



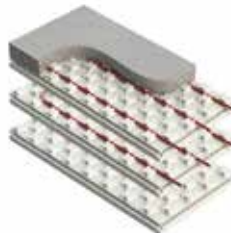
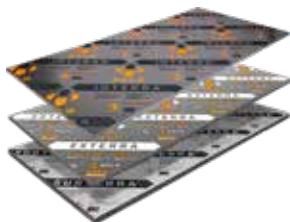
ENGINEERED INSULATION PRODUCTS

PATHWAY TO PERFORMANCE

(CANADA)

**A Building Science-Principled Plan
To Help Builders Profitably Construct Healthy
& Durable Code-Compliant Homes.**

**Additional Best Practices Guidelines Are
Provided To Help Builders Reliably
Achieve Progressively Higher Levels Of
Building Envelope Performance.**



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EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN 1/10 OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN 1/10 OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.), WHERE NON-WOOD-BASED RIGID EXTERIOR INSULATING SHEATHING, OR EXTERIOR INSULATING SHEATHING WITH AN INTEGRAL SHEATHING MEMBRANE IS INSTALLED, A SEPARATE SHEATHING MEMBRANE IS NOT REQUIRED (NBC 9.27.3.4.)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: i) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27., ii) SHEATHING WITH PLYWOOD, OSB, WAFFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, iii) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CMC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (NBC 9.25.2.3. 6) 7). OPTIONAL: GYPSUM OR CONCRETE BOARD

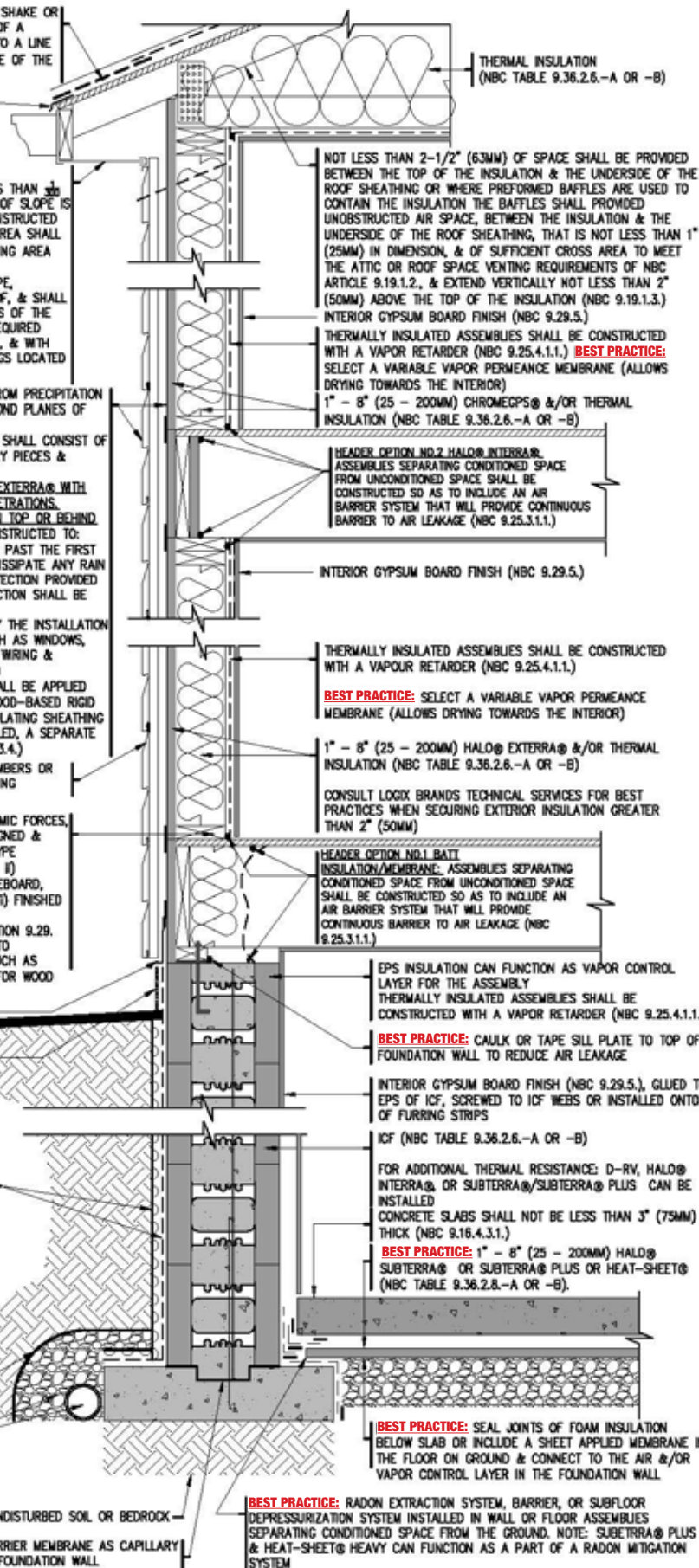
WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.) **BEST PRACTICE:** PEEL & STICK OR LIQUID APPLIED NON-PERMEABLE MEMBRANE APPLIED TO ICF BLOCK PRIOR TO DRAINAGE LAYER

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH

MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A 5" (125MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN $\frac{1}{10}$ OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN $\frac{1}{10}$ OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOR PERMEABLE) APPLIED ON TOP OF EXTERIOR SHEATHING) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.) CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: i) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27., ii) SHEATHING WITH PLYWOOD, OSB, WAFFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, iii) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CWC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC9.15.4.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (NBC 9.25.2.3. 6) 7), OPTIONAL: GYPSUM OR CONCRETE BOARD

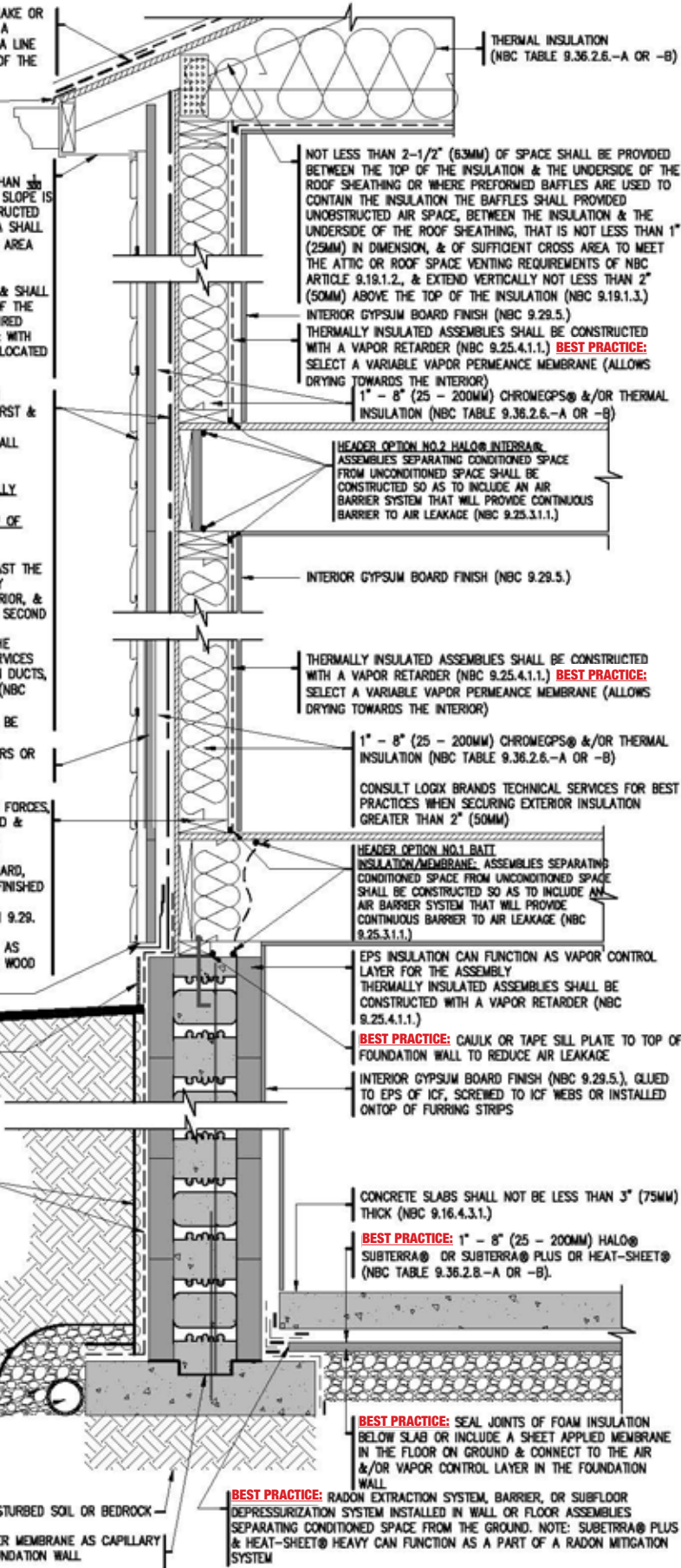
WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.) **BEST PRACTICE:** PEEL & STICK OR LIQUID APPLIED NON-PERMEABLE MEMBRANE APPLIED TO ICF BLOCK PRIOR TO DRAINAGE LAYER

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH

MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A # (4MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PREFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (NBC 9.19.1.3.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)
THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)
1" - 8" (25 - 200MM) CHROMEGPS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

HEADER OPTION NO.2 HALO® INTERBAR: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) CHROMEGPS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)
CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

HEADER OPTION NO.1 BATT INSULATION/MEMBRANE: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

EPS INSULATION CAN FUNCTION AS VAPOR CONTROL LAYER FOR THE ASSEMBLY
THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.)

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE
INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), GLUED TO EPS OF ICF, SCREWED TO ICF WEBS OR INSTALLED ON TOP OF FURRING STRIPS

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)
BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (NBC TABLE 9.36.2.8.-A OR -B).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

BEST PRACTICE: STRUCTURAL FOAM BOARD INSULATION ON TOP OF ICF WALL TO PREVENT THERMAL BRIDGE

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN $\frac{1}{300}$ OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN $\frac{1}{100}$ OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (FRONT FACE OF ICF, ALTERNATIVE DETAIL - MECH. FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ICF BLOCK) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

FLASHING SEALED TO FRONT FACE OF ICF

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARKING (NBC 9.25.2.3. 6) 7), OPTIONAL: GYPSUM OR CONCRETE BOARD

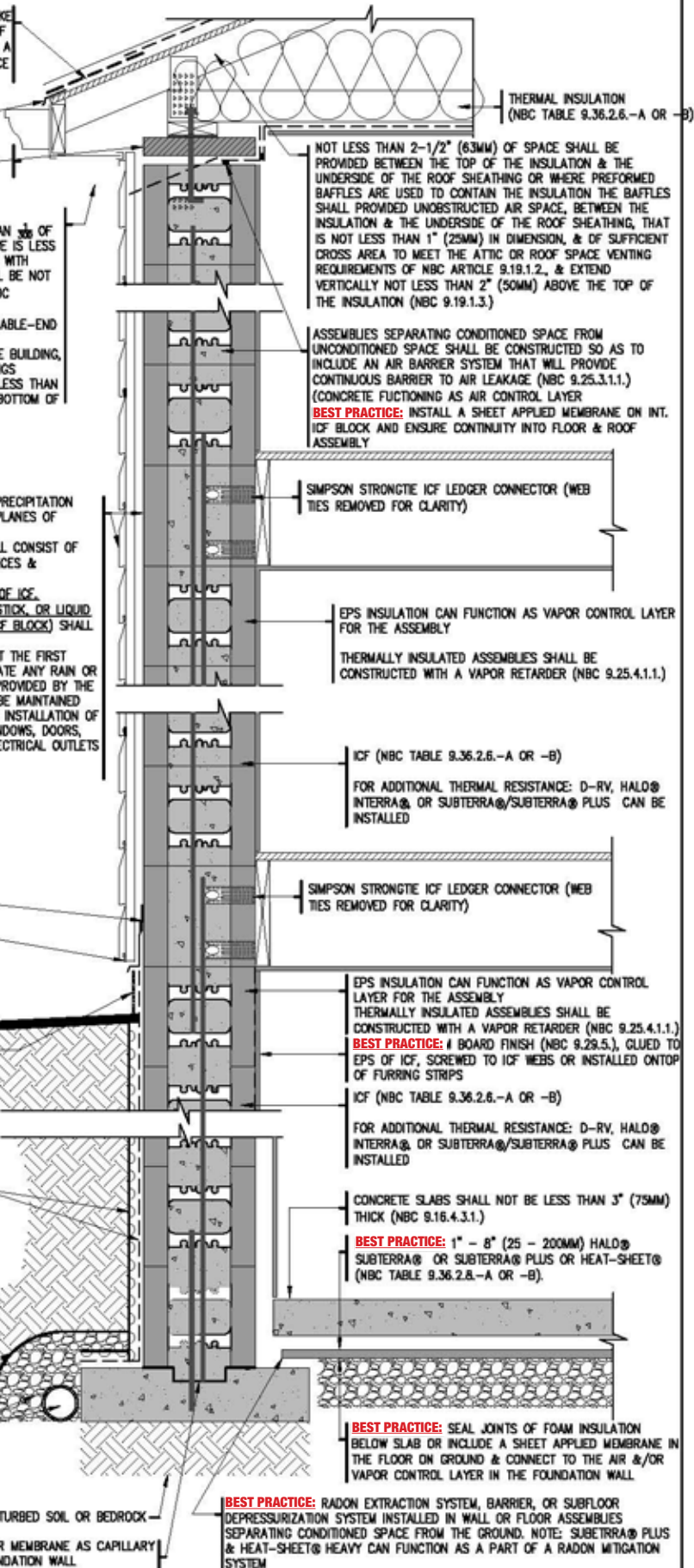
WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.). **BEST PRACTICE:** PEEL & STICK OR LIQUID APPLIED NON-PERMEABLE MEMBRANE APPLIED TO ICF BLOCK PRIOR TO DRAINAGE LAYER

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH

MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A # (4MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PERFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (NBC 9.19.1.3.)

ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.) (CONCRETE FUNCTIONING AS AIR CONTROL LAYER) **BEST PRACTICE:** INSTALL A SHEET APPLIED MEMBRANE ON INT. ICF BLOCK AND ENSURE CONTINUITY INTO FLOOR & ROOF ASSEMBLY

SIMPSON STRONGTIE ICF LEDGER CONNECTOR (WEB TIES REMOVED FOR CLARITY)

EPS INSULATION CAN FUNCTION AS VAPOR CONTROL LAYER FOR THE ASSEMBLY

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.)

