

CALGARY CONSTRUCTION NETWORK

Troubleshooting & Problems

Diagnosing and fixing common construction and
renovation issues

17 Expert Answers from Construction Brain

calgaryconstructionnetwork.com/construction-brain

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Should I add a backup generator for my sump pump in Elbow Park after the 2013 floods?

Absolutely yes — a backup power system for your sump pump is essential in Elbow Park given the 2013 flood history and your home's proximity to the Elbow River. The June 2013 floods demonstrated how quickly basement flooding can occur when power fails during critical pumping periods.

Power outages during flood events are unfortunately common in Calgary. When storms knock out electricity, your primary sump pump becomes useless right when you need it most. Elbow Park, being in the Elbow River floodplain, faces higher risk than most Calgary neighbourhoods. The 2013 floods affected over 100,000 Calgarians, with Elbow Park among the hardest-hit communities.

Battery backup systems are the most popular choice for Calgary homeowners. A quality battery backup sump pump system costs \$800-\$2,500 installed, depending on pump capacity and battery size. These systems automatically kick in when power fails or your primary pump can't keep up. Look for systems with marine-grade deep-cycle batteries that can run 6-12 hours during typical power outages. Popular brands include Wayne, Zoeller, and Liberty Pumps.

Portable generators offer another solution, typically costing \$1,500-\$5,000 for units that can power your sump pump plus essential appliances. However, generators require manual startup, fuel storage, and safe outdoor operation away from windows and doors. In flood conditions, accessing and starting a generator may be challenging or dangerous.

Whole-home standby generators (\$8,000-\$20,000 installed) provide the ultimate protection, automatically starting within seconds of power loss. These natural gas or propane units can power your entire home indefinitely. Companies like Generac, Kohler, and Cummins offer systems sized for Calgary homes.

Calgary-specific considerations include our extreme temperature swings and chinook conditions that can cause rapid snowmelt and ice jams. The City of Calgary has invested heavily in flood mitigation since 2013, including upstream reservoirs and improved stormwater systems, but individual property protection remains crucial.

Installation requirements vary by system type. Battery backups typically don't require permits for simple plug-in units, but hardwired systems need electrical permits and inspection by City of Calgary Safety Codes Officers. Generators require gas permits (if natural gas), electrical permits for transfer switches, and must meet setback requirements from property lines and windows.

Given Elbow Park's flood history and your proximity to the river, I'd recommend starting with a quality battery backup system as a minimum, with consideration for a whole-home generator if your budget allows. The peace of

mind during Calgary's unpredictable weather events makes this investment worthwhile.

Next steps: Get quotes from local electrical contractors experienced with backup power systems, and ensure any installation includes proper permits and inspections through the City of Calgary.

Q2

What company should I use for my roofing repair?

I can't recommend a specific company, but I can guide you on finding the right roofing contractor for your Calgary project and what to look for in a quality roofer.

When searching for roofing contractors in the Greater Calgary area, focus on finding professionals who understand our unique climate challenges. Calgary's extreme temperature swings from chinooks, regular hail storms, and harsh UV exposure at our altitude mean your roofer needs local experience with these conditions.

Key qualifications to verify include a valid City of Calgary business license, current WCB Alberta coverage (verify at wcb.ab.ca), and comprehensive liability insurance of at least \$2 million. Ask for recent local references and check their Better Business Bureau rating. A quality roofer will provide a detailed written estimate breaking down materials, labor, permits, and cleanup.

For Calgary's climate specifically, look for contractors experienced with impact-resistant shingles (Class 4 rated) that can better withstand our frequent hailstorms. They should understand proper ice dam prevention, adequate ventilation for our temperature extremes, and snow load requirements per the Alberta Building Code. Many Calgary roofs need replacement every 15-20 years rather than the 25-30 advertised due to our harsh conditions.

Red flags to avoid include door-to-door solicitors (especially after hailstorms), contractors demanding full payment upfront, those without local references, or anyone pressuring you to sign immediately. Under Alberta's Consumer Protection Act, you have 10 days to cancel door-to-door sales contracts.

Get multiple quotes from established local contractors - typically 3-4 estimates will give you a good range. Expect repair costs from \$300-\$1,500 for minor issues, while full roof replacement ranges from \$8,000-\$25,000+ depending on size, materials, and complexity.

Next steps: Browse contractors in our Calgary Construction Network directory to find licensed roofing professionals serving your area. Verify their credentials, get detailed written estimates, and don't rush the decision - your roof protects your biggest investment.

Find a Roofing Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

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- [Mayken Hazmat Solutions LTD ?](#)
- [Venkor Group Inc ?](#)

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Q3

My new build basement in auburn bay has minor concrete cracks after one winter is that normal?

Minor concrete cracks in a new basement after one winter are very common in Calgary, especially in Auburn Bay where expansive clay soils and extreme freeze-thaw cycles put significant stress on foundations. Most hairline cracks under 1/8 inch wide are considered normal settling and don't indicate structural problems.

What's Normal vs. Concerning Hairline cracks (less than 1/8 inch wide) that run vertically or at slight angles are typically normal settling cracks. Calgary's expansive clay soils - particularly prevalent in southeast communities like Auburn Bay - cause foundations to shift slightly as the soil adjusts to moisture changes and frost cycles. Your new foundation is also curing and settling into its final position during the first year.

