

# **Building Services Division** (905) 771-8810 Fax. (905) 771-5445

City of Richmond Hill 225 East Beaver Creek Road

Richmond Hill, Ontario
Canada, L4B 3P4

### **GENERAL NOTES** (PART 9 - RESIDENTIAL)

PERMIT NO. **RM#24-00023** 

All construction must comply with the Ontario Building Code (OBC) 2012 as amended, including but not limited to the following. As a minimum, the following requirements **shall** be incorporated in the final construction:

- All footings shall rest on natural undisturbed soil or compacted granular fill with a minimum bearing capacity of 75 KPa (1570 psf) unless known capacity is less and provided for in the foundation design.
- 2. Step footings shall have a maximum rise of 600 mm (23 5/8") for firm soils, 400 mm (15 3/4") for sand or gravel and a minimum horizontal run of 600 mm (23 5/8").
- 3. Concrete for exterior steps, garage and carport floors and all exterior flat work shall have a minimum compressive strength of 32 MPa (4650 psi) at 28 days, with air entrainment of 5 to 8%. Concrete floors with no damp proofing shall have a minimum compressive strength of 25 MPa (3000 psi). All other concrete to be 15MPa (2200 psi).
- 4. Foundations and the soil beneath them shall be protected against freezing during winter construction. Where foundation walls require permanent lateral support, the wall shall be braced or laterally supported before backfilling.
- When the unsupported height of a foundation wall exceeds 3.0 m (9'-10"), the wall shall be designed by an engineer in accordance with OBC Part 4
- Exterior concrete stairs with more than 2 steps shall be supported on unit masonry, concrete walls or piers not less than 150x150 (6"x6") with footings at 1.2 m (4') below grade.
- 7. Where the top of a foundation wall is reduced in thickness to permit the installation of masonry exterior facing, the reduced section shall be not less than 90 mm (3 ½") thick and tied to the facing material with metal ties conforming to Sentence 9.20.9.4. (3), spaced not more than 200 mm (7 7/8") o.c. vertically and 900 mm (2'-11") o.c. horizontally. The space between the wall and masonry veneer shall be filled with mortar.
- 8. Provide continuous lateral support to top flange of all steel beams. Steel beams shall have minimum 90 mm (3 1/2") bearing length. Connections to other steel beams shall have a minimum of 2-M20 (3/4" dia.) A325 steel bolts or a full welded connection (with full shear capacity of beam). Steel beams supported on wood shall be designed by an Engineer.
- Provide solid blocking support under all point loads and continue down to the foundation. Built-up columns shall comply with OBC 9.23.10.7.
   For engineered systems, follow manufacturer's specifications for correct blocking and bearing requirements.
- 10. Refer to the approved engineered layout drawings for engineered floor joist and roof truss systems, including beams and supports. Follow manufacturers specifications for bridging, bracing, bearing and connection requirements for built up beams or joists.
- Tie the lower ends of roof rafters with continuous horizontal ties to the opposing rafters unless lateral thrust is otherwise specifically designed for.
- 12. Guards shall be constructed in accordance with Supplementary Standard 7 of the OBC or in conformance with OBC Part 4 (including design loads on guards). Min. guard height to comply with OBC 9.8.8. All guards to be non-climbable.
- All masonry veneer ties shall be corrosion-resistant, minimum of 0.76 mm (0.03") thick, 22 mm (7/8") wide and be spaced in accordance with Table 9.20.9.5 of the OBC
- 14. Ceramic floor tile and its supporting floor shall be constructed in accordance to OBC 9.30.6.
- 15. For insulation values, window and door U-values and efficiency of appliances refer to SB-12 requirements: Prescriptive or Performance design or values specified by Energy Star requirements.
- 16. Foundation walls enclosing heated spaces shall be insulated to not more than 8" above the basement slab and an approved drainage layer is required on the exterior.
- 17. Exterior Insulated Finished System (EIFS) over wood framed wall and other moisture sensitive substrates shall consist of dual barrier with drained joints (DB/DJ). They shall be constructed in accordance to OBC 9.27.13 and shall conform to CAN/ULC-S716.1. All other exterior applied stucco finishes shall be constructed in accordance with OBC 9.28.
- 18. Stairs serving a house or dwelling unit shall have min. headroom of 1950 mm (6'-5"), min. width of 860 mm (2'-10"), max. rise of 200 mm (7 7/8") & min. 125 mm (4 7/8") and a min. run of 255 mm (10"). Tapered stairs shall have a min. average run of 255 mm (10") at the point of 300mm measured from the center of the handrail. The tolerance of stair dimensions shall conform to OBC 9.8.4.4. Secure stair stringers at top and bottom.

- 19. Basement ceiling height shall be min. 2.1 m. (6'-11") over at least 75% of the area and 1.95 m. (6'-5") under beams and ducts.
- 20. Every floor level containing a bedroom shall be provided with at least 1 outside window with an operable unobstructed opening having a minimum area of 0.35 sq. m. (3.8 sq. ft.), with no dimension less than 380 mm (15"). Every floor level, requiring travel of more than 1 storey to an exit door, shall be provided with an unobstructed escape window opening of not less than 1 m. (3'-3") in height and 0.55 m (21 5/8") in width with the sill not more than 1 m (3'-3") above the floor and 7 m. (23") above adjacent ground level or that floor shall be provided with a balcony. Except for basement locations, all windows shall have a maximum sill height of 1 m. (3'-3") above the floor.
- Provide window protection to minimize the hazard to children in accordance with OBC 9.7.1.6.
- 22. Exterior walls, which are less than 1.2 m (4'-0") from the lot line, shall have no unprotected opening and be constructed with a ¾ hr. fire resistance rating. These walls shall be rated from the interior. Exterior walls, which are less than 0.6 m (2'-0") from the lot line, shall in addition have non-combustible cladding.
- 23. All entrance doors, doors between the dwelling unit and the attached garage, patio doors and windows within 2m (6'-7") of adjacent ground level shall conform to OBC Subsections 9.6.8 & 9.7.6 'Resistance to Forced Entry'.
- 24. Roof vents shall be provided on the basis of 1 sq. ft./300 sq. ft. of insulated ceiling area. Where the roof slope is less than 1 in 6 or in cathedral ceilings, roof vents shall be provided on the basis of 1 sq. ft./150 sq. ft. of insulated ceiling area. Roof vents shall be uniformly distributed to ventilate each roof space with a minimum of 25% of the required vent space to be located at the top and the bottom of the roof.
- 25. Eave protection is required, beneath the start strip, from the edge of the roof to a minimum distance of 900 mm (3'-0") up the roof slope to not less than 300 mm (12") inside the inner face of the exterior wall on shingled, shake or tile roofs except as provided by 9.26.5.1.(2).
- 26. Foamed plastic insulation shall be protected with interior finishes according to OBC 9.10.17.10.
- 27. The wall and ceiling between an attached garage and the dwelling unit shall be constructed and sealed so as to provide an effective barrier to exhaust fumes. Door between the garage and the dwelling unit shall be tight fitting, weather-stripped and equipped with a self closing device.
- 28. Smoke alarms shall be provided on each floor level and be located within each bedroom. Smoke alarms shall be interconnected and hard wired with no disconnect switch. Smoke alarms are required to have a visual signaling component conforming to NFPA 72.
- 29. A carbon monoxide detector conforming to CAN/CGA-6.19 or UL 2034 shall be installed on every building containing a fuel burning appliance or an attached garage in conformance with the OBC 9.33.4.
- 30. In addition to the above carbon monoxide detectors, Town of Richmond Hill By-law No. 245-99 requires that a carbon monoxide detector, equipped with an alarm that is audible within bedrooms when the intervening doors are closed and conforming to CAN/CGA-6.19 or UL 2034, be installed in accordance with the manufacturer's instructions in every dwelling unit. Where the carbon monoxide detector is electrically powered, it must be approved by the Canadian Standards Association and be equipped with a visual indicator indicating that it is in operating condition and have NO switch between the carbon monoxide alarm and the power distribution panel.
- 31. A mechanical ventilation system is required in every dwelling. An exhaust only' ventilation system is permitted only where forced air heating is used, there is no electric heating or fireplace (other than a direct vent gas fireplace), and where a mechanically vented induced draft or direct vented furnace and hot water tank are used. A ventilation system with a heat recovery ventilator or Part 6 design is required in all other cases.
- 32. All exterior doors greater than 600mm above grade which do not exit onto a deck shall be permanently adjusted to prevent opening as per 9.6.4.1(2) of the OBC or be guarded as per 9.8.8 of the OBC
- 33. The main bathroom shall have stud reinforcement to accommodate future installation of grab bars adjacent to water closets and shower or bathtub as per OBC 9.5.2.3.
- 34. Slopes on roof surfaces shall comply with OBC 9.26.3.1.
- 35. Windows shall comply with OBC 9.7
- 36. Exhaust ducts connected to laundry drying equipment shall comply with OBC 6.2.3.8. (7)

### Strip Footings

### For Singles and Semi-Detached Houses up to 2 storeys

### For 8" or 10" foundation walls with 2x8 / 2x10 floor joists

wide x 6" thick concrete strip footings below foundati

24" wide x 8" thick concrete strip footings below party walls.

### Foundation walls with engineered joists over 16' spans

24" wide x 8" thick concrete strip footings below party walls.

### Footings on engineered fill

'wide x 8" thick concrete strip footings with reinforcing below exterior walls. 30" wide x 8" thick concrete strip footings with reinforcing below party walls. efer to the footings details on engineered fill)

### Assume the larger footing size when two conditions apply.

Assumed 120 kPa (18 psi) soil bearing capacity or 90 kPa engineered soil fill. Bearing capacity to be verified on site, by soil engineer report

### Concrete Pad Footing Sizes

100 l D . N . l' . C . 'l	00   D. F
120 kPa Native Soil	90 kPa Engineered Fil
F1 = 42" x 42" x <b>28</b> "	F1 = 48" x 48" x <b>24</b> "
<b>F2</b> = 36" x 36" x <b>18</b> "	$F2 = 40'' \times 40'' \times 20''$
<b>F3</b> = 30" x 30" x <b>15</b> "	$F3 = 34'' \times 34'' \times 17''$
<b>F4</b> = 24" x 24" x 12"	$F4 = 28'' \times 28'' \times 14''$
<b>F5</b> = 16" x 16" x 8"	<b>F5</b> = 18" x 18" x 8"
l	

Refer to the floor plans for non-standard footing sizes.

### Brick Veneer Cuts

When the brick veneer cut is greater than 26" a 10" thick poured concrete oundation wall is required.

### Exterior Concrete Slabs

All garage slabs, porch slabs, poured concrete stairs and exposed concrete flat work to be 32 MPa with 5-8% air entrainment.

### Ceramic Tile over Joists

Space conventional floor joists @ 12" o/c below all ceramic tile areas. Provide 1 row of bridging for spans of 5'-7" and 2 rows for spans greater than 7'-0".

### **Engineered Roof Trusses**

Refer to the roof truss shop drawings for all roof framing information.

### **Engineered Floor Joists**

fer to the floor framing shop drawings for engineered framing layouts, hardware

### Steel Column Notes

 $C1 = 4" \times 4" \times 10" \times 10" \times 10" \times 10" \times 10$ **C2** = 5" x 5" x  $\frac{1}{4}$ " HSS w/ 12" x 12" x  $\frac{1}{2}$ " base plate and 4 -  $\frac{3}{4}$ " dia. anchor bolts.

Use 4 bolts for moment connection

"M" = Moment connection at beam and column = 35 kN-m

### Grading

Plans and elevations are not drawn to accurate grade elevations. Refer to final grading plan.

### **Door Schedule**

l	No.	. Width		Ceiling Heights		Туре	
ı				8' to 9'	10' or more		
l	1	2'-10"	' (34'')	6'-8"	8'-0"	Insulated entrance door	
l	1A	2'-8"	(32'')	6'-8"	8'-0"	Insulated entrance door	
l	2	2'-8"	(32'')	6'-8"	8'-0"	Wood and glass door	
l	3	2'-8"	(32'')	6'-8"	8'-0"	Exterior slab door	
l	4	2'-8"	(32'')	6'-8"	8'-0"	Interior slab door	
l	5	2'-6"	(30'')	6'-8"	8'-0"	Interior slab door	
l	6	2'-2"	(26")	6'-8"	8'-0"	Interior slab door	
1	7	1'-6"	(18")	6'-8"	8'-0''	Interior slab door	

### Garage Wall - 2x4 Stud Design

Studs	Spacing	Maxim	ıum Height
2x4	16" o/c	8'-0	(2.44m)
2x4	12" o/c	8'-10"	(2.69m)
2-2x4	16" o/c	10'-1"	(3.07m)
2-2x4	12" o/c	10'-9"	(3.28m)
3-2x4	16" o/c	11'-2"	(3.40m)
3-2x4	12" o/c	12'-4"	(3.76m)
ı			

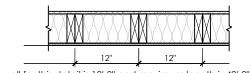
For roof design snow loads of 2.6kPa Supported roof truss length of 6.0m

Supported floor joist length of 2.5m

Studs exceeding 3.0m in height shall be installed per OBC 9.23.10.1.(2)

# Two Storey Height Wall Details - max. 18'-0" tall

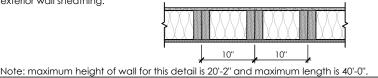
2 - 2 x 6 stud wall nailed together and spaced at 12" o/c full height c/w solid olocking @ 48" o/c vertical and  $\frac{7}{6}$ " OSB exterior wall sheathing



Note: maximum height of wall for this detail is 18'-0" and maximum length is 40'-0

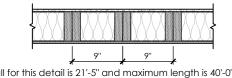
# Two Storey Height Wall Detail - max. 20'-2" tall

2 - 1 ½" x 5 ½" Laminated strand lumber (LSL) 1.5E stud wall glued and nailed together and spaced at 10" o/c full height c/w solid blocking @ 8'-0" o/c vertical and  $\frac{7}{6}$ " OSB



# Two Storey Height Wall Detail - max. 21'-5" tall

2 - 1 ½" x 5 ½" Laminated strand lumber (LSL) 1.5E stud wall glued and nailed together and spaced at 9" o/c full height c/w solid blocking @ 8'-0" o/c vertical and  $\frac{7}{6}$ " OSB exterior wall sheathing.



Note: maximum height of wall for this detail is 21'-5" and maximum length is 40'-0"

# Steel Angles and Wood Beam Schedules

### Brick Veneer Steel Lintels + Wood Lintels and Beams

D	TOTICO DICCI EIIIICID - TTC	, , ,	Lillion all	a bearing	
Label	Steel Angle Size $(v \times h \times t)$		Wood Size	e (members +	w + h)
WL1 =	3½" x 3½" x½" (89 x 89 x 6.4) [2]	+	2 - 2 x 8	(2 - 38 x 184)	S.P.F. No. 2
WL2 =	4" x 3½" x 5/6" (102 x 89 x 7.9) [?]	+	2 - 2 x 8	(2 - 38 x 184)	S.P.F. No. 2
WL3 =	5" x 3½" x ½" (127 x 89 x 7.9) [4]	+	2 - 2 x 10	(2 - 38 x 235)	S.P.F. No. 2
WL4 =	6" x 3 ½" x ¾" (152 x 89 x 9.5) [?]	+	2 - 2 x 12	(2 - 38 x 286)	S.P.F. No. 2
WL5 =	6" x 4" x 3/8" (152 x 102 x 9.5) [?]	+	2 - 2 x 12	(2 - 38 x 286)	S.P.F. No. 2
WL6 =	5" x 3½" x ½" (127 x 89 x 7.9) [4]	+	2 - 2 x 12	(2 - 38 x 286)	S.P.F. No. 2
WL7 =	5" x 3½" x ½" (127 x 89 x 7.9) [4]	+	3 - 2 x 10	(3 - 38 x 235)	S.P.F. No. 2
WL8 =	5" x 3½" x ½" (127 x 89 x 7.9) [4]	+	3 - 2 x 12	(3 - 38 x 286)	S.P.F. No. 2
WL9 =	6" x 4" x 3/8" (152 x 102 x 9.5) [?]	+	3 - 2 x 12	(3 - 38 x 286)	S.P.F. No. 2
l					

### Wood Lintels and Beams

1100	Wood Lilliels and bearing				
Label		Beam Size	(members +	w + h	
WB1	=	2 - 2 x 8	(2 - 38 x 184)	S.P.F. No. 2	
WB2	=	3 - 2 x 8	(3 - 38 x 184)	S.P.F. No. 2	
WB3	=	2 - 2 x 10	(2 - 38 x 235)	S.P.F. No. 2	
WB4	=	3 - 2 x 10	(3 - 38 x 235)	S.P.F. No. 2	
WB5	=	2 - 2 x 12	(2 - 38 x 286)	S.P.F. No. 2	
WB6	=	3 - 2 x 12	(3 - 38 x 286)	S.P.F. No. 2	
WB7	=	5 - 2 x 12	(5 - 38 x 286)	S.P.F. No. 2	
WB11	=	4 - 2 x 10	(4 - 38 x 235)	S.P.F. No. 2	
WB12	=	4 - 2 x 12	(4 - 38 x 286)	S.P.F. No. 2	

### Laminated Veneer Lumber (LVL) Beams

Label		Beam Size (mer	mbers + w + h
L <b>VL1A</b>	=	1 - 1 ¾" x 7 ½"	(1 - 45 x 184)
L <b>VL1</b>	=	2 - 1 ¾" x 7 ½"	(2 - 45 x 184)
LVL2	=	3 - 1 ¾" x 7 ½"	(3 - 45 x 184)
LVL3	=	4 - 1 ¾" x 7 ½"	(4 - 45 x 184)
LVL4A	=	1 - 1 ¾" x 9 ½"	(1 - 45 x 240)
LVL4	=	2 - 1 ¾" x 9 ½"	(2 - 45 x 240)
LVL5	=	3 - 1 ¾" x 9 ½"	(3 - 45 x 240)
LVL5A	=	4 - 1 ¾" x 9 ½"	(4 - 45 x 240)
LVL6A	=	1 - 1 ¾" x 11 ¾"	(1 - 45 x 300)
LVL6	=	2 - 1 3/4" x 11 7/8"	(2 - 45 x 300)
LVL7	=	3 - 1 3/4" x 11 7/8"	(3 - 45 x 300)
LVL7A	=	4 - 1 ¾" x 11 ¾"	(4 - 45 x 300)
LVL8	=	2 - 1 ¾" x 14"	(2 - 45 x 356)
LVL9	=	3 - 1 ¾" x 14"	(3 - 45 x 356)
LVL10	=	2 - 1 ¾" x 18"	(2 - 45 x 456)



### **Loose Steel Lintels**

Label		Steel Size (v x h	1 X f)
L1	=	3½" x 3½" x½"	(89 x 89 x 6.4) [2]
L2	=	4" x 3 ½" x ¾6"	(102 x 89 x 7.9) [?]
L3	=	5" x 3½" x ⅓ <sub>6</sub> "	(127 x 89 x 7.9) [4]
L4	=	6" x 3 ½" x ¾"	(152 x 89x 9.5) [?]
L5	=	6" x 4" x 3/8"	(152 x 102 x 9.5) [?]
16	=	7" x 4" x 3/3"	(178 x 102 x 9 5) [2]

### Glue-Laminated Floor Beams

abel		Beam Size (w x h)
GLU1	=	3 ½" x 11 ½" (80 x 300)
GLU2	=	5 ½" x 11 ½" (130 x 300)

### Minimum Thermal Performance

The minimum thermal performance of building envelope and equipment shall conform to the following.

