

OTTAWA FLOOR INSTALL

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# Subfloor Preparation

Subfloor leveling, moisture barriers, underlayment,  
and repairs

7 Expert Answers from Construction Brain

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## Q1

### The floors aren't level between rooms — can that be corrected before new install?

**Yes, uneven floors between rooms can absolutely be corrected before your new flooring installation.** This is actually a common issue in Ottawa homes, especially older properties, and addressing it properly is crucial for a professional-looking result.

**Subfloor leveling** is typically the solution for height differences between rooms. Licensed flooring contractors can use self-leveling compound, plywood buildup, or floor leveling systems to create smooth transitions. The method depends on how significant the height difference is - minor variations under ¼ inch can often be addressed with underlayment, while larger gaps require more substantial subfloor work.

**In Ottawa's older homes**, settling and structural movement over decades commonly creates these level differences. Your contractor will first assess whether the unevenness is due to structural issues that need addressing, or simply normal settling that can be corrected with leveling techniques. They'll use laser levels or long straightedges to measure the variations across the entire floor area.

**The correction method depends on your new flooring type.** For hardwood or tile installations, precise leveling is critical since these materials won't conform to uneven surfaces. Luxury vinyl plank and quality laminate can handle minor imperfections better, but significant height differences between rooms will still create unsightly transitions and potential trip hazards.

**Professional assessment is essential** because improper leveling can lead to squeaks, gaps, or premature wear in your new flooring. City of Ottawa requirements may vary for structural modifications - your licensed contractor will handle any necessary permits and ensure the work meets Ontario Building Code standards.

For a free assessment of your subfloor conditions and leveling options, request a quote from Ottawa Floor Install. We'll evaluate the extent of the unevenness and recommend the most cost-effective solution for your specific situation.

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## Q2

### Should sagging floor joists be corrected before any new flooring goes down?

**Absolutely yes** - sagging floor joists must be corrected before installing any new flooring. Installing flooring over sagging joists will cause premature failure, cracking, and potentially void your warranty.

**Sagging joists create multiple problems** that new flooring cannot fix or hide. The structural deflection will cause hardwood to gap and crack, laminate joints to separate, tile to crack along grout lines, and vinyl to develop waves or tears. Even flexible flooring materials like carpet will show uneven wear patterns and create tripping hazards over sagging areas.

**The underlying structural issue** needs professional assessment first. Sagging can result from undersized joists, excessive spans without proper support, moisture damage, or foundation settlement. A structural engineer or experienced contractor should evaluate whether joists need sistering (reinforcing with additional lumber), adding support beams, or complete replacement. This work typically requires building permits in Ottawa.

**Subfloor preparation follows structural repairs** - once joists are properly supported, the subfloor may need replacement or reinforcement to meet current standards. Modern flooring installations require subfloors that don't deflect more than 1/360th of the span under load. This ensures your new flooring performs as intended and maintains its warranty coverage.

**Timeline and coordination matter** for your project. Structural repairs should happen first, followed by any electrical or plumbing rough-in, then subfloor work, and finally flooring installation. City of Ottawa requirements may vary for structural work - confirm permit needs with your licensed contractor.

For a comprehensive evaluation of your floor structure and flooring options, request a consultation from Ottawa Floor Install. We work with qualified structural professionals when needed to ensure your flooring investment is properly supported.

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Q3

## There's old adhesive residue stuck to the concrete — how is that removed properly?

**Old adhesive residue on concrete requires mechanical removal and chemical stripping to create a proper surface for new flooring installation.** The removal method depends on the adhesive type, but most require professional-grade equipment to avoid damaging the concrete substrate.

**Mechanical removal** is typically the first step and most effective approach. Professional contractors use floor grinders with diamond grinding wheels, shot blasters, or scarifiers to mechanically strip away the adhesive. These machines remove the residue while creating the proper surface profile for new adhesive to bond effectively. Hand scrapers and chisels work for small areas, but they're labor-intensive and often leave inconsistent results on larger surfaces.

**Chemical adhesive removers** can soften stubborn residue before mechanical removal. Water-based strippers are safer for indoor use, while solvent-based products work faster but require proper ventilation and safety equipment. The chemical is applied, allowed to penetrate according to manufacturer instructions, then the softened adhesive is scraped away. Multiple applications may be needed for thick or aged adhesive buildup.

**In Ottawa's climate**, concrete moisture testing is crucial after adhesive removal. The grinding process can expose moisture in the slab that wasn't previously detected. Ontario's freeze-thaw cycles can also create micro-cracks that trap moisture, so proper moisture mitigation may be needed before installing new flooring. Licensed contractors will test moisture levels and apply appropriate primers or sealers.

**Surface preparation after removal** involves cleaning all dust and debris, checking for level variations, and applying the appropriate primer for your new flooring type. Vinyl and LVP installations require smoother surfaces than tile, so additional skim coating might be necessary.

For concrete adhesive removal in Ottawa, professional equipment rental or hiring experienced contractors ensures proper surface preparation without damaging your concrete substrate. Want to discuss your specific adhesive removal project? We offer free consultations to assess the best removal method for your situation.

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Q4

## Our floor slopes toward one corner — is that normal settling or serious?

**Floor slopes are rarely "normal settling" and usually indicate a structural issue that needs professional evaluation.** While minor settling can occur in any home, noticeable sloping typically points to foundation problems, structural beam issues, or inadequate support that requires attention before any flooring work.

**Identifying the severity** depends on how much slope you're experiencing. A gentle slope of 1/4 inch over 10 feet might be acceptable in older homes, but anything more pronounced - especially if it's gotten worse over time - suggests active structural movement. You can check this by placing a long level or straight board across the room and measuring the gap underneath. If you can visibly see the slope or feel like you're walking uphill, that's definitely beyond normal settling.

