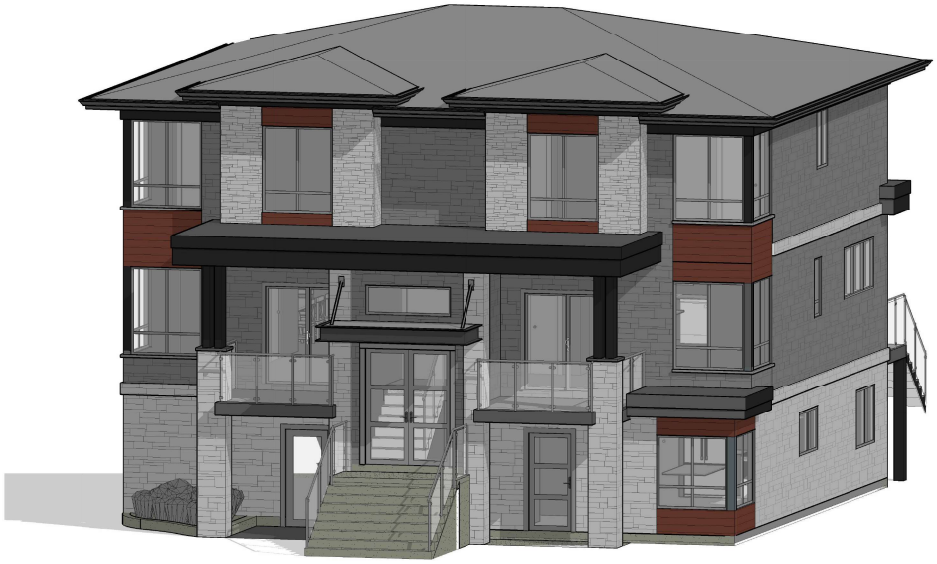

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No.	Description	Date
1	ISSUED FOR ENG.	MAR.28.24

PR.#: MDG22-112

DATE: MAR.28.24

5135 208A STREET LANGLEY

COVER SHEET

A0.01

CIVIC ADDRESS:

5135 208A STREET LANGLEY

LEGAL ADDRESS:

LOT: 233 NWP PL: 56744 P.I.D. 002-572-915

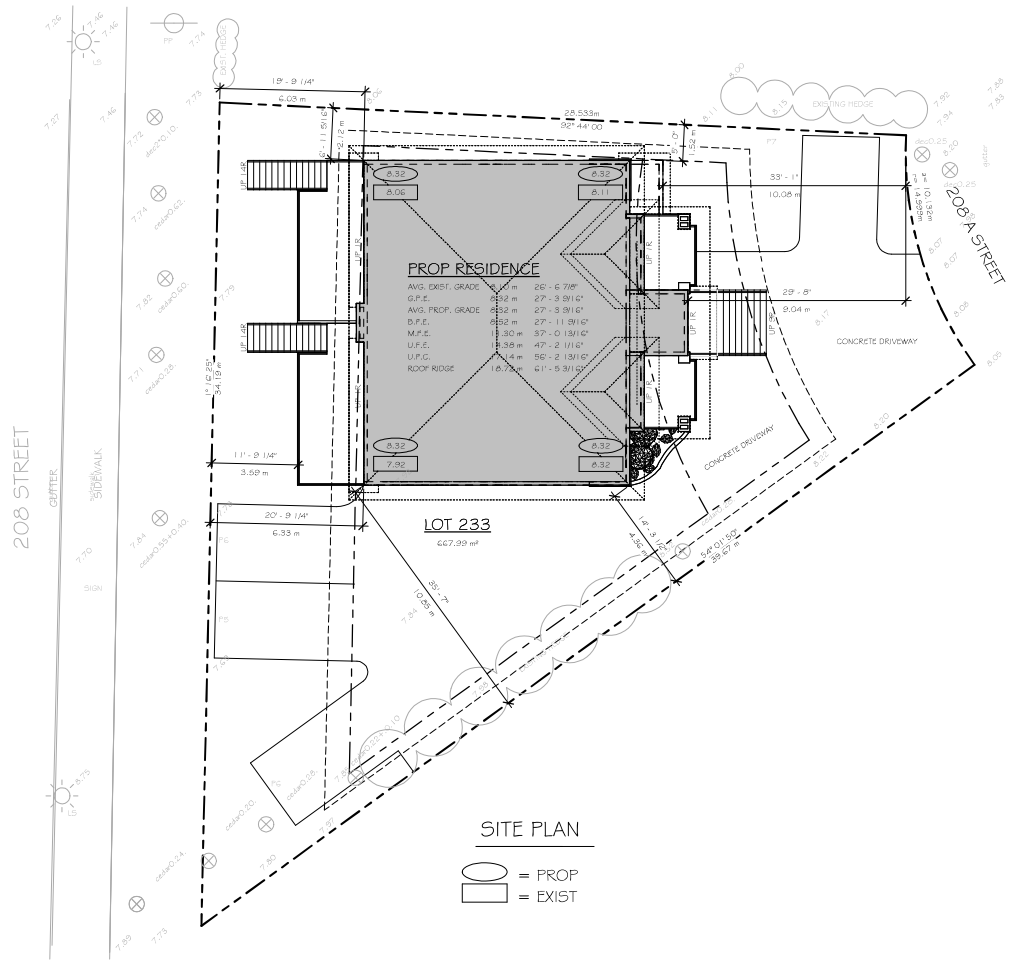
SITE RECONCILIATION:

LOT SIZE :	668.00 sq. m. or 7,190.53 sq. ft.	
ZONING :	RS1	
LOT COVERAGE :	MAX. 33% or 2,372.87 sq. ft. or 220.45 sq. m.	
	PROP. : 32.45% or 2,333.08 sq. ft. or 216.75 sq. m.	
GROSS FLOOR AREA :	PROP. : 70.62% or 5,078.03 sq. ft. or 471.76 sq. m.	
BUILDING HEIGHT :	MAX. : 11m	
	PROP. : 9.73m	
NUMBER OF STOREYS :	3 STOREYS	
EXISTING AVG. GRADE :	8.32m + 7.92m + 8.06m + 8.11m = 32.41m;	32.41m/4 = 8.10m
# OF DWELLING UNITS :	3 DWELLING UNIT; GROUP C	
BUILDING SETBACKS :	FRONT :	MIN. - 7.50m PROP. - 9.04m
	INTERIOR (RIGHT) :	MIN. - 1.50m PROP. - 1.52m
	REAR :	MIN. - 6.00m PROP. - 6.03m
	INTERIOR (LEFT) :	MIN. - 1.50m PROP. - 4.36m

PARKING REQUIREMENTS :	REQUIRED: 1 BEDROOM UNIT = 1.5 SPACES >2 BEDROOM UNIT = 2 SPACES VISITOR = 0.2/UNIT 2 BEDROOM UNIT: 1 x 2 = 2 SPACES 3 BEDROOM UNITS: 2 x 2 = 4 SPACES VISITOR: 0.2 x 3 = 0.6 = 1 SPACE
	PROVIDED: GARAGE = 3 SPACES EXTERIOR PARKING = 4 TOTAL = 7 SPACES

SHEET LIST

#	SHEET NAME
A0.01	COVER SHEET
A1.01	SITE PLAN & GENERAL NOTES
A2.02	BASEMENT FLOOR PLAN
A2.03	MAIN FLOOR PLAN
A2.04	UPPER FLOOR PLAN
A2.05	ROOF PLAN
A3.01	FRONT & RIGHT ELEVATIONS
A3.02	REAR & LEFT ELEVATIONS
A4.01	CROSS SECTION A



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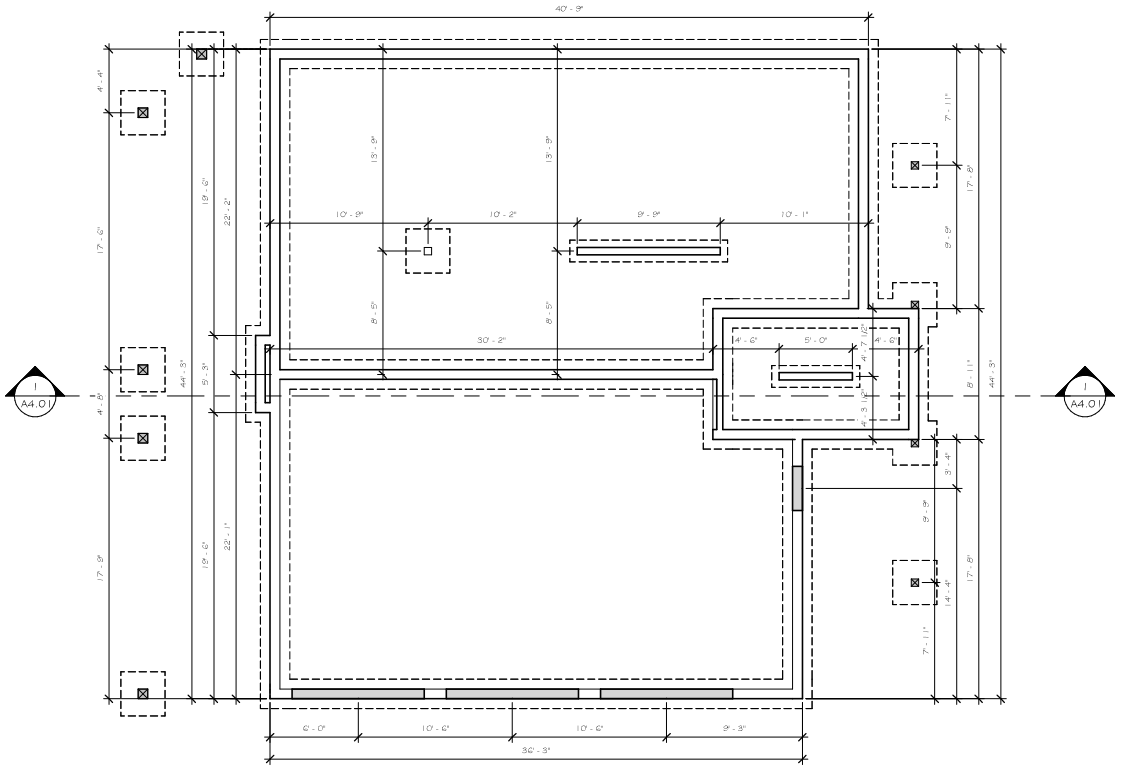
5135 208A STREET LANGLEY

