NEW BRUNSWICK CONCRETE

Concrete Repair & Restoration

Crack repair, spalling fixes, parging, mudjacking,
poly levelling, and concrete restoration techniques
for NB freeze-thaw damage

28 Expert Answers from Concrete IQ

newbrunswickconcrete.com/construction-brain

Table of Contents

23. How to fix a sinking concrete patio in Dieppe NB?
24. What is concrete parging and when does it need replacing in NB?
25. How to fix concrete step corners that have broken off in NB?
26. Is it cheaper to repair or replace a cracked concrete driveway in New Brunswick?
27. How do concrete contractors in NB handle large crack repairs in foundations?
28. What is the best foundation repair method for old NB homes?

Q1

What causes concrete to spall and flake after winter in NB and how can it be repaired?

Concrete spalling and flaking after winter in New Brunswick is primarily caused by freeze-thaw damage from water penetrating the concrete surface, freezing, expanding, and literally breaking off pieces of the surface. This is one of the most common concrete problems in NB due to our punishing Maritime climate with 150+ freeze-thaw cycles annually.

Understanding Spalling in NB's Climate

Spalling occurs when water enters the concrete through tiny pores and cracks, then freezes and expands by 9%. This expansion creates tremendous pressure within the concrete matrix, forcing pieces of the surface to break away. In New Brunswick, this process is accelerated by road salt and de-icing chemicals that lower the freezing point, creating even more freeze-thaw cycles than temperature alone would produce. Salt-laden slush from NB roads splashes onto driveways, walkways, and garage aprons throughout our long winter season, making the problem worse.

The most vulnerable concrete is **non-air-entrained concrete** — older driveways, sidewalks, and steps poured without proper air entrainment. Air-entrained concrete contains billions of microscopic air bubbles (4-7% air content) that give freezing water room to expand harmlessly. Concrete without these air voids has nowhere for the expanding ice to go except to fracture the surface.

Surface vs. Structural Spalling

Surface spalling affects only the top 1/4 to 1/2 inch of concrete — the surface flakes and scales but the underlying concrete remains sound. This is repairable and primarily cosmetic, though it will worsen each winter if left untreated. **Deep spalling** extends into the concrete matrix and may expose reinforcement (rebar or wire mesh). Deep spalling indicates more serious concrete deterioration and may require professional assessment, especially on structural elements like foundation walls or load-bearing slabs.

Repair Methods for Surface Spalling

For surface spalling on driveways, patios, and walkways, **concrete resurfacer** is the most practical repair. Products like Quikrete Concrete Resurfacer or Sakrete Flo-Coat cost $15-$25 per 40-pound bag and cover 40-80 square feet depending on thickness. Clean the spalled area thoroughly with a pressure washer, let it dry completely, then apply the resurfacer with a squeegee or trowel. The new surface bonds chemically to the old concrete and can be textured to match the surrounding area.

For **deeper spalling** (over 1/2 inch), use a concrete patching compound. Remove all loose material with a hammer and chisel, clean thoroughly, apply a concrete bonding agent, then fill with patching compound. Quikrete Vinyl Concrete Patcher works well for areas up to 2 inches deep and costs $8-$12 per bag.

Prevention is Key

The best spalling repair is prevention. **Apply a penetrating concrete sealer** every 2-3 years to all exterior concrete in NB. Silane/siloxane sealers ($40-$80 per gallon) penetrate into the concrete and repel water without changing the appearance. This dramatically reduces water penetration and freeze-thaw damage. Never use film-forming sealers (acrylics) on exterior concrete in NB — they can trap moisture and make spalling worse.

Avoid rock salt (sodium chloride) for winter de-icing. Use sand for traction, or if you must use a chemical de-icer, choose calcium magnesium acetate (CMA). Never apply any de-icing chemical to concrete less than one year old.

When to Hire a Professional

Repair surface spalling yourself on non-structural flatwork like patios and sidewalks. **Hire a professional** for spalling on foundation walls, structural slabs, or when spalling covers more than 25% of the surface area. Extensive spalling may indicate the concrete has reached the end of its service life and needs replacement rather than repair. A professional can assess whether the underlying concrete is sound and recommend the most cost-effective solution.

Need help finding a concrete professional for extensive spalling repair? New Brunswick Concrete can match you with local contractors experienced in NB freeze-thaw damage repair.

Q2

How much does mudjacking or concrete leveling cost per square foot in New Brunswick?

Mudjacking (slabjacking) typically costs $3-$6 per square foot in New Brunswick, while polyurethane foam leveling runs $5-$10 per square foot. Most contractors have minimum charges of $800-$1,500 regardless of the area size, making small repairs relatively expensive per square foot.

Mudjacking involves pumping a cement-based slurry under the sunken slab through 1-2 inch holes drilled in the concrete. The mixture of cement, sand, and water fills voids beneath the slab and lifts it back to level. This traditional method works well for driveways, sidewalks, and garage floors that have settled due to soil erosion or poor compaction. The holes are patched with concrete after the work is complete, leaving visible repair marks that

fade over time.

Polyurethane foam injection (also called poly leveling) uses expanding foam injected through much smaller holes (about 5/8 inch). The foam expands to fill voids and provides more precise lifting control. While more expensive upfront, poly leveling leaves smaller, less noticeable holes and the foam won't wash out like cement-based slurry can during New Brunswick's spring thaw and heavy rain periods.

New Brunswick's freeze-thaw cycles make concrete leveling particularly valuable because our 150+ annual freeze-thaw cycles accelerate the settlement process. Water infiltrates beneath slabs during spring thaw, then freezes and expands, creating larger voids. Sunken concrete around foundations also creates drainage problems during NB's wet springs, directing water toward basement walls instead of away from the house.

Typical NB pricing scenarios: A sunken driveway section (100 square feet) runs $800-$1,200 for mudjacking or $1,200-$1,800 for poly leveling. Leveling a garage floor approach (50 square feet) costs $800-$1,000 minimum due to setup charges. Sidewalk panel lifting (25 square feet) still hits the minimum charge, making the effective cost $30-$60 per square foot for very small areas.

When concrete leveling makes sense: Settlement of 1-3 inches where the concrete is otherwise in good condition, no major cracking, and the underlying cause (poor drainage, inadequate base) can be addressed. **When replacement is better**: Extensive cracking, settlement over 4 inches, or repeated settling in the same area indicates deeper soil problems that leveling won't solve permanently.

Professional assessment is essential because the success of leveling depends on identifying why the concrete settled originally. In New Brunswick's clay soils and areas with high water tables, repeated settlement often occurs unless drainage improvements accompany the leveling work.

Need help finding a concrete leveling contractor? New Brunswick Concrete can match you with local professionals who understand Maritime soil conditions and can assess whether leveling or replacement is the better long-term solution for your specific situation.

Q3

What causes horizontal cracks in poured concrete basement walls in Moncton, and can they be repaired without excavating the exterior?

Horizontal cracks in poured concrete basement walls are typically caused by lateral soil pressure, hydrostatic pressure from groundwater, or foundation settling — and yes, many can be repaired from the interior without excavation, though the repair method depends on the crack's cause and severity.

Horizontal cracks are more concerning than vertical cracks because they indicate the wall is being pushed inward by external forces. In Moncton's clay-heavy soils, this is particularly common during spring thaw when saturated soil expands and groundwater levels rise dramatically. The combination of frost heave, poor drainage, and hydrostatic pressure creates significant lateral forces against foundation walls.

Common causes in Moncton include:

Hydrostatic pressure is the most frequent culprit. Moncton sits in a river valley with high water tables, and many older homes lack proper weeping tile systems. When groundwater builds up against the foundation wall, it creates tremendous pressure — water weighs 62 pounds per cubic foot, so even 4 feet of saturated soil can exert over 200 pounds per square foot of lateral pressure. This pressure is highest during spring snowmelt and after heavy rainfall.

Clay soil expansion compounds the problem. Moncton's Petitcodiac River valley contains expansive clay soils that swell significantly when wet. During spring thaw, this clay can expand 10-15%, pushing against foundation walls with enormous force. Poor surface drainage that allows water to pool near the foundation makes this worse.

Frost heave and freeze-thaw cycles also contribute. New Brunswick's 150+ annual freeze-thaw cycles cause soil movement, and inadequate foundation depth (some older Moncton homes have footings only 3-4 feet deep) can allow frost to get under the foundation, causing differential movement and cracking.

Interior repair options are often effective and much less expensive than excavation:

Crack injection with polyurethane or epoxy works well for active horizontal cracks under 1/4 inch wide. Polyurethane injection costs $500-$1,500 per crack and can flex with minor wall movement. The crack is sealed from inside using injection ports, and the material penetrates through the full wall thickness. This method works best when combined with improved drainage to reduce future pressure.

Interior waterproofing systems address both the crack and the underlying water pressure. A full interior system with a sump pump and perimeter drain costs $5,000-$15,000 but relieves hydrostatic pressure permanently. The system captures water before it reaches the wall, reducing the pressure that caused the crack initially.

Carbon fiber reinforcement can stabilize walls with multiple horizontal cracks or slight inward bowing. Carbon fiber strips are epoxied to the interior wall surface, providing tremendous tensile strength to resist further inward movement. This costs $300-$600 per linear foot but prevents crack progression without excavation.

When excavation IS necessary: If the wall shows significant inward bowing (more than 1 inch), multiple large horizontal cracks, or active water infiltration despite interior repairs, exterior excavation may be required. This involves digging down to the footing, installing proper weeping tile, waterproofing the exterior wall, and potentially installing wall anchors or rebuilding the wall section. Exterior work costs $10,000-$25,000+ but addresses the root cause permanently.

