

CONSTRUCTION NOTES

ALL CONSTRUCTION TO ADHERE TO THESE PLANS AND SPEC'S AND TO CONFORM TO THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. THESE REQUIREMENTS ARE TO BE TAKEN AS MINIMUM SPECIFICATIONS. ONT. REG. 332/12

- 1. ROOF CONSTRUCTION
 NO.210 (10.25kg/m2) ASPHALT SHINGLES, 11.1mm (7/16")
 ASPENITE SHEATHING WITH "H" CLIPS. APPROVED WOOD
 TRUSSES @ 600mm (24") O.C. MAX. APPROVED EAVES
 PROTECTION TO EXTEND 900mm (3'-0") FROM BOGE OF ROOF
 AND MIN. 300mm (12") BEYOND INNER FACE OF EXTERIOR
 WALL, (EAVES PROTECTION NOT REQ'D. FOR ROOF 8:12 OR
 GREATER) 38x89 (2"x4") TRUSS BRACING @ 1830mm (6'-0")
 O.C. AT BOTTOM CHORD. PREFIN. ALUM. EAVESTROUGH, FASCIA,
 RWL & VENTED SOFFIT. ATTIC VENTILATION 1:300 OF INSULATED
 CEILING AREA WITH 25% AT EAVES. AND 25% AT RIDGE (OBC
 9.19.1.2)
- 2. FRAME WALL CONSTRUCTION (2"x6")
 SIDING AS PER ELEVATION, APPROVED AIR BARRIER 11.1mm (7/16") EXTERIOR TYPE SHEATHING, 38x140 (2"x6") STUDS @ 400mm (16") O.C., RSI 3.87 (R22) INSULATION AND APPROVED VAPOUR BARRIER AND APPROVED CONT. AIR BARRIER, 13mm (1/2") INT. DRYWALL FINISH. SIDING TO BE MIN. 200mm (8")
- FRAME WALL CONSTRUCTION (2"x4" GARAGE WALL)
 SIDING AS PER ELEVATION, APPROVED AIR BARRIER, 38x89
 (2"x4") STUDS @ 400mm (16") O.C., [FOR CLIENT UPGRADE
 ONLY RSI 3.35 (R19) INSULATION AND APPROVED VAPOUR
 BARRIER, 13mm (1/2") INTL DRYWALL FINISH.] SIDING TO BE MIN. 200mm (8") ABOVE FIN. GRADE
- 3. BRICK VENEER CONSTRUCTION (2"x6")
 90mm (4") FACE BRICK 25mm (1") AIR SPACE,
 22x180x0.76mm (7/8"x7"x0.03") GALV. METAL TIES @ 400mm
 (16") O.C. HORIZONTAL 600mm (24") O.C. VERTICAL. APPROVED
 AIR BARRIER 11.1mm (7/16") EXTERIOR TYPE SHEATHING,
 38x140 (2"x6") STUDS @ 400mm (16") O.C., RSI 3.87 (R22)
 INSULATION AND APPROVED VAPOUR BARRIER WITH APPROVED
 CONTIN. AIR BARRIER. 13mm (1/2") INT. DRYWALL FINSH.
 PROVIDE WEEP HOLES @ 800mm (32") O.C. BOITOM COURSE
 AND OVER OPENINGS. PROVIDE THRU-WALL FLASHING UP MIN.
 150mm (6") BEHIND BUILDING PAPER. BRICK TO BE MIN.
 150mm (6") BEHIND BUILDING PAPER. BRICK TO BE MIN. 150mm (6") ABOVE FINISH GRADE.
- BRICK VENEER CONSTRUCTION (2"x4" GARAGE WALL)
 90mm (4") FACE BRICK 25mm (1") AIR SPACE,
 22x180x0.76mm (7/6"x7"x0.03") GALV. METAL TIES @ 400mm
 (16") O.C. HORIZONTAL 600mm (24") O.C. VERTICAL. APPROVED
 AIR BARRIER, 38x89 (2"x4") STUDS @ 400mm (16") O.C. [FOR
 CLIENT UPGRADE ONLY RSI 3.35 (R19) INSULATION AND
 ADDROVED VADOUR PARPIER 1.33mm (1/3") INT. DRYWALL CLIENT OFGRADE ONLY - RS 3.35 (RT9) INSUCATION AND APPROVED VAPOUR BARRIER, 13mm (1/2") INT. DRYWALL FINISH.] PROVIDE WEEP HOLES @ 800mm (32") O.C. BOTTOM COURSE AND OVER OPENINGS. PROVIDE THRU-WALL FLASHING UP MIN. 150mm (6") BEHIND BUILDING PAPER. BRICK TO BE MIN. 150MM(6") ABOVE FINISH GRADE.
- INTERIOR STUD PARTITIONS FOR BEARING PARTITIONS 38x89 (2"x4") @ 400mm (16") O.C. FOR 2 STOREYS AND 300mm (12") O.C. FOR 3 STOREYS, NON-BEARING PARTITIONS 38x89 (2"x4") @ 600mm (24") O.C. PROVIDE 38x89 (2"x4") BOTTOM PLATE AND 2/38x89 (2/2"x4") TOP PLATE. 13mm (1/2") INT. DRYWALL BOTH SIDES OF STUDS, PROVIDE 38x140 (2"x6") STUDS/PLATES WHERE NOTED.
- FOUNDATION WALL/FOOTINGS: —SEE OBC 9.15.3, 9.15.4 200mm (8") POURED CONC. FDTN. WALL 20MPO (c/w 2-15M REBAR TOP & BOTTOM) WITH BITUMENOUS DAMPPROOFING AND OPT. DRAINAGE LAYER. DRAINAGE LAYER REQ. WHEN BASEMENT INSUL. DRAINAGE LAYER. DRAINAGE LAYER REQ. WHEN BASEMENT INSUL. EXTENDS 900 (2'-11") BELOW FIN. GRADE. MAXIMUM POUR HEIGHT 2390 (7'-10") ON 500x155 (20"x6") CONTINUOUS KEYED CONC. FTG. BRACE FDTN. WALL PRIOR TO BACKFILLING. ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OR COMPACTED ENGINEERED FILL, WITH MIN. BEARING CAPACITY OF 100kPa OR GREATER. IF SOIL BEARING DOES NOT MEET MIN. CAPACITY, ENGINEERED FOOTINGS ARE REQUIRED. MAX. FLOOR LIVE LOAD OF 2.4kpa(50psf) PER FLOOR, AND MAX. LENGTH OF SUPPORTED JOISTS IS 4.9m (16'-1"). REFER TO SOILS REPORT FOR SOILS CONDITIONS AND BEARING CAPACITY.
- 100mm (4") DIA. WEEP TILE 150mm (6") CRUSHED STONE OVER 6. 100mm (4) DIA. WELL THE AND AROUND WEEPING TILES.
- BASEMENT SLAB OBC. 9.3.1.6.(1)(b) & 9.16.4.5.(1) 80mm (3")MIN. 25MPa (3600psi) CONC. SLAB ON 100mm (4") COARSE GRANULAR FILL, OR 15MPa. (2200psi) CONC. WITH DAMPPROOFING BELOW SLAB.
- (8.) EXPOSED FLOOR TO EXTERIOR PROVIDE RSI 5.46 (R31) INSULATION, APPROVED VAPOUR BARRIER AND CONTINUOUS AIR BARRIER, FINISHED SOFFIT.
- OBC. 12.3.2.1 & 12.3.3.7 ATTIC INSULATION RSI 8.81 (R60) BLOWN IN ROOF INSULATION AND APPROVED VAPOUR BARRIER, 13mm (1/2") INT. DRYWALL FINISH OR APPROVED EQUAL.
- STAIRS, STEPS, HANDRAILS -OBC. 9.8.--9.8.2.1(2) STAIR WIDTH MEASURED BETWEEN WALL FACES OR GUARDS SHALL BE NOT LESS THAN 860mm (33 🐉 FOR REQUIRED EXIT STAIRS SERVING A HOUSE OR DWELLING UNIT. -9.8.2.2(3) CLEAR HEIGHT OVER STAIRS SHALL NOT BE LESS

THAN 1950mm (76 $\frac{3}{4}$ ") -9.8.4 STEP DIMENSIONS (TABLE 9.8.4.1) MAXIMUM STAIR COMPONENT MINIMUM 125mm (4 15") 200mm (7 7") RUN 255mm (10 ½) 355mm (14")

-9.8.4.4 UNIFORMITY & TOLERANCES FOR RISERS & TREADS

-BETWEEN ADJACENT TREADS & LANDINGS = 5mm

-BETWEEN TALLEST & SHORTEST RISER IN FLIGHT=10mm

-9.8.4.6(1)(b) MAX. NOSING 25mm (1")

-9.8.7.5(1)(b) CLEARANCE BETWEEN HANDRAIL AND SURFACE BEHIND IT TO BE MIN. 50mm (1 $\frac{15}{8}$ ") -9.8.7.6(1) HANDRAILS SHALL NOT PROJECT MORE THAN 100mm (3 15") INTO REQUIRED WIDTH OF STAIR <SEE 9.8.2.1(1)>

- GUARDS -OBC. 9.8.8.3.-(1) EXT. GUARDS HEIGHT: =1070mm (42 $\frac{1}{8}$) MIN. INT GUARDS HEIGHT: =900mm (1) STAIR LANDING GUARDS: =1070mm (42 $\frac{1}{8}$ ") MIN. -9.8.8.5(1) MAX. OPENINGS THROUGH GUARDS = 100mm (3 $\frac{15}{16}$ ")
- 38x89 (2"x4") SILL PLATE WITH 13mm (1/2") DIA. ANCHOR BOLTS 200mm (8") LONG, EMBEDDED MIN. 100mm (4") INTO CONC. @ 2400mm (7'-10") O.C. USE NON-SHRINK GROUT TO IFVFI SILL PLATE WHEN REQUIRED. (SEE OBC. 9.23.7)
- -R12 (34") CONTINUOUS BATT INSULATION. 2"x4" STUD WALL PLACED 3½" AWAY FROM WALL. FILL STUD CAVITY WITH R10 BATT INSULATION. APPROVED VB TO 8" ABOVE FLOOR LEVEL.

OR

-APPROVED BLANKET INSULATION (R20) MECHANICALLY SECURED
TO CONCRETE FOUNDATION WALL WITH 100mm HILTI PINS (COMES WITH PLASTIC WASHER)

DAMPPROOF WITH BUILDING PAPER BETWEEN THE FOUNDATION WALL AND INSULATION UP TO GRADE LEVEL.

