



District of West Vancouver Development Permit No. 24-053

CURRENT OWNER: 1350744 B.C. LTD., INC.NO. BC1350744

THIS DEVELOPMENT PERMIT APPLIES TO:

CIVIC ADDRESS: 931 Esquimalt Avenue

LEGAL DESCRIPTION: 008-890-871
LOT B BLOCK 3 DISTRICT LOTS 1048 AND 1049 PLAN
12452
(the "LANDS")

- 1.0 This Development Permit:
 - (a) imposes requirements and conditions for the development of the Lands, which are designated by the Official Community Plan as a Development Permit Area NE 6, to avoid hazardous conditions, ensure greater environmental compatibility, protect the natural environment, minimize site disturbance and blasting during construction on sloping sites within existing neighbourhoods; and
 - (b) is issued subject to the Owner's compliance with all of the Bylaws of the District applicable to the Lands.
- 2.0 Subdivision and development of the Lands shall take place in accordance with the recommendations and requirements found within the geotechnical assessment report dated July 10, 2024, from Terrane Geotechnical Group Ltd. which is attached to, and forms part of, this permit as Schedule 'A'.
- 3.0 Subdivision of the Lands shall take place in substantial compliance with the subdivision plan certified correct on May 29, 2024, from Chapman Land Surveying Ltd, which is attached to, and forms part of, this permit as Schedule 'B'.
- 4.0 The shared driveway location, building siting and landscaping shall take place in substantial compliance with the Schematic Landscaping Area Plan, which is attached to, and forms part of, this permit as Schedule 'C'.
- 5.0 Development activities adjacent to the Lands along Esquimalt Avenue, to provide for necessary retaining walls and parallel parking area, shall take place in accordance with the recommendations and requirements found within the geotechnical assessment report attached as Schedule 'A'.

- 6.0 The following requirements and conditions shall apply to the Lands:
- a) Cross-access easement agreements, with the District of West Vancouver as a third-party signatory, must be registered on the titles of Lots 1, 2, and 3 as part of the subdivision process to ensure the proposed shared driveway configuration is legally permissible.
 - b) As part of the subdivision process, a standard boulevard encroachment license and section 219 covenant must be entered into with District to address ongoing maintenance of the reinforced earth wall system to be built by the applicant adjacent to Esquimalt Avenue as stipulated in Schedule 'A' and 'C'.
 - c) At the sole discretion of the District of West Vancouver's Chief Building Official, a subsequent geotechnical report applicable to each new dwelling may be required as part of the Building Permit process (in compliance with Section 56 of the Community Charter, as amended from time to time).
 - d) Soil removal and deposits, including rock blasting and breaking, shall comply with the District's Soil Removal, Deposit, Blasting and Rock Breaking Bylaw as amended from time to time.
 - e) This development permit allows for removal of 3 'protected trees' on the Lands as defined within District of West Vancouver Tree Bylaw 4892, 2016. Specifically, tree numbers 2659, 2671 and 2677 identified within Schedule 'B' may be removed as part of development activities. No tree work shall occur until subdivision has been approved.
 - f) A Municipal Property Tree Cutting Permit is required for removal of boulevard trees adjacent to the Lands. Specifically, tree numbers 2665, 2666, 2669, 2670, 2667, and 2668 (which a cluster of 4 Hemlocks) identified within Schedule 'B' to provide the required parallel parking area on the north side Esquimalt Avenue which must be constructed as part of the subdivision works.
- 7.0 Prior to commencing any site work, demolition, or other development activities, the Owner must:
- a) Install tree and vegetation protection measures to the satisfaction of the District Arborist in compliance with District of West Vancouver Tree Bylaw 4892, 2016.
 - b) Provide and implement a plan for traffic management during development activities to the satisfaction of the District's Manager of Land Development.

