200 TROTTER OITMENT RD., HARCOURT, ON K0L 1A0

- STRUCTURAL CALCULATIONS REPORT –

- DESIGN FOR FLOOD LOADS -

REPORT BY:

PROFESSIONAL FLOOR PLANS INC.

6850 MILLCREEK DR., MISSISSAUGA, ON, L5N 4J9

REV. 02-Jan. 23rd, 2025

REV. 01-Feb. 07th, 2024

CONTENTS

PROFESSIONAL FLOOR PLANS INC.
6850 Millcreek Dr., Mississauga, ON, L5N 4J9 Tel.: 905-858-3434 Ext. 2801 email: info@profloorplans.ca

1. INTRODUCTION

Owner of 200 Trotter Oitment Rd, Harcourt, ON K0L 1A0 retained the services of Professional Floor Plans Inc. (PFP) to prepare a Structural Calculations Report and provide the required design/construction measures to ensure the structural integrity and safety of the building while subject to maximum flood levels.

The existing two-storey (Basement & first floor) residential cottage. Based on continuous discussions with Crowe Valley Conservation Authority staff, the modified building configuration shall include the following:

- Small size attached addition to the dwelling at basement level to allow for proper door access from the north side (front yard entrance).
- Expanding the detached garage from 46.45 sq.m to 82.50 sq.m.
- Maintaining building foot-print for the existing dwelling

Current report is prepared based on the available flood information, existing grade and entrance levels and client vision for developing the property.

2. AVAILABLE INFORMATION

2.1 Legal Topographic and Boundary Survey

- Appendix A: Legal survey performed by JBF Surveyors with updated elevations.

2.2 Drawings

- Appendix B: Architectural & Structural Drawings prepared by Professional Floor Plans Inc. Re-Issued for Permit on Jan. 17th, 2025

2.3 Crowe Valley Conservation Authority Information and Requirements

Initial Emails correspondences with CVCA staff providing the following information:

- *The CVCA has updated flood hazard information that applies to Chandos Lake. The regulatory flood elevation for Chandos Lake is now 314.17m CGVD2013. The new flood elevation is 0.20m higher than the previous flood elevation, which was in force when permit #241/23 was applied for and approved. The proposed garage*

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slab is at 313.70, which means it would experience floodwaters to a depth of 0.47m during the regulatory flood event. Given this increase, that the garage will be wet flood proofed, a new assessment is required including calculations and rationale will be required.

3. FLOODPROOFING MEASURES

In order to achieve client vision without compromising CVCA requirements, the following is proposed:

- Garage: Garage floor level will be completely below the flood plane. However, foundations and foundation walls are designed to withstand the buoyancy (Uplift) water pressure and any lateral water pressure. The concrete foundation wall is extended 150mm above the surrounding grade level (Appendix B).
- Dwelling: Raising the exterior envelope of the proposed addition above the surrounding grade level by at least 150mm, (Appendix B). Foundations and foundation walls are designed to withstand the buoyancy (Uplift) water pressure and any lateral water pressure.

4. STRUCTURAL CALCULATIONS

4.1 ANALYSIS/DESIGN ASSUMPTIONS

The structure is designed for the possible extreme conditions, namely:

- Assumed vertical soil bearing capacity (SLS) = 1,570 psf (75 kPa)
- Assumed lateral soil bearing capacity (SLS) = 523 psf (25 kPa)
- Maximum lateral/overturning effect: Floors with dead load only are considered.
- Footings and columns are checked as individual elements neglecting the additional safety factor from the connectivity at floor levels.
- Concrete properties:
  - Compressive strength = 4,640 psi (32 MPa)
  - Tensile strength = 435 psi (3 MPa)

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4.2 UPLIFT PRESSURE

The uplift forces are calculated at the bottom of the footings 2' below grade level (0.6m). The uplift force is active till the water level equals or exceeds the grade level.

Water density, γ_w = 62.4 lb/cu.ft

Water pressure is calculated at depth, d = 2' 0" below grade, $F_{uplift} = \gamma_w \times d = 62.4 \times 2.0 \times 2.0 = 249.6$ lb/ft^2

Weight of footing and foundation wall per linear ft = 150x (2'0"x10"+10"x2'2")= 520.8 lb/ft^2.

Only considering the weight of the footing and foundation wall provides ample safety factor against uplift forces. There will be no issues with the building stability against uplift pressure.

4.3 LATERAL RESISTANCE

When the water level exceeds the grade level, it starts exerting a lateral force on the exterior walls of the building. This lateral force, $F_{lateral}$, tends to overturn the wall/column.

The lateral hydrostatic pressure of the water is calculated as:

$P_{lateral} = = \gamma_w \times h_w$

Where h_w is the height of water above grade level

The lateral force of the water is calculated as:

$F_{lateral} = \gamma_w \times h_w^2/2$,

The lateral bending moment, $M_{lateral}$, exerted by the lateral force is calculated as:

$M_{lateral} = F_{lateral} \times h_w/3 = \gamma_w \times h_w^3/6$

The height of water above designed floor levels would be 314.17m – 313.70 = 0.47 m (1' 6.5"). This value will be used to check the stability.

$M_{lateral} = 62.4 \times 1.54^3/6 = 38.0$ lb.ft per linear foot

The ± effect of the lateral force shall be calculated in accordance with the following equation:

Stress = $P/A \pm M_{lateral}\, C/I$,

Where,

P = vertical building load per linear foot (Dead load only) = 520+14.5x12 = 694.0 lb

A = Area of foundation wall at grade level = (10"x1') = 0.83 ft^2

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C = ½ foundation wall thickness in direction of load (5") = 0.417 ft
I = Moment of inertia of the wall in direction of load per linear ft = 0.0482 ft^4
Stress = (694/0.83) ± (38.0*0.417/0.0482)

Maximum stress = 832.8 + 328.8 = 1,161.6 psf < 1,570 psf (o.k.)

Minimum stress = 832.8 – 328.8 = 504.0 psf < 1,570 psf (o.k.). No Tension

The building has sufficient safety factor against lateral pressure.

5. CONCLUSIONS AND RECOMMENDATIONS

1. A conservative approach is used to calculate the hydrostatic and hydrodynamic loads resulting from flood and to estimate the structural members resistance.
2. The proposed building design can safely withstand the uplift pressures with ample safety factor.
3. The proposed building design can safely withstand the lateral hydrostatic and hydrodynamic pressures with ample safety factor.
4. Wet floodproofing will meet the requirements based on existing ground and dwelling levels and based on the proposed scope of work for construction.

Point of Contact:
Point of contact from PFP shall be Raed Al-Rawi – General Manager (289-937-6442)

Sincerely yours

R.A.olm

Raed Al-Rawi, P Eng.
Ph. D., M. sc., B. Sc., Civil engineering
General Manager - PFP

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6. APPENDICES

PROFESSIONAL FLOOR PLANS INC.
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APPENDIX (A)

PROFESSIONAL FLOOR PLANS INC.
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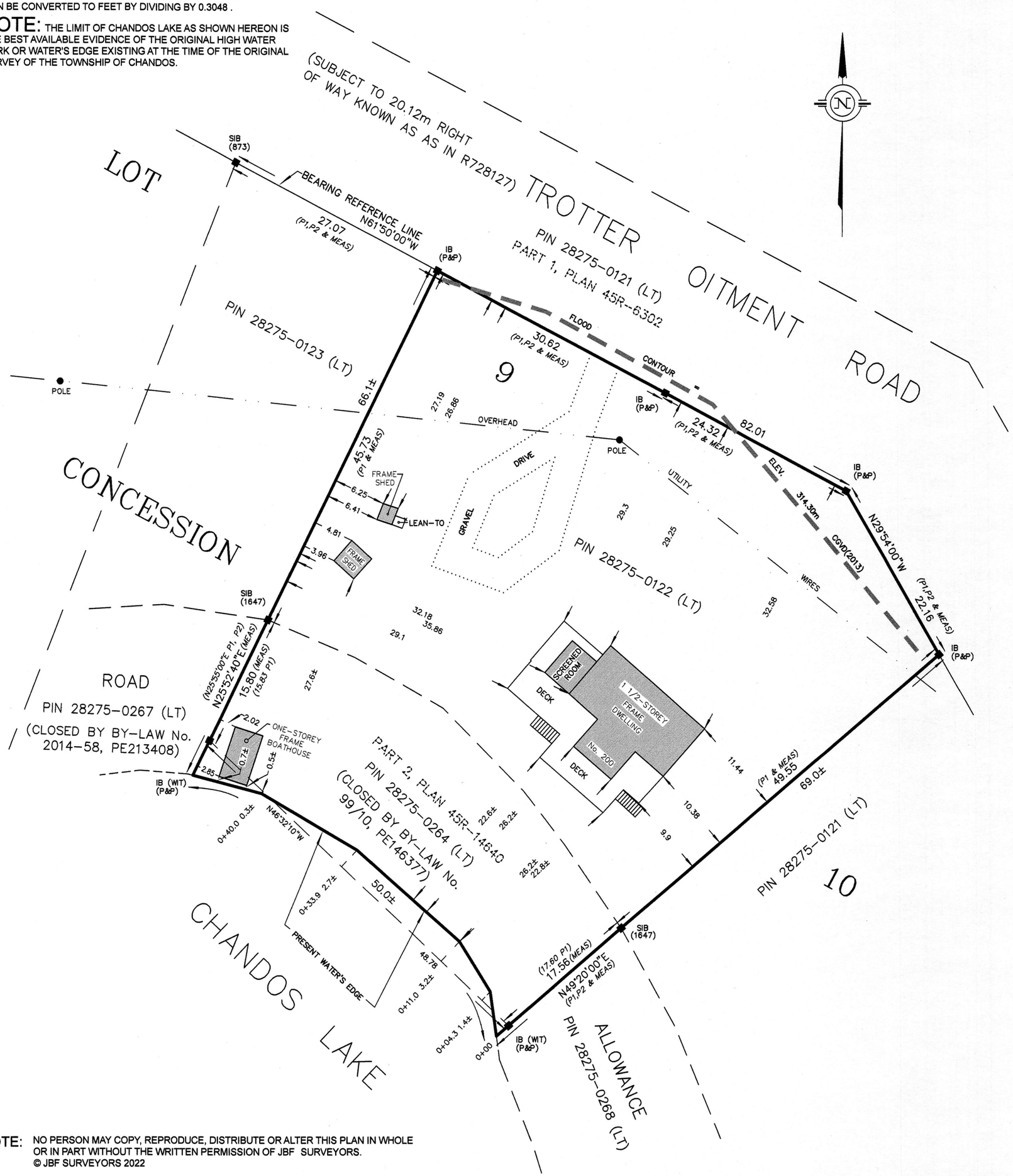
METRIC:

DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048 .

NOTE: THE LIMIT OF CHANDOS LAKE AS SHOWN HEREON IS THE BEST AVAILABLE EVIDENCE OF THE ORIGINAL HIGH WATER MARK OR WATER'S EDGE EXISTING AT THE TIME OF THE ORIGINAL SURVEY OF THE TOWNSHIP OF CHANDOS.



SURVEYOR'S REAL PROPERTY REPORT

PLAN OF SURVEY OF

PART OF LOT 9, CONCESSION 10 AND
PART OF THE ROAD ALLOWANCE IN FRONT OF
LOT 9, CONCESSION 10 (CLOSED BY PE146377)
GEOGRAPHIC TOWNSHIP OF CHANDOS
TOWNSHIP OF NORTH KAWARTHA
COUNTY OF PETERBOROUGH

0 10 20 30 40

SCALE: 1:400

PART 2 - REPORT SUMMARY

THIS PLAN HAS BEEN PREPARED FOR THE USE OF:
GRANT GILMOUR

REGISTERED EASEMENTS AND/OR RIGHTS OF WAY:
TOGETHER WITH A RIGHT-OF-WAY OVER LANDS DESCRIBED IN R673551 AND KNOWN AS TROTTER OITMENT ROAD

NOTABLE FEATURES:
NONE

COMPLIANCE WITH MUNICIPAL ZONING BY-LAWS:
NOT CERTIFIED BY THIS REPORT

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1) THIS SURVEY AND PLAN ARE CORRECT AND ARE IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2) THE SURVEY WAS COMPLETED ON 27 JANUARY, 2022.

SIGNED AT LAKEFIELD, ONTARIO
THIS 2nd DAY OF MARCH, 2022

CHRISTOPHER E. MUSCLOW
ONTARIO LAND SURVEYOR

LEGEND

- ■ ..... DENOTES SURVEY MONUMENT, FOUND
- WIT ..... DENOTES WITNESS
- P&P ..... DENOTES PIERCE & PIERCE, O.L.S.
- 873 ..... DENOTES W.A. BENINGER, O.L.C.
- 1647 ..... DENOTES J.B. FLEGUEL, O.L.S.
- P1 ..... DENOTES PLAN 45R-14640
- P2 ..... DENOTES PLAN OF SURVEY BY PIERCE AND PIERCE, O.L.S. DATED 26 AUGUST 1959

BEARINGS SHOWN HEREON ARE ASTRONOMIC DERIVED FROM THE SOUTH WESTERLY LIMIT OF THE 20.12m RIGHT OF WAY, AS SHOWN ON P1, HAVING A BEARING OF N61°50"W

THE CONTOUR ELEVATION OF 314.30 (CGVD 2013) SHOWN HERON HAS BEEN ESTABLISHED BY G.P.S. REAL TIME NETWORK OBSERVATIONS.

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
V-19803

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29(3).

