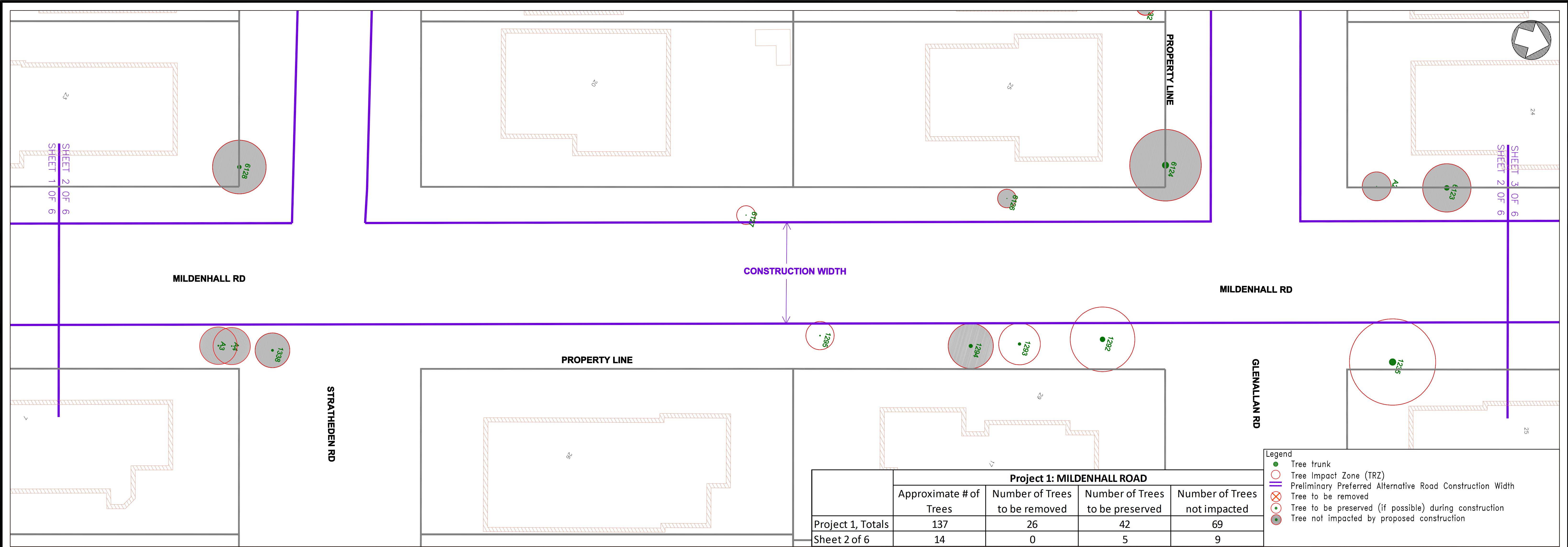












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
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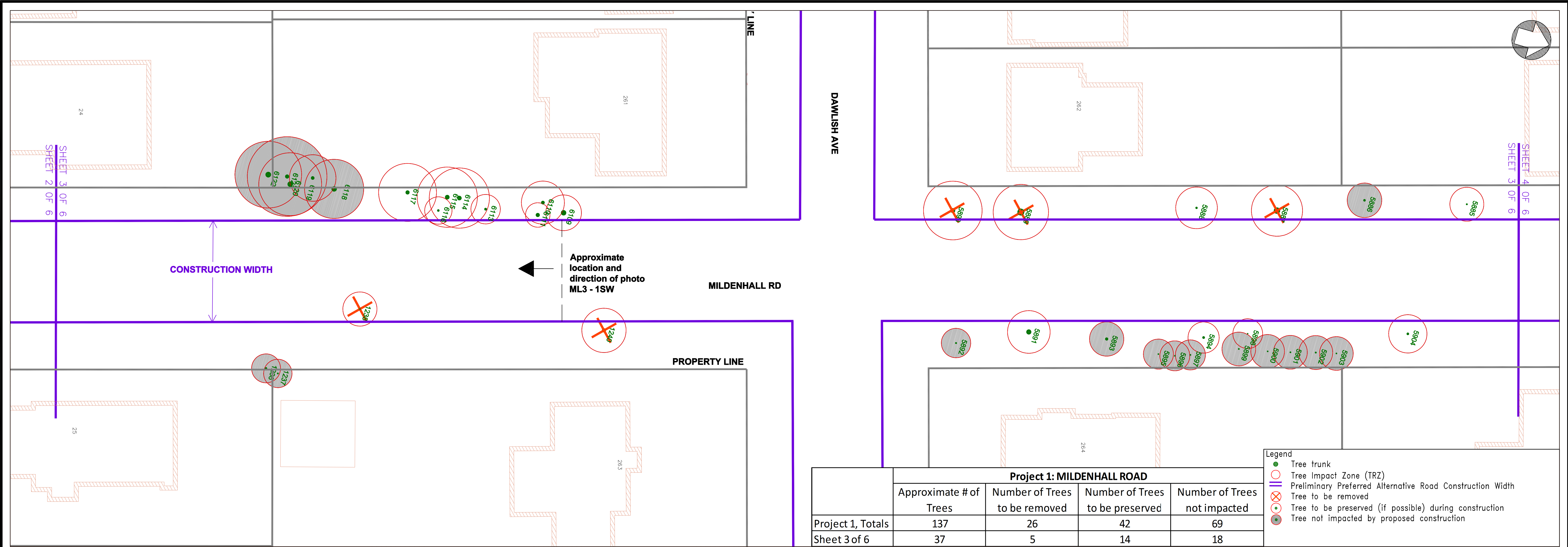
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
1235	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	High	73
1293	BETULA PAPYRIFERA	Paper Birch	Moderate	30
1295	ACER GINNALA	Amur Maple	Moderate	12
6127	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	7
1292	ACER PLATANOIDES	Norway Maple	High	54

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
1338	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	24
6124	BETULA PAPYRIFERA	Paper Birch	ModHigh	71
6126	PRUNUS SP	Cherry	ModHigh	5
6123	BETULA PAPYRIFERA	Paper Birch	Moderate	54
6128	ACER PLATANOIDES	Norway Maple	Moderate	43
A2	ACER SACCHARUM	Sugar Maple	ModHigh	5
A3	BETULA PAPYFERA	White Birch	ModHigh	15
A4	BETULA PAPYFERA	White Birch	ModHigh	12
1294	ACER PLATANOIDES	Norway Maple	ModHigh	39





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
1238	MALUS PUMILA	Apple	Low	17
1240	PICEA GLAUCA	White Spruce	ModHigh	39
5887	TILIA CORDATA	Littleleaf Linden	High	65
5889	ACER PLATANOIDES	Norway Maple	ModHigh	71
5890	ACER PLATANOIDES	Norway Maple	ModHigh	48

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
5885	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	15
5891	ACER PLATANOIDES	Norway Maple	Moderate	51
5898	AESCULUS HIPPOCASTANUM	Horse Chestnut	ModHigh	9
5894	ACER PLATANOIDES	Norway Maple	ModHigh	24
5888	ACER PLATANOIDES	Norway Maple	ModHigh	20
5904	ACER PLATANOIDES	Norway Maple	ModHigh	23
6110	PICEA ABIES	Norway Spruce	ModHigh	35
6113	ACER PLATANOIDES	Norway Maple	ModHigh	25
6114	PICEA ABIES	Norway Spruce	ModHigh	45
6115	PICEA ABIES	Norway Spruce	ModHigh	45
6117	ACER PLATANOIDES	Norway Maple	ModHigh	40
6109	ACER PLATANOIDES	Norway Maple	Moderate	54
6111	ACER PLATANOIDES	Norway Maple	ModHigh	40
6116	ACER PLATANOIDES	Norway Maple	ModHigh	22

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
5886	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	22
5892	FAGUS SYLVATICA FASTIGIATA	Dawyck Beech	ModHigh	15
5895	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	12
5896	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	11
5897	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	12
5899	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
5900	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
5901	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
5902	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	15
5903	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
6118	ULMUS AMERICANA	White Elm	ModHigh	54
6119	ACER PLATANOIDES	Norway Maple	ModHigh	34
6120	ACER PLATANOIDES	Norway Maple	Moderate	55
6121	ACER PLATANOIDES	Norway Maple	ModHigh	40
6122	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	57
1236	THUJA OCCIDENTALIS	Eastern White Cedar	Low	20
1237	ULMUS AMERICANA	White Elm	Low	14
5893	TILIA CORDATA	Littleleaf Linden	ModHigh	29

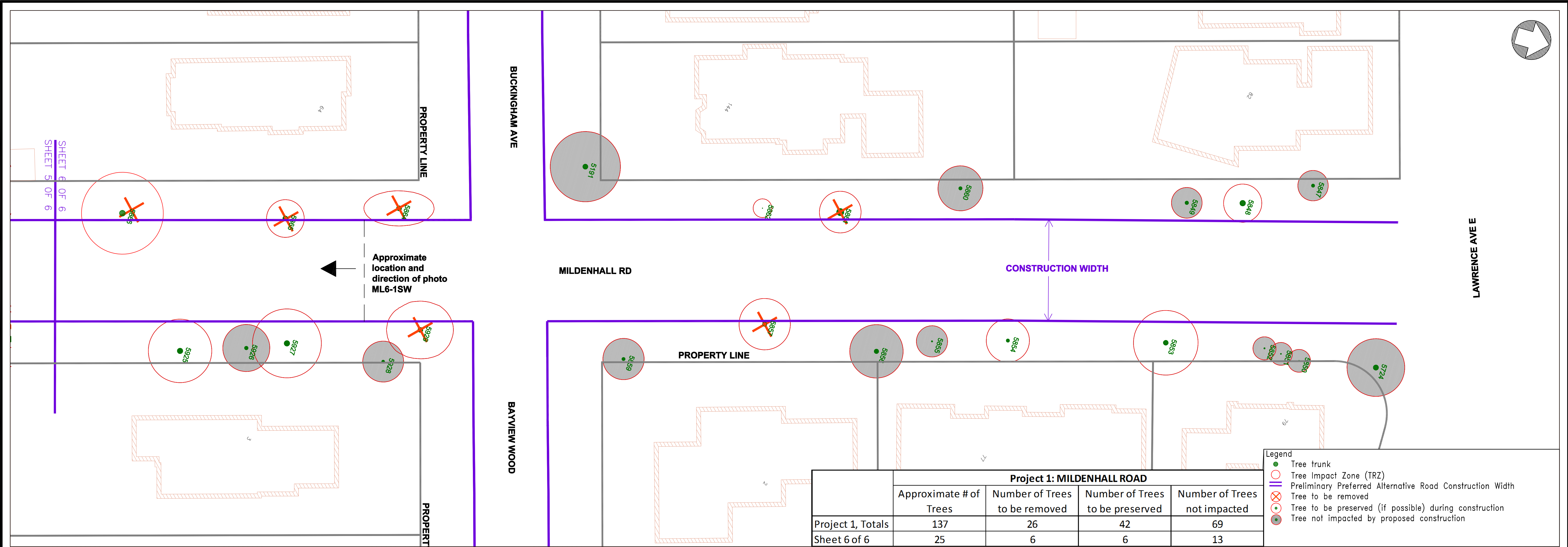












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
5857	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	47
5861	TILIA CORDATA	Littleleaf Linden	ModHigh	80
5864	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	56
5865	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	56
5929	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	55
5866	ACER PLATANOIDES	Norway Maple	Low	65

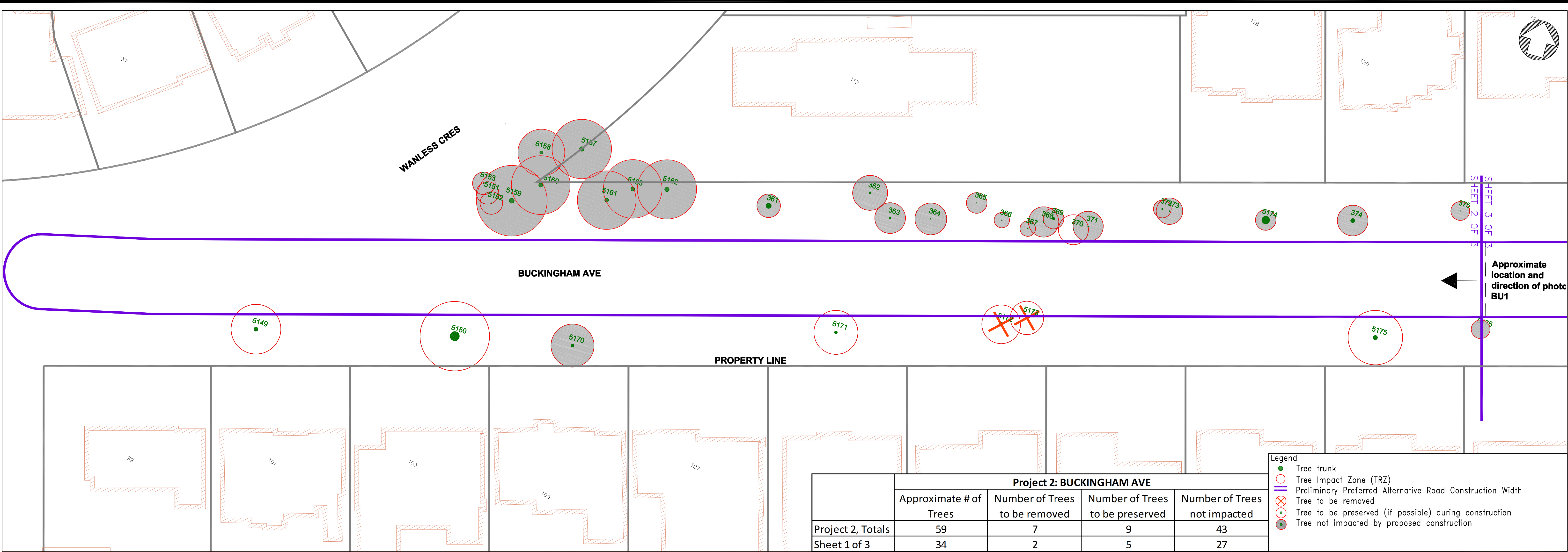
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
5925	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	61
5927	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	61
5853	ACER PLATANOIDES	Norway Maple	ModHigh	54
5854	ACER PLATANOIDES	Norway Maple	Moderate	37
5848	TILIA CORDATA	Littleleaf Linden	ModHigh	62
5862	ACER GINNALA	Amur Maple	ModHigh	6

Trees not impacted

Tree No	Tree Species		Condition	Diameter (cm)
5926	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	40
5928	MALUS BACCATA	Siberian Crabapple	ModHigh	32
5847	ACER PLATANOIDES	Norway Maple	ModHigh	36
5849	ACER PLATANOIDES	Norway Maple	ModHigh	39
5859	MALUS BACCATA	Siberian Crabapple	ModHigh	36
5860	ACER PALMATUM	Japanese Maple	ModHigh	37
5855	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	15
5856	MALUS PUMILA	Apple	Moderate	50
5850	CERCIDIPHYLLUM JAPONICUM	Katsura	ModHigh	12
5851	CERCIDIPHYLLUM JAPONICUM	Katsura	ModHigh	12
5852	CERCIDIPHYLLUM JAPONICUM	Katsura	ModHigh	15
5724	ACER PLATANOIDES	Norway Maple	High	58
5191	TILIA CORDATA	Littleleaf Linden	ModHigh	56





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
5172	ACER PLATANOIDES	Norway Maple	ModHigh	43
5173	ACER PLATANOIDES	Norway Maple	ModHigh	25

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
370	MORUS ALBA	White Mulberry	Low	8
5149	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	44
5150	ACER PLATANOIDES	Norway Maple	ModHigh	100
5171	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	31
5175	TILIA CORDATA	Littleleaf Linden	ModHigh	46

