

THESE PLANS CONFORM TO REQUIREMENTS
IN THE B.C. BUILDING CODE 2018.

REFERENCE NO. REVISION BYTITLE DRAWING NO. DRAWING NO. DATE DHILLON DESIGNS LTD. PROPOSED RESIDENTIAL FOR SCALE: 1/16"=1' JNIT 215-12830-80th AVE RANJIT RAI LOT #7, 5496 128 STREET SURREY, B.C. SURREY, B.C. V3W 3A8 DATE: JUNE.21.2022 PHONE: (604) 590-2808 DD22-8767-P1 FAX: (604) 590-2878 CHKD: EMAIL: info@dhillondesigns.ca **PHONE:** 604-721-1278

to ensure you do your part in creating an

planted in raised beds with fresh topsoil

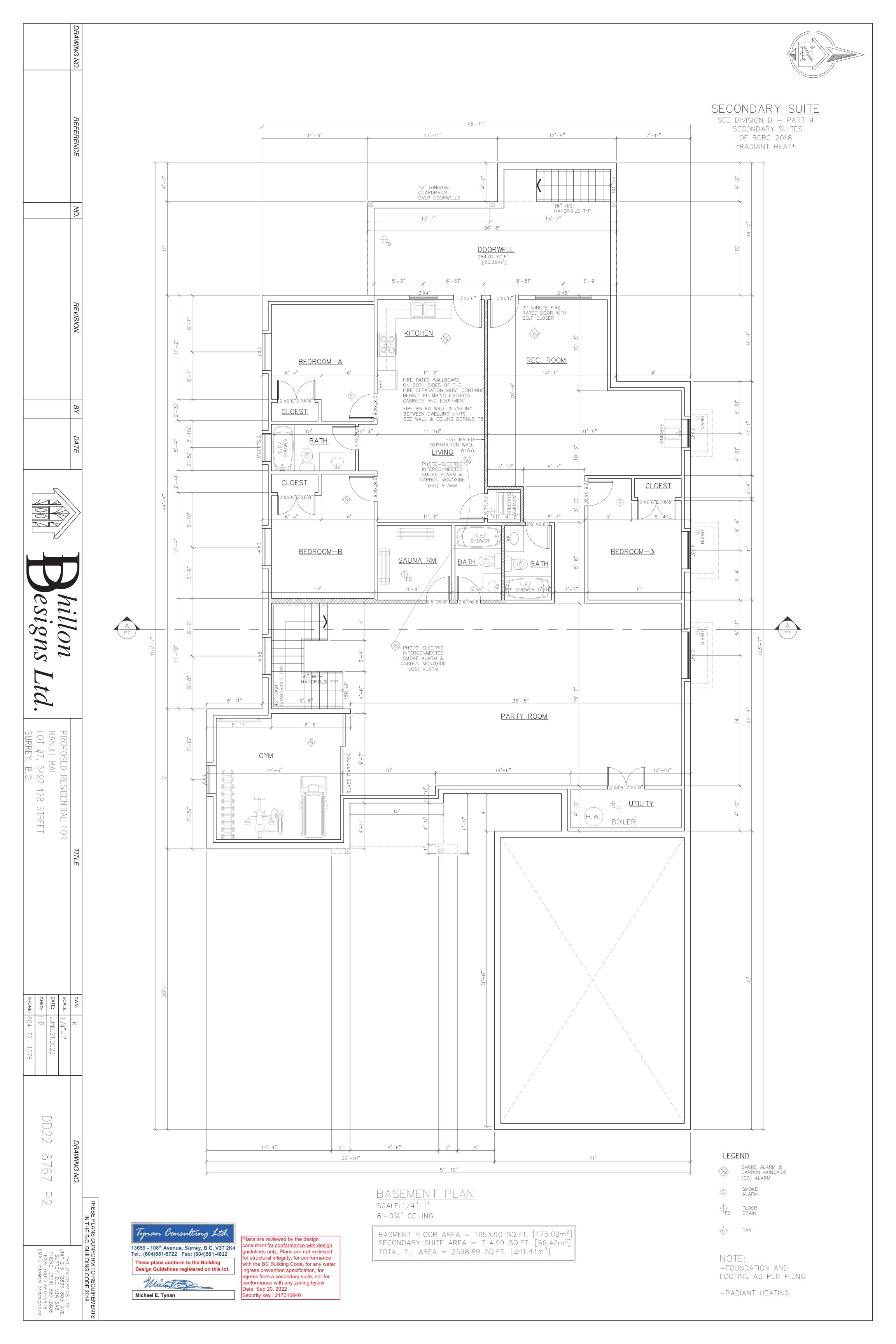
(excavation material is not o.k.).

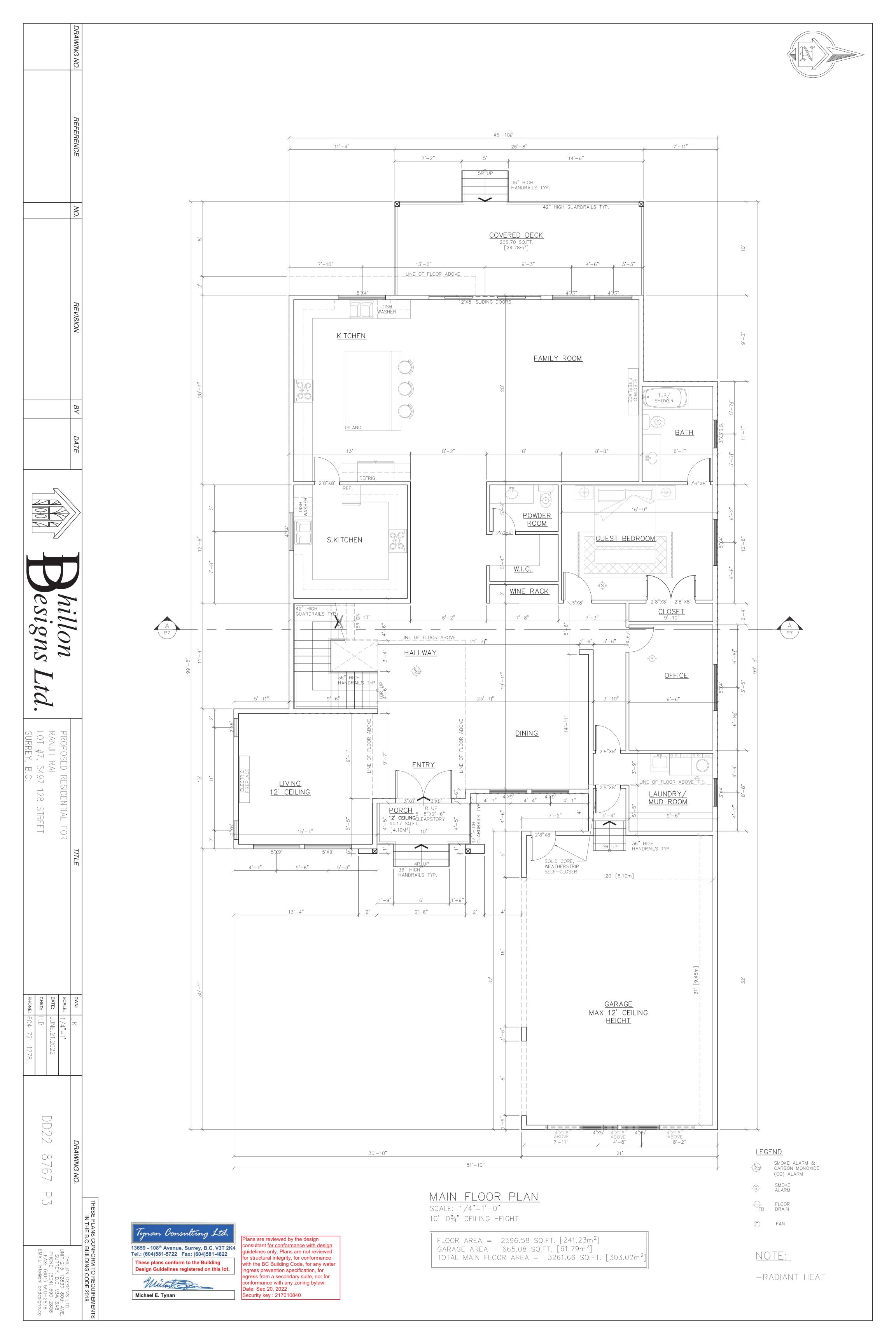
attractive neighbourhood. Shrubs should be