Professional assessment is crucial for horizontal cracks because they can indicate structural instability. A qualified foundation contractor can determine whether the crack is stable or actively growing, assess the wall's structural integrity, and recommend the most cost-effective repair approach. Many horizontal cracks in Moncton can be successfully repaired from inside, but proper diagnosis prevents choosing a repair method that fails within a few years.

Need help finding a foundation specialist? New Brunswick Concrete can match you with experienced foundation contractors who understand Moncton's soil conditions and can assess your specific situation.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- alka masonry
- Thirty Four Renovations
- Gionetterenovations
- PERMA-DRY
- C&A Masonry Inc.

View all contractors ?

Q4

Why is my concrete driveway sinking on one side in Fredericton and how much does it cost to repair?

Your driveway is likely sinking due to soil settlement, washout from poor drainage, or frost heave damage — all common issues in Fredericton's clay-heavy soils and freeze-thaw climate. The repair cost depends on the severity, but expect $3-$6 per square foot for mudjacking or $5-$10 per square foot for poly levelling.

Soil settlement is the most frequent cause of sinking driveways in the Fredericton area. The Saint John River valley has clay-rich soils that expand when wet and shrink when dry, creating unstable conditions under concrete slabs. If the gravel base wasn't properly compacted during installation, or if water has washed away the supporting material, sections of your driveway will gradually sink as the soil beneath compacts under the weight of vehicles.

Poor drainage accelerates the problem. Fredericton's spring snowmelt and heavy rains can saturate the soil around your driveway, especially if gutters overflow or the grading slopes toward the concrete instead of away from it. Water infiltration weakens the soil's bearing capacity and can wash away the gravel base through small gaps in the concrete joints. Check if water pools near the sinking area after rain — this usually confirms drainage as a contributing factor.

Frost heave damage from New Brunswick's 4-foot frost depth can also cause differential settling. When soil freezes and expands unevenly under your driveway — often due to varying moisture content or soil composition — it can lift sections during winter and leave voids when it thaws in spring. Over several freeze-thaw cycles, this creates permanent settlement in the affected areas.

Mudjacking is the most common repair method, costing $3-$6 per square foot in the Fredericton market. A contractor drills small holes through the sunken concrete and pumps a cement-based slurry underneath to lift the slab back to level. This works well for settlement up to 2-3 inches and typically costs $800-$1,500 for a typical residential driveway repair. The concrete can usually be driven on within 24 hours.

Poly levelling uses expanding polyurethane foam instead of cement slurry, costing $5-$10 per square foot. While more expensive, poly levelling is lighter weight (won't overload weak soil), cures faster (driveable in 15 minutes), and works better in Fredericton's clay soils that may not support the additional weight of cement slurry. Budget $1,200-$2,500 for a typical repair.

Complete replacement becomes necessary when the sinking exceeds 4 inches, when the concrete has cracked extensively, or when the underlying soil problems are too severe for lifting methods. A new driveway section costs $8-$15 per square foot, so replacing a 200-square-foot sunken area would run $1,600-$3,000 including proper excavation and base preparation.

Address the root cause or the problem will return. Improve drainage by extending downspouts away from the driveway, regrading soil to slope away from the concrete, and sealing any cracks where water can penetrate. In Fredericton's clay soils, proper drainage is essential for long-term concrete stability.

Hire a professional for this repair. Mudjacking and poly levelling require specialized equipment and experience to avoid over-lifting or creating new cracks. A contractor can also assess whether the soil conditions will support lifting or if replacement is the more cost-effective long-term solution.

Need help finding a professional concrete contractor? New Brunswick Concrete can match you with experienced contractors familiar with Fredericton's soil conditions for a free assessment of your driveway repair options.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- PERMA-DRY
- alka masonry
- Happy Home Enterprises Inc
- C&A Masonry Inc.

View all contractors ?

Q5

Can a cracked concrete foundation wall in an older Sussex NB farmhouse be repaired without full replacement?

Yes, many cracked foundation walls in older Sussex farmhouses can be successfully repaired without full replacement, but the repair method depends entirely on the type, size, and cause of the cracking. Sussex sits in the Saint John River valley where seasonal ground movement and the area's clay soils create specific foundation challenges that often respond well to targeted repairs.

Repairable Foundation Cracks

Most foundation cracks in older Sussex homes fall into repairable categories. **Hairline settlement cracks** (under 1/8 inch wide) that run vertically or diagonally are typically structural settling and can be sealed with polyurethane or epoxy injection. **Horizontal step cracks** following mortar joints in stone or block foundations are common in

century-old Sussex farmhouses and usually indicate minor settling rather than structural failure.

Shrinkage cracks that appear within the first year after construction are normal concrete behavior and seal easily. Even **moderate settlement cracks** up to 1/4 inch wide can often be repaired with crack injection, followed by exterior waterproofing to prevent water infiltration that could worsen the damage through freeze-thaw cycles.

Sussex-Specific Foundation Challenges

Sussex's location in the Saint John River valley creates unique conditions for older foundations. The area's **clay soils expand and contract significantly** with moisture changes, putting cyclical stress on foundation walls. Spring flooding and high water tables in the valley can saturate soils around foundations, increasing hydrostatic pressure. Many Sussex farmhouses were built with **fieldstone or early concrete block foundations** that are more prone to settlement and water infiltration than modern poured concrete.

The region's **deep frost penetration** (4+ feet) means foundation walls experience significant freeze-thaw pressure. However, most structural issues in older Sussex homes result from gradual settling and water infiltration rather than catastrophic failure, making them good candidates for repair.

Professional Assessment Required

Any foundation crack wider than 1/4 inch, horizontal cracks, or cracks showing active movement requires immediate professional evaluation. A structural engineer or experienced foundation contractor can determine if cracks indicate normal settling, soil movement, or structural compromise. They'll assess whether the foundation is stable enough for repair or if sections need rebuilding.

Common Repair Methods

Crack injection using polyurethane or epoxy costs $500-$1,500 per crack and effectively seals most foundation cracks. **Exterior excavation and waterproofing** ($5,000-$15,000 per wall) addresses both cracking and water infiltration. **Carbon fiber reinforcement** can strengthen cracked walls without excavation. **Underpinning** may be needed if footings have settled below the frost line.

When Full Replacement is Necessary

Replace rather than repair if the foundation shows **multiple wide horizontal cracks**, **significant bowing or bulging**, **crumbling concrete or mortar**, or **active structural movement**. Foundations built before 1950 without proper footings below the frost line may need replacement to meet current NB Building Code requirements.

Need help finding a foundation specialist familiar with Sussex-area soil conditions? New Brunswick Concrete can match you with experienced contractors through the New Brunswick Construction Network who understand the unique challenges of older Maritime farmhouse foundations.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- C&A Masonry Inc.
- Gionetterenovations
- Thirty Four Renovations
- alka masonry
- Happy Home Enterprises Inc

View all contractors ?

Q6

How do I repair cracks in my concrete foundation in New Brunswick?

Foundation crack repair in New Brunswick depends on the type of crack, whether it is leaking, and whether it is structural or non-structural — and the honest answer is that most foundation cracks in NB warrant a professional assessment before you start applying products. Choosing the wrong repair method for your crack type can seal in problems, give false confidence, or miss an ongoing structural issue.

NB foundations deal with some of Canada's most challenging conditions: 4-5 foot frost depth, spring hydrostatic pressure from snowmelt, saturated clay soils in the Saint John River valley and Fredericton area, and 150+ annual freeze-thaw cycles. These forces cause two broad categories of cracks: **non-structural shrinkage cracks** (hairline vertical or diagonal cracks from normal concrete curing and minor settlement) and **structural cracks** (wider cracks, horizontal cracks, or cracks with step displacement indicating active pressure or movement).

Hairline shrinkage cracks — thin vertical or diagonal cracks under 3mm (1/8 inch) wide that are dry and have not changed in years — are extremely common in NB poured concrete foundations and are typically non-structural. These can be sealed from the interior using **polyurethane or epoxy injection**, which is the most reliable repair method for dry or dormant cracks. Polyurethane is flexible and better for cracks that may experience slight movement; epoxy creates a rigid bond stronger than the surrounding concrete but requires a completely dry crack. Interior crack injection typically costs $500-$1,500 per crack professionally done, and is worthwhile for cracks you want to prevent from becoming water pathways.

Active leaking cracks — cracks that show water infiltration during rain or snowmelt — require a different approach. **Hydraulic cement** can stop active water infiltration (it sets in under 3 minutes in contact with water), but

it is a temporary measure that does not address the exterior water pressure driving the leak. A proper repair for a leaking crack is polyurethane foam injection under pressure, which expands to fill and seal the crack even while wet. This is a professional application.

Horizontal cracks in foundation walls are the most serious category. They indicate lateral soil pressure is bending the wall inward — a structural failure mode that is not repairable with crack fillers. Horizontal cracks in NB foundations require structural assessment and typically structural repair (carbon fibre straps, wall anchors, or underpinning depending on severity).

Exterior waterproofing — excavating down to the footing, repairing the crack from outside, applying a waterproofing membrane, and installing or replacing weeping tile — is the most comprehensive repair for any foundation crack that is leaking or at risk of leaking. It costs $5,000-$15,000 per wall but addresses the root cause rather than managing symptoms from the interior. This is the right call for NB foundations with significant water pressure issues.

For any crack that is wider than 3mm, showing displacement (one side higher than the other), or has appeared suddenly after significant rain or frost thaw events, get a professional structural assessment before attempting any repair. New Brunswick Concrete can match you with experienced foundation repair contractors across the province.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- Thirty Four Renovations
- PERMA-DRY
- Happy Home Enterprises Inc
- C&A Masonry Inc.

View all contractors ?

Q7

What is the best concrete crack filler for NB winter conditions?