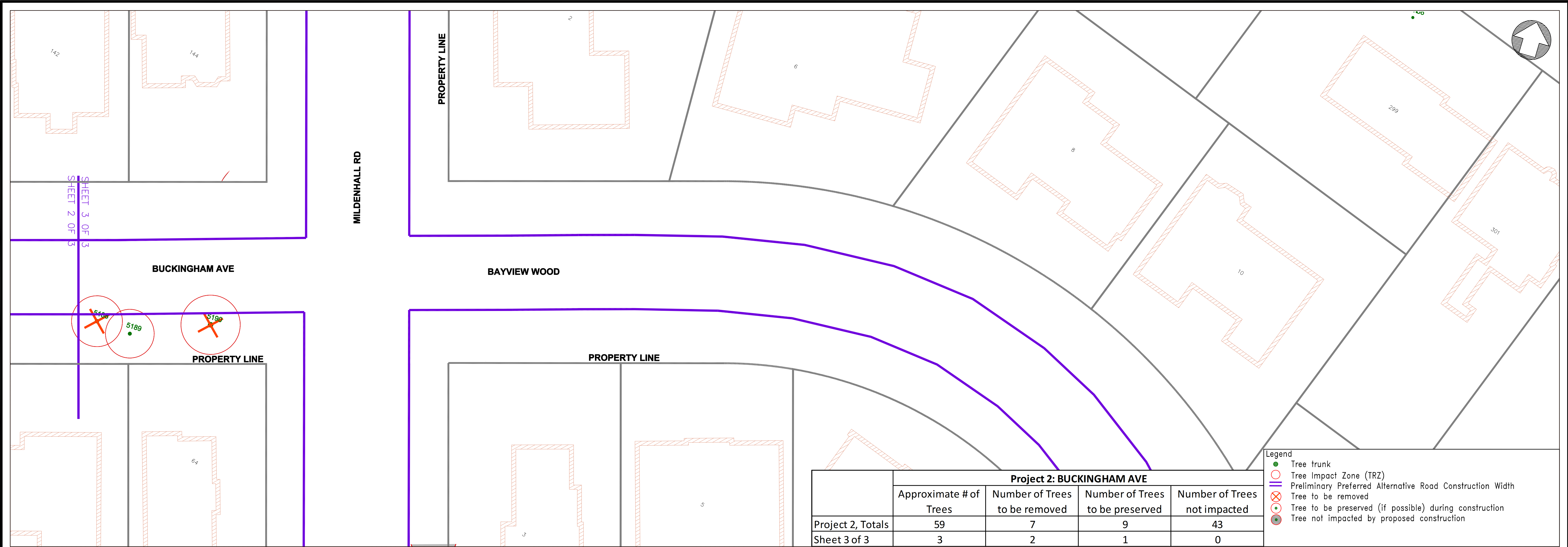
Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
5151	PICEA OMORIKA	Serbian Spruce	ModHigh	5
5152	PICEA OMORIKA	Serbian Spruce	ModHigh	6
5153	PICEA OMORIKA	Serbian Spruce	ModHigh	7
5157	FRAXINUS PENNSYLVANICA	Green Ash	Moderate	50
5158	FRAXINUS PENNSYLVANICA	Green Ash	Low	33
5159	FRAXINUS PENNSYLVANICA	Green Ash	Low	54
5160	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh	44
5161	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh	42
5162	BETULA PAPYRIFERA	#N/A	Moderate	49
5163	FRAXINUS PENNSYLVANICA	Green Ash	Moderate	42
5170	TILIA CORDATA	Littleleaf Linden	ModHigh	31
5174	QUERCUS ALBA	White Oak	ModHigh	84
5176	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	5
361	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	57
362	ABIES CONCOLOR	White Fir	ModHigh	22
363	CELTIS OCCIDENTALIS	Hackberry	ModHigh	16
364	MORUS ALBA	White Mulberry	Low	8
365	MORUS ALBA	White Mulberry	Low	6
366	MORUS ALBA	White Mulberry	Low	8
367	MORUS ALBA	White Mulberry	Low	9
368	ACER PLATANOIDES	Norway Maple	Low	12
369	FRAXINUS PENNSYLVANICA	Green Ash	Moderate	26
371	ACER PLATANOIDES	Norway Maple	Low	10
372	ACER NEGUNDO	Manitoba Maple	Moderate	14
373	ACER PLATANOIDES	Norway Maple	Low	10
374	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	44
375	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	6









Trees to be removed					Trees to be preserved (if possible)					Trees not Impacted				
Tree No	Tree Species		Condition	Diameter (cm)	Tree No	Tree Species		Condition	Diameter (cm)	Tree No	Tree Species		Condition	Diameter (cm)
5188	PINUS NIGRA	Black Pine	ModHigh	42	5189	PINUS NIGRA	Black Pine	ModHigh	38	---	---	---	---	---
5190	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	55										









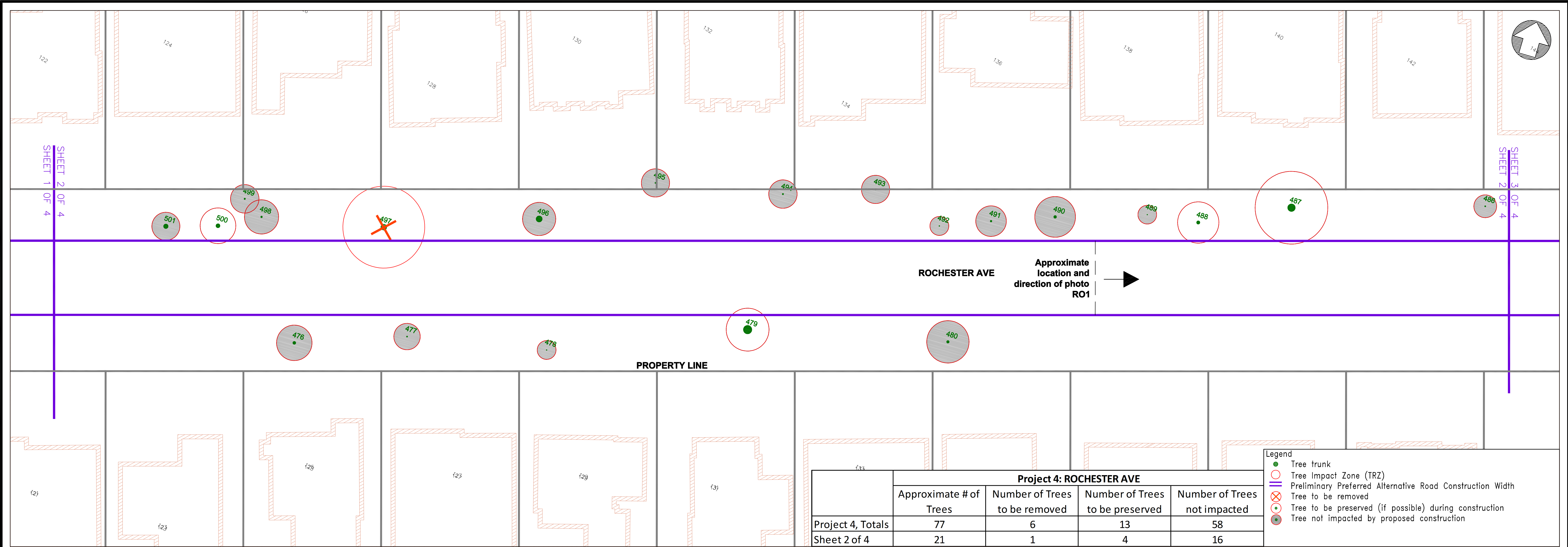












Trees to be removed

1238

Tree No	Tree Species		Condition	Diameter (cm)
497	TILIA X EUCHLORA	Caucasian lime	High	65

Trees to be preserved (if possible)

5885

Tree No	Tree Species		Condition	Diameter (cm)
479	QUERCUS RUBRA	Red Oak	High	93
487	FRAXINUS AMERICANA	American Ash	High	83
488	AESCULUS HIPPOCASTANUM	Horse Chestnut	Moderate	36
500	TILIA CORDATA	Littleleaf Linden	ModHigh	44

Trees not Impacted

5885

Tree No	Tree Species		Condition	Diameter (cm)
476	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh	32
477	MALUS BACCATA	Siberian Crabapple	ModHigh	12
478	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh	8
480	BETULA PAPYRIFERA	Paper Birch	ModHigh	28
486	AMELANCHIER LAEVIS	Smooth Serviceberry	Moderate	12
489	TILIA CORDATA GREENSPIRE	Greenspire	ModHigh	7
490	PSEUDOTSUGA MENZIESII	Douglas Fir	ModHigh	30
491	ACER PLATANOIDES	Norway Maple	ModHigh	18
492	ACER PLATANOIDES	Norway Maple	Moderate	9
493	GINKGO BILOBA	Ginkgo	ModHigh	12
494	GINKGO BILOBA	Ginkgo	ModHigh	14
495	GINKGO BILOBA	Ginkgo	ModHigh	12
496	TILIA CORDATA	Littleleaf Linden	ModHigh	67
498	PICEA GLAUCA	White Spruce	ModHigh	18
499	PICEA GLAUCA	White Spruce	ModHigh	15
501	ACER PLATANOIDES	Norway Maple	High	50













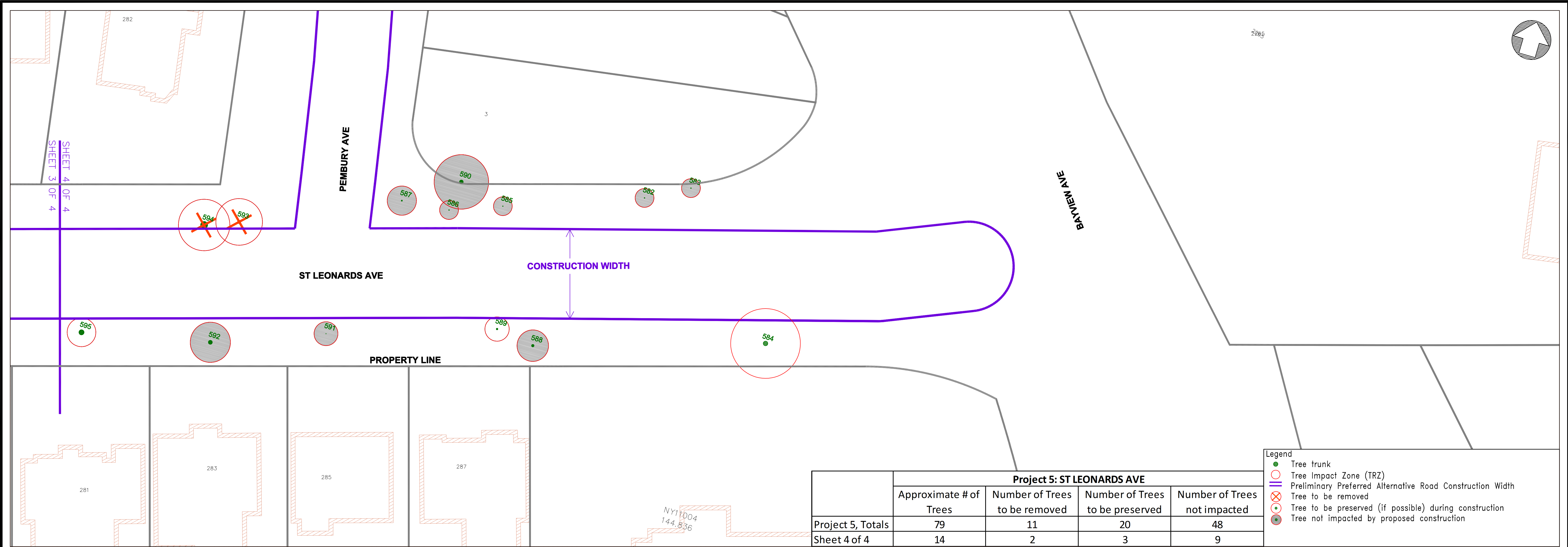












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
593	ACER PLATANOIDES	Norway Maple	ModHigh	35
594	ACER SACCHARINUM	Silver Maple	ModHigh	78

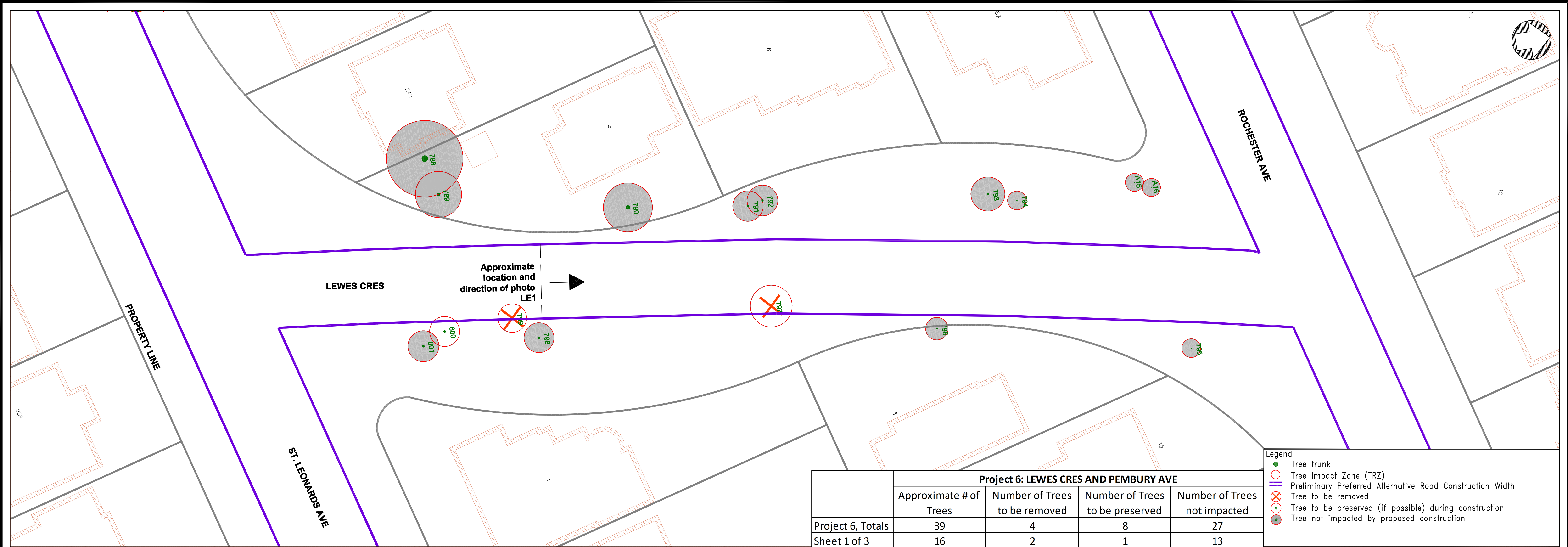
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
589	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh	18
595	TILIA CORDATA	Littleleaf Linden	High	57
584	ACER PLATANOIDES	Norway Maple	ModHigh	51

Trees not Impacted

Tree No	Tree Species		Conditions	Diameter (cm)
590	QUERCUS RUBRA	Red Oak	ModHigh	42
591	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	4
592	TILIA CORDATA	Littleleaf Linden	ModHigh	44
588	ACER PLATANOIDES	Norway Maple	ModHigh	28
582	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	8
583	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	8
585	ACER RUBRUM	Red Maple	ModHigh	7
586	ACER RUBRUM	Red Maple	ModHigh	8
587	ACER RUBRUM	Red Maple	ModHigh	13





Trees to be removed

1238

Tree No	Tree Species		Condition	Diameter (cm)
797	ACER PLATANOIDES	Norway Maple	ModHigh	32
799	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	16

Trees to be preserved (if possible)

5885

Tree No	Tree Species		Condition	Diameter (cm)
800	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	22

Trees not Impacted

5885

Tree No	Tree Species		Condition	Diameter (cm)
788	ACER PLATANOIDES	Norway Maple	ModHigh	65
789	BETULA PAPYRIFERA	Paper Birch	ModHigh	31
790	BETULA PAPYRIFERA	Paper Birch	ModHigh	41
791	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	16
792	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	19
793	ABIES CONCOLOR	White Fir	ModHigh	16
794	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	7
795	ACER RUBRUM	Red Maple	ModHigh	7
796	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	9
798	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	20
801	PICEA GLAUCA	White Spruce	ModHigh	22
A15	Liriodeneron tulipifera	Tulip Tree	Moderate	3
A16	Liriodeneron tulipifera	Tulip Tree	Moderate	3

