GENERAL NOTES

-THIS DRAWING CONFORMS TO THE REQUIREMENTS OF PART 9 OF THE 2018 BRITISH COLUMBIA BUILDING CODE.

-ALL CONSTRUCTION MATERIALS & WORKMANSHIP TO BE IN ACCORDANCE WITH CURRENT EDITIONS OF THE B.C. BUILDING CODE, PLUMBING CODE, ELECTRICAL CODE, & ALL OTHER CODES AND BYLAWS OF THE CITY OF FORT ST. JOHN.

-ALL SPANS CONFORM TO 2018 B.C.B.C. & THE 2009 EDITION OF THE SPAN BOOK (CANADIAN WOOD COUNCIL)

- THE CONTRACTOR, SUB-TRADES AND CONSULTANTS ARE RESPONSIBLE FOR VERIFYING THEY ARE WORKING FROM THE MOST CURERENT EDITION OF PLANS.

-THE CONTRACTOR AND ALL SUBTRADES ARE RESPONSIBLE FOR THE REVIEW OF ALL DRAWINGS AND SITE CONDITIONS PRIOR TO START OF ANY WORK OR ORDERING OF MATERIALS, AND SHALL REPORT ANY PROPOSED REVISIONS, OR ANY ERRORS OR DISCREPANCIES, TO JCR DESIGN IMMEDIATELY.

-ALL CONCRETE TO BE PLACED ON FIRM, UNDISTURBED SOIL, FREE OF ANY LOOSE, ORGANIC OR FROSTY MATERIAL.

-CONCRETE FOOTINGS AND WALL STRENGTH-25MPA @ 28 DAYS @ 28 DAYS
FLOOR SLABS & SIDEWALKS-32MPA 2 COATS ASPHALT EMULSION DAMPPROOFING BELOW GRADE

-ALL LOAD BEARING STUDS, FLOOR JOISTS, AND BUILT-UP BEAMS TO BE MIN. S.P.F. No 2 OR BETTER.

-SITING OF BUILDINGS MUST BE VERIFIED BY A LEGAL LAND SURVEYOR PRIOR TO PLACING ANY CONCRETE, AND MUST BE IN ACCORDANCE WITH ALL LOCAL BY-LAWS AND REGULATIONS.

-ALL TRUSSES TO BE PRE-ENGINEERED, AND SPANS AND DETAILS VERIFIED BY THE TRUSS SUPPLIER ON-SITE PRIOR TO ANY FABRICATION. JCR DESIGN TO BE SUPPLIED ONE COPY OF THE TRUSS DESIGN.

-DRAWINGS ARE NOT INTENDEED TO BE SCALED, AND LARGE SCALE DRAWINGS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS.

-JCR DESIGN MUST BE GIVEN FULL ACCESS TO ALL THE WORK IN PROGRESS

-THE CONTRACTOR SHALL SUPPLY THREE COPIES OF ALL SHOP DRAWINGS TO THE ARCHITECTURAL CONSULTANT FOR REVIEW

-ALL ROOF SPACES SHALL BE VENTILATED WITH SOFFIT AND ROOF VENTS. SEE THE ROOF PLAN AND THE 2018 BRITISH COLUMBIA BUILDING CODE SECTION 9.19.1.

-DOOR FRAMES TO OPENINGS FOR ENTRANCE AND EXTERIOR DOORS TO DWELLING UNITS AND DOORS BETWEEN DWELLING UNITS AND ATTACHED GARAGES SHALL BE SOLIDLY BLOCKED BETWEEN THE DOOR FRAME AND THE FRAMING AT THE HEIGHT OF THE DEADBOLT AS TO RESIST SPREADING BY THE WAY OF FORCE -ALL GLASS IN DOORS, OR SIDELIGHTS TO BE SAFETY GLASS.

-ALL EXTERIOR HINGED DOORS SHALL HAVE HINGES AND PINS SUCH THAT THE DOORS CANNOT BE REMOVED FROM THE OUTSIDE IN THE CLOSED POSITION.

-EXTERIOR WALL DIMENSIONS IN PLAN ARE TO THE OUTSIDE FACE OF PLYWOOD SHEATHING OR TO THE OUTSIDE FACE OF FOUNDATION WALLS.

-PROVIDE A MINIMUM OF TWO HOSE BIBS PER UNIT, LOCATION TO BE DETERMINED BY THE DEVELOPER. -RAINWATER LEADERS ARE NOT SHOWN ON THE ELEVATIONS OR THE PLANS, LOCATION TO BE DETERMINED BY THE DEVELOPER.

-THE DIMENSIONS FOR U.P.O. CALCULATIONS ARE 2" SMALLER IN EACH DIRECTION FROM THE SIZES GIVEN ON PLAN.

-APPROVED SMOKE ALARMS TO BE INSTALLED 9.10.19
-APPROVED CARBON MONOXIDE ALARMS TO BE INSTALLED
-BEDROOM DOORS MUST BE UNDERCUT 12mm FOR CROSS VENTILATION
-HVAC EQUIMENT TO BE LOCATED WITHIN THERMAL ENCLOSURE OR DESIGNATED TO BE INSTALLED OUTSIDE
-HVAC & SWH EQUIPMENT TO MEET MIN. PERFORMANCE REQ. DETERMINED IN TABLES 9.36.3.10 & 9.36.4.2 TO BE INSTALLED OUTSIDE
-MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS PARALLEL TO AN INSULATED WALL MUST NOT LOWER THE REQUIRED INSULATION OF THE WALL.. KEEP PANELS ON INTERIOR WALL OR FUR OUT FRAMING / OR HANG ON WALL.
-PIPING OUTSIDE CONDITIONED SPACE MUST BE INSULATED TO LEVEL OF ABOVE GRADE WALLS.
-CONTROLS MUST BE ACCURATE TO +/- 0.5°c -WOOD HEATERS & STOVES EXEMPT.
-HUMIDIFICATION IS NOT REQUIRED (EXCEPT INDOOR POOLS AND HOT TUBS > 10sqm. WITH NO COVER), BUT AUTO CONTROLS ARE REQUIRED WHERE HUMIDIFICATION IS USED.
-HVAC SIZED & INSTALLED TO GOOD PRACTICES -DUCT SEAMS SEALED -DUCTS OUTSIDE CONDITIONED SPACE SEALED & INSULATED TO VALUE OF WALLS. -HRV NOT REQUIRED BUT MUST CONFORM WITH 9.36 WHERE PRESENT.
-SPACE HEAT & SERVICE HOT WATER EFFICIENCIES DETAILED IN 9.36
-CONTROLS FOR SPACE HEAT & SERVICE HOT WATER ARE REQUIRED.

9.32. VENTILATION
-EXHAUST ONLY VENTILATION NO LONGER ACCEPTABLE
-NEW PRINCIPAL FAN SIZING TABLE
-VENTILATION AIR MUST BE DISTRIBUTED TO EACH BEDROOM AND A COMMON AREA
-PRINCIPAL SYSTEM - MUST RUN CONTINUOUSLY
-CRAWLSPACE VENTILATION REQUIRED
-CREDIT FOR VERY SHORT BATH FAN EXHAUST DUCTS

9.32.4. PROTECTION AGAINST DEPRESSURIZATION
-MAKE-UP AIR IS REQUIRED FOR LARGE CAPACITY EXHAUST EQUIPMENT (0.5 AIR CHANGES/HOUR) WHEN:
-HOUSE HAS APPLIANCES SUBJECT TO BACK DRAFTING OR HOUSE IS LOCATED IN AREA CLASSIFIED AS RADON AREA 1

9.32.3.8. DUCTS
-EXHAUST DUCTS MUST DISCHARGE TO OUTDOORS
-EXHAUST AND SUPPLY DUCTS MUST BE SIZED AS REQUIRED BY MANUFACTURER & EQUIVALENT DIAMETER AS PER TABLE 9.32.3.8 (3)
-NEED TO BE AIR-SEALED, INSULATED AND PROVIDED WITH VAPOUR BARRIER

SPATIAL SEPARATION OF BUILDINGS AND UNPROTECTED OPENING CALCULATIONS 9.10.15.
LIMITING DISTANCE & FIRE DEPARTMENT RESPONSE;
A LIMITING DISTANCE EQUAL TO HALF THE ACTUAL LIMITING DISTANCE SHALL BE USED AS INPUT TO THE REQUIREMENTS OF THIS SECTION, WHERE:

THE TIME FROM RECEIPT OF NOTIFICATION OF A FIRE BY THE FIRE DEPARTMENT UNTIL THE FIRST FIRE DEPARTMENT VEHICLE ARRIVES AT THE BUILDING EXCEEDS 10 MIN IN 10% OR MORE OF THE CALLS TO THE BUILDING.

THE BUILDING IS NOT SPRINKLERED

- 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, DOOR 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.
- 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 HEATHER HAVE TEMPERATURE CONTROLS.
- THE AIR BARRIER DETAILS, AND LOCATIONS HAVE BEEN IDENTIFIED.

LEGAL DESCRIPTION

LOT 82 PLAN EPP50221 SECTION 29 TOWNSHIP 83 RANGE 18 MERIDIAN LAND DISTRICT 44

CIVIC ADDRESS

8319 81 STREET, FORT ST. JOHN, B.C.

SITE RECONCILIATION

SITE AREA: 550.231 sqm. OR 5,922.637 sqft.