For New Brunswick's freeze-thaw conditions, the best concrete crack fillers are flexible polyurethane sealants for surface and control joint cracks, polyurethane foam injection for leaking foundation cracks, and epoxy injection for structural cracks that need rigid bonding strength. Rigid, brittle fillers like standard hydraulic cement or unsanded grout are poor long-term choices for exterior NB concrete because they cannot flex with the 150+ annual freeze-thaw cycles the concrete experiences.

The critical rule for choosing a crack filler in NB is this: **the filler must be able to move with the concrete.** Every winter, exterior concrete expands and contracts with temperature changes. Cracks also open and close slightly with frost cycles. A brittle filler that bonds to both crack edges but cannot flex will eventually pop out or cause the crack to propagate around it. A flexible filler stays bonded through decades of NB winters.

For exterior cracks in driveways, walkways, patios, and steps in Moncton, Fredericton, Saint John, and across NB, the best readily available options are:

Polyurethane concrete caulk (Sikaflex, Vulkem, NP1) — the go-to filler for control joints and surface cracks up to 1/2 inch wide. It cures to a tough, flexible rubber-like consistency that bonds to concrete and survives repeated freeze-thaw cycling. Available at most NB building supply stores for $8-$20 per tube. Apply when temperatures are above 5°C (ideally 10°C or above) and the crack is dry or only slightly damp. For cracks wider than 1/4 inch, use a foam backer rod to fill the depth of the crack before applying the sealant on top.

Self-levelling polyurethane joint sealant — the same chemistry in a pour-grade formula that flows into horizontal cracks and self-levels to a smooth surface. Excellent for driveway control joints and cracks in horizontal flatwork. Brands like Sikaflex-1a Self Leveling are widely used in NB.

Epoxy crack injection — for structural cracks in foundations, garage floors, or load-bearing slabs where you need the crack to regain structural strength. Epoxy creates a bond stronger than the surrounding concrete. Not suitable for cracks that are still moving or for exterior flatwork where flexibility is needed. Professional application recommended — properly executed epoxy injection costs $500-$1,000 per crack for foundation applications.

What not to use in NB winter conditions: Standard vinyl concrete patching compounds, hydraulic cement applied alone, or rigid cementitious fillers on exterior flatwork. These products are too brittle to survive NB's freeze-thaw cycles and will crack, pop out, or cause the surrounding concrete to spall within 2-5 years.

Timing matters. Apply any concrete crack filler in the May through October window when temperatures are consistently above 10°C and the concrete has thoroughly dried after spring thaw. Filling cracks in late fall as temperatures drop reduces adhesion and accelerates re-opening. After filling, seal the surrounding concrete with a

penetrating silane/siloxane sealer to reduce water infiltration and extend the repair life.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Happy Home Enterprises Inc
- Gionetterenovations
- C&A Masonry Inc.
- alka masonry
- PERMA-DRY

View all contractors ?

Q8

How do I fix spalling concrete on my NB front steps?

Spalling concrete steps — where the surface layer flakes, pops off, or crumbles — are one of the most common concrete repair projects in New Brunswick, and they can be repaired successfully if the damage is surface-level and the underlying concrete is structurally sound. If spalling has penetrated deep enough to expose or rust the rebar, or if the step structure itself is cracked and unstable, replacement is likely the better long-term investment.

Spalling on NB front steps is almost always caused by the same culprits: water penetrating the surface, freezing, expanding, and popping off the top layer of concrete. De-icing salts — poured directly onto steps in winter — dramatically accelerate this process by creating additional freeze-thaw cycles at the surface and chemically attacking the concrete matrix. Many NB homeowners inadvertently destroy their own steps over 5-10 winters by salting them. The damage compounds every season if left unaddressed.

For surface spalling less than 1 inch deep on structurally sound steps, the repair process is:

First, remove all loose and delaminated concrete using a cold chisel and hammer or an angle grinder. Sound concrete has a solid ring when struck — hollow or soft areas must be fully removed. The repair will fail if applied over compromised concrete. Undercut the edges of the repair area slightly (45-degree undercut) so the patch has a mechanical key and cannot pop off as a flat disc.

Clean the area thoroughly — remove dust, oil, efflorescence, and any loose material. If there is any rebar visible, wire-brush the rust off and apply a rust inhibitor primer before patching.

Apply a concrete bonding agent (Weld-Bond, SikaBond, or similar) to the prepared surface and let it become tacky per manufacturer directions. This is critical — skipping the bonding agent is why many DIY concrete patches fail within 2-3 winters in NB.

Apply a **polymer-modified concrete repair mortar** (Quikrete Vinyl Concrete Patcher, Sakrete Flo-Coat, or a professional-grade product like Sika MonoTop or Mapei Planitop) mixed to the consistency of peanut butter for shallow repairs or wetter for pour-on applications. Feather the edges thin and tool the surface to match the original finish. Some products can be feathered to near-zero thickness; standard concrete mix cannot.

Cure the repair for 7 days by keeping it moist (wet burlap, plastic sheeting, or curing compound). Do not allow foot traffic for at least 3 days, and no de-icing salts for the first full winter after repair — ideally two winters.

Apply a penetrating concrete sealer (silane/siloxane-based) once the repair has fully cured — at least 28 days after patching. Reapply every 2-3 years. This is the single most important step to prevent spalling from returning on NB steps.

For steps with deep spalling, exposed rebar, structural cracking, or settlement issues, professional resurfacing or replacement is the right call. New Brunswick Concrete can match you with local contractors for a free assessment.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Happy Home Enterprises Inc
- alka masonry
- PERMA-DRY
- C&A Masonry Inc.
- Thirty Four Renovations

View all contractors ?

Q9

What causes white powder on concrete walls in New Brunswick basements?

The white powdery deposits on your New Brunswick basement concrete walls are called efflorescence — and they are a reliable indicator that water is moving through your concrete wall, carrying dissolved minerals with it. Efflorescence itself is not structurally dangerous, but it is your concrete wall's way of telling you it has a moisture problem that deserves attention.

Here is what is happening: water — from groundwater pressure, rain infiltration, snowmelt, or condensation — moves through the microscopic pores and microcracks in your concrete wall. As it travels through the concrete, it dissolves calcium hydroxide and other soluble salts from the cement matrix. When this mineral-laden water reaches the surface of your basement wall and evaporates, it leaves the dissolved minerals behind as a white, chalky, or crystalline deposit. In NB, this process is most pronounced in spring, when saturated soil and snowmelt create significant hydrostatic pressure against foundation walls.

Efflorescence intensity is a rough gauge of the moisture problem's severity. A light dusting of white powder on a dry wall might reflect minor historical moisture movement that has since stopped. Heavy, thick deposits — especially if they appear or worsen every spring in Fredericton, Moncton, Saint John, or Riverview — indicate ongoing and significant water movement through the wall. If the efflorescence is accompanied by actual water seepage, wet spots, or standing water on the basement floor, you have a more serious moisture infiltration issue that needs professional attention.

Cleaning efflorescence is straightforward: dry-brush with a stiff bristle brush to remove loose deposits, then wash with a diluted masonry acid cleaner (muriatic acid at 1:10 dilution in water, or phosphoric acid-based cleaners which are safer to handle). Rinse thoroughly. This removes the cosmetic problem but does not fix the underlying moisture issue — the efflorescence will return if the water pathway is not addressed.

Addressing the root cause depends on the source of the moisture:

- **Poor exterior grading** (ground sloping toward the foundation) is the most common cause and is often corrected with re-grading and downspout extensions — relatively low cost
- **Failed or blocked weeping tile** is common in NB homes more than 30-40 years old. Interior drainage systems (interior weeping tile with a sump pump) or exterior waterproofing may be needed
- **Cracks in the foundation wall** that are allowing water through should be sealed — polyurethane or epoxy injection from the interior, or exterior membrane repair

  For NB basements showing persistent, seasonal efflorescence with any accompanying moisture, get a professional moisture assessment before applying waterproofing paints or coatings. Interior concrete waterproofing paints (Drylok and similar) do not solve moisture problems — they redirect water pressure and can delaminate under continued hydrostatic pressure.

New Brunswick Concrete can connect you with basement waterproofing and foundation professionals across New Brunswick for an honest assessment of your situation.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Happy Home Enterprises Inc
- C&A Masonry Inc.
- PERMA-DRY
- Gionetterenovations
- Thirty Four Renovations

View all contractors ?

Q10

Can spalling concrete be repaired or does it need to be replaced in NB?

Spalling concrete can often be repaired successfully in New Brunswick if the damage is limited to the surface layer and the underlying concrete is structurally sound — but widespread, deep spalling, or spalling on thin slabs typically means replacement is the more cost-effective long-term choice. The decision hinges on depth of damage, total surface area affected, age of the concrete, and what caused the spalling in the first place.

Repair is appropriate when:

- Spalling is less than 1 inch deep and affects less than a third of the total surface
- The underlying concrete is hard, solid, and produces a clear ring when struck with a hammer (not a hollow thud)
- The concrete is of adequate thickness — a 4-inch slab with 1/2 inch of spalling still has 3.5 inches of sound concrete beneath
- The cause of spalling (de-icing salts, lack of sealer) has been identified and can be corrected going forward
- The feature still has functional integrity — steps that are spalling but still structurally stable and safe to use

  For surface spalling in this category, polymer-modified repair mortars with a bonding agent, properly applied and sealed after curing, can last 10-20 years in NB conditions. Expect to pay $300-$1,500 for professional repair of localized spalling on steps or a small patio area, depending on extent and contractor.

  Replacement is the better option when:

- Spalling is widespread (more than 40-50% of the surface is delaminating)
- The damage has reached the rebar, which is now corroding and expanding within the slab
- The original concrete was thin (less than 3.5 inches) or improperly mixed — no amount of surface repair fixes a fundamentally weak slab
- The feature is old (30+ years) and the concrete itself has deteriorated throughout, not just at the surface
- Multiple attempts at repair have already failed — some concrete simply will not hold patches because the substrate is too compromised

  For NB driveways specifically, widespread spalling across a 400-600 sq ft driveway is almost always a replacement job. Full driveway replacement runs $4,000-$8,000 for a standard two-car concrete driveway in Moncton, Fredericton, or Saint John — expensive, but a properly installed new driveway with air-entrained concrete and a quality sealer should last 30-40 years. Patching a compromised driveway surface repeatedly costs money every 3-5 years and never achieves the same lifespan.