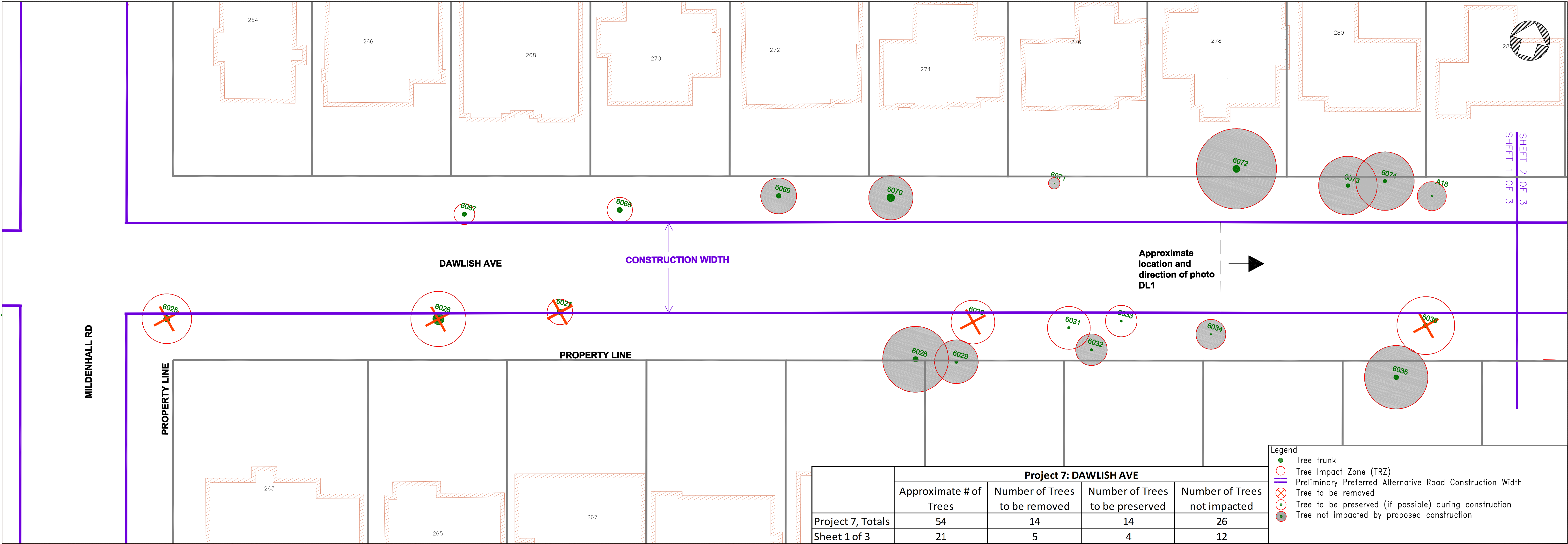












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
6025	ACER PLATANOIDES	Norway Maple	Moderate	70
6026	ULMUS AMERICANA	White Elm	High	125
6027	ACER PLATANOIDES	Norway Maple	ModHigh	59
6030	ACER PLATANOIDES	Norway Maple	Moderate	37
6036	ACER PLATANOIDES	Norway Maple	High	52

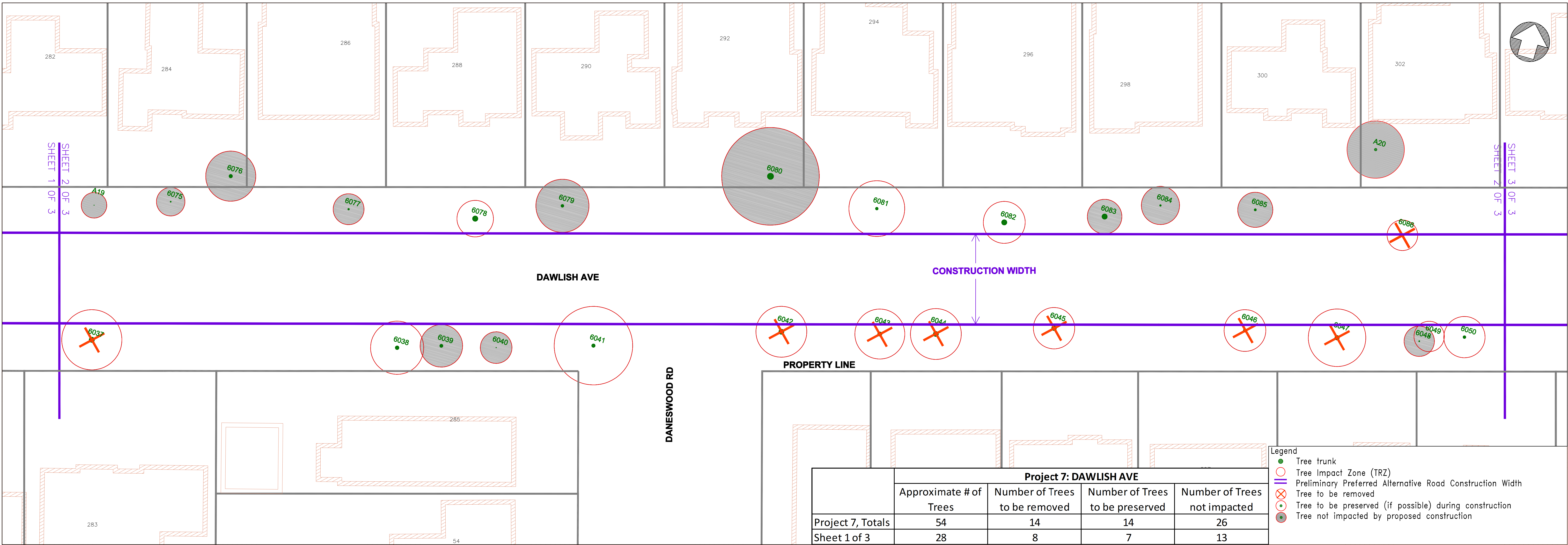
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
6031	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	28
6033	PICEA PUNGENS	Colorado Spruce	ModHigh	24
6067	TILIA CORDATA	Littleleaf Linden	ModHigh	48
6068	TILIA CORDATA	Littleleaf Linden	High	57

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
6028	PICEA PUNGENS GLAUCA	Colorado Spruce	Moderate	59
6029	JUGLANS NIGRA	Black walnut	ModHigh	37
6032	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	25
6034	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	ModHigh	16
6035	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	53
6069	ACER PLATANOIDES	Norway Maple	High	52
6070	ROBINIA PSEUDOACACIA	Black Locust	High	84
6071	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	5
6072	FRAXINUS PENNSYLVANICA	Green Ash	High	78
6073	PICEA PUNGENS KOSTERI	Blue Spruce	ModHigh	40
6074	PICEA PUNGENS KOSTERI	Blue Spruce	ModHigh	39
A18	SYRINGA VULGARIS	Lilac	Moderate	18





Trees to be removed



Tree No	Tree Species		Condition	Diameter (cm)
6037	ACER PLATANOIDES	Norway Maple	ModHigh	58
6042	ACER PLATANOIDES	Norway Maple	High	56
6043	ACER PLATANOIDES	Norway Maple	ModHigh	46
6044	TILIA CORDATA	Littleleaf Linden	High	56
6045	ACER PLATANOIDES	Norway Maple	ModHigh	52
6046	ACER PLATANOIDES	Norway Maple	Moderate	36
6047	ACER PLATANOIDES	Norway Maple	ModHigh	49
6086	VIBURNUM SP	Viburnum sp.	ModHigh	14

Trees to be preserved (if possible)



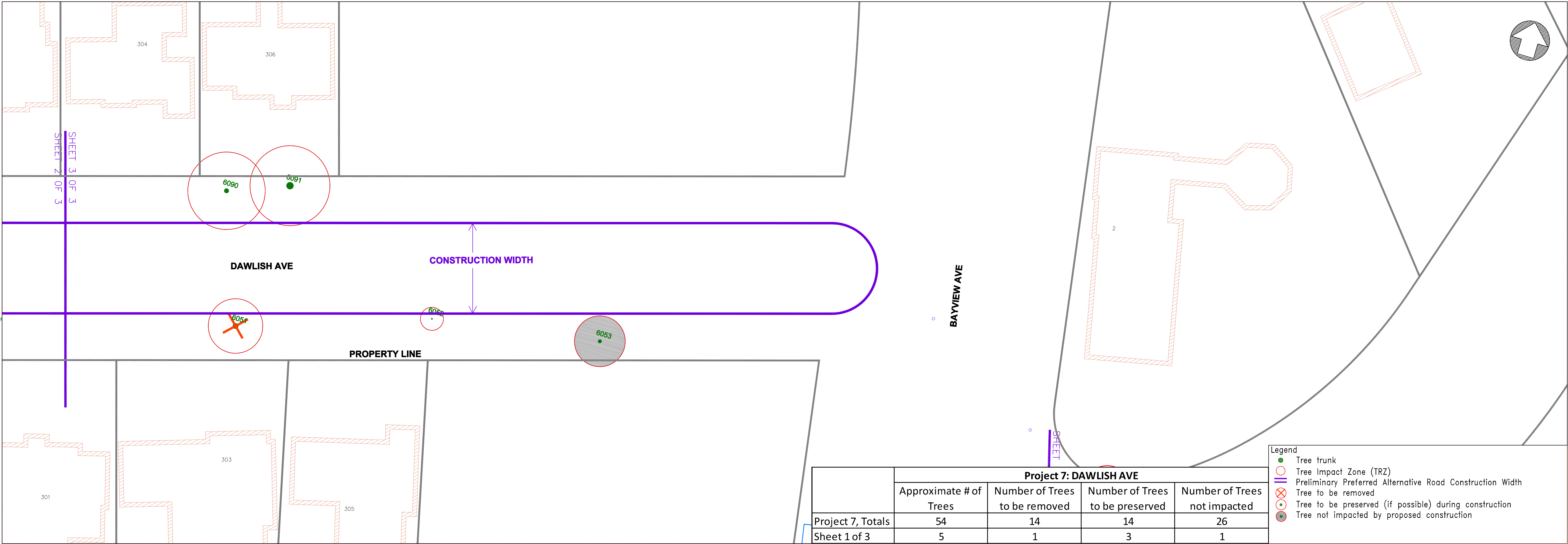
Tree No	Tree Species		Condition	Diameter (cm)
6038	THUJA OCCIDENTALIS	Eastern White Cedar	Moderate	41
6041	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh	38
6049	FAGUS SYLVATICA PENDULA	Weeping European Beech	ModHigh	12
6050	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	31
6078	ACER PLATANOIDES	Norway Maple	Moderate	59
6081	BETULA PAPYRIFERA	White Birch	Moderate	30
6082	ACER PLATANOIDES	Norway Maple	High	58

Trees not Impacted



Tree No	Tree Species		Condition	Diameter (cm)
6039	BETULA PAPYRIFERA	Paper Birch	Moderate	35
6040	LIRODENDRON TULIPIFERA	Tulip Tree	ModHigh	6
6048	FAGUS SYLVATICA PENDULA	Weeping Beech	ModHigh	12
6075	ACER GINNALA	Amur Maple	ModHigh	12
6076	MALUS BACCATA	Siberian Crabapple	ModHigh	38
6077	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	18
6079	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	31
6080	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	68
6083	AMELANCHIER LAEVIS	Smooth Serviceberry	Moderate	58
6084	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	18
6085	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	24
A19	AMELANCHIER SP.	Serviceberry sp.	Moderate	5
A20	BETULA PENDULA	European Birch	ModHigh	28





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
6051	TILIA CORDATA	Littleleaf Linden	High	56

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
6052	ACER PLATANOIDES	Norway Maple	Low	12
6090	PICEA ABIES	Norway Spruce	ModHigh	47
6091	ACER PLATANOIDES	Norway Maple	High	74

Trees not Impacted

Tree No	Tree Species		Conditions	Diameter (cm)
6053	ACER PLATANOIDES	Norway Maple	Low	36

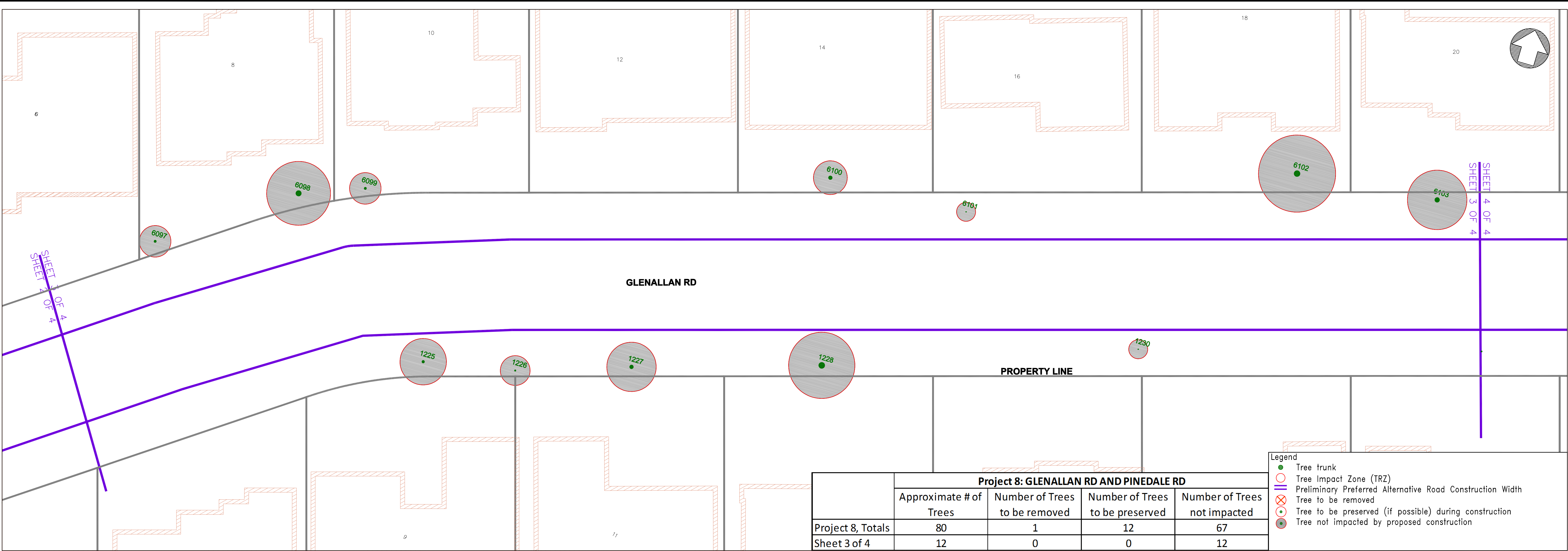












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
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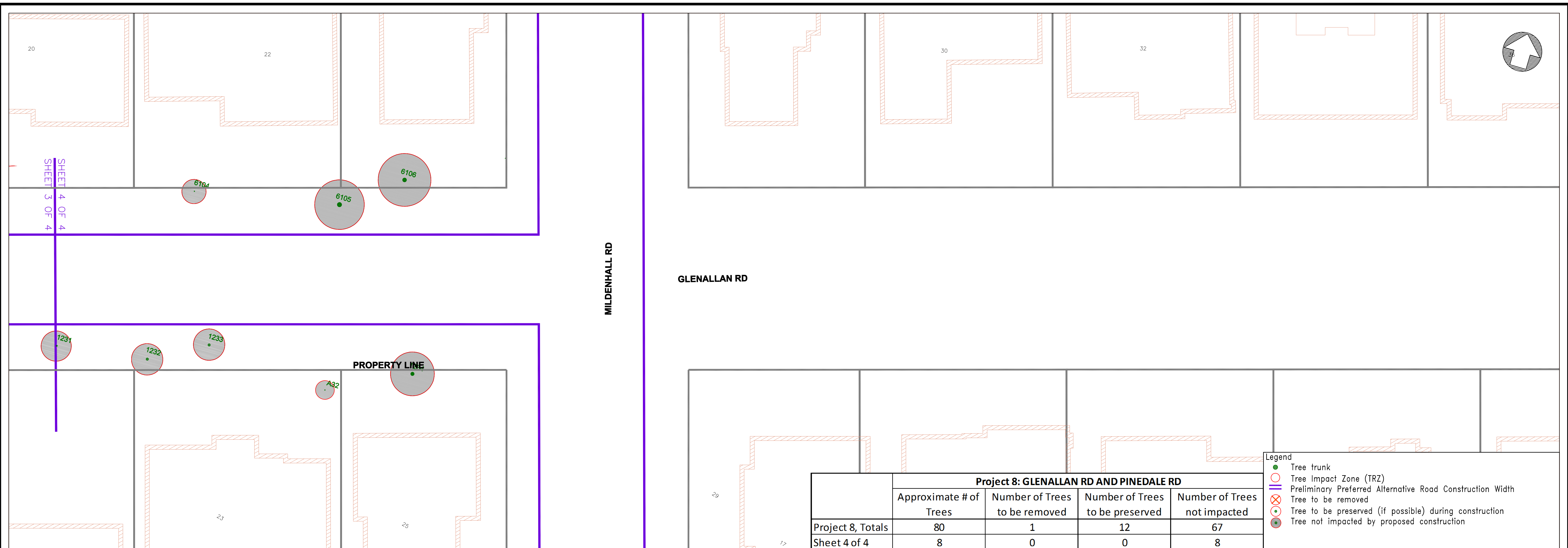
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
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Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
1225	CHAMAECYPARIS NOOTKATENSIS	Alaska Cedar	ModHigh	28
1226	CATALPA BIGNONIOIDES	Indian Bean	Moderate	16
1227	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	40
1228	ACER PLATANOIDES	Norway Maple	Moderate	65
1230	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	ModHigh	8
6097	QUERCUS RUBRA	Red Oak	Moderate	25
6098	ACER PLATANOIDES	Norway Maple	ModHigh	59
6099	BETULA PAPYRIFERA	Paper Birch	Moderate	25
6100	MALUS BACCATA	Siberian Crabapple	Moderate	40
6101	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	8
6102	BETULA PAPYRIFERA	Paper Birch	High	64
6103	PICEA PUNGENS GLAUCA	Colorado Spruce	High	51



