



HOUSING DESIGN CATALOGUE BC - ACCESSORY DWELLING UNIT 02

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MEMBRANE LEGEND

- AIR BARRIER, VAPOUR PERMEABLE
- AIR BARRIER, NON-VAPOUR PERMEABLE
- UV STABLE FILTER FABRIC
- THROUGH-WALL FLASHING
- VAPOUR CONTROL BARRIER
- FOUNDATION DAMP PROOFING
- PRE-FIN METAL FLASHING
- SBS ROOFING MEMBRANE
- IMPERMEABLE ROOFING UNDERLAYMENT

INSULATION LEGEND

- SEMI-RIGID INSULATION
- RIGID INSULATION 1
- RIGID INSULATION 2, HIGH DENSITY
- SPRAY FOAM
- STUD CAVITY IN-FILL INSULATION

1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING
NO.	DATE	DESCRIPTION

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA

NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
EXTERIOR ASSEMBLIES SCHEDULE

BC Accessory Dwelling Unit 02

PROJECT NO: 241058
 SCALE: As indicated

SHEET NO:
A002

EW - EXTERIOR WALL ASSEMBLIES			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
W1.1		2x6 WOOD STUD W/ EXTERIOR INSULATION VERTICAL LIGHTWEIGHT CLADDING PLACEHOLDER HORIZONTAL TREATED PLY STRAPPING @ 16" C/C VERTICAL TREATED PLY STRAPPING @ 16" C/C SEMI-RIGID INSULATION AIR BARRIER, VAPOUR PERMEABLE MIN 3/4" PLYWOOD SHEATHING (REF ALSO STRUC) WOOD STUD FRAMING, SPACING PER STRUCTURAL CW IN-FILL INSULATION VAPOUR CONTROL BARRIER GYPSUM WALL BOARD	R_e EFFECTIVE 24.1 R_e EFFECTIVE 4.24 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4
W1.2		2x6 WOOD STUD W/ EXTERIOR INSULATION VERTICAL LIGHTWEIGHT CLADDING PLACEHOLDER HORIZONTAL TREATED PLY STRAPPING @ 16" C/C VERTICAL TREATED PLY STRAPPING @ 16" C/C SEMI-RIGID INSULATION AIR BARRIER, VAPOUR PERMEABLE MIN 3/4" PLYWOOD SHEATHING (REF ALSO STRUC) WOOD STUD FRAMING, SPACING PER STRUCTURAL CW IN-FILL INSULATION VAPOUR CONTROL BARRIER GYPSUM WALL BOARD	R_e EFFECTIVE 32.1 R_e EFFECTIVE 5.65
W1.3		2x6 WOOD STUD W/ EXTERIOR INSULATION VERTICAL LIGHTWEIGHT CLADDING PLACEHOLDER HORIZONTAL TREATED PLY STRAPPING @ 16" C/C VERTICAL TREATED PLY STRAPPING @ 16" C/C SEMI-RIGID INSULATION AIR BARRIER, VAPOUR PERMEABLE MIN 3/4" PLYWOOD SHEATHING (REF ALSO STRUC) WOOD STUD FRAMING, SPACING PER STRUCTURAL CW IN-FILL INSULATION VAPOUR CONTROL BARRIER GYPSUM WALL BOARD	R_e EFFECTIVE 38.1 R_e EFFECTIVE 6.71
W1.4		2x6 WOOD STUD W/ EXTERIOR INSULATION VERTICAL LIGHTWEIGHT CLADDING PLACEHOLDER HORIZONTAL TREATED PLY STRAPPING @ 16" C/C VERTICAL TREATED PLY STRAPPING @ 16" C/C SEMI-RIGID INSULATION AIR BARRIER, VAPOUR PERMEABLE MIN 3/4" PLYWOOD SHEATHING (REF ALSO STRUC) WOOD STUD FRAMING, SPACING PER STRUCTURAL CW IN-FILL INSULATION VAPOUR CONTROL BARRIER GYPSUM WALL BOARD	R_e EFFECTIVE 40.1 R_e EFFECTIVE 7.06
W2		NON-COMBUSTIBLE EXTERIOR CLADDING VERTICAL LIGHTWEIGHT CLADDING PLACEHOLDER HORIZONTAL METAL FURRING @ 16" C/C INSULATION PER EW1, THICKNESS AS REQ'D FOR CLIMATE ZONE AIR BARRIER, SHEATHING, FRAMING, INSULATION, VAPOUR BARRIER AND GB PER EW1	R_e EFFECTIVE MATCH W1.X R_e EFFECTIVE MATCH W1.X

FW - FOUNDATION WALL ASSEMBLIES			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
FW1.1		FOUNDATION WALL DRAINAGE AND PROTECTION BOARD RIGID INSULATION (R-20.0) FOUNDATION DAMPROOFING CAST-IN-PLACE CONCRETE. (REFER TO STRUCTURAL)	R_e EFFECTIVE 20.0 R_e EFFECTIVE 3.52 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4
FW1.2		FOUNDATION WALL DRAINAGE AND PROTECTION BOARD RIGID INSULATION (R-30.0) FOUNDATION DAMPROOFING CAST-IN-PLACE CONCRETE. (REFER TO STRUCTURAL)	R_e EFFECTIVE 30.0 R_e EFFECTIVE 5.28

S - SOFFIT ASSEMBLIES			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
S2		SOFFIT, SAME UNIT FLOOR FINISH W/ UNDERLAY DESIGN THICKNESS OF FLOOR FINISH 1 1/8" TAG SUBFLOOR PLYWOOD PANEL (GLUED - ACTS AS VAPOUR CONTROL BARRIER) PRE-ENG WOOD JOISTS @ 24" C/C U.N.O. REFER TO STRUCTURAL 5 1/2" IN-FILL INSULATION PLYWOOD SHEATHING AIR BARRIER SEMI-RIGID INSULATION RESILIENT CHANNEL PREFINISHED LIGHTWEIGHT CLADDING	R_e EFFECTIVE 34.6 R_e EFFECTIVE 6.10 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4

R - ROOF ASSEMBLIES			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
R1.1		VAULTED ROOF ROOFING PLACEHOLDER IMPERMEABLE ROOFING UNDERLAYMENT PLYWOOD SHEATHING WOOD STRAPPING AT MAX 24" C/C PRE-ENG WOOD JOISTS OR TRUSSES @ MAX 24" C/C - REFER TO STRUCTURAL 1" IN-FILL INSULATION (2" SPACE BETWEEN INSULATION AND US PLY) POLY AIR VAPOUR BARRIER HORIZONTAL STRAPPING (SERVICE CHASE) VERTICAL STRAPPING (SERVICE CHASE) GYPSUM BOARD CEILING	R_e EFFECTIVE 36.5 R_e EFFECTIVE 6.43 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4
R1.2		VAULTED ROOF ROOFING PLACEHOLDER IMPERMEABLE ROOFING UNDERLAYMENT PLYWOOD SHEATHING WOOD STRAPPING AT MAX 24" C/C PRE-ENG WOOD JOISTS OR TRUSSES @ MAX 24" C/C - REFER TO STRUCTURAL 1.5" IN-FILL INSULATION (2.5" SPACE BETWEEN INSULATION AND US PLY) POLY AIR VAPOUR BARRIER HORIZONTAL STRAPPING (SERVICE CHASE) VERTICAL STRAPPING (SERVICE CHASE) GYPSUM BOARD CEILING	R_e EFFECTIVE 43.2 R_e EFFECTIVE 7.61
R1.3		VAULTED ROOF ROOFING PLACEHOLDER IMPERMEABLE ROOFING UNDERLAYMENT PLYWOOD SHEATHING WOOD STRAPPING AT MAX 24" C/C PRE-ENG WOOD JOISTS OR TRUSSES @ MAX 24" C/C - REFER TO STRUCTURAL 1.5" IN-FILL INSULATION (2.5" SPACE BETWEEN INSULATION AND US PLY) POLY AIR VAPOUR BARRIER HORIZONTAL STRAPPING (SERVICE CHASE) VERTICAL STRAPPING (SERVICE CHASE) GYPSUM BOARD CEILING	R_e EFFECTIVE 49.5 R_e EFFECTIVE 8.72

TERRACE / DECK ROOF ABOVE SAME UNIT			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
R2		TERRACE / DECK ROOF ABOVE SAME UNIT DECK FINISH EPDM OR COMPOSITE SHIMS UV STABLE FILTER FABRIC XPS INSULATION DRAINAGE MAT 2-PLY SBS ROOFING MEMBRANE SLOPED PLYWOOD DECK MIN 2% WOOD TAPERS WOOD JOISTS @ MAX 24" C/C MIN DEPTH 5 1/2"; REFER TO STRUCTURAL GYPSUM BOARD	R_e EFFECTIVE 23.2 R_e EFFECTIVE 4.09 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4
R4		BALCONY ABOVE CARPORT DECK FINISH EPDM OR COMPOSITE SHIMS 2-PLY SBS ROOFING MEMBRANE SLOPED WOOD TAPERS MIN 2% DOUBLED WOOD JOISTS @ MAX 16" C/C REFER TO STRUCTURAL	

SOG - SLAB ON GRADE ASSEMBLIES			
TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
SOG1.1		SLAB ON GRADE CAST-IN-PLACE CONCRETE SLAB-ON-GRADE, W/ STEEL REINFORCEMENT. REFER TO STRUC VAPOUR CONTROL + SOIL GAS BARRIER - AIR TIGHT RIGID INSULATION (R-20) COMPACTED, FREE-DRAINING GRANULAR BASE. ENSURE BASE CONTAINS LESS THAN 10% MATERIAL THAT WOULD PASS THROUGH A 4mm SIEVE.	R_e EFFECTIVE 20.0 R_e EFFECTIVE 3.52 ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4
SOG1.1		SLAB ON GRADE CAST-IN-PLACE CONCRETE SLAB-ON-GRADE, W/ STEEL REINFORCEMENT. REFER TO STRUC VAPOUR CONTROL + SOIL GAS BARRIER - AIR TIGHT RIGID INSULATION (R-30.0) COMPACTED, FREE-DRAINING GRANULAR BASE. ENSURE BASE CONTAINS LESS THAN 10% MATERIAL THAT WOULD PASS THROUGH A 4mm SIEVE.	R_e EFFECTIVE 30.0 R_e EFFECTIVE 5.28

ASSEMBLY GENERAL NOTES	
1.	UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE MEASURED AS FOLLOWS: A. TO CENTRE OF STUD WALL ASSEMBLIES B. TO EXTERIOR FACE OF CONCRETE AND CMU C. TO EXTERIOR FACE OF EXTERIOR SHEATHING D. TO EXTERIOR FACE OF GLASS
2.	REFER TO STRUCTURAL DRAWINGS AND DOCUMENTATION FOR STRUCTURAL DESIGN PARAMETERS INCLUDING BRACE WALLS, STAIRS, CONCRETE ETC.
3.	UNLESS OTHERWISE NOTED, ALL PARTITION INCLUDING BUT NOT LIMITED TO ALL COMPONENTS THAT MAKE UP THE PARTITION AND FURRING ASSEMBLIES ARE TO EXTEND FROM STRUCTURAL DECK/SLAB TO US OF STRUCTURAL DECK/SLAB ABOVE.
4.	IN ADDITION TO THIS PAGE, REFER ALSO TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS. ENSURE THE CONTINUITY OF ALL FIRE SEPARATIONS AS REQUIRED AND PROVIDE UL-LISTED FIRESTOPPING SYSTEMS FOR ALL CONDITIONS.
5.	LOADBEARING WALLS AND OTHER ELEMENTS SHALL HAVE THE SAME FIRE RATINGS AS THE FLOOR ASSEMBLY IT IS SUPPORTING.
6.	STEEL SUPPORTING A FIRE RATED ASSEMBLY SHALL BE PROTECTED TO MATCH THE RATING OF THE SUPPORTED ASSEMBLY.
7.	PROVIDE TILE BACKER IN LIEU OF GYPSUM BOARD AT ALL ASSEMBLIES TO RECEIVE TILE FINISHES. REFER TO FINISH PLANS. REFER TO SPECIFICATIONS. ENSURE TILE BACKER IS TYPE X GYPSUM AT REQUIRED FIRE RESISTANCE RATED ASSEMBLIES.
8.	IN AREAS WITH HIGH VAPOUR CONTENT (INCLUDING BUT NOT LIMITED TO BATHROOMS) PROVIDE MOISTURE AND MOULD-RESISTANT GYPSUM BOARD IN LIEU OF REGULAR GYPSUM BOARD. ENSURE THAT THE MOISTURE AND MOULD-RESISTANT GYPSUM BOARD MEETS ALL THE FIRE AND ACOUSTIC RATINGS REFERENCED IN THE ASSEMBLY SCHEDULE.
9.	COORDINATE ACCESS PANELS LOCATED WITHIN SUSPENDED GYPSUM BOARD CEILING ASSEMBLIES TO BE PAINTED OUT TO MATCH THE SURROUNDING CEILING FINISH. PROVIDE UL-LISTED ACCESS PANELS WHERE PANEL IS LOCATED IN A RATED CEILING. IN ADDITION TO THIS PAGE, REFER ALSO TO FIRE SEPARATION DRAWINGS.
10.	UNLESS NOTED OTHERWISE, ASSEMBLIES ABOVE OR BELOW DOORS, WINDOWS, EXTERIOR OPENINGS AND INTERIOR SCREENS ARE TO BE THE SAME AS THE TYPE DENOTED ON EITHER SIDE.
11.	PROVIDE 19mm FIRE RATED PLYWOOD BLOCKING AND STUD REINFORCING IN WALLS FOR INSTALLATION OF ALL ELEMENTS NEEDING BLOCKING/REINFORCEMENT, INCLUDING BUT NOT LIMITED TO ALL FIXTURES, PLUMBING ACCESSORIES, ADULT CHANGE TABLES, MILLWORK, EQUIPMENT, ELECTRIC PANELS, ROOF ACCESS LADDER ECT. DESIGN/BUILD ALL BLOCKING AND STUD REINFORCING AS REQUIRED. FULLY COORDINATE ALL ADDITIONAL SUPPORT REQUIRED FOR ANCHORAGE OF MECHANICAL EQUIPMENT OR DUCTS AND ELECTRICAL FIXTURES.
12.	GRAB BARS SHALL BE CAPABLE OF RESISTING A LOAD OF NO LESS THAN 1.3kN.
13.	PROVIDE ALL PLUMBING CHASES AND MECHANICAL SHAFTS IN ADDITION TO ASSEMBLIES. COORDINATE REQUIRED CRITICAL DIMENSIONS WHEN LAYING OUT WALLS.
14.	IF FLOOR DRAINS ARE LOCATED IN A ROOM, COORDINATE SLOPING ENTIRE FLOOR TOWARD THE DRAIN. THERE WILL BE NO FLAT FLOOR SURFACE IN THE ROOM WITH A REQUIRED FLOOR DRAIN WHERE WATER CAN PUDDLE. FLOOR TO SLOPE A MINIMUM OF 2%. REFER TO THE MECHANICAL DOCUMENTS TO DETERMINE WHICH ROOMS HAVE FLOOR DRAINS. REPAIR ANY FLOORS THAT PUDDLE WATER AND/OR DO NOT DIRECT WATER TO THE PROPER FLOOR DRAIN.
15.	REPAIR EXISTING EXTERIOR WALL VAPOUR OR AIR BARRIERS DISTURBED BY THE WORK.
16.	COORDINATE MINIMUM STUD SPACE REQUIRED TO SUPPORT EQUIPMENT AS NOTED ON ARCHITECTURAL AND ENGINEERING DRAWINGS.
17.	ISOLATE ALL MECHANICAL PIPES, DUCTS, AND EQUIPMENT FROM INTERIOR PARTITIONS TO AVOID ACOUSTIC NOISE TRANSFER.
18.	MAINTAIN CONTINUITY OF BUILDING ENVELOPE AIR AND AIRVAPOUR BARRIER AT TRANSITIONS AND PENETRATIONS.
19.	COORDINATE VERTICAL SERVICE SPACES THAT DO NOT EXTEND THROUGH THE ROOF AND/OR DO NOT TERMINATE AT HORIZONTAL FIRE RATED ASSEMBLY (ROOF, FLOOR, MEZZANINE, ETC.). TO BE ENCLOSED AT THE TOP AND/OR BOTTOM WITH A UL-C CONSTRUCTION ASSEMBLY HAVING A FIRE RESISTANCE RATING NOT LESS THAN THAT REQUIRED FOR THE VERTICAL SERVICE SPACE WALLS.
20.	ALL ROOFS, GUTTERS AND TROUGHS HAVE POSITIVE SLOPE TO DRAIN.
21.	ALL CAP FLASHINGS SLOPE INWARDS TOWARDS ROOF DECKS.
22.	PROVIDE CONTINUOUS DAMPROOFING TO FULL DEPTH OF PERIMETER FOOTINGS TO FULL PERIMETER OF BUILDING.
23.	PROVIDE BUG SCREEN AT ALL OPENINGS GREATER THAN 5MM IN THE NARROWEST DIRECTION IN ALL EXTERIOR WALL ASSEMBLIES.
24.	PROVIDE PHYSICAL BARRIER OR SPATIAL SEPARATION BETWEEN DISSIMILAR METALS AS REQUIRED TO PREVENT GALVANIC CORROSION.
25.	AIR BARRIER MATERIALS FOR SLABS-ON-GRADE SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH 9.25.3.6.
26.	PROVIDE A BOND BREAKING MATERIAL BETWEEN FLOOR SLABS AND FOOTINGS AND ROCKS.
27.	ENDS OF WOOD MEMBERS FRAMING INTO CONCRETE SHALL BE TREATED TO PREVENT DECAY WHERE THE BOTTOM MEMBER IS AT OR BELOW GROUND LEVEL.
28.	WOOD FRAMING MEMBERS WITHIN 6" (150mm) OF GROUND, THAT ARE NOT PRESSURE TREATED WITH A WOOD PRESERVATIVE AND THAT ARE SUPPORTED ON CONCRETE IN CONTACT WITH THE GROUND, SHALL BE SEPARATED FROM THE CONCRETE BY NO LESS THAN 0.05mm POLYETHYLENE FILM.
29.	CONFIRM SLOPES OF ROOFING CLADDING COMPLY WITH MANUFACTURER REQUIREMENTS.
30.	REFER TO 9.27.5.4. FOR REQUIRED SPACING OF FASTENERS FOR GLADDING.
31.	PROVIDE WEATHERPROOF ENCLOSURES FOR EXTERIOR DEVICES AS REQUIRED.

