



Talbot Mackenzie & Associates  
Consulting Arborists

# Arborist Report

## 3150/3152 Somerset Street, Victoria

PREPARED FOR: Manpreet Kandola  
C/o RE/MAX Alliance  
770B Hillside Avenue  
Victoria, BC  
V8T 1Z6

PREPARED BY: Talbot, Mackenzie & Associates  
Tom Talbot – Consulting Arborist  
ISA Certified # PN-0211A  
TRAQ - Qualified

Date submitted: January 08, 2021.  
March 25, 2021 Amended.  
June 03, 2021 Amended

Box 48153 RPO - Uptown Victoria, BC V8Z 7H6  
Ph: (250) 479-8733  
Fax: (250) 479-7050  
Email: [tmtreehelp@gmail.com](mailto:tmtreehelp@gmail.com)



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Jobsite Property: 3150/3152 Somerset Street

Date of Site Visit: June 02, 2020 and November 04, 2020

Site Conditions: Flat to gently sloping property with existing duplexed residence

**Protection Plan Summary:** From the plans that were reviewed and our examination of the trees it is our opinion that:

- Due to the extend of decay present in the lower trunk and root collar, we recommend that Garry oak #591 be removed and for the purpose of this report assumes that it will be removed prior to the commencement of construction.
- Municipal Linden tree #9420 is located where it is proposed to be removed to accommodate the construction, site access and servicing.
- Based on the number, size and density of the root structures encountered during our exploratory excavation, in our opinion there is a good opportunity to retain Garry oak #592, if the impacts related to the footprint encroachment within one quadrant of its Critical Root zone can be successfully mitigated. However due to the bed rock and depth of fill soil that was encountered, the depth where a layer of suitable bearing soils will be found along the entire length of the footprint can only be determined at the time excavation for the building footprint is completed. The project arborist must supervise the excavation along the edge of the footprint, closest to Garry oak #592 to observe the number and size of roots that are encountered to determine the impacts on the tree, the options available to mitigate any impacts and determine the retention status of this tree.

We further recommend that the project arborist be retained to:

- Locate the barrier fencing.
- Review the report with the project foreman or site supervisor.
- Locate work zones, where required.
- Supervise excavation for the building footprint or any landscape renovation work within the critical root zone of the bylaw-protected and municipal trees.
- Review and advise of any pruning requirements for building clearances.

Any pruning of the bylaw-protected and municipal trees that is required must be completed by an ISA Certified arborist, to ANSI 300 standards at the direction of the project arborist once approved by the municipal Parks Department staff .

**Scope of Assignment:** Provide arborist services to review the impacts on the tree resource of demolishing the existing duplexed residence on the property and the construction of new duplexed residences on two separate lots. Prepare a tree impact and retention report to be used during the construction of the new buildings, access to and servicing the lots.

**Methodology:** During our June 02, 2020 site visit we visually examined the structural characteristics of the above ground portions of each of the protected trees on the property and on the municipal frontage. The information compiled regarding these specific trees was entered on a Tree Resource spreadsheet and includes the tree; tag or identity number, trunk diameter (d.b.h.), a defined critical root zone (CRZ) or root protection area, the health and structural condition of the tree based on our visual assessment, the species tolerance to construction impacts, any noted remarks, and recommendations.

Each tree on the property was assigned a reference number, to identify it in the field, that is indicated on the drawing supplied and is referenced in our tree resource spreadsheet that is attached to this report.

During our return November 04, 2020 site visit we conducted exploratory excavations where the proposed building footprint encroaches within the root zone of Garry oak #592 to determine the feasibility of retaining this tree.

The plans that were reviewed show the proposed building and driveway footprint locations for both lots. The drawings service locations were not indicated in the drawings, but it is our understanding they are to be installed beneath or close to the driveway footprints.

**Summary of Tree Resource:** The documented trees that are located on the subject property, and municipal frontage include the following:

1. One (1) bylaw protected 95 cm d.b.h. Garry oak #591 located within the inside side yard setback on proposed lot A. Our observation of the lower trunk structure indicated an internal defect, therefore Resistograph readings were taken from the lower trunk at the root collar. The readings taken detected extensive internal decay in the sampled lower trunk/root collar location. The tree measures 165cm diameter at the sampling location. The readings taken indicated a shell wall thickness of 26 cm on the east side, 21 cm on the west side, 27 cm on the north side and 45 cm on the south side. In our opinion this tree, poses a high risk of failure related to this internal trunk defect and is therefore an unsuitable tree to retain on an urban, residential property. We recommend that this tree be removed.
2. One (1) bylaw protected 147 cm diameter (measured 60 cm above grade). Garry oak #592 located within the building envelope in the rear yard of proposed lot A. Existing backfill up to 1 metre in depth covers lower trunk and root system on the east side of the tree.
3. One (1) 7.0 cm d.b.h. Little Leaf linden, #9420 located on the municipal frontage.
4. One (1) 65 cm d.b.h. Armstrong Red maple #9422 located on the frontage of the adjacent property at 3162 Somerset Street, 7 metres from the property corner. This tree is showing indications of health stress, and a large open cavity with some decay is visible extending along its lower trunk. The ends of several limbs overhang the boundary and frontage of the subject property.

## Findings and Observations:

**Potential Impacts:** We anticipate that the highest potential for impacts on the tree resource may occur during:

1. Excavation, to demolish the existing building and to establish the new building footprint.
2. Landscape installations or renovations.
3. Locating and installing services and service corridors

Lot A – Both bylaw -protected Garry oak trees on the property #591 and #592 are located within the boundaries of proposed lot A and the linden tree is also located on the municipal frontage of this lot.

- Little Leaf linden #9420 – This tree is located where it will be detrimentally impacted by the construction and access to the front of the lots and is proposed to be removed. Three replacement trees are proposed to be planted along the municipal frontage of both lots.
- Garry oak #591 – This tree is located within the side-yard setback of proposed Lot A but where it would also be impacted by the footprint location on Lot B. The removal of this tree would be required to accommodate construction on the two lots, however, due to the extensive decay within the lower trunk and root collar its removal would already be required.
- Garry oak #592 – This tree is located within the defined building envelope on this property, but outside the proposed building footprint. The footprint will encroach well into the defined critical root zone area but only in one quadrant of this root zone. The area of encroachment has been filled historically with fill soil that appeared to be up to 1 metre in depth.

During our November 04, 2020 site visit, exploratory excavation was conducted along the edge of the proposed building footprint on this lot, to determine whether Garry oak #592 can be retained. The following information was compiled.

- The excavation was completed with the use of a small excavator under the direct supervision of the project arborist.
- The excavation conducted was within one quadrant (north east) of the trees root zone where fill soil had been installed within the lot historically. The excavation was approximately 1 metre closer to the tree than the building footprint location as staked out on site (2 metres from the base of the tree at its closest point) and extended approximately 7 metres toward the south property boundary.
- At the north end of the excavation closest to the tree, bedrock was encountered 76 cm below the surface grade. One 5 cm diameter root that grows over the rock was encountered and retained. No other roots were encountered in this location.
- The rock gradually tapered to 1.2 and 1.5 metres in depth approximately 3 metres from the north west corner of the footprint. At this distance from the tree and depth no other rock was encountered.



- The soils that were excavated appear to be mostly fill soil that extended to a depth of 1.7 metres and contained granular sand, construction material including degraded stucco. Between the 1.5 and 1.7 metre depth a layer of brown sandy medium was encountered along the length of the excavation.
- Other than the 5 cm root encountered and retained at the north end of the excavation, no other roots larger than 2 cm in diameter were encountered.



Garry oak #592 excavation location



Excavation at north footprint corner



Excavation viewed from south.



Fill material encountered.

Canopy pruning will be required for clearance above the building footprint. Two lateral limbs 10 cm in diameter or larger will require pruning or removal for clearance above the structure however this pruning is unlikely to remove more than 5% of the total existing canopy and therefore would not have a detrimental impact on the health of the tree.



Canopy at north corner of footprint



Limbs to be pruned or removed.

Lot B – There are no bylaw-protected trees located within the boundaries of or on the municipal frontage of this lot. If the building on this property is to be constructed prior to the construction on Lot A, barrier fencing should be erected at the canopy drip line of the municipal Linden tree, and the oak tree to be retained on Lot A prior to construction on Lot B.

**Mitigation of Impacts:** For this report, and our mitigation recommendations it is assumed that Garry oak #591 will be removed. Our recommendations for mitigation procedures to reduce the impacts on Garry oak # 592 are outlined in the following and should be implemented prior to and during the construction period.

**Barrier Fencing** The areas surrounding the tree to be retained must be isolated from the construction activity by erecting protective barrier fencing. Typically, the fencing is erected at the perimeter of the critical root zones as defined in our Tree Resource Spreadsheet or at the edge of the canopy spread. On this site, the building footprint extends into the critical root zone area of Garry oak #592 as defined therefore the fencing is to be erected 1 metre off the edge of the building footprint in the area of encroachment and out to the edge of the critical root zone outside this area of encroachment. Barrier fencing should also be erected along the north edge of the driveway footprint where it crosses the municipal frontage to protect the canopy overhang from the adjacent municipal maple tree.



The barrier fencing to be erected must be a minimum of 4 feet in height, of solid frame construction that is attached to wooden or metal posts. A solid board or rail must run between the posts at the top and the bottom of the fencing. This solid frame can then be covered with plywood, or flexible snow fencing (see attached diagram). The fencing must be erected prior to the start of any construction activity on site (i.e., site clearing, excavation, construction), and remain in place through completion of the project. Signage must be posted around the protection zone to declare it off limits to all construction related activity. The project arborist must be consulted before this fencing is removed or moved for any purpose.

**Root Zone Protection:** The building footprint on Lot A is located where it encroaches within the root zone of Garry oak #592. The defined area for erecting barrier fencing may not permit sufficient space for construction access around the building footprint.

In areas where construction activity must encroach into the critical root zones of trees to be retained, efforts must be made to reduce soil compaction where possible by displacing the weight of machinery and foot traffic. This can be achieved by the following methods:

- Erecting solid hording around the tree trunk to prevent accidental mechanical injury once the barrier fencing has been relocated.
- Installing a layer of hog fuel or coarse wood chips at a minimum depth of 25 cm over a medium weight geotextile grid or fabric layer and maintaining the mulch layer in good condition at this prescribed depth until construction is complete.
- Or placing medium weight geotextile grid over the critical root zone area. Install a layer of crushed rock to a depth of 10 - 15 cm over the top of the geotextile grid. Cover the rock layer with filter cloth to separate the layers. Install a temporary surfacing layer suitable for construction access above the filter cloth. (see attached diagram)
- Or placing two layers of 19mm plywood over the entire area.
- Or placing steel plates over the entire area.

**Demolition:** Prior to machinery accessing the site to demolish the existing building, temporary barrier fencing must be erected:

- Around the canopy spread of the municipal linden tree.
- Across the back of the existing building footprint, approximately 2 metres outside this footprint of the existing building to isolate the critical root zones of the protected trees from machine access and encroachment. If the removal of Garry oak #591 has not been approved and the tree removed prior to the time of demolition, fencing must be erected to protect the root zones of both oak trees.
- The project arborist must supervise the excavation to remove the existing footings adjacent to oak #591.

**Building Footprint :** Excavation for the building footprint on Lot A must be supervised by the project arborist. The exploratory excavation that was conducted indicates that there is a high probability that Garry oak #592 can be protected and retained. If a bearing layer of soil is encountered close to the maximum depth of the exploratory excavation that was conducted, there is a high probability that up to 1 metre depth of the fill soils between the building footprint and the tree can be removed to allow a suitable cut slope along the edge of this excavation. The building footprint has been relocated approximately one-half metre closer to the street to allow additional space for excavation between the footprint and the tree.

However due to the bed rock and depth of fill soil that was encountered it is unknown at what depth a suitable layer of bearing soils will be found along the entire length of the footprint. This can only be determined at the time of excavation.

The project arborist must supervise the excavation along the edge of the footprint, closest to Garry oak #592 to observe the number and size of roots that are encountered to determine the impacts on the tree, the options available to mitigate any impacts and determine the retention status of this tree.

**Servicing:** All the existing service connections are along the Somerset Street municipal frontage. It should be possible to connect to the existing service connections and locate new service connections between the building footprints and the municipal frontages, where they are not in conflict with and do not encroach within the critical root zones of the adjacent Red maple tree on the municipal frontage of 3162 Somerset Street.

**Driveway Access:** The proposed driveway access locations do not encroach within the root zones of trees that are to be retained and permit sufficient space to establish the 3 trees to be planted along the municipal frontages. .

**Blasting and rock removal:** During our exploratory excavation, bed rock was encountered within the building footprint of Lot A where it is within the critical root zone area of Garry oak #592. The blasting to level these rock areas should be sensitive to the root zones located at the edge of the rock. Care must be taken to assure that the area of blasting does not extend into the critical root zones beyond the building and road footprints. The use of small low-concussion charges, and multiple small charges will reduce fracturing, ground vibration, and reduce the impact on the surrounding environment. Only explosives of low phytotoxicity, and techniques that minimize tree damage, are to be used. Provisions must be made to store blast rock, and other construction materials and debris, away from critical tree root zones.

**Landscape Installation and Renovation:** The drawing reviewed indicates the removal of an existing retaining wall and the installation of an at grade sidewalk and patio areas within the root zone of Garry oak #592. The portion of the retaining wall that is located within the critical root zone of Garry oak #592 must be removed by hand or with a small, tracked machine, under the direct supervision of the project arborist. Plywood sheeting or other methods of supporting the weight of the equipment must be used when the machinery is working within the root zone of the protected trees.

Based on our exploratory excavation, in our opinion it should be possible to remove most if not all the fill soil that has been placed between the tree and the proposed house footprint historically. The patio in the rear garden is proposed to be constructed at or above the (31.50) existing site grade. There is a hump of soil (31.92) between the tree grade (31.57) and the patio grade (31.50). The removal of up to 0.5 metres of soil would be required to reduce this grade to the grade at the patio. The project arborist must supervise any excavation that occurs between the tree and the patio and determine how much depth of soil can be removed without compromising the roots of this protected Garry oak tree. It may be determined that the grade in this location cannot be reduced to the patio grade and therefore a gentle slope must be maintained between the tree and this patio.

The project arborist must also supervise the excavation for the patio and sidewalk areas to determine at what grade the base layers for these areas must be installed to avoid the removal of critical root structures. The larger areas of hardscape surfacing proposed within the root zone area must be designed with a permeable surfacing material.

There is also a retaining wall along the north property boundary that might require repair or replacement. If possible, to reduce the potential impacts on Garry oak #592, it would be preferable to repair or reinforce the section of the wall that extends under the tree canopy of this tree. The excavation required to replace this section of the wall is likely to have a detrimental impact on the tree and may result in its removal.

**Canopy Pruning:** The canopy of Garry oak #592 will require pruning for clearance above the building footprint. The house footprint is located where the large stem that extends out from the northeast side of the tree and extends along the north property boundary can be retained. Where possible pruning cuts should be limited to limbs smaller than 10 cm in diameter. However, two lateral limbs 10 cm in diameter or larger will require pruning or removal for clearance above the structure. This pruning is unlikely to remove more than 5% of the total existing canopy and therefore would not have a detrimental impact on the health of the tree.