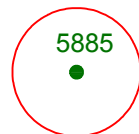


Trees to be removed



Tree No	Tree Species		Condition	Diameter (cm)
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Trees to be preserved (if possible)



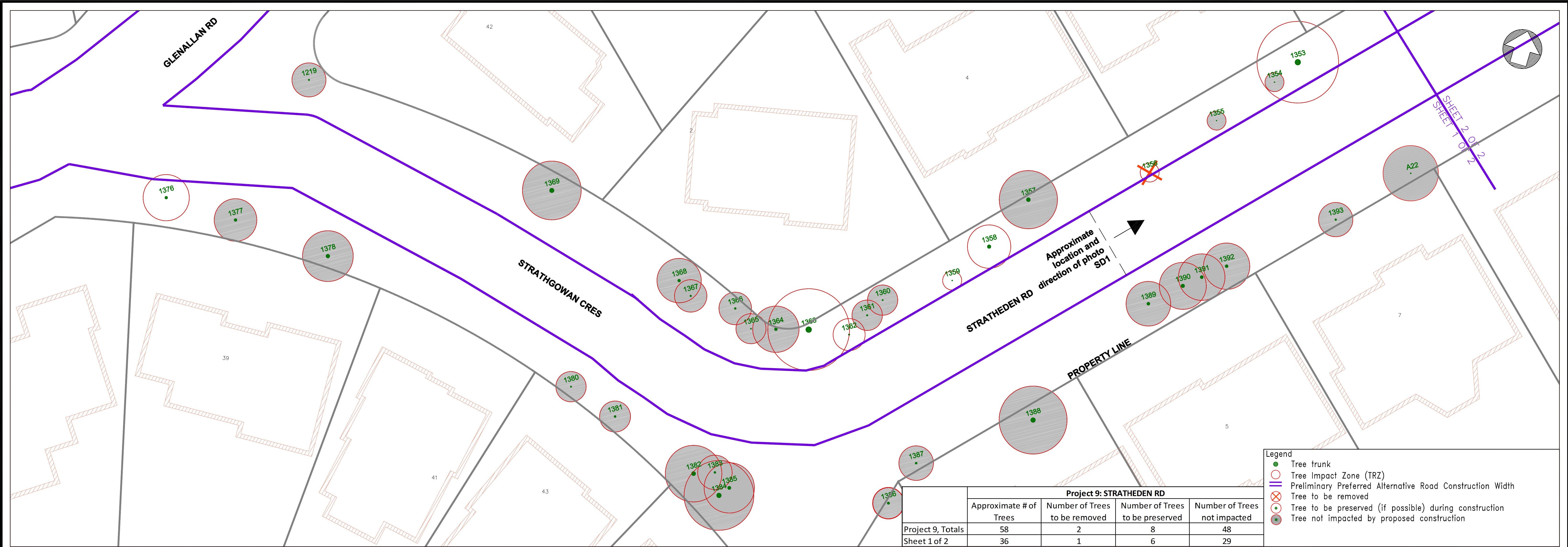
Tree No	Tree Species		Condition	Diameter (cm)
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Trees not Impacted



Tree No	Tree Species		Condition	Diameter (cm)
6104	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	8
6105	PSEUDOTSUGA MENZIESII	Douglas Fir	ModHigh	48
6106	ACER RUBRUM	Red Maple	ModHigh	43
1231	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh	14
1232	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh	27
1233	ACER PALMATUM	Japanese Maple	ModHigh	27
1234	ACER PLATANOIDES	Norway Maple	ModHigh	38
A32	PICEA OMORIKA	Serbian Spruce	Moderate	8





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
1356	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	9

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
1353	LARIX SP	Larch	Moderate	62
1358	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	39
1359	THUJA OCCIDENTALIS	Eastern White Cedar	Moderate	10
1362	PICEA GLAUCA	White Spruce	ModHigh	16
1363	PICEA ABIES	Norway Spruce	High	63
1376	MALUS BACCATA	Siberian Crabapple	Moderate	30

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
A22	BETULA PAPIYFERA	White Birch	Moderate	15
1219	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	16
1354	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Low	9
1355	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	Moderate	9
1357	BETULA PAPIRYFERRA	Paper Birch	Moderate	43
1360	PICEA OMORIKA	Serbian Spruce	ModHigh	14
1361	PICEA ABIES	Norway Spruce	ModHigh	16
1364	PICEA ABIES	Norway Spruce	ModHigh	32
1365	PICEA OMORIKA	Serbian Spruce	ModHigh	12
1366	PICEA OMORIKA	Serbian Spruce	ModHigh	20
1367	PICEA GLAUCA	White Spruce	ModHigh	18
1368	BETULA PAPIRYFERRA	Paper Birch	Moderate	30
1369	BETULA PAPIRYFERRA	Paper Birch	Moderate	49
1377	MALUS BACCATA	Siberian Crabapple	Moderate	31
1378	MALUS BACCATA	Siberian Crabapple	Moderate	41
1380	ABIES CONCOLOR	White Fir	ModHigh	15
1381	ACER PLATANOIDES	Norway Maple	ModHigh	22
1382	PICEA ABIES	Norway Spruce	ModHigh	45
1383	JUNIPERUS CHINENSIS	Chinese Juniper	Low	21
1384	PICEA ABIES	Norway Spruce	ModHigh	51
1385	PICEA GLAUCA	White Spruce	Moderate	36
1386	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	26
1387	PINUS STROBUS	White Pine	ModHigh	22
1388	PICEA PUNGENS GLAUCA	Colorado Spruce	Moderate	51
1389	ACER PLATANOIDES	Norway Maple	Moderate	33
1390	PINUS NIGRA	Black Pine	ModHigh	39
1391	PINUS NIGRA	Black Pine	ModHigh	34
1392	PINUS NIGRA	Black Pine	ModHigh	32
1393	ACER PALMATUM	Japanese Maple	ModHigh	19



Aquafor Beech Limited

PROVIDED BY: AQUAFOR BEECH LIMITED  
1000 SHEPPARD AVENUE EAST, SUITE 100  
SCARBOROUGH, ONTARIO M1S 1T2  
PHONE: (416) 291-1000 FAX: (416) 291-0001

No.	DATE	REVISIONS	INITIAL	SIGNED	



Engineering & Construction Services

MICHAEL D'ANDREA, P.ENG.  
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JOHN P. KELLY, P.ENG.  
Director, Design & Construction  
Linear Underground Infrastructure

Manager, Design & Construction  
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Basement Flooding Protection Program

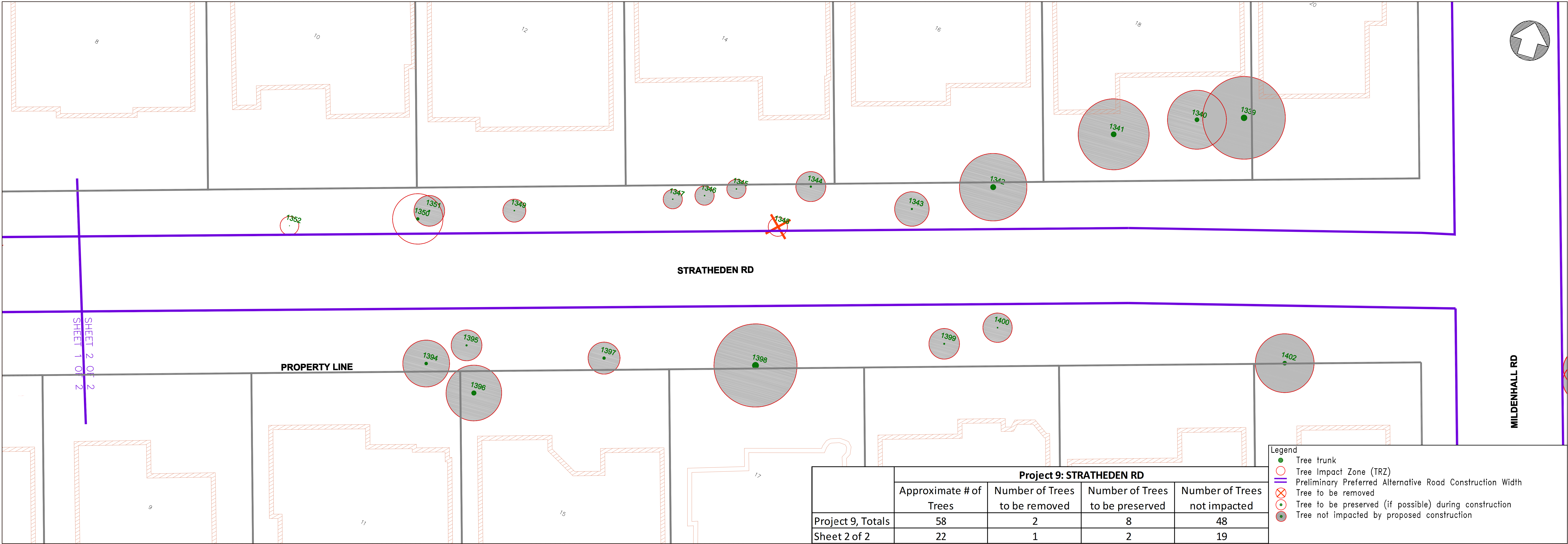
9 STRATHEDEN RD

City of Toronto

Plan and Profile (Not for Construction)

DESIGN:	CR	DRAFTING:	CR	CHECK:	PT	CONTRACT No.
SCALE:	HOR 1:200 VER 1:100			DRAWING NUMBER:		SHEET No. 1 OF 2
DATE:	11/05/2015					





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
1348	ZELKOVA SERRATA	Japanese Elm	Low	10

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
1350	BETULA PAPYRIFERA	Paper Birch	Moderate	31
1352	QUERCUS RUBRA	Red Oak	ModHigh	4

Trees not Impacted

Tree No	Tree Species		Conditions	Diameter (cm)
1394	PINUS STROBUS	White Pine	ModHigh	32
1395	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	Moderate	17
1396	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	Moderate	49
1397	ACER X FREMANII JEFFERSRED	Freeman Maple	Moderate	30
1398	PSEUDOTSUGA MENZIESII	Douglas Fir	High	69
1399	ACER PALMATUM	Japanese Maple	ModHigh	15
1400	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	11
1402	ACER PLATANOIDES	Norway Maple	ModHigh	43
1339	QUERCUS RUBRA	Red Oak	ModHigh	64
1340	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	45
1341	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	High	56
1342	ACER PLATANOIDES	Norway Maple	Low	58
1343	BETULA PAPYRIFERA	Paper Birch	Moderate	17
1344	ZELKOVA SERRATA	Japanese Elm	ModHigh	18
1345	ZELKOVA SERRATA	Japanese Elm	ModHigh	10
1346	ZELKOVA SERRATA	Japanese Elm	ModHigh	10
1347	ZELKOVA SERRATA	Japanese Elm	ModHigh	10
1349	ACER X FREMANII JEFFERSRED	Freeman Maple	Moderate	11
1351	BETULA PAPYRIFERA	Paper Birch	Moderate	16

No.	DATE	REVISIONS	INITIAL	SIGNED

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9 STRATHEDEN RD  
City of Toronto

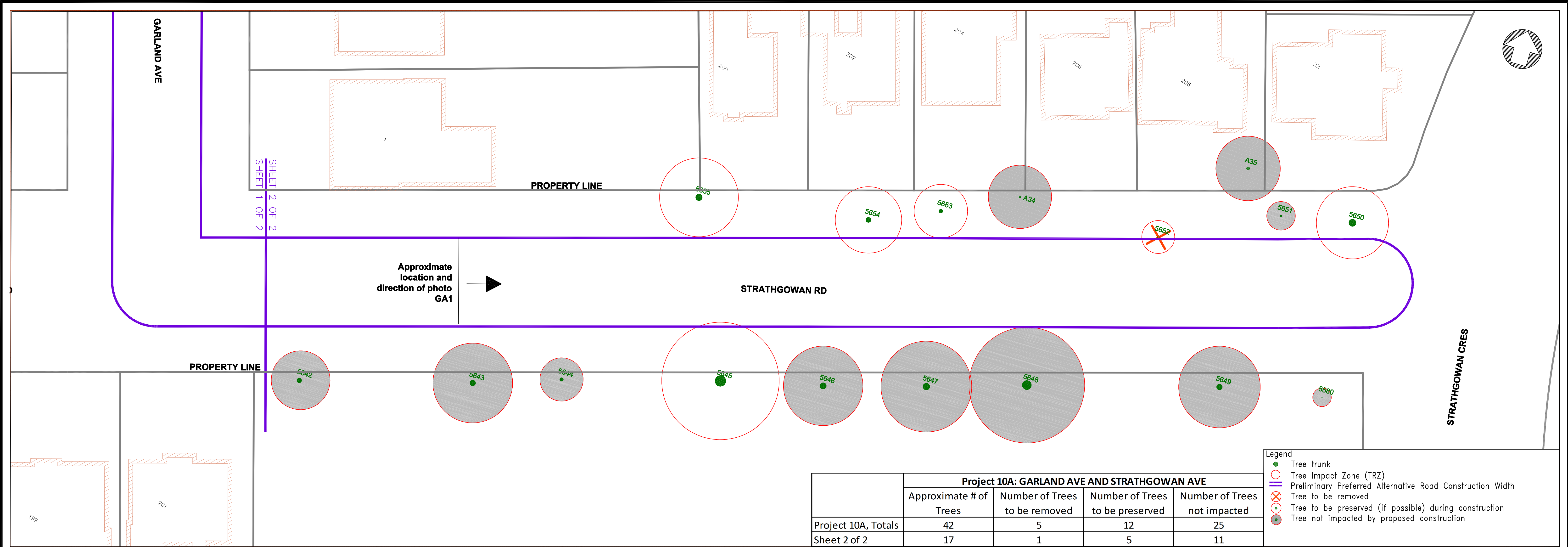
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SCALE:	HOR 1:200 VER 1:100			DRAWING NUMBER:		SHEET No. 2 OF 2
DATE:	11/05/2015					









Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
5652	PHELLODENDRON AMURENSE	Cork Tree	ModHigh	24

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
5645	ACER SACCHARINUM	Silver Maple	ModHigh	118
5650	PINUS NIGRA	Black Pine	ModHigh	78
5653	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	41
5654	ACER PLATANOIDES	Norway Maple	ModHigh	54
5655	ACER PLATANOIDES	Norway Maple	ModHigh	71

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
5642	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	50
5643	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	61
5644	ACER SACCHARINUM	Silver Maple	ModHigh	38
5646	ACER SACCHARINUM	Silver Maple	ModHigh	68
5647	ACER SACCHARINUM	Silver Maple	ModHigh	73
5648	ACER SACCHARINUM	Silver Maple	ModHigh	99
5649	ACER SACCHARINUM	Silver Maple	ModHigh	62
5651	FRAXINUS AMERICANA	American Ash	ModHigh	16
5580	ACER SACCHARINUM	Silver Maple	ModHigh	5
A34	THUJA OCCIDENTALIS	Eastern White Cedar	Moderate	20
A35	PICEA GLAUCA	White Spruce	Moderate	33