ASSEMBLY MATRIX					
	EXTERIOR WALL	ROOF	SLAB ON GRADE	FOUNDATION WALL	GLAZING
CZ4	W1.4 / W2.4	R1.3	SOG1.2	FW1.2	TRIPLE
CZ5	W1.4 / W2.4	R1.3	SOG1.2	FW1.2	TRIPLE
CZ6	W1.4 / W2.4	R1.3	SOG1.2	FW1.2	TRIPLE

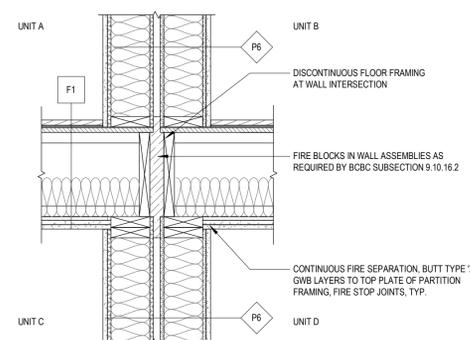
NOTES:
 - EXTERIOR CLADDING AND/OR WALL CONSTRUCTION SHALL BE NON-COMBUSTIBLE WHERE REQUIRED
 - SEE 'BC ENERGY MODELLING GUIDELINE' FOR MORE INFORMATION REGARDING ASSUMED MODELLING PARAMETERS AND NEXT STEPS FOR COMPLIANCE TO APPLICABLE CODES AND STANDARDS
 - ASSUMED INSULATION R-VALUES ARE LISTED IN ACCORDANCE TO BCBC SUBSECTION 9.35.5. FURTHER CALCULATIONS ARE REQUIRED IF CONFORMING TO SUBSECTION 10.2.3.4. SEE USER GUIDE AND MATERIAL GUIDE FOR MORE INFORMATION ON PRODUCT SELECTION FOR ASSEMBLIES THAT ACHIEVE REQUIRED PERFORMANCE TO APPLICABLE CODES AND STANDARDS.
 - $R_e = hr \cdot B$; F/BTU
 - $R_e = m^2 \cdot KW$

DISCLAIMER

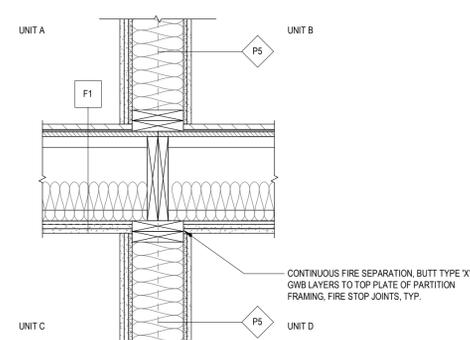
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GENERAL NOTES - FIRE SEPARATIONS

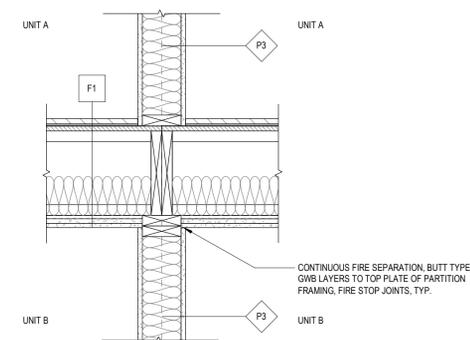
- REQUIRED FIRE-RESISTANCE AND FIRE-PROTECTION RATINGS SHALL BE DETERMINED BY AND IN CONFORMANCE TO METHODS LISTED IN BCBC CLAUSE 9.10.3.1(1)
- OPENINGS IN WALL AND CEILING MEMBRANES IN ASSEMBLIES REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL FOLLOW REQUIREMENTS IN BCBC SUBSECTION 9.10.5
- THE CONTINUITY OF A FIRE SEPARATION SHALL BE MAINTAINED WHEN IT ABUTTS ANOTHER FIRE SEPARATION, A FLOOR, A CEILING, A ROOF, OR AN EXTERNAL WALL ASSEMBLY PER BCBC SUBSECTION 9.10.9.2
- PENETRATIONS OF FIRE SEPARATIONS SHALL CONFORM TO PROVISIONS OF BCBC SUBSECTION 9.10.9.6
- FIRE BLOCKS SHALL BE PROVIDED AT THE TOP AND BOTTOM OF EACH RUN OF STAIRS WHERE APPLICABLE PER BCBC CLAUSE 9.10.16.1.(4)



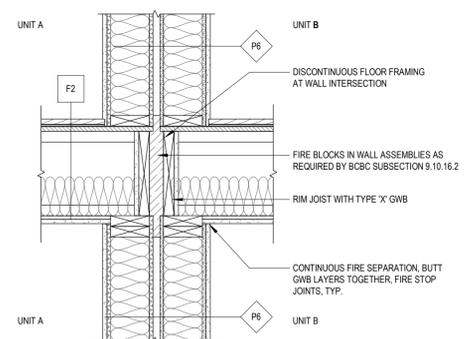
1 SECTION - 1 HR FRR WALL (P6) AT RATED FLOOR (F1)
A005 1" = 1'-0"



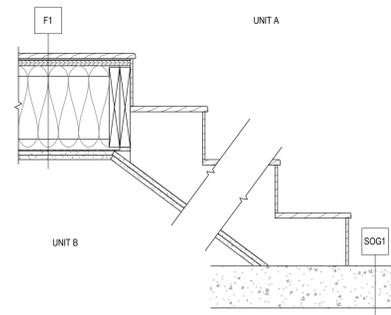
4 SECTION - 1 HR FRR WALL (P5) AT RATED FLOOR (F1)
A005 1" = 1'-0"



2 SECTION - LOADBEARING WALL (P3) AT RATED FLOOR (F1)
A005 1" = 1'-0"



5 SECTION - 1 HR FRR WALL (P6) AT UNRATED FLOOR (F2)
A005 1" = 1'-0"



3 SECTION - FIRE SEPARATION, STAIRS
A005 1" = 1'-0"

MEMBRANE LEGEND	
	AIR BARRIER, VAPOUR PERMEABLE
	AIR BARRIER, NON-VAPOUR PERMEABLE
	UV STABLE FILTER FABRIC
	THROUGH-WALL FLASHING
	VAPOUR CONTROL BARRIER
	FOUNDATION DAMP PROOFING
	PRE-FIN METAL FLASHING
	SBS ROOFING MEMBRANE
	IMPERMEABLE ROOFING UNDERLAY

INSULATION LEGEND	
	SEMI-RIGID INSULATION
	RIGID INSULATION 1
	RIGID INSULATION 2, HIGH DENSITY
	SPRAY FOAM
	STUD CAVITY IN-FILL INSULATION

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

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CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA

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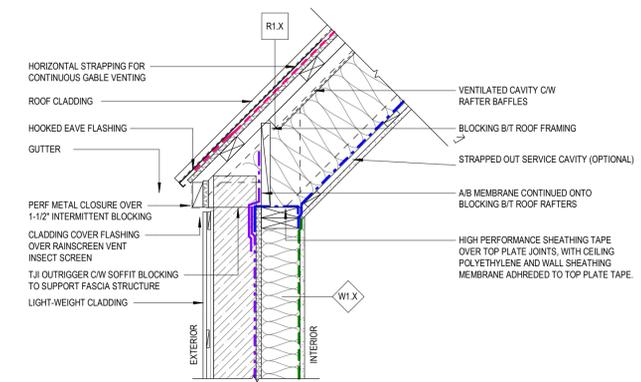
SHEET TITLE:
FIRE RATING DETAILS

BC Accessory Dwelling Unit 02

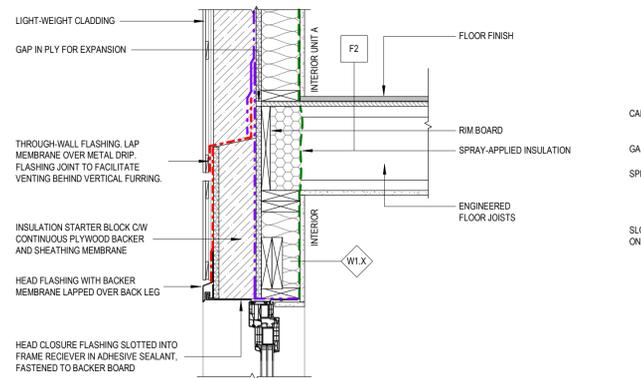
PROJECT NO: 241058
SCALE: As indicated

SHEET NO:
A005

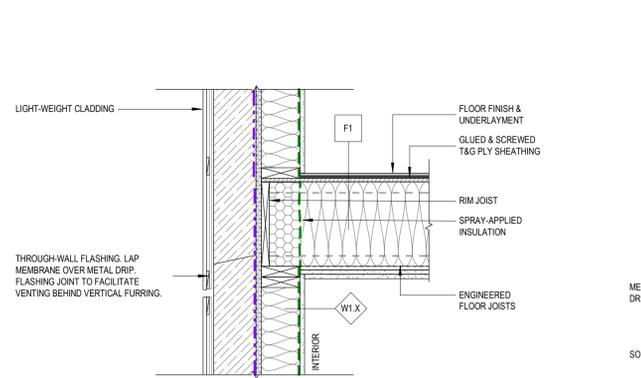
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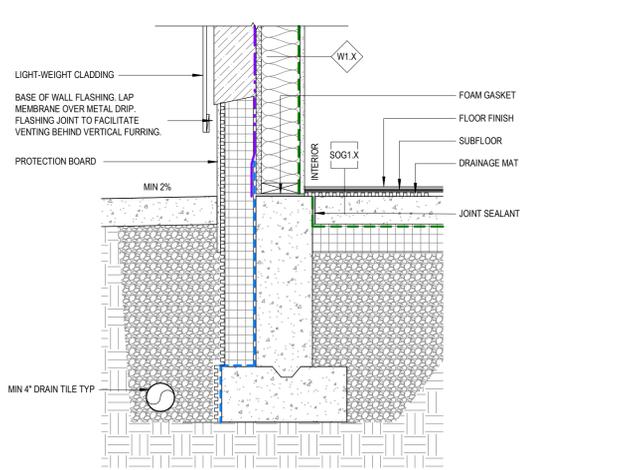
1 TYP. WALL TO ROOF - EAVE
 1" = 1'-0"



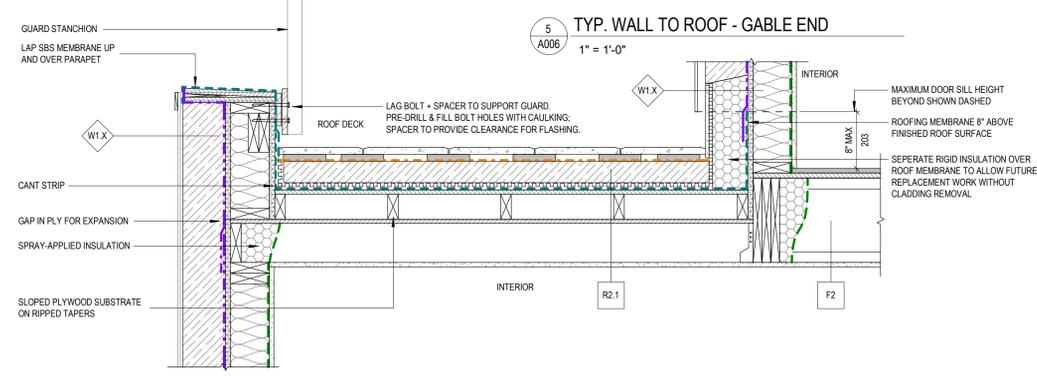
2 TYP. FLOOR TO FLOOR - SAME UNIT
 1" = 1'-0"



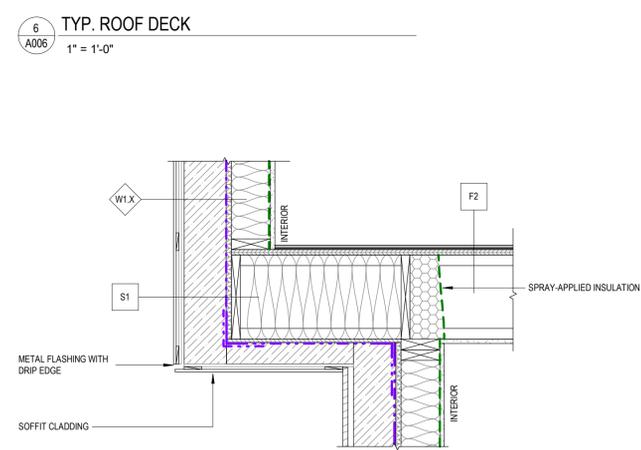
3 TYP. FLOOR TO FLOOR - FRR
 1" = 1'-0"



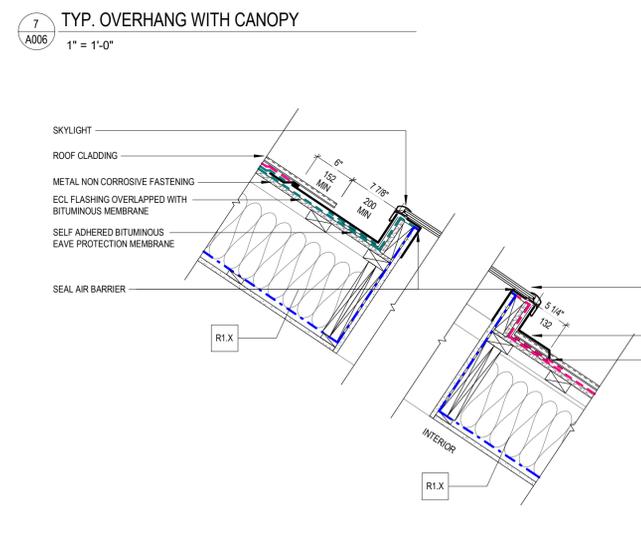
4 TYP. FOOTING TO WALL
 1" = 1'-0"



5 TYP. WALL TO ROOF - GABLE END
 1" = 1'-0"

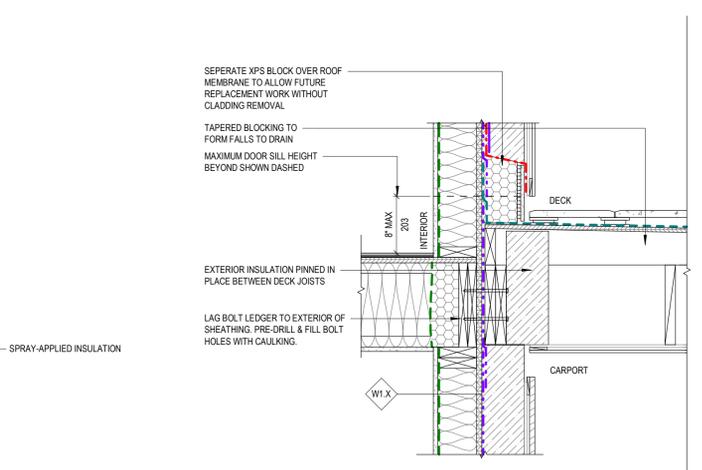


6 TYP. ROOF DECK
 1" = 1'-0"

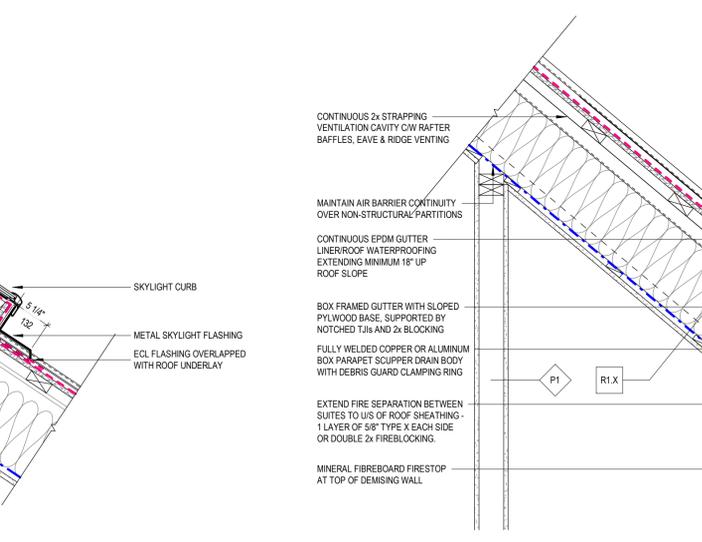


8 SKYLIGHT - HEAD
 1" = 1'-0"

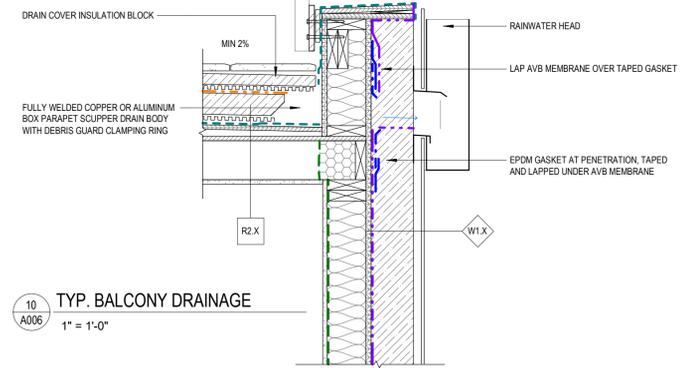
9 SKYLIGHT - SILL
 1" = 1'-0"



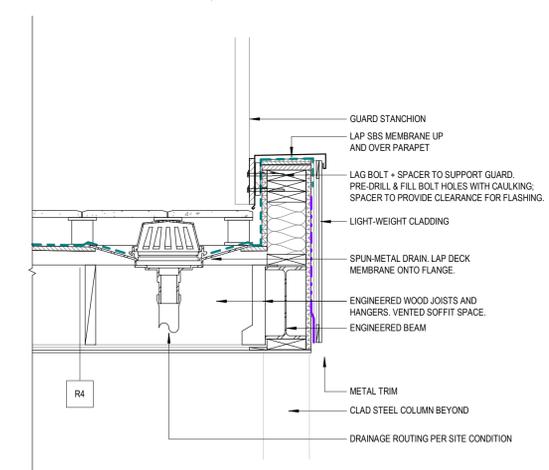
11 TYP. CAR PORT DECK
 1" = 1'-0"



12 TYP. VALLEY GUTTER DETAIL
 1" = 1'-0"



10 TYP. BALCONY DRAINAGE
 1" = 1'-0"



11 TYP. CAR PORT DECK
 1" = 1'-0"

MEMBRANE LEGEND

- AIR BARRIER, VAPOUR PERMEABLE
- AIR BARRIER, NON-VAPOUR PERMEABLE
- UV STABLE FILTER FABRIC
- THROUGH-WALL FLASHING
- VAPOUR CONTROL BARRIER
- FOUNDATION DAMP PROOFING
- PRE-FIN METAL FLASHING
- SBS ROOFING MEMBRANE
- IMPERMEABLE ROOFING UNDERLAY

INSULATION LEGEND

- SEMI-RIGID INSULATION
- RIGID INSULATION 1
- RIGID INSULATION 2, HIGH DENSITY
- SPRAY FOAM
- STUD CAVITY IN-FILL INSULATION

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

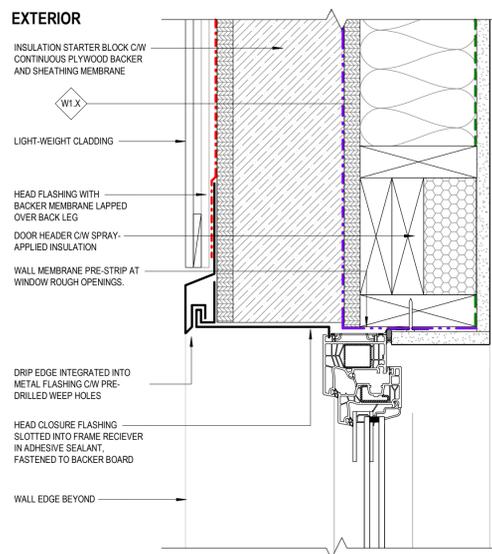
SHEET TITLE:
TYPICAL DETAILS

BC Accessory Dwelling Unit 02

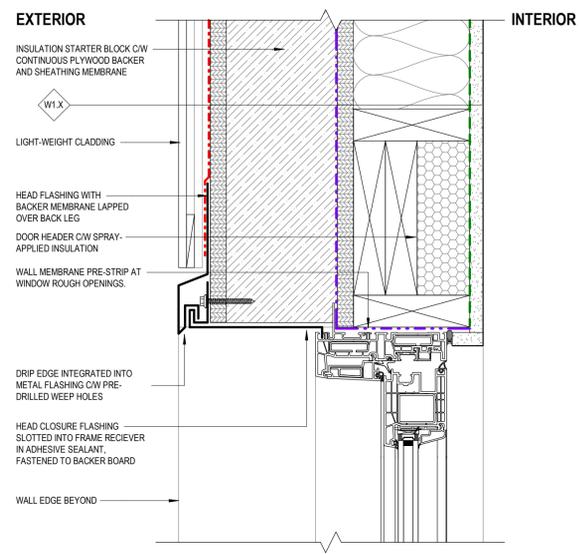
PROJECT NO: 241058
 SCALE: As indicated

SHEET NO:
A006

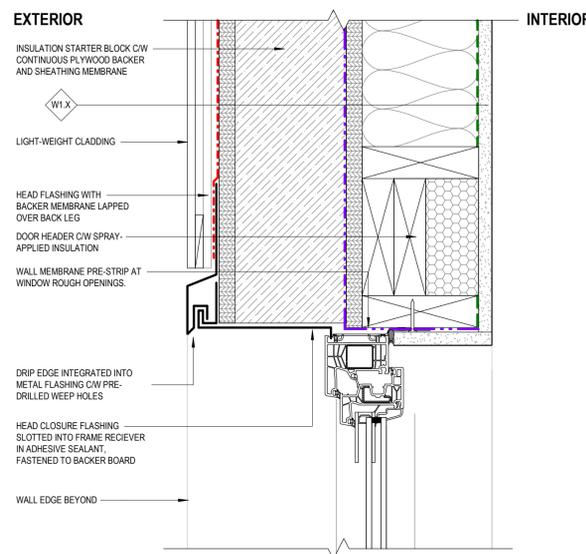
DISCLAIMER
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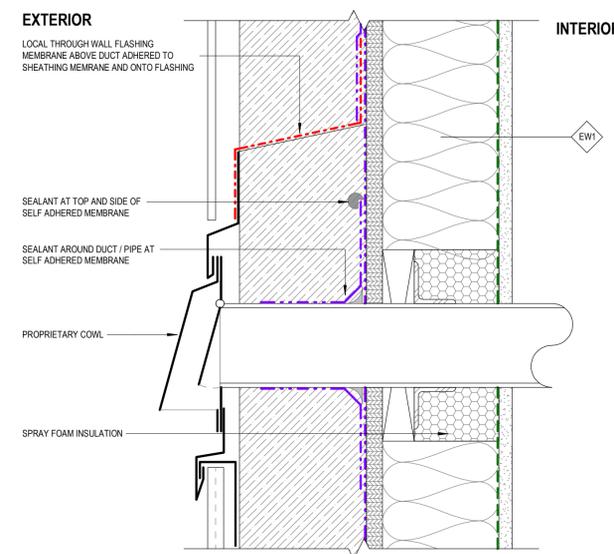
2 TYP EXTERIOR DOOR - HEAD
 A007 3" = 1'-0"