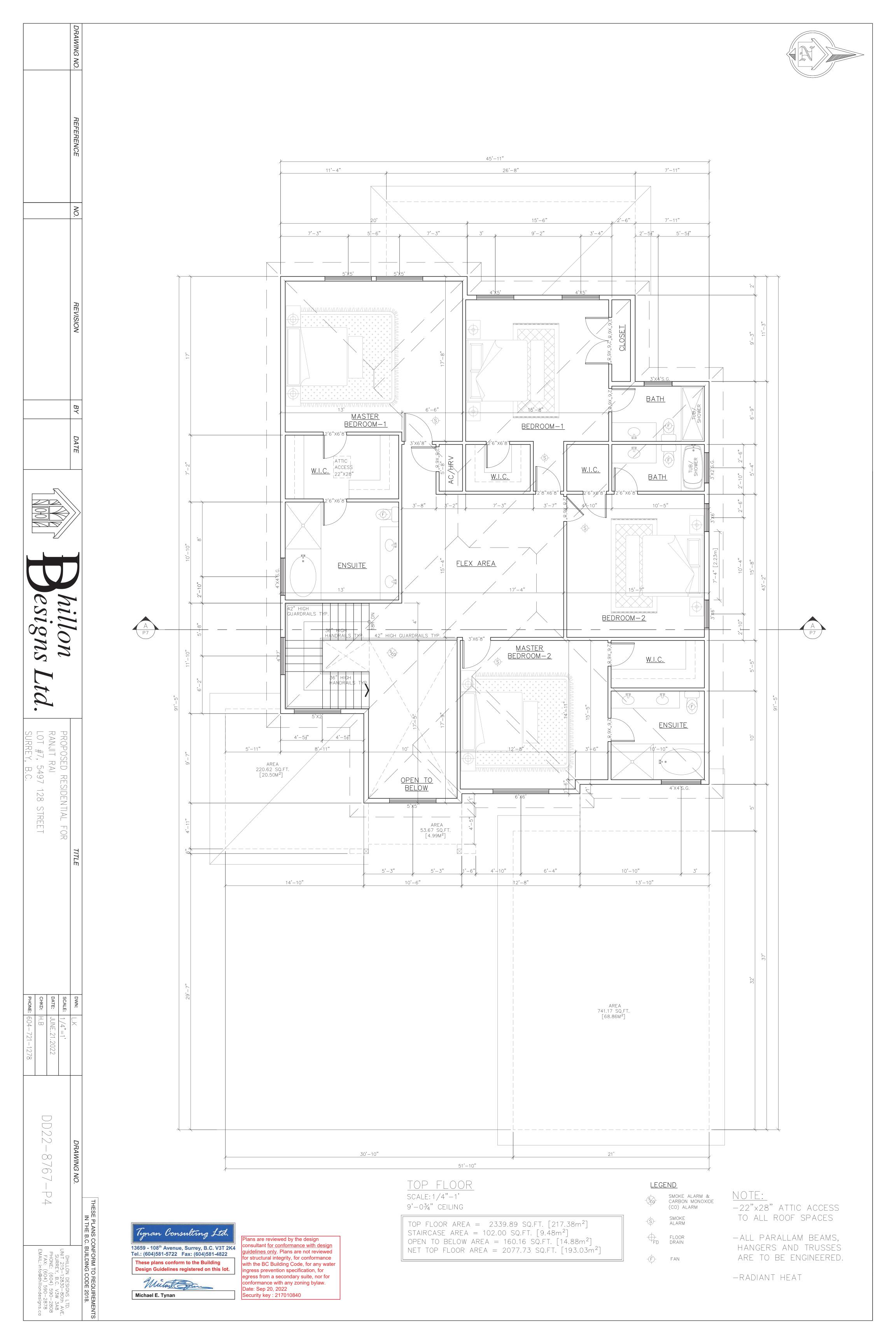
WE CANNOT AUTHORIZE RETURN OF COMPLIANCE

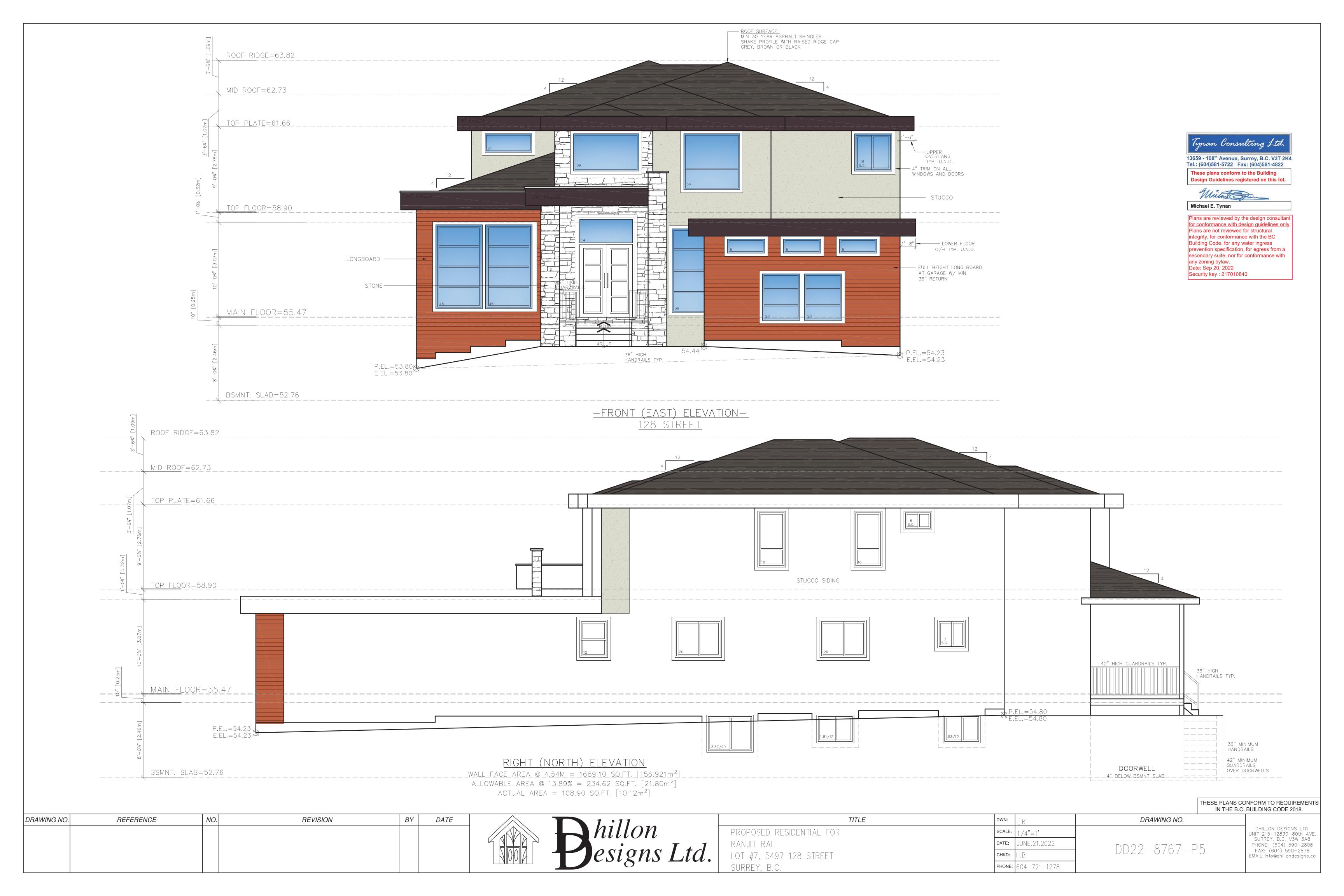
DEPOSITS IF IMPROVEMENTS DO NOT COMPLY WITH

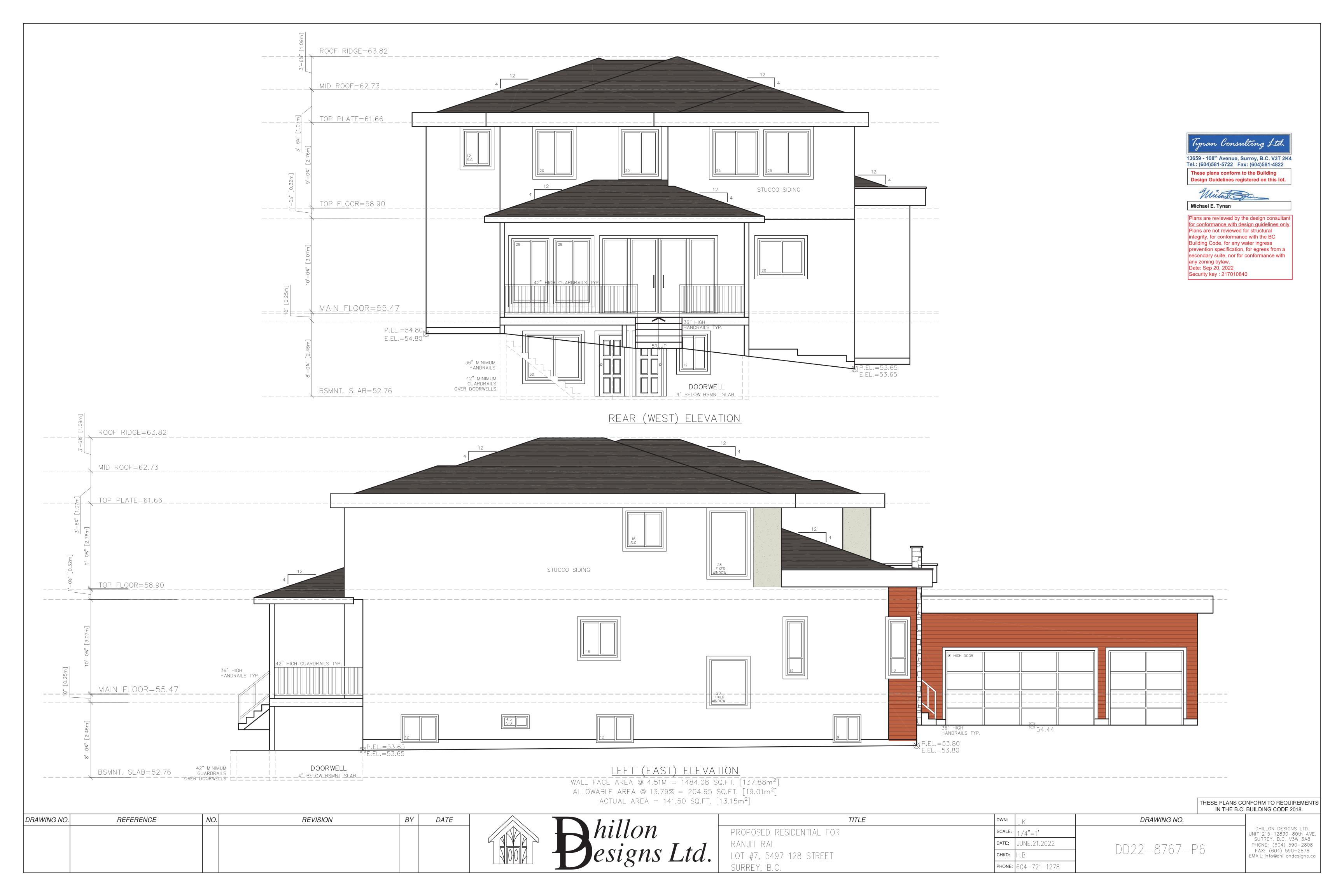
THE BUILDING SCHEME & LOT GRADING PLAN.