ICF (NBC TABLE 9.36.2.6.-A OR -B)

FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED

SIMPSON STRONGTIE ICF LEDGER CONNECTOR (WEB TIES REMOVED FOR CLARITY)

EPS INSULATION CAN FUNCTION AS VAPOR CONTROL LAYER FOR THE ASSEMBLY

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** BOARD FINISH (NBC 9.29.5.), GLUED TO EPS OF ICF, SCREWED TO ICF WEBS OR INSTALLED ONTOP OF FURRING STRIPS

ICF (NBC TABLE 9.36.2.6.-A OR -B)

FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (NBC TABLE 9.36.2.8.-A OR -B).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN $\frac{1}{60}$ OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN $\frac{1}{100}$ OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.), WHERE NON-WOOD-BASED RIGID EXTERIOR INSULATING SHEATHING, OR EXTERIOR INSULATING SHEATHING WITH AN INTEGRAL SHEATHING MEMBRANE IS INSTALLED, A SEPARATE SHEATHING MEMBRANE IS NOT REQUIRED (NBC 9.27.3.4.)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: i) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27., ii) SHEATHING WITH PLYWOOD, OSB, WAFFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, iii) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CWC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.) INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH GYPSUM OR CONCRETE BOARD & ACRYLIC PARGING (NBC 9.25.2.3. 6) 7)

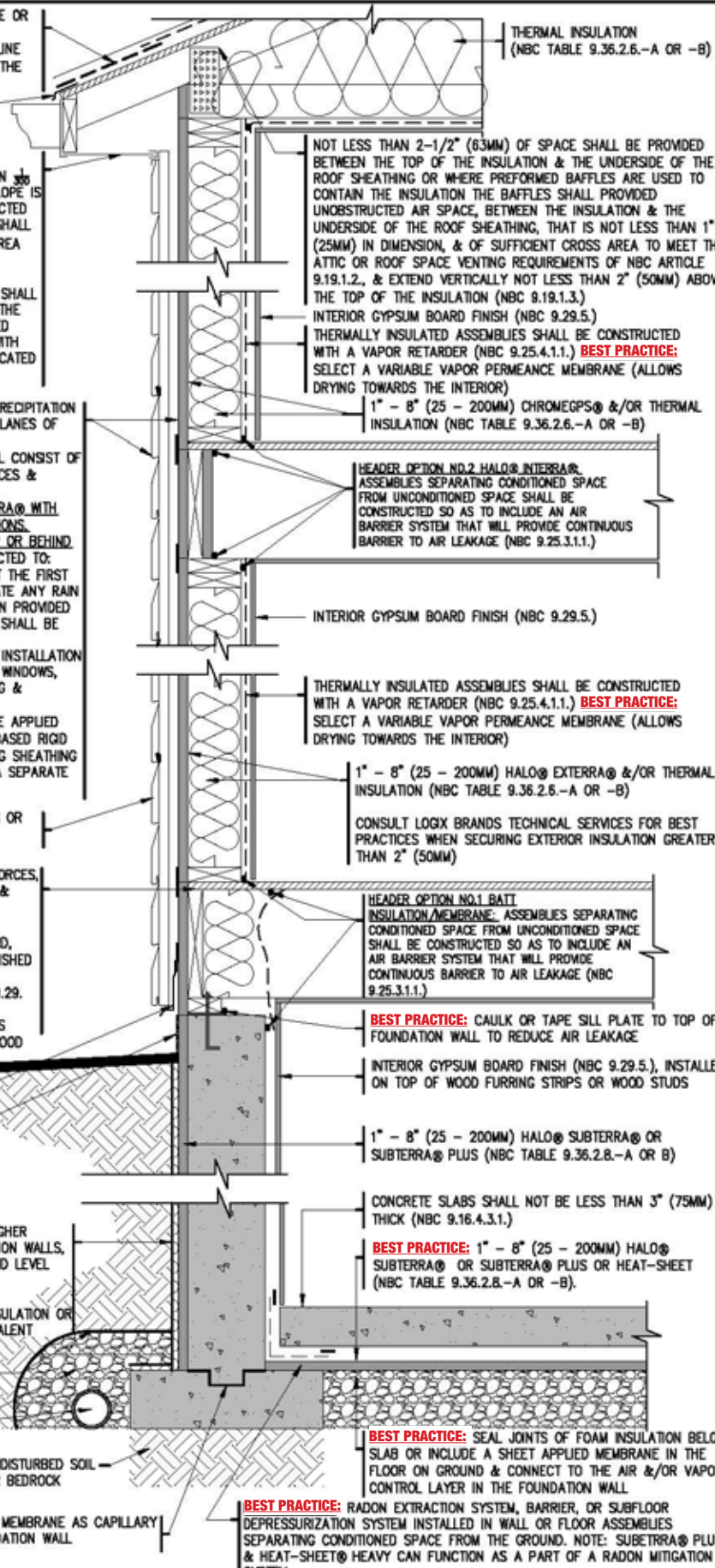
WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.)

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH

MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 5" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A $\frac{3}{8}$ " (4MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



Thermal insulation (NBC TABLE 9.36.2.6.-A OR -B)

NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PREFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (NBC 9.19.1.3.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)
 THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)
 1" - 8" (25 - 200MM) CHROMEGRS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

HEADER OPTION NO.2 HALO® INTERRA® ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)
 THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)
 1" - 8" (25 - 200MM) HALO® EXTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

HEADER OPTION NO.1 BATT INSULATION/MEMBRANE: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), INSTALLED ON TOP OF WOOD FURRING STRIPS OR WOOD STUDS

1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS (NBC TABLE 9.36.2.8.-A OR B)

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET (NBC TABLE 9.36.2.8.-A OR -B)

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM



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Drawing: 4-21	Date: JUNE/2023	Pg: 4
Title: HALO® EXTERRA® ABOVE GRADE WALL ASSEMBLY & HALO® SUBTERRA® OR SUBTERRA® PLUS BELOW GRADE ASSEMBLY		

EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN $\frac{1}{100}$ OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN $\frac{1}{100}$ OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOR PERMEABLE) APPLIED ON TOP OF EXTERIOR SHEATHING) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: i) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27, ii) SHEATHING WITH PLYWOOD, OSB, WAFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, iii) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CWC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH GYPSUM OR CONCRETE BOARD & ACRYLIC PARGING (NBC 9.25.2.3. 6) 7)

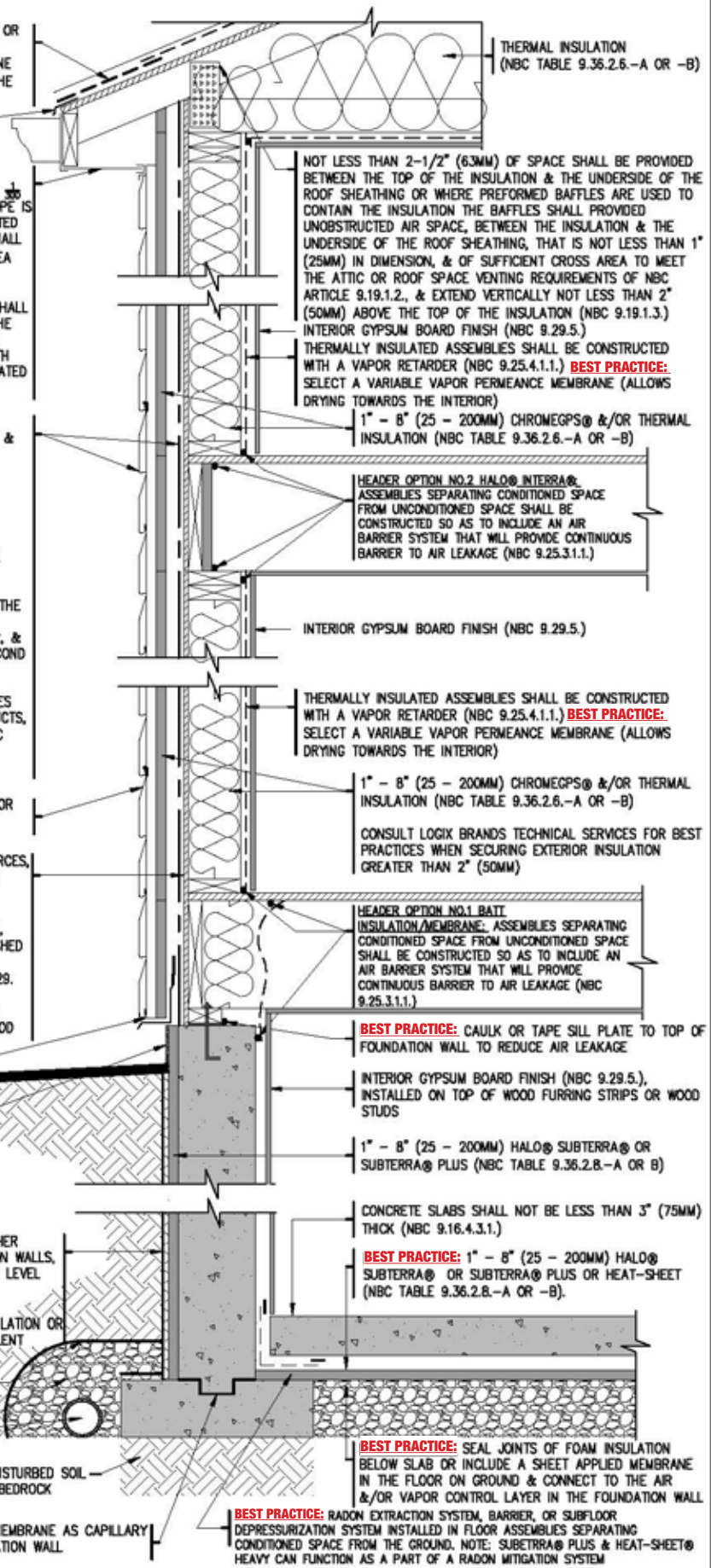
WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPPROOFED (NBC 9.13.2.1.)

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH

MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A $\frac{1}{8}$ " (4MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PREFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (NBC 9.19.1.3.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) CHROMEGPS@ &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

HEADER OPTION NO.2 HALO@INTERRA@ ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) CHROMEGPS@ &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

HEADER OPTION NO.1 BAIT INSULATION/MEMBRANE: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), INSTALLED ON TOP OF WOOD FURRING STRIPS OR WOOD STUDS

1" - 8" (25 - 200MM) HALO@ SUBTERRA@ OR SUBTERRA@ PLUS (NBC TABLE 9.36.2.8.-A OR B)

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO@ SUBTERRA@ OR SUBTERRA@ PLUS OR HEAT-SHEET (NBC TABLE 9.36.2.8.-A OR -B).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA@ PLUS & HEAT-SHEET@ HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM



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Drawing:	Date:	Pg:
5-21	JUNE/2023	5
Title: CHROMEGPS ABOVE GRADE WALL ASSEMBLY & HALO@ SUBTERRA@ OR SUBTERRA@ PLUS BELOW GRADE ASSEMBLY		

EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN 1/100 OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN 1/50 OF THE INSULATED CEILING AREA (NBC 9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS, ALTERNATIVE DETAIL MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.), WHERE NON-WOOD-BASED RIGID EXTERIOR INSULATING SHEATHING, OR EXTERIOR INSULATING SHEATHING WITH AN INTEGRAL SHEATHING MEMBRANE IS INSTALLED, A SEPARATE SHEATHING MEMBRANE IS NOT REQUIRED (NBC 9.27.3.4.)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: i) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27., ii) SHEATHING WITH PLYWOOD, OSB, WAFFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, iii) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CWC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

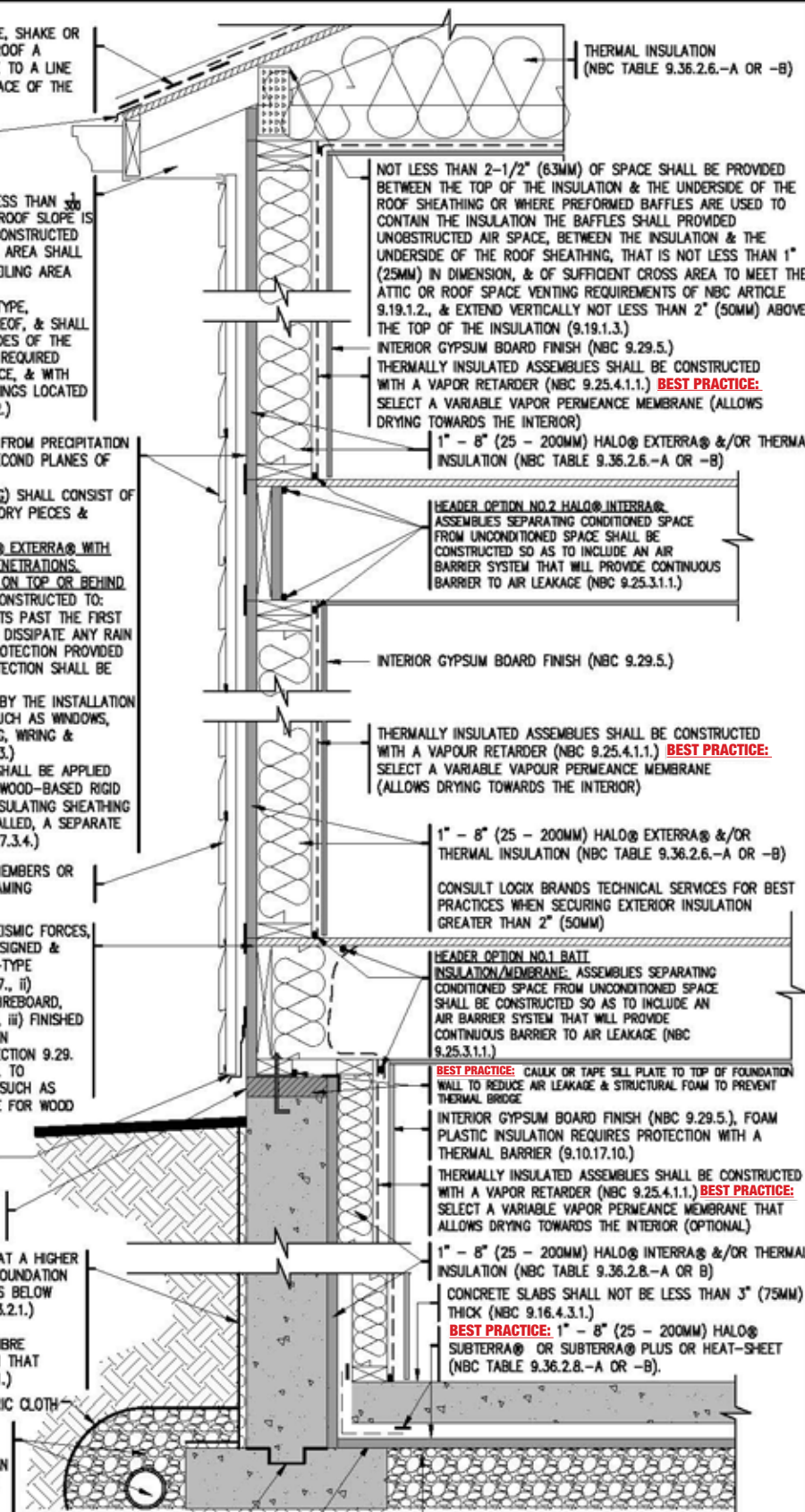
EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.)