SITE PLAN & GENERAL NOTES

1/8" = 1'-0"

A1.01



FOUNDATION PLAN

METHOD
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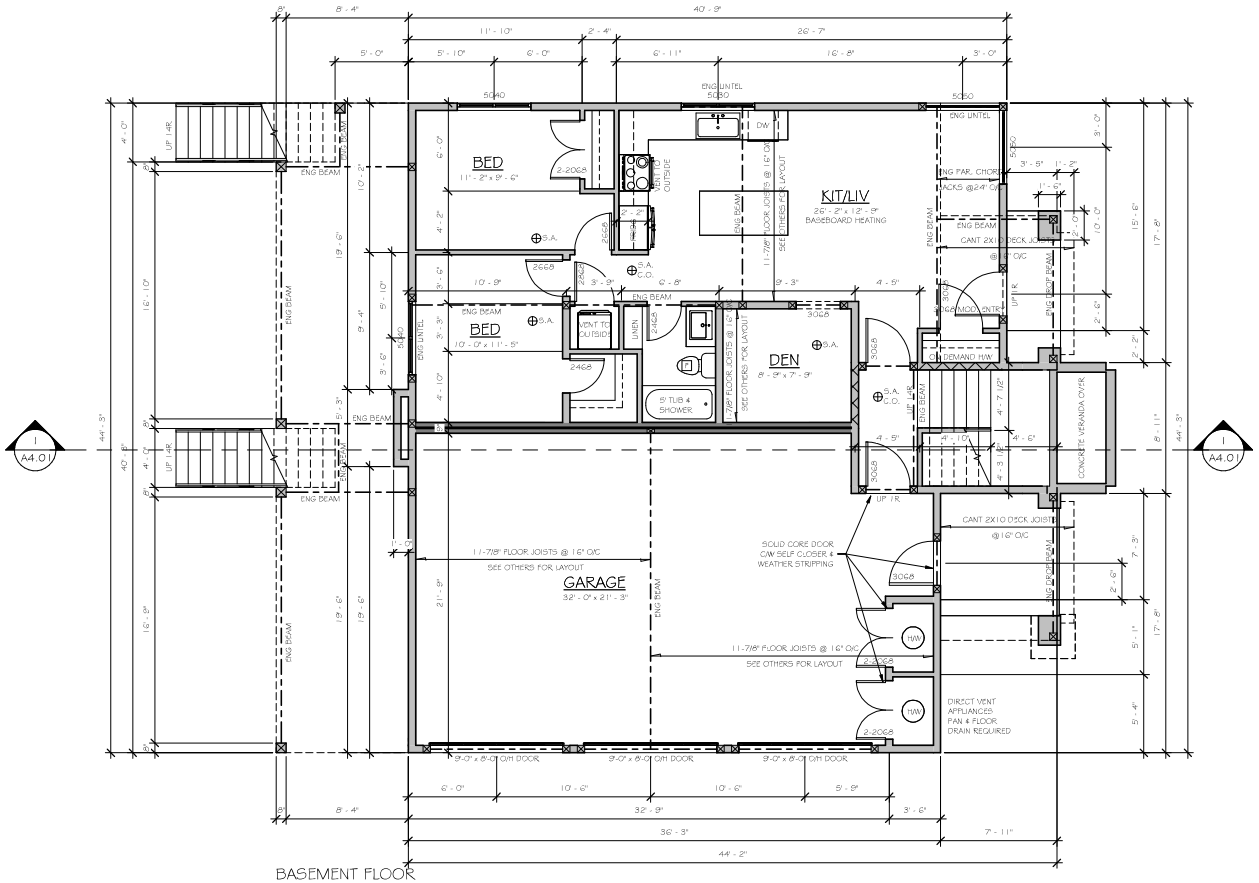
5135 208A STREET LANGLEY

FOUNDATION PLAN

1/4" = 1'-0"

A2.01



BASEMENT FLOOR

COMMON AREA	118.69 ft²
GARAGE	771.15 ft²
UNIT 1 LIVING	864.44 ft²
TOTAL AREA:	1,754.28 ft²

PARTY WALL

RESIDENCE TO BE SPRINKLERED

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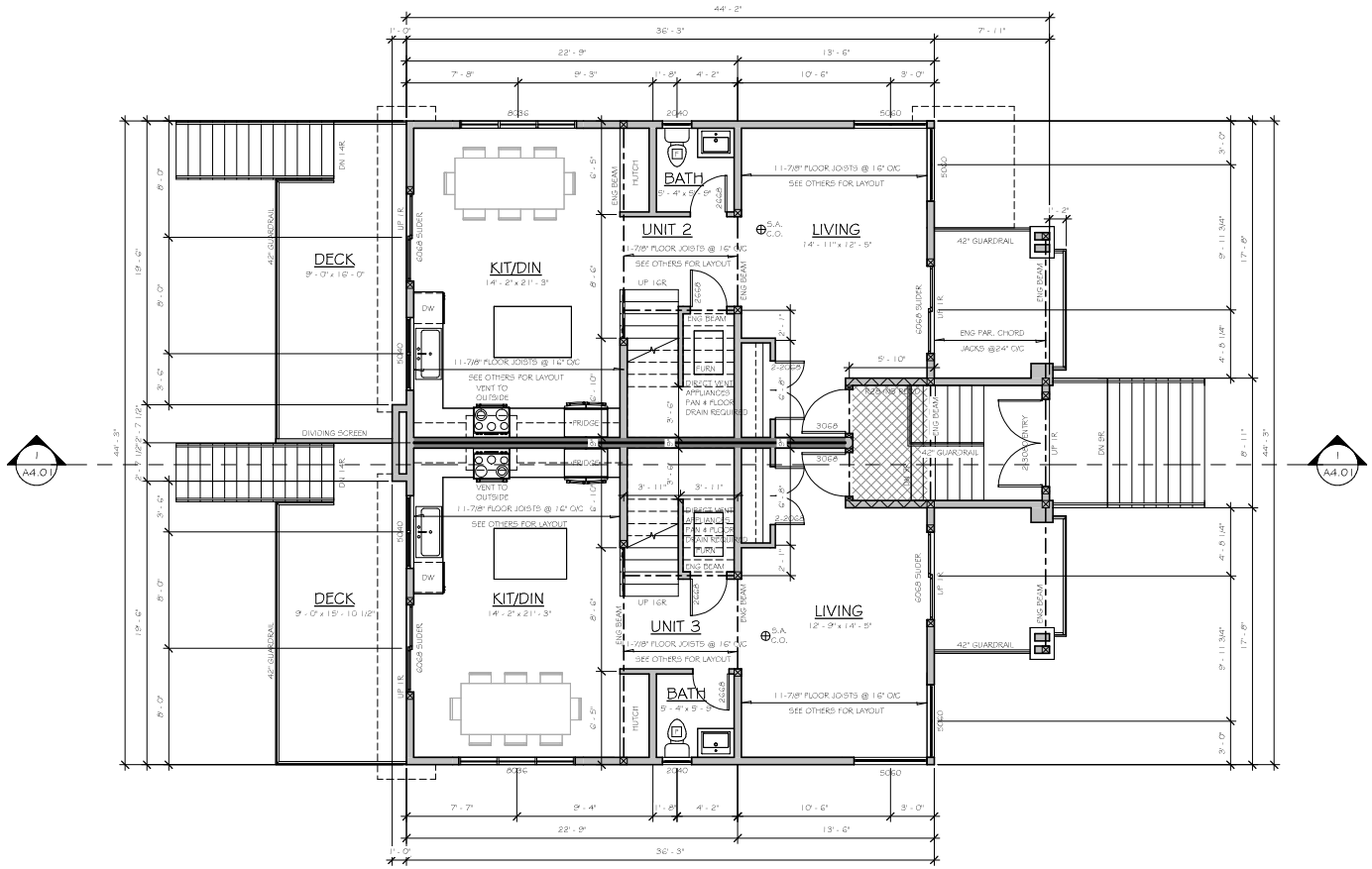
5135 208A STREET LANGLEY