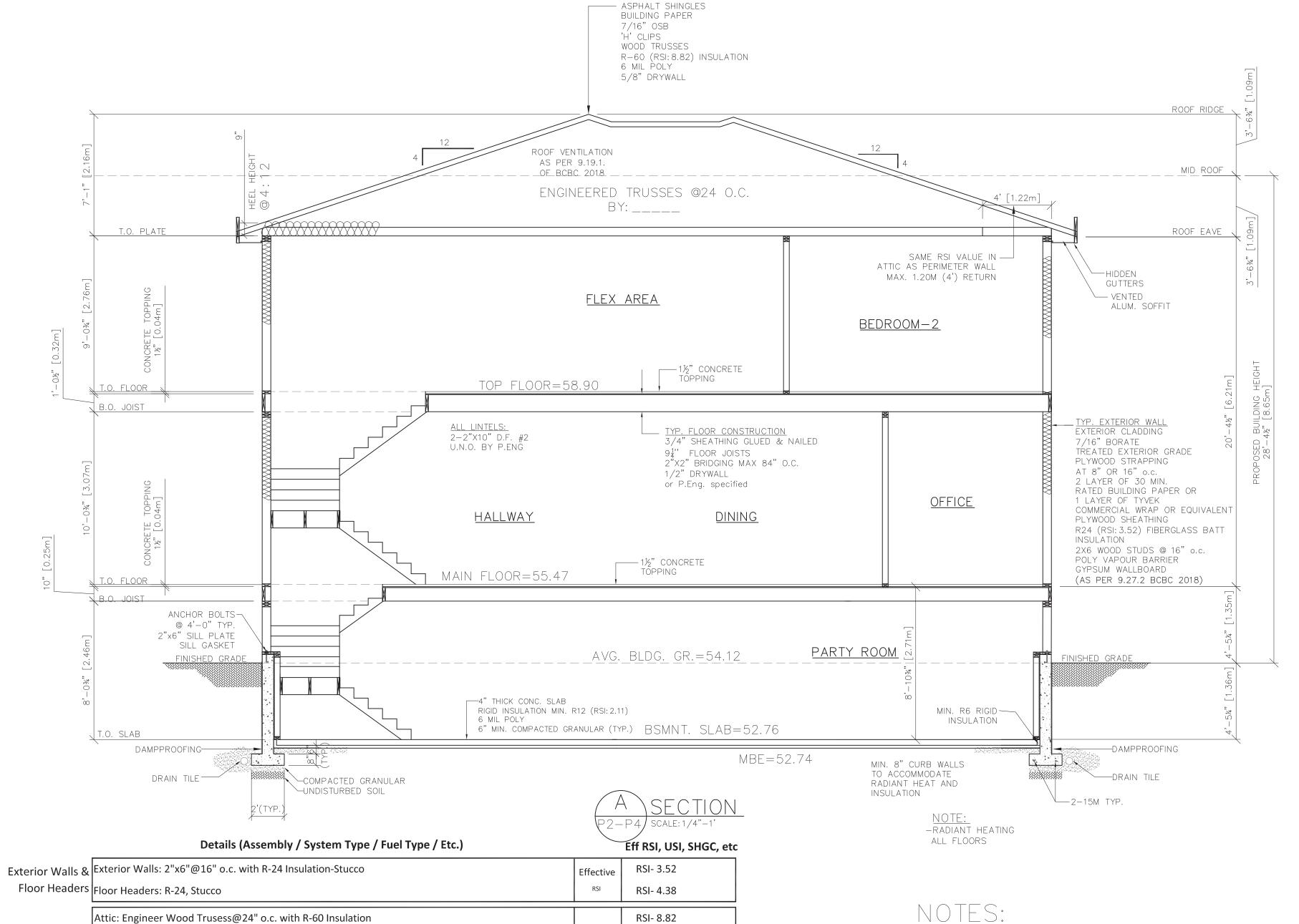












Effective

Effective

Effective

SHGC

% ,AFUE,

HSPF, or

SEER

EF or %

GJ

GJ

Unheated

OR

43000 BTU/hr

N/A BTU/hr

37000 BTU/hr

N/A gla

N/A gla

119 CFM

45 CFM

Heated

RSI- 4.56

RSI- N/A

RSI- 11.4

RSI- 2.11

RSI- 2.11

RSI- 5.55

N/A

U Value 1.30

SHGC 0.32

N/A

N/A

AFUE 95

AFUE N/A

SEER 13

EF 0.90

EF N/A

SRE 65%

SRE N/A

N/A

N/A

GJ

GJ

1. WRITTEN DIMENSION SHALL HAVE PRECEDENCE OVER SCALED DIMENSIONS.

2. CONTRACTOR SHALL VERIFY ALL ON SITE CONDITIONS PRIOR TO COMMENCEMENT OF THE WORK. 3. ALL WORK SHALL CONFORM TO THE REQUIREMENT OF THE BRITISH COLUMBIA BUILDING CODE. LATEST

4. ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENT OF C.S.A. 3.A231 LATEST EDITION.

5. CONCRETE STRENGTH AT 28 DAYS, MINIMUM 3,000 PSI.

6. ALL FRAMING AND NAILING SHALL CONFORM TO B.C. BUILDING CODE PART 9 AND DESIGN TO CSA LATEST EDITION.

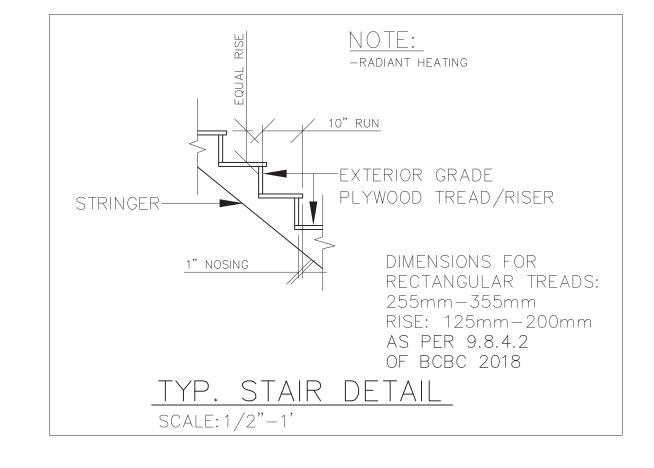
7. ALL FRAMING LUMBER SHALL BE DOUGLAS FIR #2 OR BETTER.

8. WOOD TRUSSES SHALL BE DESIGN AND SEALED BY P.ENG. REGISTERED IN B.C.

9. ALL PLYWOOD SHALL BE DOUGLAS FIR CONFORM TO CSA 0121 LATEST EDITION.

10. OWNER IS TO BE ENTIRELY RESPONSIBLE FOR ALL STRUCTURAL ENGINEERING REQUIREMENTS.

11. ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE WORK COMMENCES.



CONSIDERATION MUST BE GIVEN TO THE FOLLOWING AT THE TIME OF CONSTRUCTION:

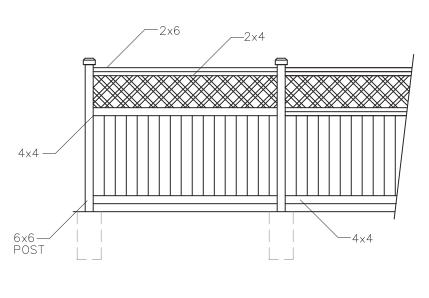
- -DUCTS LOCATED OUTSIDE THE THERMAL ENCLOSURE ARE SEALED AND INSULATED TO THE EXTERIOR WALL INSULATION
- REQUIREMENTS.
- -DAMPERS ARE INSTALLED AT AIR INLETS AND EXHAUSTS WHERE REQUIRED.
- -PIPING FOR HEATING OR COOLING SYSTEMS IS LOCATED WITHIN THE THERMAL ENCLOSURE OR ARE FULLY INSULATED.
- -HVAC EQUIPMENT IS LOCATED WITHIN THERMAL ENCLOSURE OR DESIGNATED TO BE INSTALLED OUTSIDE OF THERMAL ENCLOSURE.
- -TEMPERATURE CONTROLS ARE INSTALLED ON HEATING AND COOLING EQUIPMENT.
- -INDOOR POOLS ARE COVERED OR HAVE ON HRV/DEHUMIDIFIER.
- -HVAC AND SWH EQUIPMENT MEET MINIMUM PERFORMANCE REQUIREMENTS DETERMINED IN TABLES 9.36.3.10. AND 9.36.4.2.
- -SERVICE WATER HEATING PIPES ARE INSULATED AT THE INLET AND OUTLET OF STORAGE TANKS.
- -SERVICE WATER HEATERS HAVE TEMPERATURE CONTROLS.

