Netta Designs Inc.
Jonathan Netta, Director
jonathan@nettadesigns.com
416-821-6533

Attention: Oakville Committee of Adjustment Planning Staff

Subject Property: **73 BROCK STREET, OAKVILLE, ON, L6K 2Y9:**

Re: Cover Letter for Minor Variance Application

To whom it may concern,

After conducting the pre-consult and receiving positive feedback, I would like to formally apply for a Minor Variance application for the subject property.

Enclosed you will find all the required submission material

The variances we would be seeking are as follows:

**Variance 1: Residential Floor Area**

We are seeking 298.59 sq.m. (52.07%) RFA versus the maximum 240.83 sq.m. (42%)

The homeowner is a long time resident of Oakville and has a growing family and is aiming for more square footage to serve the family's needs. Best design efforts have been made to work much of the second floor square footage into the roof space to minimize massing impacts and maintain soft and curb appealing roof lines.

**Variance 2: Lot Coverage**

We are seeking 219.62 sq.m. (38.3%) lot coverage versus the maximum 200.69 sq.m. (35%)

I have provided 2 lot coverage calculations in my site statistics chart; one of the numbers includes the open covered porches and the other one excludes the open covered porches. I did this to demonstrate that the dwelling plus garage complies with the lot coverage and it is only the rear open covered porch that pushes us over the limit

**Variance 3: Building Height**

We are seeking a height allowance of 9.5 meters versus the required 9 meters.

Because this is a corner lot and the grade is significantly lower at the street on Brock street (about a meter difference), we are burdened with having to measure our proposed height from the average of the 2 property line center points. I have shown actual grades on my elevations which are co-ordinated with the Proposed Grading Plan prepared by the OLS to demonstrate that we are in height compliance throughout if the height measurement were considered from “actual grade” rather than “established grade”. I will also note and have illustrated that much of the second floor is built into the roof lines to mitigate massing concerns

**Variance 4: Rear yard setback**

We are seeking 4.16 meters versus the required 7.5 meters

I note that the dwelling itself complies with the setback. It is only the open rear covered porch and basement walkout steps that require the variance

**Thank you for your consideration of our application**

**If any questions, please reach out me directly.**

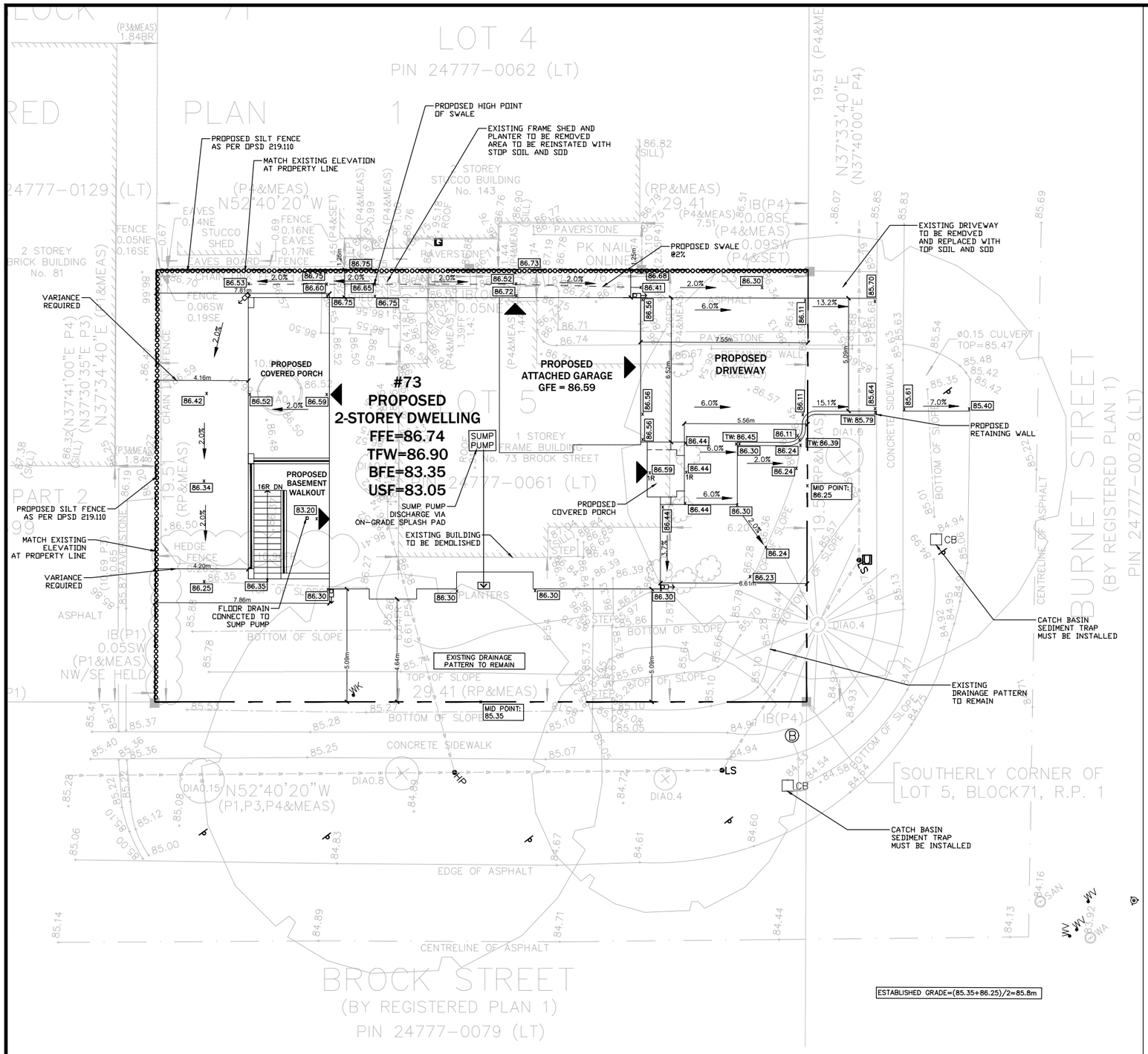
**Thanks,**

**Jonathan Netta**

**Netta Designs Inc.**

**416-821-6533**

**jonathan@nettadesigns.com**

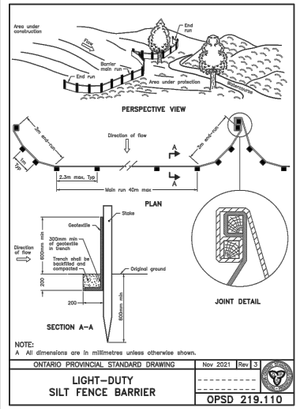


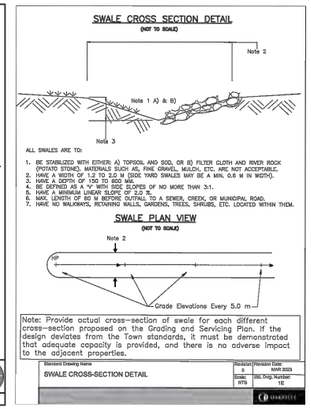

## 1. GENERAL NOTES

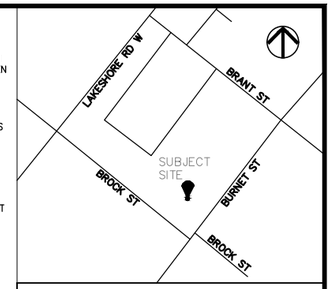
1) "SEDIMENT AND EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT MIGRATION OF SILT AND SEDIMENT FROM THE SUBJECT LOT TO ANY ADJACENT LOT, INCLUDING MUNICIPAL OR PUBLIC RIGHT-OF-WAY. SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT SILT AND SEDIMENT LADEN SURFACE WATER DOES NOT ENTER ANY WATERCOURSES OR ENVIRONMENTALLY SENSITIVE AREAS, EITHER OVERLAND OR THROUGH THE STORM DRAINAGE SYSTEM. THE OWNER/BUILDER/APPLICANT SHALL COMPLY WITH ALL DIRECTIVES ISSUED BY ANY APPLICABLE ENVIRONMENTAL AGENCY".
2) "INTERIM GRADING MEASURES MAY BE REQUIRED DURING CONSTRUCTION TO ENSURE THAT DRAINAGE DOES NOT ADVERSELY AFFECT THE NEIGHBOURING PROPERTIES. ROUGH GRADING OF THE PROPERTY SHALL BE COMPLETED SUCH THAT DRAINAGE IS CONTAINED ON SITE OR CONTROLLED TO A POSITIVE OUTLET".
3) "ALL DOWNSPOUTS, SUMP PUMP AND OTHER DRAINAGE DISCHARGE POINTS SHALL DISCHARGE ON TO A SPLASH PAD OR APPROVED EQUIVALENT".
4) "THE OWNER/BUILDER/APPLICANT IS RESPONSIBLE FOR OBTAINING UTILITY AND SERVICING LOCATES PRIOR TO ANY WORKS".
5) "THIS LOT GRADING/DRAINAGE PLAN HAS BEEN DESIGNED/COMPLETED SUCH THAT MUNICIPAL, COUNTY AND PROVINCIAL LANDS ADJACENT TO OR IN THE VICINITY OF THIS LOT ARE NOT AFFECTED".
6) "A COPY OF THE "ACCEPTED FOR MUNICIPAL PURPOSES" LOT GRADING/DRAINAGE PLAN IS TO BE ON SITE FOR REFERENCE AT ALL TIMES DURING CONSTRUCTION".
7) "THIS LOT GRADING/DRAINAGE PLAN IS IN CONFORMANCE WITH THE OVERALL LOT GRADING PLAN FOR THIS SUBDIVISION"
8) "THE STRUCTURE ELEVATIONS HAVE BEEN SET SUCH THAT THERE IS NO RISK OF HYDROSTATIC PRESSURE AFFECTING THE STRUCTURE"

