

ARBORICULTURE CONSULTING

The benefits a consultant can provide.

Mumby's Arboriculture Consulting

Verna Mumby

ISA Certified Arborist

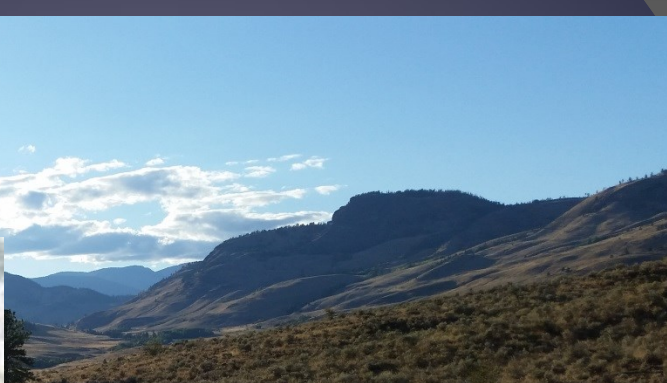
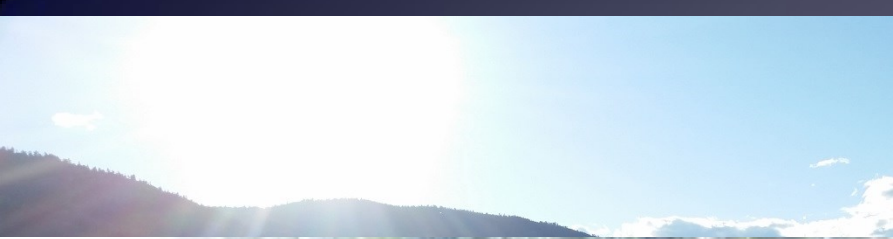
Member, Society of Consulting Arborists

ISA Tree Risk Assessment Qualified

BC Wildlife Danger Tree Assessor



www.treelady.ca



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Mumby's

Mumby's Arboriculture Consulting

Knowlege with Experience

Mumby's Arboriculture Consulting is a consulting company serving clients in British Columbia, Alberta and Saskatchewan.

We specialize in tree risk assessments, arborist reports, urban forest management plans and tree inventories.

In addition, Principle of Mumby's Arboriculture Consulting, Verna Mumby specializes in tree appraisals, teaching, staff training and providing expert witness testimony. Verna Mumby is an ISA Certified Arborist, ISA Tree Risk Assessment Qualified and member of the American Society of Consulting Arborists (ASCA).

Our clients¹ range from the private homeowner to developers, municipalities, property management companies, strata councils, insurance companies and lawyers.

Mumby's has associates in north, central and southern Alberta, two on Vancouver Island, one in the lower mainland and one in the Okanagan of British Columbia. All are ISA certified arborists, ISA Tree Risk Assessment Qualified and completed other formal training such as forestry, horticulture, landscape design and environmental technology.

- ⦿ Credentials in the arboriculture industry
- ⦿ Scope of Work
- ⦿ Arborist Reports:
 - Who should write them
 - What format
- ⦿ Tree Management Plans:
 - How to implement them
 - Follow up
 - Examples

What is a Consulting Arborist?



Consulting Arborists are the authoritative experts on trees and bring an objective, comprehensive viewpoint to their clients—ensuring the safety, health, and preservation of trees. Servicing a wide variety of clients, including property owners, municipalities, contractors, attorneys, insurance professionals, landscape architects, developers, engineers, other arborists, and more, Consulting

Arborists provide the following types of services:

- Contract Preparation and Supervision
- Diagnosis of Tree and Landscape Problems
- Expert Witness and Litigation
- Forensic Investigations
- Tree Risk Assessments and Surveys
- Insect and Disease Identification and Management
- Municipal Ordinance Development
- Plant Health Care Programs
- Training and Education

Types of Arborists

Title	Specialization Or Chief Skills
ASCA Registered Consulting Arborist® (RCA)	Has demonstrated higher skills in certain technical areas related to trees and tree care, providing objective, independent opinions, with training for higher communication, presentation, and/or report writing skills.
ISA Board Certified Master Arborist (BCMA)	Has demonstrated higher skills in certain technical aspects of tree care and equipment used as an arborist, with higher knowledge of arboriculture.
ASCA Member	Has demonstrated higher skills in certain technical areas related to trees and tree care, providing objective, independent opinions with improved communication and presentation skills.