5 TYP SLIDING DOOR HEAD
 A007 3" = 1'-0"



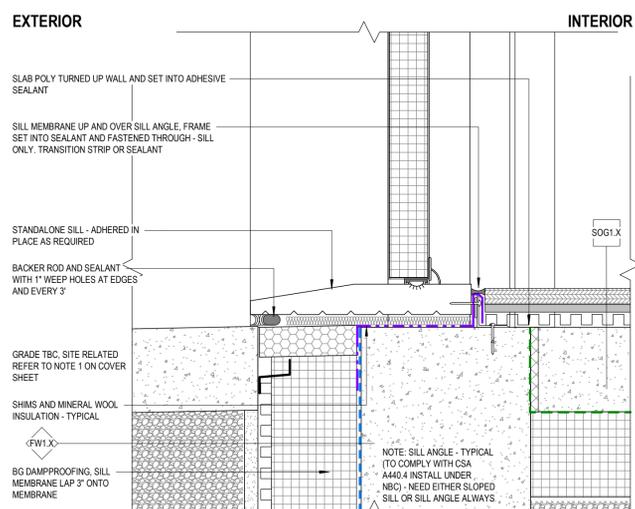
7 TYP WINDOW - HEAD
 A007 3" = 1'-0"



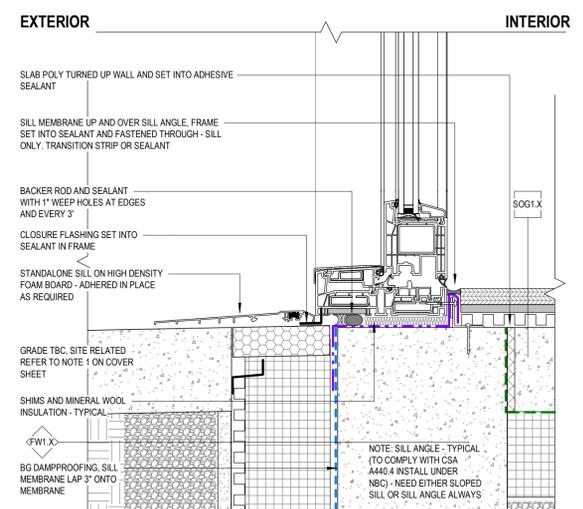
9 TYP. WALL PENETRATION
 A007 3" = 1'-0"

MEMBRANE LEGEND	
	AIR BARRIER, VAPOUR PERMEABLE
	AIR BARRIER, NON-VAPOUR PERMEABLE
	UV STABLE FILTER FABRIC
	THROUGH-WALL FLASHING
	VAPOUR CONTROL BARRIER
	FOUNDATION DAMP PROOFING
	PRE-FIN METAL FLASHING
	SBS ROOFING MEMBRANE
	IMPERMEABLE ROOFING UNDERLAY

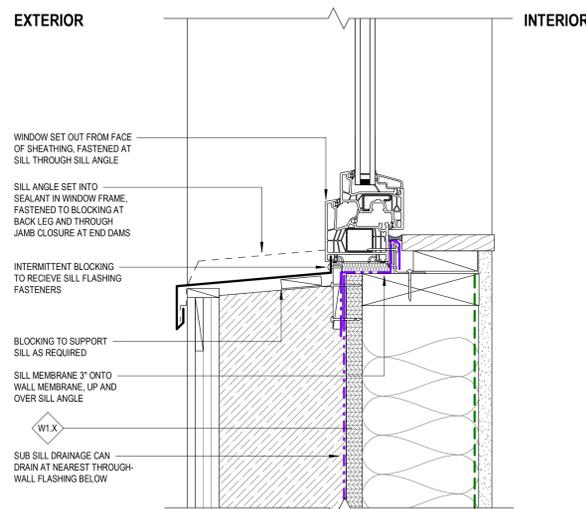
INSULATION LEGEND	
	SEMI-RIGID INSULATION
	RIGID INSULATION 1
	RIGID INSULATION 2, HIGH DENSITY
	SPRAY FOAM
	STUD CAVITY IN-FILL INSULATION



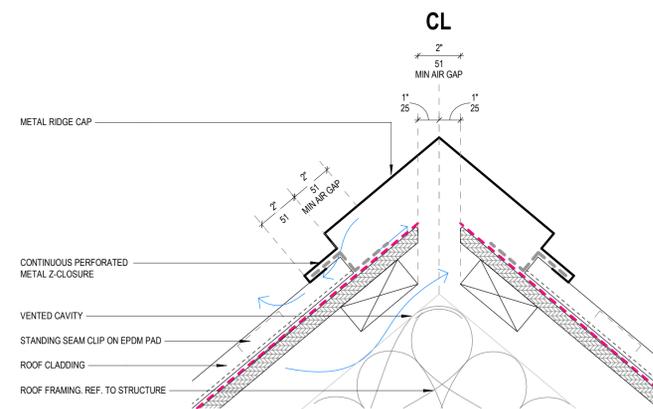
1 TYP EXTERIOR DOOR - SILL
 A007 3" = 1'-0"



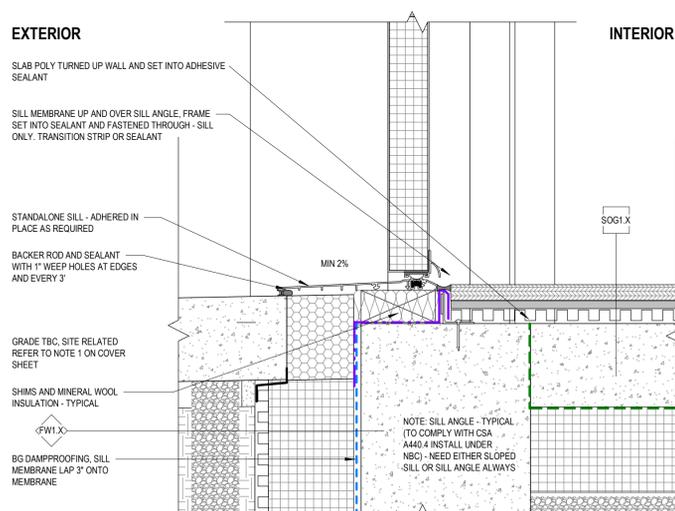
4 TYP SLIDING DOOR SILL
 A007 3" = 1'-0"



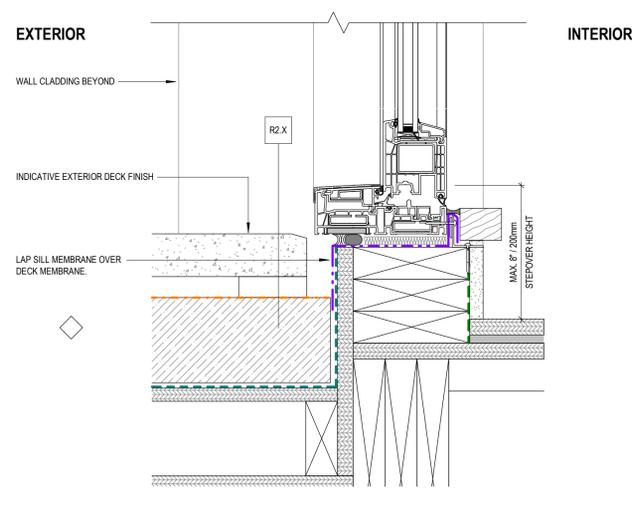
6 TYP WINDOW - SILL
 A007 3" = 1'-0"



10 TYP RIDGE DETAIL
 A007 3" = 1'-0"



3 TYP EXTERIOR DOOR - ADAPTABLE SILL
 A007 3" = 1'-0"



8 TYP SLIDING DOOR @ ROOF DECK
 A007 3" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
TYPICAL DETAILS 2

BC Accessory Dwelling Unit 02

PROJECT NO: 241058
 SCALE: As indicated

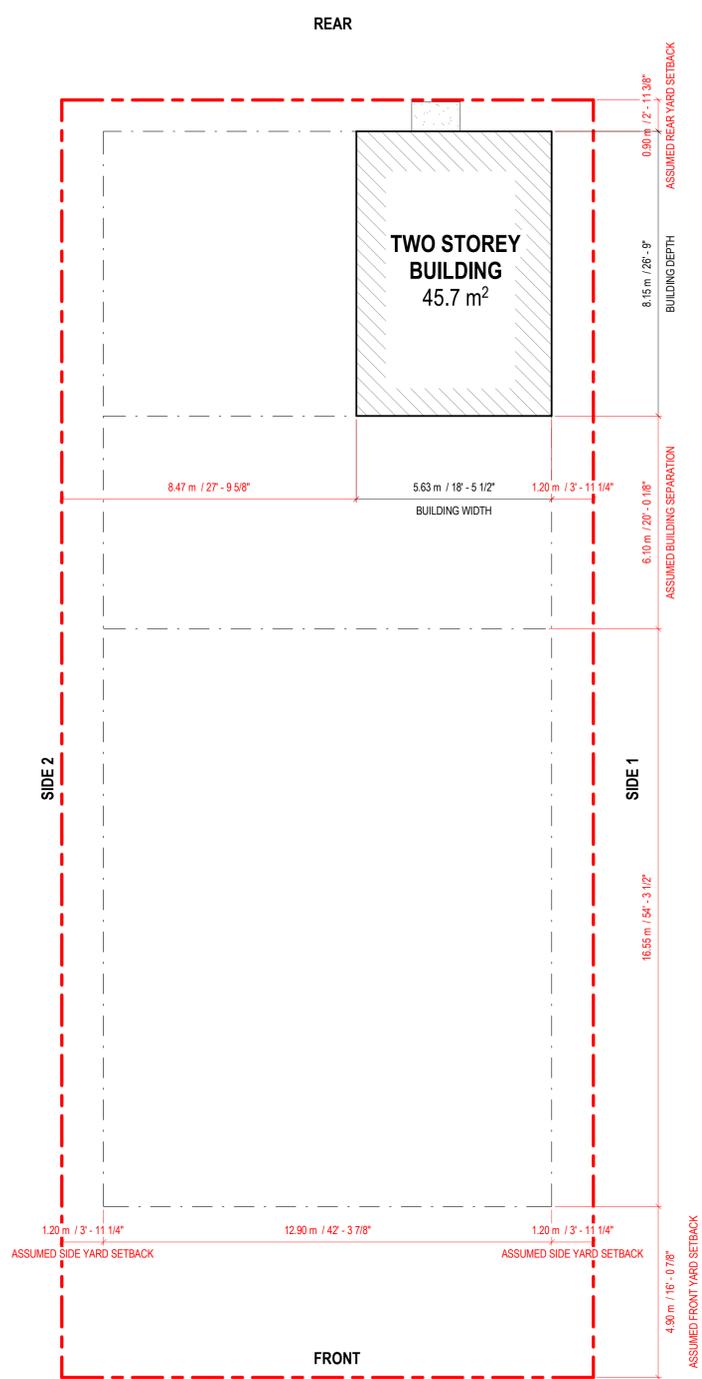
SHEET NO:
A007

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- SITE PLAN GENERAL NOTES**
- SITE DESIGN TO CONFORM TO FIREFIGHTING ACCESS REQUIREMENTS AS PER BCBC 9.10.20.3.
 - SITE GRADE TO BE SLOPED AWAY FROM BUILDING AS PER BCBC 9.14.6.1
 - WHERE UNCONNECTED DOWNSPOUTS ARE PROVIDED, EXTENSIONS SHALL BE PROVIDED TO CARRY RAINWATER AWAY FROM THE BUILDING IN A MANNER CONFORMING TO BCBC 9.26.18.2.
 - SITE DESIGN TO CONFORM TO ACCESSIBILITY REQUIREMENTS PER BCBC 33.8.2.3, BCBC 33.8.2.5, BCBC 33.8.2.10
 - ENTRANCES TO BARRIER FREE UNIT TO CONFORM TO BCBC 3.8.2.2.
 - EXTERIOR AND INTERIOR PATHS THAT FORM PART OF AN ACCESSIBLE PATH OF TRAVEL TO CONFORM FOR BCBC 3.8.3.2. EXTERIOR WALKS TO BE DESIGNED IN CONFORMANCE TO BCBC 3.8.3.3.

SITE DATA	
ADDRESS	N/A
LOT & PLAN NO.	N/A
ZONING	N/A
LOT AREA	560.0 m ²
BUILDING AREA	45.7 m ²
COVERAGE	8 %
LANDSCAPED OPEN SPACE	514.3 m ²
SOFTSCAPE AREA	
HARDSCAPE AREA	
PARKING SPOTS	N/A
DENSITY	
SETBACKS	
FRONT	5.1 m (SEPARATION)
REAR	0.9 m
SIDE 1	1.2 m
SIDE 2	1.2 m
BUILDING DEPTH	8.15 m

SITE LEGEND	
	ASSUMED PROPERTY LINE
	SETBACK
	BUILDING
	SOFTSCAPE
	HARDSCAPE



SITE PLAN
 1/8" = 1'-0"

BRITISH COLUMBIA BUILDING CODE SUMMARY									
PART 9 - HOUSING AND SMALL BUILDINGS									
BUILDING CODE VERSION	BC BA 2024 04		LAST AMENDMENT: BC BA, 2024 / 04		BCBC REFERENCE				
PROJECT TYPE	NEW CONSTRUCTION CONSTRUCTION OF NEW 2 STOREY SINGLE UNIT RESIDENTIAL BUILDING					[A] 1.3.3.			
MAJOR OCCUPANCY CLASSIFICATION	GROUP / DIVISION:	DESCRIPTION:	USE:	RESIDENTIAL					
	C	2 STOREY SINGLE DWELLING BUILDING							
SUPERIMPOSED MAJOR OCCUPANCIES	NO					9.10.2.			
BUILDING AREA (m ²)	DESCRIPTION:	TOTAL (m ²):		[A] 1.4.1.2.					
	NEW CONSTRUCTION	45.7							
GROSS AREA (m ²)	FLOOR LEVEL:	DESCRIPTION:	TOTAL (m ²):		[A] 1.4.1.2				
	GROUND FLOOR	1 RESIDENTIAL UNITS	44.7						
	SECOND FLOOR		49.2						
	THIRD FLOOR								
	TOTAL (m ²):	93.8							
BUILDING HEIGHT	STOREYS ABOVE GRADE:	7.9 m ABOVE AVERAGE GRADE		[A] 1.4.1.2. AND 9.10.4.					
NUMBER OF STREETS	TBC					9.10.20			
SPRINKLER SYSTEM	N/A	PROVIDED:							
FIRE ALARM SYSTEM	NOT REQUIRED	TYPE PROVIDED:	N/A						
WATER SUPPLY IS ADEQUATE	TBC					9.10.18			
CONSTRUCTION TYPE	PERMITTED:	COMBUSTIBLE		9.10.6					
	PROPOSED:	COMBUSTIBLE							
POST-DISASTER BUILDING	YES/NO					[A] 1.3.3.2.(1)			
OCCUPANT LOAD	FLOOR LEVEL:	UNIT #:	OCCUPANCY TYPE:	BASED ON:	OCCUPANT LOAD (PERSONS):				
	GROUND FLOOR	UNIT 1	RESIDENTIAL	3.1.17.1.(1)(b)	4				
BARRIER-FREE DESIGN	NOT APPLICABLE					9.5.2.			
HAZARDOUS SUBSTANCES	NO					9.10.1.3.			
REQUIRED FIRE RESISTANCE RATINGS	HORIZONTAL ASSEMBLY:	RATING:	SUPPORTING ASSEMBLY:	NON-COMBUSTIBLE IN LIEU OF RATING:					
	FLOORS EXCEPT CRAWLSPACE:	45 MIN	45 MIN	N/A					
PLUMBING FIXTURE REQUIREMENTS	A KITCHEN SINK, LAVATORY, WATER CLOSET, AND BATHTUB OR SHOWER SHALL BE PROVIDED FOR EVERY DWELLING UNIT					9.31.4(1) and 3.7.2.2.(11)			
NOTES	01 ALL REFERENCES ARE TO DIVISION B OF THE BRITISH COLUMBIA BUILDING CODE UNLESS PRECEDED BY (A) FOR DIVISION A AND (C) FOR DIVISION C.								
SPATIAL SEPARATION	WALL:	EBF AREA (m ²):	LD (m):	% OPENINGS MAX	% PROVIDED	RATING:	CONSTRUCTION TYPE:	CLADDING TYPE:	9.10.14. & 9.10.15
	FRONT	38.0	3.05	26	19.2	N/A	COMBUSTIBLE	COMBUSTIBLE	
	REAR	38.0	3.9	38	16.6	N/A	COMBUSTIBLE	COMBUSTIBLE	
	SIDE	47.4	1.2	7	3.0	N/A	COMBUSTIBLE	COMBUSTIBLE	
	SIDE	47.4	8.5	100	4.4	N/A	COMBUSTIBLE	COMBUSTIBLE	

1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING
NO.	DATE	DESCRIPTION

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA

NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
SITE PLAN & CODE MATRIX

BC Accessory Dwelling Unit 02

PROJECT NO: 241058
 SCALE: As indicated

SHEET NO:
A010

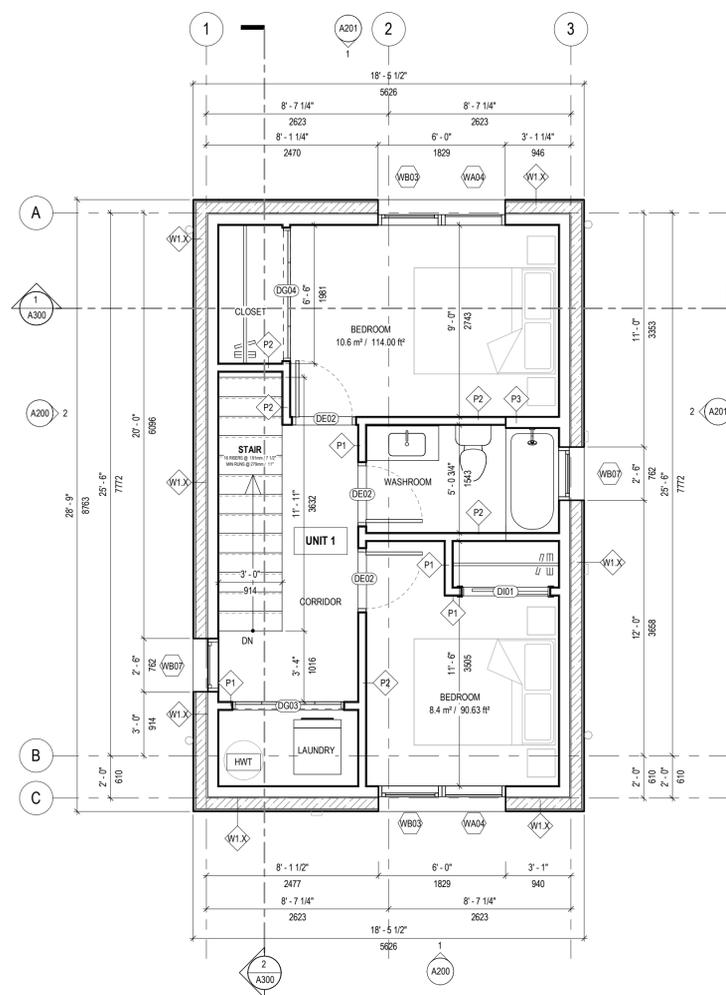
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FIRE SEPARATION LEGEND	
	1HR FIRE RESISTANCE RATING

FLOOR PLAN KEYNOTES	
01	LOCATION OF SOIL GAS DEPRESSURIZATION PER BCBC 9.13.4.3. RUN UNDERSLAB PIPES TO CENTER OF EACH SLAB THAT IS COMPARTMENTALIZED BY FOUNDATION WALLS. REFER ALSO TO MECHANICAL DRAWINGS.

