District of West Vancouver

Official Community Plan Bylaw No. 4985, 2018, Amendment Bylaw No. 5335, 2024

Effective Date:

District of West Vancouver

Official Community Plan Bylaw No. 4985, 2018, Amendment Bylaw No. 5335, 2024

Table of Contents

District of West Vancouver

Official Community Plan Bylaw No. 4985, 2018, Amendment Bylaw No. 5335, 2024

A bylaw to amend the Official Community Plan to include 14 Glenmore Drive within Development Permit Area BF-B 11 “Duplex Areas”.

Previous amendments: 5008, 5045, 5054, 5057, 5064, 5074, 5076, 5120, 5128, 5135, 5172, 5321, and 5222.

WHEREAS the Council of The Corporation of the District of West Vancouver deems it expedient to provide for an amendment to the Official Community Plan to allow for the appropriate development of lands at 14 Glenmore Drive and include the lands within the “Duplex Areas” development permit area;

NOW THEREFORE, the Council of The Corporation of the District of West Vancouver enacts as follows:

Part 1 Citation

1.1 This bylaw may be cited as Official Community Plan Bylaw No. 4985, 2018, Amendment Bylaw No. 5335, 2024.

Part 2 Severability

2.1 If a portion of this bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

Part 3 Amends Area Specific Policy

3.1 Schedule ii of Official Community Plan Bylaw No. 4985, 2018 is amended by amending Policy BF-B 11 “Duplex Areas” as follows:

3.1.1 On page 31 of Schedule ii forming part of Official Community Plan Bylaw No. 4985, 2018 delete **Schedule A** and insert in its place **Schedule B**.

Schedules

Schedule A – Current “Duplex Area Development Permit Area Designation Map BF-B 11 (3 of 3)
Schedule B – Proposed “Duplex Area Development Permit Area Designation Map BF-B 11 (3 of 3)

READ A FIRST TIME (MAJORITY VOTE IN THE AFFIRMATIVE) on May 6, 2024

PUBLICATION OF NOTICE OF PUBLIC HEARING on June 5 and 12, 2024

PUBLIC HEARING HELD on June 17, 2024

READ A SECOND TIME (MAJORITY VOTE IN THE AFFIRMATIVE) on June 17, 2024

READ A THIRD TIME (MAJORITY VOTE IN THE AFFIRMATIVE) on June 17, 2024

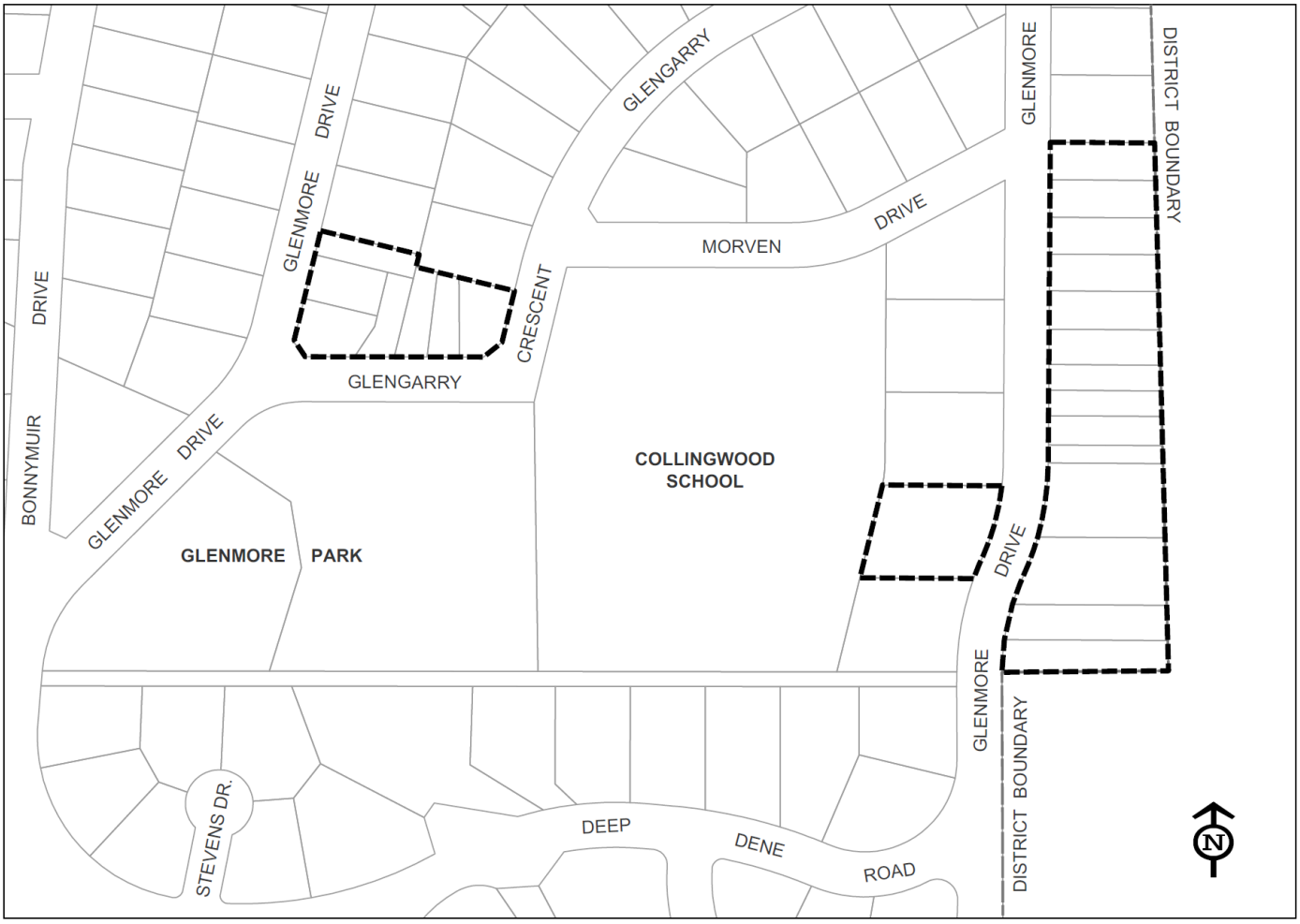
ADOPTED by the Council (MAJORITY VOTE IN THE AFFIRMATIVE) on

_____
Mayor

_____
Corporate Officer

Schedule A – Current "Duplex Area Development Permit Area Designation Map BF-B 11 (3 of 3)

Schedule B – Proposed "Duplex Area Development Permit Area Designation Map BF-B 11 (3 of 3)



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District of West Vancouver

Zoning Bylaw No. 4662, 2010, Amendment Bylaw No. 5336, 2024

(14 Glenmore Drive)

Effective Date:

5721694v1

District of West Vancouver

Zoning Bylaw No. 4662, 2010, Amendment Bylaw No. 5336, 2024

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District of West Vancouver

Zoning Bylaw No. 4662, 2010, Amendment Bylaw No. 5336, 2024

A bylaw to rezone 14 Glenmore Drive for a 6-unit multi-family development.

Previous amendments: Amendment bylaws 4672, 4677, 4678, 4679, 4689, 4701, 4680, 4710, 4697, 4716, 4712, 4737, 4726, 4736, 4757, 4752, 4767, 4787, 4788, 4784, 4772, 4791, 4805, 4809, 4828, 4854, 4873, 4866, 4895, 4839, 4898, 4927, 4944, 4905, 4974, 4967, 4982, 4962, 4928, 4992, 5001, 5021, 5024, 5028, 5009, 4938, 5044, 5055, 5051, 5068, 5065, 5087, 5069, 5110, 5106, 5132, 5161, 5160, 5013, 5122, 5155, 5169, 5192, 5175, 5171, 5201, 5230, 5081, 5223, and 5270.

WHEREAS the Council of The Corporation of the District of West Vancouver deems it expedient to provide for an amendment to the Zoning Bylaw;

NOW THEREFORE, the Council of The Corporation of the District of West Vancouver enacts as follows:

Part 1 Citation

1.1 This bylaw may be cited as Zoning Bylaw No. 4662, 2010, Amendment Bylaw No. 5336, 2024.

Part 2 Severability

2.1 If a portion of this bylaw is held invalid by a Court of competent jurisdiction, then the invalid portion must be severed and the remainder of this bylaw is deemed to have been adopted without the severed section, subsection, paragraph, subparagraph, clause or phrase.

Part 3 Adds CD87 Zone & Rezones the Lands

3.1 Zoning Bylaw No. 4662, 2010, Schedule A, Section 600 (Comprehensive Development Zones) is hereby amended by adding Section 687 as the CD87 – Comprehensive Development Zone 62 (14 Glenmore Drive), as set out in **Schedule A** of this bylaw.

3.2 The Lands, as set out in **Schedule B** of this bylaw are rezoned from Multiple Dwelling Zone 4 (RM4) to Comprehensive Development Zone 87 (14 Glenmore Drive) (CD87).

Part 4 Amends the Table of Contents

4.1 Zoning Bylaw No. 4662, 2010, Schedule A, Section 100 Table of Contents is amended accordingly to insert Comprehensive Development Zone 87 (14 Glenmore Drive).

Part 5 Amends Zoning Map

5.1 Zoning Bylaw No. 4662, 2010, Schedule A, Section 852, Schedule 2, Zoning Maps is hereby amended by changing the zoning on the Lands as shown shaded on the map in **Schedule B** of this bylaw,

FROM: RM4 (Multiple Dwelling Zone 4)

TO: CD87 – Comprehensive Development Zone 87 (14 Glenmore Drive).

Schedules

Schedule A - CD87 - Comprehensive Development Zone 87 (14 Glenmore Drive)
Schedule B - Rezoning Map

READ A FIRST TIME on May 6, 2024

PUBLICATION OF NOTICE OF PUBLIC HEARING on June 5 and 12, 2024

PUBLIC HEARING HELD on June 17, 2024

READ A SECOND TIME on June 17, 2024

READ A THIRD TIME on June 17, 2024

ADOPTED by the Council on

_____

Mayor

_____

Corporate Officer

Schedule A – CD87 - Comprehensive Development Zone 87 (14 Glenmore Drive)

687 CD87 (14 Glenmore Drive)

687.01 Permitted Uses

(1) Duplex dwellings
(2) Accessory buildings, structures and uses
(3) Child care
(4) Community care
(5) Home based business
(6) Lodgers
(7) Secondary suites

687.02 Conditions of Use

(1) No more than 2 lodgers can be kept within an individual/principal duplex dwelling unit
(2) Access to onsite parking and garages must be provided from a laneway

687.03 Floor Area Ratio (FAR)

(1) Total maximum of 0.71 FAR
(2) For the purposes of calculating FAR, the site area is 1,830.1 square metres, being the area of the site prior to any required lane dedications
(3) The floor area exemptions of Sections 130.08 shall not apply and the floor area is the sum of the overall floor areas of all buildings, structures, and enclosed areas, yet the following floor area exemptions shall apply:
    - Enclosed garage areas to a maximum of 123 square metres for the entire site; and
    - Basements areas to a maximum of 697 square metres for the entire site.

687.04 Density

A maximum of 3 duplex dwellings (for a maximum of 6 principal dwelling units)

687.05 Setbacks

Minimum:

Front (Glenmore Drive):	7.6 metres
Rear:	7.6 metres
Side (south):	1.52 metres
Side (north):	1.3 metres

687.06 Building Height

Building height is limited to a maximum height of 7.62 metres measured from average finished grade, yet notwithstanding the definition of finished grade within Section 100 of the Zoning Bylaw, shall exclude window wells with a clear distance measured out from the wall of less than 0.9 metres to a maximum of 6.0 metres in cumulative length along each building face.

687.07 Number of Storeys

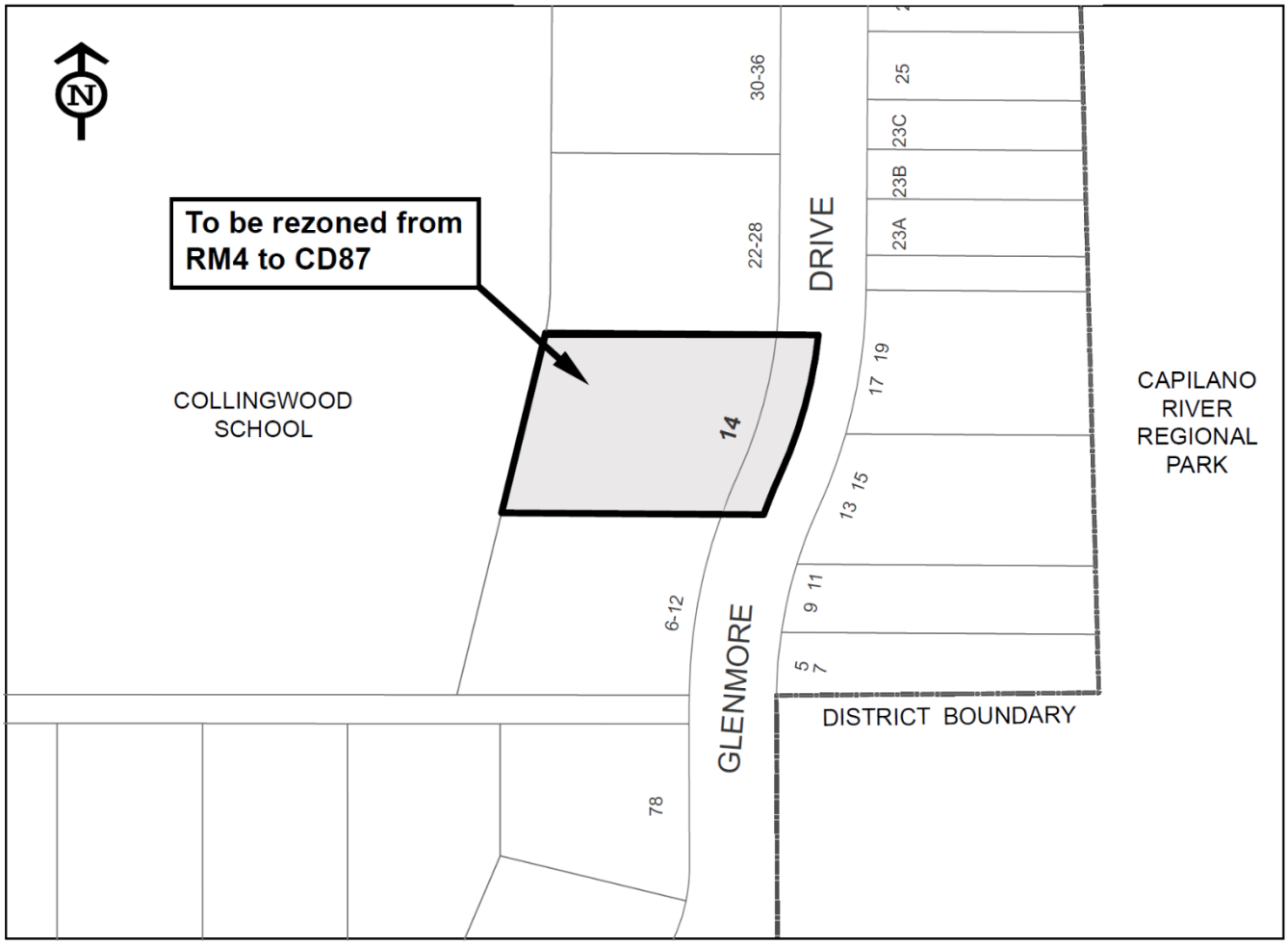
A maximum of 2 storeys plus basement

687.08 Off-Street Parking

(1) Parking shall comply with Section 141.01 of the Zoning Bylaw; however:

- A minimum of 3 visitor vehicle parking stalls is required; and
- All non-visitor vehicle parking stalls shall include an energized outlet capable of providing Level 2 charging for an electric vehicle.

Schedule B – Rezoning Map



5721694v1

District of West Vancouver
Proposed Development Permit No. 23-100

Current Owner: 1397095 B.C. LTD., INC.NO. BC1397095

This Development Permit applies to "the Lands":

Civic Address: 14 Glenmore Drive

Legal Description: LOT 4 BLOCK 5 BLOCK C DISTRICT LOT 603 PLAN 9334
(PID: 002-773-546)
(the 'Lands')

---

1. This Development Permit:

   (a) imposes requirements and conditions for the development of the Lands, which are designated by the Official Community Plan within the "Duplex Areas" development permit area to promote development that reflects quality building design, materials and landscaping subject to guidelines specified in the Official Community Plan;

   (b) imposes requirements and conditions for the development of the Lands, which are designated by the Official Community Plan within the "Wildfire Hazard" development permit area to promote safer neighbourhoods by reducing the risk of wildfire hazards to new buildings and minimizing the spread of fires into the community; and

   (c) is issued subject to the Owner's compliance with all of the Bylaws of the District applicable to the Lands, except as specifically varied or supplemented by this Permit.

2. The following requirements and conditions shall apply to the Lands:

   2.1 Buildings, structures, and site development shall take place in substantial compliance with the drawings from Sterling Pacific Development Inc. dated March 6, 2024 (Revision No. 1), attached as Schedule "A".

   2.2 On-site landscaping works shall take place in substantial compliance with the drawings from Sterling Pacific Development Inc. dated March 6, 2024 (Revision No. 1), attached as Schedule "A".

   2.4 Site development shall take place in compliance with the recommendations found within the "Wildfire Hazard DP Area Assessment Report" by Diamond Head, dated October 3, 2023, attached as Schedule "B".

   2.5 Removal of Protected Tree #1895 is permitted, in accordance with Schedule "B".

2.6 Tree work on public land, or boulevards, will require a Municipal Tree Cutting Permit at the Building Permit Stage.

3. Prior to commencing site work or Building Permit issuance, whichever occurs first, the Owner must:

3.1 Provide and implement a plan for traffic management during construction to the satisfaction of the District's Manager of Development Engineering.

3.2 Submit a "Sediment and Erosion Plan" to the District's Environmental Protection Officer for approval, which the Owner shall comply with and be responsible for maintaining, repairing and implementing the sediment control measures.

3.3 Enter into a "Works and Services Agreement" (WSA) to ensure installation of *off-site works* to the satisfaction of the District's Manager of Development Engineering. The WSA will require engineering civil drawings detailing works, including but not limited to:

(a) storm water management measures;

(b) site service connections;

(c) new boulevard plan along the frontage of the site including curbs, sidewalk, grading plan, road markings and signage; and

(d) repaving along the frontage of the Lands,

which must be submitted for acceptance, and security provided for the due and property completion of the engineering works, all to the satisfaction of the District's Manager of Land Development.

3.4 Provide a letter to the Director of Planning and Development Services, or designate, that outlines how all aspects of the development covenant (required through rezoning of the site) have been achieved.

4. Prior to the issuance of a building permit and as security for the due and proper completion of the landscaping works ("Landscaping Works") as set forth in Section 2.2 of this Development Permit, the Owner shall:

4.1 Provide, to the District's Manager of Land Development, a cost estimate ("Cost Estimate") for the on-site Landscaping Works to be installed.

4.2 Provide, to the District's Manager of Land Development, a landscape deposit ("Landscape Deposit") in the amount determined by the Cost Estimate, in the form of cash or unconditional, irrevocable auto-renewing letter of credit issued by a Canadian chartered bank or credit union to ensure the due and proper completion of the Landscaping Works.

4.3 Release of the Landscape Deposit:

(a) Following installation of the Landscape Works and upon receipt of a letter or report by the developer to the District stating that:

a. the Landscaping Works have been installed substantially in accordance with Schedule A; and

b. any variations that may have been undertaken to the Landscaping Works are clearly identified, including but not limited to:

i. any adjustments to retaining walls,
ii. changes to the mixture or sizes of any plant materials or trees,
iii. completion of any off-site or boulevard works,
iv. any areas that received alternative treatment,
v. any paving changes, or
vi. any other additional or omitted plantings or alterations,

together with a clear rationale and explanation thereof and stating

c. that a final review with the landscape contractor or consultant of record has been completed, including provision of the date when this final review was completed on,

d. whether there are any outstanding Landscape Works which are outstanding or which need attention, and

e. notwithstanding outstanding Landscape Works, that the Landscaping Works are complete,

then District will release 75% of the initial value of the Landscape Deposit. The remaining 25% of the initial value of the Landscape Deposit shall be retained by the District as a warranty deposit (the "Warranty Deposit") to ensure successful installation of the Landscaping Works.

(b) After a one-year period following certification that the Landscaping Works have been completed, and upon final certification by a Landscape Architect in good standing with the British Columbia Society of Landscape Architects that the Landscaping Works are successful, the District will release the Warranty Deposit.

5. Prior to Occupancy:

5.1 The applicant must submit documentation demonstrating that the "as-built" development complies with all requirements of this development permit. Any variations must be clearly identified with a rationale and explanation noting that planning staff review and approval may be needed for variations prior to final occupancy.

6. This Development Permit lapses if the work authorized herein is not commenced within 24 months of the date this permit is issued.

THE COUNCIL OF WEST VANCOUVER APPROVED THIS PERMIT BY RESOLUTION PASSED ON

MAYOR

CORPORATE OFFICER

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 RECTIFED AT THE BUILDING PERMIT STAGE.

FOR THE PURPOSES OF SECTION 6, THIS PERMIT IS ISSUED ON

Schedules:

A – Design drawings from Sterling Pacific Development Inc. dated March 6, 2024 (Revision No. 1)
B - “Wildfire Hazard DP Area Assessment Report” by Diamond Head, dated October 3, 2023

END OF DEVELOPMENT PERMIT 23-100

Schedule A

General and Construction Notes

General Conditions:

1. The general contractor shall check all dimensions and conditions before commencing with any work. Any discrepancies shall be reported to the designer before proceeding with any work.
2. All setbacks and building locations shall be confirmed by a registered British Columbia Land Surveyor.
   Written dimensions take precedence over scaled dimensions. Do not scale these drawings. To find an unknown dimension, contact the designer.
   The designer shall not be responsible for any costs incurred to the owner or the general contractor due to errors or omissions in these plans or specifications after Building Permit has been issued.
3. Geotechnical Engineer is to certify a site is safe for workers when the slope of the excavation exceeds 3/4 horizontal to one vertical or excavation exceeds 24".

Foundations:

1. See Structural Engineer Dwgs for specification on Concrete, Footings, Foundation and Structure.
2. Footings shall extend a minimum of 18" below grade and to solid bearing.
3. Pin foundations to rock as described by structural design.
4. Provide a minimum of 2 coats of asphalt damp proofing or an approved watertight and water shedding membrane to the exterior faces of foundation walls.
5. Provide a damp-proofing felt or equal between sill plates and concrete foundations where there is potential for contact.
6. Provide a non-binding agent between the tops of foundations and concrete slabs to prevent bonding.
7. Provide a minimum of a 6 mil UV poly layer under concrete slabs and skim coats.
8. Fill under concrete slabs is to be non-organic and compacted.

Framing

1. All framing to BC Building Code Wood Frame Construction.
2. All load-bearing lumber shall be as per Structural Engineer.
3. Glulam, Paralam, Mircolam and other manufactured beams are to be engineer designed and the general contractor will provide certificates of manufacture as required before erection.
4. Roof trusses are to be engineer designed and shop drawings showing truss layout and details are to be provided to the building inspector as required.

Stairs:

1. Risers minimum 5" (125mm), maximum 7.874" (200mm), Treads minimum 10.04" (255mm), maximum 13.97 (355mm)
2. All treads to have a 1" nosing or back slope to the riser.
3. Minimum headroom is 6.56' measured vertically from a line running through the stair nosing.
4. Handrail height is to be 36"
5. Handrails shall be provided on at least one side of the stairs less than 43" wide, both sides of stairs greater than 43" wide.
6. Handrails shall conform to #9.8.7.
7. Stairs, ramps and guardrails shall conform to #9.8

Safety Glass:

1. Glass within 3' of a door lock shall be safety glass.
2. Glass in entrance, shower, French and sliding doors shall be safety glass.
3. Windows in walls enclosing showers or bathtubs shall be safety glass and located above the waterproof finish height.
4. Mirrored doors are to be safety glass and backed with solid material.
5. Glass within 8" of the floor is to be safety glass.

Ventilation:

1. Provide combustion air to forced air furnace area. (If Applicable)
2. Provide exhaust fans that provide half an air change an hour, located in bathrooms and kitchens.
3. Provide fresh, tempered air to all habitable spaces with humidity control at a static pressure of .25" of water.
4. Air is to be mechanically ventilated from all kitchen, bathrooms, and laundry rooms.
5. Air can be ducted to a centrally located and continuously running two-speed exhaust fan (speed timer controlled from sources).
6. Duct systems shall be sized according to exhaust fan manufacturer recommendations. Duct layout to be designed by trade.
7. Air barriers shall form a continuous envelope on the inside surfaces of the building.
8. Provide sealed or lapped joints at least 4" wide at framing members, furring or blocking.
9. Provide vapor barrier protection at the inside of box joists.
10. Holes through vapor barriers for mechanical and electrical services shall be sealed to retain the integrity of the air envelope.
11. Vapor proof electrical boxes are recommended for exterior walls.
12. Attic access hatches shall be weather-stripped and have an air barrier.
13. Uniformly ventilate insulated roof spaces at the ratio or 1:300 of the insulated floor area (at a ratio of 1:150 for roofs sloping at 2/12 or less.
14. Provide a minimum of 25% of the required roof ventilation at the roof peak.

Miscellaneous:

1. Heating system: Forced Air, HRV, Heat Pump and HW Radiant InFloor Htg.
2. Provide for wood sash and frame, with thermal glazing in sealed units providing a minimum of 1/2" air space.
3. Glass in doors and windows shall be double glazed unless noted otherwise.
4. Provide thermally broken frames in all skylights.
5. Provide smoke alarms in bedroom areas and to all floors to #9.10.18.
6. Waterproof wall finished in shower and bathtub enclosures are to be applied over a moisture resistant backing.
7. Provide insulation blocks to allow for adequate ventilation at constricted roof conditions.
8. Provide solid roof sheathing for eave protection a minimum of 3' up the slope of the roof to a line a minimum of 12" inside an exterior wall line.
9. Finish grades are to direct any surface water away from the building.
10. Cross bridging req'd for floor and roof joists.
11. Waterproof wallboard req'd as tile base around tubs and showers.
12. Provide 8" clearance between grade and siding.
13. N.R.P. Hindges req'd for outswing exterior doors.
14. One hardwired smoke alarm req'd per floor. All smoke alarms to be interconnected. Smoke alarms req'd at every floor level, differing by 36" and within 5m of bedroom doors and 15m of each other.
15. A 5lb A.B.C. dry chemical fire extinguisher is req'd near the kitchen.
16. Secure hot water tanks to prevent overturning.