Types of Arborists

ISA Certified Arborist	Has demonstrated basic knowledge to inspect trees and perform tree care. Has required state arborist statute designations or licenses. Has demonstrated basic knowledge to perform tree care with required minimum qualifications (individual and/or business) to meet statute requirements for the specific jurisdiction.
ISA Certified Arborist Specialties (Municipal, Utilities, and Tree Risk Assessor)	Has demonstrated higher knowledge and skills in the subject specialty of arboriculture.
ISA Tree Risk Assessment Qualified (TRAQ)	Has demonstrated knowledge of a standardized and systematic process for assessing tree risk.

Types of Arborists

State Licensed or Professional Forester

Has demonstrated basic knowledge of forest practices and forest management plan. Required in some states to write plans for forest management; forestry is generally not required in urban areas; may lack field experience with individual trees.

Certified Urban Forester (CaUFC) or Certified Forester (SAF- CF)

Has demonstrated a higher level of knowledge and experience in urban forestry and urban forest management; may include fire suppression and *Wildland Urban Interface* (WUI) property mitigation/basic knowledge and experience in forestry.

ISA Certified Tree Worker

Has demonstrated a basic knowledge of tree care to assist certified arborists in performing tree care services.

Verify credential

ISA International Society of Arboriculture

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ANSI A300 Support
Systems Standard - Part 3

ISA Members: \$15.00

Non-Members: \$20.00

Price in US Dollars

Add to Cart

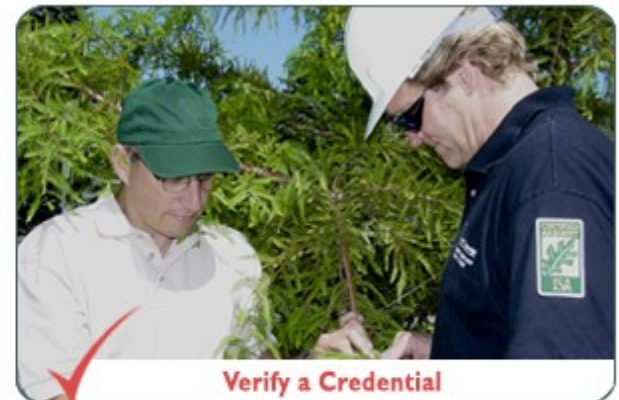
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Arborist Search



[Find an Arborist](#)

The [Find an Arborist](#) tool can help you locate an arborist in your area.



[Verify a Credential](#)

The [Verify a Credential](#) tool enables you to confirm whether an arborist has an ISA credential.

Verify credential

Find a Consulting Arborist

Become a Member ▾

The RCA ▾

Professional Development ▾

Find a Consulting Arborist

Consulting Arborists are the authoritative experts on trees and bring an objective, comprehensive viewpoint to their clients—ensuring the safety, health, and preservation of trees. Servicing a wide variety of clients, including property owners, municipalities, contractors, attorneys, insurance professionals, landscape architects, developers, engineers, other arborists, and more, Consulting Arborists provide a wide variety of services (see drop down menu below).

Search for a Consulting Arborist Now

Consulting Arborists frequently provide services in multiple states and are often willing to travel.

*When utilizing the address search below, you can search by city and state
OR by zip code--not both.*

Name

State(s)

 ▾

Consulting arborists work with other professionals

- Registered professional forester
- Registered professional biologist
- Architects
- Horticulturalist
- Planners
- Engineers
- Lawyers
- Loggers



Scope of Work

- milestones
- reports
- deliverables and
- end products that are expected to be provided,
- a time line for all deliverables.



Scope of Work Example

⦿ SPECIFICATIONS:

- ISA Certified Arborist in good standing and hold a valid TRAQ certificate. Copies of certificates must be included in bid.

Scope of Work Example

- Assessment done according to the ISA Best Management Practices: Tree Risk Assessments Level 1 and 2
- Include **mitigation options** and **recommendations**
- Include results in **table form** sorted by priorities in final report
- Assessment to be completed by May 2018 and final report submitted by June 10, 2018.

Arborist Report

- ⦿ Arborist Information
- ⦿ General Project Information
- ⦿ Tree Information, Tree Table & Photos
- ⦿ Tree Impact Assessment
- ⦿ Mitigation
- ⦿ Tree Retention & / or Replacement Plan
- ⦿ Timeline
- ⦿ Certificate of Performance

Certificate of Performance

Certification of Performance

I, Verna Mumby, certify that:

- I am personally responsible for the content of this report.
- I have personally inspected the trees and the property referred to in this report, and have stated my finding accurately. The extent of the evaluation or appraisal is stated in the attached report and the Terms of Assignment.
- I have no current or prospective interest in the vegetation or the property that is the subject of this report and have no personal interest or bias with respect to the parties involved.
- The analysis, opinions, and conclusions stated herein are my own and are based on current scientific procedures and facts.
- My analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted arboriculture practises.
- No one provided significant professional assistance to me, except as indicated within the report.
- My compensation is not contingent upon the reporting of a predetermined conclusion that favours the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events.