FENCES ARE NOT REQUIRED, BUT WHERE USED:

01. THE FENCE IS CONSTRUCTED OF TREATED MATERIAL AND SUITABLY STAINED.

02. FENCES ON THE SIDE OF THE SINGLE FAMILY DWELLING ARE LOCATED AT LEAST 1.8 METERS (6.0 FEET) BEHIND THE FRONT FACE OF THE SINGLE FAMILY DWELLING.

03. THE FENCE STRUCTURE IS SUBSTANTIALLY AS FOLLOWS.



FENCE DETAIL SCALE: 1/4"-1'

Typan Consulting Ltd 13659 - 108th Avenue, Surrey, B.C. V3T 2K4 Tel.: (604)581-5722 Fax: (604)581-4822 These plans conform to the Building Design Guidelines registered on this lot.

Michael E. Tynan

Security key: 217010840

Plans are reviewed by the design consultan <u>or conformance with design guidelines only</u>. Plans are not reviewed for structural ntegrity, for conformance with the BC building Code, for any water ingress revention specification, for egress from a econdary suite, nor for conformance with any zoning bylaw. Date: Sep 20, 2022

THESE PLANS CONFORM TO REQUIREMENTS IN THE B.C. BUILDING CODE 2018.

DRAWING NO. REFERENCE NO. REVISION BY DATE

Bathroom exhaust fan Passive inlets

Instantaneous Condensing Natural Gas

Roof / Ceilings | Flat: TJI 11.875"@16"o.c. with R-28 Insulation

Doors: 1.8 U Value or Lower

Secondary Space Heating: N/A

Heating | Secondary Service Water Heating: N/A

FDWR: 15.9 %

Service Water Primary Service Water Heating:

Principal Ventilation:

Secondary Ventilation:

Foundation Walls: 8" Concrete, 2"x4"@16" o.c. with R-24 Insulation

Floors Over Unheated Spaces: TJI 11.875"@16"o.c. with R-28 Insulation

OR Above Frost Line

Slabs: R-12 Rigid Insulation Full Area Below Slab

nterior continuous poly air and vapour barrier

Space Cooling: Central System Air Conditioner

Slab Edge Insulation:R-12 Thermal Break All Around

Windows: 1.30 U value or lower and 0.32 SHGC or Higher

Primary Space Heating: Condensing Natural Gas Boiler

Cathedral: N/A

Foundation Walls,

Headers, & Slabs

Floors Over

Fenestration

& Doors

Location

Ventilation

Other Energy N/A

Impacting Features N/A

Unheated Spaces

Air Barrier System &

Space Conditioning

(Heating & Cooling)



	IIILE
PROPOSED RESIDENTIAL FOR	
RANJIT RAI	
LOT #7, 5497 128 STREET	
SURREY, B.C.	

	DWN:	L.K	DRAWING NO.
	SCALE:	AS NOTED	
	DATE:	JUNE.21.2022	DD22-8767-P7
	CHKD:	H.B	
	PHONE:	604-721-1278	

DHILLON DESIGNS LTD. NIT 215-12830-80th AVE SURREY, B.C. V3W 3A8 PHONE: (604) 590-2808 FAX: (604) 590-2878 EMAIL: info@dhillondesigns.ca

	-SUBFLOOR OF 15.5mm PLYWOOD, OSB OR WAFERBOARD, OR 17mm TONGUE AND GROOVE LUMBER
	ON WOOD JOISTS OR WOOD I-JOISTS SPACED NOT MORE THAN 600mm O.C. - ABSORPTIVE MATERIAL IN CAVITY
	STEEL FURRING CHANNELS SPACED 600mm O.C.
	- 2 LAYERS OF 15.9mm (%") TYPE X GYPSUM BOARD ON CEILING SIDE
5/8" TYPE 'X' GYPSUM BOARD AGAINST SEPARATION WALL	
DETAIL B SCALE: 1/2"-1" P3	
F6(d): STC=44 - SUBFLOOR OF 15.5mm PLYWOOD, OSB OR WAFERBOARD, OR 17mm TONGUE AND GROOVE LUMBER - ON WOOD JOISTS OR WOOD I-JOISTS SPACED	B
NOT MORE THAN 600mm O.C. - ABSORPTIVE MATERIAL IN CAVITY - STEEL FURRING CHANNELS SPACED 600mm O.C. -2 LAYERS OF 15.9mm (5%") TYPE X GYPSUM	
BOARD ON CEILING SIDE F see Division B — Appendix A Table A—9.10.3.1.B of BCBC 2018	LOOR JOISTS - LOOR JOISTS
W4(a): STC=51 ————————————————————————————————————	O.C. '
- WITH 89mm THICK ABSORPTIVE MATERIAL - RESILIENT METAL CHANNELS ON ONE SIDE SPACED 400mm OR 600mm O.C2 LAYERS OF 15.9mm (%") TYPE X GYPSUM BOARD	ON RESILIENT
METAL CHANNEL SIDE -1 LAYERS OF 15.9mm (%") TYPE X GYPSUM BOARD - STUDS SPACED 400mm O.C. see Division B - Appendix A	v .
Table A-9.10.3.1.A of BCBC 2018	DETAIL (A) SCALE: 1/2"-1" P3
W4(a): STC=51 - 38mm (1½")x 89mm (3½") STUDS SPACED O.C. - WITH 89mm THICK ABSORPTIVE MATERIAL	400mm
- RESILIENT METAL CHANNELS ON ONE SIDE 400mm OR 600mm O.C2 LAYER OF 15.9mm (5%") TYPE X GYPSUM	
1h FIRE RATED WALL DETAIL The property of the	BOARD ON
Table A—9.10.3.1.A of BCBC 2018	
	F6(d): STC=44
	- SUBFLOOR OF 15.5mm PLYWOOD, OSB OR WAFERBOARD, OR 17mm TONGUE AND GROOVE LUMBER ON WOOD JOISTS OR WOOD
1h FIRE RATED CEILING	I-JOISTS SPACED NOT MORE THAN 600mm O.C. - ABSORPTIVE MATERIAL IN CAVITY
THE THE OLILING	600mm O.C. - 2 LAYERS OF 15.9mm (%") TYPE X GYPSUM BOARD ON CEILING SIDE
	see Division B — Appendix A Table A—9.10.3.1.B of BCBC 2018
BY DATE A TOTAL	TITI F

REFERENCE

DRAWING NO.

NO.

REVISION

BY

DATE

F6(d): STC=44

-SUBFLOOR OF 15.5mm PLYWOOD, OSB

TITLE

PROPOSED RESIDENTIAL FOR

RANJIT RAI LOT #7, 5497 128 STREET SURREY, B.C. THESE PLANS CONFORM TO REQUIREMENTS IN THE B.C. BUILDING CODE 2018.

DHILLON DESIGNS LTD.
UNIT 215-12830-80th AVE.
SURREY, B.C. V3W 3A8
PHONE: (604) 590-2808
FAX: (604) 590-2878
EMAIL: info@dhillondesigns.ca

DRAWING NO.