## 2. BENCH MARK

ELEVATIONS HEREON ARE REFERRED TO CANADIAN GEODETIC VERTICAL DATUM 1928 (1978 ADJUSTMENT) AND ARE DERIVED FROM TOWN OF OAKVILLE BENCHMARK NO.018, HAVING AN ELEVATION OF 90.393m.




KEY PLAN N.T.S.

## DO NOT SCALE DRAWINGS.

THE CONTRACTOR MUST VERIFY AND ACCEPT RESPONSIBILITY FOR ALL DIMENSIONS AND CONDITIONS ON-SITE AND MUST NOTIFY THE DESIGNER/ENGINEER OF ANY VARIATIONS FROM THE SUPPLIED DRAWINGS AND INFORMATION BEFORE PROCEEDING WITH THE WORK. CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.

ALL DRAWINGS ARE THE PROPERTY OF LAND & BUILDING EXPERTS. AND MUST NOT BE REPRODUCED WITHOUT WRITTEN CONSENT.

ANY DISTURBED PAVED AREAS, SIDEWALK OR CURB SHOULD BE RESTORED TO THE ORIGINAL CONDITION AT OWNER'S EXPENSE

ALL DOWNSPOUTS ARE TO BE DRAINED ON TO PERVIOUS SURFACE.

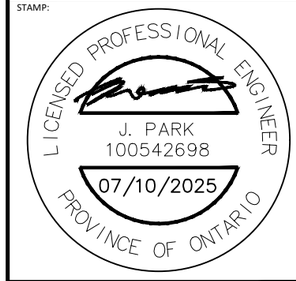
ALL PERIMETER FOOTINGS, OR AND FOOTINGS WHICH MAY BE EXPOSED TO FREEZING CONDITIONS, SHOULD BE PLACED BELOW THE FROST PROTECTION DEPTH OF 1.2m BELOW THE OUTSIDE GRADE OR PROVIDED WITH EQUIVALENT THERMAL PROTECTION.

AS PER OBC 9.14.6.1.(1) I CERTIFY THAT THE BUILDING WILL BE LOCATED AND THE SITE GRADING HAS BEEN DESIGNED SO THAT IT WILL NOT ADVERSELY AFFECT ADJACENT PROPERTIES.

| NO. | REVISION | DATE |
|---|---|---|
| | | |
| | | |
| | | |
| 2 | REVISION | JUL/10/25 |
| 1 | ISSUE FOR PERMIT | JUL/08/25 |
| NO. | ISSUED FOR | DATE |



STAMP:




PREPARED BY:
LAND & BUILDING EXPERTS
570 Alden Rd., Unit 6, Markham, ON. L3R 8N5
(647) 340-8649 landbuildex@gmail.com

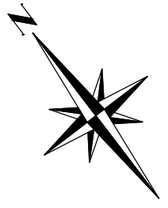
PROJECT INFO:
**73 BROCK STREET, OAKVILLE, ON L6K 2Y9**

PROJECT NAME:
**PROPOSED 2-STOREY DWELLING**

DRAWING TITLE:
**SITE GRADING PLAN**

SCALE: 1:200
DRAWN BY: R.X.
CHECKED BY: J.P.
PROJECT NO.:BROCK 73-25-01

DWG. NO.
**SG-1**



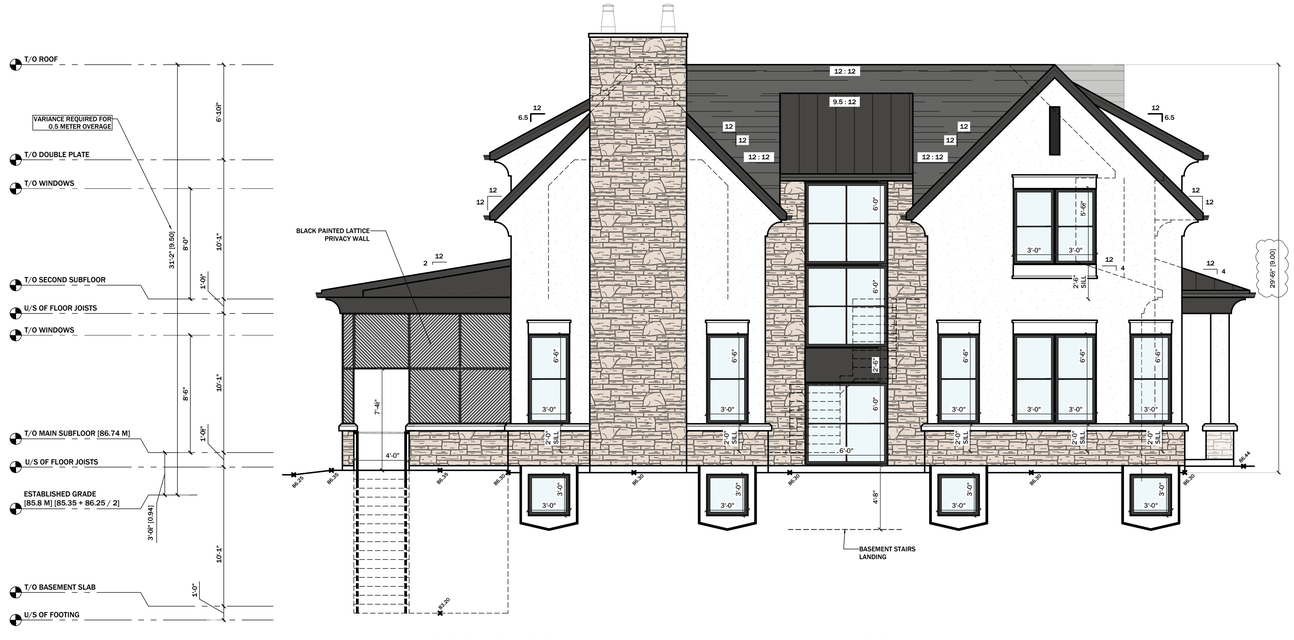
## LEGEND

- ENTRANCE
- 86.30 PROPOSED ELEVATION
- +86.57 EXISTING ELEVATION
- PROPOSED SILT FENCE
- PROPOSED DOWNSPOUT
- 2.0% DRAINAGE DIRECTION AND SLOPE
- PROPOSED SWALE