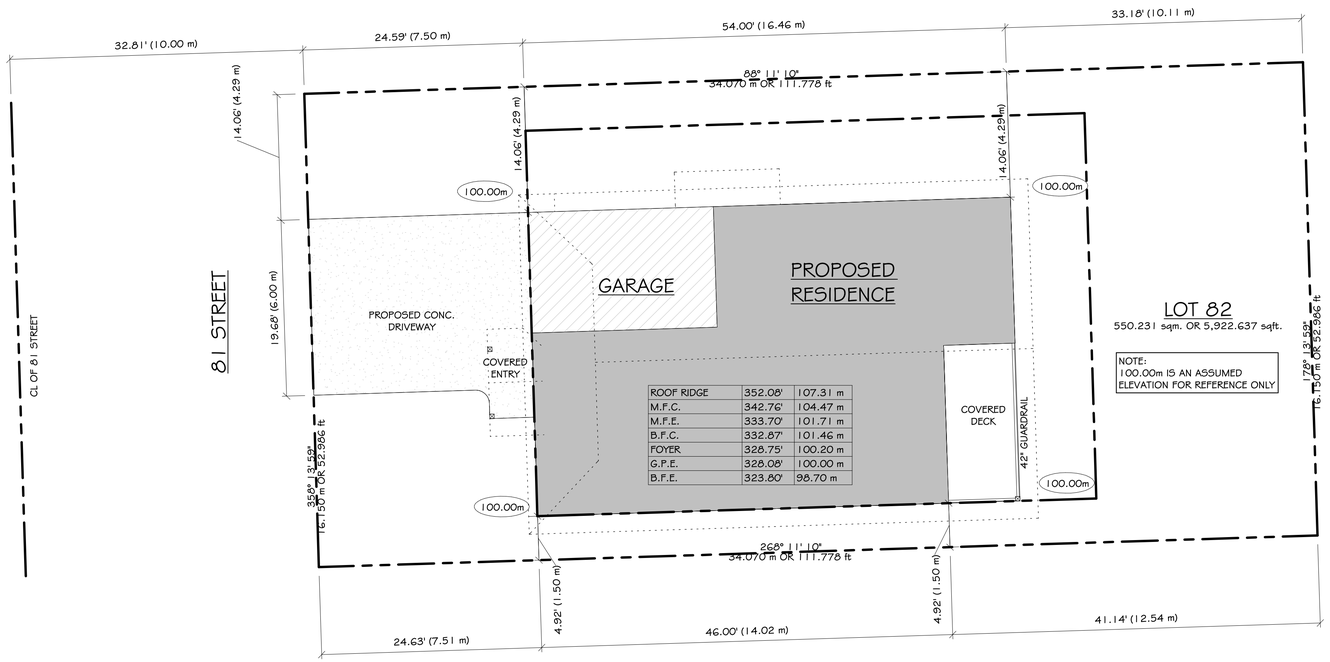
ZONING: R-2

PARCEL COVERAGE: 31.00%

SETBACKS:
FRONT: 7.50m OR 24.61' PROPOSED
REAR: 10.11m OR 33.17' PROPOSED
RIGHT: 1.50m OR 4.92' PROPOSED
LEFT: 4.29m OR 14.07' PROPSOED

BUILDING HEIGHT: 7.32m OR 24.00' PROPOSED

DRAWING INDEX



NOTE:
ALL STRUCTURE TO BE SPECIFIED BY STRUCTURAL ENGINEER

NOTE:
ALL RETAINING TO BE SPECIFIED BY GEOTECHNICAL ENGINEER

NOTE:
TRUSS DESIGN TO BE REVIEWED BY JCR DESIGN

NOTE:
JCR DESIGN ASSUMES NO RESPONSIBILITY FOR ANY OMISSIONS OR ERRORS

NOTE:
ALL CONSULTANT DRAWINGS TO BE REVIEWED BY JCR DESIGN PRIOR TO START OF CONSTRUCTION

NOTE:
ALL CHANGES & REVISIONS TO ARCHITECTURAL & STRUCTURAL COMPONENTS MUST BE REVIEWED BY JCR DESIGN.

JCR DESIGN LTD

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

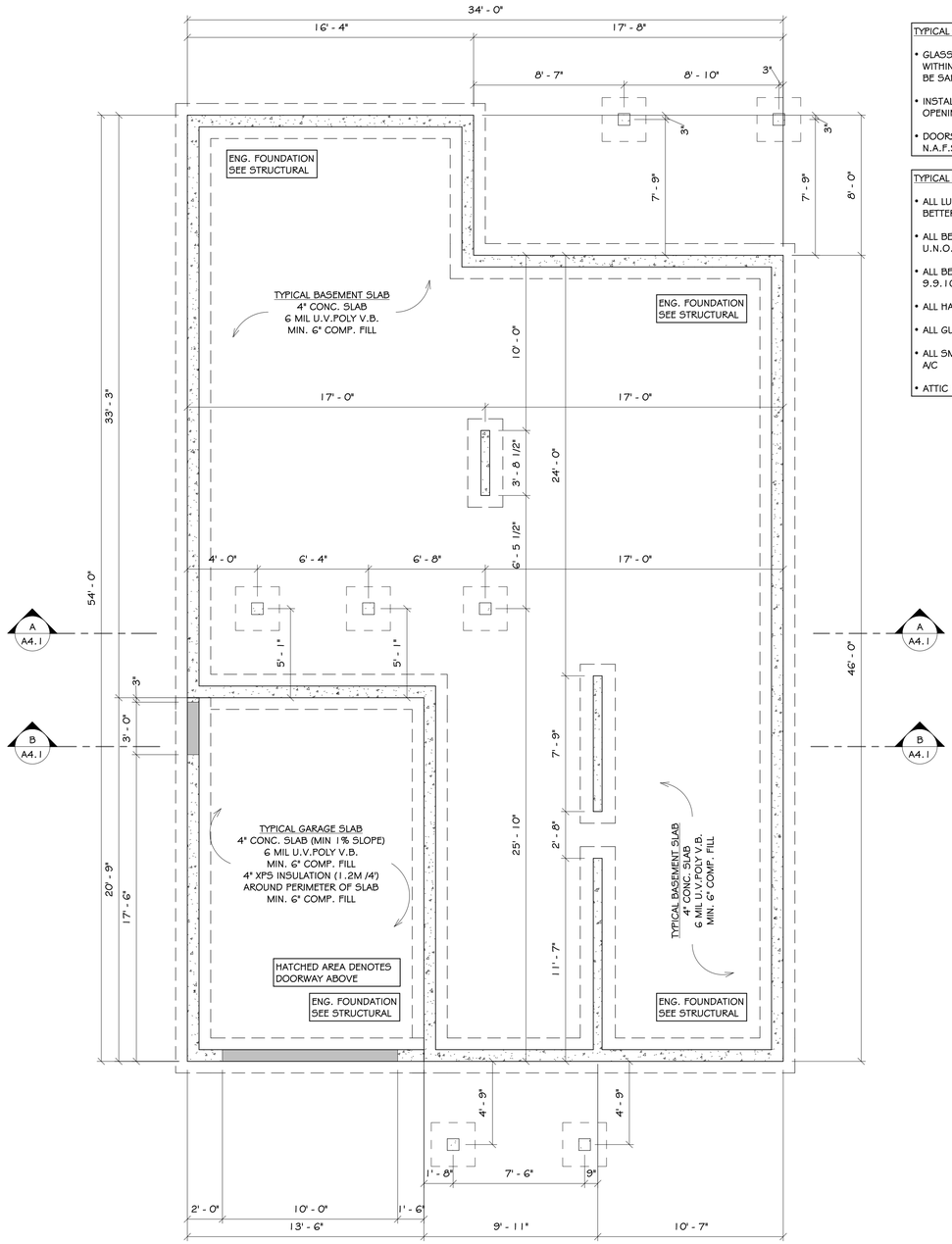
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

SITE PLAN

DRAWN:	G.D.
PROJECT #:	20213
CHECKED:	JCR
DATE:	02 OCTOBER 2020
SCALE:	1/8" = 1'-0"