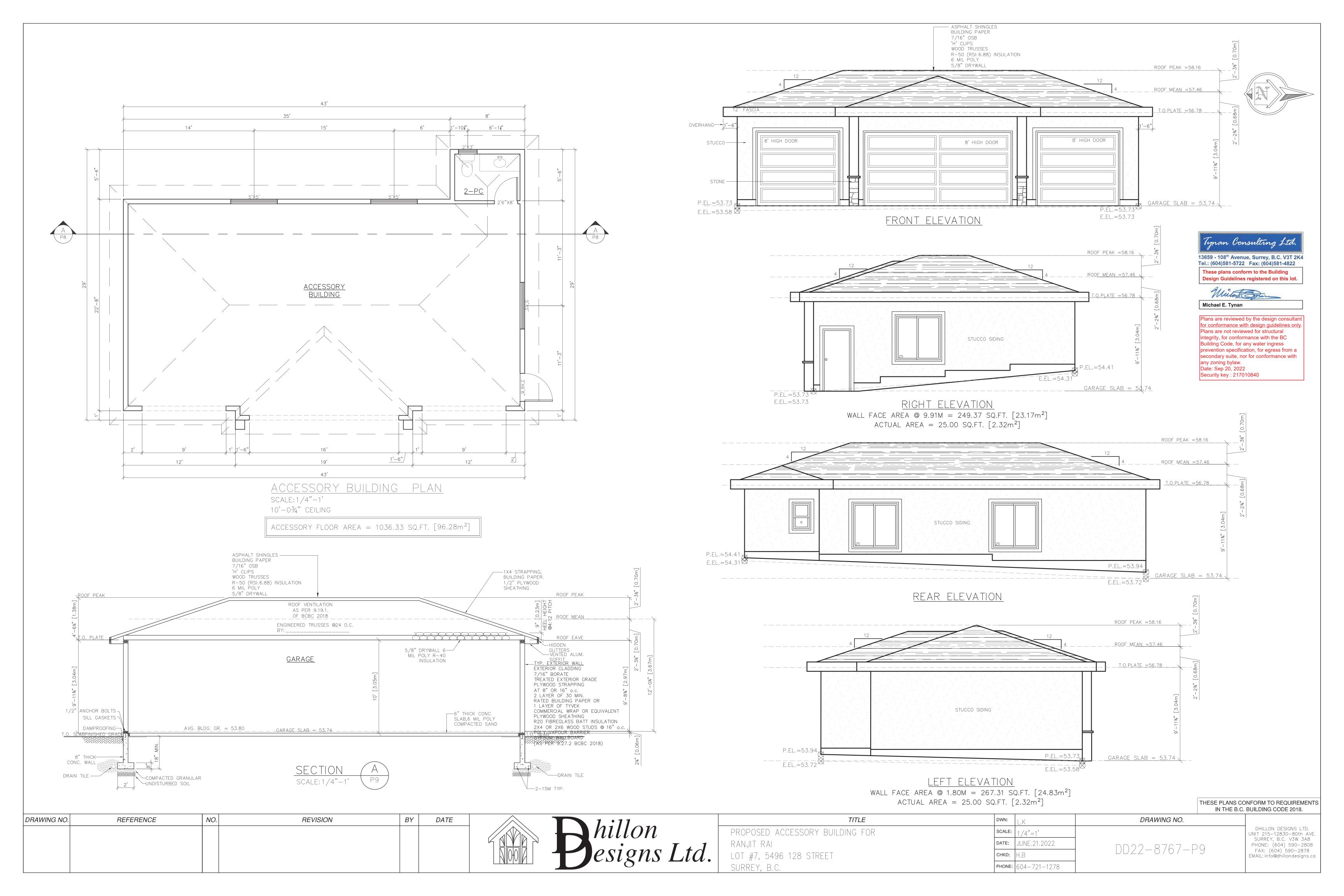
DD22-8767-P8

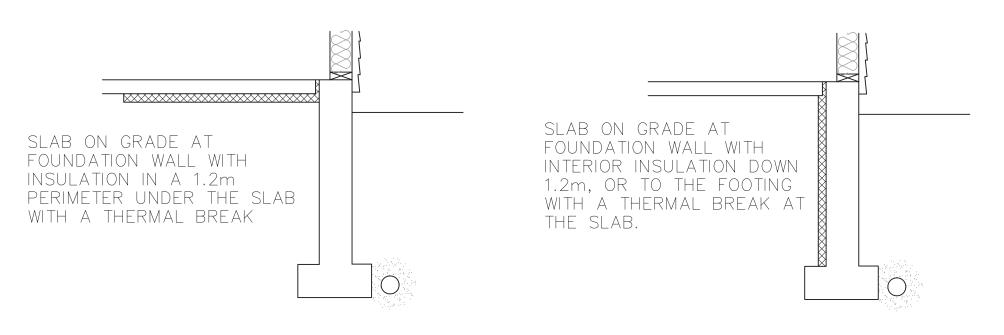
SCALE: N.T.S

CHKD:

DATE: JUNE.21.2022

PHONE: 604-721-1278





INSULATION OF UNHEATED AND HEATED SLABS ABOVE THE FROST LINE SCALE 1/2":1'-0" AS PER BCBC 9.36 LATEST REVISION WITH

OR WITHOUT HEAT RECOVERY VENTILATOR



CLIMATE ZONE 4

AS PER SECTION 9.36.2.10. NOTES PERTAINING TO LEAKAGE PATHS

-FOUNDATION TO SILL PLATE AND RIM JOISTS

VENTILATOR

ALL JOINTS AT THE TRANSITION BETWEEN THE FOUNDATION WALL AND THE ABOVE GRADE WALL MUST BE MADE AIR-TIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

HEATED SLABS (INTERIOR)

SCALE 1/2":1'-0" AS PER BCBC 9.36 LATEST

REVISION WITH OR WITHOUT HEAT RECOVERY

-INTERIOR WALL INTERFACE

INTERIOR WALLS THAT MEET EXTERIOR WALLS OR CEILINGS WITH AN INTERIOR PLANE OF AIR TIGHTNESS MUST BE MADE AIRTIGHT BY EITHER SEALING ALL JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL, OR MAINTAINING THE CONTINUITY OF THE AIR BARRIER SYSTEM THROUGH THE INTERIOR WALL

ALL JOINTS AT THE RIM JOIST ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL.

-CANTILEVERED FLOOR

CANTILEVERED FLOORS AND FLOORS OVER UNHEATED SPACES/EXTERIOR SPACE MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

-WINDOW HEAD

THE INTERFACE BETWEEN WINDOW HEAD/JAMB AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER IN THE WALL AND WINDOW. THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

-WINDOW SILL

THE INTERFACE BETWEEN WINDOW SILL AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE WINDOW. THE REQUIREMENT ALSO APPLIES TO DOORS AND SKYLIGHTS

-MECHANICAL FLUES AND CHIMNEYS

STEEL-LINED CHIMNEYS THAT PENETRATE THE BUILDING ENVELOPE MUST BE MADE AIRTIGHT BY BLOCKING THE VOID BETWEEN REQUIRED CLEARANCES FOR METAL CHIMNEYS AND SURROUNDING CONSTRUCTION WITH SHEET METAL AND SEALANT CAPABLE OF WITHSTANDING HIGH TEMPERATURES

-PLUMBING STACKS

PLUMBING VENT STACK PIPES THAT PENETRATE THE BUILDING ENVELOPE MUST BE MADE AIRTIGHT BY EITHER SEALING THE AIR BARRIER MATERIAL TO THE VENT STACK PIPE WITH A COMPATIBLE MATERIAL OR SHEATHING TAPE, OR INSTALLING A RUBBER GASKET OR PREFABRICATED ROOF FLASHING AT THE PENETRATION OF THE PLANE OF AIRTIGHTNESS AND SEALING IT TO THE TOP PLATE

-SKYLIGHTS

THE INTERFACE BETWEEN THE SKYLIGHT AND WALL ASSEMBLY MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE AIR BARRIER MATERIAL IN THE WALL AND THE SKYLIGHT

-WALL TO CEILING

ALL JOINTS AT THE TRANSITION BETWEEN THE ABOVE GRADE WALL AND CEILING MUST BE MADE AIRTIGHT BY SEALING ALL JOINTS AND JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS AND/OR COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL

-WALL VENTED DUCTS

DUCT PENETRATIONS THROUGH THE BUILDING ENVELOPE MUST HAVE AN AIRTIGHT SEAL

-ELECTRICAL PENETRATION IN WALLS

ELECTRICAL PENETRATIONS IN WALLS, INCLUDING ELECTRICAL OUTLETS, WIRING, SWITCHES, AND RECESSED FIXTURES THROUGH THE PLANE OF AIRTIGHTNESS MUST BE AIRTIGHT. OPTIONS INCLUDE USING A COMPONENT THAT IS DESIGNED TO BE AIRTIGHT AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL, OR BY COVERING THE COMPONENT WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL

FLOORS OVER UNHEATED SPACES ASSEMBLY

(CERAMIC TILE FLOORING) AS PER BCBC 9.36 LATÈST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-28 (RSI-5.55) BATT INSULATION IN 2x11% WOOD FRAMING @ 12" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
R-28 (RSI-5.55) BATT INSULATION IN $2x11\%$ WOOD FRAMING @ 16" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. INTERIOR AIR FILM 2. FLOORING MATERIAL — CERAMIC TILE 3. 1/4" PLYWOOD SUBFLOOR 4. 5/8" PLYWOOD SUBFLOOR 5. 3/4" AIR BARRIER/SHEATHING MEMBRANE 6. POLYETHYLENE 7. 5/8" GYPSUM CEILING BOARD 8. EXTERIOR AIR FILM	0.12 0.005 0.05 0.14 0.18 - 0.10 0.03	RSI 0.625 (R-3.55)
TOTAL EFFECTIVE INSULATION VALUE (12" O.C	: FRAMING)	RSI 6.175 (R-31.55)
TOTAL EFFECTIVE INSULATION VALUE (16" O.C. FRAMING)		RSI 6.175 (R-31.55)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR UNHEATED SPACES	R FLOORS ABOVE	RSI 4.67 (R-26.5)

FLOORS OVER UNHEATED SPACES ASSEMBLY (CARPET FLOORING)

AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-28 (RSI-5.55) BATT INSULATION IN 2x117/8 WOOD FRAMING @ 12" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
R-28 (RSI-5.55) BATT INSULATION IN 2x11% WOOD FRAMING @ 16" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
 INTERIOR AIR FILM FLOORING MATERIAL — CARPET & RUBBER PAD 5/8" PLYWOOD SUBFLOOR 3/4" AIR BARRIER/SHEATHING MEMBRANE POLYETHYLENE 5/8" GYPSUM CEILING BOARD EXTERIOR AIR FILM 	0.12 0.22 0.14 0.18 - 0.10 0.03	RSI 0.79 (R-4.5)
TOTAL EFFECTIVE INSULATION VALUE (12" O.C. FRA	MING)	RSI 6.34 (R-32.50)
TOTAL EFFECTIVE INSULATION VALUE (16" O.C. FRA	MING)	RSI 6.34 (R-32.50)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR FLOOUNHEATED SPACES	ORS ABOVE	RSI 4.67 (R-26.5)