BYLAW REVIEW

1. ADDRESS: 14 GLENMORE DRIVE
2. LEGAL DESCRIPTION: LOT 4, BLK 5, BLK C, DISTRICT LOT 603, PLAN 9334
   PID: 002-773-546
3. LOT SIZE: 19,699 sq.ft. (1,830.1m²)
   LOT SIZE WITH LANE DEDICATION: 15,818 sq.ft. (1,469.5m²)
4. LOT COVERAGE WITHOUT LANE DEDICATION: PROPOSED: 7,501.0 S.F. / 19,699 S.F. = 38.1 %
   LOT COVERAGE MINUS LANE DEDICATION: PROPOSED: 7,501.0 S.F. / 15,818 S.F. = 47.4 %
5. FLOOR AREA RATIO WITHOUT LANE DEDICATION: PROPOSED: 13,711.0 S.F. / 19,699 S.F. = 69.6 %
   FLOOR AREA RATIO MINUS LANE DEDICATION: PROPOSED: 13,711.0 S.F. / 15,818 S.F. = 86.0 %

PROPOSED:

	UNIT 14 A	UNIT 14 B	TOTAL AREA UNIT 14 B	
BASEMENT	1,157.0 SF	1,222.0 SF	2,379.0 S.F.	
MAIN FLOOR	953.0 SF	1,008.0 SF	1,961.0 S.F.	
SECOND FLOOR	1,157.0 SF	1,222.0 SF	2,379.0 S.F.	
GARAGE	234.0 SF	214.0 SF	448.0 S.F.	
TOTAL AREA	3,501.0 SF	3,666.0 SF	7,167.0 S.F.	(665.84m²)

	UNIT 16 A	UNIT 16 B	TOTAL AREA UNIT 16 B	
BASEMENT	1,252.0 SF	1,310.0 SF	2,562.0 S.F.	
MAIN FLOOR	1,018.0 SF	1,086.0 SF	2,104.0 S.F.	
SECOND FLOOR	1,252.0 SF	1,310.0 SF	2,562.0 S.F.	
GARAGE	236.0 SF	221.0 SF	457.0 S.F.	
TOTAL AREA	3,758.0 SF	3,927.0 SF	7,685.0 S.F.	(713.96m²)

	UNIT 18 A	UNIT 18 B	TOTAL AREA UNIT 18 B	
BASEMENT	1,254.0 SF	1,306.0 SF	2,560.0 S.F.	
MAIN FLOOR	1,013.0 SF	1,083.0 SF	2,096.0 S.F.	
SECOND FLOOR	1,254.0 SF	1,306.0 SF	2,560.0 S.F.	
GARAGE	241.0 SF	223.0 SF	464.0 S.F.	
TOTAL AREA	3,762.0 SF	3,918.0 SF	7,680.0 S.F.	(713.50m²)

TOTAL PROPOSED: 22,532.0 S.F. (2,093.29m²)

EXEMPTIONS:		
MINUS GARAGES	1,320.0 S.F.	(122.63m²)
MINUS BASEMENT	7,501.0 S.F.	(696.87m²)
TOTAL COUNTED FSR:	13,711.0 S.F.	(1,273.79m²)

6. SETBACKS: PROPOSED:

FRONT YARD:	25'-0'	(7.6m)
REAR YARD:	34'-10'	(10.62m)
REAR YARD AFTER LANE DEDICATION:	25'-0'	(7.6m)
SIDE YARD (SOUTH SIDE):	5'-0"	(1.52m)
SIDE YARD (NORTH SIDE):	14'-1"	(4.30m)
SIDE YARD (NORTH SIDE) AFTER LANE DEDICATION:	4'-3"	(1.30m)
SIDE YARD COMBINED:	19'-1"	(5.82m)
SIDE YARD COMBINED (AFTER LANE DEDICATION):	9'-3"	(2.82m)

TABLE OF CONTENTS:

STERLING PACIFIC DEVELOPMENTS INC.
#14 - 636 Clyde Avenue
Phone: 604.831.1351 or 778.322.9340
www.sterlingpacificdevelopments.com

NOTE:
ALL WORK TO CONFORM TO B.C.BUILDING CODE
ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

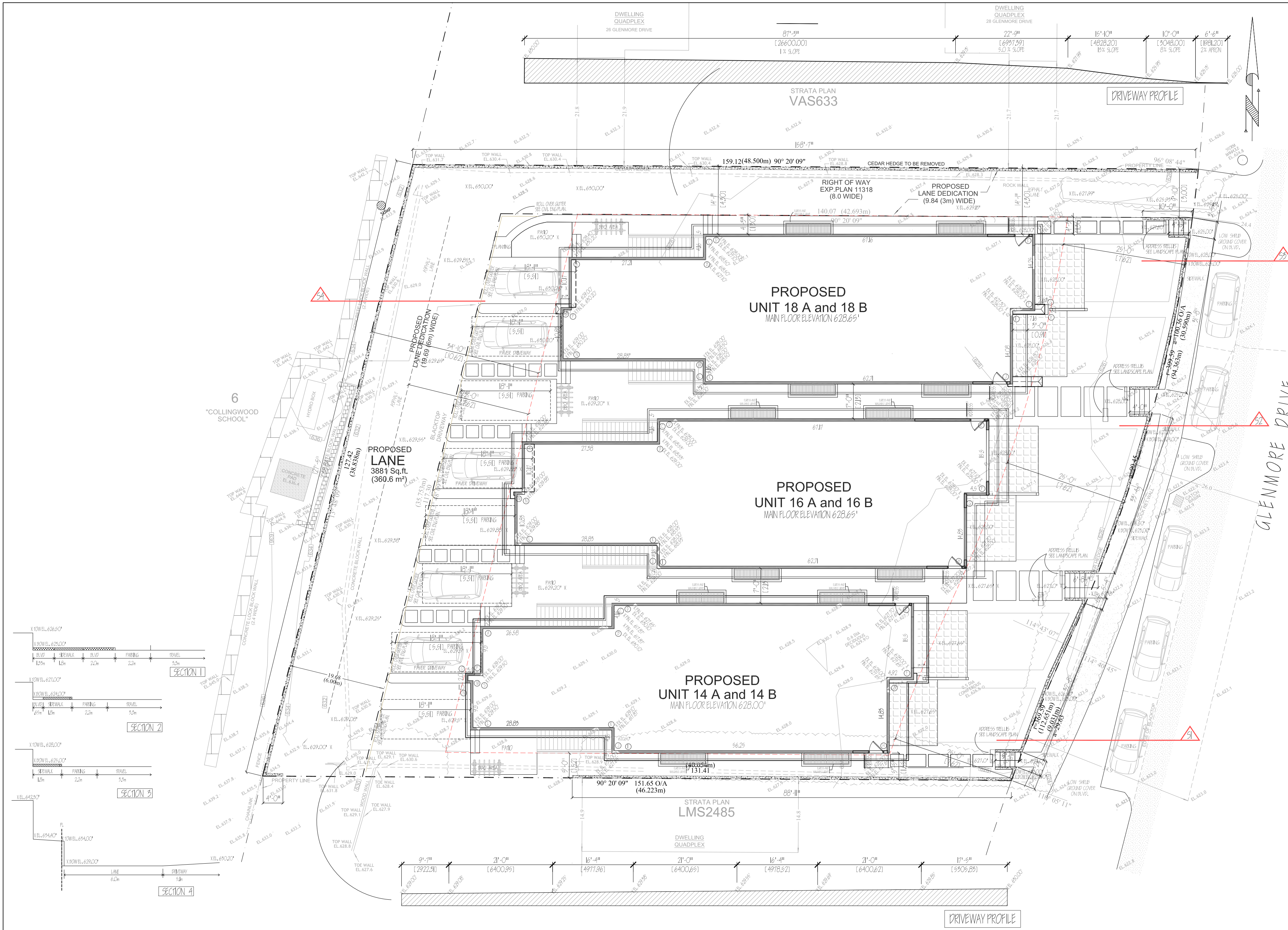
NO.	DESCRIPTION	DATE
1	LANDSCAPE MATERIALS, ROOF ON UNIT 16, SIGNAGE	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
LOT B
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SITE PLAN

DATE: DECEMBER 12, 2023
SCALE: 1/8" = 1'-0"
DRAWN BY: VJM
JOB NO.: 12304

SHEET No.
A.00



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REVISIONS

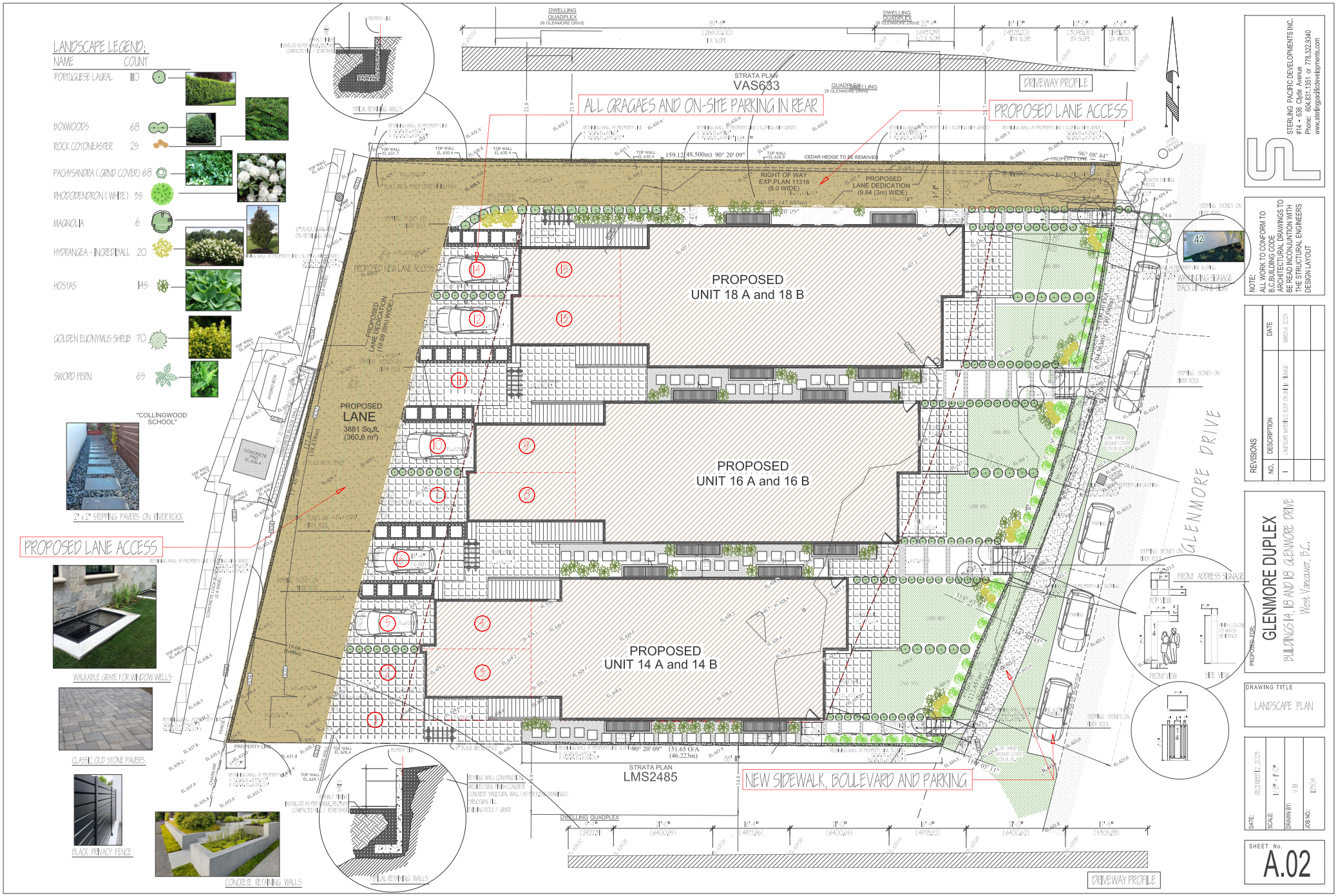
NO.	DESCRIPTION	DATE
1	LANDSCAPE MATERIALS, ROOF OVERHANG, SIGNAGE	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
BUILDINGS 14, 18 AND 18 GLENMORE DRIVE
West Vancouver, B.C.

DRAWING TITLE
SITE PLAN

DATE: DECEMBER 12, 2023
SCALE: 1/8" = 1'-0"
DRAWN BY: VJM
JOB NO.: 12304

SHEET No.
A.01


LANDSCAPE LEGEND:
NAME COUNT
PORTUGUESE LAURAL 110
BOXWOODS 68
ROCK COTONEASTER 25
PACHYSANDRA (GRND COVER) 68
RHODODENDRON (WHITE) 35
MAGNOLIA 6
HYDRANGEA - INCREDIBALL 20
HOSTAS 145
GOLDEN EUONYMUS SHRUB 70
SWORD FERN 65
"COLLINGWOOD SCHOOL"
2' x 2' STEPPING PAVERS ON RIVER ROCK
PROPOSED LANE ACCESS
WALKABLE GRATE FOR WINDOW WELLS
CLASSIC OLD STONE PAVERS
BLACK PRIVACY FENCE
CONCRETE RETAINING WALLS
DWELLING QUADPLEX 26 GLENMORE DRIVE
DWELLING QUADPLEX 28 GLENMORE DRIVE
STRATA PLAN VAS933
ALL GRAGAES AND ON-SITE PARKING IN REAR
PROPOSED LANE ACCESS
DRIVEWAY PROFILE
RIGHT OF WAY EXP PLAN 11318 (8.0 WIDE)
PROPOSED LANE DEDICATION (9.84 (3m) WIDE)
CEDAR HEDGE TO BE REMOVED
PROPOSED NEW LANE ACCESS
PROPOSED LANE DEDICATION (19.69 (6m) WIDE)
PROPOSED LANE 3881 Sq.ft. (360.6 m²)
PROPOSED UNIT 18 A and 18 B
PROPOSED UNIT 16 A and 16 B
PROPOSED UNIT 14 A and 14 B
GLENMORE DRIVE
WAYFINDING SIGNAGE BACK-LIT SAME AS #42
FRONT ADDRESS SIGNAGE
STRATA PLAN LMS2485
NEW SIDEWALK, BOULEVARD AND PARKING
DRIVEWAY PROFILE
STERLING PACIFIC DEVELOPMENTS INC.
#14 - 636 Clyde Avenue
Phone: 604.831.1351 or 778.322.9340
www.sterlingpacificdevelopments.com
NOTE:
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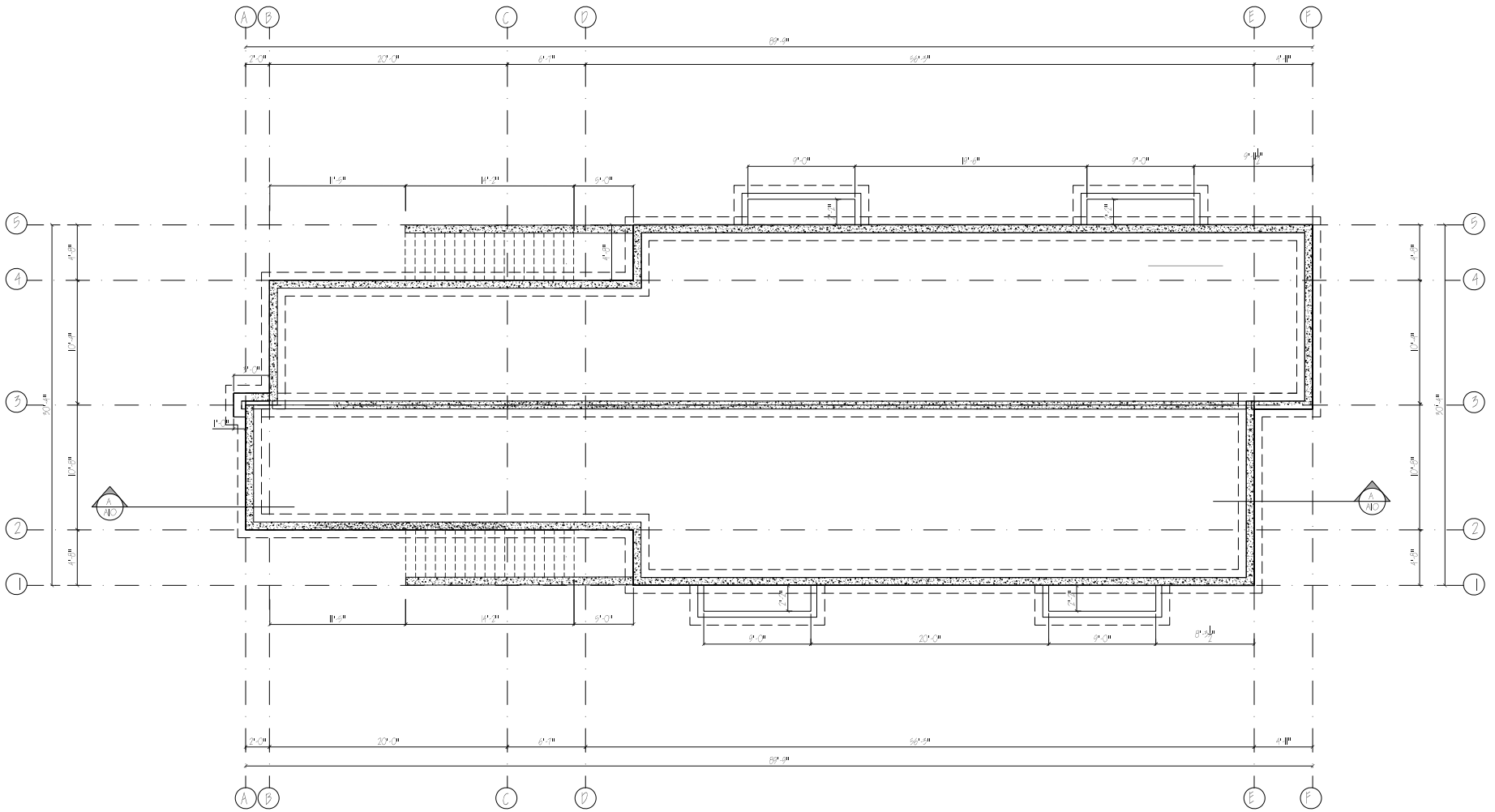
ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT
REVISIONS
NO. DESCRIPTION DATE
1 LANDSCAPE MODELS ROOF OVERHANG MARCH 2026
GLENMORE DUPLEX
BUILDINGS 14, 16 AND 18 GLENMORE DRIVE
West Vancouver, B.C.
PROPOSED CIVIC
DRAWING TITLE
LANDSCAPE PLAN
DATE: DECEMBER 12, 2025
SCALE: 1/8" = 1'-0"
DRAWN BY: V.M
JOB NO: 12504
SHEET No.
A.02



FOUNDATION PLAN

STERLING PACIFIC DEVELOPMENTS INC.
#14 - 636 Clyde Avenue
Phone: 604.831.1351 or 778.322.8340
www.sterlingpacificdevelopments.com

NOTE:
ALL WORK TO CONFORM TO B.C.BUILDING CODE
ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

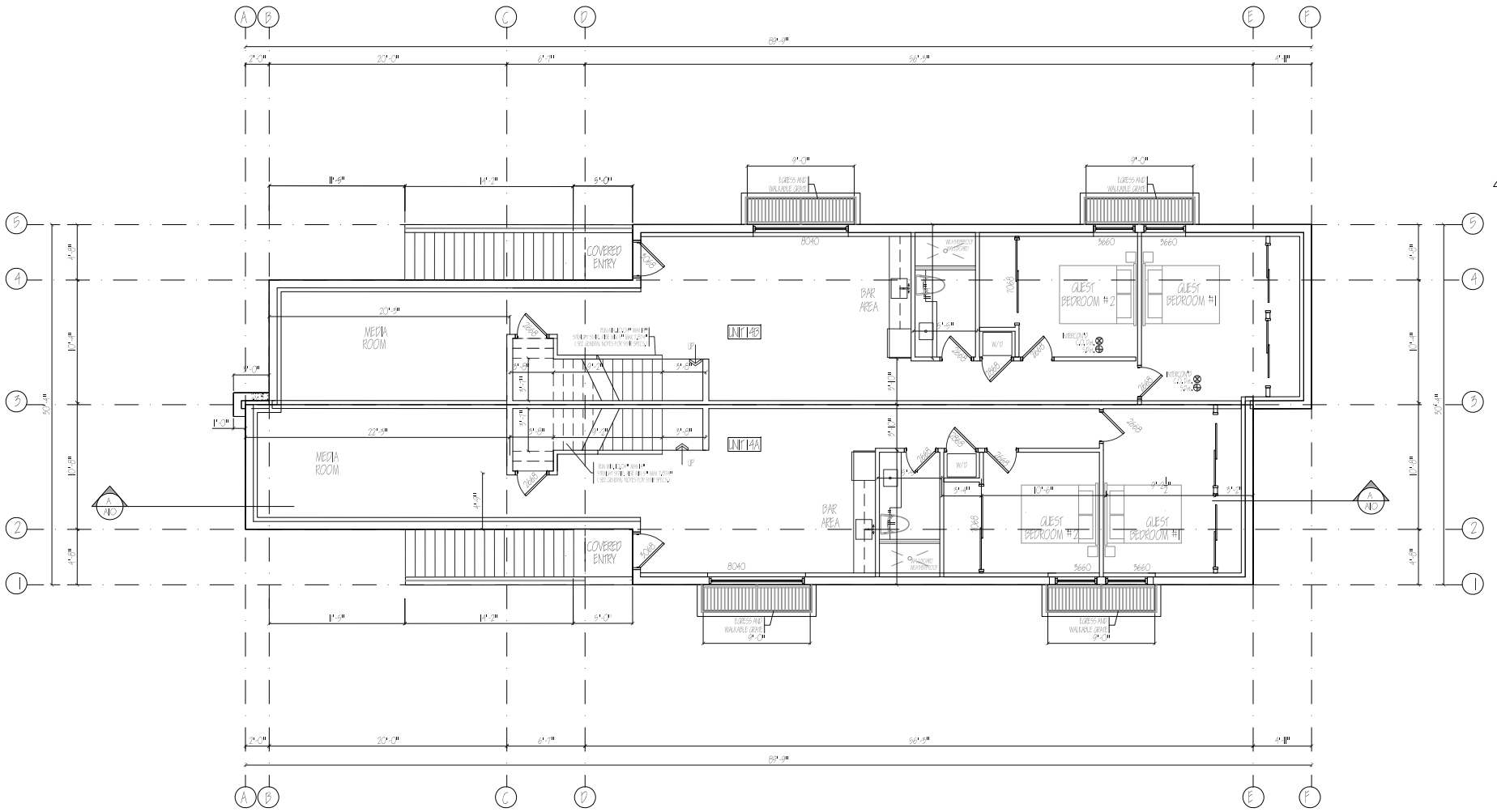
NO.	DESCRIPTION	DATE
1	ARCHITECTURAL DRAWINGS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
144 and 148 Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
FOUNDATION PLAN

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.03



PROPOSED BASEMENT LEVEL

UNIT 14A
AREA: 1,157 SQFT

UNIT 14B
AREA: 1,222 SQFT

TOTAL FLOOR AREA: 2,379 SQ.FT.

STERLING PACIFIC DEVELOPMENTS INC.
#14 - 636 Clyde Avenue
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE REVIEW COMMENTS	MARCH 6, 2024

PROPOSED FOR:

GLENMORE DUPLEX

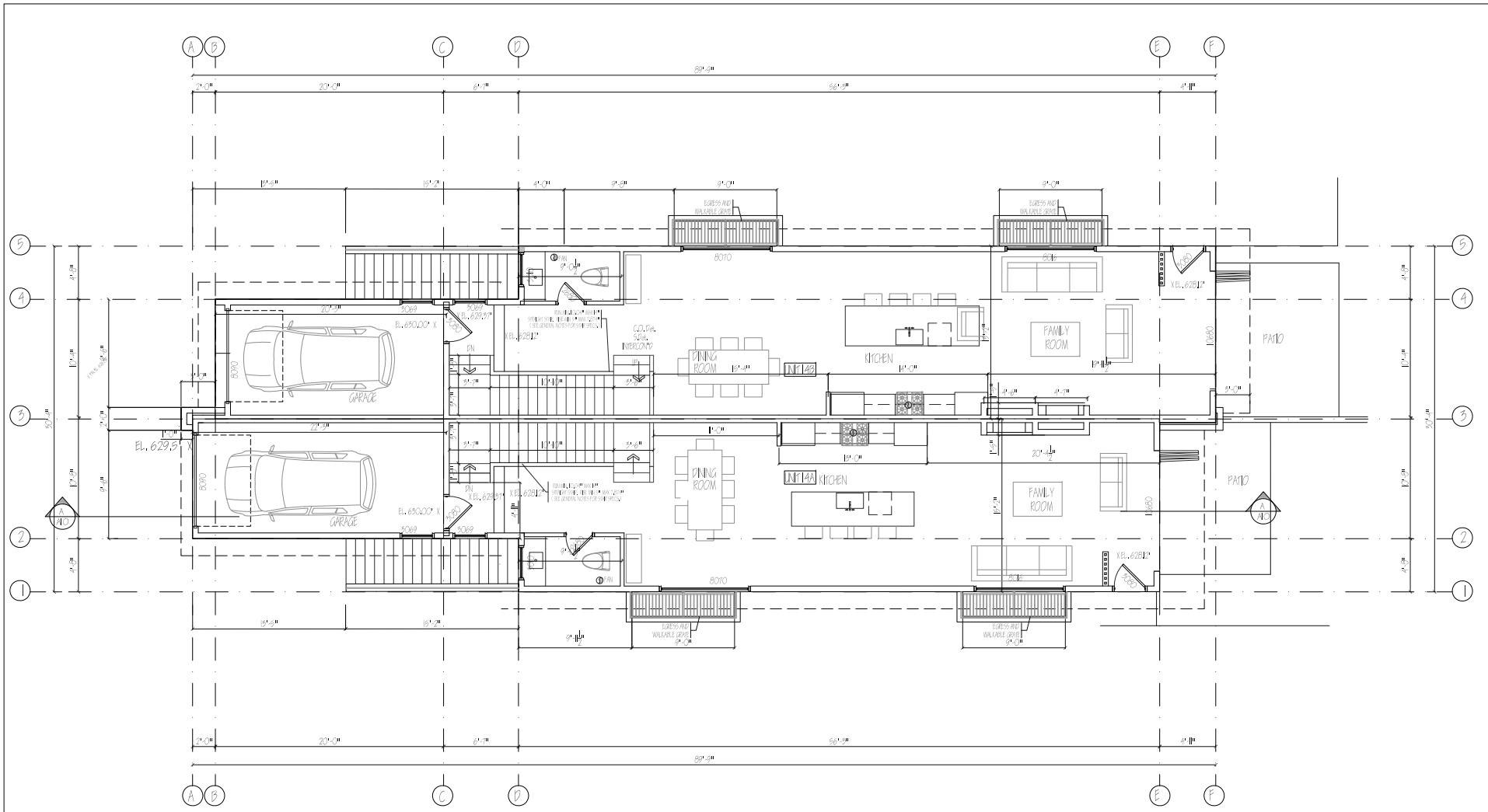
14A and 14B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE

BASEMENT LEVEL

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.04



PROPOSED MAIN FLOOR

UNIT 14A
AREA, 923 SQFT
PLUS GARAGE, 234 SQ.FT.

UNIT 14B
AREA, 1,008 SQFT
PLUS GARAGE, 214 SQ.FT.

TOTAL FLOOR AREA, 2,379 SQ.FT.