### Prescriptive Package A1 Space Heating Fuel

	R	Max. U	R
omponent	Max. Nominal		Min. Effective
eiling with Attic Space	60	0.017	59.22
eiling without Attic Space	31	0.036	27.65
kposed Floor	31	0.034	29.80
/alls Above Grade	22	0.059	17.03
asement Walls	20 ci	0.047	21.12
elow Grade Slab Entire Surface 600 mm Below Grade	-	-	-
eated Slab or Slab	10	0.090	11 13

<= 600 mm Below Grade 10 Windows and Sliding Glass Doors Energy rating: 25 Max. U: 0.28 Skylights Max. U: Min. AFAU:

Space Heating Equipment HRV Min. SRE: 75% Domestic Water Heater

### **Area Calculations** Villa 1-1

<= 600 mm Below Grade

1004 sq ft, 93.27 sq m Ground Floor 1280 sq ft, 118.92 sq m 2284 sq ft, 212.19 sq m econd Floor Total floor area

19 sa ft. 1.77 sa m Total open to below 0 sq ft, 0.00 sq m Finished basement Total gross floor area 2303 sq ft, 213.96 sq m

Coverage Areas Ground floor 1004 sq ft, 93.27 sq m Garaae 396 sa ft. 36.79 sa m 67 sq ft, 6.22 sq m Porch Other structures 0 sa ft . 0 00 sa m Coverage w/o porch 1400 sq ft, 130.06 sq m

1467 sa ft. 136 29 sa m

1454 sq ft. 135.08 sq m

# **Area Calculations**

### Villa 1-2

Coverage w/ porch

1004 sa ft. 93.27 sa m Ground Floor Second Floor 1280 sq ft, 118.92 sq m 2284 sq ft, 212.19 sq m Total floor area

19 sa ft. 1 77 sa m Total open to below Finished basement Total gross floor area 2303 sq ft, 213.96 sq m

Coverage Areas Ground floor 1004 sq ft, 93.27 sq m Garage Porch 396 sq ft, 36.79 sq m 54 sq ft, 5.02 sq m 0 sq ft, 0.00 sq m 1400 sq ft, 130.06 sq m Other structures Coverage w/o porch

# Villa 1-3

1003 sa ft. 93.18 sa m Second Floor 1277 sq ft, 118.64 sq m Total floor area 2280 sq ft. 211.82 sq m

Total open to below 19 sa ft. 1.77 sa m 0 sq ft, 0.00 sq m Finished basement 2299 sq ft, 213.58 sa m Total gross floor area

Coverage Areas 1003 sq ft, 93.18 sq m Ground floor 396 sq ft, 36.79 sq m 55 sq ft, 5.11 sq m Garage Porch Other structures 0 sa ft, 0.00 sa m 1399 sq ft, 129.97 sq m Coverage w/o porch Coverage w/ porch 1454 sq ft, 135.08 sq m

# **SB-12 Calculations** Villa 1-1

Elevation	Wall Area	Window Area	Percentage
Front	635.0 sq ft (59.0 sq m)	67.6 sq ft (6.3 sq m)	10.65%
Left side	996.5 sq ft (92.6 sq m)	41.0 sq ft (3.8 sq m)	4.12%
Right side	402.8 sq ft (37.4 sq m)	15.1 sq ft (1.4 sq m)	3.74%
Rear	623.3 sq ft (57.9 sq m)	89.7 sq ft (8.3 sq m)	14.38%
Total	2657.6 sq ft (246.9 sq m)	213.4 sq ft (19.8 sq m)	8.03%

OPTIONAL 8'-6" FOUNDATION POUR HEIGHT

10" THICK CONCRETE FOUNDATION WALLS (15 MPa)

9 1/2" FLOOR JOISTS = 9'-2" (2.79m) HEIGHT

II %" FLOOR JOISTS = 9'-4" (2.84m) HEIGHT

15 RISERS (EXTRA RISER ADDED TO BASE OF STAIR)

BASEMENT FLOOR TO FLOOR HEIGHT

BASEMENT STAIRS

# **SB-12 Calculations** Villa 1-2

VIIIG 1-2	1			
Elevation	Wall Area	Window Area	Percentage	
Front	634.5 sq ft (58.9 sq m)	79.3 sq ft (7.4 sq m)	12.50%	
Left side	996.5 sq ft (92.6 sq m)	41.0 sq ft (3.8 sq m)	4.12%	
Right side	402.8 sq ft (37.4 sq m)	15.1 sq ft (1.4 sq m)	3.74%	
Rear	623.3 sq ft (57.9 sq m)	89.7 sq ft (8.3 sq m)	14.38%	
Total	2657.1 sq ft (246.9 sq m)	225.1 sq ft (20.9 sq m)	8.47%	

# **Area Calculations**

Coverage w/ porch

### **SB-12 Calculations** Villa 1-3

### Elevation Wall Area **Window Area** 640.8 sq ft (59.5 sq m) 996.5 sq ft (92.6 sq m) Left side Riaht side 402.8 sa ft (37.4 sa m Total

75.9 sq ft (7.1 sq m) 41.0 sq ft (3.8 sq m) 11.84% 4.12% 15.1 sa ft (1.4 sa m) 3 74% 2663.3 sq ft (247.4 sq m) 221.6 sq ft (20.6 sq m) 8.32%



**CITY OF RICHMOND HILL** BUILDING DIVISION 08/21/2024 **REVISED** Per: KER

Villa

Compliance Package A1

**Percentage** 

### Revisions Description By JM LM Issued for client review 2023-07-18 2023-07-26 Revised siding to stucco on Elev. 3 2023-09-19 Coord. floor and roof, Issued for p.eng. review Issued for permit 2023-09-28 JM

Contractor shall check all dimensions and elevations before commencing with work and report any discrepancies to the Designer. Prints are not to

he undersigned has reviewed and takes responsibility for this design, as well as having the qualifications and requirements mandated by th Ontario Building Code (O.B.C.) to be a Designer.

### **Qualification Information**

Jamie Mack Name BCIN

Mackitecture

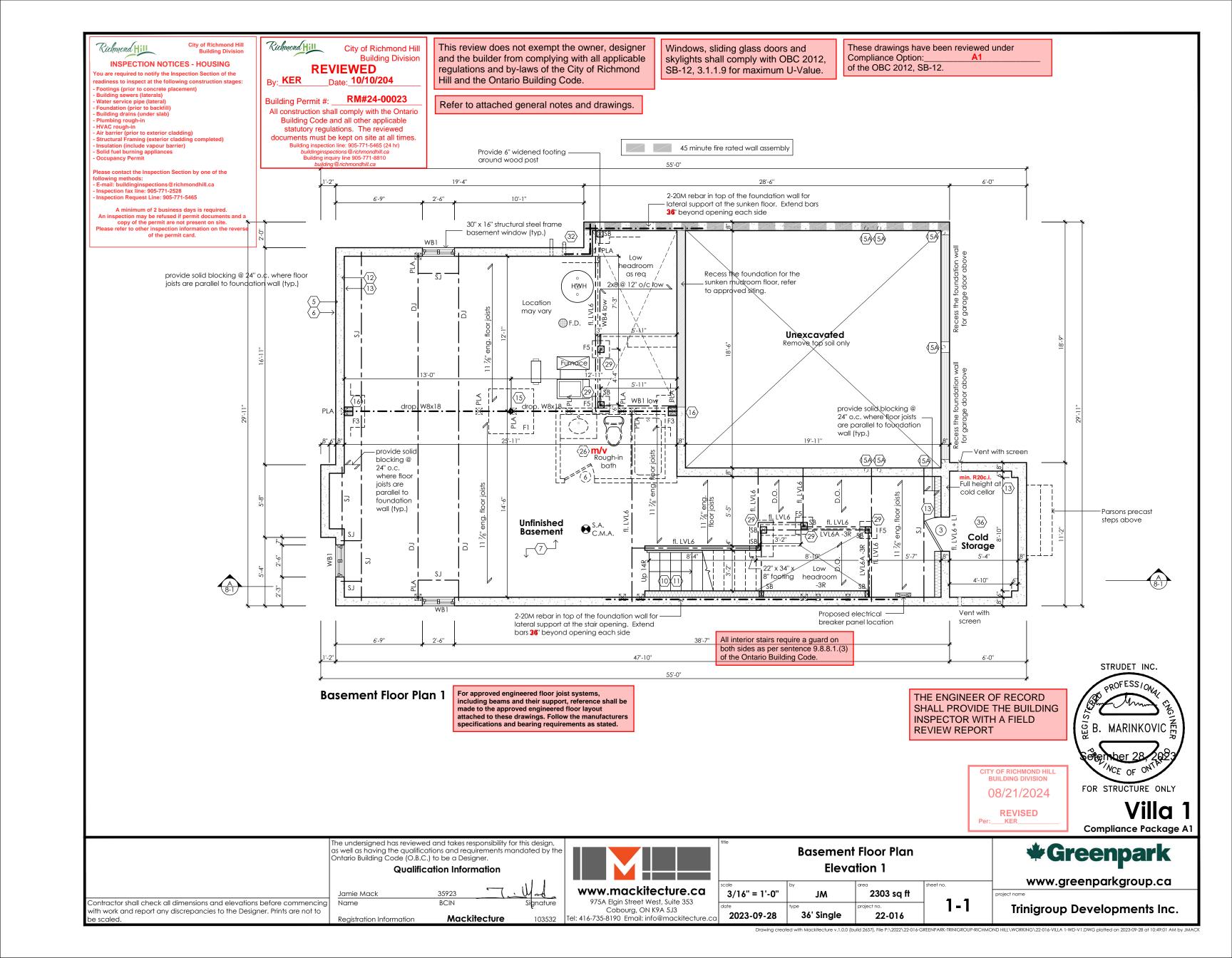


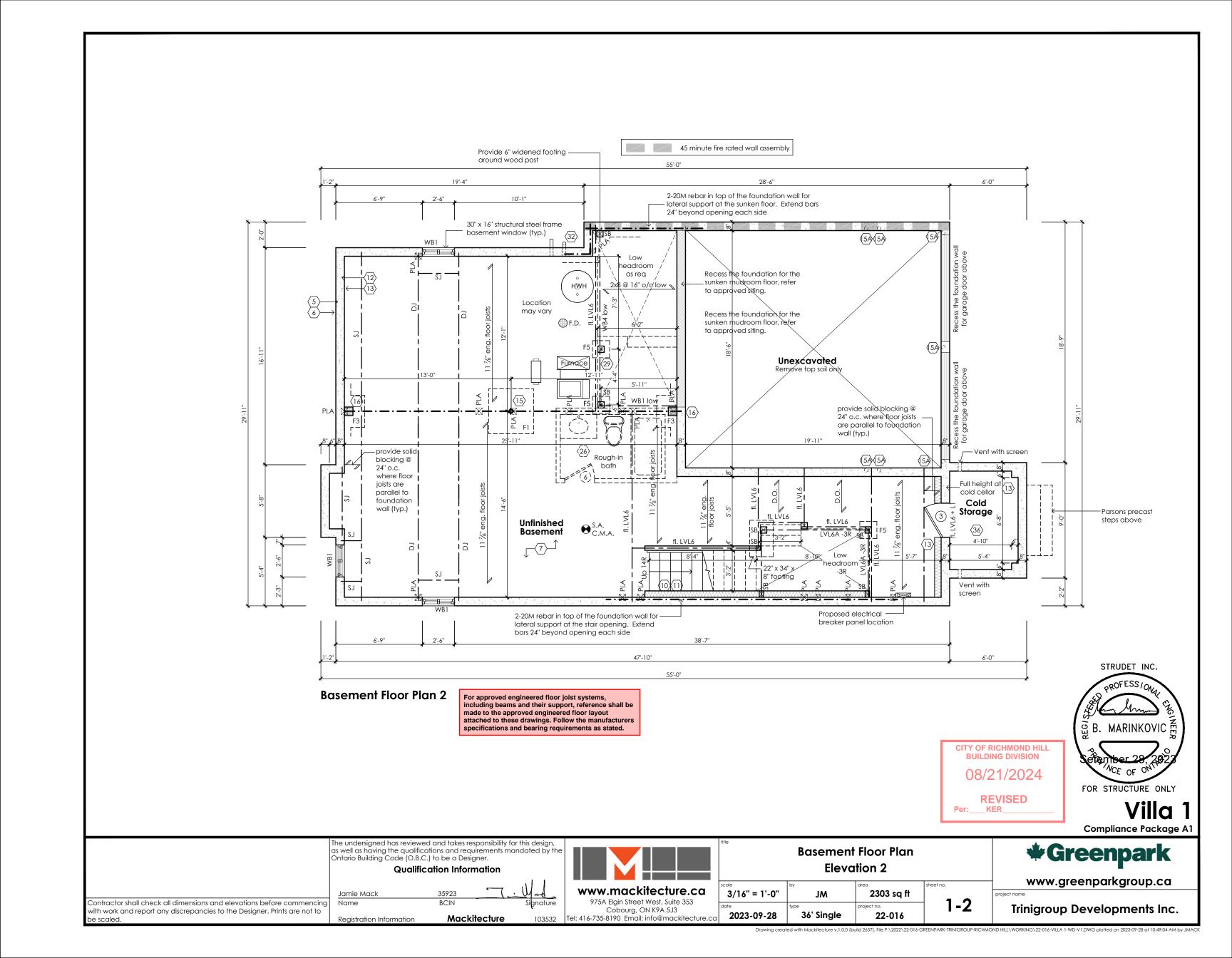
# **General Notes and Charts Elevation 1**

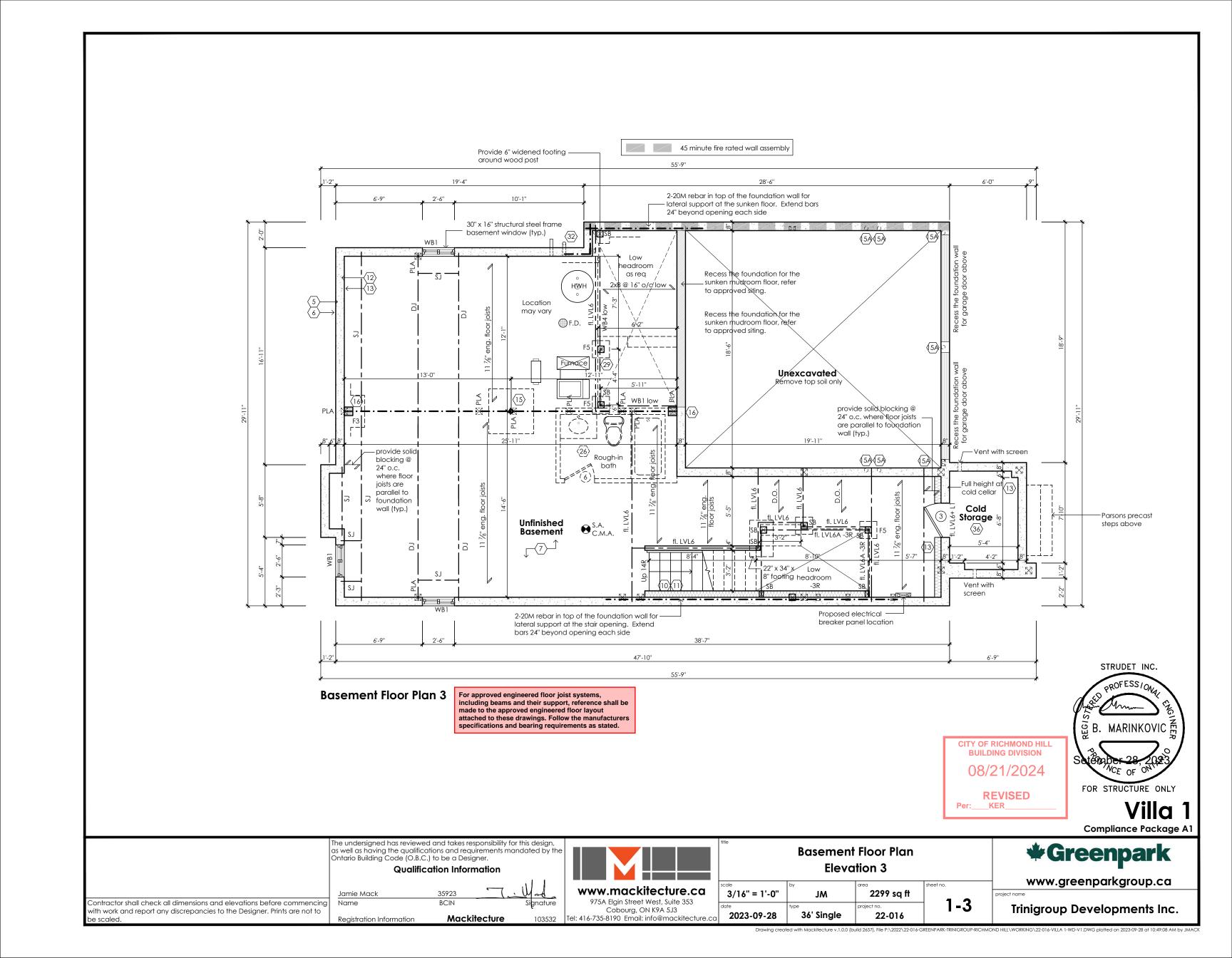
0 2023-09-28 36' Sinale 22-016 Tel: 416-735-8190 Email: info@mackitecture.ca