FLOOR PLAN LEGEND	
	FLOOR MOUNTED TOILET
	SHOWER
	ALCOVE TUB
	KITCHEN SINK
	WASHROOM SINK
	WASHER
	DRYER
	BOILER
	MECHANICAL / ELECTRICAL / PLUMBING
	RANGE, TYPICAL
	RANGE, NARROW
	REFRIGERATOR
	DISHWASHER
	CLOSET COAT ROD



1 SECOND FLOOR PLAN
1/4" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN
CATALOGUE

BRITISH COLUMBIA, CANADA

**NOT FOR PERMIT
OR CONSTRUCTION**

SHEET TITLE:
SECOND FLOOR PLAN

BC Accessory Dwelling Unit 02

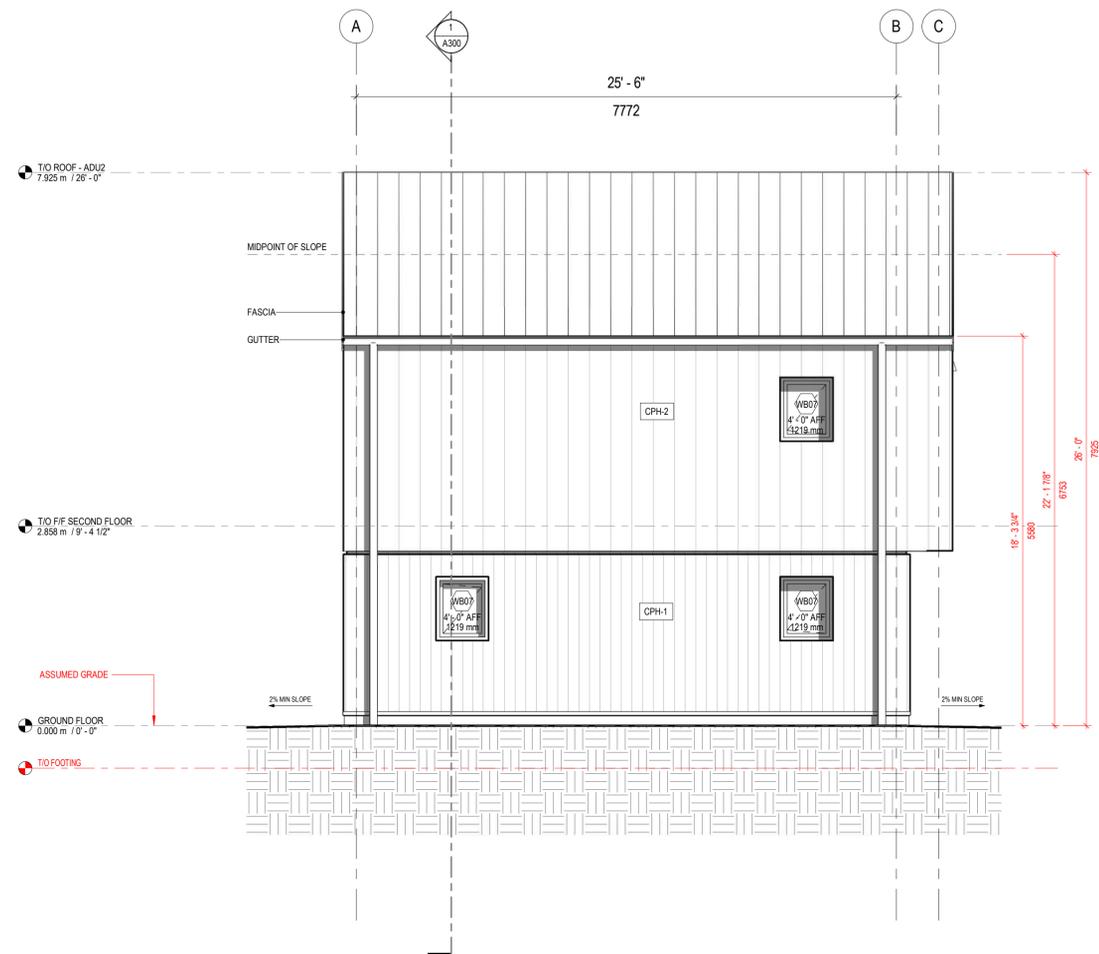
PROJECT NO: 241058
SCALE: As indicated

SHEET NO:
A102

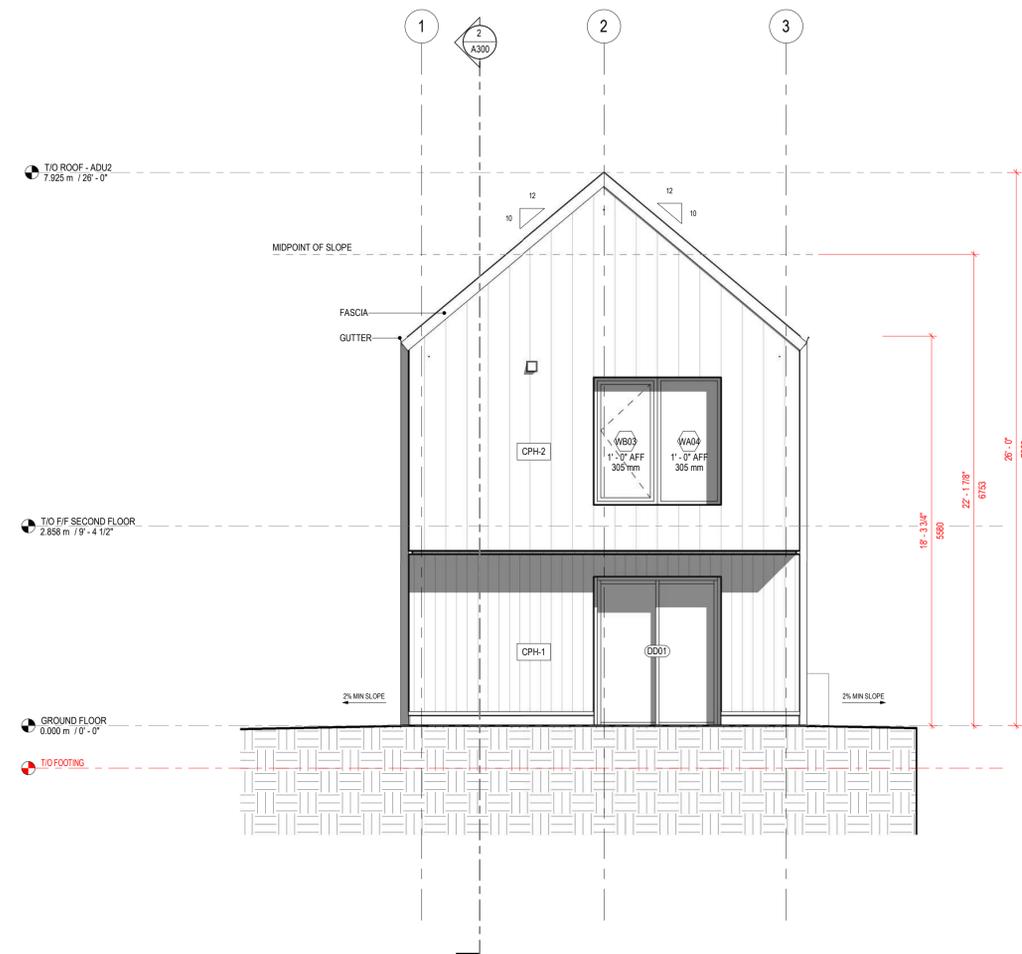
ELEVATION MATERIAL SCHEDULE	
TAG	MATERIAL
CPH-1	CLADDING PLACEHOLDER, TYPE 1
CPH-2	CLADDING PLACEHOLDER, TYPE 2



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2 BUILDING ELEVATION - SIDE 2
 A200 1/4" = 1'-0"



1 BUILDING ELEVATION - FRONT
 A200 1/4" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
ELEVATIONS

BC Accessory Dwelling Unit 02

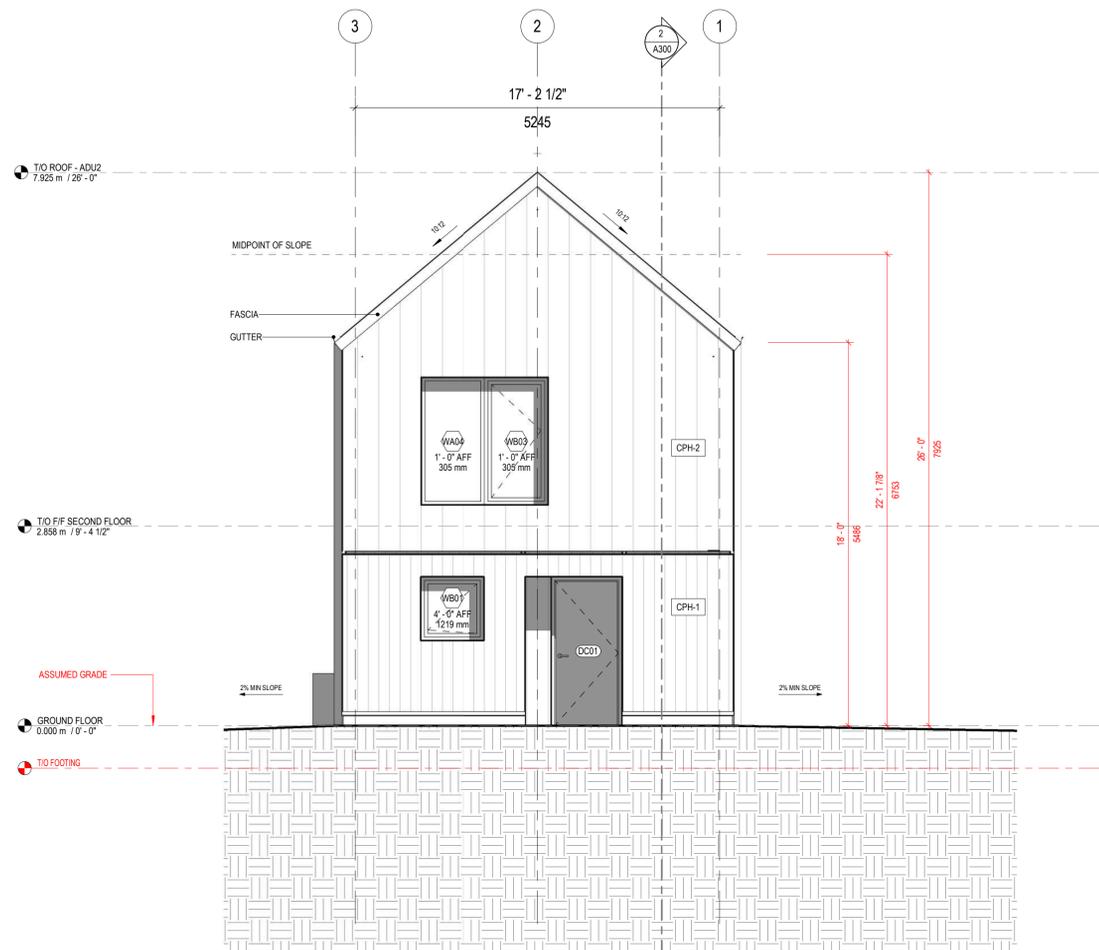
PROJECT NO: 241058
 SCALE: 1/4" = 1'-0"

SHEET NO:
A200

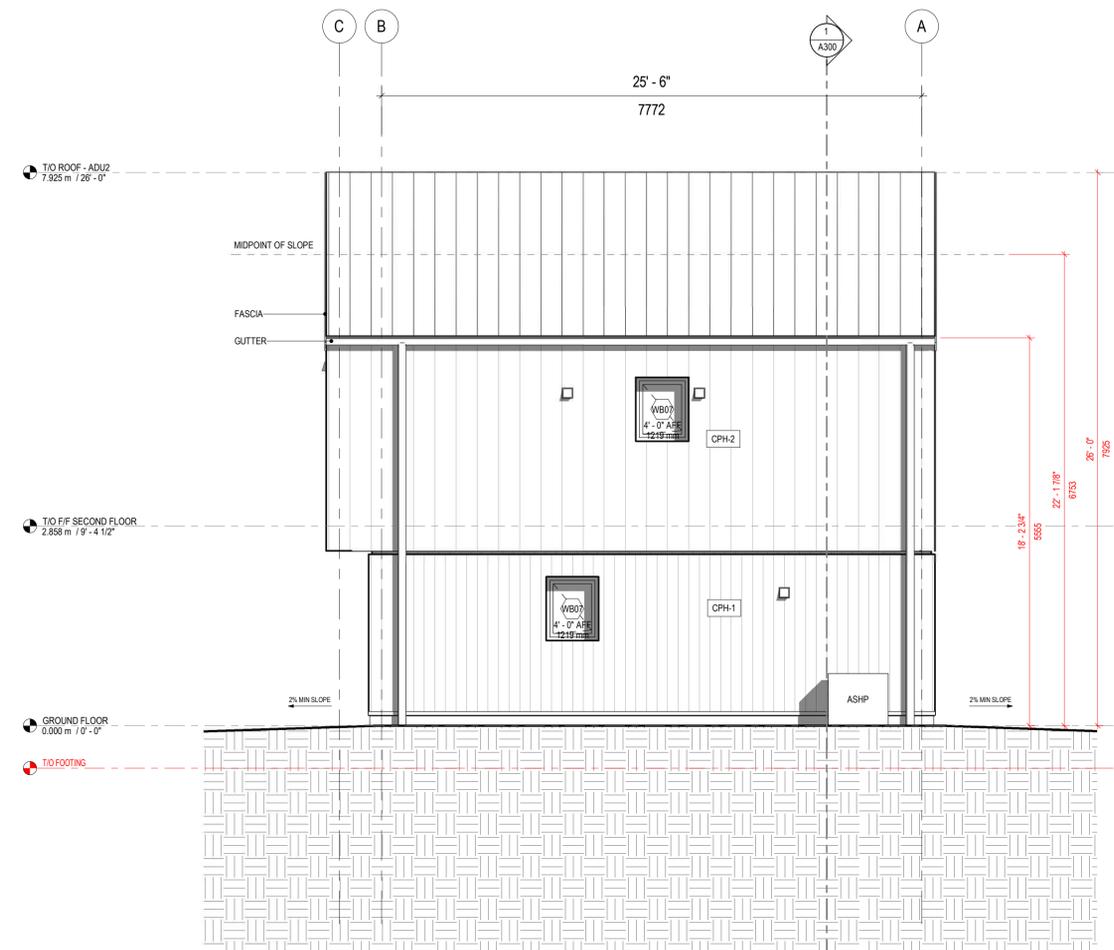
ELEVATION MATERIAL SCHEDULE	
TAG	MATERIAL
CPH-1	CLADDING PLACEHOLDER, TYPE 1
CPH-2	CLADDING PLACEHOLDER, TYPE 2



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1 BUILDING ELEVATION - REAR
 A201 1/4" = 1'-0"



2 BUILDING ELEVATION - SIDE 1
 A201 1/4" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
ELEVATIONS

BC Accessory Dwelling Unit 02

PROJECT NO: 241058
 SCALE: 1/4" = 1'-0"

SHEET NO:
A201

DISCLAIMER

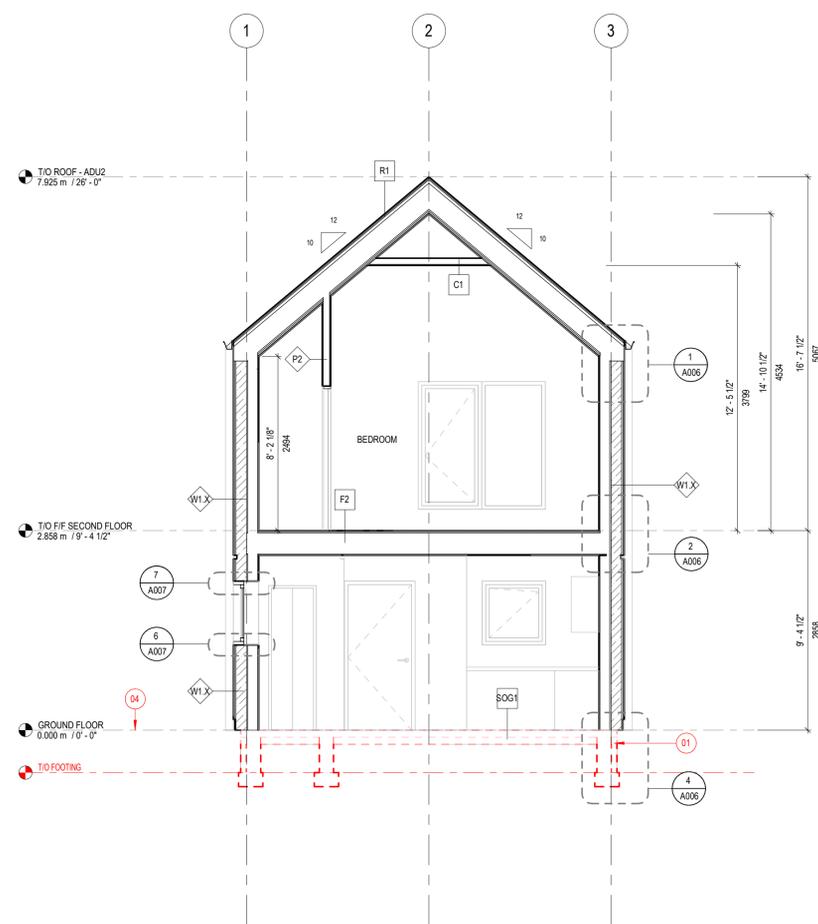
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SECTION GENERAL NOTES