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REVISIONS

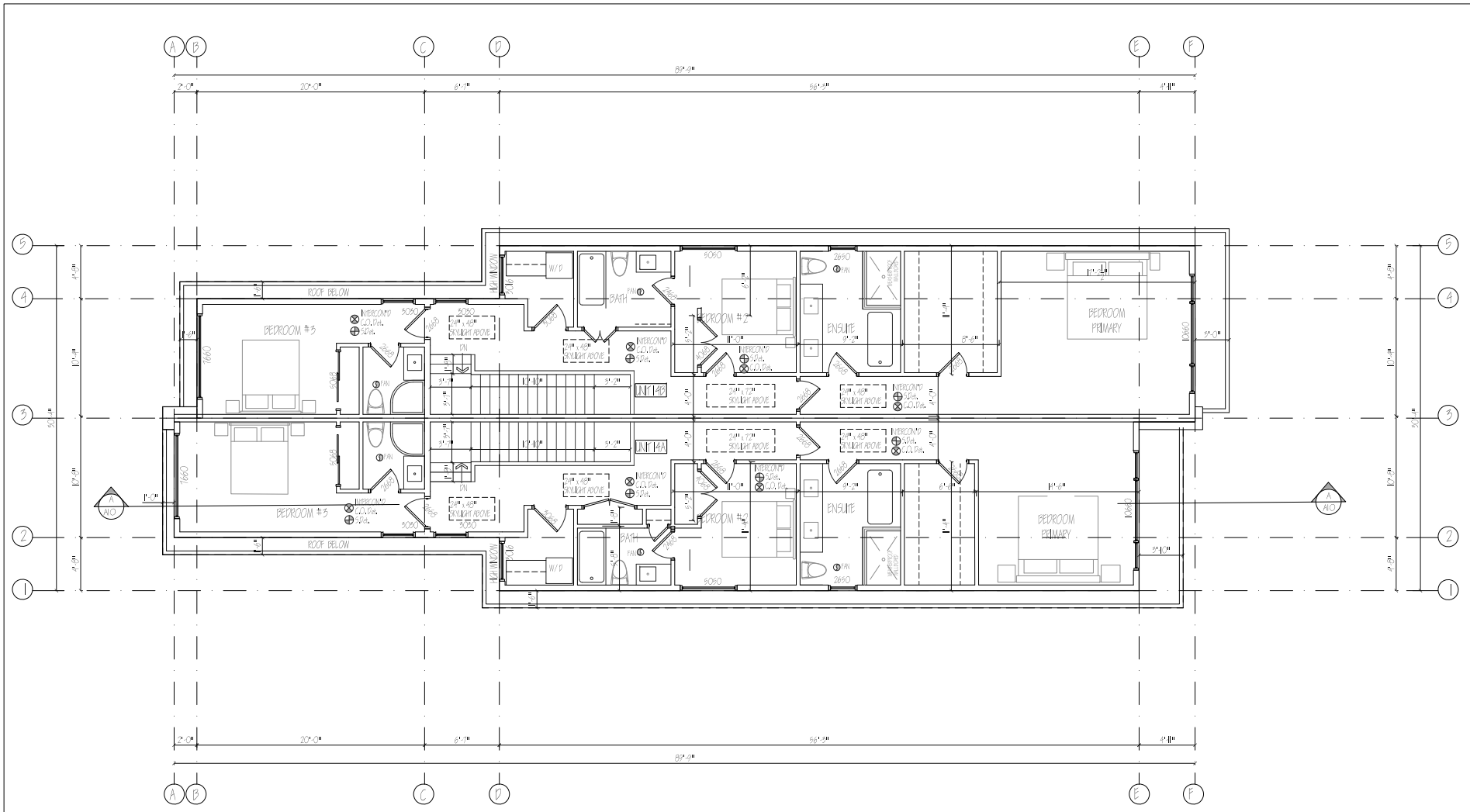
NO.	DESCRIPTION	DATE
1	SITE REVISED DRAWINGS	MARCH 6, 2020

PROPOSED FOR:
GLENMORE DUPLEX
14A and 14B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
MAIN FLOOR

DATE: DECEMBER 12, 2019
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 1904

SHEET No.
A.05



PROPOSED SECOND FLOOR	
UNIT 14A	
AREA:	1,157 SQFT
UNIT 14B	
AREA:	1,222 SQFT
TOTAL AREA:	2,379 SQFT

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

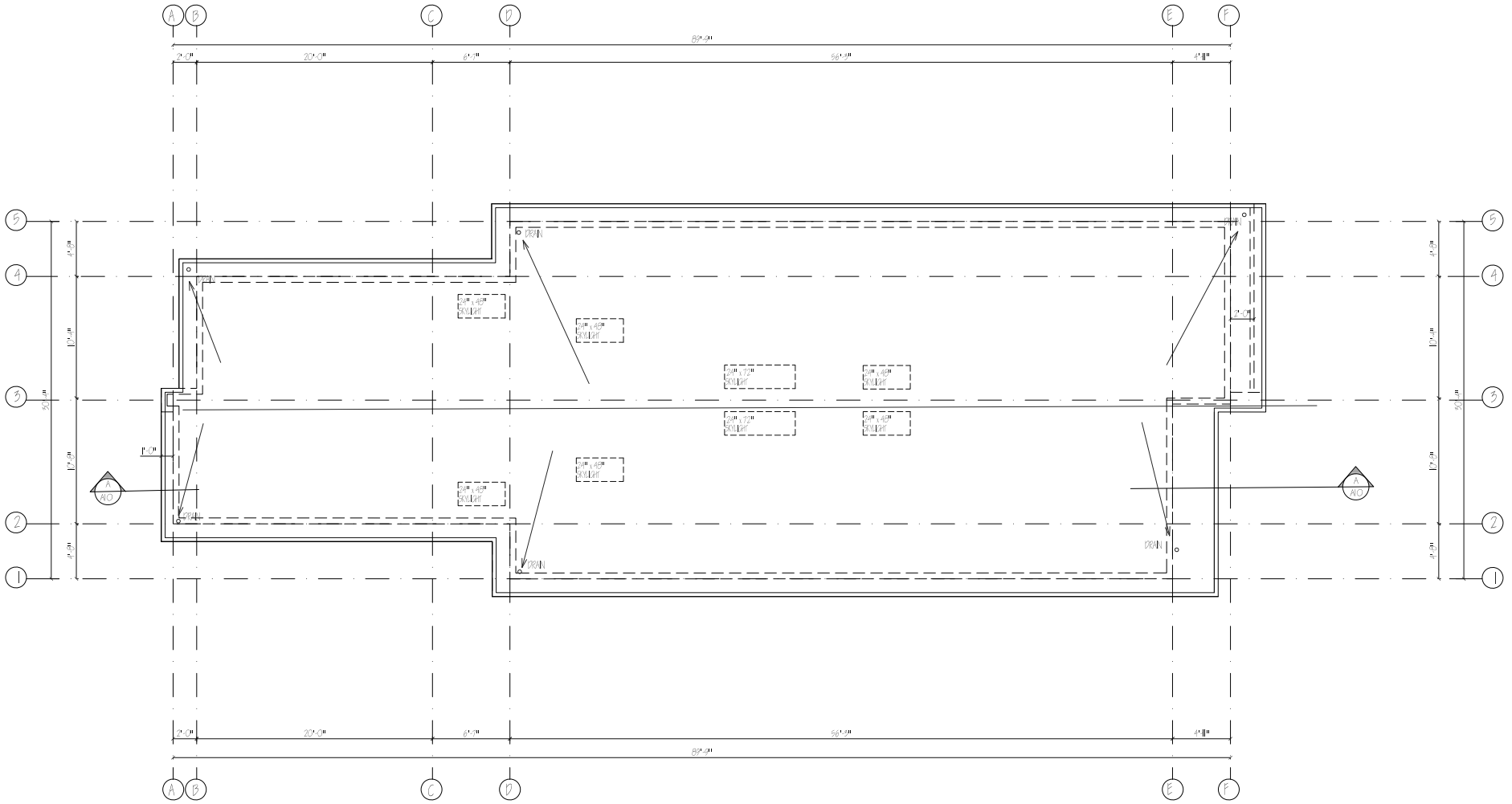
NO.	DESCRIPTION	DATE
1	SITE REVIEW COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
14A and 14B Glenmore Drive, West Vancouver, B.C.

DRAWING TITLE
SECOND FLOOR

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 1304

SHEET No.
A.06



ROOF PLAN

STERLING PACIFIC DEVELOPMENTS INC.
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Phone: 604.831.1351 or 778.322.8340
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NOTE:
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE REVIEW COMMENTS	MARCH 6, 2024

PROPOSED FOR:

GLENMORE DUPLEX

144 and 148 Glenmore Drive,
West Vancouver, B.C.

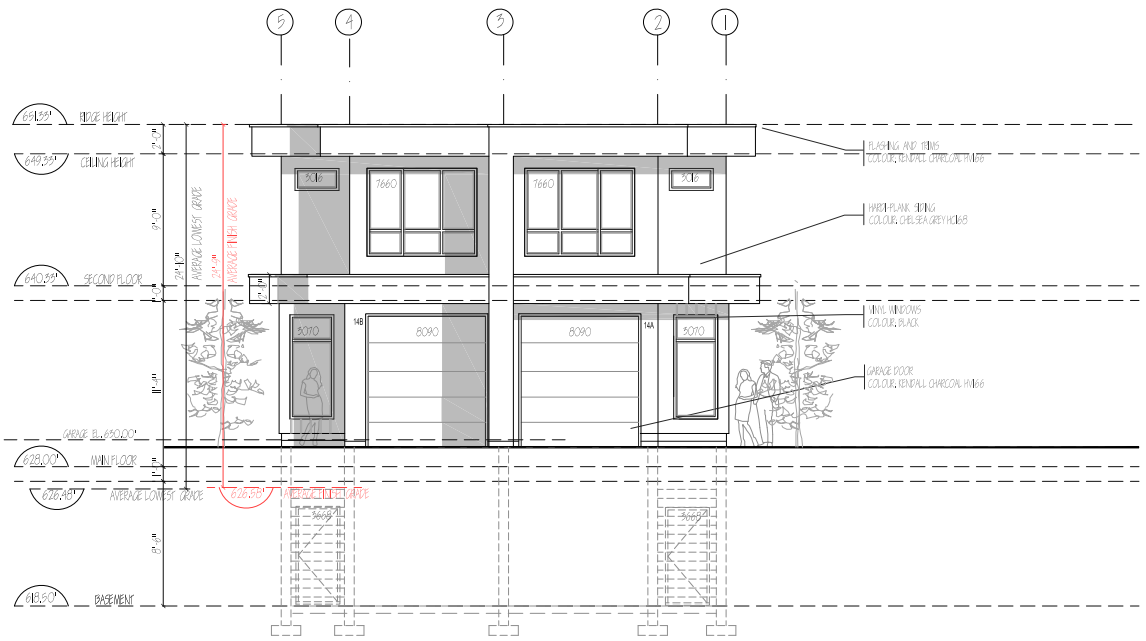
DRAWING TITLE

ROOF PLAN

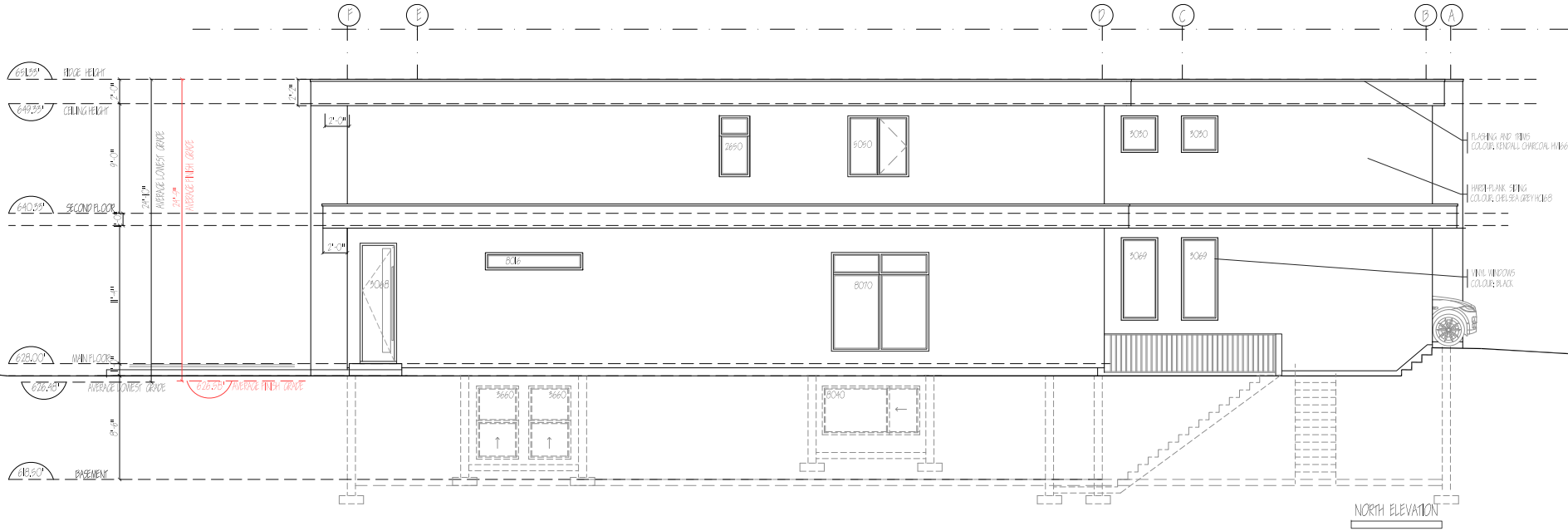
DATE:	DECEMBER 12, 2023
SCALE:	1/4" = 1'-0"
DRAWN BY:	KJM
JOB NO:	12304

SHEET No.

A.07



WEST ELEVATION



NORTH ELEVATION

STERLING PACIFIC DEVELOPMENTS INC.
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE REMOVED DWELLS	MARCH 6, 2009

PROPOSED FOR:

GLENMORE DUPLEX

144 and 148 Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE

NORTH AND WEST ELEVATIONS

DATE: DECEMBER 12, 2009
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO.: 12004

SHEET No.
A.08

West Elevation
14 Glenmore

North Elevation
14 Glenmore

EXTERIOR FINISHES

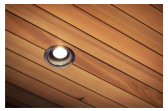
EXTERIOR SIDING
FINISH: HARDI SIDING SMOOTH FINISH
COLOUR: CHELSEA GREY

WINDOWS / FRAMES:
TYPE: VINYL
COLOUR: BLACK

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL

TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HC166

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

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REVISIONS

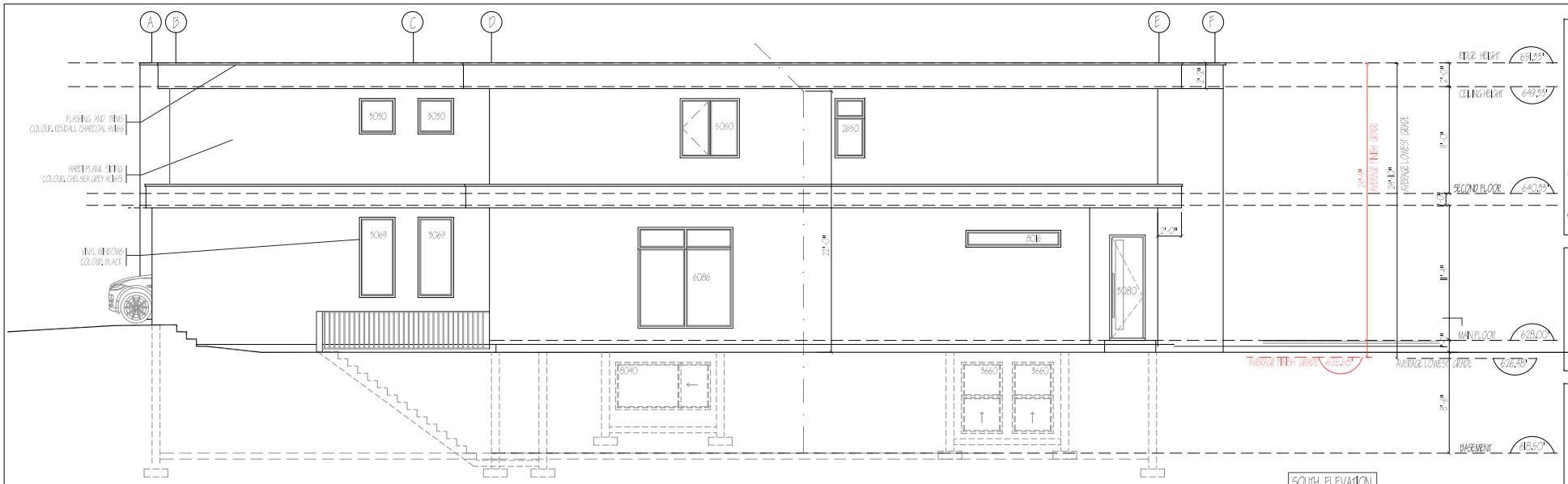
NO.	DESCRIPTION	DATE
1	UPDATED RENDERINGS	MARCH 6, 2026

PROPOSED FOR:
GLENMORE DUPLEX
14A and 14B Glenmore Drive,
West Vancouver, B.C.

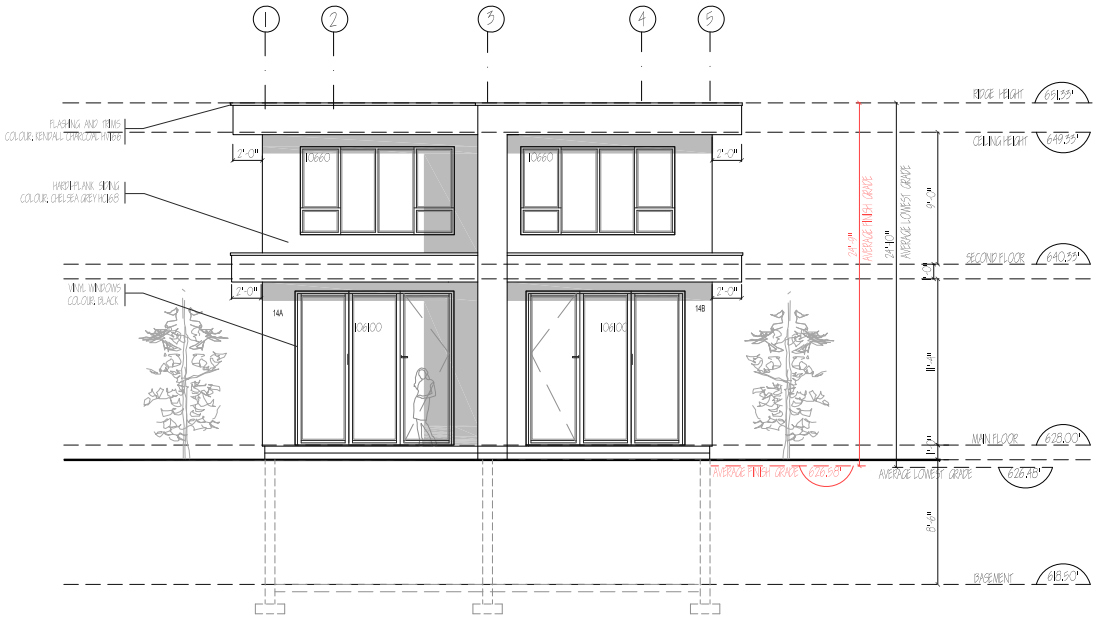
DRAWING TITLE
NORTH AND WEST ELEVATION RENDERINGS

DATE: NOVEMBER 22, 2025
SCALE: 1/4"=1'-0"
DRAWN BY: JLM
JOB NO: 12504

SHEET No.
A.08b



SOUTH ELEVATION



EAST ELEVATION

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Phone: 604.831.1351 or 778.322.8340
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE BENCHMARK ELEVATIONS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
14A and 14B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SOUTH AND EAST ELEVATIONS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO.: 12304

SHEET No.
A.09

South Elevation
14 Glenmore

East Elevation
14 Glenmore

EXTERIOR FINISHES

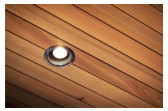
EXTERIOR SIDING
FINISH: HARDI SIDING SMOOTH FINISH
COLOUR: CHELSEA GREY

WINDOWS / FRAMES:
TYPE: VINYL
COLOUR: BLACK

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL

TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HM166

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

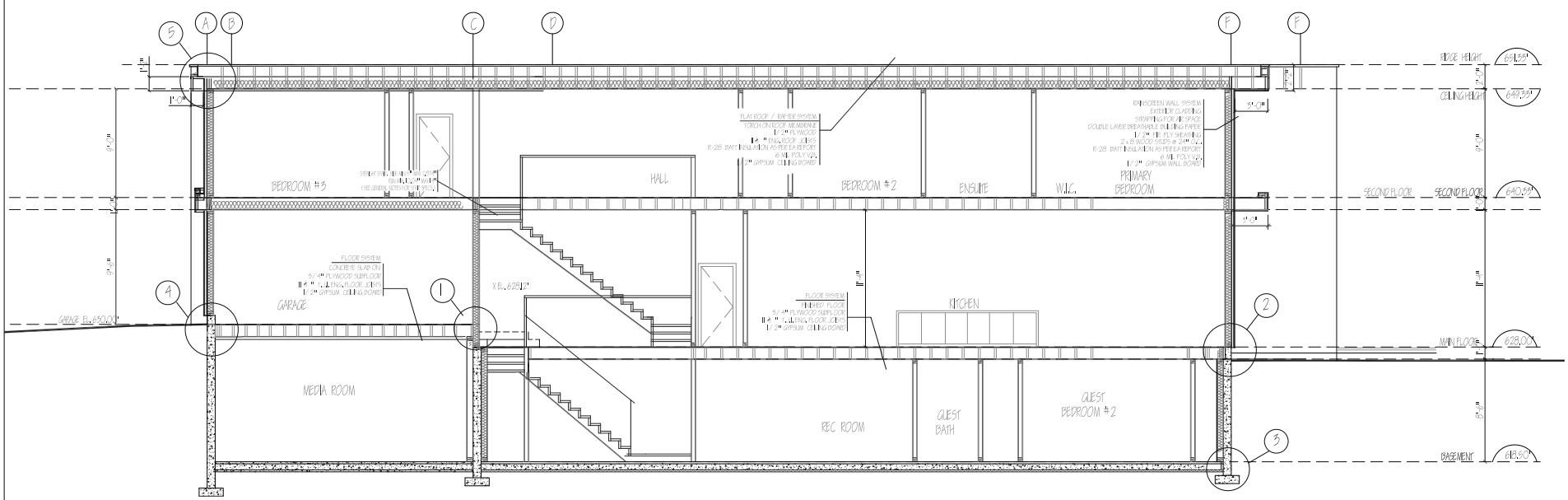
NO.	DESCRIPTION	DATE
1	UPDATED RENDERINGS	

PROPOSED FOR:
GLENMORE DUPLEX
14A and 14B Glenmore Drive,
West Vancouver, B.C.

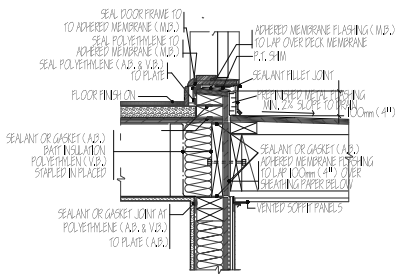
DRAWING TITLE
SOUTH AND EAST ELEVATION RENDERINGS

DATE: NOVEMBER 22, 2025
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO: 12504

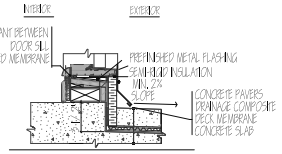
SHEET No.
A.09b



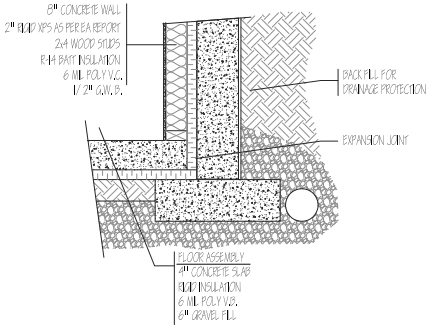
SECTION A-A



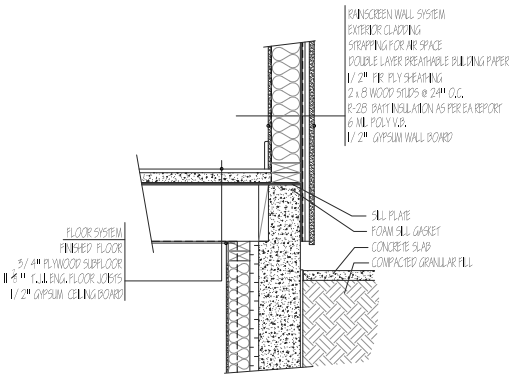
DOOR SILL AT DECK (1)



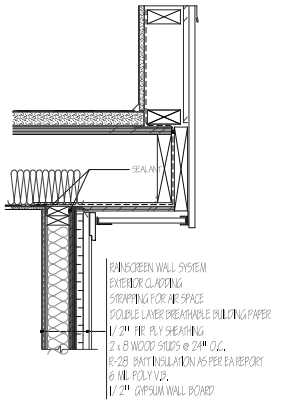
BASE WALL AT DOOR SILL (2)



FOUNDATION DETAIL (3)



FLOOR DETAIL (4)



TYPICAL FLAT ROOF (5)

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

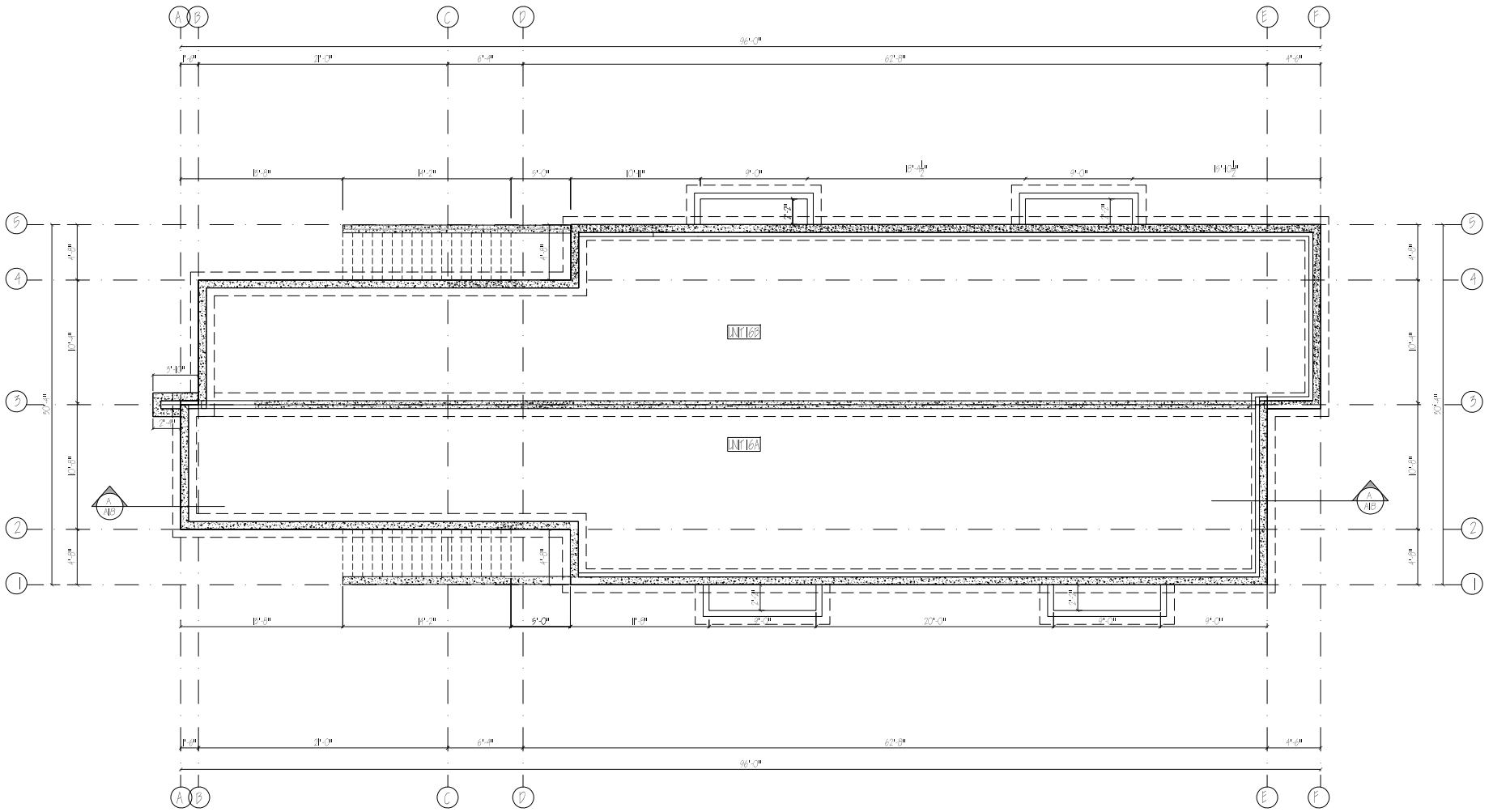
NO.	DESCRIPTION	DATE
1	SITE BEHAVIOR COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
144 and 148 Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SECTIONS AND DETAILS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO.: 12304

SHEET No.
A.10



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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	PER BUILDING DEPARTMENTS	MARCH 6, 2024

PROPOSED FOR:

GLENMORE DUPLEX

LOT B
16A and 16B Glenmore Drive,
West Vancouver, B.C.