(SEE DETAIL ON "SB-12 DETAILS" PAGE)

- 14. BEARING STUD PARTITION 38x89 (2"x4") STUDS @ 400mm (16") 0.C. 38x89 (2"x4") SOKOS (2 X4) SIDUIS & 400mm (16) JOL. SOKOS (2 X4) SIDUIS & 400mm (16) JOL. SOKOS (2 X4) SILL PLATE ON DAMPPROOFING MATERIAL, 13mm (1/2") DIA. ANCHOR BOLTS 200mm (8") LONG, EMBEDDED MIN. 100mm (4") HIGH CONC. CURB ON 350x155 (14"x6") CONC. FORDING. ADD HORIZ. BLOCKING AT MID—HEIGHT IF WALL IS UNFINISHED.
- STEEL BASEMENT COLUMN (SEE O.B.C. 9.17.3.1, 9.17.3.4) 75mm (3") DIA. ADJUSTABLE STL. COL. CONFORMING TO CAN/CGSB-7.2M, AND WITH 102x150x9.5 (4"x6"x3/8") STL. PLATE TOP & BOTTOM. 910x910x300 (36"x36"x12") CONC. FOOTING ON UNDISTURBED SOIL OR ENGINEERED FILL CAPABLE OF SUSTAINING A PRESSURE OF 100 Kpg. MINIMUM AND AS PER SOILS REPORT.
- STEEL BASEMENT COLUMN (SEE O.B.C. 9.17.3.1, 9.17.3.4) 3"x3"x(.188) NON-ADJUSTABLE STL. COL. WITH 150x150x9.5 (6"x6"x3/8") STL. TOP & BOTTOM PLATE ON 910x910x300 (36"x36"x12"). CONC. FOOTING ON UNDISTURBED SOIL OR ENGINEERED FILL CAPABLE OF SUSTAINING A PRESSURE OF 100 Kpg. MIN. AND AS PER SOILS REPORT.
- STEEL COLUMN (SEE OBC. 9.17.3.1, 9.17.3.4) 3"x3"x(.188)
 NON-ADJUSTABLE STL. COL. TO BE ON 150x150x9.5
 (6"x6"x3/8") STEEL TOP PLATE, & BOTTOM PLATE. BASE PLATE 120x250x12.5 (4 1/2"x10"x1/2") WITH 2-12mm DIA. x 300mm LONG x50mm HOOK ANCHORS (2-1/2"x12"x2") FIELD WELD COL. TO BASE PLATE.
- STEEL COLUMN (SEE OBC. 9.17.3.1, 9.17.3.4) 90mm(3-1/2") DIA.X4.78mm(.188) NON-ADJUSTABLE STL. COL. TO BE ON
- BEAM POCKET OR 300x150 (12"x6") POURED CONC. NIB WALLS. MIN. BEARING 90mm (3-1/2")
- 17. STEEL BEAM. 19x64 (1"x3") CONTINUOUS WD. STRAPPING BOTH SIDES OF
- GARAGE SLAB: 100mm (4") 32MPa (4640psi) CONC. SLAB WITH 5-8% AIR ENTRAINMENT ON OPT. 100 (4") COARSE GRANULAR FILL WITH COMPACTED SUB-BASE OR COMPACTED NATIVE FILL SLOPE TO FRONT AT 1% MIN.
- 13mm (1/2") GYPSUM BD. ON WALL AND CEILING BETWEEN HOUSE AND GARAGE, RSI 3.87 (R22) IN WALLS, RSI 5.46 (R31) IN CEILING. PROVIDE APPROVED AIR BARRIER. TAPE AND SEAL ALL JOINTS AIR TIGHT.
- WOOD STEP, C/W HANDRAIL & LANDING IF MORE THAN 3 RISERS, MAX.RISE 200mm (7-7/8") MIN.TREAD 255mm (10-1/16") SEE OBC 9.8.9.2, 9.8.9.3 & 9.8.10
- CAPPED DRYER EXHAUST VENTED TO EXTERIOR. (USE 100mm(4") DIA. SMOOTH WALL VENT PIPE) OBC 6.2.3.8.(7)
- ATTIC ACCESS HATCH 545x610 (21.5"x24") WITH A MIN. AREA OF 3.44 SF WITH WEATHERSTRIPPING RSI 7.0 $^{'}(\text{R40})$ RIGID INSUL. BACKING OBC 9.19.2
- (24,) FIREPLACE CHIMNEYS -OBC. 9.21.- TOP OF FIREPLACE CHIMNEY SHALL BE 915mm (3'-0") ABOVE THE HIGHEST POINT AT WHICH IT COMES IN CONTACT WITH THE ROOF AND 610mm (2'-0") ABOVE THE ROOF SURFACE WITHIN A HORIZ. DISTANCE OF 3050mm (10'-0") FROM THE CHIMNEY.
- 25.) LINEN CLOSET, 4 SHELVES MIN. 350mm (14") DEEP.
- MECHANICAL EXHAUST FAN, VENTED TO EXTERIOR, TO PROVIDE AT LEAST ONE AIR CHANGE PER HOUR.
- STEEL BEARING PLATE FOR MASONRY WALLS 280x280x16 (11"x11"x5/8") STL PLATE FOR STL BEAMS AND 280x280x12 (11"x11"x1/2") STL PLATE FOR WOOD BEAMS BEARING ON CONC. BLOCK PARTYWALL, ANCHORED WITH 2-19mm (3/4") \times 200mm (8") LONG GALV. ANCHORS WITHIN SOLID BLOCK COURSE. LEVEL WITH NON-SHRINK GROUT.

- SOLID WOOD BEARING FOR WOOD STUD WALLS SOLID BEARING TO BE AT LEAST AS WIDE AS THE SUPPORTED MEMBER. SOLID WOOD BEARING COMPRISED OF BUILT-UP WOOD STUDS TO BE CONSTRUCTED IN ACCORDANCE WITH OBC. 9.17.4.2 (2).
- U.L.C. RATED CLASS "B" VENT 610mm (2'-0") ABOVE THE POINT IN CONTACT WITH THE ROOF FOR SLOPES UP TO 9/12, REFER TO THE ONTARIO GAS UTILIZATION CODE.
- 3-2"x6" BUILT-UP-POST ON 24"x24"x10" CONCRETE FOOTING. (SEPARATE WOOD FROM CONCRETE W/ 6mil POLY AS PER
- STEP FOOTINGS: MIN. HORIZ. STEP = 600mm (23-5/8"). MAX. VERT. STEP = 600mm (23-5/8") FOR FIRM SOILS.

OBC 9.17.4)

- PORCH SLAB/STEPS: 130 mm (5") MIN. CONC. 32 MPa SLAB AIR ENTRAINMENT MIN. 5 TO 8% AT 28 DAYS, 10 M BARS @ 250 0/C EACH WAY 10M DOWELS @400 (16") O.C. 2-15m IN THICKENED AREA FROM WALL TO SLAB ALL SIDES (SEE DETAIL)
- DIRECT VENT FURNACE TERMINAL MIN. 900mm (36") FROM A DIRECT VENT FORWACE LEMINAL MIN. 900MM (36) FROM A GAS REGULATOR. MIN. 300mm (12") ABOVE FIN. GRADE, FROM ALL OPENINGS, EXHAUST AND INTAKE VENTS. HRV INTAKE TO BE A MIN. OF 1830mm (6'-0") FROM ALL EXHAUST TERMINALS. REFER TO GAS UTILIZATION CODE.
- , DIRECT VENT GAS FIREPLACE. VENT TO BE A MINIMUM 300mm (12") FROM ANY OPENING AND ABOVE FIN. GRADE. REFER TO GAS UTILIZATION CODE.
- SUBFLOOR
 -19mm (3/4") T & G SUBFLOOR GLUED AND SCREWED TO
 ENGINEERED FLOOR JOIST SYSTEM. SUPPLY AND INSTALL BLOCKING AND OR BRIDGING IF INDICATED BY FLOOR JOIST DESIGNER (REFER TO MANUFACTURER'S LAYOUTS AND INSTALLATION INSTRUCTIONS)
- WHERE LIMITING DISTANCE IS LESS THAN 1.2M (3'-11''). WHERE THE LIMITING DISTANCE IS LESS THAN 600mm (1'-11'') THE EXPOSING FACE SHALL BE CLAD IN NON-COMBUSTIBLE MATERIAL.
- LINTEL SPECIFICATION
 ALL WINDOW AND DOOR LINTELS TO BE COMPRISED OF 2-2X10 BUILT-UP WOOD BEAM, EACH END BEARING ON P2s (UNLESS NOTED OTHERWISE)
- THE FDTN. WALL SHALL NOT BE REDUCED TO LESS THAN 90mm (3 $\frac{2}{6}$ ") THICK TO A MAX. DEPTH OF 350mm (13 $\frac{3}{4}$ ") AND SHALL BE TIED TO THE FACING MATERIAL WITH METAL TIES SPACED 200mm (8") O.C. VERTICALLY AND 900mm (36") O.C. HORIZONTALLY. FILL SPACE BETWEEN WALL AND FACING SOLID WITH MORTAR. (SEE OBC 9.15.4.7)

- 38.) CONVENTIONAL ROOF FRAMING 38x140 (2"x6") RAFTERS @ 400mm (16"0.C.), FOR MAX. 11'-7" SPAN. 38x184 (2"x8") RIDGE BOARD. 38x89 (2"x4") COLLAR TIES AT MIDSPANS. CEILING JOISTS TO BE 38x89 (2"x4") @ 400mm (16") O.C. FOR MAX. JOIST 10 BE JOKAS (2 X4) @ 400mm (16) 0.C. FOR MAX. 2831mm (9'-3") SPAN & J8X140 (2"X6") @ 400mm (16") 0.C. FOR MAX. 4450mm (14'-7") SPAN. RAFTERS FOR BUILT-UP ROOF TO BE J8X89 (2"X4") @ 600mm (24") 0.C. WITH A J8X89 (2"X4") CENTRE POST TO THE TRUSS BELOW, LATERALLY BRACED AT 1800mm (6'-0") O.C. VERTICALLY.
- TWO STOREY VOLUME SPACES FOR HIGH WALL UP TO 18'=0": CONSTRUCTION: 2"X6" SPACING AS INDICATED BLOCKING: 3 ROWS @ 4'-6" O/C \pm SHEATHING: 7/16" ASPENITE NAILING: 2" STAPLES BET. 4" AND 6" O/C ALONG STUDS

STUD SPACING WITH VARIOUS FINISHES: SIDING-METAL OR VINYL- 2"X6" @12" 0/C
STUCCO -2"X6" @16" 0/C

-2"X6" @16" 0/C -2-2"X6" @12" 0/C BRICK FULL HEIGHT 40. TYPICAL 1 HOUR RATED PARTYWALL. REFER TO DETAILS FOR TYPE AND SPECIFICATIONS.

41.) STRIP FOOTING SUPPORTING EXTERIOR WALLS –SEE OBC 9.15.3.

-ASSUMING MASONRY VENEER CONSTRUCTION, MAX. FLOOR -ASSUMING MASUNITY VENEER CONSTRUCTION, MAX. FLOOR
LIVE LOAD OF 2.4kPa. (50psf.) PER FLOOR, AND MAX. LENGTH
OF SUPPORTED FLOOR JOISTS IS 4.9m (16"-1").
THE STRIP FOOTING SIZE IS AS FOLLOWS:
2 STOREY (STANDARD) 500x155 (20"x6")
2 STOREY (WALK-OUT BASEMENT) 545x175 (22"x7") (UNLÈSS OTHERWISE NOTED ON PLAN)

EXTERIOR WALLS FOR WALK-OUT CONDITIONS THE EXTERIOR BASEMENT STUD WALL TO BE 38x140 (2"x6") STUDS @ 16" o.c. <u>OR</u> 38x89 (2"x4") STUDS @ 12"o.c.