5m 0m 5m

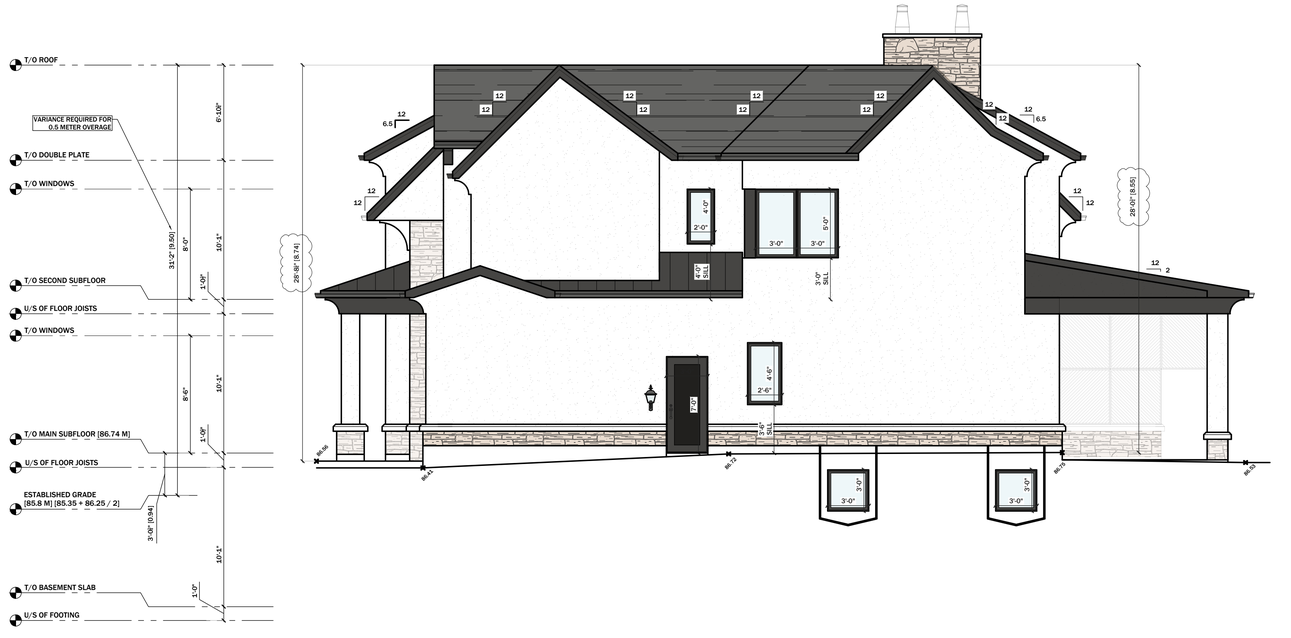
SCALE: 1:200

# ELEVATIONS SCALE: $\frac{3}{16}$" = 1'-0"




## EXTERIOR SIDE YARD ELEVATION (BROCK STREET)


## FRONT ELEVATION (BURNET STREET)




## INTERIOR SIDE YARD ELEVATION


## REAR ELEVATION

# A1.0

# Arborist Report

## Pre-Construction Assessment

**Prepared For:**

[redacted]

**Site Address:**
73 Brock St,
Oakville, ON
L6K 2Y9

**July 2, 2025**

**Prepared by:**
Pawan Paudyal
ISA Certified Arborist (ON-3015N)
Phone: (289) 689-6050 | | Email: pawan.paudyal@Davey.com

## Contents

## Summary

The following Arborist Report is with respect to the proposed construction at 73 Brock St, Oakville, ON. The existing house is to be demolished and replaced with a new two-storey dwelling and attached garage. Additional work on the property includes the replacement of the front driveway. Trees on and near the subject property were inventoried and assessed for preservation, injury mitigation, or removal. Trees that are 15 cm in diameter or greater on private or neighboring properties, and City trees of any size, are regulated and require a permit to injure or remove.

**5 trees** were assessed on-site:

- Private trees: **0**
- Neighbor-owned trees: **0**
- Town-owned trees: 5

- **4 trees (Trees #1-4)** can be fully protected during construction. Tree protection fencing hoarding shall be installed as per the Tree Preservation Plan (Appendix 2). No digging or soil compaction shall occur within the Tree Protection Zones (TPZs), and trees shall not be injured.
    - Tree protection hoarding in Oakville shall be 4-ft high orange plastic snow fence on a 2x4 wood frame.
- **1 tree (Tree #5)** is expected to sustain minor injury from the construction within its TPZ.
    - A new driveway is proposed within the Tree Protection Zone of Tree #5. A Certified Arborist shall supervise low-impact root excavation (air-spade, hand-digging, or hydro-vac) at the limit of driveway encroachment within the TPZ. The Arborist shall prune roots if/where necessary at their discretion. Roots shall be retained beneath the new driveway within the base/fill layer wherever possible, and shall be pruned by the Arborist only if/where necessary at the Arborist's discretion.
    - Tree #5 requires a permit from the Town prior to injury.

*It is imperative for all the crew contracted to perform this construction to thoroughly understand this report and the recommendations stated within.*

## Introduction

Davey Resource Group (DRG) was retained by the client, Jennifer Yang, to develop an Arborist Report and Tree Protection Plan (TPP) for the proposed construction at 73 Brock St, Oakville, ON. The existing house is to be demolished and replaced with a new two-storey dwelling and attached garage. Additional work on the property includes the replacement of the front driveway. The intent of this report is to provide the client with the documentation necessary for work to continue.

An inventory and assessment of all trees greater than 15 cm within the property and up to 6 meters from construction as well as all trees on town-owned land were conducted. The Arborist was to document the current condition, size, and location of the trees as they relate to the proposed work. All trees within the scope of the survey were included in an inventory and assessed for protection or removal needs. Small shrubs were not surveyed for this report.

Recommendations for tree preservation or removal are to be provided.

This report must be accompanied by the following additional documents:

1. A full printing of the tree inventory was performed by Davey Resource Group (DRG), otherwise known as the Tree Protection Action Key (TPAK). (Appendix 1)
2. The construction maps with the Arborist Comments, otherwise known as the Tree Protection Plan (TPP). (Appendix 3)

## Limitations of the Assignment

It must be understood that DRG is the assessor of the trees in relation to tree preservation practices. The construction supervisors should incorporate the information and recommendations provided within this report into their construction methodology to complete their project in a reasonable manner.

This Arborist Report was compiled from field data collected from the ground. A basic visual assessment of the tree was performed. No level of ISA Tree Risk Assessment was performed. The inspection of this site pertained strictly to trees with a Diameter at Breast Height (DBH) of 6 cm or greater located on the property or within 6 m of the property boundary. The client should incorporate the information and recommendations provided in this report into their construction and installation procedures on an ongoing basis.

## Methods

- Tools used to assess the trees included a metric DBH measuring tape, metric measuring tape, and a camera.
- All trees protected by Oakville's Private and Town Tree Protection By-laws were included in the inventory.
- Trees were studied for their proximity to existing and planned structures to determine recommendations or precautions for trees requiring removal or injury.

## Observations

- The site was inspected on July 2, 2025, by Arborist Pawan Paudyal.
- No evidence of construction was present, and work had not yet started on site.
- No material storage or soil compaction within Tree Protection Zones was observed.
- **5 trees** were assessed for this report and labeled **#1-5** in the Tree Protection Action Key (TPAK) and Tree Protection Plan (TPP) included within Appendices 1 and 3.
- The construction site access route is from an existing driveway. The staging area for equipment will be in the driveway or road outside of the Tree Protection Zones.
    - **Trees #1-5** are in front of the owner's property and belong to Town.

  For further details and observations, refer to the Tree Protection Action Key (Appendix 1).

## Discussion

To preserve and protect trees, proper recommendations must be followed and abided by the client for the duration of the project.

Regulatory context

The Oakville Private Tree Protection By-law 2017-03 states that a permit is required to injure or remove any privately owned tree that measures 15 cm or more in diameter at breast height (DBH). Fees are exempt for trees that are dead, high risk, ash trees, or buckthorn trees.
The Oakville Town Tree Protection By-law 2009-025 states that a permit is required to injure or remove any Town tree.

Tree Protection Zone (TPZ)

Tree Protection Zone as defined by the Town of Oakville bylaw means a restricted area, enclosed by fencing, that is measured at diameter at breast height (DBH) 1.37m above grade. No construction activity or equipment is to be inside the TPZ at any time during the construction.

Minimum Tree Protection Zone (MTPZ)

Work within the MTPZ of any tree would be considered a serious root injury and would leave the tree with a high potential for structural failure or serious decline. Boxes surrounding existing trees on the TPP are based on the TPF setback distances provided by the Town of Oakville. These measurements have been recorded in the field and represent a 'best-case scenario' for tree protection needs. The on-site project arborist will have final approval of tree protection requirements. The use of a supersonic air tool (SSAT) or daylighting may be required for trees with construction within the MTPZ while the construction project is underway to ensure these trees are reasonably preserved. Tree Preservation Specifications are there to protect trees while giving them their necessary information and actual footprints to ensure all work around trees can continue efficiently. Increasing TPZ distances should be done at the design stage. Field marking of exact locations of new proposed structures and underground utilities by the planning personnel has been well proven to be the most effective way to ensure accurate distances from trees. It is better to add some fill than to excavate roots. Fill can be modified (such as using High-Performance Base(HPB)) to allow gas exchange and water permeability, while the tree adapts to the change slowly over time. Further discussions may be needed to ensure methods are useful, cost-effective, and will provide for the trees that are being protected.

| Trunk Diameter (DBH) | **<10cm** | **10-30cm** | **31-50cm** | **51-60cm** | **61-70cm** | **71-80cm** | **81-90cm** | **91-100+cm*** |
|---|---|---|---|---|---|---|---|---|
| Minimum Protection Distance Required | **1.8m** | **2.4m** | **3.0m** | **3.6m** | **4.2m** | **4.8m** | **5.4m** | **6.0m+*** |

*For trees over 100 cm. DBH, add 10 cm. to the TPZ for everyone centimeter of DBH.