I further certify that I am a member in good standing of the American Society of Consulting Arborists and the International Society of Arboriculture. I have been involved in the field of Arboriculture in a full time capacity for a period of more than fifteen years.

The City of Delta requires an Arborist Report prepared by a Certified Arborist registered with the International Society of Arboriculture (ISA) when there are trees on or within 2 m of the subject site that may be affected by a proposal. An Arborist Report is required for:

[CITY SERVICES](#)[BUSINESS & ECONOMIC DEVELOPMENT](#)[CULTURE & RECREATION](#)[CITY GOVERNMENT](#)

Home > Community > Environment > Trees > Building Site Tree Requirements > Arborist Reports for Land Development

Arborist Reports for Land Development

An arborist report and legal tree survey are required when developing a site. Your arborist report must inventory and assess all the Bylaw protected trees on your property and any trees on adjacent properties that may be impacted by your development. The report will also require a Tree Inventory and Assessment Table, a Tree Preservation Summary Sheet, and Tree Summary by Species Sheet. Reports must be complete, as per requirements below, for review and comments. Failure to meet the minimum requirements may result in a return of the report until deficiencies are completed.

Arborist Reports are to be submitted by a qualified arborist. The following components require a signature by an ISA Certified Arborist for final acceptance: Tree Preservation Summary Sheet, Plans, and overall Report.

Key Documents

[Tree Protection Bylaw 2006, No. 16100](#) 📄

[Tree Preservation Summary Sheet Template](#) 📄



Parks, Forestry & Recreation
Urban Forestry

GUIDELINES FOR COMPLETION OF AN ARBORIST REPORT

The following information is provided to assist consulting arborists, tree care specialists, foresters, etc., in the completion of Arborist Reports that are required to be submitted in support of development applications (including construction and demolition permits), tree removal and injury applications and/or Ravine Permit applications. The submission of Arborist Reports that

TRAQ Field Form is NOT a report

● Page 163 of the TRAQ manual states:

● *The TRAQ form is to be used a guide for collecting and recording tree risk assessment information.....*

It is not intended to be used for Level 1 or 3 assessments.... it is not necessary to mark

every box or to fill in every line on this form.....

You may adapt this form for your specific needs...

● ALL assessments (Levels 1, 2 and 3) must be provided in a written report.

The image shows a portion of the ISA Basic Tree Risk Assessment Form. It includes fields for Client, Date, Time, Address/Tree location, Tree no., Sheet, Tree species, dbh, Height, Crown spread dia, Accessor(s), Tools used, and Time frame. The form is divided into several sections: Target Assessment (with a table for Target number, Target description, Target protection, Target zone, Occupancy, and Potential damage), Site Factors (History of failures, Site changes, Soil conditions, Prevailing wind direction, Common weather, Strong winds, Ice, Snow, Heavy rain), Tree Health and Species Profile (Vigor, Foliage, Prests/Biotic, Species failure profile), Load Factors (Wind exposure, Crown density, Recent or expected change in load factors), and Tree Defects and Conditions Affecting the Likelihood of Failure (Crown and Branches, Lightning damage, Weak attachments, Previous branch failures, Dead/missing bark, Cankers/Galls/Burks, Sapwood damage/decay, Heartwood decay, Response growth). The form is designed to be a guide for collecting and recording tree risk assessment information.

