



BUILDING – QUICK REFERENCE FOR COMMON DEFICIENCIES GROUPED BY INSPECTION STAGE

FOUNDATION INSPECTION

Screw Piles NBC-AE 2023 Div B, 9.4.1.1

Screw piles supporting structural loads must be engineered along with the pile layout and factored loads. Torque logs provided at next inspection stage to verify correct installation.

Pad Footing Size NBC-AE 2023 Div B, 9.4.1.1

If not prescriptive, Pad and post chart from the steel column manufacturer to determine proper size of pad footing.

Factored Loads NBC-AE 2023 Div B, 9.4.1.1

Factored loads from the truss manufacturer to determine how much weight is being placed on the pad footing. Needed to determine pad footing size as well

Cold joints in Foundation walls NBC-AE 2023 Div B, 9.4.1.1

Foundation walls containing horizontal cold joints that create structural inadequacies will require an engineers review to prescribe a repair or confirm the structural integrity of the wall is not compromised.

FRAMING INSPECTION

Structural Connectors NBC-AE 2023 Div B, 9.23.2.1

Use only specialized connector nails or structural screws approved for joist and truss hangers.

Limiting Distance and Fire Department Response Times NBC-AE 2023 Div B, 9.14 & NBC-AE 2023 Div B, 9.15

When a jurisdiction does not have a 10-minute response time, the distance from an exposing building face to a property line (limiting distance) is calculated as half of the actual distance. When the calculation for half of the actual distance is reviewed and is less than 4ft / 1.2m, additional considerations must be applied such as no windows on side walls, 45min fire resistance rating using 5/8” drywall or ½” drywall with Roxul insulation, protecting openings with sprinklering or fire shutters etc..

Roof and Floor layouts NBC-AE 2023 Div B, 9.4.1.1

When using engineered roof and floor truss products. An engineer stamped design and layout must be provided and followed.

Point loads NBC-AE 2023 Div B, 9.23.2.1

Loads from girder trusses, floor beams or other point loads must be carried continuously through the building all the way to a foundation.

Truss Bracing NBC-AE 2023 Div B, 9.4.1.1

Where trusses are used, specific bracing details may be included in the design of the truss and followed very closely. Where bracing is not installed to the specific manufacturer specifications it will need to be altered or removed and re-installed.



INSULATION/VAPOUR BARRIER AND HVAC (WHEN APPLICABLE)

Structural support of Vapour Barrier NBC-AE 2023 Div B, 9.25.3.3.

Where joints or penetrations are located in the vapour barrier. They require furring, blocking or rigid panels to support the joint.

Unprotected Spray Foam NBC-AE 2023 Div B, 9.10.17.9.

Spray foam must be protected by a thermal barrier when present in a non-concealed space adjacent to the rest of the building including but not limited to return air spaces, header spaces in open web or unfinished basement floor systems, and insulated walls in unfinished rooms.

Hydronic Heating Systems NBC-AE 2023 Div B, 9.33.4.1.(1)

Radiant, water-based heating systems require professional engineering or manufactures loop designs and equipment specifications to confirm the system can adequately heat the home.

FINAL

Required handrails and continuity NBC-AE 2023 Div B, 9.8.7

Handrails are required on interior stairs with more than 2 risers and exterior stairs with more than 3 risers. Handrails must be continuously graspable throughout length including winder stairs as this is not considered a landing.

Flashing Requirements NBC-AE 2023 Div B, 9.27.3.8

Flashing must be installed at all horizontal material changes, openings, and siding transitions. Flashing over doors and window must be end dammed.

Vapour Barrier Protection, NBC-AE 2023 Div B, 9.25.2.3(7)

Vapour barriers must be protected from mechanical damage behind appliances such as furnaces, hot water tanks, and washing machines.

Fire and Carbon Monoxide Alarms NBC-AE 2023 Div B, 9.10.19.1 & NBC-AE 2023 Div B, 9.32.3.9

Smoke alarms must be installed in every bedroom, in hallways serving bedrooms, and on every floor. Carbon monoxide (CO) alarms are required in each sleeping room or located within 5 m of all bedroom doors. All alarms must be interconnected.

Solar Panel Installation NBC-AE 2023 Div B, 9.4.1.1

Engineering letter for roof structure for solar panels and the racking system supporting and connecting the panels to the roof.

Engineering required

- Pole buildings
- Pre-Engineered steel building
- Hydronic heating plans
- Tall Walls – when over 12'
- Truss Designs
- Piles not supported on footings
- Screw piles
- Foundations – slab on grade exceeding 55m²
- Foundation openings exceeding 1.2m
- Stair opening adjacent to basement walls

For a copy of the current Code and Professional Schedules, visit <https://www.alberta.ca/building-codes-and-standards> \