However, you should monitor these cracks closely. Take photos and measure their width and length now to track any changes. Concerning signs include cracks wider than 1/4 inch, horizontal cracks, stair-step patterns, or cracks that continue growing over time. Water seepage through cracks is also a red flag that needs immediate attention.

Auburn Bay Soil Conditions Auburn Bay sits on some of Calgary's most challenging soil conditions - highly expansive bentonite clay that swells dramatically when wet and shrinks when dry. This creates ongoing pressure on foundations that can cause minor cracking even in properly built homes. The extreme chinook temperature swings Calgary experienced this past winter (going from -30°C to +15°C in 24 hours) compound this stress through rapid freeze-thaw cycling.

Your New Home Warranty Coverage Since this is a new build, you're covered under Alberta's New Home Buyer Protection Act through your builder's warranty provider (likely Alberta New Home Warranty Program, National Home Warranty, Progressive Home Warranty, or WBI Home Warranty). Foundation defects are covered for **10**

years for major structural issues and **2 years for water penetration problems**. Minor cosmetic cracks may not be covered, but any crack allowing water infiltration or indicating structural movement should be reported to your builder and warranty provider immediately.

Next Steps Document the cracks with photos and measurements now, then check them again in 3-6 months. Contact your builder to report the cracks - they should assess whether this is normal settling or requires repair. If the builder dismisses your concerns but cracks continue growing or allow water entry, contact your warranty provider directly. For peace of mind, consider having a structural engineer assess the cracks if they exceed 1/4 inch or show signs of ongoing movement.

Most Auburn Bay homeowners see some minor foundation settling in the first 1-2 years, but proper monitoring ensures any real problems get caught early while still under warranty.

Find a Basement Renovations Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- Coral Stucco&Exteriors Ltd ?
- A Green Future ?
- Lumber King Building Materials LTD. ?

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My furnace keeps shutting off when it hits minus 25 degrees Celsius outside. What should I check first?

Your furnace is likely shutting down due to a blocked air intake or exhaust vent, which is extremely common during Calgary's brutal cold snaps when temperatures hit -25°C or below. This is a safety feature that prevents dangerous combustion issues, but it needs immediate attention.

Start with the exterior vents — go outside and check your furnace's air intake and exhaust pipes (usually white PVC pipes coming through your exterior wall or roof). During extreme cold, these vents can become blocked by ice buildup, snow drifts, or frost accumulation. The intake vent draws combustion air from outside, while the exhaust vent removes combustion gases. If either becomes blocked, your high-efficiency furnace will shut down as a safety measure. Clear any visible snow, ice, or debris from both vents, but be gentle — don't force anything that might damage the pipes.

Check your furnace filter next — a dirty filter restricts airflow and forces your furnace to work harder during extreme cold. When outdoor temperatures drop to -25°C, your furnace runs almost continuously, and a clogged filter can cause overheating and automatic shutdown. Replace the filter if it's dirty or hasn't been changed in the past 2-3 months. In Calgary's dusty conditions and during heavy heating seasons, filters often need monthly replacement.

Calgary's extreme temperature swings make this problem worse — our famous chinooks can cause rapid freeze-thaw cycles that create ice dams around vents, and the extreme cold puts maximum stress on your heating system. High-efficiency furnaces (96%+ AFUE), which are standard in Calgary homes, are more sensitive to blocked vents because they rely on precise air-to-fuel ratios for safe combustion.

When to call a professional immediately: If clearing the vents and changing the filter doesn't solve the problem, you likely have a more serious issue — possibly a failing pressure switch, heat exchanger problem, or gas valve issue. Don't attempt to bypass safety features or ignore repeated shutdowns. A furnace that can't handle -25°C weather puts your family at risk of freezing pipes and carbon monoxide exposure.

Next steps: Clear the exterior vents and replace the filter first. If the problem persists after these basic checks, contact a licensed HVAC contractor immediately. In Calgary's extreme cold, furnace failures are emergencies — most reputable contractors offer 24/7 emergency service during cold snaps. Find verified HVAC professionals in our Calgary Construction Network directory who understand the unique challenges of heating Calgary homes in extreme weather.

Find a Hvac Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- Electric Eel Sewer & Drain Specialists ?
- Makki Demolition ?
- WestAim Construction Ltd. ?

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Q5

My basement stays at 15 degrees in winter even with the new furnace running. Is this an issue with the insulation or airflow?

A basement that stays at 15°C in winter typically indicates both insulation and airflow issues, with inadequate heating distribution being the most common culprit in Calgary homes.

The problem likely stems from your HVAC system not being properly designed or balanced to heat the basement space. Many Calgary homes, especially older ones, have basements that were added to the heating system as an afterthought rather than being integrated into the original design. Your new furnace may be adequately sized for the main floors but struggling to push heated air down to the basement against natural convection patterns where warm air rises.