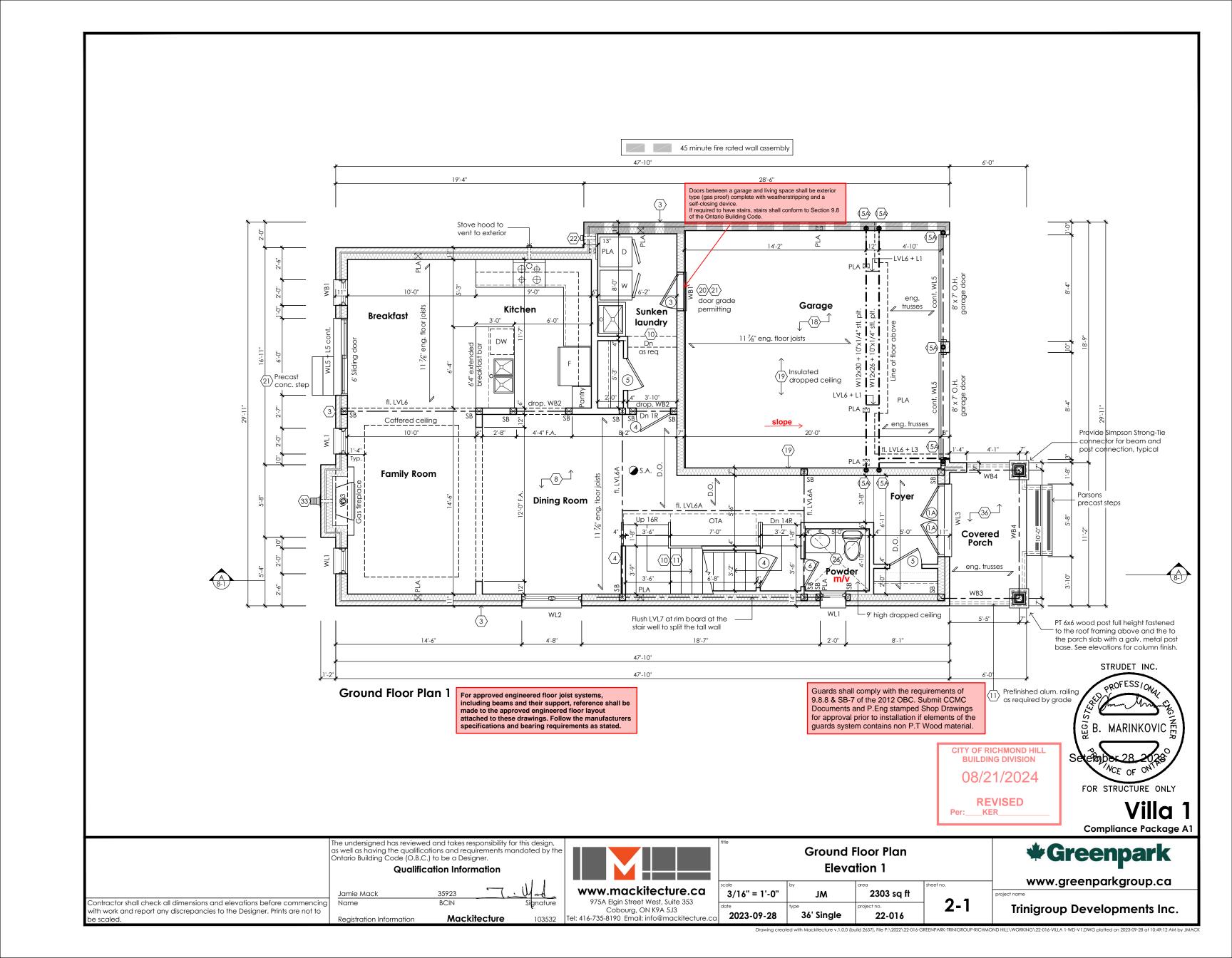


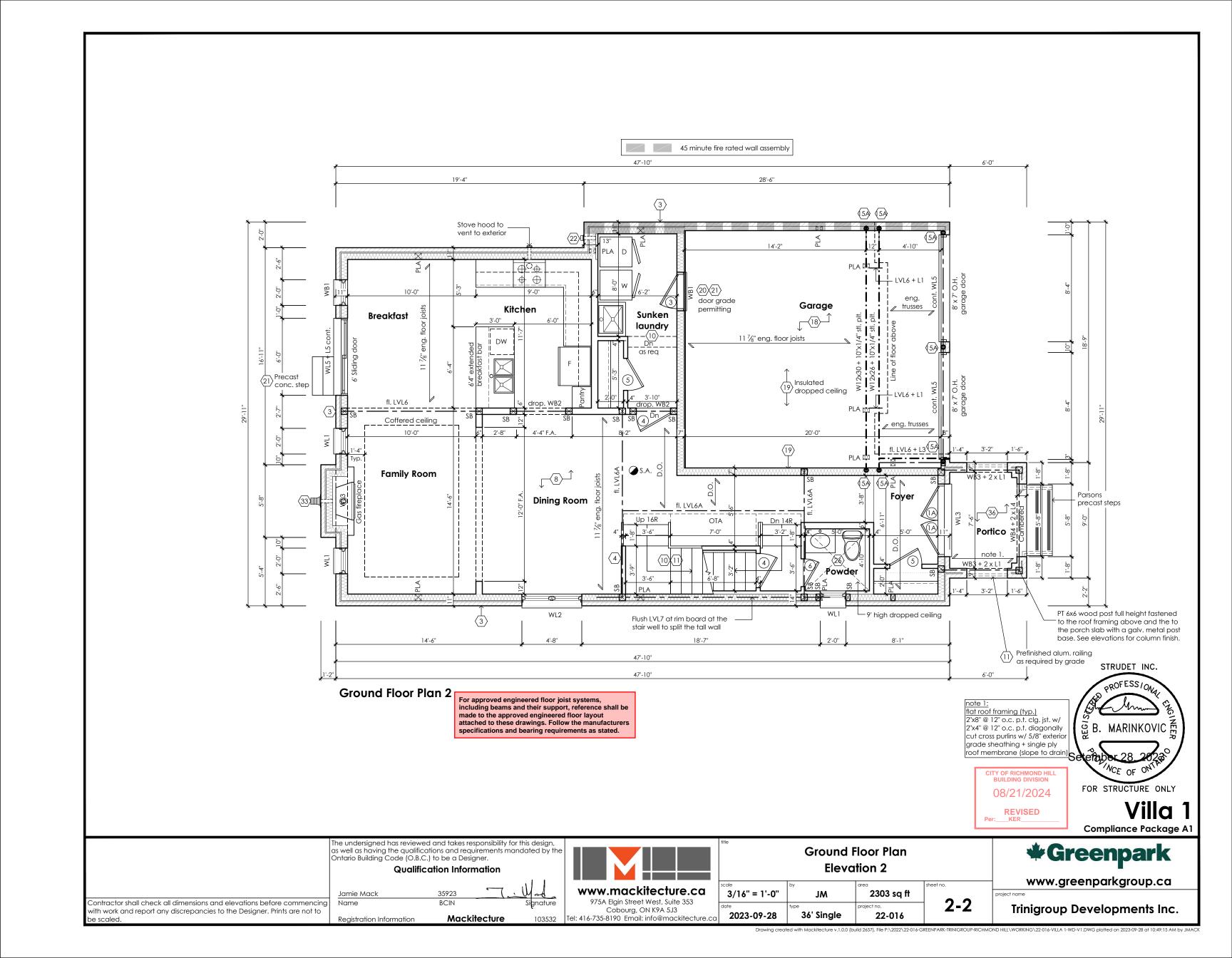
www.greenparkgroup.ca

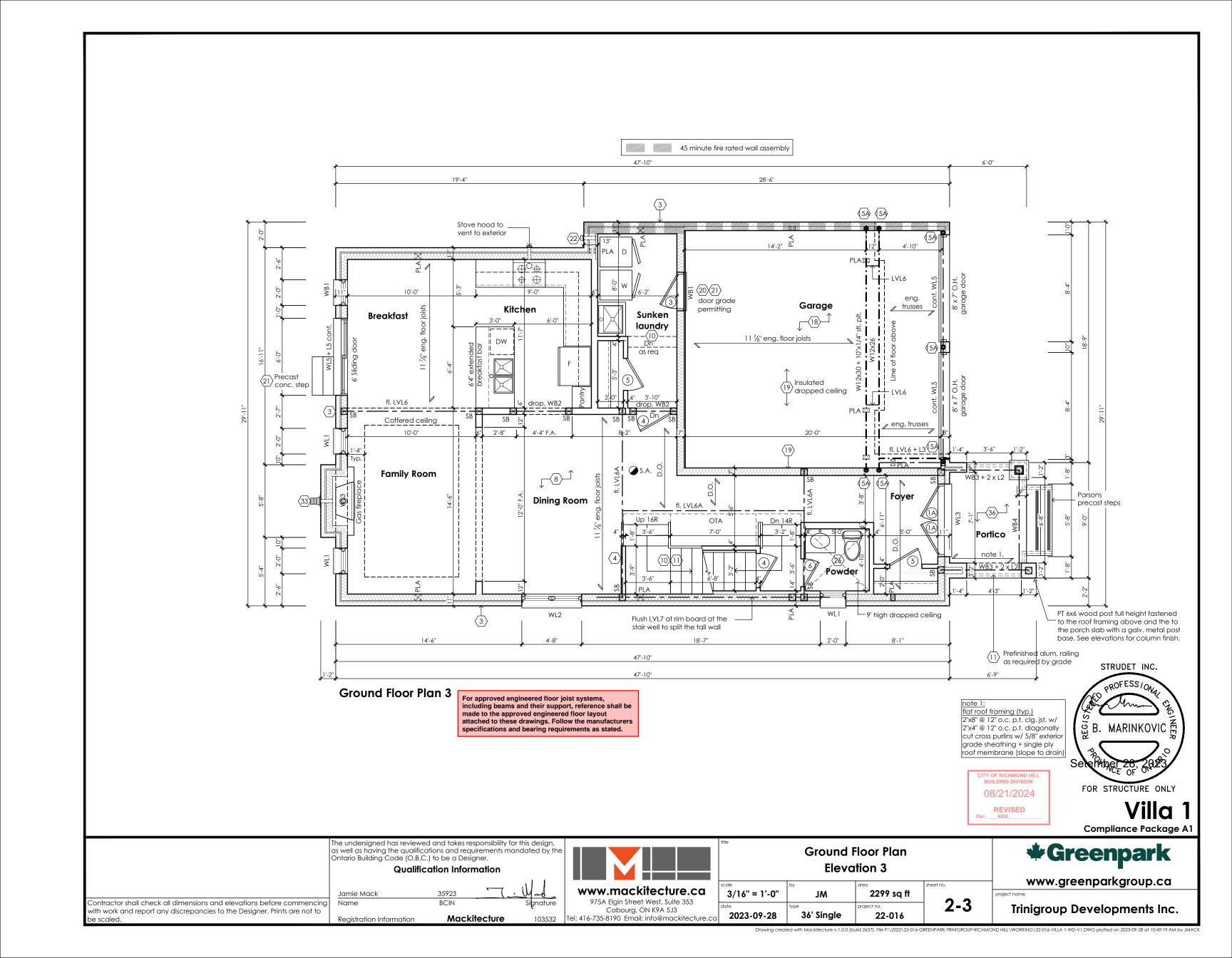


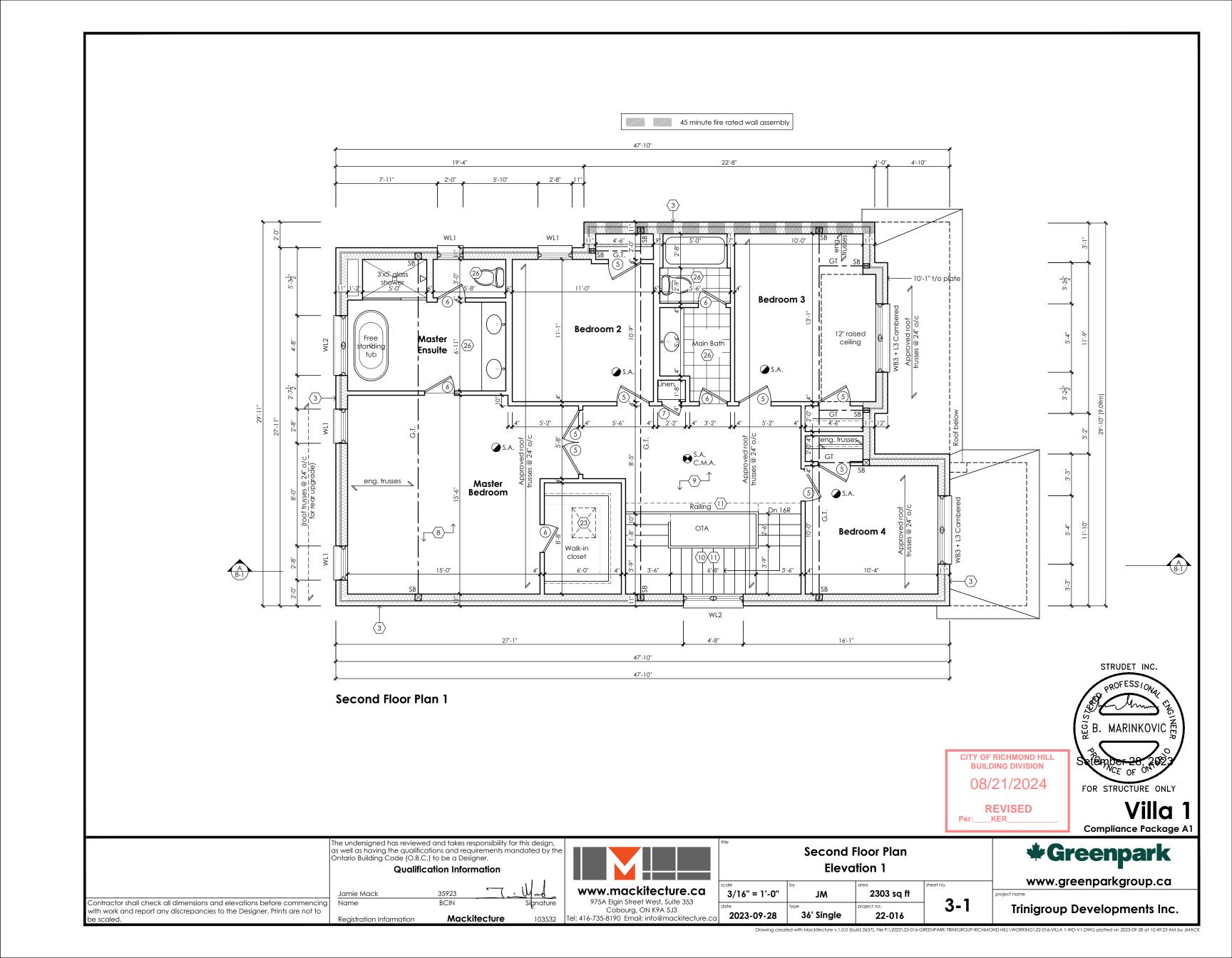


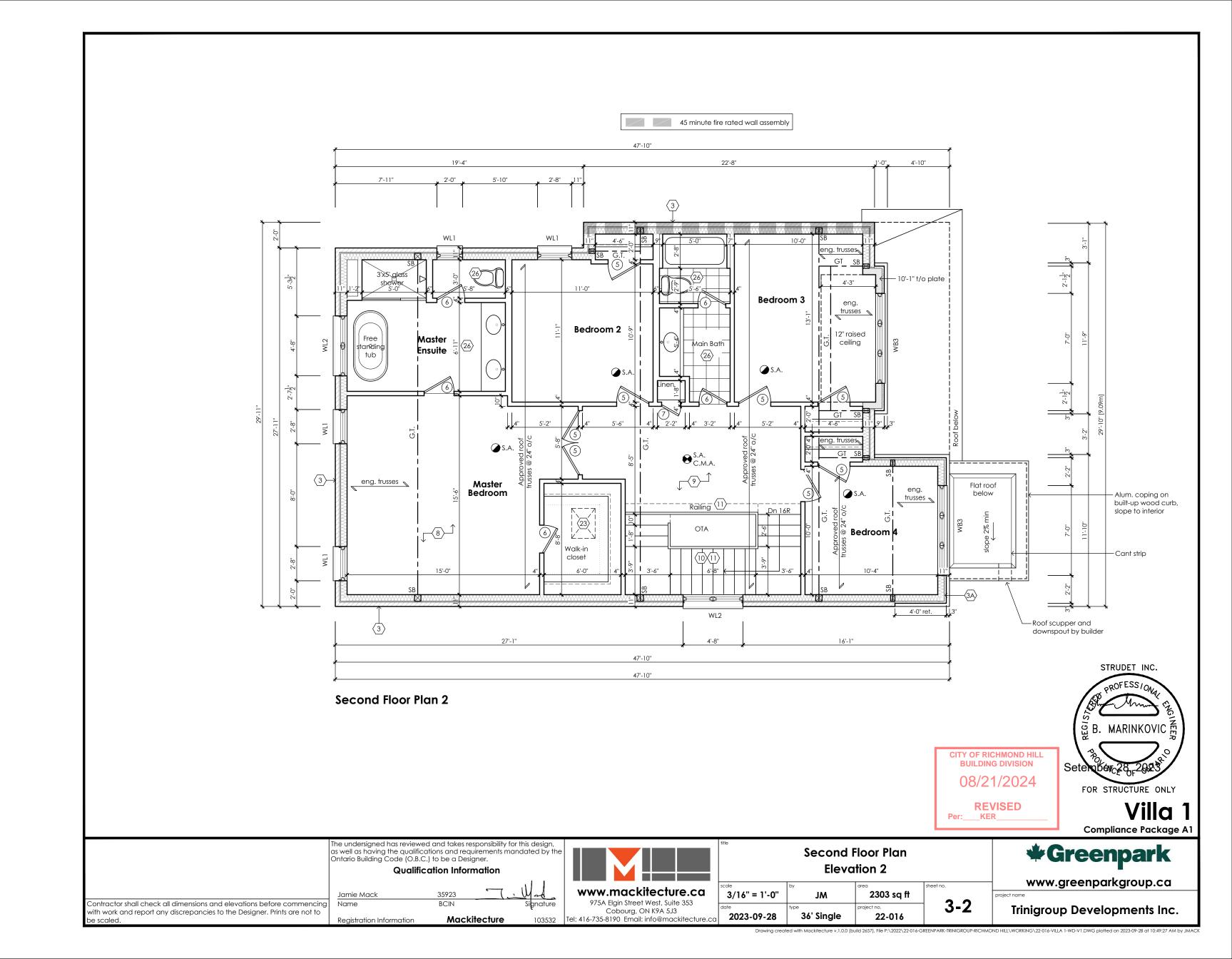


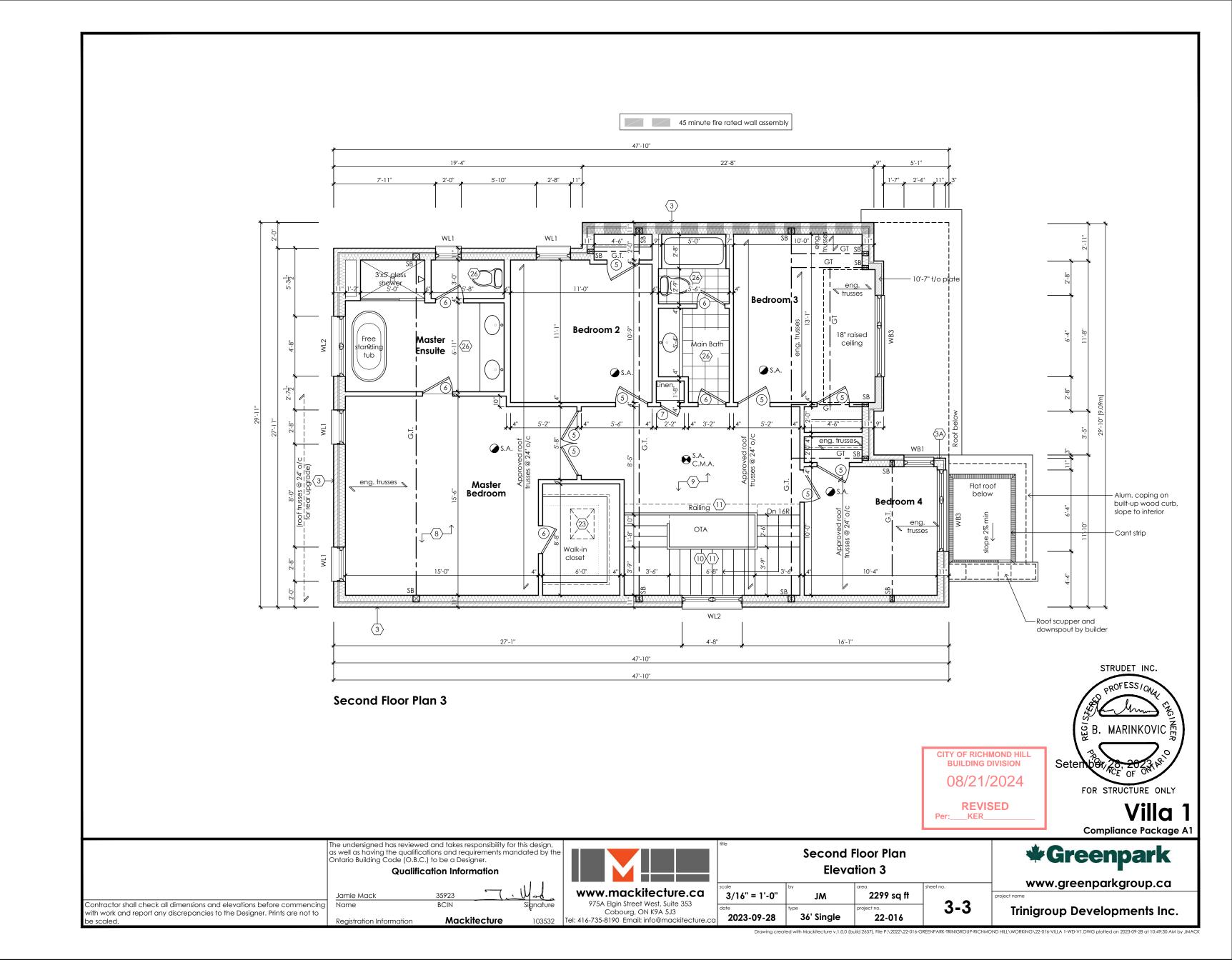


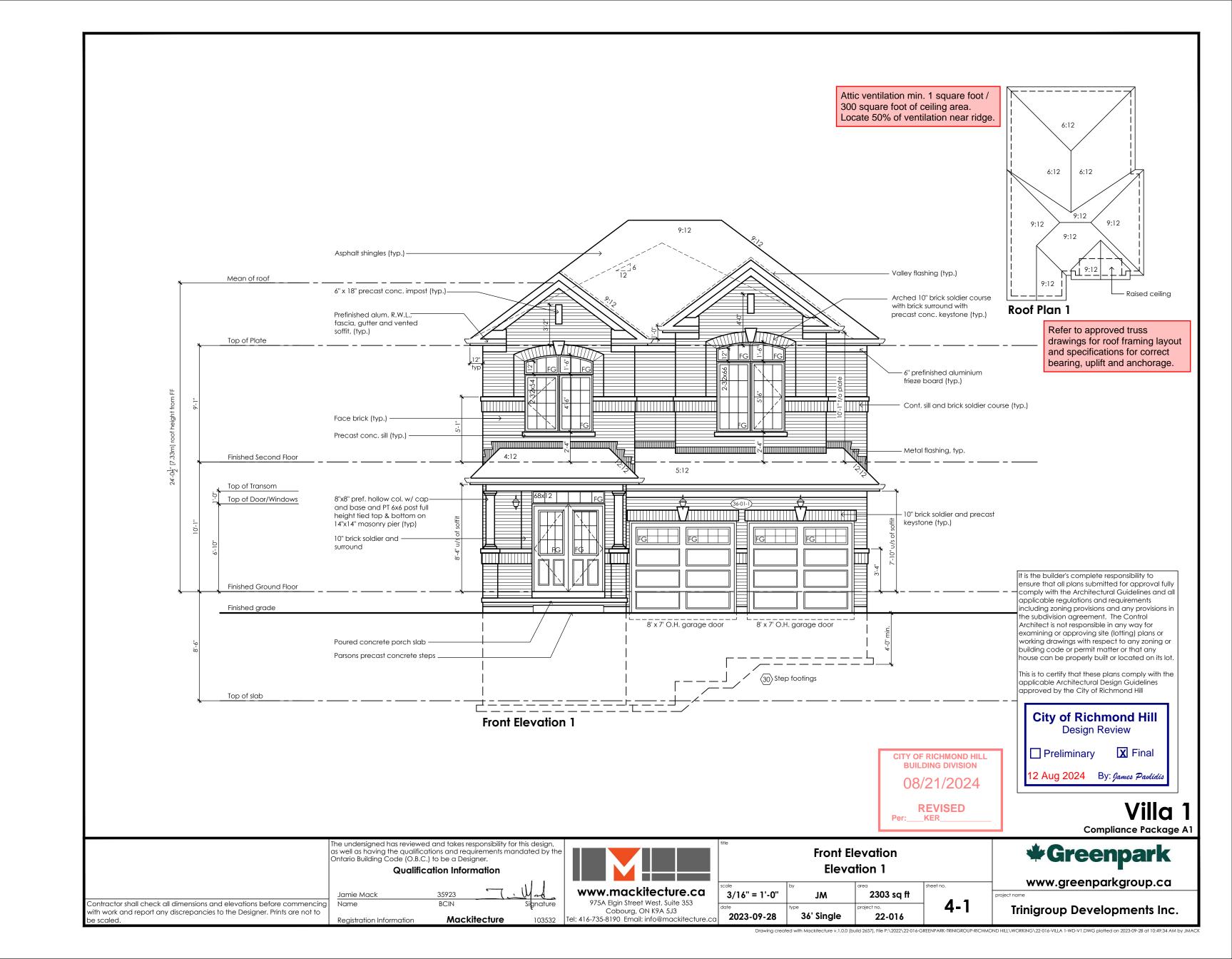


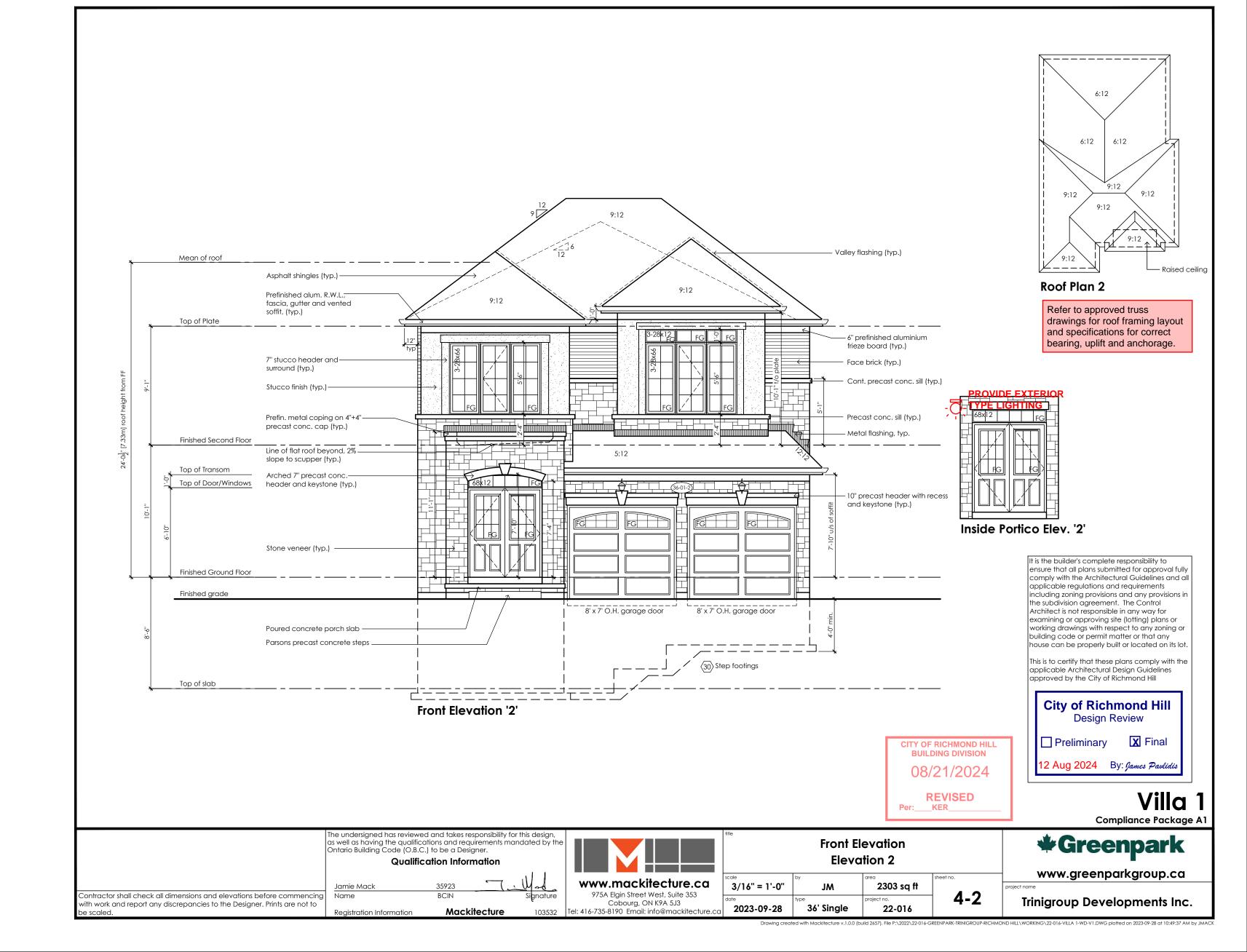


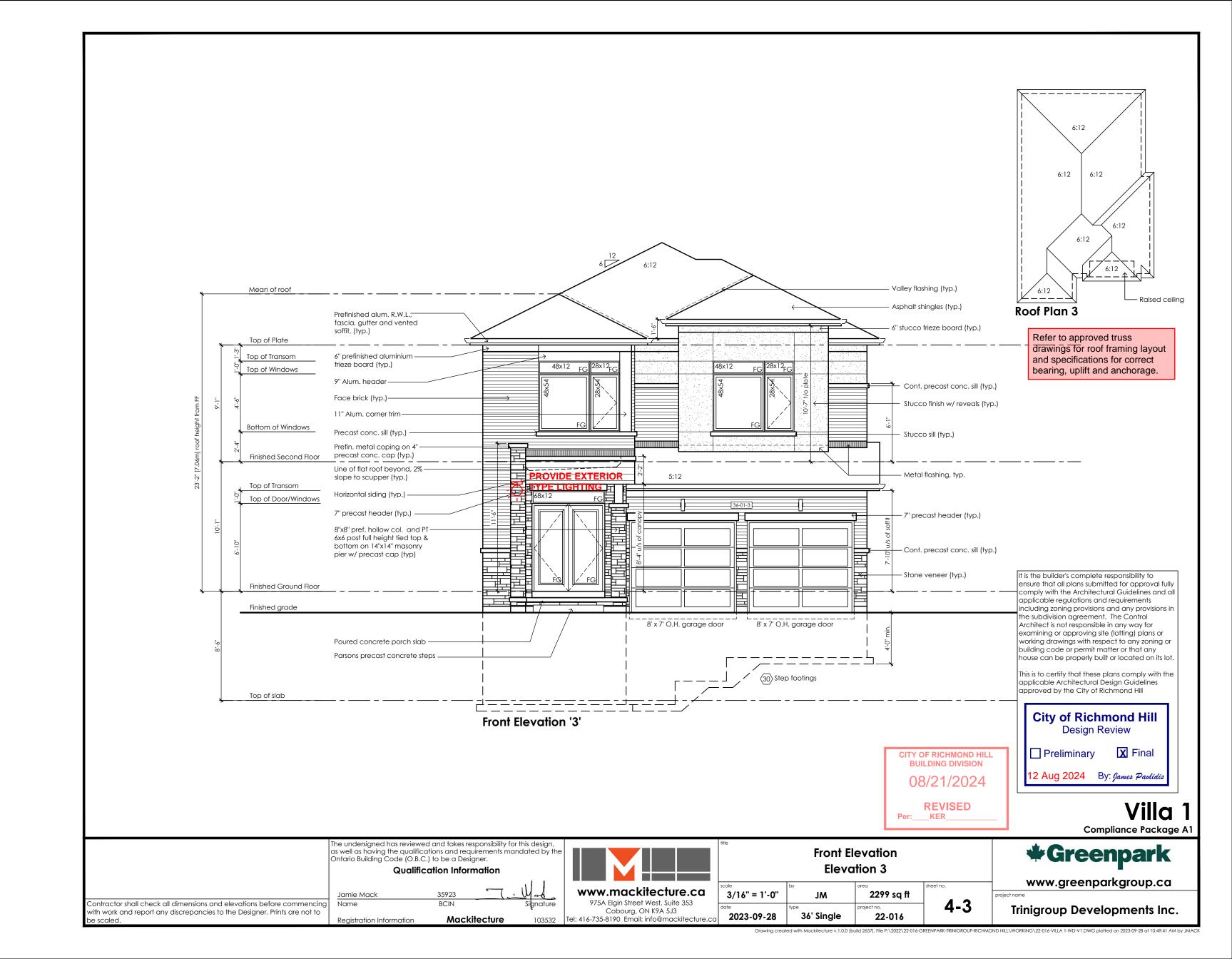


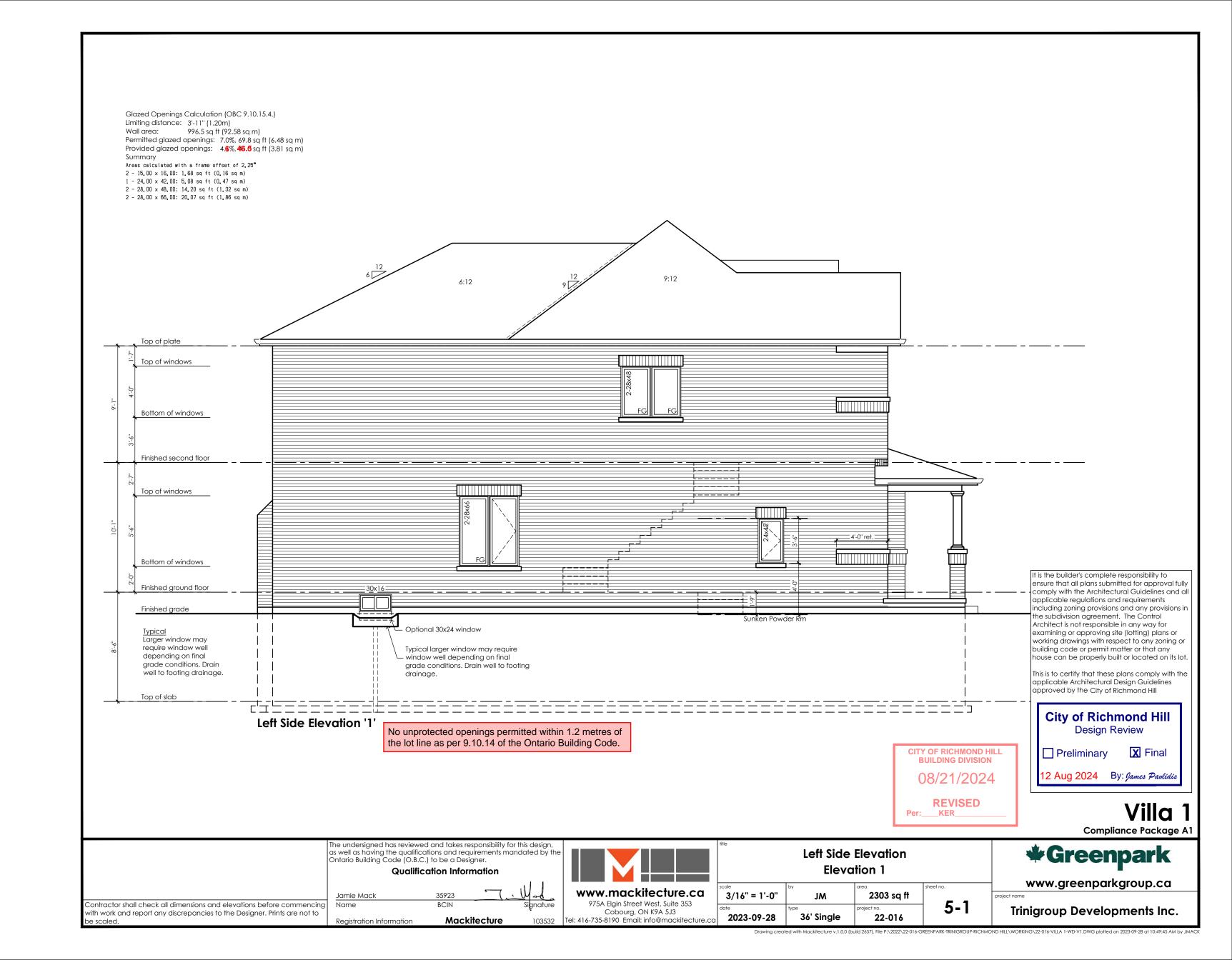


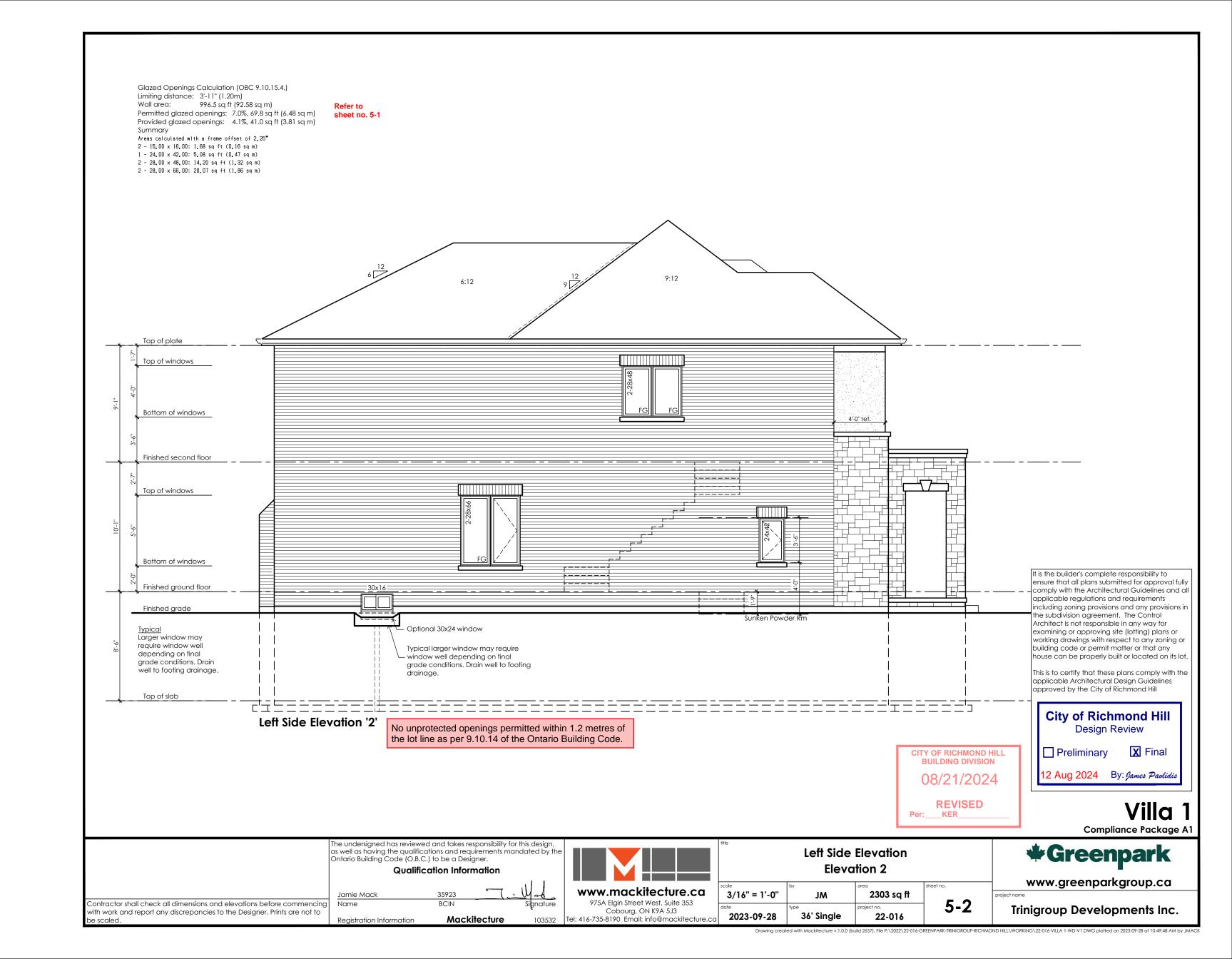