- c) Provide and implement a sediment and erosion control plan during development activities to the satisfaction of the District's Manager of Land Development.
- 8.0 Prior to Building Permit issuance for new dwellings to be built on the Lands after subdivision, the Owner must:
- a) Submit a detailed landscape plan, for each new lot, that generally complies with the Schematic Landscaping Area Plan attached as Schedule 'C'. Approval and acceptance of the detailed landscape plan shall be determined at the sole discretion of the Director of Planning and Development Services (or designate) acting reasonably. For clarity, visual treatments such as 'creeping plants' should be utilized to improve the visual appearance of the upland retaining wall needed for the shared driveway identified in Schedule 'C'.
- 9.0 This Development Permit lapses if the work authorized herein is not commenced within 24 months of the date this permit is issued.

THE DIRECTOR OF PLANNING AND DEVELOPMENT SERVICES
APPROVED THIS PERMIT ON DECEMBER 11, 2024



JIM BAILEY, DIRECTOR OF PLANNING & DEVELOPMENT SERVICES

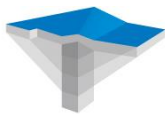
THE REQUIREMENTS AND CONDITIONS UPON WHICH THIS PERMIT IS ISSUED ARE ACKNOWLEDGED AND AGREED TO BY THE CURRENT OWNER. IT IS UNDERSTOOD:

- THAT OTHER PERMITS / APPROVALS MAY BE REQUIRED INCLUDING PERMITS / APPROVALS FOR BUILDING CONSTRUCTION, SOIL AND ROCK REMOVAL OR DEPOSIT, BOULEVARD WORKS, AND SUBDIVISION; AND
- THE DEVELOPMENT MUST ATTAIN REQUIREMENTS OF THE BC BUILDING CODE AND ANY VARIANCES TO THE ZONING BYLAW ARE THE RESPONSIBILITY OF THE OWNER AND MUST BE RECTIFIED AT THE BUILDING PERMIT STAGE.

FOR THE PURPOSES OF SECTION 9, THIS PERMIT IS ISSUED ON DECEMBER 11, 2024.

Schedules:

- A – “Geotechnical Review – Landslide Hazard Assessment” dated July 10, 2024, from Terrane Geotechnical Group Ltd.
- B – “Subdivision Plan” certified correct on May 29, 2024, from Chapman Land Surveying Ltd.
- C – “Schematic Landscaping Area Plan’ dated June 27, 2024, from ABC Architecture Building Culture Inc.



TERRANE
GEOTECHNICAL GROUP

114-2433 Dollarton Highway
North Vancouver, BC V7H 0A1

604-770-0355
info@terrane-group.com

July 10th, 2024
Project #7783

Mr. Steve Porchetta
4408 Stone Crescent,
WEST VANCOUVER, B.C.
V7W 1B7

Dear Sir:

**Re: GEOTECHNICAL REVIEW
FEASIBILITY OF PROPOSED THREE LOT SUBDIVISION
931 ESQUIMALT AVENUE, WEST VANCOUVER, B.C.**

1.0 INTRODUCTION

In accordance with your request, Terrane Engineering Group Limited (Terrane Group) conducted a geotechnical assessment at the above referenced site. It is proposed to subdivide the existing site into three lots. As portions of the site have an existing grade that exceeds 35%, it is understood that the District of West Vancouver (DWV) requires a geotechnical assessment of the stability of the site. The purpose of the assessment was to examine site conditions, identify and assess any slope stability concerns that exist, and report on the geotechnical feasibility of subdividing the above site into three lots and constructing three new residential structures within the proposed building footprints on the subdivided lots. DWV Guideline NE 6 (Sites with Difficult Terrain) applies to this site and any proposed development must consider the NE 6 guidelines.

The letter reports on the geotechnical assessment.

2.0 PROPOSED DEVELOPMENT

It is proposed to subdivide the existing site at 931 Esquimalt Avenue into three lots. After subdivision approval, new single-family residential structures would subsequently be constructed on each of the three new lots. Figure 1 shows the existing site and surrounding area with existing building footprints. Figure 2 shows the proposed subdivision plan with new lot areas, building locations, driveway and proposed retaining walls.

The proposed residential structures and carports will be notched into the sloping site. Excavation depth to accommodate foundations is expected not to exceed about 3.0 m below existing grade. Retaining and/or foundation walls will be required along the upper side of the site to accommodate the driveways and carports. These walls may have an exposed height of up to 2.4 m.