SHEET: A1.1



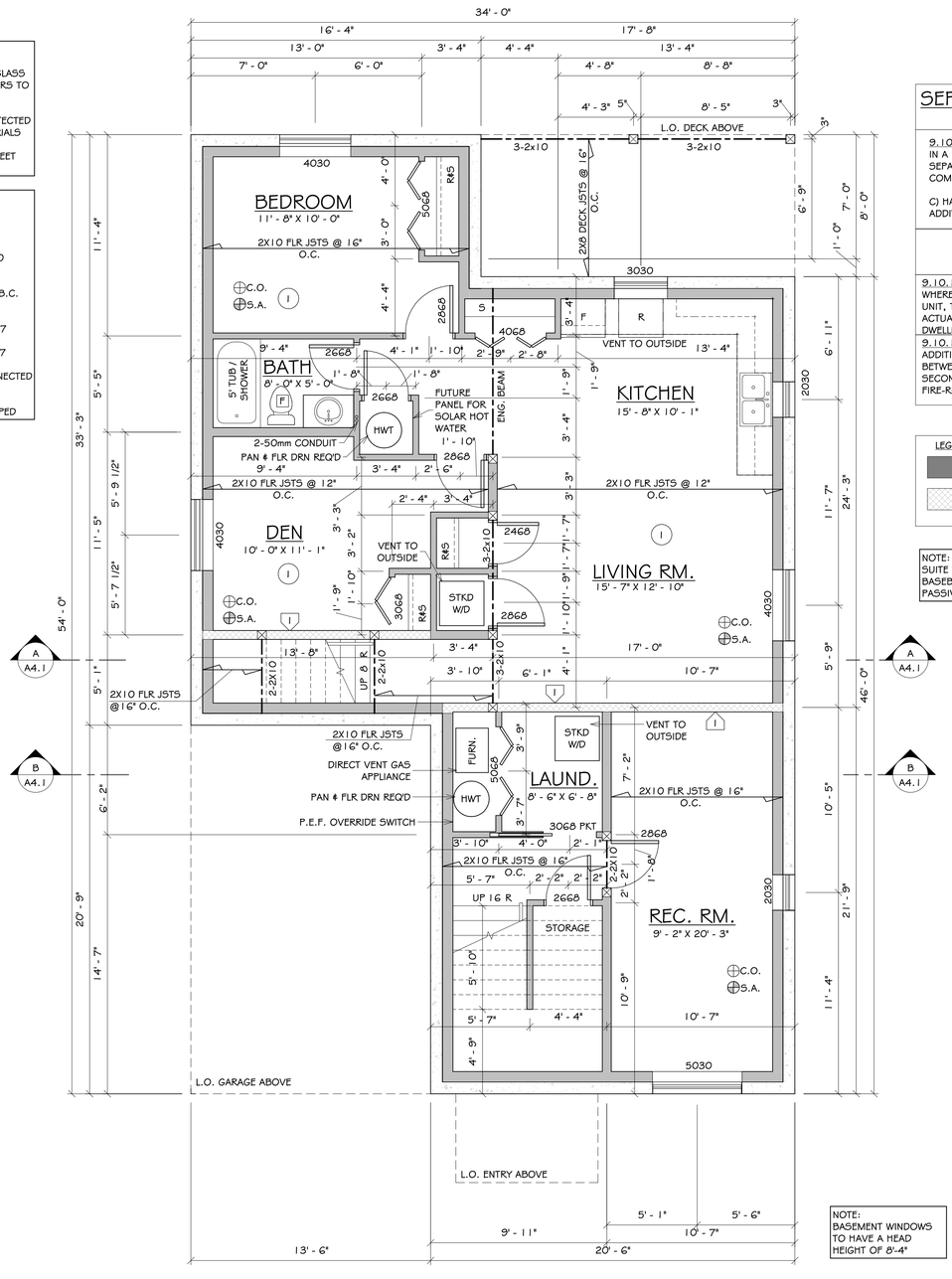
FOUNDATION PLAN

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 3'O OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED



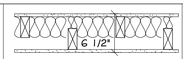
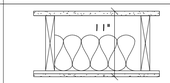
BASEMENT FLOOR PLAN

FLOOR AREA: 451 sqft.
SUITE AREA: 965 sqft.

NOTE:
SMOKE ALARMS TO BE INSTALLED IN ALL BEDROOMS

NOTE:
CARBON MONOXIDE DETECTORS TO BE INSTALLED IN ALL BEDROOMS

NOTE:
BASEMENT WINDOWS TO HAVE A HEAD HEIGHT OF 8'-4"

1		45 MIN. F.R.R. WALL TYPE W7b A9.10.3.1.A STC - 45	WOOD STUD WALL	-1/2" TYPE "X" GYPSUM PANEL -2X4 WOOD STUDS @ 16" O.C. STAGGERED ON -2X6 WOOD TOP AND BOTTOM PLATES -3 1/2" BATT INSULATION (ONE SIDE) -1/2" TYPE "X" G.W.B.	EXT.	N/A
					INT.	PAINTED
1		55 MIN. F.R.R. COMPONENT ADDITIVE METHOD APPENDIX D-2.3 STC EXCEPTION 9.11.1.1.(2).(A)	WOOD JST FLOOR	-3/4" PLYWOOD SUB FLOOR -2X10 WOOD JOISTS @ 16" OR 12" O.C. (10 MIN FFR D-2.3.4.-F) -6" BATT INSULATION (5 MIN FFR D-2.3.4.-G) -RESILIENT METAL CHANNELS -5/8" TYPE "X" GYPSUM PANEL (40 MIN FFR D-2.3.4.-B) -JOINTS FINISHED	EXT.	N/A
					INT.	SPRAYED

SEPARATION OF RESIDENTIAL SUITES

BCBC 2018 - 9.10.9.14. -

9.10.9.14.(4)
IN A HOUSE WITH A SECONDARY SUITE, DWELLING UNITS SHALL BE SEPARATED FROM EACH OTHER AND FROM ANCILLARY SPACES AND COMMON SPACES WITH A FIRE SEPARATION:

C) HAVING A FIRE-RESISTANCE RATING NOT LESS THAN 45 MIN WHEN ADDITIONAL SMOKE ALARMS ARE NOT INSTALLED AND INTERCONNECTED

SMOKE ALARMS

BCBC 2018 - 9.10.19.5. -

9.10.19.5.(1)
WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED IN A DWELLING UNIT, THE SMOKE ALARMS SHALL BE INTERCONNECTED SO THAT THE ACTUATION OF ONE ALARM WILL CAUSE ALL ALARMS WITHIN THE DWELLING UNIT TO SOUND.

9.10.19.5.(3)(A)
ADDITIONAL SMOKE ALARMS AND INTERCONNECTION OF SMOKE ALARMS BETWEEN DWELLING UNITS AND COMMON SPACES IN A HOUSE WITH A SECONDARY SUITE IS NOT REQUIRED IF THE FIRE SEPARATIONS HAVE A FIRE-RESISTANCE RATING NOT LESS THAN 45 MIN.

LEGEND:
- STANDARD WALL
- 45 MIN. F.R.R. WALL

NOTE:
SUITE TO BE ELECTRIC BASEBOARD HEATING C/W PASSIVE AIR INTAKE

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

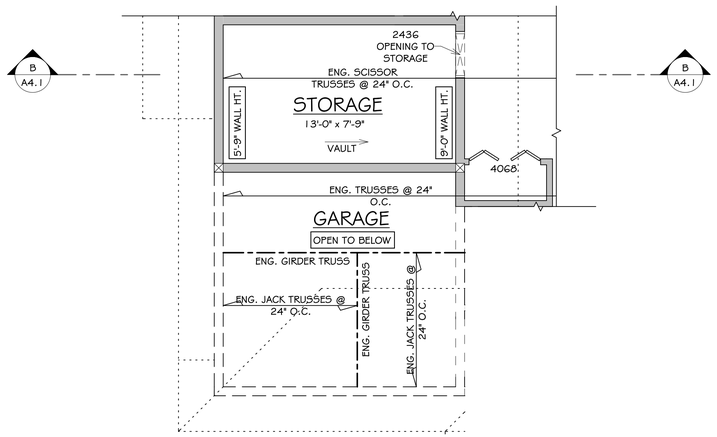
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

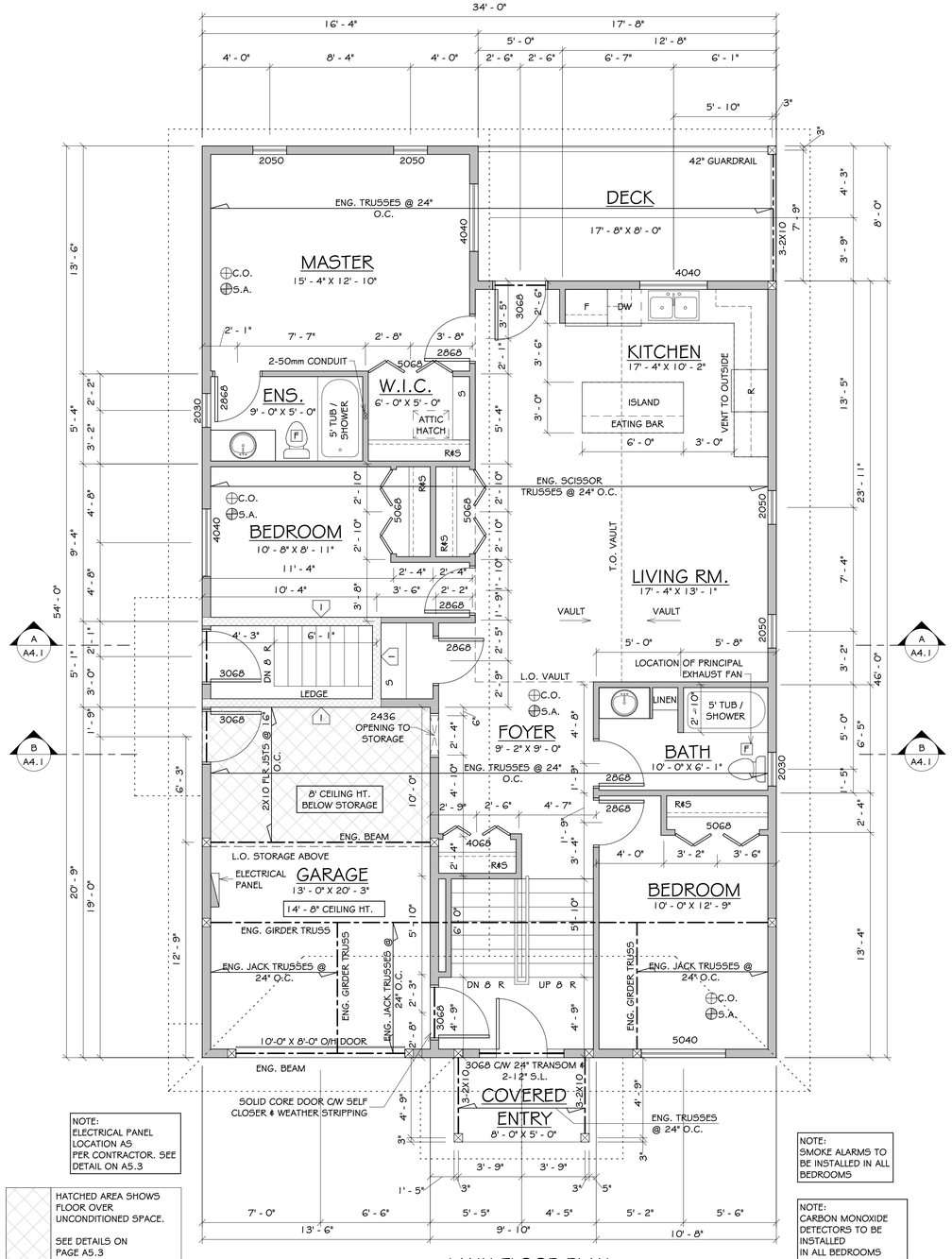
FOUNDATION PLAN & BASEMENT FLOOR PLAN

DRAWN: G.D.	SHEET: A2.1
PROJECT #: 20213	
CHECKED: JCR	
DATE: 02 OCTOBER 2020	
SCALE: 1/4" = 1'-0"	