Root Pruning Protocol

The roots provide nutrients and water to the leaves and branches while supporting the tree in windstorms and preventing failure. Trees are remarkable, in that the upper canopy can be completely green and full while most of the roots below have been removed; leaving the tree highly prone to failure and imminent death within a few years. Once a tree is injured, that injury is never "healed" but instead the tree allocates a great deal of energy to try and repair itself, often at the expense of its vitality and sometimes leading it into a mortality spiral that may not be noticed until years later.

Root pruning is a practice to minimize injuries to trees. Roots in comparison to upper canopy limbs store a great deal of energy and reserves for trees to survive and must be removed with the utmost care and consideration. Like pruning the upper canopy of the tree, roots are best removed (if needed) via target pruning practices and not by being torn off. Roots must be assessed by a qualified and experienced arborist and then pruned properly with a sharp tool.

Root pruning is not a common skill set and should be performed by a qualified arborist familiar with root excavation and root pruning. Tree's roots are underground and are otherwise not detectible without physical exploration – i.e., using a Supersonic Air Tool (SSAT) such as an AirSpade® or Daylighting vehicle (Hydro-Vac with pressure not to exceed 500psi inside any TPZ). Root pruning trenches must be at least the depth of the deepest root (usually 30-60 cm) and about 15 cm wide. Roots are assessed by the arborist about the effect construction may have on the tree, and then either pruned with a sharp tool, possibly recommended for removal, or a design change may be needed on-site to accommodate. The use of a rotary saw is not acceptable to prune the roots of trees.

The Town of Oakville specifies the non-invasive methods of excavation including but not limited to air spade, hydro-vac, and hand digging to minimize the damage to the health and structure of the trees. Root pruning in open trench methods of construction is required under the direction of - and along with - written approval of an arborist. An arborist must be always present on-site when work is within the TPZ.

Tree Protection Hoarding (Appendix 3)

Hoarding (Tree Protection Fencing (TPF)) is used on construction sites to ensure that damage to the tree and its root zone is prevented. This distance is typically located by the MTPZ. However, it must be understood that sometimes this distance is not achievable due to the infrastructure being too close. It must be further understood the hoarding distance sometimes must accommodate a larger TPZ (than the typical MTPZ distance) due to a limited root growing area/volume (this area is typically defined by the project arborist.) This hoarding must be anchored to the ground and must be installed to the lines defined by the project arborist.

Problems will arise for tree preservation efforts when anyone removes the hoarding, even temporarily. It takes one instance of soil compaction from a heavy machine for roots to suffer from air and water deprivation and for the tree to become stressed. It is imperative to install and maintain good condition the hoarding to prevent this from happening before and throughout the entire construction.

Tree Protection Signage

The signs are provided and posted by the Town of Oakville Forestry Department once the hoarding set-up is approved. Signage informs the public and reminds the contractors of the significance of the TPZs and the efforts put forward by the client in tree preservation.

Staging Areas

All staging areas are understood to be outside the TPZ. At no time are materials, vehicles, traffic, or debris to be stacked, staged, or piled inside the hoarding (Tree Protection Fencing).

Vertical Mulching

An aeration or fertilization technique. Drilling (auguring) vertical holes in the soil and filling them with materials (compost/ fertilizer) to improve aeration.

Permeable Surface Construction

When performing new hardscape construction in the root zone of a tree, it is imperative to pursue a minimum amount of disturbance to any open soil surface where such roots are or may be growing. The addition of an impermeable surface above existing tree roots serves to stress the roots in two ways. First, heavy materials such as asphalt and cement serve to compact the soil, cutting off access to air pockets within the soil which serves as a medium for roots to perform their duties in fueling the tree's energy processes. Secondly, impermeable surfaces cut off access to water by redirecting groundwater and rainfall away from the soil beneath, chocking off a
tree's water supply, which is a tree's most important below-ground resource. These stressors can be avoided by pursuing gravel surfaces, geotextile subsurface that distributes the load placed upon the soil, and tree root zone by the hard surfaces above.

Replacement Trees

As a condition of a tree permit, one tree must be planted for every 10 cm DBH of healthy tree removed. A $300 security deposit is required for each tree to be planted. The security deposit will be refunded once a final inspection of the replacement plants is complete. Replacement trees must be planted on the same property as those removed. Where it is not possible to properly grow replacement trees on the site, the security deposit may be donated to the town to plant on nearby town property. The minimum tree replacement size is a 30-mm caliper (3 cm width) deciduous tree, or a 150-cm high coniferous tree in a five-gallon container, balled in burlap, or in a wire basket.

## Conclusion and Recommendations

To account for the proposed construction at 73 Brock St, Oakville, ON. The existing house is to be demolished and replaced with a new two-storey dwelling and attached garage. Additional work on the property includes the replacement of the front driveway. We assessed **5** trees for retention, protection, injury, or removal.

Trees to be fully protected are specified with “Preserve” in the “Action” column in the TPAK.

- We recommend the client install and properly maintain Tree Protection Fencing (TPF) built to the Town of Oakville standards (Appendix 4,5) following the Tree Protection Plan (Appendix 3) prior to and during construction work.
- Tree protection on private property shall be built of 4-ft high 1/4" OSB on a 2x4 wood frame. Tree protection in the Town right-of-way shall be built of 4-ft high orange plastic mesh on a 2x4 wood frame.
- The tree Protection Signage (Appendix 5) provided should be affixed to all Tree Protection Fences.

Trees to be injured are specified with “Injure” in the “Action” column in the TPAK.

- **1 tree (Tree #5)** is expected to sustain minor injury from the construction within its TPZ.
- A new driveway is proposed within the Tree Protection Zone of Tree #5. A Certified Arborist shall supervise low-impact root excavation (air-spade, hand-digging, or hydro-vac) at the limit of driveway encroachment within the TPZ. The Arborist shall prune roots if/where necessary at their discretion. Roots shall be retained beneath the new driveway within the base/fill layer wherever possible and shall be pruned by the Arborist only if/where necessary at the Arborist's discretion.
- Tree #5 requires a permit from the Town prior to injury.

All material and equipment staging, and storage shall take place on the parking lots. No equipment of any sort shall be stored within the MTPZ of the protected trees except where hard surfaces are already present. This will be done to avoid compaction of the ground throughout the MTPZ.

For further details and observations, refer to the Tree Protection Action Key (Appendix 1).

# Appendix 1 – Tree Protection Action Key (TPAK)

| Tree Map Number | Common name | Botanical | DBH (cm) @ 1.4 m | Tree Ownership | Minimum Tree Protection Distance (m) | Health | Structure | Overall Condition | Tree Height (m) | Crown Width (m) | Live Crown Ratio (%) | Deadwood (%) | Construction inside Min TPZ? (Y/N) | Construction Impact (None, Low, Medium, High) | Action | Permit Required? (Y/N) | Recommendations and Observations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | red oak | *Quercus rubra* | 12 | City | 2.4 | Good | Good | Good | 5 | 4 | 65 | 0 | N | None | Preserve | N | |
| 2 | norway maple | *Acer platanoides* | 71 | City | 4.8 | Fair | Good | Fair | 25 | 20 | 50 | 0 | N | None | Preserve | N | Utility prune |
| 3 | norway maple | *Acer platanoides* | 64 | City | 4.2 | Fair | Good | Fair | 25 | 20 | 50 | 0 | N | None | Preserve | N | Utility prune |
| 4 | norway spruce | *Picea abies* | 42 | City | 3.0 | Fair | Good | Fair | 13 | 9 | 50 | 10 | N | None | Preserve | N | Dead Branches |
| 5 | norway maple | *Acer platanoides* | 85 | City | 5.4 | Good | Fair | Fair | 25 | 20 | 50 | 10 | Y | Medium | Injure | Y | The proposed driveway encroaches within the TPZ Codominant stems and dead branches |

# Appendix 2 – Tree Appraisal Values

This appraisal is being completed to meet the Town of Oakville's requirements for assessing trees being impacted by a construction proposal. All that require permits to injure or remove must be evaluated based on the most recent International Society of Arboriculture's Guide for Plant Appraisal.