JBF SURVEYORS
3177 LAKEFIELD ROAD, BOX 70
LAKEFIELD, ON K0L 2H0
PHONE: 705-652-6198
INFO@JBFSURVEYORS.COM
WWW.JBFSURVEYORS.COM

PROJ. # 8285

APPENDIX (B)

PROFESSIONAL FLOOR PLANS INC.
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TOWN OF NORTH KAWARTHA ZONING BY-LAW

	BY LAW	PROPOSED
ZONING	SR	RECREATION DWELLING HOUSE
LOT AREA	0.50 Hectares	0.42 Hectares (Existing)
LOT FRONTAGE	46.00 m	71.57 m
MIN. FRONT YARD	9.00 m	24.22 m
MIN. EXTERIOR SIDE YARD	9.00 m	N.A.
MIN. INTERIOR SIDE YARD	4.50 m	21.81 m, 10.38 m
MIN. REAR YARD	9.00 m	26.43 m
WATER SETBACK DWELLING	30.00 m	26.43 m
WATER SETBACK (DECK)	30.00 m	22.60 m (Existing)
MAX. HEIGHT	7.60 m	7.23 m

BUILDING AREA	EXISTING	PROPOSED	TOTAL
BASEMENT FLOOR	173.98 m²	3.14 m²	177.12 m²
FIRST FLOOR	178.98 m²	0.23 m²	179.21 m²
LOFT	18.71 m²	0.00 m²	18.71 m²
TOTAL	371.67 m²	3.37 m²	375.04 m²
GARAGE	46.45 m²	36.05 m²	82.50 m²
REAR DECK	101.01 m²	0.00 m²	101.01 m²
TOTAL COVERAGE (FIRST+DECK+GARAGE)			362.72 m²
BUILDING AREA (FIRST)			179.21 m²
BUILDING AREA	10% MAX.(420.00 m2)		4.27 %
PARKING SPACES	2 MIN.		2 GARAGES

GENERAL DEMOLITION NOTES

1. DISPOSE OF REMOVED ITEMS IN A LAWFUL MANNER IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE MUNICIPALITY HAVING JURISDICTION
2. ALL EXISTING WALLS AND ITEMS TO BE REMOVED ARE SHOWN DASHED.
3. OWNER TO HAVE RIGHT TO FIRST REFUSAL OF ALL ITEMS REMOVED. ALL REMOVED ITEM SHALL BE DISPOSED OF AS PER NOTE No. 1.
4. COORDINATE WITH STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS ALL RELATED COMPONENTS OF DEMOLITION, MODIFICATION AND NEW INSTALLATION.
5. SAWCUT AND REMOVE THE EXISTING SLAB ON GRADE TO FACILITATE ANY BURIED MECHANICAL AND/OR ELECTRICAL ITEMS. PATCH AND MAKE GOOD SLAB ON GRADE AFTER NEW SERVICES ARE IN PLACE. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
6. REMOVE, RELOCATE AND/OR REROUTE ALL MECHANICAL AND ELECTRICAL SERVICES AND CONNECTIONS AS REQUIRED TO ACCOMMODATE DEMOLITION OR AS NECESSARY AS A RESULT OF DEMOLITION.
7. SUPPLY AND INSTALL NECESSARY SHORING AND/OR BRACING AS REQUIRED FOR TEMPORARY SUPPORT OF EXISTING STRUCTURE. COORDINATE WITH A STRUCTURAL ENGINEER AS REQUIRED.
8. ENSURE ALL FLOOR AREAS ARE FREE OF HAZARDS AFTER DEMOLITION IS COMPLETE. LEVEL PATCH, FILL AND GRIND FLOOR AS REQUIRED TO ACHIEVE A SMOOTH SANITARY SURFACE READY TO RECEIVE FLOOR FINISH.
9. CARE SHALL BE TAKEN TO MINIMIZE DAMAGE TO EXISTING AS BUILT WALLS, SURFACES AND FINISHES TO REMAIN.
10. PROTECT SALVAGED AND/OR ITEMS TO REMAIN FROM DAMAGE. PROVIDE ADEQUATE COVERINGS AND/OR STORAGE AS REQUIRED.
11. EXISTING EXIT SIGNAGE, FIRE ALARM SYSTEM AND EMERGENCY LIGHTING TO BE LEFT IN OPERATION DURING DEMOLITION AND DURATION OF CONTRACT OR UNTIL NEW INSTALLED.
12. SUPPLY AND MAINTAIN ON A DAILY BASIS ALL INTERIOR AND EXTERIOR TEMPORARY COVERINGS, FENCING, TARPING, HOARDING, FLOOR PLATES, SIGNAGE AND OTHER SEPARATIONS REQUIRED TO MAINTAIN THE SAFETY OF THE PUBLIC DURING WORK OF THIS CONTRACT. COORDINATE THESE PROTECTIVE MEASURES WITH THE OWNER. REMOVE AND/OR DISPOSE OF ALL FROM SITE AFTER COMPLETION OF WORK OF THIS CONTRACT.
13. MAINTAIN A CLEAN, SAFE AND ORDERLY SITE AT ALL TIMES.
14. COORDINATE WITH OWNER THE STAGING AREAS FOR SITE TRAILER AND MATERIALS STORAGE.
15. COORDINATE WITH OWNER AREA(S) FOR WASTE BIN LOCATION. SUPPLY AND MAINTAIN PROTECTIVE MEASURES TO ENSURE THE PUBLICS SAFETY.
16. COORDINATE WITH THE OWNER ANY STAGING OF WORK AND/OR DISRUPTION OF PARKING AND TRAFFIC FLOWS.
17. SHOULD MATERIAL RESEMBLING SPRAY OR TROWEL APPLIED ASBESTOS OR OTHER TOXIC OR HAZARDOUS MATERIALS BE ENCOUNTERED IN THE COARSE OF DEMOLITION, STOP WORK, TAKE PREVENTATIVE MEASURES AND NOTIFY ARCHITECT AND/OR OWNER IMMEDIATELY. DO NOT PROCEED UNTIL WRITTEN INSTRUCTIONS HAVE BEEN RECEIVED.
18. THE DRAWINGS INDICATE THE PHYSICAL DIMENSIONS, EXISTING LEVELS AND SIMILAR ITEMS BEING INDICATED WHERE KNOWN. ALL INFORMATION RELATIVE TO EXISTING SHE CONDITIONS IS OFFERED TO ASSIST THE CONTRACTOR IN EVALUATION OF THE WORK, BUT WITH NO SPECIFIC REPRESENTATION EITHER EXPRESSED OR IMPLIED, AS TO COMPLETENESS OR ACCURACY.

FIRM NAME: PROFESSIONAL FLOOR PLANS INC.

NAME OF PROJECT: DETACHED DWELLING (INTERIOR ALTERATIONS & ADDITIONS)

LOCATION: 200 TROTTER OINTMENT RD., NORTH KAWARTHA, ON K0L 1A0

ITEM	ONTARIO BUILDING CODE DATA MATRIX PARTS 3 & 9	OBC SECTION REFERENCE	
1	PROJECT DESCRIPTION: PROPOSED TWO-STOREIS ☐ NEW ☒ ADDITION ☐ CHANGE OF USE ☒ ALTERATION	☐ PART 3 2.1.1 [A] 3.2.2.43 [A]	☒ PART 9 2.1.1 9.10.1.3.
2	MAJOR OCCUPANCY(S): GROUP C	3.1.2.1.(1)	9.10.2.
3	BUILDING AREA: 362.72 M2 (3,904.29 SQ.FT)	1.4.1.2. [A]	1.4.1.2. [A]
4	GROSS AREA: 375.04 M2 (4,036.90 SQ.FT)	1.4.1.2. [A]	1.4.1.2. [A]
5	NUMBER OF STOREYS: ABOVE GRADE: 2 BELOW GRADE: 1	3.2.1.1. & 1.1.3.2 [A]	1.4.1.2. [A] & 9.10.4
6	NUMBER OF STREETS/FIRE FIGHTER ACCESS: 1	3.2.2.10. & 3.2.5.	9.10.20.
7	BUILDING CLASSIFICATION: C	3.2.2.20.-.83	9.10.2.
8	SPRINKLER SYSTEM PROPOSED: ☐ ENTIRE BUILDING ☐ SELECTED COMPARTMENTS ☐ SELECTED FLOOR AREAS ☐ BASEMENT ☐ IN LIEU OF ROOF RATING ☒ NOT REQUIRED	3.2.2.20.-.83 3.2.1.5. 3.2.2.17. INDEX	9.10.8.2. INDEX
9	STANDPIPE REQUIRED ☐ YES ☒ NO	3.2.5.9	N/A
10	FIRE ALARM REQUIRED ☐ YES ☒ NO	3.2.4.	9.10.19.
11	WATER SERVICE/SUPPLY IS ADEQUATE ☒ YES ☐ NO	3.2.5.7.	N/A
12	HIGH BUILDING ☐ YES ☒ NO	3.2.6.	N/A
13	CONSTRUCTION RESTRICTIONS ☐ COMBUSTIBLE ☐ NON-COMBUSTIBLE ☒ BOTH ACTUAL CONSTRUCTION ☐ COMBUSTIBLE ☐ NON-COMBUSTIBLE ☒ BOTH	3.2.2.20.-.83	9.10.6.
14	MEZZANINE(S) AREA: N/A	3.2.1.1.(3)-(8)	9.10.4.1.
15	OCCUPANT LOAD BASED ON ☒ TWO PERSONS/SLEEPING ROOM NO. OF SLEEPING ROOMS = 2 OCCUPANCY GROUP C LOAD 4 PERSONS	3.1.17. 3.7.	9.9.1.3.
16	BARRIER-FREE DESIGN ☐ YES ☒ NO	3.8.	9.5.2.
17	HAZARDOUS SUBTANCES ☐ YES ☒ NO	3.3.1.2. & 3.3.1.19.	9.10.1.3.(4)
18	REQUIRED FIRE RESISTANCE RATING (FRR)	3.2.2.20.-.83 & 3.2.1.4.	9.10.8. & 9.10.9.

HORIZONTAL ASSEMBLIES FRR (HOURS)		LISTED DESIGN NO. OR DESCRIPTION (SG-2)
FLOORS	45 MIN	SG-2
ROOF	N/A	-
MEZZANINE	N/A	-
FFR OF SUPPORTING MEMBERS		**LISTED DESIGN NO. OR DESCRIPTION (SG-2)**
FLOORS	45 MIN	SG-2
ROOF	N/A	-
MEZZANINE	N/A	-

19 SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS 3.2.3. 9.10.14. 9.10.15.

	WALL	AREA OF EBF (SQ.M.)	L.D. (M.)	L/H OR H/L	PERMITTED MAX. % OF OPENINGS	PROPOSED % OF OPENINGS	PERMITTED MAX. % OF GLAZED OPENINGS	PROPOSED % OF GLAZED OPENINGS
FRONT	EAST	154.08	25.19	N/A	100.00	8.18	100.00	6.84
REAR	WEST	152.50	30.37	N/A	100.00	25.82	100.00	24.45
LEFT	NORTH	95.11	24.48	N/A	100.00	30.14	100.00	30.14
RIGHT	SOUTH	95.11	9.90	N/A	84.30	4.53	84.30	4.53

20 OTHER - DESCRIBE:

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
01	ISSUED FOR PERMIT	NOV. 20th, 2024

PROJECT: INTERIOR ALTERATIONS/ADDITIONS

CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.
PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE: GENERAL NOTES/BUILDING MATRIX

SHEET: T-100

SCALE: N.T.S

DRAWN: Zainab Khudair

DATE: JAN. 17, 2025

TRUSSES:

FLOOR TRUSS MANUFACTURER SHALL DESIGN AND PROVIDE TRUSSES TO HAVE A MAXIMUM DEFLECTION OF 3/8" FOR SPANS GREATER THAN 16'–0" AND L/480 FOR SPANS UNDER 16'–0"
TRUSS MANUFACTURER SHALL BE RESPONSIBLE FOR ALL TRUSS DESIGNS INCLUDING GIRDERS, HANGERS, BEARING SEATS AND ANCHORS FOR TRUSSES.
TRUSS FRAMING SHOWN ON PLANS IS FOR GENERAL REFERENCE AND TO INDICATE BEARING LOCATIONS. MANUFACTURER SHALL NOTIFY ARCHITECT IF ADDITIONAL BEARING POINTS AND/OR WALLS ARE NEEDED PRIOR TO FABRICATION AND ERECTION.
ALL ROOF TRUSSES SHALL BE BRACED PER MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED ON DRAWINGS.

INSULATION NOTE:
PROVIDE INSULATION AS REQUIRED TO MEET CURRENT OBC CODE
SEE ENERGY CALCULATIONS FOR INSULATION R–VALUES.

FRAMING MATERIALS :

BEARING WALLS:

EXTERIOR: 8'–1 1/8" PLATE HEIGHT OR LESS: 2X4 SPRUCE–PINE–FIR #2 KD OR BETTER
9'–1 1/8" PLATE HEIGHT OR LESS: 2X4 SPRUCE–PINE–FIR #1 KD OR BETTER.
16'–1 1/8" PLATE HEIGHT OR LESS: 2X6 HEM–FIR #2 KD OR BETTER.

INTERIOR: BEARING WALLS– SPRUCE–PINE–FIR #2 KD OR BETTER NON–BEARING WALLS– SPRUCE–PINE–FIR. KILN DRIED, STUD GRADE OR BETTER.
HEADER: HEM–FIR #2 KD OR BETTER; FIBER BENDING STRESS=850 P.S. (SINGLE MEMBER) ELASTICITY MODULUS=1,300,000 P.S.I.
JOIST AND RAFTERS: HEM–FIR #2 KD OR BETTER; FIBER BENDING STRESS= 1.075 P.S.I. (REPETITIVE MEMBER) ELASTICITY MODULUS=1,300,000 P.S.I.
FURRING: SPRUCE–PINE–FIR KILN DRIED, NO.3 OR BETTER.

BEARING WALLS:

PROVIDE 2X4 SOLID BLOCKING AT 16" O.C. ON 2X4 LEDGER BOARDS BETWEEN HEADER JOISTS (SEE DRAWINGS FOR SIZE OF MEMBER) UNDER ALL BEARING PARTITIONS PARALLEL TO FLOOR FRAMING DIRECTION.
PROVIDE SOLID BLOCKING UNDER ALL POINT LOAD CONDITIONS CONTINUOUS TO SOLID BEARING AT HEADERS OR FOUNDATION.
PROVIDE SOLID BLOCKING BETWEEN JOIST UNDER ALL BEARING WALLS PERPENDICULAR TO FRAMING DIRECTION.

WALL FRAMING:

STUDS IN ALL WALLS SHALL BE SPACED AT 16" O.C. UNLESS OTHERWISE NOTED.
EXTERIOR WOOD FRAME WALLS OVER 9'–2" IN HEIGHT SHALL BE OF MINIMUM 2X6 CONSTRUCTION. ALL STUDS SHALL BE CONTINUOUS FROM FLOOR TO UNDERSIDE OF FLOOR OR ROOF FRAMING ABOVE. SEE FRAMING MATERIALS FOR MINIMUM STUD SIZES AND GRADES.
ALL STRUCTURAL MULLIONS TO HAVE MINIMUM DOUBLE STUD CONSTRUCTION CONTINUOUS FROM FLOOR TO UNDERSIDE OF FLOOR FRAMING ABOVE. WINDOW TRANSOM HEADERS SHALL SPAN BETWEEN CONTINUOUS STUDS WITH FLUSH HANGER BRACKETS AS REQUIRED.
PROVIDE CONTINUOUS WALL STUDS FROM FLOOR TO UNDERSIDE OF ROOF FRAMING AT ALL SLOPED CEILING CONDITIONS. (BALOON FRAMING)
LOWER LEVEL (BASEMENT) EXTERIOR FRAME WALLS SHALL BE MINIMUM 2X6 FRAMING @16" O.C. WITH PRESSURE TREATED BASE PLATE. INTERIOR LEVEL BEARING WALLS SHALL BE 2X6 FRAMING @16" O.C. WHEN CARRYING (2) FLOORS OR MORE.