Airflow is usually the primary issue. Check if your basement has sufficient supply vents and, crucially, return air vents. Many Calgary basements only have one or two small supply vents but no dedicated return air pathway, creating poor circulation. The heated air gets trapped in pockets while cold air settles in corners. You'll want to examine your ductwork for proper sizing - basement supply ducts are often undersized compared to main floor runs. Also check that all vents are open and unobstructed, and that your furnace filter isn't restricting airflow.

Insulation problems compound the airflow issues. Calgary's extreme temperature swings and expansive clay soils create unique basement challenges. Your foundation walls may lack adequate insulation, especially if it's an older home. Uninsulated concrete walls act as massive heat sinks, constantly drawing warmth from the air. Check for air leaks around rim joists, windows, and where utilities penetrate the foundation - these are common problem areas in Calgary basements. The frost line here extends over 4 feet deep, so foundation walls are exposed to significant temperature differentials.

Calgary-specific considerations include our notorious chinook temperature swings that can stress basement heating systems. When outdoor temperatures fluctuate 20-30°C in a day, your heating system works overtime to maintain consistent temperatures. Additionally, many Calgary homes have basement moisture issues due to our clay soils, which can affect insulation performance and create cold spots.

Professional assessment is recommended for this issue. An HVAC contractor can perform a heat loss calculation and airflow analysis to determine if you need additional ductwork, return air pathways, or system rebalancing. For insulation issues, an energy auditor can identify thermal bridges and air leaks using thermal imaging. This work may qualify for Canada Greener Homes Grant rebates if you complete pre- and post-retrofit EnerGuide evaluations.

Next steps: Start by checking that all basement vents are open and measuring the temperature difference between supply and return air. If the temperature drop is excessive (more than 15-20°C), you likely have airflow restrictions. Contact an HVAC professional to assess your ductwork design and consider adding return air vents or additional supply runs to improve circulation.

Find a Basement Renovations Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [Universal Slate International Inc. ?](#)
- [Cochrane Roofing ?](#)
- [Premium Built Structures ?](#)

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Q6

Our roof was damaged in the 2020 hail storm — can we still file an insurance claim for shingle replacement now?

Unfortunately, it's very unlikely you can still file a new insurance claim for hail damage from the 2020 storm, as most insurance policies require claims to be reported within one to two years of the damage occurring.

Insurance policies in Alberta typically have strict reporting deadlines for property damage claims. Most standard homeowner's policies require you to report damage "promptly" or within a specific timeframe after discovery —

usually 12-24 months maximum. Since the major Calgary hailstorm occurred in June 2020, you're now well beyond any reasonable reporting window that insurers would accept.

However, there are a few scenarios where you might still have options. **If you filed a claim in 2020-2021 but it was denied, underpaid, or you're disputing the settlement**, you may be able to reopen that existing claim or pursue it through Alberta's dispute resolution process. Some homeowners initially accepted partial settlements or were told damage was "cosmetic only" and later discovered the damage was more extensive than originally assessed. If you have documentation of an original claim, contact your insurance company to discuss whether any aspect remains unresolved.

For Calgary's extreme weather conditions, it's worth having your roof professionally inspected even if insurance won't cover the 2020 damage. Calgary's freeze-thaw cycles, chinook winds, and frequent hailstorms are particularly hard on roofing materials. Asphalt shingles in Calgary typically last 15-20 years rather than the 25-30 years advertised, due to our harsh climate and high UV exposure at altitude. Damaged shingles from 2020 may have allowed water infiltration that could cause interior damage, mold, or structural issues that would be covered under a new claim.

Moving forward, document any current roof issues with photos and get a professional assessment from a licensed roofing contractor. If you discover new damage from recent storms or find that the 2020 damage has led to secondary issues like leaks or interior damage, those might be covered under a new claim. Calgary sits in Canada's "hail belt," so impact-resistant Class 4 shingles are worth considering when you do replace your roof.

Next steps: Contact your insurance company to clarify your policy's reporting requirements and see if any aspect of a previous claim remains open. Get a current roof inspection to assess the condition and plan for replacement if needed. Browse verified roofing contractors in our Calgary directory to get professional assessments and quotes for any necessary repairs or replacement.

Find a Roofing Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [Jones Geomatics ?](#)
- [Kvint Construction Ltd ?](#)
- [2 Sons Excavating Ltd. ?](#)

[Browse all contractors ?](#)

Cracked concrete patio after one winter in Sage Hill - is this normal settling or did they pour it wrong on clay?

A new concrete patio cracking after just one Calgary winter is concerning and likely indicates installation issues rather than normal settling. While minor hairline cracks can be expected due to Calgary's extreme freeze-thaw cycles, significant cracking after one season suggests problems with the pour, base preparation, or clay soil management.

Concrete and Calgary's Clay Soils

Sage Hill, like much of northwest Calgary, sits on expansive clay soils that are notorious for causing foundation and concrete problems. These bentonite clays swell dramatically when wet and shrink when dry, creating tremendous pressure on concrete slabs. A properly installed patio should account for this through adequate base preparation, proper thickness, reinforcement, and control joints.