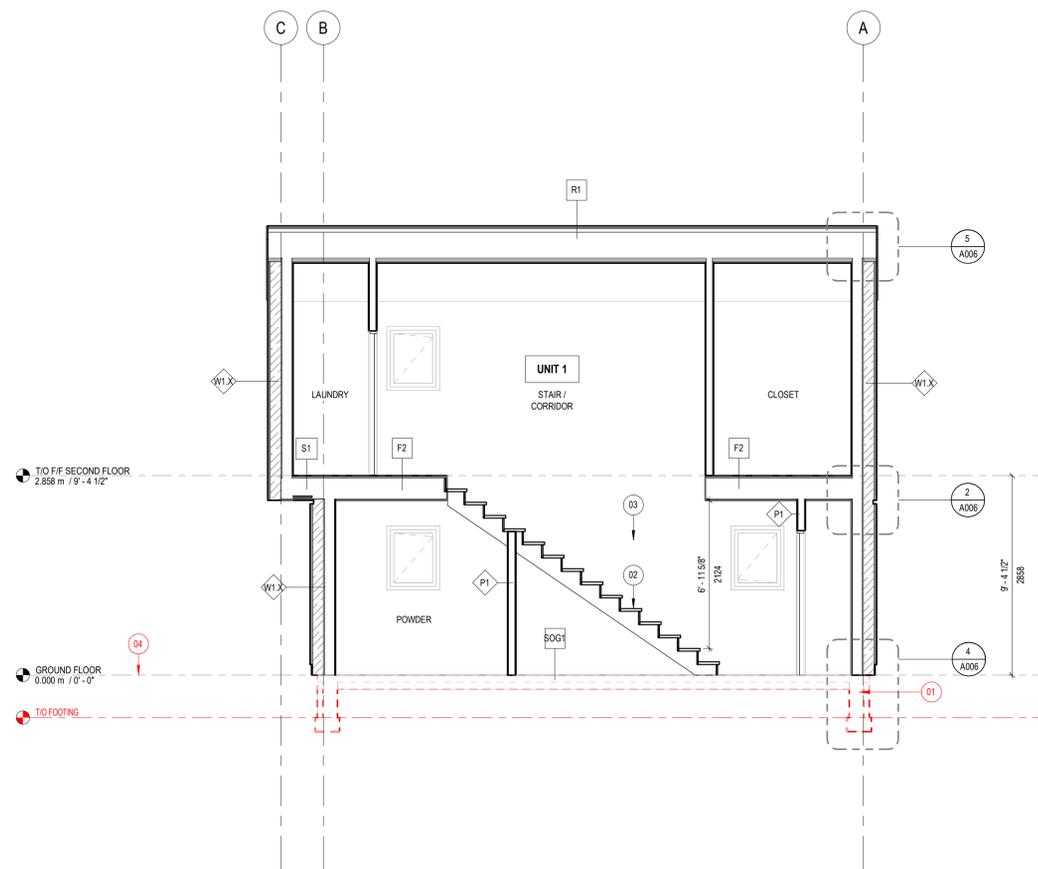
- SITE GRADE TO BE SLOPED AWAY FROM BUILDING AS PER BCBC 9.14.6.1

SECTION KEYNOTES

- FOUNDATIONS ASSUMED, REFER TO STRUCTURAL
- STAIRS AND TREADS TO CONFORM TO APPLICABLE SUBSECTIONS IN BCBC 9.8
- HANDRAILS AND GUARDS TO BE DESIGNED IN CONFORMANCE TO BCBC 9.8.7 AND 9.8.8
- ASSUMED FINISHED GRADE IS FLUSH WITH FINISHED FLOOR LEVEL TO FACILITATE ZERO STEP ENTRY



1 BUILDING SECTION
A300 1/4" = 1'-0"



2 BUILDING SECTION
A300 1/4" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

SHEET TITLE:
SECTIONS

BC Accessory Dwelling Unit 02

PROJECT NO: 241058
SCALE: As indicated

SHEET NO:
A300

CMHC HOUSING DESIGN CATALOGUE BC ACCESSORY DWELLING UNIT 02

STRUCTURAL DRAWINGS

STRUCTURAL SHEET LIST	
S000	COVER SHEET
S001	GENERAL NOTES AND SCHEDULES
S101	FOUNDATION / MAIN FLOOR PLAN
S102	SECOND FLOOR PLAN
S104	ROOF PLAN



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NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

NO.	DATE	DESCRIPTION
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PROJECT:
CMHC HOUSING DESIGN
CATALOGUE

BRITISH COLUMBIA, CANADA

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SHEET TITLE:
COVER SHEET

BC ADU 02

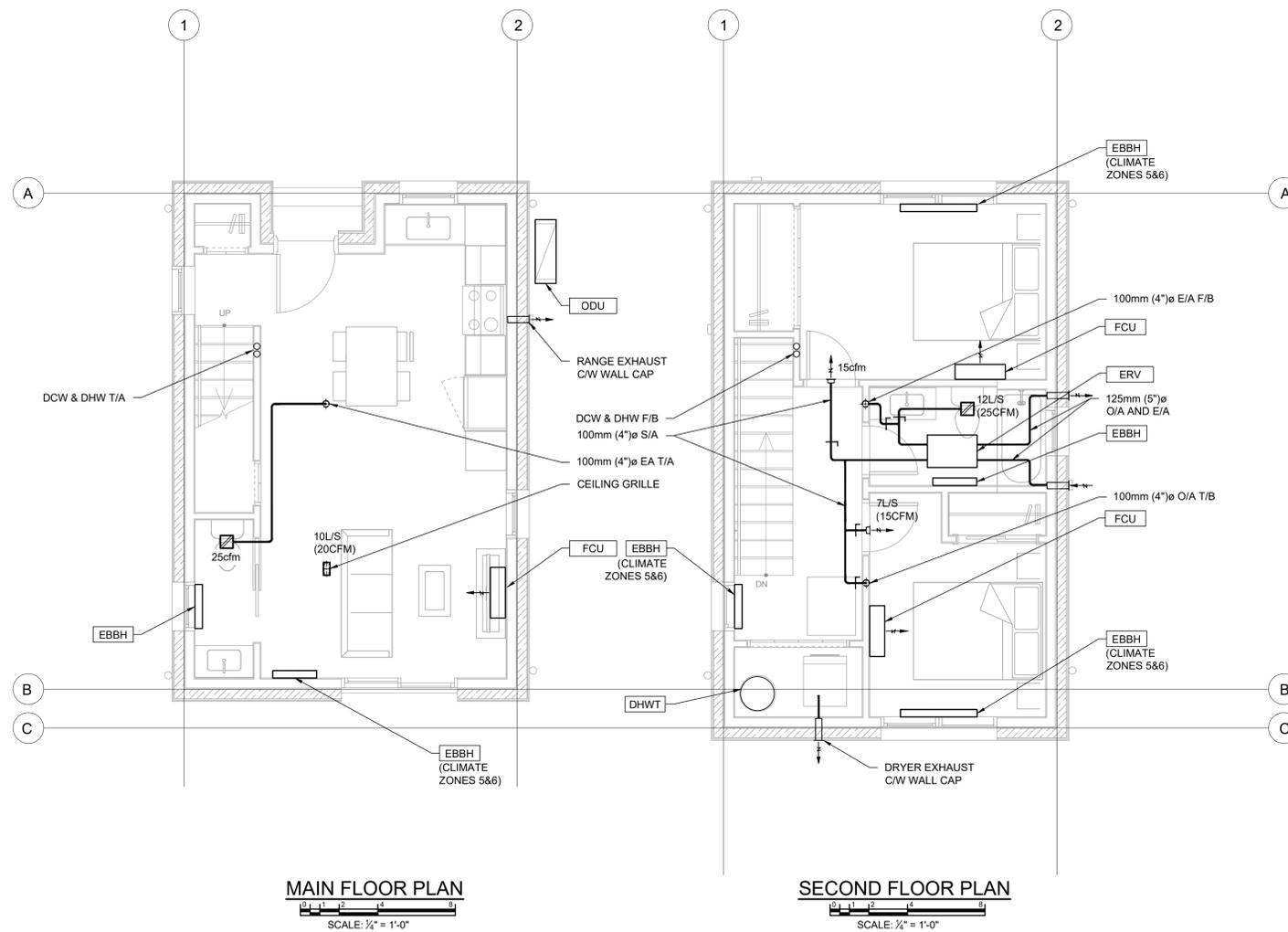
PROJECT NO: 241058
SCALE: NTS

SHEET NO:
S000

GENERAL NOTES:

1. DRYER EXHAUST AND KITCHEN EXHAUST DUCTS VARY BY APPLIANCE MODEL AND SIZE. EXHAUST DUCT SIZED TO MANUFACTURER'S RECOMMENDATION.
2. ELECTRIC BASEBOARD BACK UP HEATERS ARE REQUIRED FOR CLIMATE ZONES 5 & 6 ONLY, AND OPTIONAL FOR CLIMATE ZONE 4.

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MAIN FLOOR PLAN
 SCALE: 1/4" = 1'-0"

SECOND FLOOR PLAN
 SCALE: 1/4" = 1'-0"

NO.	DATE	DESCRIPTION
1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING

PROJECT:
CMHC HOUSING DESIGN CATALOGUE

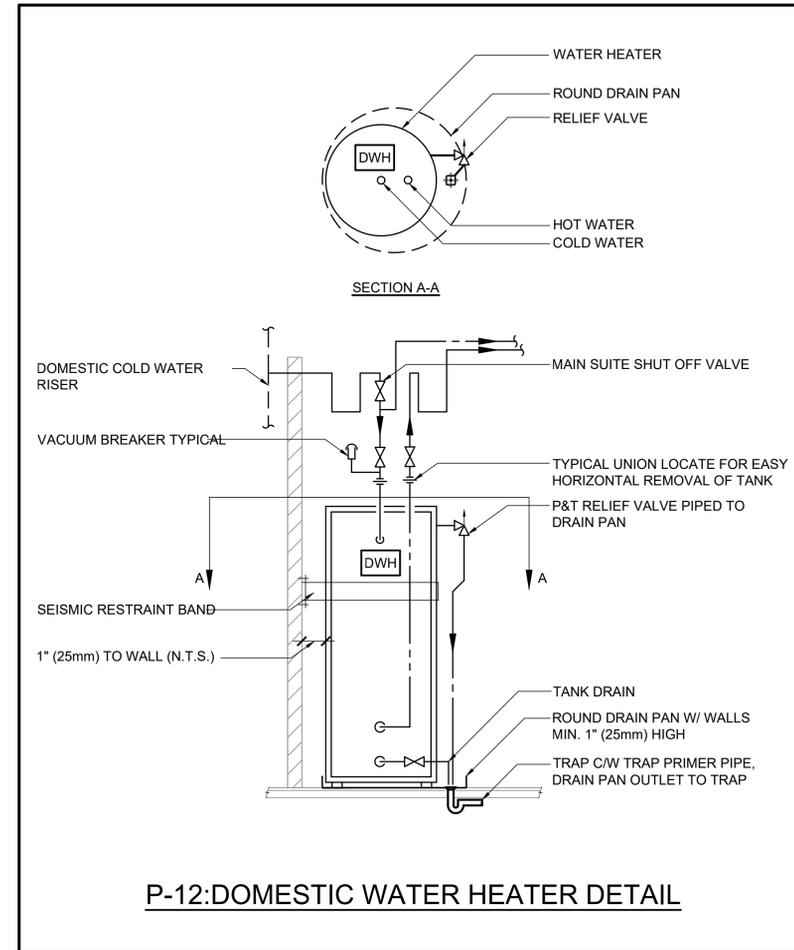
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SHEET TITLE:
BC ACCESSORY DWELLING UNIT 02 MECHANICAL

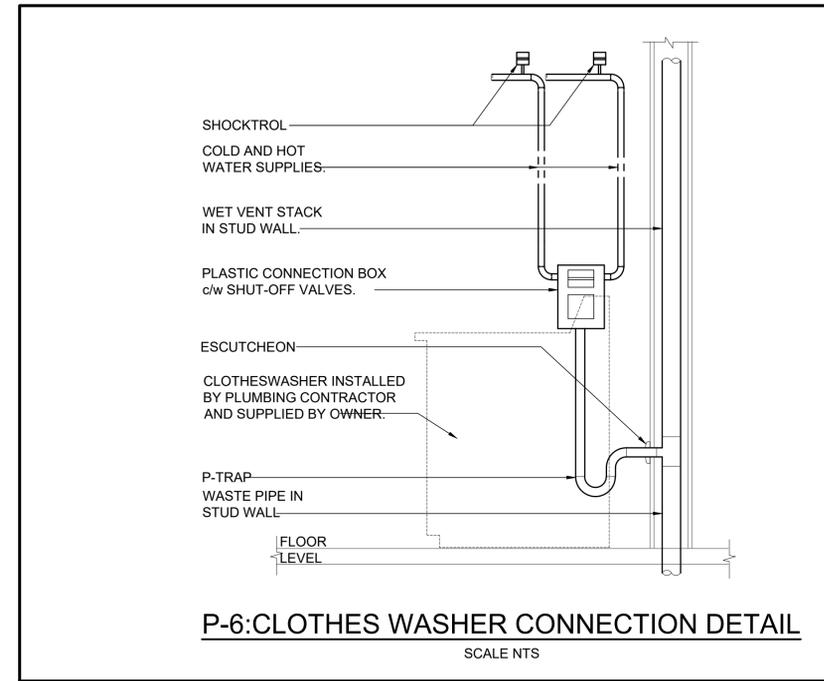
PROJECT NO: 241058
 SCALE: AS NOTED

SHEET NO: M201
 DW
 DW

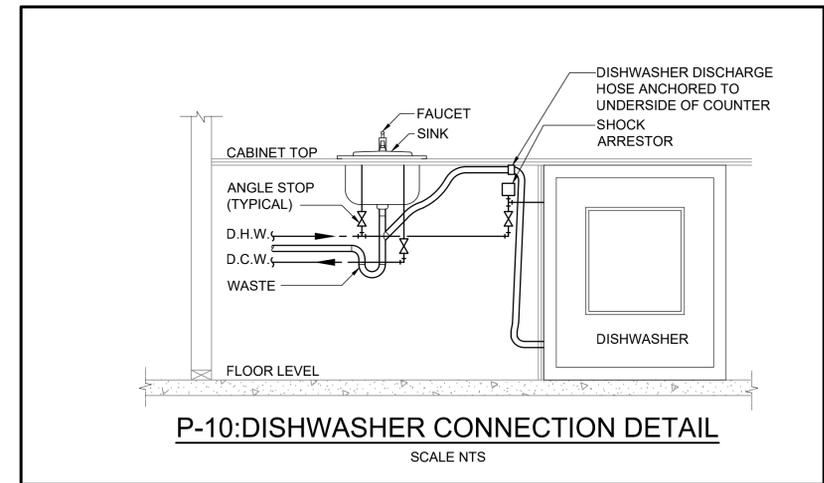
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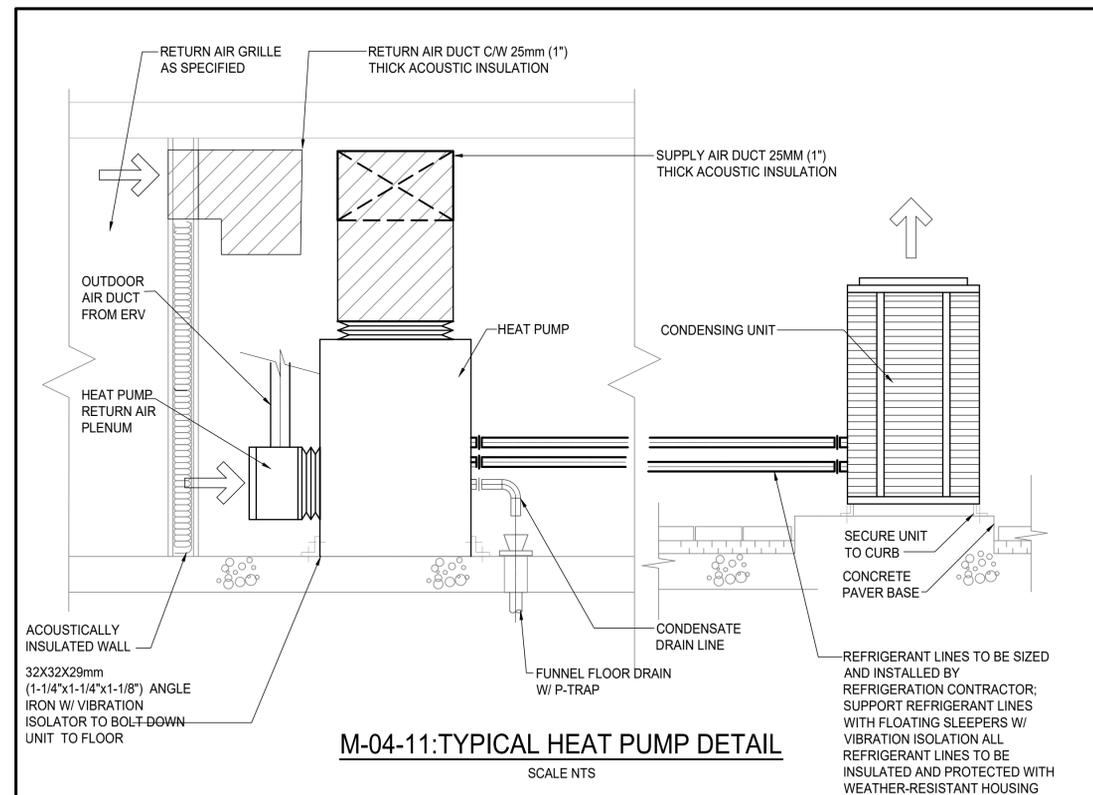
P-12: DOMESTIC WATER HEATER DETAIL



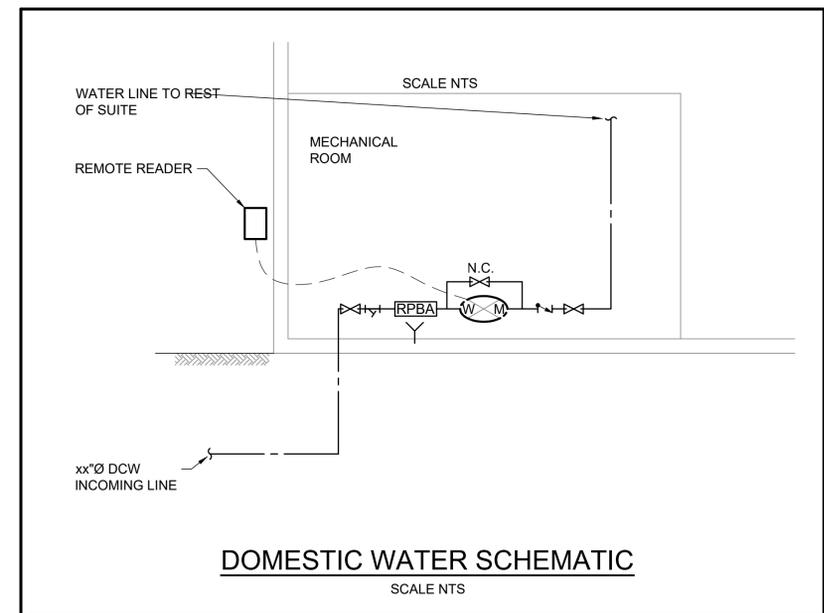
P-6: CLOTHES WASHER CONNECTION DETAIL



P-10: DISHWASHER CONNECTION DETAIL



M-04-11: TYPICAL HEAT PUMP DETAIL



DOMESTIC WATER SCHEMATIC

1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING
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NO.	DATE	DESCRIPTION
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PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
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SHEET TITLE:
MECHANICAL DETAILS