WALL SHEATHING:

STRUCTURAL GRADE FOR LATERAL BRACING OF EXTERIOR WALL LOADING. WHEN NON–STRUCTURAL SHEATHING IS USED PROVIDE LET–IN DIAGONAL BRACING OR OTHER APPROVED TYPE OF BRACING AT ALL EXTERIOR CORNERS OF STRUCTURE.

ROOFING:

ASPHALT SHINGLES SHALL BE SECURED TO THE ROOF WITH NOT LESS THAN (4) FASTENERS PER STRIP SHINGLE, OR NOT LESS THAN (2) FASTENERS PER INDIVIDUAL SHINGLE. SHINGLE HEADLAP SHALL NOT BE LESS THAN 2 INCHES (15 MM).

ROOF PENETRATIONS:

ALL PLUMBING, MECHANICAL VENT STACKS AND FURNACE FLUES SHALL BE OFFSET TO REAR ROOF LINES. FURNACE FLUES SHALL COMPLY WITH CODE FOR MAXIMUM SLOPE AND NUMBER OF TURNS ALLOWED FOR OFFSETS.

ATTIC ACCESS:

A READILY–ACCESSIBLE OPENING NOT LESS THAN 22"X30" SHALL BE PROVIDED TO ANY ATTIC AREA HAVING A CLEAR HEIGHT OF OVER 30".

STAIRS:

ALL STAIRS SHALL CONFORM TO CODE FOR ALLOWABLE RISER HEIGHT AND TREAD DEPTH, (MINIMUM 10" TREADS AND MAXIMUM 7 3/4" RISERS IN SINGLE FAMILY DWELLINGS). NOSING PROFILE SHALL BE CONSTRUCTED AS REQUIRED BY CODE.
HANDRAIL TO HAVE A DIAMETER SIZE OF 1 1/2" MIN. 2" MAX.
ALL HANDRAILS SHALL BE LOCATED AT A HEIGHT OF 34" MIN. AND 38" MAX. ABOVE NOSE OF TREAD. THE SIZE AND SHAPE OF HANDRAILS SHALL CONFORM TO CURRENT CODE REQUIREMENTS.

GUARD RAIL:

BALUSTERS SHALL BE SPACED SO THAT A SPHERE WITH A DIAMETER OF 4" CANNOT PASS THROUGH ANY OPENING.
TOP OF GUARD RAILS AT STAIRS TO SERVE AS HANDRAIL SHALL BE A MIN. OF 36" HIGH TO A MAX. OF 42" HIGH. ALL OTHER GUARD RAILS SHALL BE A MIN. OF 42" HIGH (OR 36" HIGH IN SINGLE FAMILY DWELLING).

WINDOWS AND GLAZING:

A MINIMUM OF ONE (1) WINDOW IN EACH SLEEPING AREA SHALL MEETS EMERGENCY EGRESS REQUIREMENTS. WINDOW CONTRACTOR SHALL PROVIDE EGRESS HARDWARE NECESSARY TO ALLOW WINDOWS TO MEET APPLICABLE EGRESS REQUIREMENTS

PROVIDE FLASHING AT ALL WINDOW/DOOR HEAD, JAMB AND SILL CONDITIONS.
PROVIDE THE APPROPRIATE SAFETY GLASS (IN ACCORDANCE WITH ALL APPLICABLE BUILDING CODES) FOR ALL HAZARDOUS LOCATIONS LISTED BELOW:

A) GLAZING IN FIXED AND SLIDING PANELS OF SLIDING TYPE DOORS (PATIO AND MALL TYPE).
B) GLAZING IN STORM DOORS.
C) GLAZING IN ALL UNFRAMED SWINGING DOORS.
D) GLAZING IN SHOWER AND BATHTUB DOORS AND ENCLOSURES.

PROPOSED VENT AREA: TO BE CALCULATED PER MANUFACTURE RECOMMENDATIONS

VENT AREA:

VENT AREA RATIO 1:150
ATTIC AREA= _1,976.46_SQ.FT_
VENT AREA =_13.18_ SQ.FT_ x 144= _1,897.40_ SQ.IN.
50% SOFFIT AND 50% RIDGE= _948.70_ SQ.IN

INSULATION:

PROVIDE AND INSTALL BUILDING INSULATION FOR COMPLIANCE TO CURRENT ENERGY CODE REQUIREMENTS.
PROVIDE RIGID INSULATION AT ALL EXPOSED PERIMETER SLAB ON GRADE CONDITIONS AS REQUIRED TO MEET CURRENT ENERGY CODE REQUIREMENTS.
PROVIDE INSULATION AT ALL BOND CONDITIONS–SEE INSULATION NOTE.
PROVIDE INSULATION AROUND ALL SKYLIGHT SHAFTS–SEE INSULATION NOTE.
THERMAL BATT AND BLANKET INSULATION SHALL HAVE A VAPOR BARRIER, WITH A PERM RATING OF 1 OR LESS APPLIED TO THE INTERIOR FACE.
INSULATION SHALL BE INSTALLED IN SUCH A MANNER AS TO ALLOW FREE AIR FLOW FROM THE SOFFIT TO THE ROOF/ATTIC SPACE.
VENTILATION OF CONCEALED ROOF SPACES SHALL BE MAINTAINED.

GARAGE SEPARATIONS:

PRIVATE GARAGES ATTACHED SIDE BY SIDE TO HABITABLE ROOMS SHALL BE COMPLETELY SEPARATED FROM THE INTERIOR SPACES BY FIRE PARTITIONS AND FLOOR/CEILING ASSEMBLIES WHICH ARE CONSTRUCTED WITH NOT LESS THAN A 1–HOUR FIRE RESISTANCE RATING. (SEE DETAILS)

ELECTRICAL:

1) MAINTAIN SEPARATION AT SERVICE–GAS & ELECTRICAL TO BE 36" APART. (METERS)
2) ASSURE MECHANICAL & ELECTRICAL SYSTEMS, MAINTAIN SEPERATION–WIRE & DUCTS, WIRE & PLUMBING 2" MINIMUM.
3) MAINTAIN SEPARATION OF OUTLETS IN PARTY WALLS, I.E. BACK TO BACK OUTLETS AND PROVIDE FOR FIRE SAFETY WITH RATED BOXES AND FIRE PROTECTIVE PADS (SUCH AS 3–M).
4) 20 AMP CIRCUITS FOR KITCHEN, LAUNDRY, & TOILETS.
5) GFI CIRCUITS FOR KITCHEN & TOILET OUTLETS.
6) ASSURE PROPER CIRCUITS FOR FOR SEPARATE CIRCUIT ITEMS, SUCH AS SUMP, FURNACE, ETC.
7) 3 WIRE MULTI–BRANCH CIRCUITS TO HAVE COMMON TRIP BREAKERS.

PLUMBING:

1) SUMP PUMP–TERMINATE TO AN APPROVED LOCATION
2) INSTALL AUTOMATIC TRAP PRIMERS DEEP SEAL TRAPS TO ALL FLOOR/HUB OUTLET DRAINS. PRIMERS TO INACCESSIBLE FLOOR DRAINS. (LAUNDRY AND/OR CONDENSATE 1002.4)
3) SANITARY SUMPS/EJECTORS INSTALL AND VENT TO CODE REQUIREMENTS
4) INSTALL BACKWATER VALVES PER CODE REQUIREMENTS.
5) ALL WORK SUBJECT TO FIELD VERIFICATION AND APPROVAL.

MECHANICAL:

1) PROVIDE APPROPRIATE GAS SHUT OFF TO FIREPLACES.
2) BE AWARE OF ISSUES REGARDING VENT TERMINATION.
3) CONSIDER ALL ISSUES IN REFERENCE TO FIRE–STOPPING.
4) ALL WORK MUST BE VERIFIED.

GENERAL NOTES :

THESE NOTES ARE FOR GENERAL REFERENCE. WHERE CONFLICTS EXIST BETWEEN THESE NOTES AND CURRENT CODES THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.

THIS STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE CURRENT 2015 OBC BUILDING CODE. ALL CONSTRUCTION MUST CONFORM TO ALL REQUIREMENTS OF THE CURRENT CODE.

MATERIALS OR CONSTRUCTION PROCEDURES WHICH ARE PROHIBITED BY LAW OR SHALL CAUSE A HARMFUL EFFECT TO THE NATURAL ENVIRONMENT OR TO THE HEALTH OF ANY PERSON ON THE SITE DURING CONSTRUCTION AND/OR DURING OCCUPANCY SHALL NOT BE USED IN THIS PROJECT.

ALL TRADES SHALL CONFORM WITH ALL APPLICABLE FEDERAL, PROVENCE, AND LOCAL CODES, RULES AND REGULATIONS. IN CASE OF CONFLICT, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

DIMENSIONS OF INTERIOR WALLS ON PLANS SHALL BE 5" (ROUGH STUD DIMENSIONS) UNLESS OTHERWISE INDICATED.

ALL EXTERIOR WALLS AND INTERIOR BEARING WALLS 10' HIGH AND HIGHER MUST BE CONSTRUCTED OF 2" X 6" OR 2" X 8" STUDS AT 16" O.C. THIS SHALL BE CONSTRUED AS TO INCLUDE THE GARAGE WALLS. FIRESTOP BETWEEN THE STUDS AT THE 8' LINE.

DO NOT DRILL HOLES IN MICRO–LAM BEAMS UNLESS APPROVED BY THE MANUFACTURER OR ENGINEER.

APPROVED FIRESTOP MATERIAL REQUIRED FOR ALL DROPS AND FLOOR–CEILING PENETRATIONS.

APPROVED HARDWIRE SMOKE DETECTOR REQUIRED ON EACH FLOOR AND IN EACH BEDROOM WITH BATTERY BACKUP (INTERCONNECTED) AS PER CODE

STEPS REQUIRED AT ACTIVE DOORS PER CODE.

ALL SAFETY GLAZING CODE REQUIREMENTS MUST BE MET.

PROVIDE ATTIC ACCESS OF 22" X 30" MINIMUM AS REQUIRED.

HAND/GUARD RAILS REQUIRED ON ALL STAIRS WITH MORE THAN 3 RISERS AS PER CODE.

PROVIDE 2'–8" WIDE DOORS TO ALL ROOMS GREATER THAN 9 S.F. AND 3'–0" WIDE DOOR AT MAIN ENTRANCE AS PER CODE

ALL BATHS TO HAVE EXHAUST FAN TO EXTERIOR AS PER CODE.

ALL SHOWER, TUB DOORS AND GLAZING TO BE TEMPERED GLASS AS PER CODE.

PROVIDE EMERGENCY ESCAPE WINDOWS PER CODE IN BEDROOMS.

ELECTRICAL WORK SHALL BE DONE AS PER CODE.

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL–RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
01	ISSUED FOR PERMIT	NOV. 20th, 2024

PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE:
GENERAL NOTES–2

SHEET:	SCALE:
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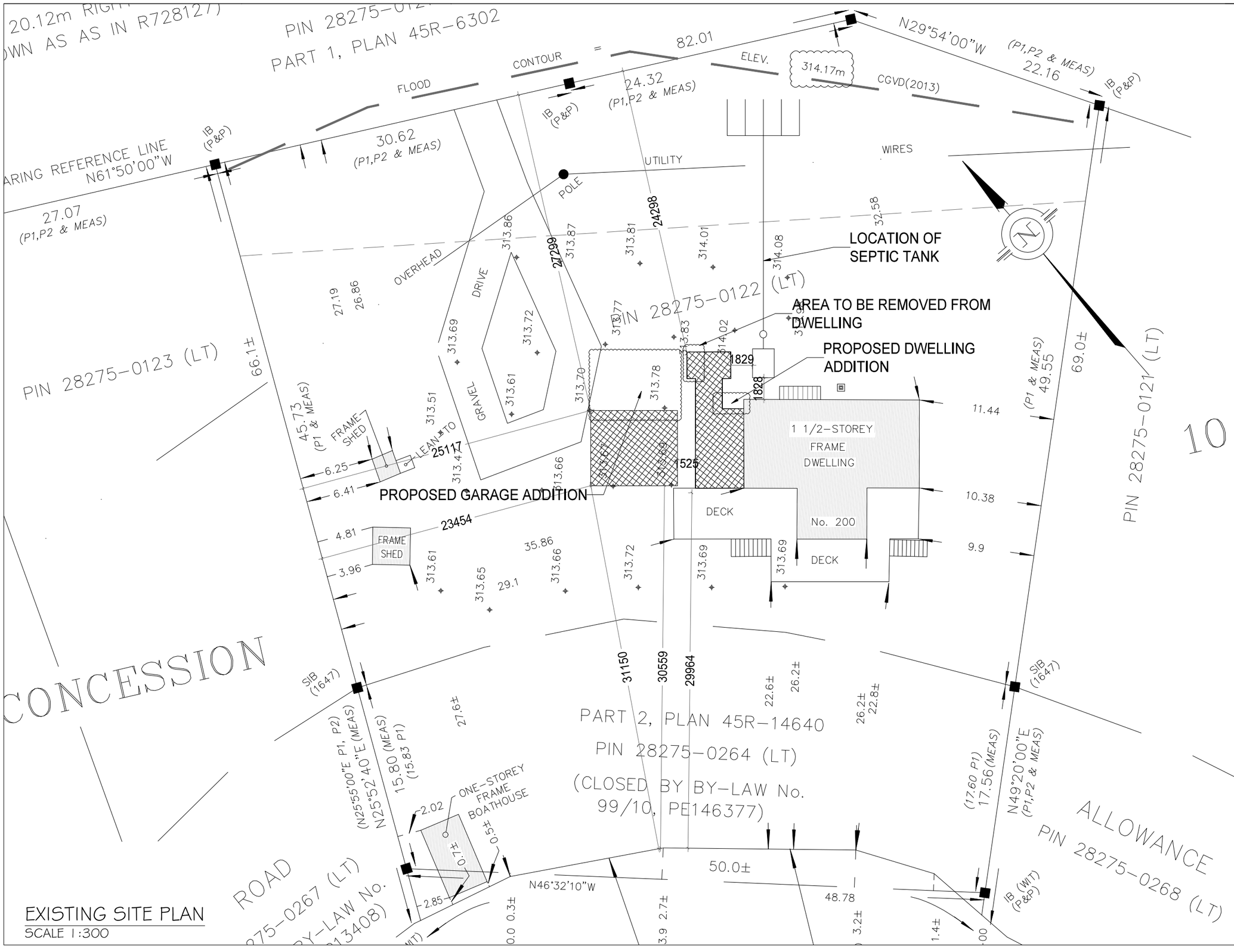
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



EXISTING SITE PLAN
SCALE 1:300

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
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DWG TITLE:
EXISTING SITE PLAN