What Likely Went Wrong

Several installation errors could cause premature cracking on clay soils. The contractor may have poured directly on clay without proper base preparation - concrete patios need 4-6 inches of compacted gravel base to isolate the slab from clay movement. The concrete may have been too thin (should be minimum 4 inches for patios, 6 inches in high-traffic areas), lacked proper reinforcement (rebar or wire mesh), or was poured without adequate control joints to direct cracking. Poor drainage around the patio allows water to saturate the clay underneath, causing heaving and cracking.

Calgary's Brutal Concrete Conditions

Calgary's climate is particularly harsh on concrete. Our 4+ foot frost depth, combined with chinook temperature swings of 20-30°C in a single day, creates extreme freeze-thaw cycling. When you add expansive clay soils that can move several inches seasonally, concrete work requires experienced contractors who understand local conditions. The concrete may also have been poured too late in the season or without proper curing protection.

Next Steps and Professional Assessment

Document the cracking with photos and contact the original contractor immediately - this appears to be a workmanship issue covered under warranty. Have a qualified concrete contractor or structural engineer assess whether this is surface settling or structural failure requiring replacement. Check if proper permits were obtained and inspections completed. For future reference, quality concrete work in Calgary requires proper base preparation, reinforcement, drainage, and control joints spaced no more than 10 feet apart.

Prevention for Future Projects

When hiring for concrete work on clay soils, ensure contractors understand Calgary's soil conditions and follow proper installation procedures. Quality concrete contractors will excavate below frost line, install proper drainage, use compacted gravel base, include reinforcement, and cut control joints. Expect to pay \$8-15 per square foot for properly installed concrete patios in Calgary - cutting corners on clay soils always leads to problems.

Find experienced concrete contractors familiar with Calgary's challenging soil conditions in our directory at Calgary Construction Network.

Find a Masonry Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [SnoMow ?](#)
- [True North Overhead Doors ?](#)
- [Keystone Exteriors ?](#)

[Browse all contractors ?](#)

Q8

Our sewer backed up during chinook melt — does insurance cover clay pipe replacement under the driveway?

Most standard homeowner insurance policies do NOT cover sewer line replacement, even when the backup causes interior damage. However, the interior water damage from the backup may be covered if you have sewer backup coverage as an add-on to your policy.

Understanding Your Coverage

Your homeowner's insurance likely covers the **interior damage** from sewer backup (flooded basement, damaged flooring, ruined belongings) if you purchased optional sewer backup coverage — this isn't included in basic policies and costs around \$50-150 annually. However, the actual **sewer line repair or replacement is almost never covered** by insurance, as it's considered normal wear and maintenance.

Clay sewer lines are particularly vulnerable during Calgary's chinook cycles. The rapid freeze-thaw action, combined with our expansive clay soils, causes ground movement that cracks and displaces old clay pipes. Tree

roots then infiltrate these cracks, creating blockages that worsen during heavy melt periods. Insurance companies view this as predictable deterioration rather than a sudden, covered peril.

Calgary-Specific Sewer Line Challenges

Calgary's chinook weather creates perfect storm conditions for sewer problems. When temperatures swing from -20°C to +10°C in 24 hours, the ground movement is extreme. Clay pipes installed in the 1950s-1980s simply weren't designed for this stress. Most homes in established Calgary neighborhoods (Altadore, Lakeview, Acadia, Dalhousie) have clay lines that are reaching end-of-life.

The City of Calgary is responsible for the main sewer line in the street, but homeowners own the lateral line from their house to the property line — typically under your driveway, sidewalk, and front yard. If your backup is caused by a city main blockage, call 311 immediately. If it's your lateral line (most common), that's your responsibility.

Replacement Costs and Process

Clay pipe replacement under a driveway typically runs **\$8,000-\$18,000** depending on depth, length, and access challenges. This includes excavation, new PVC pipe installation, proper bedding, backfill, and driveway restoration. Trenchless methods (pipe bursting or lining) may be possible for \$12,000-\$25,000 but aren't always feasible with severely damaged clay lines.

You'll need a **plumbing permit** from the City of Calgary and inspections by accredited Safety Codes Officers. Licensed plumbers must do this work — it connects to the city system and requires proper grading, bedding, and backfill to prevent future settlement issues.

Next Steps

First, contact your insurance company to report the backup and clarify your coverage — you may have interior damage coverage even without sewer line coverage. Document everything with photos. Then get quotes from licensed plumbers for camera inspection and replacement options. The camera inspection (\$200-400) will show the exact condition and help determine if spot repairs are possible or if full replacement is needed.

Find licensed plumbing contractors experienced with Calgary clay pipe replacement in our directory at Calgary Construction Network — they'll understand the local soil conditions and permit requirements.

Find a General Contractors Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- Royland Stucco ?

- [The Original Workshop ?](#)
- [Eshine Cleaning Services ?](#)

[Browse all contractors ?](#)

Q9

We just bought a 1970s side split in Marda Loop, and the basement smells musty after rain. Is this normal?

A musty smell in your basement after rain is NOT normal and indicates a moisture problem that needs addressing — this is especially common in Calgary's 1970s homes due to aging waterproofing and our expansive clay soils.

Your 1970s side-split in Marda Loop is likely experiencing water infiltration, which is unfortunately common in homes of this era. These homes were built before modern waterproofing standards, and after 50+ years, the original foundation waterproofing has likely deteriorated. Calgary's bentonite clay soils make this worse — the clay expands when wet and contracts when dry, creating constant pressure against your foundation and opening pathways for water.