Vertical reinforced concrete retaining walls are proposed along the upper and lower portion of the access driveway. The lower approximately 16 m portion of the retaining wall on the uphill side of the driveway

will consist of two tiers with a 1.2 m separation between them. The upper tier will have an exposed height of about 2.4 m at the bottom of the driveway but the exposed height will decrease to less than 1.2 m at the upper end of the two tier portion. The lower tier in this area will have an exposed height of 2.4 m. The exposed height of the single tier portion of the retaining wall on the upper portion of the driveway will reduce in height from 2.4 m to less than 0.6 m at the upper end. The vertical concrete retaining wall on the lower south side of the driveway will have an exposed height typically less than 0.6 m. A retaining wall is proposed on the lower side of the site along the boulevard adjacent to Esquimalt Avenue. This wall will be on DWV property and is intended to create parallel parking space on the boulevard. The wall will have an exposed height of between 1.2 m and 2.1 m.

3.0 SITE DESCRIPTION

The site is located within the lower “Sentinel Hill” area of the District of West Vancouver, B.C. The legal description for the site is Lot B, Block 3, District Lots 1048 & 1049, Group 1, New Westminster District, Plan 12452. The site has a total area of about 1,470 m². It is bounded by residential properties with residential structures to the north, east and west, and by Esquimalt Avenue and residential properties with residential structures to the south. A single level wood-framed residential structure, some 80 years old and in poor shape, is present on the site. Photo 1 shows a view from Esquimalt Avenue looking northeast up the existing driveway on the site.

The topography in and adjacent to the site area is shown on Figures 2 & 3. The site slopes downward from northwest to southeast. The average slope is about 22° but localized areas slope at up to 36°. The site is landscaped with shrubs, bushes and some large coniferous trees. The shrubs and bushes are overgrown as the site has been vacant for some time. No bedrock outcrops were definitively identified.

4.0 SOIL/BEDROCK CONDITIONS

Geological Survey of Canada (GSC) surficial geology mapping indicated the site is located at the boundary where the underlying soil/bedrock consists of Tertiary bedrock to the north and Pleistocene Capilano Sediments to the south. The Tertiary bedrock typically consists of sandstone, siltstone, shale or conglomerate. Where bedrock is not exposed, it is covered by glacial deposits. The Pleistocene Capilano Sediments typically consist of raised deltaic and channel fill medium sand to cobble gravel up to 15 m thick overlying very dense till-like (glacial) deposits.

Siltstone, sandstone, conglomerate and volcanic (basalt) bedrock has been encountered by Terrane Group at project sites immediately north of this site. Very dense, till-like, gravelly sand and silt has also been encountered at project sites in the area. It is noted that an exposure of very dense, grey, till-like, silty sand and gravel was observed in a 1.5 m high cut at the northwest corner of the site behind the existing residential structure. It is expected that very dense, till-like soil will be encountered in excavations to support building and retaining wall foundations on this site.

5.0 GEOTECHNICAL ASSESSMENT

The GSC mapping and soil/bedrock encountered by Terrane Group at nearby project sites indicate that the site and surrounding area is underlain by competent till-like soil with bedrock present at depth. From a landslip perspective, the site and surrounding area is considered to be suitable for residential development. Terrane Group is not aware of any naturally occurring slope instability in this immediate area. Any instability that has occurred is related to temporary excavations.

It is expected that excavations to desired footing subgrade elevations for the proposed residential and retaining wall structures will encounter very dense, till-like soil. Further, it is expected that there is adequate space within property boundaries to accommodate sloped (unsupported) excavations. The only exception may be at the southwest corner of the site where it is intended to construct a two tier reinforced concrete retaining wall structure to accommodate the driveway entry to the site. Temporary excavation support may be required in this area. A detailed shoring design may be required depending on soil conditions encountered in this localized area as well as the structural design of the retaining wall. Consultation between the geotechnical and structural engineers will be required. This can be addressed at the building permit stage. It is noted that due to the limited space in this area, installation of a reinforced earth (MSE) wall is not considered to be feasible.