SHEET:	SCALE:
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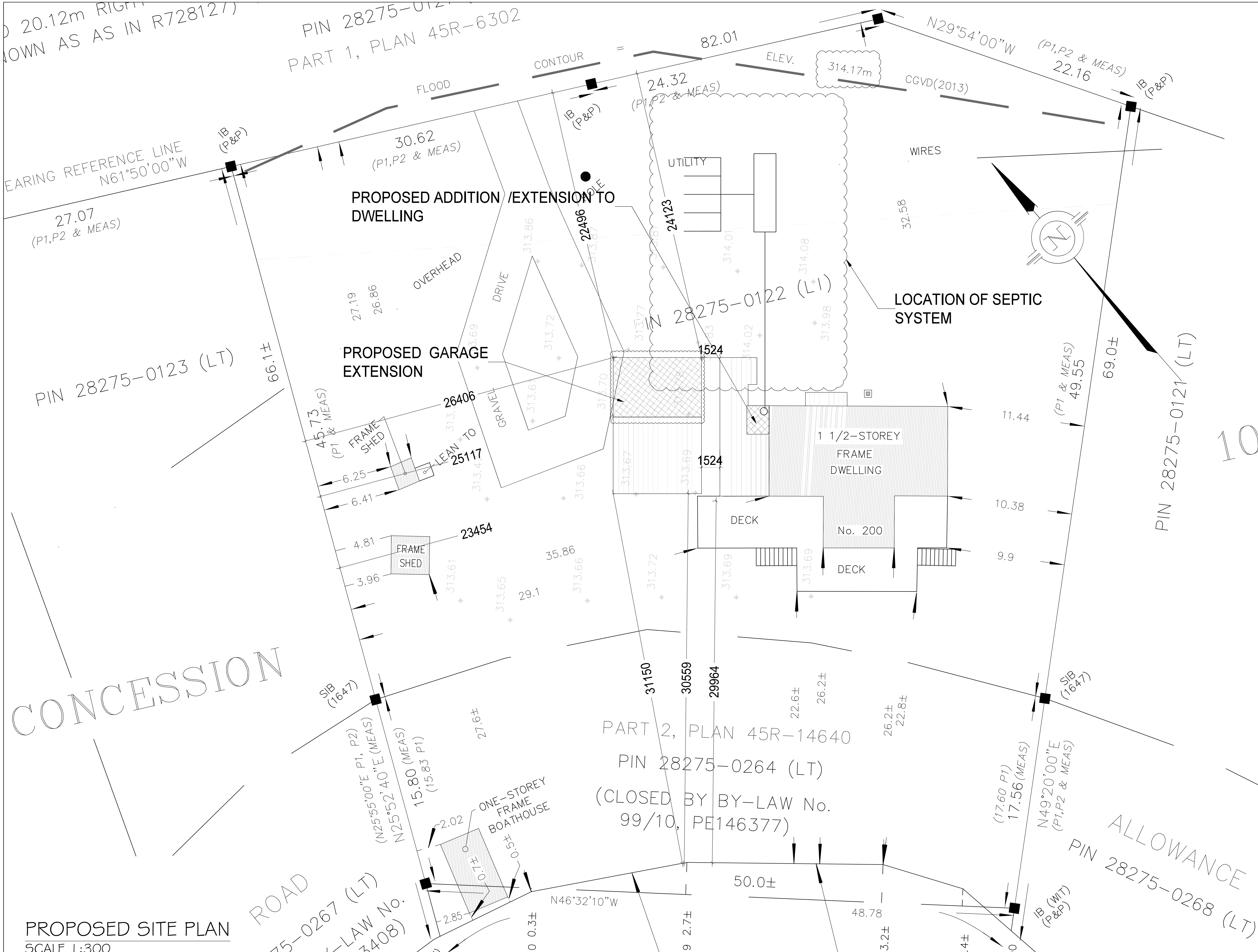
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



PROPOSED SITE PLAN

SCALE 1:300

KEY PLAN

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02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
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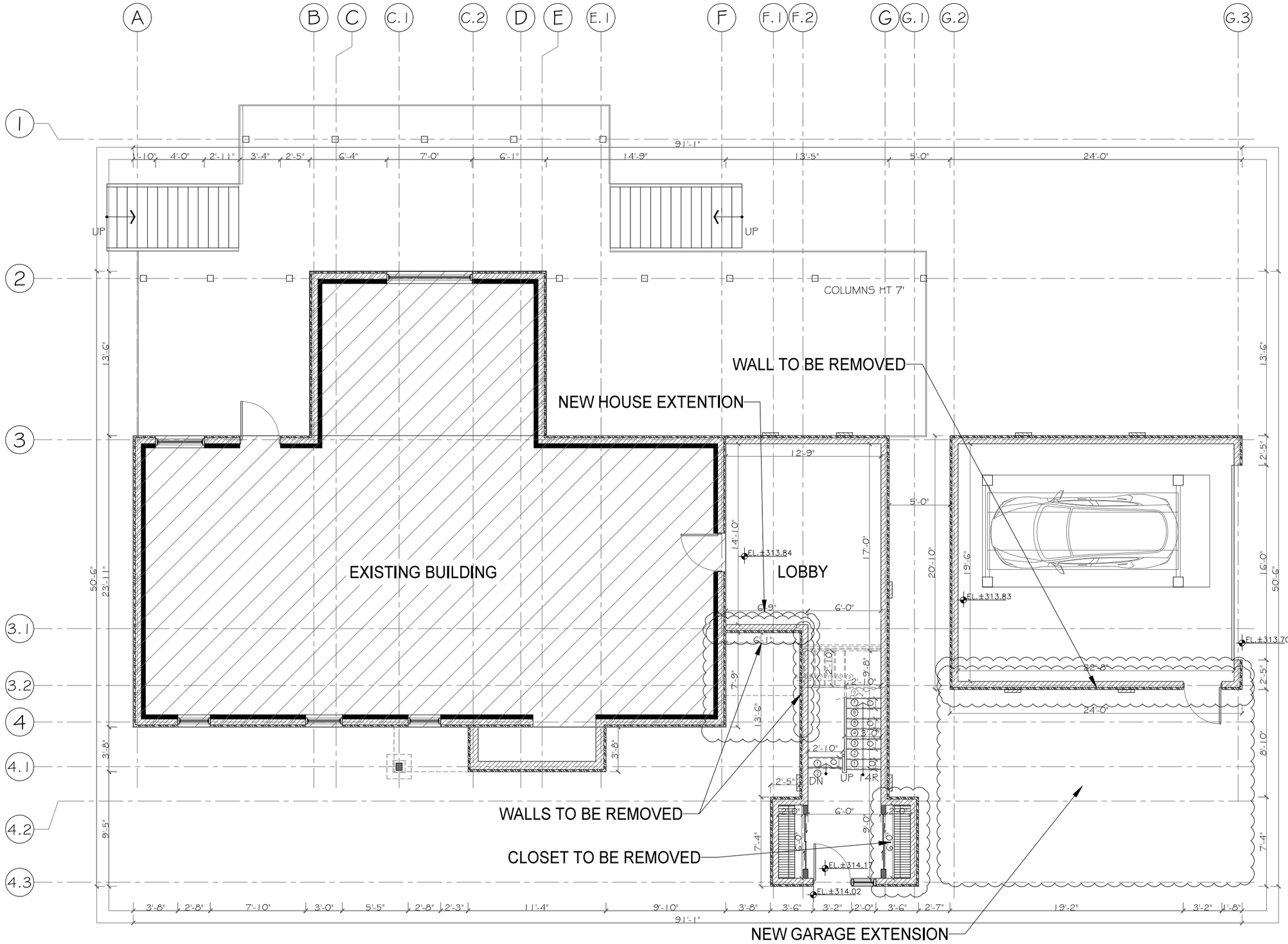
DWG TITLE:
PROPOSED SITE PLAN

SHEET:	SCALE:
SP-02	1:300
DRAWN:	DATE:
Zainab Khudair	JAN. 17, 2025



EXISTING BASEMENT PLAN

SCALE 1/8"=1'-0"

KEY PLAN

LEGEND

- CONCRETE WALL
- DRY WALL WITH STONE VENEER OR DuROCK STUCCO
- DRYWALL
- FLOOR JOIST
- S.A. — INTER-CONNECTED SMOKE ALARM DETECTOR WITH STROBE
- C.O. — INTER-CONNECTED CARBON MONOXIDE DETECTOR WITH STROBE
- RAIN WATER LEADER
- EF — EXHAUST FAN
- FLOOR DRAIN

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DWG TITLE:
EXISTING BASEMENT PLAN

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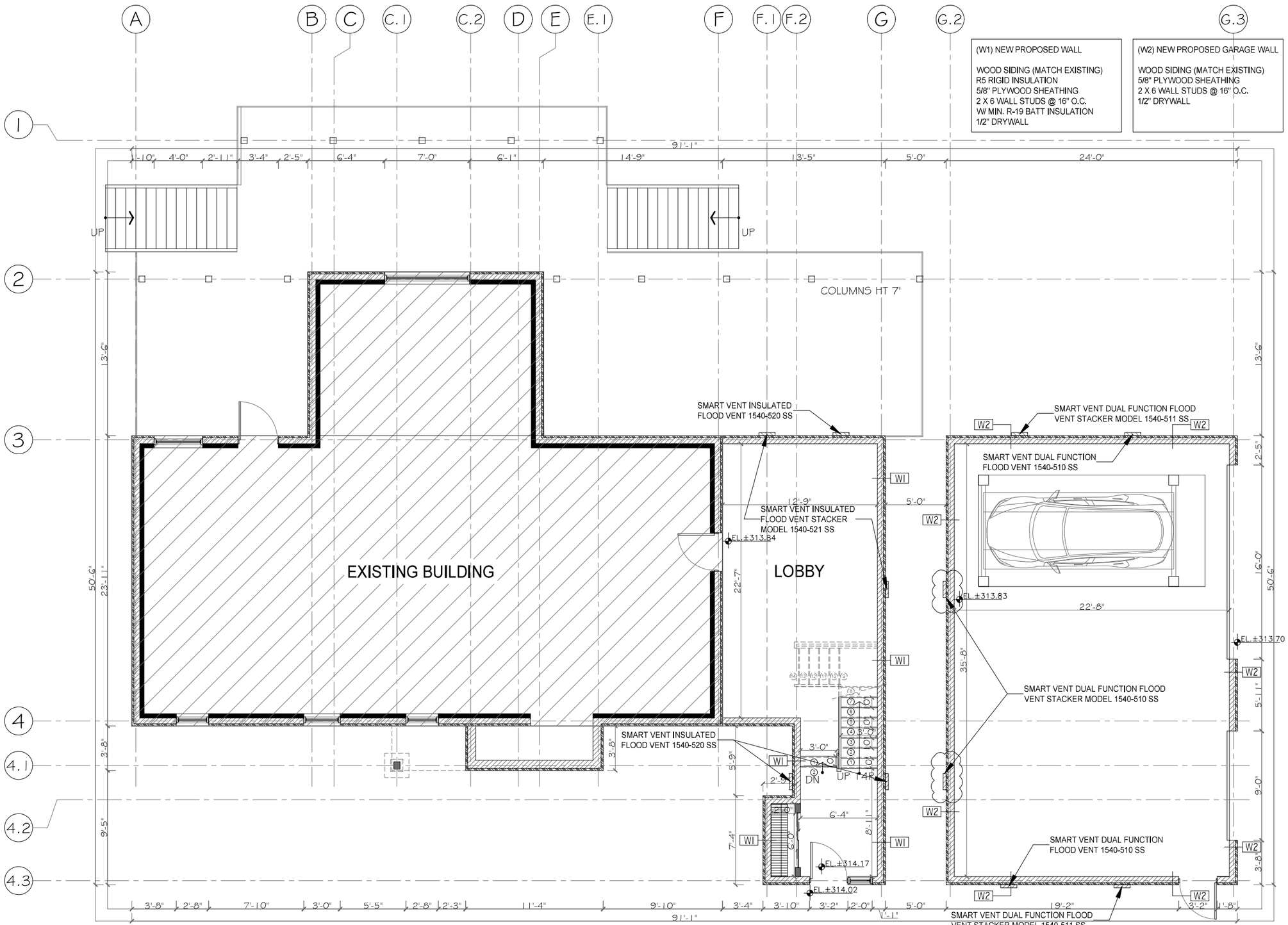
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



PROPOSED BASEMENT PLAN

SCALE 1/8"=1'-0"

KEY PLAN

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5147 Preservation Circle,
Mississauga, ON, L5M7T4
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DWG TITLE:
PROPOSED BASEMENT PLAN

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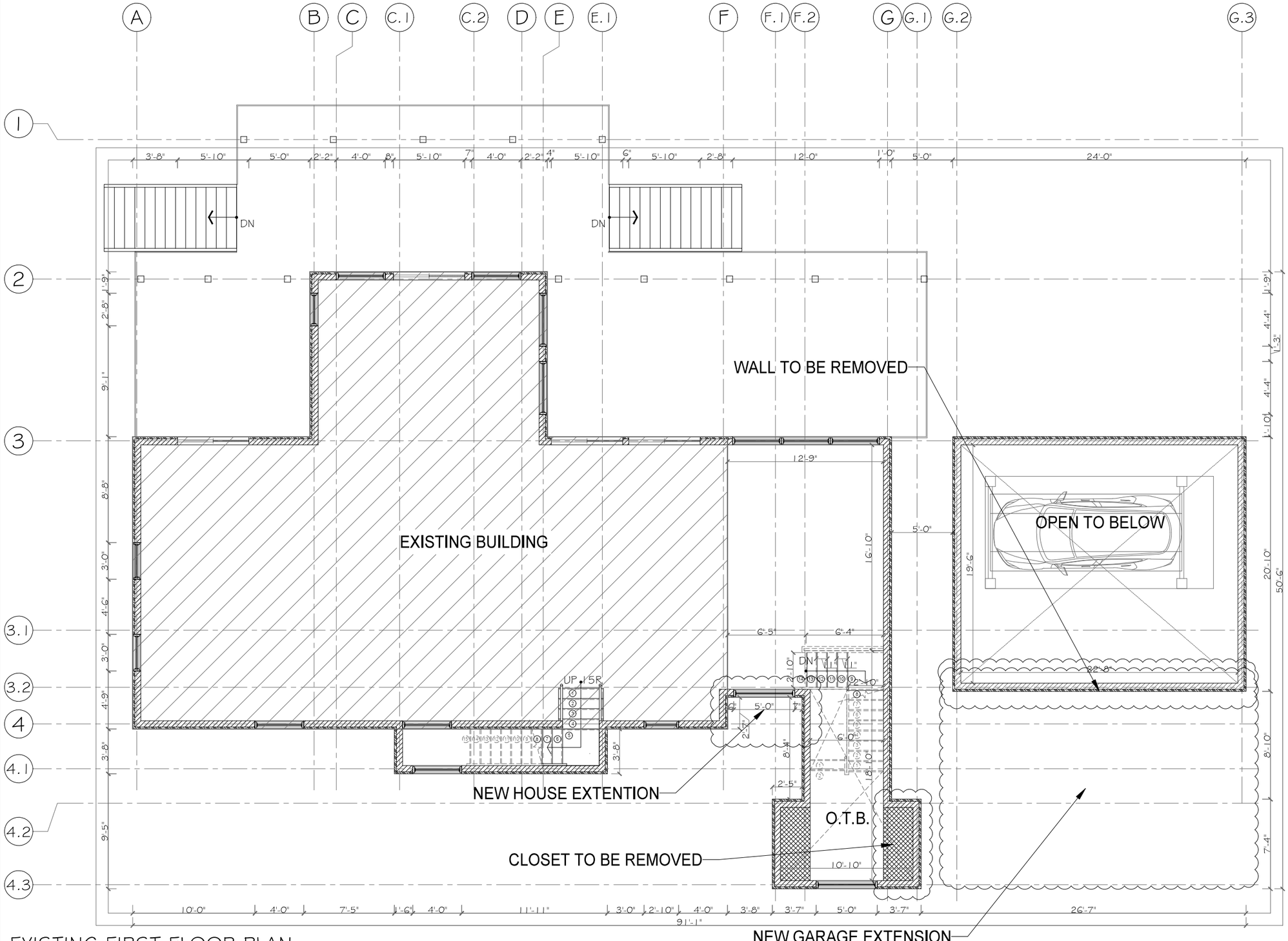
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