Resurfacing is a middle option for driveways and patios where the structure is sound but the surface is rough or moderately spalled. A professional concrete resurfacer (Quikrete Concrete Resurfacer, Ardex Feather Finish, or similar) applied at 1/4 to 1/2 inch thick over a properly prepared and bonded surface can restore the appearance and function of a slab that is not ideal for repair but not far enough gone to justify full replacement. Cost runs $3-$6 per square foot professionally applied. It is not a permanent fix for deeply compromised concrete, but buys another 10-15 years on a sound slab.

Need help determining whether repair or replacement makes sense for your specific situation? New Brunswick Concrete can match you with local contractors who can give you an honest assessment and competitive quotes.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Thirty Four Renovations
- alka masonry
- PERMA-DRY
- Happy Home Enterprises Inc
- C&A Masonry Inc.

View all contractors ?

Q11

How does mudjacking work and is it a good option in NB?

Mudjacking — also called slabjacking — is a process of pumping a slurry mixture of water, soil, and Portland cement under a sunken concrete slab to lift it back to its original level. It is a legitimate, cost-effective repair option in New Brunswick for sunken driveways, sidewalks, patio slabs, and garage aprons — but its suitability depends on why the slab sank and what the soil conditions are beneath it.

The process works by drilling 1.5 to 2-inch holes through the sunken slab at strategic locations, then injecting a pressurized slurry through these holes. The slurry fills voids beneath the slab and builds pressure until it lifts the slab to the target elevation. Once lifted and confirmed level, the injection holes are patched. A crew can typically complete a residential mudjacking job in a few hours, and the slab is usable within 24-48 hours — compared to weeks of curing time for a full replacement.

Mudjacking costs in NB run $3-$6 per square foot, making it significantly cheaper than replacement ($8-$15 per square foot). For a 400 sq ft sunken garage apron in Moncton, mudjacking might run $1,200-$2,400 versus $3,200-$6,000 for full removal and replacement. When it works, it is an excellent value.

Mudjacking works well in NB when:

- The slab itself is structurally sound (no major cracking or delamination)
- The slab sank due to void development or gradual soil consolidation beneath it
- The soil beneath is stable enough to support the re-lifted slab
- The slab edges have not broken or separated significantly

Mudjacking is not a good option in NB when:

- The soil beneath is poorly compacted organic material that continues to consolidate — the slab will sink again within a few years
- The void beneath the slab is too large for the slurry to fill effectively without massive injection volume
- The slab itself is cracked, broken into pieces, or delaminated — you would be lifting a compromised structure
- Frost heave is the cause of the unevenness — if the slab heaved up in winter and has not fully settled, lifting it further makes things worse

In NB specifically, the cause of sinking is important context. Slabs in Fredericton, Moncton, and Riverview that settled due to poor compaction of fill soil when the home was built are good mudjacking candidates. Slabs that have been repeatedly heaving and settling due to frost on inadequate base material are better candidates for removal, proper base preparation, and replacement.

The mudjacking slurry also adds permanent weight to the soil, which is a consideration in areas with soft or wet subgrade. On properties near waterways in Miramichi, the Saint John River valley, or low-lying coastal areas, a professional assessment of soil conditions before mudjacking is worthwhile.

New Brunswick Concrete can connect you with concrete lifting and repair specialists in Moncton, Fredericton, Saint John, Dieppe, and across New Brunswick for a free estimate.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- alka masonry
- Gionetterenovations
- PERMA-DRY

- Happy Home Enterprises Inc
- C&A Masonry Inc.

View all contractors ?

Q12

What is poly levelling and how does it compare to mudjacking in New Brunswick?

Poly levelling (also called polyurethane foam lifting or foam jacking) uses expanding polyurethane foam injected through small holes to lift sunken concrete slabs. It is the modern alternative to traditional mudjacking, and in New Brunswick's climate, it has several advantages — but it also costs more and is not always the right choice for every situation.

The process is similar to mudjacking at a high level: technicians drill small holes through the sunken slab (typically 5/8 inch diameter, much smaller than mudjacking's 1.5-2 inch holes), inject material through the holes under pressure, and the expanding material lifts the slab. The critical difference is the material. Instead of a heavy cement slurry, poly levelling uses a two-component polyurethane that expands 20-30 times its liquid volume into a rigid, lightweight, waterproof foam that fills voids and exerts controlled lifting pressure.

Advantages of poly levelling over mudjacking in NB:

Weight: The polyurethane foam adds very little weight — roughly 2-4 lbs per cubic foot versus 100+ lbs per cubic foot for mudjacking slurry. In areas with weak or soft subgrade (common in low-lying NB communities), adding hundreds of pounds of grout is a problem. Foam is essentially weightless in comparison.

Water resistance: The cured foam is waterproof and does not erode, dissolve, or wash out. Mudjacking slurry is cement-based but can be eroded by water movement beneath the slab over years. In NB where spring snowmelt creates significant water movement under slabs, this matters.

Smaller holes: The 5/8-inch injection holes are patched nearly invisibly versus the 1.5-2 inch holes from mudjacking, which is aesthetically relevant for stamped or decorative concrete.

Speed: The foam cures in minutes, not hours. Slabs are fully loadable within 15-30 minutes of completion versus 24-48 hours for mudjacking.

Disadvantages of poly levelling:

Cost: Poly levelling runs $5-$10 per square foot in NB — roughly 50-75% more expensive than mudjacking at $3-$6 per square foot. For a large garage floor or driveway, the cost difference is significant.

Material sensitivity: Polyurethane foam does not perform well in certain soil conditions, particularly very loose or organic soils where the foam may not find adequate resistance and can create irregular lifts.

Both methods are appropriate for NB applications — sunken garage aprons, settled sidewalk sections, tilted driveway slabs, and sunken patio sections that are structurally sound. The choice often comes down to budget, substrate conditions, and the proximity of the project to water or drainage concerns.

For most standard residential concrete lifting in Moncton, Fredericton, Saint John, Dieppe, and Riverview, both options outperform full removal and replacement from a cost-benefit perspective when the slab itself is sound. New Brunswick Concrete can match you with lifting and levelling specialists serving your area for a free site assessment.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- C&A Masonry Inc.
- Thirty Four Renovations
- alka masonry
- Happy Home Enterprises Inc
- PERMA-DRY

View all contractors ?

Q13

How do I fix a sunken concrete garage floor in Moncton?

A sunken concrete garage floor in Moncton is most commonly caused by inadequate compaction of the granular base when the floor was originally poured, or by soil consolidation and moisture movement beneath the slab over time. The good news is that if the slab itself is structurally sound — not cracked into pieces or broken through — lifting and levelling is often the most cost-effective solution before considering full replacement.

Moncton's geology includes areas with varying soil conditions — from well-draining sandy soils in some neighbourhoods to softer, moisture-retaining soils closer to Petitcodiac River floodplain areas. Garages built on inadequately compacted fill soil — especially common in newer developments where the lot was graded with imported fill — are prone to settling as the fill material consolidates over the first 10-20 years. The garage floor slab may remain structurally intact while the soil beneath compresses, creating a void between the slab and the base.

Your first step is to assess the slab condition. Walk the floor and look for: major cracks wider than 3mm (1/8 inch), areas where the slab flexes or sounds hollow when walked on, sections that have broken into multiple pieces or show significant differential settlement (one section much higher than an adjacent section), and signs of ongoing moisture infiltration from beneath (efflorescence, damp spots after dry weather). A slab in multiple pieces with rebar showing is a replacement job. A slab that is sunken 1-3 inches but still monolithic and crack-free is a good lifting candidate.

Poly levelling or mudjacking are both appropriate for structurally sound sunken garage floors in Moncton. Poly levelling is often preferred for garage interiors because the smaller injection holes patch more cleanly, and the foam's waterproof properties help with any moisture that contributed to the sinking. Expect $5-$10 per square foot for poly levelling — a typical two-car garage floor (400-500 sq ft) would run $2,000-$5,000. Mudjacking costs less at $3-$6 per square foot but adds weight and is less water-resistant.

If the slab is beyond repair, full replacement of a two-car garage floor in Moncton runs $3,000-$5,000, including demolition and removal of the old slab, subgrade inspection and compaction, a minimum 4-inch air-entrained concrete slab with wire mesh or rebar on chairs, and proper control joints. Ensure the contractor specifies air-entrained mix for the new slab — a garage floor in Moncton exposed to de-icing salt tracked in on vehicle tires absolutely needs air entrainment to resist the salt-accelerated freeze-thaw cycling.

Before lifting or replacement, address any drainage issues causing the problem. Ensure downspouts discharge well away from the garage foundation, that the grade around the garage slopes away from the building, and that any water infiltration through the garage walls or floor joints is remediated. Lifting a slab without fixing the water pathway that caused the settlement is a temporary fix.

New Brunswick Concrete can match you with concrete lifting and repair professionals serving the Moncton, Dieppe, and Riverview area for a free on-site assessment.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- Happy Home Enterprises Inc
- Thirty Four Renovations
- alka masonry
- PERMA-DRY

View all contractors ?

Q14

Can concrete resurfacing fix an old driveway in NB?

Concrete resurfacing can genuinely extend the life of an old NB driveway — but only if the existing slab is structurally sound. Resurfacing applies a new 1/4 to 1/2 inch layer of polymer-modified concrete over the existing surface, restoring appearance and adding a fresh wearing surface. It is not a structural repair and will not fix a driveway that has fundamental problems with its base, thickness, or reinforcement.