PROJECT NO: 241058
 SCALE: AS NOTED

SHEET NO:
M001

MECHANICAL SPECIFICATIONS

1. GENERAL

- INTENT: THIS SPECIFICATION SHALL SERVE TO PROVIDE DIRECTION AND STANDARDS TO ENABLE THE CONTRACTOR TO SUPPLY AND INSTALL A FINISHED, FULLY FUNCTIONAL MECHANICAL SYSTEM FOR THE PROJECT, IN COMPLETE ACCORDANCE WITH CURRENT BUILDING CODE AND LOCAL BYLAWS. THE MECHANICAL CONTRACTOR SHALL INCLUDE ALL LABOUR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE MECHANICAL WORK.
- LIABILITY: ASSUME RESPONSIBILITY FOR LAYING OUT WORK AND FOR DAMAGE CAUSED TO THE OWNER OR OTHERS BY IMPROPER EXECUTION OF WORK. PROTECT FINISHED AND UNFINISHED WORK FROM DAMAGE. TAKE RESPONSIBILITY FOR CONDITION OF MATERIALS AND EQUIPMENT SUPPLIED, AND PROTECT UNTIL WORK IS COMPLETED AND ACCEPTED.
- CERTIFICATES: GIVE NOTICES, OBTAIN PERMITS, AND PAY PERMIT AND INSPECTION FEES SO WORK SPECIFIED AND SHOWN MAY BE CARRIED OUT. FURNISH CERTIFICATES, IF REQUESTED, AS EVIDENCE THAT WORK CONFORMS WITH LAWS AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
- CUTTING AND PATCHING: MEASURE OUT AND PROVIDE LOCATIONS FOR HOLES FOR MECHANICAL EQUIPMENT AND PROVIDE SLEEVES REQUIRED FOR THE MECHANICAL INSTALLATIONS. BE RESPONSIBLE FOR CUTTING AND PATCHING OF BUILDING STRUCTURE REQUIRED BY WORK UNLESS OTHERWISE INDICATED. ALLOW FOR SCANNING PRIOR TO CORING OR CUTTING AND SCANS TO BE APPROVED BY BASE BUILDING STRUCTURAL CONSULTANT.
- TESTING: TEST EQUIPMENT AND MATERIALS WHERE REQUIRED BY AUTHORITIES HAVING JURISDICTION, TO DEMONSTRATE PROPER OPERATION.
- GUARANTEE: PROVIDE THE OWNER WITH A WRITTEN GUARANTEE FOR LABOUR AND MATERIAL, WARRANTING SYSTEMS AND EQUIPMENT FURNISHED TO REMAIN IN SERVICEABLE CONDITION FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY THE OWNER.
- STANDARD OF MATERIALS AND WORKMANSHIP: MAKE AND QUALITY OF MATERIALS USED ARE SUBJECT TO ACCEPTANCE BY THE CONSULTANT. REMOVE CONDEMNED MATERIALS AND INSTALL SUITABLE MATERIALS IN THEIR PLACE. MATERIALS SHALL BE NEW AND OF UNIFORM PATTERN THROUGHOUT, WHERE SPECIFICALLY IDENTIFIED IN THIS SPECIFICATION. WORKMANSHIP SHALL FOLLOW THE BEST TRADITION AND TRADESMANSHIP. EMPLOY ONLY TRADESMEN PROPERLY LICENSED FOR WORK REQUIRING TRADESMEN WITH SPECIAL SKILL.
- ACCESS: ENSURE ADEQUATE MAINTENANCE ACCESS IS MAINTAINED TO MANUAL BALANCING DAMPERS, FIRE DAMPERS, VALVES, METERS, EQUIPMENT, INCLUDING THOSE EXISTING. PROVIDE ADEQUATELY SIZED AND FIRE-RATED (WHERE REQUIRED) ACCESS DOORS WHERE A SOLID FINISHED CEILING EXISTS. COORDINATE TYPE, COLOUR, AND INSTALLATION WITH THE GENERAL CONTRACTOR AND ARCHITECT/INTERIOR DESIGNER. FOR EXISTING BASE BUILDING EQUIPMENT, MARK PROPOSED ACCESS PANEL LOCATIONS ON FLOOR FOR REVIEW AND COORDINATION WITH THE LANDLORD'S TENANT COORDINATOR PRIOR TO INSTALLATION OF CEILING FRAMING AND PANELING.
- RECORD DRAWINGS: ENSURE ONE SET OF WHITE PRINT PLANS AND SPECIFICATIONS ARE KEPT ON SITE AT ALL TIMES FOR CONSULTANT INSPECTION. INDICATE ANY CHANGES AND DEVIATIONS FROM THE CONTRACT DOCUMENTS, INCLUDING WORK BY CHANGE ORDERS AND JOB INSTRUCTIONS. THE CONTRACTOR SHALL INCLUDE A CASH ALLOWANCE OF \$300 PER PLAN SHEET FOR THE CONSULTANT TO TRANSFER MARKED UP CHANGES TO CAD FILES, AND FOR PROVIDING TWO SETS OF RECORD DRAWINGS AND ELECTRONIC CAD FILES TO THE OWNER.
- CLOSE-OUT DOCUMENTATION/OPERATION AND MAINTENANCE MANUALS: WITHIN TWO WEEKS OF SUBSTANTIAL COMPLETION, PROVIDE THREE COPIES OF THE FOLLOWING (WHERE APPLICABLE)

- PROJECT INFORMATION
 - PROJECT NAME, ADDRESS, AND DATE OF SUBSTANTIAL COMPLETION
 - CONTACT INFORMATION FOR GENERAL CONTRACTORS AND ALL MECHANICAL CONTRACTORS AND SUBTRADES
- LETTERS OF ASSURANCE AND WARRANTY DOCUMENTS
 - COPIES OF ALL APPLICABLE WORK PERMITS
 - COPY OF CONTRACTOR'S (AND MECHANICAL SUB-CONTRACTOR'S IF APPLICABLE) 1-YEAR WARRANTY LETTER
 - WARRANTY FORMS FOR ALL APPLICABLE MECHANICAL EQUIPMENT
 - PLUMBING FINAL INSPECTION CERTIFICATE
 - BACKFLOW PREVENTER TEST CERTIFICATES
 - CHLORINATION REPORT OF DOMESTIC WATER LINES

- TESTING, ADJUSTING, AND BALANCING (TAB) DOCUMENTATION
 - PIPING TEST FORMS
 - REFRIGERATION STARTUP CHECKLISTS
- HVAC SYSTEM
 - BRIEF DESCRIPTION OF HVAC SYSTEM COMPONENTS AND OPERATION
 - OPERATING AND MAINTENANCE MANUALS FOR NEW EQUIPMENT

- ADDITIONAL DOCUMENTATION: CONTRACTOR SHALL SUPPLY ALL DOCUMENTATION AND INFORMATION WHICH IS REQUIRED FOR APPLICATION TO INCENTIVE AND REBATE PROGRAMS (SUCH AS FORTIS BC EFFICIENT BOILER PROGRAM).
- BALANCING
 - QUALITY ASSURANCE
 - PROCEDURES SHALL BE IN ACCORDANCE WITH CURRENT EDITION OF AABC'S NATIONAL STANDARDS FOR FIELD MEASUREMENT AND INSTRUMENTATION, TOTAL SYSTEM BALANCE.
 - INSTRUMENTS FOR TESTING AND BALANCING OF AIR SYSTEMS SHALL HAVE BEEN CALIBRATED WITHIN SIX MONTHS AND VERIFIED FOR ACCURACY BEFORE START OF WORK.
 - PROCEDURES
 - BALANCE TO MAXIMUM FLOW DEVIATION FROM SPECIFIED VALUES OF 10% AT TERMINAL DEVICE AND 5% AT EQUIPMENT OR MEAN SOUND LEVEL DEVIATION OF 20 DB.
 - PERMANENTLY MARK SETTING ON VALVES, SPLITTERS, DAMPERS AND OTHER ADJUSTMENT DEVICES. TAKE MEASUREMENTS TO VERIFY LEAKAGE HAS NOT BEEN DISRUPTED OR SUCH DISRUPTION HAS BEEN RECTIFIED.
 - ADJUST MAIN SUPPLY AND RETURN DUCTS TO DESIGN FLOW RATES. ADJUST ZONES TO DESIGN, SUPPLY AND RETURN FLOW RATES. TEST AND ADJUST EACH DIFFUSER, GRILLE AND REGISTER TO WITHIN 10% OF DESIGN REQUIREMENTS. ADJUST DIFFUSERS, GRILLES AND REGISTERS TO MINIMIZE DRAFTS.
- TESTING
 - TEST EQUIPMENT AND MATERIAL, WHERE SPECIFIED OR REQUIRED BY AUTHORITY HAVING JURISDICTION. TEST IN ACCORDANCE WITH APPLICABLE PORTIONS OF ASME, ASHRAE, SMACNA, NFPA, CSA AND OTHER RECOGNIZED TEST STANDARDS/CODES.
 - PROVIDE NOTICE OF TESTS TO CONSULTANT, ON COMPLETION OF INSTALLATION, PROVIDE CERTIFICATION OF TESTS WITH REQUIRED DETAIL. ITEMIZE TESTS AS TO TIME PERFORMED AND PERSONNEL RESPONSIBLE. INCLUDE COPY OF FIELD DATA IN OPERATING AND MAINTENANCE MANUALS.
 - PRESSURE TESTS
 - PIPING, FIXTURES OR EQUIPMENT SHALL NOT BE CONCEALED UNTIL INSPECTED AND APPROVED BY CONSULTANT. CARRY OUT HYDRAULIC TESTS FOR 8 HOURS. MAINTAIN PRESSURE WHERE LEAKAGE OCCURS, REPAIR AND RE-TEST.
 - DOMESTIC WATER PIPING: TEST TO 1-1/2 TIMES MAXIMUM WORKING PRESSURE OR 1034 kPa (150 PSI) WATER PRESSURE MEASURED AT SYSTEM LOW POINT.
 - DRAINAGE SYSTEM: TEST BY FILLING WITH WATER TO PRODUCE WATER PRESSURE OF 1.5 M (5 FEET) WATER COLUMN MINIMUM AND 7.6M (25 FEET) WATER COLUMN MAXIMUM. CHECK FOR PROPER GRADE AND OBSTRUCTION BY BALL TEST.
 - NATURAL GAS PIPING: TEST AS REQUIRED BY AUTHORITY HAVING JURISDICTION.
 - LOW PRESSURE DUCTS: TEST FOR TIGHTNESS SUCH THAT LEAKAGE IS INAUDIBLE AND NOT DETECTABLE BY FEEL.
 - SHOULD TESTS INDICATE DEFECTIVE WORK OR VARIANCE WITH SPECIFIED REQUIREMENTS, CORRECT DEFECTS. CORRECT LEAKS BY RE-MAKING JOINTS IN SCREWED FITTINGS, CUTTING OUT AND RE-WELDING WELDED JOINTS AND RE-MAKING JOINTS IN COPPER LINES. DO NOT CAULK.
 - PERFORMANCE TESTS
 - LUBRICATE BEARINGS, ADJUST AND/OR REPLACE AND SET DIRECT AND "V"-BELT DRIVES FOR PROPER ALIGNMENT AND TENSION.
 - CALIBRATE AND ADJUST THERMOSTATS, LINKAGES AND DAMPERS. OPERATE AND TEST MOTORS FOR CORRECT WIRING AND SEQUENCES. CHECK OVERLOAD HEATERS IN MOTOR STARTERS. FASTEN LOOSE AND RATTLING PIECES OF EQUIPMENT TO ENSURE QUIET OPERATION.
 - GAS-FIRED APPLIANCES SHALL BE OPERATIONALLY TESTED TO THE SATISFACTION OF THE GAS SAFETY BRANCH BEFORE BEING APPROVED FOR OPERATION.

5. VIBRATION ISOLATION AND SEISMIC RESTRAINT

- PROVIDE VIBRATION ISOLATORS AND SEISMIC RESTRAINT SYSTEMS MEETING REQUIREMENTS OF AUTHORITY HAVING JURISDICTION AND COMMENTARY J, EFFECTS OF EARTHQUAKES, IN SUPPLEMENT TO NATIONAL BUILDING CODE OF CANADA WITH REGARD TO SEISMIC FORCES TRANSMITTED TO PIPING/EQUIPMENT FROM BUILDING STRUCTURE DURING AN EARTHQUAKE AT PROJECT LOCATION. PROVIDE SEALED AND SIGNED ENGINEERED DETAILS BY SEISMIC ENGINEER LICENSED IN BRITISH COLUMBIA. FINAL SEISMIC INSPECTION AND SCHEDULE CB TO BE COMPLETED PRIOR TO SUBSTANTIAL PERFORMANCE, AND COPIED TO THE CONSULTANT.
- RESILIENTLY FASTEN ALL MECHANICAL EQUIPMENT TO STRUCTURE INCLUDING (BUT NOT LIMITED TO) HEAT RECOVERY VENTILATORS, FANS, AIR HANDLING UNITS, SPLIT SYSTEM OUTDOOR UNITS, DOMESTIC HOT WATER TANKS.
- STRAPS, ANCHOR BOLTS AND SLEEVES SHALL BE CAPABLE OF WITHSTANDING SEISMIC FORCES IN ALL DIRECTIONS. AIRCRAFT CABLE AND FASTENING MATERIALS SHALL BE CAPABLE OF RESTRAINING 1.5 TIMES CALCULATED SEISMIC FORCES TRANSMITTED THROUGH EQUIPMENT OR PIPING RESTRAINED. WHERE TOP OF INDIVIDUALLY SUSPENDED PIPE OR DUCT IS LESS THAN 300 MM (12") BELOW SUPPORTING STRUCTURE, TRANSVERSE AND LONGITUDINAL BRACING SHALL NOT BE REQUIRED.
- FOR SUSPENDED EQUIPMENT WHERE SWAY WILL EXCEED 100MM (4"), SLACK CABLE RESTRAINTS SHALL BE CONNECTED FROM EACH SUPPORT POINT (MINIMUM FOUR) TO STRUCTURE AT ANGLE OF 45° IN ELEVATION AND AT 90° TO EACH OTHER IN PLAN VIEW.
- PROVIDE MINIMUM TWO STEEL BAND STRAPS ABOVE CENTRE OF GRAVITY ON VERTICAL TANKS ANCHORED TO STRUCTURE.
- BRANCH LINES SHALL NOT BE USED TO RESTRAIN MAIN PIPING.
- WHERE NOMINALLY HORIZONTAL LENGTH OF PIPE OR DUCT EXCEEDS THE MAXIMUM ALLOWABLE TRANSVERSE RESTRAINT SPACING LISTED IN THE RESTRAINT INSTALLATION SCHEDULE, A MINIMUM OF ONE LONGITUDINAL AND ONE TRANSVERSE RESTRAINT SHALL BE PROVIDED.
- WHERE HORIZONTAL PIPE OR DUCT PASSES THROUGH VERTICAL CONCRETE OR CONCRETE BLOCK WALL WITHIN SLEEVE, WALL WILL BE CONSIDERED TRANSVERSE RESTRAINT POINT. CABLES SHALL BE TIGHTENED TO REMOVE SLACK (25mm (1") DEFLECTION UNDER THUMB PRESSURE), BUT SHALL NOT SUPPORT ANY WEIGHT UNDER NORMAL OPERATING CONDITIONS. ALLOWANCES SHALL BE MADE FOR NORMAL EXPANSION AND CONTRACTION OF PIPING SYSTEMS WHERE APPLICABLE.
- PROVIDE TRANSVERSE AND LONGITUDINAL SEISMIC RESTRAINT ON NOMINALLY HORIZONTAL PIPING AS FOLLOWS:
 - NATURAL GAS PIPING:
 - 25mmø AND LARGER: LONGITUDINAL RESTRAINT 12m O.C., TRANSVERSE RESTRAINT 6m O.C.
 - ALL OTHER PIPE SERVICES:
 - 65mmø AND LARGER: LONGITUDINAL RESTRAINT 24m O.C., TRANSVERSE RESTRAINT 12m O.C.

3. INSULATION

- MATERIALS AND APPLICATION TEMPERATURES SHALL BE AS RECOMMENDED BY ADHESIVE, COATING OR SEALER MANUFACTURER. MAKE GOOD SEPARATIONS OF JOINTS OR CRACKING OR INSULATION DUE TO THERMAL MOVEMENT OR POOR WORKMANSHIP. COMPOSITE FIRE AND SMOKE HAZARD RATINGS FOR ADHESIVES, INSULATION, COATINGS AND JACKETS SHALL NOT EXCEED 25 FOR FLAME SPREAD AND 50 FOR SMOKE DEVELOPED OR OTHERWISE AS REQUIRED BY CODE. USE ONLY ULC LISTED OR TESTED COVERING MATERIALS.
- PIPING INSULATION THICKNESS:
 - DOMESTIC COLD WATER, ALL SIZES = 25mm (1") THICK
 - DOMESTIC HOT WATER AND RECIRC. PIPE SIZE < 38mm (1-1/2")ø = 12mm (1/2") THICK
 - DOMESTIC HOT WATER AND RECIRC. PIPE SIZE 38mm (1-1/2")ø AND UP = 12 mm (1/2") THICK
- PIPING INSULATION FINISHES:
 - EXPOSED: BCICA STANDARD "PF2 PREMIUM 2" OR 15 MIL PVC JACKET WITH SOLVENT WELDS (INCLUDES WITHIN MECHANICAL ROOMS)
 - CONCEALED: BCICA STANDARD "PE3 ECONOMY" ALL SERVICE JACKET WITH INTEGRAL VAPOUR BARRIER.
- DUCTWORK AND PLENUMS INSULATION THICKNESS:
 - SUPPLY AIR DUCTS AND PLENUMS ABOVE FINISHED CEILINGS = 25mm (1") THICK (UP TO FLEXIBLE DUCT CONNECTION OR 1.5m (5') FROM DIFFUSER)
 - OUTDOOR AIR DUCT IN HEATED SPACE = 50mm (2") THICK
- DUCTWORK AND PLENUMS INSULATION FINISHES:
 - FACTORY FINISHED WITH NO FURTHER FINISH REQUIRED. RAW EDGE OF INSULATION SHALL NOT BE ALLOWED TO BE EXPOSED IN CEILING PLENUM/SPACE.
 - FOR ANY SERVICES, TEMPERATURES, OR SIZES NOT REFERENCED ABOVE, INSULATION THICKNESS SHALL BE PROVIDED ACCORDING TO ASHRAE/IES STANDARD 90.1-2010 (TABLE 6.8.2 MINIMUM DUCT INSULATION, TABLE 6.8.3 MINIMUM PIPE INSULATION THICKNESS).
 - VAPOUR BARRIER SHALL BE CONTINUOUS FOR ALL "COLD" SERVICES INCLUDING DOMESTIC COLD WATER AND CHILLED WATER. PROVIDE RIGID BLOCKING AND OVERSIZED PIPE HANGERS/SUPPORTS FOR THESE SERVICES. PENETRATIONS THROUGH WALLS SHALL HAVE CONTINUOUS INSULATION.
 - REFRIGERATION PIPING: REFER TO REFRIGERATION SECTION.
- PLUMBING
 - PROVIDE ALL NECESSARY PIPING MATERIAL AND LABOUR FOR THE SYSTEMS AS SHOWN ON THE DRAWINGS. PIPING AND FITTINGS SHALL BE IN ACCORDANCE WITH CURRENT EDITION OR APPLICABLE REVISIONS OF APPLICABLE CODES OR GOVERNING REGULATIONS.
 - PIPE AND FITTINGS
 - SANITARY DRAINAGE WASTE VENT (DWV) BELOW GRADE