1	6 1/2"	45 MIN. F.R.R. WALL TYPE W7b A9.10.3.1.A STC - 45	WOOD STUD WALL	-1/2" TYPE "X" GYPSUM PANEL -2X4 WOOD STUDS @ 16" O.C. STAGGERED ON -2X6 WOOD TOP AND BOTTOM PLATES -3 1/2" BATT INSULATION (ONE SIDE) -1/2" TYPE "X" G.W.B.	EXT. INT.	N/A PAINTED
1	11"	55 MIN. F.R.R. COMPONENT ADDITIVE METHOD APPENDIX D-2.3 STC EXCEPTION 9.11.1.1.(2).(A)	WOOD JST FLOOR	-3/4" PLYWOOD SUB FLOOR -2X10 WOOD JOISTS @ 16" OR 12" O.C. (10 MIN FFR D-2.3.4.-F) -6" BATT INSULATION (5 MIN FFR D-2.3.4.-G) -RESILIENT METAL CHANNELS -5/8" TYPE "X" GYPSUM PANEL (40 MIN FFR D-2.3.4.-B) -JOINTS FINISHED	EXT. INT.	N/A SPRAYED



MAIN FLOOR STORAGE PLAN



NOTE:
ELECTRICAL PANEL LOCATION AS PER CONTRACTOR. SEE DETAIL ON A5.3

HATCHED AREA SHOWS FLOOR OVER UNCONDITIONED SPACE.

SEE DETAILS ON PAGE A5.3

NOTE:
SMOKE ALARMS TO BE INSTALLED IN ALL BEDROOMS

NOTE:
CARBON MONOXIDE DETECTORS TO BE INSTALLED IN ALL BEDROOMS

MAIN FLOOR PLAN

FLOOR AREA: 1,415 sqft.
GARAGE AREA: 280 sqft.
DECK AREA: 141 sqft.
COVERED ENTRY: 40 sqft.

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 3'0 OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

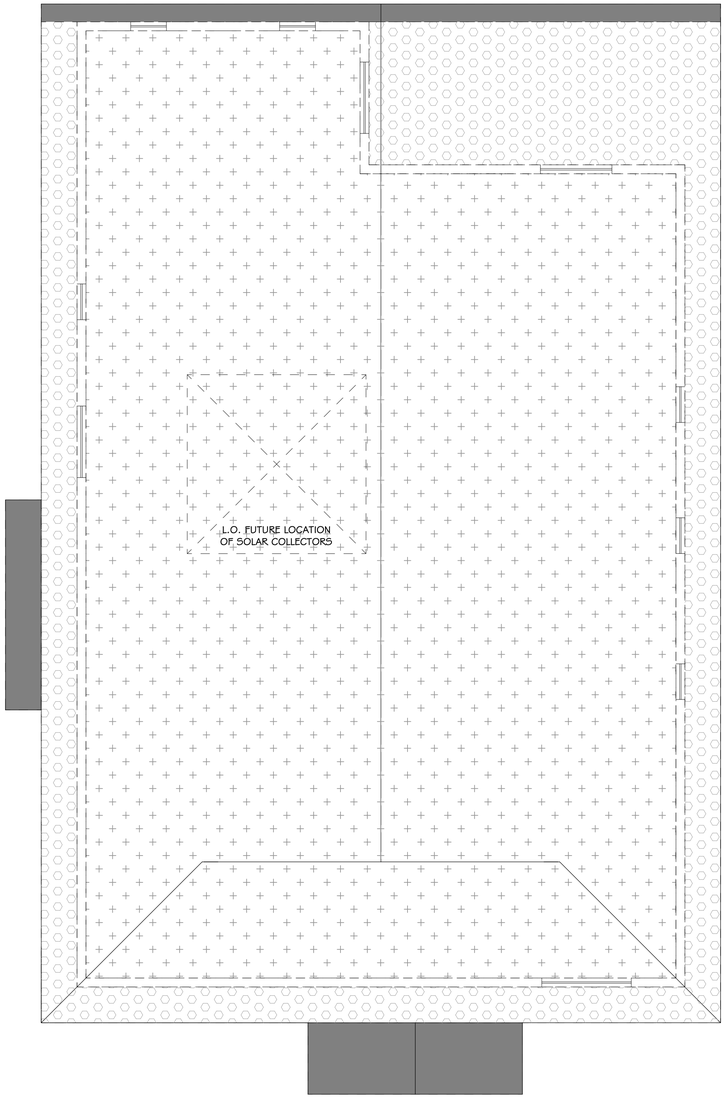
HILLCREST PLAN

8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

MAIN FLOOR PLAN & MAIN FLOOR STORAGE PLAN

DRAWN: G.D.	SHEET: A2.2
PROJECT #: 20213	
CHECKED: JCR	
DATE: 02 OCTOBER 2020	
SCALE: 1/4" = 1'-0"	



SOLAR DOMESTIC HOT WATER SYSTEM R.I.

NOTE:
AN AREA OF NOT LESS THAN 9.5 SQ.M. IS REQUIRED FOR THE FUTURE INSTALLATION OF SOLAR COLLECTORS FOR DOMESTIC HOTWATER SYSTEM.

ROOF STRUCTURE TO CONSIDER ADDITIONAL LOADING.

2-50MM INSIDE DIA. STRAIGHT, CONTINUOUS CONDUIT RUNS TO THE ATTIC SPACE ADJACENT TO THE DESIGNATED ROOF AREA MUST BE PROVIDED.

CONDUIT TO BE CAPPED TO PREVENT WATER INGRESS AND AIR LEAKAGE.

CONDUIT TO BE CLEARLY MARKED

ROOF VENTING CALCULATIONS

TOTAL ROOF SPACE TO BE VENTED				1607.67 sqft.		
ROOF VENTILATION REQUIRED				1 / 300		
1607.67 sqft.	X	0.003	=	5.36 sqft.		
25% @ SOFFIT			=	1.34 sqft.		
VENT @ SOFFIT			=	433.33 sqft.	X	5% PERFORATION
PROPOSED VENTING			=	21.67 sqft.		

LEGEND

- VENTED ROOF SPACE
- PERFORATED SOFFIT AS PER OWNER
- NON VENTILATED SOFFIT

ROOF VENTING PLAN

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 3'0 OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED

JCR DESIGN LTD

NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

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CHILLIWACK, B.C. V2P 6Z6
PHONE: 604-858-0031
EMAIL: INFO@JCRDESIGN.CA

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

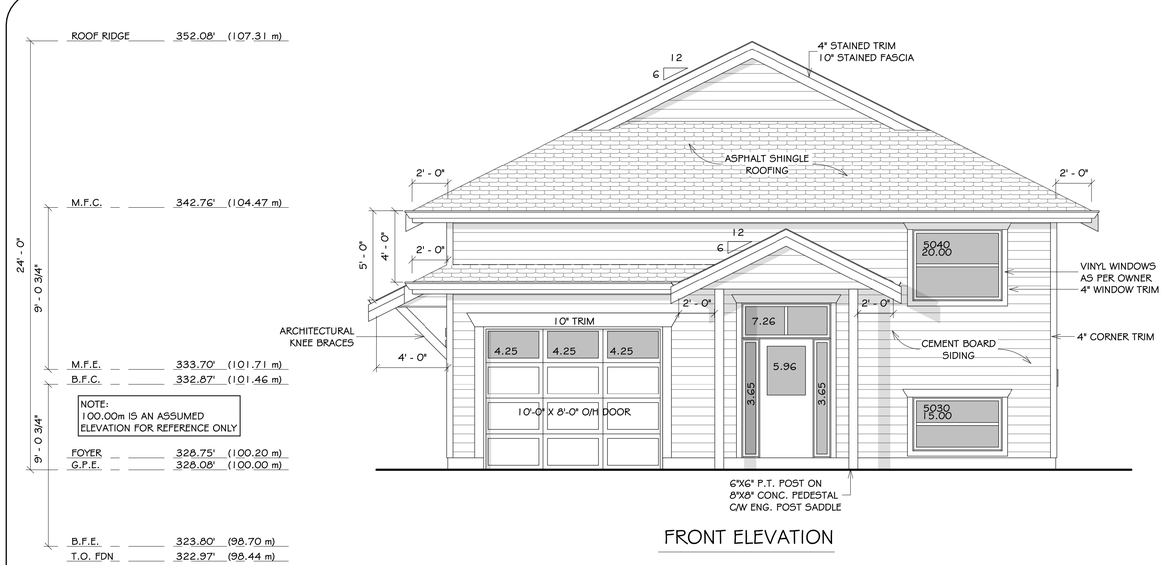
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