Common sources of basement moisture in Calgary homes include failing weeping tile systems, cracks in the foundation walls, poor exterior grading, and deteriorated window wells. The musty odor you're smelling is likely mold or mildew growth, which thrives in damp conditions. This isn't just a comfort issue — prolonged moisture can damage your home's structure and create health concerns.

Start with the basics: Check your exterior grading to ensure water flows away from your foundation (minimum 6-inch drop over 10 feet). Clean your gutters and extend downspouts at least 6 feet from the house. Inspect your window wells for standing water or debris. Inside, run a dehumidifier to keep basement humidity below 50% and improve ventilation.

However, given Calgary's challenging soil conditions and the age of your home, you'll likely need professional assessment. A basement waterproofing contractor can inspect for foundation cracks, evaluate your weeping tile system, and determine if exterior waterproofing is needed. This typically involves excavation around the foundation perimeter — a significant project costing \$15,000-\$40,000 depending on your home's size and access.

Don't ignore this issue — moisture problems only get worse over time, and Calgary's extreme freeze-thaw cycles will expand any existing cracks. Address drainage issues now before they become major structural problems.

Find verified waterproofing contractors who understand Calgary's unique soil challenges in our directory at Calgary Construction Network.

Find a Basement Renovations Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [The Basement renovators ?](#)
- [Mr & Mrs Paintastic Inc ?](#)
- [Venkor Group Inc ?](#)

[Browse all contractors ?](#)

We bought a flood-damaged bungalow in Bowness. Is the foundation salvageable or should we rebuild from scratch?

The foundation may be salvageable depending on the flood severity and foundation type, but you'll need a structural engineer's assessment before making any decisions. Bowness has experienced significant flooding, and foundation damage can range from minor cosmetic issues to complete structural failure.

Foundation Assessment Priorities

Start with a comprehensive structural engineering evaluation immediately. Look for **horizontal cracks, stair-step cracking, or any cracks wider than 1/4 inch** — these indicate potential structural damage that could make rebuilding more cost-effective. Minor vertical hairline cracks are often cosmetic, especially in Calgary's expansive clay soils, but flood damage can exacerbate existing foundation movement.

Check for **foundation settling or heaving**. Use a laser level or hire a surveyor to measure if the foundation is still level and plumb. Flood waters can wash out soil around footings or cause differential settling. In Bowness's clay soils, saturated conditions can cause significant foundation movement that may not stabilize even after drying.

Flood-Specific Damage Concerns

Examine the **concrete quality and reinforcement exposure**. Prolonged water exposure can cause concrete spalling and rebar corrosion, especially if the flood water contained contaminants. Look for **white chalky deposits (efflorescence)** or **rust stains** indicating compromised concrete. Foundation walls that were submerged for extended periods may have compromised structural integrity even if they appear intact.

Check the **weeping tile and drainage systems** — these are often completely compromised after flooding. Calgary's clay soils make proper drainage critical, and flood-damaged drainage systems can lead to ongoing water issues that will undermine any renovation efforts.

Calgary Building Code Considerations

Any major foundation repairs or rebuilding must meet current **Alberta Building Code requirements**, including frost protection to 1.2+ meters depth and proper reinforcement for Alberta's freeze-thaw cycles. If you're rebuilding, consider that new construction must meet current energy efficiency standards and may require upgraded electrical service, which could add \$15,000-\$30,000 to your project.

The **City of Calgary may require flood mitigation measures** for rebuilding in Bowness, including elevated utilities, backflow preventers, and potentially raising the foundation above historical flood levels. Check with Calgary Planning about flood fringe requirements for your specific lot.

Cost Analysis Framework

Foundation underpinning and major repairs in Calgary typically run **\$15,000-\$40,000** depending on scope, while complete foundation replacement ranges **\$25,000-\$60,000** for a typical bungalow. However, if the existing foundation requires extensive repairs AND you're planning major renovations, starting fresh often provides better long-term value.

Consider the **total renovation budget**. If you're planning to gut the interior anyway, rebuilding may only cost 20-30% more than major foundation repairs plus full renovation, but gives you a completely modern structure designed for Calgary's climate challenges.

Professional Next Steps

Hire a **structural engineer experienced with flood damage** for a comprehensive assessment (\$800-\$1,500). They'll provide repair specifications or recommend replacement. Get this evaluation before any other work — insurance claims and renovation planning depend on this professional assessment.

Contact your **insurance company immediately** if you haven't already. Flood damage coverage varies significantly, and some foundation repairs may be covered while others aren't. Document everything with photos and professional reports.

Find qualified foundation contractors through our Calgary directory who have experience with flood remediation and Calgary's challenging soil conditions. Get multiple quotes for both repair and replacement scenarios before deciding.

Find a General Contractors Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [AJ WROUGHT IRON SECURITY & ORNAMENTAL ?](#)
- [Earl's Paintworks ?](#)
- [Emerald plumbing Ltd ?](#)

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Q11

My furnace makes a banging noise during chinooks when the temperature swings 20 degrees overnight. Is this normal or a problem?