It is proposed to construct a retaining wall structure in the boulevard area of Esquimalt Avenue adjacent to the site. It is understood that the DWV would prefer to see a “green” wall structure rather than exposed concrete. Several “green” options are available such as “Flex-MSE” and “Sierra Slope / Sierra-Scape.” These types of retaining walls will permit vegetation to grow on the facing of the wall. It is noted that this type of option will require excavation farther into the slope compared to a conventional reinforced concrete wall to accommodate installation of geogrid reinforcing. There is ample room for the excavation to encroach into the site, however, the large coniferous tree on the slope above this area and its root system may be compromised. This tree is identified as “Protected Tree Tag #2671.” The geotechnical engineer will design the MSE wall.

In summary, it is judged that it is geotechnical feasible to subdivide the site into three lots and construct three new residential structures. Installation of foundations for the proposed residential and retaining wall structures should be straight forward as adequate bearing is expected to be present at shallow depth. Excavation support may be required at the lower southwest corner of the site to permit installation of the lower end of the two tier reinforced concrete retaining wall structure to accommodate the driveway entry to the site. The undersigned has assessed the lands in consideration of natural landslip hazard and the proposed development. It is judged that the land may be used safely for the use intended.

6.0 CLOSURE

It is trusted that the information presented fulfills your current requirements. If you have any questions, please do not hesitate to contact the undersigned at your convenience.

For
Terrane Engineering Group Limited (#1001310)