Minor pruning at the edge of the canopy spread of maple #9422 may be required for clearance above the existing, adjacent driveway, if it is used for construction access.

Any pruning of the bylaw-protected and municipal trees that is required must be completed by an ISA Certified arborist, to ANSI 300 standards at the direction of the project arborist once approved by the municipal Parks Department staff.

**Work Area and Material Storage:** It is important that the issue of storage of excavated soil, construction material, and site parking be reviewed prior to the start of construction; where possible, these activities should be kept outside of the critical root zones of trees that are to be retained.

**Clients Responsibility** – It is the responsibility of the client or his/her representative to contact the project arborist for the purpose of:

- Locating the barrier fencing
- Reviewing the report with the project foreman or site supervisor
- Locating work zones, where required
- Supervising excavation for the building footprint or any landscape renovation work within the critical root zone of the bylaw-protected and municipal trees.
- Reviewing and advising of any pruning requirements for building clearances.

**Review and site meeting:** Once approval of the project is granted; it is important that the project arborist meet with the principals involved in the project to review the information contained herein. It is also important that the arborist meet with the site foreman or supervisor before any demolition, site-clearing or other construction activity occurs.

Please do not hesitate to call us at (250) 479-8733 should you have any further questions. Thank You.

Yours truly,  
Talbot Mackenzie & Associates

A handwritten signature in blue ink, appearing to read 'Tom Talbot', is written over a faint, light blue circular stamp.

Tom Talbot & Graham Mackenzie  
ISA Certified, & Consulting Arborists

Encl. Tree resource spreadsheet (1), Resource sheet definitions (2), Drawings reviewed (8),  
Drawing with tree numbers and barrier fencing locations (1), Barrier fencing specifications (1).

#### Disclosure Statement

The tree resource assessment conducted is a Level 1 limited visual assessment of the aboveground portions of trees located within the 3150/3152 Somerset Street property and municipal frontage, by way of a ground level walking inspection of all sides of the trunk canopy and root collar.

The opinions and recommendations provided are based on the circumstances and observations as they existed at the time of the site inspection of the Client's Property on, June 02, 2020 and exploratory excavation on November 04, 2020, and the trees situate thereon by and upon drawings and information provided by the Client. The opinions are given based on observations made and using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage and disease, the results, observations, recommendations, and analysis as set out are valid only as at the date any such testing, observations and analysis took place and no guarantee, warranty, representation or opinion is offered as to the length of the validity of the results, observations, recommendations and analysis.

## Tree Resource Spreadsheet for 3150 3152 Somerset Street

Tree ID	Common Name	Latin Name	DBH (cm) * over ivy ~ approximate	Crown Spread (m)	CRZ (m)	Health	Structure	Relative Tolerance	Remarks and Recommendations	Retention Status
9420	Little Leaf linden	<i>Tillia cordata</i>	7.0	3	1.0	Good	Good	Good	Located on 3152 Somerset Street municipal frontage. Located 9 metres from north p/L	Removal
591	Garry oak	<i>Quercus garryana</i>	95.0	24	7.5	Good	Poor	Good	Resistograph readings detect extensive internal decay. Abnormal Basal flair small cavity openings at base of root collar. Heavily end weighted limbs	Removal
592	Garry oak	<i>Quercus garryana</i>	147.0	30	11.0	Good	Fair	Good	Heavily end weighted limbs. Measured 60 cm above existing grade due to stem union flair and backfill up to 1 metre deep around trunk. 11.5 metres from rear pl and from existing house footprint.	Retain*
9422	Red Maple	<i>Acer reubrum 'Armstrong'</i>	65.0	13	6.5	Fair	Fair	Good	Located on the municipal frontage of the adjacent property at, 3162 Somerset Street, 7 metres from the property corner. Health stress visible in canopy. Large open cavity and decay in lower trunk	Retain



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**Key to Headings in Tree Resource Spreadsheet – Page 1**

**Tag:** Tree identification number on a metal tag attached to tree with nail or wire at eye level. Trees on municipal or neighboring properties are not tagged and are identified on the site plans usually starting from the number one.

NT: No Tag due to inaccessibility or separate ownership.

**DBH:** Diameter at breast height – diameter of trunk, measured in centimetres at 1.4m above ground level. For trees on a slope, it is taken at the average point between the high and low side of the slope.

\* Measured over ivy.

~ Approximate because of inaccessibility or on neighbouring property.

**Crown Spread:** Indicates the diameter of the crown spread measured in metres to the dripline of the longest limbs.

**Relative Tolerance Rating:** Relative tolerance of the species of tree to construction related impacts such as root pruning, crown pruning, soil compaction, hydrology changes, grade changes and other soil disturbance. This rating does not take into account individual tree characteristics, such as health and vigour. Three ratings are assigned: Poor, Moderate or Good.

**Optimal Root Protection Zone:** A calculated radial measurement in metres from the trunk of the tree. It is the optimal size of tree protection zone and is calculated by multiplying the DBH of the tree by 10, 12 or 15 depending on the Tree's Construction Tolerance Rating. This methodology is based on the methodology described by Nelda Matheny and James R. Clark in their book "Trees and Development: A Technical Guide to Preservation of Trees During Land Development."

- 15 x DBH = Poor Tolerance of Construction
- 10 or 12 x DBH = Moderate
- 08 or 10 x DBH = Good

For this purpose, the DBH of multiple stems is considered the sum of 100% of the diameter of the largest trunk and 60% of the diameter of each additional trunk. It should be noted that these measures are solely mathematical calculations that do not take into account crown spread, soil depth, age, health, or structure (such as lean).

**Health Condition**

- Poor - significant signs of visible stress and/or decline that threaten the long-term survival of the specimen
- Fair - signs of significant stress
- Good - no visible signs of significant stress and/or only minor aesthetic issues



**Structure Condition**

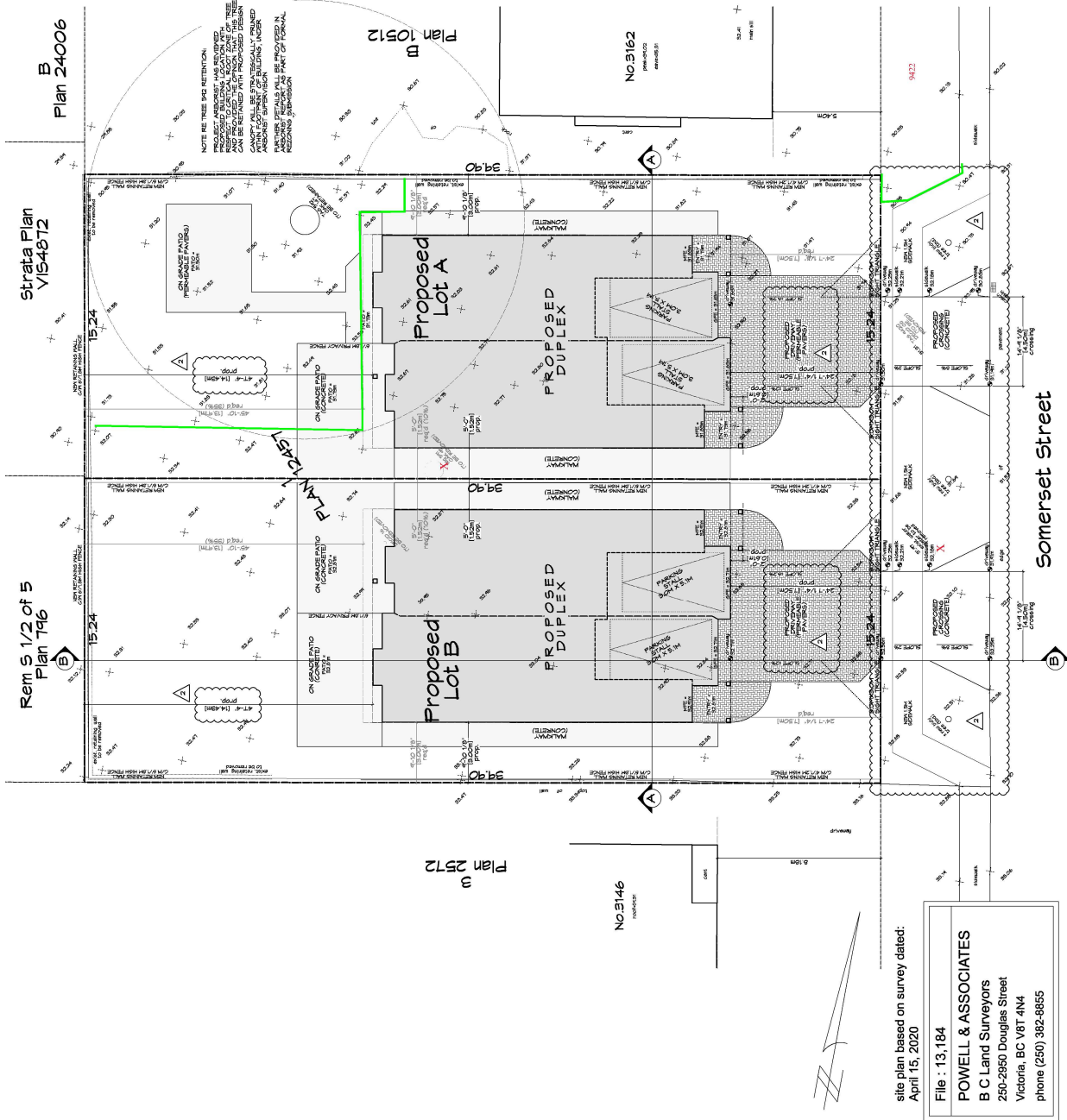
- Very Poor – Potentially imminent hazard that requires immediate action such as large dead hanging limbs or an unstable root plate
- Poor - Poor structural defects that have been in place for a long period of time to the point that mitigation measures are limited
- Fair - Structural concerns such as codominant stems that are still possible to mitigate through pruning
- Good - No visible or only minor structural flaws that require no to very little pruning

**Tree Status:**

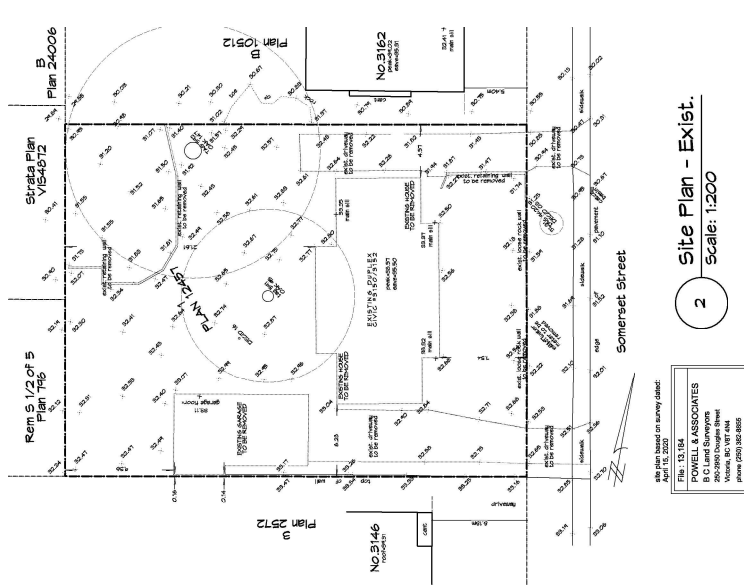
- Bylaw-protected – Tree that is of a size or species that is protected under the current municipal Tree Protection Bylaw.
- Not Protected – Tree that is of a size or species that is not protected under the current municipal Tree Protection Bylaw.
- Municipal – Tree that is located on the municipal frontage.

**Retention Status:**

- Removal - Not possible to retain given proposed construction plans
- Retain - It is possible to retain this tree in the long-term given the proposed plans and information available. This is assuming our **recommended mitigation measures are followed**
- Retain \* - See report for more information regarding potential impacts
- TBD (To Be Determined) - The impacts on the tree could be significant. However, in the absence of exploratory excavations and in an effort to retain as many trees as possible, we recommend that the final determination be made by the supervising project arborist at the time of excavation. The tree might be possible to retain depending on the location of roots and the resulting impacts but concerned parties should be aware that the tree may require removal.
- NS - Not suitable to retain due to health or structural concerns



1 Site Plan - Proposed  
Scale: 1:100



2 Site Plan - Exist.  
Scale: 1:200

Trees to remove X  
Barrier Fencing Location

ISSUED FOR  
DP/REZONING  
DEC. 10, 2020

ZEBRADESIGN



1161 NEWPORT AVE  
VICTORIA, B.C. V8S 5E5  
Phone: (250) 360-2144  
Fax: (250) 360-2115

DRAWN BY: K. KOSHMAN

DATE: OCT. 23/20

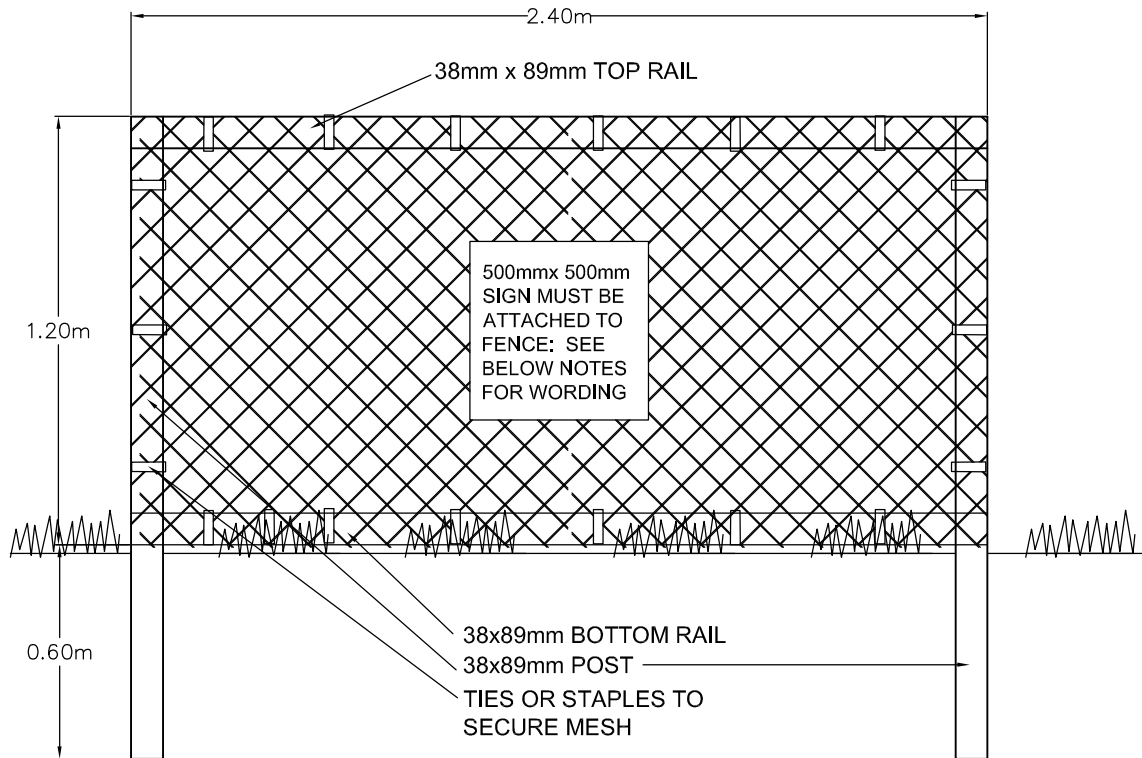
SCALE: AS NOTED

PROJECT:  
PROPOSED DUPLEXES &  
PHOTO SURVEY  
3150 SOMERSET ST

TITLE:  
SITE PLANS

REV. NO.	DESCRIPTION	DATE	REVISION
1	ISSUED FOR DP/REZONING	NOV. 27/20	NOV. 27/20
2	REVISIONS TO EXISTING PLAN	DEC. 10/20	DEC. 10/20