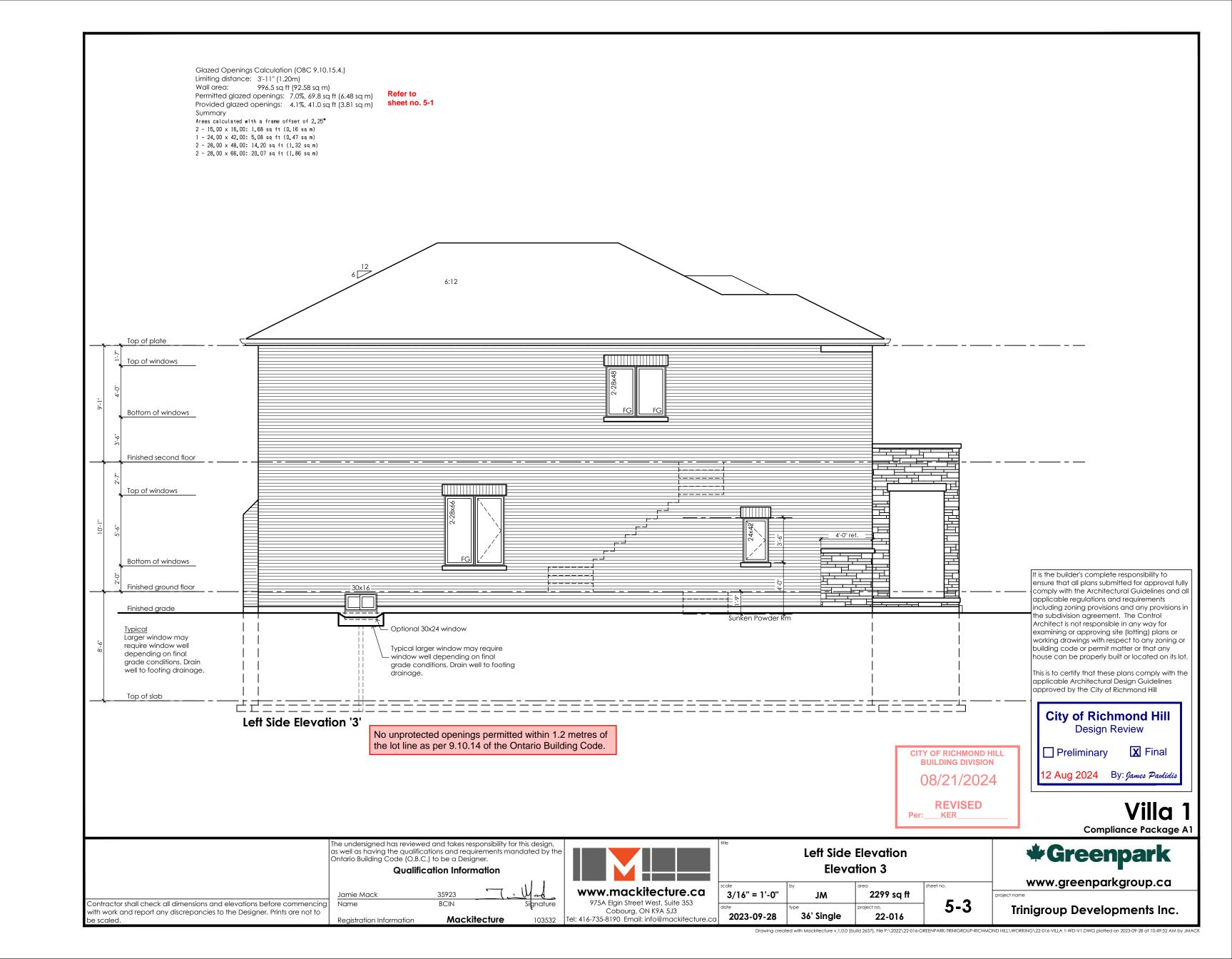


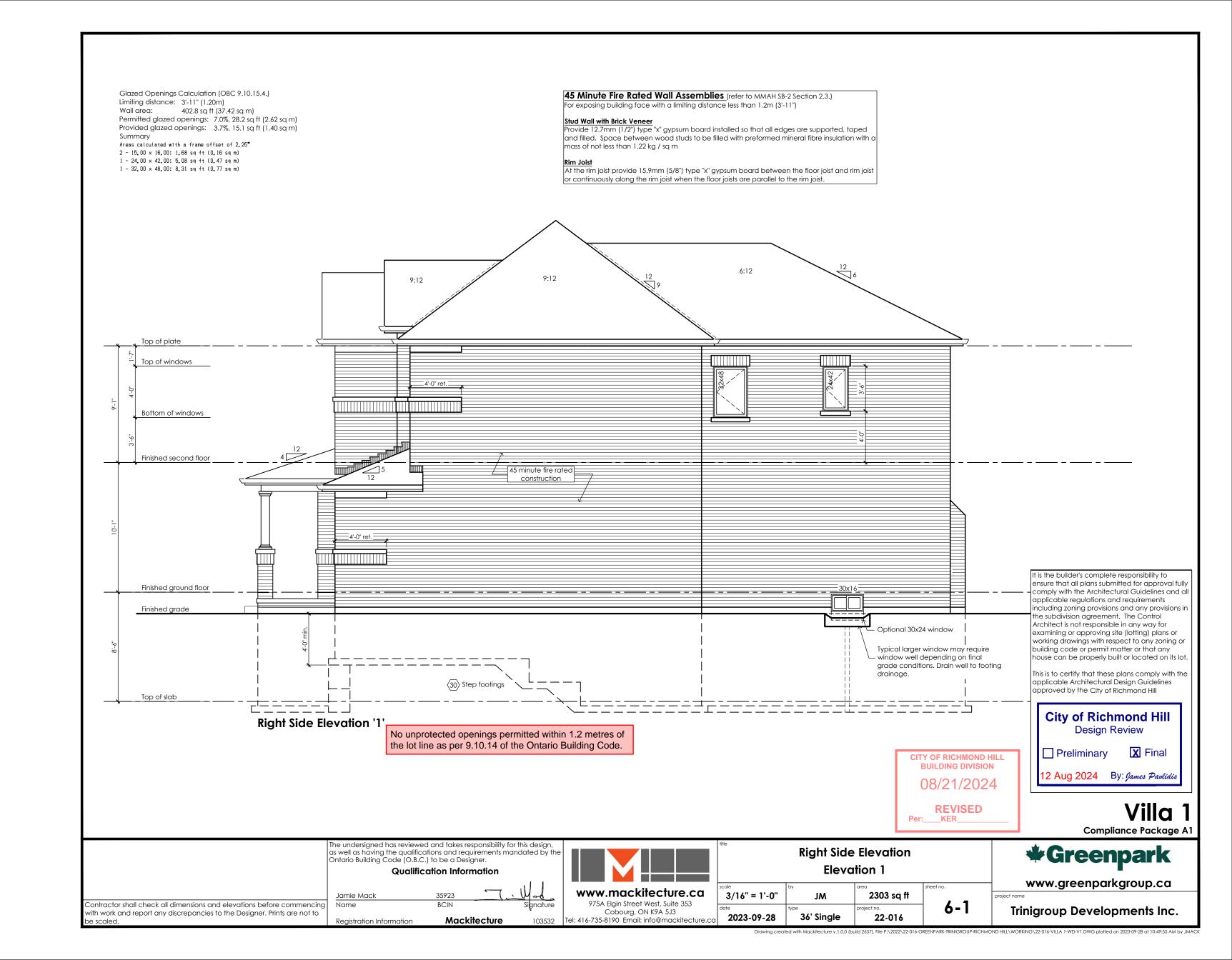


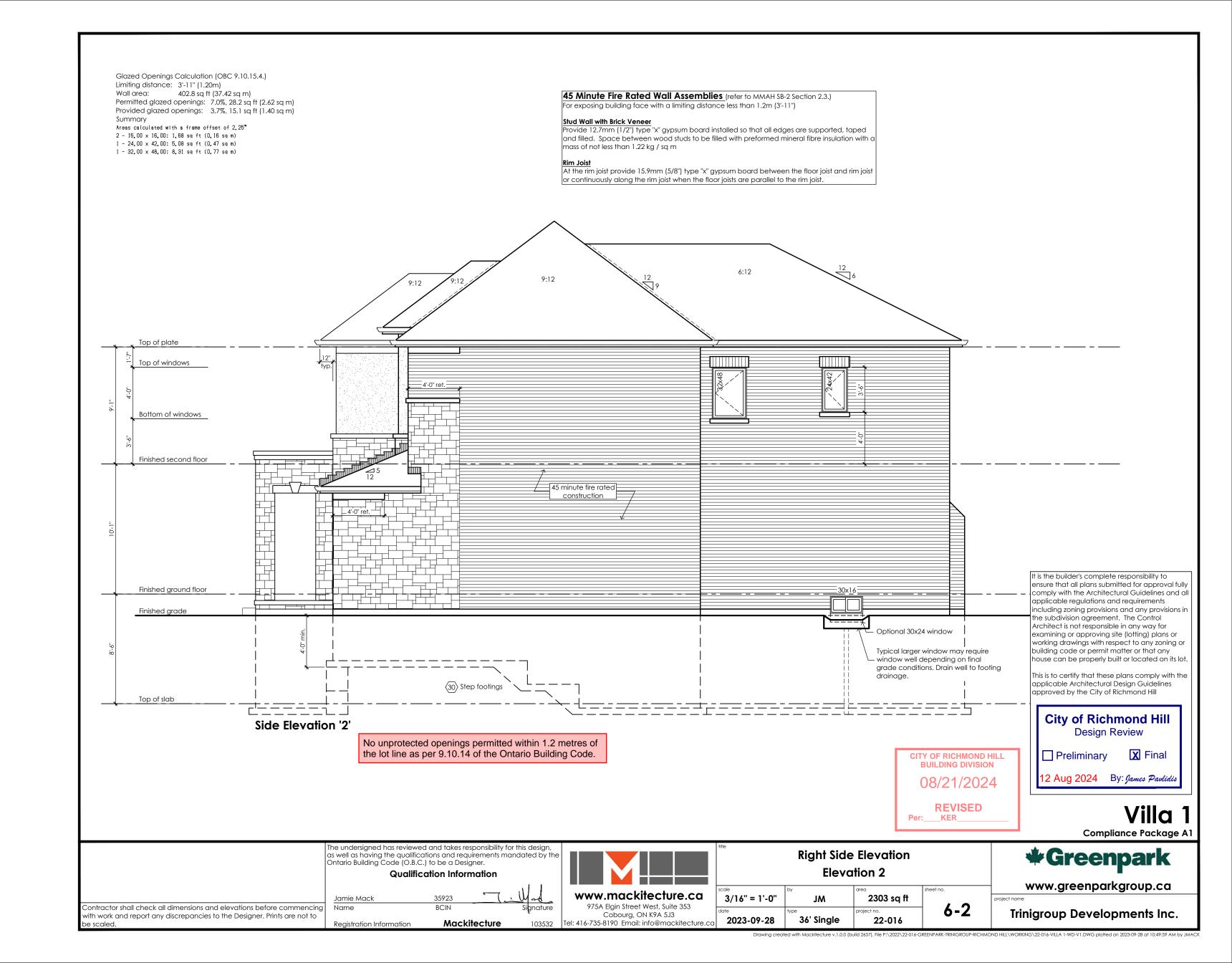


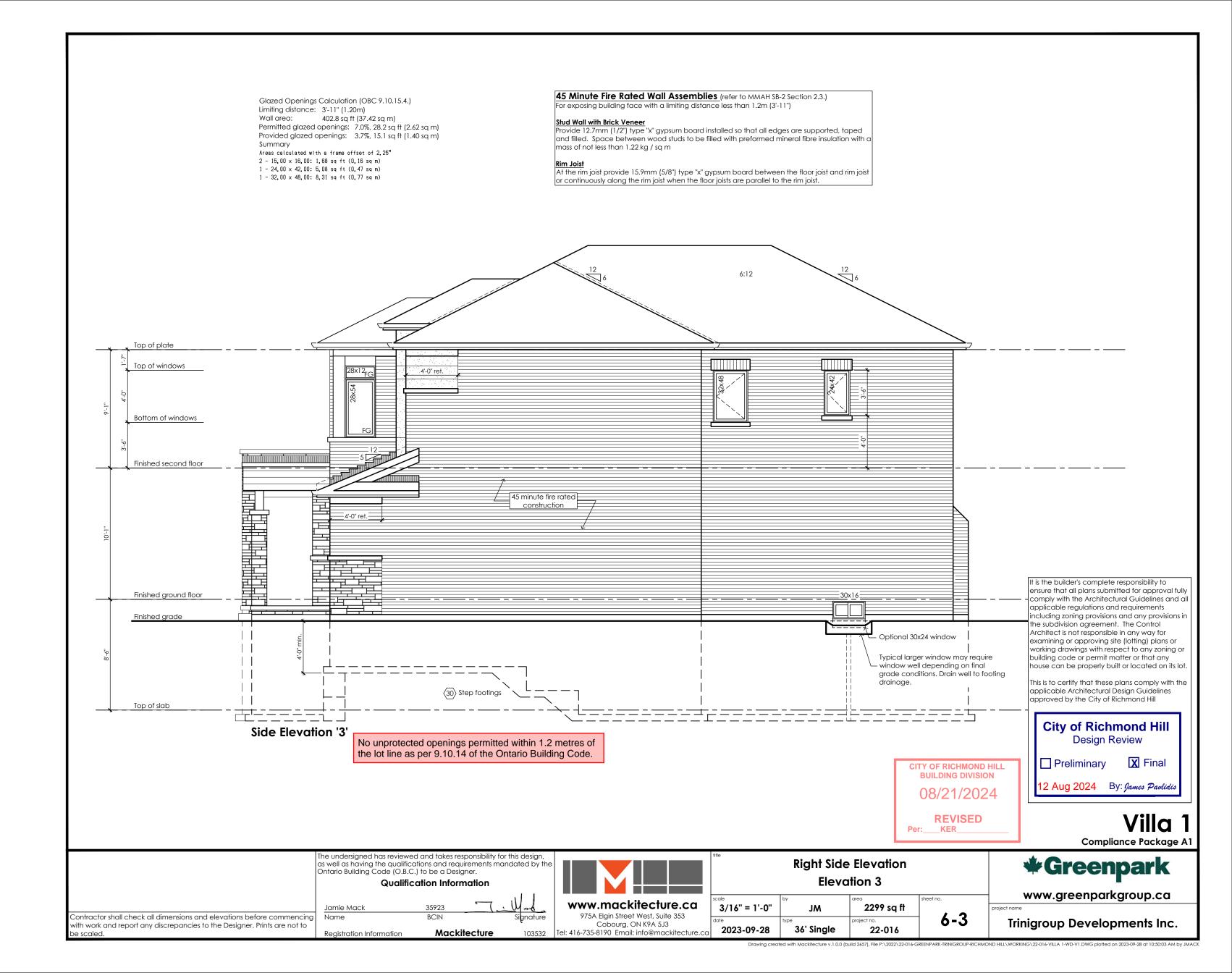


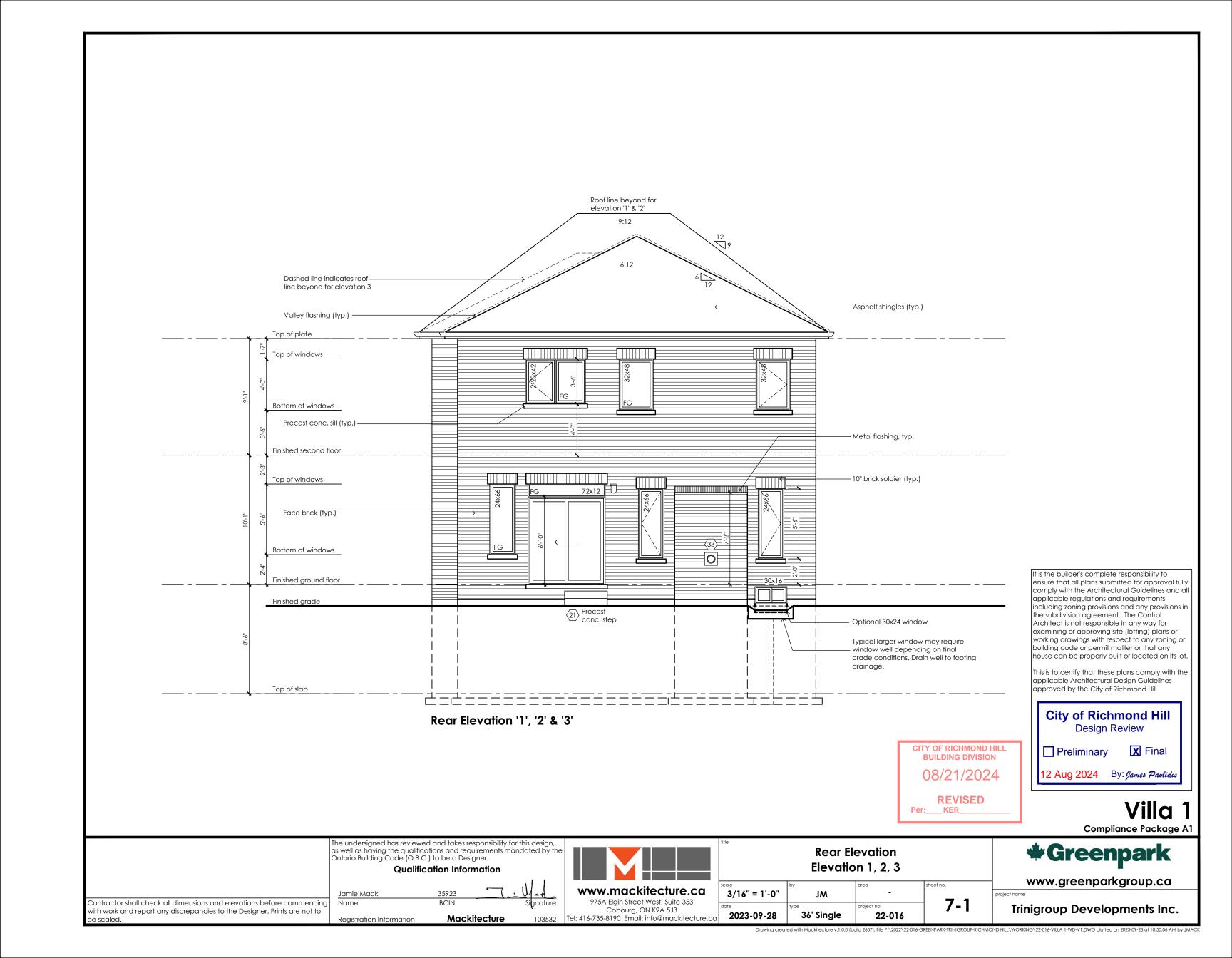


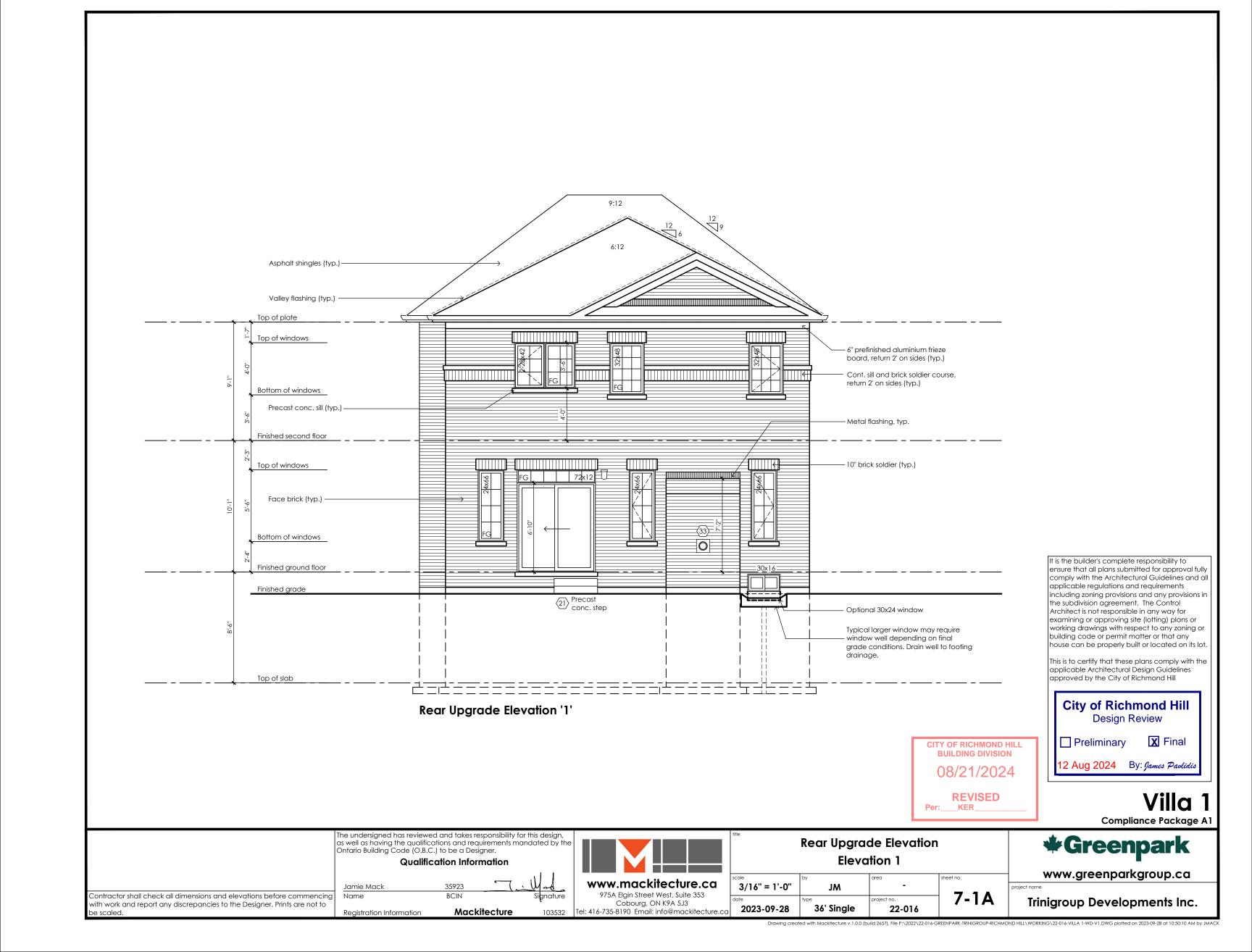


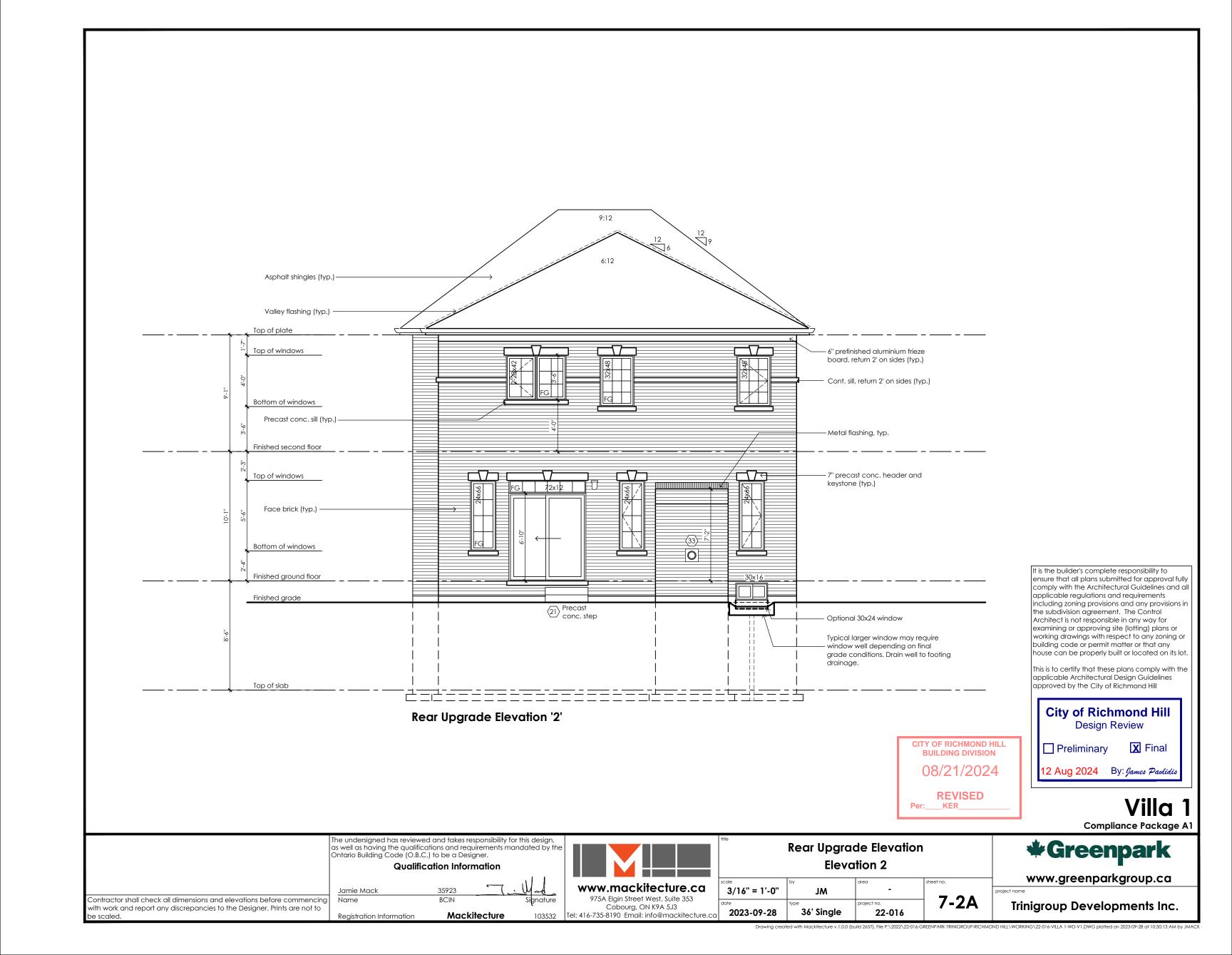


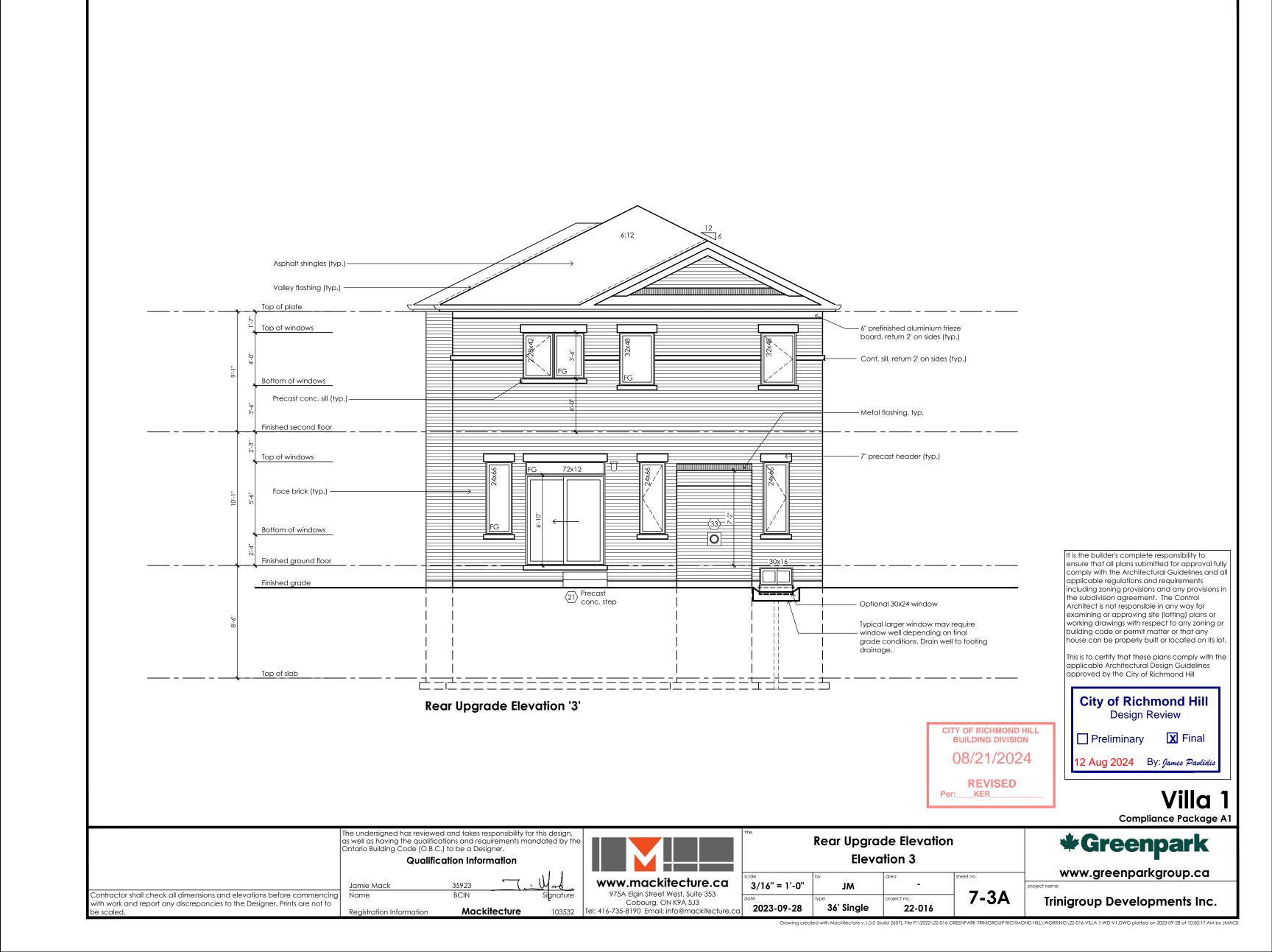


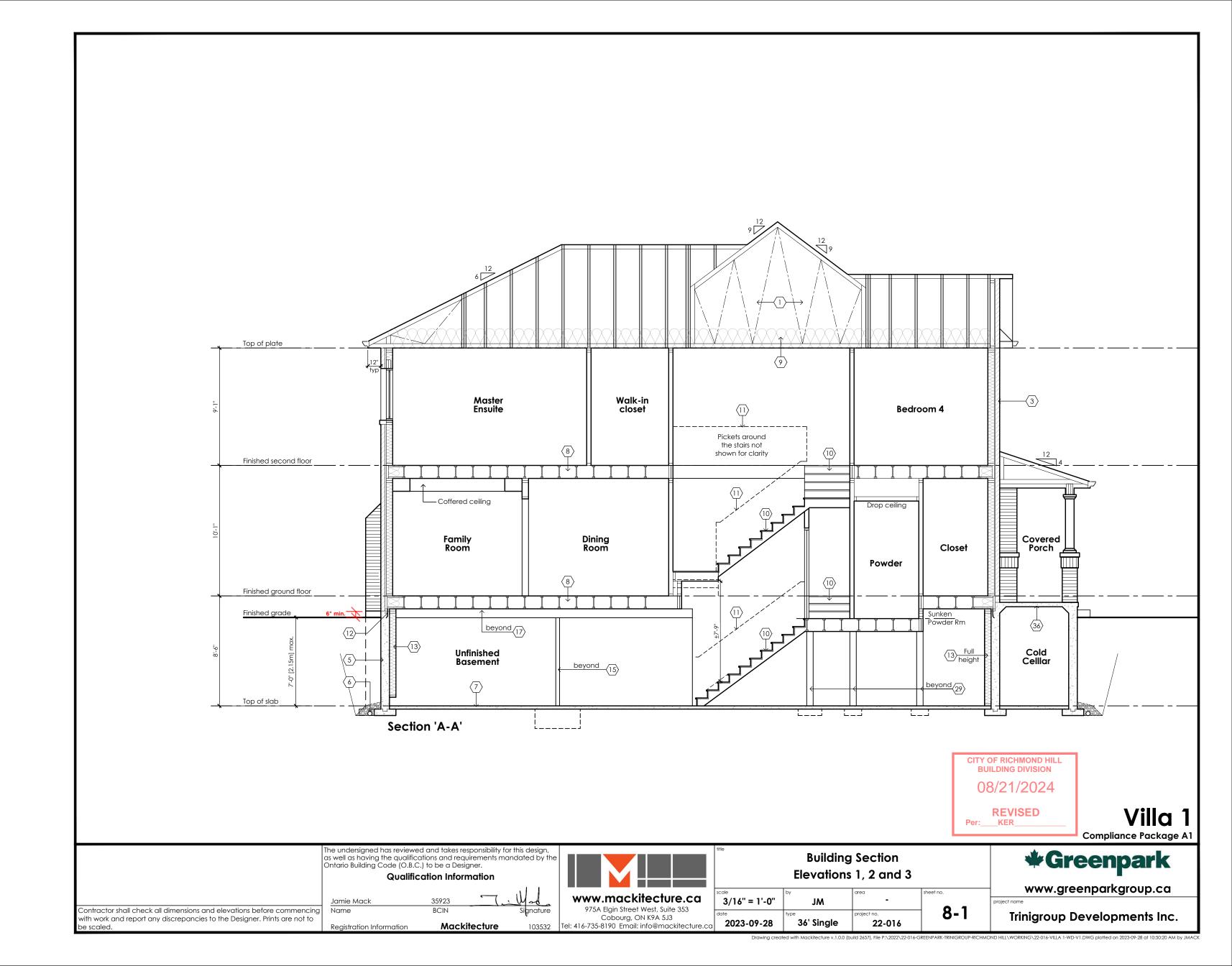








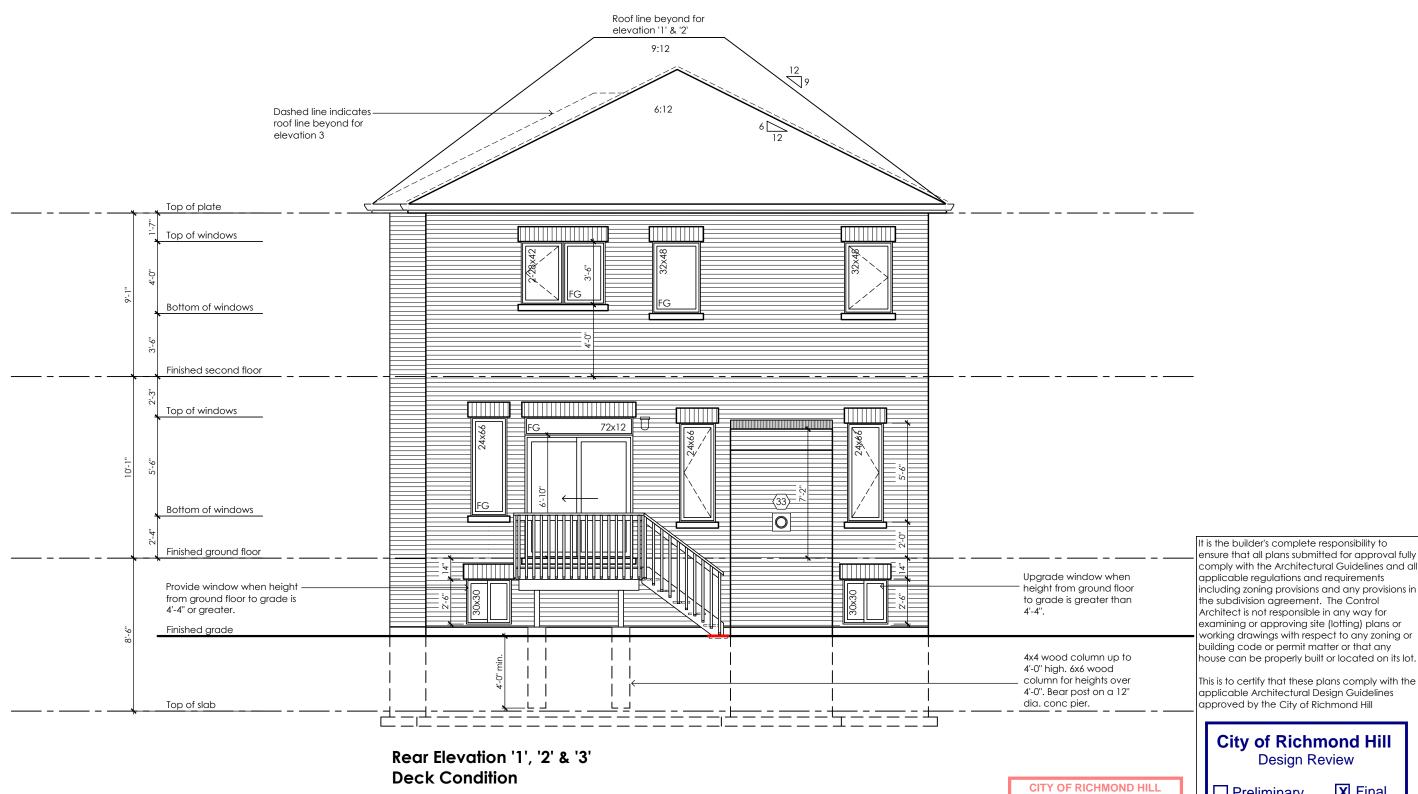




**SB-12 Calculations** Villa 1 - Deck Condition

Contractor shall check all dimensions and elevations before commencing with work and report any discrepancies to the Designer. Prints are not to

Elevation Wall Area **Window Area** Percentage 635.0 sq ft (59.0 sq m) 996.5 sq ft (92.6 sq m) 67.6 sq ft (6.3 sq m) 41.0 sq ft (3.8 sq m) 10.65% 4.12% Right side Rear 402.8 sq ft (37.4 sq m) 703.0 sq ft (65.3 sq m) 15.1 sq ft (1.4 sq m) 110.7 sq ft (10.3 sq m) 3.74% 15.75% Total 2737.4 sq ft (254.3 sq m) 234.4 sq ft (21.8 sq m) 8.56%



This is to certify that these plans comply with the applicable Architectural Design Guidelines approved by the City of Richmond Hill **City of Richmond Hill** Design Review

**BUILDING DIVISION** 

08/21/2024 **REVISED** 

Per:\_\_\_KER\_

X Final Preliminary

12 Aug 2024

Villa 1 Compliance Package A1

The undersigned has reviewed and takes responsibility for this design, as well as having the qualifications and requirements mandated by the Ontario Building Code (O.B.C.) to be a Designer.