Wrongful Tree Removal

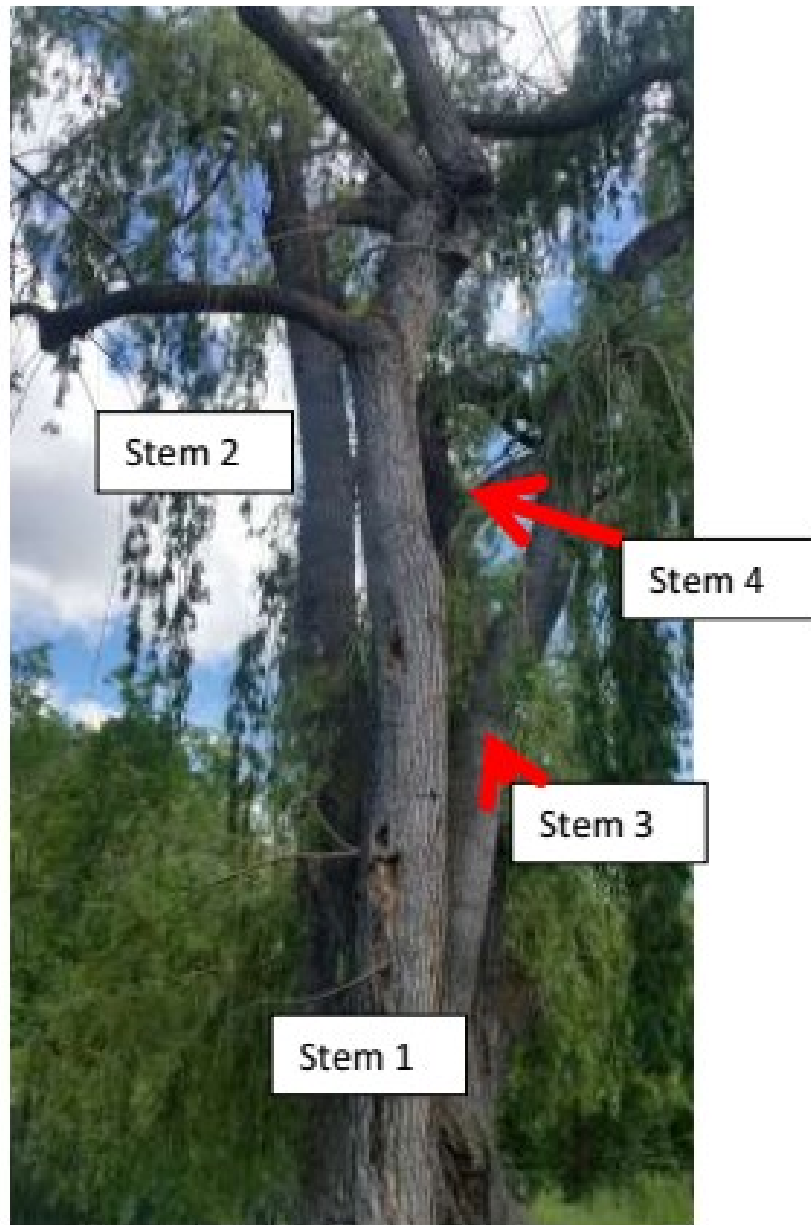


Wrongful Tree Removal

- RP Biologist
- RP Forester



RAR and Arborist Reports



Picture 1 (looking south)



Picture 2 (looking north)

Arborist Reports for RAR areas

Under the BC Wildlife Act Section 34¹, the nests cannot be disturbed until after August 1st. My discussion with RP Biologist, Ian Moul, provincial eagle nesting specialist informed me Section 34 is enforced for eagle and heron nesting sites.

The overall high risk to the public is the priority in this case (TRAQ form on pages 3 and 4). The following mitigation will conform to the Act and make the area safe for the public.

Before August 1st:

Remove stem 1, reduce stem 3 by 65%, and prune off the two laterals of stem 4 overhanging the park. This action will retain the portion of the stem with the nesting cavities.

After August 1st: Two options

- Remove the tree, provide a QEP report for restoration to a riparian site and replant or
- Remove stem 1 and reduce stems 2, 3 and 4 to a height of 4 meters thus retaining it in the riparian area.

Old growth Douglas fir arborist report



The diameter of the tree is 172 centimeters and a height of 27 meters. It has old fire scars at the base of the tree. Top of the tree, where the nest is located, and the stem appears dead for about a meter under the nest.

The upper third of the canopy is heavily branched with the middle third having two large marms of branches. The lower third of the tree is stem, no branches. Health of the foliage is good. No sap flow seen on the stem. The tree has a lean to the southeast averaging 5 degrees from vertical. See Picture 1.

Use other methods along with TRAQ

Radius of the root plate averages 3 meters. I used my Resistograph¹ to determine the presence of decay at the base of the tree. Drilling sites were on the north, south, east and west sides.

¹ The RESISTOGRAPH® exposes this condition using electronically controlled drill resistance measurement.



