

# Memorandum to the City of Markham Committee of Adjustment

November 11, 2020

**File:** A/086/20  
**Address:** 6 Sherwood Forest Drive – Markham, ON  
**Applicant:** Qi Zhou  
**Agent:** Prohome Consulting Inc.  
**Hearing Date:** Wednesday November 18, 2020

The following comments are provided on behalf of the East Team.

The applicant is requesting relief from the following requirements of the “Residential (R2)” zone under By-law 1229, as amended (“the By-law”), as it relates to a proposed two-storey detached dwelling, to permit:

**a) By-law 99-90, Section 1.2 (vi):**

a maximum floor area ratio of 49.79%, whereas the By-law permits maximum floor area ratio of 45.0%.

## **BACKGROUND**

### **Property Description**

The 613.16 m<sup>2</sup> (6600.0 ft<sup>2</sup>) subject property is located on the south side of Sherwood Forest Drive, west of Robinson Street, and north of Highway 7 East. There is an existing one-storey single detached dwelling, with a total of five mature trees located on the property, and six neighbouring trees with canopies that overhang onto the subject property. The property is located within an established residential neighbourhood which is comprised of a mix of one and two-storey single detached and semi-detached dwellings with mature vegetation that is a predominant characteristic along Sherwood Forest Drive. The surrounding area is undergoing a transition with newer dwellings being developed as infill developments.

### **Proposal**

The applicant is proposing to demolish the existing dwelling, and construct a two-storey single detached dwelling with an attached two-car garage. The proposed dwelling would have an approximate ground floor area of 179.21 m<sup>2</sup> (1,929.0 ft<sup>2</sup>) inclusive of the garage and a second floor area of 126.07 m<sup>2</sup> (1,357.0 ft<sup>2</sup>), for a total gross floor area of 305.28 m<sup>2</sup> (3,286.0 ft<sup>2</sup>).

### **Official Plan and Zoning**

Official Plan 2014 (partially approved on November 24/17, and updated on April 9/18)

The subject property is designated “Residential Low Rise”, which provides for low rise housing forms including single detached dwellings. Section 8.2.3.5 of the Official Plan outlines development criteria for the “Residential Low Rise” designation with respect to height, massing and setbacks. This criteria is established to ensure that the development is appropriate for the site and generally consistent with the zoning requirements for adjacent properties and properties along the same street. In considering applications for development approval in a “Residential Low Rise” area, which includes variances, infill development is required to meet the general intent of these development criteria. Regard shall also be had for retention of existing trees and vegetation, the width of proposed

garages and driveways and the overall orientation and sizing of new lots within a residential neighbourhood.

#### Zoning By-Law 1229

The subject property is zoned “Residential (R2)” under By-law 1229, as amended, which permits: detached dwellings, semi-detached dwellings, converted dwellings, and duplex or two family dwellings.

#### Residential Infill Zoning By-law 99-90

The subject property is also subject to the Residential Infill Zoning By-law 99-90. The intent of the Infill By-law is to ensure the built form of new residential construction will maintain the general character of existing neighbourhoods. It specifies development standards for building depth, garage projection, garage width, floor area ratio, building height, yard setbacks, and number of storeys. The proposed development does not comply with the Infill By-law requirements with respect to maximum floor area ratio.

#### **Zoning Preliminary Review (ZPR) Not Undertaken**

The applicant has confirmed that a ZPR has not been conducted. It is the applicant’s responsibility to ensure that the application has accurately identified all the variances to the By-law required for the proposed development. If the variance request in this application contains errors, or if the need for additional variances is identified during the Building Permit review process, further variance application(s) may be required to address the non-compliance.

#### **COMMENTS**

The *Planning Act* states that four tests must be met in order for a variance to be granted by the Committee of Adjustment (“the Committee”):

- a) The variance must be minor in nature;
- b) The variance must be desirable, in the opinion of the Committee, for the appropriate development or use of land, building or structure;
- c) The general intent and purpose of the By-law must be maintained; and
- d) The general intent and purpose of the Official Plan must be maintained.

#### **Increase in Maximum Floor Area Ratio**

The applicant is requesting relief to permit a maximum floor area ratio of 49.79%, whereas the By-law permits a maximum floor area ratio of 45.0%. The variance will facilitate the construction of a two-storey detached dwelling with a maximum floor area of 305.29 m<sup>2</sup> (3,286.14 ft<sup>2</sup>), whereas the By-law permits a dwelling with a maximum floor area of 275.92 m<sup>2</sup> (2,969.98 ft<sup>2</sup>). This is an increase of approximately 29.37 m<sup>2</sup> (316.16 ft<sup>2</sup>).

Staff are of the opinion that the proposed net floor area ratio will result in a dwelling that meets the intended scale of residential infill developments for the neighbourhood, and have no objection to its approval.

#### **Tree Protection & Compensation**

The applicant submitted an arborist report and tree preservation plan which proposes to maintain one of the City owned trees (Tree #2) located in the municipal boulevard, and proposes to injure the other City owned tree (Tree #1) due to the location and width of the driveway (see Tree Preservation Plan, Appendix “C”). The submitted arborist report also

proposes to remove three trees located in the eastern interior side yard and rear yard of the property.

Any trees the applicant is proposing to injure or remove would be subject to approval by Urban Forestry staff through the Residential Infill Grading and Servicing (RIGS) application process. Urban Forestry staff may require that: certain trees be protected; tree replacements or cash-in-lieu be provided; or alternative protection measures be provided at that stage.

Urban Forestry staff expressed a specific concern with potential impacts to Tree #9 from the location of a proposed basement walkout on the subject property. Tree #9 is a mature Sugar Maple tree in the rear yard of the neighbouring property to the west, assessed as being good condition. In response, the applicant revised their plans (Appendix "B") to relocate the basement walkout further away from this tree. Urban Forestry staff are satisfied with this change. Staff recommend that all trees be subject to the tree conditions provided in Appendix "A" in the event of any approval.

### **PUBLIC INPUT SUMMARY**

One written submission was received as of November 11, 2020 by an area resident citing concern over the potential impact to Tree #9 and with the size of the proposed dwelling. As noted, the applicant has responded to address concerns over the impact of Tree #9 to the satisfaction of staff.

It is noted that additional information may be received after the writing of the report, and the Secretary-Treasurer will provide information on this at the meeting.

### **CONCLUSION**

Planning staff have reviewed the application with respect to Section 45(1) of the *Planning Act, R.S.O. 1990, c. P.13, as amended*, and are of the opinion that the variance request meets the four tests of the *Planning Act*, and have no objection. Staff recommend that the Committee consider public input in reaching a decision.

The onus is ultimately on the applicant to demonstrate why they should be granted relief from the requirements of the By-law, and how they satisfy the tests of the *Planning Act* required for the granting of minor variances.

Please see Appendix "A" for conditions to be attached to any approval of this application.

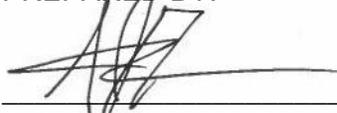
### **APPENDICES**

Appendix "A" – Conditions of Approval

Appendix "B" – Plans

Appendix "C" – Arborist Report & Tree Preservation Plan

PREPARED BY:



Aleks Todorovski, Planner, Zoning and Special Projects

REVIEWED BY:



Stephen Corr, Senior Planner, East District

**APPENDIX "A"**

**CONDITIONS TO BE ATTACHED TO ANY APPROVAL OF FILE A/086/20**

1. The variances apply only to the proposed development as long as it remains.
2. That the variances apply only to the proposed development, in substantial conformity with the plans attached as Appendix "B" to this Staff Report, and that the Secretary-Treasurer receive written confirmation from the Director of Planning and Urban Design or designate that this condition has been fulfilled to his or her satisfaction.
3. That the Arborist Report and Tree Assessment and Preservation Plan, prepared by a qualified arborist in accordance with the City's Streetscape Manual (2009), as amended, be updated to reflect the changes made in accordance with the revised batch stamped plans attached as Appendix "B", and that it be reviewed and approved by the City, and that the Secretary-Treasurer receive written confirmation from the Tree Preservation Technician or Director of Operations that this condition has been fulfilled to his or her satisfaction, and that any detailed Siting, Lot Grading and Servicing Plan required as a condition of approval reflects the Tree Assessment and Preservation Plan.
4. That prior to the commencement of construction or demolition, tree protection be erected and maintained around all trees on site including street trees, in accordance with the City's Streetscape Manual (2009) as amended, and inspected by City Staff to the satisfaction of the Tree Preservation Technician or Director of Operations, and that the Secretary-Treasurer receive written confirmation that this condition has been fulfilled to his or her satisfaction.
5. That tree replacements be provided to the City, if required in accordance with the Tree Assessment and Preservation Plan, and that the Secretary-Treasurer receive written confirmation that this condition has been fulfilled to the satisfaction of the Tree Preservation Technician or Director of Operations, and that the Secretary-Treasurer receive written confirmation that this condition has been fulfilled to his or her satisfaction.