BASEMENT FLOOR PLAN

1/4" = 1'-0"

A2.02



MAIN FLOOR

COMMON AREA	119.81 ft²
UNIT 2 LIVING	777.48 ft²
UNIT 3 LIVING	777.48 ft²
TOTAL AREA	1,674.78 ft²

RESIDENCE TO BE SPRINKLERED

PARTY WALL

COMMON AREA PARTITION

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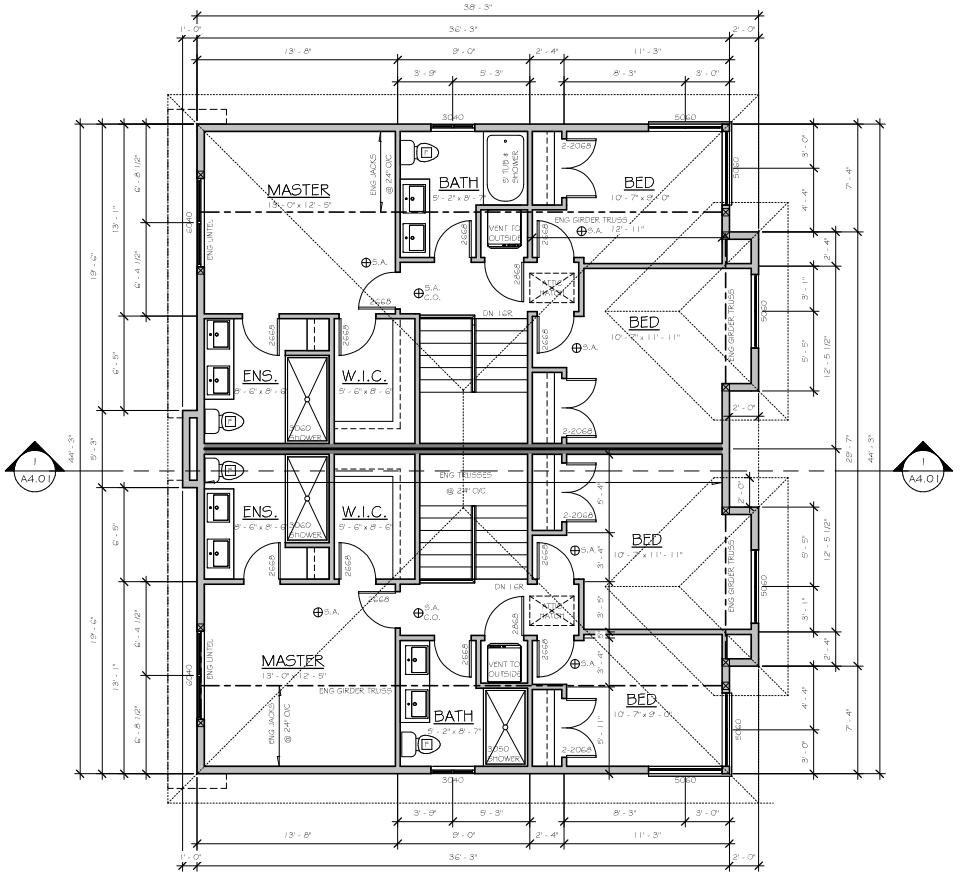
MAIN FLOOR PLAN

1/4" = 1'-0"

A2.03



UPPER FLOOR

STAIRS	124.67 ft²
UNIT 2 LIVING	761.36 ft²
UNIT 3 LIVING	761.36 ft²
TOTAL AREA	1,647.40 ft²

PARTY WALL

RESIDENCE TO BE SPRINKLERED

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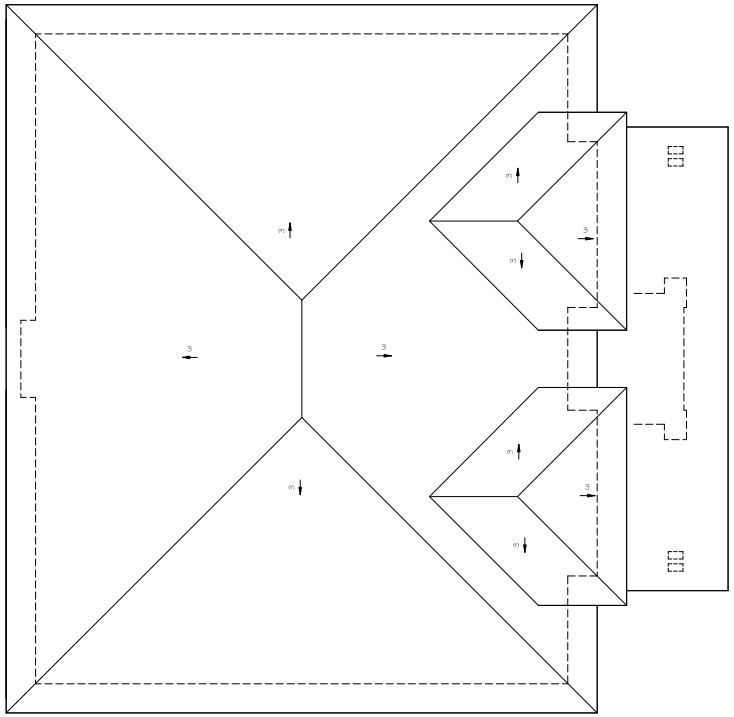
5135 208A STREET LANGLEY

UPPER FLOOR PLAN

1/4" = 1'-0"

A2.04



ROOF PLAN

1/4" = 1'-0"

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ROOF PLAN

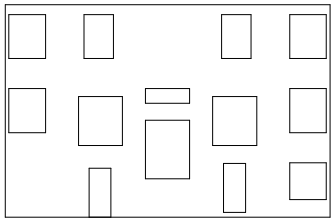
1/4" = 1'-0"

A2.05

FRONT ELEVATION

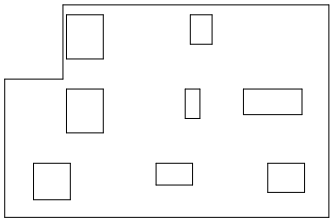
PROP.
EXIST.

NOTE:
ALL VENTS, PIPES, ETC. PROJECTING FROM THE ROOF, WALLS OR SOFFITS ARE TO BE PAINTED TO MATCH THE MATERIAL THEY ARE PROJECTING THROUGH.



FRONT UPO

GROSS WALL AREA CALCULATION: FRONT ELEVATION
OVERALL EXP. WALL AREA : 1,280.50 sq. ft.
PROP. FENESTRATION/DOOR AREA : 373 sq. ft.
PROP. %(FEN.&DOOR) : 373/1,280.50 = 29.13%
PROP. %(WALL) : = 70.87%



RIGHT UPO

GROSS WALL AREA CALCULATION: RIGHT ELEVATION
OVERALL EXP. WALL AREA : 1,198 sq. ft.
PROP. FENESTRATION/DOOR AREA : 168 sq. ft.
PROP. %(FEN.&DOOR) : 168/1,198 = 14.02%
PROP. %(WALL) : = 85.98%

EXP. BUILDING FACE #1 : 1,198 sq. ft.
LIMITING DISTANCE : 1.52m
MAX. GLAZED OPENINGS : 14.08% = 168.68 sq. ft.
PROP. GLAZED OPENINGS : 14.02% = 168.00 sq. ft.

RIGHT ELEVATION

PROP.
EXIST.

NOTE:
ALL VENTS, PIPES, ETC. PROJECTING FROM THE ROOF, WALLS OR SOFFITS ARE TO BE PAINTED TO MATCH THE MATERIAL THEY ARE PROJECTING THROUGH.

MATERIAL LEGEND

1	STONE STYLE 1
2	STONE STYLE 2
3	LONGBOARD
4	VINYL WINDOW
5	2 X 10 STONE BAND
6	1 X 8 FASCIA BOARD W/ GUTTER
7	1 X 6 ON 1 x 24 FASCIA BOARD W/ PAINTED FINISH
8	OVERHEAD DOOR
9	WOOD W/ STONE BASE COLUMN
10	ASPHALT ROOF SHINGLES
11	GLASS GUARDRAILS
12	C-CHANNEL STEEL MEMBER

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5135 208A STREET LANGLEY

FRONT & RIGHT ELEVATIONS

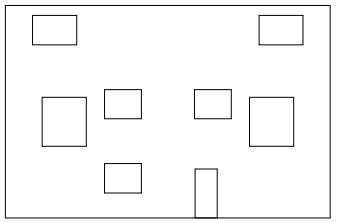
As indicated

A3.01

REAR ELEVATION

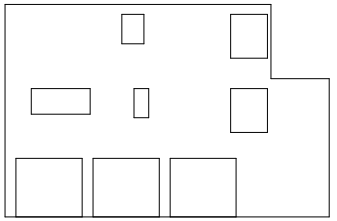
NOTE:
ALL VENTS, PIPES, ETC. PROJECTING FROM THE ROOF, WALLS OR SOFFITS ARE TO BE PAINTED TO MATCH THE MATERIAL THEY ARE PROJECTING THROUGH.