EXISTING FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

KEY PLAN

LEGEND

- CONCRETE WALL
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DWG TITLE:
EXISTING FIRST FLOOR PLAN

SHEET:	SCALE:
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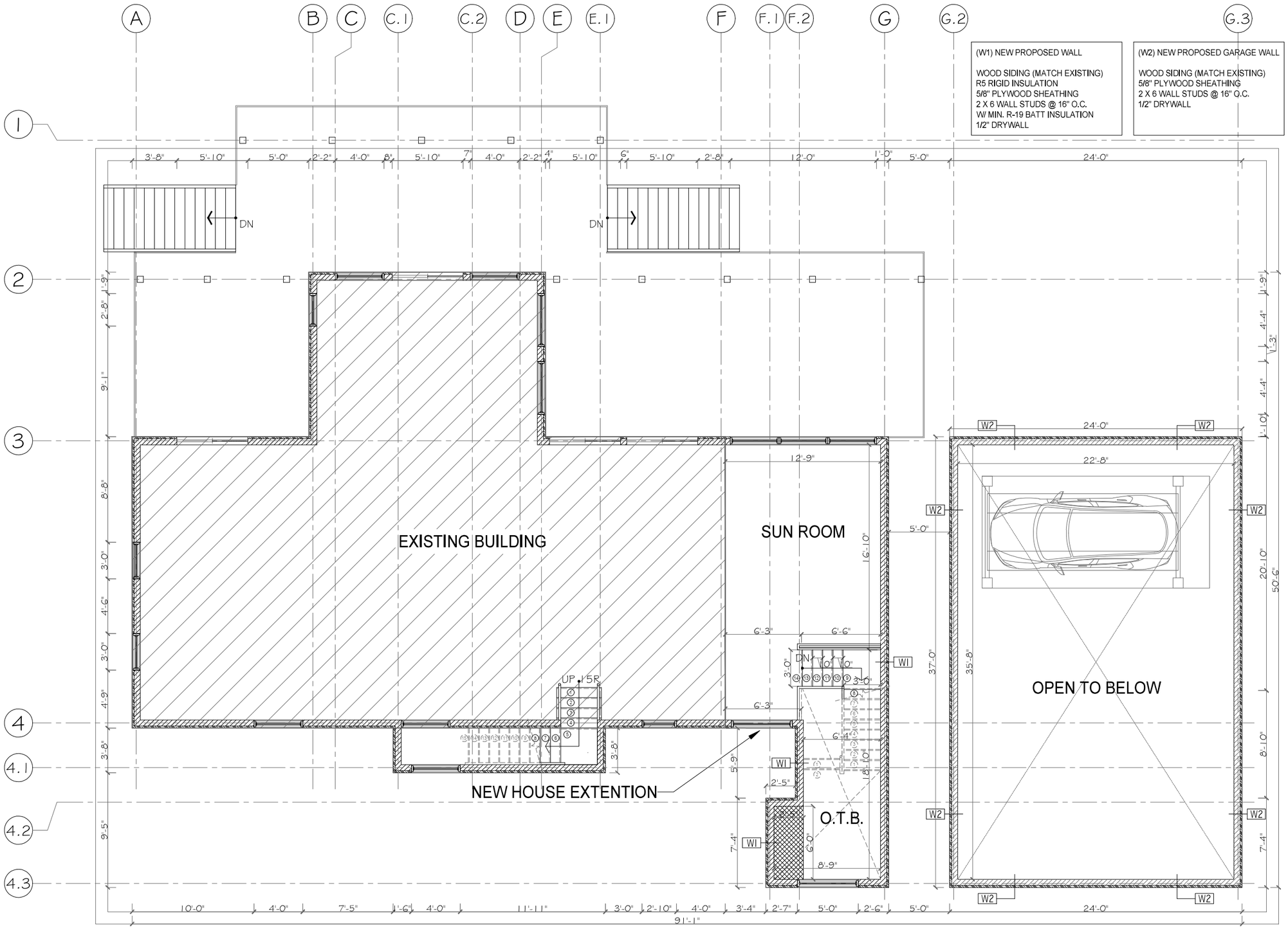
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



PROPOSED FIRST FLOOR PLAN

SCALE 1/8"=1'-0"

KEY PLAN

LEGEND

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DWG TITLE: PROPOSED FIRST FLOOR PLAN

SHEET:	SCALE:
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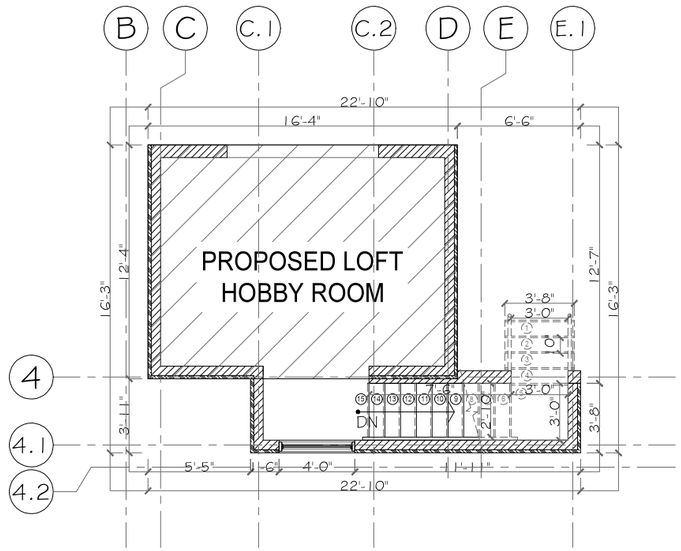
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



NOTE : NO CHANGE TO LOFT

LOFT FLOOR PLAN

SCALE 1/8"= 1'-0"

KEY PLAN

LEGEND

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DWG TITLE:
EXISTING LOFT FLOOR PLAN

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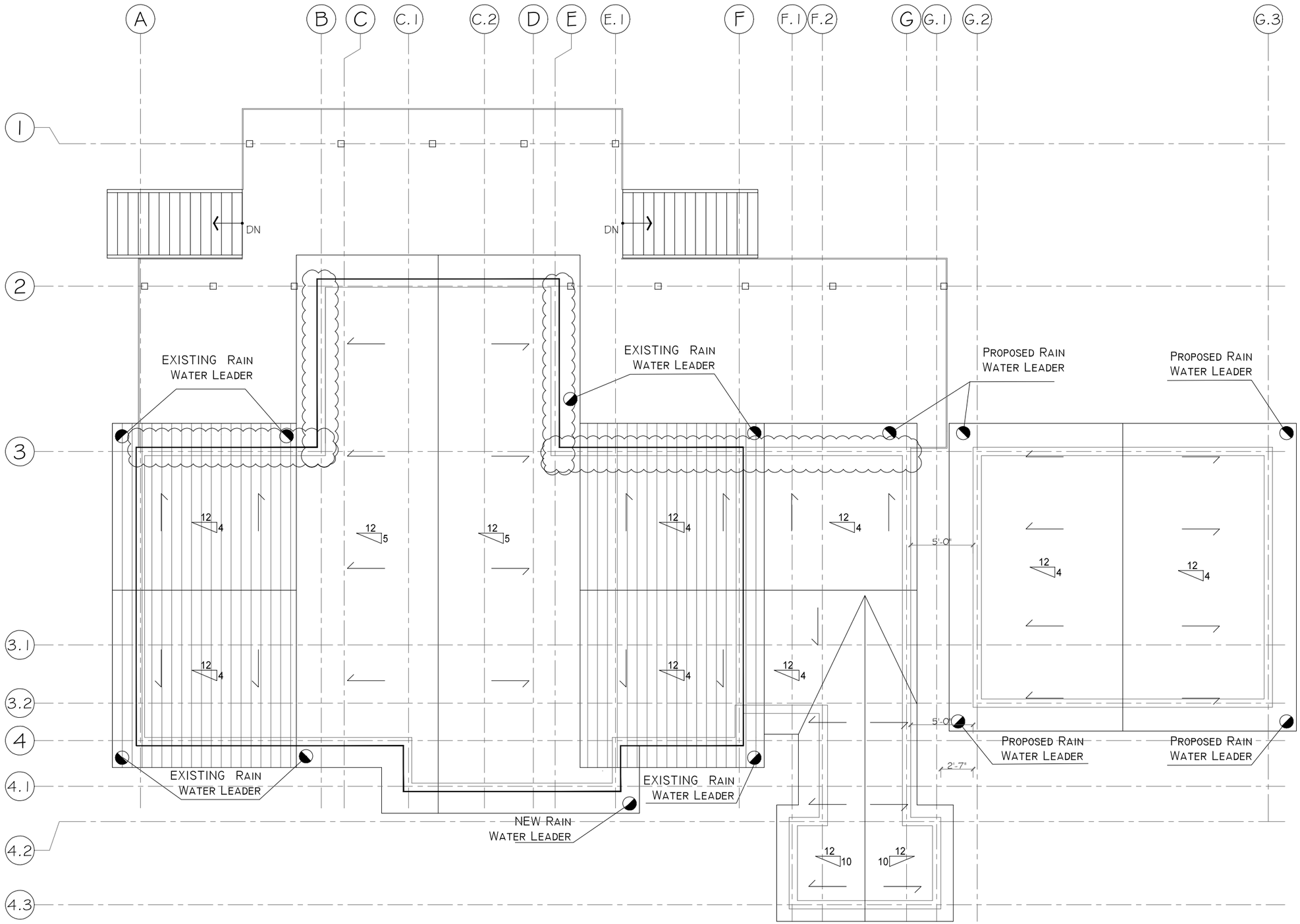
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



EXISTING ROOF PLAN

SCALE 1/8"= 1'-0"

KEY PLAN

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DWG TITLE:
EXISTING ROOF PLAN

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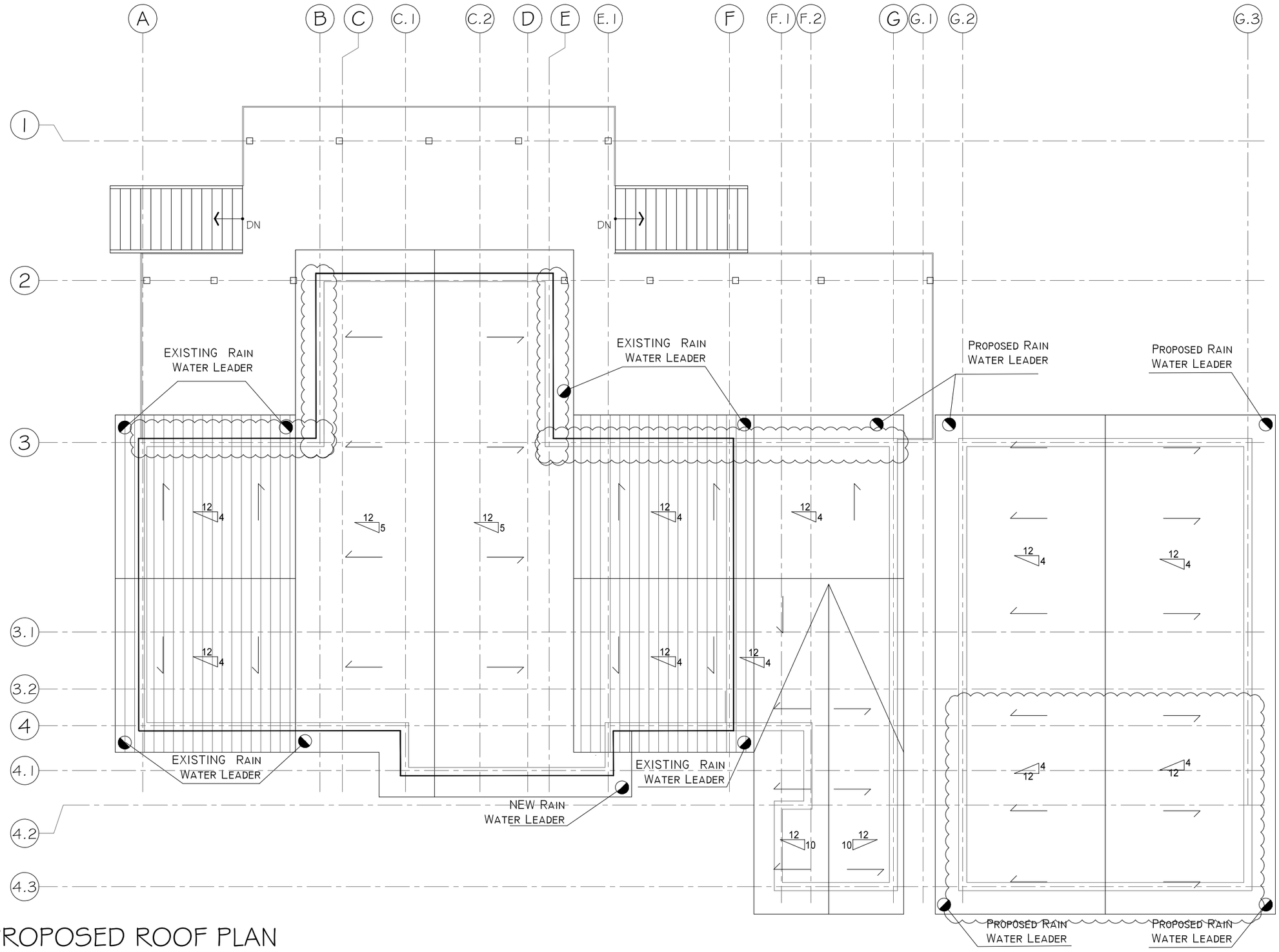