FLOORS OVER UNHEATED SPACES ASSEMBLY (HARDWOOD FLOORING) AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HÉAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-28 (RSI-5.55) BATT INSULATION IN $2 \times 11\%$ WOOD FRAMING @ 12" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
R-28 (RSI-5.55) BATT INSULATION IN $2\times11\%$ WOOD FRAMING @ 16" O.C.	RSI 5.55 (R-28)	RSI 5.55 (R-28)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. INTERIOR AIR FILM 2. FLOORING MATERIAL — HARDWOOD 3. 5/8" PLYWOOD SUBFLOOR 4. 3/4" AIR BARRIER/SHEATHING MEMEBRANE 5. POLYETHYLENE 6. 5/8" GYPSUM CEILING BOARD 7. EXTERIOR AIR FILM	0.12 0.12 0.14 0.18 - 0.10 0.03	RSI 0.69 (R-3.9)
TOTAL EFFECTIVE INSULATION VALUE (12" O.C. FR	AMING)	RSI 6.24 (R-31.90)
TOTAL EFFECTIVE INSULATION VALUE (16" O.C. FR	AMING)	RSI 6.24 (R-31.90)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR FL UNHEATED SPACES	OORS ABOVE	RSI 4.67 (R-26.5)

SPECIFIC REQUIREMENTS

-EFFECTIVE INSULATION OF CEILINGS, WALLS AND FLOORS MEET THE REQUIREMENTS OF TABLE 9.36.2.6.A AND TABLE 9.36.2.6.B FOR THE CORRECT CLIMATE ZONE

-THE THERMAL CHARACTERISTICS OF WINDOWS, DOORS AND SKYLIGHTS MEET THE REQUIREMENTS OF TABLE 9.36.2.7.A,B, AND C FOR THE CORRECT CLIMATE ZONE

-EFFECTIVE INSULATION OF FOUNDATIONS MEET THE REQUIREMENTS OF TABLE 9.36.2.8.A OR B FOR THE CORRECT CLIMATE ZONE -DUCTS LOCATED OUTSIDE THE THERMAL ENCLOSURE ARE SEALED AND INSULATED TO THE EXTERIOR WALL INSULATION REQUIREMENTS

-DAMPERS ARE INSTALLED AT AIR INLETS AND EXHAUSTS WHERE REQUIRED -PIPING FOR HEATING OR COOLING SYSTEMS IS LOCATED WITHIN THE THERMAL ENCLOSURE OR ARE FULLY INSULATED -HVAC EQUIPMENT IS LOCATED WITHIN THERMAL ENCLOSURE OR DESIGNATED TO BE INSTALLED OUTSIDE OF THERMAL ENCLOSURE

-TEMPERATURE CONTROLS ARE INSTALLED ON HEATING AND COOLING EQUIPMENT -INDOOR POOLS ARE COVERED OR HAVE AN HRV/DEHUMIDIFIER

-HVAC AND SWH EQUIPMENT MEET MINIMUM PERFORMANCE REQUIREMENTS DETERMINED IN TABLES 9.36.3.10. AND 9.36.4.2 -SERVICE WATER HEATING PIPES ARE INSULATED AT THE INLET AND OUTLET OF STORAGE TANKS

-SERVICE WATER HEATERS HAVE TEMPERATURE CONTROLS -THE AIR BARRIER DETAILS, AND LOCATIONS HAVE BEEN IDENTIFIED

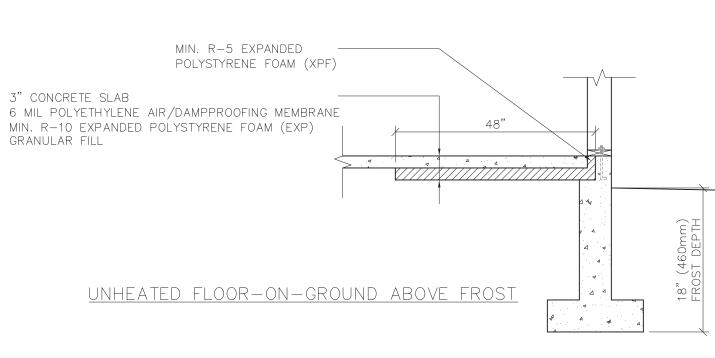
<u>heated slabs (exterior)</u>

VENTILATOR

SCALE 1/2":1'-0" AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY

TEMPERATURE CONTROLS AS PER SECTION 9.36.3.6

-TEMPERATURE CONTROLS ARE GENERALLY REQUIRED FOR HEATING AND COOLING EQUIPMENT, THE ACCURACY OF THE CONTROL MUST BE BETTER THAN PLUS OR MINUS 0.5 DEGREES CELCIUS 3" CONCRETE SLAB



CEILINGS BELOW CATHEDRAL & FLAT ROOFS AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY

VENTILATOR				
DESCRIPTION	NOMINAL	EFFECTIVE		
R-28 BATT INSULATION IN 2×12 WOOD FRAMING @ 24" O.C.	RSI 4.56 (R-28)	RSI 4.56 (R-28)		
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:				
 EXTERIOR AIR FILM POLYETHYLENE 5/8" GYPSUM CEILING BOARD INTERIOR AIR FILM 	0.03 _ 0.10 0.11	RSI 0.24 (R-1.36)		
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.8 (R-29.36)		
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR CEIL CATHEDRAL & FLAT ROOFS	INGS BELOW	RSI 4.67 (R-26.5)		

UNCONDITIONED SPACE (GARAGE) MIN. R-5 EXPANDED -POLYSTYRENE FOAM (XPF) 6 MIL POLYETHYLENE AIR/DAMPPROOFING MEMBRANE MIN. R-12 EXPANDED POLYSTYRENE FOAM (EXP) GRANULAR FILL OTHER SEPARATIONS AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY DOOR TO GARAGE RSI &R AS PER ENERGY REPORT RSI & R— AS PER ENERGY REPORT
USI & U— AS PER ENERGY REPORT
USI &U— AS PER ENERGY REPORT HEATED FLOORS-ON-GROUND EXTERIOR CLIMATE ZONE 4 ENERGY SCALE 1/2":1'-0" AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR \sim R-28 BATT INSULATION (RSI 4.56)

PHONE: |604-721-1278

3/4" AIR BARRIER (RSI VALUE AS

PER ENERGY REPORT)

CLIMATE ZONE 4 ENERGY EFFICIENCY CEILINGS BELOW CATHEDRAL & FLAT ROOFS DETAIL SCALE 1/2":1'-0" AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

INTERIOR AIR FILM FOR CEILING (RSI 0.11)

LIVING SPACE

— 5/8" GYPSUM BOARD (RSI 0.10)

THESE PLANS CONFORM TO REQUIREMENTS

IN THE B.C. BUILDING CODE 2018.

REFERENCE REVISION DRAWING NO. DATE

TITLE PROPOSED RESIDENTIAL FOR

DRAWING NO. SCALE: S NOTED DATE: IUNE.21.2022 DD22-8767-P10 CHKD:

NOTE: FENESTRATION (WINDOWS) AND DOORS TO HAVE AN OVERALL THERMAL

TABLE 9.36.2.7.A (BCBC LATEST REVISION) FOR THE APPLICABLE

HEATING DEGREE-DAY CATEGORY CLIMATE ZONE 4 & 5 MAXIMUM

LIVING SPACE

INTERIOR AIR FILM (VALUE AS

- 5/8" GYPSUM BOARD (RSI VALUE AS PER ENERGY REPORT)

EXTERIOR AIR FILM (RSI VALUE

AS PER ENERGY REPORT)

PER ENERGY REPORT)

PER ENERGY REPORT

PER ENERGY REPORT

U-VALUE AS PER ENERGY REPORT

TRANSMITTANCE (U-VALUE) NOT GREATER THAN THE VALUES LISTED IN

1/2" GYPSUM BOARD RSI OR (R-VALUE) AS

- R-28 BATT INSULATION IN 2x10 WOOD FRAMING @ 12" O.C. (RSI 5.55 AS

R-28 BATT INSULATION IN 2x10 WOOD FRAMING @ 16" O.C. (RSI 5.55 AS

FLOORING CERAMIC TILE FLOORING (RSI

— CARPET & RUBBER PAD HARDWOOD

VALUE AS PER ENERGY REPORT)

PER BC ENERGY REPORT

DHILLON DESIGNS LTD. JNIT 215-12830-80th AVE SURREY, B.C. V3W 3A8 PHONE: (604) 590-2808 FAX: (604) 590-2878 EMAIL: info@dhillondesigns.ca

CLIMATE ZONE 4

ABOVE GRADE WALL ASSEMBLY (WOOD SIDING)

AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x6 WOOD FRAMING @ 16" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. EXTERIOR AIR FILM 2. WOOD SIDING: BEVEL 200mm 3. 1/2" AIR SPACE FOR RAIN SCREEN 4. SHEATHING MEMBRANE 5. 1/2" PLYWOOD SHEATHING 6. POLYETHYLENE 7. 1/2" GYPSUM WALL BOARD 8. INTERIOR AIR FILM	0.03 0.14 0.16 - 0.11 - 0.08 0.12	RSI 0.64 (R-3.63)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.16 (R-27.63)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R ABOVE GRADE WALLS	RSI 3.71 (R-27.63)