The hard truth about concrete resurfacing in New Brunswick is that NB's freeze-thaw conditions are the most demanding stress test a resurfacing product can face. A resurfacing layer that is not properly bonded to the existing concrete, applied too thin, or applied to a concrete surface with ongoing movement, will delaminate and pop off within 2-5 winters. When resurfacing works, it is excellent value. When it fails, you are back to the original problem plus the wasted cost of resurfacing.

Resurfacing is appropriate for NB driveways when:

- The existing slab is at minimum 3.5 inches thick and sound (rings clear when struck, no flex)
- Cracking is minimal — hairline shrinkage cracks only, no wide or structural cracks
- Spalling or surface scaling is limited to the top 1/4 inch or less
- The base is stable — the slab has not settled or heaved significantly
- The driveway is 10-20 years old and showing early surface wear, not end-of-life deterioration

Surface preparation is everything. The existing concrete must be ground or shot-blasted (not just pressure-washed) to open the surface profile and remove any traces of oil, sealer, curing compound, or contamination. A concrete bonding agent is applied before the resurfacer. Any cracks wider than 1/8 inch are repaired and allowed to cure before resurfacing. Skip these steps and the resurfacer will peel. Professional preparation and application of driveway resurfacing in NB runs $3-$6 per square foot — a 500 sq ft driveway would cost $1,500-$3,000.

After resurfacing, the new surface must be sealed within 30 days of application and resealed every 2-3 years. A penetrating silane/siloxane sealer is the right choice for NB driveway conditions — it repels water and de-icing salt without changing the appearance or creating a slippery surface. No de-icing salts on a newly resurfaced driveway for at least 2 full winters — use sand for traction only.

Resurfacing is NOT appropriate when:

- The driveway has major structural cracks, broken slabs, or rebar showing
- Large sections have settled or heaved — the resurfacer will follow the existing contour
- The concrete is very old (30+ years) and shows widespread deterioration through its depth
- Previous repair or resurfacing attempts have already failed

For driveways in Moncton, Fredericton, Saint John, Bathurst, and across NB, the 25-40 year lifespan of a properly installed, sealed, and maintained concrete driveway means that a driveway from the late 1990s or early 2000s may genuinely be a resurfacing candidate rather than a replacement. Get a professional assessment to know which side of the line your driveway falls on.

New Brunswick Concrete can match you with experienced concrete resurfacing and repair contractors across the province for a free quote.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- PERMA-DRY
- Thirty Four Renovations
- Happy Home Enterprises Inc
- C&A Masonry Inc.
- Gionetterenovations

View all contractors ?

Q15

How do I repair parging on my foundation wall in New Brunswick?

Parging — the thin layer of mortar or stucco applied to the exposed portion of a concrete block or poured concrete foundation wall above grade — is both decorative and protective, and repairing it is one of the most common and manageable concrete maintenance tasks for NB homeowners. Failed parging exposes the underlying foundation material to moisture, freeze-thaw damage, and accelerated deterioration, so prompt repair is worthwhile.

In New Brunswick, parging takes a beating. The exposed above-grade section of a foundation wall faces direct freeze-thaw cycling (150+ cycles annually), salt-laden spring slush from the driveway, weed whacker impact, and the expansion and contraction stress of the transition zone between the above-grade and below-grade temperature environments. Most NB parging has a practical service life of 15-25 years before requiring spot repairs or full reapplication.

Before repairing parging, identify why it failed. The most common causes are:

- **Age and freeze-thaw deterioration**: The bonding between the parging and the substrate weakens over many freeze-thaw cycles until the parging cracks and spalls off
- **Moisture behind the parging**: If the foundation wall is damp (from interior moisture or inadequate exterior waterproofing), moisture migrating outward through the wall breaks the bond between parging and substrate from behind
- **Differential movement**: If the foundation has shifted or cracked, parging applied over cracks will crack too — repairing parging without first addressing foundation movement is a temporary fix

  For spot repairs, remove all loose, hollow-sounding parging by tapping with a hammer and chipping away sections that do not ring solid. The repair area must have clean, solid edges — feathering thin parging into existing sound parging will fail at the transition. Clean the exposed substrate with a wire brush. Apply a concrete bonding agent and allow it to become tacky. Mix a parging mix (Quikrete Parging Cement, Bomix parging products, or a mix of one part Portland cement to three parts masonry sand with minimal water) to a thick, workable consistency and trowel it on in a 3/8 to 1/2 inch layer. Tool the surface to match the surrounding texture. Keep damp for 3-5 days for proper curing.

  For full reapplication of parging on a foundation wall (which professional contractors charge $5-$10 per square foot), the existing parging is completely chipped and removed to bare substrate, the wall is cleaned and dampened before application, and the new parging is applied in two coats — a scratch coat that is roughed and allowed to cure, then a finish coat. This two-coat system bonds better and is more durable than a single-coat application.

Acrylic or polymer-modified parging mixes — available at NB building supply stores — offer better flexibility and adhesion in NB's freeze-thaw conditions compared to straight Portland cement parging. The modest extra cost ($5-$10 per bag) is worth it for exterior applications.

After parging has cured for 30 days, apply a penetrating masonry sealer to reduce moisture absorption. For foundations in Fredericton, Moncton, and Saint John homes near water tables, confirm that any persistent moisture driving parging failure from within is addressed before reapplying — otherwise the cycle repeats.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- C&A Masonry Inc.
- Happy Home Enterprises Inc
- alka masonry
- PERMA-DRY
- Gionetterenovations

View all contractors ?

Q16

What is the best way to seal foundation cracks from the inside in NB?

The best interior method for sealing foundation cracks in New Brunswick is polyurethane foam injection — it works on wet or actively leaking cracks, remains flexible after curing, and performs well through NB's freeze-thaw cycles. Epoxy injection is the second option for dry, dormant cracks where structural strength of the repair is the priority. Surface-applied waterproofing paints or cements applied over cracks without injection are generally the least reliable option for anything more than hairline surface cracks.

It is important to be clear about what interior crack sealing achieves: it addresses the symptom (water entering through a specific crack) without addressing the cause (hydrostatic pressure from exterior soil and water against the wall). In NB, where spring thaw generates significant water pressure against foundation walls — especially in Fredericton and Moncton where homes in the Saint John River and Petitcodiac River catchments deal with high water tables — interior crack injection is a practical repair for isolated cracks, but does not replace addressing poor exterior drainage.

Polyurethane foam injection for leaking cracks:

This method involves drilling injection ports along the crack at 6-12 inch intervals, inserting low-pressure injection ports into the drilled holes, and pumping two-component polyurethane that expands and cures within the crack. The foam is hydrophilic — it actively seeks out and reacts with moisture, expanding to fill voids and seal the crack path completely even while water is flowing through it. The cured foam remains flexible, which is important for NB foundations that experience slight seasonal movement from soil pressure and frost. Professional polyurethane injection costs $500-$1,500 per crack depending on length and severity.

Epoxy injection for dry structural cracks:

For dormant, completely dry cracks — particularly diagonal or vertical cracks that have not changed in years and show no active moisture — epoxy injection creates a bond stronger than the surrounding concrete. This is the right choice when structural integrity of the wall is the primary concern. Epoxy has no flexibility once cured, so it is not appropriate for cracks that are still moving or in locations subject to significant seasonal soil pressure variation. Professional epoxy injection runs $500-$1,000 per crack.

What not to do: Hydraulic cement pressed into a leaking crack is a temporary patch — it stops active water but does not penetrate and seal the crack depth, and the rigid plug can be bypassed by water pressure that redirects through adjacent concrete porosity. Interior waterproofing paints (Drylok, ZoneSeal) applied over cracks do not seal the crack itself — they create a coating on the wall surface that will eventually fail under continued hydrostatic pressure from NB's wet springs.

After any interior crack repair, improve exterior drainage: ensure downspouts extend at least 6 feet from the foundation, grade the soil to slope away from the wall, and if the same crack or adjacent cracks continue to leak in subsequent springs, have a professional assess whether exterior waterproofing (excavating to the footing and applying a proper exterior membrane with new weeping tile) is warranted. In NB, that is the permanent solution for chronically wet foundation walls.

New Brunswick Concrete can connect you with foundation crack repair specialists in Moncton, Fredericton, Saint John, Dieppe, Miramichi, Bathurst, and across the province.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Thirty Four Renovations
- Gionetterenovations
- C&A Masonry Inc.
- Happy Home Enterprises Inc
- PERMA-DRY

View all contractors ?

Q17

How do I fix concrete scaling from salt damage in New Brunswick?

Concrete scaling from salt damage is one of the most common problems NB homeowners face, and the fix depends on how deep the damage goes. Surface scaling — where the top layer flakes off in thin sheets — is typically a cosmetic and protective repair, while deep scaling that exposes aggregate or rebar requires more involved restoration.

The first step is to stop the damage from progressing. Identify and eliminate the source of salt exposure as best you can. On driveways, this means stopping road salt from being tracked onto the surface and switching to sand or a less corrosive de-icer like calcium magnesium acetate (CMA) on your property. Salt penetrates concrete and creates extra freeze-thaw cycles within the concrete itself — NB roads are heavily salted from November through April, and that slush carries sodium chloride onto your driveway and walkways constantly.

For **light to moderate scaling** (surface flaking, no exposed aggregate), a concrete resurfacer can restore the surface. Products like Quikrete Concrete Resurfacer or Ardex feather-finish mortars bond well to existing concrete and can be applied in 1/8 to 1/4 inch layers. The key is proper surface prep: pressure wash the surface thoroughly, let it dry completely, apply a concrete bonding agent, then apply the resurfacer in thin coats. In NB, only do this repair between May and September when you have warm, stable conditions — resurfacing compounds need temperatures above 10°C to cure properly.