Geoffrey G. Dyer, M.Eng., P.Eng.
Senior Geotechnical Engineer

cc: District of West Vancouver
Erik Wilhelm

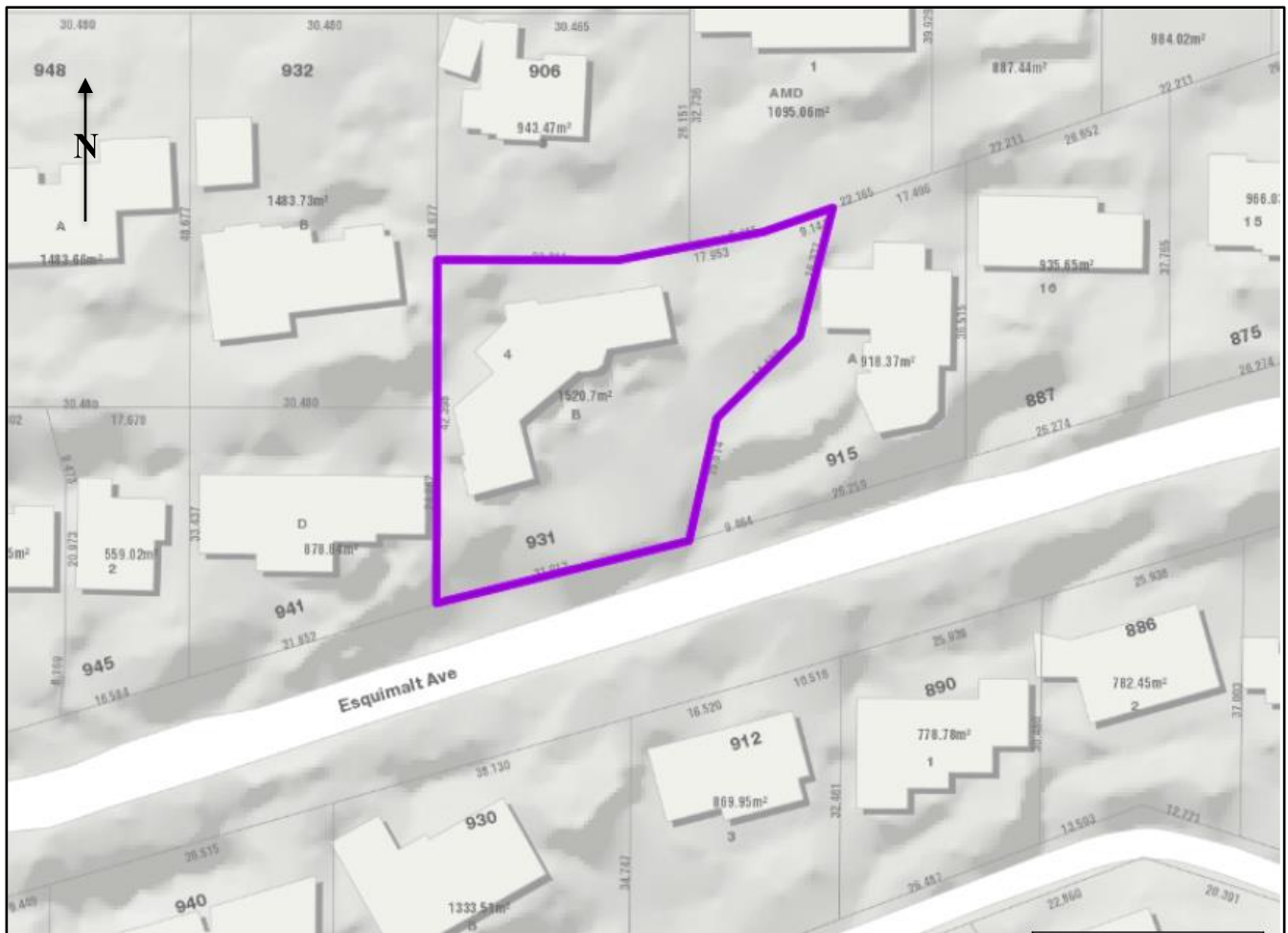


Figure 1 (Existing)