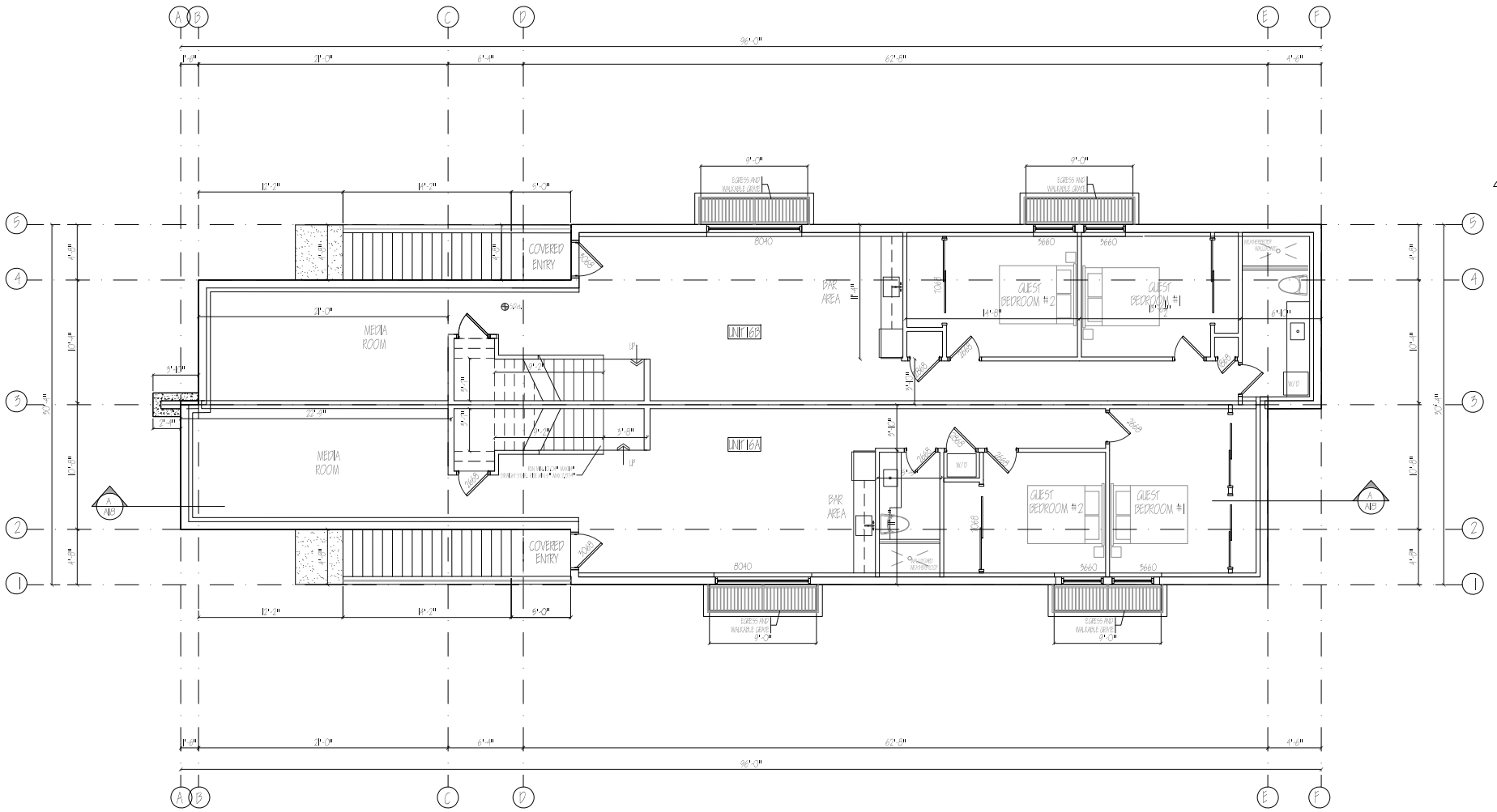
DRAWING TITLE

FOUNDATION PLAN

DATE:	DECEMBER 12, 2023
SCALE:	1/4" = 1'-0"
DRAWN BY:	KJM
JOB NO:	12304

SHEET No.

A.11



PROPOSED BASEMENT LEVEL

UNIT 16A
AREA: 1,252 SQFT

UNIT 16B
AREA: 1,310 SQFT

TOTAL FLOOR AREA: 2,562 SQFT.

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

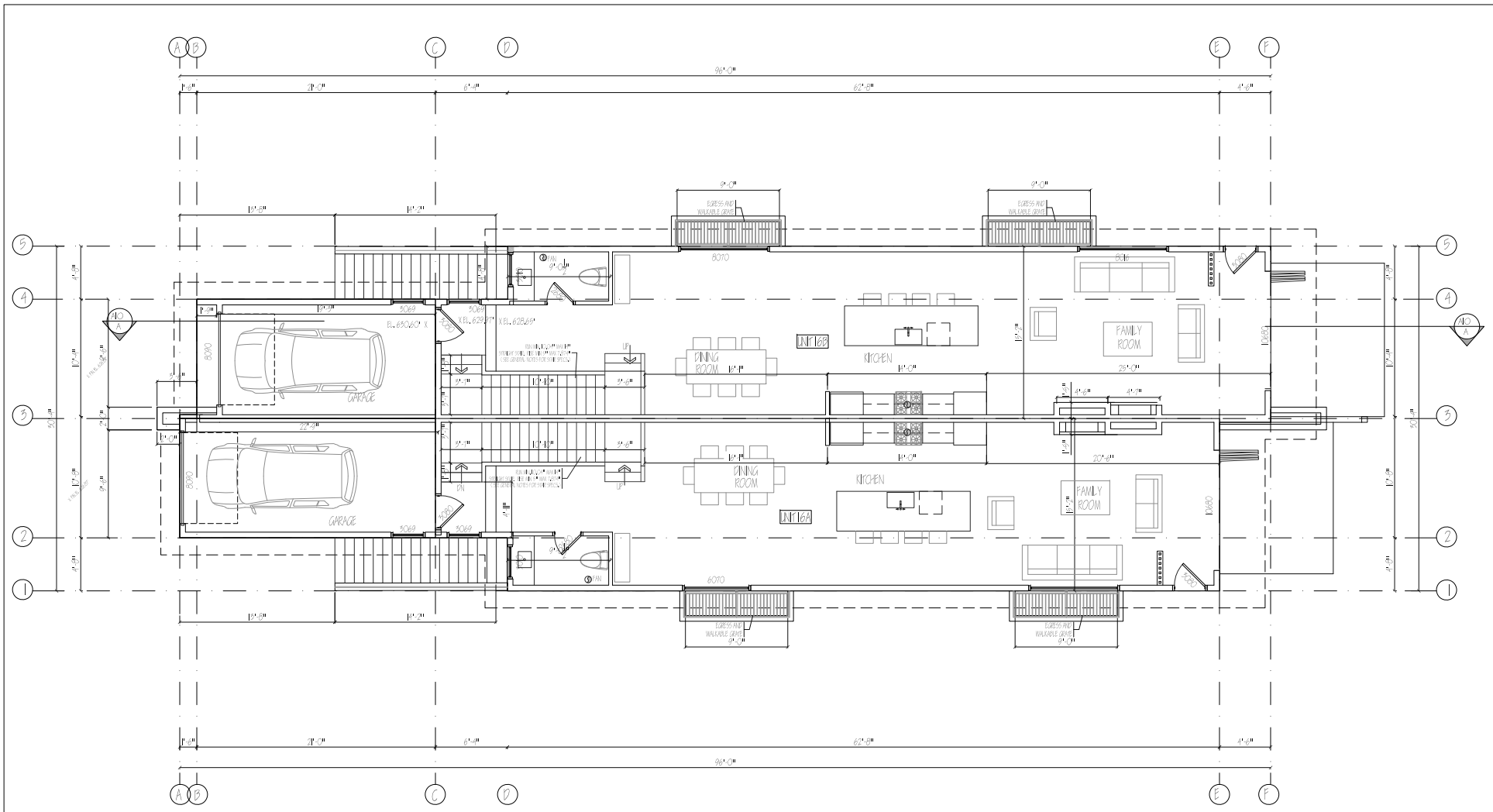
NO.	DESCRIPTION	DATE
1	SITE REMOVED DRIVEWAYS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
LOT B
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
BASEMENT LEVEL

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.12



PROPOSED MAIN FLOOR

UNIT 16A
AREA: 1,018 SQFT
PLUS GARAGE: 236 SQ.FT.

UNIT 16B
AREA: 1,086 SQFT
PLUS GARAGE: 222 SQ.FT.

TOTAL FLOOR AREA: 2,561 SQ.FT.

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

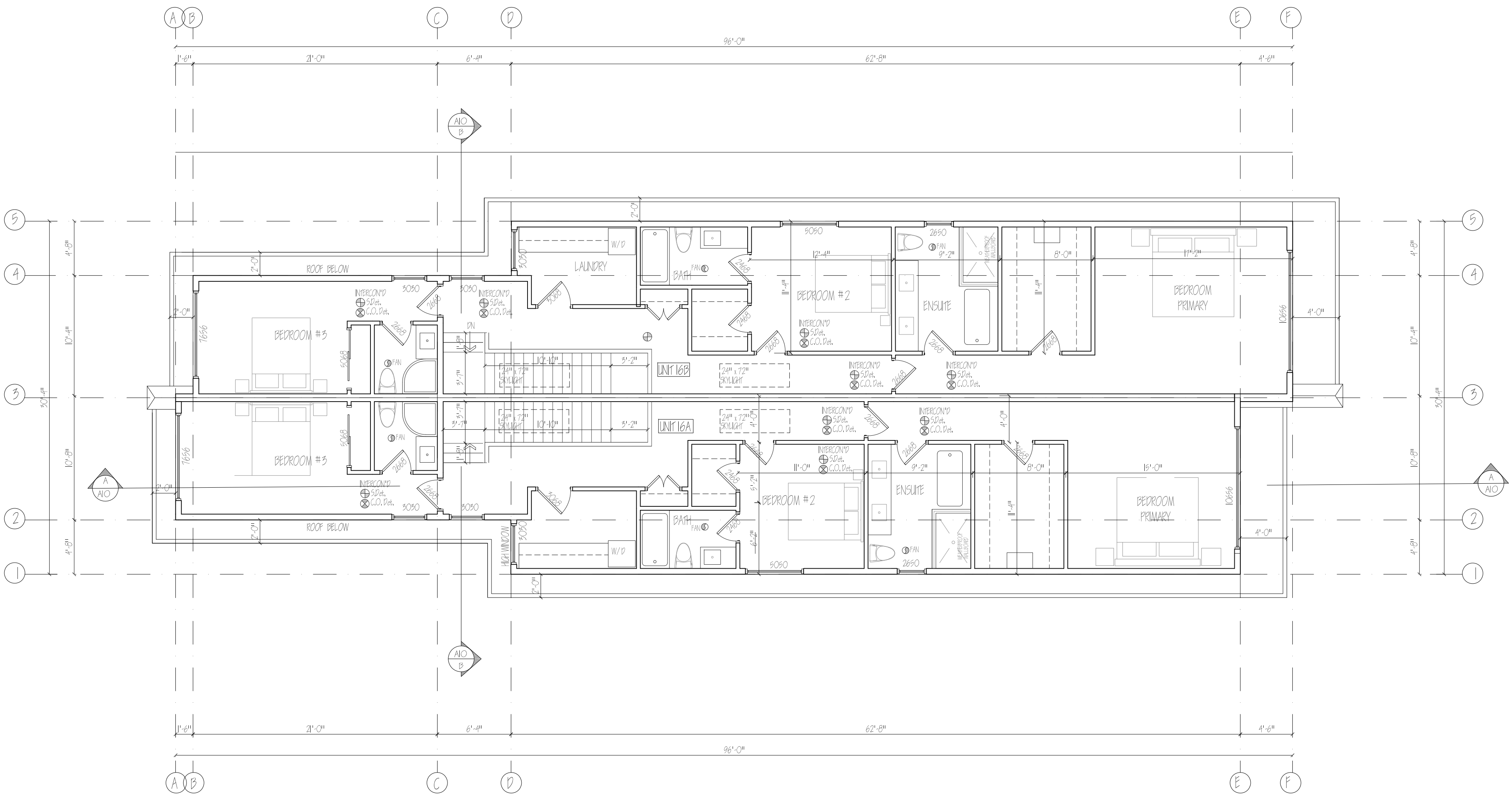
NO.	DESCRIPTION	DATE
1	SITE REVIEW COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
MAIN FLOOR

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.13



PROPOSED SECOND FLOOR	
UNIT 16A	
AREA:	1,252 SQFT
UNIT 16B	
AREA:	1,310 SQFT
TOTAL AREA:	2,562 SQFT

STERLING PACIFIC DEVELOPMENTS INC.
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NOTE:
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISED TO FLAT ROOF, SKYLIGHTS ADDED	MARCH 6, 2024

PROPOSED FOR:

GLENMORE DUPLEX

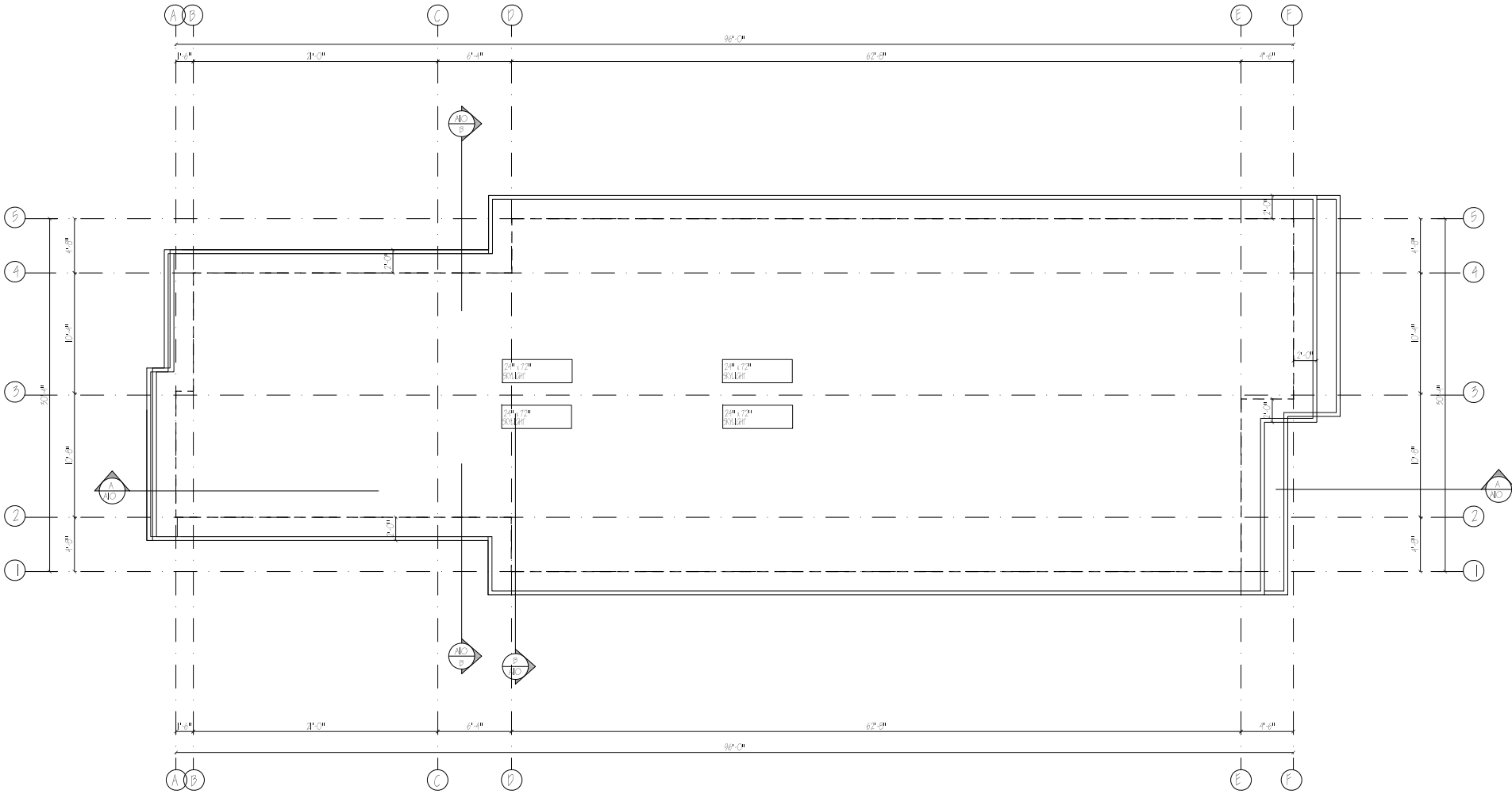
16A and 16B Glenmore Drive, West Vancouver, B.C.

DRAWING TITLE

SECOND FLOOR

DATE:	DECEMBER 12, 2023
SCALE:	1/4" = 1'-0"
DRAWN BY:	VJM
JOB NO.:	12304

SHEET No.
A.14



ROOF PLAN

STERLING PACIFIC DEVELOPMENTS INC.
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Phone: 604.831.1351 or 778.322.8340
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NOTE:
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

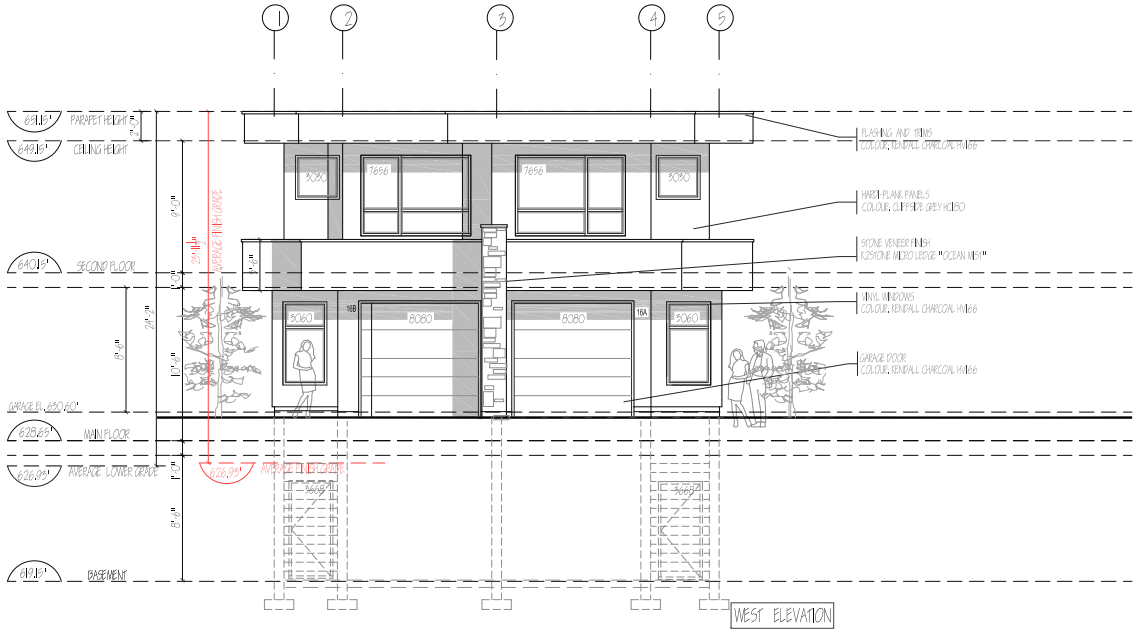
NO.	DESCRIPTION	DATE
1	REVISED PLAN PER CITY COMMENTS	MARCH 6, 2024

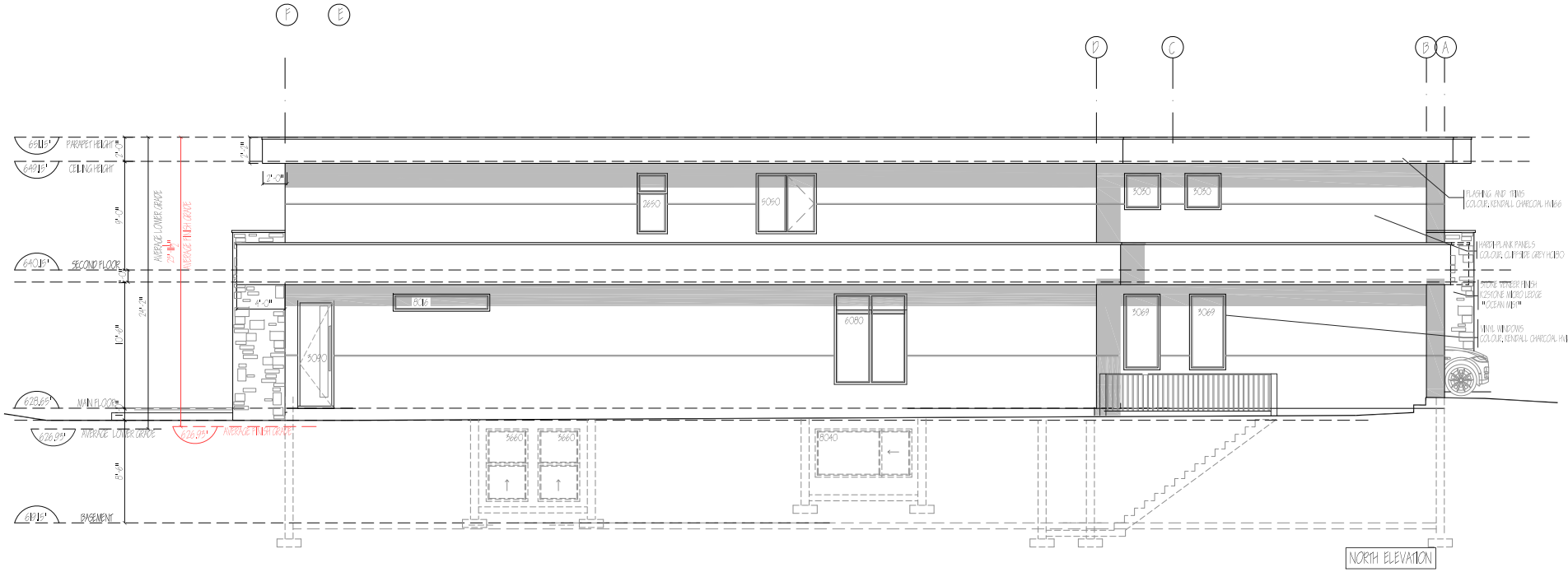
PROPOSED FOR:
GLENMORE DUPLEX
168 and 168 Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
ROOF PLAN

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.15





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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	REVISED FOR PLANNING REVIEW	MARCH 6, 2024

PROPOSED FOR:

GLENMORE DUPLEX

16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE

NORTH AND WEST ELEVATIONS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.16

West Elevation
16 Glenmore Drive

North Elevation
16 Glenmore Drive

EXTERIOR FINISHES

EXTERIOR SIDING
FINISH: HARDI SIDING MOOTH FINISH
COLOUR: GREENBRIER BEIGE HC79

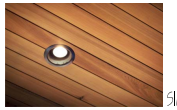
MASONRY
TYPE: K2STONE
COLOUR: OCEAN MIST MICRO LEDGE

WINDOWS/ FRAMES:
TYPE: VINYL
COLOUR: KENDALL CHARCOAL

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL

TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HV166

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

STERLING PACIFIC DEVELOPMENTS INC.
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NOTE:
ALL WORK TO CONFORM TO B.C.BUILDING CODE
ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

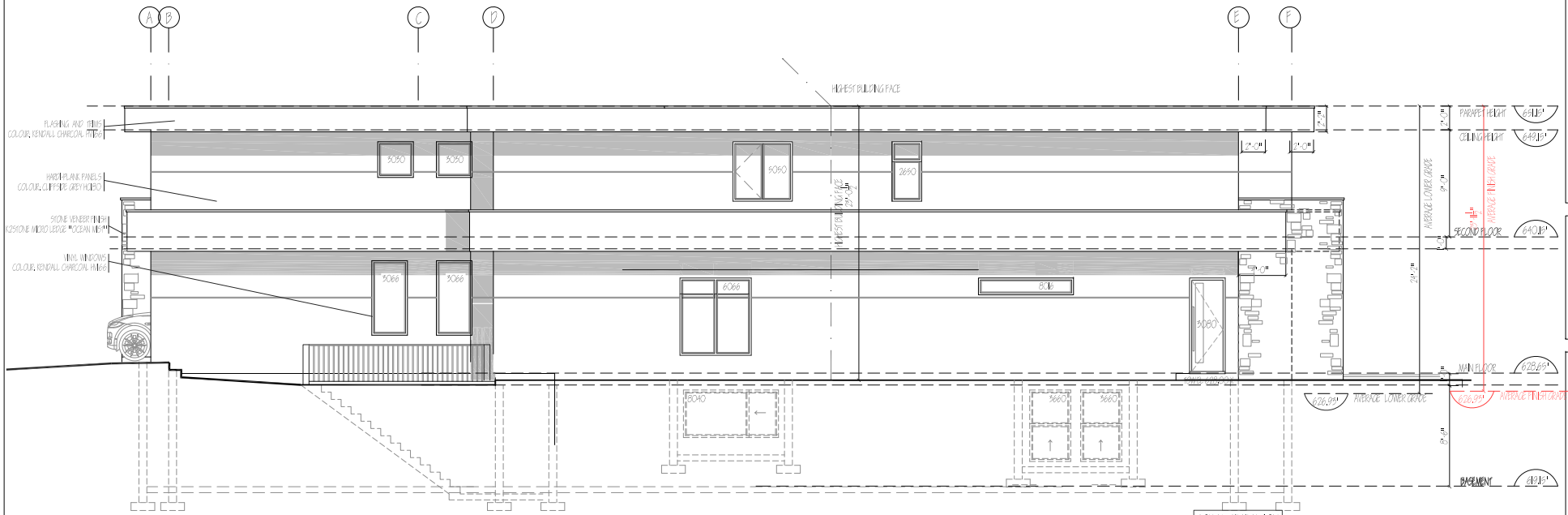
NO.	DESCRIPTION	DATE
1	UPDATED RENDERINGS	

PROPOSED FOR:
GLENMORE DUPLEX
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
NORTH AND WEST ELEVATION RENDERINGS

DATE:
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO: 1304

SHEET No.
A.16b



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REVISIONS

NO.	DESCRIPTION	DATE
1	REVISED PLANNING COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SOUTH AND EAST ELEVATIONS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 1304

SHEET No.
A.17

South Elevation
16 Glenmore Drive

East Elevation
16 Glenmore Drive

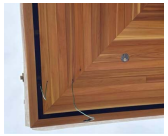
EXTERIOR FINISHES

EXTERIOR SIDING
FINISH: HARDI SIDING SMOOTH FINISH
COLOUR: GREENBRIER BEIGE HC79

MASONRY
TYPE: K2STONE
COLOUR: OCEAN MIST MICRO LEDGE

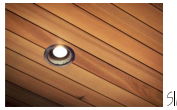
WINDOWS / FRAMES:
TYPE: VINYL
COLOUR: KENDALL CHARCOAL

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL



TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HC166

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

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REVISIONS

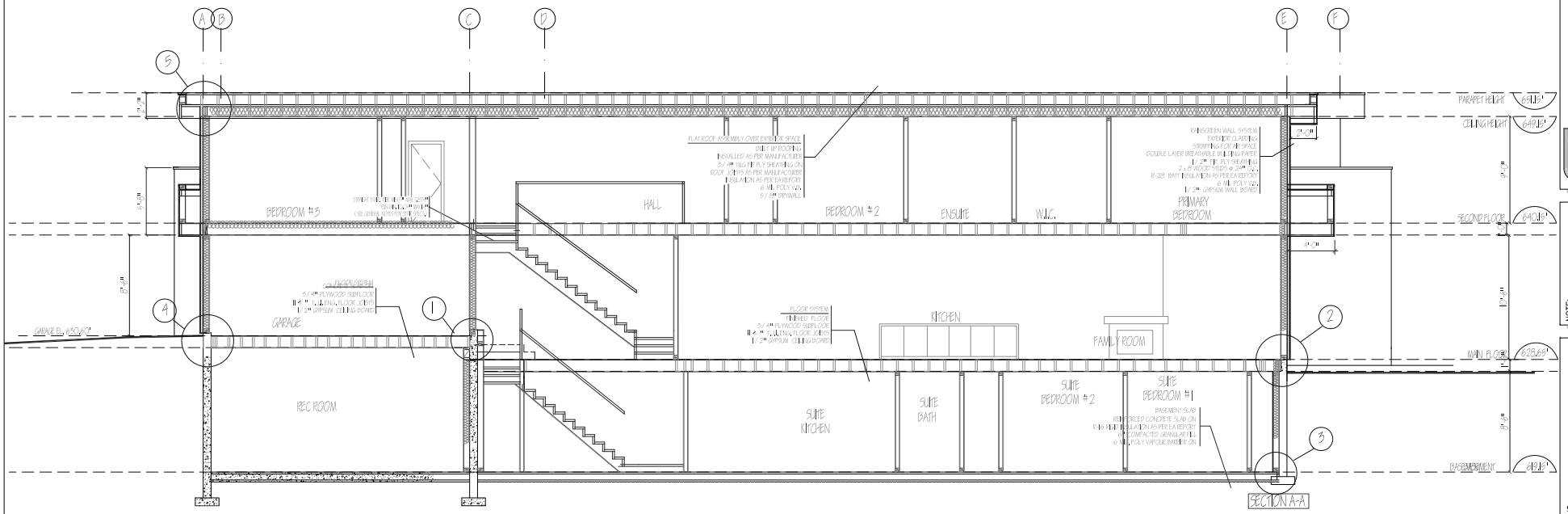
NO.	DESCRIPTION	DATE
1	UPDATED RENDERINGS	AVERAGE GRADE