REV. NO.	DESCRIPTION	DATE	REVISION
1	ISSUED FOR DP/REZONING	NOV. 27/20	NOV. 27/20
2	REVISIONS TO EXISTING PLAN	DEC. 10/20	DEC. 10/20



**TREE PROTECTION FENCING**

1. FENCE WILL BE CONSTRUCTED USING 38 mm X 89mm WOOD FRAME: TOP, BOTTOM AND POSTS \* USE ORANGE SNOW-FENCING MESH AND SECURE THE WOOD FRAME WITH "ZIP" TIES OR GALVANIZED STAPLES.
  2. ATTACH A 500mm X 500mm SIGN WITH THE FOLLOWING WORDING: WARNING- TREE PROTECTION AREA. THIS SIGN MUST BE AFFIXED ON EVERY FENCE OR AT LEAST EVERY 10 LINEAR METERS.
- \* IN ROCKY AREAS, METAL POSTS (T-BAR OR REBAR) DRILLED INTO ROCK WILL BE ACCEPTED



PROJECT INFO & SITE DATA

OWNER	1245596 B.C. LTD
DESIGNER	ZEBRA DESIGN
CIVIC ADDRESS	3150 SOMERSET ST.
LEGAL ADDRESS	LOT 1, SECTION 4, VICTORIA DISTRICT, PLAN 12457
CURRENT ZONING	R1-B
PROPOSED ZONING	R-2
PROJECT DESCRIPTION	PROPOSED 2-LOT SUBDIVISION & 2 DUPLEXES

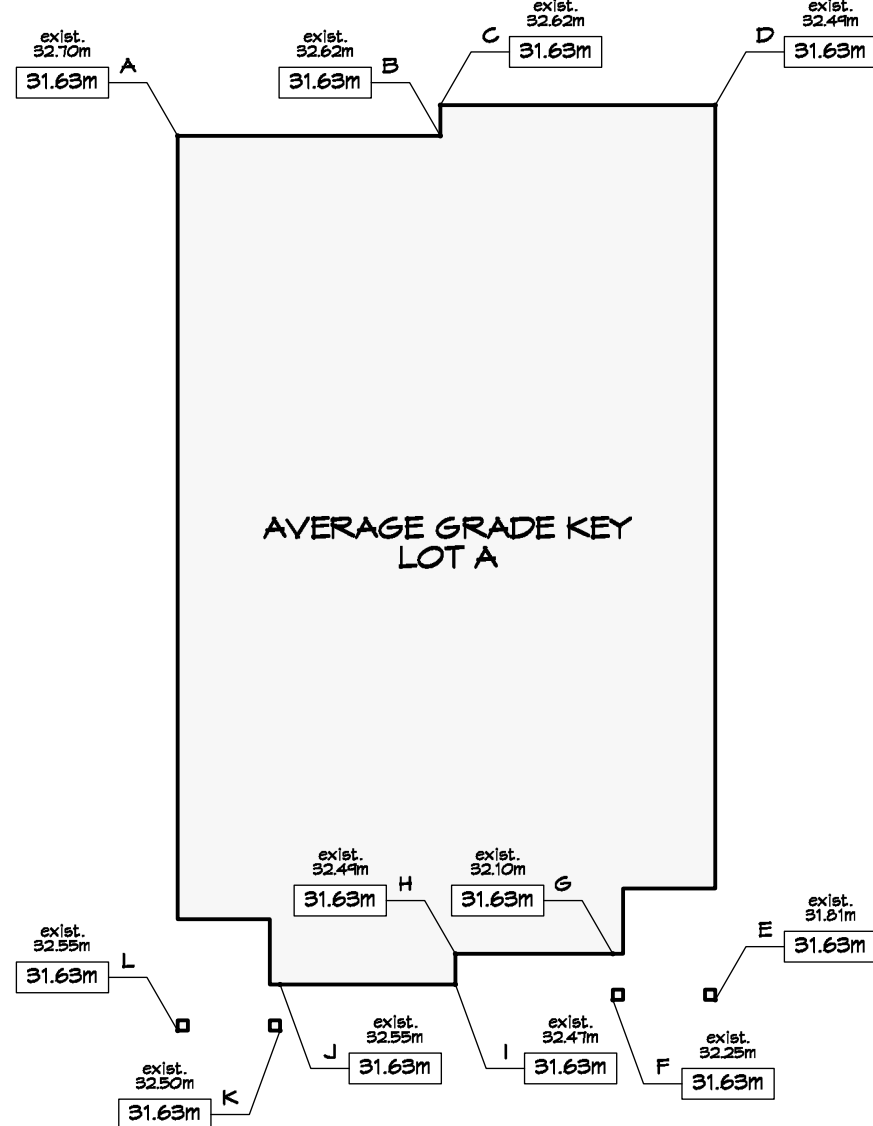
ADDITIONAL CONSULTANTS

ARBORIST	TALBOT MACKENZIE & ASSOCIATES
CIVIL	WESTBROOK CONSULTING

LOT AREA	REQUIRED 555.00 M <sup>2</sup>	PROPOSED LOT A 608.08 M <sup>2</sup> (6545.29 FT <sup>2</sup> )	PROPOSED LOT B 608.08 M <sup>2</sup> (6545.29 FT <sup>2</sup> )
REAR YARD AREA		212.90 M <sup>2</sup> (2291.68 FT <sup>2</sup> )	212.90 M <sup>2</sup> (2291.68 FT <sup>2</sup> )
SITE AREA PER DWELLING	277.50 M <sup>2</sup>	304.04 M <sup>2</sup> (3272.65 FT <sup>2</sup> )	304.04 M <sup>2</sup> (3272.65 FT <sup>2</sup> )
LOT WIDTH	15.00 M	15.24 M (50.00')	15.24 M (50.00')
LOT DEPTH (AVG)		39.90 M (130.91')	39.90 M (130.91')
SETBACKS			
FRONT	7.50 M	7.50 M (24.61')	7.50 M (24.61')
REAR	13.97 M (35% depth)	14.43 M (47.34')	14.43 M (47.34')
SIDE (S)	1.52 M (10% width)	1.52 M (5.00')	3.00 M (9.84')
SIDE (N)	3.00 M (one side)	3.00 M (9.84')	1.52 M (5.00')
SIDE - COMBINED	4.50 M	4.52 M (14.84')	4.52 M (14.84')
AVG. GRADE		31.63 M (103.77')	32.69 M (107.25')
BUILDING HEIGHT	7.60 M	7.53 M (24.70')	7.45 M (24.44')
STOREYS	2 STOREYS, NO BSMT	2 STOREYS	2 STOREYS
FLOOR AREA			
2ND FLOOR		158.03 M <sup>2</sup> (1701.00 FT <sup>2</sup> )	158.03 M <sup>2</sup> (1701.00 FT <sup>2</sup> )
1ST FLOOR		120.77 M <sup>2</sup> (1300.00 FT <sup>2</sup> )	120.77 M <sup>2</sup> (1300.00 FT <sup>2</sup> )
GARAGE		37.25 M <sup>2</sup> (401.00 FT <sup>2</sup> )	37.25 M <sup>2</sup> (401.00 FT <sup>2</sup> )
GARAGE ALLOWANCE	UP TO -18.60 M <sup>2</sup> PER DWELLING	-37.20 M <sup>2</sup> (-400.42 FT <sup>2</sup> )	-37.20 M <sup>2</sup> (-400.42 FT <sup>2</sup> )
CRAWLSPACE (EXCLUDED)	TBD	TBD	TBD
TOTAL FLOOR AREA	280.00 M <sup>2</sup>	278.86 M <sup>2</sup> (3001.58 FT <sup>2</sup> )	278.86 M <sup>2</sup> (3001.58 FT <sup>2</sup> )
FLOOR AREA RATIO	0.50	0.46	0.46
SITE COVERAGE	40.00 %	30.89 % (187.85 M <sup>2</sup> )	30.89 % (187.85 M <sup>2</sup> )
OPEN SITE SPACE - TOTAL	30.00 %	60.78 % (369.60 M <sup>2</sup> )	60.78 % (369.60 M <sup>2</sup> )
OPEN SITE SPACE - REAR YARD	33.00 %	100.00 % (219.87 M <sup>2</sup> )	100.00 % (219.87 M <sup>2</sup> )
PARKING	2 SPACES (1 PER DWELLING)	2 SPACES (1 PER DWELLING)	2 SPACES (1 PER DWELLING)

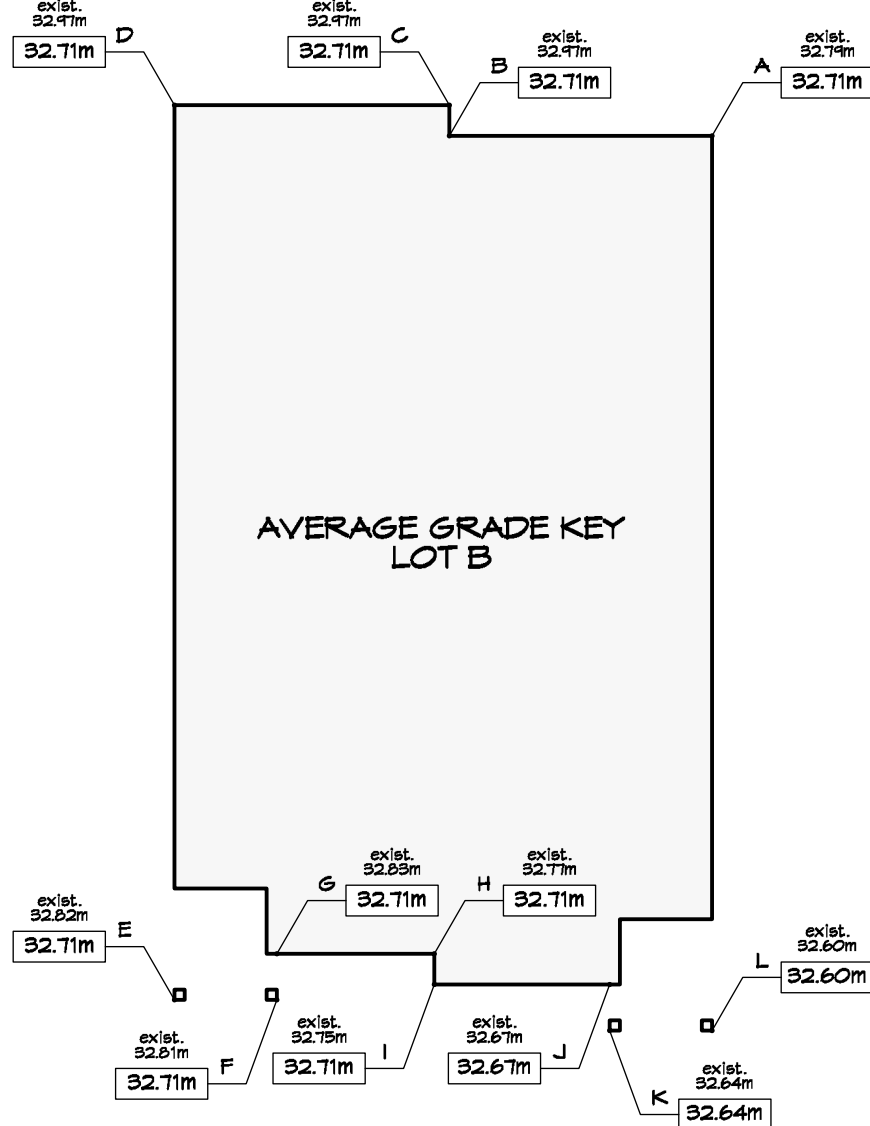


LOCATION MAP



LOT A - Average Grade Calculation							
SEGMENT	Start	Finish	Average	Distance	Factor	Total Factors	Perimeter
AB	31.63	31.63	31.63	5.21	164.79	1893.37	59.86
BC	31.63	31.63	31.63	0.61	19.29		
CD	31.63	31.63	31.63	5.45	172.38		
DE	31.63	31.63	31.63	17.75	561.43		
EF	31.63	31.63	31.63	2.03	64.21		
FG	31.63	31.63	31.63	0.91	28.78		
GH	31.63	31.63	31.63	3.12	98.69		
HI	31.63	31.63	31.63	0.61	19.29		
IJ	31.63	31.63	31.63	3.48	110.07		
JK	31.63	31.63	31.63	0.91	28.78		
KL	31.63	31.63	31.63	2.03	64.21		
LA	31.63	31.63	31.63	17.75	561.43		
TOTAL				59.86	1893.37		
						Lot A Finished AVERAGE GRADE	31.63

LOT B - Average Grade Calculation							
SEGMENT	Start	Finish	Average	Distance	Factor	Total Factors	Perimeter
AB	32.71	32.71	32.71	5.21	170.42	1956.74	59.86
BC	32.71	32.71	32.71	0.61	19.95		
CD	32.71	32.71	32.71	5.45	178.27		
DE	32.71	32.71	32.71	17.75	580.60		
EF	32.71	32.71	32.71	2.03	66.40		
FG	32.71	32.71	32.71	0.91	29.77		
GH	32.71	32.71	32.71	3.12	102.06		
HI	32.71	32.71	32.71	0.61	19.95		
IJ	32.71	32.67	32.69	3.48	113.76		
JK	32.67	32.64	32.66	0.91	29.72		
KL	32.64	32.60	32.62	2.03	66.22		
LA	32.60	32.71	32.66	17.75	579.63		
TOTAL				59.86	1956.74		
						Lot B Finished AVERAGE GRADE	32.69



ARCHITECTURAL DRAWINGS

- DP1.1 PROJECT INFO
- DP1.2 SITE PLANS
- DP2.1 FLOOR PLANS
- DP3.1 ELEVATIONS - LOT A
- DP3.2 ELEVATIONS - LOT B
- DP4.1 STREETScape & SECTIONS
- DP5.1 LANDSCAPE PLAN
- DP5.2 RENDERINGS

CIVIL DRAWINGS

- PRELIM SERVICING PLAN

REV. NO.	DESCRIPTION	DATE	Revision:	Sheet:
1	NO CHANGES	NOV. 27/20	CALLIC SUBMISSION OCT. 30/20	DP 1.1
2	REVISE FRONTREAR SETBACKS, OPEN SITE SPACE, AVG. GRADE DATA	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE SITE COVERAGE AND OPEN SITE SPACE; REVISE AVERAGE GRADE CALCULATIONS	MAR. 24/21	REV 2 - PREZONE SUBMISSION DEC. 10/20	
4	NO CHANGES	MAY 27/21	REV 3 - MAR. 24/21 REV 4 - APR. 08/21	
				Proj.No. TBD