- ABS OR DWV PVC
- SANITARY DRAINAGE WASTE VENT (DWV) ABOVE GRADE
 - UP TO 65mm (2-1/2")ø: DWV COPPER WITH WROUGHT OR CAST BRASS FITTINGS AND 50-50 SOLDER
 - ALL SIZES: CAST IRON WITH S.S. MECHANICAL JOINT COUPLINGS
- DOMESTIC WATER ABOVE GRADE
 - ALL SIZES: CERTIFIED TYPE "L" OR "K" HARD COPPER WITH SILVERBRITE 100 LEAD-FREE SOLDER
 - ALL SIZES: VIEGA PRO-PRESS (CONTRACTOR MUST CONFIRM CERTIFICATION BY MANUFACTURER AND MINIMUM 5 YEARS OF EXPERIENCE)
- NATURAL GAS PIPING ABOVE GRADE
 - UP TO 50mm (2"): SCH 40 BLACK STEEL WITH MALLEABLE SCREWED OR BUTT-WELDED JOINTS
 - PIPING OVER 50mm (2")ø SHALL BE WELDED.
- NATURAL GAS PIPING BELOW GRADE SHALL BE "YELLOW JACKET" WITH CATHODIC PROTECTION AND TRACER WIRE.
- CONDENSATE DRAINS
 - FROM COOLING COILS / HRV / ERV: DWV COPPER, IPEX SYSTEM 15 DWV PVC, (COMBUSTIBLE BUILDINGS ONLY: PVC PIPE OR PE TUBE)
 - FROM CONDENSING GAS-FIRED APPLIANCES: SYSTEM 15 DWV PVC, (COMBUSTIBLE BUILDINGS ONLY: PVC PIPE OR PE TUBE)

- PIPE SUPPORTS: ALL "COLD" SERVICES INCLUDING DOMESTIC COLD WATER, IRRIGATION, AND CHILLED WATER PIPING SHALL USE OVERSIZED PIPE HANGERS TO PERMIT CONTINUOUS INSULATION AND VAPOUR BARRIER TO BE MAINTAINED. PROVIDE RIGID INSULATION BLOCKING AND METAL INSULATION SHIELDS BETWEEN PIPE AND HANGER OR RISER CLAMPS.
- VALVES
 - PROVIDE VALVES OF SAME MANUFACTURER THROUGHOUT WHERE POSSIBLE. VALVES ON DOMESTIC COLD, HOT AND RECIRCULATION WATER SERVICE SHALL BE RATED AT 860 kPa (125 PSI)
 - BACK FLOW PREVENTER ASSEMBLIES: PROVIDE ULC LISTED BACKFLOW PREVENTERS AS SHOWN PER DRAWINGS AND/OR AS REQUIRED BY THE LOCAL AUTHORITIES HAVING JURISDICTION.
 - PROVIDE AIR GAP FITTING ON DRAIN FROM REQUIRED FIXTURES.
 - TRAP SEAL PRIMERS: PROVIDE PRIMING DEVICE AND PIPING TO NEAREST ACCEPTABLE FIXTURE SO THAT DEVICE WILL INTRODUCE REGULATED AMOUNT OF WATER INTO TRAP.
- CLEAN-OUTS AND ACCESS COVERS: INSTALL ACCESSIBLE CLEAN-OUTS AT TRAPS, WHERE REQUIRED BY CODE AND AS INDICATED ON DRAWINGS. CLEAN-OUT COVERS SHALL HAVE DEPRESSED CENTRE TO ACCEPT FLOOR FINISH OR BE SELECTED TO SUIT TRAFFIC LOADING REQUIREMENTS, WHERE APPLICABLE. CLEAN-OUTS ON SUB-SURFACE DRAINAGE SYSTEM EXTENSIONS SHALL BE 200W 2-1500 (OR EQUAL) IN UNFINISHED CONCRETE, ENCASED IN 400mm x 400mm x100mm (16" X 16" X 4") THICK CONCRETE PAD IN SOFT LANDSCAPING AND IN FINISHED CONCRETE OR PAVES.
- DRAINS: PROVIDE DRAINS AS SHOWN ON DRAWINGS. DRAINS SHALL BE 75mm (3") UNLESS NOTED OTHERWISE. REVIEW LOCATION OF DRAINS ON ARCHITECTURAL DRAWINGS AND CONFIRM WITH CONSULTANT THAT DRAINS WILL BE AT LOW POINTS ON FLOOR. IMPROPERLY LOCATED DRAINS SHALL BE RELOCATED AT NO COST TO OWNER.
- PLUMBING FIXTURES AND TRIM
 - PROVIDE NEW FIXTURES OF ONE MANUFACTURER AND OF SAME COLOUR, CSA APPROVED, FREE FROM DEFECTS WITH CLEAR, SMOOTH AND BRIGHT FINISH. PROVIDE CSA APPROVED PLUMBING BRASS WITH METAL WORK HEAVY CHROMIUM PLATED AND PRODUCT OF ONE MANUFACTURER.
 - PROVIDE FLEXIBLE ANGLE TYPE HOT AND COLD WATER SUPPLIES WITH SCREWDRIWER STOP, HEXAGONAL REDUCER AND ESCUTCHEON. PROVIDE HEAVY CHROMIUM PLATING WHERE EXPOSED.
 - REVIEW MILLWORK DRAWINGS AND ADVISE CONSULTANT OF DISCREPANCIES BEFORE ORDERING FIXTURES. REVIEW ARCHITECTURAL DRAWINGS TO CHECK PLUMBING FIXTURE SPECIFICATION PRIOR TO PREPARING SHOP DRAWINGS.
 - INSTALL EACH FIXTURE WITH ITS OWN TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING. AT COMPLETION, THOROUGHLY CLEAN PLUMBING FIXTURES AND EQUIPMENT.
 - INSTALL WALL MOUNTED FIXTURES WITH APPROVED WALL CARRIERS, MODEL TO SUIT INSTALLATION, WHERE FIXTURES OR TRIM COME IN CONTACT WITH WALL AND/OR FLOOR, MAKE JOINT WATERTIGHT WITH WHITE SILICONE BASE NON-HARDENING CAULKING MATERIAL, FINISHED IN NEAT MANNER. ATTACH FLOOR MOUNTED WATER CLOSETS TO FLOOR WITH LAG SCREWS. LEAD FLASHING SHALL NOT HOLD CLOSET IN PLACE. PROVIDE FIXED COVER ON HANDICAPPED WATER CLOSET TRAP.

- EXECUTION
 - NO PIPE SHALL BE INSTALLED IN ANY PART OF WALL WHERE TEMPERATURE IS LESS THAN 5°C UNDER WINTER DESIGN CONDITIONS.
 - UPON COMPLETION, WATER PIPING SYSTEMS SHALL BE FLUSHED WITH WATER BEFORE INSTALLATION OF FIXTURES IN ORDER TO REMOVE ANY FOREIGN MATERIAL IN PIPING. PLUMBING FIXTURES AND EQUIPMENT SHALL BE THOROUGHLY CLEANED AND LEFT IN GOOD OPERATING CONDITION.
 - GRADE DRAINAGE LINES MINIMUM 2%, PIPING 100mm (4") AND LARGER MAY BE GRADED AT 1% SLOPE. PLUG OR CAP PIPE AND FITTINGS TO KEEP OUT DEBRIS DURING CONSTRUCTION. LAY PIPE IN PROTECTIVE BED OF SILICONE BASE NON-HARDENING CAULKING MATERIAL (SAND INSIDE BUILDING, CLEAN GRAVEL OUTSIDE OF BUILDING); DO NOT LAY PIPE WHERE WATER IS PRESENT IN TRENCH. PROVIDE 1.50 PSI CONCRETE FOR BURIED LINES WITHIN 45 DEG. OF FOOTING. GRADE VENTS SO CONDENSATION WILL NOT FORM TRAP.
 - WHEREVER DISSIMILAR METALS ARE JOINED OR SUPPORTED, PIPING SHALL HAVE NON-CONDUCTING TYPE CONNECTIONS OR HANGERS TO PREVENT GALVANIC CORROSION. BRASS ADAPTERS AND VALVES ARE ACCEPTABLE FOR PIPE CONNECTIONS.
 - DOMESTIC HOT WATER HEATERS: PROVIDE AS SPECIFIED COMPLETE WITH SHEET METAL DRAIN PAN; ENSURE GOOD ACCESS TO HEATERS FOR SERVICING. PIPE RELIEF OUTLET TO DRAIN.
 - WATER SPECIALTIES: PROVIDE BACK FLOW PREVENTERS AS SPECIFIED AND AS REQUIRED BY AUTHORITIES. PROVIDE TRAP PRIMERS TO ALL FLOOR DRAINS.

9. VENTILATION

- DUCTWORK
 - DUCTWORK SHALL BE GALVANIZED STEEL, FABRICATED IN ACCORDANCE WITH RECENT SMACNA DUCT MANUALS AND ASHRAE HANDBOOKS. DUCTWORK SHALL MEET THE REQUIREMENTS OF NFPA 90A AND 91 AND CONFORM WITH ALL APPLICABLE CODES.
 - PRIOR TO FABRICATION OF DUCTWORK, CHECK ALL CEILING SPACE AND HEIGHTS AND CONFLICTS WITH OTHER TRADES.
 - THE MINIMUM SHEET METAL THICKNESS FOR LOW PRESSURE DUCTS, INCLUDING FITTINGS, ACCESS DOORS AND OTHER ACCESSORIES, SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" - METAL AND FLEXIBLE".
 - DUCT SIZES ON DRAWINGS INDICATE INSIDE CLEAR DIMENSIONS. ADJUST ACTUAL SHEET METAL DIMENSIONS TO ACCOMMODATE ACOUSTICALLY LINED OR INTERNALLY INSULATED DUCTS.
 - ALL TRANSVERSE DUCT JOINTS SHALL BE SEALED (CLASS C SMACNA) WITH DUCT SEALANT. FLEXIBLE DUCTWORK SHALL BE EQUAL TO THERMAFLEX TYPE ST OR E.H. PRICE MK-10.
 - CONNECT DIFFUSERS TO DUCTS WITH 1.5m (5'-0") MAXIMUM LENGTH OF FLEXIBLE DUCT. HOLD IN PLACE WITH CAULKING COMPOUND AND STRAP OR CLAMP. FLEXIBLE DUCTWORK SHALL NOT FORM ANY DIPS, KINKS OR LOOPS.
 - PROVIDE RETURN AIR OPENINGS AND/OR INSULATED SOUND TRAPS WHERE INDICATED.
 - AIR OUTLETS: PROVIDE AIR OUTLETS AS SPECIFIED ON THE DRAWINGS.
 - HEAT/ENTHALPY RECOVERY VENTILATORS (HRV/ERV):
 - ECM BLOWERS RATED FOR CONTINUOUS OPERATION (PSC MOTORS NOT ACCEPTABLE). DRAIN PAN AND CONDENSATE DRAIN CONNECTION, AUTOMATIC FAN CYCLED DEFROST, INTEGRATED BACKDRAFT DAMPERS. UNIT SHALL INCLUDE OPTION FOR FURANCE/FAN-COIL, INTERLOCK AND DUAL-SPEED SWITCH OPERATION.
 - POLY HEAT EXCHANGER CORE SHALL BE WASHABLE AND REMOVABLE WITH 10 YEAR WARRANTY.
 - THE AIR HVAC SYSTEM SHALL OPERATE FOR A MINIMUM OF 48 CONSECUTIVE HOURS PRIOR TO THE DELIVERY OF THE EQUIPMENT.
 - ON COMPLETION OF CONSTRUCTION, INCLUDE REPLACEMENT OF FILTERS FOR ALL HVAC SERVING THE SPACE, INCLUDING THOSE EXISTING (MATCH EXISTING TYPE AND SIZE).
 - DUCT CLEANING: THE CONTRACTOR SHALL PROTECT ALL EQUIPMENT AND OPEN ENDED DUCTS THROUGHOUT CONSTRUCTION. UPON COMPLETION, DUCT CLEANLINESS WILL BE REVIEWED BY CONSULTANT ON SIGHT. IF DUCTWORK CLEANLINESS IS NOT TO THE CONSULTANT'S SATISFACTION, THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ENGAGING A PROFESSIONAL DUCT CLEANING CONTRACTOR (ED IT) TO POWER CLEAN ALL DUCTWORK WITHIN THE SPACE, AT NO ADDITIONAL COST TO THE OWNER.

10. HEAT PUMP AND SPLIT-TYPE DIRECT EXPANSION COOLING SYSTEMS

- GENERAL
 - PROVIDE FOR COMPLETE AND OPERATIONAL SPLIT TYPE HEAT PUMP SYSTEMS AS INDICATED ON DRAWINGS AND EQUIPMENT SCHEDULES. COMPLY WITH APPLICABLE CODES, LAWS AND REGULATIONS. CONFORM TO CSA-B52, CODE FOR MECHANICAL REFRIGERATION AND CSA-B131.5, CODE FOR REFRIGERANT PIPING. MATCH OUTDOOR AND INDOOR UNITS WITH OPERATION CONTROLS, ELECTRONIC DIGITAL CONTROLS AND COMMUNICATION SYSTEM BY ONE MANUFACTURER. DO NOT MIX MANUFACTURERS OF INDOOR AND OUTDOOR UNITS. PROVIDE PROPER OPERATION OF SAFETY CONTROLS AND AUTOMATIC CONTROLS NOT PROVIDED BY OTHERS.
 - WARRANTY: EXTENDED 5-YEAR PARTS-ONLY WARRANTY ON ALL COMPRESSORS.
 - "DESIGN-BUILD" DELIVERY OF REFRIGERANT PIPING SYSTEMS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING EXISTING SITE CONDITIONS, COORDINATING WITH WORK BY OTHER TRADES, AND SIZING PIPING AND PROPOSING ROUTING THROUGH THE EXISTING AND NEW PORTIONS OF THE BUILDING TO SUIT EQUIPMENT LOCATIONS SHOWN ON MECHANICAL PLANS IN ACCORDANCE WITH RECOMMENDATIONS AND LIMITATIONS ADVISED BY THE EQUIPMENT MANUFACTURER.
- PRODUCTS
 - ALL EQUIPMENT SHALL COMPLY WITH THE MINIMUM EFFICIENCY REQUIREMENTS OF ASHRAE 90.1-2010 FOR THE APPLICABLE EQUIPMENT TYPE AND CAPACITY RANGES. PERFORMANCE SHALL BE RATED IN ACCORDANCE WITH ASHRAE STANDARDS WITH RESULTS PUBLISHED FOR PUBLIC REVIEW. ALL EQUIPMENT SHALL BE FACTORY ASSEMBLED, WIRED AND RUN TESTED. INDOOR UNIT AND REFRIGERANT PIPES SHALL BE CHARGED WITH DEHYDRATED NITROGEN GAS BEFORE SHIPMENT FROM THE FACTORY.
 - REFRIGERANT PIPING AND ACCESSORIES
 - PIPING SHALL BE BRIGHT ANNEALED REFRIGERANT GRADE AC9 COPPER, MANUFACTURED TO ASME STANDARDS.
 - MAKE JOINTS WITH BRAZED COPPER-TO-COPPER FITTINGS. DO NO USE CAST FITTINGS.
 - SHUT-OFF VALVES SHALL BE REFRIGERANT GRADE ANGLE, GLOBE AND BALL TYPE.
 - SILVER BRAZED JOINTS USING COPPER-PHOSPHOROUS ALLOY WITH MELTING POINT BETWEEN 1,112°F (600°C) AND 1,472°F (800°C).
 - PROVIDE SAFETY VALVES SIZED TO CODE.
 - PROVIDE SERVICE VALVES ON SUCTION AND DISCHARGE OF COMPRESSORS.
- INDOOR UNITS
 - PROVIDE UNITS SHALL OF THE CONFIGURATION, AIRFLOW CAPACITY, AND STATIC PRESSURE SHOWN ON DRAWINGS.
 - INDOOR COILS SHALL BE NONFERROUS CONSTRUCTION, COPPER SEAMLESS TUBING FORCE FITTED TO ALUMINUM CONTINUOUS FLAT PLATE FINS. TUBE JOINTS SHALL BE BRAZED WITH PHOS-COPPER OR SILVER ALLOY, WITH HYDROPHILIC COATING. COILS SHALL BE FACTORY INSTALLED IN UNIT.
 - CONDENSATE PAN. INCLUDE INTEGRAL CONDENSATE PUMP CAPABLE OF 750MM (29.5") LIFT WHERE NOTED ON DRAWINGS.
 - VARIABLE SPEED DIRECT DRIVE BLOWER MOTOR, STATICALLY AND DYNAMICALLY BALANCED, WITH INHERENT PROTECTION, PERMANENTLY LUBRICATED BEARINGS, MOUNTED FOR QUIET OPERATION. UNIT SHALL BE FITTED WITH LINEAR ELECTRONIC EXPANSION VALVE.
 - INTEGRATED CONTROL SHALL INCLUDE SELF-DIAGNOSTIC FUNCTION, 3-MINUTE TIME DELAY MECHANISM, AND AUTO RESTART FUNCTION.
 - DUCTED UNITS SHALL HAVE CABINET FABRICATED OF GALVANIZED STEEL, INSULATED, WITH REMOVABLE ACCESS PANELS, WITH FACTORY INSTALLED RETURN AIR FILTER ON REAR OF UNIT.
 - DUCTLESS UNITS SHALL HAVE A WHITE FINISH, MANUAL ADJUSTABLE GUIDE VANE, AND MOTORIZED AIR SWEEP LOUVER FOR UNIFORM AIR DISTRIBUTION. REMOVABLE, WASHABLE FILTER, INTEGRAL RETURN AIR SENSOR.
- OUTDOOR UNITS
 - ONE DIRECT DRIVE, VARIABLE SPEED PROPELLER TYPE FAN, RAISED GUARD TO PREVENT CONTACT WITH MOVING PARTS.
 - OUTDOOR UNIT SHALL HAVE A SOUND RATING NO HIGHER THAN 54 DB
 - HIGH PRESSURE SAFETY SWITCH, FUSE, OVER-CURRENT PROTECTION AND CRANK CASE HEATER.
 - CAPABLE OF OPERATING IN OUTSIDE AMBIENT TEMPERATURES BETWEEN -5°C (23°F) TO 46°C (115°F) IN COOLING MODE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS.
 - CAPABLE OF OPERATING IN OUTSIDE AMBIENT TEMPERATURES BETWEEN -15°C (5°F) AND 23°C (75°F) IN HEATING MODE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS.
 - ELECTRONIC EXPANSION VALVES TO CONTROL REFRIGERANT FLOW TO EACH INDOOR UNIT INDEPENDENTLY (MULTI-SPLIT SYSTEMS ONLY)
 - NONFERROUS COIL CONSTRUCTION WITH LANCED OR CORRUGATED ALUMINUM PLATE FINS ON COPPER TUBING, WITH A HYDROPHILIC/PROTECTIVE COATING TO REDUCE CORROSION AND PROMOTE MOISTURE SHEDDING.
 - INVERTER DRIVEN DC COMPRESSOR, TWIN BLDC ROTARY TYPE WITH CRANKCASE HEATER AND THERMAL OVERLOAD PROTECTION, MOUNTED TO AVOID THE TRANSMISSION OF VIBRATION.