Using Dr. Coder Tree Biomechanic Estimating Leaning Tree Failures³, the calculation takes into account:

- Tree height
- Degrees of lean (5 degrees)
- Root plate radius (X)
- Height of trees center of gravity
- Distance from vertical to tree top
- Distance away from vertical of tree's center of gravity (Z)

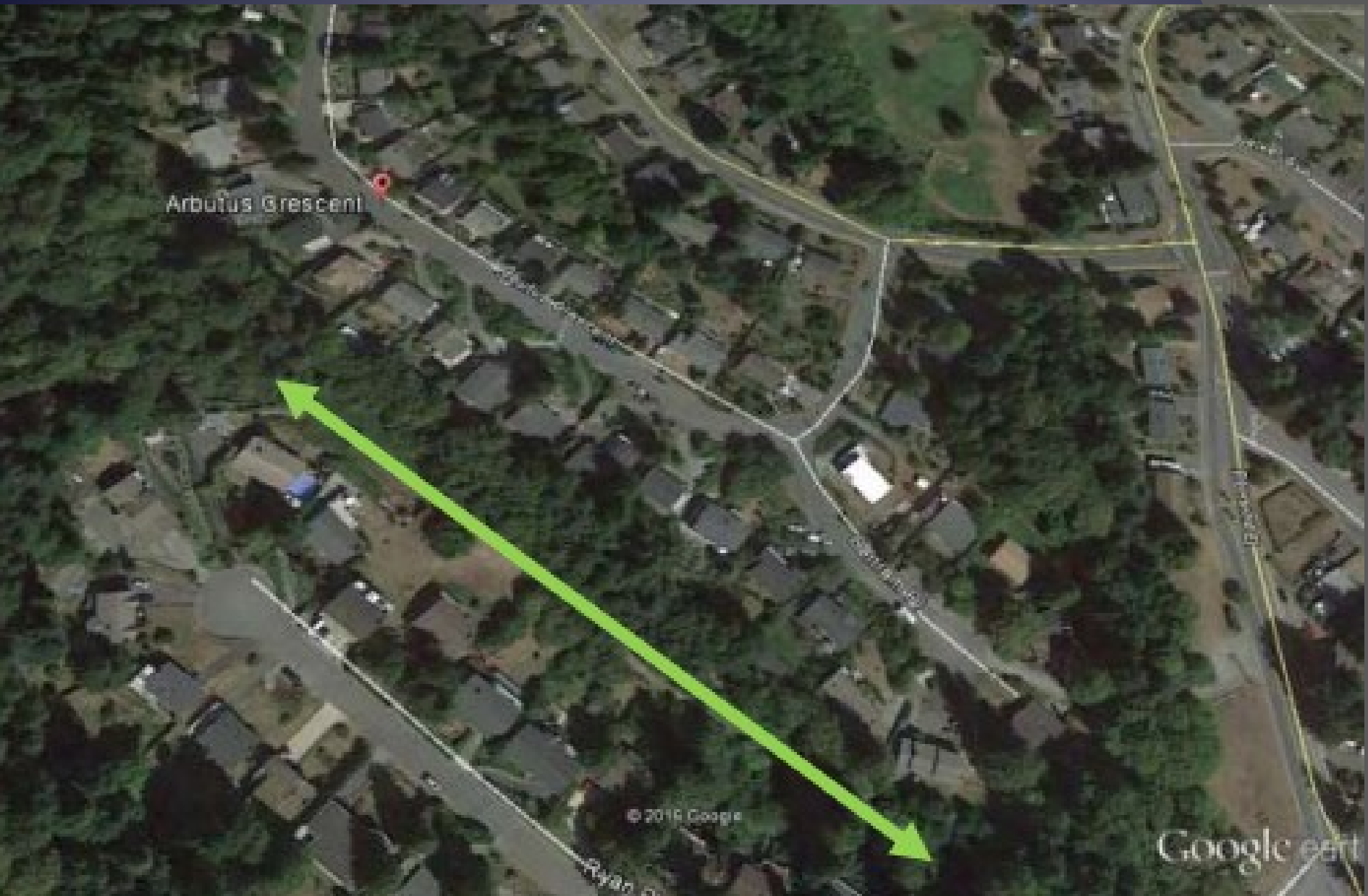


My findings indicate:

- the tree has had the same lean for over a decade,
- there are no signs of the root plate lifting to indicate possible failure at base,
- the amount of decay in the stem has not begun to reduce the required shell thickness of the stem
- and the vigor of the tree is good.