### **Qualification Information**

Name **BCIN** Mackitecture

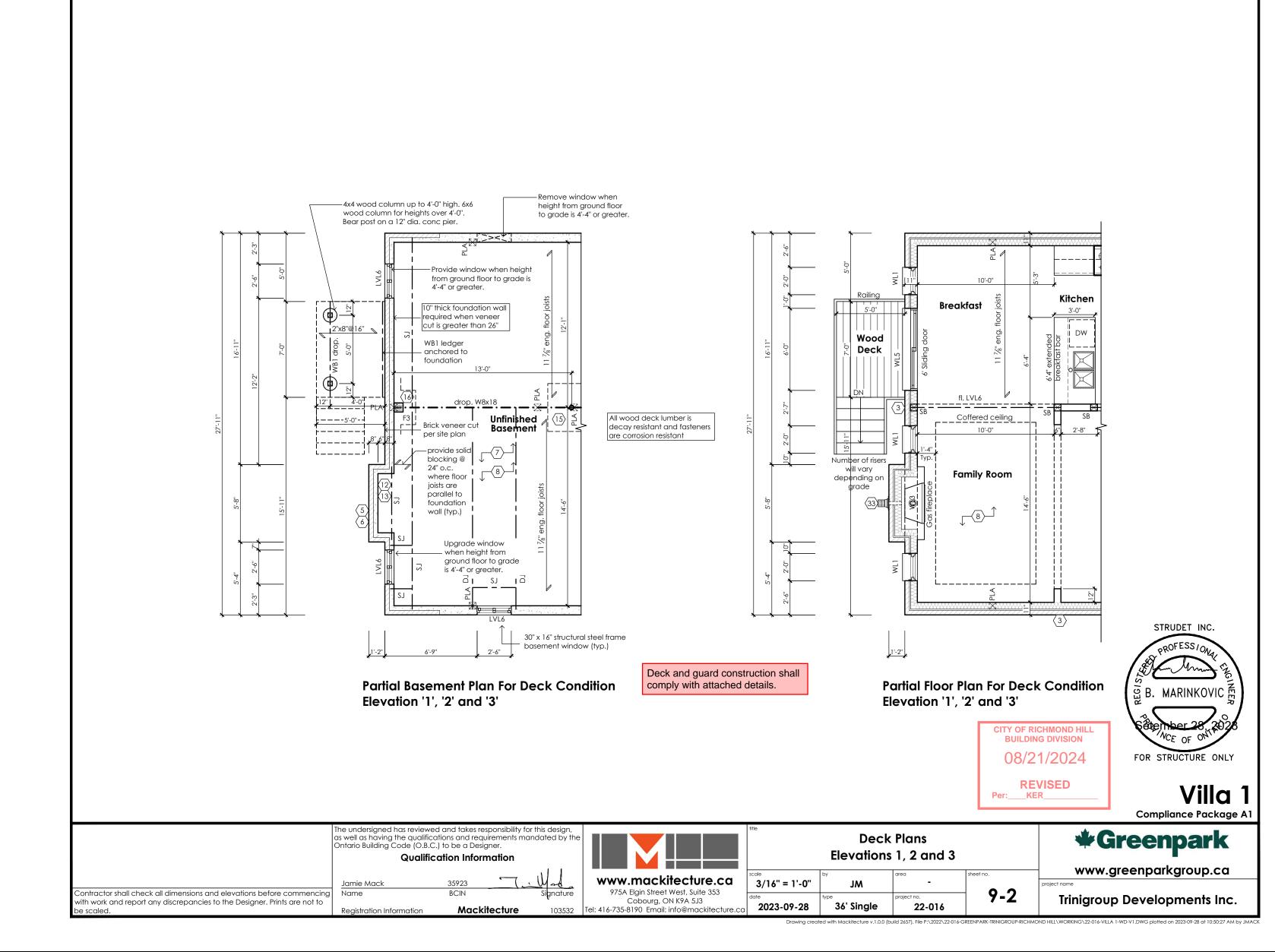


# **Deck Elevation** Elevations 1, 2 and 3

3/16" = 1'-0" 9-1 2023-09-28 36' Single 22-016



www.greenparkgroup.ca



### **SB-12 Calculations** Villa 1 - Walkout Condition Elevation Wall Area Window Area Percentage 635.0 sq ft (59.0 sq m) 996.5 sq ft (92.6 sq m) 67.6 sq ft (6.3 sq m) 41.0 sq ft (3.8 sq m) 10.65% 4.12% Right side Rear 402.8 sq ft (37.4 sq m) 842.7 sq ft (78.3 sq m) 15.1 sq ft (1.4 sq m) 130.2 sq ft (12.1 sq m) 3.74% 15.45% Total 2877.0 sq ft (267.3 sq m) 253.9 sq ft (23.6 sq m) 8.82% Roof line beyond for elevation '1' & '2' 9:12 6:12 Dashed line indicates roof line beyond for elevation 3 Top of plate Top of windows Bottom of windows Finished second floor Top of windows 72x12 ₹33 Bottom of windows Provide 24" long 4x4 diagonal (45°) bracing for 0 columns over 7'-0" high. It is the builder's complete responsibility to ensure that all plans submitted for approval fully Finished ground floor comply with the Architectural Guidelines and all applicable regulations and requirements Top of windows including zoning provisions and any provisions i the subdivision agreement. The Control Architect is not responsible in any way for examining or approving site (lotting) plans or working drawings with respect to any zoning or building code or permit matter or that any Bottom of windows house can be properly built or located on its lot. 6x6 wood column. Bear post This is to certify that these plans comply with the applicable Architectural Design Guidelines on a 12" dia. conc pier. approved by the City of Richmond Hill Finished grade **City of Richmond Hill** Design Review CITY OF RICHMOND HILL BUILDING DIVISION X Final Preliminary Rear Elevation '1', '2' & '3' 12 Aug 2024 08/21/2024 **Walkout Condition REVISED** Villa 1 Per:\_\_\_KER\_ Compliance Package A1 The undersigned has reviewed and takes responsibility for this design, as well as having the qualifications and requirements mandated by the **<b><b>#Greenpark Walkout Basement Elevation** Ontario Building Code (O.B.C.) to be a Designer. Elevations 1, 2 and 3 **Qualification Information** www.greenparkgroup.ca www.mackitecture.ca 3/16" = 1'-0"

975A Elgin Street West, Suite 353

Cobourg, ON K9A 5J3

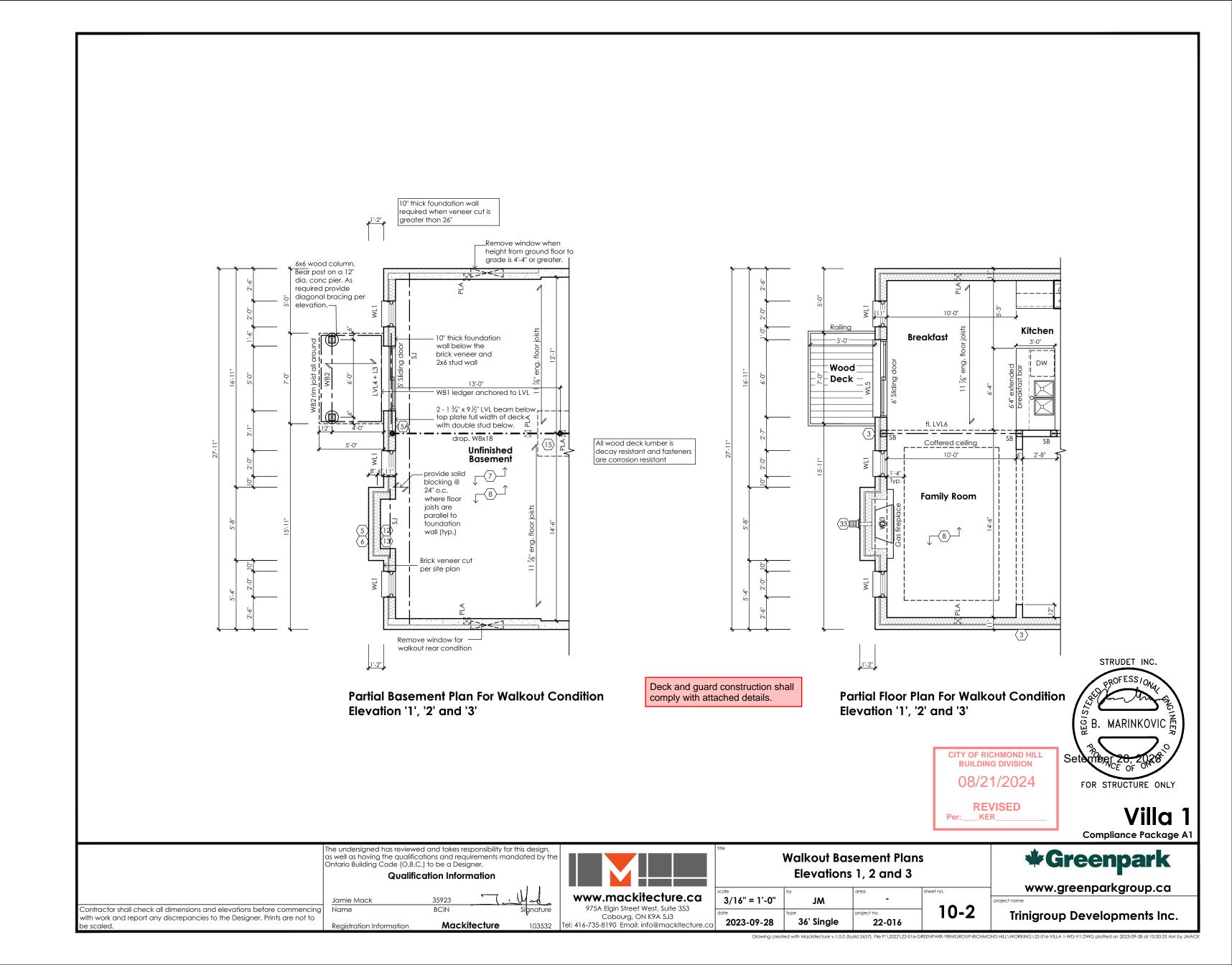
Tel: 416-735-8190 Email: info@mackitecture.ca

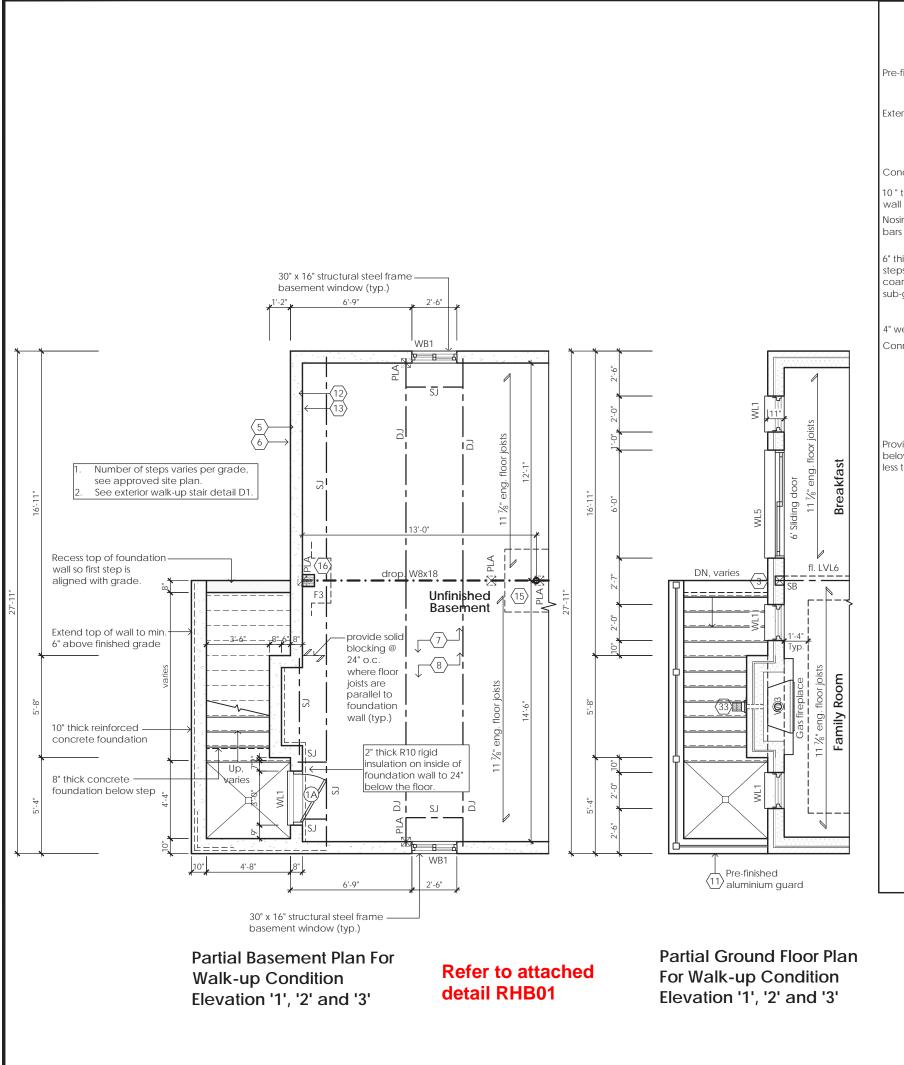
**BCIN** 

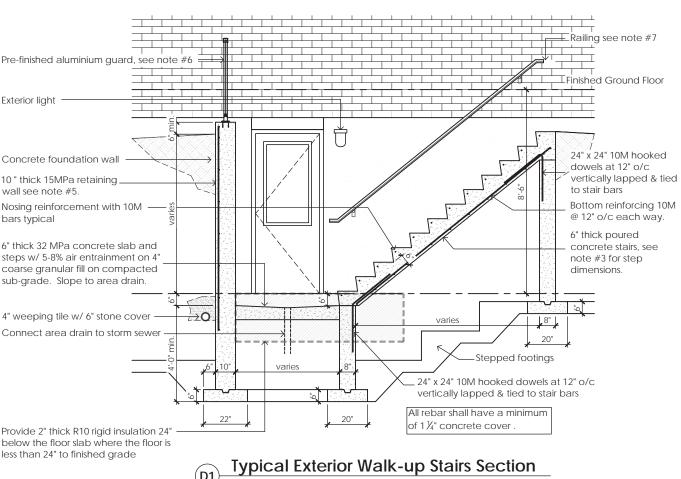
Mackitecture

Contractor shall check all dimensions and elevations before commencing with work and report any discrepancies to the Designer. Prints are not to

10-1







### **General Notes**

Footing
15MPa poured concrete footings. 22" wide x 6" thick for 10" thick foundation wall and 20" wide x 6" thick for 8" thick foundation

walls. All footings shall rest on natural undisturbed soil or compacted granular fill. Concrete

Minimum compressive strength of 32 MPa (4650 psi) at 28 days w/ 5% to 8% air entrainment.

### **Exterior Stairs**

 $4\,\%$ " (125mm) minimum rise, 7 %" (200mm) maximum rise

 $10\frac{7}{16}$ " (255mm) minimum tread,  $13\frac{7}{8}$ " (355mm) maximum tread. The depth of a rectangular tread shall be not less than its run and not more than its run plus 1" (25mm)

### Insulation

for insulation value & vapour barrier location refer to note 13 of standard notes

### Retaining wall

10" (250mm) thick 15MPa poured concrete w/ no reinforcing required for wall heights less than 4'-7" (1.4m). For wall heights greater than 4'-7" (1.4m) provide 15M vertical reinforcement @ 16" (400mm) o.c. and 15M horizontal reinforcement @ 24" (600mm) o.c. Retaining wall to resist lateral design loads as per OBC division B section 4.1.5.16.

Guards shall be designed to resist the specified loads prescribed in Table 9.8.8.2. or constructed in accordance with the requirements in MMAH Supplementary Standard SB-7, "Guards for Housing and Small Buildings".  $3'-6\frac{1}{8}$ " (1070mm) high where distance from grade to bottom of walk-up exceeds 5'-10  $\frac{1}{8}$ " (1.80m). 2'-11  $\frac{1}{16}$ " (900mm) high for

Maximum 4" between vertical pickets.

Guards shall be designed so that no member, attachment or opening located between  $5\frac{1}{2}$ " and  $35\frac{1}{16}$ " (140 mm and 900 mm) above the floor or walking surface protected by the guard will facilitate climbing. (9.8.8.6.)

### 7. Handrails

At least one required handrall shall be continuous throughout the length of the stair.