BELOW GRADE HEATED FLOOR AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
3.5" POURED IN—PLACE CONCRETE SLAB 2.5" EXTRUDE POLYSTYRENE INSULATION	RSI 2.11 (R-12)	RSI 2.11 (R-12)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. INTERIOR AIR FILM 2. 3.5" CONCRETE SLAB	0.16 —	RSI 0.16 (R-0.90)
TOTAL EFFECTIVE INSULATION VALUE		RSI 2.27 (R-12.90)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOI HEATED FLOORS	R BELOW GRADE	RSI 2.27 (R-12.90)

RIM JOIST SPACE (6.35MM FIBRE-CEMENT BOARD SIDING) AS PER BCBC 9.36 LATEST REVISION WITH NO HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x10 WOOD FRAMING @ 12" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. 1.5" LUMBER RIM BOARD 2. 1/2" PLYWOOD SHEATHING 3. AIR BARRIER/SHEATHING MEMBRANE 4. 3/8" CAPILLARY BREAK SPACE 5. 6.35MM FIBRE—CEMENT CLADDING 6. EXTERIOR AIR FILM	0.325 0.11 - 0.15 0.023 0.03	RSI 0.638 (R-3.62)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.158 (R-27.62)
MINIMUM EFFECTIVE THERMAL RESISTANCE		RSI 2.78 (R-15.8)

RIM JOIST SPACE W/2 BEARING BLOCKS (6.35MM FIBRE-CEMENT BOARD SIDING) AS PER BCBC 9.36 LATEST REVISION WITH NO HEAT RECOVERY VENTILATOR

AS FER BOBO 5.00 EXTEST REVISION III	THE THE THE TREE OF TERM	VEITHEATTON
DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x10 WOOD FRAMING @ 12" O.C. IN CAVITY	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. 2-1½" BEARING BLOCKS(3") 2. 1.5" LUMBER RIM BOARD 3. 1/2" PLYWOOD SHEATHING 4. AIR BARRIER/SHEATHING MEMBRANE 5. 3/8" CAPILLARY BREAK SPACE 6. 6.35MM (1/4") FIBRE-CEMENT CLADDING 7. EXTERIOR AIR FILM	0.65 0.325 0.11 - 0.15 0.023 0.03	RSI 1.288 (R-7.31)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.808 (R-31.31)
MINIMUM EFFECTIVE THERMAL RESISTANCE		RSI 4.358 (R-31.31)

BELOW GRADE WALL ASSEMBLY AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
8" POURED IN-PLACE CONCRETE WALL R-24 BATT INSULATION IN 2x4 WOOD FRAMING @ 24" O.C.	RSI 11.4 (R-24)	RSI 11.4 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. DAMPPROOFING 2. 1" AIR SPACE 3. POLYETHYLENE 4. 1/2" GYPSUM WALL BOARD 5. INTERIOR AIR FILM	0.21 0.16 - 0.08 0.12	RSI 0.57 (R-3.23)
TOTAL EFFECTIVE INSULATION VALUE		RSI 11.97 (R-27.23)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R BELOW GRADE WALLS	RSI 1.99 (R-11.3)

RIM JOIST SPACE (STONE) AS PER BCBC 9.36 LATEST REVISION WITH NO HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x10 WOOD FRAMING @ 12" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. 1.5" LUMBER RIM BOARD 2. 1/2" PLYWOOD SHEATHING 3. SHEATHING MEMBRANE 4. STONE 5. EXTERIOR AIR FILM	0.325 0.11 - 0.003 0.03	RSI 0.468 (R-2.66)
TOTAL EFFECTIVE INSULATION VALUE		RSI 3.988 (R-26.66)
MINIMUM EFFECTIVE THERMAL RESISTANCE		RSI 3.538 (R-26.66)

ABOVE GRADE WALL ASSEMBLY (STONE SIDING) AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY

VENTILA	IUR	
DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x6 Wood Framing @ 16" o.c.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. EXTERIOR AIR FILM 2. CULTURED STONE 3. MORTAR 4. 1/2" AIR SPACE FOR RAIN SCREEN 5. SHEATHING MEMBRANE 6. 1/2" PLYWOOD SHEATHING 7. POLYETHYLENE 8. 1/2" GYPSUM WALL BOARD 9. INTERIOR AIR FILM	0.03 0.008 0.004 0.16 - 0.11 - 0.08 0.12	RSI 0.512 (R-2.91)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.032 (R-26.91)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R ABOVE GRADE WALLS	RSI 3.582 (R-26.91)

RIM JOIST SPACE AS PER BCBC 9.36 LATEST REVISION WITH NO HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x10 WOOD FRAMING @ 12" O.C.		RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION: 1. 1.5" LUMBER RIM BOARD 2. 1/2" PLYWOOD SHEATHING 3. SHEATHING MEMBRANE 4. STUCCO 5. EXTERIOR AIR FILM	0.325 0.11 - - 0.03	RSI 0.465 (R-2.64)
TOTAL EFFECTIVE INSULATION VALUE		RSI 3.98 (R-26.64)
MINIMUM EFFECTIVE THERMAL RESISTANCE		RSI 2.78 (R-15.8)

ABOVE GRADE WALL ASSEMBLY (STUCCO SIDING) AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x6 WOOD FRAMING @ 16" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. EXTERIOR AIR FILM 2. STUCCO 3. 1/2" AIR SPACE FOR RAIN SCREEN 4. SHEATHING MEMBRANE 5. 1/2" PLYWOOD SHEATHING 6. POLYETHYLENE 7. 1/2" GYPSUM WALL BOARD 8. INTERIOR AIR FILM	0.03 - 0.16 - 0.11 - 0.08 0.12	RSI 0.50 (R-2.84)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.02 (R-26.84)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R ABOVE GRADE WALLS	RSI 2.78 (R-15.8)

CEILING BELOW ATTICS AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

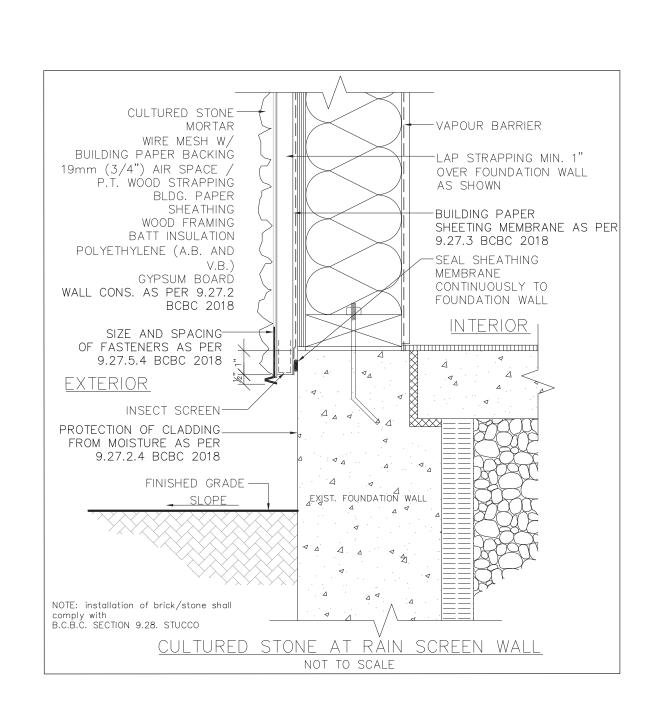
DESCRIPTION	NOMINAL	EFFECTIVE
279mm GLASS FIBRE LOOSE FILL INSULATION FOR ATTICS 2x4 BOTTOM CHORD @ 24" O.C.	RSI 8.82 (R-60)	RSI 8.82 (R-60)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
 EXTERIOR AIR FILM POLYETHYLENE 5/8" GYPSUM CEILING BOARD INTERIOR AIR FILM 	0.03 - 0.10 0.11	RSI 0.24 (R-1.36)
TOTAL EFFECTIVE INSULATION VALUE		RSI 9.04 (R-61.36)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R CEILING BELOW ATTICS	RSI 7.90 (R-51.36)