City of Ladysmith greenspace



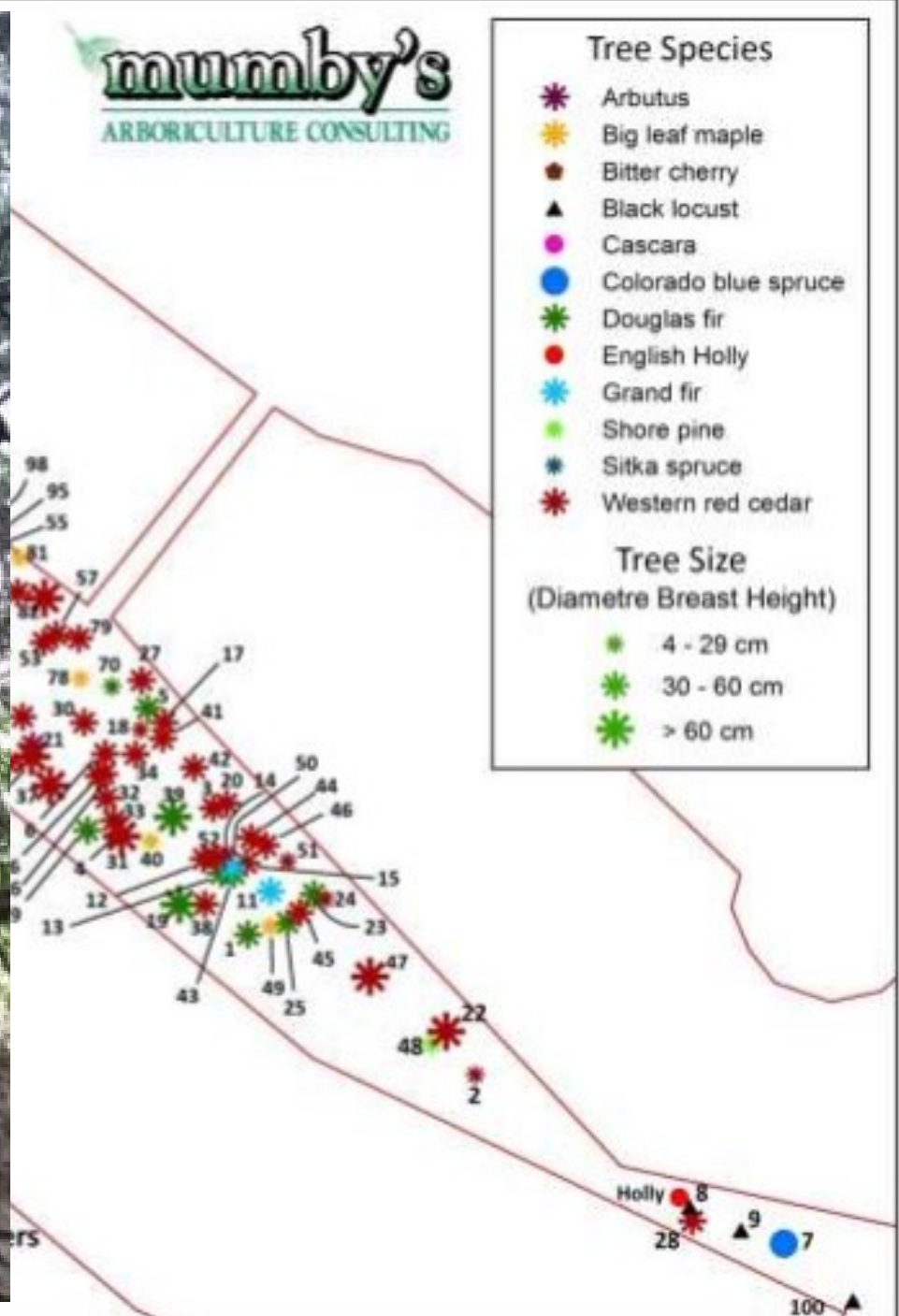
Tree Species

-  Arbutus
-  Big leaf maple
-  Bitter cherry
-  Black locust
-  Cascara
-  Colorado blue spruce
-  Douglas fir
-  English Holly
-  Grand fir
-  Shore pine
-  Sitka spruce
-  Western red cedar

Tree Size

(Diameter Breast Height)