PROPOSED ROOF PLAN

SCALE 1/8"= 1'-0"

KEY PLAN

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DWG TITLE:
PROPSOED ROOF PLAN

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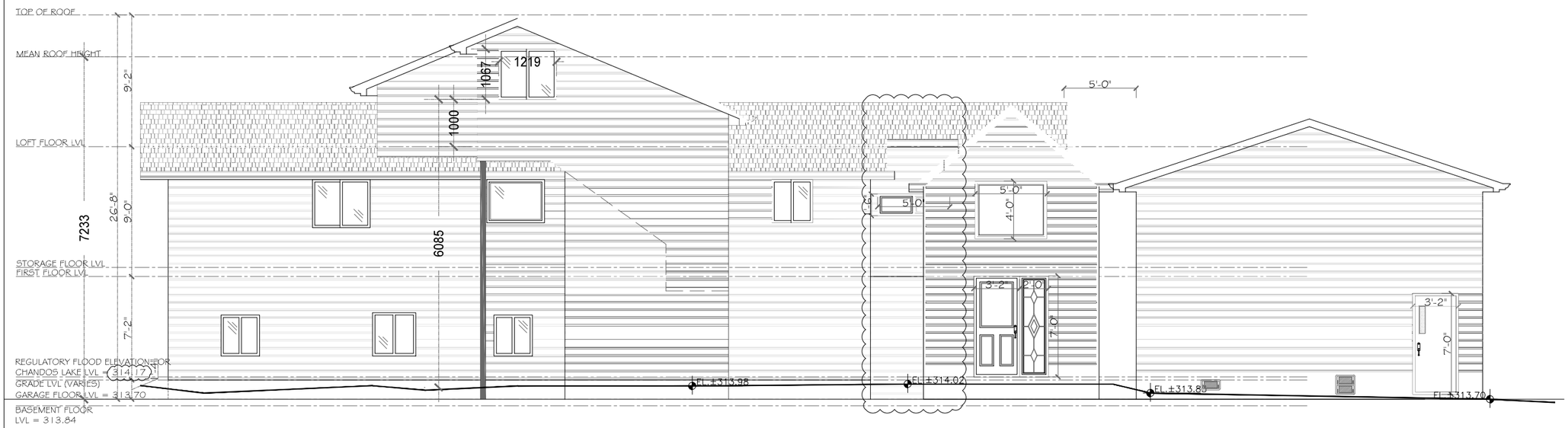
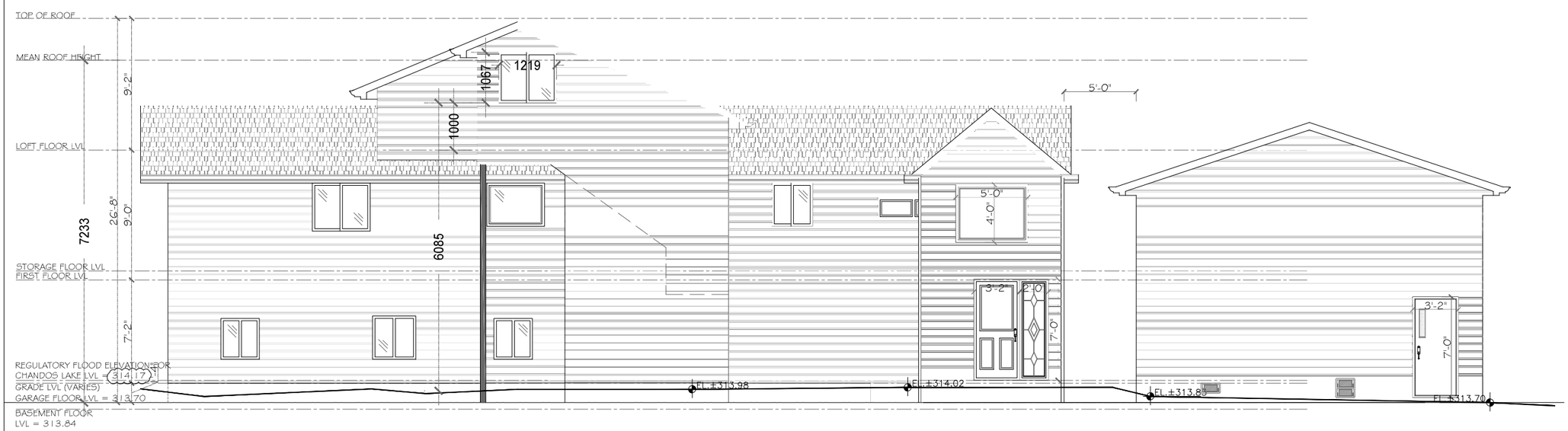


EXISTING FRONT ELEVATION

SCALE 1/8"= 1'-0"



PROPOSED FRONT ELEVATION

SCALE 1/8"= 1'-0"

KEY PLAN

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DWG TITLE: FRONT ELEVATION

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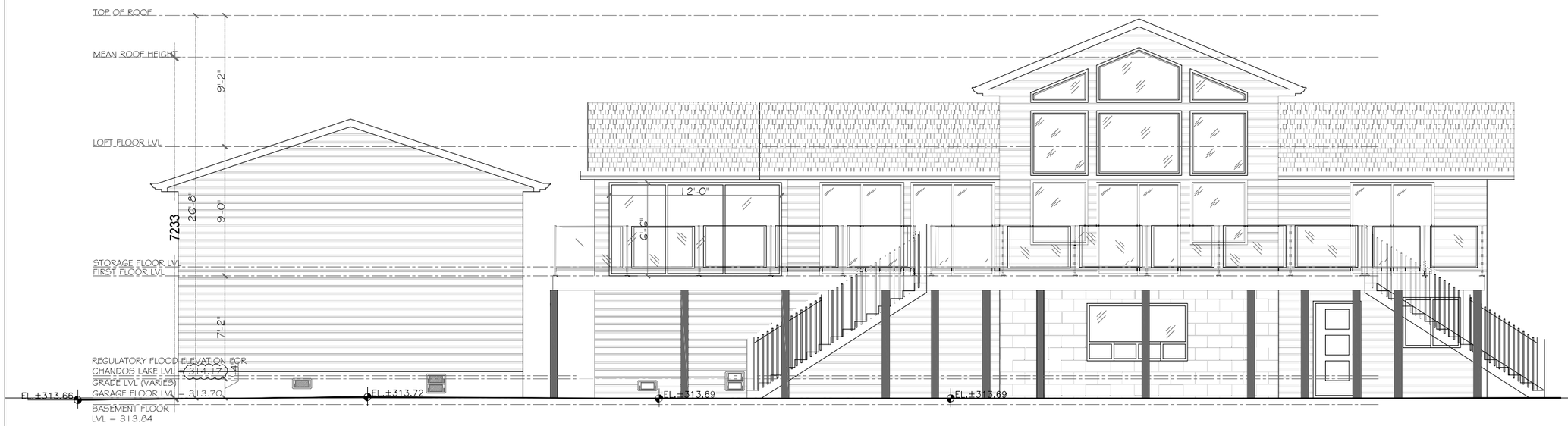

REAR ELEVATION

SCALE 1/8"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
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Mississauga, ON, L5M7T4
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DWG TITLE: REAR ELEVATION

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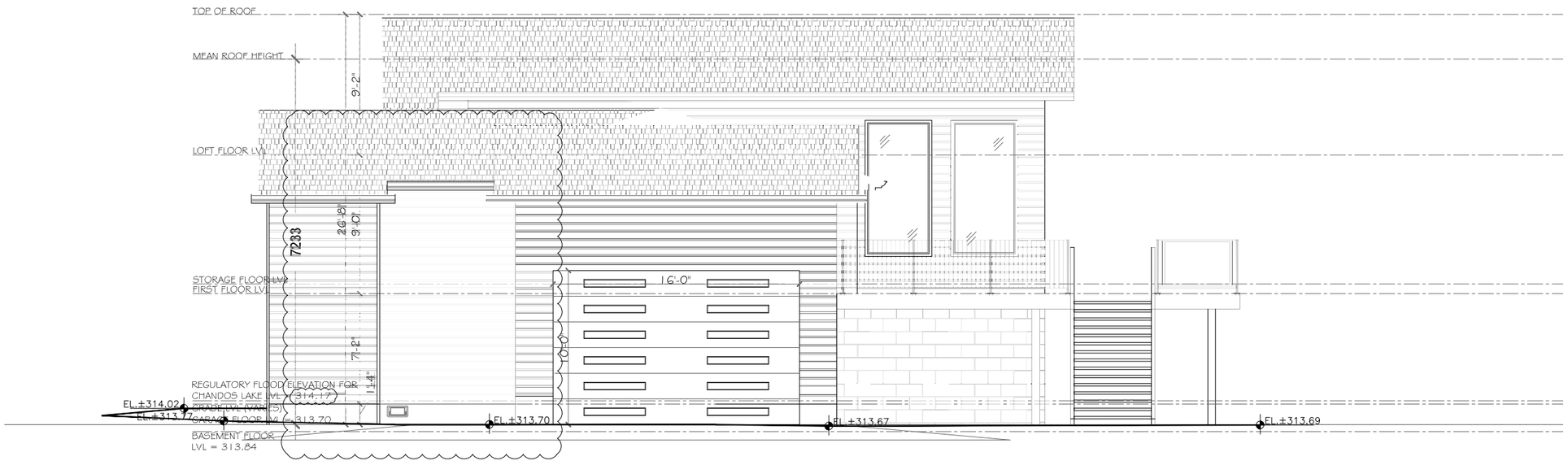
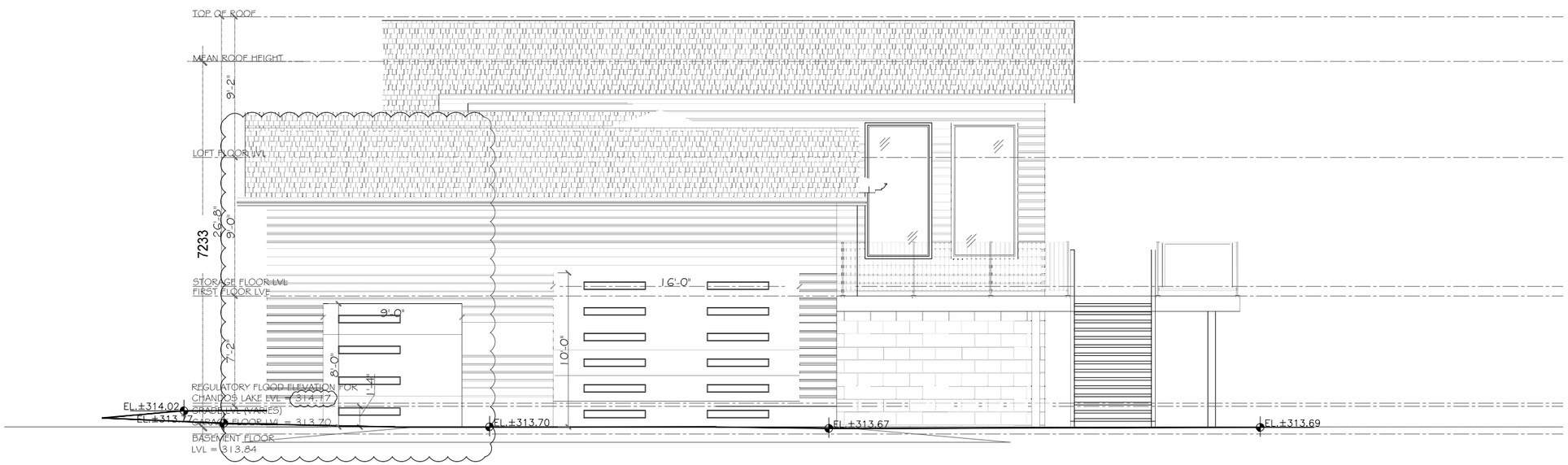
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



EXISTING NORTH ELEVATION

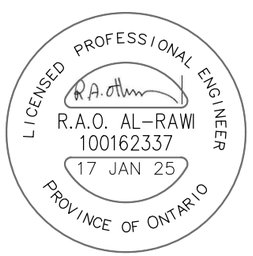
SCALE 3/16"= 1'-0"



PROPOSED NORTH ELEVATION

SCALE 3/16"= 1'-0"

KEY PLAN



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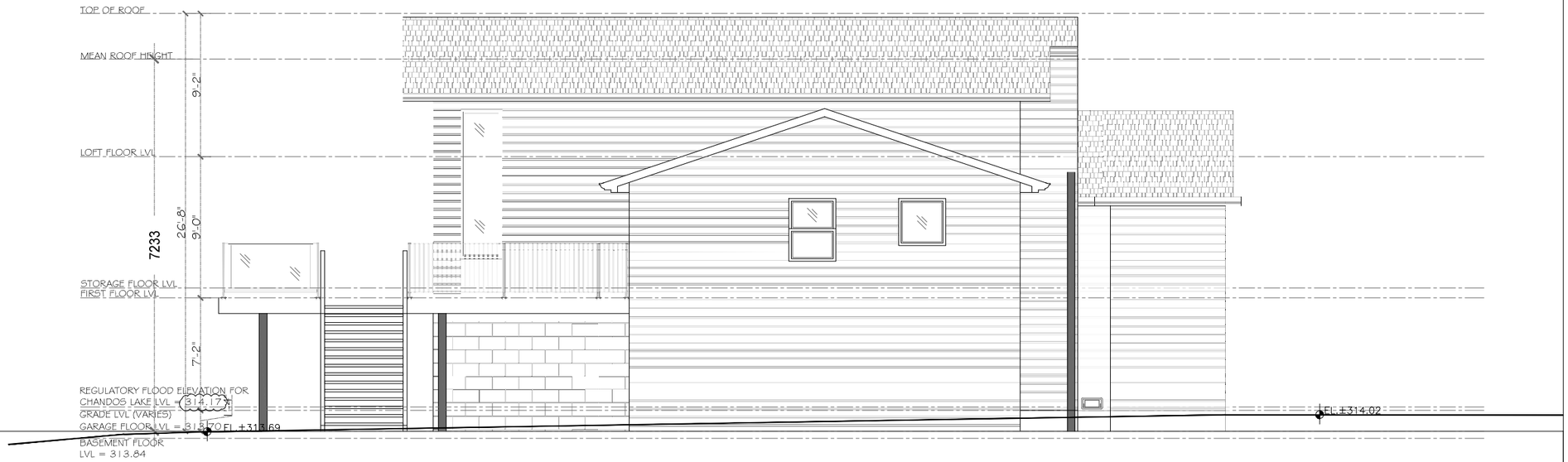
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE:
NORTH ELEVATION