PROP.
EXIST.



REAR UPO

GROSS WALL AREA CALCULATION: REAR ELEVATION
OVERALL EXP. WALL AREA : 1,280.50 sq. ft.
PROP. FENESTRATION/DOOR AREA : 208 sq. ft.
PROP. %(FEN.4DOOR) : 208 / 1,280.50 = 16.24%
PROP. %(WALL) : = 83.76%



LEFT UPO

GROSS WALL AREA CALCULATION: REAR ELEVATION
OVERALL EXP. WALL AREA : 1,198 sq. ft.
PROP. GARAGE DOOR FENESTRATION : 216 sq. ft.
PROP. FENESTRATION/DOOR AREA : 108 sq. ft.
PROP. %(FEN.4DOOR) : 108 / 1,198 = 9.02%
PROP. %(WALL) : = 90.98%

EXP. BUILDING FACE #1 : 1,198 sq. ft.
LIMITING DISTANCE : 4.36m
MAX. GLAZED OPENINGS : 33.60% = 402.53 sq. ft.
PROP. GLAZED OPENINGS : 27.05% = 324.00 sq. ft

LEFT ELEVATION

NOTE:
ALL VENTS, PIPES, ETC. PROJECTING FROM THE ROOF, WALLS OR SOFFITS ARE TO BE PAINTED TO MATCH THE MATERIAL THEY ARE PROJECTING THROUGH.

PROP.
EXIST.

MATERIAL LEGEND

1	STONE STYLE 1
2	STONE STYLE 2
3	LONGBOARD
4	VINYL WINDOW
5	2 X 10 STONE BAND
6	1 X 8 FASCIA BOARD W/ GUTTER
7	1 X 6 ON 1 x 24 FASCIA BOARD W/ PAINTED FINISH
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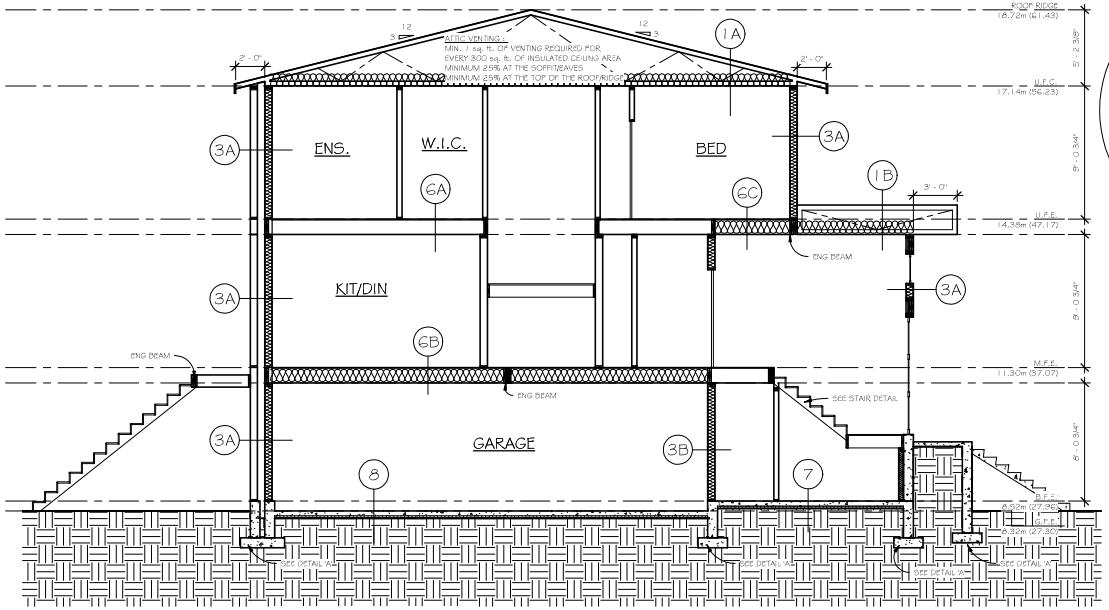
5135 208A STREET LANGLEY

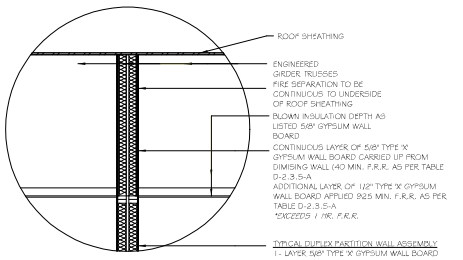
REAR & LEFT ELEVATIONS

As indicated

A3.02



CROSS SECTION A



TYPICAL DUPLEX PARTITION WALL ASSEMBLY
1 - LAYER 5/8" TYPE 'X' GYPSUM WALL BOARD
TWO ROWS 2X4 WOOD STUDS @ 16" O.C. ON SEPARATE 2X4 PLATES SET MIN. 1" APART
R12 BATT. INSULATION ON EACH SIDE
1 - LAYER 5/8" TYPE 'X' GYPSUM WALL BOARD

WALL TYPE W13a - 1HR F.R.R. RATED LOADBEARING/NON-LOADBEARING AS PER 2018 B.C.B.C.
A-9.10.3.1.A
STC RATING: 57 > SO MEETING SEPARATING/PLANKING ASSEMBLIES AS PER 2018 B.C.B.C. TABLES 9.11.1.4.-A TO A-9.11.1.4.-D

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5135 208A STREET LANGLEY

CROSS SECTION A

As indicated

A4.01

SOLAR HOT WATERS NOTES :

SOLAR COLLECTORS :

- MUST HAVE MINIMUM 2 CONDUIT RUNS AND AN AREA THAT IS NOT LESS THAN 12.0 sq. m AND HAS NO DIMENSION LESS THAN 2.7m, AND IS DESIGNATED FOR FUTURE INSTALLATION OF SOLAR COLLECTORS FOR A SOLAR DOMESTIC HOT WATER SYSTEM IN COMPLIANCE WITH CAN/CSA F383-87

STRUCTURAL REQUIREMENTS :

- STRUCTURAL MEMBERS OF AREA WHERE SOLAR COLLECTORS PLACED MUST BE DESIGNED TO ACCOMMODATE THE GREAT OF THE FOLLOWING;
  (a) THE ANTICIPATED LOAD;
  (b) A LOAD OF 0.2 kpa IN ADDITION TO DESIGN LOADS
  REQ'D BY THE B.C.B.C.

CONDUIT RUNS :

- TWO STRAIGHT, CONTINUOUS, CONDUIT RUNS MUST BE PROVIDED THAT EXTEND FROM THE AREA DIRECTLY ADJACENT TO THE BLDGS PRIMARY SERVICE WATER HEATER TO;

(a) AN ACCESSIBLE ATTIC SPACE ADJACENT TO ROOF AREA DESIGNATED FOR SOLAR COLLECTORS
(b) THE ROOF AREA DESIGNATED FOR SOLAR COLLECTORS FOR A SOLAR DOMESTIC H/W SYS.
(c) THE EXT. WALL DIRECTLY ADJACENT TO THE AREA DESIGNATED FOR INSTALLATION OF SOLAR COLLECTORS

CONDUITS RUNS MUST;

(a) BE ACCESSIBLE AT BOTH ENDS,
(b) BE CAPPED OR SEALED AT BOTH ENDS,
(c) BE IDENTIFIED BY MARKINGS THAT ARE PERMANENT, DISTINCT AND EASILY RECOGNIZED
(d) HAVE MINIMUM INSIDE DIA. OF 50mm

B.C.B.C. ENERGY EFF. REQT'S:

ZONE: 4 (9.36.2.6)	BLDGS WITH A HEAT-RECOVERY VENTILATOR *	
ASSEMBLY	RSI	R-VALUE
CEILINGS BELOW ATTICS	6.91	39.23
CATHEDRAL CEILINGS AND FLAT ROOFS	4.67	26.52
WALLS	2.78	15.78
FLOORS OVER UNHEATED SPACES	4.67	26.52
FOUNDATION WALLS	1.99	11.30

NOTE:
VALUES ARE FOR GENERIC INSULATION AND BUILDING ASSEMBLY PRODUCTS, ACTUAL SPECS AS PER CONTRACTOR, CONTRACTOR TO ENSURE ALL PRODUCTS MEET CCMS AND BCBC STANDARDS. ALL MATERIALS MUST MEET OR EXCEED LISTED EFFECTIVE RSI/R VALUES.