-  4 - 29 cm
-  30 - 60 cm
-  > 60 cm



Ladysmith Arborist Report Table

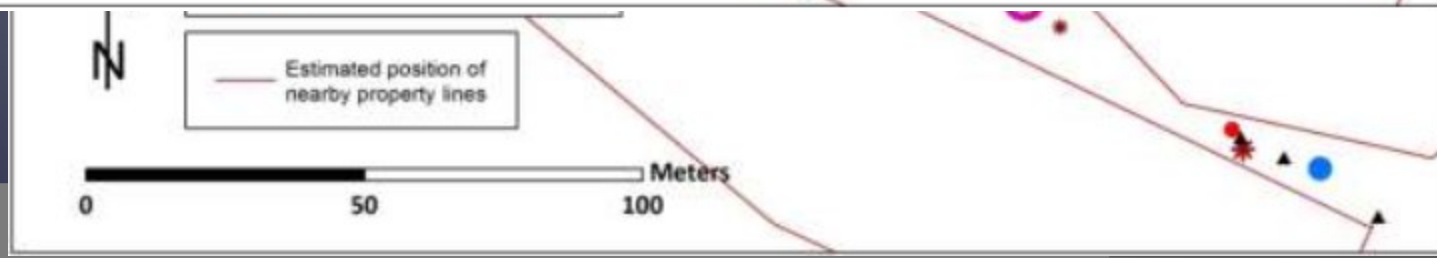
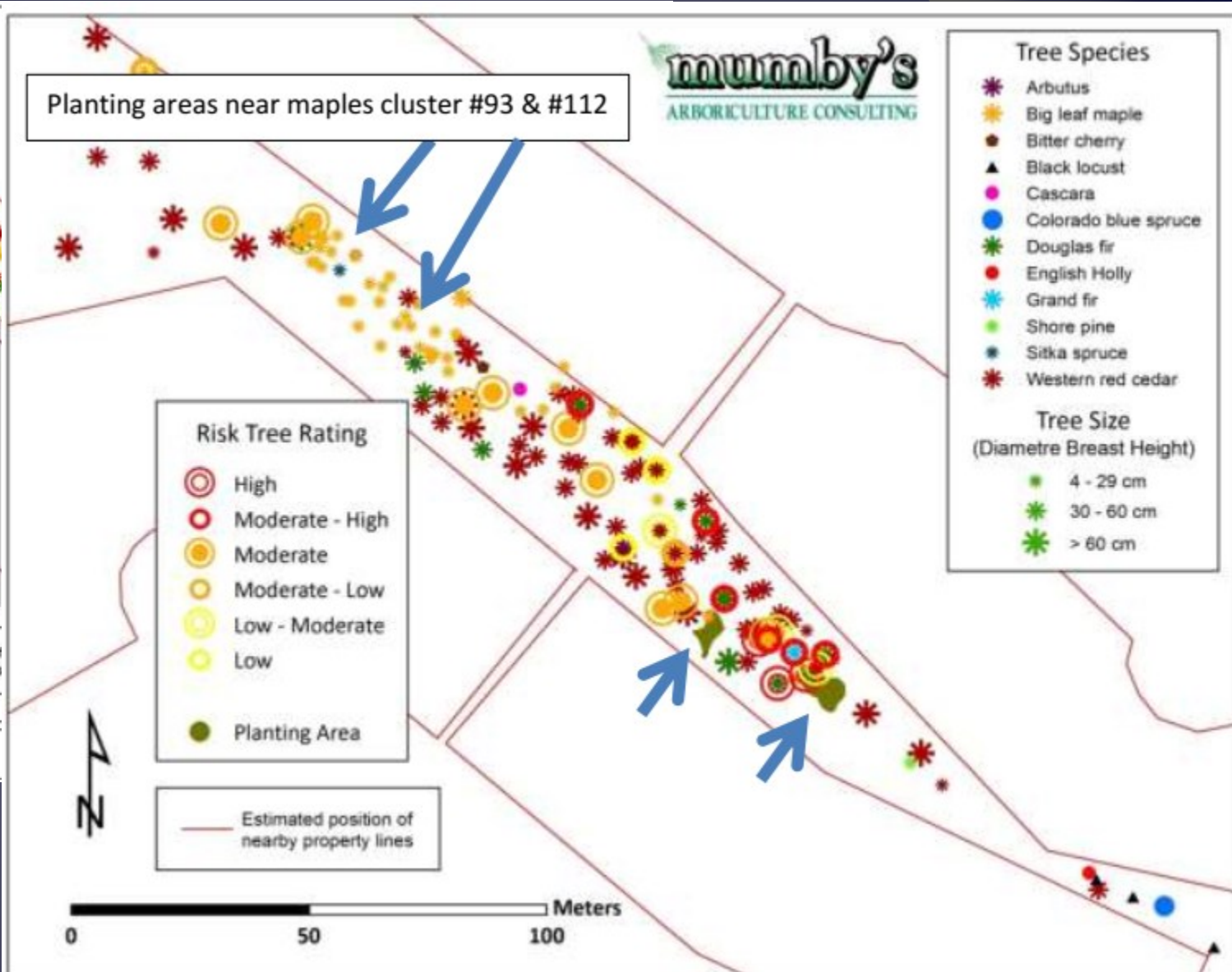
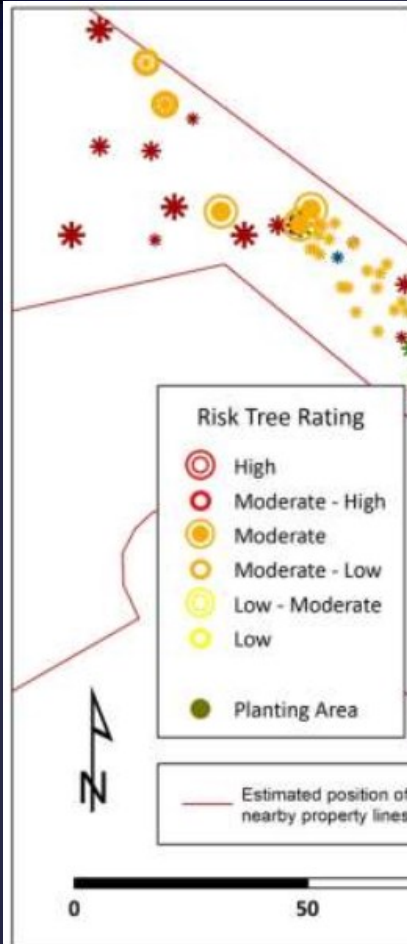
Table A