Tree valuation was determined on a tree per basis using the Trunk Formula Method developed in the current standard practice "Guide for Plant Appraisal, 10th Ed." Developed by the Council of Tree & Landscape Appraisers and published by the International Society of Arboriculture.

**Tree Appraisal Background**

The tree valuation calculation, theory and assumptions have been extracted from the following multiple sources:

- Guide for Plant Appraisal, 10th Ed." Developed by the Council of Tree & Landscape Appraisers. This provides the theory and foundation to the Trunk Formula Method (TFM) used in the individual tree appraisal determination.
- The values were referenced from Van Dongen's Nurseries (Deciduous trees were sourced as the largest commonly available stock, 70mm caliper).

The Trunk Formula Method (TFM) calculation extracted from the two sources of theory and application literature is explained below:

***Value = Basic Tree Cost * Depreciation (Functional Limitations *External Limitations* Condition Rating)***

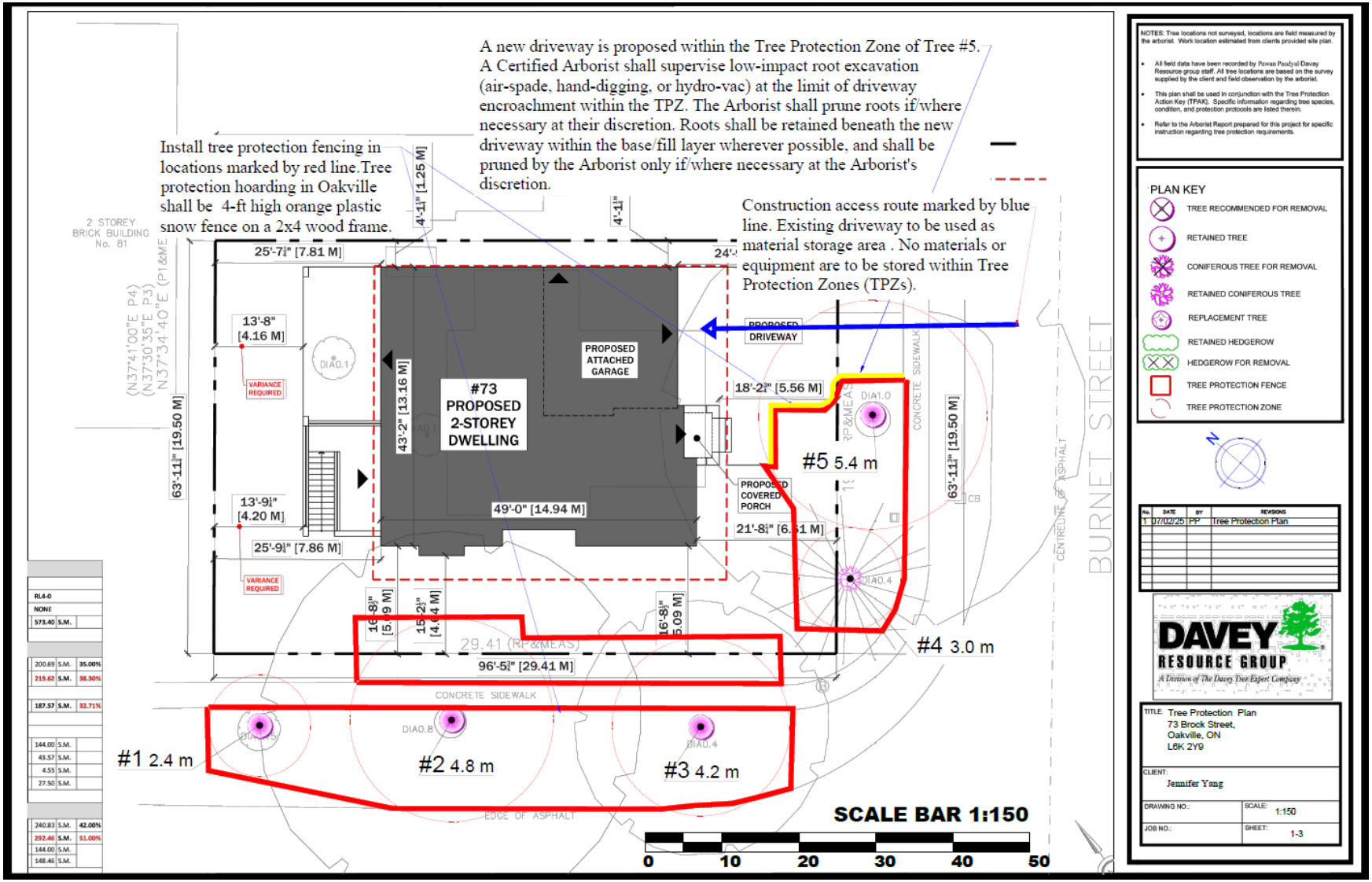
*Where,*

***Basic Tree Cost = Replacement Cost + (Base Price per Area * (Difference in Adjusted Trunk Area and Adjusted Trunk Replacement Area***