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ZEBRADESIGN



1161 NEWPORT AVE  
Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
Fax: (250) 360-2115

Drawn By: K. KOSHMAN

Date: OCT. 23/20

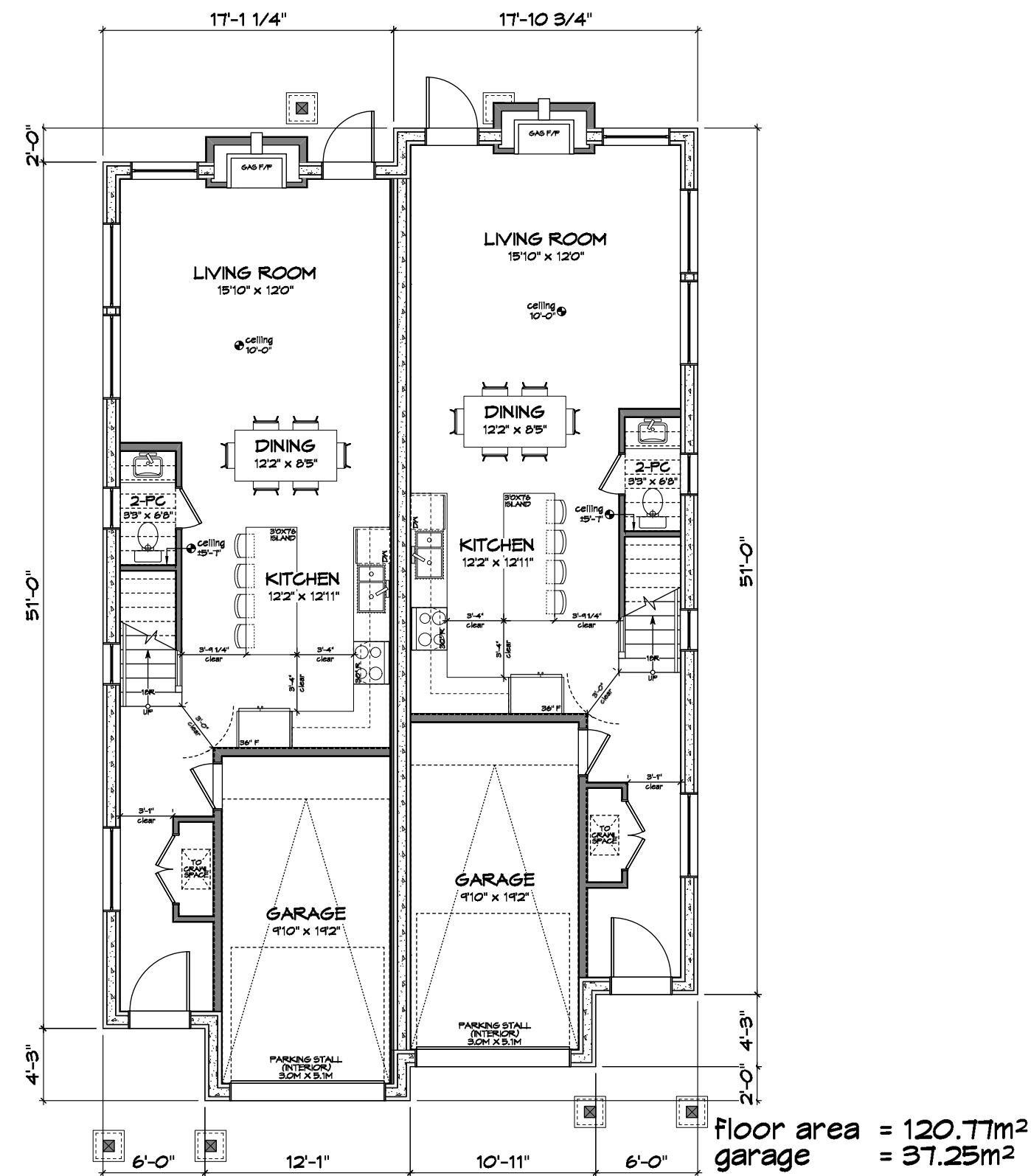
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Project:  
PROP. DUPLEXES &  
2-LOT SUBDIVISION  
3150 SOMERSET ST

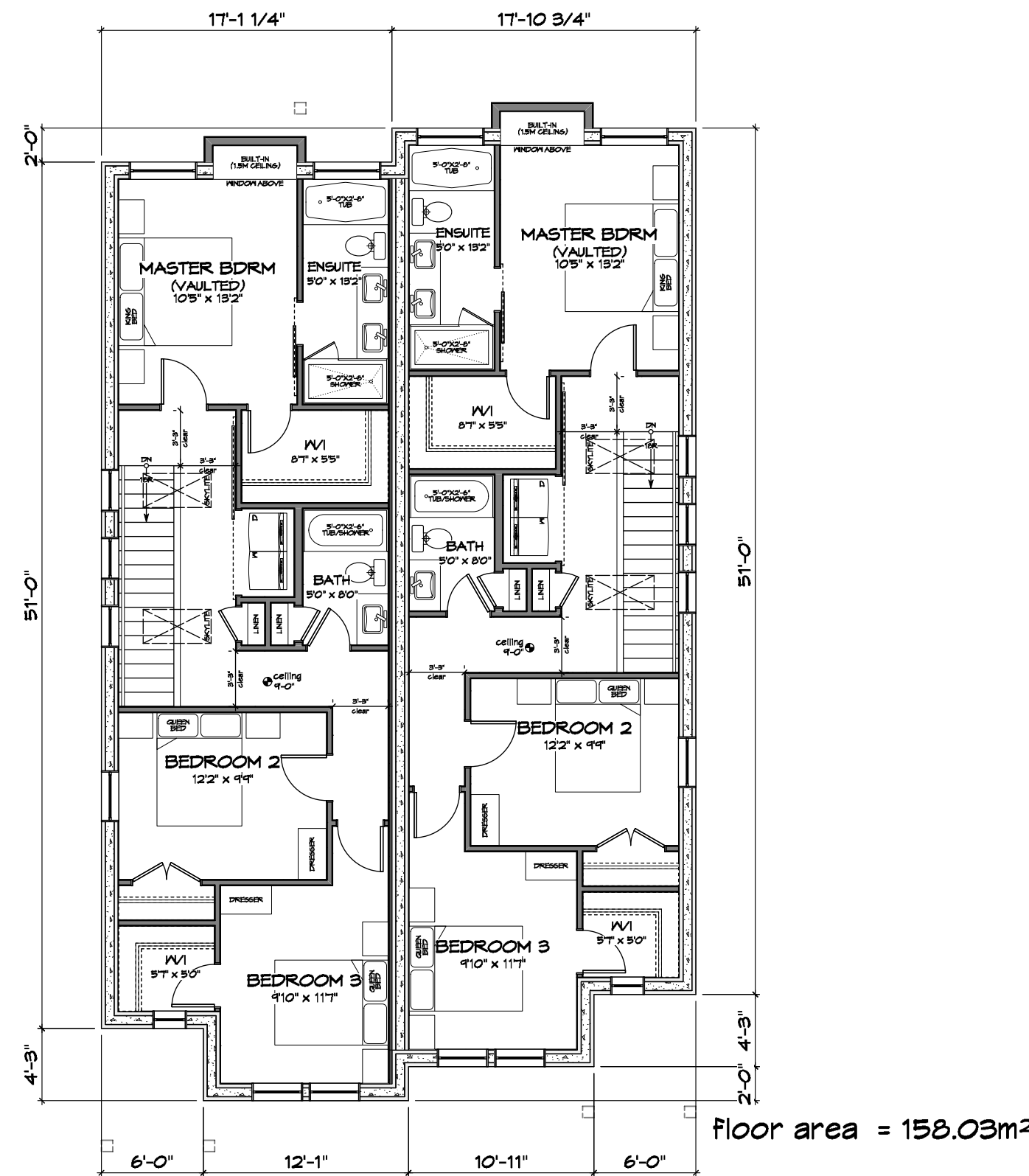
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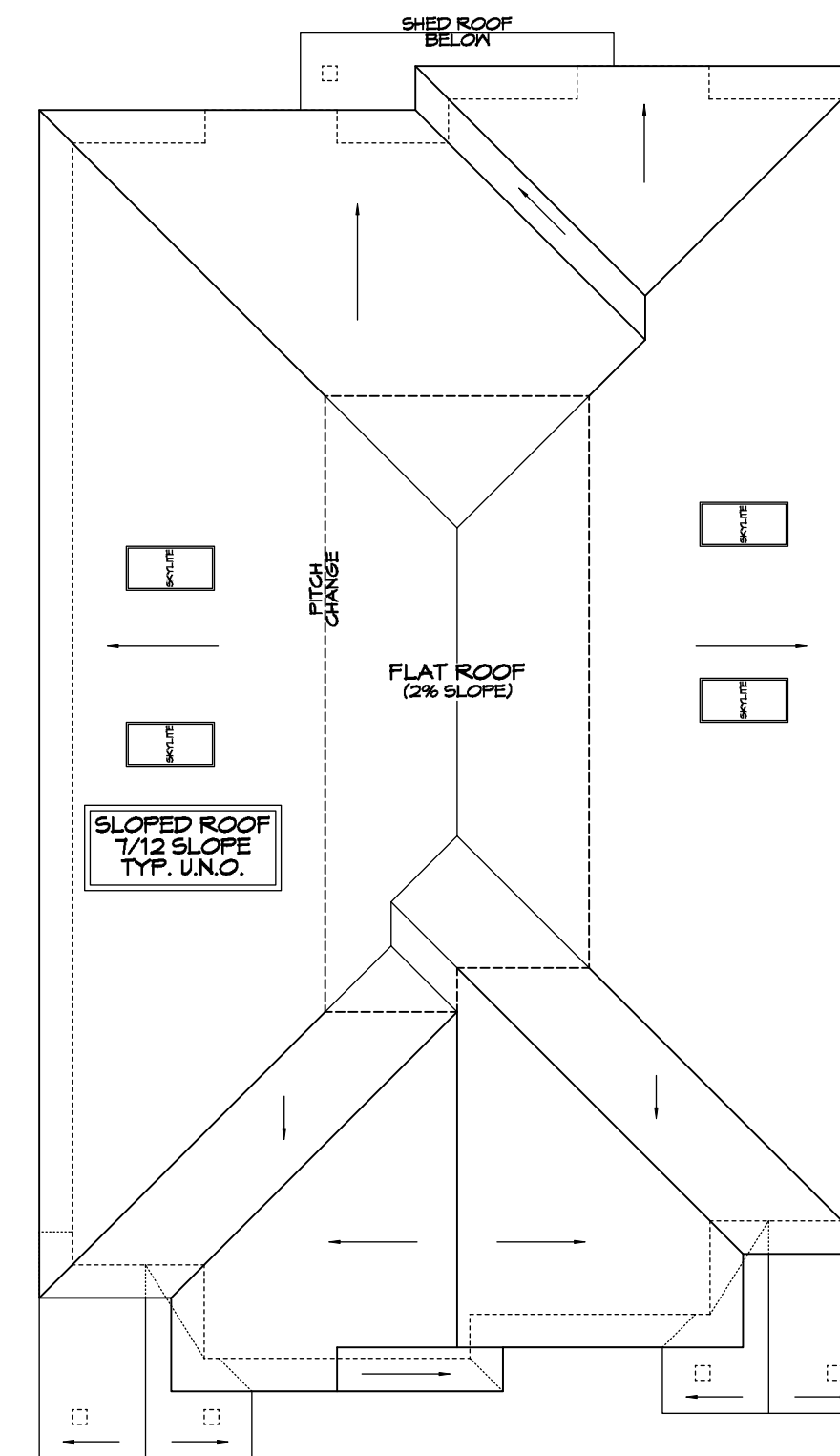




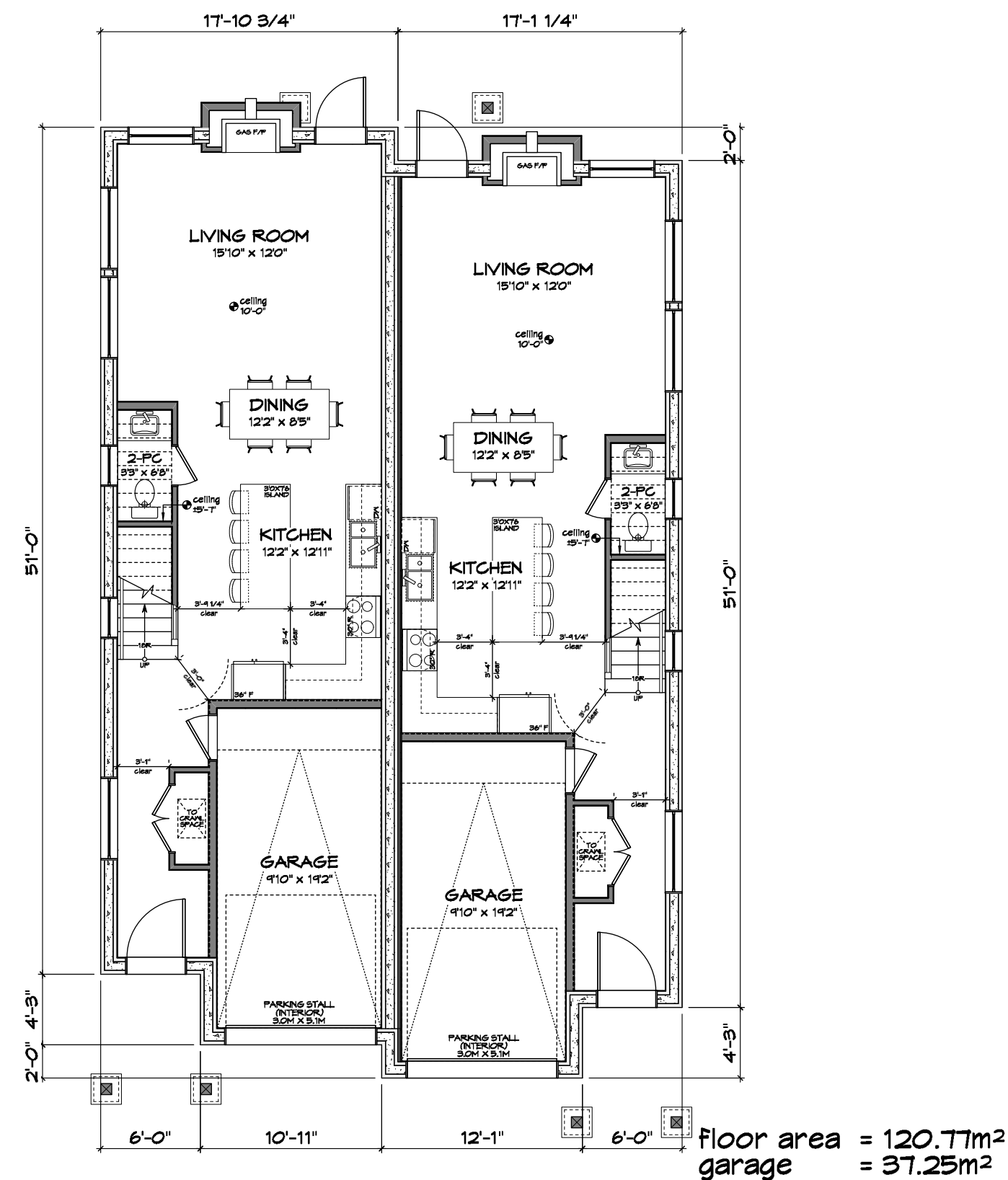
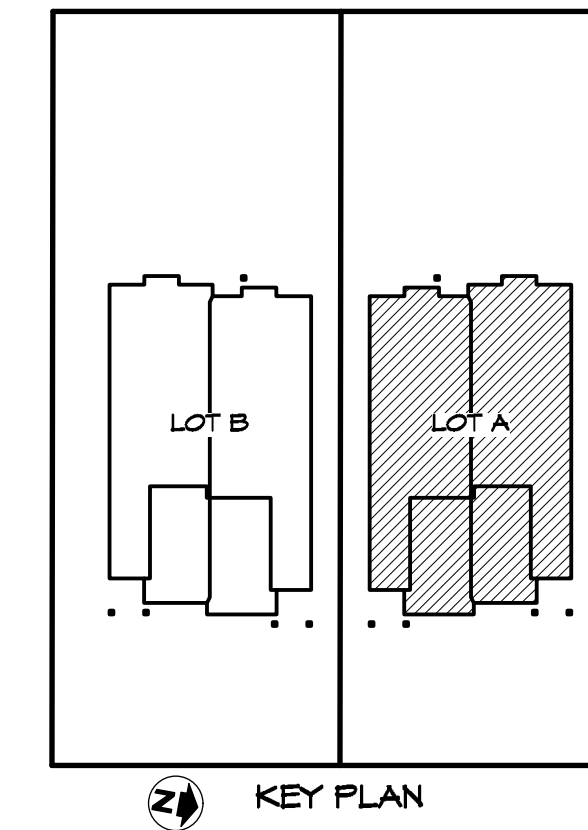
1 Main Floor Plan - Lot A  
Scale: 1:100