ROOF VENTING PLAN

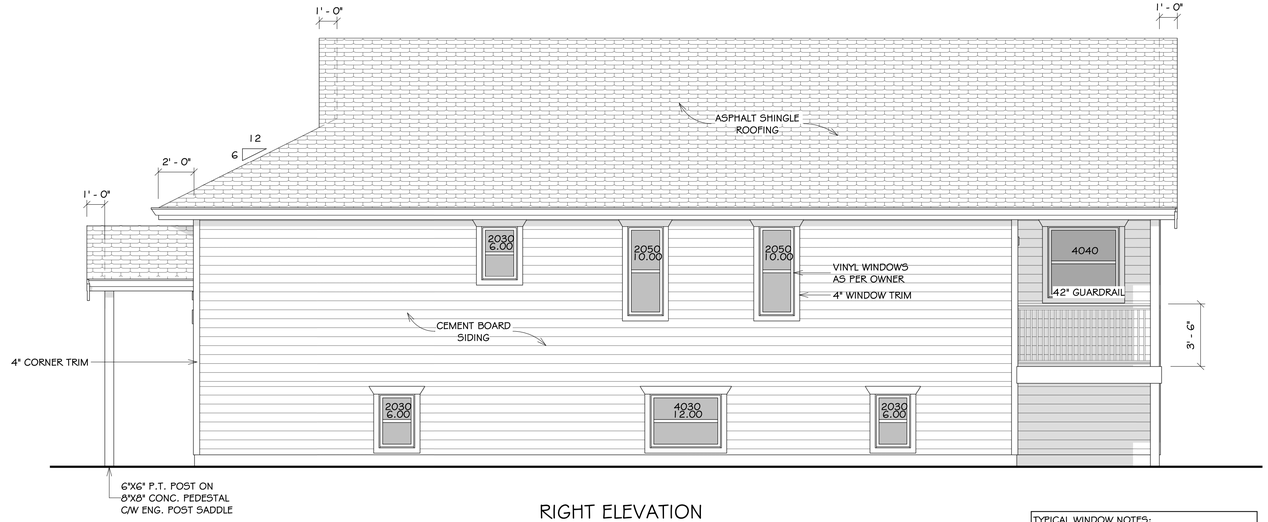
DRAWN:	G.D.
PROJECT #:	20213
CHECKED:	JCR
DATE:	02 OCTOBER 2020
SCALE:	1/4" = 1'-0"

SHEET: A2.3



FRONT ELEVATION

SPATIAL CALCULATION - FRONT			
WALL AREA	499.03 sqft.	OR	46.36 sqm.
LIMITING DIST.	17.50 m		
MAX U.P.O.	100.00 %	OR	499.03 sqft.
PROP U.P.O.	13.68 %	OR	68.27 sqft.



RIGHT ELEVATION

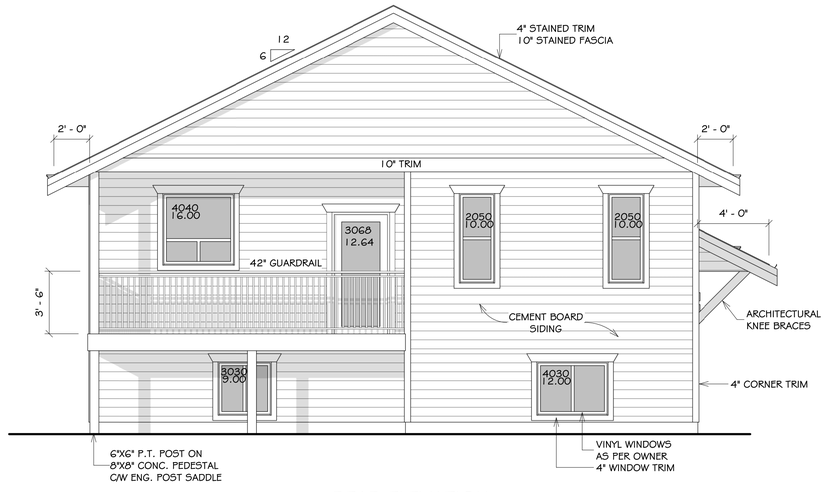
SPATIAL CALCULATION - RIGHT			
WALL AREA	675.15 sqft.	OR	62.72 sqm.
LIMITING DIST.	1.50 m		
MAX U.P.O.	8.00 %	OR	54.01 sqft.
PROP U.P.O.	7.41 %	OR	50.00 sqft.

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 3'0 OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED



REAR ELEVATION

SPATIAL CALCULATION - REAR			
WALL AREA	656.35 sqft.	OR	60.98 sqm.
LIMITING DIST.	10.11 m		
MAX U.P.O.	96.68 %	OR	634.56 sqft.
PROP U.P.O.	10.61 %	OR	69.64 sqft.

LEFT ELEVATION

SPATIAL CALCULATION - LEFT			
WALL AREA	792.56 sqft.	OR	73.63 sqm.
LIMITING DIST.	4.29 m		
MAX U.P.O.	26.59 %	OR	210.74 sqft.
PROP U.P.O.	5.04 %	OR	39.96 sqft.

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

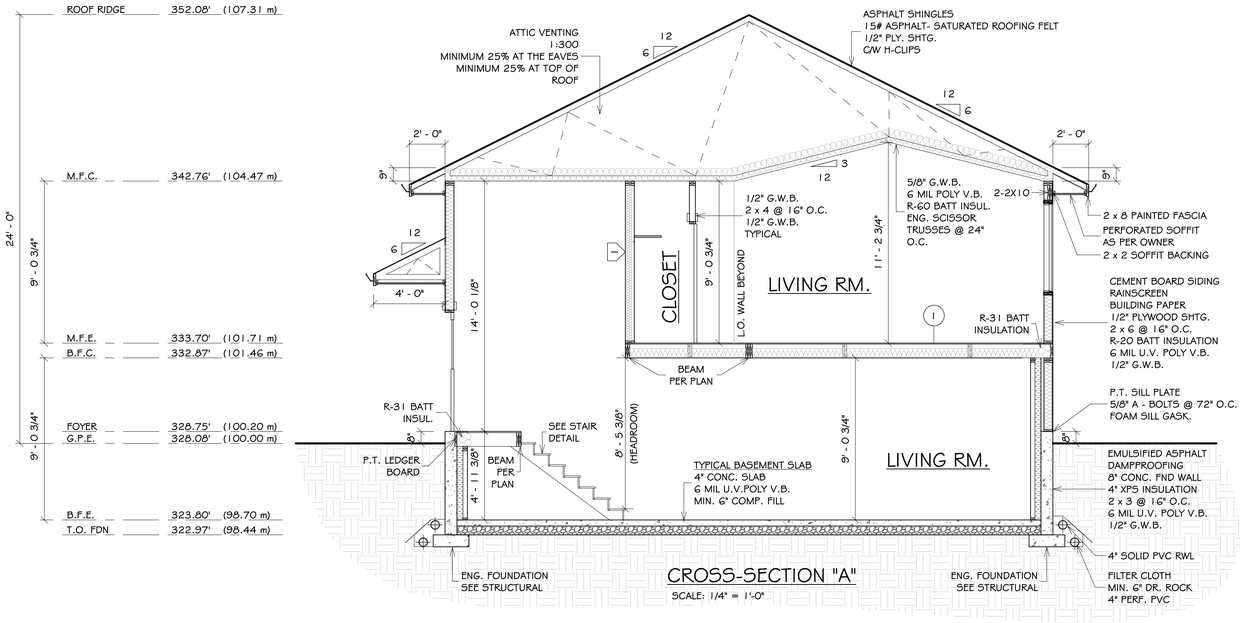
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

ELEVATIONS

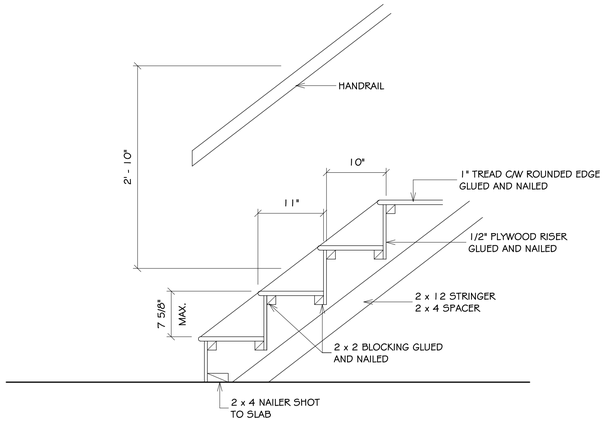
DRAWN:	G.D.
PROJECT #:	20213
CHECKED:	JCR
DATE:	02 OCTOBER 2020
SCALE:	1/4" = 1'-0"

SHEET: A3.1



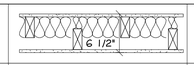
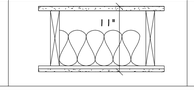
CROSS-SECTION "A"