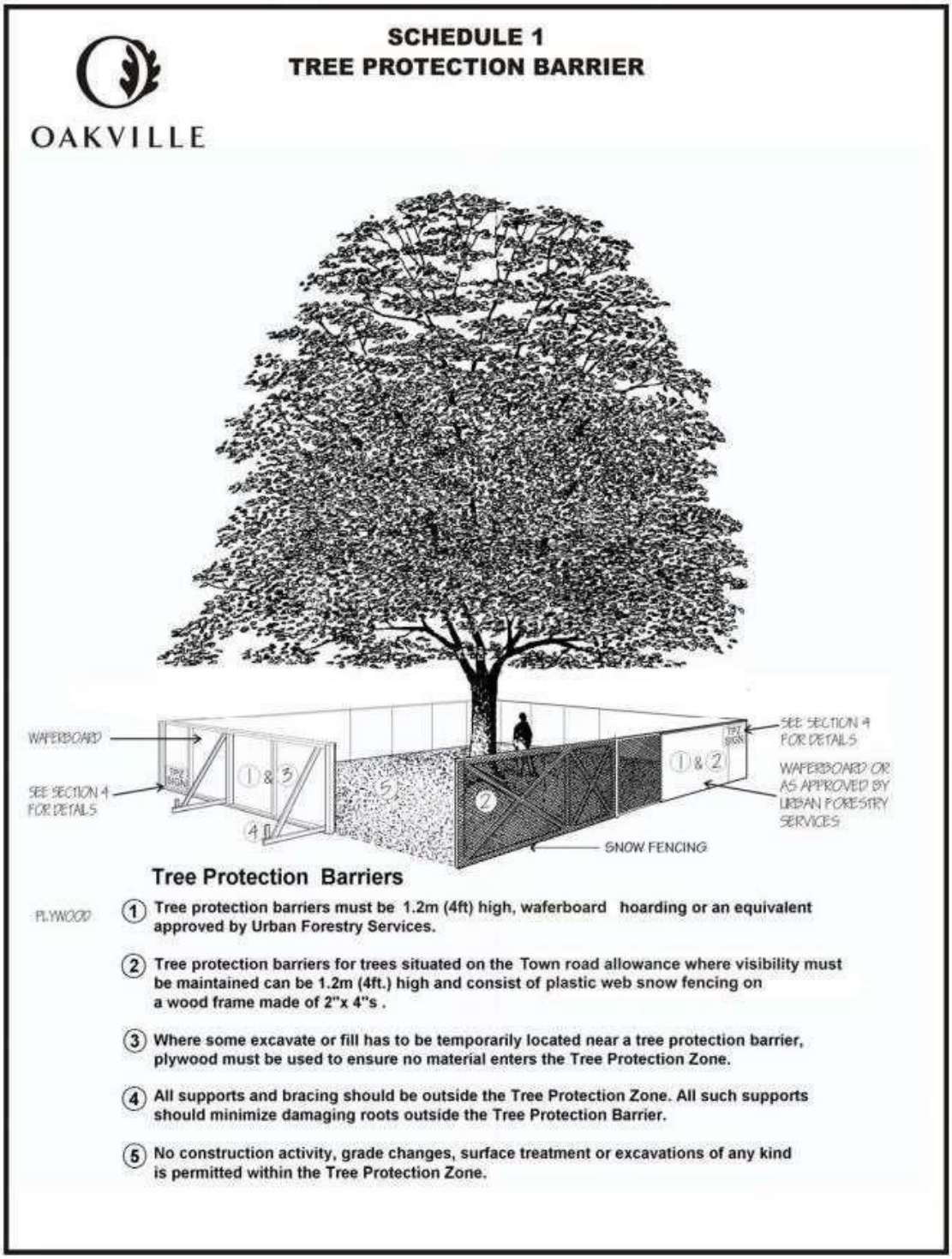
**Tree Appraisal Value Table**

| Tree # | Common Name | Botanical | CONDITION | DBH | Functional Limitations | Condition Rating | External Limitations | Replacement Trunk Size (cm) | Replacement Tree Cost | Installation Cost | Replacement Trunk Area (cm2) | Appraised Trunk Area | Appraised Trunk Increase | **Appraised Value** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | red oak | *Quercus rubra* | Good | 12 | 0.8 | 0.8 | 0.8 | 5 | $210 | $300 | 19.63 | 113.04 | 93.41 | **$880.12** |
| 2 | norway maple | *Acer platanoides* | Good | 71 | 0.6 | 0.6 | 0.6 | 5 | $210 | $300 | 19.63 | 3957.19 | 3937.55 | **$9,251.91** |
| 3 | norway maple | *Acer platanoides* | Good | 64 | 0.6 | 0.6 | 0.6 | 5 | $210 | $300 | 19.63 | 3215.36 | 3195.73 | **$7,538.17** |
| 4 | norway spruce | *Picea abies* | Good | 42 | 0.6 | 0.6 | 0.6 | 5 | $160 | $300 | 19.63 | 1384.74 | 1365.11 | **$2,536.68** |
| 5 | norway maple | *Acer platanoides* | Good | 85 | 0.6 | 0.6 | 0.6 | 5 | $210 | $300 | 19.63 | 5671.63 | 5651.99 | **$13,212.55** |
| | | | | | | | | | | | | | **Total** | **$33,419.44** |

## Appendix 3 – Tree Protection Plan (TPP) (Preview – to be printed to scale)



# Appendix 4 – Tree Protection Fencing (TPF) Detail



## Appendix 5 – Tree Protection Zone (TPZ) Sign Detail

**Tree Protection Zone**

No grade change, storage of materials or equipment is permitted within this area.
This tree protection barrier must not be removed without the written authorization of the Town of Oakville.
Report any contraventions to

**Contact Name** _____ **Tel No.** _____
Unauthorized removal of the tree protection barrier or other contraventions may result in prosecution.

## Appendix 6 – References

1. ISA, 2001-2011. Best Management Practices, Books 1-9, Companion publications to ANSI A300 Standards for Tree Care
2. Dujesiefken, Dr. Dirk, 2012. Director of the Institute for Tree Care in Germany, The CODIT Principle, research presented on cambial regrowth on trees after injury at the Annual ISA Conference in Kingston Ontario
3. Sinclair and Lyon, 2005. Diseases of Trees and Shrubs, Second Edition
4. ISA, 2010. Glossary of Arboricultural Terms
5. Neely and Watson, ISA, 1994 and 1998. The Landscape Below Ground 1 and 2
6. Matheny and Clark, ISA, 1994. A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas, 2nd Edition
7. Matheny and Clark, ISA 1998. Trees and Development, A Technical Guide to Preservation of Tree During Land Development
8. PNW-ISA, 2011. Tree Risk Assessment in Rural Areas and Urban/Rural Interface, Version 1-5
9. Todd Hurt & Bob Westerfield, 2005.Tree Protection During Construction and Landscaping Activities

## Appendix 7 – Glossary of Common Arboricultural Terms

| | |
|---|---|
| Arborist | A professional who possesses the technical competence gained through experience and related training to provide for or supervise the management of trees and other woody plants in residential, commercial, and public landscapes. |
| ANSI A300 | Acronym for American National Standards Institute. In the United States, industry-developed, national consensus standards of practice for tree care. |
| Bark Tracing | Cutting away torn or injured bark to leave a smooth edge. |
| Branch Bark Ridge | Raised strip of bark at the top of a branch union, where the growth and expansion of the trunk or parent stem and adjoining branch push the bark into a ridge. |
| Callus wood | Undifferentiated tissue formed by the cambium, usually as the result of wounding. |
| Clinometer | A device used to calculate the height of trees. |
| Consulting Arborist | An Arboricultural consultant is one of the following:<br>• American Society of Consulting Arborists, Registered Consulting Arborist (ASCA RCA#___)<br>• International Society of Arboriculture, Board Certified Master Arborist (ISA BCMA #_____B)<br>• ISA Certified Arborist/Municipal Specialist in good standing for a minimum of 6 years with 6 years of proven experience in a management role related to arboriculture, and has attested and signed to a code of ethics related to arboriculture (ISA#_____) |
| Compartmentalization | Natural defense process in trees by which chemical and physical boundaries are created that act to limit the spread of disease and decay organisms |
| Critical Root Zone – (CRZ) | Area of soil around a tree where the minimum amounts of roots considered critical to the structural stability or health of the tree are located. CRZ determination is sometimes based on the drip line or a multiple of dbh (12:1, 12cm of ground distance from the trunkfor every cm of dbh) but because root growth is often asymmetric due to site conditions, on-site investigation is preferred. |
| Daylighting | Also known as Hydro-vac, this is the process by which soil is vacuumed up. In the context of tree care this allows workers to access the soil below the roots without mortaldamage to significant roots. |
| DBH | Acronym for tree diameter at breast height. Measured at 1.4m above ground. |
| Decurrent | Rounded or spreading growth habit of the tree crown. |
| Directional Pruning | Providing clearance by pruning branches that could significantly affect the integrity of utility facilities or other structures and leaving in place branches that could have little or no effect. |
| Dripline | Imaginary line defined by the branch spread of a single parent or group of plants |

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| Excurrent | Tree growth habit characterized by a central leader and a pyramidal crown. |
| Included bark | Bark that becomes embedded in a crotch (union) between branch and trunk or between codominant stems. Causes a weak structure. |
| Lion's Tailing | Poor pruning practice in which an excessive number of branches are thinned from the inside and lower part of specific limbs or a tree crown, leaving mostly terminal foliage. Results in poor branch taper, poor wind load distribution, and higher risk of branch failure. |
| MTPZ | Acronym for Minimum Tree Protection Zone, also known as the Structural Root Zone (SRZ), which is the distance from the tree equal to 6 times the dbh, within which the likelihood of encountering roots that are structural supports for the tree. |
| Moment | Rotational force that is created by any line force on a body. The magnitude of a moment is defined as the product of the force magnitude and perpendicular distance from the line of action of the force to the axis of which the moment is being calculated. |
| Mortality Spiral | A sequence of stressful events or conditions causing the decline and eventual death of atree. |
| Mulch | Material that is spread of sometimes sprayed on the soil surface to reduce weed growth, to retain soil moisture and moderate temperature extremes, to reduce compaction from pedestrian traffic or to prevent damage from lawn-maintenance equipment, to reduce erosion or soil spattering onto adjacent surfaces, to improve soil quality through its eventual decomposition, and/or to improve aesthetic appearance of the landscape. Mulch can be composed of chipped, ground, or shredded organic material such as bark, wood, or recycled paper; unmodified organic material such as seed hulls; organic fiber blankets or mats; or inorganic material such as plastic sheeting. |
| Organic Matter | Material derived from the growth (and death) of living organisms. The organic components of the soil. |
| CRZ | Acronym for Critical Root Zone, also known as the Critical Root Zone (see definition above), within which there is a high likelihood of encountering roots that are necessary for the survival for the tree. |
| Project Arborist | The consulting arborist retained to provide all tree preservation recommendations to the project manager or contractors on a given construction project. |
| Qualified Arborist | An arborist who has documented related training (i.e. ISA, MTCU, or equivalent) and on-the-job experience (minimum of 5 years) |
| Radial trenching | Technique for aerating the soil or alleviating compaction around a tree by removing and replacing soil (which may be amended) in trenches (typically 300mm deep and 150mm wide) made in a spoke like pattern (radially from the trunk) in the root zone to improve conditions for root growth. |
| Reaction Wood | Wood formed in leaning or crooked stems or on lower or upper sides of branches as a |