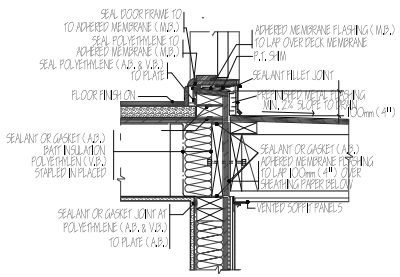
PROPOSED FOR:
GLENMORE DUPLEX
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SOUTH AND EAST ELEVATION RENDERINGS

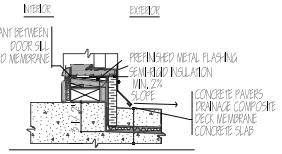
DATE:
SCALE: 1/4"=1'-0"
DRAWN BY: KM
JOB NO: 1304

SHEET No.
A.17b

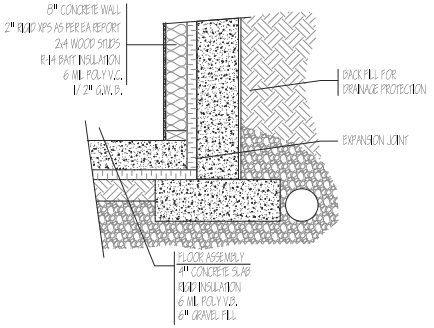




DOOR SILL AT DECK (1)



BASE WALL AT DOOR SILL (2)



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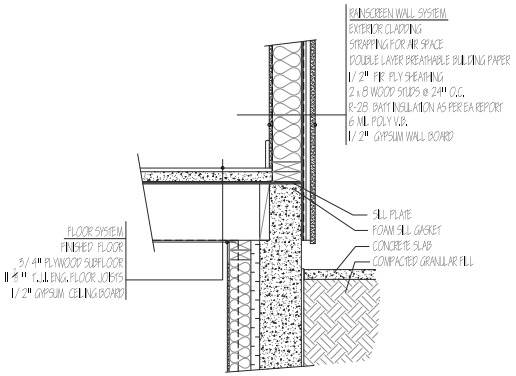

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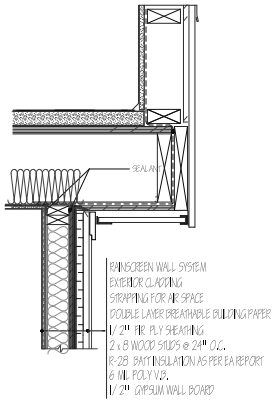

TYPICAL FLAT ROOF (5)

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

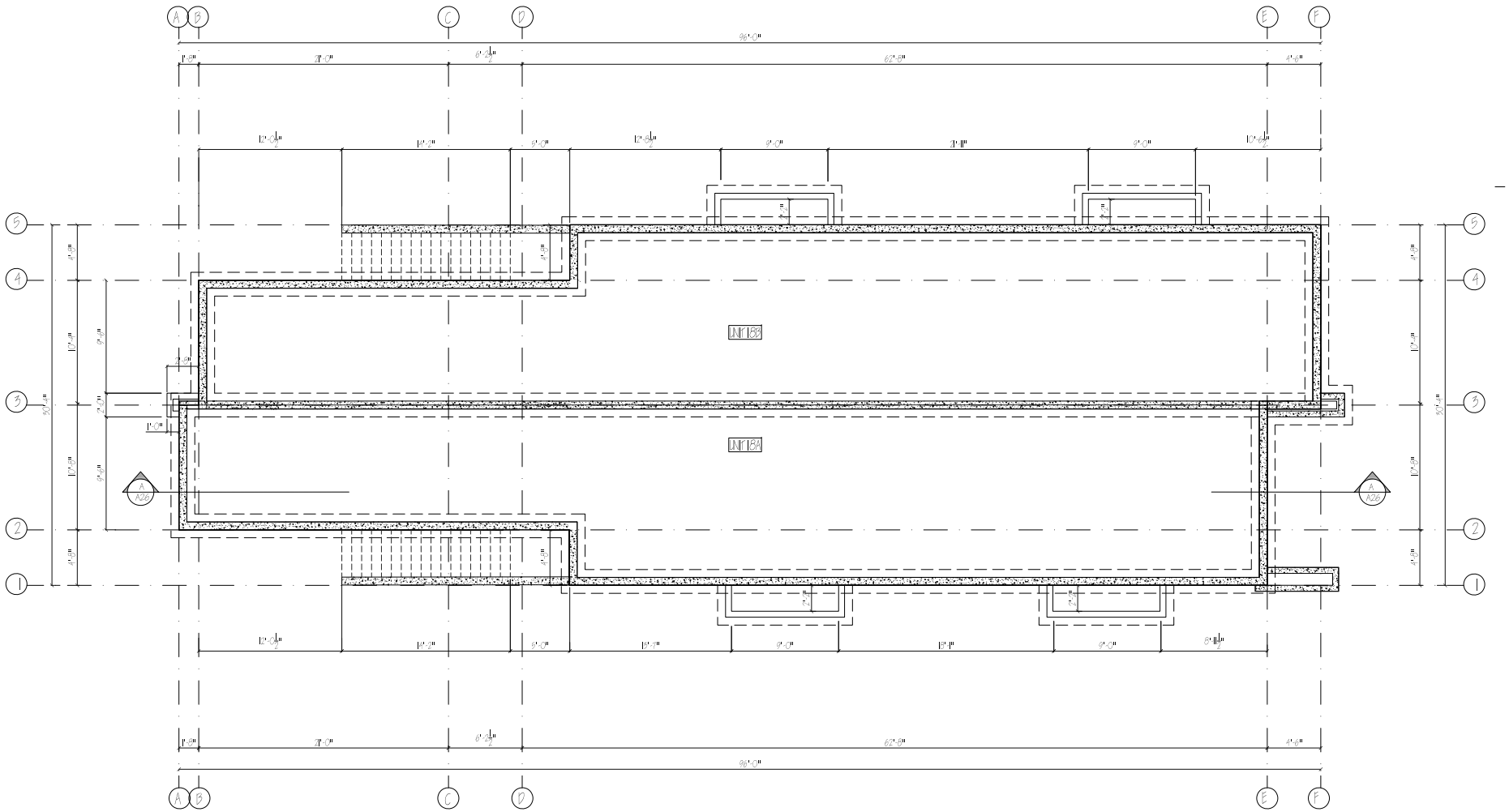
NO.	DESCRIPTION	DATE
1	REVISED TO ARCHITECTURAL DRAWINGS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
16A and 16B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SECTIONS AND DETAILS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.18



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REVISIONS

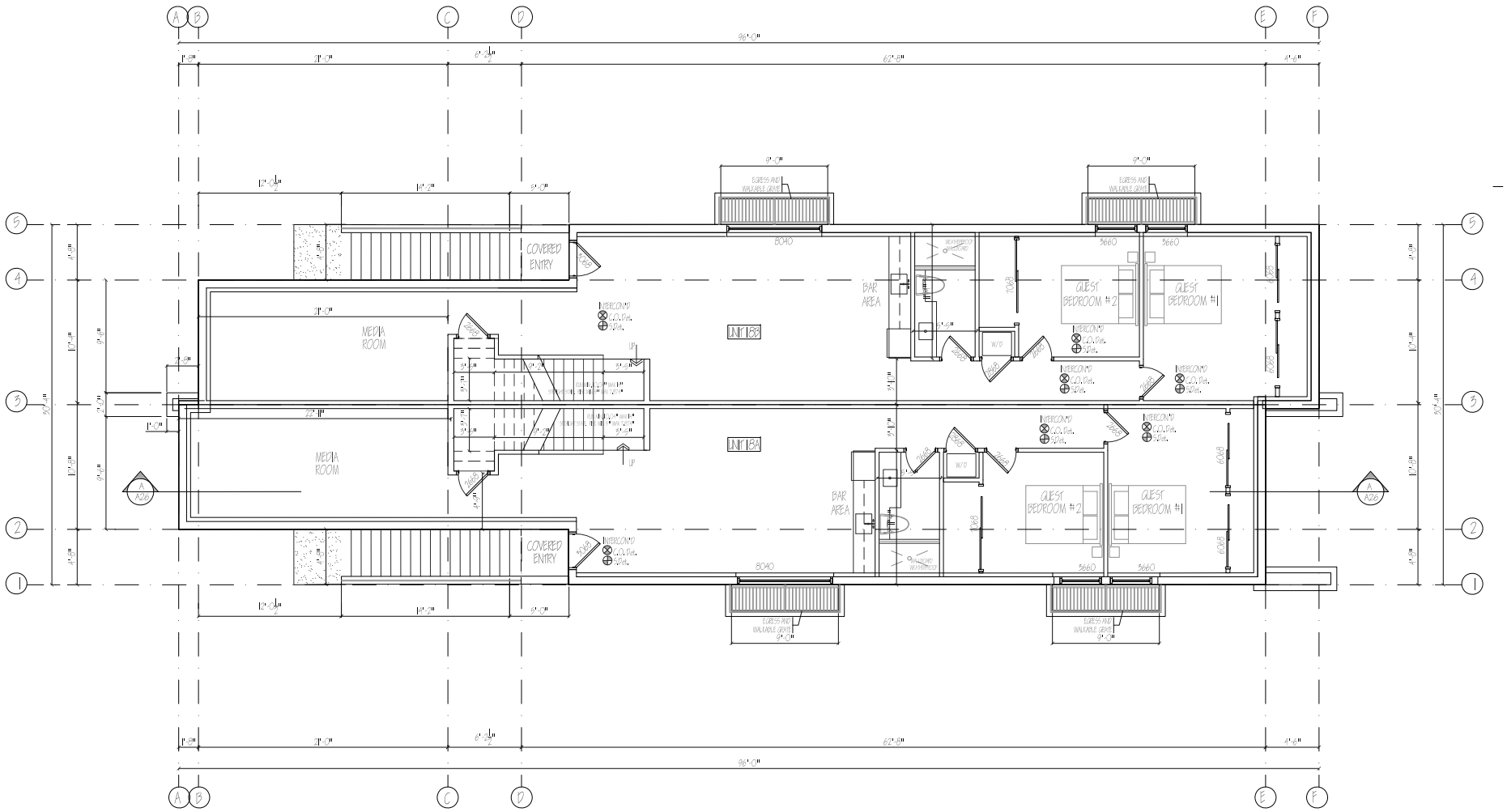
NO.	DESCRIPTION	DATE
1	PER BUILDING DEPARTMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
1BA and 1BB Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
FOUNDATION PLAN

DATE:	DECEMBER 12, 2023
SCALE:	1/4" = 1'-0"
DRAWN BY:	KJM
JOB NO.:	1304

SHEET No.
A.19



PROPOSED BASEMENT LEVEL

UNIT 18A
AREA: 1,254 SQFT

UNIT 18B
AREA: 1,306 SQFT

TOTAL FLOOR AREA: 2,560 SQFT.

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

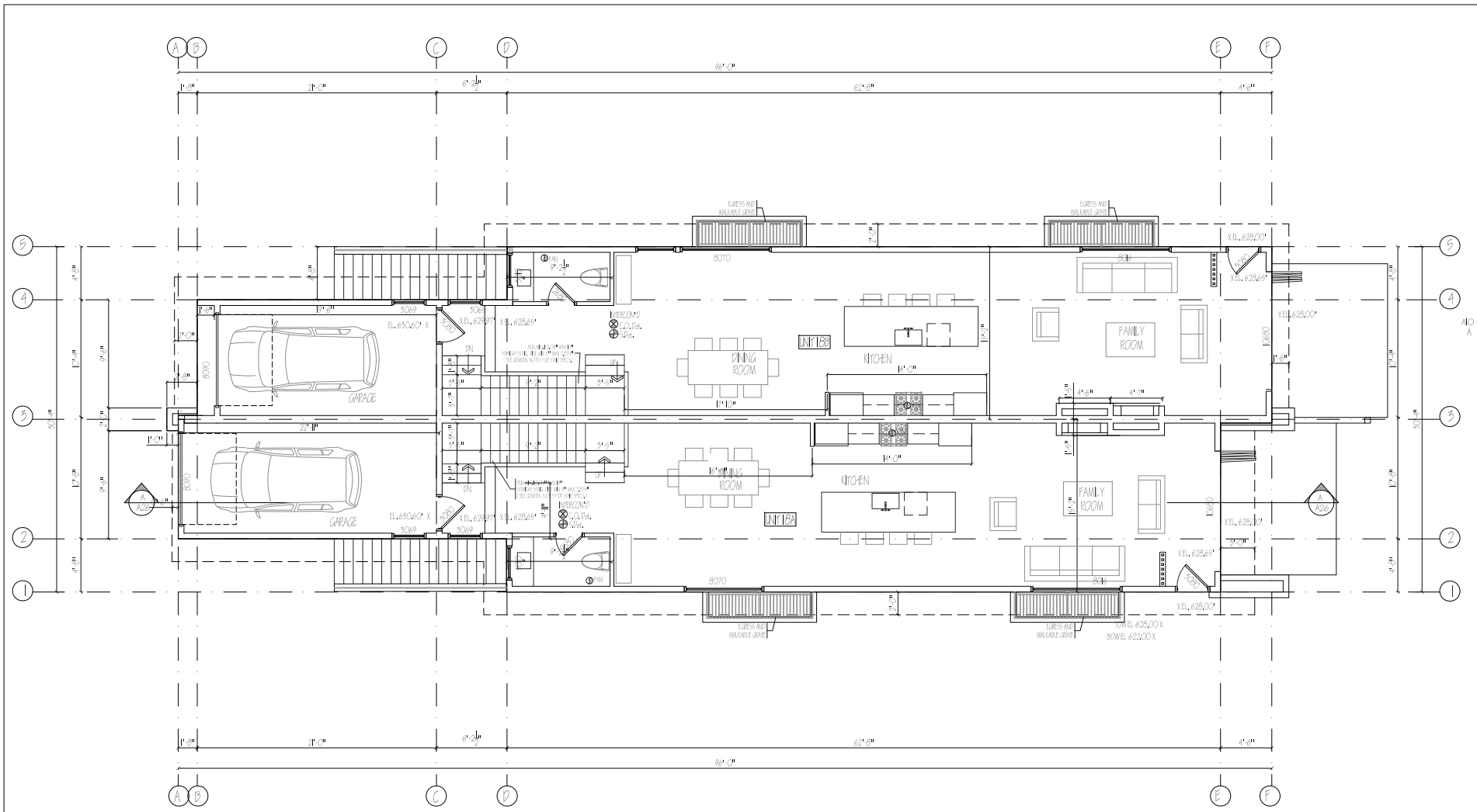
NO.	DESCRIPTION	DATE
1	PER PLANNER COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
BASEMENT LEVEL

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 1904

SHEET No.
A.20



PROPOSED MAIN FLOOR

UNIT 18A
AREA: 1,013 SQ.FT.
PLUS GARAGE: 241 SQ.FT.

UNIT 18B
AREA: 1,083 SQ.FT.
PLUS GARAGE: 223 SQ.FT.

TOTAL FLOOR AREA: 2,560 SQ.FT.

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REVISIONS

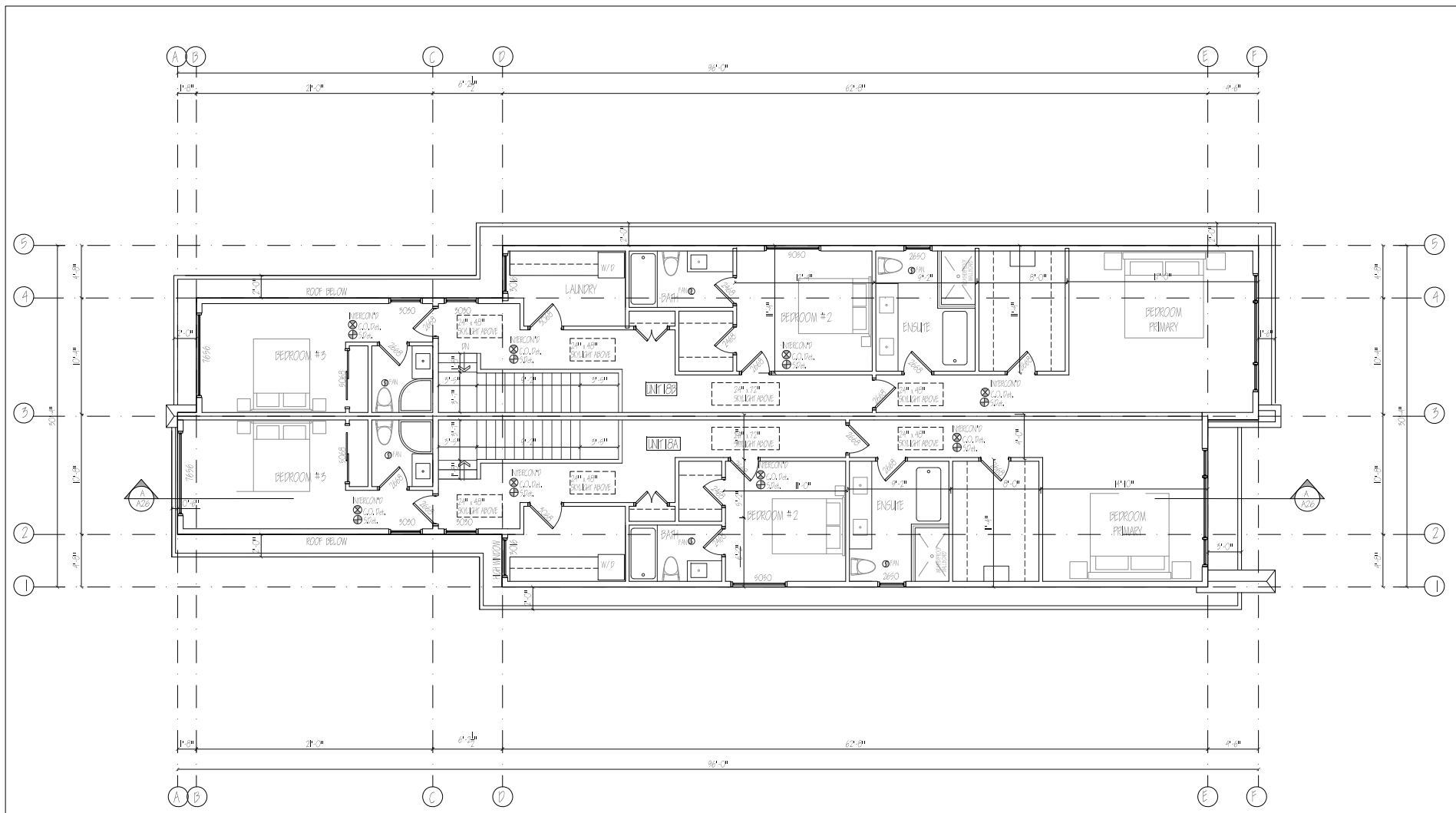
NO.	DESCRIPTION	DATE
1	SITE REMOVED DIMENSIONS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive, West Vancouver, B.C.

DRAWING TITLE
MAIN FLOOR

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO.: 12304

SHEET No.
A.21



PROPOSED SECOND FLOOR	
UNIT 18A	
AREA:	1,254 SQFT
UNIT 18B	
AREA:	1,306 SQFT
TOTAL AREA:	2,560 SQFT

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

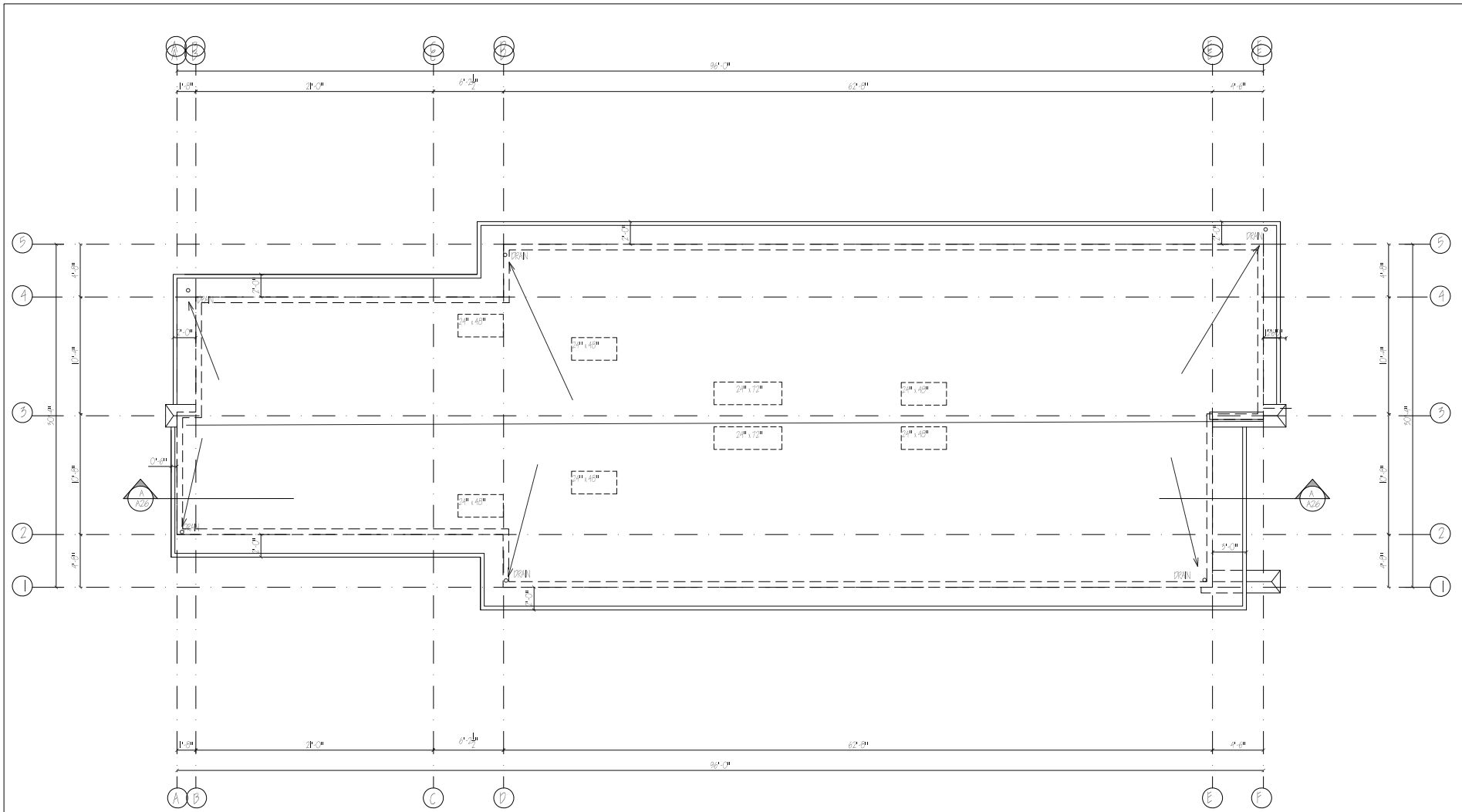
NO.	DESCRIPTION	DATE
1	PER PLANNER COMMENTS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SECOND FLOOR

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.22



ROOF PLAN

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NOTE:
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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

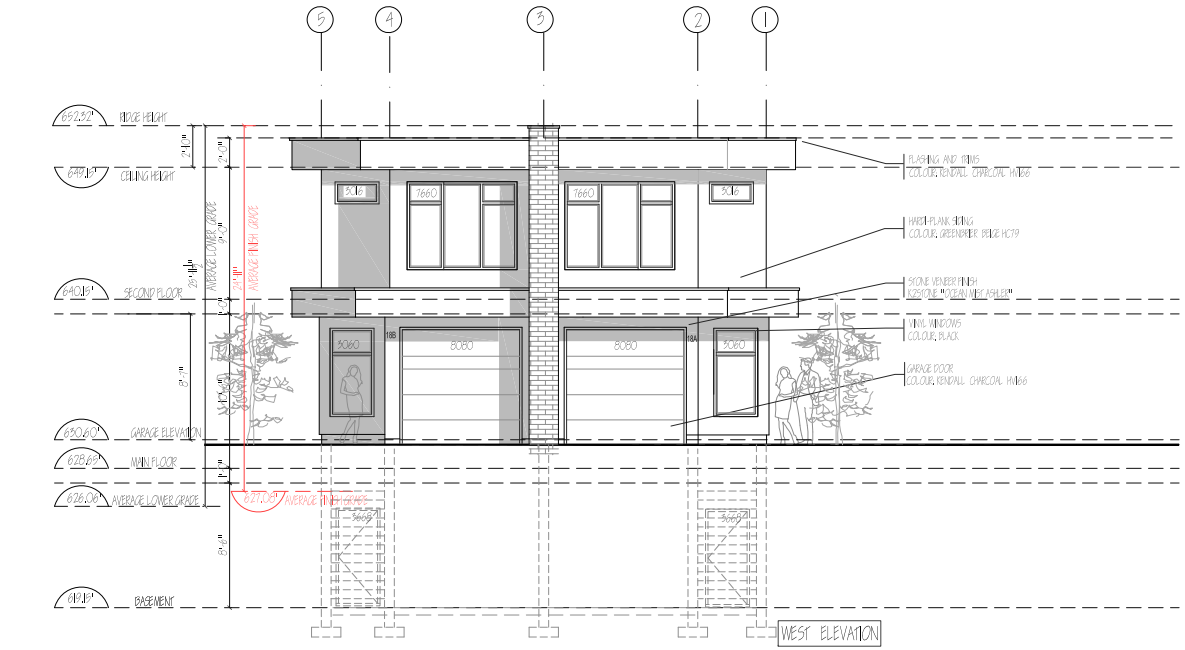
NO.	DESCRIPTION	DATE
1	PER PLANNER COMMENTS	MARCH 6, 2024

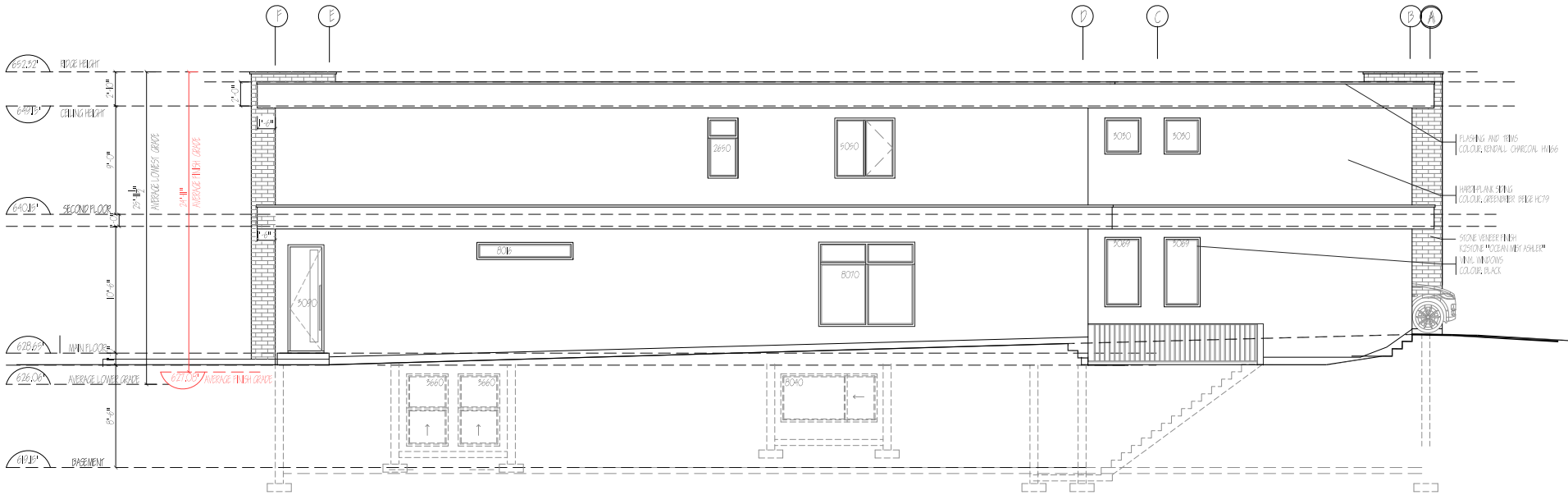
PROPOSED FOR:
GLENMORE DUPLEX
1BA and 1BB Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
ROOF PLAN

DATE:	DECEMBER 12, 2023
SCALE:	1/4" = 1'-0"
DRAWN BY:	KJM
JOB NO.:	12304

SHEET No.
A.23





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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE REMOVED DWELLS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
NORTH AND WEST ELEVATIONS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: KJM
JOB NO: 12304