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A 1/2" (4MM) SIEVE (NBC 9.14.3.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PREFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (9.19.1.3.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) HALO® EXTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

HEADER OPTION NO.2 HALO® INTERRA® ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOUR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOUR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) HALO® EXTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

HEADER OPTION NO.1 BAIT INSULATION/MEMBRANE: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE & STRUCTURAL FOAM TO PREVENT THERMAL BRIDGE

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), FOAM PLASTIC INSULATION REQUIRES PROTECTION WITH A THERMAL BARRIER (9.10.17.10.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE THAT ALLOWS DRYING TOWARDS THE INTERIOR (OPTIONAL)

1" - 8" (25 - 200MM) HALO® INTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.8.-A OR B)

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET (NBC TABLE 9.36.2.8.-A OR -B)

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM



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Drawing: 6-21	Date: JUNE/2023	Pg: 6
Title: HALO® EXTERRA® ABOVE GRADE WALL ASSEMBLY & HALO® INTERRA® & HALO® SUBTERRA® OR SUBTERRA® PLUS BELOW GRADE ASSEMBLY		

EAVE PROTECTION SHALL BE PROVIDED ON SHINGLE, SHAKE OR TILE ROOFS, EXTENDING FROM THE EDGE OF THE ROOF A MINIMUM OF 36" (900MM) UP TO THE ROOF SLOPE TO A LINE NOT LESS THAN 12" (300MM) INSIDE THE INNER FACE OF THE EXTERIOR WALL (NBC 9.26.5.1.)

BEST PRACTICE: DIP EDGE AT EAVE OF ROOF

ROOF VENTING REQUIREMENTS

- UNOBSTRUCTED VENT AREA SHALL NOT BE LESS THAN $\frac{1}{100}$ OF THE INSULATED CEILING AREA OR WHERE ROOF SLOPE IS LESS THAN 1 IN 6 OR IN ROOFS THAT ARE CONSTRUCTED WITH ROOF JOISTS, THE UNOBSTRUCTED VENT AREA SHALL BE NOT LESS THAN $\frac{1}{150}$ OF THE INSULATED CEILING AREA (9.19.1.1.)
- REQUIRED VENTS MAY BE ROOF TYPE, EAVE TYPE, GABLE-END TYPE OF ANY COMBINATION THEREOF, & SHALL BE DISTRIBUTED: UNIFORMLY ON OPPOSITE SIDES OF THE BUILDING, WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE TOP OF THE SPACE, & WITH NOT LESS THAN 25% OF THE REQUIRED OPENINGS LOCATED AT THE BOTTOM OF THE SPACE (NBC 9.19.1.2.)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOR PERMEABLE) APPLIED ON TOP OF EXTERIOR SHEATHING) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISAPPEAR ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

AT LEAST ONE LAYER OF SHEATHING MEMBRANE SHALL BE APPLIED BENEATH CLADDING (NBC 9.27.3.3.)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

REQUIREMENTS FOR LOW TO MODERATE WIND & SEISMIC FORCES, BRACING TO RESIST LATERAL LOADS SHALL BE DESIGNED & CONSTRUCTED AS FOLLOWS: 1) CLAD WITH PANEL-TYPE CLADDING IN ACCORDANCE WITH NBC SECTION 9.27, 2) SHEATHING WITH PLYWOOD, OSB, WAFFERBOARD, FIBREBOARD, GYPSUM BOARD OR DIAGONAL LUMBER SHEATHING, 3) FINISHED ON THE INTERIOR WITH A PANEL-TYPE MATERIAL IN ACCORDANCE WITH THE REQUIREMENTS OF NBC SECTION 9.29. OR IN ACCORDANCE WITH NBC ARTICLES 9.23.13.4. TO 9.23.13.7., PART 4, GOOD ENGINEERING PRACTICE SUCH AS THAT PROVIDED IN CWC 2014, "ENGINEERING GUIDE FOR WOOD FRAME CONSTRUCTION" (NBC 9.23.13.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

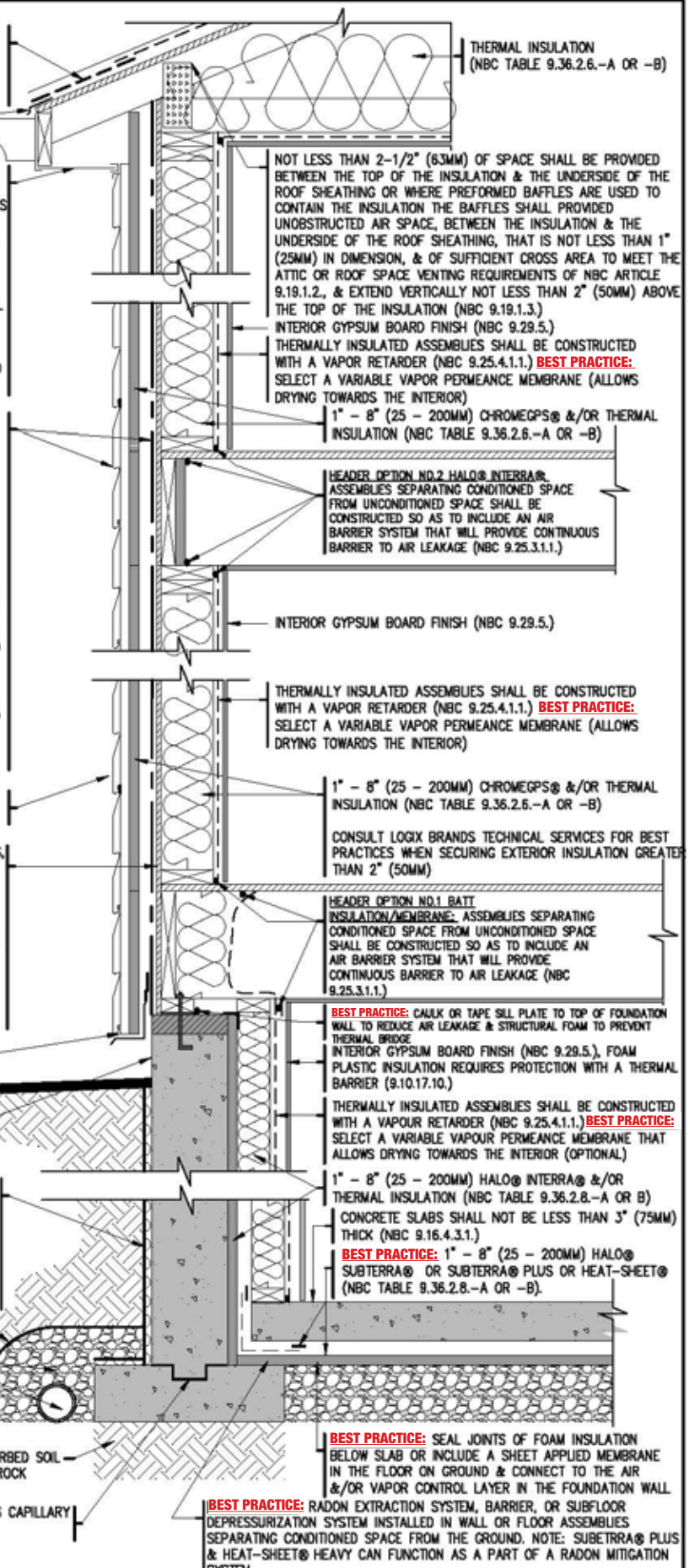
EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

WHERE THE EXTERIOR FINISHED GROUND LEVEL IS AT A HIGHER ELEVATION THAN THE GROUND LEVEL INSIDE THE FOUNDATION WALLS, EXTERIOR SURFACES OF FOUNDATION WALLS BELOW GROUND LEVEL SHALL BE DAMPROOFED (NBC 9.13.2.1.)

DRAINAGE LAYER SHALL BE INSTALLED: MINERAL FIBRE INSULATION OR GRANULAR MATERIAL OR A SYSTEM THAT PROVIDES EQUIVALENT PERFORMANCE (NBC 9.14.2.1.)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A $\frac{3}{8}$ " (4MM) SIEVE (NBC 9.14.3.4.)

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN FOOTING & FOUNDATION WALL



THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

NOT LESS THAN 2-1/2" (63MM) OF SPACE SHALL BE PROVIDED BETWEEN THE TOP OF THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING OR WHERE PREFORMED BAFFLES ARE USED TO CONTAIN THE INSULATION THE BAFFLES SHALL PROVIDED UNOBSTRUCTED AIR SPACE, BETWEEN THE INSULATION & THE UNDERSIDE OF THE ROOF SHEATHING, THAT IS NOT LESS THAN 1" (25MM) IN DIMENSION, & OF SUFFICIENT CROSS AREA TO MEET THE ATTIC OR ROOF SPACE VENTING REQUIREMENTS OF NBC ARTICLE 9.19.1.2., & EXTEND VERTICALLY NOT LESS THAN 2" (50MM) ABOVE THE TOP OF THE INSULATION (NBC 9.19.1.3.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)
THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) CHROMEGPS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)
HEADER OPTION NO.2 HALO®/INTERRA®: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)
THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) CHROMEGPS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)
CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

HEADER OPTION NO.1 BATT INSULATION/MEMBRANE: ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

BEST PRACTICE: CAULK OR TAPE SILL PLATE TO TOP OF FOUNDATION WALL TO REDUCE AIR LEAKAGE & STRUCTURAL FOAM TO PREVENT THERMAL BRIDGE
INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), FOAM PLASTIC INSULATION REQUIRES PROTECTION WITH A THERMAL BARRIER (9.10.17.10.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOUR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOUR PERMEANCE MEMBRANE THAT ALLOWS DRYING TOWARDS THE INTERIOR (OPTIONAL)
1" - 8" (25 - 200MM) HALO®/INTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.8.-A OR B)

CONCRETE SLABS SHALL NOT BE LESS THAN 3" (75MM) THICK (NBC 9.16.4.3.1.)
BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (NBC TABLE 9.36.2.8.-A OR -B).

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR &/OR VAPOR CONTROL LAYER IN THE FOUNDATION WALL

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN WALL OR FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

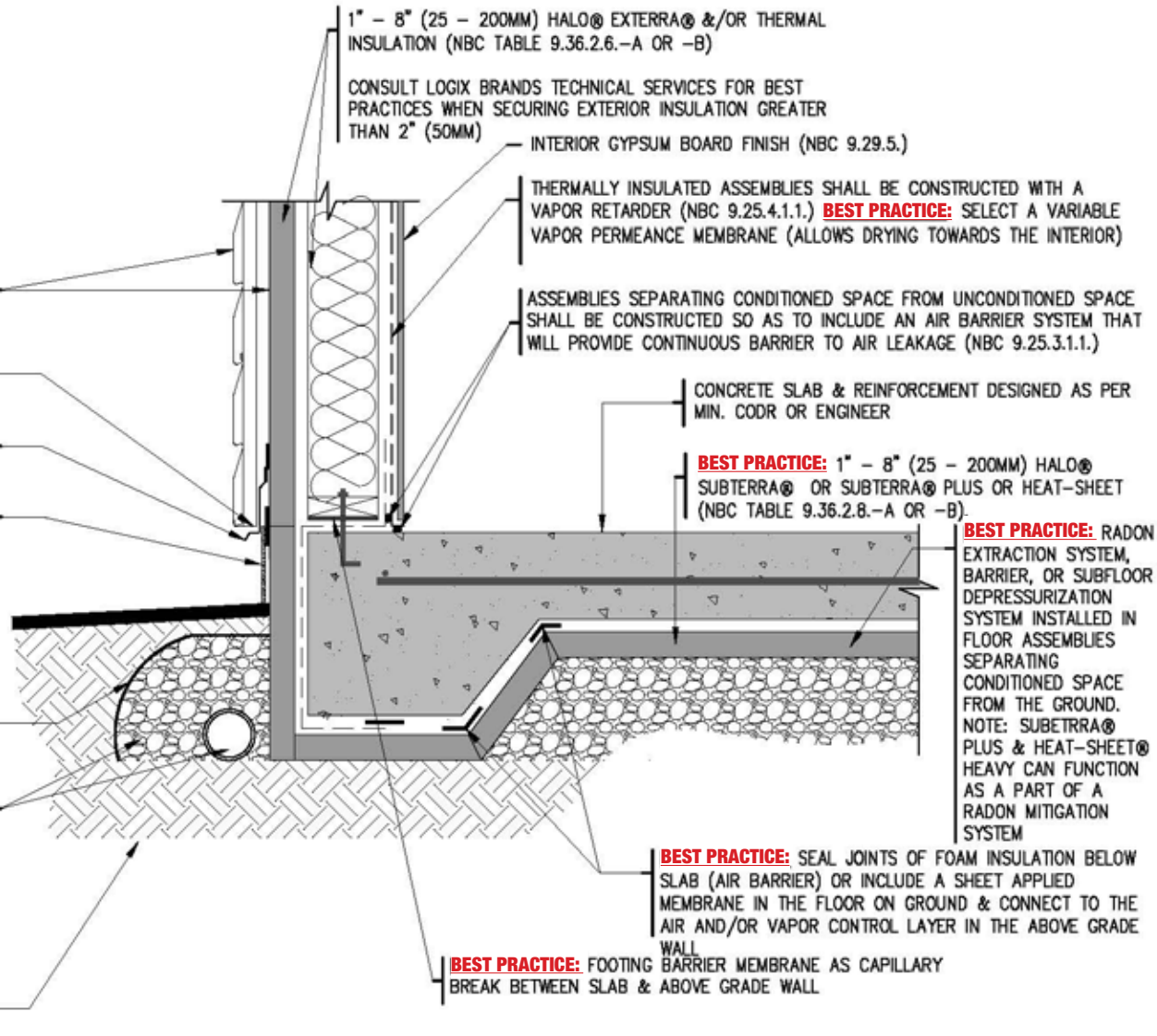
- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS. ALTERNATIVE DETAIL (MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE
FLASHING TAPED OR CAULKED TO FRONT FACE OF FOAM INSULATION
EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH GYPSUM OR CONCRETE BOARD & ACRYLIC PARGING (NBC 9.25.2.3. 6) 7)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH
MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A 3/8" (4MM) SIEVE (NBC 9.14.3.3.4.)