SHEET:	SCALE:
AR-203	3/16"=1'-0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



SOUTH ELEVATION

SCALE 3/16"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
01	ISSUED FOR PERMIT	NOV. 20th, 2024

PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

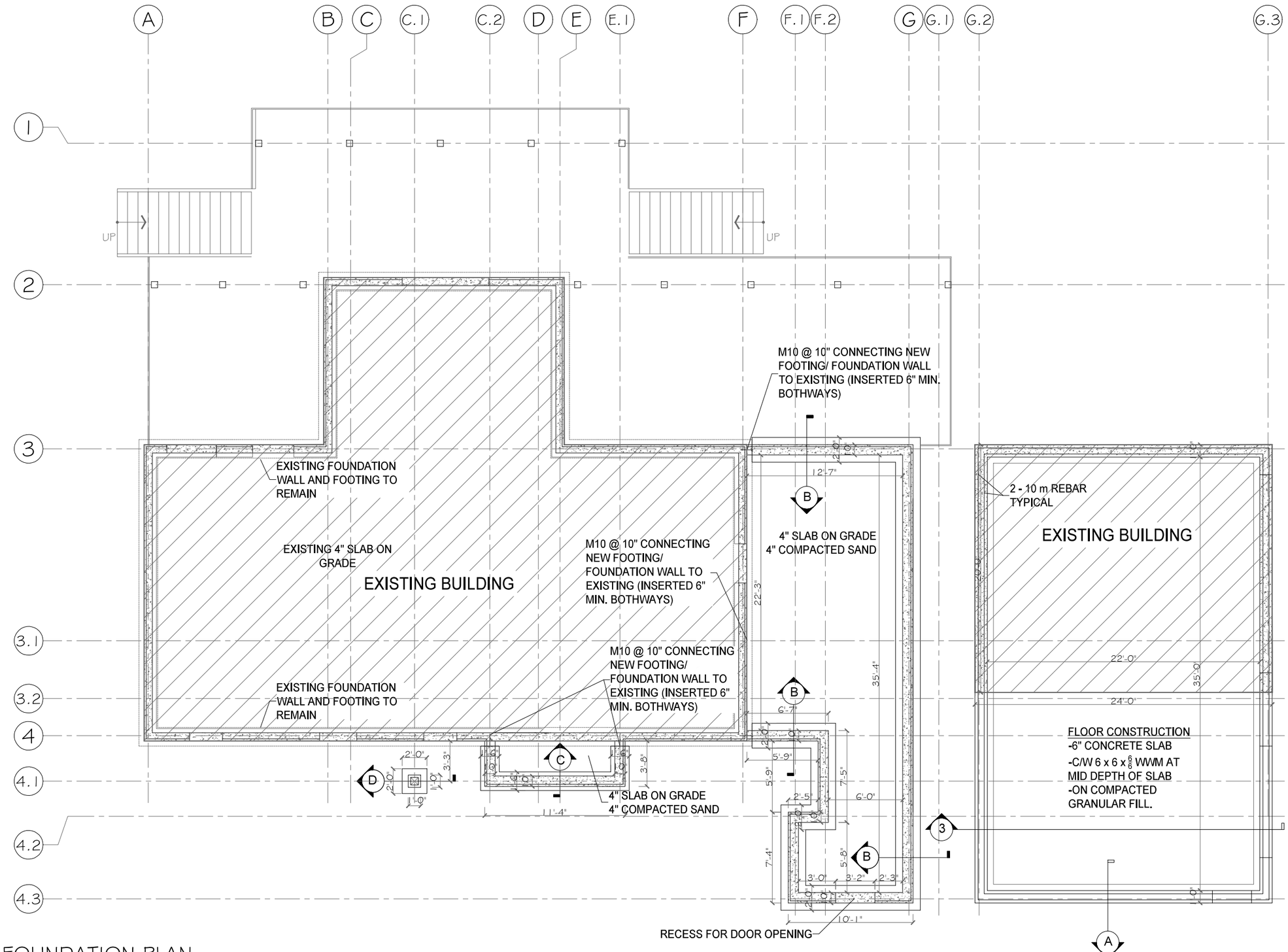
CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE:
SOUTH ELEVATION

SHEET:	SCALE:
AR-204	3/16"=1'-0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



FOUNDATION PLAN

SCALE 1/8"=1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
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PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

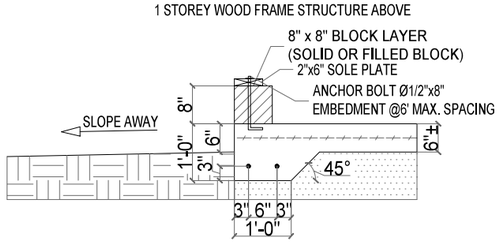
CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

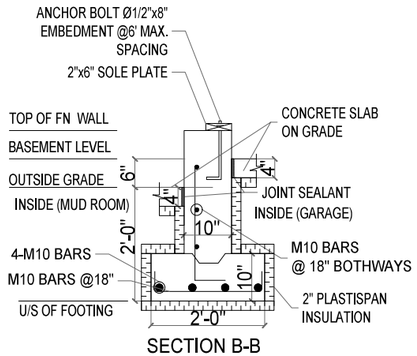
PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE:
FOUNDATION PLAN

SHEET:	SCALE:
ST-01	1/8"=1'-0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



SECTION A-A



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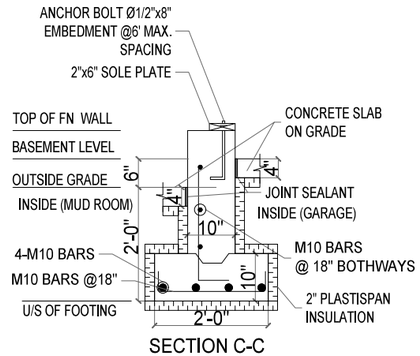

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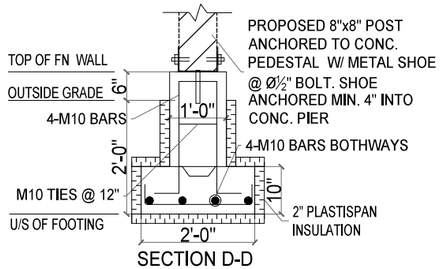


SECTION D-D

FOUNDATION NOTES :

- SLAB THICKENING 12"x12" ALL ROUND PERIMETER ON COMPACTED LEVEL GRANULAR, ON UNDISTURBED SOIL. REMOVE ALL ORGANIC MATERIALS.
- 1/2"ø A. BOLTS EMBEDDED INTO CONCRETE @ 6'c/c ± ALL AROUND PERIMETER. 2 ROWS OF 10M REBAR ALL AROUND PERIMETER WITH MINIMUM 3" OFF BOTTOM, 18" LAP LENGTHS. 6"x6"x6 GAUGE WWM THROUGHOUT SLAB WITH 3" COVER ±.
- THIS DESIGN HAS BEEN COMPLETE TO THE 2012 ONTARIO BUILDING CODE.
- BEAR SLAB ON GRANULAR FILL, 6" MINIMUM ON SOUND ORIGINAL SUBGRADE WITH 75 kPq(1500 PSF)
- CONCRETE STRENGTH TO BE 32 MPa, MINIMUM.

FOUNDATION NOTES :

- SOIL BEARING CAPACITY MUST BE SUITABLE FOR DESIGNED FOUNDATION AND BE PLACED ON VIRGIN (UNDISTURBED) SOIL.
- FOUNDATIONS AND FOOTINGS HAVE BEEN DESIGNED ON A MINIMUM SOIL BEARING CAPACITY OF 1,500 PSF.
- CONCRETE STRENGTH SHALL BE MIN. 3,000 PSI COMPRESSIVE STRENGTH AT 28 DAYS FOR ALL FOOTINGS, THICKENED SLABS AND CONCRETE SLABS NOT EXPOSED TO WEATHER. ALL CONCRETE EXPOSED TO WEATHER SHALL BE 4,650 PSI (32MPA) COMPRESSIVE STRENGTH WITH 6% +/− 1% ENTRAINED AIR. CONCRETE WORK AND PLACEMENT SHALL CONFORM TO THE LATEST SPECIFICATIONS.
- MINIMUM FOOTING DEPTH SHALL BE 24" BELOW FINISHED GRADE W/2" PLASTISPAN INSULATION
- REMOVE ALL FILL AND ORGANIC MATERIALS FROM AREAS TO RECEIVE FLOOR SLABS. PREPARE AREAS PER SOILS ENGINEER'S RECOMMENDATION.
- ALL REINFORCING BARS, DOWELS AND TIES SHALL CONFORM TO GRADE 60. REINFORCING STEEL SHALL BE CONTINUOUS AND SHALL HAVE MINIMUM 36 BAR DIAMETER LAP, UNLESS OTHERWISE SHOWN OR NOTED. ALL REINFORCING BARS SHALL BE DEFORMED.
- PROVIDE TEMPORARY BRACING AS REQUIRED TO INSURE THE STABILITY OF THE STRUCTURE UNTIL THE PERMANENT FRAMING IS IN PLACE.
- PROVIDE SILL PLATE ANCHOR BOLTS AT 6'−0" O.C. (MAX) AND 12" (MIN.) FROM END OF SILL PLATES. ANCHOR BOLTS SHALL BE 1/2" DIAMETER (MIN.) AND SHALL EXTEND 8" (MIN).
- PROVIDE RIGID INSULATION AT ALL PERIMETER SLAB ON GRADE CONDITIONS.
- WATERPROOF ALL BRICK, BLOCK AND POURED CONCRETE WALLS AT ANY LEVEL BELOW GRADE CONDITION UNLESS DIRECTED OTHERWISE BY THE SOILS
- PROVIDE 6 MIL VAPOR BARRIER UNDER ALL CONCRETE SLAB ON GRADE CONDITIONS FOR BASEMENT AREA AND ATTACHED GARAGE AREA

FOUNDATION SECTIONS

SCALE 3/8"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
01	ISSUED FOR PERMIT	NOV. 20th, 2024
REV.	DESCRIPTION	DATE

PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

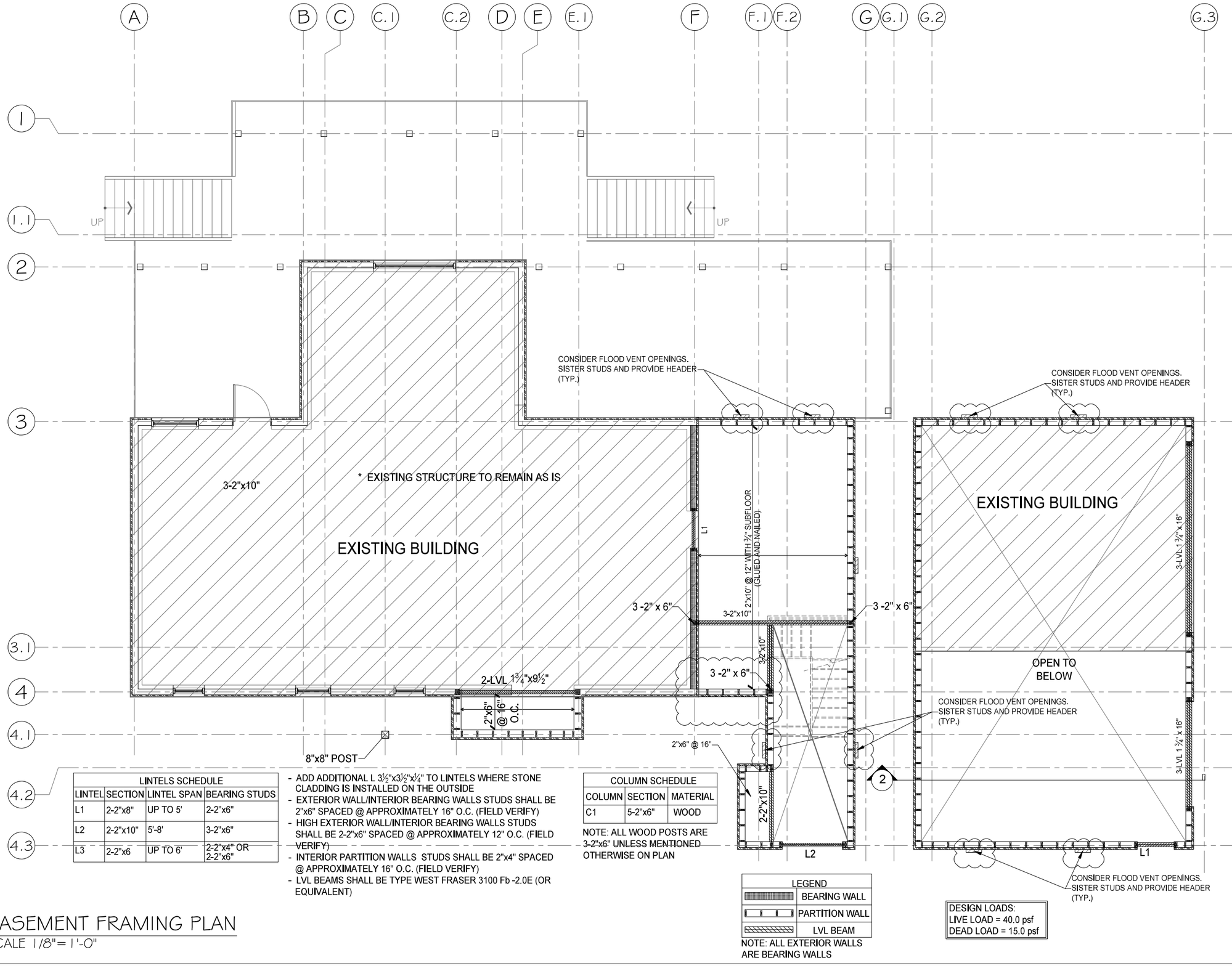
CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.profloorplans.ca

DWG TITLE:
FOUNDATION SECTIONS

SHEET:	SCALE:
ST−02	3/8"=1'−0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



LINTELS SCHEDULE			
LINTEL	SECTION	LINTEL SPAN	BEARING STUDS
L1	2-2"x8"	UP TO 5'	2-2"x6"
L2	2-2"x10"	5'-8'	3-2"x6"
L3	2-2"x6	UP TO 6'	2-2"x4" OR 2-2"x6"

- ADD ADDITIONAL L 3½"x3½"x¼" TO LINTELS WHERE STONE CLADDING IS INSTALLED ON THE OUTSIDE
- EXTERIOR WALL/INTERIOR BEARING WALLS STUDS SHALL BE 2"x6" SPACED @ APPROXIMATELY 16" O.C. (FIELD VERIFY)
- HIGH EXTERIOR WALL/INTERIOR BEARING WALLS STUDS SHALL BE 2-2"x6" SPACED @ APPROXIMATELY 12" O.C. (FIELD VERIFY)
- INTERIOR PARTITION WALLS STUDS SHALL BE 2"x4" SPACED @ APPROXIMATELY 16" O.C. (FIELD VERIFY)
- LVL BEAMS SHALL BE TYPE WEST FRASER 3100 Fb -2.0E (OR EQUIVALENT)