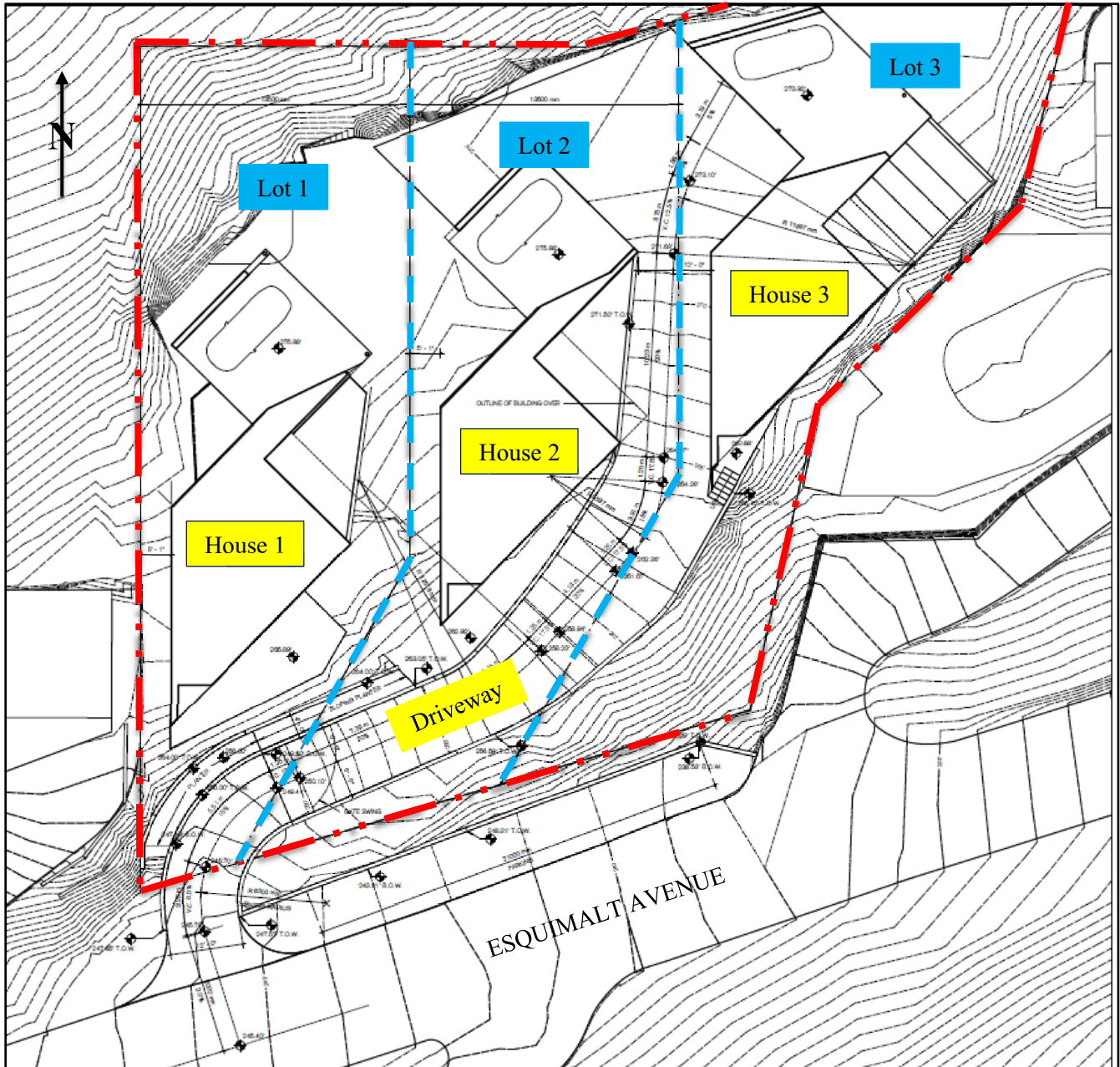


Figure 2 (Proposed)