CONDITIONS PREPARED BY:



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Aleks Todorovski, Planner, Zoning and Special Projects

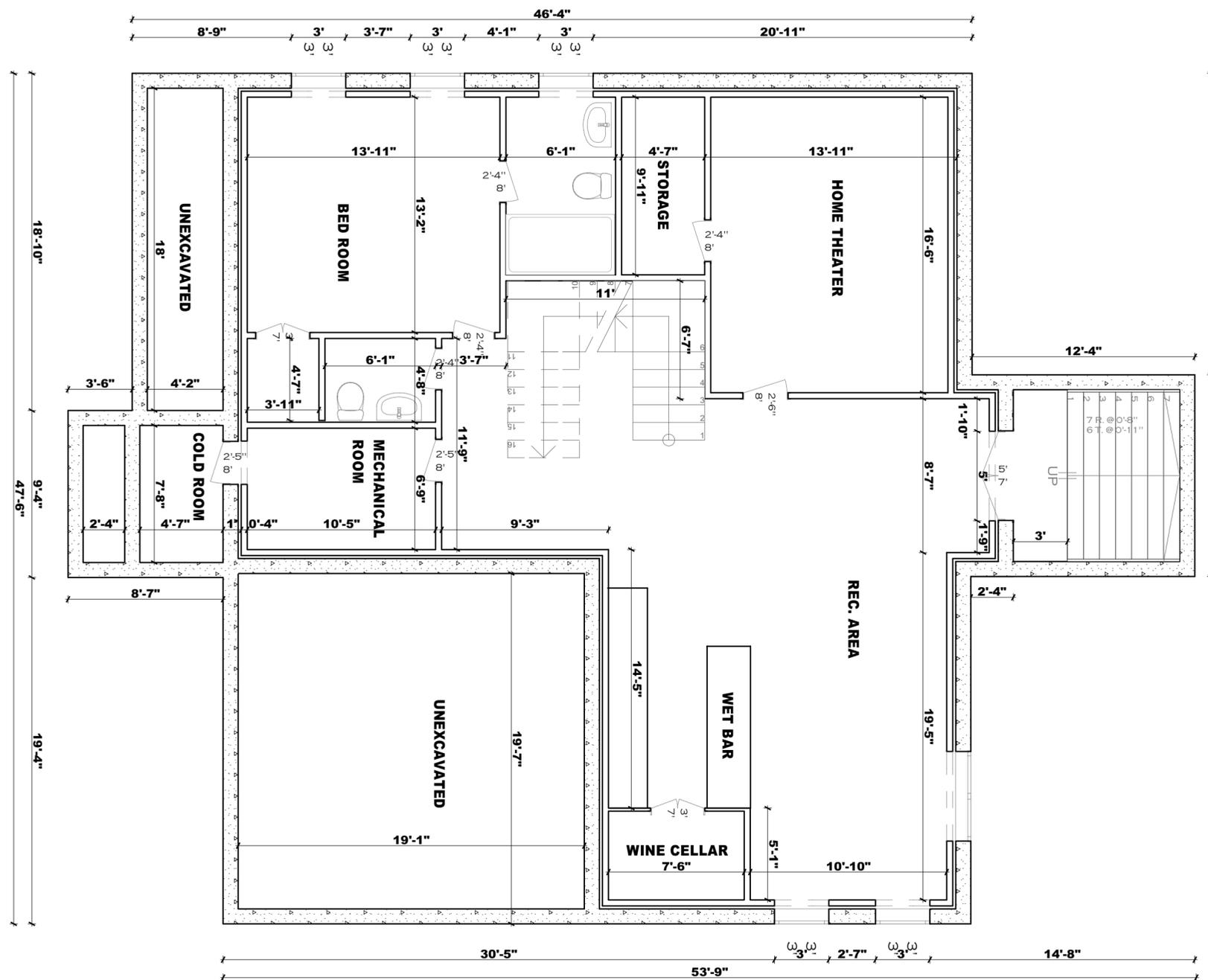
**APPENDIX "B"**  
**PLANS TO BE ATTACHED TO ANY APPROVAL OF FILE A/086/20**



**Appendix B**

File: 20.127072.000.00.MNV

Date: 11/13/20  
MM/DD/YY



DATE:	ISSUED FOR:
SEP-2020	FOR COA

FOR STRUCTURE ONLY

THE UNDERSIGN HAVE REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE DESIGNER.

VAHID EMAM JOMEH BCIN # 45213 

PROHOME DESIGN INC. BCIN # 102220

DRAWN BY:  
V.E

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LAST MODIFIED ON:  
NOVEMBER 10, 2020

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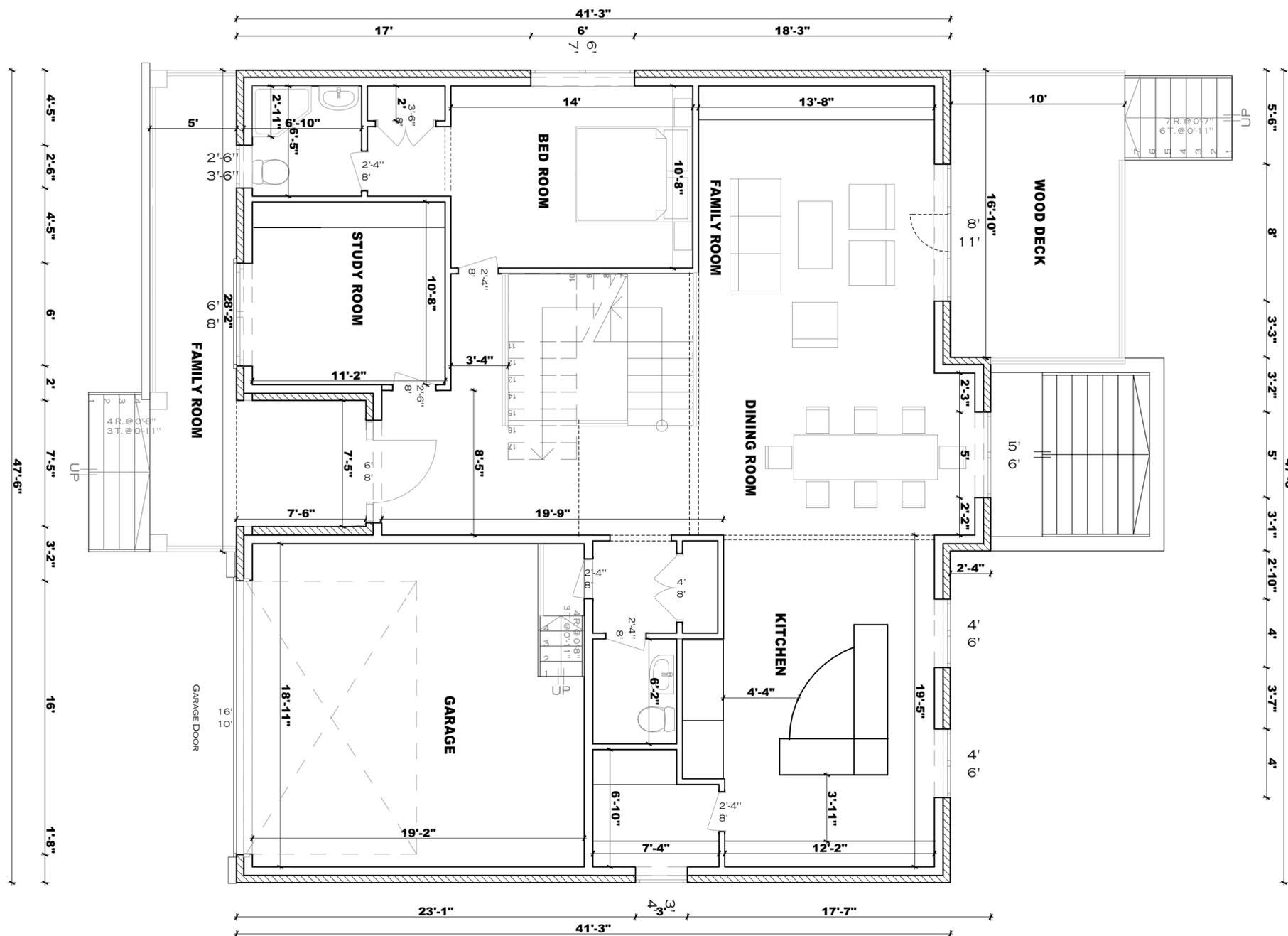
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6 SHERWOOD FOREST DRIVE,  
MARKHAM, ON

A.01

**Appendix B**

File: 20.127072.000.00.MNV

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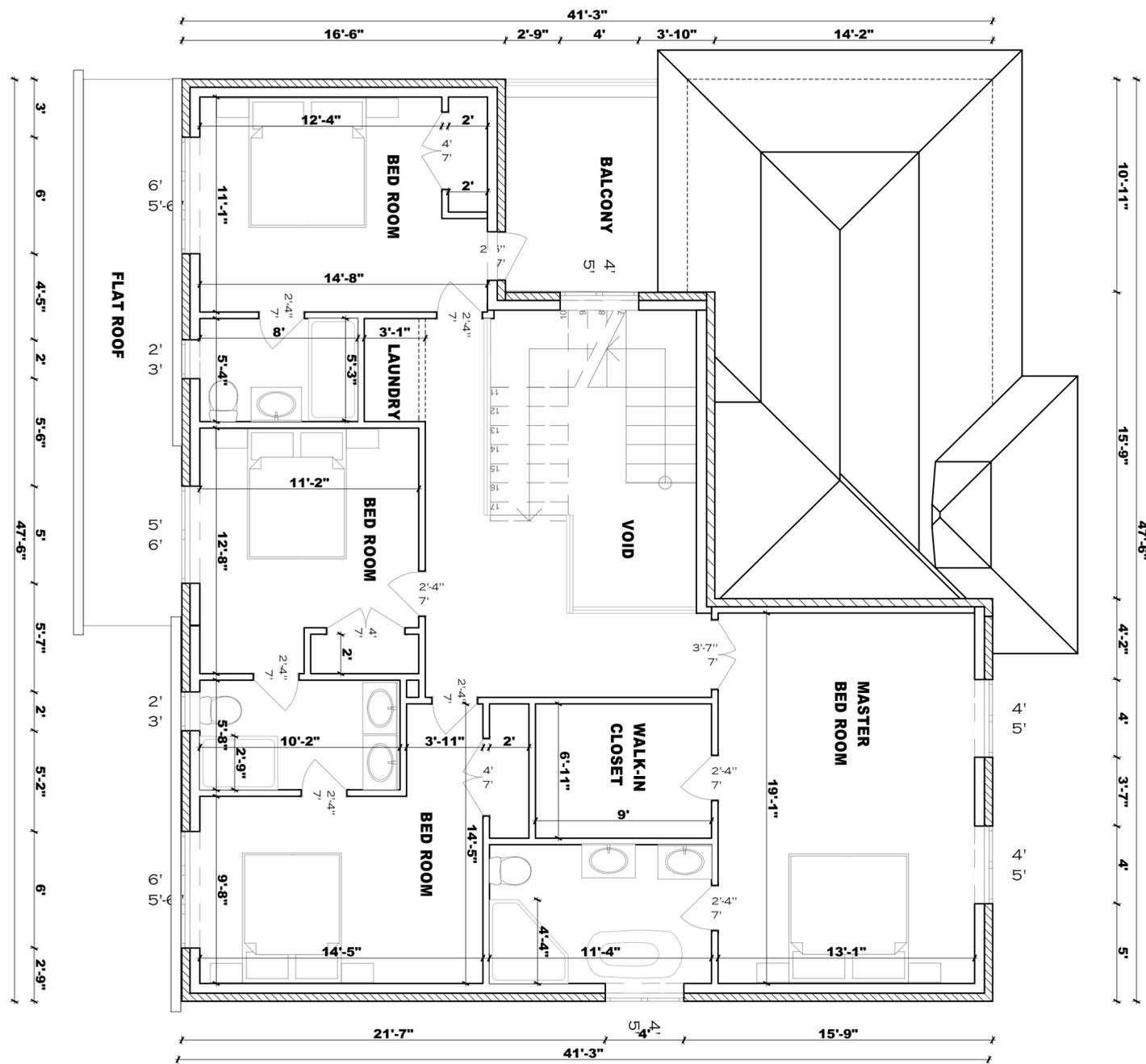
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NOVEMBER 10, 2020