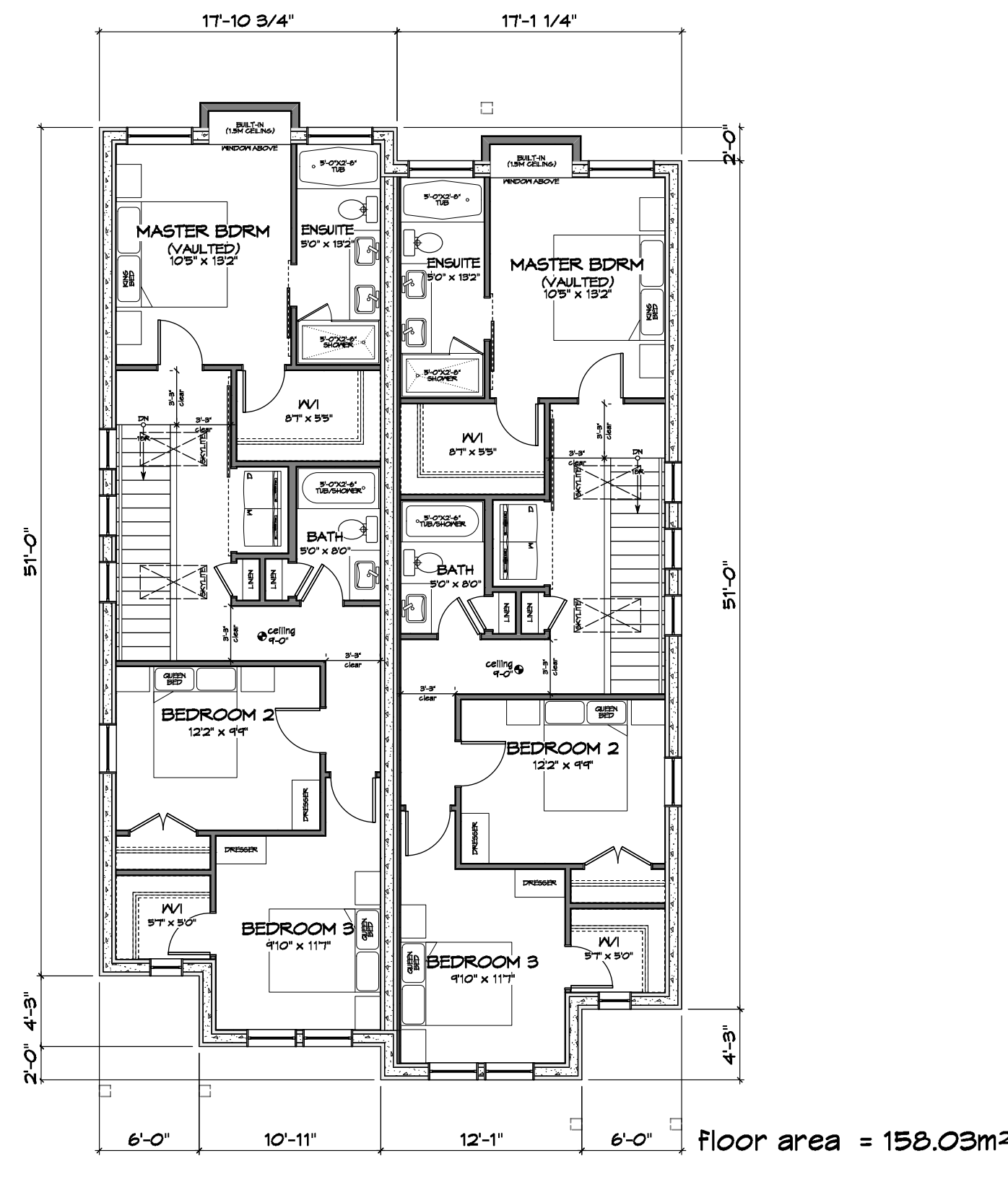
2 Upper Floor Plan - Lot A  
Scale: 1:100



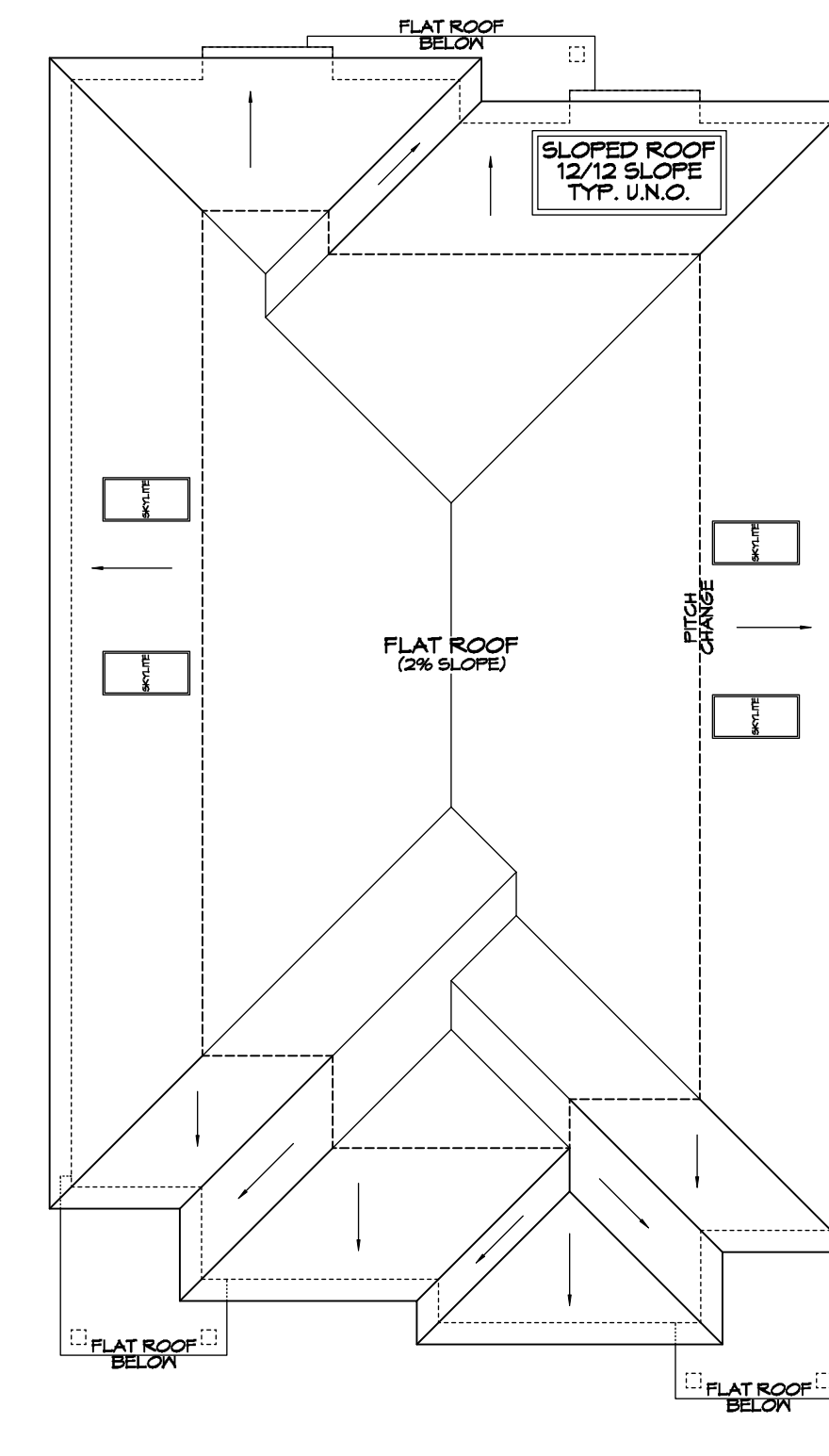
3 Roof Plan - Lot A  
Scale: 1:100



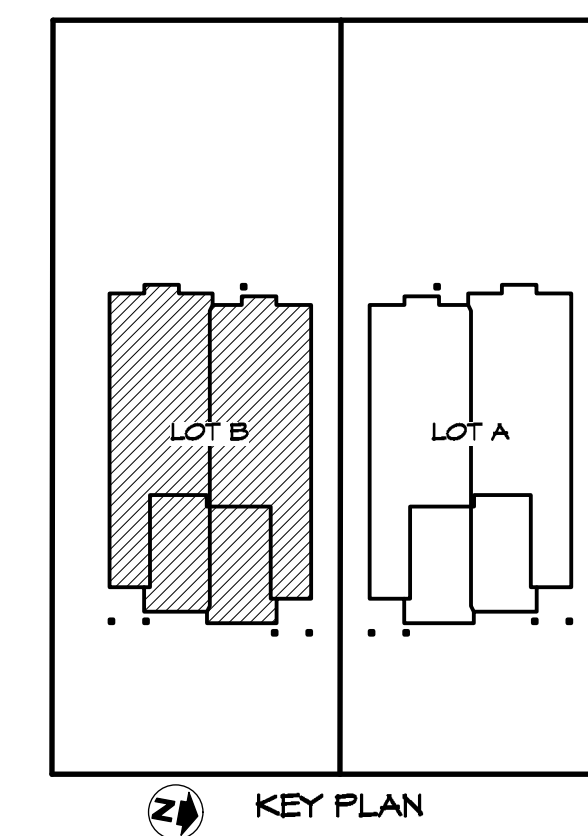
4 Main Floor Plan - Lot B  
Scale: 1:100



5 Upper Floor Plan - Lot B  
Scale: 1:100



6 Roof Plan - Lot B  
Scale: 1:100



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ZEBRADESIGN

1161 NEWPORT AVE  
Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
Fax: (250) 360-2115

Drawn By: K. KOSHMAN

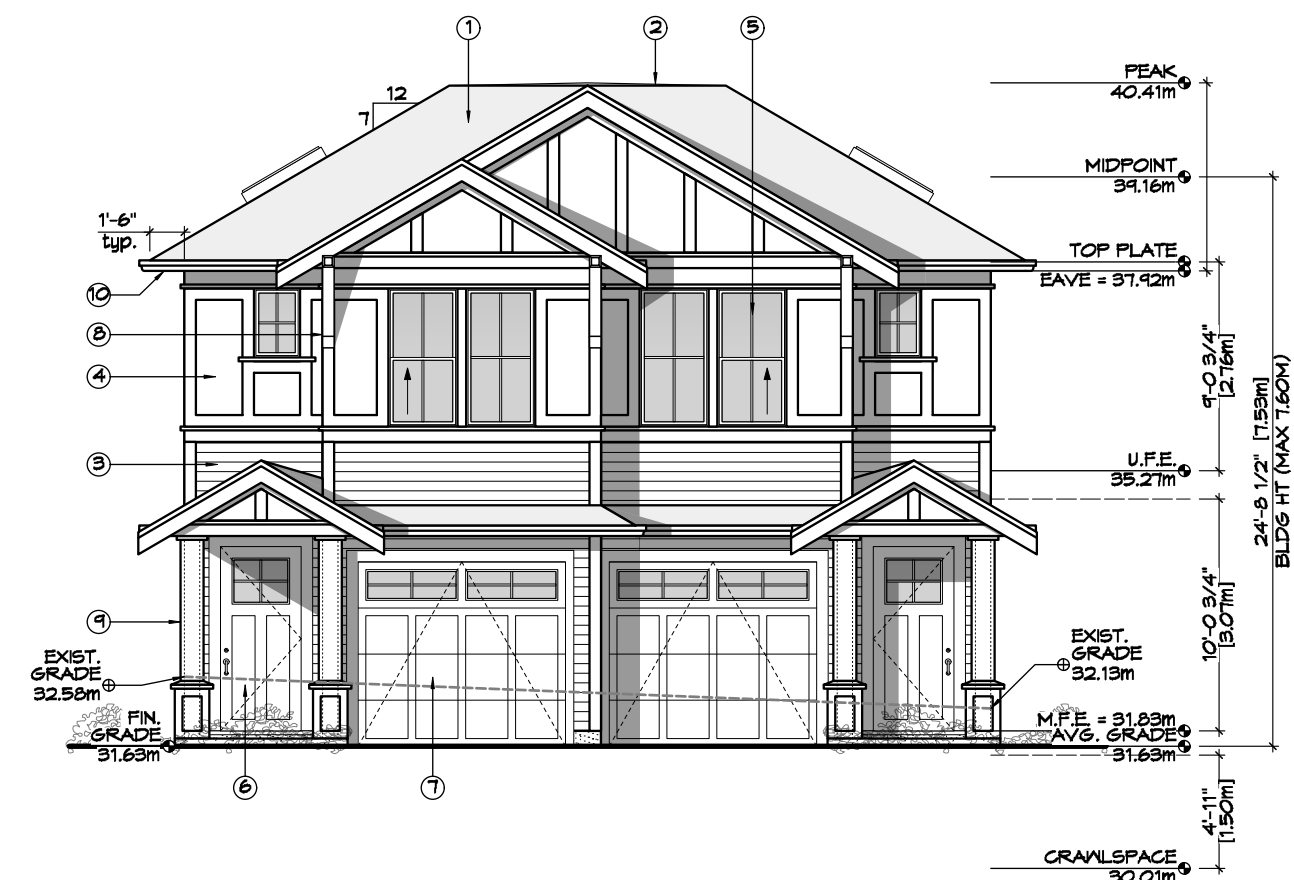
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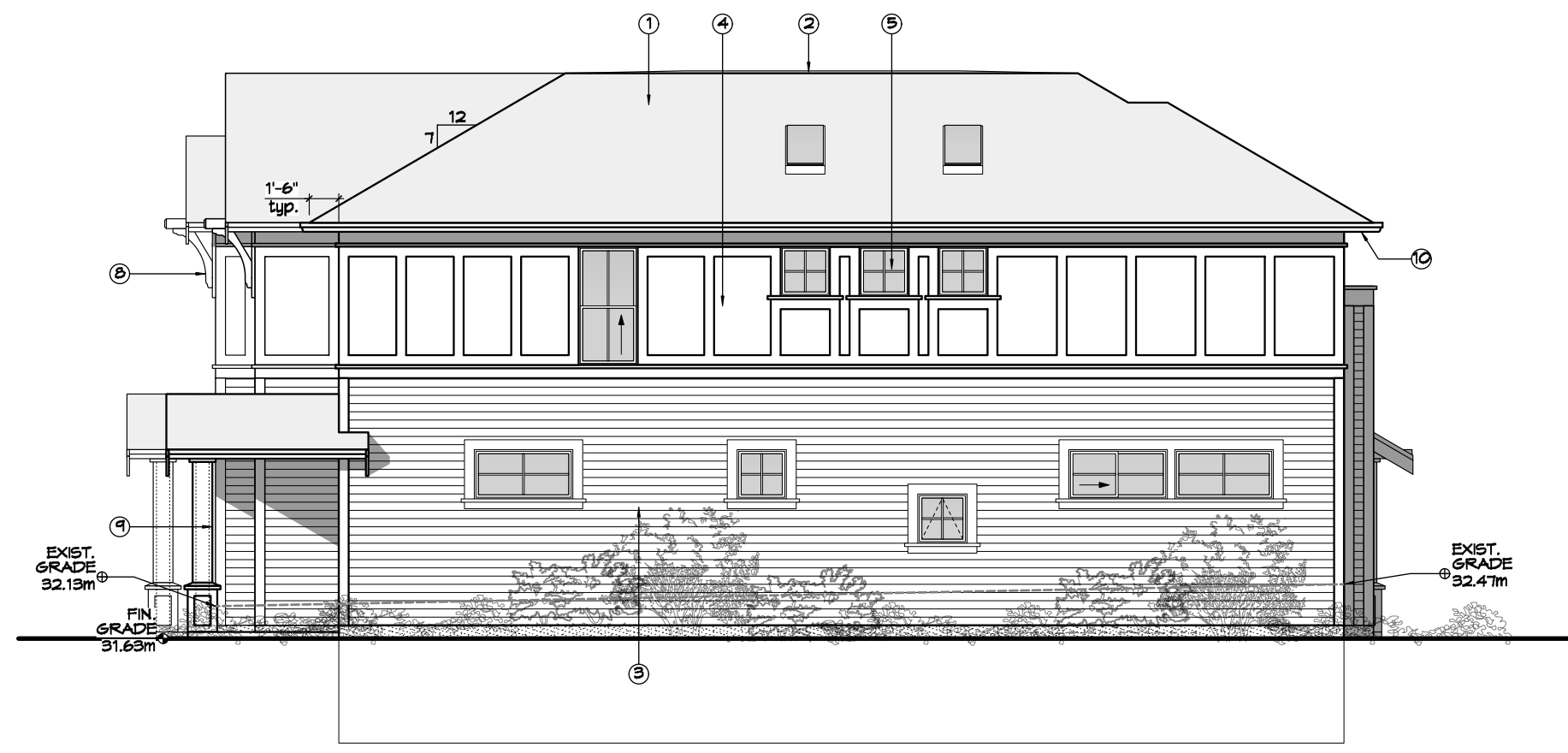
Project:  
PROP. DUPLEXES &  
2-LOT SUBDIVISION  
3150 SOMERSET ST