NOTE:
-ALL MINIMUM EFFECTIVE THERMAL RESISTANCE VALUES TAKEN FROM TABLES FOR BUILDINGS WITH A HEAT-RECOVERY VENTILATOR FOR ZONE 4.
-ALL R.S.I. VALUES TAKEN FROM TABLE A-9.36.2.4.(1)D. U.N.O.
-SPRAY FOAM INSULATION INSTALLED BEHIND ALL RIM JOISTS TO ≥ MINIMUM EFFECTIVE THERMAL RESISTANCE RATING FOR THAT ASSEMBLY PER 9.36.2.6.(2).
-BATT. INSULATION INSTALLED ABOVE EXTERIOR WALL PLATES TO R.S.I. 3.52 PER 9.36.2.6.(3).
-POLYETHYLENE AIR BARRIER TO CONFORM TO THE REQUIREMENTS OF 9.25.2.(2).
-ALL FENESTRATIONS ≠ DOORS TO BE A MAXIMUM 1.80U EXCEPT ONE DOOR TO A MAXIMUM 2.6U PER 9.36.2.7.(5).
-ATTIC ACCESS HATCH TO BE INSULATED R.S.I. 2.6 PER 9.36.2.7(8).
-ALL DUCTING RUNNING THROUGH UNCONDITIONED SPACE TO BE INSULATED TO R.S.I. 2.78 PER 9.36.3.2(3)(b) (SEE DETAIL-SHEET 11).

REQ'D THERMAL CHARACTERISTICS OF FENESTRATION, DOORS, AND SKYLIGHTS

ZONE: 4	
COMPONENT	MAX. U-VALUE , W/ (m2 ∘ K)
WINDOWS/DOORS	1.80
SKYLIGHTS	2.80

NOTE:
VALUES AS PER B.C.B.C. 9.36.2.7. TABLE 9.36.3.7.A. AND 9.36.2.7.B. SELECTED ASSEMBLIES MUST MEET OR EXCEED MIN. REQUIRED U-VALUE, INSTALLATION TO BE IN ACCORDANCE WITH THE LATEST B.C. BUILDING CODE

SEE ENG. DRAWINGS FOR ALL STRUCTRUAL REQUIREMENTS, NOTES ≠ DETAILS

NO VENT SOFFIT WITHIN 1.2m SIDE YARD SETBACKS

SEE ENERGY ADVISORS REPORT FOR ALL STEP CODE REQUIREMENTS AND DETAILS.

1A TYPICAL ROOF ASSEMBLY — MIN. R.S.I. = 6.91
ASPHALT SHINGLES — R.S.I. = 0.00 **
15# ASPHALT-SATURATED FELT — R.S.I. = 0.00 **
7/16" OSB SHEATHING — R.S.I. = 0.00*
EXTERIOR AIR FILM — R.S.I. = 0.03
11.5" CONT. BLOWN GLASS FIBRE INSULATION — R.S.I. = 5.48
2x4 TRUSSES @ 24" O.C. (11%)* C/W — R.S.I./F = 0.75
3.5" R-BLOWN GLASS FIBRE INSULATION (89%)* — R.S.I./C = 1.67
— R.S.I./F = 1.47
6 MIL POLY VAPOUR/AIR BARRIER — R.S.I. = 0.00
1/2" C.D. GYPSUM WALL BOARD — R.S.I. = 0.08
INTERIOR AIR FILM — R.S.I. = 0.11
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 7.17

R.S.I./F = 100/((1/0.75) + (89/1.67)) = 1.47
* PERCENTAGES PER TABLE A-9.36.2.4.(1)A.
** NOT INCLUDED PER NOTE (5) TO TABLE A-9.36.2.4.(1)D

1A TYPICAL FLAT ROOF ASSEMBLY — MIN. R.S.I. = 4.67
2-PLY TORCH ON ROOFING ASSEMBLY — R.S.I. = 0.00 **
1/2" PLYWOOD SHEATHING — R.S.I. = 0.00**
EXTERIOR AIR FILM — R.S.I. = 0.03
5.5" R20 BATT INSULATION — R.S.I. = 3.50
2x4 PARR. CORD TRUSSES @ 24" O.C. (11%)* C/W — R.S.I./F = 0.75
4" R13 BATT INSULATION (89%)* — R.S.I./C = 1.67
— R.S.I./F = 1.47
6 MIL POLY VAPOUR/AIR BARRIER — R.S.I. = 0.00
1/2" C.D. GYPSUM WALL BOARD — R.S.I. = 0.08
INTERIOR AIR FILM — R.S.I. = 0.11
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 5.19

R.S.I./F = 100/((1/0.75) + (89/1.67)) = 1.47
* PERCENTAGES PER TABLE A-9.36.2.4.(1)A.
** NOT INCLUDED PER NOTE (5) TO TABLE A-9.36.2.4.(1)D

2A TYPICAL EAVE OVERHANG
DECORATIVE METAL SURFACE GUTTERS
1X8 ON 2X1.0 LAYERED WOOD FASCIA BOARDS
PERFORATED OR SOLID SOFFIT FINISH
2X6 FRIZZE BOARD

2B TYPICAL GABLE OVERHANG
1X4 ON 2X1.0 LAYERED WOOD BARGE BOARDS
PERFORATED SOFFIT FINISH
2X6 SOFFIT TRIM

3A EXTERIOR WALL W/STONE SIDING — MIN. R.S.I. = 2.78
EXTERIOR AIR FILM — R.S.I. = 0.03
STONE SIDING — R.S.I. = 0.06
RAIN SCREEN — R.S.I. = 0.15
BUILDING PAPER — R.S.I. = 0.00
7/16" OSB SHEATHING — R.S.I. = 0.11
2x6 STUDS @ 16" O.C. C/W — R.S.I. = 2.36*
5.5" R19 BATT. INSULATION
6 MIL POLY VAPOUR/AIR BARRIER — R.S.I. = 0.00
1/2" GYPSUM WALL BOARD — R.S.I. = 0.08
INTERIOR AIR FILM — R.S.I. = 0.12
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 2.81

* PER TABLE A-9.36.2.6.(1)B.

3B TYPICA. INT. GARAGE WALL ASSEMBLY — MIN. R.S.I. = 2.62**
EXTERIOR AIR FILM — R.S.I. = 0.03
1/2" TYPE 'X' GYPSUM WALL BOARD — R.S.I. = 0.08
2x6 STUDS @ 16" O.C. C/W — R.S.I. = 2.36*
5.5" R19 BATT. INSULATION
6 MIL POLY VAPOUR/AIR BARRIER — R.S.I. = 0.00
1/2" GYPSUM WALL BOARD — R.S.I. = 0.08
INTERIOR AIR FILM — R.S.I. = 0.12
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 2.67

*PER TABLE A-9.36.2.6.(1)B.
**REDUCED 0.16 PER 9.36.2.4.(4).

3C TYPICAL DUPLEX PARTITION WALL ASSEMBLY
1- LAYER 5/8" TYPE 'X' GYPSUM WALL BOARD
TWO ROWS 2X4 WOOD STUDS @ 16" O.C. ON SEPARATE 2X4 PLATES SET MIN. 1" APART
R12 BATT. INSULATION ON EACH SIDE
1- LAYER 5/8" TYPE 'X' GYPSUM WALL BOARD

WALL TYPE W13a - 1HR F.R.R. RATED LOADBEARING/ NON-LOADBEARING AS PER 2018 B.C.B.C. A-9.10.3.1.A
STC RATING: 57 > SO MEETING SEPARATING/PLANKING ASSEMBLIES AS PER 2018 B.C.B.C. TABLES 9.11.1.4.-A TO A-9.11.1.4. ->

4 TYPICAL FOUNDATION WALL ASSEMBLY
DAMPROOFING/WATERPROOFING
8" FOUNDATION WALL
1/2" AIR CAVITY
3.5" R12 BATT. INSULATION
1/2" GYPSUM WALL BOARD
2 COATS VAPOUR BLOCK PRIMER
INTERIOR AIR FILM

5A TYPICAL INTERIOR PARTITION WALLS
GYPSUM WALL BOARD BOTH SIDES
2X4 OR 2X6 STUDS @ 16" O.C.

5B TYPICAL COMMON AREA PARTITION WALLS
1/2" TYPE 'X' G.W.B.
2X4 or 2X6 WOOD STUDS @ 16" or 24" O.C.
4" ABSORPTIVE MATERIAL
*INCLUDES FIBRE PROCESSED FROM ROCK,SLAG, GLASS OR CELLULOSE FIBRE. IT MUST FILL AT LEAST 50% OF THE CAVITY THICKNESS FOR THE WALL TO HAVE THE LISTED STC VALUE.
RESILIENT METAL CHANNELS ON ONE SIDE SPACES AT 16" or 24" O.C.
1/2" TYPE 'X' G.W.B.
WALL TYPE W3c - TABLE 9.10.3.1.A.