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| | means of counteracting the effects of gravity. |
| Removal Cut | A cut that removes a branch at its point of origin. Collar cut. |
| Reduction Cut | A pruning cut that reduces the length of a branch or stem back to a lateral branch large enough to assume apical dominance. |
| Resistograph® | A brand name of a device consisting of a specialized micro-drill bit that drills into trees and graphs density differences that are used to detect decay. |
| Soft-Scaped | Landscaping practices that do not involved solid or deeply dug foundations. Patios consisting of slab rocks laid on-top of the soil with minimal excavation and base (less than 10cm) and causing minimal damage to existing tree roots. |
| Static Support System | Cabling system that utilizes rigid materials such as rods and steel cables to limit movement and provide constant support of limbs. |
| Structural cells | Modular system consisting of units of soil and integrated support structures that serve both as a foundation for paved surfaces and a hospitable environment for tree root growth, |
| Structural pruning | Pruning to establish a strong arrangement or system of scaffold branches. |
| Structural Soil™ | Pavement substrate that can be compacted to meet engineering specifications yet remains penetrable be tree roots in the urban environment. Composed of angular crushed stone, clay loam, and hydrogel mixed in a weight ratio of 100:20:0.03. Developed at the Urban Horticulture Institute, Cornell University, Ithaca, NY. |
| Supersonic Air Excavation Techniques (SSAT) | A methodology using a device that directs a jet of highly compressed air to excavate soil. Used within the root zone of trees to avoid or minimizing damage to the roots, or near underground structures such as pipes and wires to avoid or minimize damage to them. |
| Tree Protection Zone (TPZ) | Defined area within which certain activities are prohibited or restricted to prevent or minimize potential injury to designated trees, especially during construction. TPZ is sometimes based on a minimum multiple of dbh (e.g. 6:1, 6cm of ground distance from the trunk for 1cm of dbh) |
| Walls | Trees have 4 walls in a process known as compartmentalization.<br>• Wall 1 prevents decay moving up and down in a tree<br>• Wall 2 prevents decay moving inward in a tree<br>• Wall 3 prevents decay moving laterally in a tree<br>• Wall 4 is the new growth formed on the outside of the tree, callus growth. |
| Woundwood | Lignified, differentiated tissues produced on woody plants after wounding. |

# Appendix 8 – Arborist Qualifications

Pawan Paudyal is a Consulting Arborist with Davey Resource Group. His formal education includes a Bachelor of Science in forestry from Hemwati Nandan Bahuguna Garhwal University, India and a Master in forest Ecology and Management from Helsinki University. Mr. Paudyal has 10 years of varied work experience in forestry, climate change and environment assessment fields. Mr. Paudyal has worked with DRG as Consulting Arborist.

# Appendix 9 – Photographs

*Figure 1 Tree #1*

*Figure 2 Tree #2*

*Figure 3 Tree #3*

*Figure 4 Tree #4*

*Figure 5 Tree #5*

*Figure 6 Exiting Driveway and Construction access*

## Conditions of Assessment Agreement

This Conditions of Assessment Agreement is made pursuant to and as a provision of Davey Resource Group, a division of The Davey Tree Expert Co. of Canada, Limited ("Davey"), providing tree assessment services as agreed to between the parties, the terms and substance of which are incorporated in and made a part of this Agreement (collectively the "Services").

Trees are living organisms that are subject to stress and conditions and which inherently impose some degree or level of risk. Unless a tree is removed, the risk cannot be eliminated entirely. Tree conditions may also change over time even if there is no external evidence or manifestation. In that Davey provides the Services at a point in time utilizing applicable standard industry practices, any conclusions and recommendations provided are relevant only to the facts and conditions at the time the Services are performed. Given that Davey cannot predict or otherwise determine subsequent developments, Davey will not be liable for any such developments, acts, or conditions that occur including, but not limited to, decay, deterioration, or damage from any cause, insect infestation, acts of god or nature or otherwise.

Unless otherwise stated in writing, assessments are performed visually from the ground on the above-ground portions of the tree(s). However, the outward appearance of trees may conceal defects. **Therefore, to the extent permitted by law, Davey does not make and expressly disclaims any warranties or representations of any kind, express or implied, with respect to completeness or accuracy of the information contained in the reports or findings resulting from the Services beyond that expressly contracted for by Davey in writing, including, but not limited to, performing diagnosis or identifying hazards or conditions not within the scope of the Services or not readily discoverable using the methods applied pursuant to applicable standard industry practices.** Further, Davey's liability for any claim, damage or loss caused by or related to the Services shall be limited to the work expressly contracted for.

In performing the Services, Davey may have reviewed publicly available or other third- party records or conducted interviews and has assumed the genuineness of such documents and statements. Davey disclaims any liability for errors, omissions, or inaccuracies resulting from or contained in any information obtained from any third- party or publicly available source.

Except as agreed to between the parties prior to the Services being performed, the reports and recommendations resulting from the Services may not be used by any other party or for any other purpose. The undersigned also agrees, to the extent permitted by law, to protect, indemnify, defend and hold Davey harmless from and against any and all claims, demands, actions, rights and causes of action of every kind and nature, including actions for contribution or indemnity, that may hereafter at any time be asserted against Davey or another party, including, but not limited to, bodily injury or death or property damage arising in any manner from or in any way related to any disclaimers or limitations in this Agreement.

By accepting or using the Services, the customer will be deemed to have agreed to the terms of this Agreement, even if it is not signed.

Acknowledged by:

Name of Customer: _____

Authorized Signature: _____

Date: _____

Install tree protection fencing in locations marked by red line.Tree protection hoarding in Oakville shall be 4-ft high orange plastic snow fence on a 2x4 wood frame.

A new driveway is proposed within the Tree Protection Zone of Tree #5. A Certified Arborist shall supervise low-impact root excavation (air-spade, hand-digging, or hydro-vac) at the limit of driveway encroachment within the TPZ. The Arborist shall prune roots if/where necessary at their discretion. Roots shall be retained beneath the new driveway within the base/fill layer wherever possible, and shall be pruned by the Arborist only if/where necessary at the Arborist's discretion.

Construction access route marked by blue line. Existing driveway to be used as material storage area . No materials or equipment are to be stored within Tree Protection Zones (TPZs).

2 STOREY BRICK BUILDING No. 81

(N37°41'00"E P4)
(N37°30'35"E P3)
N37°34'40"E (P1&ME

63'-11¾" [19.50 M]

4'-1¼" [1.25 M]

25'-7¼" [7.81 M]

13'-8" [4.16 M]

VARIANCE REQUIRED

43'-2" [13.16 M]

PROPOSED ATTACHED GARAGE

#73 PROPOSED 2-STOREY DWELLING

PROPOSED DRIVEWAY

18'-2¾" [5.56 M]

DIA1.0

#5 5.4 m

PROPOSED COVERED PORCH

49'-0" [14.94 M]

21'-8¼" [6.61 M]

13'-9¼" [4.20 M]

25'-9¼" [7.86 M]

VARIANCE REQUIRED

16'-8½" [5.09 M]

15'-2½" [4.64 M]

16'-8½" [5.09 M]

29.41 (RP&MEAS)

96'-5¾" [29.41 M]

#4 3.0 m

CONCRETE SIDEWALK

DIA0.8

#1 2.4 m

#2 4.8 m

DIA0.4

#3 4.2 m

EDGE OF ASPHALT

CENTRELINE OF ASPHALT

BURNET STREET

CONCRETE SIDEWALK

CB

SCALE BAR 1:150

0 10 20 30 40 50

| | | |
|---|---|---|
| RL4-0 | | |
| NONE | | |
| 573.40 | S.M. | |
| | | |
| 200.69 | S.M. | 35.00% |
| 219.62 | S.M. | 38.30% |
| | | |
| 187.57 | S.M. | 32.71% |
| | | |
| 144.00 | S.M. | |
| 43.57 | S.M. | |
| 4.55 | S.M. | |
| 27.50 | S.M. | |
| | | |
| 240.83 | S.M. | 42.00% |
| 292.46 | S.M. | 51.00% |
| 144.00 | S.M. | |
| 148.46 | S.M. | |

NOTES: Tree locations not surveyed, locations are field measured by the arborist. Work location estimated from clients provided site plan.

- All field data have been recorded by Pawan Paudyal Davay Resource group staff. All tree locations are based on the survey supplied by the client and field observation by the arborist.
- This plan shall be used in conjunction with the Tree Protection Action Key (TPAK). Specific information regarding tree species, condition, and protection protocols are listed therein.
- Refer to the Arborist Report prepared for this project for specific instruction regarding tree protection requirements.