**Foundation and structural causes** are the most common culprits in Ottawa homes. Our freeze-thaw cycles can cause foundation settling or shifting, particularly in homes built on clay soil common in the Ottawa Valley. Basement support posts may have shifted, floor joists could be sagging due to moisture damage, or the foundation itself may have settled unevenly. Older Ottawa homes sometimes have undersized floor joists by today's standards, which can lead to deflection over time.

**Before any flooring installation**, this issue must be addressed. Installing new flooring over a sloping subfloor will result in visible gaps, cracking grout lines in tile, or boards that separate over time. A structural engineer or experienced contractor should evaluate the cause and recommend repairs, which might include foundation work, additional support beams, or subfloor leveling.

**Next steps:** Have a licensed contractor assess both the structural issue and subfloor condition. Once the underlying problem is fixed, they can level the subfloor properly before installing your new flooring. For a professional evaluation of your flooring project after structural repairs, request a quote from Ottawa Floor Install.

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Q5

## Can OSB subfloor cause problems with certain types of flooring?

**OSB (oriented strand board) subfloor can cause significant problems with certain flooring types**, particularly moisture-sensitive materials like hardwood and laminate. The main issues stem from OSB's tendency to swell, telegraph surface texture, and potentially off-gas formaldehyde.

**Moisture-related problems** are the biggest concern with OSB subfloors. OSB absorbs moisture more readily than plywood and swells significantly when wet, which can cause hardwood floors to cup, buckle, or develop gaps. Even minor moisture from cleaning or humidity changes can cause OSB to expand and contract, creating movement in the flooring above. This is especially problematic for solid hardwood installations where dimensional stability is critical.

**Surface telegraphing** is another common issue where the texture and seams of OSB show through thinner flooring materials. Vinyl flooring, sheet goods, and even some laminate products can reveal the underlying OSB pattern over time, creating an uneven or textured appearance. The strand pattern in OSB is more pronounced than plywood's smooth surface, making this telegraphing more noticeable.

**In Ottawa's climate**, with significant seasonal humidity changes, OSB subfloors require extra attention. Many flooring manufacturers void warranties if their products are installed over OSB without proper moisture barriers or underlayment. For engineered hardwood or luxury vinyl plank, a high-quality underlayment with moisture barrier is essential. For solid hardwood, many contractors recommend installing a plywood overlay over OSB for better stability.

**The safest approach** is having your subfloor evaluated by a licensed flooring contractor who can assess the OSB condition, moisture levels, and recommend appropriate preparation methods. Some installations may require additional underlayment, moisture barriers, or even a plywood overlay to ensure long-term performance. For a professional subfloor assessment and flooring recommendations, request a quote from Ottawa Floor Install.

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Q6

## Is self-leveling compound necessary for every flooring installation?

**Self-leveling compound is not necessary for every flooring installation**, but it's required when your subfloor has significant height variations that exceed your flooring material's tolerance levels.

**Most flooring materials have specific flatness requirements.** Hardwood and laminate typically require the subfloor to be flat within 3/16" over 10 feet, while luxury vinyl plank (LVP) is more forgiving at 1/4" over 10 feet. Tile installations demand the strictest tolerances - usually within 1/8" over 10 feet - because any subfloor irregularities will telegraph through and potentially crack the tile.

**The decision depends on your current subfloor condition and chosen flooring type.** A licensed contractor will use a long straightedge or laser level to measure your subfloor's flatness. If you're installing over concrete that has minor dips and humps, or plywood subfloors with slight height differences between sheets, self-leveling compound

creates the smooth, flat surface essential for professional results. Skipping this step when needed often leads to squeaky floors, visible seams, or premature wear.

**In Ottawa's housing market, many older homes benefit from floor leveling** due to settling and aging subfloors. The cost typically ranges from \$2-6 per square foot depending on the severity of the irregularities. While it adds to your project cost, proper subfloor preparation prevents costly callbacks and ensures your new flooring performs as intended.

**Your best approach is having a professional assessment** before making assumptions about your subfloor condition. What looks flat to the eye often reveals significant variations when properly measured. For a comprehensive evaluation of your subfloor and flooring options, request a quote from Ottawa Floor Install to ensure your project starts with the proper foundation.

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## How thick should the plywood subfloor be for hardwood installation?

For hardwood flooring installation, plywood subfloor thickness should be minimum 5/8" (15.9mm), with 3/4" (19mm) being the preferred standard for optimal stability and performance.

The 3/4" plywood subfloor provides the best foundation for hardwood installation because it minimizes deflection and movement that can cause squeaks, gaps, or premature wear. This thickness works well with both nail-down solid hardwood and engineered hardwood installations. The additional rigidity helps prevent the slight bouncing that can occur with thinner subflooring, which over time can loosen fasteners and create noise issues.

5/8" plywood can work for engineered hardwood or lighter solid hardwood species, but it requires more attention to joist spacing and overall structural support. If your joists are spaced 16" on center or less, 5/8" may be adequate, but 19.2" joist spacing typically requires the full 3/4" thickness. Many experienced installers prefer 3/4" regardless of joist spacing because it provides a more forgiving installation surface and better long-term performance.

In Ottawa's climate with seasonal humidity changes, proper subfloor preparation is critical to prevent movement and gaps. The plywood should be exterior-grade or moisture-resistant, properly fastened every 6-8 inches along joists, and any gaps between sheets should be minimal. Before installation, the subfloor must be flat within 3/16" over 10 feet, clean, and dry (moisture content below 12%).

Check your existing subfloor thickness before ordering materials, as this affects your transition heights to adjacent rooms and may influence your hardwood species selection. A licensed flooring contractor can assess your specific subfloor conditions and recommend any necessary improvements for a successful installation.

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