UNDISTURBED SOIL OR BEDROCK



1" - 8" (25 - 200MM) HALO® EXTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

CONCRETE SLAB & REINFORCEMENT DESIGNED AS PER MIN. CODR OR ENGINEER

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET (NBC TABLE 9.36.2.8.-A OR -B)

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLIES SEPARATING CONDITIONED SPACE FROM THE GROUND.
NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB (AIR BARRIER) OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR AND/OR VAPOR CONTROL LAYER IN THE ABOVE GRADE WALL

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN SLAB & ABOVE GRADE WALL

4. BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE HALO® EXTERRA®
 - NOTE: ALTERNATIVE DETAIL: MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OR INBEHIND HALO® EXTERRA®
- AIR: INTERIOR MEMBRANE CONNECTED TO CONCRETE FLOOR
 - NOTE: BEST PRACTICE APPLY SHEET APPLIED MEMBRANE IN FLOOR SLAB & CONNECT TO INTERIOR WALL MEMBRANE
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & HALO® EXTERRA® & INSULATION BETWEEN STUDS
- VAPOR: INSULATION BELOW SLAB & INTERIOR MEMBRANE ABOVE GRADE WALL
 - NOTE: BEST PRACTICE SELECT VARIABLE VAPOR PERMEABLE MEMBRANE FOR ABOVE GRADE WALL ASSEMBLY (ALLOWS DRYING TOWARDS INTERIOR)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOUR PERMEABLE), BEHIND OR IN FRONT OF RIGID INSULATION)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

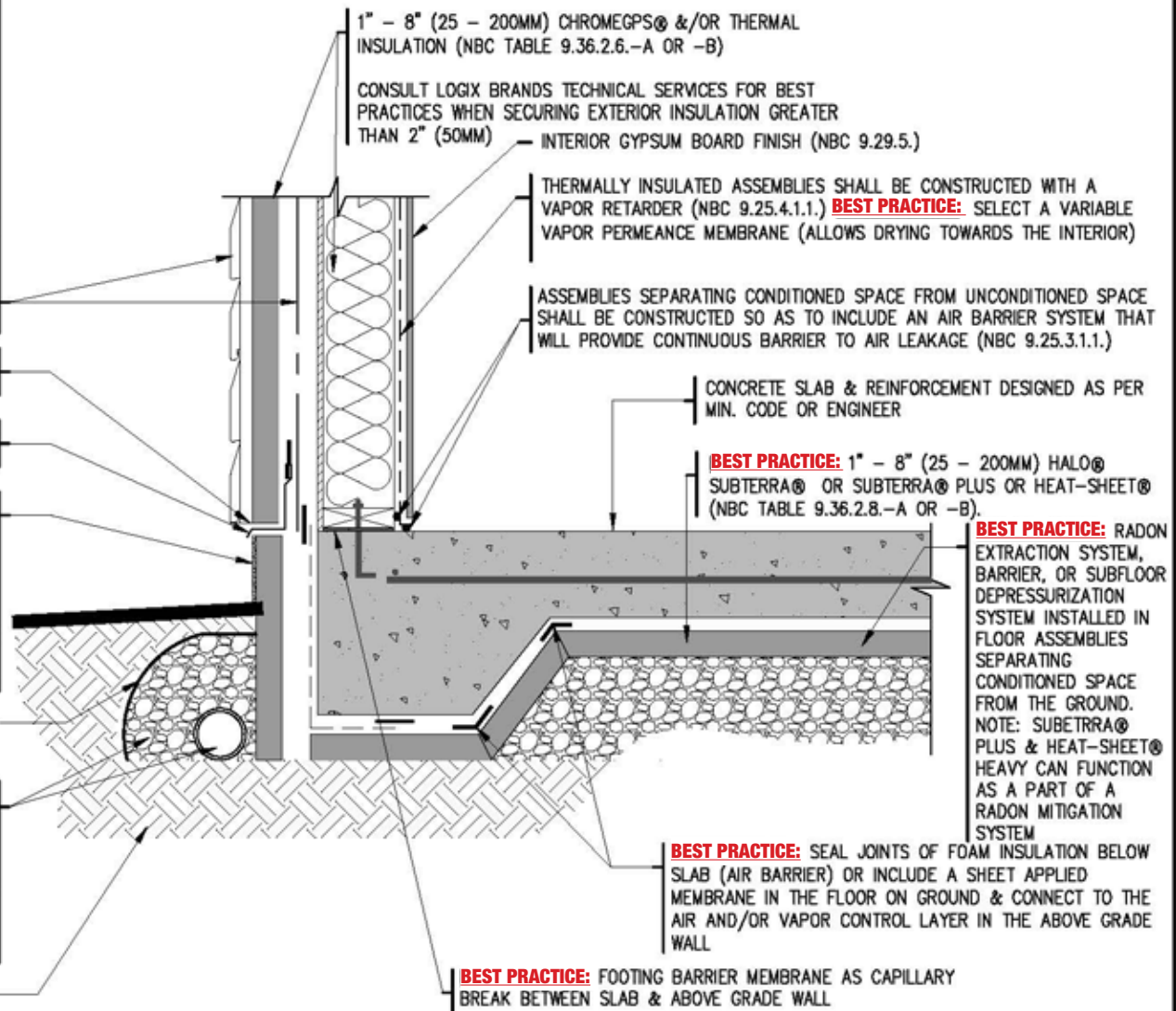
FLASHING TAPED OR CAULKED TO FRONT FACE OF MEMBRANE

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH GYPSUM OR CONCRETE BOARD & ACRYLIC PARGING (NBC 9.25.2.3. 6) 7)

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH
MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A $\frac{1}{8}$ " (4MM) SIEVE (NBC 9.14.3.3.4.)

UNDISTURBED SOIL OR BEDROCK



4 BUILDING SCIENCE CONTROL LAYERS

- WATER: MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE ON TOP OF EXTERIOR SHEATHING
 - NOTE: MEMBRANE COULD FUNCTION AS AIR CONTROL LAYER & INTERIOR MEMBRANE AS THE AIR CONTROL LAYER COULD BE OMITTED (STILL REQUIRED VAPOR CONTROL LAYER ON WARM SIDE OF ASSEMBLY)
- AIR: INTERIOR MEMBRANE CONNECTED TO CONCRETE FLOOR
 - NOTE: BEST PRACTICE APPLY SHEET APPLIED MEMBRANE IN FLOOR SLAB & CONNECT TO INTERIOR WALL MEMBRANE
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & CHROMEGPS® & INSULATION BETWEEN STUDS
- VAPOR: INSULATION BELOW SLAB & INTERIOR BELOW GRADE WALL MEMBRANE OR IF INTERIOR MEMBRANE OMITTED WHEN AIR CONTROL LAYER IS PLACED ON THE EXTERIOR OF THE BUILDING ENCLOSURE A VAPOR RETARDING PAINT CAN BE APPLIED TO THE GYPSUM BOARD
 - NOTE: BEST PRACTICE SELECT VARIABLE VAPOR PERMEABLE MEMBRANE FOR ABOVE GRADE WALL ASSEMBLY (ALLOWS TOWARDS INTERIOR)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (FRONT FACE OF ICF, ALTERNATIVE DETAIL - MECH. FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ICF BLOCK) SHALL BE DESIGNED & CONSTRUCTED TO:
 - INTERCEPT ALL RAIN & SNOW THAT GETS PAST THE FIRST PLANE OF PROTECTION, & EFFECTIVELY DISSIPATE ANY RAIN OR SNOW TO THE EXTERIOR, & THE PROTECTION PROVIDED BY THE FIRST & SECOND PLANES OF PROTECTION SHALL BE MAINTAINED
 - AT WALL PENETRATIONS CREATED BY THE INSTALLATION OF COMPONENTS AND SERVICES SUCH AS WINDOWS, DOORS, VENTILATION DUCTS, PIPING, WIRING & ELECTRICAL OUTLETS (NBC 9.27.2.3.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

FLASHING TAPED OR CAULKED TO FRONT FACE OF ICF

EXTERIOR FOUNDATION WALLS SHALL EXTEND NOT LESS THAN 6" (150MM) ABOVE FINISHED GROUND LEVEL (NBC 9.15.4.6.)

INSULATION ABOVE GRADE CANNOT BE LEFT EXPOSED COVER WITH ACRYLIC PARGING (NBC 9.25.2.3. 6) 7), OPTIONAL GYPSUM OR CONCRETE BOARD

BEST PRACTICE: COVER GRANULAR FILL WITH FABRIC CLOTH MIN. 4" (100MM) DIAM. DRAIN TILE OR PIPE (NBC 9.14.3.2.) COVERED WITH NOT LESS THAN 6" (150MM) CRUSHED STONE OR OTHER COARSE CLEAN GRANULAR MATERIAL CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A $\frac{1}{8}$ " (4MM) SIEVE (NBC 9.14.3.3.4.)

UNDISTURBED SOIL OR BEDROCK

EPS INSULATION FUNCTIONS AS VAPOR CONTROL LAYER FOR THE ASSEMBLY, THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOUR RETARDER (NBC 9.25.4.1.1.)

INTERIOR GYPSUM BOARD FINISH (NBC 9.29.5.), GLUED TO EPS OF ICF, SCREWED TO ICF WEBS OR INSTALLED ONTOP OF FURRING STRIPS

ICF (NBC TABLE 9.36.2.6.-A OR -B), FOR ADDITIONAL THERMAL RESISTANCE: D-RV, HALO® INTERRA®, OR SUBTERRA®/SUBTERRA® PLUS CAN BE INSTALLED

CONCRETE SLAB & REINFORCEMENT DESIGNED AS PER MIN. BUILDING CODE OR ENGINEER

BEST PRACTICE: 1" - 8" (25 - 200MM) HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® (NBC TABLE 9.36.2.8.-A OR -B).

BEST PRACTICE: RADON EXTRACTION SYSTEM, BARRIER, OR SUBFLOOR DEPRESSURIZATION SYSTEM INSTALLED IN FLOOR ASSEMBLY SEPARATING CONDITIONED SPACE FROM THE GROUND. NOTE: SUBTERRA® PLUS & HEAT-SHEET® HEAVY CAN FUNCTION AS A PART OF A RADON MITIGATION SYSTEM

BEST PRACTICE: SEAL JOINTS OF FOAM INSULATION BELOW SLAB (AIR BARRIER) OR INCLUDE A SHEET APPLIED MEMBRANE IN THE FLOOR ON GROUND & CONNECT TO THE AIR AND/OR VAPOR CONTROL LAYER IN THE ABOVE GRADE WALL

BEST PRACTICE: FOOTING BARRIER MEMBRANE AS CAPILLARY BREAK BETWEEN SLAB & ABOVE GRADE WALL

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE OF ICF BLOCK
 - NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ICF BLOCK
- AIR: CONCRETE IN ICF TO CONCRETE IN FLOOR SLAB
 - NOTE: BEST PRACTICE TAPE JOINTS OF INSULATION BELOW SLAB AND CONNECT TO CONCRETE IN ICF BLOCK WITH SHEET APPLIED MEMBRANE
- THERMAL: HALO® SUBTERRA® OR SUBTERRA® PLUS OR HEAT-SHEET® BELOW SLAB & INTERIOR & EXTERIOR EPS INSULATION OF ICF BLOCK
- VAPOR: INSULATION BELOW SLAB & INTERIOR EPS INSULATION OF ICF BLOCK

BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

HEADER FLASHING MIN. 6% SLOPE TAPED OR CAULKED TO EXTERIOR WATER CONTROL LAYER NBC 9.27.3.8.(4)

BEST PRACTICE: INCLUDE END DAMS

TAPE OR CAULK WINDOW FLANGE TO ROUGH OPENING AT TOP HORIZONTAL & BOTH VERTICAL FLANGES (LEAVE BOTTOM HORIZONTAL OPEN FOR DRAINAGE)

WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING OR WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING

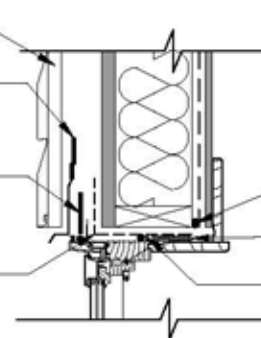
ENSURE WINDOW PANE IN-LINE WITH INSULATION IN WALL ASSEMBLY (OFFSET IN DRAWING)

CAULK WINDOW FRAME TO CLADDING NBC 9.27.3.8.(4)

SHIM WINDOW AS & WHERE REQUIRED BY THE WINDOW MANUFACTURER

SHIM BOTTOM FLANGE TO ALLOW DRAINAGE & DO NOT SEAL BOTTOM FLANGE TO ROUGH OPENING MEMBRANE (OPEN FOR DRAINAGE)

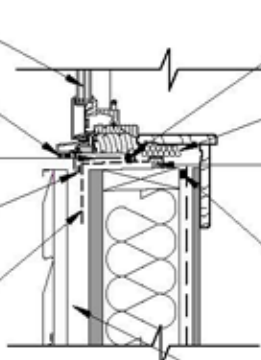
WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING OR WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING



INTERIOR VAPOR/AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)



BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BEST PRACTICE: BACK DAM & SLOPED SILL (MIN. 1%) TOWARDS EXTERIOR

INTERIOR VAPOR/AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE HALO® EXTERRA®
- • NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OR INBEHIND HALO® EXTERRA®
- AIR: INTERIOR MEMBRANE CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INTERIOR AIR SEAL)
- • NOTE: WINDOW MUST CONNECT TO INTERIOR AIR CONTROL LAYER IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER
- THERMAL: HALO® EXTERRA® & INSULATION BETWEEN STUDS
- VAPOR: INTERIOR MEMBRANE

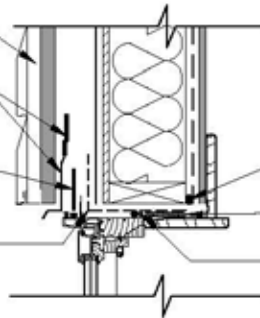
BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

HEADER FLASHING MIN. 6% SLOPE TAPED OR CAULKED TO EXTERIOR WATER CONTROL LAYER NBC 9.27.3.8.(4)

BEST PRACTICE: INCLUDE END DAMS

TAPE OR CAULK WINDOW FLANGE TO ROUGH OPENING AT TOP HORIZONTAL & BOTH VERTICAL FLANGES (LEAVE BOTTOM HORIZONTAL OPEN FOR DRAINAGE)

WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT SHEATHING OR WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING



INTERIOR VAPOR/AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

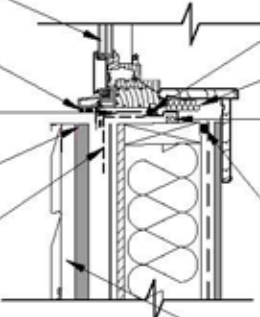
ENSURE WINDOW PANE IN-LINE WITH INSULATION IN WALL ASSEMBLY (OFFSET IN DRAWING)

CAULK WINDOW FRAME TO CLADDING NBC 9.27.3.8.(4)

SHIM WINDOW AS & WHERE REQUIRED BY THE WINDOW MANUFACTURER

SHIM BOTTOM FLANGE TO ALLOW DRAINAGE & DO NOT SEAL BOTTOM FLANGE TO ROUGH OPENING MEMBRANE

WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING OR WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING



BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BEST PRACTICE: BACK DAM & SLOPED SILL (MIN. 1%) TOWARDS EXTERIOR

INTERIOR VAPOR/AIR CONTROL LAYER SEALED TO PERIMETER OF ROUGH OPENING WITH CAULKING OR TAPE

BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

4. BUILDING SCIENCE CONTROL LAYERS

- WATER: MEMBRANE APPLIED TO EXTERIOR SHEATHING
- AIR: INTERIOR MEMBRANE CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INTERIOR AIR SEAL)
 - NOTE: WINDOW MUST CONNECT TO INTERIOR AIR CONTROL LAYER IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER
- THERMAL: CHROMEGPS & INSULATION BETWEEN STUDS
- VAPOR: INTERIOR MEMBRANE

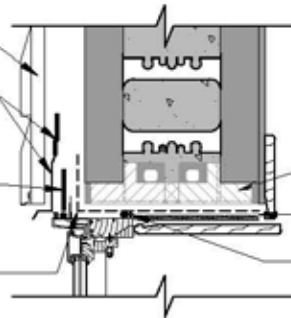
BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

HEADER FLASHING MIN. 6% SLOPE TAPED OR CAULKED TO EXTERIOR WATER CONTROL LAYER NBC 9.27.3.8.(4)

BEST PRACTICE: INCLUDE END DAMS

TAPE OR CAULK WINDOW FLANGE TO ROUGH OPENING AT TOP HORIZONTAL & BOTH VERTICAL FLANGES (LEAVE BOTTOM HORIZONTAL OPEN FOR DRAINAGE)

WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING



BEST PRACTICE: PRO BUCK® BY LOGIX BRANDS (WINDOW TO WALL THERMAL BREAK)

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

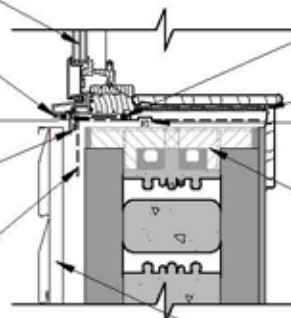
ENSURE WINDOW PANE IN-LINE WITH INSULATION IN WALL ASSEMBLY (OFFSET IN DRAWING)

CAULK WINDOW FRAME TO CLADDING NBC 9.27.3.8.(4)

SHIM WINDOW AS & WHERE REQUIRED BY THE WINDOW MANUFACTURER

SHIM BOTTOM FLANGE OF WINDOW TO ALLOW DRAINAGE & DO NOT SEAL BOTTOM FLANGE TO ROUGH OPENING MEMBRANE (OPEN FOR DRAINAGE)

WRAP ROUGH OPENING OF SILL & MIN. 8" (200MM) UP VERTICAL JAMB WITH PEEL & STICK OR LIQUID APPLIED WATERPROOF MEMBRANE & EXTEND ON TO THE FACE OF THE EXT. SHEATHING OR WATER CONTROL LAYER MIN. 4" (100MM) **BEST PRACTICE:** COVER ENTIRE ROUGH OPENING



BACKER ROD AND CAULKING AROUND INTERIOR PERIMETER OF WINDOW (AIR & WATER SEAL, ENSURE GAP BETWEEN EXTERIOR SEAL TO ALLOW DRAINAGE)

INSULATE JAMB EXTENSION AROUND ENTIRE WINDOW

BEST PRACTICE: BACK DAM & SLOPED SILL (MIN. 1% TOWARDS EXTERIOR)

BEST PRACTICE: PRO BUCK® BY LOGIX BRANDS (WINDOW TO WALL THERMAL BREAK)

BEST PRACTICE: FURRING STRIPS BEHIND CLADDING FOR DRAINAGE & VENTILATION

4 BUILDING SCIENCE CONTROL LAYERS

- WATER: FRONT FACE OF ICF BLOCK
- NOTE: ALTERNATIVE DETAIL; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO FRONT FACE OF ICF BLOCK
- AIR: CONCRETE IN ICF CONNECTED TO WINDOW VIA MEMBRANE APPLIED TO ROUGH OPENING TO BACKER ROD & CAULKING (INT. AIR SEAL)
- NOTE: WINDOW MUST CONNECT TO CONCRETE IN ORDER TO MAINTAIN CONTINUOUS AIR BARRIER. ALTERNATIVE DETAIL AIR CONTROL LAYER; MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE APPLIED TO INTERIOR OR EXTERIOR OF ICF BLOCK
- THERMAL: EXTERIOR & INTERIOR EPS INSULATION OF ICF BLOCK
- VAPOR: INTERIOR EPS INSULATION OF ICF BLOCK

WOOD CARPENTRY FRAME STRUCTURALLY SECURED INTO PARAPET DOUBLE TOP PLATE
SHEET METAL COPING AS REQUIRED ON EACH PROJECT & CONT. SHEET METAL CLEAT SECURED INTO STRUCTURAL WOOD

PARAPET MEMBRANE OVER LAPS RIGID FOAM INSULATION MIN. 6" (150MM)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (HALO® EXTERRA® WITH TAPED OR CAULKED JOINTS & FASTENER PENETRATIONS.

ALTERNATIVE DETAIL MEMBRANE INSTALLED ON TOP OR BEHIND RIGID INSULATION

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

CONSULT LOCAL BUILDING CODE IF STRUCTURAL SHEATHING IS REQUIRED OR ALTERNATIVE METHODS ARE ACCEPTABLE (INT. GYPSUM, IN-LET BRACING, DIAGONAL WOOD BRACING...ETC.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

MIN. ½" (13MM) THICK PLYWOOD SHEATHING

MIN. ¾" (19MM) THICK PLYWOOD SHEATHING

SHEET METAL CAPPING

SECUREMENT OF ROOF INSULATION:
ROOF INSULATION MUST BE MECHANICALLY FASTENED BACK TO THE STRUCTURE OR ADHERED WITH AN ADHESIVE TO THE WOOD SHEATHING. MIN. DOUBLE LAYER OF INSULATION & SECOND LAYER LAID PERPENDICULAR TO THE FIRST LAYER.

THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

ROOF INSULATION OPTIONS:

- HALO® EXTERRA® WITH PROTECTION BOARD ON TOP
- SUBTERRA® OR SUBTERRA® PLUS (PROTECTION BOARD OPTIONAL)
- MIN. 30 PSI (206 KPA) CHROMEGPS® PERIMETER EDGES SLOPED

CAP MEMBRANE
FLASHING MEMBRANE
BASE MEMBRANE

ROOF JOISTS: SOLID WOOD JOISTS, I-JOISTS, FILLED WITH INSULATION AS PER THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

INTERIOR GYPSUM BOARD FINISH (9.29.5.)

ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

1" - 8" (25 - 200MM) HALO® EXTERRA® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

4. BUILDING SCIENCE CONTROL LAYERS

- WATER: NON-VAPOR PERMEABLE ROOF MEMBRANE CONNECTING TO FRONT FACE OF HALO® EXTERRA®
- AIR: INTERIOR CEILING MEMBRANE CONNECTING TO INTERIOR ABOVE GRADE WALL MEMBRANE
- THERMAL: HALO® EXTERRA®, SUBTERRA® OR SUBTERRA® PLUS OR CHROMEGPS® IN ROOF & HALO® EXTERRA® ON ABOVE GRADE WALL
- VAPOR: INTERIOR CEILING MEMBRANE & INTERIOR ABOVE GRADE WALL MEMBRANE

•• NOTE: BEST PRACTICE SELECT VARIABLE VAPOR PERMEANCE MEMBRANE IN CEILING ASSEMBLY (ALLOWS DRYING TOWARDS INTERIOR)



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Drawing: 14-21	Date: JUNE/2023	Pg: 14
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Title:
HALO® EXTERRA® ABOVE GRADE WALL ASSEMBLY & SELF-ADHERED FLAT ROOF ASSEMBLY

WOOD CARPENTRY FRAME STRUCTURALLY SECURED INTO PARAPET DOUBLE TOP PLATE
SHEET METAL COPING AS REQUIRED ON EACH PROJECT & CONT. SHEET METAL CLEAT SECURED INTO STRUCTURAL WOOD

PARAPET MEMBRANE OVER LAPS RIGID FOAM INSULATION MIN. 6" (150MM)

WHERE WALLS REQUIRED TO PROVIDE PROTECTION FROM PRECIPITATION COMPRISE CLADDING ASSEMBLIES WITH FIRST & SECOND PLANES OF PROTECTION,

- THE FIRST PLANE OF PROTECTION (CLADDING) SHALL CONSIST OF CLADDING WITH APPROPRIATE TRIM, ACCESSORY PIECES & FASTENERS
- THE SECOND PLANE OF PROTECTION (MECHANICALLY FASTENED, SELF-ADHERED, OR LIQUID APPLIED MEMBRANE (VAPOUR PERMEABLE) APPLIED ON TOP OF EXT. SHEATHING)

CLADDING SHALL BE FASTENED TO THE FRAMING MEMBERS OR FURRING MEMBERS, OR TO BLOCKING BETWEEN FRAMING MEMBERS (NBC 9.27.5.1.)

BEST PRACTICE: BUG SCREEN TOP & BOTTOM OF VENTILATED AIR SPACE

- MIN. 1/2" (13MM) THICK PLYWOOD SHEATHING
- MIN. 3/4" (19MM) THICK PLYWOOD SHEATHING
- SHEET METAL CAPPING

SECUREMENT OF ROOF INSULATION:
ROOF INSULATION MUST BE MECHANICALLY FASTENED BACK TO THE STRUCTURE OR ADHERED WITH AN ADHESIVE TO THE WOOD SHEATHING. MIN. DOUBLE LAYER OF INSULATION & SECOND LAYER LAID PERPENDICULAR TO THE FIRST LAYER.

THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

ROOF INSULATION OPTIONS:

- HALO® EXTERRA® WITH PROTECTION BOARD ON TOP
- SUBTERRA® OR SUBTERRA® PLUS (PROTECTION BOARD OPTIONAL)
- MIN. 30 PSI (206 KPA) CHROMEGPS® PERIMETER EDGES SLOPED

- CAP MEMBRANE
- FLASHING MEMBRANE
- BASE MEMBRANE

ROOF JOISTS: SOLID WOOD JOISTS, I-JOISTS, FILLED WITH INSULATION AS PER THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

INTERIOR GYPSUM BOARD FINISH (9.29.5.)

ASSEMBLIES SEPARATING CONDITIONED SPACE FROM UNCONDITIONED SPACE SHALL BE CONSTRUCTED SO AS TO INCLUDE AN AIR BARRIER SYSTEM THAT WILL PROVIDE CONTINUOUS BARRIER TO AIR LEAKAGE (NBC 9.25.3.1.1.)

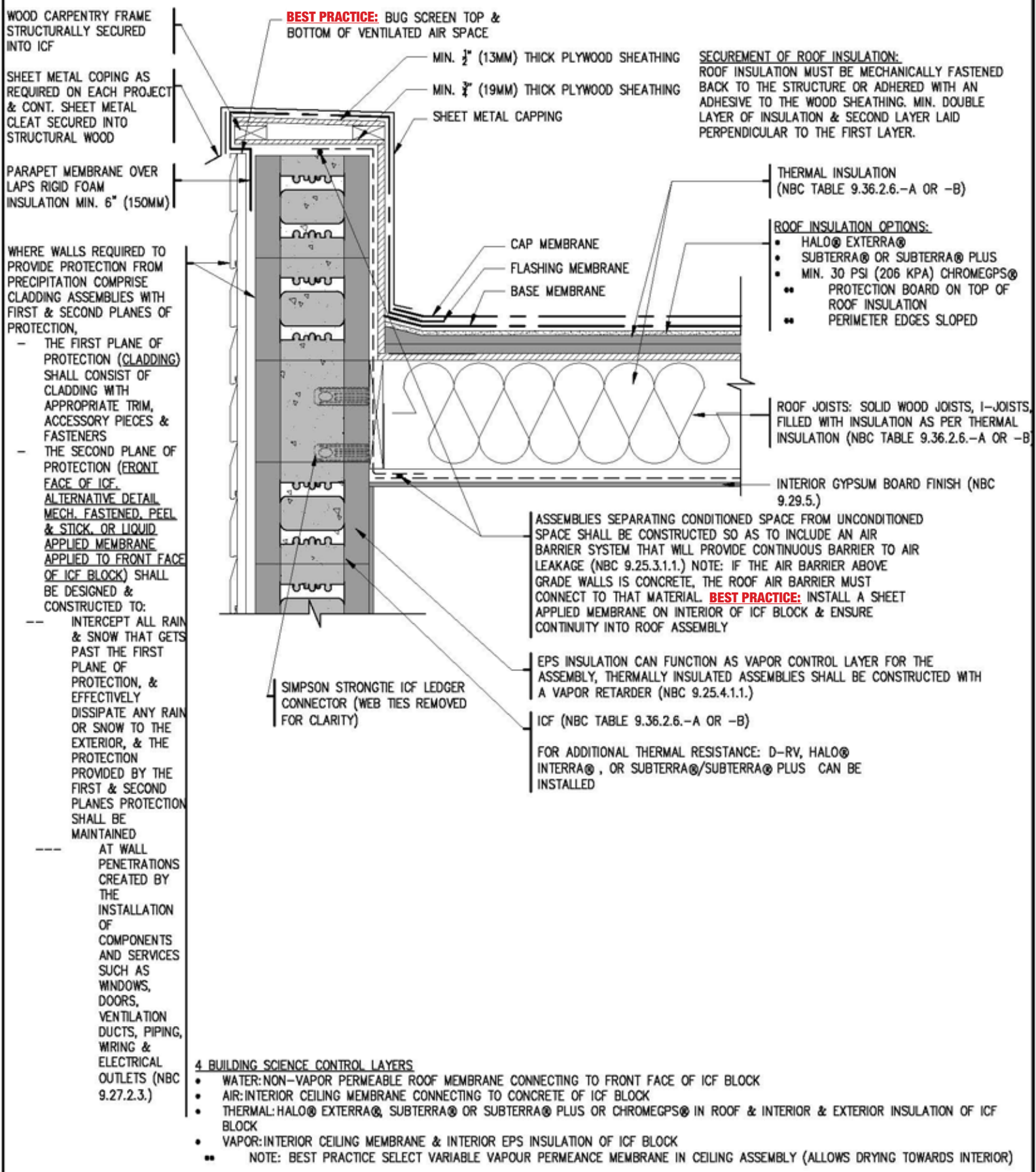
THERMALLY INSULATED ASSEMBLIES SHALL BE CONSTRUCTED WITH A VAPOR RETARDER (NBC 9.25.4.1.1.) **BEST PRACTICE:** SELECT A VARIABLE VAPOR PERMEANCE MEMBRANE (ALLOWS DRYING TOWARDS THE INTERIOR)