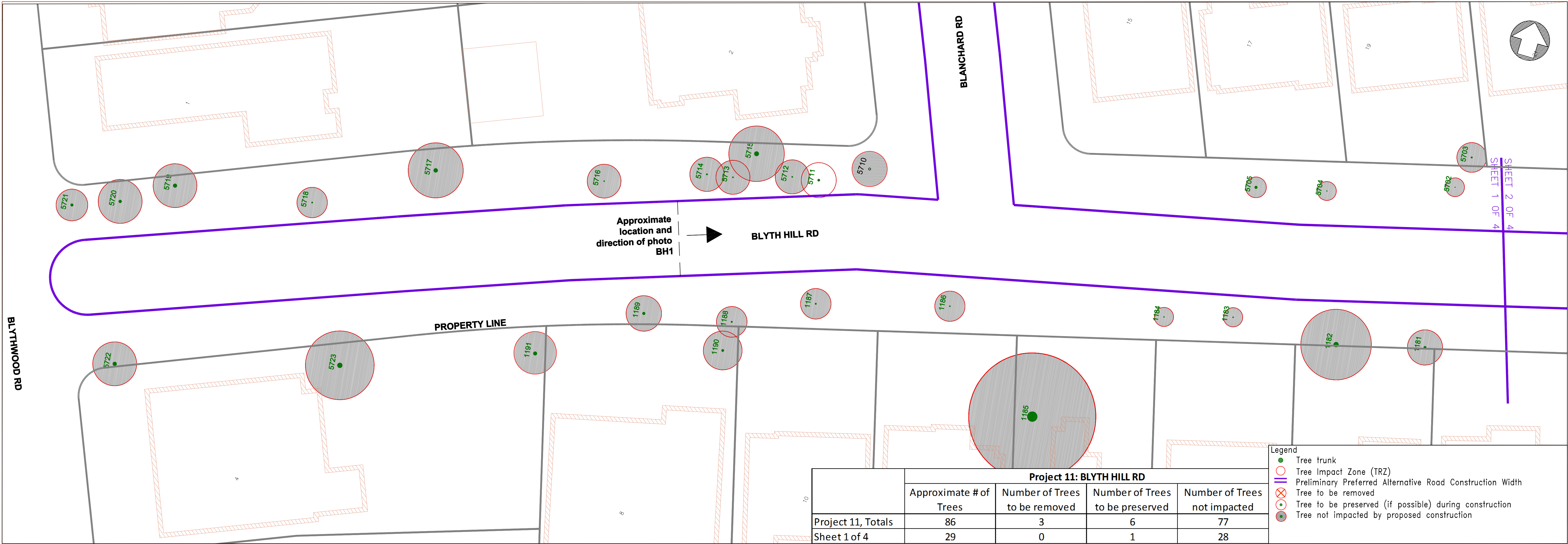










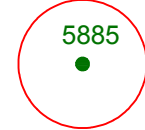


Trees to be removed



Tree No	Tree Species	Condition	Diameter (cm)
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Trees to be preserved (if possible)



Tree No	Tree Species	Condition	Diameter (cm)
5711	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh

Trees not Impacted



Tree No	Tree Species		Conditions	Diameter (cm)
5710	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	25
5712	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
5713	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	12
5714	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	14
5715	ACER PLATANOIDES	Norway Maple	ModHigh	47
5716	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	Moderate	10
5717	ACER PLATANOIDES	Norway Maple	ModHigh	42
5718	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	13
5719	MALUS BACCATA	Siberian Crabapple	ModHigh	39
5720	AESCULUS GLABRA	Ohio Buckeye	ModHigh	30
5721	TILIA CORDATA	Littleleaf Linden	ModHigh	27
5722	ACER PLATANOIDES	Norway Maple	Moderate	40
5723	ACER PLATANOIDES	Norway Maple	ModHigh	52
1181	PINUS STROBUS	White Pine	ModHigh	25
1182	PINUS NIGRA	Black Pine	ModHigh	52
1183	TILIA CORDATA	Littleleaf Linden	ModHigh	9
1184	TILIA CORDATA	Littleleaf Linden	ModHigh	9
1185	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	Moderate	107
1186	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh	11
1187	QUERCUS RUBRA	Red Oak	ModHigh	14
1188	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	15
1189	METASEQUOIA GLYPTOSTROBIOIDES	Dawn redwood	ModHigh	28
1190	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	24
1191	PINUS NIGRA	Black Pine	ModHigh	38
5702	ACER RUBRUM	Red Maple	ModHigh	6
5703	CERCIDIPHYLLUM JAPONICUM	Katsura	ModHigh	15
5704	ACER PLATANOIDES	Norway Maple	ModHigh	7
5705	ACER PLATANOIDES	Norway Maple	ModHigh	27



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Linear Underground Infrastructure  
Basement Flooding Protection Program

11 BLYTH HILL RD

City of Toronto

Plan and Profile (Not for Construction)

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SHEET No.  
1 OF 4













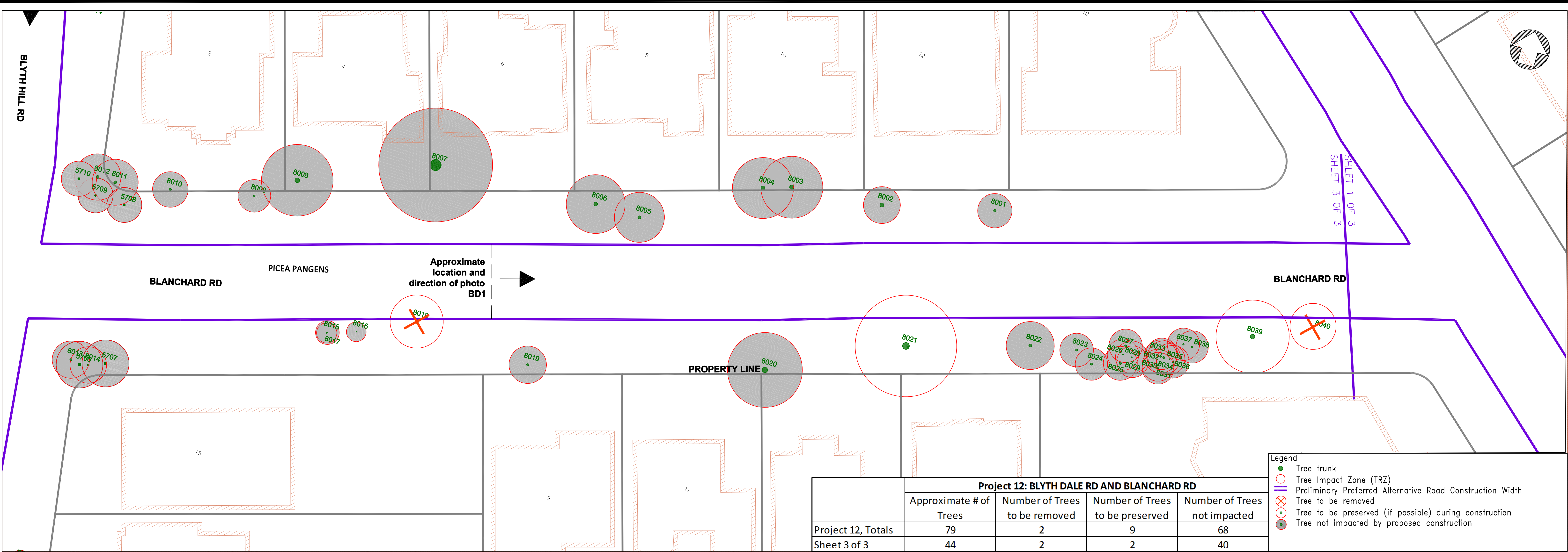












Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
8018	PICEA GLAUCA	White Spruce	High	41
8040	PICEA PUNGENS	Colorado Spruce	High	32

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
8021	ACER SACCHARINUM	Silver Maple	High	76
8039	PICEA PUNGENS	Colorado Spruce	High	51

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
5706	BETULA PAPHYRIFERA	Paper Birch	ModHigh	31
5707	BETULA PAPHYRIFERA	Paper Birch	ModHigh	34
5708	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	22
5709	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	22
8001	MALUS BACCATA	Siberian Crabapple	ModHigh	28
8002	BETULA PAPHYRIFERA	Paper Birch	High	18,20,22
8003	PICEA PUNGENS	Colorado Spruce	High	49
8004	PICEA PUNGENS	Colorado Spruce	High	44
8005	MALUS BACCATA	Siberian Crabapple	High	34
8006	MALUS BACCATA	Siberian Crabapple	Moderate	42
8007	TILIA CORDATA	Littleleaf Linden	ModHigh	123
8008	ACER PLATANOIDES	Norway Maple	Moderate	52
8009	MALUS BACCATA	Siberian Crabapple	ModHigh	19
8010	MALUS BACCATA	Siberian Crabapple	Low	25
8011	PICEA GLAUCA	White Spruce	High	32
8012	PICEA GLAUCA	White Spruce	High	34
8013	BETULA PAPHYRIFERA	Paper Birch	High	20,24
8014	BETULA PAPHYRIFERA	Paper Birch	High	20,20,18
8015	PYRUS CALLERYANA GLENS FORM	Chanticlear Pear	High	10,8
8016	JUNIPERUS VIRGINIANA	Red Cedar	High	8,7
8017	SYRINGA VULGARIS	Lilac	ModHigh	10,11,7,9
8019	BETULA PAPHYRIFERA	Paper Birch	High	24,25,19,22
8020	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	60
8022	PICEA GLAUCA	White Spruce	High	33
8023	PICEA GLAUCA	White Spruce	ModHigh	24
8024	ACER PLATANOIDES	Norway Maple	Low	17
8025	ACER PLATANOIDES	Norway Maple	Low	26
8026	ACER SACCHARINUM	Silver Maple	Low	12
8027	ACER PLATANOIDES	Norway Maple	ModHigh	23
8028	ACER PLATANOIDES	Norway Maple	ModHigh	18
8029	ACER PLATANOIDES	Norway Maple	ModHigh	13
8030	ACER PLATANOIDES	Norway Maple	ModHigh	15
8031	ACER PLATANOIDES	Norway Maple	ModHigh	14
8032	ACER PLATANOIDES	Norway Maple	ModHigh	23
8033	ACER PLATANOIDES	Norway Maple	ModHigh	12
8034	ACER PLATANOIDES	Norway Maple	ModHigh	21
8035	ACER PLATANOIDES	Norway Maple	ModHigh	10
8036	ACER PLATANOIDES	Norway Maple	ModHigh	19
8037	ACER PLATANOIDES	Norway Maple	ModHigh	17
8038	ACER PLATANOIDES	Norway Maple	ModHigh	17



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12 BLYTH DALE RD AND BLANCHARD RD

City of Toronto

Plan and Profile (Not for Construction)

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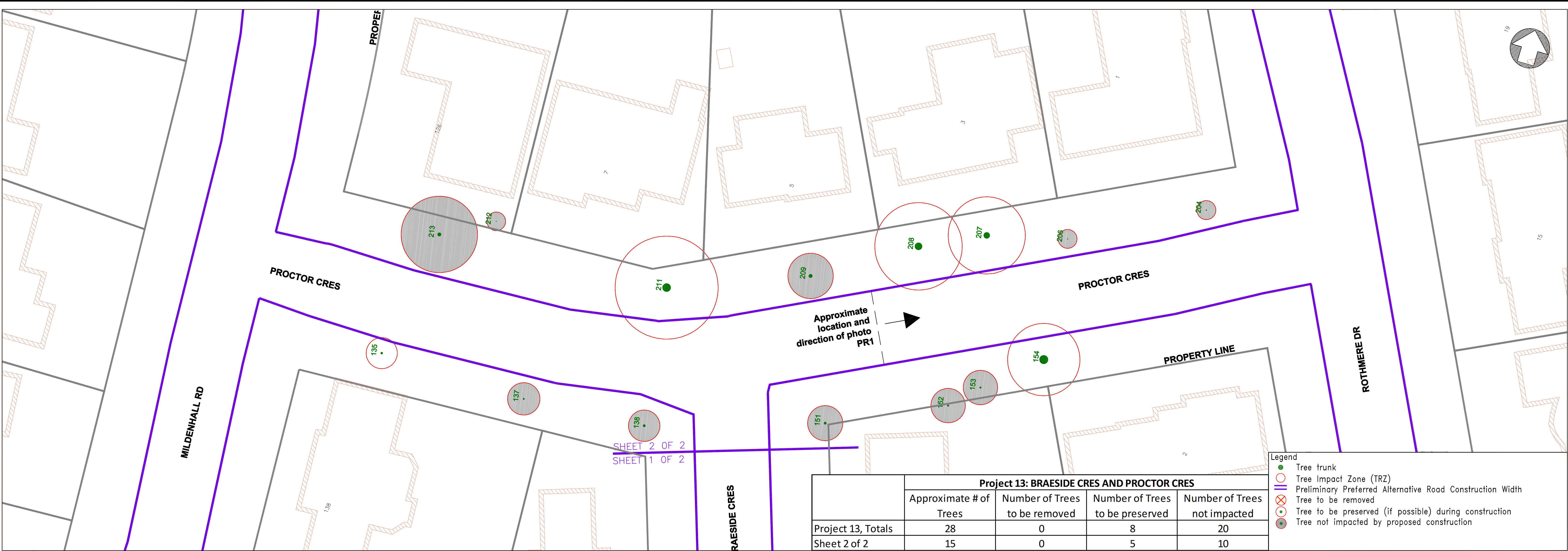
DATE: 11/05/2015

SHEET No.  
3 OF 3









Trees to be removed



Tree No	Tree Species		Condition	Diameter (cm)
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Trees to be preserved (if possible)



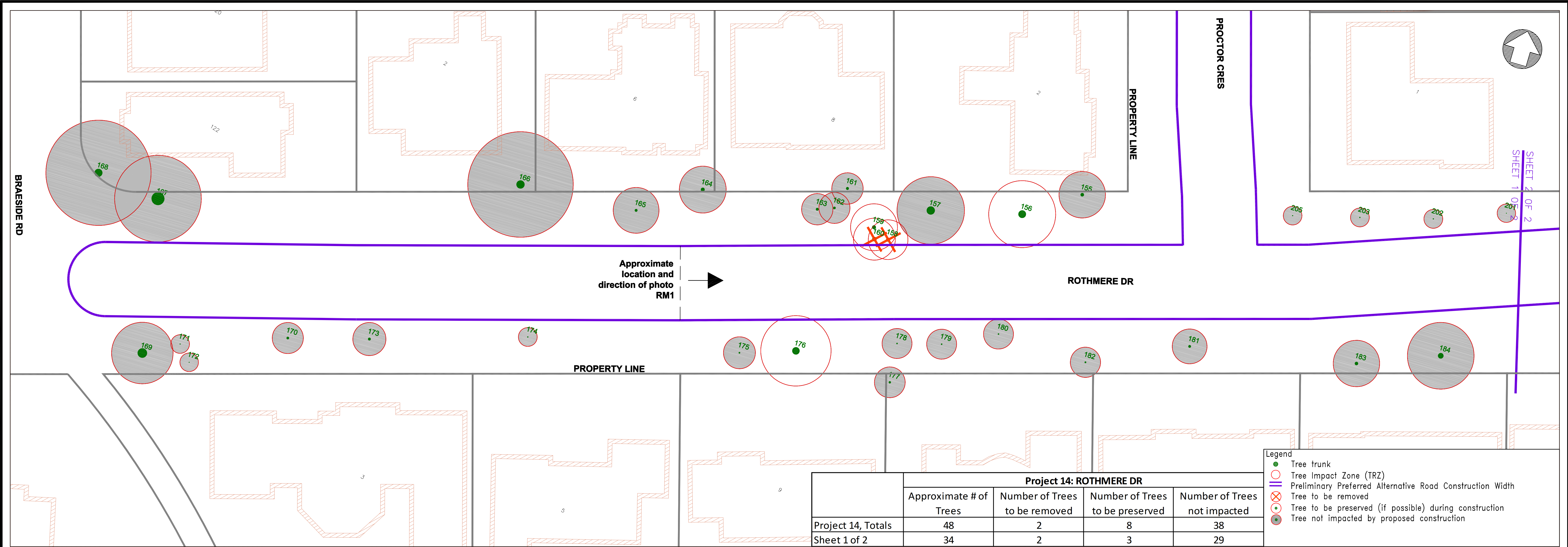
Tree No	Tree Species		Condition	Diameter (cm)
135	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	20
154	PINUS STROBUS	White Pine	High	91
207	ACER PLATANOIDES	Norway Maple	Moderate	64
208	ACER PLATANOIDES	Norway Maple	High	76
211	ACER PLATANOIDES	Norway Maple	High	87

Trees not Impacted



Tree No	Tree Species		Conditions	Diameter (cm)
137	MAGNOLIA SP	Magnolia	ModHigh	14
138	ACER PLATANOIDES	Norway Maple	ModHigh	24
151	BETULA PAPYRIFERA	Paper Birch	ModHigh	24
152	BETULA PAPYRIFERA	Paper Birch	ModHigh	16
153	BETULA PAPYRIFERA	Paper Birch	ModHigh	16
204	QUERCUS RUBRA	Red Oak	ModHigh	8
206	QUERCUS RUBRA	Red Oak	ModHigh	6
209	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	36
212	PICEA GLAUCA	White Spruce	ModHigh	4
213	PINUS NIGRA	Black Pine	ModHigh	36