6A TYPICAL WOOD FRAME FLOOR (CONDITIONED EACH SIDE)
FINISH FLOORING
5/8" T&G PLYWOOD SHEATHING (GLUED ≠ NAILED)
11.7/8" FLOOR JOISTS
GYPSUM WALL BOARD (NOT REQUIRED FOR CRAWL CEILING)

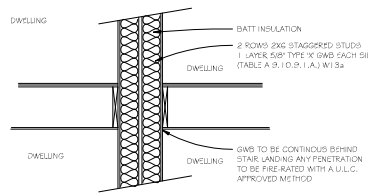
6B WOOD-FRAME FLOOR ASSEMBLY
ABOVE GARAGE (1 HR F.R.R.) (FF6) (STC 52) — MIN. R.S.I. = 4.67
INTERIOR AIR FILM — R.S.I. = 0.16
FINISHED FLOORING (CARPET) — R.S.I. = 0.37
5/8" T&G PLYWOOD SHEATHING — R.S.I. = 0.16
11.7/8" FLOOR JOISTS @ 16" O.C. (9%)* C/W — R.S.I./F = 2.56
R28 BATT. INSULATION (91%)* — R.S.I./C = 4.55
— R.S.I./F = 4.55
RESILIENT METAL CHANNELS CEILING SIDE @ 16" O/C
2 LAYERS 5/8" GYPSUM WALL BOARD — R.S.I. = 0.08
EXTERIOR AIR FILM — R.S.I. = 0.03
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 5.35
R.S.I./F = 100/(92.86) + (91/4.93)) = 5.41
* PERCENTAGES PER TABLE A-9.36.2.4.(1)A.

6C WOOD-FRAME FLOOR ASSEMBLY ABOVE COMMON AREAS (1 HR F.R.R.) (FF6) (STC 52)
INTERIOR AIR FILM
FINISHED FLOORING (CARPET)
5/8" T&G PLYWOOD SHEATHING
11.7/8" FLOOR JOISTS @ 16" O.C. C/W
R28 BATT. INSULATION
RESILIENT METAL CHANNELS CEILING SIDE @ 16" O/C
2 LAYERS 5/8" GYPSUM WALL BOARD
EXTERIOR AIR FILM

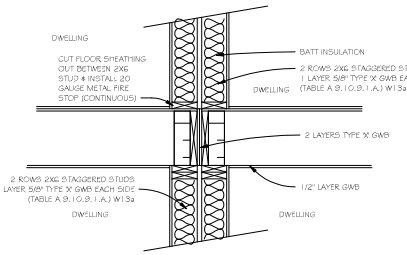
7 SLAB ON GRADE F.R. - ABOVE FROST LINE — MIN. R.S.I. = 1.96
4" CONCRETE SLAB — R.S.I. = 0.041
6 MIL POLY V.B. — R.S.I. = 0.000
2.0" XPS RIGID INSULATION (R12) — R.S.I. = 2.00
- TO 48" BELOW SLAB
- OR 48" FROM PERIMETER
INTERIOR AIR FILM — R.S.I. = 0.16
COMPACT GRANULAR FILL
- PROVIDE MIN R.S.I. 0.98 THERMAL BREAK FROM PERIMETER OF SLAB TO EXT. FOUND.
INTERIOR AIR FILM — R.S.I. = 0.12
EFFECTIVE R.S.I. FOR ASSEMBLY — R.S.I. = 2.32

* PER TABLE A-9.36.2.6.(1)B.

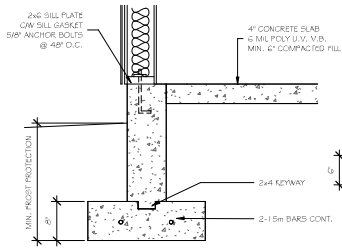
8 TYPICAL GARAGE SLAB
4" CONCRETE SLAB
MIN. 1% SLOPE
6 MIL POLY V.B.
COMPACT GRANULAR FILL



PARALLEL JOISTS @ PARTY WALL

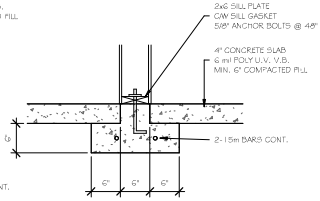


PERPENDICULAR JOIST @ PARTY WALL



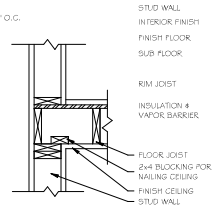
FOUNDATION DETAIL 'A'

SEE STRUCTURAL ENGINEERS DRAWINGS



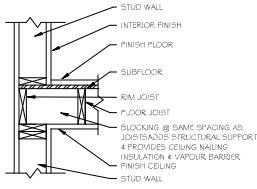
FOUNDATION DETAIL 'B'

SEE STRUCTURAL ENGINEERS DRAWINGS



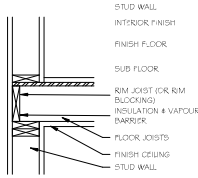
JOIST AT EXTERIOR WALL

JOISTS PARALLEL TO WALL



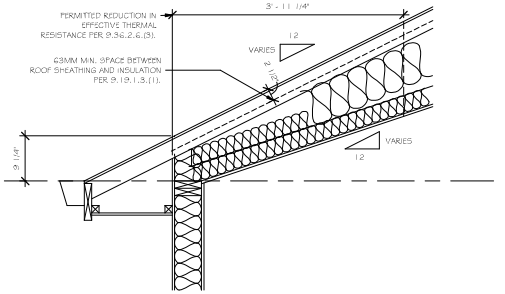
JOIST AT EXTERIOR WALL

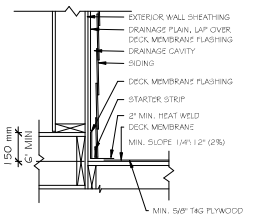
JOISTS PARALLEL TO WALL, W/ BLOCKING



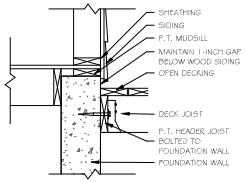
JOIST AT EXTERIOR WALL

JOISTS PERPENDICULAR TO WALL

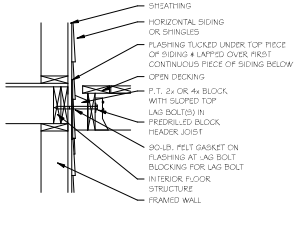




DECK MEMBRANE/WOOD WALL

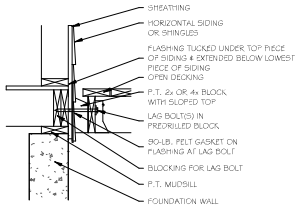


OPEN DECK/FOUNDATION WALL



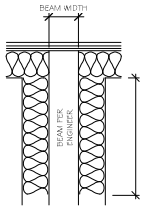
OPEN DECK/WOOD WALL

2ND FLOOR; HORIZONTAL SIDING OR SHINGLES



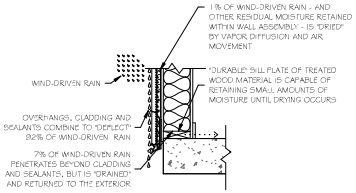
OPEN DECK/WOOD WALL

1ST FLOOR; HORIZONTAL SIDING OR SHINGLES



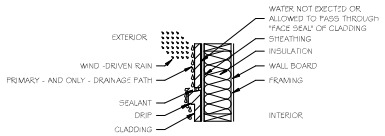
EXTERIOR WALL @ STRUCTURAL PENETRATION

INSULATED INWARDS 4X MEMBER WIDTH FROM FINISHED INTERIOR FACE PER 9.36.2.5.(2)b

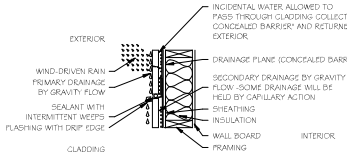


FOUR LINES OF DEFENSE

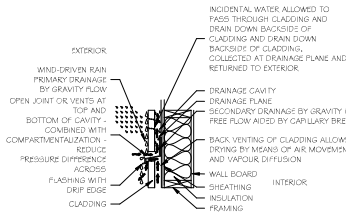
REDUNDANCY IS DESIGNED INTO EXTERIOR WALL SYSTEMS BY PROVIDING MULTIPLE LINES OF DEFENSE



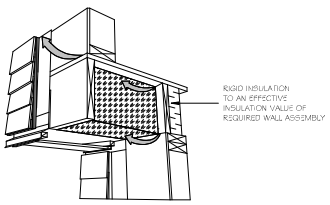
FACE SEAL WALL ASSEMBLY



CONCEALED BARRIER WALL ASSEMBLY

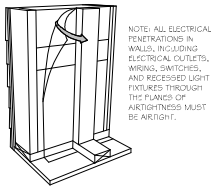


PRESSURE EQUALIZER RAINSCREEN WALL



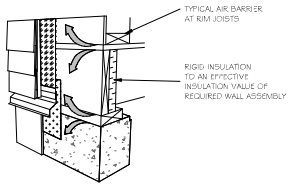
CANTILEVERED FLOOR

CANTILEVERED FLOORS AND FLOORS OVER UNHEATED SPACES/EXT. 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.



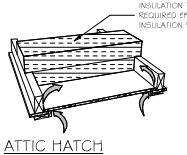
INT. WALL INTERFACE

INT. WALL THAT MEET EXT. WALLS OR CEILINGS WITH AN INTERIOR PLANE OF AIRTIGHTNESS MUST BE MADE AIRTIGHT BY EITHER SEALING ALL JUNCTIONS BETWEEN THE STRUCTURAL COMPONENTS, COVERING THE STRUCTURAL COMPONENTS WITH AN AIR BARRIER MATERIAL AND SEALING IT TO THE ADJACENT AIR BARRIER MATERIAL, OR MAINTAINING THE CONTINUITY OF THE AIR BARRIER SYSTEM THROUGHOUT THE INT. WALL.