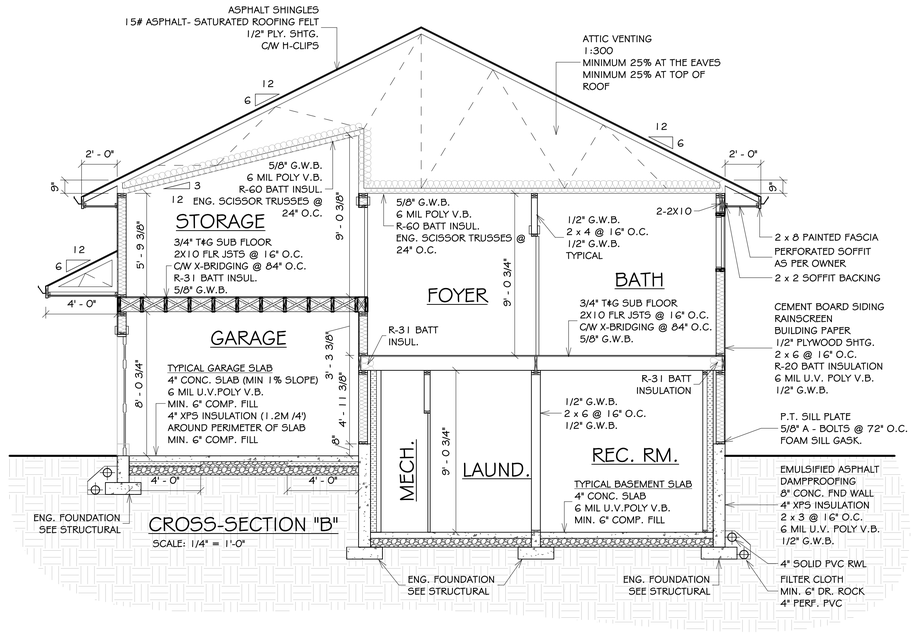
SCALE: 1/4" = 1'-0"



STAIR DETAIL

SCALE: 1" = 1'-0"

1		45 MIN. F.R.R. WALL TYPE W7b A9.10.3.1.A STC - 45	WOOD STUD WALL	-1/2" TYPE 'X' GYPSUM PANEL -2X4 WOOD STUDS @ 16" O.C. STAGGERED ON -2X6 WOOD TOP AND BOTTOM PLATES -3 1/2" BATT INSULATION (ONE SIDE) -1/2" TYPE 'X' G.W.B.	EXT. INT.	N/A PAINTED
1		55 MIN. F.R.R. COMPONENT ADDITIVE METHOD APPENDIX D-2.3 STC EXCEPTION 9.11.1.1.(2).(A)	WOOD JST FLOOR	-3/4" PLYWOOD SUB FLOOR -2X10 WOOD JOISTS @ 16" OR 12" O.C. (10 MIN FFR D-2.3.4.-F) -6" BATT INSULATION (5 MIN FFR D-2.3.4.-G) -RESILIENT METAL CHANNELS -5/8" TYPE 'X' GYPSUM PANEL (40 MIN FFR D-2.3.4.-B) -JOINTS FINISHED	EXT. INT.	N/A SPRAYED



CROSS-SECTION "B"

SCALE: 1/4" = 1'-0"

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 30 OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

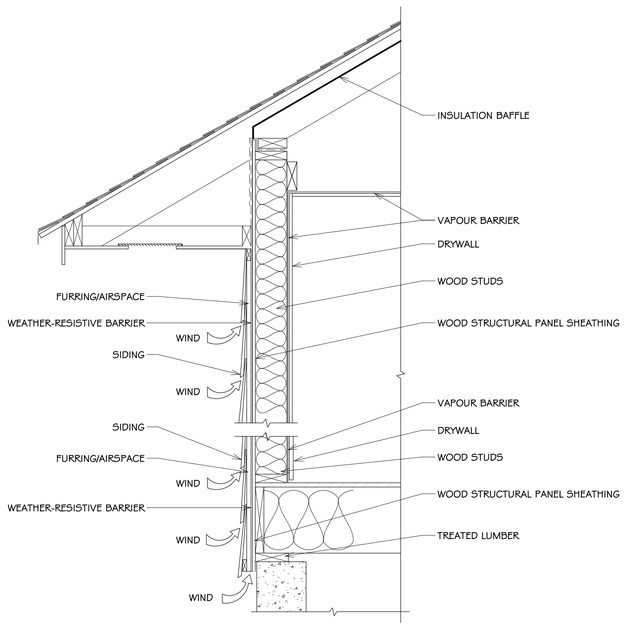
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

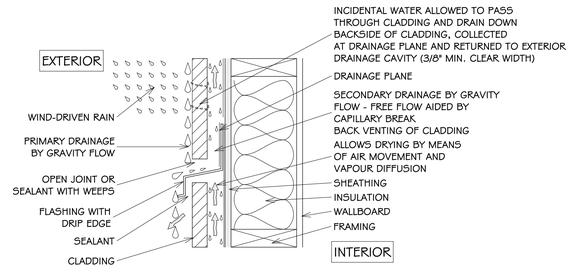
CROSS SECTIONS & DETAILS

DRAWN:	G.D.
PROJECT #:	20213
CHECKED:	JCR
DATE:	02 OCTOBER 2020
SCALE:	AS NOTED

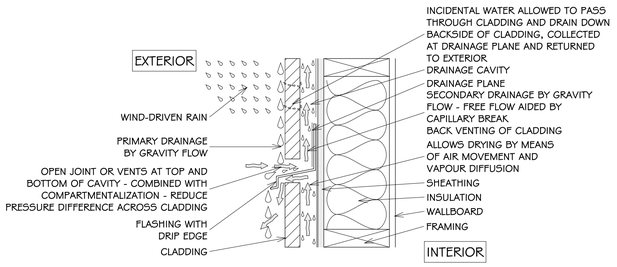
SHEET: A4.1



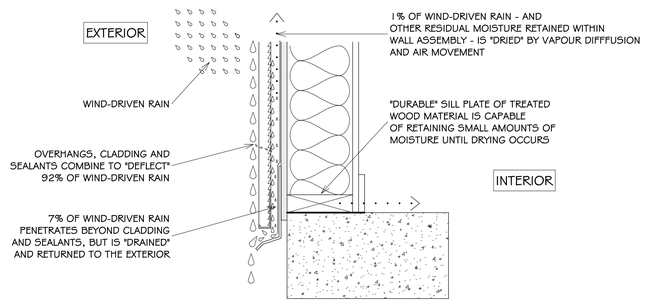
RAINSCREEN WALL
SCALE: 2" = 1'-0"



RAINSCREEN WALL ASSEMBLY
SCALE: 2" = 1'-0"

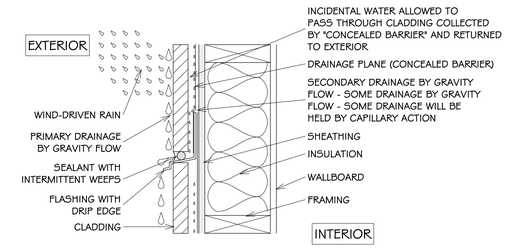


PRESSURE EQUALIZER RAINSCREEN WALL
SCALE: 2" = 1'-0"



FOUR LINES OF DEFENSE
SCALE: 2" = 1'-0"

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



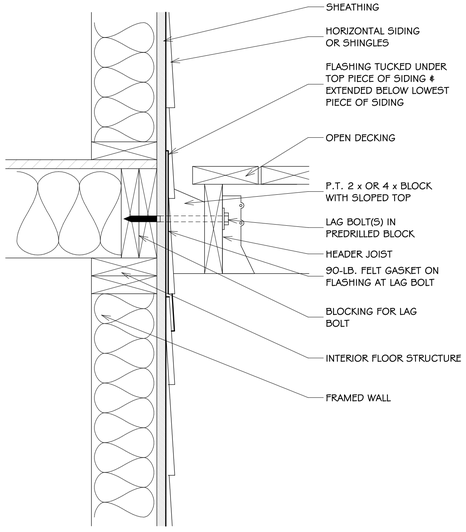
CONCEALED BARRIER WALL ASSEMBLY
SCALE: 2" = 1'-0"

TYPICAL WINDOW NOTES:

- GLASS IN EXTERIOR DOORS AND ALL GLASS WITHIN 3'O OF EXTERIOR DOOR OPENERS TO BE SAFETY GLASS
- INSTALL FLASHINGS OVER ALL UNPROTECTED OPENINGS AND ALL DISSIMILAR MATERIALS
- DOORS, WINDOWS & SKYLIGHTS TO MEET N.A.F.S. REQUIREMENTS.

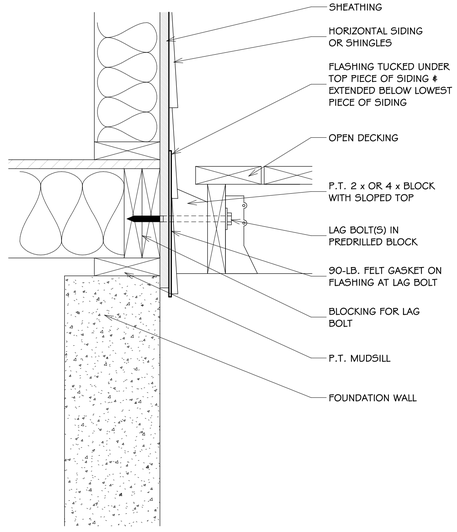
TYPICAL NOTES:

- ALL LUMBER TO BE K.D.-S.P.F. #2 OR BETTER
- ALL BEAMS AND LINTELS TO BE 2-2x10 U.N.O.
- ALL BEDROOM WINDOWS AS PER B.C.B.C. 9.9.10.1.(1)(2)
- ALL HAND RAILS AS PER B.C.B.C. 9.8.7
- ALL GUARDRAILS AS PER B.C.B.C.9.8.7
- ALL SMOKE ALARMS TO BE INTERCONNECTED A/C
- ATTIC HATCHES TO BE WEATHERSTRIPPED