DRAWING TITLE:  
GROUND FLOOR

PROJECT TITLE/ADDRESS:  
6 SHERWOOD FOREST DRIVE,  
MARKHAM, ON

A.02



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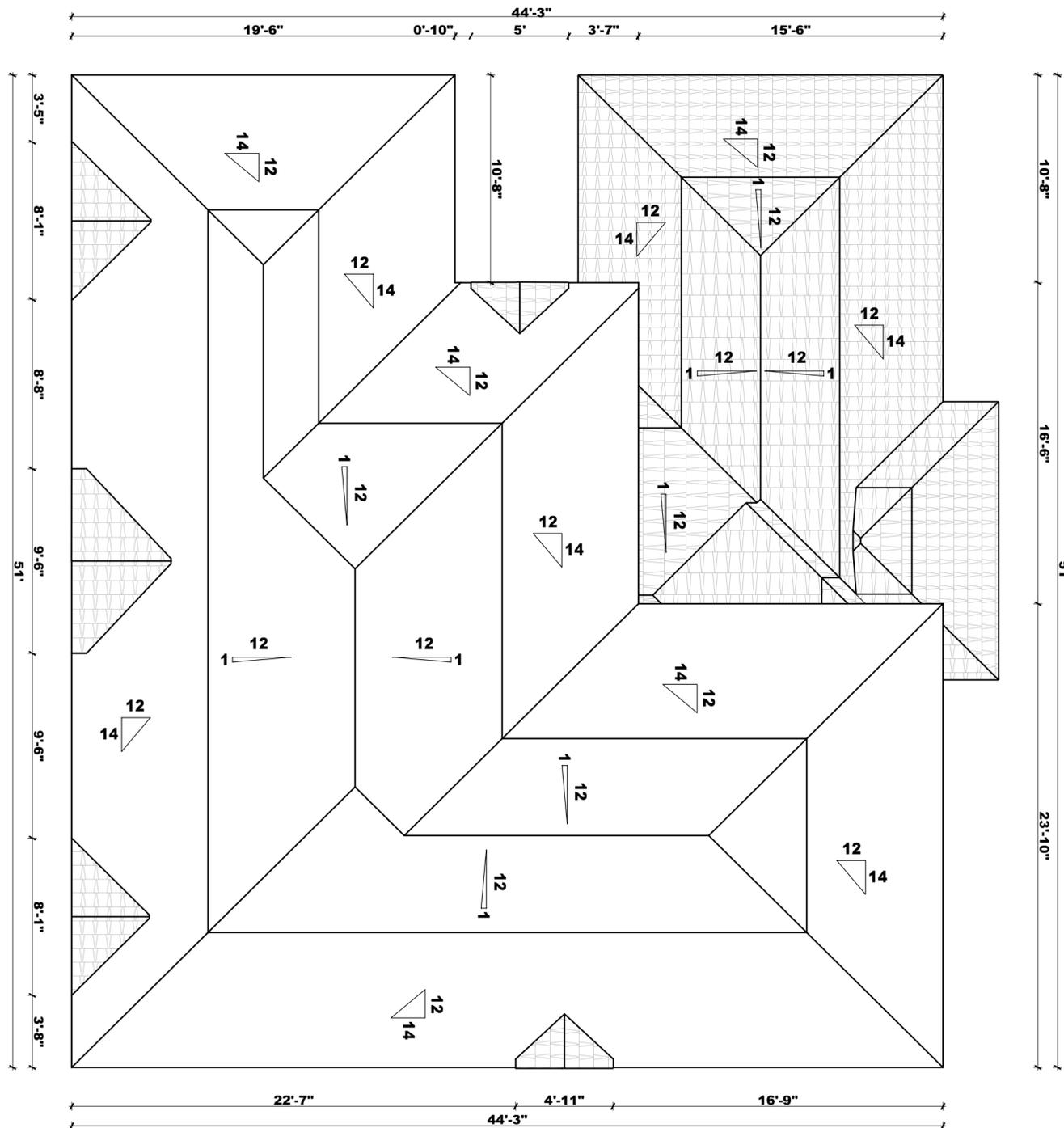
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OCTOBER 5, 2020

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SECOND FLOOR

PROJECT TITLE/ADDRESS:  
6 SHERWOOD FOREST DRIVE,  
MARKHAM, ON

A.03



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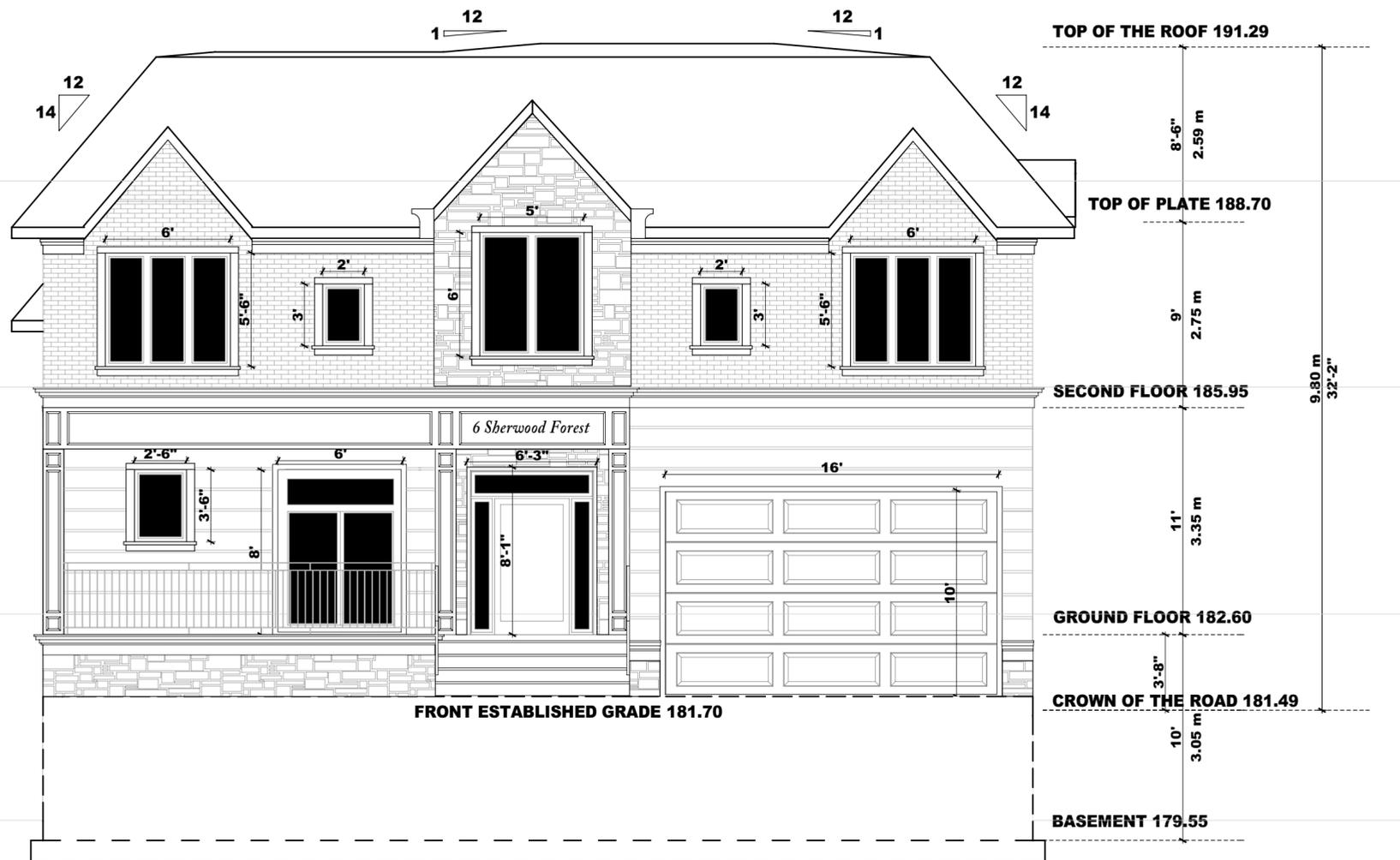
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OCTOBER 5, 2020

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ROOF

PROJECT TITLE/ADDRESS:  
6 SHERWOOD FOREST DRIVE.  
MARKHAM, ON

A.04



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LAST MODIFIED ON:  
OCTOBER 5, 2020