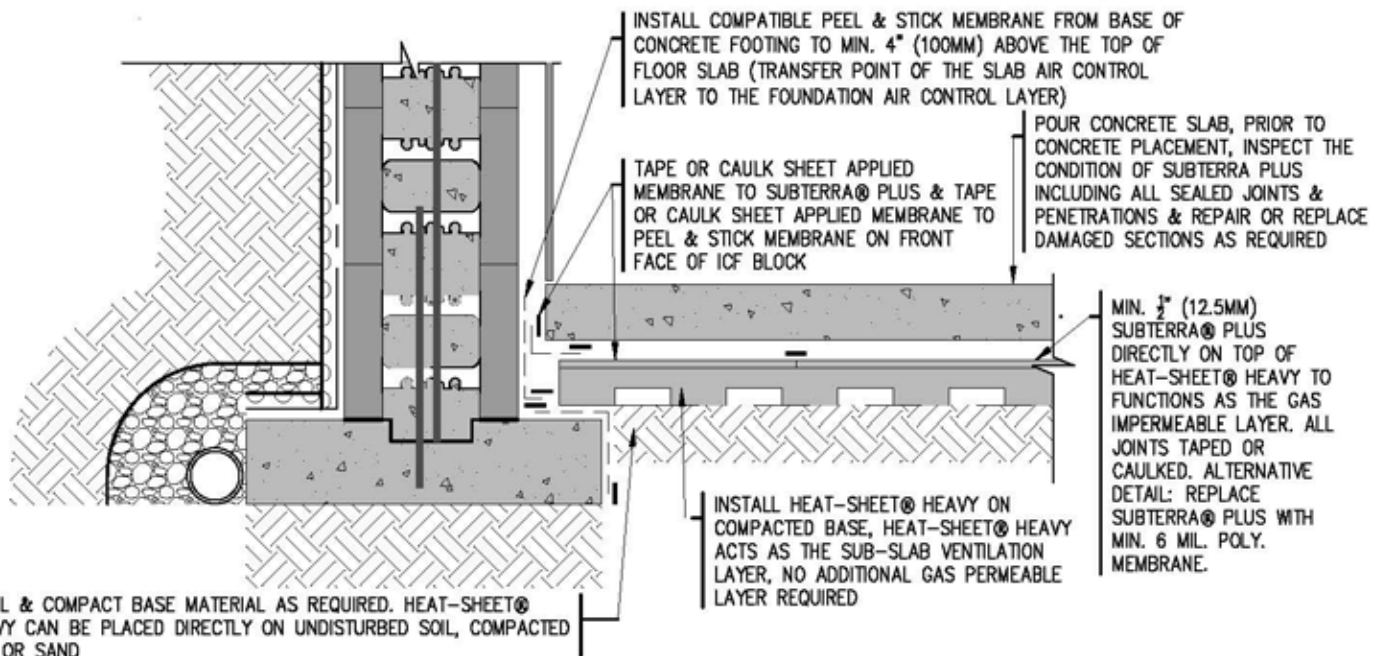
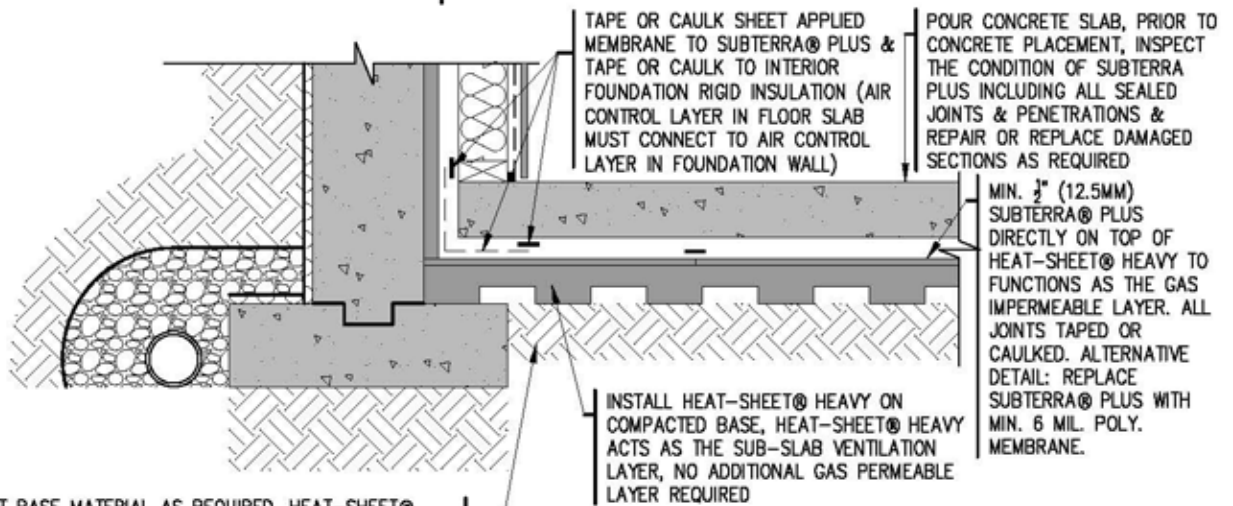
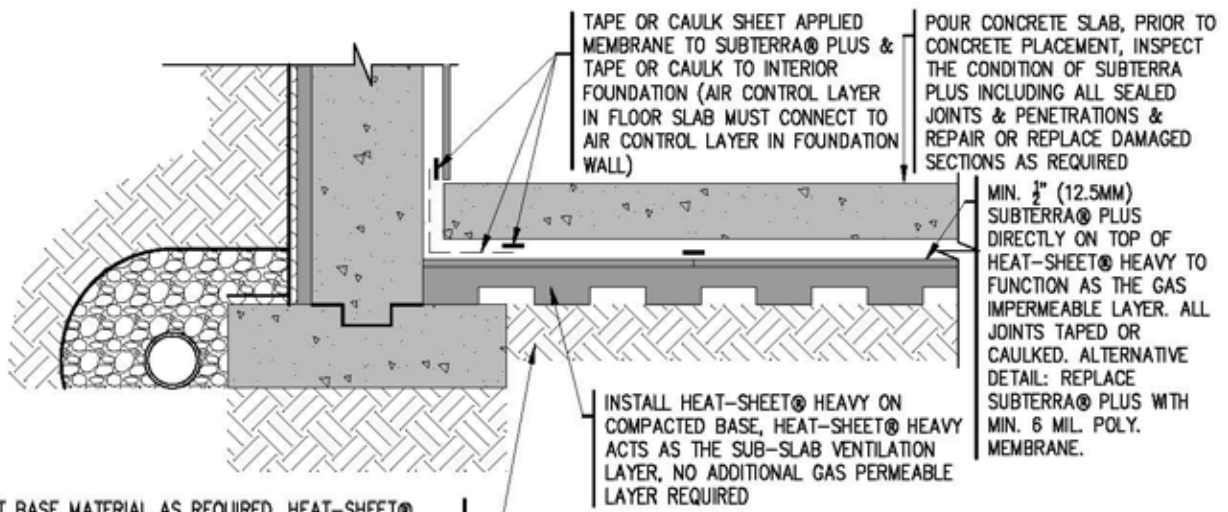
1" - 8" (25 - 200MM) CHROMEGPS® &/OR THERMAL INSULATION (NBC TABLE 9.36.2.6.-A OR -B)

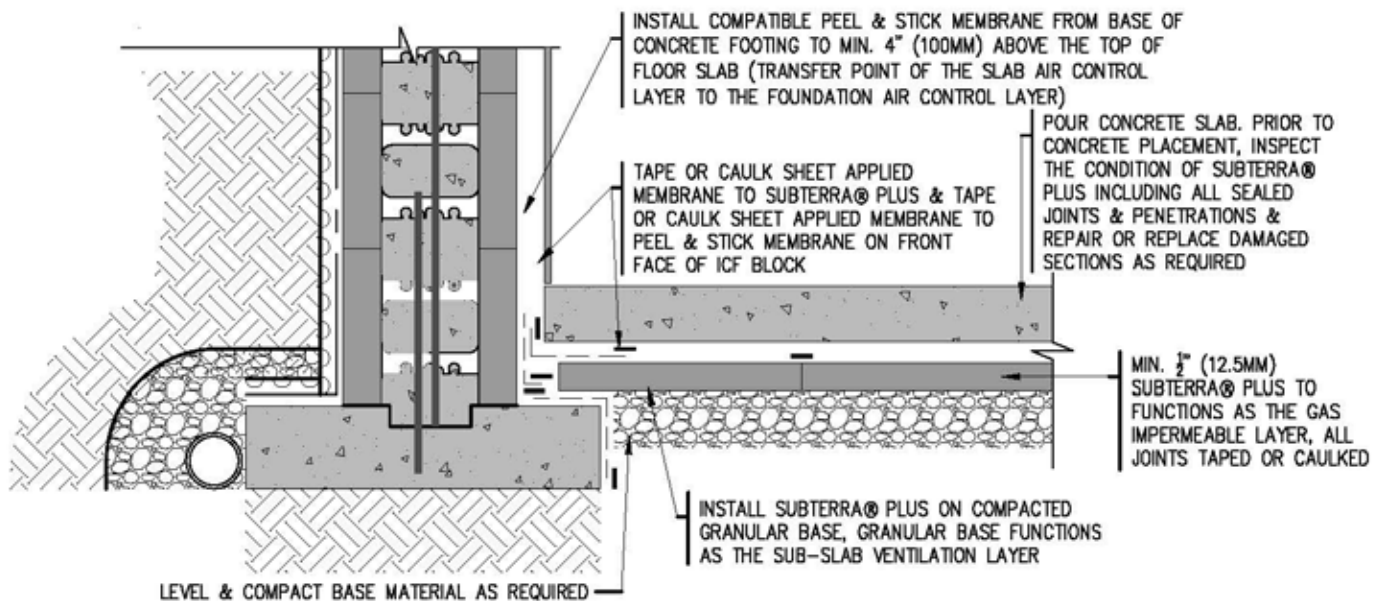
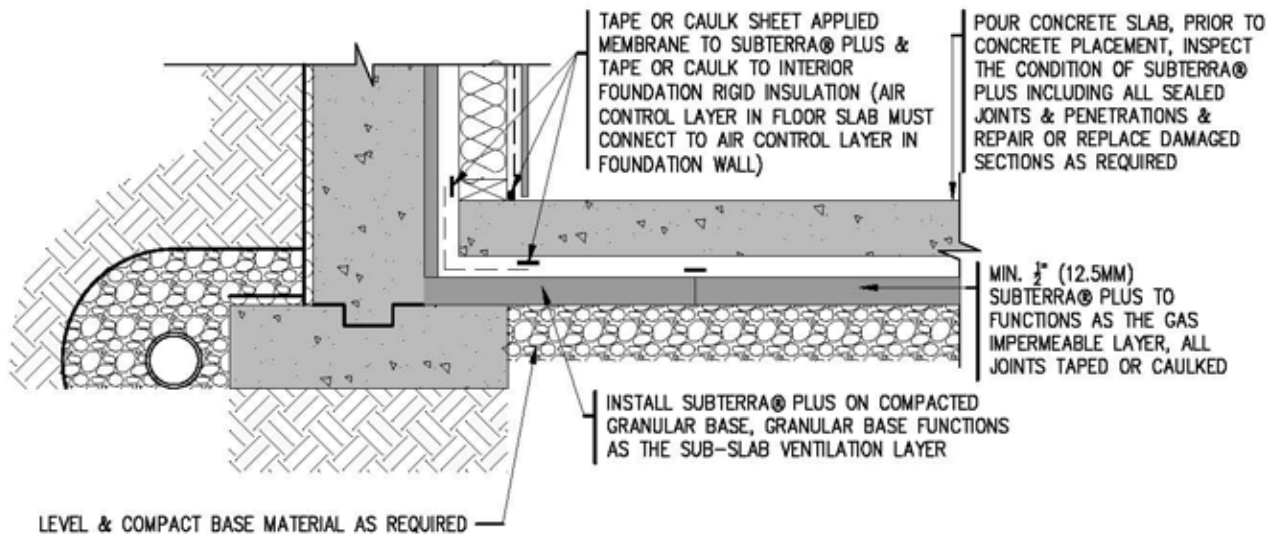
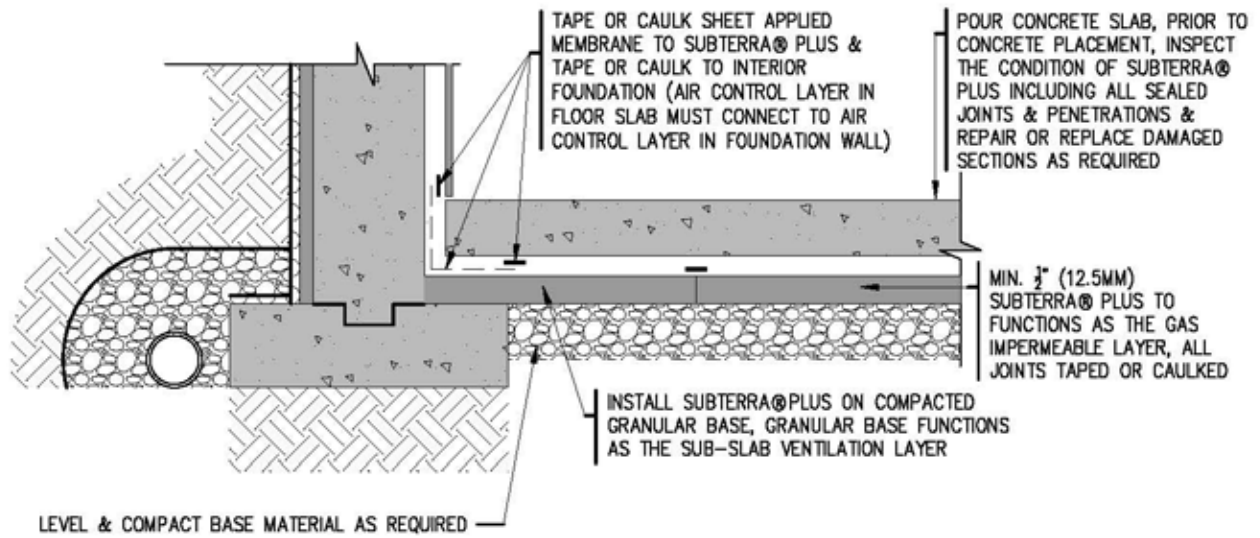
CONSULT LOGIX BRANDS TECHNICAL SERVICES FOR BEST PRACTICES WHEN SECURING EXTERIOR INSULATION GREATER THAN 2" (50MM)