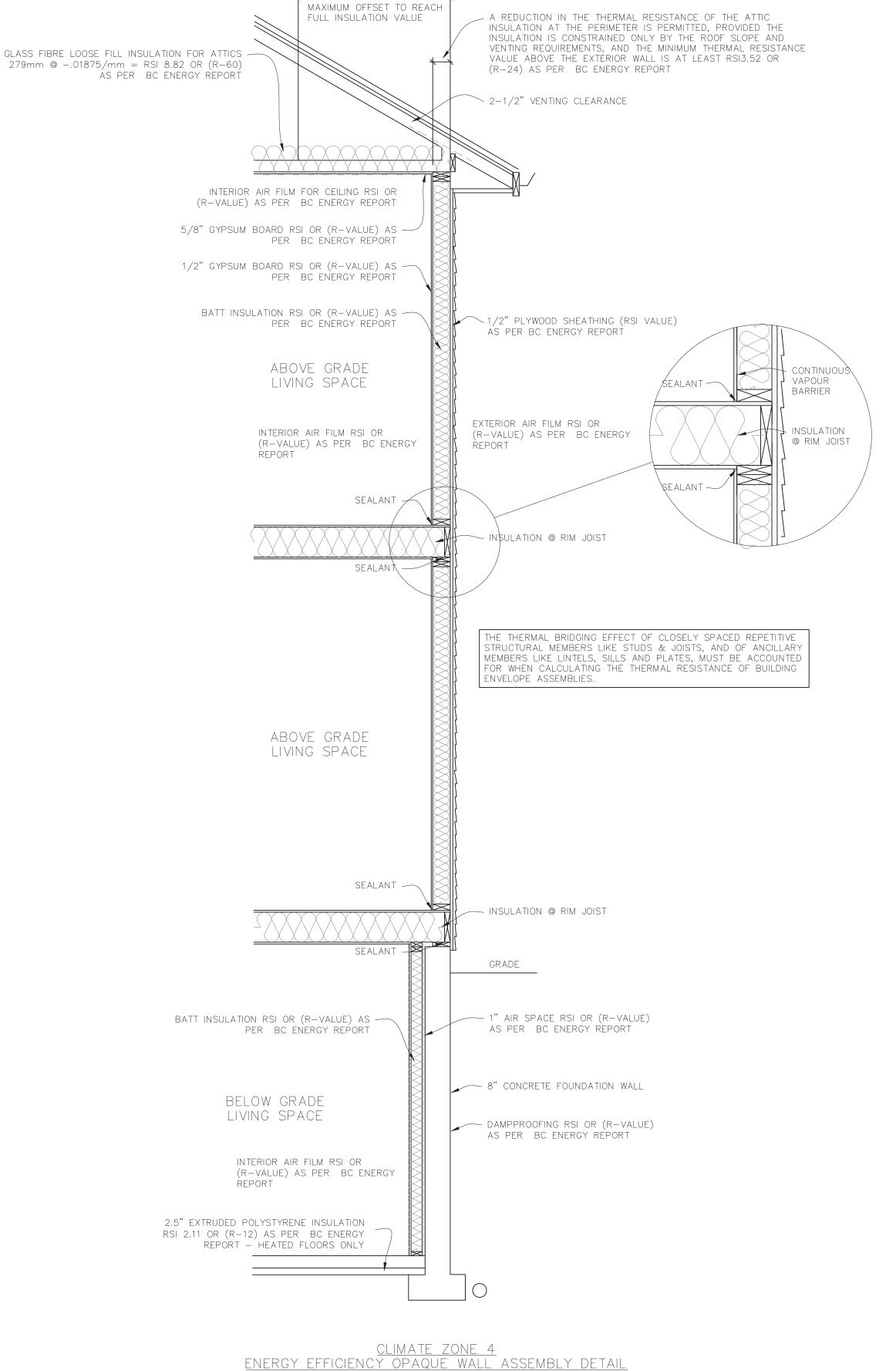
ABOVE GRADE WALL ASSEMBLY (6.35mm FIBRE-CEMENT BOARD SIDING) AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x6 WOOD FRAMING @ 16" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION: 1. EXTERIOR AIR FILM 2. 6.35mm FIBRE—CEMENT BOARD SIDING 3. 1/2" AIR SPACE FOR RAIN SCREEN 4. SHEATHING MEMBRANE 5. 1/2" PLYWOOD SHEATHING 6. POLYETHYLENE 7. 1/2" GYPSUM WALL BOARD 8. INTERIOR AIR FILM	0.03 0.023 0.16 - 0.11 - 0.08 0.12	RSI 0.523 (R-2.97)
TOTAL EFFECTIVE INSULATION VALUE		RSI 4.043 (R-26.97)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR	R ABOVE GRADE WALLS	RSI 3.593 (R-26.97)

WALLS BETWEEN UNHEATED SPACE AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

DESCRIPTION	NOMINAL	EFFECTIVE
R-24 BATT INSULATION IN 2x6 WOOD FRAMING @ 16" O.C.	RSI 3.52 (R-24)	RSI 3.52 (R-24)
OTHER BUILDING ENCLOSURE LAYERS THAT CONTRIBUTE TO EFFECTIVE INSULATION:		
1. EXTERIOR AIR FILM 3. 1/2" GYPSUM WALL BOARD 4. 1/2" PLYWOOD SHEATHING 5. POLYETHYLENE 6. 1/2" GYPSUM WALL BOARD 7. INTERIOR AIR FILM	0.03 0.08 0.11 - 0.08 0.12	RSI 0.42 (R-2.38)
TOTAL EFFECTIVE INSULATION VALUE		RSI 3.94 (R-26.38)
MINIMUM EFFECTIVE THERMAL RESISTANCE FOR WALLS BETWEEN UNHEATED SPACE		RSI 3.49 (R-26.38)





SCALE 1/2": 1'-0" AS PER BCBC 9.36 LATEST REVISION WITH OR WITHOUT HEAT RECOVERY VENTILATOR

SCALE:

DATE:

CHKD:

PHONE: |604-721-1278

THESE PLANS CONFORM TO REQUIREMENTS IN THE B.C. BUILDING CODE 2018.

DRAWING NO. REFERENCE NO. REVISION BY DATE

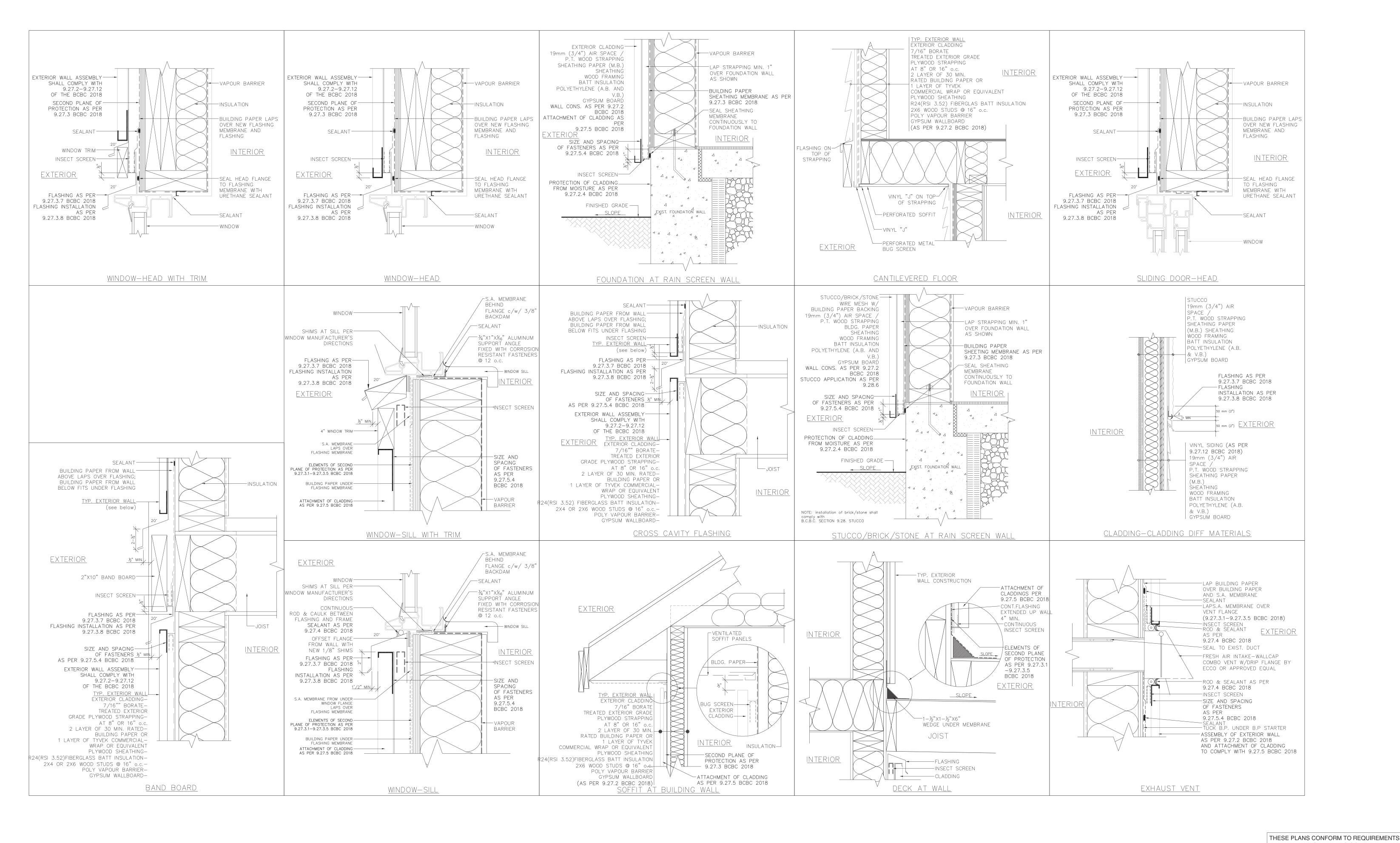
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DRAWING NO.

DHILLON DESIGNS LTD. JNIT 215-12830-80th AVE SURREY, B.C. V3W 3A8 PHONE: (604) 590-2808 FAX: (604) 590-2878 EMAIL: info@dhillondesigns.ca



IN THE B.C. BUILDING CODE 2018. REFERENCE NO. REVISION BY TITLE DRAWING NO. DATE DRAWING NO. DHILLON DESIGNS LTD. PROPOSED RESIDENTIAL FOR SCALE: JNIT 215-12830-80th AVE SURREY, B.C. V3W 3A8 UNE.21.2022 DATE: PHONE: (604) 590-2808 DD22-8767-P12 FAX: (604) 590-2878 CHKD: EMAIL: info@dhillondesigns.ca | **PHONE**: | 604-721-1278