DRAWING TITLE:  
FRONT ELEVATION

PROJECT TITLE/ADDRESS:  
6 SHERWOOD FOREST DRIVE,  
MARKHAM, ON

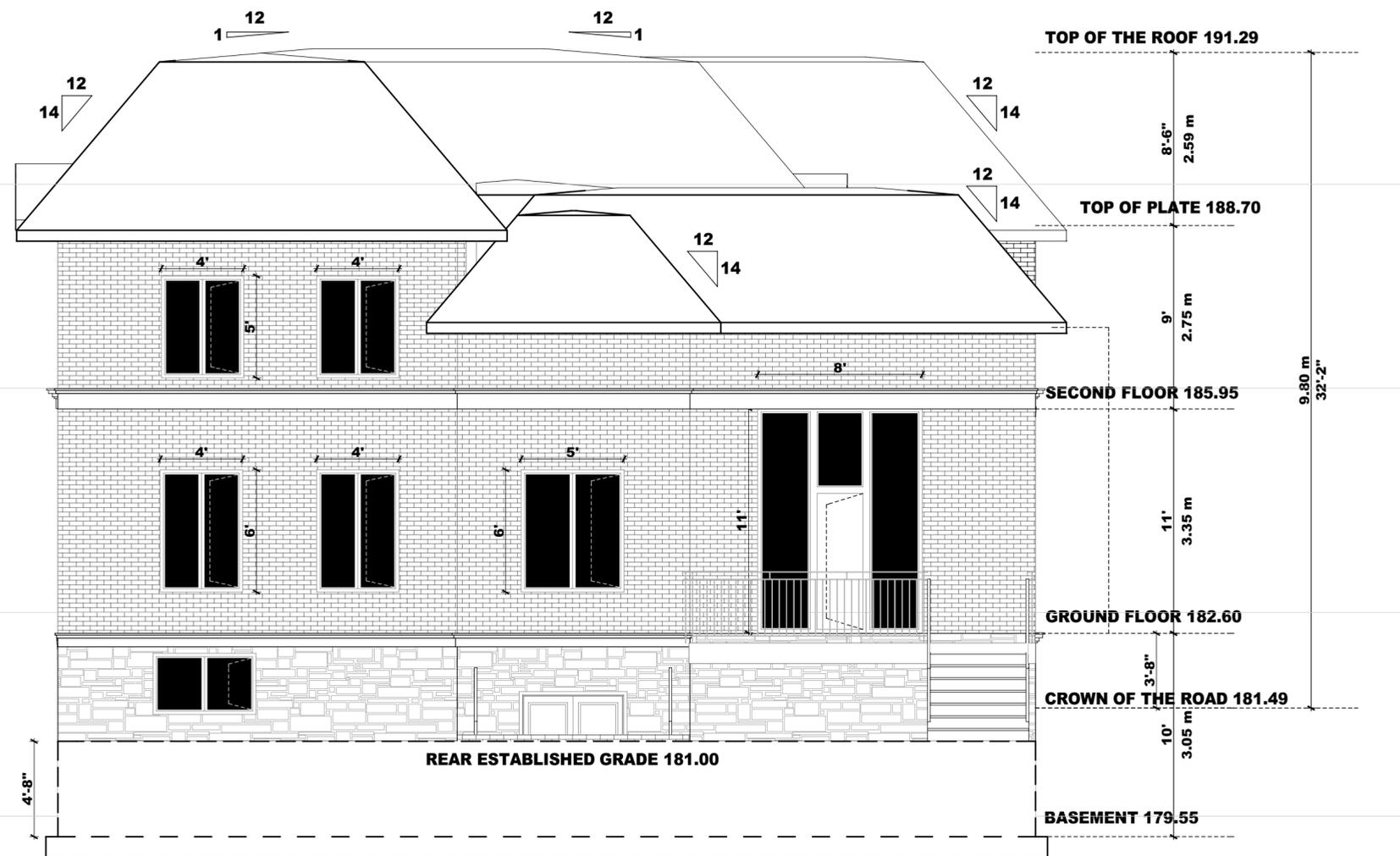
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**Appendix B**

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Date: 11/13/20

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NOVEMBER 10, 2020

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REAR ELEVATION

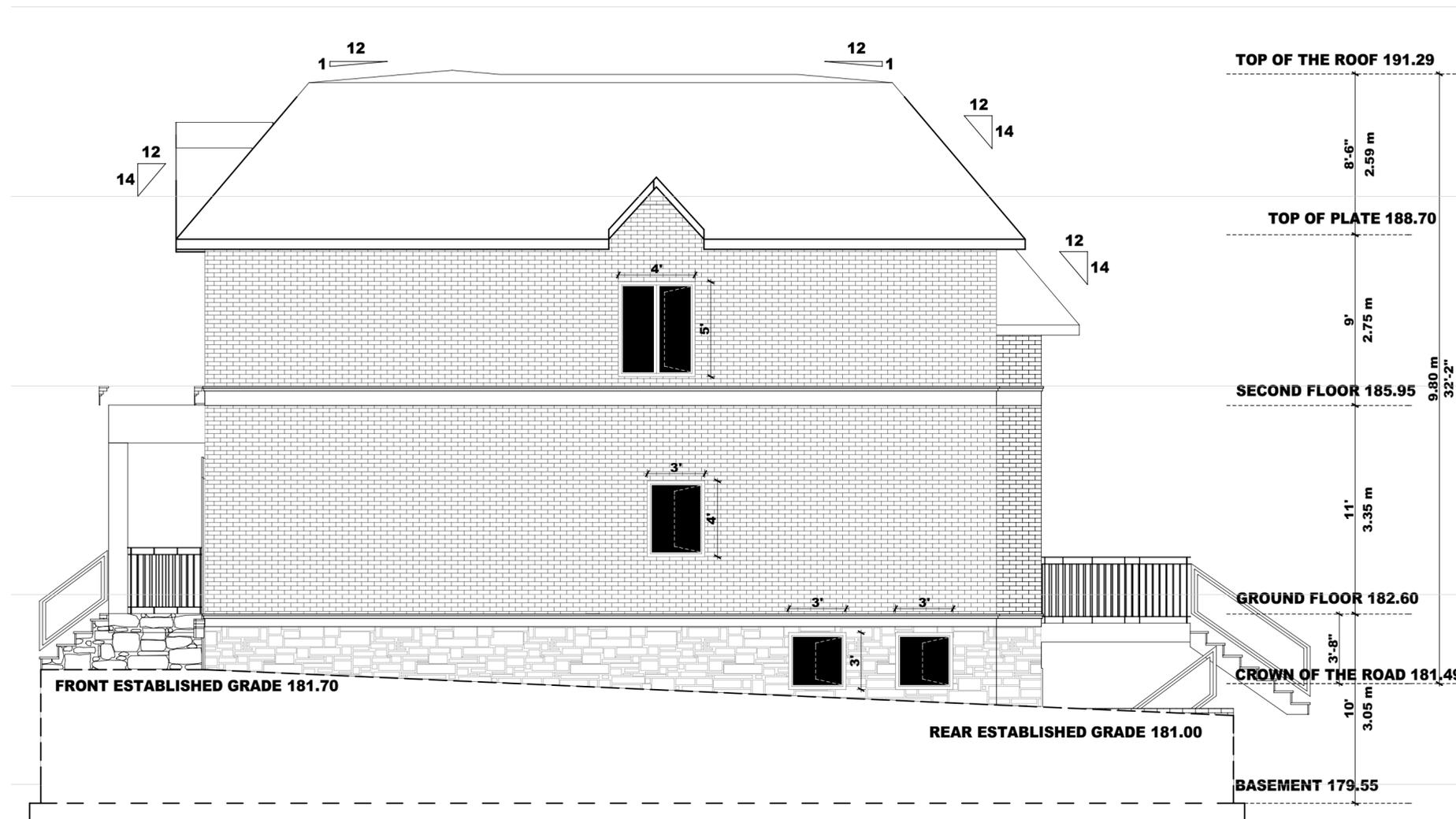
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MARKHAM, ON