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
158	PINUS STROBUS	White Pine	Moderate	38
160	PINUS STROBUS	White Pine	Moderate	43

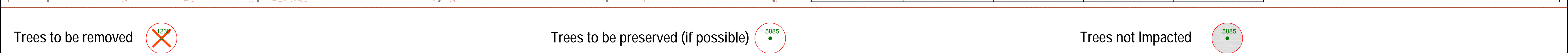
Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
156	ACER PLATANOIDES	Norway Maple	ModHigh	80
159	PINUS STROBUS	White Pine	ModHigh	38
176	ACER PLATANOIDES	Norway Maple	ModHigh	77

Trees not Impacted

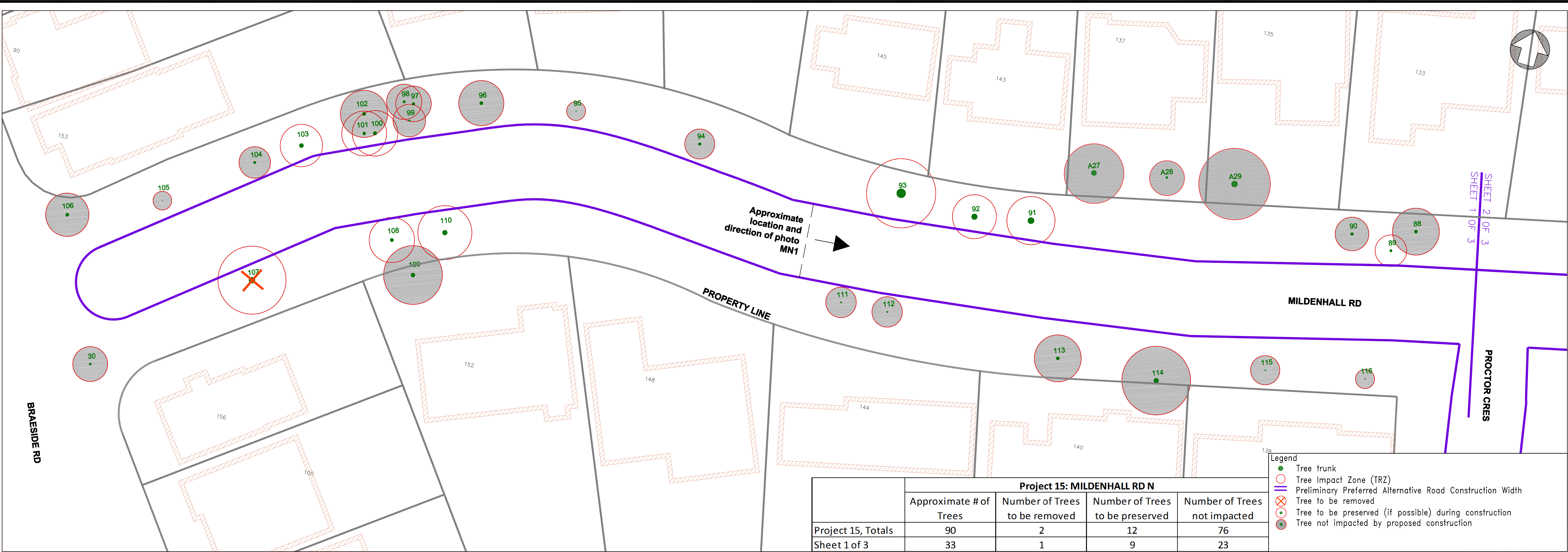
Tree No	Tree Species		Condition	Diameter (cm)
155	MAGNOLIA SP	Magnolia	ModHigh	34
157	ACER PLATANOIDES	Norway Maple	ModHigh	86
161	PICEA ABIES	Norway Spruce	ModHigh	27
162	PICEA ABIES	Norway Spruce	Moderate	23
163	PICEA ABIES	Norway Spruce	Moderate	26
164	PICEA ABIES	Norway Spruce	ModHigh	38
165	BETULA PAPYRIFERA	Paper Birch	ModHigh	26
166	QUERCUS RUBRA	Red Oak	ModHigh	86
167	QUERCUS RUBRA	Red Oak	ModHigh	138
168	QUERCUS RUBRA	Red Oak	High	83
169	FRAXINUS PENNSYLVANICA	Green Ash	ModHigh	100
170	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	24
171	GINKGO BILOBA	Ginkgo	ModHigh	6
172	PRUNUS AVIUM	Wild Cherry	ModHigh	5
173	PLATANUS X ACERIFOLIA	London Planetree	ModHigh	26
174	FAGUS SYLVATICA ATROPUNICEA	Copper Beech	ModHigh	8
175	MAGNOLIA SP	Magnolia	ModHigh	13
177	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	20
178	ACER RUBRUM	Red Maple	ModHigh	11
179	ACER RUBRUM	Red Maple	ModHigh	11
180	ACER RUBRUM	Red Maple	ModHigh	11
181	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	25
182	PICEA GLAUCA	White Spruce	ModHigh	14
183	BETULA PAPYRIFERA	Paper Birch	ModHigh	33
184	PICEA PUNGENS GLAUCA	Colorado Spruce	High	57
201	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	4
202	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	8
203	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	8
205	QUERCUS RUBRA	Red Oak	ModHigh	6





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Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
107	ACER PLATANOIDES	Norway Maple	High	64

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
89	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	25
91	ACER PLATANOIDES	Norway Maple	High	67
92	ACER PLATANOIDES	Norway Maple	High	61
93	QUERCUS RUBRA	Red Oak	High	97
100	PINUS SYLVESTRIS	Scotch Pine	Moderate	38
101	PINUS SYLVESTRIS	Scotch Pine	ModHigh	31
103	PINUS SYLVESTRIS	Scotch Pine	ModHigh	44
108	ACER PLATANOIDES	Norway Maple	ModHigh	36
110	ACER PLATANOIDES	Norway Maple	High	51

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
30	GINKGO BILOBA	Ginkgo	ModHigh	22
104	PINUS SYLVESTRIS	Scotch Pine	ModHigh	25
105	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh	4
106	MAGNOLIA SP	Magnolia	ModHigh	34
109	GINKGO BILOBA	Ginkgo	ModHigh	43
88	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	33
90	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	29
94	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	Moderate	29
95	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	7
96	QUERCUS ROBUR FASTIGIATA	English Oak	ModHigh	34
97	THUJA OCCIDENTALIS	Eastern White Cedar	Moderate	29
98	THUJA OCCIDENTALIS	Eastern White Cedar	Moderate	26
99	PINUS SYLVESTRIS	Scotch Pine	Moderate	16
102	PICEA GLAUCA	White Spruce	ModHigh	36
111	TILIA CORDATA	Littleleaf Linden	ModHigh	14
112	TILIA CORDATA	Littleleaf Linden	ModHigh	13
113	BETULA PAPYRIFERA	Paper Birch	ModHigh	33
114	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	51
115	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh	10
116	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh	9
A27	PICEA PUNGENS	Colorado Spruce	Moderate	54
A28	BETULA PAPYFERA	White Birch	Moderate	23
A29	ACER PLATANOIDES	Norway maple	ModHigh	64





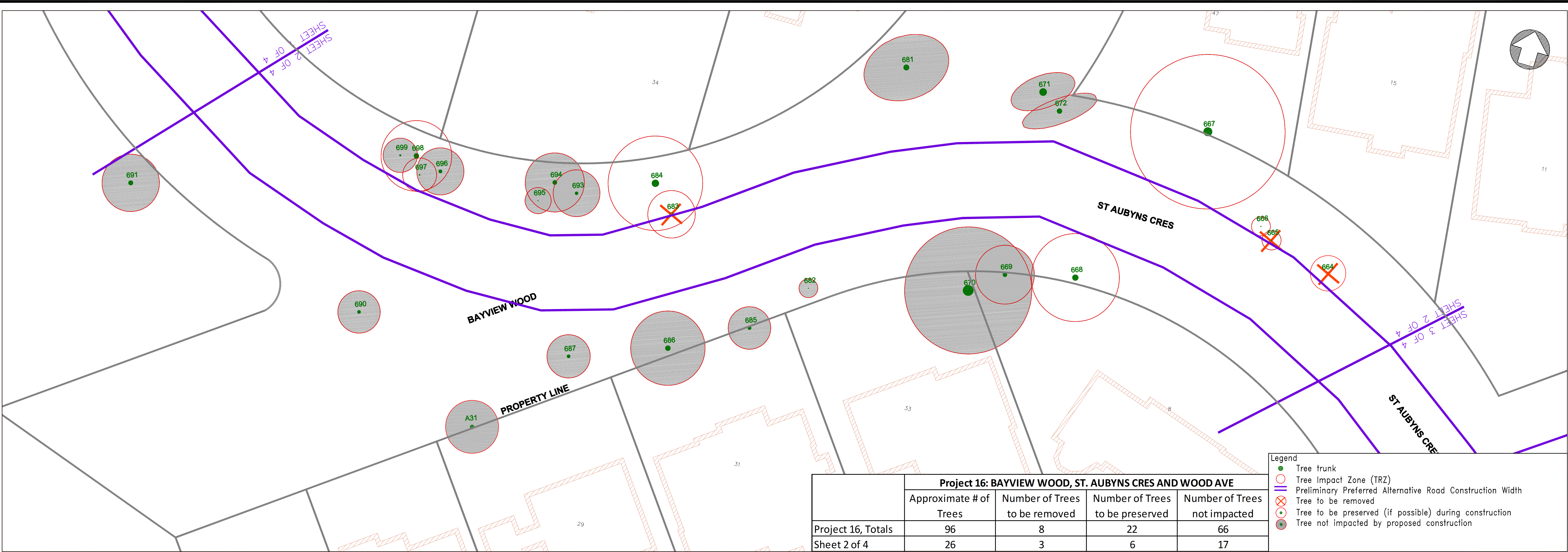












Trees to be removed



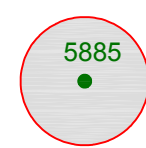
Tree No	Tree Species		Condition	Diameter (cm)
665	PICEA OMORIKA	Serbian Spruce	ModHigh	9
683	PICEA PUNGENS GLAUCA	Colorado Spruce	ModHigh	39
664	PSEUDOTSUGA MENZIESII	Douglas Fir	Moderate	28

Trees to be preserved (if possible)



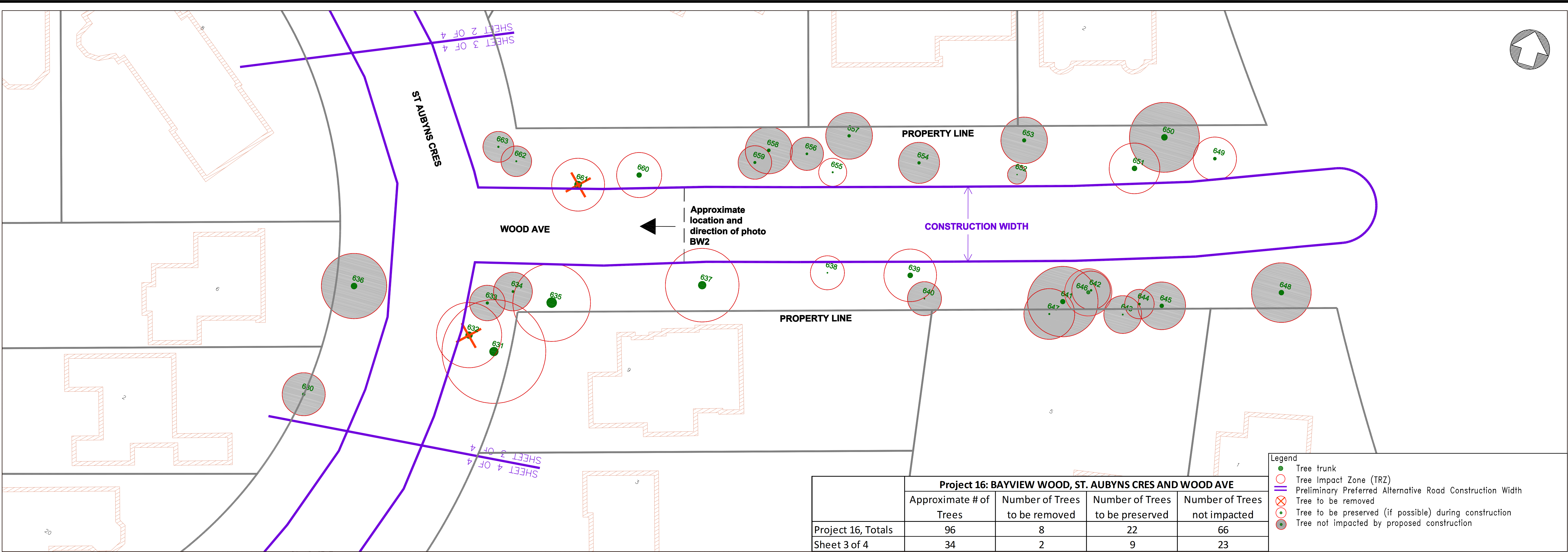
Tree No	Tree Species		Condition	Diameter (cm)
697	PICEA GLAUCA	White Spruce	ModHigh	11
698	PINUS NIGRA	Black Pine	ModHigh	53
666	PICEA OMORIKA	Serbian Spruce	ModHigh	7
667	QUERCUS RUBRA	Red Oak	ModHigh	92
668	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	High	63
684	QUERCUS RUBRA	Red Oak	ModHigh	75

Trees not Impacted



Tree No	Tree Species		Condition	Diameter (cm)
669	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	44
670	ACER SACCHARINUM	Silver Maple	High	112
671	QUERCUS RUBRA	Red Oak	ModHigh	78
672	QUERCUS RUBRA	Red Oak	ModHigh	53
681	ACER PLATANOIDES	Norway Maple	ModHigh	59
682	ACER GINNALA	Amur Maple	ModHigh	6
685	PINUS NIGRA	Black Pine	ModHigh	36
686	QUERCUS RUBRA	Red Oak	High	54
687	PICEA GLAUCA	White Spruce	ModHigh	34
690	TAXUS CUSPIDATA	Japanese Yew	ModHigh	34
691	ACER PLATANOIDES	Norway Maple	Low	48
693	TAXUS CUSPIDATA	Japanese Yew	Moderate	32
694	PINUS NIGRA	Black Pine	ModHigh	45
695	ULMUS AMERICANA	White Elm	ModHigh	6
696	QUERCUS RUBRA	Red Oak	ModHigh	36
699	PICEA GLAUCA	White Spruce	ModHigh	16
A31	PICEA GLAUCA	White Sprue	Moderate	41





Trees to be removed

Tree No	Tree Species		Condition	Diameter (cm)
632	QUERCUS RUBRA	Red Oak	ModHigh	74
661	QUERCUS RUBRA	Red Oak	ModHigh	78

Trees to be preserved (if possible)

Tree No	Tree Species		Condition	Diameter (cm)
649	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Moderate	33
651	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	High	54
655	SORBUS AUCUPARIA	Mountain Ash	ModHigh	16
660	TILIA CORDATA	Littleleaf Linden	High	53
631	QUERCUS RUBRA	Red Oak	ModHigh	95
635	QUERCUS RUBRA	Red Oak	High	109
637	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	85
638	THUJA OCCIDENTALIS	Eastern White Cedar	ModHigh	12
639	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	55

Trees not Impacted

Tree No	Tree Species		Condition	Diameter (cm)
630	ACER PLATANOIDES	Norway Maple	ModHigh	31
636	ACER PLATANOIDES	Norway Maple	ModHigh	65
633	ACER PLATANOIDES	Norway Maple	ModHigh	29
634	ACER PLATANOIDES	Norway Maple	ModHigh	24
640	PICEA ABIES	Norway Spruce	ModHigh	12
641	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Moderate	51
642	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	21
643	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	14
644	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	22
645	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Moderate	42
647	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	16
648	ACER PLATANOIDES	Norway Maple	High	53
650	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	65
652	AMELANCHIER LAEVIS	Smooth Serviceberry	ModHigh	9
653	ACER RUBRUM	Red Maple	Low	39
654	ACER PLATANOIDES	Norway Maple	Moderate	30
656	ACER PLATANOIDES	Norway Maple	ModHigh	23
657	BETULA PAPYRIFERA	Paper Birch	Moderate	31
658	BETULA PAPYRIFERA	Paper Birch	ModHigh	34
659	BETULA PAPYRIFERA	Paper Birch	ModHigh	27
662	PICEA OMORIKA	Serbian Spruce	ModHigh	15
663	PICEA OMORIKA	Serbian Spruce	ModHigh	18
646	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Moderate	38



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Basement Flooding Protection Program

16 BAYVIEW WOOD, ST. AUBYN'S CRES AND WOOD AVE

City of Toronto

Plan and Profile (Not for Construction)

DESIGN: CR DRAFTING: CR CHECK: PT CONTRACT No.