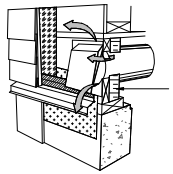
FOUNDATION TO SILL PLATE AND RIM JOISTS

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



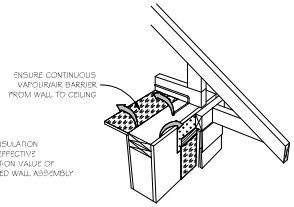
ATTIC HATCH

AIR LEAKAGE OCCURS THROUGH THE JOINT BETWEEN THE HATCH AND CEILING. AIR SEALING CAN BE ACHIEVED BY ENSURING THE HATCH IS SIZED PROPERLY SO THAT IT HAS ENOUGH CONTACT WITH THE OPENING LEDGE AND PROVIDING A CLOSED CELL FOAM GASKET.



WALL VENTED DUCTS

DUCT PENETRATION THROUGH THE BUILDING ENVELOPE MUST HAVE AN AIRTIGHT SEAL.



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.

METHOD DESIGN GROUP LTD.
UNIT #202-34654 DELAIR RD.
ABBOTSFORD, B.C. V2S 2G9
TEL: (604) 217-9097
WWW.METHODDESIGNGROUP.COM

No.	Description	Date
1.	ISSUED FOR ENG.	MAR.28.24

PR #: MDG22-112

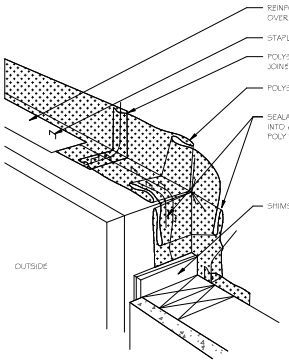
DATE: MAR.28.24

5135 208A STREET LANGLEY

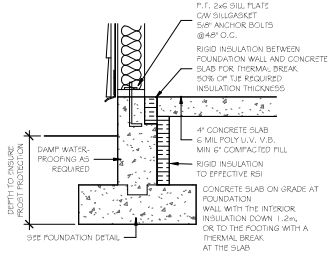
CONSTRUCTION DETAILS

1" = 1'-0"

A5.01

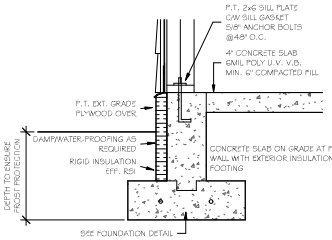


AIR SEALING WINDOWS AND DOOR FRAMES



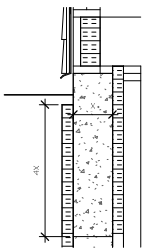
INSULATION FOR CONCRETE SLAB

INSULATION PLACEMENT OF AN UNHEATED SLAB



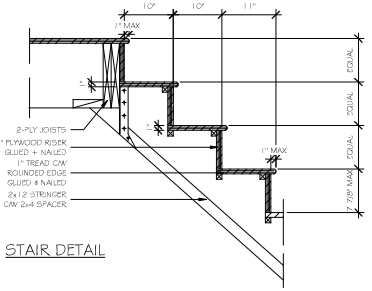
INSULATION FOR CONCRETE SLAB

INSULATION PLACEMENT OF AN UNHEATED SLAB

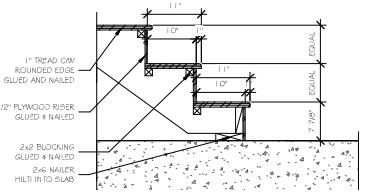


WHERE TWO PLANES OF INSULATION ARE SEPERATED BY A BUILDING ENVELOPE ASSEMBLY AND CAN NOT BT PHYSICALLY JOINED, ONE OF THE PLANES OF THE INSULATION MUST BE EXTENDED TO OCERLAP FOUR TIMES THE THICKNESS OF THE SEPERATION

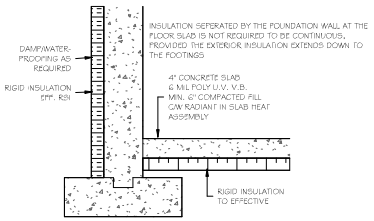
TWO PLANES OF INSULATION



STAIR DETAIL

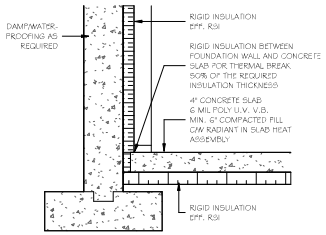


STAIR DETAIL



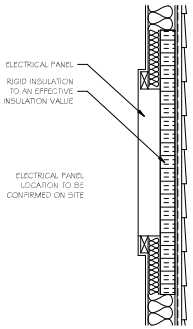
INSULATION FOR CONCRETE SLAB

INSULATION PLACEMENT OF A HEATED SLAB



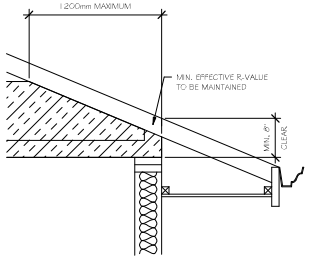
INSULATION FOR CONCRETE SLAB

INSULATION PLACEMENT OF A HEATED SLAB



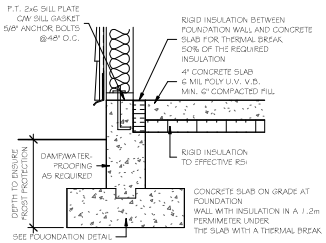
ELECTRICAL PANEL/MECH./PLUMBING DETAIL

MECHANICAL, ELECTRICAL, AND PLUMBING, COMPONENTS PLACED WITHIN AND PARALLEL TO AN EXTERIOR WALL ARE REQUIRED TO BE INSULATED TO THE EFFECTIVE THERMAL RESISTANCE REQUIRED FOR THE WALL AT THE PROJECTED AREA OF THE SYSTEM COMPONENT



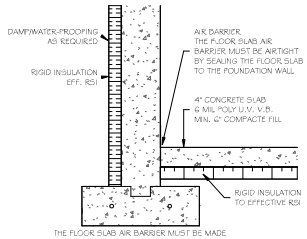
ATTIC INSULATION AT OUTSIDE WALL

A REDUCTION IN THE THERMAL RESISTANCE OF THE ATTIC INSULATION AT THE PERIMETER, PROVIDED THE INSULATION IS CONSTRAINED ONLY BY THE ROOF SLOPE AND THE VENTING REQUIREMENTS, AND THE MINIMUM THERMAL RESISTANCE VALUE ABOVE THE EXTERIOR WALL



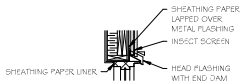
INSULATION FOR CONCRETE SLAB

INSULATION PLACEMENT OF AN UNHEATED SLAB



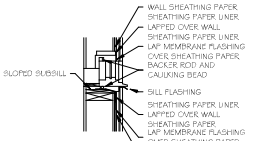
SLAB/FDN WALL AIR BARRIER DETAIL

LEAKAGE PATHS IN PROBLEMATIC AIR BARRIER DETAILS



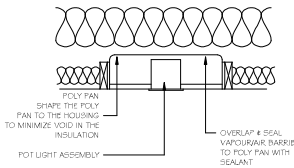
WINDOW HEAD FLASHING

THE INTERFACE BEWTEEN WINDOW HEADJAM 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 APPLIES TO DOORS AND SKYLIGHTS ALSO.



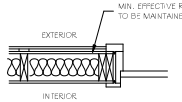
WINDOW SILL FLASHING

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 APPLIES TO DOORS AND SKYLIGHTS ALSO



POLY PAN INSTALLATION

POLY PANS ARE TO BE INSTALLED AT THE TIME OF LIGHT INSTALLATION. SLICING THE POLY PAN TO INSTALL LATER IS NOT AN ACCEPTABLE PRACTICE THE FLANGES OF THE POLY PANS WILL REQUIRE BACKING ALL AROUND FOR PROPER AIR SEAL. THE HOLY FOR ELEC. WIRE IS TO BE A TIGHT CUT TO THE PAN & SEALED WITH VAPOUR BARRIER SEALANT



WALL TO WINDOW/DOOR INTERFACE

JOINTS AND JUNCTIONS BETWEEN WALLS AND OTHER COMPONENTS LIKE WINDOWS AND DOORS NEED TO HAVE THE SAME EFFECT R-VALUE AS THE LOWER OF THE ADJOINING COMPONENTS. FOR WINDOWS AND DOORS, ADDITIONAL INSULATION AT THE ROUGH OPENING IS TYPICALLY NOT REQUIRED

AIRTIGHTNESS - 9.36.2.8

A CONTINUOUS AIR BARRIER IS REQUIRED. ARTICLE 9.36.2.8 REQUIRED THAT THE AIR BARRIER BE CONTINUOUS:
- ACROSS JOINTS
- BETWEEN ASSEMBLIES
- AROUND PENETRATIONS

FURTHER REQUIREMENTS FOR AIR BARRIERS ARE DEFINED IN SUBSECTION 9.25.3. OF THE BRITISH COLUMBIA BUILDING CODE.