A.06

**Appendix B**

File: 20.127072.000.00.MNV

Date: 11/13/20



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NOVEMBER 10, 2020

DRAWING TITLE:  
SIDE ELEVATION

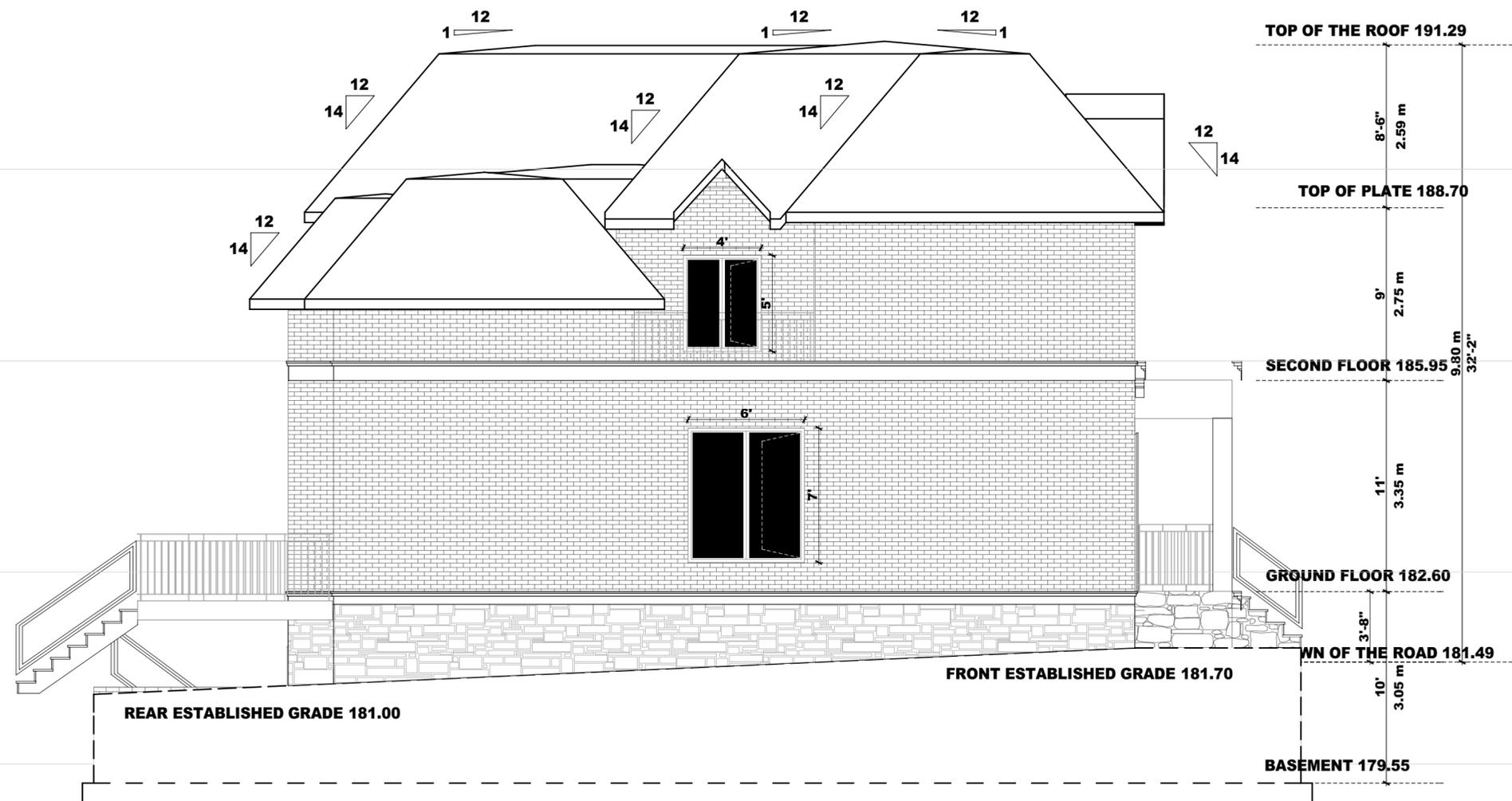
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6 SHERWOOD FOREST DRIVE.  
MARKHAM, ON

A.07

**Appendix B**

File: 20.127072.000.00.MNV

Date: 11/13/20



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PROHOME DESIGN INC. BCIN # 102220

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NOVEMBER 10, 2020

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SIDE ELEVATION

PROJECT TITLE/ADDRESS:

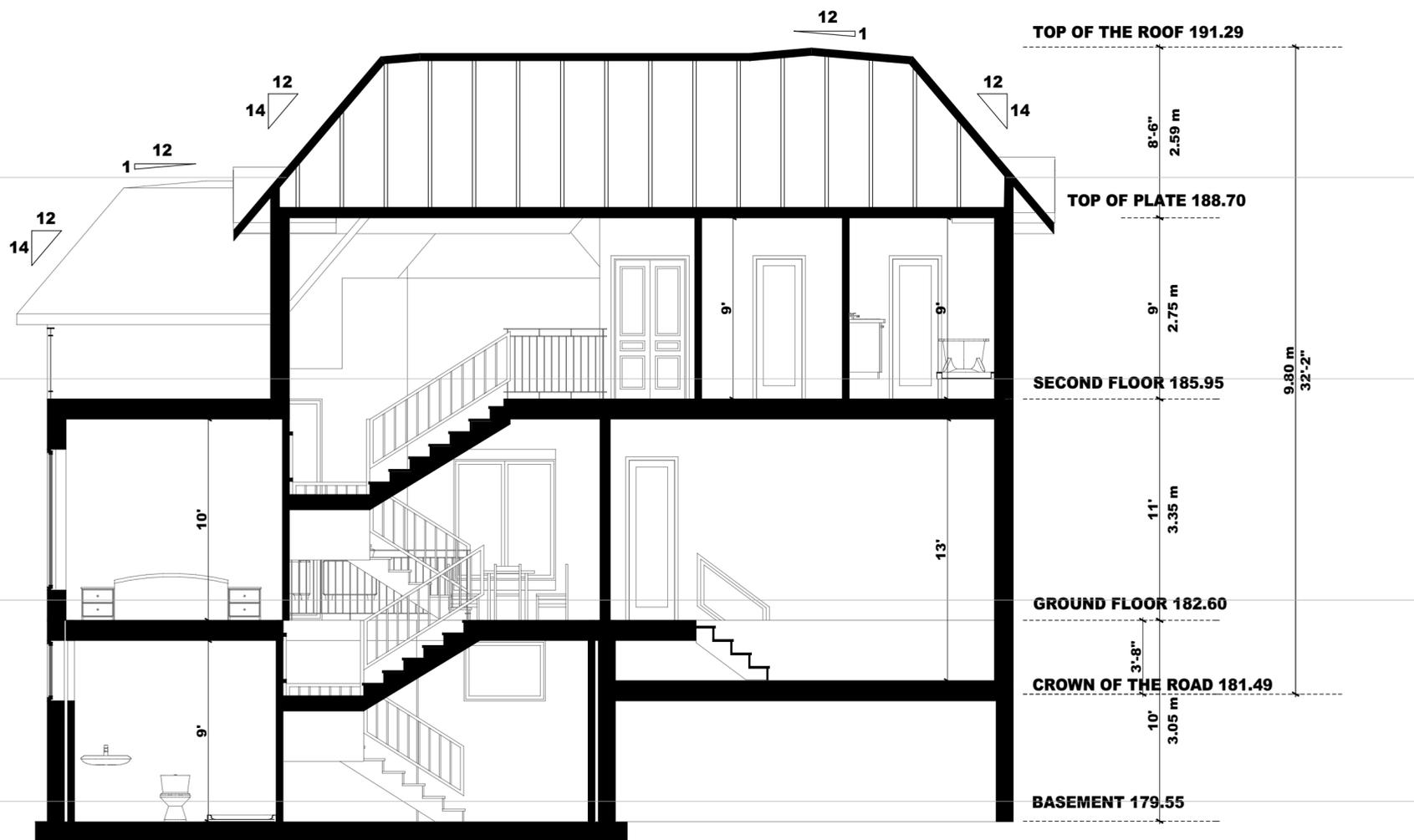
6 SHERWOOD FOREST DRIVE.  
MARKHAM, ON

A.08

**Appendix B**

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MM/DD/YY



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PROHOME DESIGN INC. BCIN # 102220

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SCALE:  
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LAST MODIFIED ON:  
OCTOBER 5, 2020

DRAWING TITLE:  
SECTION

PROJECT TITLE/ADDRESS:  
6 SHERWOOD FOREST DRIVE,  
MARKHAM, ON

A.09

**APPENDIX "C"**  
**ARBORIST REPORT & TREE PRESERVATION PLAN**

# RACHAEL & SON

## TREE HEALTH EXPERTS



RACHAEL KOWALESKI, B.E.S. ISA CERTIFICATION: ON-2145A. TREE RISK ASSESSMENT QUALIFIED. [INFO@RSTREEHEALTH.CA](mailto:INFO@RSTREEHEALTH.CA)

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### TREE PRESERVATION PLAN AND ARBORIST REPORT

PREPARED FOR VINCENT EMAMI  
6 SHERWOOD FOREST DR MARKHAM

NOVEMBER 1, 2020

REPORT TYPE: ARBORIST REPORT AND TREE ASSESSMENT AND PRESERVATION PLAN

DATE OF INSPECTION: OCTOBER 30, 2020

ADDRESS: 6 SHERWOOD FOREST DR. MARKHAM, ON L3P 1P6

## 1.0 INTRODUCTION

An on-site inspection was initiated by a qualified arborist on October 30, 2020 for the purpose of creating a Tree Assessment and Preservation Plan (TAPP). All trees requiring protection or a permit (to injure or remove) were inventoried and assessed. Site photos, a tree inventory, specifications for tree protection barriers, and a proposed site plan with existing tree locations are attached (see Appendix I, II, III, & IV).

## 2.0 METHODOLOGY

- TREE MEASUREMENTS

All relevant trees were sized by measuring their trunk diameter at 1.4 meters above the existing grade (diameter at breast height, or DBH) as per accepted arboricultural standards.

- TREE CONDITIONS

A generalized assessment system was employed to describe the overall condition of each inventoried tree. A five-level scale from "Very Good", "Good", "Fair", "Poor", and "Very Poor" was used to quantify the range of the tree's condition. "Very Good" condition was applied to a tree whose health, growth rate, and structural integrity was greater than eighty (80) percent of a perfect specimen. "Very Poor" was applied to a tree whose condition is less than twenty (20) percent of a perfect specimen.

- CATEGORIES

1. Trees with diameters of 20cm or more, situated on the subject site.
2. Trees with diameters of 20cm or more, situated on private property within 6m of the subject site.
3. Trees of all diameters situated on City owned parkland within 6m of the subject site.
4. Trees of all diameters situated within the City road allowance adjacent to the subject site.

- OUTLINE OF RECOMMENDATIONS

**REMOVE:** Any tree in the footprint of proposed construction or any tree which will sustain significant injuries directly from the proposed structures or the subsequent movement/storage of materials. These injuries would be unavoidable and likely cause long-term health and structural defects.

**PRESERVE WITH INJURY:** Any situation where a tree protection barrier that includes the entire TPZ cannot be maintained but the tree will not sustain injuries severe enough to compromise long-term health and structural stability. This includes situations where the movement of machinery or storage of materials would require disturbance within the TPZ. Measures to mitigate damage to the root zone and canopy (pruning, mulching, fertilizing, etc.) may be recommended.

**PROTECT:** A full tree protection barrier (based on the TPZ requirements) is constructed and remains unaltered throughout the duration of the construction.