SHEET No.
A.24

West Elevation
18 Glenmore Drive

North Elevation
18 Glenmore Drive

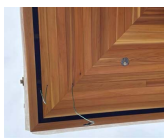
EXTERIOR FINISHES

STUCCO
FINISH: SMOOTH FINISH
COLOUR: GREENBRIER BEIGE HC79

MASONRY
TYPE: K2STONE
COLOUR: OCEAN MIST ASHLER

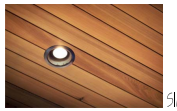
WINDOWS / FRAMES:
TYPE: VINYL
COLOUR: BLACK

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL



TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HW66

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

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REVISIONS

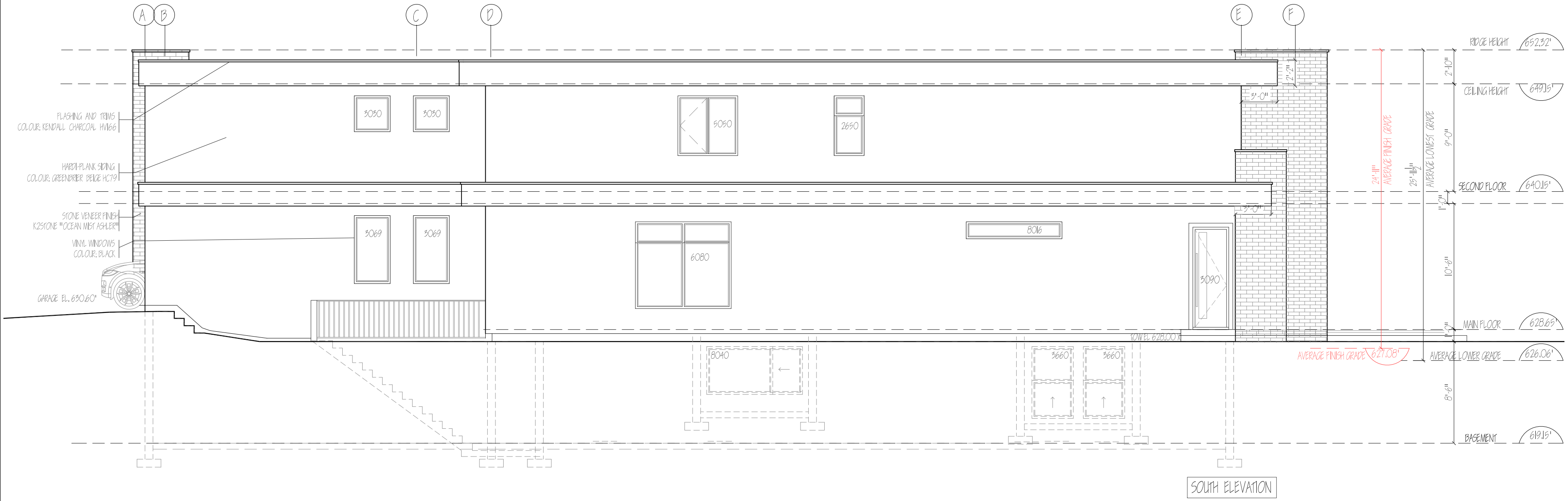
NO.	DESCRIPTION	DATE
1	UPDATED ELEVATIONS	

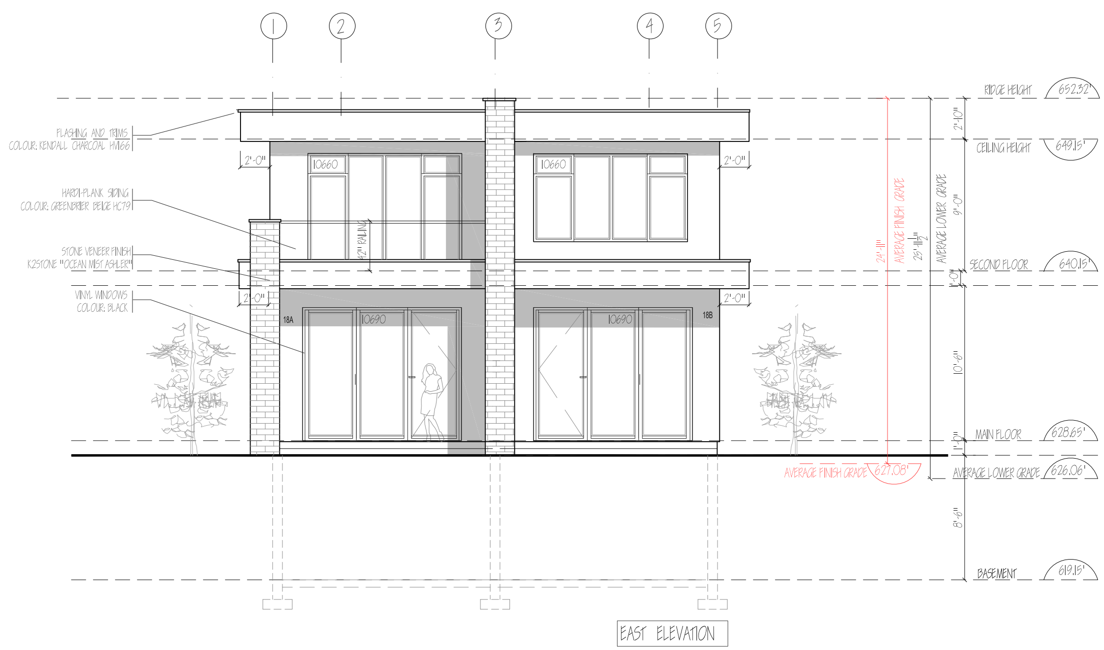
PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
NORTH AND WEST ELEVATIONS

DATE: SEPTEMBER 30, 2025
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO: 12504

SHEET No.
A.24b





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REVISIONS

NO.	DESCRIPTION	DATE
1	SUITE REMOVED, LIGHTWELLS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive, West Vancouver, B.C.

DRAWING TITLE
SOUTH AND EAST ELEVATIONS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: VJM
JOB NO.: 12304

SHEET No.
A.25

South Elevation
18 Glenmore

East Elevation
18 Glenmore

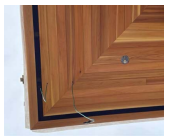
EXTERIOR FINISHES

STUCCO
FINISH: SMOOTH FINISH
COLOUR: GREENBRIER BEIGE HC79

MASONRY
TYPE: K2STONE
COLOUR: OCEAN MIST ASHLER

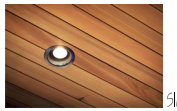
WINDOWS/ FRAMES:
TYPE: VINYL
COLOUR: BLACK

SOFFITS:
TYPE: CEDAR
COLOUR: NATURAL



TRIM:
FINISH: METAL
COLOUR: KENDALL CHARCOAL HV166

SOFFIT LIGHTING:
TYPE: LED POT LIGHT
WARM WHITE
COLOUR: BLACK TRIM



SIM.

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REVISIONS

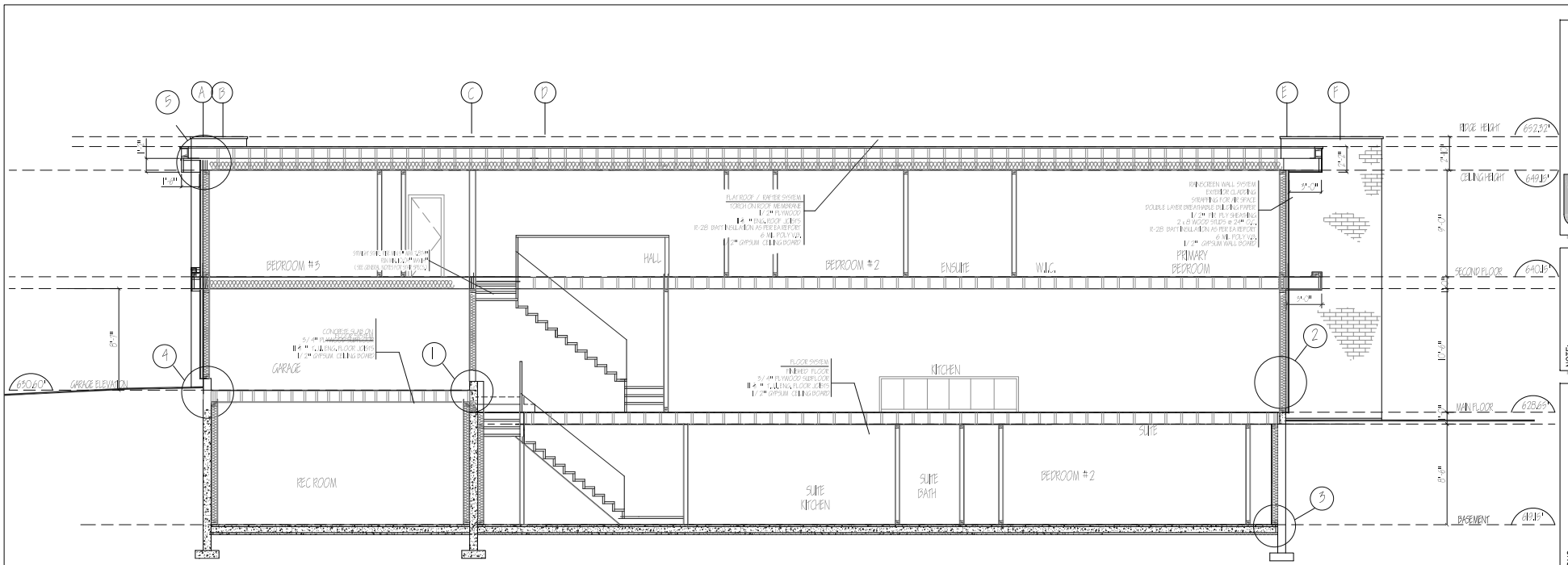
NO.	DESCRIPTION	DATE
1	UPDATED ELEVATIONS	

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

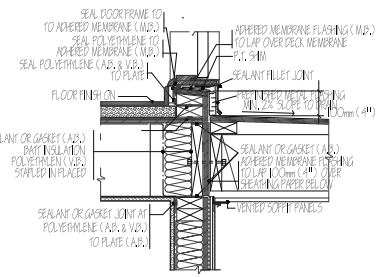
DRAWING TITLE
SOUTH AND EAST ELEVATIONS

DATE: SEPTEMBER 30, 2025
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO: 12504

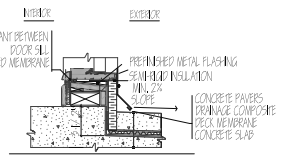
SHEET No.
A.25b



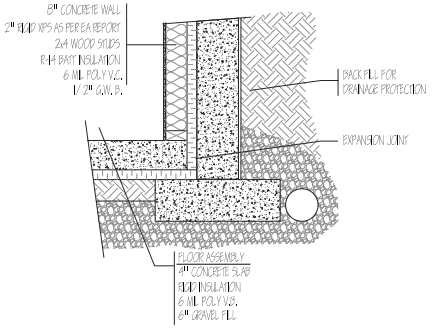
SECTION A-A



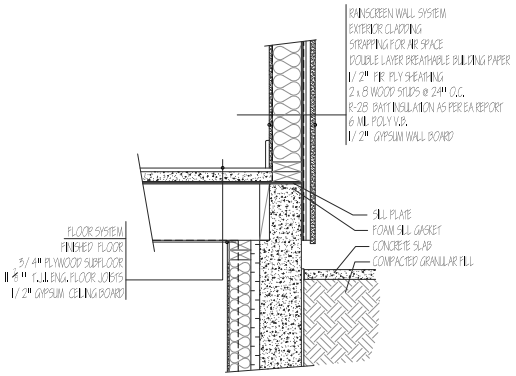
DOOR SILL AT DECK (1)



BASE WALL AT DOOR SILL (2)



FOUNDATION DETAIL (3)



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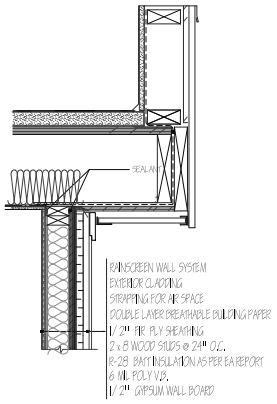

TYPICAL FLAT ROOF (5)

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ARCHITECTURAL DRAWINGS TO BE READ INCONJUNTION WITH THE STRUCTURAL ENGINEERS DESIGN LAYOUT

REVISIONS

NO.	DESCRIPTION	DATE
1	SITE BEHAVIOUR DRAWINGS	MARCH 6, 2024

PROPOSED FOR:
GLENMORE DUPLEX
18A and 18B Glenmore Drive,
West Vancouver, B.C.

DRAWING TITLE
SECTIONS AND DETAILS

DATE: DECEMBER 12, 2023
SCALE: 1/4" = 1'-0"
DRAWN BY: JLM
JOB NO.: 12304

SHEET No.
A.26

Wildfire Hazard DP Area Assessment Report

14 Glenmore Drive
West Vancouver, BC

October 3, 2023

Submitted to:

Jamie Harper
Sterling Pacific Developments
harps.jamie@gmail.com
778.322.9340

DIAMOND HEAD
3559 Commercial Street
Vancouver, BC 604.733.4886

Table of Contents

List of Figures

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List of Photos

The following Diamond Head Consulting staff conducted the assessment and prepared or reviewed the report.

All general and professional liability insurance and staff accreditations are provided below for reference.

Author:

Riley Spear
ISA Certified Arborist (PN-9691A)
ISA Tree Risk Assessment Qualified (TRAQ)
Forester in Training

Reviewer:

Conor Corbett MSFM
Registered Professional Forester
ISA Certified Arborist (PN-8429A)
ISA Tree Risk Assessment Qualified (TRAQ)
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General Liability: Northbridge General Insurance Corporation - Policy #CBC1935506, $10,000,000
Errors and Omissions: Lloyds Underwriters – Policy #1010615D, $1,000,000

Summary of Report

- The nearest intact forest edge is approximately 50m to the east of the proposed new buildings. This forest was assessed to have a **moderate wildfire fuel threat** rating applying methods from the 2020 Wildfire Threat Assessment Guide and Worksheets[1].
- Future structural hazard of the proposed development using the FireSmart Homeowners Manual[2] found the new development would likely have a **low overall wildfire hazard score** if the recommendations for building and landscaping are followed.
- Landscaping requirements from within this report must be followed. Ensure that no conifer species or long grasses with a mature height greater than 30cm are installed in new landscaping. This includes hedges of cedar, cypress, or yew species. No combustible materials, including fencing and decks, are permitted within 1.5m of the structure.
- Ensure the exterior building materials including roofs and decks are ignition resistant or non-combustible and meet the requirements from within this report. "Ignition-resistant" and "non-combustible" have the same meaning as in the most recent edition of the National Fire Protection Association (NFPA) 1144 standard.

[1] Ministry of Forests, Lands, Natural Resource Operations, and Rural Development BC, BC Wildfire Service. 2020, June 4. 2020 Wildfire Threat Assessment Guide and Worksheets (version 4). Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020-wildfire-threat-assesment-guide-final.pdf

[2] Partners in Protection Association. 2019. FireSmart Begins at Home Manual. Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/prevention-home-community/bcws_homeowner_firesmart_manual.pdf

1.0 Introduction

Diamond Head Consulting Ltd. (DHC) was retained to prepare an assessment of wildfire interface risks and mitigation measures for the proposed development at 14 Glenmore Drive in West Vancouver, BC. This project includes one residential lot located within the District of West (DWV) Vancouver Wildfire Hazard Development Permit Area. The overall objective of this report is to assess the potential wildfire hazard and provide recommendations and tools to reduce this threat to the development site. This assessment report is meant to be submitted as a part of the Wildfire Development Permit application. It must be prepared and signed by a qualified professional. Specific goals for this assessment are:

- To assess and describe fuels by strata (surface, ladder, and crown), type (FBP), composition, quantity, and distribution.
- To provide an assessment for the proposed development based on adjacent fuels, building design and materials, landscaping, setbacks, and site-specific concerns.
- To discuss factors that contribute to wildfire hazard.
- To provide photographs, mapping, and plans as needed to show vegetation, proposed site changes, and current site conditions.

1.1 Site Planning Documents Reviewed

Diamond Head Consulting was provided with the following documentation from the client that provides the basis for all comments and recommendations:

- Site Plan for 14 Glenmore Drive, West Vancouver. August 18, 2023. Sterling Pacific Developments Inc.

Any changes to these site plans should be provided to Diamond Head Consulting so that this wildfire report can be updated accordingly.

1.2 Policy Considerations for Wildfire Threat Mitigation

The District's Wildfire Hazard Report Requirements were developed based on the recommendations of the Community Wildfire Protection Plan. The objective of the guidelines, described in Schedule II of the Official Community Plan, is to proactively minimize the risk from wildfire. Guidelines are provided for buildings and structures and landscaping to reduce wildfire risk. This assessment report considers both NFPA standards and Canadian FireSmart standards to assess fire hazard in the surrounding forests and guide recommendations for the design and construction of buildings and accessory structures. Recommendations in this report translate the OCP guidelines into standards tailored to the development site that will achieve the purposes of the DPA to the extent practicable. No home in the interface can be completely free of risk. The application of the DP guidelines will reduce risk relative to standard development patterns.

Figure 1. Location of the subject site – 14 Glenmore Drive

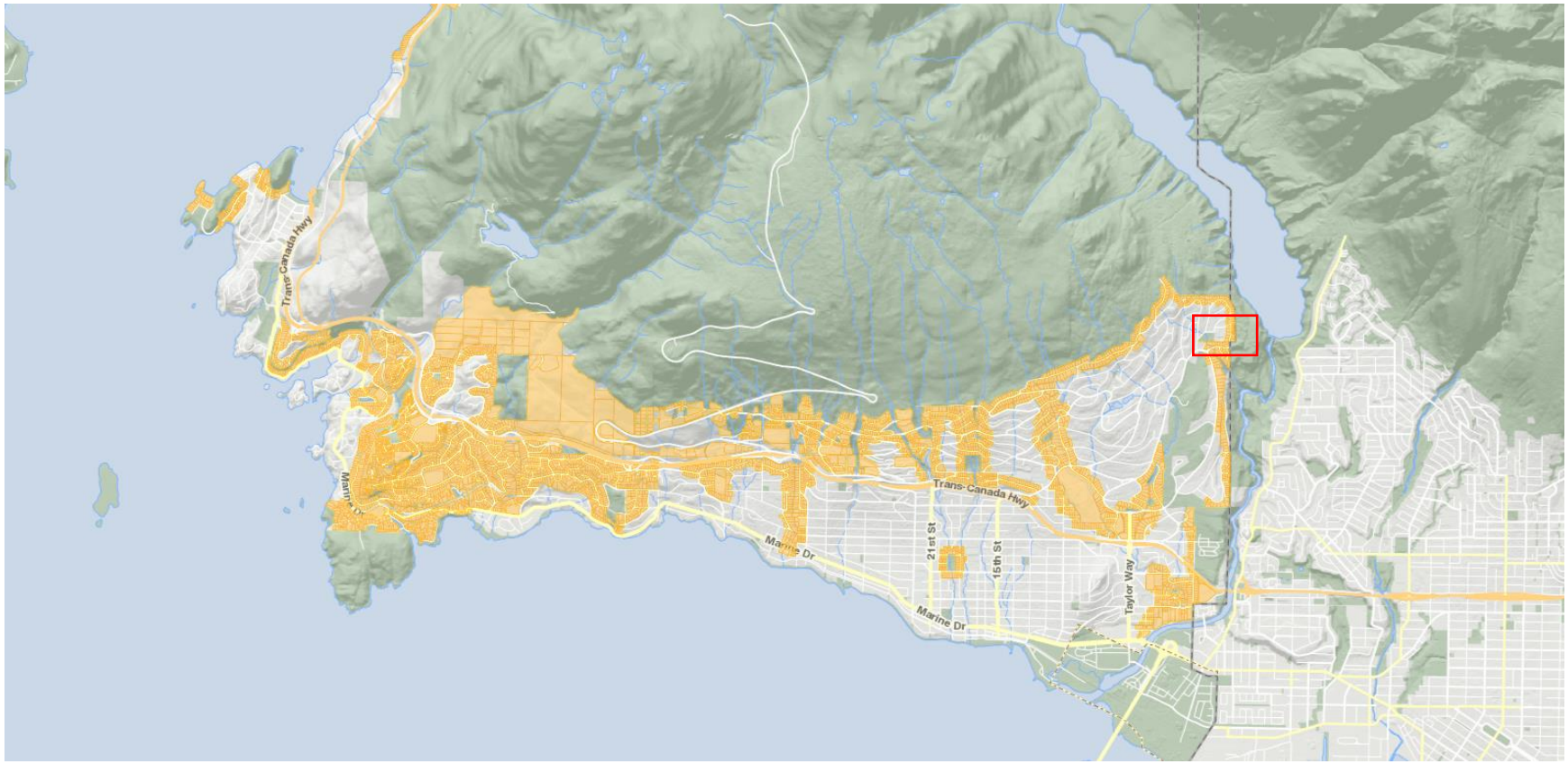

Figure 2. Development Permit Areas (Wildfire) as defined by the District of West Vancouver. Approximate site location indicated in red.

2.0 Methodology

This project falls within the DWV Wildfire Hazard Development Permit Wildfire Interface Area. There are native forests that exist about 50 metres east of the site. These natural forest areas have been assessed for wildfire fuel threat and the forest fuels have been classified. The site has been classified according to the Canadian Fire Behaviour Prediction System to the fuel type that best represents the fire behavior potential of the forest types. Generic descriptions of the CFBPS fuel types found in coastal British Columbia are provided in Appendix 3.

Detailed fuel hazard assessments were completed within 100m of the lot using the provincial assessment system, 2020 Wildfire Threat Assessment Guide and Worksheets[3]. The location of assessment plots is shown in Figure 4 and Figure 5. Data collected at each fuel plot included:

- Soil and humus characteristics
- Slope, aspect, and terrain classification
- Forest stand composition by layer (species, density, age, diameter, height, etc.)
- Vertical and horizontal stand structure
- Quantity and distribution of ladder fuels
- Composition and coverage of understory brush, herbs, and grasses
- Quantity and distribution of ground fuels by size class.

A Wildfire Hazard Assessment has been completed using:

1. Current forest fuel threat in and adjacent to the proposed development using the 2020 Wildfire Threat Assessment Guide and Worksheets.
2. Future structural hazard of the proposed development using the FireSmart Homeowners Manual[4].

[3] Ministry of Forests, Lands, Natural Resource Operations, and Rural Development BC, BC Wildfire Service. 2020, June 4. 2020 Wildfire Threat Assessment Guide and Worksheets (version 4). Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/fire-fuel-management/fuels-management/2020-wildfire-threat-assesment-guide-final.pdf

[4] Partners in Protection Association. 2019. FireSmart Begins at Home Manual. Available at: https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/wildfire-status/prevention/prevention-home-community/bcws_homeowner_firesmart_manual.pdf

3.0 Project Overview

The site consists of an 1831 m^2 lot on Glenmore Drive in West Vancouver. The lot is currently occupied by two duplexes, with an asphalt driveway extending the length of the north and west property boundaries. The house is surrounded by maintained lawns and a variety of coniferous and deciduous landscaping trees, shrubs, and plants. There are multiple conifer hedges along the property boundaries and surrounding the existing building. The property is mostly flat, with a multi-tiered planter along the western property line, contained by 3 lock block retaining walls. A total of nine (9) trees and six (6) hedges with a diameter of 10cm or more are located on the property.

The proposed development includes replacing the existing building with three (3) detached duplex units. The existing driveway will be narrowed at the entrance from Glenmore Drive but will be preserved to provide access to each unit. New landscaping will be focused on the eastern portion of the lot, between the new buildings and Glenmore Drive.

Photo 1. View of the property from Glenmore Drive (looking west).

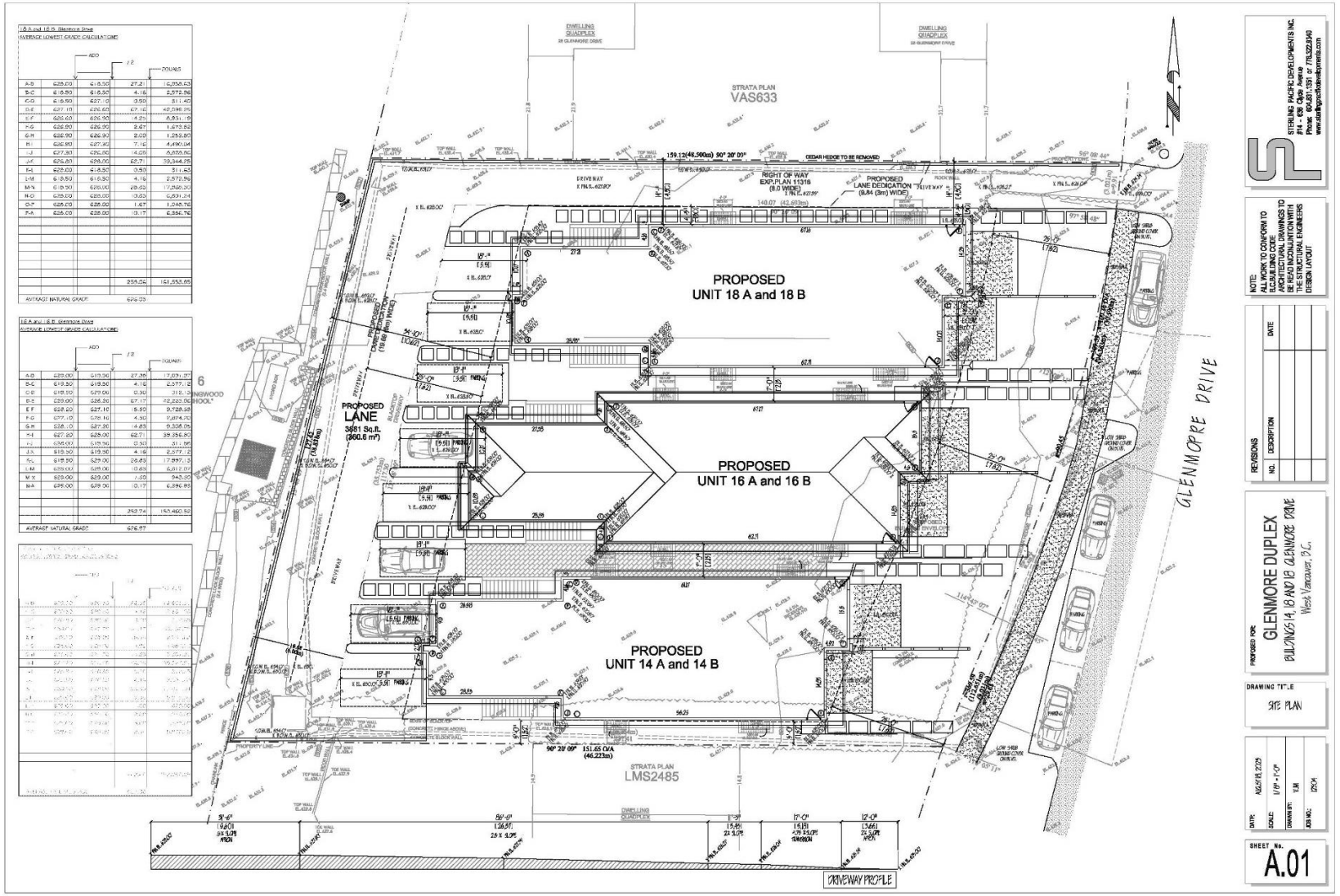

Figure 3. Site Plan for the proposed development

4.0 Fuel Descriptions and Threat Assessment

4.1 Summary of Fuel Types

Forested areas nearby the proposed development site were classified into the fuel types mapped in Figure 4. The fuels have been divided into classifications based on the sixteen national benchmark fuel types that are used by the Canadian Fire Behaviour Prediction System. Forest areas within 100 metres of the project site include mature coastal forests composed of the coniferous species Douglas-fir (*Psuedotsuga menziesii)*, western redcedar (*thuja plicata*), and western hemlock (*Thuga heterophylla*) and the deciduous species black cottonwood (*populus balsamifera ssp. trichocarpa*). They are classified as the C5 (coniferous) fuel type.

C5 fuel type is assigned to coniferous forests in Capilano River Regional Park. These are areas characterized by mixed age forests of large, low-density, conifer trees with considerable crown fuel volumes. Surface fuels are comprised of a dense layer of deciduous ferns and shrubs, with increased distributions of course woody debris in the southern portions. Ladder fuels consist of a low density (<500 stems per hectare) of suppressed and regenerating Douglas-fir and redcedar. However, these ladder fuels are scattered and discontinuous. A large fuel strata gap of 6-9 metres is present between the mature conifer overstory and the understory.