Title:  
FLOOR PLANS

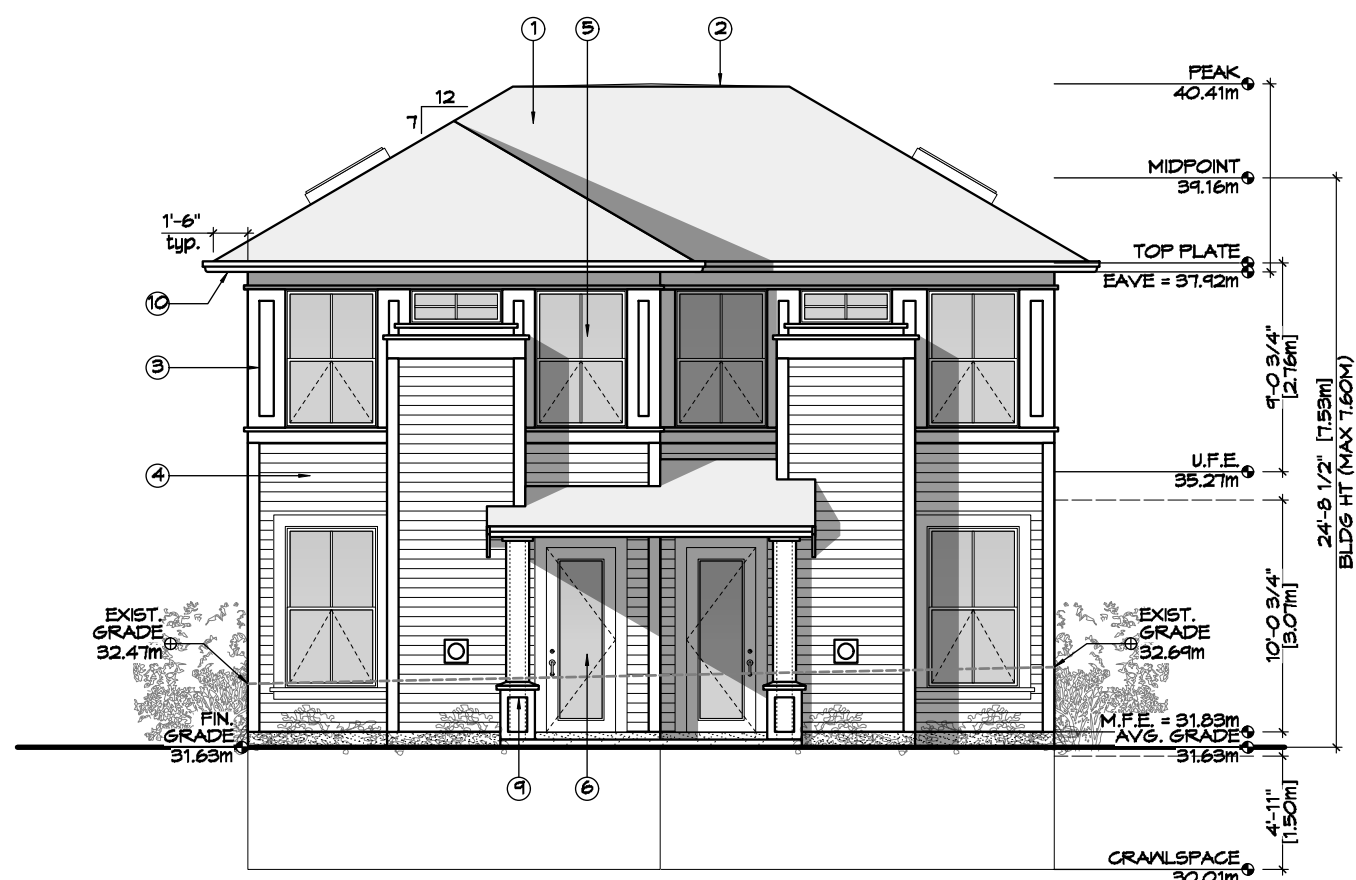
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1	NO CHANGES	NOV. 27/20	CALLIC SUBMISSION	DP 2.1
2	NO CHANGES	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE FRONT ENTRIES	MAR. 24/21	REV 2 - DP/REZONE	
3a	FLIP GARAGE MAN-DOOR TO SWING INTO LIVING SPACE	APR. 08/21	REV 3 - MAR. 24/21	
4	NO CHANGES	MAY 27/21	REV 4 - MAY 27/21	Proj.No. TBD



1 Front Elevation - Lot A  
Scale: 1:100



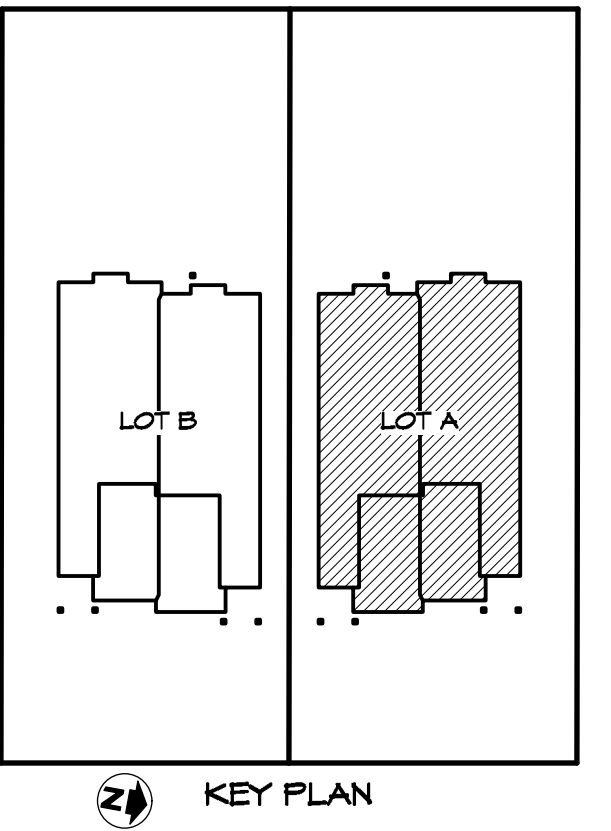
2 Side (N) Elevation - Lot A  
Scale: 1:100



3 Rear Elevation - Lot A  
Scale: 1:100



4 Side (S) Elevation - Lot A  
Scale: 1:100



FINISH SCHEDULE KEY

- 1 FIBERGLASS SHINGLE ROOFING
- 2 SBS-MEMBRANE ROOFING
- 3 CEMENTITIOUS HORIZONTAL SIDING
- 4 CEMENTITIOUS PANELS & TRIM
- 5 VINYL WINDOW
- 6 FIBERGLASS ENTRY DOOR
- 7 METAL GARAGE DOOR W/GLAZING
- 8 WOOD BRACKET
- 9 WOOD POST
- 10 SOFFIT - PREFIN. VENTED METAL

MAXIMUM GLAZING CALCULATION - SIDE ELEVATION (S)	
DISTANCE TO PROPERTY LINE	1.52 M (5.00')
EXPOSED BUILDING FACE AREA	107.90 M2 (1161.40 SF)
GLAZING AREA	6.02 M2 (64.77 SF)
PERCENTAGE	5.58% (ALLOWED 7.04%)

MAXIMUM GLAZING CALCULATION - SIDE ELEVATION (N)	
DISTANCE TO PROPERTY LINE	3.00 M (9.84')
EXPOSED BUILDING FACE AREA	107.90 M2 (1161.40 SF)
GLAZING AREA	6.02 M2 (64.77 SF)
PERCENTAGE	5.58% (ALLOWED 10.00%)

MAXIMUM GLAZING CALCULATION - REAR ELEVATION (PER UNIT)	
DISTANCE TO PROPERTY LINE	13.97 M (45.83')
EXPOSED BUILDING FACE AREA	34.18 M2 (367.86 SF)
GLAZING AREA	7.43 M2 (80.01 SF)
PERCENTAGE	21.75% (ALLOWED 100.0%)

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MAY 27/21

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1161 NEWPORT AVE  
Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
Fax: (250) 360-2115

Drawn By: K. KOSHMAN

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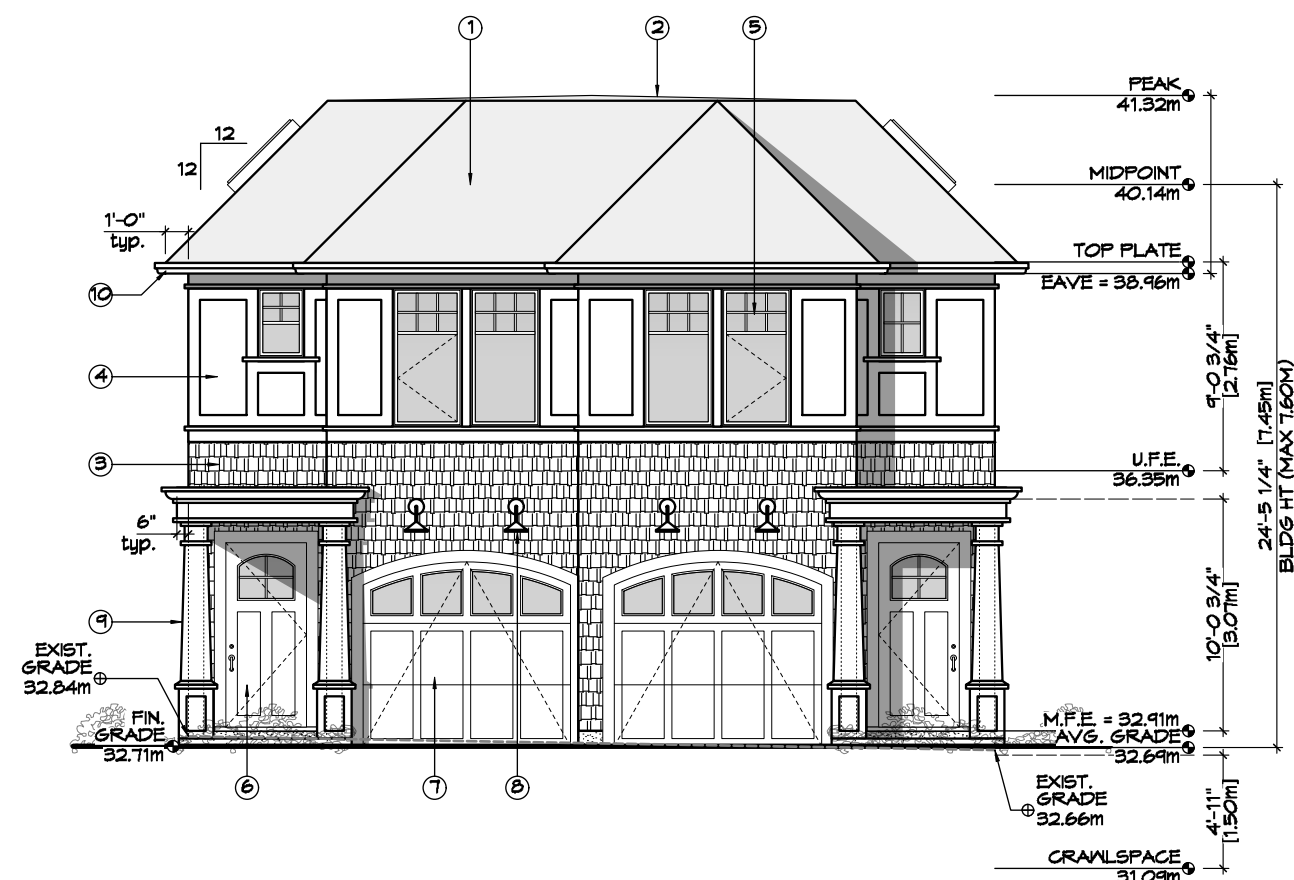
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Project:  
PROP. DUPLEXES &  
2-LOT SUBDIVISION  
3150 SOMERSET ST