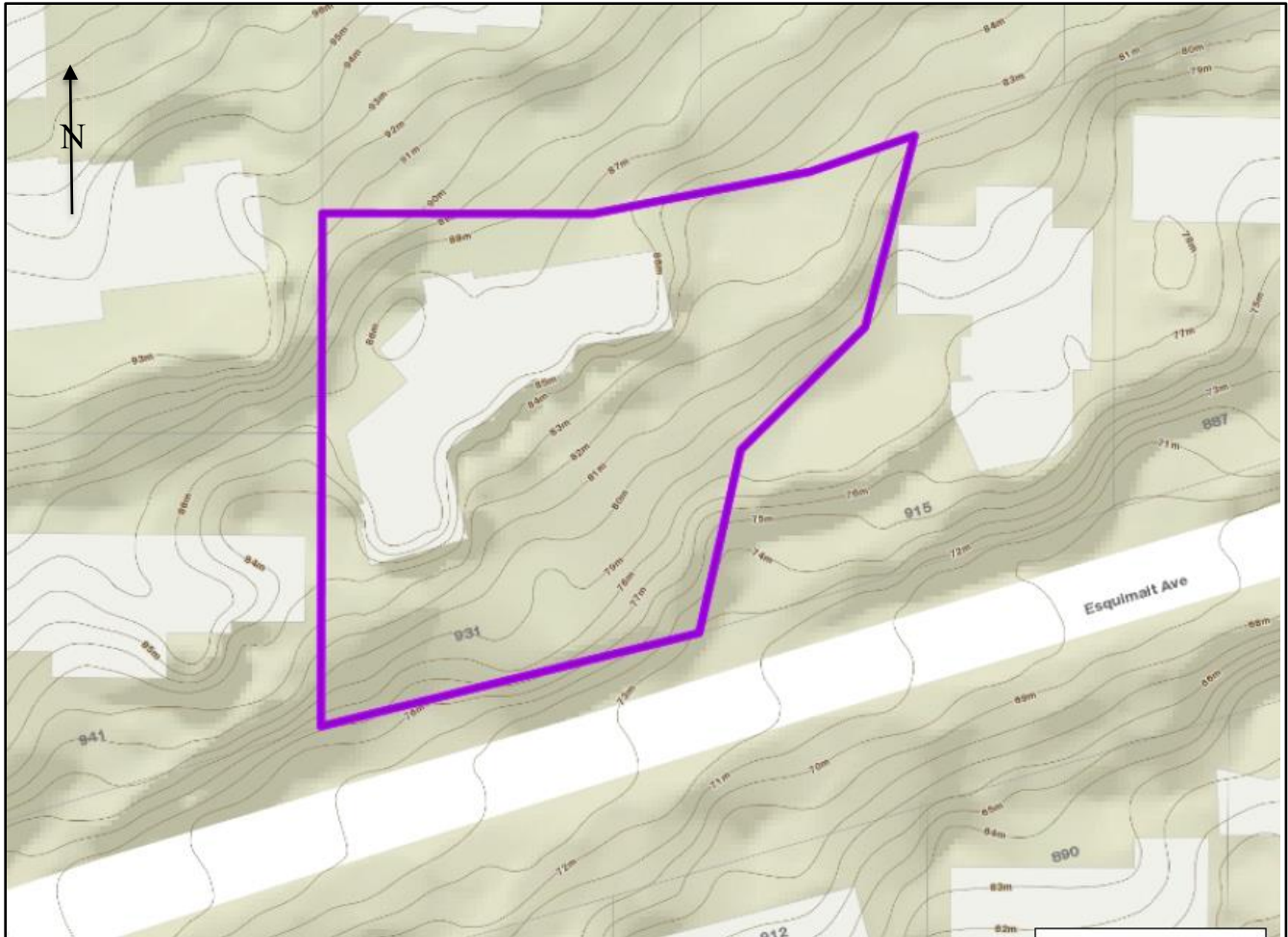


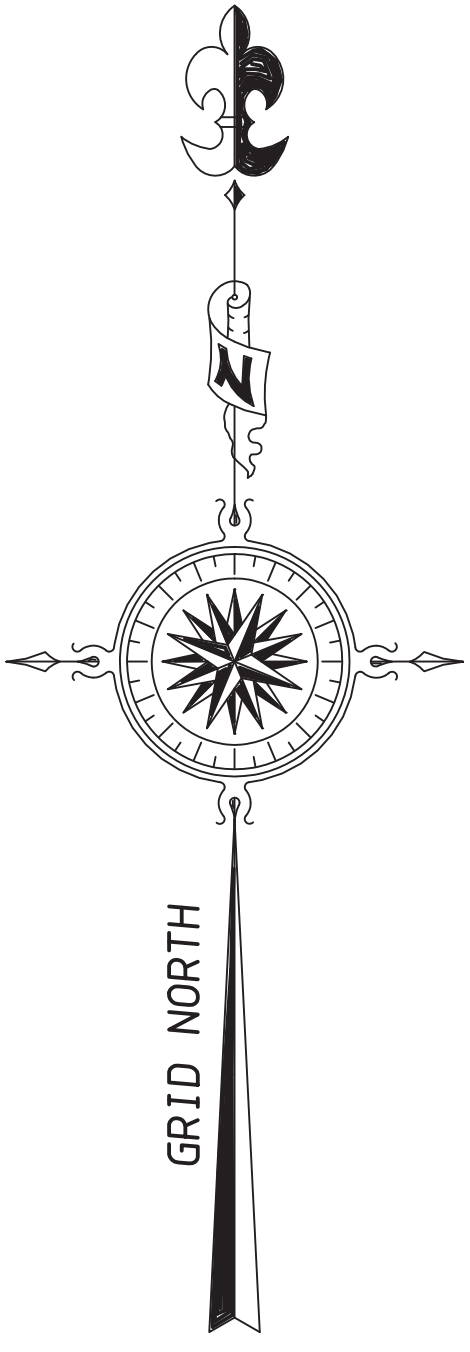
Figure 3 (General Topography)



Photo 1

TOPOGRAPHIC PLAN OF
LOT 'B', BLOCK 3,
DISTRICT LOTS 1048 AND 1049
GROUP 1, NEW WESTMINSTER DISTRICT
PLAN 12452
P. I. D. 008-890-871
SCALE: 8 FEET TO 1 INCH

"SHOWING PROPOSED SUBDIVISION"



AMENDED 1
(SEE 278199L)
PLAN 8653

AMENDED 3
PLAN 6667

'B'
PLAN 6764

DL 1048

DL

PROPOSED 1
AREA = 5275 SQ. FT
(490.1 sq. m.)