10. PRODUCTS

- REFRIGERANT PIPING AND ACCESSORIES
 - PIPING SHALL BE BRIGHT ANNEALED REFRIGERANT GRADE AC9 COPPER, MANUFACTURED TO ASME STANDARDS.
 - MAKE JOINTS WITH BRAZED COPPER-TO-COPPER FITTINGS. DO NO USE CAST FITTINGS.
 - SHUT-OFF VALVES SHALL BE REFRIGERANT GRADE ANGLE, GLOBE AND BALL TYPE.
 - SILVER BRAZED JOINTS USING COPPER-PHOSPHOROUS ALLOY WITH MELTING POINT BETWEEN 1,112°F (600°C) AND 1,472°F (800°C).
 - PROVIDE SAFETY VALVES SIZED TO CODE.
 - PROVIDE SERVICE VALVES ON SUCTION AND DISCHARGE OF COMPRESSORS.
- INDOOR UNITS
 - PROVIDE UNITS SHALL OF THE CONFIGURATION, AIRFLOW CAPACITY, AND STATIC PRESSURE SHOWN ON DRAWINGS.
 - INDOOR COILS SHALL BE NONFERROUS CONSTRUCTION, COPPER SEAMLESS TUBING FORCE FITTED TO ALUMINUM CONTINUOUS FLAT PLATE FINS. TUBE JOINTS SHALL BE BRAZED WITH PHOS-COPPER OR SILVER ALLOY, WITH HYDROPHILIC COATING. COILS SHALL BE FACTORY INSTALLED IN UNIT.
 - CONDENSATE PAN. INCLUDE INTEGRAL CONDENSATE PUMP CAPABLE OF 750MM (29.5") LIFT WHERE NOTED ON DRAWINGS.
 - VARIABLE SPEED DIRECT DRIVE BLOWER MOTOR, STATICALLY AND DYNAMICALLY BALANCED, WITH INHERENT PROTECTION, PERMANENTLY LUBRICATED BEARINGS, MOUNTED FOR QUIET OPERATION. UNIT SHALL BE FITTED WITH LINEAR ELECTRONIC EXPANSION VALVE.
 - INTEGRATED CONTROL SHALL INCLUDE SELF-DIAGNOSTIC FUNCTION, 3-MINUTE TIME DELAY MECHANISM, AND AUTO RESTART FUNCTION.
 - DUCTED UNITS SHALL HAVE CABINET FABRICATED OF GALVANIZED STEEL, INSULATED, WITH REMOVABLE ACCESS PANELS, WITH FACTORY INSTALLED RETURN AIR FILTER ON REAR OF UNIT.
 - DUCTLESS UNITS SHALL HAVE A WHITE FINISH, MANUAL ADJUSTABLE GUIDE VANE, AND MOTORIZED AIR SWEEP LOUVER FOR UNIFORM AIR DISTRIBUTION. REMOVABLE, WASHABLE FILTER, INTEGRAL RETURN AIR SENSOR.
- OUTDOOR UNITS
 - ONE DIRECT DRIVE, VARIABLE SPEED PROPELLER TYPE FAN, RAISED GUARD TO PREVENT CONTACT WITH MOVING PARTS.
 - OUTDOOR UNIT SHALL HAVE A SOUND RATING NO HIGHER THAN 54 DB
 - HIGH PRESSURE SAFETY SWITCH, FUSE, OVER-CURRENT PROTECTION AND CRANK CASE HEATER.
 - CAPABLE OF OPERATING IN OUTSIDE AMBIENT TEMPERATURES BETWEEN -5°C (23°F) TO 46°C (115°F) IN COOLING MODE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS.
 - CAPABLE OF OPERATING IN OUTSIDE AMBIENT TEMPERATURES BETWEEN -15°C (5°F) AND 23°C (75°F) IN HEATING MODE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS.
 - ELECTRONIC EXPANSION VALVES TO CONTROL REFRIGERANT FLOW TO EACH INDOOR UNIT INDEPENDENTLY (MULTI-SPLIT SYSTEMS ONLY)
 - NONFERROUS COIL CONSTRUCTION WITH LANCED OR CORRUGATED ALUMINUM PLATE FINS ON COPPER TUBING, WITH A HYDROPHILIC/PROTECTIVE COATING TO REDUCE CORROSION AND PROMOTE MOISTURE SHEDDING.
 - INVERTER DRIVEN DC COMPRESSOR, TWIN BLDC ROTARY TYPE WITH CRANKCASE HEATER AND THERMAL OVERLOAD PROTECTION, MOUNTED TO AVOID THE TRANSMISSION OF VIBRATION.

5. SHOP DRAWINGS: PROVIDE SUBMITTALS INCLUDING:

- REFRIGERANT PIPING PLANS INCLUDING PROPOSED SIZES AND ROUTING TO SUIT EQUIPMENT LOCATIONS SHOWN ON MECHANICAL PLANS IN ACCORDANCE WITH RECOMMENDATIONS AND LIMITATIONS ADVISED BY THE EQUIPMENT MANUFACTURER. INCLUDE PIPING LENGTH ESTIMATE, AND TOTAL REFRIGERANT CHARGE REQUIRED.
- REFRIGERANT SCHEMATIC.
- FAN PERFORMANCE SHOWING DESIGN OPERATIONS POINT, R/MIN, POWER, ETC.
- DIMENSIONAL DATA INCLUDING WEIGHTS, SERVICE SPACE AND CLEARANCE REQUIREMENTS.
- ELECTRICAL CIRCUIT DIAGRAMS INCLUDING FIELD-WIRED COMPONENTS AND REQUIREMENTS FOR SPECIFIC INSTALLATION.
- ELECTRICAL VOLTAGES, PHASE AND POWER REQUIREMENTS.
- COMPLETE INSTALLATION INSTRUCTIONS.

- POWER REQUIREMENTS.
- CONTROL OPTIONS AND ACCESSORIES, AND CONTROL WIRING DIAGRAM.
- PROGRAMMING INSTRUCTIONS FOR INCLUSION IN MAINTENANCE MANUALS.
- ACOUSTIC SOUND PRESSURE LEVEL DATA FOR OUTDOOR CONDENSING UNIT.
- WARRANTY INFORMATION, INCLUDING CONFIRMATION OF EXTENDED WARRANTY FOR COMPRESSORS.
- TESTING, DEHYDRATION, CHARGING AND START-UP OF REFRIGERANT SYSTEM

10. EXECUTION

- REFRIGERANT PIPING: INSTALLATION SHALL ENSURE COMPRESSOR OIL AND LIQUID REFRIGERANT RETURN TO COMPRESSOR UNDER LOAD WITHOUT HARM TO COMPRESSOR, MINIMUM PRESSURE DROPS, RESTRICTED REFRIGERANT MIGRATION DURING INOPERATIVE CYCLES, ACCESSORIES AND PIPING PREVENT EXCESSIVE COMPRESSOR CYCLING, PIPE ROUTING AND ISOLATION TO AVOID LINE BREAKAGE OR EXCESSIVE VIBRATION AND SOUND TRANSMISSION TO CONDITIONED SPACE, MAINTENANCE OF CLEAN AND DRY SYSTEM.
- PROVIDE SUBMITTAL DRAWINGS OF THE REFRIGERANT PIPE WORK LAYOUT, INCLUDING ALL PIPE SIZING AND POSITIONS OF BOXES, ETC.
- ALL INDOOR PIPING SHALL BE CONCEALED UNLESS OTHERWISE NOTED OR ACCEPTED BY THE CONSULTANT. SPECIFICALLY INDICATE ON SHOP DRAWING PLANS WHERE REFRIGERANT PIPING CANNOT BE CONCEALED, OR IS IMPRACTICAL TO CONCEAL, AND INCLUDE PREMANUFACTURED SHROUD PRODUCTS WHERE PIPING MUST BE EXPOSED.
- ALL PIPE WORK SHALL BE CLEAN, DEHYDRATED AND CHARGED WITH INERT GAS AND SEALED FOR SHIPMENT FROM FACTORY. PIPE WORK SHALL BE STORED IN DRY CONDITIONS; END CAPS MUST BE USED. WHERE SPECIALIST PIPE WORK FITTINGS BRANCHING OFF TO THE INDOOR FAN COIL UNITS ARE NECESSARY, THESE BRANCHES SHALL BE SUPPLIED BY THE UNIT MANUFACTURER; NO OTHER FITTINGS ARE ACCEPTABLE. THE POSITION OF THE JOINTS SHALL BE STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATION. REFRIGERANT PIPE WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. ALL REFRIGERATION PIPE WORK SHALL BE SUPPORTED ON GALVANIZED CABLE TRAY, WIDTH TO ACCOMMODATE PIPE WORK AND CONTROLS CABLE. PIPE WORK SUPPORTS SHALL BE PROVIDED THROUGH ENTIRE LENGTH ACCORDING TO GOOD PRACTICE ON HORIZONTAL PIPE WORK. THE BRACKETING SHALL ALLOW PIPE MOVEMENT DUE TO CONTRACTION AND EXPANSION. VERTICAL PIPE WORK SHALL BE BRACKETED AT NO MORE THAN 40' (1000 MM) CENTRES AND THE HORIZONTAL AT NO MORE THAN 60' (1,500 MM) CENTRES. THE PROVISIONS OF SPECIAL SUPPORTS SHALL BE INCORPORATED IN DROP ROOFS OR PIPE CLIPS IN PIPE WORK SUPPORTS. PROVIDE SUITABLE ISOLATION VALVING AS REQUIRED FOR THE SYSTEM CONFIGURATION TO ENABLE MINIMIZED RAIN/REFILLING OF REFRIGERANT.
- ALL INSTALLED PIPE WORK LENGTHS SHALL BE ACCURATELY MEASURED AND RECORDED ON THE FORM PROVIDED ON THE REMOVABLE ACCESS PANEL WITHIN THE OUTDOOR UNITS AND THE OPERATING AND MAINTENANCE MANUALS (THIS INFORMATION IS REQUIRED FOR THE ACCURATE CALCULATION OF THE REFRIGERANT CHARGE FOR THE SYSTEM).
- THE FINAL REFRIGERANT CHARGING AND THE COMMISSION OF THE SYSTEM SHALL BE CARRIED OUT BY THE SPECIALIST REFRIGERATION SUB-CONTRACTOR AUTHORIZED BY THE MANUFACTURER. CONTRACTOR SHALL PROVIDE A VERIFIED AND SUBMITTED COMMISSIONING REPORT TO THE CONSULTANT VERIFYING THAT THE SYSTEM HAS MET THE REQUIREMENTS FOR PROPER INSTALLATION, AND FUNCTION.
- ALL REFRIGERANT PIPE WORK SHALL BE INSULATED WITH ARMAFLEX CLASS "D" INSULATION, 1/2" (12 MM) THICK, AS MANUFACTURED BY ARMSTRONG INDUSTRIES. BOTH REFRIGERANT LINES FROM THE OUTDOOR UNIT TO INDOOR UNITS SHALL BE INSULATED. THE JOINTS OR HEADERS SHALL BE INSULATED WITH THE PRE-FORMED INSULATION SUPPLIED WITH THESE FITTINGS. INSULATION EXPOSED TO ATMOSPHERIC CONDITIONS SHALL BE PROTECTED WITH TWO COATS OF SPECIAL ARMSTRONG ADHESIVE AND CARE SHOULD BE TAKEN THAT EVERY PART OF THE INSULATION IS SEALED TO MAINTAIN A VAPOUR BARRIER. PROVIDE METAL CLADDING FINISH FOR PIPING EXPOSED OUTDOORS (REFER TO SECTION 23 07 19).
- AT COMPLETION OF INSTALLATION, PRESSURIZE SYSTEM WITH NITROGEN OR REFRIGERANT AND CHECK FOR LEAKS. REPAIR LEAKS AND RE-TEST. DEHYDRATE SYSTEM AND CHARGE WITH REFRIGERANT. START-UP SYSTEM AND CHECK OPERATION.
- IF INSTALLATION IS COMPLETED IN WINTER SEASON, PUMP DOWN REFRIGERANT WHERE APPLICABLE AND REPEAT PROCEDURE AT START OF NEXT COOLING SEASON.
- CARRY OUT CHECK USING DETAILED CHECK SHEETS PROVIDED BY EQUIPMENT MANUFACTURER. INCLUDE COMPLETED AND SIGNED CHECKLISTS IN OPERATING AND MAINTENANCE MANUALS.
- PROVIDE DOCUMENTATION FOR PROPER OPERATION AND MAINTENANCE OF SYSTEM. PROVIDE ON-SITE INSTRUCTION PERIOD FOR OWNER'S PERSONNEL WITH CONSULTANT'S REPRESENTATIVE.

11. CONTROLS

- THERMOSTATS: MOUNT THERMOSTATS AND TEMPERATURE SENSORS AS INDICATED ON DRAWINGS. ALL TEMPERATURE SENSORS AND THERMOSTATS SHALL BE WALL OR COLUMN MOUNTED AT 1.5M (60") ABOVE FLOOR UNLESS SPECIFICALLY NOTED OTHERWISE. COORDINATE FINAL MOUNTING LOCATIONS WITH INTERIOR DESIGNER/ARCHITECT AND CONSULTANT ON SITE BEFORE ROUGH-IN.

12. FIRE PROTECTION

- FIRE EXTINGUISHERS
 - PROVIDE NEW PORTABLE-TYPE ABC FIRE EXTINGUISHERS AS INDICATED ON DRAWINGS, AND TO SUIT THE REQUIREMENTS OF NFPA 10 AND/OR THE LOCAL AUTHORITIES HAVING JURISDICTION AND FIRE DEPARTMENT.

END OF SPECIFICATION



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POWER SYMBOL SCHEDULE				
SYMBOL			DESCRIPTION	NOTES
WALL	ABOVE COUNTER	FLOOR		
			EQUIPMENT CONNECTION AS NOTED ON PLAN	
			EQUIPMENT CONNECTION AS NOTED ON PLAN	
			EQUIPMENT CONNECTION AS NOTED ON PLAN	
			SPECIAL RECEPTACLE R - RANGE RECEPTACLE D - DRYER RECEPTACLE	
			MOTOR CONNECTION (EF-1 DENOTES MOTOR IDENTIFICATION)	
			FUSED DISCONNECT	
			UTILITY METER	
			JUNCTION BOX	
			SURFACE MOUNTED PANEL BOARD	
			RECESSED PANEL BOARD	

FIRE ALARM SYMBOL SCHEDULE		
SYMBOL	DESCRIPTION	NOTES
	SMOKE ALARM LINE VOLTAGE	

ELECTRICAL SERVICE CALCULATION			
ACCESSORY DWELLING UNIT 02			
		AREA	LOAD
BASIC AREA LOAD, FIRST 90 SQM	5,000 W/90m ²	80.0 m ²	5000 W
NEXT 90 SQM OR PORTION THEREOF	1000 W/90m ²	0 m ²	0 W
		<i>Demand Factor, per CEC</i>	
HEATING ALLOWANCE, FIRST 10KW	8,000 W	100%	8000 W
HEATING ALLOWANCE, EXCESS OF 10KW	0 W	75%	0 W
		<i>Demand Factor, per CEC</i>	
RESIDENTIAL LOADS			
DRYER	5,000 W	25%	1250 W
WASHER	1,200 W	25%	300 W
DHWT	5,500 W	25%	1375 W
RANGE	6,000 W	100%	6000 W
NOTE: SERVICE SIZE IS ESTIMATED BASED ON AN ALL-ELECTRIC MECHANICAL SYSTEM AND ELECTRICAL ALLOWANCES FOR THE LARGEST DWELLING UNIT WITHIN THE BUILDING. EXACT SIZE OF ELECTRICAL PANEL AND SERVICE SHALL BE DETERMINED BASED ON CANADIAN ELECTRICAL CODE AT THE TIME OF DESIGN.		TOTAL CURRENT @240V 1Ph	21,925 W 91.35 A
		SERVICE SIZE (125%)	114.19 A

ONE LINE SYMBOL SCHEDULE		
SYMBOL	DESCRIPTION	NOTES
	BREAKER	
	CAPACITOR	
	AUTO CAPACITOR BANK	
	TWO HOUR FIRE RATED CONDUCTORS	
	SHUNT TRIP	
	UTILITY METER	
	INFORMATION METER	
	CONTACTOR	
	FUSE	
	MOTOR STARTER	
	PANEL	
	RECTIFIER	
	DISCONNECT SWITCH	
	TRANSFER SWITCH	
	TRANSFORMER (CT)	
	TRANSFORMER (ΔY)	
	TRANSFORMER (SMALL)	
	BUS	
	DRAW OUT BREAKER	
	GENERATOR	
	UNINTERRUPTED POWER SUPPLY	
	TRANSIENT VOLTAGE SURGE SUPPRESSION	
	FUSIBLE SWITCH	

1	2025-02-14	ISSUED AS PROTOTYPICAL DRAWING
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NO.	DATE	DESCRIPTION
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PROJECT:
CMHC HOUSING DESIGN CATALOGUE

BRITISH COLUMBIA, CANADA
NOT FOR PERMIT OR CONSTRUCTION

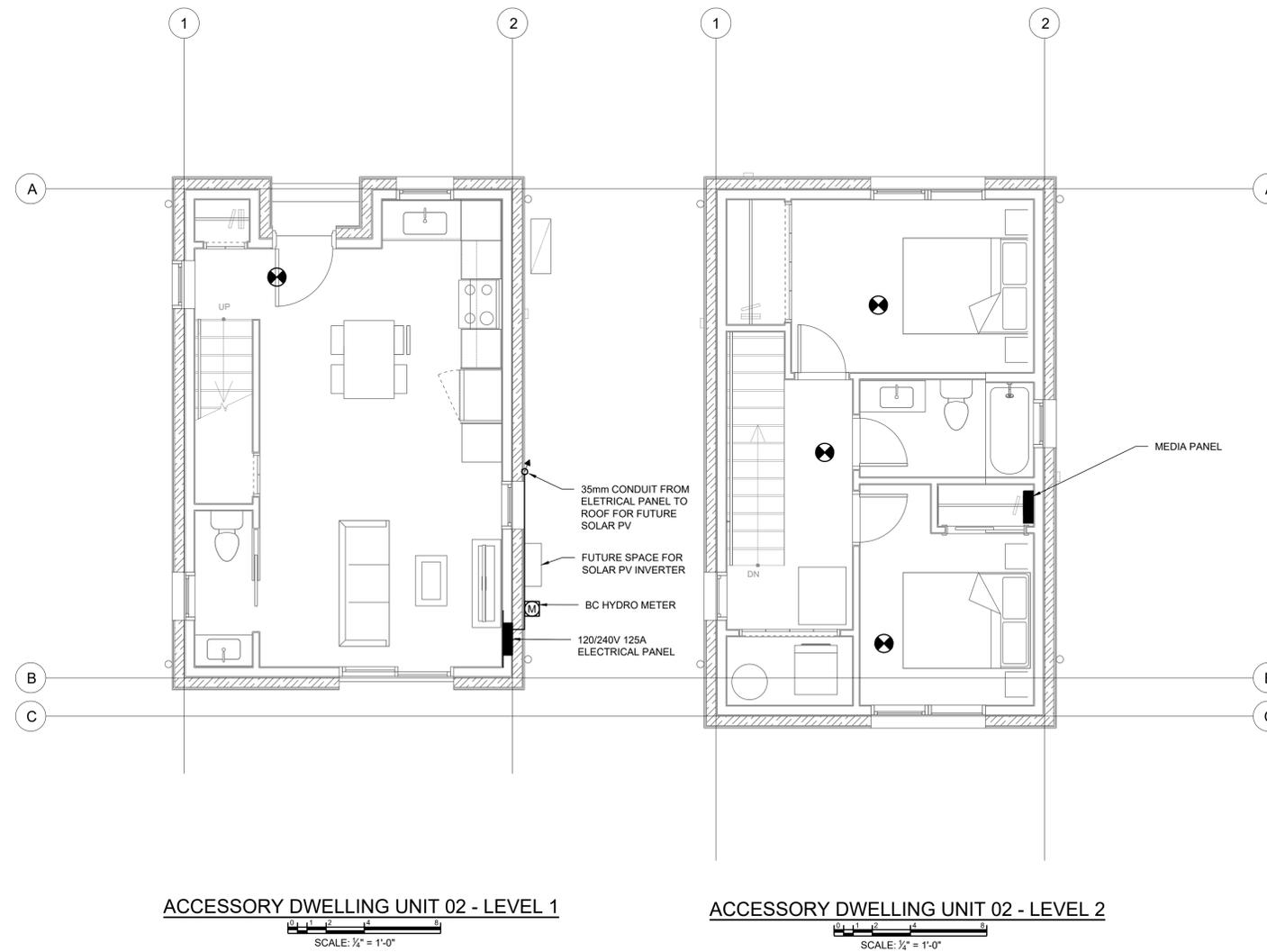
SHEET TITLE:
ELECTRICAL LEGEND, SHEET LIST

BC ACCESSORY DWELLING UNIT 02

PROJECT NO: 241058
 SCALE: AS NOTED

SHEET NO:
E001

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CMHC HOUSING DESIGN CATALOGUE

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SHEET TITLE:
ACCESSORY DWELLING UNIT 02 - ELECTRICAL PLANS

BC ACCESSORY DWELLING UNIT 02

PROJECT NO: 241058
 SCALE: AS NOTED

SHEET NO:
E101