For **heavy scaling or delamination** (aggregate exposed, multiple layers flaking), resurfacing may be too thin a fix. The entire surface may need to be chipped to sound concrete and repaired with a polymer-modified concrete overlay (minimum 1/2 inch thick). This is a professional repair — achieving a consistent, bonded overlay on a scaled driveway requires experience with proper mixing ratios and application techniques.

Preventing Future Scaling

Once the surface is repaired, apply a quality **penetrating silane/siloxane sealer** before the first frost. This is non-negotiable for NB concrete — it repels water and the chloride ions in road salt without changing the surface appearance. Budget $40–$80 per gallon; a two-car driveway takes roughly 1–2 gallons. Reapply every 2–3 years.

Never let newly repaired concrete come into contact with de-icing salts for at least the first full winter season — the repair material needs time to fully cure and harden before facing NB's 150+ annual freeze-thaw cycles.

For scaling that's progressed beyond surface repair, or if you're unsure how deep the damage goes, **New Brunswick Concrete can match you with a local concrete professional** for a free assessment. A contractor can probe the concrete and tell you honestly whether resurfacing is viable or whether full replacement is the smarter long-term investment.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- PERMA-DRY
- C&A Masonry Inc.
- Thirty Four Renovations
- alka masonry
- Gionetterenovations

View all contractors ?

Q18

Can you overlay new concrete over old damaged concrete in NB?

Yes, you can overlay new concrete over old damaged concrete in New Brunswick — but only if the existing slab is structurally sound and properly prepared. The success of any overlay depends almost entirely on surface preparation and the condition of the base concrete. Skip either step, and the overlay will delaminate within one or two NB winters.

The biggest question is whether your existing concrete is a candidate for overlaying at all. If the slab is cracked and actively shifting, has significant settlement, is hollow-sounding when you tap it (indicating delamination), or has damage deeper than the surface layer, an overlay is not the answer. Overlaying a structurally compromised slab is like painting over rust — it hides the problem temporarily while it gets worse underneath. For slabs with cracked sections that rock or shift independently, the right approach is removal and replacement.

For **good candidates** — a slab that is structurally intact with surface scaling, discolouration, or shallow spalling — overlaying is a legitimate restoration. Minimum overlay thickness is typically 1/4 inch for topping compounds and 1/2 inch or more for standard concrete mixes. A standard concrete mix will not bond adequately at thin applications; you need a **polymer-modified overlay** (latex or acrylic modified) or a micro-topping product designed for thin-section applications. The bonding agent is the most critical step: the existing surface must be clean, free of oil, laitance, and loose material, and the bonding agent must be applied correctly and still tacky when the overlay goes down.

Surface Preparation in NB Conditions

In New Brunswick, proper prep means **mechanical scarification or shot blasting**, not just pressure washing. The existing concrete surface needs to be roughened to a concrete surface profile (CSP) of 3–5 for a polymer overlay to bond reliably through freeze-thaw cycling. This is rental equipment or professional territory. A poorly prepared surface will look fine for six months, then delaminate in sheets when the first hard frost hits.

For **garage floors**, self-levelling concrete overlays (1/4 to 1 inch thick) are a popular option and can be applied DIY if the base concrete is sound and level. For driveways and exterior surfaces, the overlay must use an air-entrained, polymer-modified mix to survive NB's freeze-thaw cycles — standard overlay compounds are not designed for exterior exposure in NB's climate.

Typical overlay costs in NB run **$5–$12 per square foot** fully installed, compared to $8–$15 per square foot for full replacement. Whether that difference is worth it depends entirely on the condition of the existing slab.

Not sure if your slab is a good overlay candidate? **New Brunswick Concrete can connect you with a local concrete contractor** who can assess the slab and give you an honest recommendation on overlay vs. replacement

— often the site visit is free with the quote.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- PERMA-DRY
- C&A Masonry Inc.
- alka masonry
- Happy Home Enterprises Inc

View all contractors ?

Q19

How long does a concrete crack injection repair last in NB winters?

A properly done concrete crack injection repair can last 10–25 years in New Brunswick conditions — but the longevity depends heavily on what caused the crack and whether that cause has been addressed. Epoxy injection repairs on stable, structural concrete typically outlast the surrounding concrete. Polyurethane foam injection repairs in foundation walls are also long-lasting for waterproofing, but they're more flexible than epoxy and designed to move slightly with the concrete.

There are two main injection materials used in NB:

Epoxy injection bonds the crack faces together and restores the concrete to near-original strength. This is the correct choice for structural cracks — hairline to 1/2 inch wide — in foundations, beams, and walls where you need to restore load-carrying capacity. Epoxy-injected cracks in stable foundations routinely last 20+ years because the repair is actually stronger than the surrounding concrete. The limitation: epoxy is rigid. If the crack is caused by ongoing movement (settlement, active frost heave, hydrostatic pressure), the repaired crack will likely re-open adjacent to the injection — the concrete will crack again at the next weakest point.

Polyurethane foam injection expands when it contacts moisture, filling irregular crack channels and creating a flexible, waterproof seal. This is the go-to for stopping active water infiltration through foundation cracks. It's not a structural repair, but for waterproofing it's highly effective and accommodates slight movement better than epoxy. Polyurethane crack injection in NB foundations typically lasts 10–20 years when properly done.

The Key Variable: Is the Crack Still Moving?

NB's 4–5 foot frost depth creates significant soil movement every spring and fall as the ground freezes and thaws. Cracks caused by frost heave on footings that were set too shallow will continue to move every year — no injection repair will hold permanently in that scenario because the root cause is structural. Before investing in crack injection ($500–$1,500 per crack professionally done), it's worth having a contractor determine whether the crack is dormant (no longer moving) or active.

Dormant cracks in stable foundations — the most common type in NB homes — are excellent candidates for injection repair and typically hold for many years with no issues. Active cracks may need the underlying cause addressed first: improper drainage corrected, foundation underpinning added, or frost-damaged footings replaced.

For DIY crack injection, epoxy injection kits are available at building supply stores for $40–$80 and work reasonably well on hairline to 1/4 inch cracks in stable slabs. For anything wider, moving, or in a foundation wall carrying structural load, professional injection is the better call. **New Brunswick Concrete can connect you with experienced foundation repair contractors** across Moncton, Fredericton, Saint John, and beyond — get a

professional assessment before deciding on repair vs. replacement.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Thirty Four Renovations
- Happy Home Enterprises Inc
- C&A Masonry Inc.
- alka masonry
- Gionetterenovations

View all contractors ?

Q20

What causes concrete pop-outs in New Brunswick driveways?

Concrete pop-outs in NB driveways are almost always caused by reactive aggregate — small stones in the concrete mix that absorb water, freeze, and literally explode out of the surface, leaving a shallow conical crater. They're one of the most frustrating cosmetic problems NB homeowners face, because they keep recurring and there's not much you can do to stop them once the concrete is placed.

Here's the mechanism: certain aggregate types — particularly shale, chert, or porous limestone particles — are naturally absorbent. When these particles sit near the surface of a concrete slab, they absorb moisture from rain, snowmelt, and de-icing brine. When temperatures drop below freezing, that water expands by 9% inside the particle. The expanding particle pushes against the surrounding concrete and eventually pops out, leaving a pit typically 1/2 to 2 inches in diameter and 1/2 to 1 inch deep. NB's 150+ annual freeze-thaw cycles mean this process happens repeatedly throughout the winter.

Salt makes it significantly worse. Sodium chloride and calcium chloride de-icers drive water deeper into the concrete surface and create more freeze-thaw events at the concrete surface than the ambient air temperature alone would cause. Driveways in Moncton, Dieppe, and Saint John where road salt splash is constant tend to develop pop-outs faster than protected walkways.

The second cause of pop-out-like craters is **freeze-thaw scaling at aggregate level** — where the paste (cement and fine sand) surrounding larger stones spalls away, exposing the aggregate rather than launching it. This looks

similar to a pop-out but happens because the concrete lacked adequate air entrainment. All exterior concrete in NB should be air-entrained to 4–7% — this creates microscopic air bubbles that give freezing water room to expand without fracturing the paste.

Can Pop-Outs Be Repaired?

Individual pop-outs can be patched with a polymer-modified concrete repair mortar. Clean the crater thoroughly, apply bonding agent, and fill. The challenge is that patched pop-outs are usually visible as discoloured spots and new ones will appear elsewhere in the slab over time if the aggregate quality was poor throughout the mix. Full surface resurfacing can hide existing damage, but new pop-outs may push through the resurfacer too if the underlying aggregate continues to react.

Prevention for new concrete: Specify aggregate from a reputable local ready-mix supplier who tests their aggregate for soundness per CSA A23.1 requirements. Ask explicitly for air-entrained concrete (4–7% air content), keep water-cement ratio low, and apply a silane/siloxane penetrating sealer before the first winter and every 2–3 years thereafter. Switch from road salt to sand for traction — this alone dramatically slows pop-out development on sealed driveways.

If your driveway is developing widespread pop-outs and is over 20 years old, replacement with a properly specified air-entrained mix is worth considering. **New Brunswick Concrete can connect you with local contractors** who can assess whether repair or replacement is the right call for your situation.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Thirty Four Renovations
- PERMA-DRY
- Gionetterenovations
- alka masonry
- C&A Masonry Inc.

View all contractors ?

Q21

How much does concrete driveway resurfacing cost in Miramichi NB?

Concrete driveway resurfacing in Miramichi, NB typically costs $3 to $7 per square foot, putting a standard two-car driveway (400 to 600 square feet) in the $1,200 to $4,200 range depending on the product used, the condition of the existing concrete, and how much preparation is required.