Handrails shall be terminated in a manner that will not obstruct pedestrian travel or create a hazard. The height of handrails shall be not less than 34 1/8" (865) and not more than 42 1/8" (1070). A clearance of not less than 50 mm shall be provided between a handrail and any surface behind it.

Handrails and projections below handrails, including handrail supports and stair stringers, shall not project more than 4" (100) into the required width of a stair or ramp.



CITY OF RICHMOND HILL **BUILDING DIVISION** 08/21/2024 **REVISED** 

> Villa 1 Compliance Package A1

he undersigned has reviewed and takes responsibility for this design, as well as having the qualifications and requirements mandated by th Ontario Building Code (O.B.C.) to be a Designer. **Qualification Information** 

Jamie Mack Mackitecture

Contractor shall check all dimensions and elevations before commencing

vith work and report any discrepancies to the Designer. Prints are not to



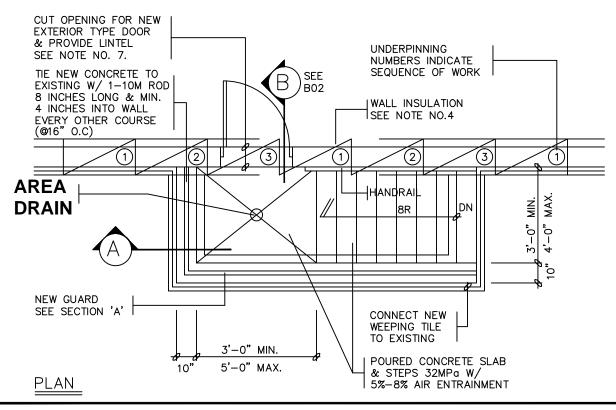
Walk-up Plans Elevations 1, 2 and 3

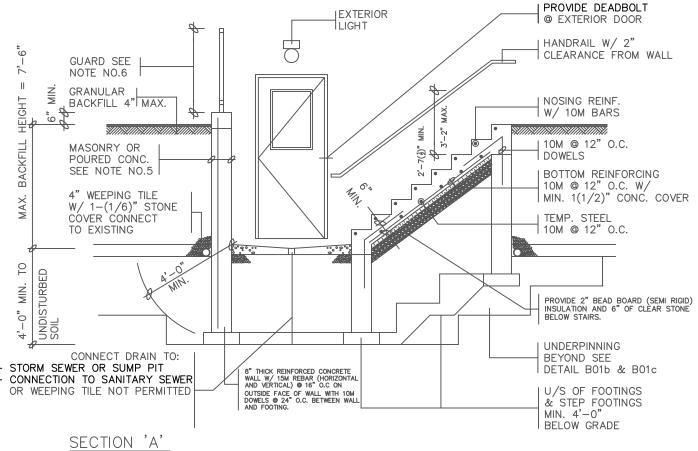
**<b>◆Greenpark** 

www.greenparkgroup.ca

Trinigroup Developments Inc.

11-2





# GENERAL NOTES:

### FOOTINGS:

16"x6" POURED CONC. FOOTING ALL FOOTINGS SHALL REST ON NATURAL UNDISTURBED SOIL OR COMPACTED GRANULAR FILL.

# 2. CONCRETE:

MINIMUM COMPRESSIVE STRENGTH OF 32 MPA @ 28 DAYS W/ 5% TO 8% AIR ENTRAINMENT.

### 3. EXTERIOR STAIRS:

RISER: 4(7/8)"MIN. I 7(7/8)"MAX. RUN: 9(1/4)"MIN. I 14"MAX. TREAD: 9(1/4)"MIN. I 14"MAX. NOTE: stairs shall comply with attached general note #18

### 4. INSULATION:

MINIMUM R20c.i. INSULATION W/ VAPOUR BARRIER ON THE INSIDE FACE OF THE EXPOSED FOUNDATION WALL.

### 5. RETAINING WALL:

REINFORCING STEEL IN SIDE WALLS TO BE LOCATED ON OUTSIDE FACE OF WALLS WITH 1(1/2)" CONCRETE COVER.

## 6. GUARDS:

3'-6" HEIGHT WHERE DISTANCE FROM GRADE TO BOTTOM OF WALKOUT EXCEEDS 5'-11"; 2'-11" FOR LESSER HEIGHTS. MAXIMUM 4" BETWEEN VERTICAL PICKETS. GUARDS SHALL BE NON-CLIMBALE AND IN CONFORMANCE WITH OBC 2012 DIV.B 9.8.8 AND SB-7

### 7. LINTELS:

- SOLID MASONRY/CONCRETE: 2-3(1/2)"x3(1/2)"x(1/4)" STEEL ANGLES

   BRICK VENEER: 1-3(1/2)"x3(1/2)"x(1/4)"L + 2-2"x8"

   WOOD FRAME/SIDING: 2-2"x8"

## 8. UNDERPINNING:

UNDERPINNING, OR EXTRA DEPTH FOOTING TO A LEVEL 4 FT. BELOW THE WALKOUT SLAB, IS REQUIRED FOR ALL FOOTINGS WITHIN A 4 FT. RADIUS OF ANY POINT OF THE WALKOUT SLAB.

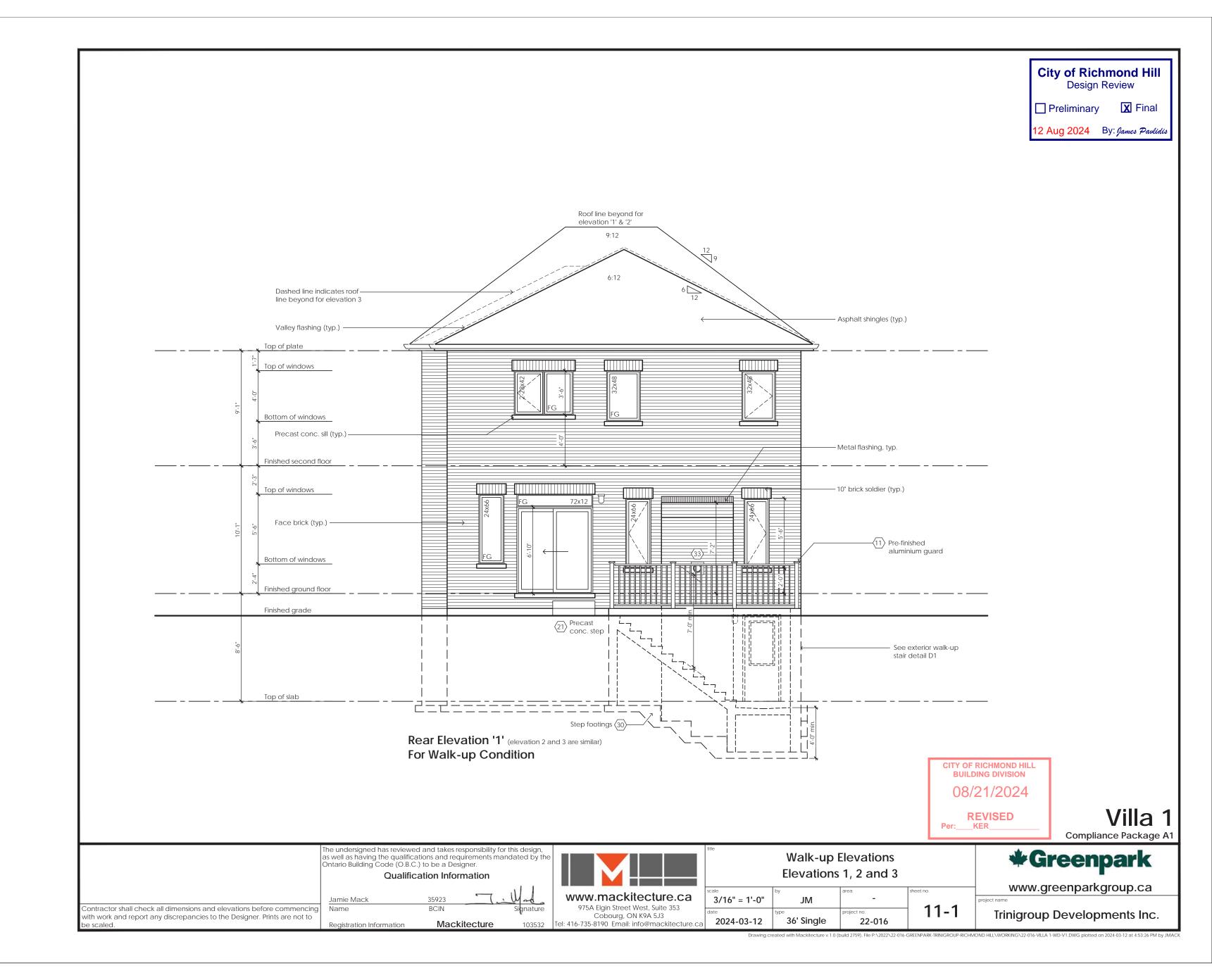


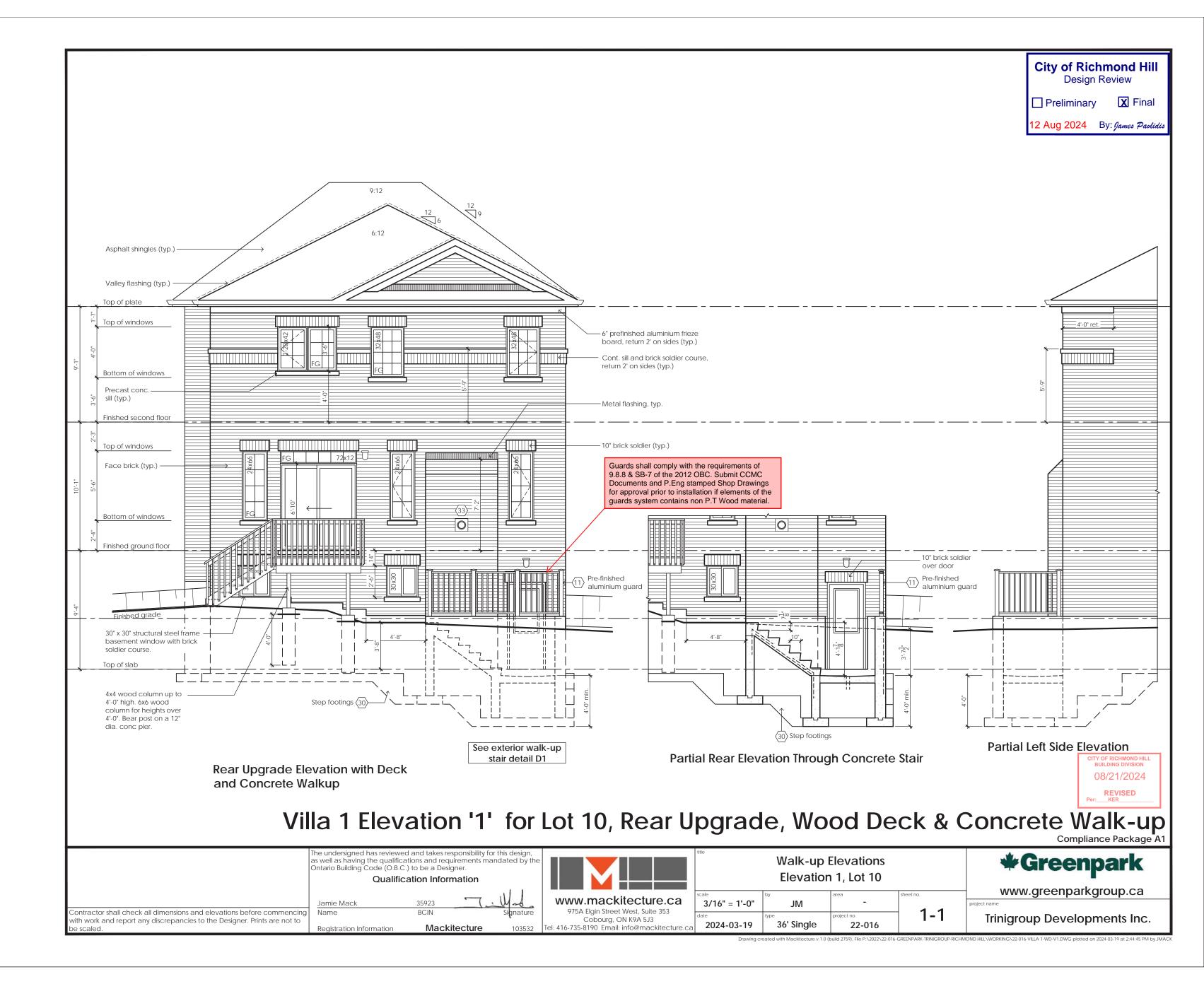
BASEMENT WALKOUT PLAN & SECTIONS

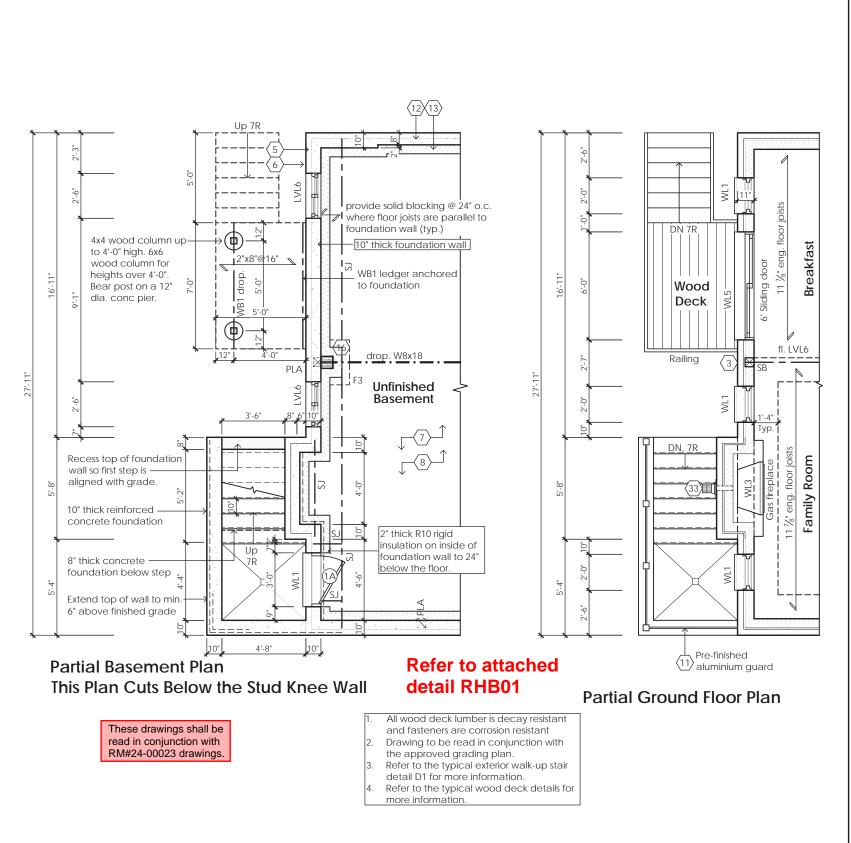
DWG. NO.

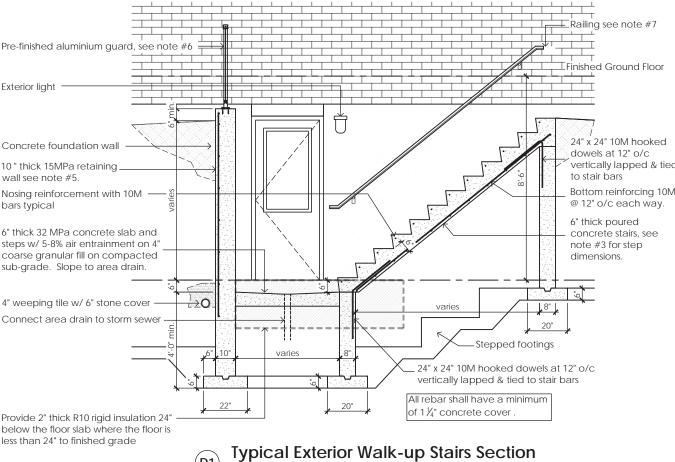
B01RH

2020









### **General Notes**

Footing
15MPa poured concrete footings. 22" wide x 6" thick for 10" thick foundation wall and 20" wide x 6" thick for 8" thick foundation

Minimum compressive strength of 32 MPa (4650 psi) at 28 days w/ 5% to 8% air entrainment.

4  $\frac{7}{8}$ " (125mm) minimum rise, 7  $\frac{7}{8}$ " (200mm) maximum rise

The depth of a rectangular tread shall be not less than its run and not more than its run plus 1" (25mm)

### Insulation for insulation value & vapour barrier location refer to note 13 of standard notes

 $10\frac{7}{16}$ " (255mm) minimum tread,  $13\frac{7}{8}$ " (355mm) maximum tread.

### Retaining wall

10" (250mm) thick 15MPa poured concrete w/ no reinforcing required for wall heights less than 4'-7" (1.4m). For wall heights greater than 4'-7" (1.4m) provide 15M vertical reinforcement @ 16" (400mm) o.c. and 15M horizontal reinforcement @ 24" (600mm) o.c. Retaining wall to resist lateral design loads as per OBC division B section 4.1.5.16.

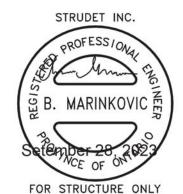
Guards shall be designed to resist the specified loads prescribed in Table 9.8.8.2. or constructed in accordance with the requirements in MMAH Supplementary Standard SB-7, "Guards for Housing and Small Buildings"  $3'-6\frac{1}{6}$ " (1070mm) high where distance from grade to bottom of walk-up exceeds  $5'-10\frac{1}{6}$ " (1.80m).  $2'-11\frac{1}{6}$ " (900mm) high for

Maximum 4" between vertical pickets.

Guards shall be designed so that no member, attachment or opening located between 5 1/2" and 35 1/4." (140 mm and 900 mm) above the floor or walking surface protected by the guard will facilitate climbing. (9.8.8.6.)

At least one required handrall shall be continuous throughout the length of the stair.

Handralls shall be terminated in a manner that will not obstruct pedestrian travel or create a hazard. The height of handrails shall be not less than 34 1/8" (865) and not more than 42 1/8" (1070). A clearance of not less than 50 mm shall be provided between a handrail and any surface behind it. Handrails and projections below handrails, including handrail supports and stair stringers, shall not project more than 4" (100) into the required width of a stair or ramp.



Contractor shall check all dimensions and elevations before commencing

rith work and report any discrepancies to the Designer. Prints are not to

CITY OF RICHMOND HILL **BUILDING DIVISION** 08/21/2024

**REVISED** 

# Villa 1 Elevation '1' for Lot 10, Rear Upgrade, Wood Deck & Concrete Walk-up

The undersigned has reviewed and takes responsibility for this design, as well as having the qualifications and requirements mandated by the Ontario Building Code (O.B.C.) to be a Designer. **Qualification Information** 

Jamie Mack Mackitecture



Walk-up Plans Elevation 1, Lot 10 3/16" = 1'-0" 1-2

Greenpark

www.greenparkgroup.ca