43.\(\rightarrow\) FLASHING FOR EXT. WALL OPENINGS (0.B.C.9.27.3.8.(3))

SUMP PITS (WHERE REQ'D) SEE O.B.C. 9.14.5.2 -MUST BE SEALED AS PER 9.25.3.3.(16)

Certified Permit Document

WINDOWS:

BRICK TO 4'-0"

- MINIMUM BEDROOM WINDOW -OBC. 9.9.10. AT LEAST ONE BEDROOM WINDOW ON A GIVEN FLOOR IS TO HAVE MIN. 0.35m2 UNOBSTRUCTED GLAZED OR OPENABLE AREA WITH MIN. CLEAR WIDTH OF 380 mm (1'-3"). WINDOW GUARDS -OBC. 9.8.8.1. A GUARD IS REQUIRED WHERE THE TOP OF THE WINDOW SILL IS LOCATED
- LESS THAN 480mm (1'-7") ABOVE FIN. FLOOR AND THE DISTANCE FROM THE FIN. FLOOR TO THE ADJACENT GRADE IS GREATER THAN 1800mm (5'-11")
 ALL WINDOWS TO COMPLY WITH THERMAL RESISTANCE REQUIREMENTS STATED IN OBC 12.3.2.6. AND SB12
- PRESCRIPTIVE COMPLIANCE PACKAGE, AND OBC 9.5, 9.6, 9.7

GENERAL

- MECHANICAL VENTILATION IS REQUIRED TO PROVIDE 0.3 AIR CHANGES PER HOUR AVERAGED OVER 24 HOURS. SEE
- ALL DOWNSPOUTS TO DRAIN AWAY FROM THE BUILDINGAS PER OBC 9.26.18.2 AND MUN. STANDARDS.
 ALL WINDOW WELLS TO DRAIN TO FOOTING LEVEL PER OBC 9.14.6.3 CHECK WITH LOCAL AUTHORITY.
 PROVIDE STUD WALL REINFORCEMENT FOR FUTURE GRAB BARS IN BATHROOMS. REINF. OF STUD WALLS SHALL BE
 INSTALLED ADJACENT TO WATER CLOSETS AND SHOWER OR BATHTUB IN MAIN BATHROOM, SEE OBC 9.5.2.3.

LUMBER:

- ALL LUMBER SHALL BE SPRUCE NO.2 GRADE, UNLESS NOTED OTHERWISE.
 STUDS SHALL BE STUD GRADE SPRUCE, UNLESS NOTED OTHERWISE.
 LUMBER EXPOSED TO THE EXTERIOR TO BE SPRUCE No.2 GRADE PRESSURE TREATED OR CEDAR, UNLESS NOTED
- ALL LAMINATED VENEER LUMBER (L.V.L.) BEAMS, GIRDER TRUSSES, AND METAL HANGER CONNECTIONS SUPPORTING ROOF FRAMING TO BE DESIGNED & CERTIFIED BY TRUSS MANUF.
- LUL BEAMS SHALL BE 2.0E WS MICRO-LAM LUL (Fb=2800psi.MIN.) OR EQUIVALENT. NAIL EACH PLY OF LVL WITH 89mm (3 1/2") LONG COMMON WIRE NAILS @ 300mm (12") 0.C. STAGGERED IN 2 ROWS FOR 184, 240 & 300mm (7 1/4",9 1/2", 11 7/8") DEPTHS AND STAGGERED IN 3 ROWS FOR GREATER DEPTHS AND FOR 4 PLY MEMBERS ADD 13mm
- 1/2, 11 //8) DEPTHS AND STRUGGERED IN 3 ROWS FOR GREATER DEPTHS AND FOR 4 PET MEMBERS ADD ISMM
 (1/2") DIA. GALVANIZED BOLTS BOLTED AT MID-DEPTH OF BEAM @ 915mm (3'-0") O.C.
 PROVIDE TOP MOUNT BEAM HANGERS TYPE "SCI" MANUFACTURED BY MGA CONNECTOR LTD. Tel. (905) 642-3175 OR
 EQUAL FOR ALL LVL BEAM TO BEAM CONNECTIONS UNLESS OTHERWISE NOTED.
 JOIST HANGERS: PROVIDE METAL HANGERS FOR ALL JOISTS AND BUILT-UP WOOD MEMBERS INTERSECTING FLUSH
- JOIST HANGERS: PROVIDE METAL HANGERS FOR ALL JUISIS AND BUILT-UP WOULD MEMBERS INTERSECTING FLUSH
 BUILT-UP WOOD MEMBERS.
 WOOD FRAMING NOT TREATED WITH A WOOD PRESERVATIVE, IN CONTACT WITH CONCRETE, SHALL BE SEPARATED FROM THE
 CONCRETE BY AT LEAST 2 mil. POLYETHYLENE FILM, No. 50 (451bs.) ROLL ROOFING OR OTHER DAMPPROOFING MATERIAL,
 EXCEPT WHERE THE WOOD MEMBER IS ST LEAST 150mm (6") ABOVE THE GROUND.

STEEL:

- STRUCTURAL STEEL SHALL CONFORM TO CAN/CSA-G40-21 GRADE 300W. HOLLOW STRUCTURAL SECTIONS SHALL
- CONFORM TO CAN/CSA-G40-21 GRADE 350W CLASS "H". REINFORCING STEEL SHALL CONFORM TO CSA-G30-18M GRADE 400R.

WOOD LINTELS AND BUILT-UP WOOD BEAMS

- 2/38 x 184 (2/2" x 8") SPR.#2 3/38 x 184 (3/2" x 8") SPR.#2 4/38 x 184 (4/2" x 8") SPR.#2

- 2/38 x 235 (2/2" x 10") SPR.#2 3/38 x 235 (3/2" x 10") SPR.#2 4/38 x 235 (4/2" x 10") SPR.#2
- L5
- 2/38 x 286 (2/2" x 12") SPR.#2 3/38 x 286 (3/2" x 12") SPR.#2 4/38 x 286 (4/2" x 12") SPR.#2

LAMINATED VENEER LUMBER (LVL) BEAMS

- 2-1 3/4"x7 1/4" (2-45x184) 2-1 3/4 x/ 1/4 (2-45x184) 3-1 3/4"x7 1/4" (3-45x184) 4-1 3/4"x7 1/4" (4-45x184) 2-1 3/4"x9 1/2" (2-45x240) 3-1 3/4"x9 1/2" (3-45x240)
- LVL5
- 2-1 3/4"x11 7/8" (2-45x300) 3-1 3/4"x11 7/8" (3-45x300)

LOOSE STEEL LINTELS

- L7 90 x 90 x 6.0L (3-1/2" x 3-1/2" x 1/4"L) L8 90 x 90 x 8.0L (3-1/2" x 3-1/2" x 5/16"L) L9 100 x 90 x 8.0L (4" x 3-1/2" x 5/16"L) L10 125 x 90 x 8.0L (5" x 3-1/2" x 5/16"L) L11 125 x 90 x 10.0L (5" x 3-1/2" x 3/8"L) L12 150 x 100 x 10.0L (6"x 4" x 3/8"L)

STEEL COLUMNS (UNLESS NOTED OTHERWISE)

- TP = (1) 3" DIA. ADJ. ST. POST 2TP = (2) 3" DIA. ADJ. ST. POSTS
- HSS = 3.5"X3.5" HOLLOW STRUCTURAL SECTION STEEL POST

MASONRY VENEER LINTEL SCHEDULE [OBC2012] PROVIDE 6"MINIMUM BEARING EACH END 9.20.5.2B								
OPENINGS	LINTEL SIZE							
UP TO 8'-0"	3 1\2" x 3 1\2" x 1/4"							
8'-0" TO 8'-8"	4" x 3 1\2" x 1/4"							
8'-8" TO 10'-10"	5" x 3 1\2" x 5/16"							
10'-10" TO 11'-5"	5" x 3 1\2" x 7/16"							
11'-5" TO 11'-9"	5" x 3 1\2" x 1/2"							
11'-9" TO 12'-6"	6" x 3 1/2" x 7/16"							
12'-6" TO 13'-4"	6" x 3 1/2" x 1/2"							

LEGEND

- EXHAUST VENT
- DUPLEX OUTLET (12" HIGH) \Rightarrow
- WEATHERPROOF DUPLEX OUTLET HEAVY DUTY OUTLET
- $\bigoplus_{Q'} Q'$ POT LIGHT LIGHT FIXTURE (CEILING MOUNTED) -ф-

- SWITCH (3-WAY) ⟨O FLOOR DRAIN
 - HOSE BIB DOUBLE JOIST
- LAMINATED VENEER LUMBER POINT LOAD FROM ABOVE
- PRESSURE TREATED LUMBER G.T. GIRDER TRUSS BY ROOF TRUSS MANUF. <u>__</u>F.<u>A.</u>__ FLAT ARCH
 - CURVED ARCH

M.C. MEDICINE CABINET

DOUBLE VOLUME WALL SEE NOTE (39.) SOLID WOOD BEARING

\$€\$0 **\$**€\$0 P2 - 2 MEMBER BUILT-UP STUD P3 - 3 MEMBER BUILT-UP STUD P4 - 4 MEMBER BUILT-UP STUD P5 - 5 MEMBER BUILT-UP STUD **≅**</

NOTE: SOLID BEARING TO BE AS WIDE AS SUPPORTED MEMBER. SOLID BEARING TO BE A MINIMUM OF P2 (ONE CONTINUOUS STUD AND ONE JACK STUD, UNLESS OTHERWISE NOTED ON PLAN.)

SMOKE ALARM (AUDIBLE/VISUAL)—OBC 9.10.19.
PROVIDE 1 PER FLOOR, NEAR THE STAIRS CONNECTING THE FLOOR LEVEL. ONE PER SLEEPING ROOM, INCLUDING HALLWAYS BE CONNECTED TO AN ELECTRICAL CREQUIT AND INTERCONNECTED TO ACTIVATE ALL -9.10.19.1(2) REQUIRED SMOKE ALARMS TO HAVE A VISUAL COMPONENT

CARBON MONOXIDE ALARM (OBC 9.33.4)
WHERE A FUEL-BURNING APPLIANCE IS INSTALLED IN A DWELLING UNIT, A CARBON MONOXIDE ALARM CONFORMING TO CAN/CSA-6.19, CSA 6.19
OR UL2034 SHALL BE INSTALLED ADJACENT TO EACH SLEEPING AREA. CARBON MONOXIDE ALARM(S) SHALL BE PERMANENTLY WIRED SO THAT ITS ACTIVATION WILL ACTIVATE ALL CARBON MONOXIDE ALARMS AND BE EQUIPPED WITH AN ALARM THAT IS AUDIBLE WITHIN BEDROOMS WHEN THE INTERVENING DOORS ARE CLOSED.

SOIL GAS CONTROL (OBC 9.13.1. & 9.13.4, & SB9) PROVIDE CONSTRUCTION TO PREVENT LEAKAGE OF SOIL GAS INTO THE BUILDING WHERE REQUIRED. (SEE ALSO O.B.C. 9.1.1.7.(1)

CONTRACTOR MUST VERIFY ALL DIMENSIONS ON THE JOB AND REPORT ANY DISCREPANCY TO THE BUILDER BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE DRAWINGS, USE DIMENSIONS PROVIDED. ALL DRAWINGS TO BE USED FOR CONSTRUCTION ONLY AFTER BUILDING PERMIT HAS BEEN ISSUED.