AIRTIGHTNESS & AIR BARRIER NOTES: 9.36.2.9 & 9.36.2.10 (SEE 9.36. DETAIL SHEETS ATTACHED)

FLEXIBLE SHEET AIR BARRIER MATERIALS REQUIRE ALL JOISTS TO BE :
- LAPPED AT LEAST 50mm (2")
- SEALED WITH NON-HARDENING SEALANTS
- STRUCTURALLY SUPPORTED

JUNCTIONS BETWEEN THE FLOOR AND RIM JOISTS TO FOUNDATION TO BE SEALED.

POLY MATS ARE REQUIRED ON EXTERIOR WALLS AND CEILINGS FOR ELECTRICAL BOXES AND POT LIGHTS AND MUST BE SEALED TO THE AIR/VAPOUR BARRIER.

ATTIC HATCHES AND ALL ELECTRICAL PENETRATIONS INTO THE ATTIC SPACE ALONG ANY GAPS, SPACES PENETRATION, IRREGULARITIES THAT COULD INHIBIT LEAKAGE MUST BE SEALED

GASKETED ELECTRICAL BOXES REQUIRE THE WIRES INTO THE BOX TO BE SEALED

METAL CHIMNEYS ARS TO BE SEALED WITH HIGH TEMPERATURE SEALANT AT THE VAPOUR BARRIER LOCATION

VENTILATION - SECTION 9.32:

EXHAUST ONLY VENTILATION IS NO LONGER ACCEPTABLE. PRINCIPLE EXHAUST FAN TO BE 2 SPEED FAN FOR CONTINUOUS OPERATION AT LOW SPEED WITH WALL SWITCH IN BATHROOM FOR SECOND SPEED WHEN USED FOR MOISTURE EXTRACTION

PRINCIPLE EXHAUST FAN TO HAVE A LABELED OVERRIDE OFF SWITCH FOR FAN MAINTENANCE

CONTRACTOR TO ENSURE ALL VENTILATION REQUIREMENTS CONFORM TO THE 2018 BCBC

CONTRACTOR TO ENSURE AN ADEQUATE GAP IS RETAINED BETWEEN BOTTOM OF DOOR IN BEDROOMS AND FINISHED FLOOR TO ALLOW FOR AIR FLOW FROM BEDROOM

9.32.3.5 PRINCIPLE VENTILATION SYSTEM FAN REQUIREMENTS

FLOOR AREA (sq. m.)	MIN. AIR FLOW RATE L/s NO. OF BEDROOMS				
	0-1	2-3	4-5	6-7	>7
<140	14	21	28	35	42
140-280	21	28	35	42	49
281-420	28	35	42	49	56
421-560	35	42	49	56	64
561-700	42	49	56	64	71
>700	49	56	64	71	78

PRIMARY VENTILATION CAN BE ACHIEVED BY THE USE OF AN HRV OR A DEDICATED LO-SONE FAN NOT EXCEEDING 1.0 SONES NOISE LEVEL

CONTINUITY OF INSULATION - 9.36.2.5

THE CONTINUITY OF THE EFFECTIVENESS OF THE INSULATION IS REQUIRED. REFER TO SECTION 9.36.2.5. OF THE BRITISH COLUMBIA BUILDING CODE FOR FURTHER REQUIREMENTS

SUMMARY OF HVAC PERFORMANCE REQ.

EQUIPMENT TYPE	SIZE	PERFORMANCE REQUIREMENTS
GAS FIRED FURNACE	LESS THAN 220,000 BTU/HR (66kW)	ANNUAL FUEL USE EFFICIENCY (AFUE) MUST BE GREATER OR EQUAL TO 92%
GAS FIRED BOILER	LESS THAN OR = 300,000 BTU/HR (88kW)	ANNUAL FUEL USE EFFICIENCY (AFUE) MUST BE GREATER OR EQUAL TO 90%
AIR COOLED UNITARY AIR CONDITIONER & HEAT PUMP SPLIT SYSTEM	LESS THAN OR = 65,000 BTU/HR (19kW)	SEASONAL ENERGY EFF. RATING (SEER) OF 14.5 OR ENERGY EFF. RATING (EER) OF 11.5
GAS FIRED TANKLESS	LESS THAN OR = 250,000 BTU/HR (73.2kW)	ENERGY FACTOR (EF) MUST BE GREATER THAN OR = TO 0.8
ELECTRIC STORAGE	13-71 GAL. (50 TO 270L)	STANDBY LOSS LESS THAN OR EQUAL TO 25+ 0.20V (TOP INLET) 40+0.20V (BOTTOM INLET) WHERE V = THE TANK VOLUME (L)
GAS FIRE STORAGE	LESS THAN 75,000 BTU/HR (22kW)	ENERGY FACTOR (EF) MUST BE GREATER THAN OR = TO 0.67-0.0005V WHERE V = THE TANK VOLUME (L)
GAS FIRED TANKLESS	LESS THAN OR = 250,000 BTU/HR (73.2kW)	ENERGY FACTOR (EF) MUST BE GREATER THAN OR = TO 0.8

HVAC & SERVICE WATER HEATING REQUIREMENTS SECTION 9.36.3 & 9.36.4

THE DESIGN AND INSTALLATION OF HVAC AND SERVICE WATER HEATING SYSTEMS ARE TO CONFORM TO SECTION 9.36.3.1 & 9.36.4.1

HEATING AND AIR CONDITION APPLIANCE TO CONFORM TO BCBC 9.33.4.1 AND SUB SECTION 9.32.3 FOR THE DESIGN OF SYSTEMS PROVIDING VENTILATION

ALL HEATING AND AIR CONDITIONING APPLIANCES TO HAVE A MINIMUM CAPACITY CONFORMING TO BCBC 9.33.5.1 AND BE INSTALLED USING THE STANDARDS LISTED IN SECTION 9.33.5.2

THE OWNER/BUILDER(S) ARE RESPONSIBLE FOR THE SELECTION OF SPACE HEATING/COOLING AND SERVICE WATER HEATING EQUIPMENT THEY MUST ENSURE THE SELECT EQUIPMENT MEETS OR EXCEEDS THE PERFORMANCE RATINGS AS PER THE 2018 BCBC INCLUDING THE LATEST REVISIONS.
DUCTS MUST BE INSULATED TO THE SAME LEVEL AS REQUIRED FOR WALLS IF THEY ARE OUTSIDE OF THE HEATED SPACE AND CARRY CONDITIONED AIR. ALL TRANSVERSE AND LONGITUDINAL JOINTS MUST BE SEALED USING AN APPROVED TAPE AND SEALED WHEN OUTSIDE THE HEATED SPACE. SEE SECTION 9.36.3.2

FOR AIR INTAKE AND OUTLET DAMPER REQUIREMENTS SEE SECTION 9.36.3.3

EXHAUST DUCTS MUST DISCHARGE TO THE OUTSIDE

EXHAUST & SUPPLY DUCTS MUST BE SIZED AS REQUIRED BY THE MANUFACTURER & EQUIVALENT DIAMETER AS PER TABLE 9.32.3.8.(3)

PIPING FOR HEATING & COOLING SYSTEMS MUST BE LOCATED INSIDE THE PLANE OF INSULATION TO REDUCE THERMAL LOSSES FROM THE PIPING SYSTEM. WHERE PIPING IS INSTALLED OUTSIDE THE PLANE OF INSULATION ADDITIONAL INSULATION IS REQUIRED TO ACHIEVE A THERMAL RESISTANCE EQUIVALENT TO THE EXTERIOR ABOVE GRADE WALL

HEATING & AIR CONDITION EQUIPMENT MUST BE LOCATED IN THE CONDITIONED SPACE UNLESS IT IS DESIGNED TO BE LOCATED OUTSIDE

HEATING & COOLING THERMOSTATS MUST BE ACCURATE TO PLUS OR MINUS 0.5 DEGREES CELSIUS.

WATER PIPING MUST BE INSULATED FOR 2m ON EITHER SIDE OF THE HOT WATER TANK TO A MIN. OF AT LEAST 12mm THICK.

A 4" DIA. SMOOTH OR 6" FLEX DUCT IS TO BE TIED INTO THE RETURN AIR PLENUM A MIN. OF 1.0 TO A MAXIMUM OF 1.5 FROM THE FURNACE FAN TO RUN CONTINUOUSLY

METHOD DESIGN GROUP LTD.
UNIT #202-34654 DELAIR RD.
ABBOTSFORD, B.C. V2S 2G9
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No.	Description	Date
1	ISSUED FOR ENG.	MAR.28.24

PR.#: MDG22-112

DATE: MAR.28.24

5135 208A STREET LANGLEY

CONSTRUCTION DETAILS

1" = 1'-0"

A5.02