Banging noises during chinooks are extremely common in Calgary furnaces, but they shouldn't be ignored.

The rapid temperature swings that Calgary is famous for put unique stress on heating systems, and that banging is usually your ductwork expanding and contracting as it heats up and cools down rapidly.

Ductwork expansion and contraction is the most likely culprit. When your furnace kicks on during a chinook temperature swing, the metal ducts heat up quickly and expand. As they cool, they contract, creating those distinctive banging or popping sounds. This is particularly noticeable in Calgary because our chinooks can swing temperatures 20-30°C in a matter of hours – far more extreme than most heating systems experience elsewhere in Canada. Older homes with galvanized steel ducts tend to be noisier than newer homes with insulated flexible ducts.

However, **not all banging should be dismissed as normal**. If the sounds are new, getting louder, or accompanied by other symptoms like uneven heating, higher energy bills, or visible duct movement, you may have loose ductwork connections, undersized ducts, or mounting issues. The extreme temperature cycling in Calgary can cause duct hangers and connections to work loose over time. Additionally, if your furnace itself is making banging sounds (rather than the ducts), this could indicate issues with the heat exchanger, blower motor, or gas valve that require immediate professional attention.

Calgary's climate makes proper HVAC installation critical. Our temperature extremes mean ductwork needs adequate expansion joints, proper support, and sometimes insulation to minimize noise. High-efficiency furnaces (96%+ AFUE) that are standard in Calgary can also create different expansion patterns than older units. The rapid on-off cycling during mild chinook weather can exacerbate these sounds.

When to call a professional: If the banging is coming from the furnace unit itself (not the ducts), if you smell gas, if heating performance has declined, or if the sounds are new and concerning. A licensed gas contractor can inspect your system and ensure all connections are secure. For ductwork issues, an HVAC contractor can add expansion joints, improve supports, or recommend insulation solutions. Remember that all gas appliance work in Alberta requires licensed contractors and inspection by City of Calgary Safety Codes Officers.

Next steps: Monitor when the sounds occur and whether they're from ducts or the furnace itself. Schedule a maintenance inspection if you haven't had one recently – Calgary's extreme conditions mean annual furnace maintenance is essential for both safety and efficiency.

Find a Hvac Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- Qualitec Distributors ?
- Electric Eel Sewer & Drain Specialists ?
- Amar Homes Inc ?

Browse all contractors ?

Q12

How to fix foundation cracks in a 1980s walkout basement in Deer Run? Are they structural or just cosmetic from settling?

Foundation cracks in 1980s Calgary homes are extremely common due to our expansive clay soils and freeze-thaw cycles, but determining whether they're cosmetic or structural requires careful assessment of their size, location, and pattern.

Understanding Calgary's Soil Challenges

Deer Run, like much of southeast Calgary, sits on expansive bentonite clay soils that shrink and swell dramatically with moisture changes. Your 1980s walkout basement has been subjected to 40+ years of this soil movement, plus Calgary's brutal freeze-thaw cycles from chinook weather patterns. The good news is that most foundation cracks in homes this age are settlement-related rather than structural failures.

Crack Assessment Guidelines

Cosmetic/settlement cracks are typically vertical or slightly diagonal, less than 1/4 inch wide, and occur at predictable stress points like window corners or where the foundation steps down for the walkout. These are common in Calgary and usually just need sealing to prevent water infiltration.

Structural concern cracks include horizontal cracks (indicating soil pressure), stair-step patterns in block foundations, cracks wider than 1/4 inch, or any crack that's actively growing. Bowing or bulging walls are immediate red flags requiring professional assessment.

Calgary-Specific Repair Approaches

For minor cracks, hydraulic cement or polyurethane crack injection can provide effective sealing. However, given Calgary's expansive soils, exterior waterproofing and proper drainage are crucial long-term solutions. Many Deer Run homes benefit from installing or upgrading weeping tile systems and ensuring proper grading away from the foundation.

Professional Assessment Recommended

Given the walkout design and Calgary's challenging soil conditions, have a structural engineer evaluate any cracks you're concerned about. This typically costs \$500-\$800 but provides definitive answers and repair specifications. For active water infiltration, address it immediately - Calgary's clay soils can channel significant water against foundations during spring melt and heavy rains.

Next Steps

Document the cracks with photos and measurements, then consult our directory for foundation specialists experienced with Calgary's soil conditions. Most can provide free assessments to determine if you need engineering consultation or can proceed with standard crack sealing and waterproofing.

Find a Basement Renovations Contractor

Calgary Construction Network connects you with experienced contractors in the directory:

- [Venkor Group Inc ?](#)
- [The Stair Shoppe ?](#)
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My new build basement in Auburn Bay has minor concrete cracks after one winter. Is that normal?

Minor concrete cracks in a new basement after one Calgary winter are extremely common and usually not a structural concern. Calgary's expansive clay soils, extreme freeze-thaw cycles, and chinook temperature swings create challenging conditions for new concrete foundations.