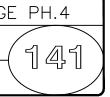


SPRINGFIELD C — 2022

SITE: WHITETAIL RIDGE PH.4

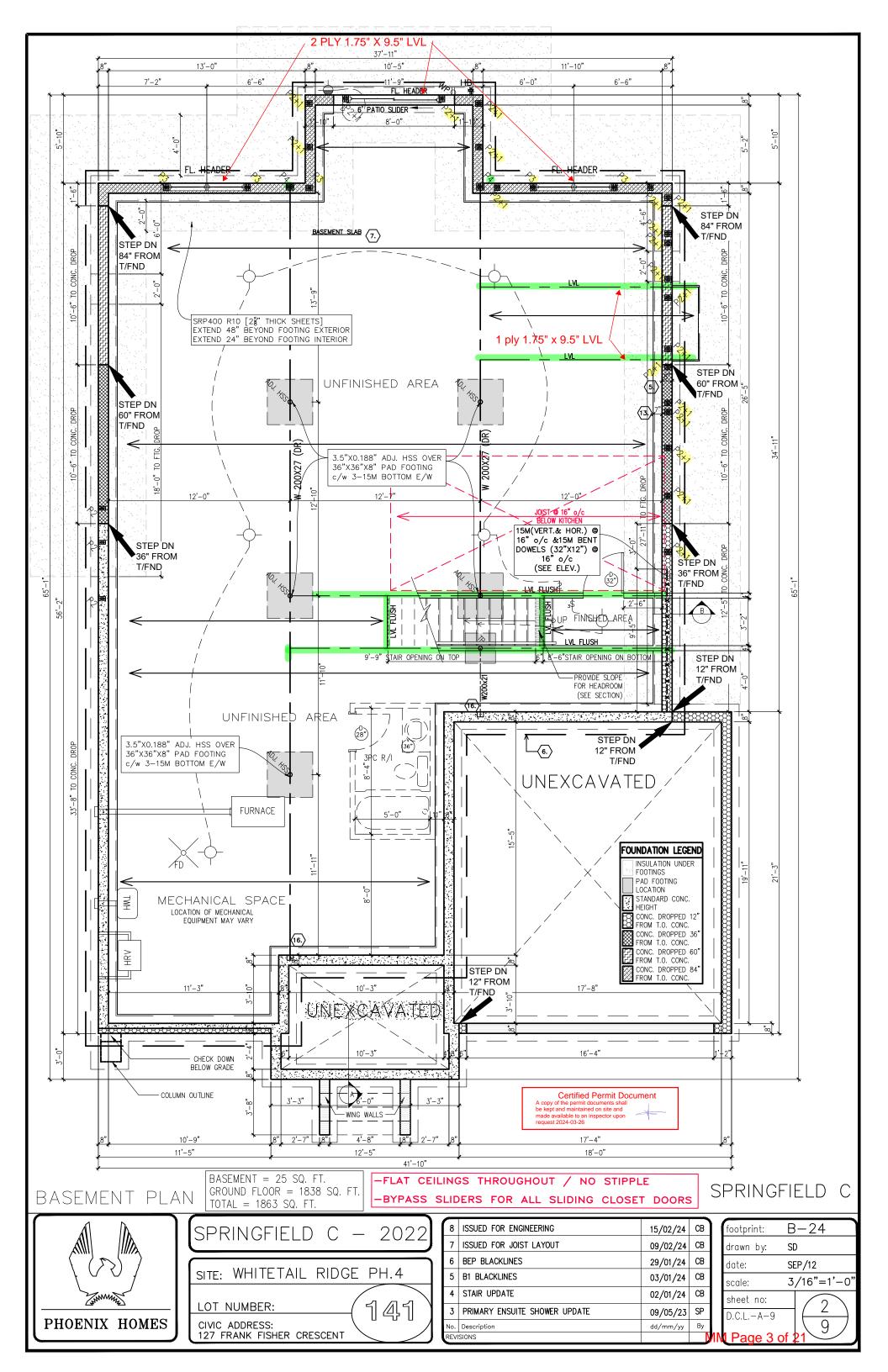
LOT NUMBER:

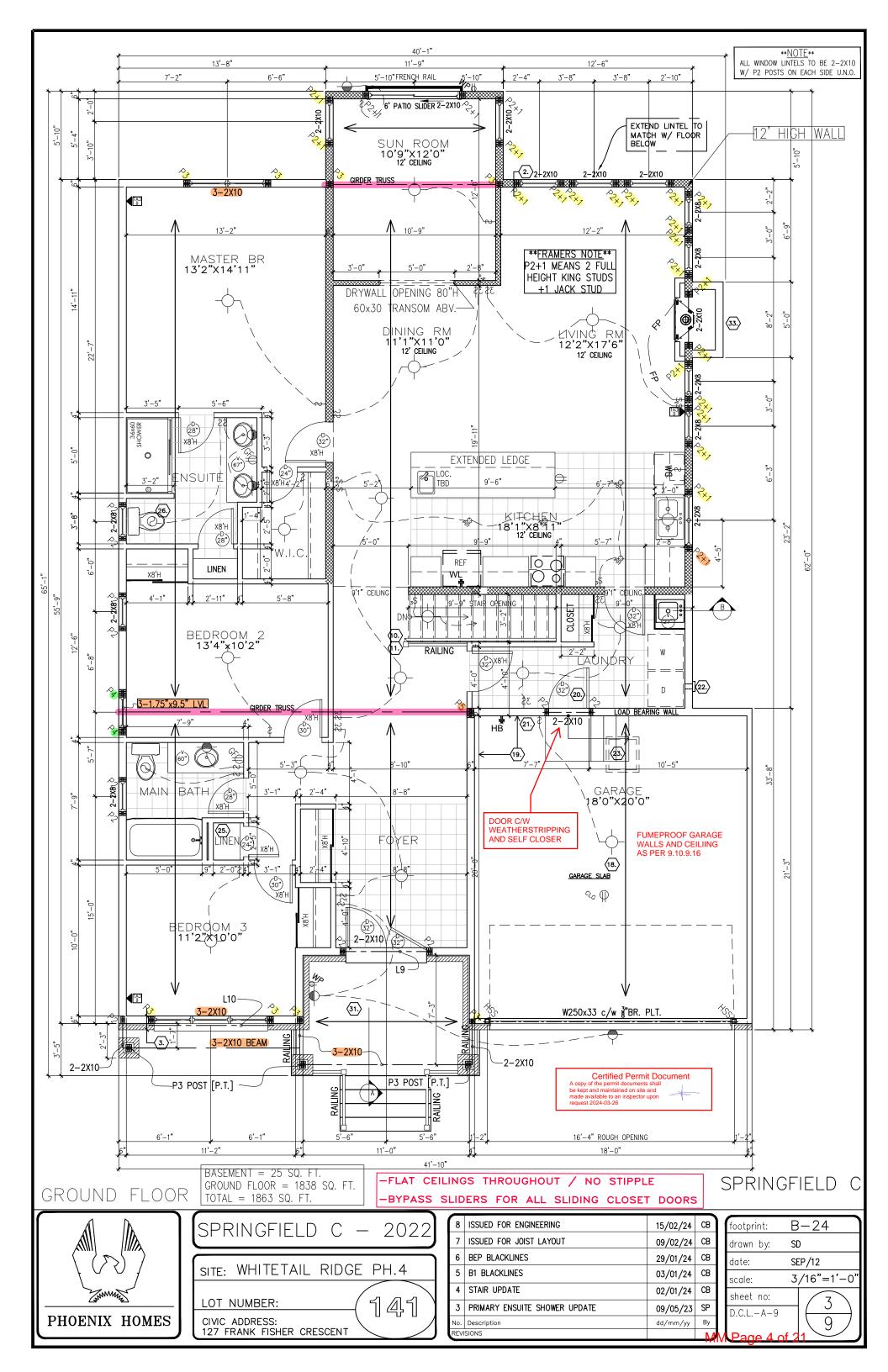
CIVIC ADDRESS: 127 FRANK FISHER CRESCENT

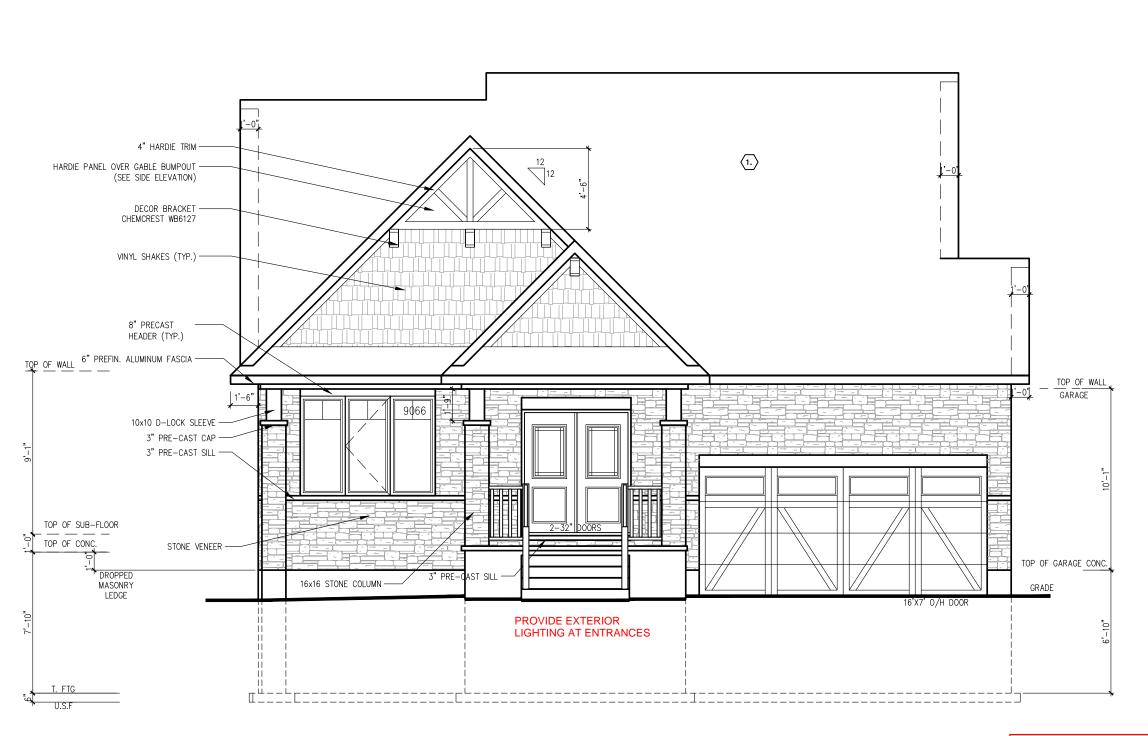


8	ISSUED FOR ENGINEERING	15/02/24	СВ
7	ISSUED FOR JOIST LAYOUT	09/02/24	СВ
6	BEP BLACKLINES	29/01/24	СВ
5	B1 BLACKLINES	03/01/24	СВ
4	STAIR UPDATE	02/01/24	СВ
3	PRIMARY ENSUITE SHOWER UPDATE	09/05/23	SP
No.	Description	dd/mm/yy	Ву
REVI	SIONS		