COLUMN SCHEDULE		
COLUMN	SECTION	MATERIAL
C1	5-2"x6"	WOOD

NOTE: ALL WOOD POSTS ARE 3-2"x6" UNLESS MENTIONED OTHERWISE ON PLAN

LEGEND	
	BEARING WALL
	PARTITION WALL
	LVL BEAM

NOTE: ALL EXTERIOR WALLS ARE BEARING WALLS

DESIGN LOADS:
LIVE LOAD = 40.0 psf
DEAD LOAD = 15.0 psf

BASEMENT FRAMING PLAN

SCALE 1/8"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
01	ISSUED FOR PERMIT	NOV. 20th, 2024

PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

CLIENT: 200 Trotter Oitment Rd, Apsley, ON

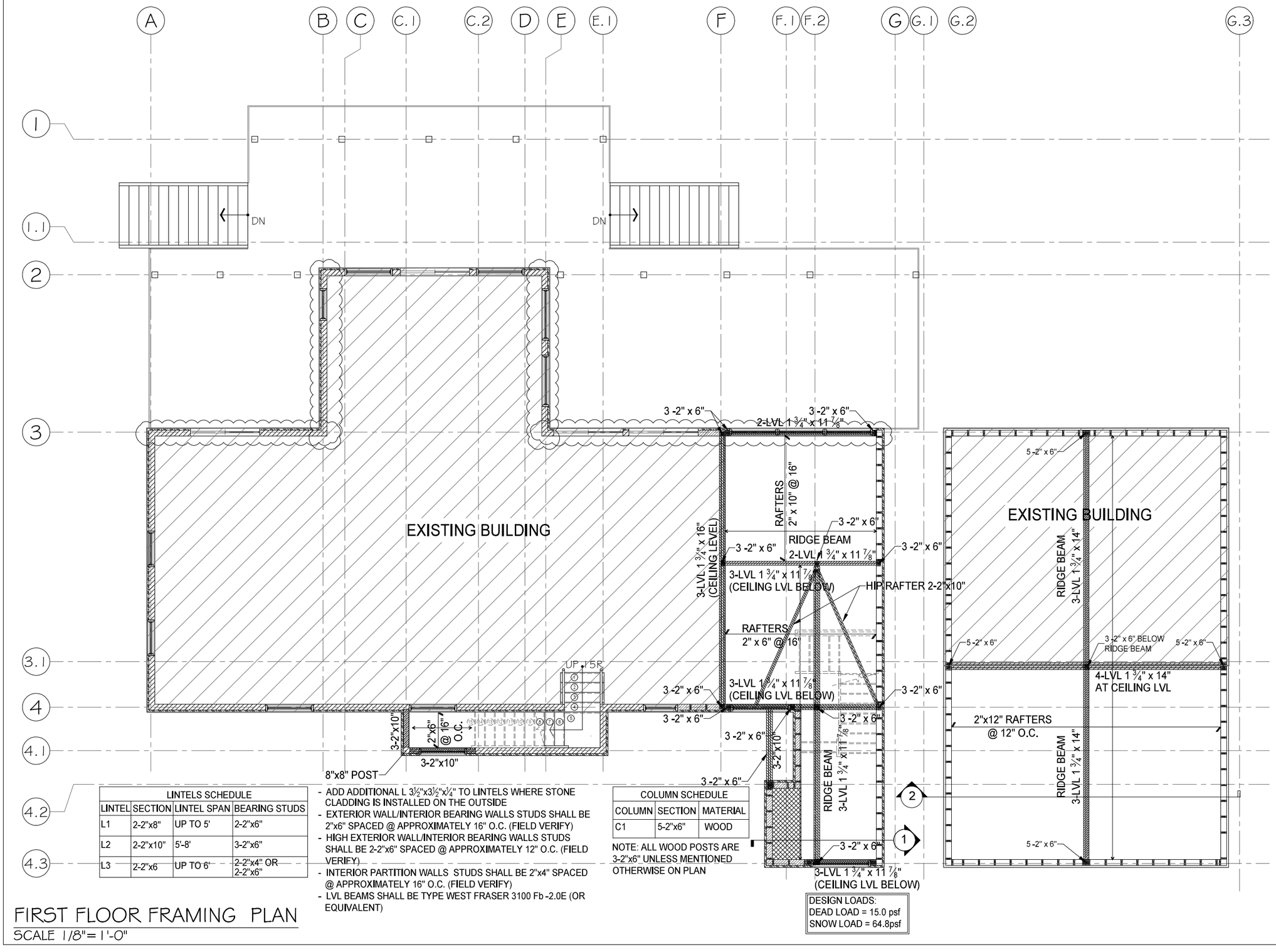
CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.proflloorplans.ca

DWG TITLE:
BASEMENT FRAMING PLAN

SHEET:	SCALE:
ST-03	1/8"=1'-0"

DRAWN:	DATE:
Zainab Khudair	JAN. 17, 2025



LINTELS SCHEDULE			
LINTEL	SECTION	LINTEL SPAN	BEARING STUDS
L1	2-2"x8"	UP TO 5'	2-2"x6"
L2	2-2"x10"	5'-8'	3-2"x6"
L3	2-2"x6	UP TO 6'	2-2"x4" OR 2-2"x6"

- ADD ADDITIONAL L 3½"x3½"x¼" TO LINTELS WHERE STONE CLADDING IS INSTALLED ON THE OUTSIDE
- EXTERIOR WALL/INTERIOR BEARING WALLS STUDS SHALL BE 2"x6" SPACED @ APPROXIMATELY 16" O.C. (FIELD VERIFY)
- HIGH EXTERIOR WALL/INTERIOR BEARING WALLS STUDS SHALL BE 2-2"x6" SPACED @ APPROXIMATELY 12" O.C. (FIELD VERIFY)
- INTERIOR PARTITION WALLS STUDS SHALL BE 2"x4" SPACED @ APPROXIMATELY 16" O.C. (FIELD VERIFY)
- LVL BEAMS SHALL BE TYPE WEST FRASER 3100 Fb -2.0E (OR EQUIVALENT)

COLUMN SCHEDULE		
COLUMN	SECTION	MATERIAL
C1	5-2"x6"	WOOD

NOTE: ALL WOOD POSTS ARE 3-2"x6" UNLESS MENTIONED OTHERWISE ON PLAN

DESIGN LOADS:
DEAD LOAD = 15.0 psf
SNOW LOAD = 64.8psf

FIRST FLOOR FRAMING PLAN

SCALE 1/8"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

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PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

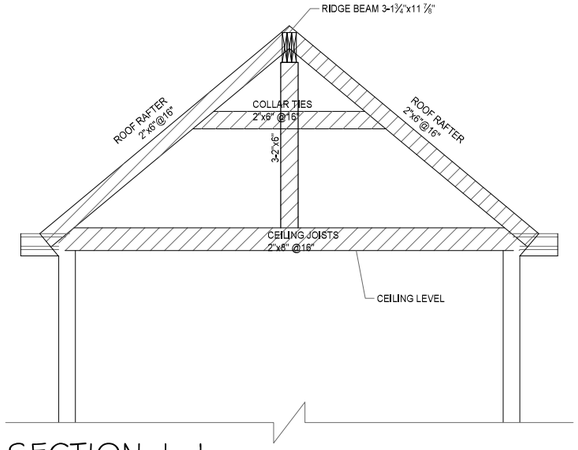
CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

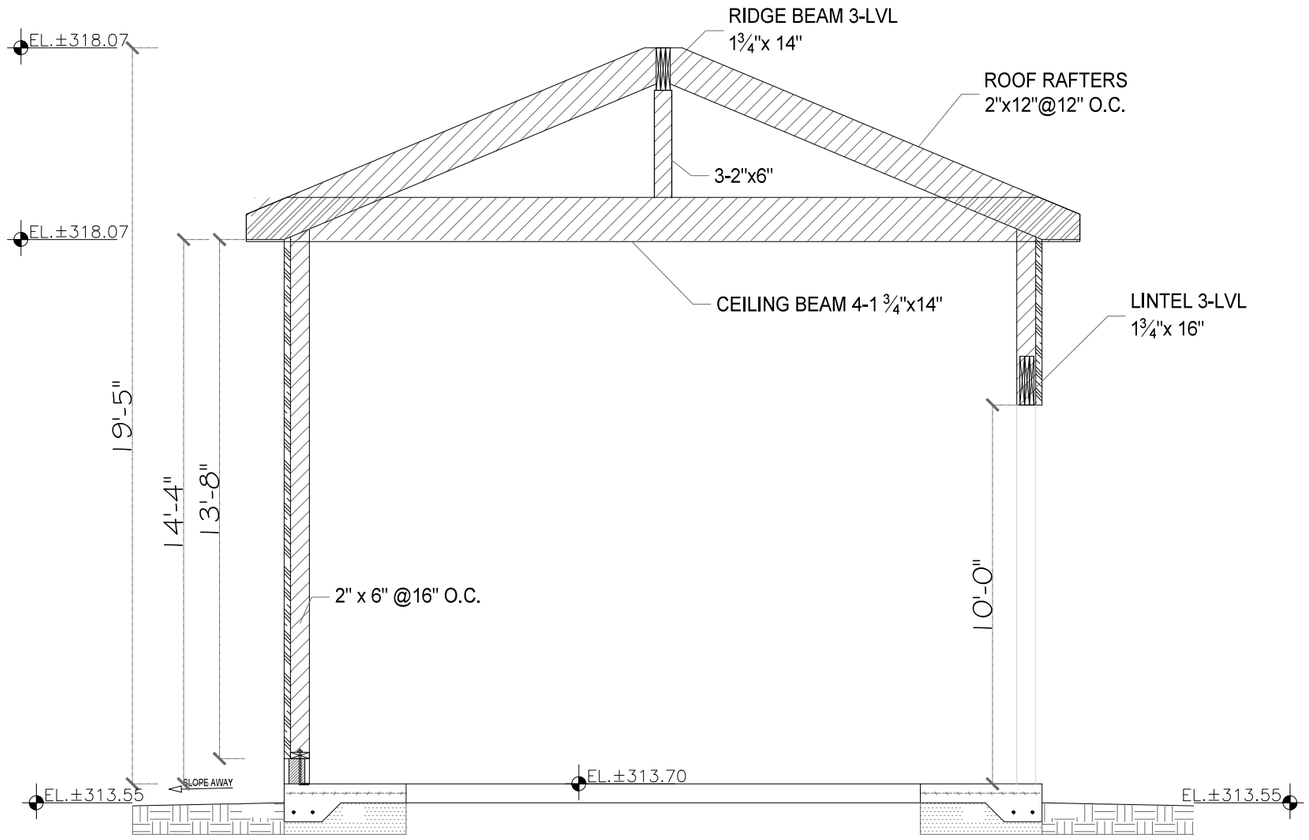
PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON, L5M7T4
www.proffloorplans.ca

DWG TITLE:
FIRST FLOOR FRAMING PLAN

SHEET:	SCALE:
ST-04	1/8"=1'-0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025



SECTION 1-1



SECTION 2-2

ROOF FRAMING SECTIONS

SCALE 3/8"= 1'-0"

KEY PLAN

LICENSED PROFESSIONAL ENGINEER
R.A.O. AL-RAWI
100162337
17 JAN 25
PROVINCE OF ONTARIO

REV.	DESCRIPTION	DATE
02	RE-ISSUED FOR PERMIT	JAN. 17th, 2025
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PROJECT:
INTERIOR ALTERATIONS/ADDITIONS

CLIENT: 200 Trotter Oitment Rd, Apsley, ON

CONSULTANT: PROFESSIONAL FLOOR PLANS INC.

PFP PROFESSIONAL FLOORPLANS
5147 Preservation Circle,
Mississauga, ON. L5M7T4
www.profloorplans.ca

DWG TITLE:
ROOF FRAMING SECTIONS

SHEET:	SCALE:
ST-05	1/4"=1'-0"
DRAWN: Zainab Khudair	DATE: JAN. 17, 2025

PROFESSIONAL FLOORPLANS
www.profloorplans.ca

PFP-2025-0206-01 **Date: 02/06/2025**

To: **Crowe Valley Conservation Authority**
Planning & Regulations
70 Hughes Lane, Marmora, Ontario, K0K 2M0
(613) 472-3137, www.crowevalley.com

Attn.: **Andrew McIntyre - Regulations Officer & Source Water Protection**
Tel: (613) 472-3137, Cell: (613) 847-0275, email: andrew.mcintyre@crowevalley.com

Re: **Permit Application 011/25**
200 Trotter Oitment Road
Part of Lot 9, Concession 10, Township of North Kawartha

Dear Mr. McIntyre,
Reference to denial letter dated February, 3rd, 2025, we would like to provide our reply/clarification as below:

The proposal is to extend the existing garage as described below:
Lot area = 4,149.36 sq,m

- Existing garage area = 46.45 sq.m (1.19% of lot area)
- Proposed garage extension area = 36.05 sq.m (0.87% of lot area)
- Proposed total garage area = 82.50 sq.m (1.99% of lot area)

Garage finished floor level = 313.70 m
Regulated flood level CGVD (2013) = 314.17 m
Garage finished floor level below regulated level = 0.47 m

The following points were carefully studied while proposing the garage extension:

Safety of public:
The garage floor is below the flood level and it is designed as a wet flood proof structure taking into consideration the following points:

- The garage is not a livable space and used for parking cars and boats.
- There are no plumbing installations inside the garage
- There are no electrical installations at the lower part of the garage that may be affected by flood.

Structural safety and stability:

The following measures were taken to ensure structural safety and stability

- Detailed structural calculations are made to confirm that the garage footings and structure are capable of resisting uplift and lateral flood forces/pressures with ample factor of safety (refer to Structural Report by PFP, Rev. 02, Jan 23rd, 2025)
- Smart vent dual function flood vent stackers will be installed within the flood level as an extra safety. These vents will be installed at an invert level of approximately 313.90m. The selected area of vents exceeds the requirements for water flow based on the area of the garage.

Adverse effect on flood level:

The proposed addition is for a non-livable space of only 0.87% of the lot area and associated with smart vents that ensure flow of flood water within the structure smoothly and will have a negligible effect on the flood levels. The proposed addition will not create a flood hazard that may adversely affect surrounding areas/properties.

We hope that the clarifications will satisfy the CVCA Watershed Advisory Board to approve the application.

Kindly feel free to contact the undersigned with any questions

Sincerely yours

Raed Al-Rawi, P. Eng.
PhD., M. Sc., B. Sc., Civil Engineering
General Manager
289-937-6442