- SPECIFICATIONS FOR TREE PROTECTION BARRIERS

It is necessary to protect all trees designated for preservation during both demolition and construction. This tree protection can be accomplished by installing tree protection barriers (TPBs). The minimum tree protection zone (TPZ) radius is based on the diameter of the tree and the requirements of individual Cities. Where the worksite is up-slope from ravine or protected natural feature areas, sediment control fences would be used in combination with the tree protection barriers.

The tree protection barriers will be comprised of snow-fencing or 3/4in ply-wood mounted on 2"x4" wood frames, or constructed using 3/4 in plywood laid horizontally over 10cm of wood chips or mulch. All barriers will be constructed in accordance with the City of Markham document "Tree Assessment and Preservation Plan Requirements".

### 3.0 PROPOSED CONSTRUCTION AND SITE DESCRIPTION

Rachael and Son Tree Health Experts were hired to create a Tree Assessment and Preservation Plan (TAPP) and inventory at 6 Sherwood Forest Dr. for the purpose of land development.

The development includes:

- demolition of the existing dwelling;
- removing and reconstructing driveway in the existing footprint;
- constructing a new 2 story dwelling; and
- constructing a new wood deck in the backyard.

There are 3 privately owned trees (Tree #3-4 & 10), 6 neighbour owned trees (Tree #5-9 & 11 ), and 2 city owned trees (Tree #1 & 2) within 6m of the subject site.

### 4.0 TREES TO BE PROTECTED

Trees #2 & 11 will be designated as "Protected". Refer to Appendix II for species, sizes, and conditions.

To proceed with the proposed construction, the tree protection barriers will be erected to include the full tree protection zone of all trees designated as protected. Tree barriers will be approved by the City of Markham and remain intact until all the proposed construction is complete (see Appendix IV for locations). All tree protection barriers will be installed in accordance with the City of Markham document "Tree Assessment and Preservation Plan Requirements".

### 5.0 TREES TO BE REMOVED

There are 3 trees (Tree #3, 4 & 10) located on the subject property that require removal to proceed with the proposed development and access route.

#### 5.1 CRAB-APPLE (TREE #3) ASSESSMENT

DBH: 23 & 24 (47cm)

Overall Condition: Poor

Structure: Poor

Vigour: Poor

Deadwood: 20% total

Location: Good

Reason for removal: Tree #3 is being recommended for removal based the impact of the proposed construction and the tree's condition. The current plans include constructing a dwelling 0.5m from the main stem. Constructing the dwelling and accessing the construction site will not be possible without further compromising long-term health and structural stability.

#### 5.2 CRAB-APPLE (TREE #4) ASSESSMENT

DBH: 19 & 22 (41cm)

Overall Condition: Fair

Structure: Fair

Vigour: Fair

Deadwood: 10% total

Location: Good

Reason for removal: Tree #4 is being recommended for removal based the impact of the proposed construction and the tree's condition. The current plans include constructing a dwelling 0.3m from the main stem. Constructing the dwelling and accessing the construction site will not be possible without further compromising long-term health and structural stability.

### 5.3 CEDAR (TREE #10) ASSESSMENT

DBH: 22 & 24 (46cm)

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: <5%

Location: Good

Reason for removal: Tree #10 is being recommended for removal because it is in the footprint of the proposed development.

### 6.0 TREES TO BE PRESERVED WITH INJURY

There is 1 city-owned Crab-apple (Tree #1), 4 neighbour-owned Spruces located at 4 Sherwood Forest Dr. (Tree #5-8) and 1 neighbour-owned Sugar Maple at 8 Sherwood Forest Dr. (Tree #9) that are being designated as "Preserved with Injury". The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health.

### 6.1 CRAB-APPLE (TREE #1) ASSESSMENT

DBH: 25 & 28 (53cm)

Overall Condition: Poor

Structure: Poor

Vigour: Poor

Deadwood: 20% total

Location: Good

Impact of proposed injury: To proceed with the proposed driveway, there will be an infringement of 3.0m on the west side of the 3.6m TPZ. Significant root loss and damage from soil compaction is not expected because the new driveway will be installed in the footprint of the existing driveway. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health provided injury mitigation measures are followed.

#### 6.1.1 INJURY MITIGATION MEASURES FOR TREE #1

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Arboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. installing a tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”.
  - a. the tree protection barrier will be installed to protection as much of the TPZ as possible and also allow for construction (see Appendix IV).
- ii. All work within the 3.6m TPZ will be done by hand and without the use of heavy machinery.

## 6.2 NORWAY SPRUCE (TREE #5) ASSESSMENT

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: 10% internal

Location: Good

Impact of proposed injury: To proceed with the proposed driveway, there will be an infringement of 1.0m on the west side of the 3.0m TPZ. Significant root loss and damage from soil compaction is not expected. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health provided injury mitigation measures are followed.

### 6.2.1 INJURY MITIGATION MEASURES FOR TREE #5

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Aboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. The existing property line fence will act as the tree protection barrier on the west side of the main stem and will not be removed or disturbed;
- ii. installing a horizontal tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”,
  - a. a horizontal protection barrier will be installed on the west side of the tree to protect the TPZ and allow for construction access; and
- iii. removal of the existing shed within the TPZ will be done by hand and without the use of heavy machinery,
  - a. installation of the Horizontal TPZ will be completed after the existing shed is removed.

## 6.3 NORWAY SPRUCE (TREE #6) ASSESSMENT

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: 10% internal

Location: Good

Impact of proposed injury: To proceed with the proposed driveway, there will be an infringement of 0.4m on the west side of the 2.4m TPZ. Significant root loss and damage from soil compaction is not expected. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health provided injury mitigation measures are followed.

### 6.3.1 INJURY MITIGATION MEASURES FOR TREE #6

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Aboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. The existing property line fence will act as the tree protection barrier on the west side of the main stem and will not be removed or disturbed;
- ii. installing a horizontal tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”,
  - a. a horizontal protection barrier will be installed on the west side of the tree to protect the TPZ and allow for construction access; and
- iii. removal of the existing shed within the TPZ will be done by hand and without the use of heavy machinery,
  - a. installation of the Horizontal TPZ will be completed after the existing shed is removed.

#### 6.4 NORWAY SPRUCE (TREE #7) ASSESSMENT

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: 10% internal

Location: Good

Impact of proposed injury: To proceed with the proposed driveway, there will be an infringement of 0.4m on the west side of the 2.4m TPZ. Significant root loss and damage from soil compaction is not expected. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health provided injury mitigation measures are followed.

##### 6.2.1 INJURY MITIGATION MEASURES FOR TREE #7

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Arboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. The existing property line fence will act as the tree protection barrier on the west side of the main stem and will not be removed or disturbed;
- ii. installing a horizontal tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”,
  - a. a horizontal protection barrier will be installed on the west side of the tree to protect the TPZ and allow for construction access; and
- iii. removal of the existing shed within the TPZ will be done by hand and without the use of heavy machinery,
  - a. installation of the Horizontal TPZ will be completed after the existing shed is removed.

#### 6.5 NORWAY SPRUCE (TREE #8) ASSESSMENT

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: 10% internal

Location: Good

Impact of proposed injury: To proceed with the proposed driveway, there will be an infringement of 1.6m on the west side of the 3.6m TPZ. Significant root loss and damage from soil compaction is not expected. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health provided injury mitigation measures are followed.

### 6.5.1 INJURY MITIGATION MEASURES FOR TREE #8

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Aboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. The existing property line fence will act as the tree protection barrier on the west side of the main stem and will not be removed or disturbed;
- ii. installing a horizontal tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”,
  - a. a horizontal protection barrier will be installed on the west side of the tree to protect the TPZ and allow for construction access; and
- iii. removal of the existing shed within the TPZ will be done by hand and without the use of heavy machinery,
  - a. installation of the Horizontal TPZ will be completed after the existing shed is removed.

### 6.6 SUGAR MAPLE (TREE #9) ASSESSMENT

Overall Condition: Good

Structure: Good

Vigour: Good

Deadwood: 15% internal

Location: Good

Impact of proposed injury: To proceed with the proposed dwelling and stairway, there will be an infringement of 4.2m on the east side of the 6.7m TPZ. Root loss and damage from soil compaction is expected as 17% of the total TPZ will be impacted. The proposed injuries are not expected to significantly contribute to the loss of structural stability or declining health, provided that injury mitigation measures are followed and the remaining softscape within the TPZ is undisturbed.

### 6.6.1 INJURY MITIGATION MEASURES FOR TREE #9

**Injury mitigation measures** that will be performed or approved by a qualified arborist utilizing *Good Aboricultural Practices* as defined in Tree Preservation Bylaw 2008-96 are as follows:

- i. installing a tree protection barrier in accordance with the City of Markham document “Tree Assessment and Preservation Plan Requirements”,
  - a. the tree protection barrier will be installed to protection as much of the TPZ as possible and also allow for construction (see Appendix IV); and
- ii. removal of the existing deck within the TPZ will be done by hand and without the use of heavy machinery.

### 7.0 CONCLUSIONS

To allow for the proposed construction at 6 Sherwood Forest Dr. Markham, Trees # 2 & 11 will be “Protected” with no TPZ infringement. In order to construct the proposed driveway, dwelling, deck and stairway and allow for a machine access route, Trees #1, 5-8 & 9 will be injured inside the TPZ and Trees #3, 4 & 10 will require removal.