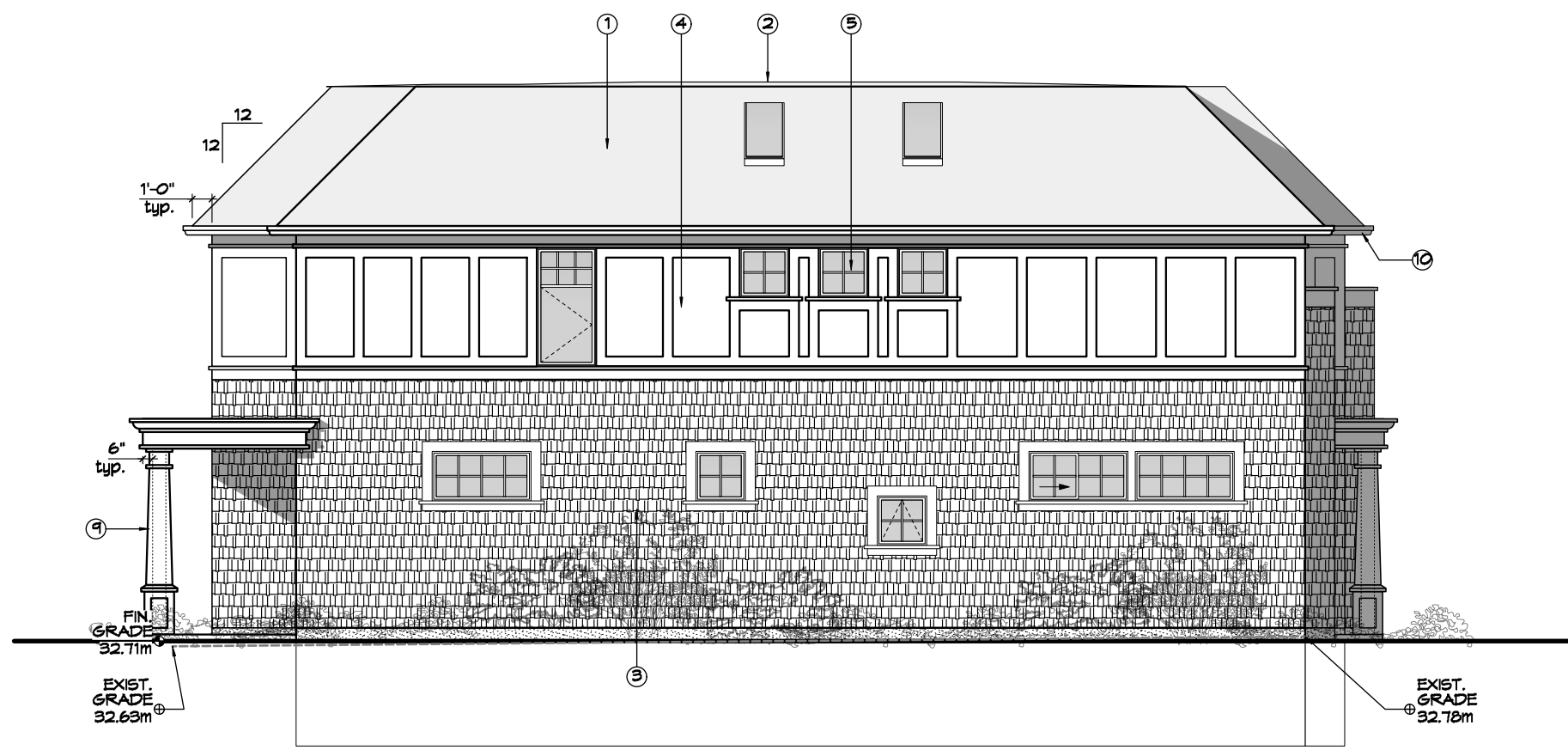
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ELEVATIONS  
LOT A

REV. NO.	DESCRIPTION	DATE	Revision:	Sheet:
1	NO CHANGES	NOV. 27/20	CALLIC SUBMISSION OCT. 23/20	DP 3.1
2	NO CHANGES	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE FRONT ENTRIES	MAR. 24/21	REV 2 - PREZONE SUBMISSION DEC. 10/20	
4	NO CHANGES	MAY 27/21	REV 3 - MAR. 24/21 REV 3A - APR. 08/21 REV 4 - MAY 27/21	
				Proj.No. TBD

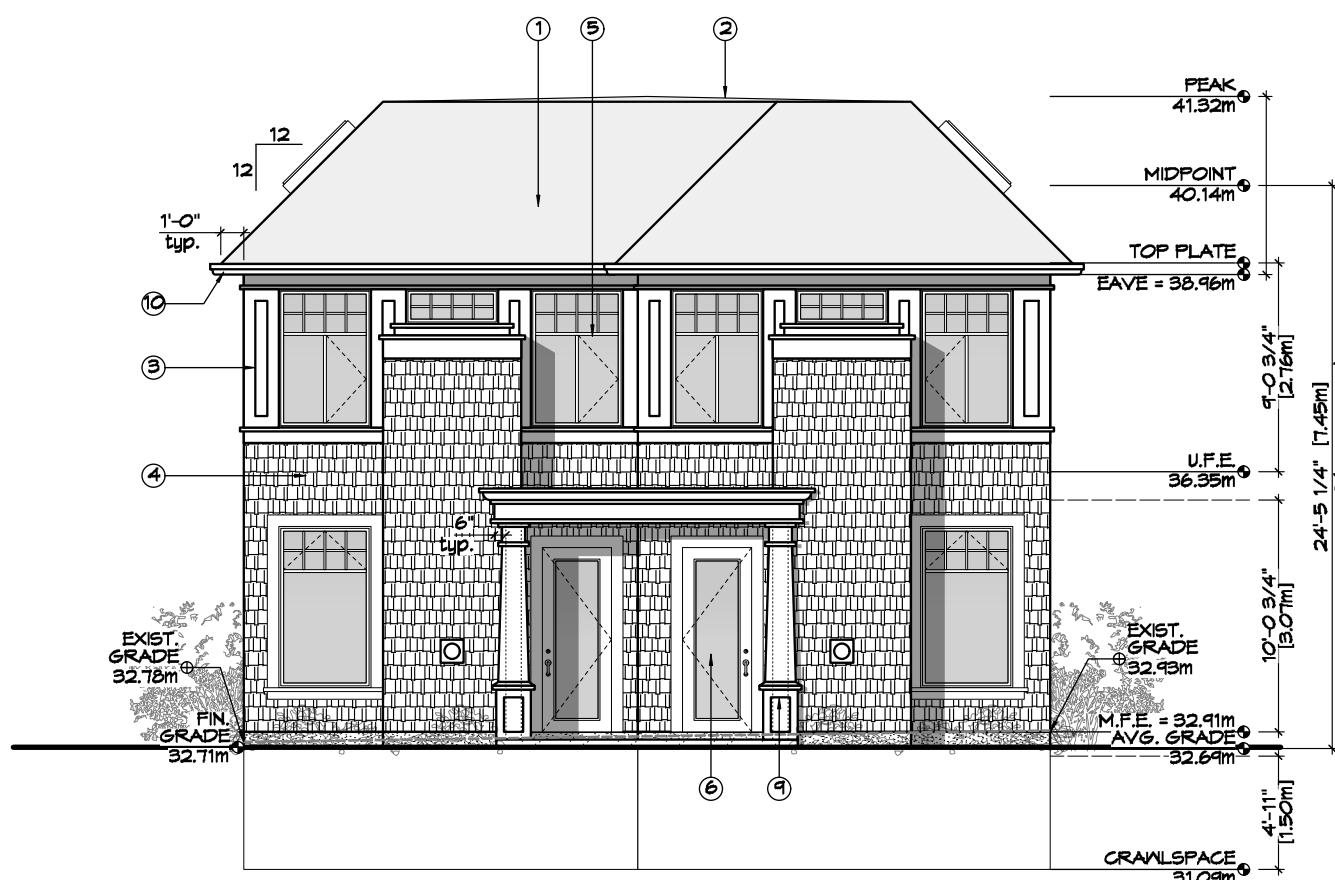




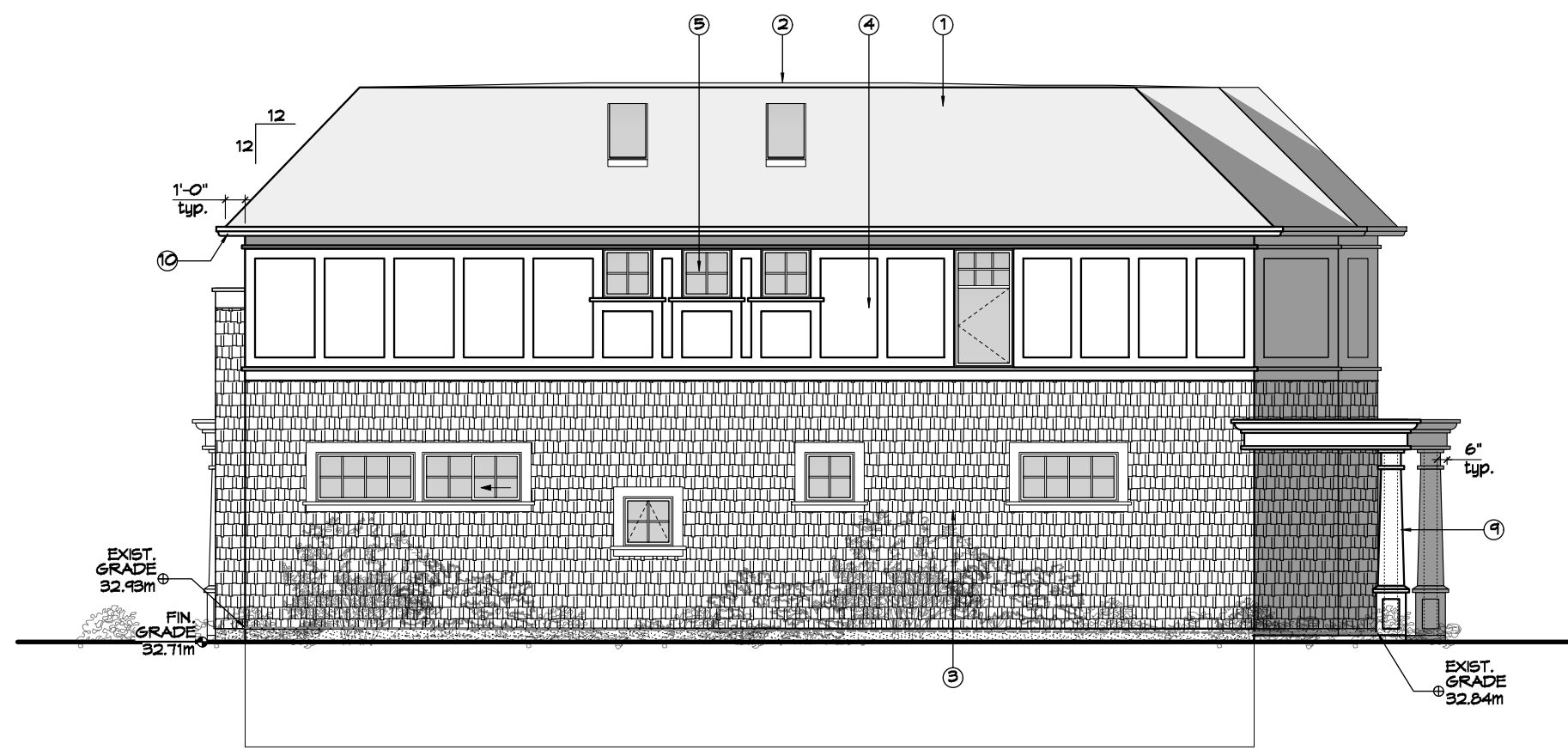
1 Front Elevation - Lot B  
Scale: 1:100



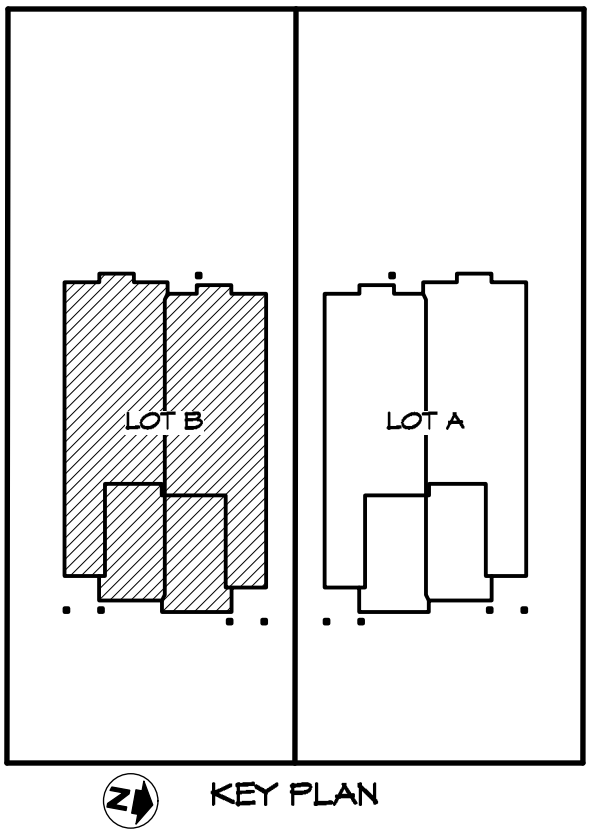
2 Side (N) Elevation - Lot B  
Scale: 1:100



3 Rear Elevation - Lot B  
Scale: 1:100



4 Side (S) Elevation - Lot B  
Scale: 1:100



- FINISH SCHEDULE KEY**
- ① FIBERGLASS SHINGLE ROOFING
  - ② SBS-MEMBRANE ROOFING
  - ③ WOOD SHINGLE FINISH
  - ④ CEMENTITIOUS PANELS & TRIM
  - ⑤ VINYL WINDOW
  - ⑥ FIBERGLASS ENTRY DOOR
  - ⑦ METAL GARAGE DOOR W/GLAZING
  - ⑧ LIGHT FIXTURE
  - ⑨ WOOD POST
  - ⑩ SOFFIT - PREFIN. VENTED METAL

MAXIMUM GLAZING CALCULATION - SIDE ELEVATION (S)	
DISTANCE TO PROPERTY LINE	3.00 M (9.84')
EXPOSED BUILDING FACE AREA	107.90 M2 (1161.40 SF)
GLAZING AREA	6.02 M2 (64.77 SF)
PERCENTAGE	5.58% (ALLOWED 10.00%)

MAXIMUM GLAZING CALCULATION - SIDE ELEVATION (N)	
DISTANCE TO PROPERTY LINE	1.52 M (5.00')
EXPOSED BUILDING FACE AREA	107.90 M2 (1161.40 SF)
GLAZING AREA	6.02 M2 (64.77 SF)
PERCENTAGE	5.58% (ALLOWED 7.04%)

MAXIMUM GLAZING CALCULATION - REAR ELEVATION (PER UNIT)	
DISTANCE TO PROPERTY LINE	13.97 M (45.83')
EXPOSED BUILDING FACE AREA	34.18 M2 (367.86 SF)
GLAZING AREA	7.43 M2 (80.01 SF)
PERCENTAGE	21.75% (ALLOWED 100.0%)