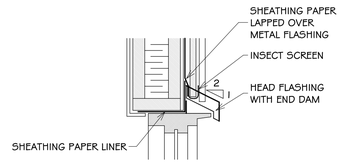
OPEN DECK/WOOD WALL
SCALE: 2" = 1'-0"

2ND FLOOR: HORIZONTAL SIDING OR SHINGLES

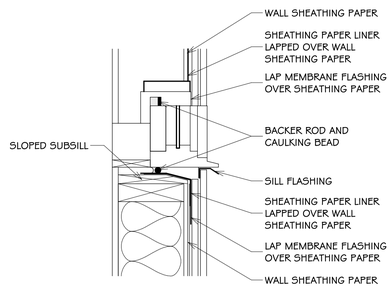


OPEN DECK/WOOD WALL
SCALE: 2" = 1'-0"

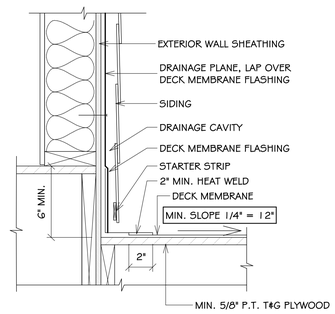
1ST FLOOR: HORIZONTAL SIDING OR SHINGLES



WINDOW HEAD FLASHING
SCALE: 2" = 1'-0"



WINDOW SILL FLASHING
SCALE: 2" = 1'-0"



DECK MEMBRANE/WOOD WALL
SCALE: 2" = 1'-0"

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PROJECT NAME AND ADDRESS:

HILLCREST PLAN

8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

CONSTRUCTION DETAILS

DRAWN: G.D.	SHEET: A5.1
PROJECT #: 20213	
CHECKED: JCR	
DATE: 02 OCTOBER 2020	
SCALE: AS NOTED	

9.32.3.5. PRINCIPAL VENTILATION SYSTEM EXHAUST FAN

FLOOR AREA sqm	MINIMUM AIR FLOW RATE l/s				
	NUMBER 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

- PRINCIPAL EXHAUST FAN CAPACITY @ 50 PASCALS
- DESIGNED TO RUN CONTINUOUSLY
- TWO SETTINGS: ON AND OFF
- ACCESSIBLE FOR SERVICING
- IF CAPABLE OF RUNNING AT MULTIPLE FLOW RATES, MUST HAVE A SEPERATE SWITCH SO LOW RATE IS NOT LESS THAN REQUIRED
- SOUND RATING NOT TO EXCEED 1.0 SONE

NOTE: HATCHED AREA REPRESENTS CALCULATION SPECIFIC TO THIS PROJECT

TABLE 9.32.3.3.A

PRINCIPAL EXHAUST FAN VENTILATION RATE

FORMING PART OF CLAUSE 9.32.3.3. (1)(a)

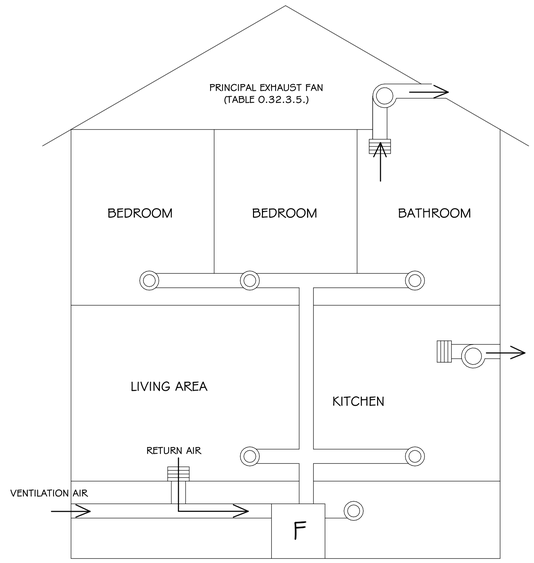
NUMBER OF BEDROOMS	MINIMUM VENTILATION RATE
	l/s
1	15
2	22
3	30
4 OR MORE	35

TABLE 9.32.3.3.B

BATHROOM/KITCHEN EXHAUST VENTILATION RATE

FORMING PART OF CLAUSE 9.32.3.3.(1)(b)

ROOM	MINIMUM EXHAUST RATE l/s	
	INTERMITTENT	CONTINUOUS
KITCHEN	40	N/A
BATHROOM	25	10



VENTILATION SCHEMATIC

RSI & R-VALUE REQUIREMENTS

WINDOWS, DOORS & SKYLIGHTS

COMPONENTS	THERMAL CHARACTERISTIC	ZONE 7A - U
WINDOWS & DOORS	MAX U VALUE	1.60
SKYLIGHTS	MAX U VALUE	2.70

ABOVE GRADE - NO HRV

COMPONENTS	ZONE 7A - RSI	ZONE 7A - R
CEILING BELOW ATTICS	10.43	59.22
CATHEDRAL CEILINGS & FLAT ROOFS	5.02	28.50
WALLS	3.08	17.49
FLOORS OVER UNHEATED SPACE	5.02	28.50

BELOW GRADE - NO HRV

COMPONENTS	ZONE 7A - RSI	ZONE 7A - R
FOUNDATION WALLS	3.46	19.65
UNHEATED FLOORS		
BELOW FROST LINE	UNINSULATED	UNINSULATED
ABOVE FROST LINE	1.96	11.13
ALL FLOORS PERMAFROST	N/A	N/A
HEATED FLOORS	2.84	16.13
SLAB ON GRADE W/ INTEGRAL FOOTING	3.72	21.12

CEILING ASSEMBLY-BELOW ATTIC (NO HRV)

FRAMING FACTOR - 7%			
	MATERIAL	RSI	R
OUTSIDE AIR FILM			0.17
SHEATHING	1/2" PLYWOOD SHEATHING		0.62
INSULATION ABOVE TRUSSES	R-60 BATT INSULATION		59.95
TRUSS SPACING	2X4 BOTTOM CHORD @ 24" O.C.		-
VAPOUR BARRIER	6 MIL POLY V.B.		0.00
GYPSUM (mm)	5/8" G.W.B.		0.57
INTERIOR AIR FILM			0.68
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		61.99

WALL ASSEMBLY (NO HRV)

FRAMING FACTOR - 23%			
	MATERIAL	RSI	R
OUTSIDE AIR FILM			0.17
CLADDING	CEMENT BOARD SIDING & RAINSCREEN		1.04
SHEATHING MEMBRANE	BUILDING PAPER		0.00
SHEATHING	1/2" PLYWOOD		0.63
STUD WALL INSULATION	2X6 @ 16" O.C. W/ R-20		15.40
VAPOUR BARRIER	6 MIL POLY V.B.		0.00
GYPSUM (mm)	1/2" G.W.B.		0.45
INTERIOR AIR FILM			0.68
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		18.37

FOUNDATION WALL ASSEMBLY (NO HRV)

	MATERIAL	RSI	R
OUTSIDE AIR FILM			
INSULATION	4" XPS		19.99
CONCRETE	8" CONC. FND. WALL		1.35
INTERIOR AIR FILM & DAMPPROOFING			1.90
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		23.24

FLOOR OVER UNHEATED SPACE ASSEMBLY (NO HRV)

FRAMING FACTOR - 3%			
	MATERIAL	RSI	R
INTERIOR AIR FILM			0.68
FLOORING MATERIAL	HARDWOOD		0.68
SHEATHING	5/8" PLYWOOD		0.79
AIR BARRIER	3/4"		1.02
VAPOUR BARRIER	6 MIL U.V. POLY		0.00
JOIST SPACING	16" O.C.		N/A
INSULATION	R-31		30.99
GYPSUM (mm)	5/8" G.W.B.		0.57
EXTERIOR AIR FILM			0.17
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		34.90

SLAB ON GRADE ASSEMBLY (NO HRV)

	MATERIAL	RSI	R
CONCRETE	4" CONC. SLAB		1.25
INSULATION	4" XPS		19.99
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		21.24

FLOOR OVER UNHEATED SPACE ASSEMBLY (NO HRV)

FRAMING FACTOR - 3%			
	MATERIAL	RSI	R
INTERIOR AIR FILM			0.68
FLOORING MATERIAL	CARPET & RUBBER PAD		1.25
SHEATHING	5/8" PLYWOOD		0.79
AIR BARRIER	3/4"		1.02
VAPOUR BARRIER	6 MIL U.V. POLY		0.00
JOIST SPACING	16" O.C.		N/A
INSULATION	R-31		30.99
GYPSUM (mm)	5/8" G.W.B.		0.57
EXTERIOR AIR FILM			0.17
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		35.47

SLAB ON GRADE ASSEMBLY (NO HRV)

	MATERIAL	RSI	R
CONCRETE	4" CONC. SLAB		1.25
INSULATION	NONE		0.00
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		1.25

FLOOR OVER UNHEATED SPACE ASSEMBLY (NO HRV)

FRAMING FACTOR - 3%			
	MATERIAL	RSI	R
INTERIOR AIR FILM			0.68
FLOORING MATERIAL	CERAMIC TILE		0.03
SUB FLOOR	1/4" PLYWOOD		0.28
SHEATHING	5/8" PLYWOOD		0.79
AIR BARRIER	3/4"		1.02
VAPOUR BARRIER	6 MIL U.V. POLY		0.00
JOIST SPACING	16" O.C.		N/A
INSULATION	R-31		30.99
GYPSUM (mm)	5/8" G.W.B.		0.57
EXTERIOR AIR FILM			0.17
	TOTAL EFFECTIVE RSI/R VALUE OF ENTIRE ASSEMBLY		34.53