PLAN KEY

- TREE RECOMMENDED FOR REMOVAL
- RETAINED TREE
- CONIFEROUS TREE FOR REMOVAL
- RETAINED CONIFEROUS TREE
- REPLACEMENT TREE
- RETAINED HEDGEROW
- HEDGEROW FOR REMOVAL
- TREE PROTECTION FENCE
- TREE PROTECTION ZONE

N

| No. | DATE | BY | REVISIONS |
|---|---|---|---|
| 1 | 07/02/25 | PP | Tree Protection Plan |

DAVEY RESOURCE GROUP
A Division of The Davey Tree Expert Company

TITLE: Tree Protection Plan
73 Brock Street,
Oakville, ON
L6K 2Y9

CLIENT: [redacted]

DRAWING NO.:

SCALE: 1:150

JOB NO.:

SHEET: 1-3

| Tree Map Number | Common name | Botanical | DBH (cm) @ 1.4 m | Tree Ownership | Minimum Tree Protection Distance (m) | Health | Structure | Overall Condition | Tree Height (m) | Crown Width (m) | Live Crown Ratio (%) | Deadwood (%) | Construction inside Min TPZ? (Y/N) | Construction Impact (None, Low, Medium, High) | Action | Permit Required? (Y/N) | Recommendations and Observations |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | red oak | *Quercus rubra* | 12 | City | 2.4 | Good | Good | Good | 5 | 4 | 65 | 0 | N | None | Preserve | N | |
| 2 | norway maple | *Acer platanoides* | 71 | City | 4.8 | Fair | Good | Fair | 25 | 20 | 50 | 0 | N | None | Preserve | N | Utility prune |
| 3 | norway maple | *Acer platanoides* | 64 | City | 4.2 | Fair | Good | Fair | 25 | 20 | 50 | 0 | N | None | Preserve | N | Utility prune |
| 4 | norway spruce | *Picea abies* | 42 | City | 3.0 | Fair | Good | Fair | 13 | 9 | 50 | 10 | N | None | Preserve | N | Dead Branches |
| 5 | norway maple | *Acer platanoides* | 85 | City | 5.4 | Good | Fair | Fair | 25 | 20 | 50 | 10 | Y | Medium | Injure | Y | The proposed driveway encroaches within the TPZ Codominant stems and dead branches |

NOTES: Tree locations not surveyed, locations are field measured by the arborist. Work location estimated from clients provided site plan.

- All field data have been recorded by Pawan Paudyal Davay Resource group staff. All tree locations are based on the survey supplied by the client and field observation by the arborist.
- This plan shall be used in conjunction with the Tree Protection Action Key (TPAK). Specific information regarding tree species, condition, and protection protocols are listed therein.
- Refer to the Arborist Report prepared for this project for specific instruction regarding tree protection requirements.

PLAN KEY

- TREE RECOMMENDED FOR REMOVAL
- RETAINED TREE
- CONIFEROUS TREE FOR REMOVAL
- RETAINED CONIFEROUS TREE
- REPLACEMENT TREE
- RETAINED HEDGEROW
- HEDGEROW FOR REMOVAL
- TREE PROTECTION FENCE
- TREE PROTECTION ZONE

N

| No. | DATE | BY | REVISIONS |
|---|---|---|---|
| 1 | 07/02/25 | PP | Tree Protection Plan |

DAVEY RESOURCE GROUP
*A Division of The Davey Tree Expert Company*

TITLE: Tree Protection Plan
73 Brock Street,
Oakville, ON
L6K 2Y9

CLIENT: [redacted]

DRAWING NO.:

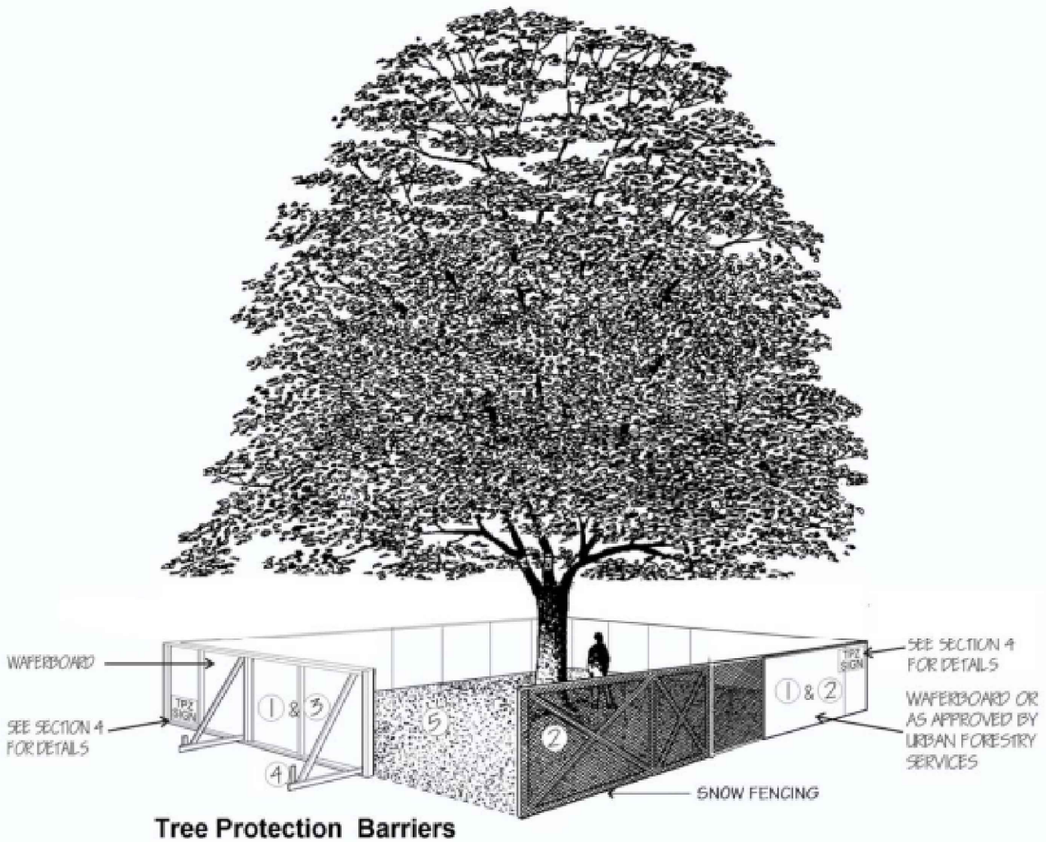
SCALE: 1:150

JOB NO.:

SHEET: 2-3

OAKVILLE

# SCHEDULE 1
# TREE PROTECTION BARRIER




## Tree Protection Barriers

PLYWOOD

1. Tree protection barriers must be 1.2m (4ft) high, waferboard hoarding or an equivalent approved by Urban Forestry Services.
2. Tree protection barriers for trees situated on the Town road allowance where visibility must be maintained can be 1.2m (4ft.) high and consist of plastic web snow fencing on a wood frame made of 2"x 4"s .
3. Where some excavate or fill has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the Tree Protection Zone.
4. All supports and bracing should be outside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
5. No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

NOTES: Tree locations not surveyed, locations are field measured by the arborist. Work location estimated from clients provided site plan.

- All field data have been recorded by Pawan Paudyal Davay Resource group staff. All tree locations are based on the survey supplied by the client and field observation by the arborist.
- This plan shall be used in conjunction with the Tree Protection Action Key (TPAK). Specific information regarding tree species, condition, and protection protocols are listed therein.
- Refer to the Arborist Report prepared for this project for specific instruction regarding tree protection requirements.

PLAN KEY

- TREE RECOMMENDED FOR REMOVAL
- RETAINED TREE
- CONIFEROUS TREE FOR REMOVAL
- RETAINED CONIFEROUS TREE
- REPLACEMENT TREE
- RETAINED HEDGEROW
- HEDGEROW FOR REMOVAL
- TREE PROTECTION FENCE
- TREE PROTECTION ZONE

N

| No. | DATE | BY | REVISIONS |
|---|---|---|---|
| 1 | 07/02/25 | PP | Tree Protection Plan |

DAVEY RESOURCE GROUP
*A Division of The Davey Tree Expert Company*

TITLE: Tree Protection Plan
73 Brock Street,
Oakville, ON
L6K 2Y9

CLIENT: [redacted]

| DRAWING NO.: | SCALE: 1:150 |
|---|---|
| JOB NO.: | SHEET: 3-3 |