B - 24footprint: drawn by: SD SEP/12 3/16"=1'-0' scale: sheet no: D.C.L.-A-9 9







15/02/24 09/02/24 29/01/24 03/01/24 02/01/24 09/05/23 PRIMARY ENSUITE 8 7 8 5 4 8 S

SD SEP/12 3/16"=

8 8 8 8 8 %

B-

202 Ä. RIDGE \bigcirc SPRINGFIELD

WHITETAIL SITE: L01

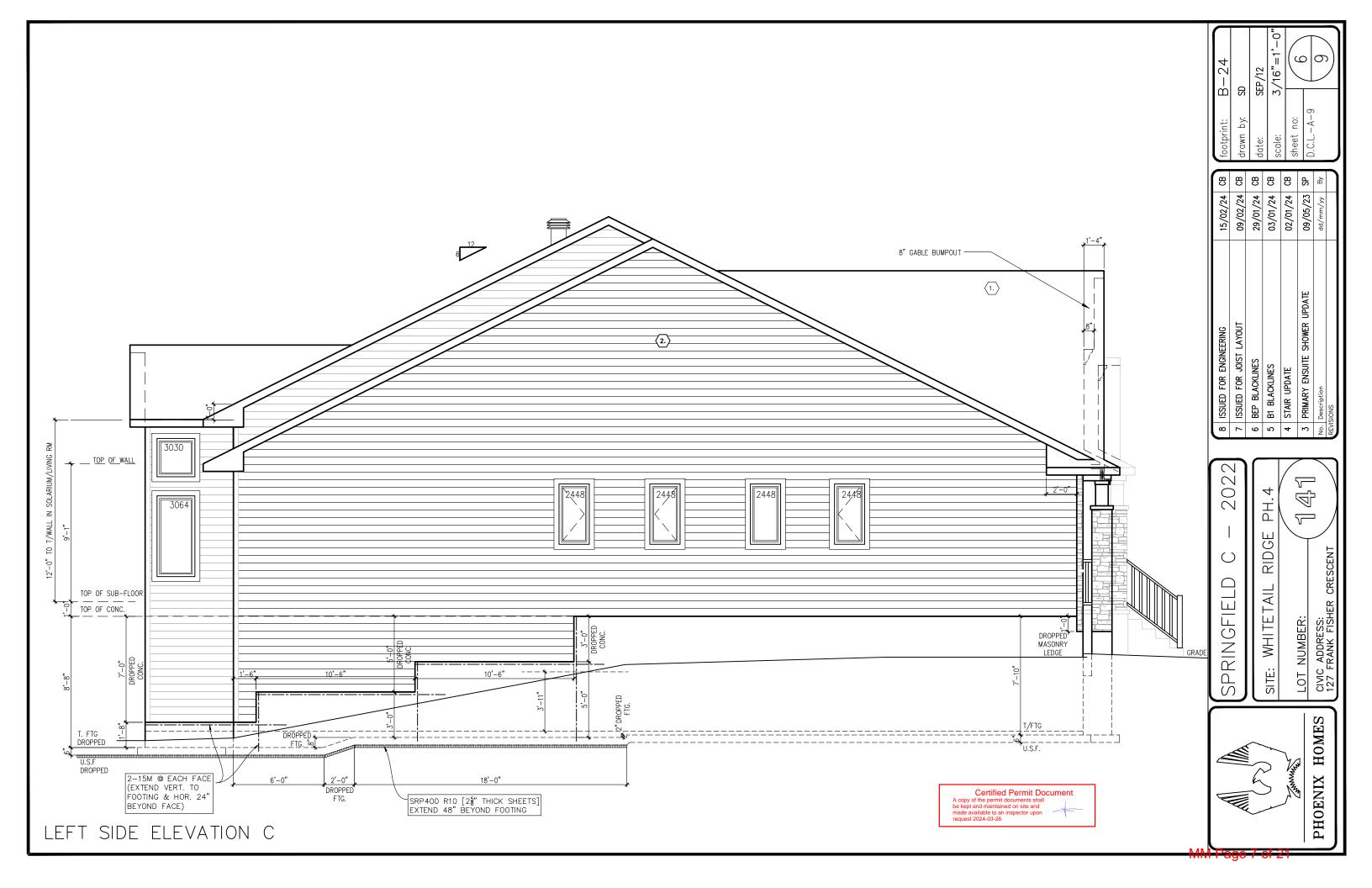
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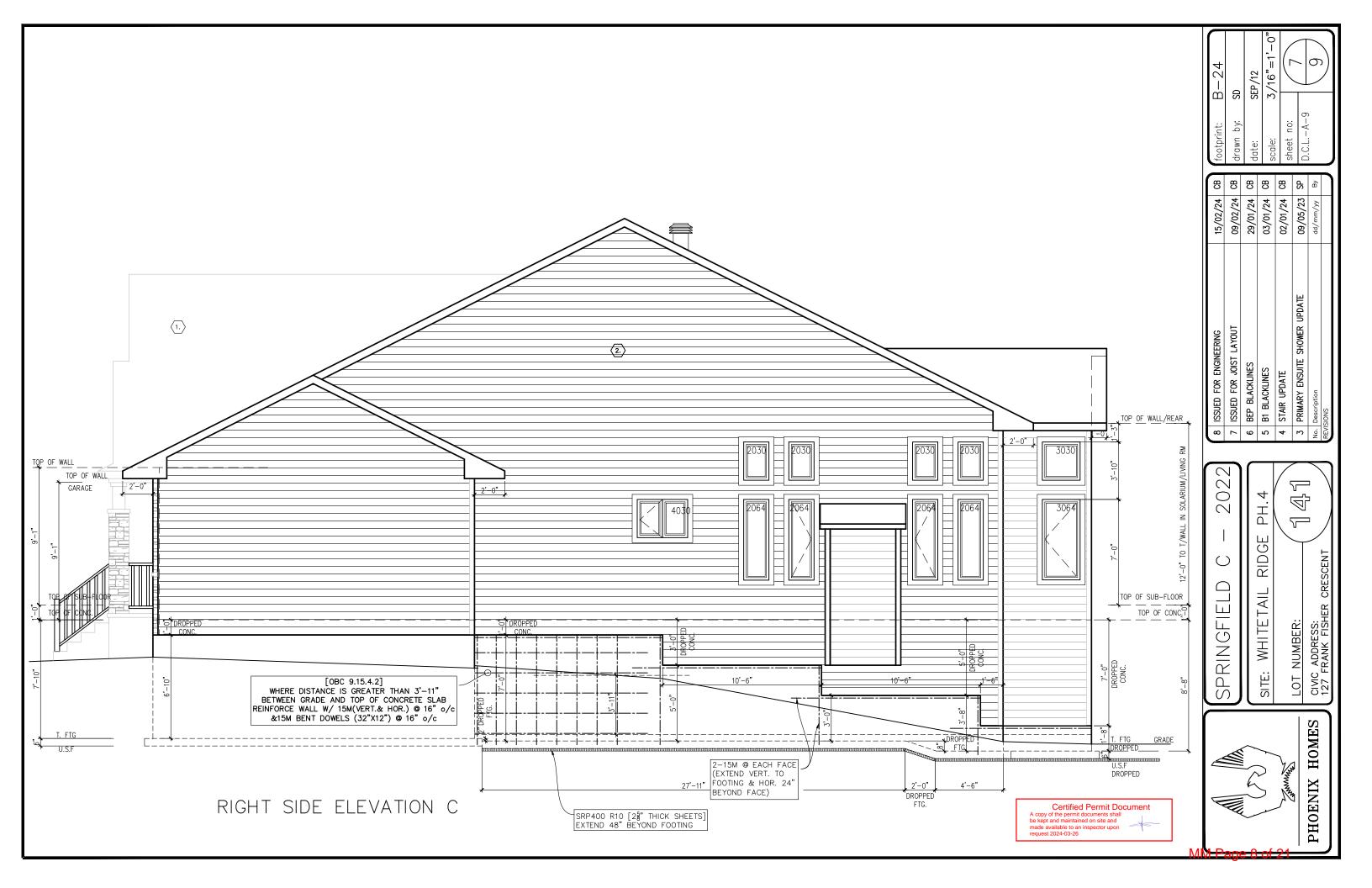
HOMES **PHOENIX**

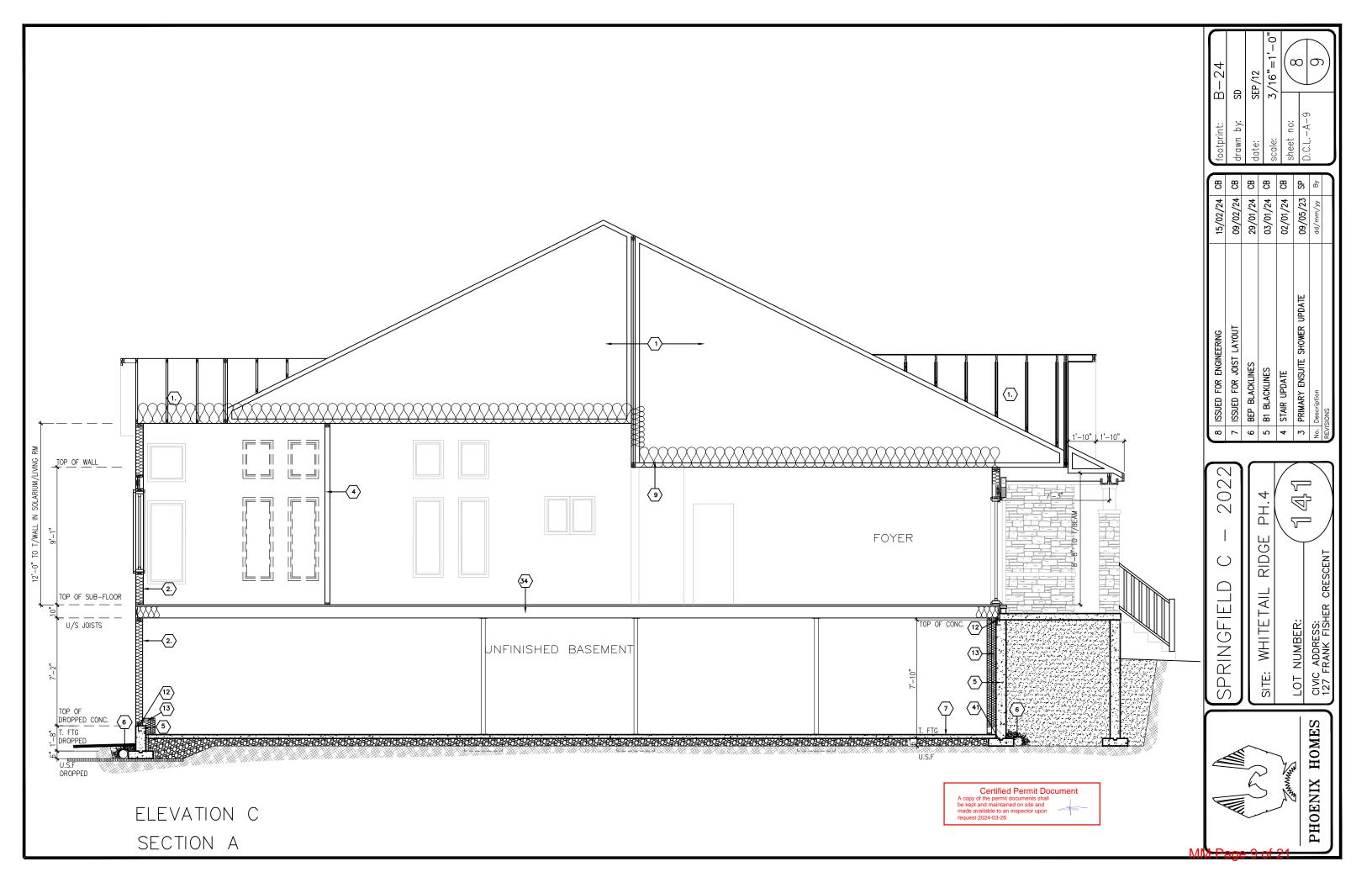
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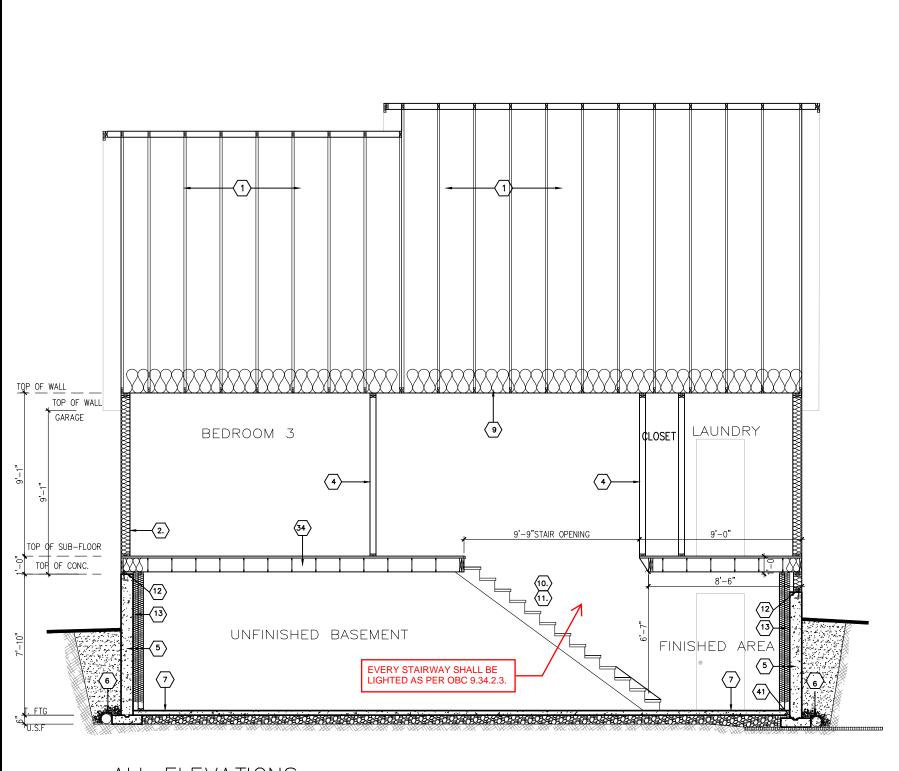
FRONT ELEVATION C