Tree Type	Total #	Average Diameter (cm)	Average Height (m)	Average canopy spread (m)	Average Live Crown Ratio %	Average Condition %
Total & averages	143	35	8	6	54	72
Western red cedar	69	46	9	8	70	76
Big leaf maple	44	14	7	4	35	74
Douglas fir	18	48	9	6	42	54
Black Locust	03	12	4	3	50	70
Grand fir	02	45	9	3	25	45
Bitter Cherry	02	20	3	3	50	65
Sitka Spruce	01	26	6	4	30	60
Colorado Blue spruce	01	30	10	4	90	90
Lodgepole pine	01	16	5	3	65	80
Cascara	01	25	4	5	40	60
Arbutus	01	60	5	4	35	85

Ladysmith Action Table

Table C

Tree Type	Removals	Pruning	Retain as Wildlife tree ³	Monitor
Western red cedar	2	7	-	4
Big leaf maple	2	6	-	2
Douglas fir	5	5	6	-
Black Locust				
Grand fir	1		1	
Bitter Cherry		1		
Sitka Spruce				
Colorado Blue spruce				
Lodgepole pine		1		
Cascara				
Arbutus				
TOTALS:	10	20	7	6



Utilize valuation for TMP such as iTree & CTLA Trunk formula method.

Overall Benefits

Storm Water

Property Value

Energy

Air Quality

CO2

About the Model



Breakdown of your tree's benefits

Click on one of the tabs above for more detail

This **43 inch Siberian elm** provides overall benefits of: **\$236** every year.

While some functions are documented, other human social and geography, climate infrastructure is based on calculations that consider the complexities, the considered initial of the benefits provided.

Benefits of trees with trees' long-term

If this tree is 43 inches, it will

Condition %:	70.0	
Trunk Circumference:		cm
Trunk Diameter:	17.0	
Use ATAA Table - Y/N	y	
Site %:	60.0	
Contribution%:	60.0	
Placement %:	60.0	
Location %:	60.0	
Species rating%:	60.0	
Replacement Tree Size (diameter)	10.0	cm
TAR	79.0	cm2
Replacement Tree Cost:	\$150.00	
Installation Cost:	\$350.00	
Installed Tree Cost (#7+#8)	\$549.00	
Unit Tree Cost: per cm2	\$14.18	based on Alberta standard
Appraised Trunk Area:		
TAA (use this one for up to 75 cm DBH)	1809.0	cm2
ATAA (use this one for < 75 cm DBH)		cm2
Appraised Tree Trunk Increase	11534.0	
TAA or ATAA (#11) - TAR (#6)		
Basic Tree Cost =	\$164,101.12	
(TAINCR) (#12) x Unit Tree Cost (#10) + Installed Tree Cost (#9)		
Appraised Value =	\$41,353.48	
Basic Tree Cost (#13) x Species rating (#5) x Condition (#2) x Location (#4)		
If the Appraised Value is \$5000 or more, round it up to the nearest \$100; if it is less, round up to the nearest \$10.		
Appraised value = (#14)	\$41,400.00	

2009 development site; 3 groves of trees retained





Cleared out the
vegetation with a
bob cat and
seeded grass in
2014.



By 2017 all but one tree are in complete decline.



All other tree groves untouched by heavy machinery are robust.



- ⦿ Verify the credentials of the company you are using.
- ⦿ The Scope of Work must be clear and concise.
- ⦿ Specify who writes Arborist Reports.
- ⦿ Outline the format you want Arborist Reports to be delivered in.
- ⦿ Tree Management Plans should have clear timelines, action implementation and follow up.



THANKS TO BCRPA & YOU !!

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