DWELLING AVENUE PROPOSED
(TO BE DEMOLISHED)
2
AREA = 5275 SQ. FT.
(490.1 sq. m.)

RECTANGLE
1080 SQ. FT.
PROPOSED
3
AREA = 5275 SQ. FT.
(490.1 sq. m.)

'A'
PLAN 12452

BLOCK

see POSTING
PLAN EPP122782

3

'D'
PLAN 6764

NORTH BOUNDARY
DL 1041

DL 1041

NAIL (192)
A229.3

DL

1
PLAN 7673
see POSTING
PLAN LMP30902

Zoning:
RSS.
Square Width = 102.55 feet (31.257m).
Rear yard setback = 29.86 feet (9.1m).
Front yard setback = 24.93 feet (7.6m).
2 Storey by definition sideyards:
Combined sideyard = 25% = 25.64 feet (7.82m).
Minimum sideyard = 10% = 10.25 feet (3.13m).

3
PLAN 7836

Building envelope to be
confirmed by the West Vancouver
Building Department.

Note:
(10.00m) denotes metric equivalent.

'B'
PLAN 8468

29 MAY 2024.

Field reinspection 1st February 2024.
Posting completed 13th September, 2022.
Field survey completed 25th March, 2022.

Not to be used for locating property lines.
This Document is not valid unless
originally signed & sealed.

THIS PLAN SHOWS ALL "PROTECTED TREES" AS
DEFINED IN DISTRICT OF WEST VANCOUVER
TREE BYLAW NO. 4892, 2016.

Certified Correct according to
Posting Plan EPP122782.
Digitally signed by William
Chapman SWL8NE
DN: cn=CLC, ou=William Chapman
SWL8NE, o=BC Land Surveyors,
ou=Surveyors, ou=www.landcent.com/
ou=SWL8NE, email=william@chapman-consulting.ca, c=B. C. L. S.
William R. Chapman

NOTE:
THIS LOT IS SUBJECT TO A RESTRICTIVE COVENANT (15734M),
INTER ALIA, PART DERIVED FROM FORMER LOT 17, PLAN 6735,
(SEE 45878L) EXCEPT CLAUSE 5.

Elevations are to Geodetic Datum and are derived from
Sanitary Manhole 48 fronting 1058 Esquimalt Avenue:
Invert Elevation = 201.33 feet (61.365m).

© CHAPMAN LAND SURVEYING LTD. 2024
British Columbia Land Surveyors
688 Duchess Avenue
WEST VANCOUVER, B. C.
V7T 1G7 604-328-4616
EMAIL: bill@chapman-consulting.ca

this 29th day of May, 2024.

B3: B: 2447 (54), 2463 (166) JOB: 22-185 FILE: 2185D COMP: 2185D-B. PR3

Schedule C

ABC BC

ABC Architecture Building Culture Inc.
Holder of Certificate of Practice
Architectural Institute of British Columbia
5736 CRANLEY DRIVE
WEST VANCOUVER, BC V7W 1S8
+1 778 960 3505
www.architecture-bc.com



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931 ESQUIMALT AVE
WEST VANCOUVER, BC



KEY:

-  GRAVEL - PERMEABLE
-  DRIVE SURFACES - IMPERMEABLE
-  CONCRETE PARKING AND STAIRS - IMPERMEABLE
-  PATIOS - SEMIPERMEABLE
-  SHRUBS - NON INVASIVE, DROUGHT RESISTANT TYPE
-  NATURAL GROWTH / TREES
-  HEDGING
-  GRASS'

Description

REVISIONS
No. Date

DESIGNED BY: ABC
APPROVED BY: ABC
PROJECT NUMBER: 202303
SCALE: 1/8" = 1'-0"
FIRST ISSUE DATE: 27 June 2024

SUBDIVISION & DRIVEWAY
**SCHEMATIC LANDSCAPING
AREA PLAN**

A10.5

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IF IN DOUBT, ASK.

ALL WORKS THAT REQUIRE APPROVAL FROM THE AUTHORITY'S HAVING JURISDICTION MUST NOT PROCEED WITHOUT APPROVALS IN PLACE