Appendix I: Site Photos



Figure 1: North west side of Tree #1



Figure 2: South side of Tree #1



Figure 3: West side of Tree #2

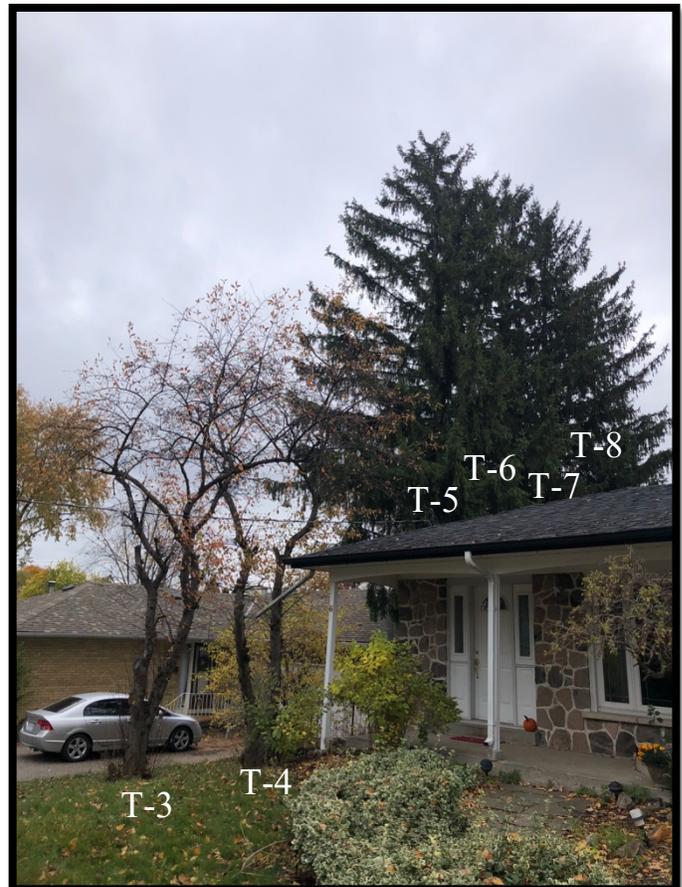


Figure 4: West side of Tree #3-8



Figure 5: East side of Tree #3



Figure 6: Tree #3 canopy



Figure 7: West side of Tree #4



Figure 8: Tree #4 canopy



Figure 9: North west side of Tree # 5-8

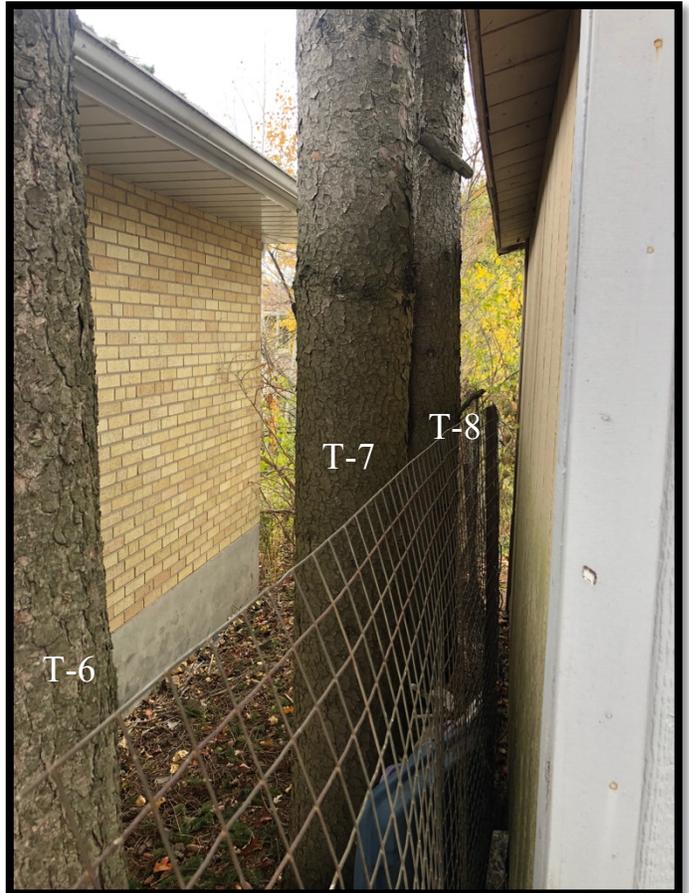


Figure 10: North side of Tree #6-8



Figure 11: South west side of Tree #6-8

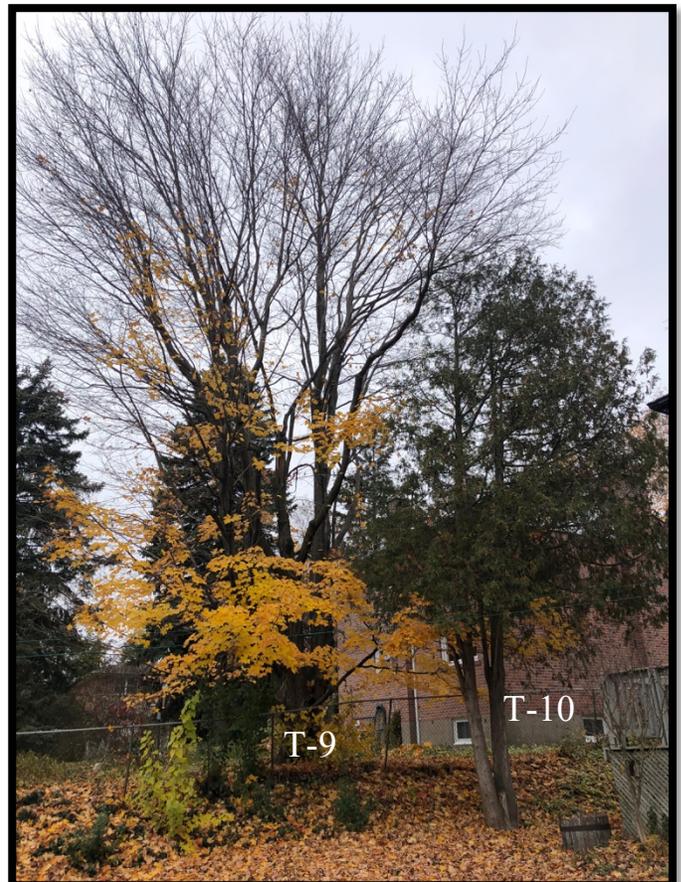


Figure 12: East side of Tree #9-10



Figure 13: North side of Tree # 9-10

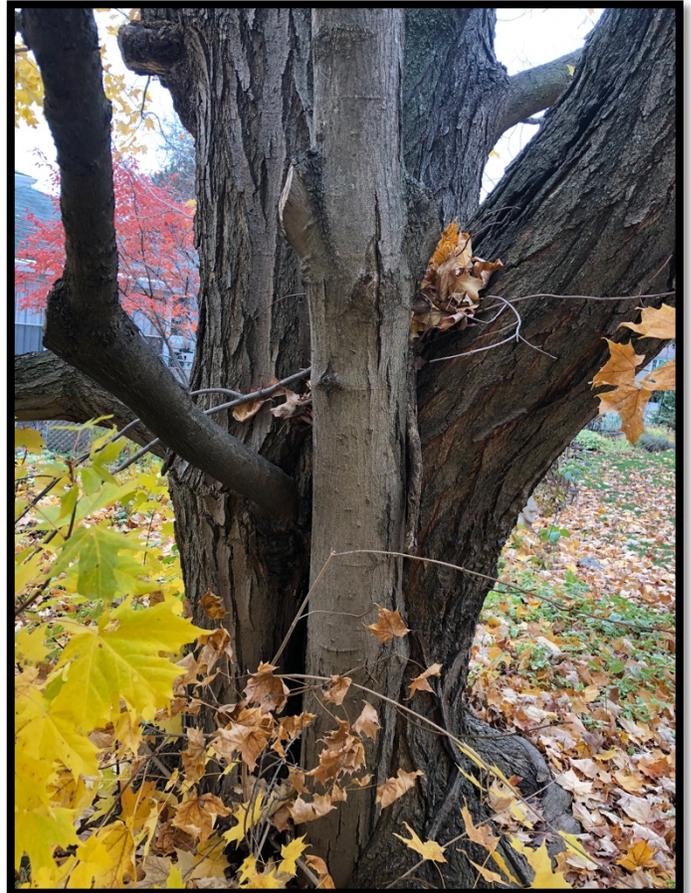


Figure 14: East side of Tree # 9



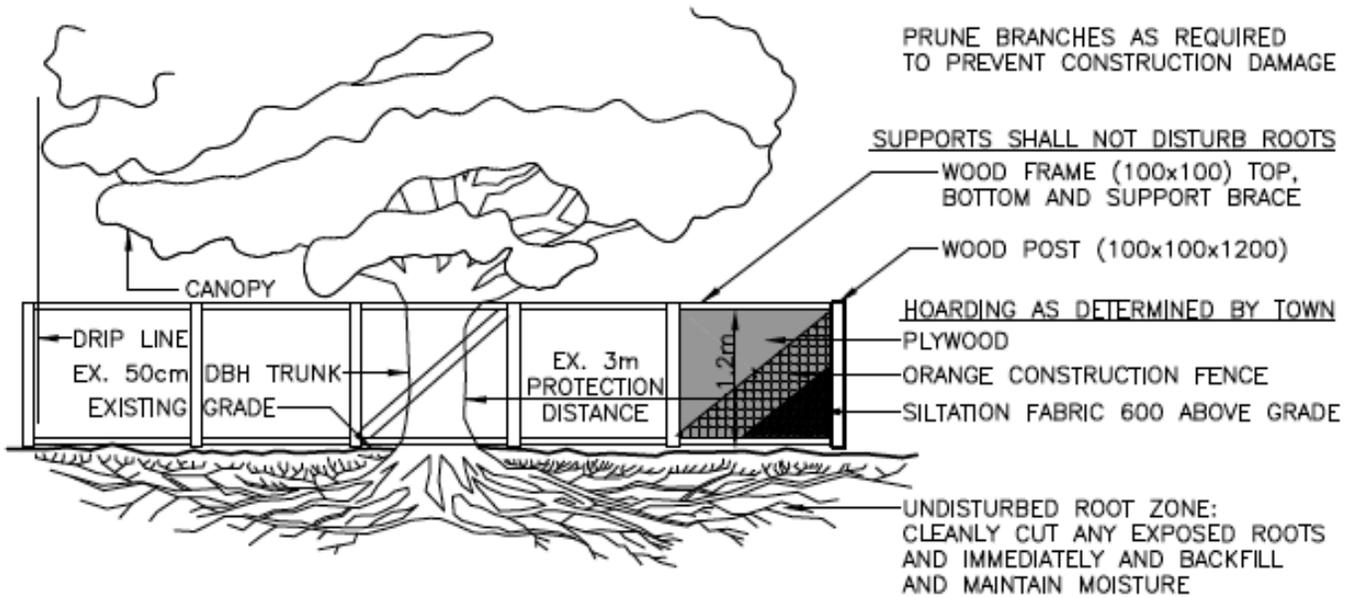
Figure 15: East side of Tree #10



Figure 16: North side of Tree #11

## Appendix II: Inventory

Tree #	Species	DBH (cm)	Category	Condition	TPZ (m)	Recommendation	Rationale	Injury Mitigation
1	Crab-apple ( <i>Malus sp.</i> )	25 & 28 (53)	4	Fair	3.6	Injure	Proposed driveway is 0.5m from the base of the main stem.	1. Installing vertical protection barriers 2. no machines inside the TPZ
2	Blue Spruce ( <i>Picea pungens</i> )	42	4	Good	3.0	Protect	No TPZ infringement required.	N/A
3	Crab-apple ( <i>Malus sp.</i> )	23 & 24 (47)	1	Poor	3.0	Remove	Proposed dwelling is 0.7m from the base of the main stem. In footprint of access route.	N/A
4	Crab-apple ( <i>Malus sp.</i> )	19 & 22 (41)	1	Fair	3.0	Remove	Proposed dwelling is 0.3m from the base of the main stem. In footprint of access route.	N/A
5	Norway Spruce ( <i>Picea abies</i> )	41	2	Good	3.0	Injure	Proposed dwelling is 2.0m from the base of the main stem.	1. Installing horizontal protection barriers 2. Existing shed removed without use of machinery
6	Norway Spruce ( <i>Picea abies</i> )	38	2	Poor	2.4	Injure	Proposed dwelling is 2.0m from the base of the main stem.	1. Installing horizontal protection barriers 2. Existing shed removed without use of machinery
7	Norway Spruce ( <i>Picea abies</i> )	35	2	Poor	2.4	Injure	Proposed dwelling is 2.0m from the base of the main stem.	1. Installing horizontal protection barriers 2. Existing shed removed without use of machinery
8	Norway Spruce ( <i>Picea abies</i> )	38 & 18 (56)	2	Fair	3.6	Injure	Proposed dwelling is 2.0m from the base of the main stem.	1. Installing horizontal protection barriers 2. Existing shed removed without use of machinery