SCALE: HOR 1:200 VER 1:100

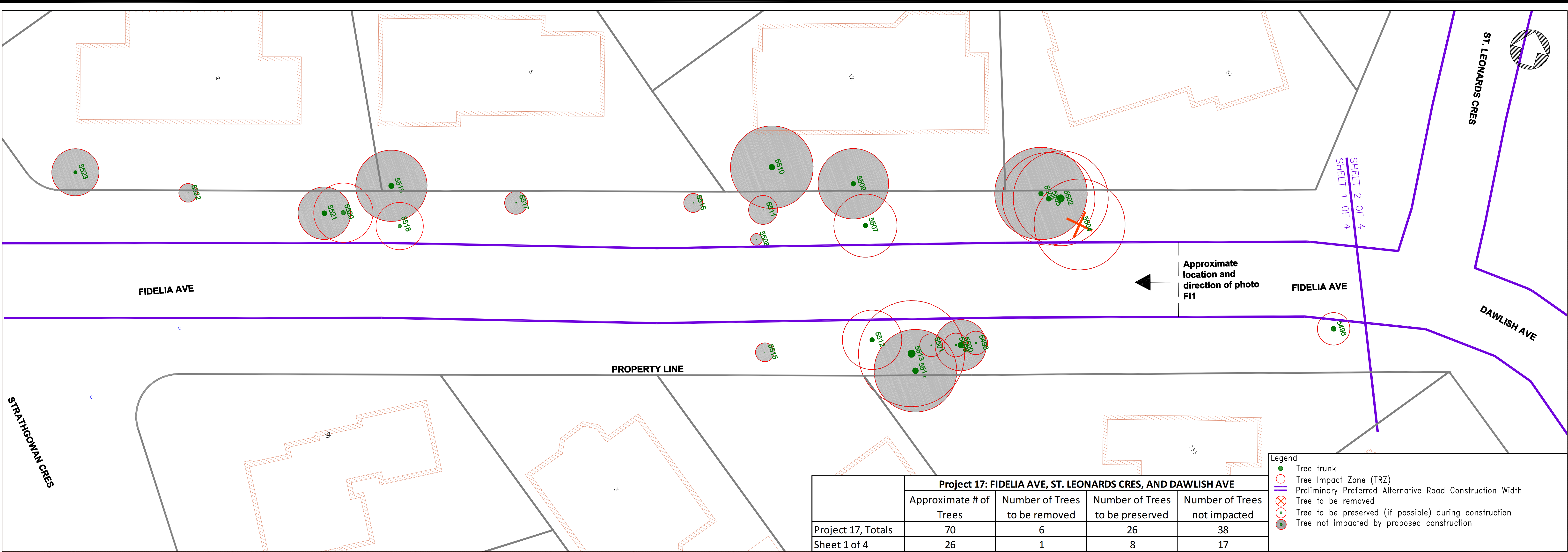
DATE: 11/05/2015 DRAWING NUMBER:

SHEET No.  
3 OF 4









Trees to be removed



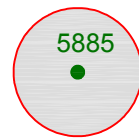
Tree No	Tree Species		Condition	Diameter (cm)
5504	QUERCUS RUBRA	Red Oak	Moderate	35

Trees to be preserved (if possible)



Tree No	Tree Species		Condition	Diameter (cm)
5502	QUERCUS RUBRA	Red Oak	ModHigh	79
5505	QUERCUS RUBRA	Red Oak	ModHigh	53
5507	ACER SACCHARINUM	Silver Maple	ModHigh	51
5496	ACER PLATANOIDES	Norway Maple	ModHigh	55
5512	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	50
5513	TILIA CORDATA	Littleleaf Linden	ModHigh	81
5520	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Low	49
5518	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	Moderate	38

Trees not Impacted



Tree No	Tree Species		Conditions	Diameter (cm)
5503	QUERCUS RUBRA	Red Oak	ModHigh	51
5508	SYRINGA RETICULATA IVORY SILK	Japanese Tree Lilac	ModHigh	8
5509	ACER PLATANOIDES	Norway Maple	ModHigh	51
5510	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	64
5511	TSUGA CANADENSIS	Canadian Hemlock	ModHigh	6
5516	GLEDITSIA TRIACANTHOS VAR INERMIS	Smooth Honeylocust	ModHigh	7
5517	BETULA LENTA	Black Birch	ModHigh	9
5519	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	60
5521	ACER SACCHARUM SSP SACCHARUM	Sugar Maple	ModHigh	55
5522	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	4
5523	BETULA PAPYRIFERA	Paper Birch	ModHigh	36
5498	ACER PLATANOIDES	Norway Maple	ModHigh	17
5499	ACER PLATANOIDES	Norway Maple	ModHigh	19
5500	PRUNUS SEROTINA	Black Cherry	Moderate	61
5501	ACER PLATANOIDES	Norway Maple	Moderate	9
5514	QUERCUS RUBRA	Red Oak	ModHigh	64
5515	LIRIODENDRON TULIPIFERA	Tulip Tree	ModHigh	5



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Manager, Design & Construction  
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17 FIDELIA AVE, ST. LEONARDS CRES, AND DAWLISH AVE

City of Toronto

Plan and Profile (Not for Construction)

DESIGN: CR DRAFTING: CR CHECK: PT CONTRACT No.

SCALE: HOR 1:200 VER 1:100

DATE: 11/05/2015

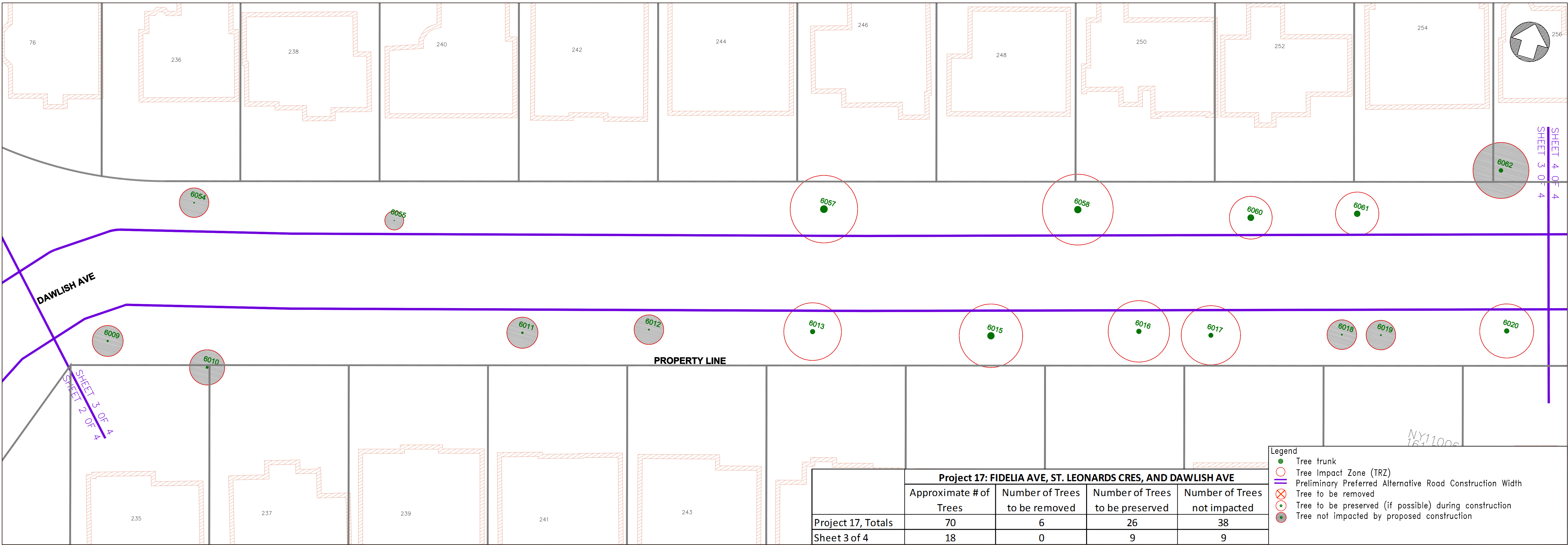
DRAWING NUMBER:

SHEET No.  
1 OF 4









Trees to be removed



Tree No	Tree Species		Condition	Diameter (cm)
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Trees to be preserved (if possible)



Tree No	Tree Species		Condition	Diameter (cm)
6057	ACER PLATANOIDES	Norway Maple	Moderate	78
6058	ACER PLATANOIDES	Norway Maple	Low	74
6060	ACER PLATANOIDES	Norway Maple	Moderate	67
6061	ACER PLATANOIDES	Norway Maple	Moderate	64
6013	TILIA CORDATA	Littleleaf Linden	High	50
6015	ACER PLATANOIDES	Norway Maple	High	74
6016	PHELLODENDRON AMURENSE	Cork Tree	High	51
6017	PHELLODENDRON AMURENSE	Cork Tree	ModHigh	48
6020	ACER PLATANOIDES	Norway Maple	Moderate	51

Trees not Impacted



Tree No	Tree Species		Condition	Diameter (cm)
6009	ACER CAMPESTRE	Field Maple	ModHigh	18
6010	PICEA PUNGENS KOSTERI	Blue Spruce	ModHigh	25
6011	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	20
6012	ACER X FREMANII JEFFERSRED	Freeman Maple	ModHigh	14
6018	ACER PLATANOIDES	Norway Maple	ModHigh	14
6019	ACER PLATANOIDES	Norway Maple	ModHigh	13
6054	ACER GINNALA	Amur Maple	ModHigh	12
6055	CERCIDIPHYLLUM JAPONICUM	Katsura	ModHigh	7
6062	PICEA PUNGENS KOSTERI	Blue Spruce	ModHigh	42









FIGURE ML3-2SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF DAWLISH AVE**





FIGURE ML4-2SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF ROCHESTER AVE**





FIGURE ML5-2SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF CHELTENHAM AVE**





FIGURE ML6-2SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF BUCKINGHAM AVE**





FIGURE ML3-1SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF DAWLISH AVE**





FIGURE ML4-1SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF ROCHESTER AVE**





FIGURE ML5-1SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - MILDENHALL ROAD SOUTH OF CHELTENHAM AVE





FIGURE ML6-1SW  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **MILDENHALL ROAD SOUTH OF BUCKINGHAM AVE**





FIGURE BU1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **BUCKINGHAM AVE**



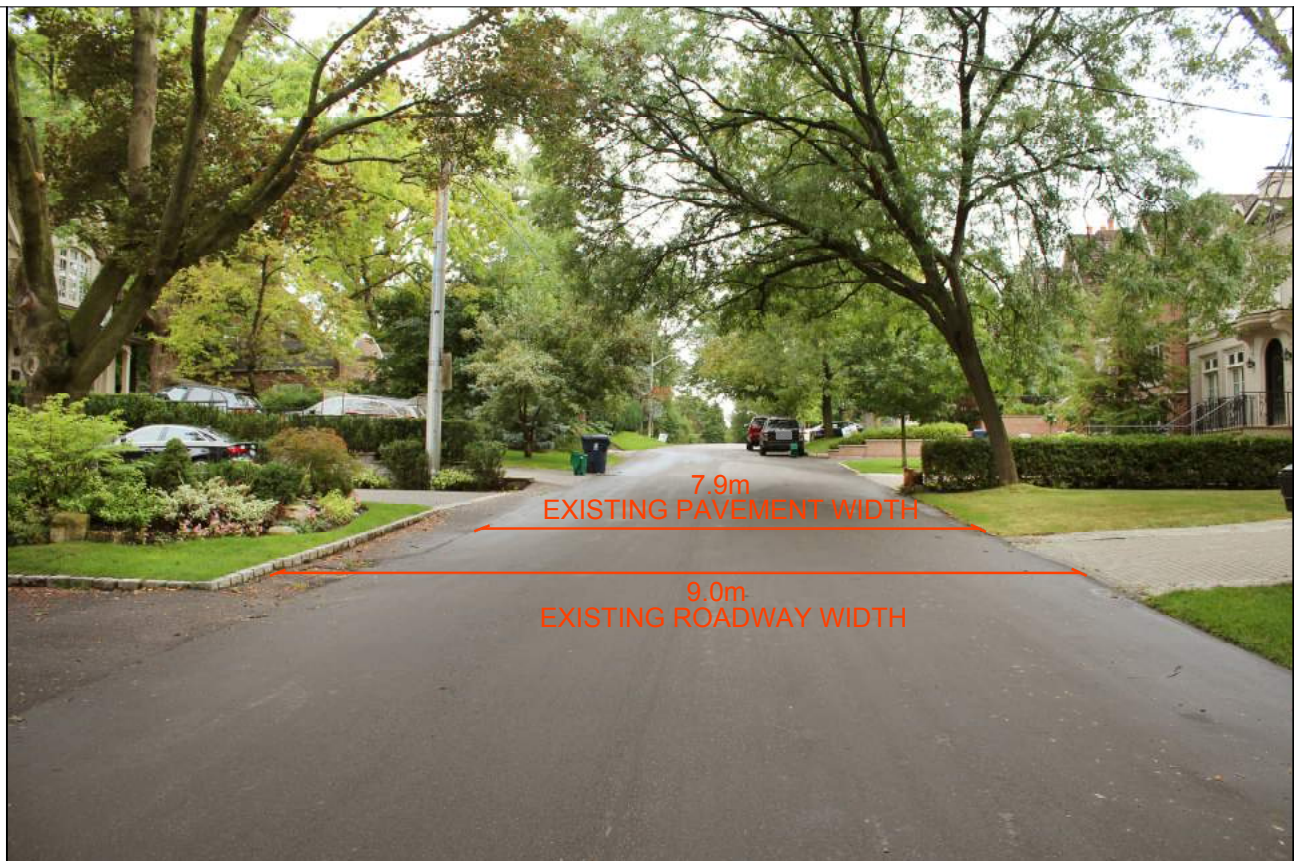


FIGURE CH1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **CHELTENHAM AVE**



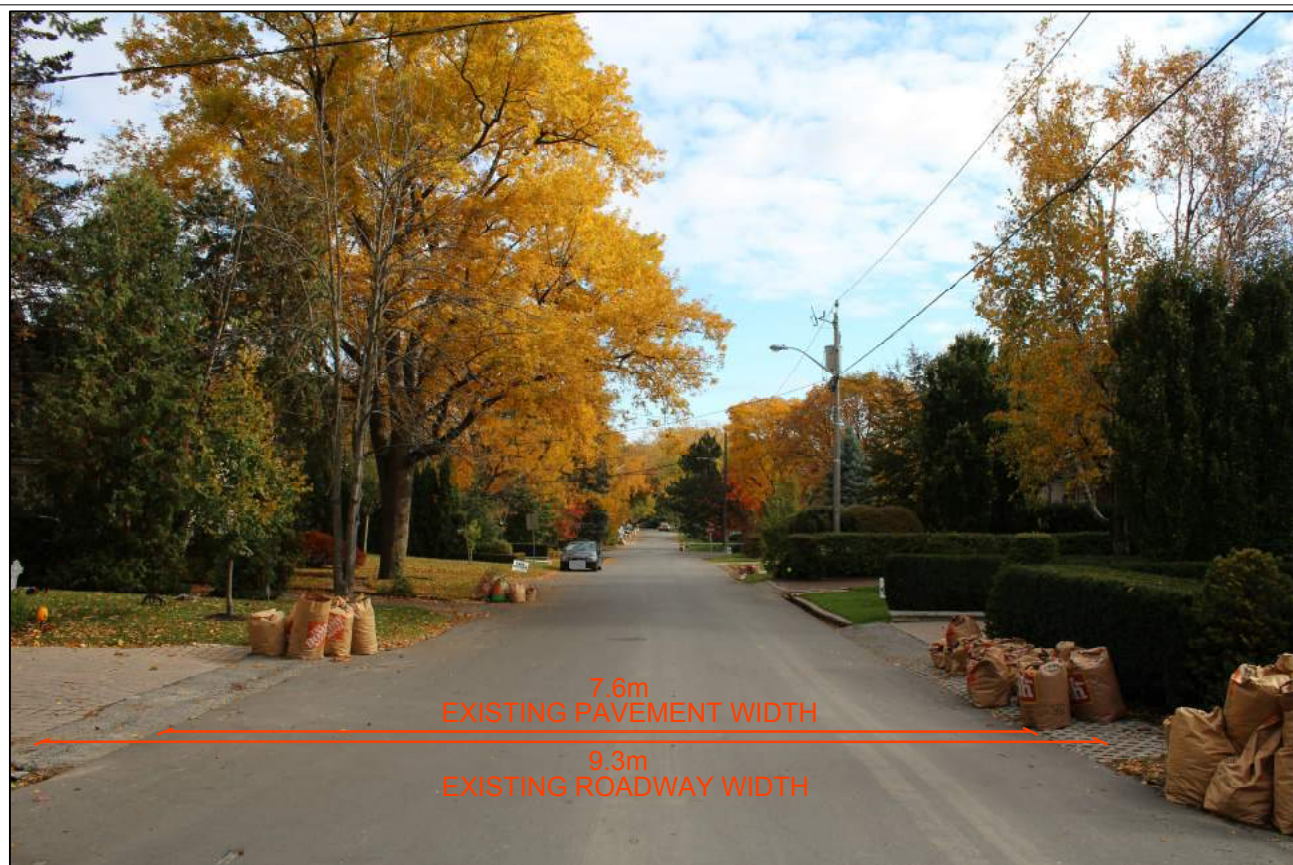


FIGURE RO1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **ROCHESTER AVE**





FIGURE RO2  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **ROCHESTER AVE**