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**ZEBRADESIGN**



1161 NEWPORT AVE  
Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
Fax: (250) 360-2115

Drawn By: K. KOSHMAN

Date: OCT. 23/20

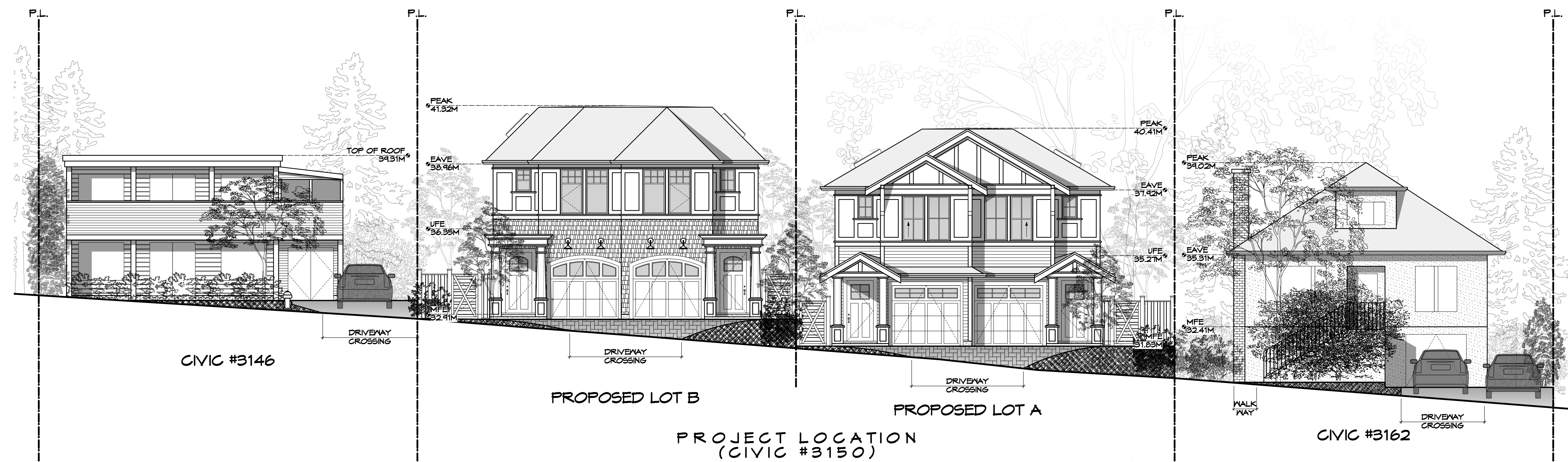
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Project:  
PROP. DUPLEXES &  
2-LOT SUBDIVISION  
3150 SOMERSET ST

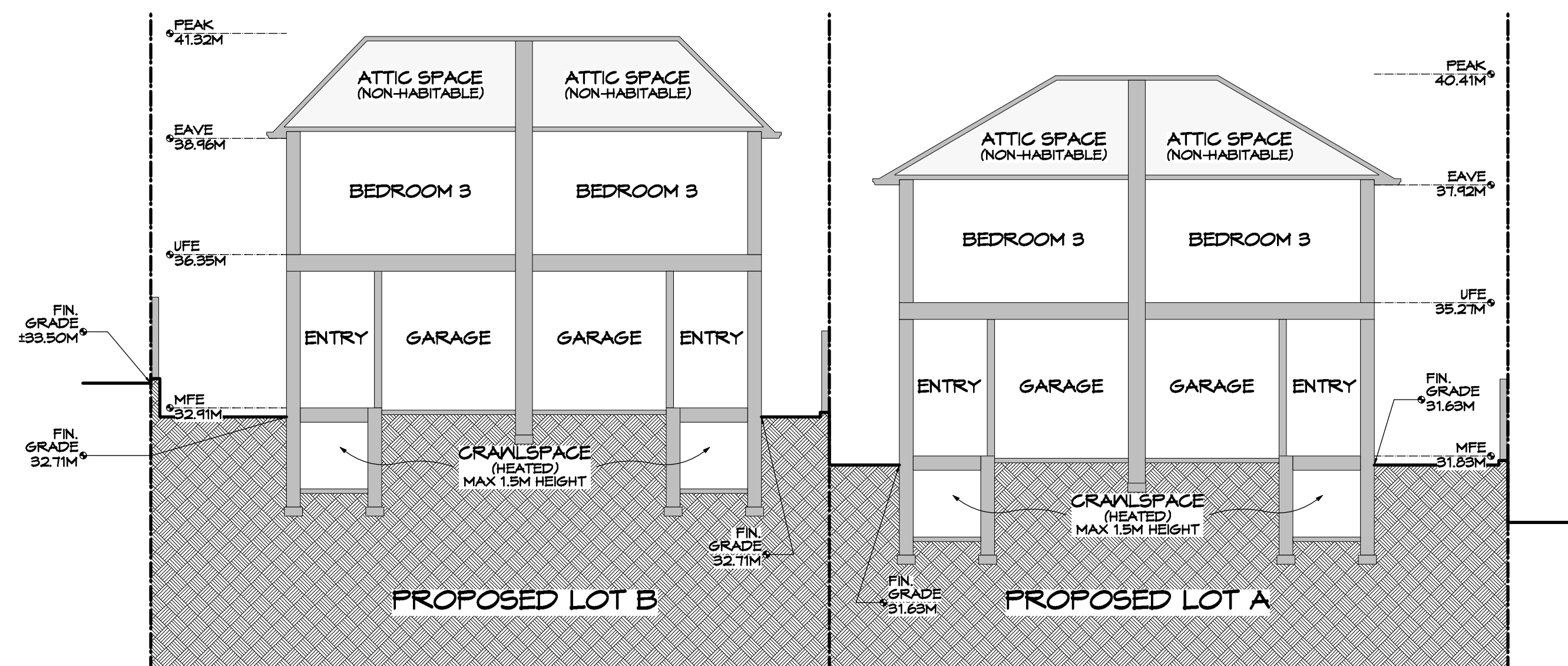
Title:  
ELEVATIONS  
LOT B

REV. NO.	DESCRIPTION	DATE	Revision:	Sheet:
1	NO CHANGES	NOV. 27/20	CALLIC SUBMISSION OCT. 23/20	DP 3.2
2	NO CHANGES	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE FRONT ENTRIES	MAR. 24/21	REV 2 - PREZONE SUBMISSION DEC. 10/20	
4	NO CHANGES	MAY 27/21	REV 3 - MAR. 24/21 REV 3A - APR. 08/21 REV 4 - MAY 27/21	
				Proj.No. TBD

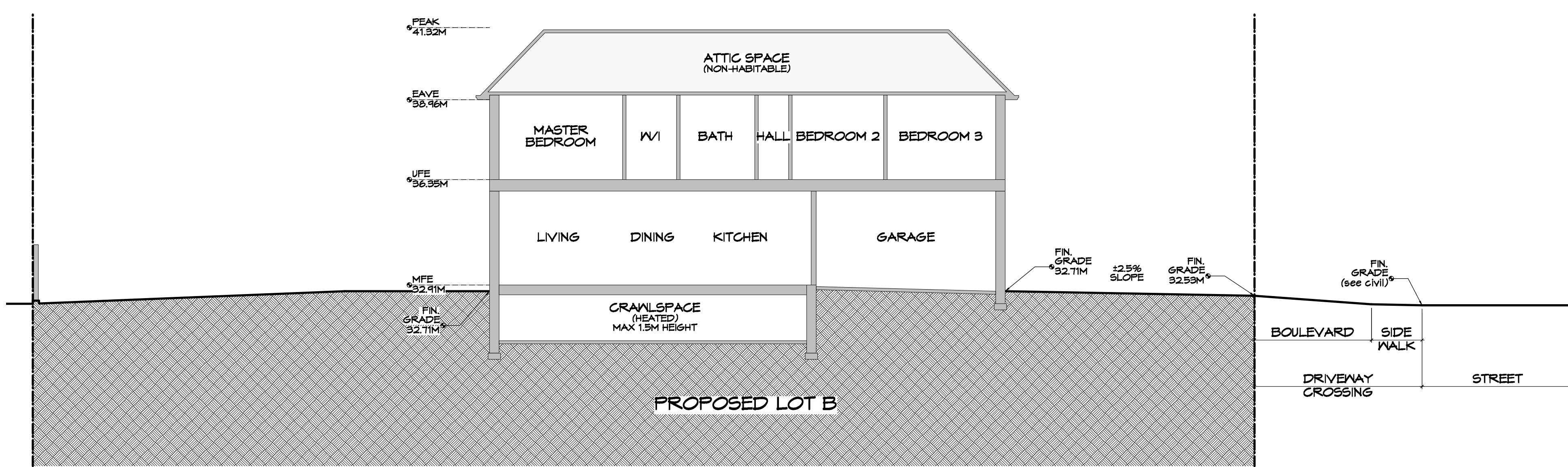




1 Streetscape  
Scale: 1:100



2 Section A  
Scale: 1:100



3 Section B  
Scale: 1:100

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1161 NEWPORT AVE  
Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
Fax: (250) 360-2115

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Scale: AS NOTED

Project:  
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2-LOT SUBDIVISION  
3150 SOMERSET ST

Title:  
STREETSCAPE  
& SECTIONS

REV. NO.	DESCRIPTION	DATE	Revision:	Sheet:
1	SHOW TREE 592 AS RETAINED (IN BACKGROUND)	NOV. 27/20	CALLIC SUBMISSION COT. 30/20	DP 4.1
2	REVISE ROAD FRONTAGE	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE ROAD FRONTAGE; ADD CRAWLSPACE HEIGHT MAX	MAR. 24/21	REV 2 - PREZONE SUBMISSION DEC. 10/20	
4	NO CHANGES	MAY 27/21	REV 3 - MAR. 24/21 REV 3A - APR. 08/21 REV 4 - MAY 27/21	
				Proj.No. TBD





	PROPOSED LOT A	PROPOSED LOT B
BUILDING AREA	187.85 M <sup>2</sup> (2022.00 FT <sup>2</sup> )	187.85 M <sup>2</sup> (2022.00 FT <sup>2</sup> )
IMPERVIOUS AREA	22.67 M <sup>2</sup> (244.00 FT <sup>2</sup> )	17.84 M <sup>2</sup> (192.00 FT <sup>2</sup> )
PERMEABLE AREA	114.18 M <sup>2</sup> (1229.00 FT <sup>2</sup> )	113.25 M <sup>2</sup> (1219.00 FT <sup>2</sup> )
SSI AREA	0.00 M <sup>2</sup> (0.00 FT <sup>2</sup> )	0.00 M <sup>2</sup> (0.00 FT <sup>2</sup> )

### LANDSCAPE PLAN LEGEND

#### TREES/SHRUBS

EXISTING TREE	NEW TREE	NEW SHRUBS	GROUNDCOVER PLANTS

#### GROUNDCOVER

LAWN	MULCH

#### HARD LANDSCAPING

PERMEABLE PAVERS	CONCRETE PAVERS	RAISED GARDEN BED
BRUSHED CONCRETE DRIVEWAY CROSSING	PAVED SIDEWALK	WOOD PRIVACY FENCE
RETAINING WALL		

#### EGRESS

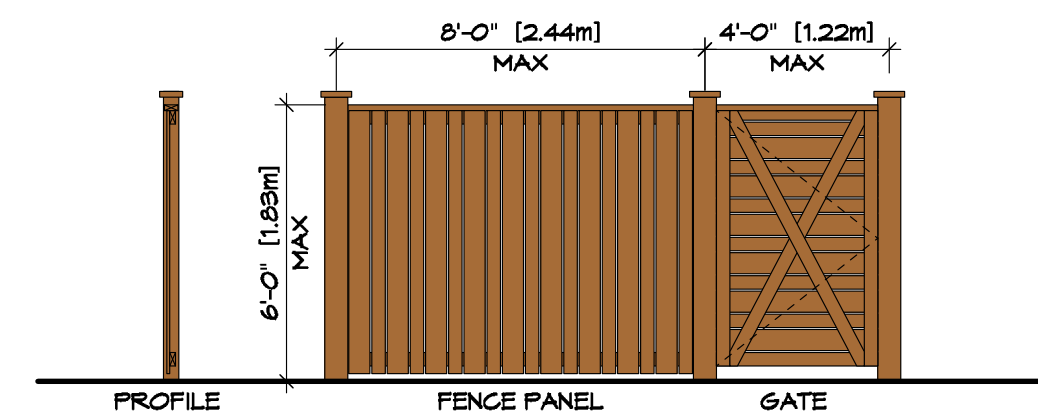
MAIN ENTRY	SECONDARY ENTRY

#### GRADING

EXISTING GRADE POINT	PROPOSED GRADING

#### NOTES:

- LANDSCAPING INDICATED IS CONCEPTUAL ONLY AND REQUIRES INSTALLATION BY A QUALIFIED LANDSCAPING CONTRACTOR.
- CONTRACTOR TO IDENTIFY UTILITIES PROVIDED THROUGH UNDERGROUND WIRING AND AVOID CONFLICT WITH EXCAVATIONS.
- ALL LANDSCAPING SHALL BE PERFORMED TO BCSLA, BCNA STANDARDS.
- ALL EXISTING TREES TO REMAIN, UNLESS NOTED OTHERWISE.
- FENCE TO BE MAX HEIGHT OF:  
1.20M (4'-0") BETWEEN FRONT PROPERTY LINE AND FRONT OF BUILDING  
1.80M (6'-0") BETWEEN FRONT OF BUILDING AND REAR PROPERTY LINE



2 Fence Design  
Scale: 1:50

REV. NO.	DESCRIPTION	DATE
1	SHOW TREE 542 AS RETAINED & REVISE REAR YARD PATIO	NOV. 21/20
2	REVISE ROAD FRONTAGE; ADJUST BUILDING LOCATIONS	DEC. 10/20
3	REVISE FRONT ENTRIES; REVISE ROAD FRONTAGE/SIDEWALK LOCATION; REVISE PATIO MATERIAL; REVISE WALKWAYS; ADD ARBORIST NOTE RE CRZ OF TREE; ADD FINISH GRADES; ADD SERVING; ADD IMPERVIOUS/PERMEABLE AREAS; REVISE PLAN LEGEND	MAR. 24/21
4	ADD PROPOSED GRADING AT TREE 542	MAY 27/21

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Victoria, B.C. V8S 5E6  
Phone: (250) 360-2144  
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Scale: AS NOTED

Project:  
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2-LOT SUBDIVISION  
3150 SOMERSET ST

Title:  
LANDSCAPE PLAN

Revision: CALLIC SUBMISSION OCT. 23/20 REV 1 - NOV. 21/20 REV 2 - DEC. 10/20 REV 3 - MAR. 24/21 REV 4 - MAY 27/21	Sheet: DP 5.1 Proj.No. TBD
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Date: OCT. 23/20

Scale: AS NOTED

Project:  
PROP. DUPLEXES &  
2-LOT SUBDIVISION  
3150 SOMERSET ST

Title:  
RENDERINGS

REV. NO.	DESCRIPTION	DATE	Revision:	Sheet:
1	NO CHANGES	NOV. 27/20	CALLIC SUBMISSION	DP 5.2
2	NO CHANGES	DEC. 10/20	REV 1 - NOV. 27/20	
3	REVISE FRONT ENTRIES AND DRIVEWAY	MAR. 29/21	REV 2 - DP/REZONE SUBMISSION	
4	NO CHANGES	MAY 27/21	REV 3 - MAR. 29/21 REV 3A - APR. 08/21 REV 4 - MAY 27/21	
				Proj.No. TBD