9	Sugar Maple ( <i>Acer saccharum</i> )	42, 43, 28 (112)	2	Good	6.7	Injure	Proposed stairway is 2.5m from the base of the main stem.	1. Installing vertical protection barriers 2. Existing deck removed without use of machinery
10	White Cedar ( <i>Thuja occidentalis</i> )	22 & 24 (46)	1	Fair	3.0	Remove	In footprint of proposed stairway.	N/A
11	Paper Birch ( <i>Betula papyrifera</i> )	41	2	Good	3.0	Protect	No TPZ infringement required.	N/A



MINIMUM TREE PROTECTION DISTANCE FROM TRUNK:

< 10cm DBH	1.2m
10-29cm DBH	1.8m
30-40cm DBH	2.4m
41-50cm DBH	3.0m
51-60cm DBH	3.6m
61-70cm DBH	4.2m
71-80cm DBH	4.8m
81-90cm DBH	5.4m
91-100cm DBH	6.0m
> 100cm DBH	6cm/1cm $\phi$

(DIAMETER AT BREAST HEIGHT) DBH = TRUNK DIAMETER AT 1.4m HEIGHT

40cmx60cm SIGN MOUNTED ON ALL SIDES OF BARRIER



TREE PROTECTION ZONE

NO WORK IS PERMITTED WITHIN THE TREE PROTECTION ZONE INCLUDING GRADING, CONSTRUCTION ACCESS AND MATERIAL STORAGE.

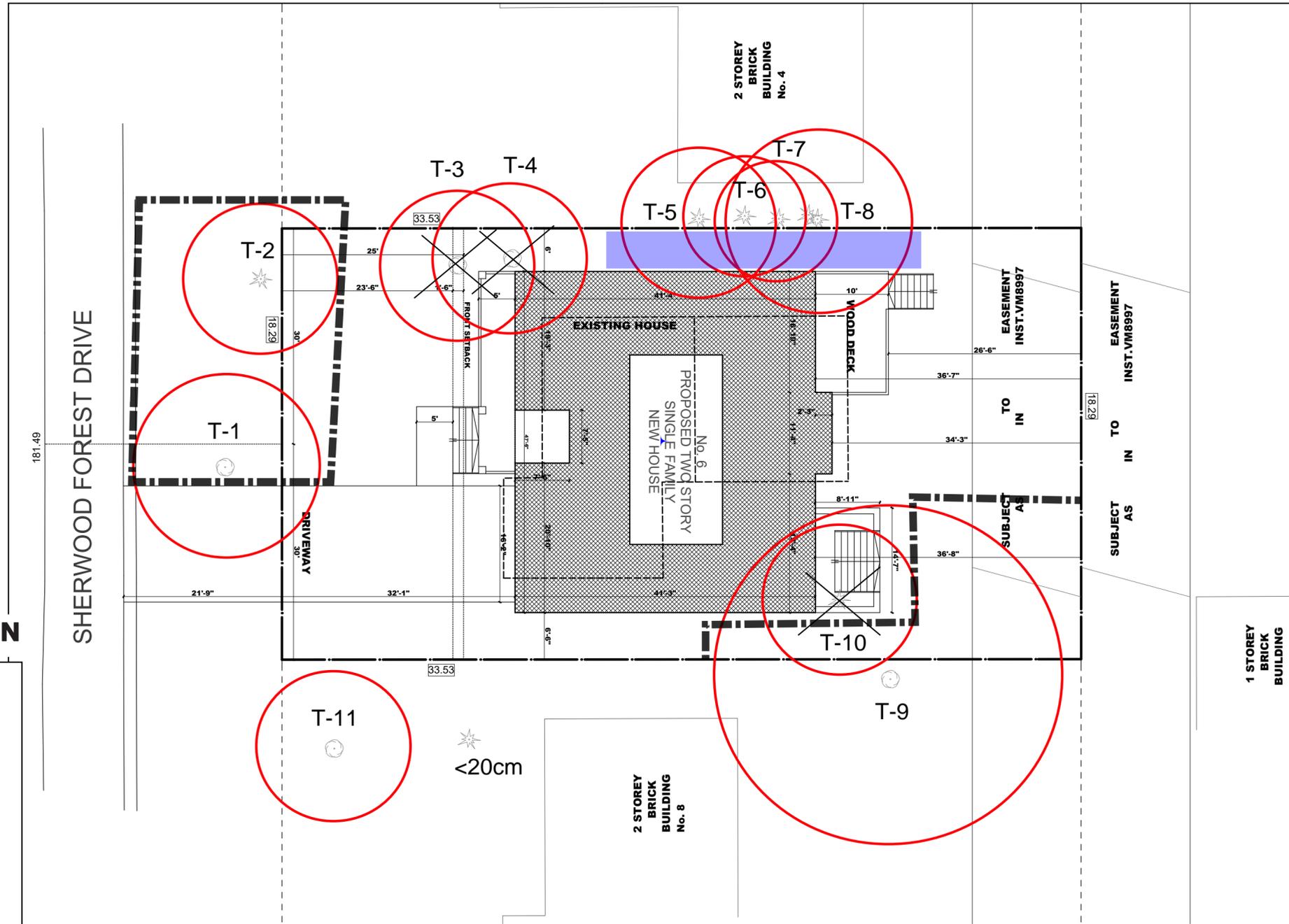
BREACH OF TREE PROTECTION ZONE IS SUBJECT TO A FINE OF \$\_\_\_\_\_

CONTACT TOWN OF MARKHAM FOR MORE INFORMATION: 905-477-5530

TREE PROTECTION NOTES:

1. ALL TREE PROTECTION BARRIERS SHALL BE IN PLACE AND APPROVED BY THE TOWN PRIOR TO CONSTRUCTION ACCESS.
2. ALL SUPPORTS AND STAKES SHALL BE OUTSIDE THE TREE PROTECTION ZONE AND SHALL MINIMIZE ROOT DAMAGE.
3. TREE PROTECTION BARRIERS SHALL REMAIN IN PLACE AND IN GOOD CONDITION UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED BY THE TOWN.
4. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS, SHALL BE DONE BY A QUALIFIED TREE WORKER CERTIFIED WITH THE INTERNATIONAL SOCIETY OF ARBORICULTRE APPROVED BY THE TOWN.

# Appendix IV: Tree Preservation Plan



**RACHAEL & SON**  
TREE HEALTH EXPERTS

**Legend**

- TPZ barrier
- Tree Protection Zone (TPZ)
- Horizontal TPZ barrier
- To Remove

Prepared by: Rachael Kowaleski  
Prepared on: Nov 1, 2020  
See attached Arborist report and Inventory

DATE: SEP.2020	ISSUED FOR: FOR COA	THE UNDERSIGN HAVE REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE DESIGNER.  VAHID EMAM JOMEH BCIN # 45213 PROHOME DESIGN INC. BCIN # 102220		DRAWN BY: V.E	SCALE: 1:150	DRAWING TITLE: SITE PLAN	A.00
				FOR STRUCTURE ONLY	LAST MODIFIED ON: OCTOBER 30, 2020	PROJECT TITLE/ADDRESS: 6 SHERWOOD FOREST DRIVE, MARKHAM, ON	