ALL ELEVATIONS SECTION B

œ	8 ISSUED FOR ENGINEERING	15/02/24	8
7	7 ISSUED FOR JOIST LAYOUT	09/02/24	æ
9	6 BEP BLACKLINES	29/01/24	8
2	5 B1 BLACKLINES	03/01/24	8
4	4 STAIR UPDATE	02/01/24	8
3	3 PRIMARY ENSUITE SHOWER UPDATE	09/05/23 SP	တ
Š.	No. Description	dd/mm/yy	8

SD SEP/12

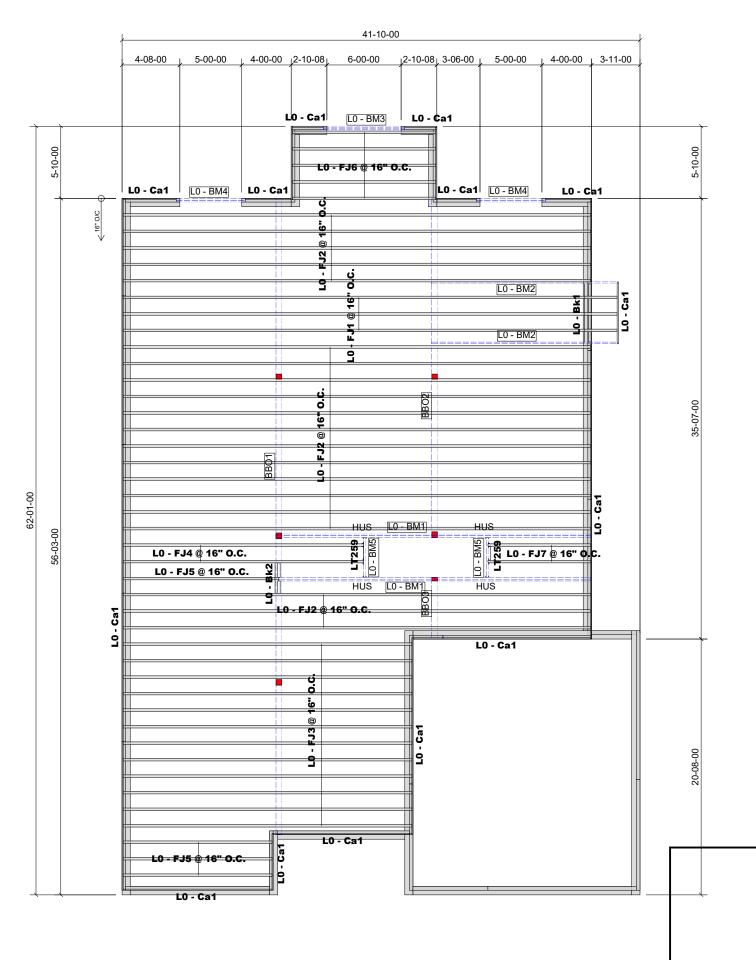
202 SPRINGFIELD

RIDGE LOT NUMBER: SITE:

PH.4

PHOENIX HOMES

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GLUED AND NAILED

LEVEL AND FLOOR CONTAINER NOTE	ES
Current Date:	2/14/2024
File Name:	WTR4-141 Springfield C.mmdl
Level Name:	1st Floor
Building Code - Design Methodology:	NBCC 2015
Floor Container:	FC1
Floor Area Loading is:	40 Live Load & 15 Dead Load
Maximum Allowed Deflection	L/480 Live Load & L/240 Total Loa

Products								
PlotID	Length	Product	Plies	Net Qty	Fab Type			
L0 - FJ1 @ 16" O.C.	40-00-00	9 1/2" NI-20	1	3	MFD			
L0 - FJ2 @ 16" O.C.	38-00-00	9 1/2" NI-20	1	20	MFD			
L0 - FJ3 @ 16" O.C.	24-00-00	9 1/2" NI-20	1	12	MFD			
L0 - FJ4 @ 16" O.C.	20-00-00	9 1/2" NI-20	1	2	MFD			
L0 - FJ5 @ 16" O.C.	13-00-00	9 1/2" NI-20	1	4	MFD			
L0 - FJ6 @ 16" O.C.	12-00-00	9 1/2" NI-20	1	5	MFD			
L0 - FJ7 @ 16" O.C.	9-00-00	9 1/2" NI-20	1	2	MFD			
L0 - BM1	26-00-00	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL	2	4	MFD			
L0 - BM2	15-00-00	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL	1	2	MFD			
L0 - BM3	7-00-00	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL	2	2	MFD			
L0 - BM4	6-00-00	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL	2	4	MFD			
L0 - BM5	4-00-00	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL	1	2	MFD			
L0 - Ca1	12-00-00	1 1/8" x 9 1/2" APA Rim Board	1	16	FF			
L0 - Bk1	5-00-00	9 1/2" NI-20	1	1	FF			
L0 - Bk2	3-00-00	9 1/2" NI-20	1	1	MFD			

		Accessories			
PlotID	Length	Product	Plies	Net Qty	Fab Type
		3/4" Plywood or OSB (23/32" APA Rated Sheathing 48/24 Exposure 1)	1	58	MFD

	Connector Summary							
Q	Qty	Manuf	Product	Skew	Supported Mtl			
4		SIMPSON	LT259	-	9 1/2" NI-20			
4		SIMPSON	HUS18110	-	1 3/4" x 9 1/2" (2.0E 3100) WestFraser LVL			

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THIS DESIGN COMPLIES WITH:

- PART 4 OR 9 OF OBC 2012 Reg. 332/12 (Jan 2020 Amendment) NORDIC LAM CCMC: 13216-R NORDIC JOISTS CCMC: 13032-R WEST FRASER CCMC: 12904

(REFER TO INDIVIDUAL FLOOR DRAWINGS PLAN. FOR SPECIFIC LOADS & SPACING) - BLOOK

FLOOR NOTES:

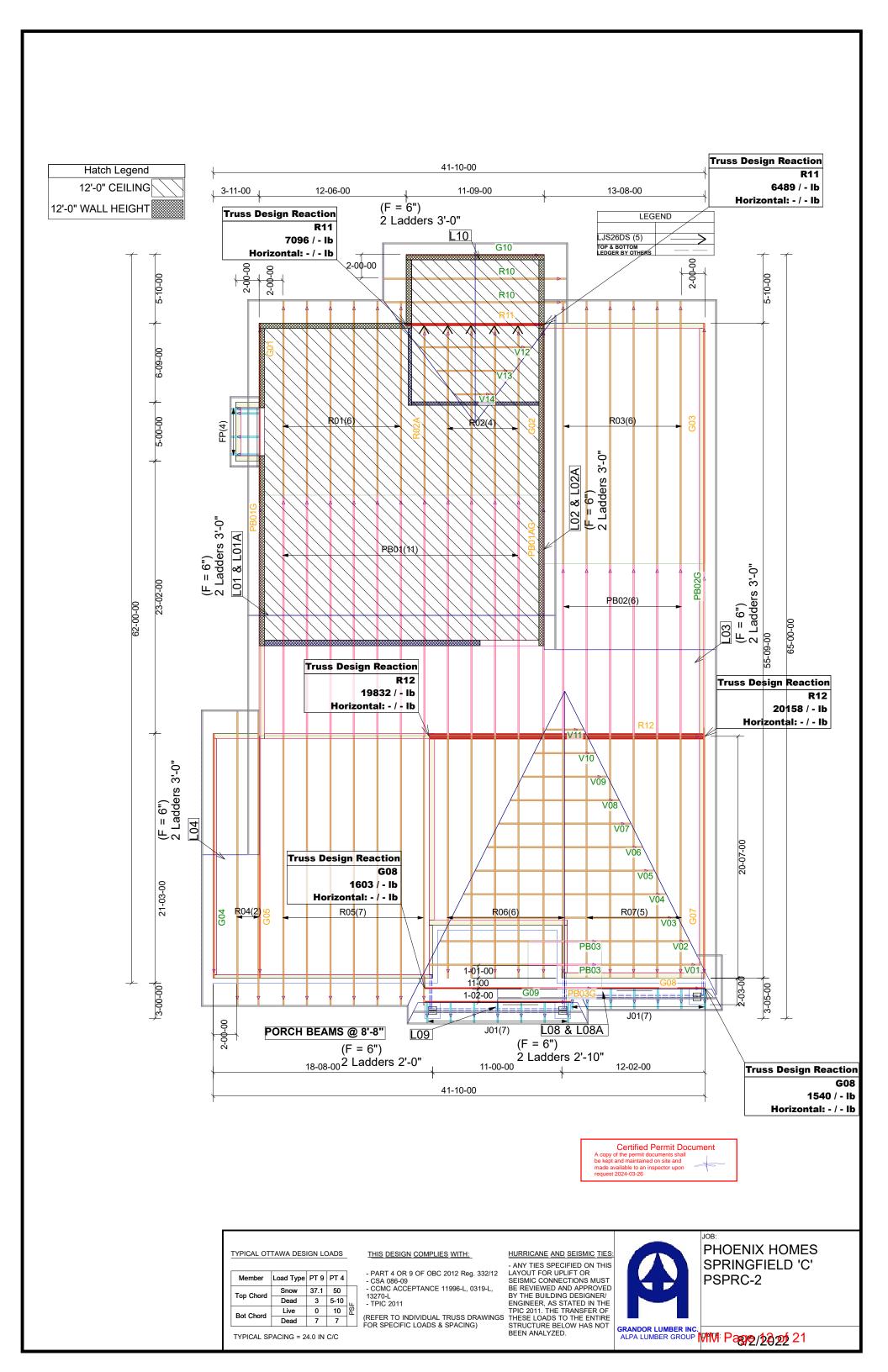
- FLOOR JOIST SYSTEMS ABOVE THE GARAGE HAS BEEN DESIGNED WITHOUT A DIRECTLY APPLIED CEILING.
 USE APPLICABLE BLOCKING OR AS INDICATED ON THE FRAMING