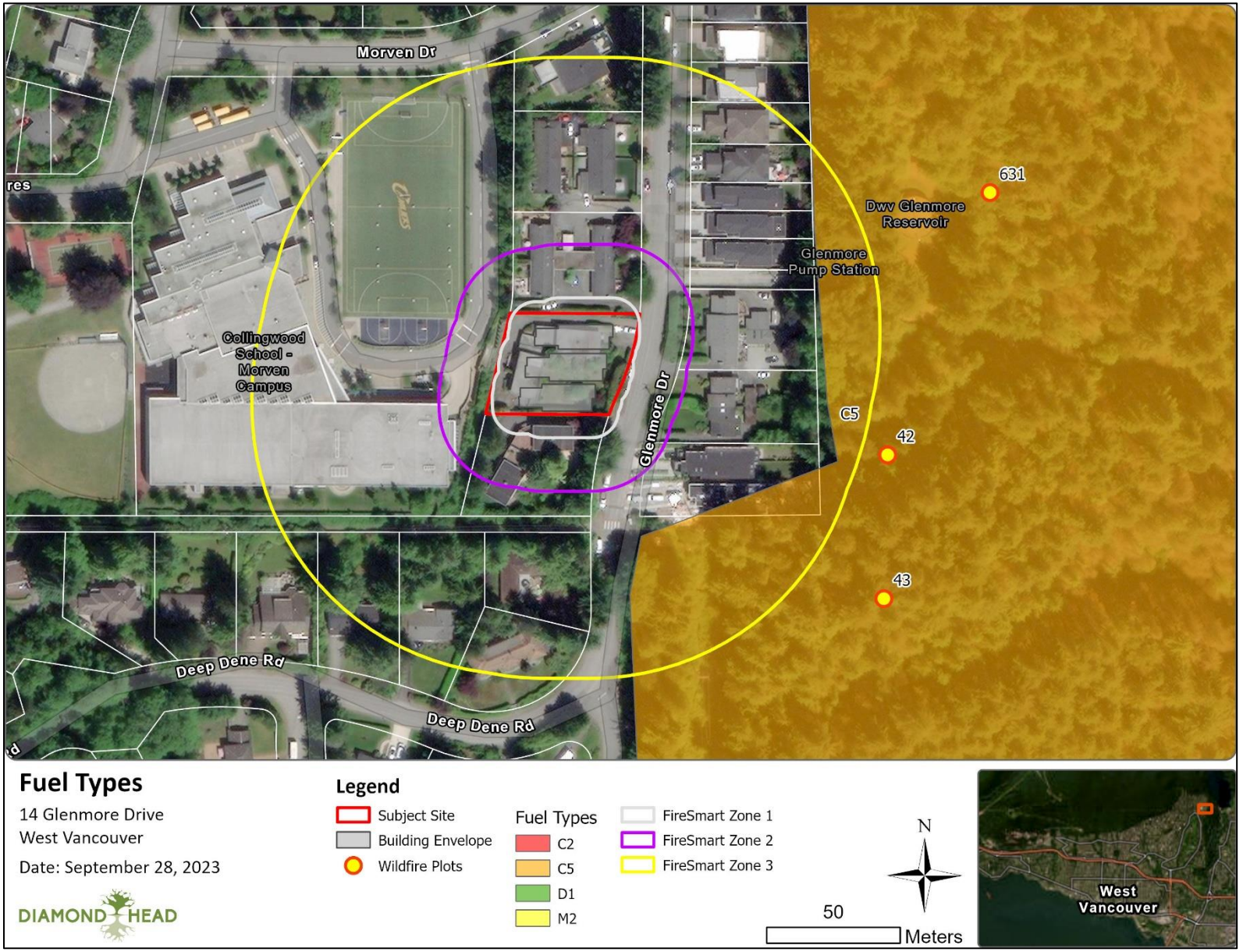

Figure 4. Location of fuel types relative to the project site.

4.2 Summary of Wildfire Fuel Threat from surrounding forest

Each forest stand was also assessed for wildfire fuel threat using the 2020 Wildfire Threat Assessment Guide and Worksheets. Figure 5 outlines the wildfire fuel threat in relation to the FireSmart zones (10m, 30m, and 100m from the structure). The threat ratings and plot characteristics are summarized in Appendix 1. This assessment accounts for the wildfire fuel threat in these stands but does not represent the likelihood of ignition for the future building.

The subject site was assessed to have an overall ***moderate*** wildfire fuel threat, associated with the C5 stands in Capilano River Regional Park. These stands represent one of the largest remaining areas of contiguous forest cover within the general urban area of West Vancouver. Forest composition within the C5 stands of Capilano River Regional Park is dominated by mature native conifers Douglas fir (*Pseudotsuga menziesii*), western redcedar (*Thuja plicata*), and western hemlock (*Tsuga heterophylla*). Individual black cottonwood (*populus balsamifera ssp. trichocarpa*) trees are scattered along the forest edge. Ladder fuel composition and continuity are the primary factors driving the wildfire threat in these stands. Ladder fuels are mostly coniferous, however have a scattered, discontinuous continuity. Additionally, scattered concentrations of dead and down material northeast of the site slightly elevate the fuel threat. However, overall, a crown fire in this stand would likely require extreme fire weather conditions such as sustained winds following a period of drought.

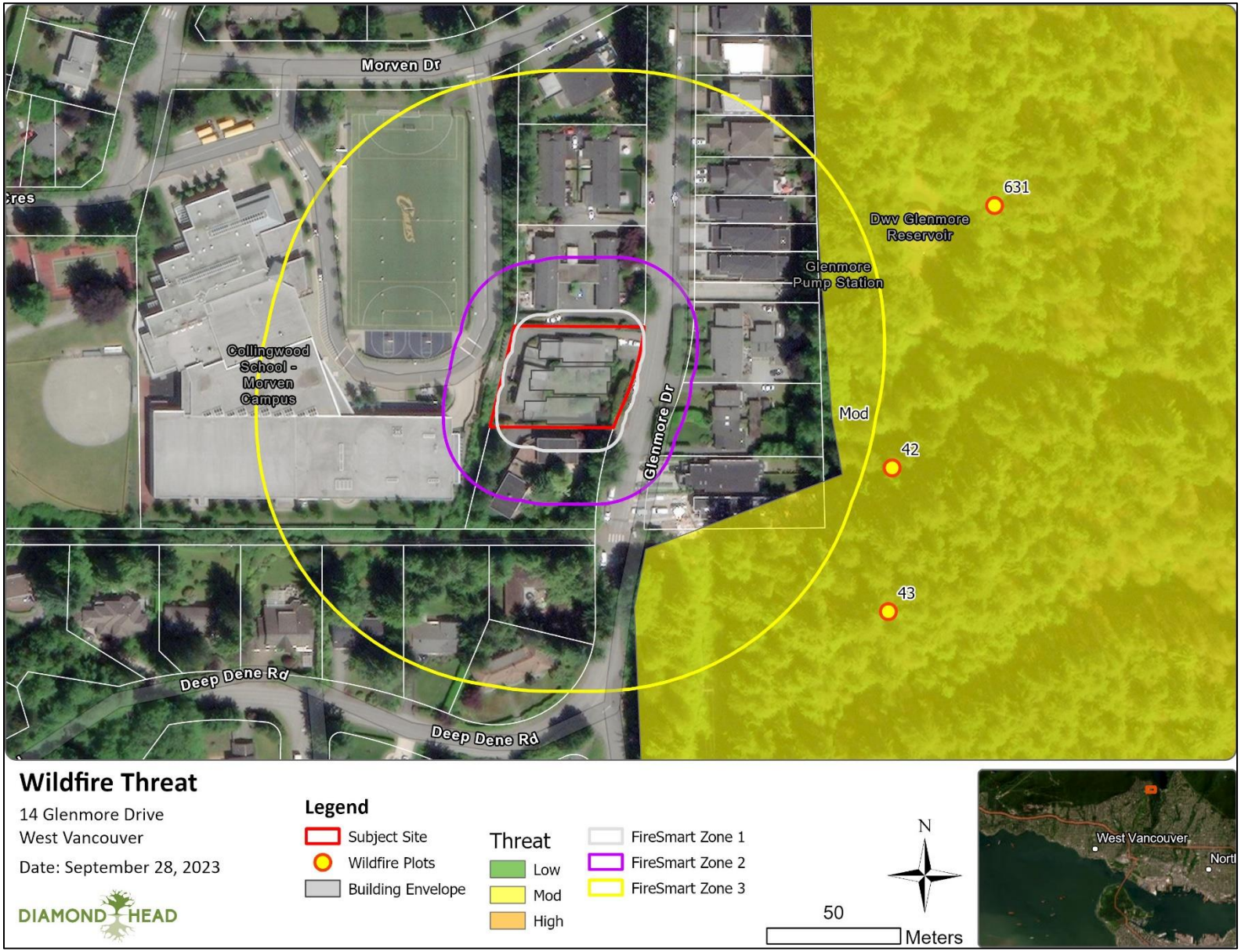

Figure 5. Wildfire fuel threat near the subject site.

4.3 On-site vegetation

On-site landscaping consists primarily of a mix of deciduous and coniferous trees and shrubs set amid lawns. Nine (9) trees with a diameter of at least 10 cm were observed during the site visit. One of these (#1895) is a protected tree under the District's tree bylaw. The property has a total of seven (7) cedar hedges on its north, west, east, and south boundaries and surrounding the existing buildings. An additional two (2) offsite cedar hedges were observed along the western edge of the subject site on a neighbouring property. These hedges are not protected under the DWV tree bylaw. Most of the on-site vegetation is an unsuitable under the wildfire DP guidelines. Section 5.1 considers existing vegetation in the context of wildfire hazard mitigation.

Table 1. On-site trees measuring 10cm diameter at breast height.

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	Comments
1892	White Spruce	25	5	Moderate	Single stem rooted in roasted planter along W property line contained by concrete retaining walls. Full open grown crown.
1893	White Spruce	23	5	Moderate	Single stem rooted in roasted planter along W property line contained by concrete retaining walls. Full open grown crown.
1894	Western Red Cedar	20	4	Moderate	Small hedging cedar between units in small plater along paved driveway. Multiple stems <10cm.
1895	Western Red Cedar	75	6	Moderate	4 stems, largest 35 and smallest 17. Abutting concrete porch gate. Rooted against concrete patio slab. Crown asymmetrical to S due to proximity to house.
1896	Western Red Cedar	44	6	Poor	Topped at 6m with poor apical dominance. Large sweeping branches. Rooted against concrete patio slab and concrete patio wall/gate. Ivy growth at base.
1897	Willow spp.	27	5	Moderate	Codominant at base. Full open grown crown in island planter.
1898	Japanese Maple	15	5	Moderate	Multi stemmed at base with 3 stems <10cm. Open grown in planter.
1899	Western Red Cedar	25	5	Moderate	Multi stemmed cedar with asymmetrical crown to E. CBH at ground.
1900	Spruce spp.	50	4	Poor	Topped at 4 m with no apical dominance. Large sprawling branches. Rooted approx. 1.5m from existing building footprint.
Hedge1	Western Red Cedar	20	5	Moderate	Large cedar hedge stretching along eastern and southern property line.
Hedge2	Western Red Cedar	10	3	Poor	Short cedar hedge at NE corner of lot.
Hedge3	Western Red Cedar	20	5	Moderate	Large cedar hedge along entire N property boundary.
Hedge4	Western Red Cedar	10	4	Moderate	Cedar hedge along S side of driveway.
Hedge5	Western Red Cedar	15	5	Moderate	Small privacy hedge in SW corner of site. Full open grown crown. Rooted against wall and driveway and concrete property fence.
Hedge6	Western Red Cedar	20	5	Moderate	3 stem privacy hedge along W property line. Grown on slope in raised planter contained by concrete retaining walls.
Hedge7	Eastern White Cedar	10	3	Moderate	Small hedge row planted in raised planter contained by concrete retaining walls along W property line.

5.0 Wildfire Threat Mitigation Recommendations

The following are recommendations to mitigate wildfire risk to the development. Community and design recommendations focus on siting of structures, construction materials, access, water sources and utilities. These are factors that provide long term mitigation against a wildfire event. Vegetation fuels on and adjacent to the development will change over time and require maintenance. Recommendations are made for on-site landscaping as well as treatments and required maintenance for forest areas adjacent to the property.

It is the responsibility of the owner and their project team to understand and comply with the following requirements.

Wildfires threaten structures primarily through radiant heat and ember ignition. Radiant heat threatens structures when a wildfire establishes in adjacent vegetation and the heat is sufficient to ignite the construction materials. This requires proximity between the wildfire and the structure. Ember ignition occurs when a wildfire spreads embers or firebrands throughout an area, which can then ignite structures. Embers can spread several kilometers, and therefore can threaten structures that do not directly interface with forests and natural vegetation.

Figure 6. Ignition pathways in the interface. Radiant heat threatens structures within 10m of the forest edge while embers spread to structures within the interior of the development.

The fire resistance of homes in the interface can be improved by achieving FireSmart standards for building materials, ignition sources and combustible fuels within each of the three FireSmart Priority Zones. In the event that a wildfire does threaten the area, suppression capability is improved with good access to the interface area, a defensible space to defend from and a good water supply. FireSmart divide the area around the home into "priority zones", which radiate out from the structure and reflect the different ignition pathways.

The Non-Combustible Zone is the area immediately adjacent to a structure, out to 1.5 m. A non-combustible surface should extend around the entire structure and any attachments, such as decks. Creating a non-combustible surface can be as easy as clearing vegetation and combustible material down to mineral soil.

Zone 1 is the area within 1.5 and 10 m of the home or building. In this area life and property are at higher vulnerability from radiant heat. It has been shown through analysis of recent large-scale wildfires that the most important factors in protecting structures are the exterior construction materials and immediate landscaping next to homes[5]. FireSmart guidance emphasizes the use of non-combustible or fire-resistant building materials for decks and outbuildings along with landscaping plans that reduce the potential for direct exposure of the home to radiant heat or flame in this area. Cleaning up debris, garbage, or storage from around the home is also of primary importance in this area.

Zone 2 includes the area from 10 m to 30 m from a structure. Wildfire in forests within this zone can subject the building to radiant heat and may produce an ember shower onto the building. Forest fuels are generally treated aggressively in this area to prevent a crown fire from establishing and reduce the intensity of radiant heat and ember production. Treatments may include removal of ground fuel, thinning of trees, and lift pruning of retained trees.

Zone 3 includes the area from 30 m out to 100 m. People and structures are vulnerable to ember transport associated with a wildfire in this area. FireSmart guidance in this area can recommend forest stand thinning, fuel management, and the designation of access and egress. The goal in this area is to prevent a crown fire, but the distance from the home means fuel management is generally not as aggressive as treatments in Zone 2.

[5] Westhaver, A. 2017. Why some homes survived: Learning from the Fort McMurray wildland/urban interface fire disaster. *Institute for Catastrophic Loss Reduction* (ICLR) research paper series – number 56. (March 2017).

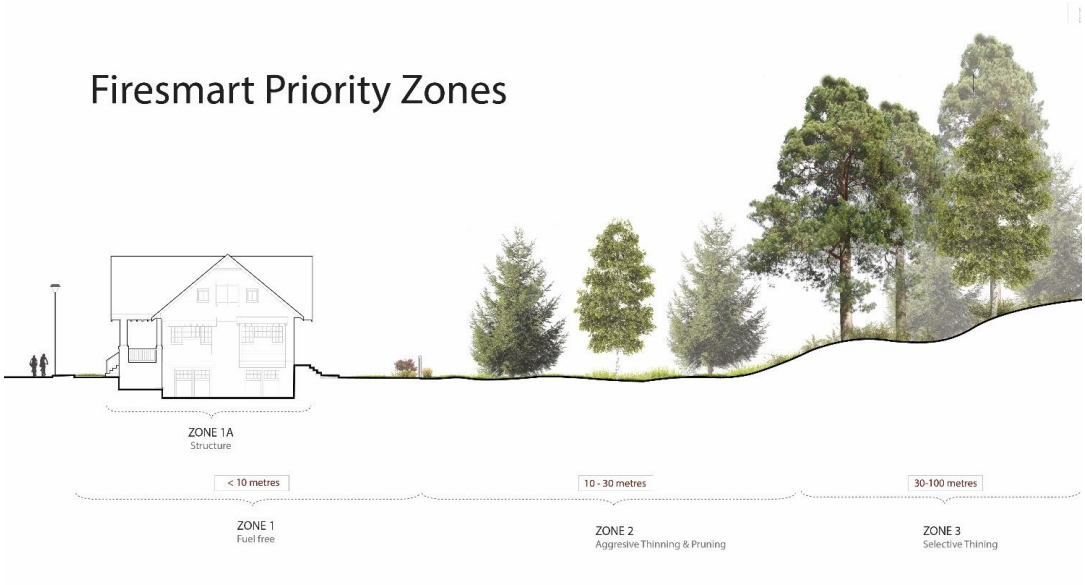

Figure 7. FireSmart Management Zones

5.1 Buildings setback from hazardous fuels and on-site vegetation

FireSmart recommends that a 10m fuel free zone be established and maintained between structures and hazardous fuels. The on-site vegetation proposed in the Landscape Plan satisfies this guideline by using only deciduous species with high foliar moisture and little resin. The perimeter of the home will be surrounded by a band of gravel or other non-combustible surface (patio, driveway pavers) that reduces the likelihood of flame transfer between landscape vegetation and building surfaces.

Many properties within the Wildfire Hazard DPA are unable to build homes so that all of FireSmart Zone 1 is located within the property limit because of zoning regulations. While vegetation on neighbouring properties can pose a fire hazard, removing, pruning, or otherwise modifying vegetation outside the subject site for the purposes of reducing wildfire risk is not always possible. In the event permission cannot be obtained for modification of off-site vegetation, all FireSmart recommendations and guidelines in this report must be followed. On-site FireSmart construction, landscaping, and maintenance will reduce the development's vulnerability to wildfire and meet the Wildfire DPA objectives as much as practically possible.

All unsuitable vegetation within Zone 1 is found on the subject property. Several hedging cedars are installed on each property boundary of the site. Due to their proximity to the proposed building footprint, these hedges should be removed to mitigate the wildfire threat to the property. Any future vegetation overhanging the property line should be trimmed back to maintain the maximum practicable fuel free zone.

Vegetation on the property will mostly be removed to accommodate new landscaping, including tree #1895, a multi-stemmed western redcedar protected under the District's tree bylaw.

Recommendations for observed vegetation as they relate to wildfire hazard are provided in Table 2. Figure 8 shows the location of trees referred to in Table 2.

Table 2. On site and neighboring trees relevant to wildfire hazard.

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	Comments	DP Suitable	Tree Retention Comments
Onsite Trees							
1892	White Spruce	25	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1893	White Spruce	23	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1894	Western Red Cedar	20	4	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1895	Western Red Cedar	75	6	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1896	Western Red Cedar	44	6	Poor	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1897	Willow spp.	27	5	Moderate	Within 10m of the proposed building envelope	Yes	No mitigation required
1898	Japanese Maple	15	5	Moderate	Within 10m of the proposed building envelope	No	No mitigation required
1899	Western Red Cedar	25	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
1900	Spruce spp.	50	4	Poor	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge1	Western Red Cedar	20	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge2	Western Red Cedar	10	3	Poor	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer

Tag #	Common Name	DBH (cm)	Ht (m)	Overall Condition	Comments	DP Suitable	Tree Retention Comments
Hedge3	Western Red Cedar	20	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge4	Western Red Cedar	10	4	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge5	Western Red Cedar	15	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge6	Western Red Cedar	20	5	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Hedge7	Eastern White Cedar	10	3	Moderate	Within 10m of the proposed building envelope	No	Remove to maintain 10m fuel free buffer
Off-site Trees							
OS1	Grand Fir	55	18	Moderate	10-30m from proposed building envelope	No	No mitigation required
OSHedge1	Eastern White Cedar	10	4	Moderate	10-30m from proposed building envelope	No	No mitigation required
OSHedge2	Western Red Cedar	15	5	Moderate	10-30m from proposed building envelope	No	No mitigation required

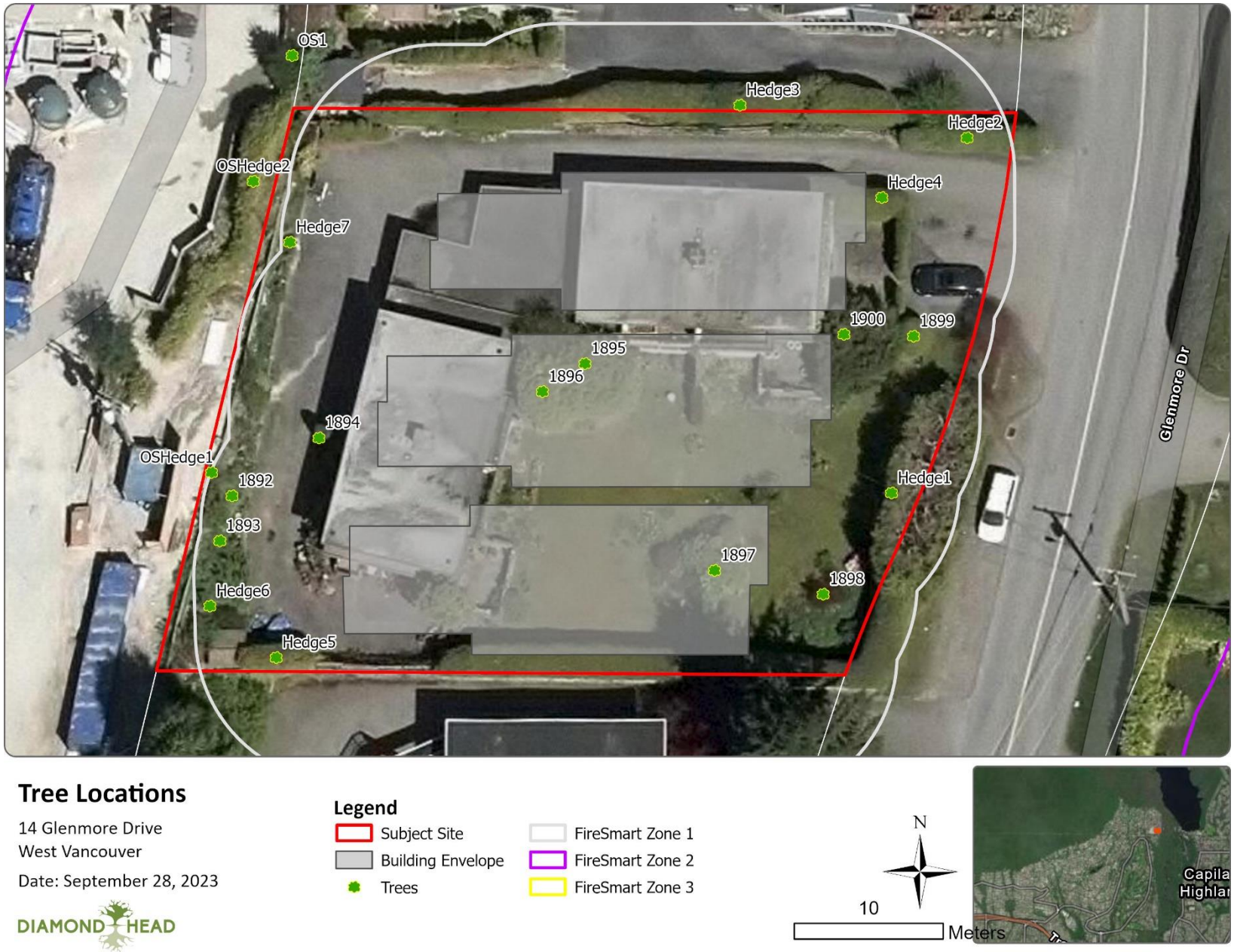

Figure 8. Location of trees referred to in this report.

Photo 2. Protected tree #1895 recommended for removal to maintain fuel free buffer (middle).

Photo 3. Hedge3 along the north boundary. representative of most hedges found onsite. (looking NE)

Photo 4. Tree #1897 and various onsite landscaping vegetation. (looking E)

Photo 5. Tree #1900 and surrounding shrubs recommended for removal. (Looking W)

Photo 6. Multi-tiered planter along western property line contained by lock block walls. (looking NW)

5.2 Zone 1A – Building and Construction

Generally, during a wildfire, homes are ignited by embers landing and accumulating on vulnerable surfaces such as roofs, verandas, eaves and openings. Embers can also land on or in nearby flammable materials such as bushes, trees or woodpiles and, if the resulting fire is near the home, it can create enough radiant heat to ignite the walls of the home. Small fires in the yard can also spread towards the structures, beneath porches or under homes. Combustible fencing can "wick" fires in the yard or landscaping towards the home. Therefore, the building material and construction techniques are a significant concern for homes in the interface.

Construction standards and requirements for roofs, chimneys, balconies, decks, and porches apply to all new houses that are built within the wildfire DP area. These are outlined in Schedule II of the District of West Vancouver's Official Community Plan, which can be viewed on the District's website. Building standards along with additional recommendations are summarized in Table 3. These should be consistent with the highest current wildfire protection standards published by the NFPA, or any similar, successor, or replacement body that may exist.

Table 3. Requirements for building design and construction

Requirements for building materials	
Building setbacks	• All new buildings must be located as far from forest interface as possible within the constraints of zoning and environmentally sensitive areas.
Roofing	• Class A rated roofing material* should be used, and asphalt or metal roofing should be given preference. • Any spaces between roof decking and covering should be blocked. • Screen or enclose rain gutters to prevent accumulation of plant debris. • See additional roofing specifications below.
Siding	• Exterior vertical walls should be cladded with fire resistant materials*. Preference should be given to stucco, metal, brick and concrete cladding. • Ensure that fire resistant materials extend from the foundation to the roof. • Flame resistant coatings that require ongoing maintenance or reapplication are not acceptable. • Exterior wall assemblies that have exterior wood that is untreated and rely on the interior wall for fire resistance are not acceptable. • See additional siding specifications below.
Vents, openings, eaves, attics, overhanging projections, soffits	• Vents should be screened using 3mm, non-combustible wire mesh, and vent assemblies should use fire shutters or baffles. • Eaves, soffits, attics, overhanging projections and underfloor openings should be protected with non-combustible covers.
Exterior windows and Doors	• All windows should be double glazed, or of glass block. Radiant faces exposed to the forest edge should be multi-paned with one pane glazed with annealed or tempered insulating glass. • Limit the size and number of windows that face large areas of vegetation. • Window screens should be non-combustible.

Requirements for building materials	
	• Exterior doors on radiant faces exposed to the forest edge should be of fire resistant materials.
Decks, porches, balconies	• Decks, patios, porches, and balconies must use fire-resistant or non-combustible materials. • Slotted deck surface allows needle litter to accumulate beneath the deck. Provide access to this space to allow for removal of this debris. • Any covers should be built of the same ignition-resistant materials as a roof.
Chimney	• All chimneys and wood-burning appliances should have approved spark arrestors (securely attached and made of 12-gauge welded or woven wire mess screen with mesh opening of less than 12 mm.
Exterior sprinklers	• While exterior wall or roof sprinklers were considered, they are not presently recommended because of the lack of accepted standards for design and installation, and the uncertainty regarding maintenance and triggering of sprinklers during a wildfire event when homes are evacuated.
Fences	• Fencing within 1.5 m of any structures must be made of ignition resistant materials. Apply a fire protective coating rated to Class A (NFPA 1144) where wood fencing is used within 10 m of the building or accessory structures. No wood fencing may be used within 1.5 metres of buildings or accessory structures.
Recommendations during construction	
Combustible materials	• During construction of houses, all waste construction materials including brush and land clearing debris; needs to be cleaned up on a regular basis, to minimize the potential risk. No combustible materials should be left at the completion of construction.
Hydrants	• Prior to construction of any wood frame buildings, there must be fire hydrants within operating range.
Fire Suppression	• The contractor should be familiar with the BC Wildfire Act and the current provincial standards for wildfire suppression and have the appropriate tools on-site for the duration of the project.

* **Non-combustible materials:** means that a material meets the acceptance criteria of CAN/ULC S114, (Standard Method of test for determination of non-combustibility in Building Materials)
Fire-resistant materials: means that a material meets the acceptance criteria of CAN/ULC-S101, (Fire Endurance Tests of Building Construction and Materials)
Rated roofing materials: Class A, B or C is a measure of the external spread of flame on a roof surface. Tests are conducted using CAN/ULC S107M methods of fire tests of roof coverings, or equivalent. The best rating achieved is Class A, which may be described as effective against severe fire exposure.