What you're likely seeing are hairline shrinkage cracks or minor settlement cracks, which are normal as concrete cures and the foundation settles into Calgary's clay soils. New concrete continues to cure and shrink for up to two years, and Auburn Bay sits on typical Calgary clay that expands and contracts with moisture changes. These minor movements almost always cause some cosmetic cracking in the first 1-2 years.

Calgary's climate is particularly hard on foundations. Our chinook winds can swing temperatures 20-30°C in a single day, causing rapid freeze-thaw cycling that stresses concrete. Combined with expansive bentonite clay soils that swell when wet and shrink when dry, some foundation movement is inevitable. Auburn Bay, like most newer Calgary communities, was built on clay soils that require time to fully stabilize under the weight of your home.

Since your home is a new build in Auburn Bay, it's covered under Alberta's New Home Warranty Program (ANHWP). Under Alberta's New Home Buyer Protection Act, your builder must provide warranty coverage including 1 year for materials and workmanship, and 10 years for major structural defects. Minor concrete cracks are typically covered under the 1-year warranty if they're excessive or allow water penetration.

What to watch for: Cracks wider than 1/4 inch, horizontal cracks, stair-step patterns, or any cracks that allow water seepage should be reported to your builder immediately. These could indicate structural issues. Normal shrinkage cracks are typically vertical, hairline thin, and don't leak water. Take photos and document any cracks you find.

Your next steps: Contact your builder's warranty department to report the cracks and request an inspection. Even if they're normal, having them documented protects you if they worsen. Most reputable builders will seal minor cracks as a goodwill gesture during the first year. If your builder is unresponsive, contact the Alberta New Home Warranty Program directly at anhwp.com.

Keep monitoring the cracks through this spring's thaw - if they widen significantly or new ones appear, that warrants immediate professional assessment.

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Q14

Can chinooks actually damage asphalt shingles, or is that just an excuse contractors use for early wear?

Chinooks absolutely do damage asphalt shingles in Calgary — it's not contractor spin, it's legitimate climate science. The rapid temperature swings that make Calgary famous for winter beach weather are genuinely brutal on roofing materials.

Here's what actually happens during a chinook event: temperatures can swing from -25°C to $+15^{\circ}\text{C}$ in a matter of hours. Your asphalt shingles expand and contract dramatically with these temperature changes. When it's -30°C , shingles become brittle like crackers. When the chinook hits and temperatures rocket up 40 degrees, those same shingles suddenly become flexible again. This extreme freeze-thaw cycling happens repeatedly throughout Calgary winters — sometimes multiple times per month.

The technical damage occurs in several ways. The asphalt compound in shingles develops micro-cracks from the constant expansion and contraction. The granules that protect against UV rays get loosened and start washing off more quickly. The sealant strips that hold shingle tabs down lose their adhesive properties faster. Most critically, the mat backing (fiberglass or organic) experiences stress fatigue that weakens the entire shingle structure.

Calgary sits at high altitude (1,045 meters above sea level) which intensifies UV exposure, and the combination of intense UV reflection off snow plus chinook temperature cycling creates a perfect storm for roofing materials. Add in Calgary's position in Canada's hail belt — we get severe hailstorms that can destroy roofs in minutes — and you understand why roofing contractors here see patterns that don't exist in more stable climates.

The proof is in the performance data. Shingles rated for 25-30 years in moderate climates typically last 15-20 years in Calgary under normal conditions. Insurance companies recognize this — they factor Calgary's extreme weather into their actuarial tables. The Alberta Building Code requires enhanced wind resistance ratings specifically because of chinook winds that can hit 120+ km/h.

Smart homeowners invest accordingly. Impact-resistant Class 4 shingles cost 20-30% more upfront but handle chinooks and hail much better. Proper attic ventilation helps minimize temperature differentials. Quality installation

with proper fastening patterns makes a huge difference — cheap installation fails faster in Calgary's climate.

When a contractor explains early shingle failure due to chinooks, they're giving you legitimate climate science, not making excuses. The key is choosing contractors who understand Calgary's unique conditions and spec materials accordingly.

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Q15

What's covered under the Alberta New Home Warranty Program if we find foundation cracks in year 8 in our Okotoks build?

Foundation cracks discovered in year 8 of your Okotoks home would fall under the 10-year major structural defects coverage of your Alberta New Home Warranty Program (ANHWP) warranty, provided they qualify as structural defects rather than normal settling.

Under Alberta's New Home Buyer Protection Act, your home is covered by **1-2-5-10 warranty insurance** through one of the approved warranty providers (ANHWP, National Home Warranty, Progressive Home Warranty, or WBI Home Warranty). The **10-year coverage specifically protects against major structural defects** that affect the load-bearing capacity of your home, including foundation failures that compromise structural integrity.

What qualifies as a structural defect versus normal settling is crucial. Minor hairline cracks from normal settling are typically not covered, but significant foundation movement, horizontal cracks, stair-step cracks wider than 1/4 inch, or cracks that allow water penetration may qualify. In Okotoks, like much of Greater Calgary, expansive clay soils can cause foundation movement that goes beyond normal settling. If the cracks are causing doors and windows to stick, floors to slope, or walls to separate, these are signs of structural movement that should be covered.