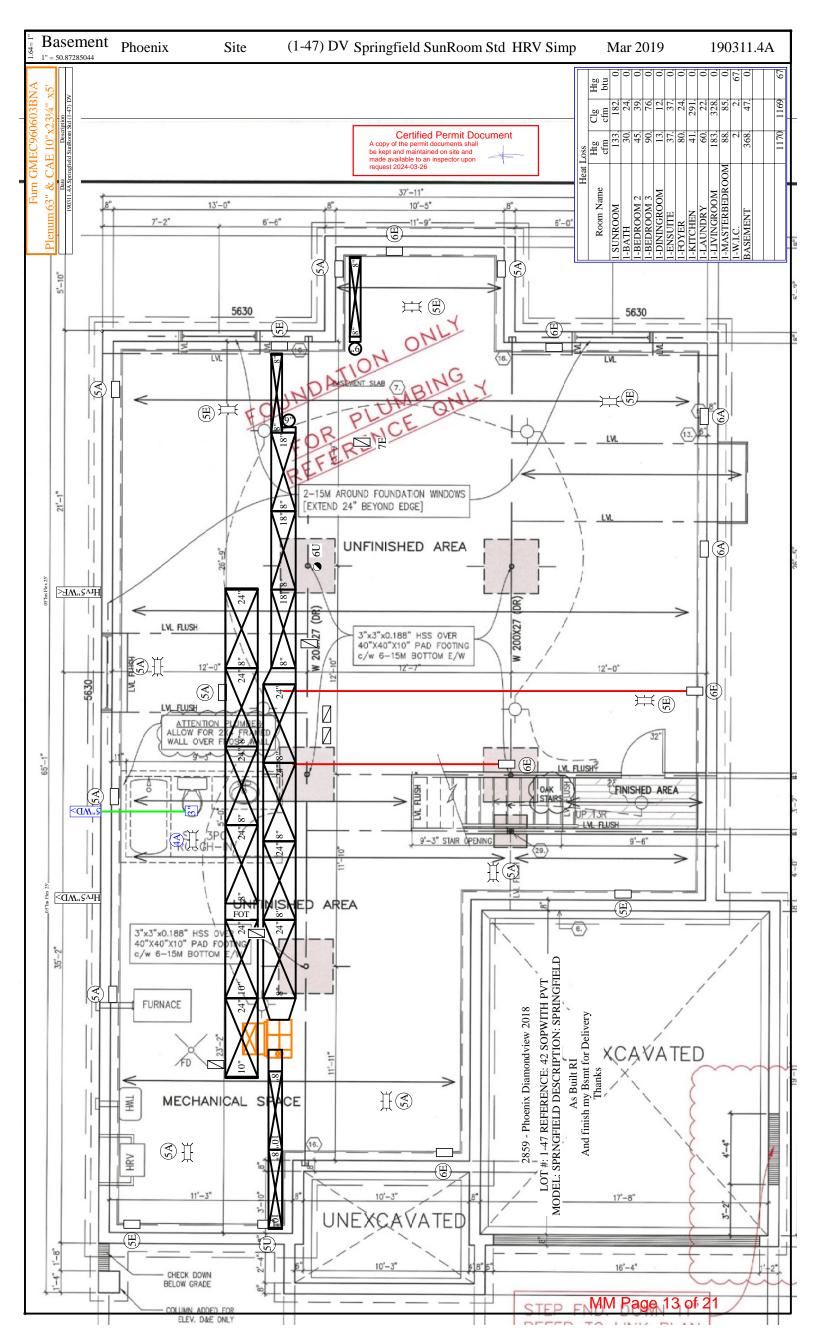


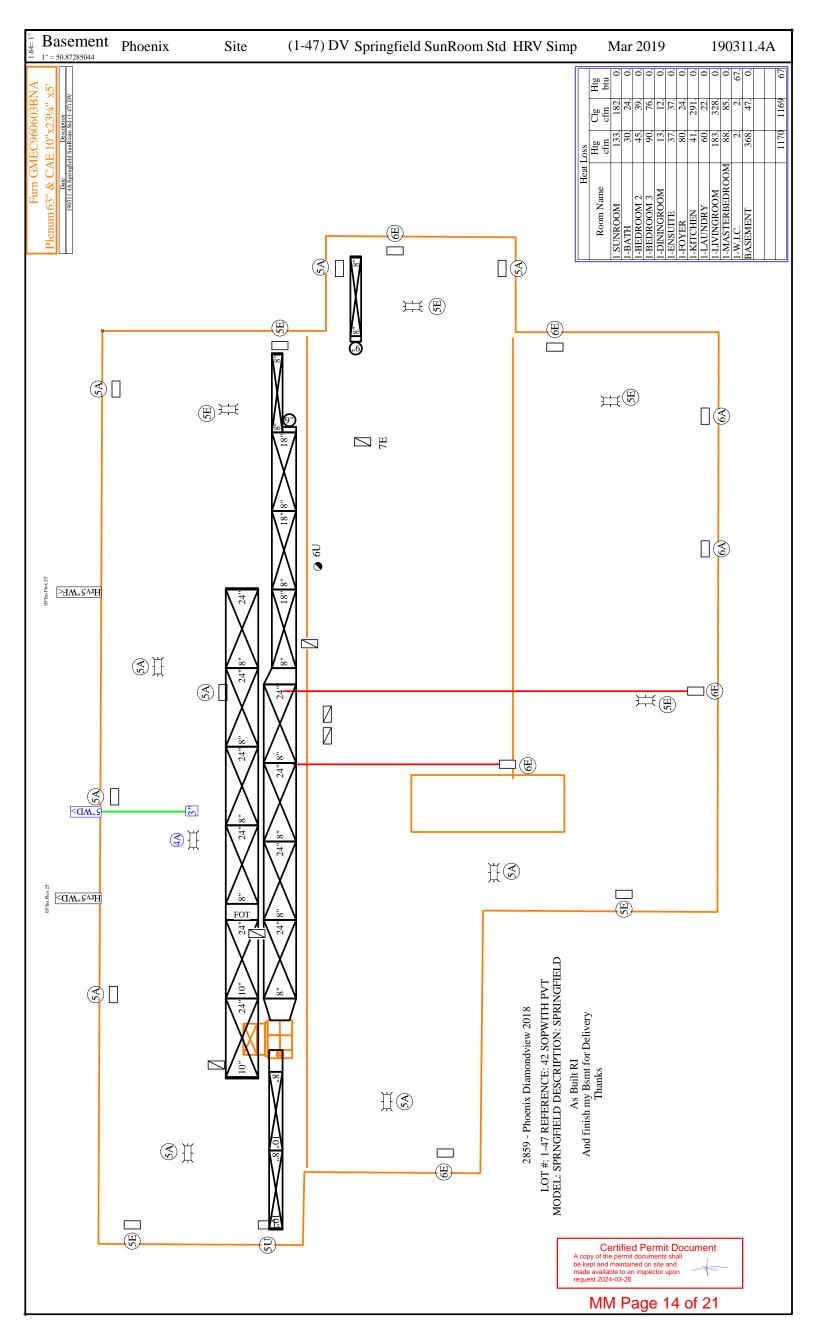
PHOENIX HOMES WHITETAIL RIDGE WTR4-141 SPRINGFIELD C W/ SUNROOM

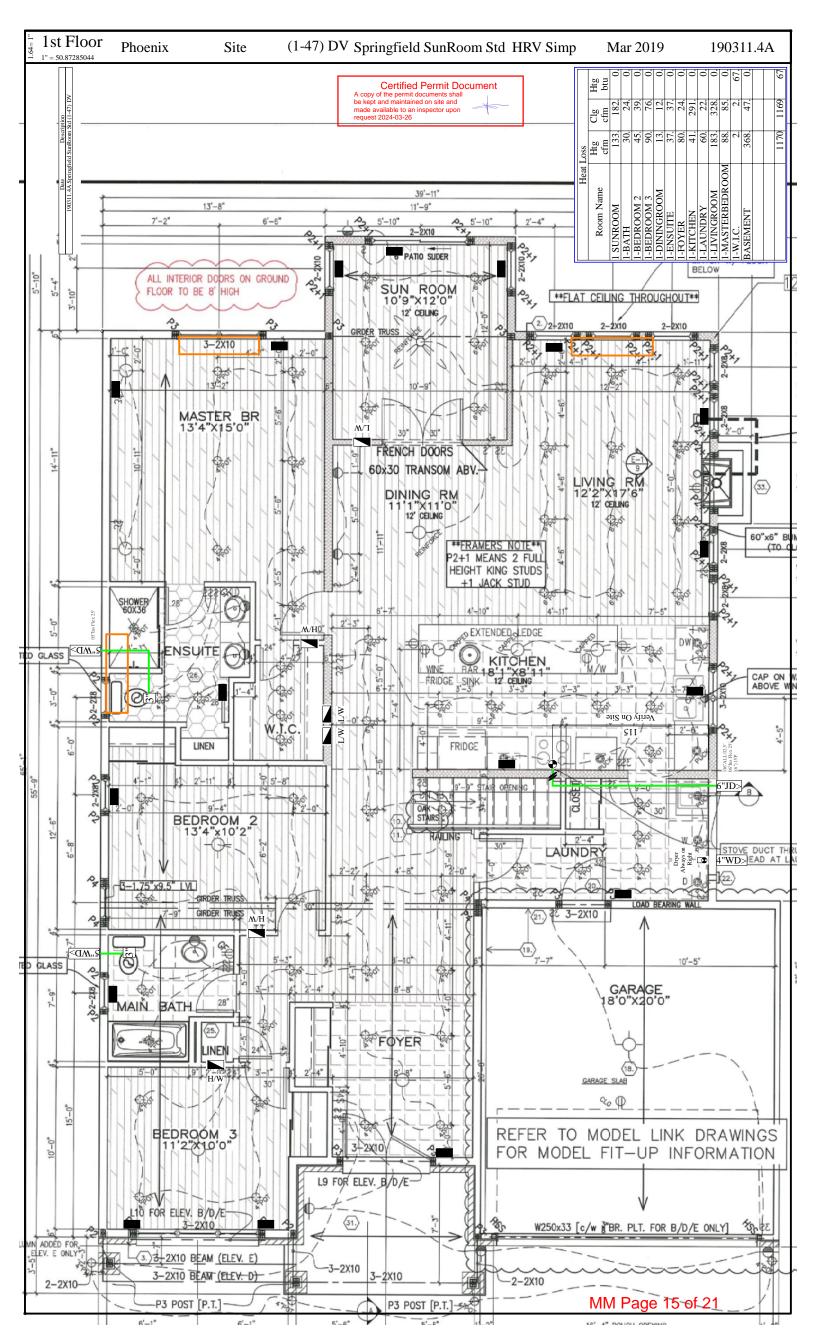
SPLAN.
- BLOCKING MATERIAL WILL BE SUPPLIED AND INDICATED AS "BLOCKING", NO LONGER ONLY 12' LENGTHS.