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PROJECT NAME AND ADDRESS:

HILLCREST PLAN

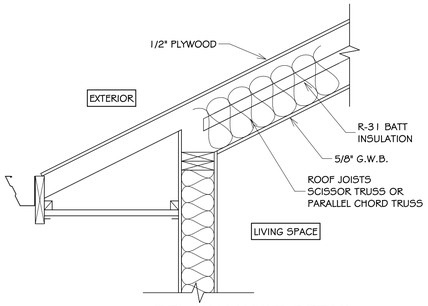
8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

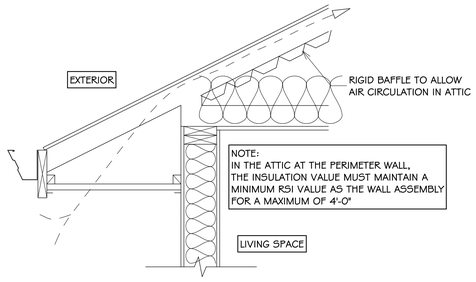
ENERGY EFFICIENCY REQUIREMENTS

DRAWN:	G.D.
PROJECT #:	20213
CHECKED:	JCR
DATE:	02 OCTOBER 2020
SCALE:	AS NOTED

SHEET: A5.2



BELOW VAULT DETAIL
SCALE: 1" = 1'-0"



BELOW ATTIC DETAIL
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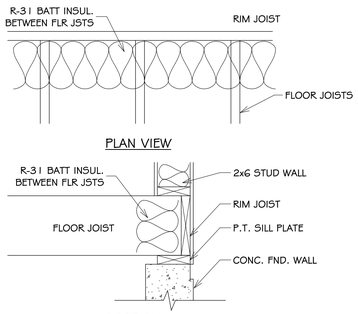

RIM JOIST DETAIL
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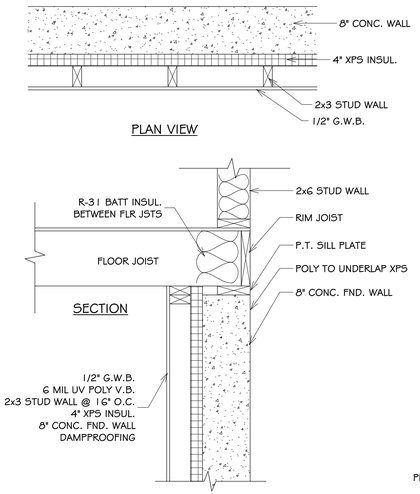

BASEMENT WALL DETAIL
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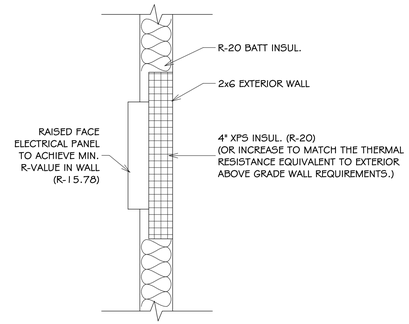
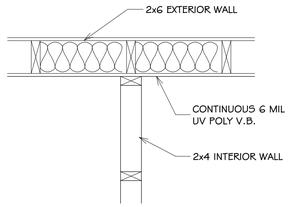


ELECTRICAL PANEL ON EXTERIOR WALL DETAIL
SCALE: 1" = 1'-0"



INTERIOR WALL TO EXTERIOR WALL DETAIL
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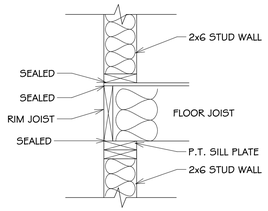

CAULKING DETAIL
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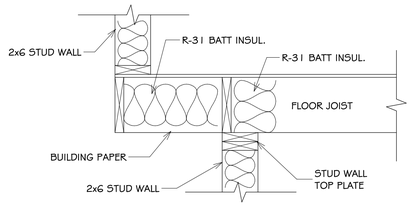

CANTILEVER DETAIL
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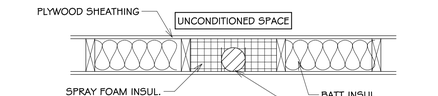
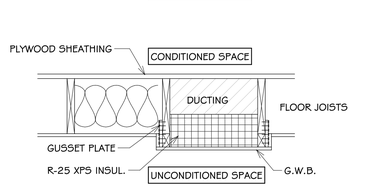
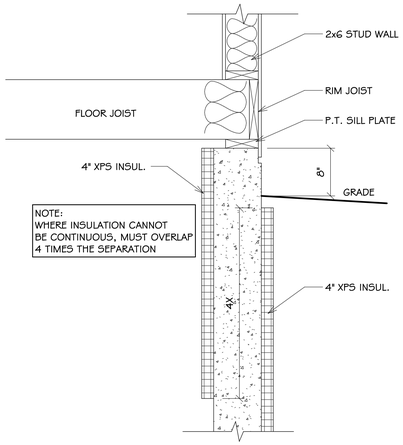
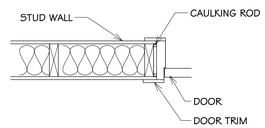




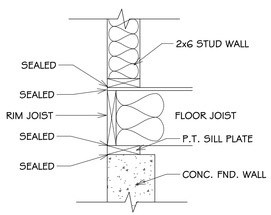
PLUMBING WALL TRADE OFF DETAIL
SCALE: 1" = 1'-0"



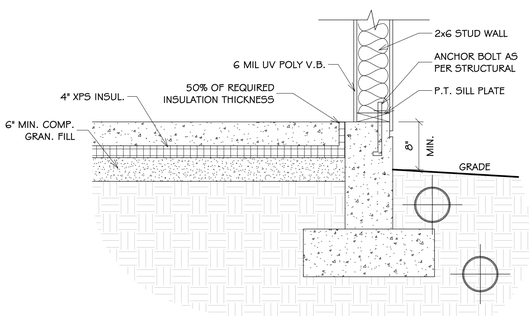
EXTERIOR WALL DETAIL
SCALE: 1" = 1'-0"



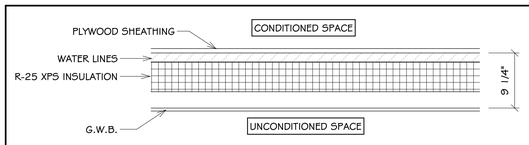
DOOR DETAIL
SCALE: 1" = 1'-0"



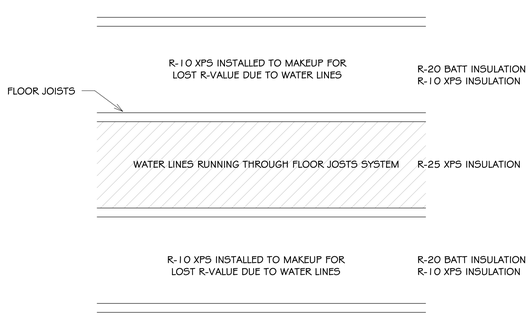
CAULKING DETAIL
SCALE: 1" = 1'-0"



CONCRETE SLAB DETAIL
SCALE: 1" = 1'-0"



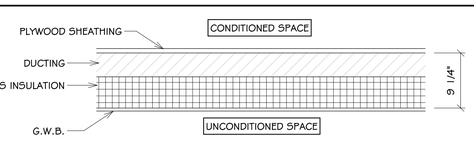
SECTION



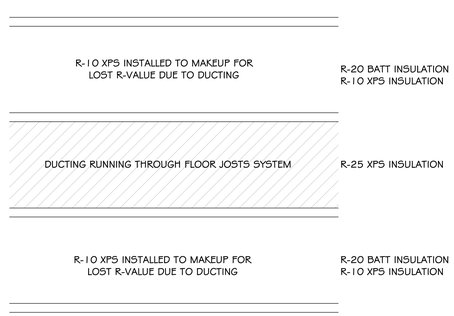
PLAN VIEW

TO REDUCE THERMAL LOSSES FROM PIPING SYSTEMS, PIPING FROM HEATING AND COOLING EQUIPMENT MUST BE LOCATED INSIDE THE PLANE OF INSULATION. WHERE PIPING IS INSTALLED OUTSIDE THE PLANE OF INSULATION, ADDITIONAL INSULATION IS REQUIRED TO ACHIEVE A THERMAL RESISTANCE EQUIVALENT TO EXTERIOR ABOVE GRADE WALL REQUIREMENTS. (R-26.52)

WATER LINES DETAIL



SECTION



PLAN VIEW

TRANSVERSE AND LONGITUDINAL JOINTS IN DUCT WORK MUST BE SEALED USING AN APPROVED TAPE AND SEALANT WHEN OUTSIDE THE PLANE OF INSULATION

DUCTS MUST BE INSULATED TO THE SAME LEVEL AS REQUIRED FOR WALLS IF THEY ARE OUTSIDE OF THE ENVELOPE AND CARRYING CONDITIONED AIR. (R-26.52)

HVAC DETAIL

FLOOR OVER UNCONDITIONED SPACE TRADE OFF
SCALE: 1" = 1'-0"

JCR DESIGN LTD

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NO.	REVISION/ISSUE	DATE
1	ISSUED FOR PERMIT	02-10-20

PROJECT NAME AND ADDRESS:

HILLCREST PLAN

8319 81 STREET
FORT ST. JOHN

DRAWING TITLE:

ENERGY EFFICIENCY REQUIREMENTS

DRAWN: G.D.	SHEET: A5.3
PROJECT #: 20213	
CHECKED: JCR	
DATE: 02 OCTOBER 2020	
SCALE: AS NOTED	