The claims process requires you to contact your warranty provider immediately. They'll send an inspector to assess whether the damage qualifies as a structural defect under the warranty terms. Coverage limits vary by provider but typically range from \$100,000 to \$300,000 for structural defects. The warranty covers repair costs but not temporary accommodation or personal property damage.

Important timing considerations: You must report the defect before the 10-year anniversary of your home's possession date. Don't wait if you're noticing foundation issues — document everything with photos and contact your warranty provider promptly. In Alberta's climate, foundation problems can worsen quickly through freeze-thaw cycles.

Next steps: Check your original purchase documents to identify your warranty provider, document the cracks with photos and measurements, and file a warranty claim immediately. If you're unsure about your warranty provider or coverage details, contact the Alberta New Home Warranty Program at anhwp.com for guidance on the claims process.

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My 1960s bungalow in Bridgeland has foundation cracks on the south side after this winter. Should I be worried?

Foundation cracks on a 1960s Calgary home after winter are common due to our extreme freeze-thaw cycles and expansive clay soils, but the type and size of cracks determine whether this is cosmetic or structural.

Most foundation cracks in Calgary homes are caused by our notorious expansive clay soils (bentonite) that swell when wet and shrink when dry, combined with the extreme temperature swings from chinooks. Your Bridgeland bungalow sits on these challenging soils, and after 60+ years, some foundation movement is normal. The south side of your home gets the most sun exposure, creating more dramatic freeze-thaw cycling that can worsen existing cracks or create new ones.

What to look for: Hairline vertical cracks (less than 1/8 inch wide) are typically cosmetic and caused by normal concrete shrinkage or minor settling. However, you should be concerned about horizontal cracks, stair-step cracks in block foundations, or any crack wider than 1/4 inch. These can indicate structural movement or hydrostatic pressure from poor drainage. Also watch for cracks that allow water penetration, bowing walls, or cracks that continue to widen over time.

Calgary-specific factors: Our clay soils are particularly problematic in spring when snow melt and rain saturate the ground, causing the clay to expand and push against foundations. Poor grading or blocked weeping tile systems compound the problem. Many 1960s homes in Bridgeland were built before modern waterproofing standards, making them more vulnerable to water infiltration and foundation movement.

Professional assessment needed: Have a structural engineer evaluate any crack wider than 1/4 inch, horizontal cracks, or cracks showing signs of recent movement. In Calgary, foundation repairs often involve underpinning with helical piles or concrete piers due to our soil conditions. Costs range from \$15,000-\$40,000 for significant foundation repairs. For minor cracks, proper exterior drainage and crack injection may suffice (\$2,000-\$8,000).

Next steps: Document the cracks with photos and measurements, check your basement for water infiltration, and ensure proper grading slopes away from your foundation. If the cracks are minor and stable, monitor them for changes. For anything concerning, get a professional foundation assessment before Calgary's next freeze-thaw season worsens the problem.

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Q17

Our 1950s war-time bungalow basement walls are bowing inward after last winter. How urgent is this?

This is very urgent and potentially dangerous — bowing basement walls indicate serious structural failure that requires immediate professional assessment. Do not delay in getting a structural engineer to evaluate your foundation, as continued movement could lead to catastrophic collapse.

Immediate Safety Steps: If the bowing is severe (more than 2 inches of inward movement), consider temporarily relocating until you have a professional assessment. Look for cracks in the foundation walls, especially horizontal cracks or stair-step patterns, which indicate the walls are failing under soil pressure. Check for new cracks in your main floor walls or ceilings, doors that won't close properly, or windows that are binding — these are signs the foundation movement is affecting your entire house structure.

Why This Happens in Calgary: Your 1950s war-time bungalow likely has a rubble stone or early concrete block foundation that wasn't designed for Calgary's extreme soil conditions. Our expansive clay soils (bentonite) absorb massive amounts of water during spring melt and heavy rains, then exert tremendous lateral pressure against foundation walls. The freeze-thaw cycles from chinooks make this worse, and after 70+ years, your foundation materials may have deteriorated. War-time homes were often built quickly with minimal foundation reinforcement compared to modern standards.

Professional Assessment Required: Contact a structural engineer immediately — this is not a job for a general contractor. The engineer will determine if the walls can be stabilized or if they need complete replacement. Common repair methods in Calgary include installing steel I-beams or carbon fiber reinforcement strips, but severely bowed walls often require excavation and rebuilding. You'll also need to address the root cause — poor drainage, damaged weeping tile, or inadequate waterproofing that's allowing water to saturate the clay around your foundation.

Expected Costs and Timeline: Emergency structural assessments typically cost \$800-\$1,500. Foundation repairs for bowing walls range from \$15,000-\$40,000 for reinforcement methods, or \$40,000-\$80,000+ for complete wall replacement. This work requires building permits and inspections through the City of Calgary. The repair window is limited to May through October due to excavation requirements — frozen ground makes this work nearly impossible in winter.

Next Steps: Call a structural engineer today for an emergency assessment. Document the bowing with photos and measurements. Check your home insurance policy — some foundation movement may be covered, though gradual settling usually isn't. Find verified structural engineers and foundation specialists in our Calgary directory to get multiple professional opinions on the best repair approach for your specific situation.

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