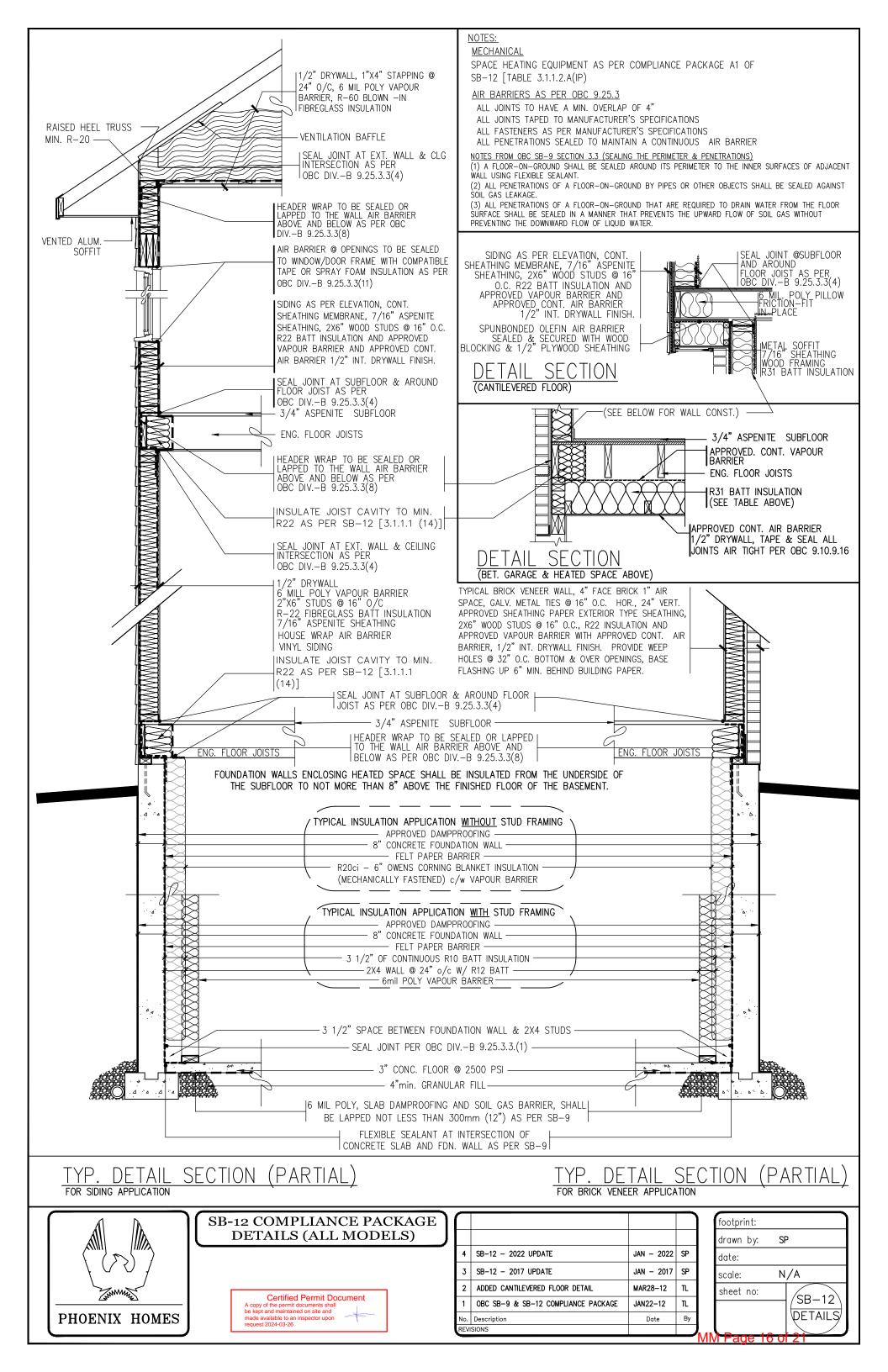
GRANDOR LUMBER INC. ALPA LUMBER GROUP 15' PAGE 410' 20' 14' 1











Energy Efficiency Design Summary: Prescriptive Method (Building Code Part 9, Residential)

This form is used by a designer to demonstrate that the energy efficiency design of a house complies with the building code using the prescriptive method described in Subsection 3.1.1. of SB-12. This form is applicable where the ratio of gross area of windows/sidelights/skylights/glazing in doors and sliding glass doors to the gross area of peripheral walls is not more than 22%.

For use by Principal Authority								
Application No:					Certification Number			
A. Project Information	1					Unit number		/Con]
127 Fr	ank Fis	her Cresc	ent			Onithumber	14	
Municipality		Postaro	code		an number / other descripti	on		
Mississippi Mills				27M	-4/			
B. Prescriptive Con	npliance	indicate the	building code co	ompliance	package being employ	yed in this house o	design]	
SB-12 Prescriptive (inpu	ıt design p	ackage): P	ackage: <u>A1</u>		Table	: 3.1.1.2.A(IF	<u>P)</u>	
C. Project Design Cor	nditions							
Climatic Zone (SB-1):			uipment Effi	ciency	Space Heating F	uel Source		
■ Zone 1 (< 5000 degree days		■ ≥ 92% AF				□ Propane		olid Fuel
□ Zone 2 (≥ 5000 degree days	-	□ ≥ 84% < 9				□ Electric	□ Ea	arth Energy
Ratio of Windows, Skylights	& Glass	(W, S & G) to	Wall Area		Other Building C			
Area of walls = $_{m^2 \text{ or } 32}$	212 42		40.4		□ Log/Post&Beam			□ ICF Basement
Alea of walls =fill of		W, S & G	% = <u>13.1</u>		□ Slab-on-ground□ Air Conditioning			
		l Milima voimalavo		/ =N-	☐ Air Conditioning			
Area of W, S & G =m ² or	421 ft ²	Utilize Window	averaging: \[\text{\tint{\text{\tett{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tin}\text{\tex{\tex	res ≣No	☐ Ground Sourced			
D. Building Specificat	ions [pro	vide values an	d ratings of the	energy eff	iciency components p	roposed]		
Energy Efficiency Subst	itutions							
□ ICF (3.1.1.2.(5) & (6) / 3.1.1	.3.(5) & (6	3))		ns on a successor	2 (4 15 ± 4 17 ± 20 ± 20 ± 20 ± 20 ± 20 ± 20 ± 20 ± 2			
□ Combined space heating ar			tina systems (3.1.1.2.(7) / 3.1.1.3.(7))			
			9 -,		.,,			
□ Airtightness substitution(s)	- Toble 2	111P Pos	uirod:		Dormitte	ad Cubatitution		
Airtightness test required	□ Table 3.	1.1.4.D Rec	.1.4.B Required: Permitted Substitution:					
(Refer to Design Guide Attached)	□ Table 3.	1.1.4.C Red	quired:		Permitte	ed Substitution:_		
		Required:			Permitted Substitution:			
Building Componen	t		SI / R values n U-Value ⁽¹⁾		Building Compo	nent	Effici	ency Ratings
Thermal Insulation		Nominal	Effective	Windo	ws & Doors Provide	de U-Value ⁽¹⁾ or ER	rating	
Ceiling with Attic Space		R60		Windov	vs/Sliding Glass D	oors .	25	
Ceiling without Attic Space	R31		Skylights/Glazed Roofs		0.49			
Exposed Floor		R31		Mechanicals				
Walls Above Grade		R22		Heating Equip.(AFUE)			96%	
Basement Walls			R21.12	HRV Efficiency (SRE% at 0°C)		75%		
Slab (all >600mm below grade)			DHW H	leater (EF)		0.8		
Slab (edge only ≤600mm below g	R10		DWHR	(CSA B55.1 (min. 429	% efficiency))		# Showers_1	
Slab (all ≤600mm below grade, or	R10		Combin	ed Heating Systen	n	NO		
(1) U value to be provided in either W/(m²•K) or Btu/(h•ft²•F) but not both.								
E. Designer(s) [name(s) 8	& BCIN(s),	if applicable, of	f person(s) prov	iding infon	mation herein to subst	antiate that design	meets the	e building code]
Qualified Designer Declaratio	n of design	er to have revie	ewed and take	esponsibi	lity for the design work	ς.		,

BCIN

46674

Catherine Buck Form authorized by OHBA, OBOA, LMCBO. Revised December 1, 2016.

Name

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Signature

210 Prescott Street P.O. Box 189 Kemptville, Ontario K0G 1J0 Civil • Geotechnical •

Structural • Environmental •

Hydrogeology •

(613) 860-0923

FAX: (613) 258-0475

February 15, 2024

Kollaard File # 240020 - LOT141

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Phoenix Homes 18A Bentley Avenue Ottawa, Ontario K2E 6T8

Attn: Catherine Buck Tel: 613-723-9227 x 191

Email: CBuck@phoenixhomes.ca

Re: Proposed Single Family Dwelling, 127 Frank Fisher Crescent, Lot # 141 White Tail Ridge, Arnprior, Kollaard Associates File # 240020

With regard to structural issues only, Kollaard Associates has reviewed the following drawings:

- Phoenix Homes, Lot # 141 White Tail Ridge, Pages # 1 to 9, Dated 15/02/2024
- Grandor Lumber Inc., Roof Truss Layout, Springfield 'C', Dated 08/02/2022
- Grandor Lumber Inc., 1st Floor Joist Layout, Springfield C w/ Sunroom, Dated 2024/02/14

Kollaard Associates offers the following comments:

Ground Floor Plan - Pages # 3:

- 1. It is the opinion of Kollaard Associates that the proposed beams, lintels and supporting posts shown on Phoenix Homes Pages # 3 are adequate.
- 2. The proposed tall wall construction (including posts supporting lintels within the tall wall) noted on Phoenix Homes Pages # 1 is adequate.
- 3. Posts supporting girders may consist of built up 2x6 posts as indicated on Phoenix Homes Pages # 3 and are laterally supported by plywood or OSB sheathing (i.e. posts form part of sheathed exterior walls unless noted).
- 4. Truss design is by others.

Basement Plan - Pages # 2:

5. It is the opinion of Kollaard Associates that the proposed steel beams, steel posts and built-up wood posts shown on Phoenix Homes Pages # 2 are adequate.





- 6. The front porch slab reinforcement described on Phoenix Homes Pages # 1 is adequate.
- 7. The proposed 7'-10" high foundation walls conform to 2012 OBC Table 9.15.4.2.A. ensuring the grade difference between the basement slab and the exterior finished grade (including the garage slab) does not exceed 7'-6½".
- 8. The reduction in foundation wall thickness for the installation of the masonry veneer is to be as per 2012 OBC 9.15.4.7.(2).
- 9. The proposed stepped down foundation walls with framed knee walls above conform to 2012 OBC Table 9.15.4.2.A. ensuring the grade difference between the basement slab and the exterior finished grade does not exceed 3'-11".
- 10. Where the grade difference between the basement slab and the exterior finished grade exceeds 3'-11" along the right side, the proposed foundation reinforcement noted on Phoenix Homes Pages # 7 is adequate to withstand the lateral earth pressures.
- 11. The strip footings and proposed interior pad footings shown on Phoenix Homes Page # 2 and noted on Phoenix Homes Page # 1 are adequate.
- 12. Floor joist design, flush LVL beams/lintels within the floor structure and LVL lintels are by the manufacturer. The posts supporting the flush LVL beams/lintels shown on Phoenix Homes Pages # 2 are adequate.

General Notes:

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- 13. All gravity loads to be carried to foundation through solid blocking.
- 14. Truss design is by others.
- 15. Floor joist design, flush LVL beams within the floor structure and LVL lintels are by the manufacturer.
- 16. The self supporting stairs are to be designed by the stair manufacturer.
- 17. All dimension lumber, except non-load bearing 8 ft 2x6 studs to be No.2 grade SPF or better.
- 18. Non-load bearing 8 ft 2x6 studs to be No.3 or Stud grade SPF or better.
- 19. All guards to be as per OBC SB-7, unless otherwise mentioned and designed by others.
- 20. All brick lintels to be as per OBC Table 9.20.5.2.B.
- 21. Unless otherwise noted, LVL to be 1.8E 3000Fb LVL (Canadian Limit States bending strength of at least 39.5 MPa) with 1¾" nominal width or better.
- 22. Pemco Steel adjustable posts are designed and approved by the manufacturer. The adjustable steel posts are designed for a maximum allowable load of 106.8 kN at a max. height of 9'-3".
- 23. All 3" x 3" x 3/16" HSS posts c/w 6" x 6" x 3/8" top and bottom bearing plates.
- 24. The assumed allowable soil bearing resistance of 100 kPa is to be verified prior to construction.



- 25. Note that the truss manufacturer/floor joist supplier has sized the flush LVL beams and girder trusses shown on the building drawings. The comments provided by Kollaard Associates in this report are based in part on the design indicated in the truss and floor layouts. If a different truss and/or floor layout is used in construction, comments made in this report may no longer be valid. Provide Kollaard Associates with the full truss package prior to construction.
- 26. Comments provided in this report are made in consideration of Part 9 and Part 4 (where applicable) of the 2012 OBC as amended.
- 27. This report constitutes a review of the structural information indicated on the building plans cited in this report for the client indicated above.

We trust this letter provides sufficient information for your present purposes. If you have any questions concerning this letter please do not hesitate to contact our office.

Sincerely, Kollaard Associates Inc.



Christopher Cogliati, P.Eng.

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