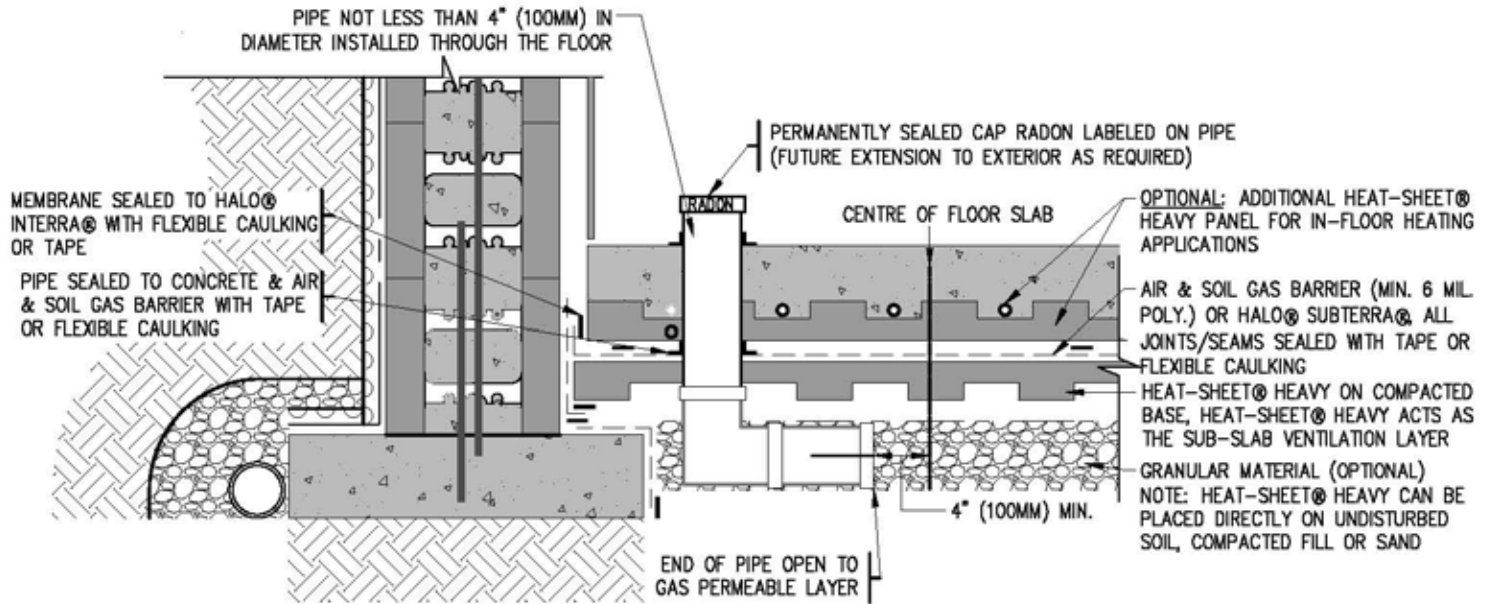
4 BUILDING SCIENCE CONTROL LAYERS

- WATER: NON-VAPOR PERMEABLE ROOF MEMBRANE CONNECTING TO MECHANICALLY FASTENED, PEEL & STICK, OR LIQUID APPLIED MEMBRANE ON EXTERIOR SHEATHING
 - NOTE: MEMBRANE COULD FUNCTION AS AIR CONTROL LAYER & INTERIOR MEMBRANE AS THE AIR CONTROL LAYER COULD BE OMITTED (STILL REQUIRES VAPOR CONTROL LAYER WARM SIDE OF WALL ASSEMBLY)
- AIR: INTERIOR CEILING MEMBRANE CONNECTING TO INTERIOR ABOVE GRADE WALL MEMBRANE
- THERMAL: HALO® EXTERRA®, SUBTERRA® OR SUBTERRA® PLUS OR CHROMEGPS® IN ROOF & CHROMEGPS® ON ABOVE GRADE WALL
- VAPOUR: INTERIOR CEILING MEMBRANE & INTERIOR ABOVE GRADE WALL MEMBRANE OR IF INTERIOR MEMBRANE OMITTED WHEN AIR CONTROL LAYER IS PLACED ON THE EXTERIOR OF THE BUILDING ENCLOSURE A VAPOR RETARDING PAINT CAN BE APPLIED TO THE GYPSUM BOARD
 - NOTE: BEST PRACTICE SELECT VARIABLE VAPOR PERMEANCE MEMBRANE IN CEILING ASSEMBLY (ALLOWS DRYING TOWARDS INTERIOR)

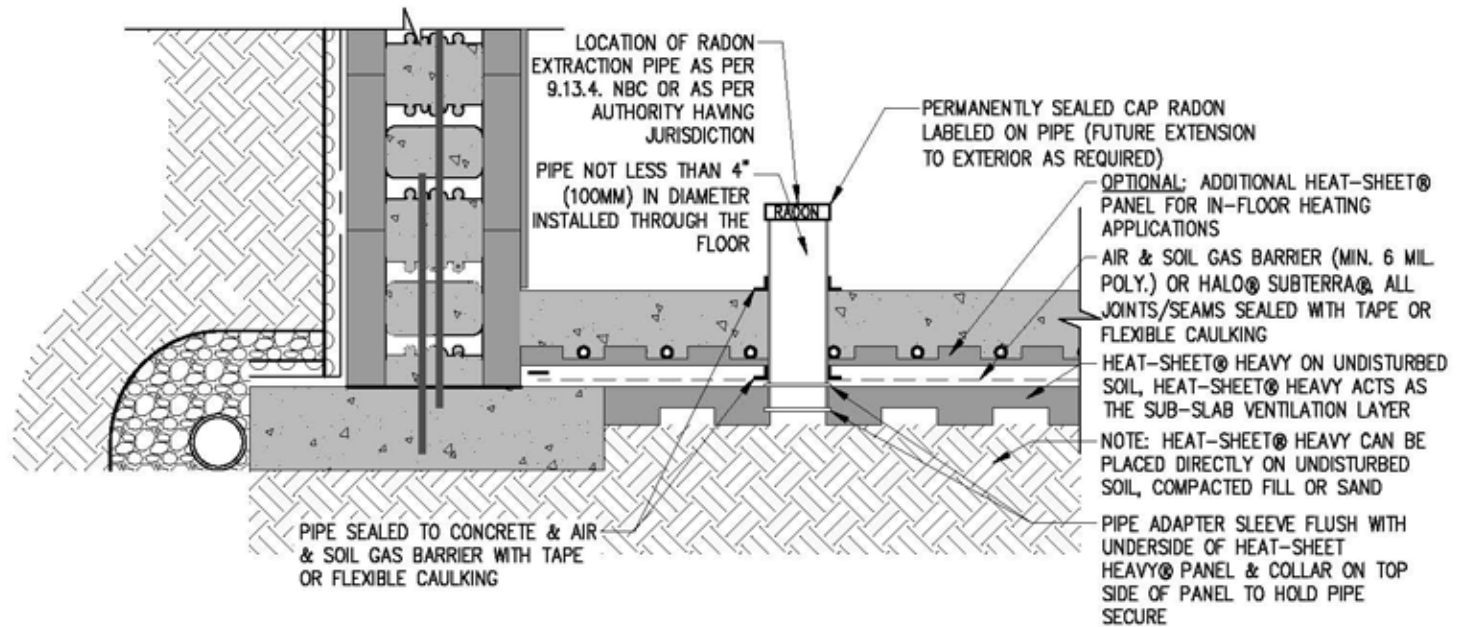






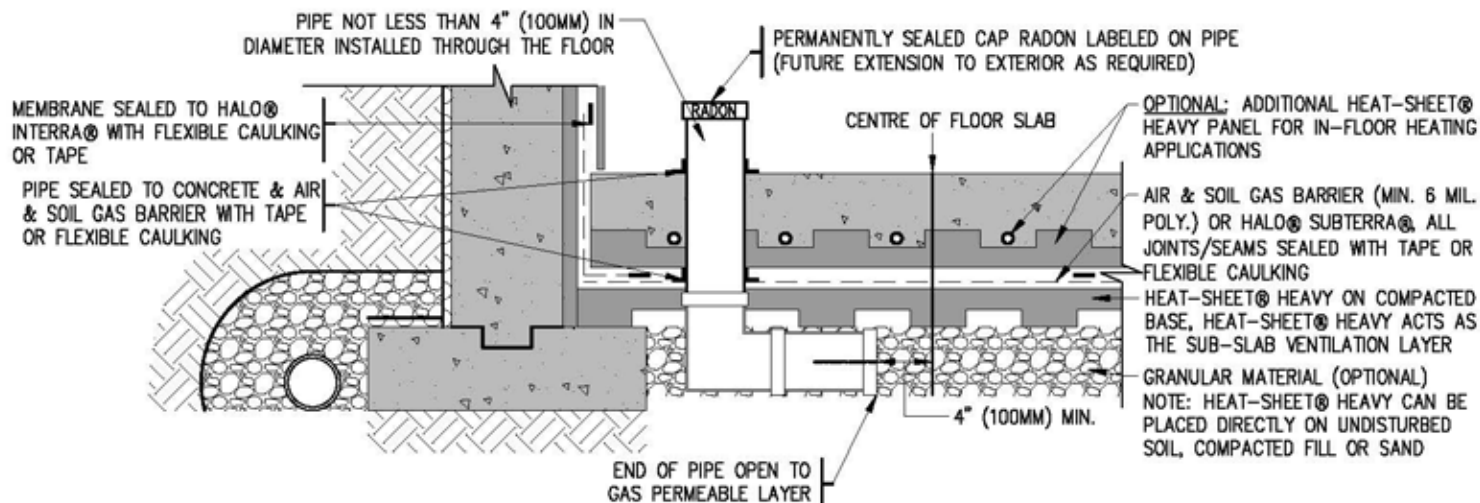


- NOTES:
- RADON PIPE CAN BE VENTED THROUGH CEILING/ROOF TO THE EXTERIOR OR THROUGH FOUNDATION WALL TO THE EXTERIOR. EXHAUST FAN MUST BE LOCATED NEAR THE OUTLET.
 - THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FROM A PASSIVE RADON STACK TERMINATION CLEARANCE FOR ROOF TOP DISCHARGE:
 - VERTICAL CLEARANCE ABOVE THE ROOF AT THE POINT OF PENETRATION 1 FT. (0.3M)
 - VERTICAL CLEARANCE ABOVE WINDOWS OR DOORS 2 FT. 0.6 M
 - VERTICAL CLEARANCE ABOVE MECHANICAL AIR SUPPLY INLET (AIR INTAKE) 3 FT. (0.9M)
 - HORIZONTAL CLEARANCE FROM WINDOWS, DOORS, OR MECHANICAL AIR SUPPLY INLET 10 FT. (3.0M)
 - CLEARANCE HORIZONTALLY FROM A VERTICAL WALL THAT EXTENDS ABOVE THE ROOF PENETRATED 10 FT. (3.0M)
 - THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FOR ACTIVE RADON REDUCTION SYSTEMS:
 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT., SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO AN OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE ABOVE PAVED SIDEWALK OR PAVED DRIVEWAY LOCATED ON PUBLIC PROPERTY MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE ABOVE GRADE, VERANDA, PORCH, DECK, OR BALCONY MIN. 1 FT., SUGGESTED 3-1/2 FT. (0.3M, 1.0M)
 - VERTICAL CLEARANCE BELOW SOFFITS OR FROM ANY ATTIC VENTING COMPONENT MIN./SUGGESTED 3-1/2 FT. (1.0M)
 - HORIZONTAL CLEARANCE FROM AN AREA DIRECTLY BELOW THE DISCHARGE WHERE THERE IS A RISK OF INJURY FROM ICE FALL MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - THE COMPLETION OF A SUBFLOOR DEPRESSURIZATION SYSTEM MAY BE NECESSARY TO REDUCE THE RADON CONCENTRATION TO A LEVEL BELOW THE GUIDELINE SPECIFIED BY HEALTH CANADA.
 - FURTHER INFORMATION ON PROTECTION FROM RADON INGRESS CAN BE FOUND IN THE FOLLOWING HEALTH CANADA PUBLICATIONS:
 - RADON: A GUIDE FOR CANADIAN HOMEOWNERS (CMHC/HC), &
 - RADON: REDUCTION GUIDE FOR CANADIANS, &
 - GUIDE FOR RADON MEASUREMENTS IN RESIDENTIAL DWELLINGS (HOMES)



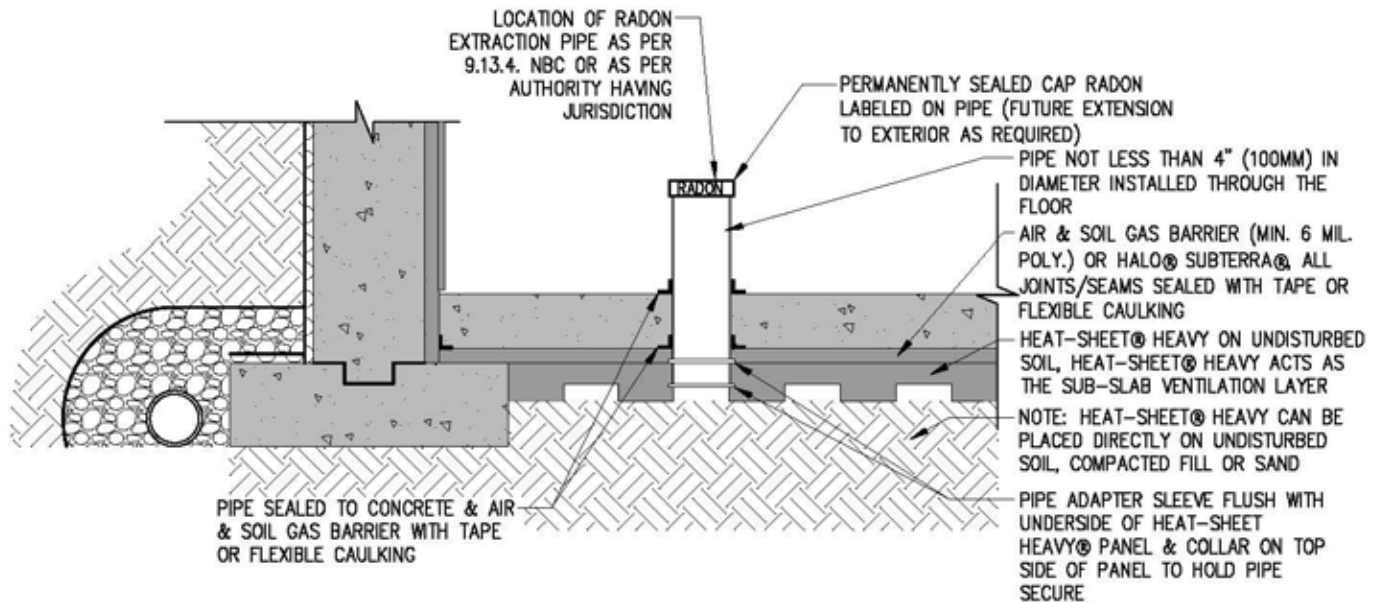
NOTES:

- RADON PIPE CAN BE VENTED THROUGH CEILING/ROOF TO THE EXTERIOR OR THROUGH FOUNDATION WALL TO THE EXTERIOR. EXHAUST FAN MUST BE LOCATED NEAR THE OUTLET.
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FROM A PASSIVE RADON STACK TERMINATION CLEARANCE FOR ROOF TOP DISCHARGE:
 - VERTICAL CLEARANCE ABOVE THE ROOF AT THE POINT OF PENETRATION 1 FT. (0.3M)
 - VERTICAL CLEARANCE ABOVE WINDOWS OR DOORS 2 FT. 0.6 M
 - VERTICAL CLEARANCE ABOVE MECHANICAL AIR SUPPLY INLET (AIR INTAKE) 3 FT. (0.9M)
 - HORIZONTAL CLEARANCE FROM WINDOWS, DOORS, OR MECHANICAL AIR SUPPLY INLET 10 FT. (3.0M)
 - CLEARANCE HORIZONTALLY FROM A VERTICAL WALL THAT EXTENDS ABOVE THE ROOF PENETRATED 10 FT. (3.0M)
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FOR ACTIVE RADON REDUCTION SYSTEMS:
 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT, SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO A OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE ABOVE PAVED SIDEWALK OR PAVED DRIVEWAY LOCATED ON PUBLIC PROPERTY MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE ABOVE GRADE, VERANDA, PORCH, DECK, OR BALCONY MIN. 1 FT., SUGGESTED 3-1/2 FT. (0.3M, 1.0M)
 - VERTICAL CLEARANCE BELOW SOFFITS OR FROM ANY ATTIC VENTING COMPONENT MIN./SUGGESTED 3-1/2 FT. (1.0M)
 - HORIZONTAL CLEARANCE FROM AN AREA DIRECTLY BELOW THE DISCHARGE WHERE THERE IS A RISK OF INJURY FROM ICE FALL MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
- THE COMPLETION OF A SUBFLOOR DEPRESSURIZATION SYSTEM MAY BE NECESSARY TO REDUCE THE RADON CONCENTRATION TO A LEVEL BELOW THE GUIDELINE SPECIFIED BY HEALTH CANADA.
- FURTHER INFORMATION ON PROTECTION FROM RADON INGRESS CAN BE FOUND IN THE FOLLOWING HEALTH CANADA PUBLICATIONS:
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 - RADON: REDUCTION GUIDE FOR CANADIANS, &
 - GUIDE FOR RADON MEASUREMENTS IN RESIDENTIAL DWELLINGS (HOMES)

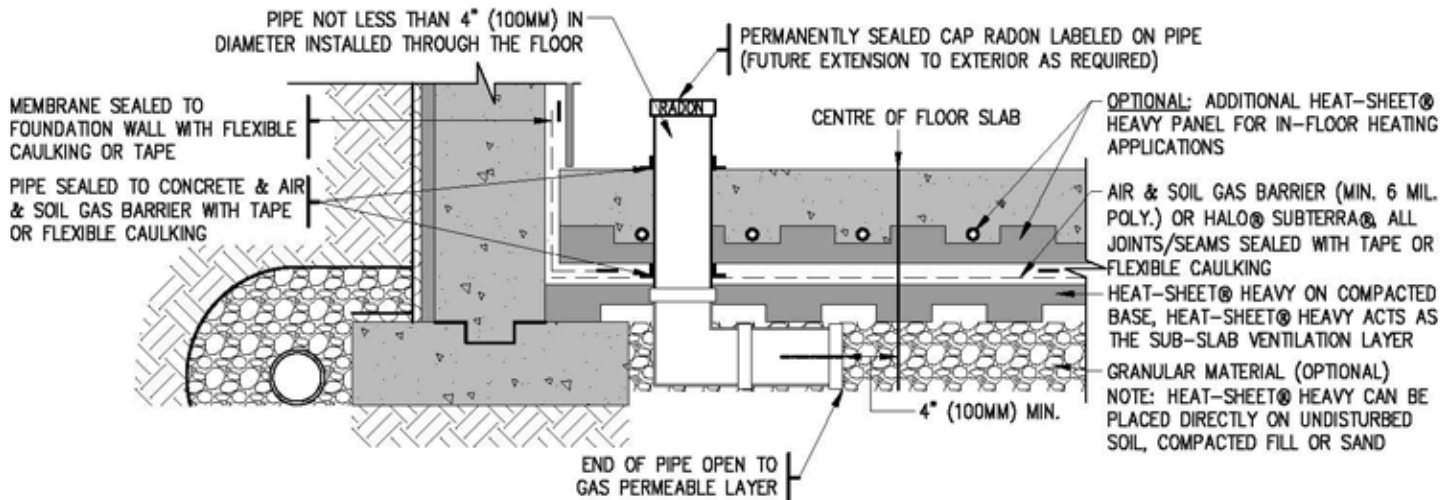


NOTES:

- RADON PIPE CAN BE VENTED THROUGH CEILING/ROOF TO THE EXTERIOR OR THROUGH FOUNDATION WALL TO THE EXTERIOR. EXHAUST FAN MUST BE LOCATED NEAR THE OUTLET.
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FROM A PASSIVE RADON STACK TERMINATION CLEARANCE FOR ROOF TOP DISCHARGE:
 - VERTICAL CLEARANCE ABOVE THE ROOF AT THE POINT OF PENETRATION 1 FT. (0.3M)
 - VERTICAL CLEARANCE ABOVE WINDOWS OR DOORS 2 FT. 0.6 M
 - VERTICAL CLEARANCE ABOVE MECHANICAL AIR SUPPLY INLET (AIR INTAKE) 3 FT. (0.9M)
 - HORIZONTAL CLEARANCE FROM WINDOWS, DOORS, OR MECHANICAL AIR SUPPLY INLET 10 FT. (3.0M)
 - CLEARANCE HORIZONTALLY FROM A VERTICAL WALL THAT EXTENDS ABOVE THE ROOF PENETRATED 10 FT. (3.0M)
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FOR ACTIVE RADON REDUCTION SYSTEMS:
 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT., SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO AN OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE ABOVE PAVED SIDEWALK OR PAVED DRIVEWAY LOCATED ON PUBLIC PROPERTY MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE ABOVE GRADE, VERANDA, PORCH, DECK, OR BALCONY MIN. 1 FT., SUGGESTED 3-1/2 FT. (0.3M, 1.0M)
 - VERTICAL CLEARANCE BELOW SOFFITS OR FROM ANY ATTIC VENTING COMPONENT MIN./SUGGESTED 3-1/2 FT. (1.0M)
 - HORIZONTAL CLEARANCE FROM AN AREA DIRECTLY BELOW THE DISCHARGE WHERE THERE IS A RISK OF INJURY FROM ICE FALL MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
- THE COMPLETION OF A SUBFLOOR DEPRESSURIZATION SYSTEM MAY BE NECESSARY TO REDUCE THE RADON CONCENTRATION TO A LEVEL BELOW THE GUIDELINE SPECIFIED BY HEALTH CANADA.
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 - RADON: REDUCTION GUIDE FOR CANADIANS, &
 - GUIDE FOR RADON MEASUREMENTS IN RESIDENTIAL DWELLINGS (HOMES)

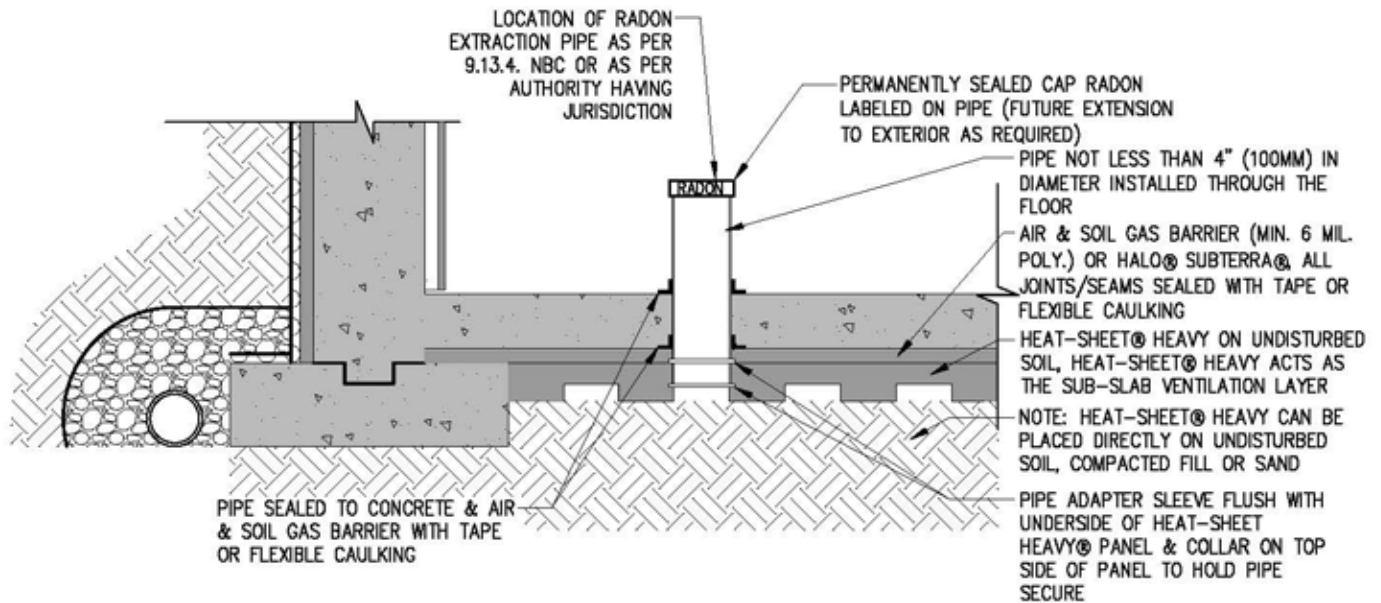


- NOTES:**
- RADON PIPE CAN BE VENTED THROUGH CEILING/ROOF TO THE EXTERIOR OR THROUGH FOUNDATION WALL TO THE EXTERIOR. EXHAUST FAN MUST BE LOCATED NEAR THE OUTLET.
 - THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FROM A PASSIVE RADON STACK TERMINATION CLEARANCE FOR ROOF TOP DISCHARGE:
 - VERTICAL CLEARANCE ABOVE THE ROOF AT THE POINT OF PENETRATION 1 FT. (0.3M)
 - VERTICAL CLEARANCE ABOVE WINDOWS OR DOORS 2 FT. 0.6 M
 - VERTICAL CLEARANCE ABOVE MECHANICAL AIR SUPPLY INLET (AIR INTAKE) 3 FT. (0.9M)
 - HORIZONTAL CLEARANCE FROM WINDOWS, DOORS, OR MECHANICAL AIR SUPPLY INLET 10 FT. (3.0M)
 - CLEARANCE HORIZONTALLY FROM A VERTICAL WALL THAT EXTENDS ABOVE THE ROOF PENETRATED 10 FT. (3.0M)
 - THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FOR ACTIVE RADON REDUCTION SYSTEMS:
 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT., SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO A OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE ABOVE PAVED SIDEWALK OR PAVED DRIVEWAY LOCATED ON PUBLIC PROPERTY MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE ABOVE GRADE, VERANDA, PORCH, DECK, OR BALCONY MIN. 1 FT., SUGGESTED 3-1/2 FT. (0.3M, 1.0M)
 - VERTICAL CLEARANCE BELOW SOFFITS OR FROM ANY ATTIC VENTING COMPONENT MIN./SUGGESTED 3-1/2 FT. (1.0M)
 - HORIZONTAL CLEARANCE FROM AN AREA DIRECTLY BELOW THE DISCHARGE WHERE THERE IS A RISK OF INJURY FROM ICE FALL MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - THE COMPLETION OF A SUBFLOOR DEPRESSURIZATION SYSTEM MAY BE NECESSARY TO REDUCE THE RADON CONCENTRATION TO A LEVEL BELOW THE GUIDELINE SPECIFIED BY HEALTH CANADA.
 - FURTHER INFORMATION ON PROTECTION FROM RADON INGRESS CAN BE FOUND IN THE FOLLOWING HEALTH CAANDA PUBLICATIONS:
 - RADON: A GUIDE FOR CANADIAN HOMEOWNERS (CMHC/HC), &
 - RADON: REDUCTION GUIDE FOR CANADIANS, &
 - GUIDE FOR RADON MEASUREMENTS IN RESIDENTIAL DWELLINGS (HOMES)



NOTES:

- RADON PIPE CAN BE VENTED THROUGH CEILING/ROOF TO THE EXTERIOR OR THROUGH FOUNDATION WALL TO THE EXTERIOR. EXHAUST FAN MUST BE LOCATED NEAR THE OUTLET.
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FROM A PASSIVE RADON STACK TERMINATION CLEARANCE FOR ROOF TOP DISCHARGE:
 - VERTICAL CLEARANCE ABOVE THE ROOF AT THE POINT OF PENETRATION 1 FT. (0.3M)
 - VERTICAL CLEARANCE ABOVE WINDOWS OR DOORS 2 FT. 0.6 M
 - VERTICAL CLEARANCE ABOVE MECHANICAL AIR SUPPLY INLET (AIR INTAKE) 3 FT. (0.9M)
 - HORIZONTAL CLEARANCE FROM WINDOWS, DOORS, OR MECHANICAL AIR SUPPLY INLET 10 FT. (3.0M)
 - CLEARANCE HORIZONTALLY FROM A VERTICAL WALL THAT EXTENDS ABOVE THE ROOF PENETRATED 10 FT. (3.0M)
- THE FOLLOWING REQUIREMENTS ARE THE SUGGESTED MINIMUM SETBACKS/CLEARANCES FOR ACTIVE RADON REDUCTION SYSTEMS:
 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT, SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO A OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE ABOVE PAVED SIDEWALK OR PAVED DRIVEWAY LOCATED ON PUBLIC PROPERTY MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE ABOVE GRADE, VERANDA, PORCH, DECK, OR BALCONY MIN. 1 FT., SUGGESTED 3-1/2 FT. (0.3M, 1.0M)
 - VERTICAL CLEARANCE BELOW SOFFITS OR FROM ANY ATTIC VENTING COMPONENT MIN./SUGGESTED 3-1/2 FT. (1.0M)
 - HORIZONTAL CLEARANCE FROM AN AREA DIRECTLY BELOW THE DISCHARGE WHERE THERE IS A RISK OF INJURY FROM ICE FALL MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
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 - CLEARANCE TO A MECHANICAL AIR SUPPLY INLET MIN. 6-1/2 FT., SUGGESTED 10 FT. (2.0M, 3.0M)
 - CLEARANCE TO PERMANENTLY CLOSED WINDOW MIN. 2 FT, SUGGESTED 3-1/2 FT. (0.6M, 1.0M)
 - CLEARANCE TO A OPENABLE WINDOW MIN./SUGGESTED 6-1/2 FT. (2.0M)
 - CLEARANCE FROM A DOOR THAT MAY BE OPENED MIN. 3-1/2 FT., SUGGESTED 6-1/2 FT. (1.0M, 2.0M)
 - CLEARANCE TO OUTSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
 - CLEARANCE TO INSIDE CORNER MIN./SUGGESTED 1 FT. (0.3M)
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