Resurfacing means applying a thin bonded overlay — typically 1/4 to 3/8 of an inch thick — of a cement-based resurfacing compound over your existing concrete surface. It refreshes the appearance, fills minor surface defects, and can provide another decade or more of service life when the underlying concrete is structurally sound. Products like Quikrete Concrete Resurfacer or similar polymer-modified mixes bond to properly prepared existing concrete.

The critical word is "structurally sound." Resurfacing is cosmetic and surface-level. It cannot fix a driveway that is cracking from below, heaving from frost, settling because the base has failed, or deteriorating due to delamination. If your Miramichi driveway has deep cracks, sections that move when you step on them, areas that have sunk or heaved, or widespread scaling that goes deeper than the surface paste, resurfacing will not last. Those overlays will delaminate and fail within one to three seasons in Miramichi's climate — you will have spent $1,500 to $3,000 and still need a full replacement.

Miramichi's climate deserves specific mention here. The Miramichi River valley experiences significant freeze-thaw cycling, and the combination of cold winters and spring flooding conditions means concrete is under constant stress. Resurfacing over a compromised base in this climate typically ends in disappointment. If the original concrete was not air-entrained (common in older Miramichi driveways from the 1980s and 1990s), the scaling and spalling you are seeing may be fundamental to the slab — resurfacing will just delay the inevitable.

Surface preparation is everything with resurfacing. The existing concrete must be pressure washed thoroughly, all loose material removed, cracks repaired with flexible filler, and the surface mechanically profiled (usually by pressure washing with a surface cleaner or light grinding) to give the overlay something to bond to. Skimping on prep is the number one reason resurfacing jobs fail prematurely.

For Miramichi specifically, get a contractor to assess whether your driveway is a resurfacing candidate or a replacement candidate before you spend money on a product that will not hold. New Brunswick Concrete can connect you with concrete professionals in the Miramichi area who can give you an honest assessment and a quote for whichever approach makes sense.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- Thirty Four Renovations

- alka masonry
- C&A Masonry Inc.
- Happy Home Enterprises Inc

View all contractors ?

Q22

Can I use Quikrete to repair my concrete sidewalk in NB?

Yes — for small, surface-level repairs on a structurally sound sidewalk, Quikrete and similar bagged concrete repair products are a practical DIY option in NB. The key is choosing the right product for the right job and understanding the limitations of bagged repair mortars in our climate.

Quikrete makes several products suited to different types of sidewalk repairs. **Quikrete Concrete Resurfacer** is a polymer-modified cement coating for large areas of surface spalling and scaling — you apply it at 1/8 to 1/4 inch thickness over prepared existing concrete. **Quikrete Vinyl Concrete Patcher** is better for filling holes, chips, and spalled areas — it has a thicker consistency and works well for spot repairs. **Quikrete Concrete Repair** is a caulk-style product for filling cracks up to 1/2 inch wide. All of these are available at Kent Building Supplies and Home Depot locations in Moncton, Fredericton, and Saint John, typically in the $15 to $50 range depending on size.

NB climate makes a few things critical for any repair to last. First, the repair product must be applied when temperatures are above 10 degrees Celsius and expected to stay there for at least 48 hours — this means your DIY repair window is May through September in most of NB. Repairs made in October that freeze before curing will fail immediately. Second, all polymer-modified repair mortars are sensitive to freeze-thaw cycling when freshly applied — they need time to fully cure and gain strength before being subjected to freezing temperatures. Plan your sidewalk repairs for early in the season.

Surface preparation makes or breaks a patch repair. The cracked or spalled area must be cleaned of all loose material, dust, dirt, and any oil or grease. For vertical edges in chip-outs or gouges, the repair area should have vertical or slightly undercut edges (not feathered edges) — this gives the patch mechanical interlocking with the existing concrete. Apply the bonding adhesive (usually included or sold separately) to the prepared surface before applying the patch mix.

When Quikrete is NOT the right answer: If your sidewalk has panels that are cracking through their full depth, panels that have heaved or sunk due to frost or tree root damage, or widespread scaling across multiple panels, patching is a short-term measure at best. In Moncton, Fredericton, or Saint John, a full panel replacement by a concrete contractor — removing the damaged section and pouring a new panel with air-entrained concrete — will outlast multiple rounds of surface patching and is often the more economical choice over a five-year window.

For repairs covering more than 10 square feet or involving any structural cracking, get a professional assessment before committing to a DIY patching approach.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- C&A Masonry Inc.
- Happy Home Enterprises Inc
- alka masonry
- PERMA-DRY
- Gionetterenovations

View all contractors ?

Q23

How to fix a sinking concrete patio in Dieppe NB?

A sinking concrete patio in Dieppe NB most commonly means either the gravel base beneath the slab has washed or compacted away, or the soil below has settled — and you have two main repair options: slab lifting (mudjacking or poly levelling) or full replacement.

Dieppe sits in the greater Moncton area where the soil is predominantly a mix of clay and glacial till that can be slow to drain and prone to movement during freeze-thaw cycles. When a patio slab was originally poured over a base that was not adequately compacted, or when water has been allowed to drain under the slab and erode the substrate, voids form beneath the concrete and the slab settles. You might see one corner drop, a slope toward the house, or a panel that tilts and rocks when you step on it.

Mudjacking (sometimes called slabjacking) involves drilling holes in the settled slab and pumping a cement-sand-water slurry under pressure into the void beneath. The pressure fills the void and lifts the slab back toward its original position. In Dieppe, mudjacking typically runs $3 to $6 per square foot. It works well when the slab itself is in reasonable condition and the void is modest. Limitations: the slurry adds significant weight to the substrate (which is partly why it sank in the first place), and in areas with soft or wet soil it can resurface over time.

Poly levelling (polyurethane foam injection) uses the same principle but with expanding polyurethane foam injected through smaller holes. The foam expands to fill voids and lifts the slab. It costs $5 to $10 per square foot, weighs almost nothing compared to the mudjacking slurry, cures in minutes rather than days, and the smaller injection holes are less visible after patching. For a residential patio in Dieppe where aesthetics matter and the slab is otherwise in decent shape, poly levelling is often the preferred approach.

When lifting is not the right answer: if the slab has widespread cracking, is breaking into multiple pieces, shows significant delamination or scaling, or is more than 15 to 20 years old, lifting it may just delay an inevitable replacement. A lifted slab that continues to settle repeatedly — which happens when the underlying drainage problem is not addressed — will cost more in repeated levelling treatments than a fresh pour would have.

Before any repair, address the reason the slab sank. Is there a downspout draining adjacent to the patio? Is the grading sloping toward the slab? Is a tree root nearby? Fixing the drainage and grading issues before lifting the slab dramatically improves the longevity of the repair.

For a patio assessment and levelling quote in Dieppe or the greater Moncton area, New Brunswick Concrete can match you with concrete professionals who offer both mudjacking and poly levelling services.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Thirty Four Renovations
- alka masonry
- Happy Home Enterprises Inc
- PERMA-DRY
- Gionetterenovations

View all contractors ?

Q24

What is concrete parging and when does it need replacing in NB?

Parging is a thin coat of cement-based mortar applied to the exterior face of a foundation wall, typically 1/4 to 3/4 of an inch thick, that provides a smooth, weatherproof surface over the rougher substrate beneath — whether that's poured concrete, concrete block (CMU), or stone. In New Brunswick, parging serves both an aesthetic and a protective function, but it has a finite lifespan and NB's climate is particularly hard on it.

Original parging on older NB homes was typically applied over stone or block foundations as a sealer to shed water and protect the masonry beneath from weathering. On poured concrete foundations, parging is sometimes applied to smooth the surface and create a base for dampproofing or waterproofing coatings. When you see a grey cement coat on the visible above-grade portion of a foundation wall, that is parging.

NB's freeze-thaw cycle is parging's primary enemy. Parging is a thin, relatively rigid coating bonded to a substrate that expands and contracts at a slightly different rate. Over 10 to 20 years of NB winters — 150+ freeze-thaw cycles per year — that differential movement causes the parging to develop micro-cracks. Water enters the cracks, freezes, and forces the parging away from the substrate in a process called delamination. You start to see chunks falling off, hollow-sounding sections when you tap the wall, cracks that follow the mortar joints of the block beneath, and eventually large sections failing entirely.

Signs your NB foundation parging needs replacing:

- Sections that sound hollow when tapped with a knuckle
- Visible cracks wider than a hairline, especially horizontal or diagonal cracks
- Pieces that are lifting, bulging, or have already fallen off
- Staining or efflorescence (white mineral deposits) appearing through the parging
- Any section that has been patched multiple times with visible colour differences

  Parging that is only hairline-cracked and still firmly bonded can be patched and painted with a masonry sealer to extend its life another few years. But parging that is delaminating, hollow, or actively falling off needs to be removed completely, the substrate beneath cleaned and prepared, and new parging applied.

  New parging in NB costs $5 to $10 per square foot fully installed — for a typical exposed above-grade foundation perimeter, that's often $500 to $2,000 depending on the size of the home and the amount of wall exposed. Parging should be done during the May to September window in NB — applying parging in cool or wet conditions dramatically reduces adhesion and longevity.

  For parging replacement on your NB home, New Brunswick Concrete can connect you with masonry and concrete professionals in your area.

  Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Gionetterenovations
- PERMA-DRY
- alka masonry
- Thirty Four Renovations
- C&A Masonry Inc.

View all contractors ?

Q25

How to fix concrete step corners that have broken off in NB?

Broken concrete step corners are one of the most common repair requests for NB homeowners, and for small to moderate corner breaks, it is one of the more manageable DIY concrete repairs — provided you use the right materials and respect the seasonal window for application.

Step corners break off in NB primarily because of freeze-thaw cycling combined with de-icing salt. Salt-laden slush on steps creates more freeze-thaw cycles at the concrete surface than the ambient temperature alone would produce. Water penetrates the concrete, freezes, expands by 9%, and eventually pops off the corner — usually right at the outer edge where the concrete is thinnest and most exposed. Steps poured without proper air entrainment deteriorate especially quickly.