Roofing specifications

Roofing must be non-combustible. These have a Class A flame spread rating defined as “Class A roof coverings are not readily flammable, are effective against severe fire exposures, and do not carry or communicate (i.e., spread) fire”. CAN/ULC S107 "Standard Test Methods for Fire Tests of Roof Coverings” is the testing procedure used to determine a product's or roof assembly's classification. Any products that are certificated as Class A with an "Assembly" requirement must have a project engineer or architect provide signed proof that the product has been installed as per the specifications of the manufacturer. Because roofing occupies a large portion of the home’s exterior surface area and is oriented to down-falling embers, roofs are the most vulnerable part of the home’s assembly.

The proposed roofing materials are not defined at this time. All future roofing materials used for the proposed buildings should meet the guidelines stated above.

Siding specifications

Exterior siding must be fire resistant (stucco, brick, fibre cement boards/panels and poured concrete). Untreated wood products do not meet this standard. Flame resistant coatings that require ongoing maintenance or reapplication are not acceptable. Exterior wall assemblies that have exterior wood that is untreated and rely on the interior wall for fire resistance are not acceptable. Wood products that have permanent treatments or are naturally fire resistant can be accepted as long as product specifications and certified testing is provided. The District may require that the final structure be inspected to confirm structures have been built to these standards and to obtain a permit for occupancy and bonding.

The proposed primary surface materials are not defined at this time. All future primary surface materials used for the proposed buildings should meet the guidelines stated above.

It is critical that the structure be designed and built to these standards. The District may require that the final structure be inspected to confirm it is compliant and to obtain permit for occupancy and bonding.

5.3 Zone 1 – FireSmart landscaping and maintenance

Landscaping and maintenance for the site should follow FireSmart principles as laid out in the most recent edition of the FireSmart BC Homeowner’s Manual. FireSmart describes zones of increasing distance from the structure where different treatments and maintenance regimes are recommended to reduce wildfire behavior. Most of the lot will be within 10 metres of the proposed buildings. Planning and maintenance of this area should follow the requirements of priority zone 1 (<10m from structures) outlined in the FireSmart program. The goal in this zone is to remove hazardous fuels and convert vegetation to fire-resistant species to produce an environment that does not support combustion. Recommendations for landscape and maintenance are summarized in Table 4. It is recommended that new coniferous trees and shrubs, including hedging, be excluded from the landscape plan.

Table 4. Requirements for landscaping and maintenance

Landscaping Requirements
• Remove all highly flammable vegetation and other combustibles from around the building. • No conifer trees species should be planted within 10m of any buildings. Existing trees further than 10m from the proposed home can be retained if desired. • Landscaping should incorporate species that are fire resistant. These types of plants tend to have moist, supple leaves with low amounts of sap or resin. They also have a tendency not to accumulate dead material. A list of fire-resistant plants and trees can be found at the FireSmartBC website. A list of suitable species has also been provided in Appendix 6. • Ensure that vegetation will not grow to touch or overhang buildings through appropriate tree selection and proactive maintenance. • Irrigation sprinklers may be installed in landscaping but are not required. Where possible, use plants that are tolerant of drought.
Landscaping Maintenance Requirements
• Annual grasses within 10 meters of buildings should be kept mowed to 10 centimeters or less and watered regularly during the summer months • Remove any local accumulations of woody or combustible material (e.g., no woodpile or yard waste accumulations). • Remove any over mature, dead or dying shrubs and trees. • Ensure off-site and encroaching trees are pruned to eliminate contact between foliage and building surfaces • Plant only fire-resistant trees and shrubs. A list of fire-resistant plants and trees can be found at the FireSmartBC website. A list of suitable species has also been provided in Appendix 6.

The Landscape Plan as proposed is anticipated to meet these requirements.

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5.4 Zones 2 and 3 – Fuel Hazard Mitigation in Adjacent Forested Areas

Forests that are adjacent to planned structures and pose a high wildfire fuel threat can be treated to reduce fuel loading and continuity. The property does not directly interface with forest vegetation, with the nearest forest being in Capilano River Regional Park approximately 50 m to the southeast of the proposed buildings. Proposed landscaping in the on-site portion of FireSmart Zones 2 follows the guidance listed in Table 4. No off-site fuel mitigation is proposed in relation to this project.

6.0 Future Condition FireSmart Structure and Hazard Assessment

The form below provides an assessment of the proposed development using the FireSmart Structure and Hazard Assessment form. Assessment ratings are made assuming that the recommendations outlined in this report are adhered to. All three structures share similar characteristics and siting, and the assessments below apply to all three structures.

Table 5. FireSmart Structure and Hazard Assessment

ZONE 1			
HOME/10 m	**Criteria**	**Rating Options**	**RATING**
What type of roofing material do you have?	Metal, clay tile, asphalt shingle or ULC rated shakes (may be affected by the condition of your roof)	0	**0**
	Unrated Wood Shakes	30	
Gutter type and roof cleanliness?	Non-combustible gutter – no debris	0	**0**
	Combustible gutter – no debris	6	
	Non-combustible gutter with debris	10	
	Combustible gutter with debris	16	
What is the exterior of your home built of?	Non-combustible material, stucco, metal siding or brick	0	**0**
	Combustible or non-ignition resistant (vinyl, wood)	6	
How fire-resistant are your windows and doors?	Tempered glass in all doors/windows	0	**2**
	Double-pane glass - small/medium (smaller than 1 metre x 1 metre)	1	
	Double-pane glass - large (greater than 1 metre x 1 metre)	2	
	Single-pane glass - small/medium (smaller than 1 metre x 1 metre)	4	
	Single-pane glass - large (greater than 1 metre x 1 metre)	6	
Are your vents screened?	Non-combustible, fire-rated vents or vents with 3 mm screening	0	**0**
	Combustible vents, not firerated or without 3 mm screening	6	
Are your eaves closed?	Closed or Boxed-in eaves	0	**0**
	Open eaves	6	
Have you sheathed-in the underside of your balcony, deck, porch or open foundation?	N/A, no gaps or cracks, heavy timber, noncombustible or fire-rated construction with non-combustible surface and no combustible debris under deck	0	**0**
	Gaps or cracks, no heavy timber or fire-rated construction with combustible surface and combustible debris under deck	30	
Is your home set back from the edge of a slope?	Building is located on the bottom or lower portion of a hill	0	**0**
	Building is located on the mid to upper portion of a hill or the crest of a hill	6	
ZONE 1 HOME SCORE			**2**

*Building materials have not been provided at this time

NON-COMBUSTIBLE ZONE			
Within 1.5 m of home	**Criteria**	**Rating Options**	**RATING**
1.5 m from the ground-level exterior footprint of the structure including any attachments or extensions	Non-combustible surface, no combustible debris, materials, fences or plants present	0	**0**
	Combustible surface, combustible debris, materials, fences or plants present	30	
NON-COMBUSTIBLE ZONE SCORE			**0**

ZONE 1			
YARD/within 10 m	**Criteria**	**Rating Options**	**RATING**
Where are your outbuildings (or adjacent buildings) located	More than 10 metres from home	0	**0**
	Less than 10 metres from home	6	
Where is your woodpile located?	More than 10 metres from any building	0	**0**
	Less than 10 metres away from any building	6	
What type of forest* grows within 10 metres of your home?	Deciduous trees	0	**0**
	Mixed wood trees (deciduous and conifer)	30	
	Conifer trees	30	
What kind of surface vegetation and combustible materials are within 10 metres of your home and outbuildings?	Well-drained lawn or non-combustible landscaping material	0	**0**
	Uncut grass or shrubs	30	
	Twigs, branches and tree needles on the ground	30	
ZONE 1 YARD SCORE			**0**

*a forest is considered a continuous intact treed area

ZONE 2			
YARD/10 – 30 m	Criteria	Rating Options	RATING
What type of forest surrounds your home?	Deciduous trees	0	**0**
	Mixed wood trees (deciduous and conifer)	10	
	Conifer trees separated	10	
	Conifer trees continuous	30	
What kind of surface vegetation grows within 10-30 metres of your home and around your buildings?	Well-drained lawn or non-combustible landscaping material	0	**0**
	Uncut grass or shrubs	5	
	Scattered twigs, branches and tree needles on the ground	5	
	Abundant twigs, branches and tree needles on the ground	30	
Are there shrubs and low branches (within 2 metres of the ground) in the surrounding forest?	None within 10-30 metres	0	**0**
	Scattered within 10- 30 metres of buildings	5	
	Abundant within 10-30 metres of buildings	30	
ZONE 2 YARD SCORE			**0**
TOTAL SCORE			**Rating**

ZONE 1/ Home and Yard	Home	2
	Non-Combustible Zone	0
	10 metres from home	6
ZONE 2 / Yard	10 – 30 metres from home	20
	TOTAL	8 - Low

HAZARD SCORE: Low: <21 Moderate: 21-29 High: 30 – 35 Extreme: >35

Following the recommendations in this report will achieve a FireSmart hazard score of low

The FireSmart Hazard Assessment for this property is low assuming the recommendations in this report are followed. This rating reflects the building materials and landscaping prescribed by this report and proposed in the reviewed issue of the site plans. Risk associated with ember transport from landscape forests can be managed through FireSmart construction and landscape maintenance.

7.0 Final Remarks

The District of West Vancouver requires that the proposed development is consistent with the Wildfire Development Permit Guidelines. Planners, engineers, and landscape architects should refer to this report and the FireSmart manual during the design phase of this development. All construction operations should be conducted according to the Wildfire Act and the regulations. Following these regulations will help reduce liability and protect the development.

The District may require that an inspection be done following construction to ensure that the structure and landscaping meet these requirements.

If the recommendations made within this report and the requirements outlined by the District of West Vancouver are complied with, wildfire risk to life and property will be substantially mitigated and the development will meet FireSmart standards to a reasonable extent within the limitations of zoning and ownership.

If there are any questions or concerns as to the contents of this report, please contact us at any time.

Sincerely,

Signed: October 3, 2023

Conor Corbett MSFM
Registered Professional Forester
ISA Certified Arborist (PN-8429A)
ISA Tree Risk Assessment Qualified (TRAQ)
BC Wildlife and Danger Tree Assessor (P2722)

Appendix 1 Wildland Urban Interface Plots

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	Plot 42	Date	23-Sep
Assessor	N/A		
Crown species composition (species %)	Fd5Cw3Hw2		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	5-<10	5
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Moss, herbs and deciduous shrubs	4
Dead and down material continuity (<7cm)	10-25% coverage	8
Ladder fuel composition	Other conifer	8
Ladder fuel horizontal continuity	Scattered 10-39% coverage	8
Stems/ha (understory)	<500	2
Stand structure and compostion (dominant and co-dominant)		
Overstory composition/CBH	Conifer with moderate CBH (5-9 m)	4
Crown closure	41-60%	2
Fuel strata gap	6-9	1
Stems/ha (overstory)	<400	0
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	**44**
	RATING	**MODERATE**
c5, slightly elevated CWD. rich site, deep duff.		

	Threat Rating (Max Score 110)			
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	43	Date	23-Sep
Assessor	N/A		
Crown species composition (species %)	Cw6Hw2Fd1Mb1		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	5-<10	5
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Moss, herbs and deciduous shrubs	4
Dead and down material continuity (<7cm)	Scattered <10% coverage	4
Ladder fuel composition	Other conifer	8
Ladder fuel horizontal continuity	Scattered 10-39% coverage	8
Stems/ha (understory)	<500	2
Stand structure and compostion (dominant and co-dominant)		
Overstory composition/CBH	Conifer with moderate CBH (5-9 m)	4
Crown closure	41-60%	2
Fuel strata gap	6-9	1
Stems/ha (overstory)	601-900	3
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	**43**
	RATING	**MODERATE**
slightly denser area of C5. steep slope to south. lots of ground fuel and ladder fuel on DNV land adjacent to site.		

Threat Rating (Max Score 110)				
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Wildfire Threat Assessment Worksheet - Fuel Setting Scoring			
Location	631	Date	28-Sep
Assessor	RS		
Crown species composition (species %)	Fd6Cw4Act+		

Component/subcomponent	PULLDOWNS	SCORE
Depth of organic layer	5-<10	5
Surface and ladder fuel (.1-3m in height)		
Surface fuel composition	Moss, herbs and deciduous shrubs	4
Dead and down material continuity (<7cm)	10-25% coverage	8
Ladder fuel composition	Other conifer	8
Ladder fuel horizontal continuity	Scattered 10-39% coverage	8
Stems/ha (understory)	<500	2
Stand structure and compostion (dominant and co-dominant)		
Overstory composition/CBH	Conifer with high CBH (>10 m)	3
Crown closure	41-60%	2
Fuel strata gap	6-9	1
Stems/ha (overstory)	<400	0
Dead and dying (% of dominant and co-dominant stems)	Standing dead/partial down <20%	2
Comments:	TOTAL	**43**
	RATING	**MODERATE**
Behind locked metal fence for Capilano drinking water supply. Low-density conifer stand predominately Fd and Cw. Scattered Act along clearing edges. Little to no understory. Ladder fuels are on low end of scattered. Overall good health throughout.		

Threat Rating (Max Score 110)				
Eco - province	Low	Moderate	High	Extreme
Coast and Mountains, Georgia Depression	0 - 41	42 -57	58 - 69	70-100

Appendix 2 Description of Forest Fuel Types

Fuel Type C5 – Coniferous dominated stand

C5 is the only fuel type identified within 100 metres of the project site. This part of Capilano River Regional Park is characterized by mixed age coniferous stands with a dominant layer of old douglas fir and a secondary canopy layer of native conifers and sparse black cottonwood (*Populus balsamifera ssp. Trichocarpa*) along the forest edge. The stand is comprised of moderately stocked (300-700 stems per hectare) conifers Douglas-fir (*Psuedotsuga menziesii*), western redcedar (*Thuja plicata*) and western hemlock (*Tsuga heterophylla*). Some areas within these stands have increased amounts of course woody debris on the forest floor.

This fuel type poses a moderate wildfire threat. In order for a crown fire to generate it would likely require extreme fire weather conditions, where temperature exceeds relative humidity during a period of drought and sustained winds. Table 6 outlines the general stand characteristics of a C5 stand.

Table 6. Stand characteristics for fuel type C5

Characteristic	Threat Level	Description
Surface fuel continuity (% cover)	Low	20-40 % cover
Vegetation fuel composition	Low	Herbs and deciduous shrubs
Fine woody debris continuity (<=7cm) (% cover)	Med	10-25% coverage
Large woody debris Continuity (>=7cm) (% cover)	Low	<10% coverage
Live conifer canopy closure (%)	Med	41-60% crown closure
Live deciduous canopy closure (%)	High	<20% crown closure
Live and dead conifer crown height (m)	Low	3-5m
Live and dead suppressed and understory conifer (stems/ha)	Low	<500 stems/ha

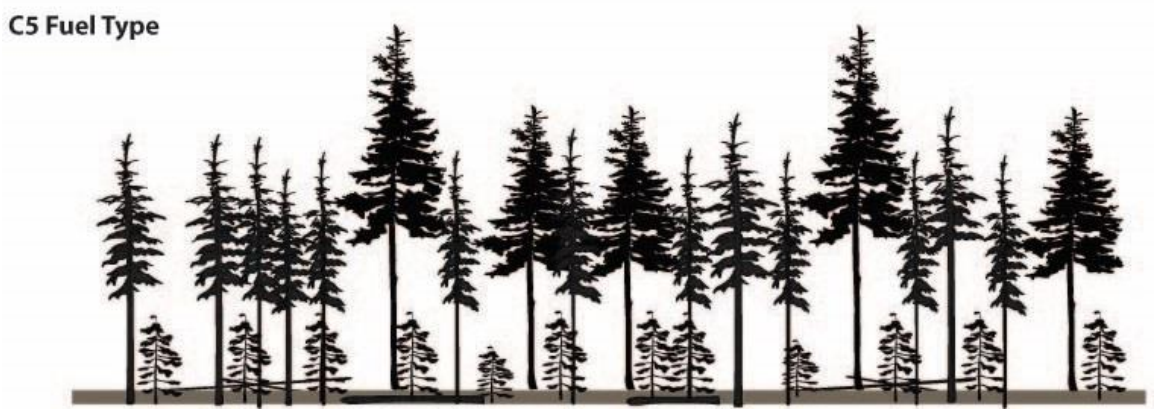
Photo 7. Coniferous fuels in Lighthouse Park.

Appendix 3 Generic Description of Coastal Fuel Types

The current Canadian Forest Fire Behavior Prediction (FBP) System does not include coastal forests in their fuel type descriptions. These fuel types reflect stand conditions that were modeled to predict fire behavior potential. On the coast the fuel type that most closely represents forest stand structure and conditions has been used. The following fuel types are the most common interpretations used on the coast.

C5 – Uniform Second Growth Conifer Stand – Moderate Threat

This fuel type is characterized by mature second growth stands dominated by Western Red Cedar (Thuja plicata) and Western Hemlock (Tsuga heterophylla). There can be small component of dominant Douglas fir (Pseudotsuga menziesii) in the overstory. This fuel type is moderately dense (500-1000 stems per ha) and has a high crown base height of 10 to 15m. The understory is of moderate density, usually consisting of Western Redcedar and Western Hemlock regeneration. The ground fuel component consists of moderately dense fine fuel layer (>7cm) and a low percent cover of large woody debris (>7cm). It takes a large amount of energy to create a crown fire.



C3 – Multistoried Second Growth Conifer Stand – High Threat

This fuel type is characterized by a uniform mature second growth conifer dominated stand. This stand consists of mature Western Red Cedar (Thuja plicata) and Western Hemlock (Tsuga heterophylla). There is also a minor component of dominant Douglas fir (Pseudotsuga menziesii) in the stand. Compared to a C5 stand, a C3 stand is more densely stocked (1000-2000 stems per ha) and there is a lower crown base height (usually 4-8 m). The understory is more densely stocked with Western Redcedar and Western Hemlock. The ground fuel component consists of moderately dense fine fuel layer (>7cm) and a low percent cover of large woody debris (>7cm). A crown fire in a C3 stand takes less energy to create than a C5 stand.

C3 Fuel Type

M2 - Mature Stands Consisting of a mix of Conifer and Deciduous Trees – Low to Moderate Threat

This fuel type consists of a mixed conifer and deciduous tree type. This stand is not uniform in structure and is composed of a wide variety of species. These may include and not limited to:

Western Red Cedar (Thuja plicata), Western Hemlock (Tsuga heterophylla), Douglas fir (Pseudotsuga menziesii), Red Alder (Alnus rubra), Bigleaf Maple (Acer macrophyllum), and Paper Birch (Betula papyrifera).

These stands usually consist of less than a 70% of conifer trees, reducing the wildfire threat. There is usually a low crown height (5m) and a high percentage of ladder fuels. There is a high percent cover of suppressed trees, but they are usually composed of deciduous species.

M2 Fuel Type

D1 - Deciduous Dominated Stands – Low Threat

This fuel type is dominated by deciduous trees consisting mostly of Red Alder (Alnus rubra), Bigleaf Maple (Acer macrophyllum), and Paper Birch (Betula papyrifera). D1 stand structure is not uniform with a wide variety of tree ages. There is a well-developed shrub layer, but is mostly composed of low-flammable species. Crown fires are not expected because of the deciduous fuel type. D1 stands on the coast can be used as fuel buffers as they present a low wildfire threat.

C4 - Uniform Densely Stocked Conifer Stand

This fuel type is rare within the lower mainland as it is mostly defined by densely stocked Lodgepole pine (Pinus contorta). This fuel type can be found more towards Squamish and Pemberton. Some small densely stocked Western Red Cedar (Thuja plicata), Western Hemlock (Tsuga heterophylla), and Sitka Spruce (Picea sitchensis) can be found in the Lower Mainland, but these stands are often isolated and small. Stands are densely stocked, (approximately 10,000-30,000 stems/ha) with a large quantity of fine and large woody debris. These stands are characterized as having vertical and horizontal fuel continuity. The shrub community in this stand is of very low density.

Appendix 4 Resources and Links

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Appendix 5 Description of Terminology

Term	Definition
Co-dominant Trees	Defines trees with crowns forming the general level of the main canopy in even-aged groups of trees, receiving full light from above and partial light from the sides.
Coarse fuels (coarse woody debris)	Combustible material over 7cm in diameter
Crown base height	The height, above ground, where the live crown of coniferous trees begins. Measured in meters (m).
Crown Closure	An assessment of the degree to which the crowns of trees are nearing general contact with one another. The percentage of the ground surface that would be considered by a downward vertical projection of foliage in the crowns of trees.
Diameter at Breast Height	The diameter of a tree measured at 1.3m above the point of germination.
Dominant Trees	Defines trees with crowns extending above the general level of the main canopy of even-aged groups of trees, receiving full light from above and comparatively little from the sides.
Fire-resistant materials	These meet the acceptance criteria of CAN/ULC-S101, (Fire Endurance Tests of Building Construction and Materials)
Fuel Break	An area of non-combustible materials that inhibits the continuous burning of fuels.
Fuel Load	The mass of combustible materials expressed as a weight of fuel per unit area.
Fuel Moisture	Percent water content of vegetation. This is an important factor in rate of spread.
Fuel Types	Classification of forested stands as described by Canadian Forest Fire Behavior Prediction (FBP) System. There are currently no fuel type classifications specific to coastal fuels.
Fine fuels (fine woody debris)	Combustible woody debris under 7cm in diameter.
Fire Behaviour	The manner in which a fire reacts to the influences of fuel, weather, and topography.
Intermediate Trees	Defines trees with crowns extending into the lower portion of the main canopy of even-aged groups of trees, but shorter in height than the co-

Term	Definition
	dominants. These receive little direct light from above and none from the sides, and usually have small crowns that are crowded on the sides.
Ladder Fuels	Live or dead vegetation that allows a fire to burn into the canopy (crown) of a forested stand.
Lift Pruned	The removal of ladder fuels to increase the crown base height.
Litter Layer	Surface buildup of leaves and woody material.
Live Crown Ratio	Is the percentage of the total stem length covered with living branches. It provides a rough but convenient index of the ability of a tree's crown to nourish the remaining part of the tree. Trees with less than 30 percent live crown ratio are typically weak, lack vigor, and have low diameter growth, although this depends very much on the tree's age and species.
Non-combustible materials	Means that a material meets the acceptance criteria of CAN/ULC S114, (Standard Method of test for determination of non-combustibility in Building Materials)
Open Grown	Defines trees with crowns receiving full light from all sides due to the openness of the canopy.
Rated roofing materials	Class A, B or C is a measure of the external spread of flame on a roof surface. Tests are conducted using CAN/ULC S107M methods of fire tests of roof coverings, or equivalent. The best rating achieved is Class A, which may be described as effective against severe fire exposure.
Spotting	Fire producing sparks or embers that are carried by the wind and start new fires.
Stems Per Hectare	The number or size of a population (trees) in relation to some unit of space (one hectare). It is measured as the amount of tree biomass per unit area of land.
Suppressed Trees	Defines trees with entirely below the general level of the canopy of even-aged groups of trees, receiving no direct light either from above or from the sides.
Wildfire	An unplanned, unwanted wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, lightning strikes, downed power lines, and all other wildland fires where the objective is to put the fire out.

Appendix 6 Fire Resistant Plants for Landscaping

Fire resistant and drought tolerant ground covers:	Fire resistant and drought tolerant perennials:
• Achillea species (when mowed, turf alternative) • Ajuga reptans • Arctostaphaylos uva-ursi • Autennaria rosea • Aubrieta detoidea • Ceanothus prostatus • Cerastium tomentosum • Dianthus species • Delosperma nubigenum and the less cold hardy cooperi • Fragaria species (turf alternative) • Phlox subulata • Sedums • Semperviums • Thymus praecox turf alternative) • Veronica species	• Achillea species • Armeria maritima • Aquilegia • Aurinia saxatilis • Coreopsis • Echinacea purpurea • Epilebium angustifolium • Gaillardia varieties • Geranium species • Helianthemum • Hemerocallis • Kniphofia uvaria • Iris - bearded • Lavendula • Lupinus • Penstemon • Oenothera species • Papaver orientale • Perovskia atriplicifolia • Ratibida columnifera • Salvia species • Stachys byzantina
Fire resistant and drought tolerant shrubs:	**Fire resistant and drought tolerant trees:**
• Amelanchier alnifolia • Caryopteris x clandonesis • Ceanothus • Cistus • Cotoneaster species • Euonymus alatus • Fremontoden on californium • Fuchsia (dieback) • Gaultheria shallow • Holodiscus discolour • Lagerstroemia indica • Mahonia • Pachystima myrsinites • Philadelphus speceis • Paxistima myrthifolia • Pyracantha species • Ribes species • Rhus species • Rosa species and hardy own root shrub • Spiraea bumalda • Symphoricarpos albus • Syringa vulgaris, spidouglasii • Yucca species	• Acer circinatum, glabrum, macrophyllum, plantanoides, rubrum • Aesculus hippocastanum • Alnus rubra tenuifolia • Betula species • Catalpa speciosa • Celtis occidentalis • Cercis canadensis • Cornus florida, stolonifera, nuttallii • Crataegus species • Fagus species • Fraxinus species • Gingko biloba • Gleditsia triacanthos • Gymnocladus dioicus • Juglans • Liquidambar styraciflua • Malus species • Populus species • Prunus cherry • Quercus agrifolia, rubra, palustria, garryana • Robinia pseudoacacia • Salix species • Sorbus aucuparia

Source: Master Gardeners Association of BC. http://mgabc.org/node/1514.

Limitations

1. Except as expressly set out in this report and in these Assumptions and Limiting Conditions, Diamond Head Consulting Ltd. ("Diamond Head") makes no guarantee, representation or warranty (express or implied) with regard to: this report; the findings, conclusions and recommendations contained herein; or the work referred to herein.

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3. The findings, conclusions and recommendations made in this report reflect Diamond Head's best professional judgment in light of the information available at the time of preparation. This report has been prepared in a manner consistent with the level of care and skill normally exercised by arborists and foresters currently practicing under similar conditions in a similar geographic area and for specific application to the trees subject to this report as at the date of this report. Except as expressly stated in this report, the findings, conclusions and recommendations set out in this report are valid for the day on which the assessment leading to such findings, conclusions and recommendations was conducted. If generally accepted assessment techniques or prevailing professional standards and best practices change at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification if generally accepted assessment techniques and prevailing professional standards and best practices change.

4. Conditions affecting the trees subject to this report (the "Conditions", including without limitation structural defects, scars, decay, fungal fruiting bodies, evidence of insect attack, discoloured foliage, condition of root structures, the degree and direction

of lean, the general condition of the tree(s) and the surrounding site, and the proximity of property and people) other than those expressly addressed in this report may exist. Unless otherwise stated: information contained in this report covers only those Conditions and trees at the time of inspection; and the inspection is limited to visual examination of such Conditions and trees without dissection, excavation, probing or coring. While every effort has been made to ensure that the trees recommended for retention are both healthy and safe, no guarantees, representations or warranties are made (express or implied) that those trees will remain standing or will not fail. The Client acknowledges that it is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree, or groups of trees, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure and this risk can only be eliminated if the risk is removed. If Conditions change or if additional information becomes available at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification of Conditions change or additional information becomes available.

5. Nothing in this report is intended to constitute or provide a legal opinion, and Diamond Head expressly disclaims any responsibility for matters legal in nature (including, without limitation, matters relating to title and ownership of real or personal property and matters relating to cultural and heritage values). Diamond Head makes no guarantee, representation or warranty (express or implied) as to the requirements of or compliance with applicable laws, rules, regulations, or policies established by federal, provincial, local government or First Nations bodies (collectively, “Government Bodies”) or as to the availability of licenses, permits or authorizations of any Government Body. Revisions to any regulatory standards (including bylaws, policies, guidelines an any similar directions of a Government Bodies in effect from time to time) referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification if any such regulatory standard is revised.

6. Diamond Head shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

7. In preparing this report, Diamond Head has relied in good faith on information provided by certain persons, Government Bodies, government registries and agents and representatives of each of the foregoing, and Diamond Head assumes that such information is true, correct and accurate in all material respects. Diamond Head accepts no responsibility for any deficiency, misinterpretations or fraudulent acts of or information provided by such persons, bodies, registries, agents and representatives.

8. Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

9. Loss or alteration of any part of this report invalidates the entire report.