FIGURE SL1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - ST LEONARDS AVE



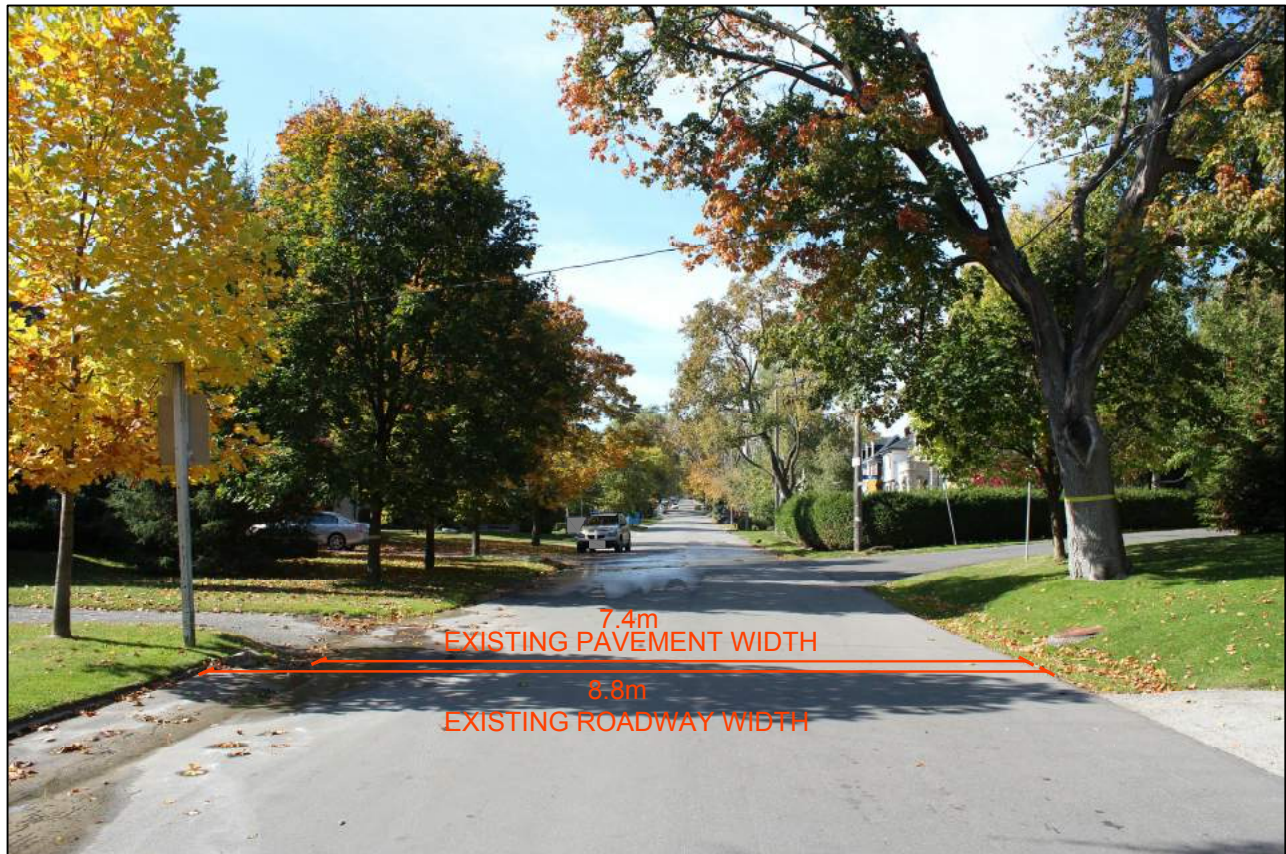


FIGURE SL3  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - ST LEONARDS AVE





FIGURE LE1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **LEWES CRES**





FIGURE LE2  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - LEWES CRES



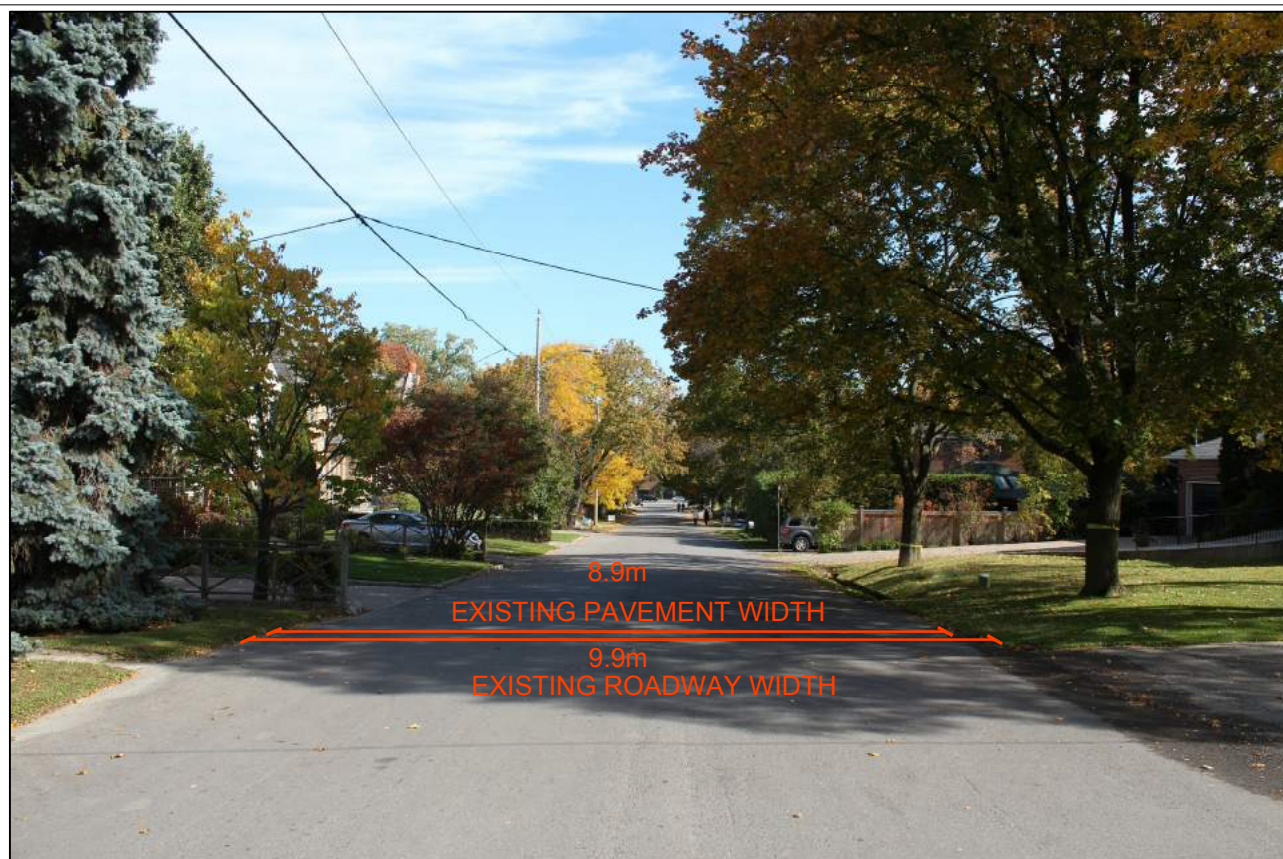


FIGURE DL1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **DAWLISH AVENUE**





FIGURE GL3  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **GLENALLAN ROAD**





FIGURE PI1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - PINEDALE RD





FIGURE SD1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **STRATHEDEN RD**





FIGURE GA1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **STRATHGOWAN AVE**



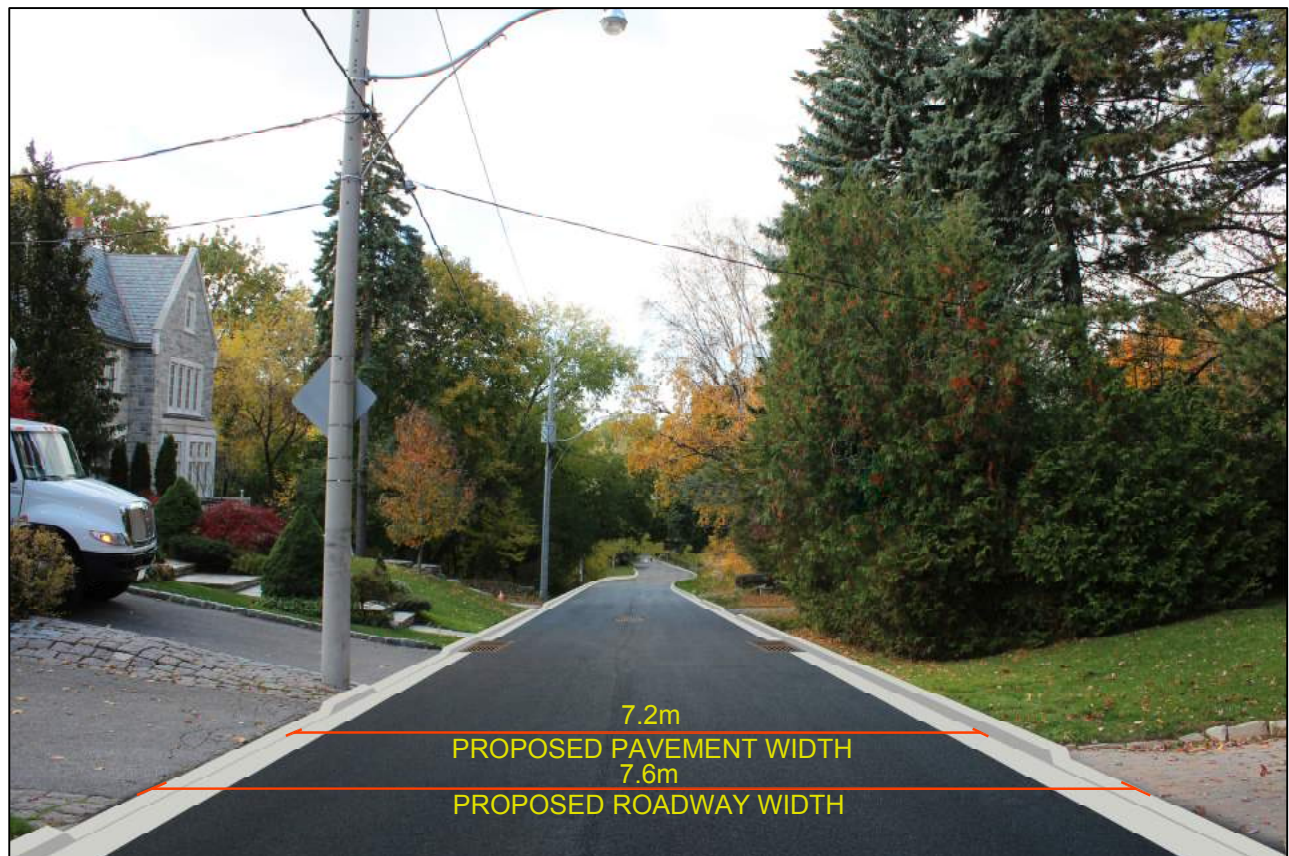


FIGURE SG1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **STRATHGOWAN AVE**





FIGURE BH1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - BLYTH HILL RD





FIGURE BD1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **BLANCHARD RD**





FIGURE PR1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **PROCTOR CRES**





FIGURE BS1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **BRAESIDE CRES**





FIGURE RM1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **ROTHMERE DR**





FIGURE MN1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - MILDENHALL RD (NORTH OF LAWRENCE AVE E)



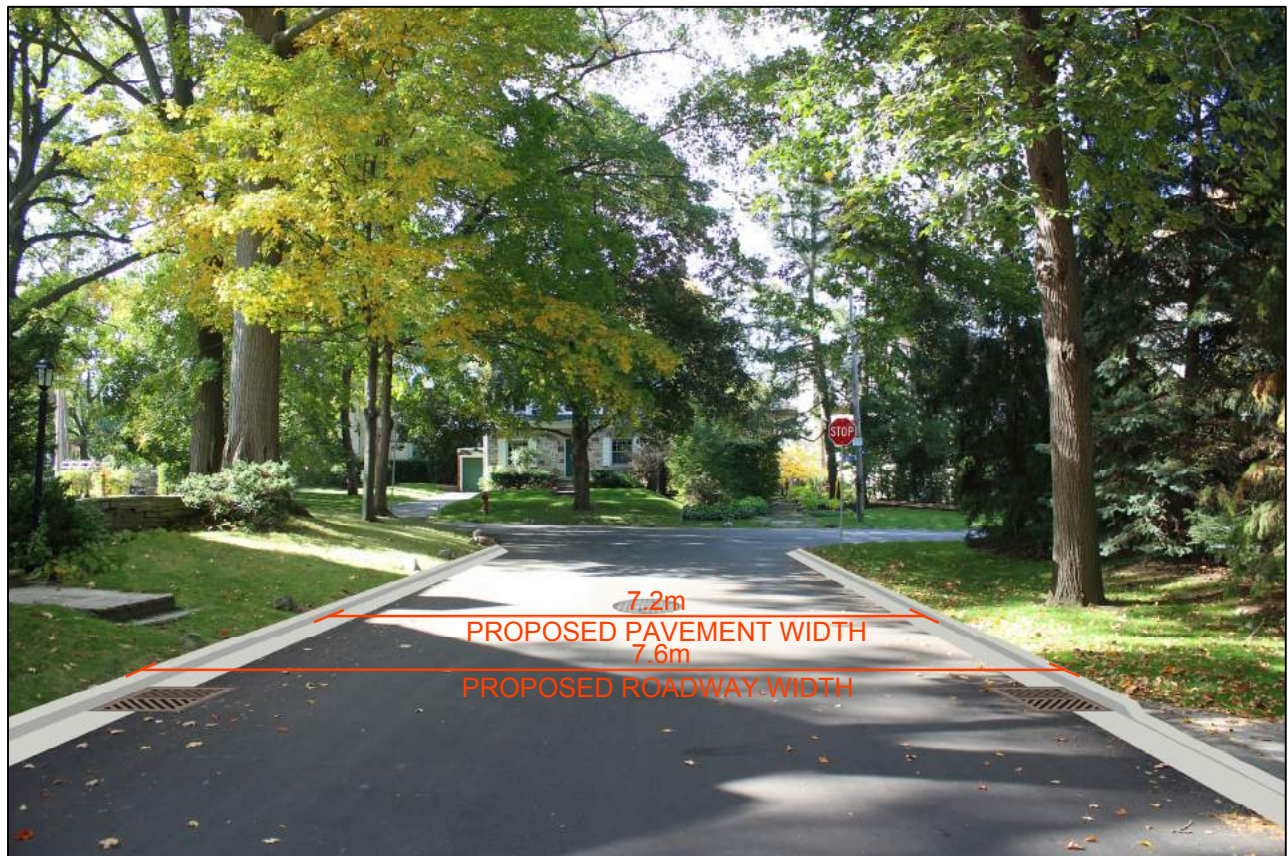


FIGURE BW2  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **WOOD AVENUE**





FIGURE BW3  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **ST AUBYNS CRESCENT**





FIGURE FI1  
ILLUSTRATION OF EXISTING AND PROPOSED ROAD DIMENSIONS - **FIDELIA AVE**