For a DIY corner repair, here is the correct approach. First, chip away all loose and delaminated material from the break until you reach solid, sound concrete — this usually means making the repair area slightly larger than the break itself. The edges of the repair area should be as close to vertical as possible (not feathered) to give the patch mechanical grip. Clean out all dust and debris with a stiff brush and pressure wash if possible. Let it dry completely.

Apply a concrete bonding adhesive (like Quikrete Concrete Bonding Adhesive or SikaLatex) to all exposed surfaces of the repair area and let it become tacky — typically 15 to 30 minutes. Then apply your patch mortar. For step corners, **Quikrete Vinyl Concrete Patcher** or **Sika MonoTop** are better choices than standard ready-mix: they have polymers that improve adhesion and flexibility, which is important for a repair that will flex with freeze-thaw cycles. Mix to a stiff, almost dry consistency — too wet and it will slump off a vertical corner.

For the corner shape, you will need a form. A piece of lumber held against the riser face of the step, held in place with a brick or clamp, gives you a flat face to work against. Pack the mortar firmly into the corner, work it against the form, trowel smooth the top surface, and hold the form in place for at least an hour. Strip the form and finish any rough edges with a damp sponge.

Cure the repair for at least 72 hours before foot traffic, and do not apply any de-icing products for the first winter season. Sand is the safest option for traction on repaired steps in NB.

If the corner break is large — more than a few inches in any dimension — or if multiple step corners and risers are deteriorating across the full set of steps, the more cost-effective solution is often replacing the entire step unit. Professional concrete step replacement in NB runs $1,500 to $4,000 for a typical front entry set with 3 to 5 steps and a landing, and new air-entrained concrete poured correctly will outlast patched old steps significantly.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- alka masonry
- PERMA-DRY
- Happy Home Enterprises Inc
- Thirty Four Renovations
- C&A Masonry Inc.

View all contractors ?

Q26

Is it cheaper to repair or replace a cracked concrete driveway in New Brunswick?

The honest answer is: it depends entirely on what is causing the cracking and how far the deterioration has progressed — but as a general rule, if you are dealing with widespread cracking across more than 25 to 30 percent of the driveway surface, or if panels are heaving, sinking, or cracking through their full depth, replacement is almost always the better financial decision over a 5 to 10 year horizon in New Brunswick.

Crack repair and resurfacing seem cheaper upfront — and they are. Crack filling with polyurethane or epoxy caulk costs $5 to $25 per linear foot depending on width and depth. Resurfacing an entire driveway runs $3 to $7 per square foot. A two-car driveway repair might cost $500 to $3,000. Compare that to full replacement at $8 to $15 per square foot fully installed — $4,000 to $8,000 for that same driveway — and repair looks attractive.

But here is the NB reality that changes the math. **New Brunswick has 150+ freeze-thaw cycles per year.** Any crack repair or resurfacing overlay is a relatively thin, rigid material bonded to concrete that is already moving. Every winter, water gets into new micro-cracks, freezes, and widens them. A driveway repaired once will need more repairs the following year, and the year after. A resurfacing overlay on a driveway with underlying base failure will delaminate within 2 to 3 seasons. After two or three rounds of repairs over 5 to 7 years, you will have spent $1,500 to $4,000 and still need the replacement.

Repair makes sense when: cracking is isolated to one or two sections, the cracks are surface-level rather than full-depth, the underlying base is intact (slabs do not move or rock), the concrete is under 15 years old and was properly poured with air-entrained mix, and the budget does not allow full replacement right now.

Replacement makes sense when: cracks are widespread across the surface, sections are heaving or sinking, the driveway is 20+ years old, the original concrete was not air-entrained (common for driveways poured in the 1980s and 1990s in NB), or the surface has significant spalling and scaling. With a new driveway, you also get the opportunity to correct any drainage or base issues that caused the original failure.

Get a concrete contractor to assess your specific driveway rather than making this decision from the curb. A professional can identify whether the cracking is shrinkage-related (surface only), structural (through the full slab thickness), or heave-related (base/drainage failure). That diagnosis changes everything about the right approach.

New Brunswick Concrete matches homeowners with local contractors who provide honest assessments — not just quotes for whichever option makes them more money.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- Happy Home Enterprises Inc
- Gionetterenovations
- C&A Masonry Inc.
- PERMA-DRY
- alka masonry

View all contractors ?

Q27

How do concrete contractors in NB handle large crack repairs in foundations?

For large cracks in NB foundation walls, professional contractors use one of two primary methods depending on whether the crack is actively leaking and whether structural movement is involved: epoxy injection for structural cracks that are dry and stable, and polyurethane foam injection for actively leaking cracks. Understanding which method applies to your situation is the first step.

Epoxy injection fills the crack with two-part epoxy resin that, when cured, creates a bond stronger than the surrounding concrete. It is the appropriate choice for cracks that are dry (not actively transmitting water), stable (not still moving), and where the goal is to restore structural continuity to the wall. The contractor drills ports into the crack at regular intervals (typically 8 to 12 inches apart), installs injection ports (small plastic fittings), seals the

crack face between ports with epoxy paste, then injects low-viscosity epoxy from the lowest port upward. The epoxy flows into the crack under gentle pressure and cures to full strength in 24 to 72 hours. Cost in NB: approximately $500 to $1,000 per crack for a typical 6 to 8 foot vertical crack in a residential foundation.

Polyurethane foam injection uses a flexible, water-reactive foam that expands when it contacts moisture within the crack. It is the go-to method for actively leaking cracks — the foam reacts with the water, expands to fill the crack, and stops the leak. Unlike epoxy, polyurethane remains somewhat flexible after curing, which allows it to accommodate minor future movement without re-cracking. It does not restore structural strength the way epoxy does, but for a non-structural crack that is leaking, it is highly effective. Cost is similar to epoxy injection: $500 to $1,500 depending on crack length and access.

Before choosing the repair method, the contractor must assess the crack type. Vertical cracks in poured concrete foundations — very common in NB — are typically caused by concrete shrinkage during curing and are usually non-structural. Horizontal cracks are a different story entirely and may indicate lateral soil pressure or frost heave forces pushing against the wall — these require structural assessment and possibly wall reinforcement (carbon fibre straps, wall anchors, or underpinning) before any crack filling makes sense.

For NB homes specifically, spring is when foundation cracks become most active — snowmelt and spring rain saturate the soil and increase hydrostatic pressure. This is when leaks announce themselves most dramatically. But the right time to repair is after things dry out in May or June, when contractors can properly diagnose the crack and apply products under dry conditions.

Never attempt injection repair as a DIY project on a structural crack or a crack showing signs of wall movement. Get a professional assessment — the wrong repair approach wastes money and may mask a worsening problem. New Brunswick Concrete can connect you with foundation repair specialists throughout NB.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- C&A Masonry Inc.
- PERMA-DRY
- Gionetterenovations
- Thirty Four Renovations
- alka masonry

View all contractors ?

Q28

What is the best foundation repair method for old NB homes?

Old New Brunswick homes — particularly those built before 1970 — often have foundations made from stone and mortar, poured concrete that predates modern admixtures and reinforcement standards, or hollow concrete block (CMU). The best repair method depends entirely on what type of foundation you have, what problems it is showing, and what your goals are for the home.

The most common foundation types in older NB housing stock, and their repair approaches, break down as follows.

Stone rubble foundations (common in NB homes built before the 1940s) are the most labour-intensive to repair. These were built by stacking field stones with lime or Portland cement mortar, sometimes mud mortar on very old structures. Problems include deteriorated mortar joints (called repointing or tuckpointing — removing the old mortar and packing in new mortar), shifted or fallen stones, and chronic water infiltration through the porous stone and mortar. For stone foundations being retained as-is, repointing with a mortar that matches the original lime-rich mix is critical — Portland-heavy modern mortar is too rigid and will accelerate stone damage. In many cases, a failing stone foundation under a house that needs other significant renovation is best addressed by underpinning: excavating beneath sections of the existing foundation and installing a new poured concrete footing and stem wall. This is major structural work requiring engineering.

Early poured concrete foundations (common from the 1940s through the 1970s) often lack reinforcing steel, used lower-strength mixes by modern standards, and have minimal or no waterproofing. Vertical cracks from concrete shrinkage are universal in these foundations. The repair approach depends on whether cracks are leaking (polyurethane foam injection to stop water) or structural (epoxy injection). Widespread surface deterioration on the wall interior can be addressed with crystalline waterproofing compounds (products like Xypex or Krystol that penetrate the concrete and form crystals that block water pathways).

Hollow concrete block foundations are particularly problematic in NB because water infiltrates through the mortar joints, enters the hollow cores of the blocks, and can move horizontally throughout the wall. Standard crack injection does not work well on block — the interior treatment approach (installing a drainage channel system along the interior base of the wall, connected to a sump pump) is often more effective and less costly than attempting exterior excavation and waterproofing on an older block foundation.

The most important first step for any old NB foundation is a professional assessment — not just a waterproofing company salesperson, but ideally a structural engineer or an experienced contractor who works specifically on foundation repair. Diagnosing why the foundation is failing (water pressure? frost heave? settlement? deteriorated mortar?) determines the right repair. Applying the wrong repair — interior drainage on a wall with

structural movement, or crack injection on a block foundation — wastes money.

New Brunswick Concrete can connect you with foundation specialists in Moncton, Fredericton, Saint John, and across NB who have experience with the province's older housing stock.

Looking for experienced contractors? The New Brunswick Construction Network connects homeowners with qualified professionals:

- alka masonry
- C&A Masonry Inc.
- Gionetterenovations
- Happy Home Enterprises Inc
- Thirty Four Renovations

View all contractors ?
